

TÜV SÜD Czech s.r.o.,  
Novodvorská 994/138, CZ-142 21 Praha 4



# CERTIFIKÁT / CERTIFICATE

Evidenční číslo / Registration number: 17.188.837-1

shody tlakového zařízení s typem (modul F) vydaný podle oddílu 9 přílohy III směrnice Evropského parlamentu a Rady 2014/68/EU / of pressure equipment conformity (Module F) according to point 9 of Annex III of the Directive 2014/68/EU of the European Parliament and of the Council

Výrobce: / Manufacturer:

Techplast Sp. z o.o.,

ul.Przemysłowa 60, 34-120 Andrychów, Poland

Zákazník: / Customer:

Nabídka č.: / Offer No.:

17.027.092

ze dne: / dated: 11.12.2024

Zakázka TÜV SÜD Czech s.r.o.: /

5402500045

Order No. of TÜV SÜD Czech s.r.o.:

na tlakové zařízení: / for pressure equipment:

Název: / Name

Nádoba - Plně ovinuté kompozitové lahve /  
Vessel - Fully wrapped composite cylinders

Výkres č.: / Drawing No.:

AS5-01-00

Výrobní č.: / Serial No.:

A11C/25/00842 – A11C/25/00915, A11C/25/00917 –  
A11C/25/01043 (201 pcs)

Zkušební tlak (PT):

450 bar

Dovolený tlak (PS<sub>max</sub>):

300 bar

Test pressure (PT):

Allowable pressure (PS<sub>max</sub>):

Dovolená teplota (TS<sub>min/max</sub>):

-40 / 60 °C

Allowable temperature (TS<sub>min/max</sub>):

Tekutina / Skupina:

AIR / 2

Fluid / Group:

Objem (V):

9,0 L

Životnost:

NLL - neomezena

Volume (V):

Final:

NLL- non- limited life

Datum první zkoušky:

2025/02

Datum příští zkoušky:

2030/02

Date of initial inspection and test:

Date of next inspection:

Materiál lineru:

PET

Liner material:

Místo výroby:

Techplast Sp. z o.o., 34-120 Andrychów, Poland

Place of production:

Tímto osvědčujeme, že výsledky přezkoumání a zkoušek provedených na uvedeném tlakovém zařízení jsou ve shodě s požadavky / We herewith certify that results of tests carried out on mentioned pressure equipment meet the requirements of the

## SMĚRNICE EVROPSKÉHO PARLAMENTU A RADY 2014/68/EU Directive 2014/68/EU of the European Parliament and of the Council

Tlakové zařízení odpovídá typu dle Certifikátu EU přezkoušení typu číslo 08.324.016, a je označeno označením CE s připojeným identifikačním číslem oznámeného subjektu, jak je vyobrazeno níže: / Pressure equipment corresponds to the type given by EU Type Certificate number 08.324.016, and is labeled with the CE mark associated with the identification number of the Notified Body, as illustrated below:

# CE 1017

Tento certifikát se vydává pro účely vydání EU prohlášení o shodě tlakového zařízení s výše uvedeným technickým předpisem. / This Certificate is issued for the purpose of the issue of EU Declaration of conformity for pressure equipment with above mentioned technical regulation.

V / In Ostrava

dne / date 2025-02-10



za Oznámený subjekt 1017  
On behalf of Notified Body 1017  
Ing. Michal Baroš  
vedoucí obchodní jednotky  
Business Unit Manager

TÜV SÜD Czech s.r.o.  
Oznámený subjekt 1017 / Notified Body 1017



## CERTIFIKÁT / CERTIFICATE

Evidenční číslo / Registration number 18.126.630-1

shody tlakového zařízení s typem (modul F) vydaný podle oddílu 9 přílohy III směrnice Evropského parlamentu a Rady 2014/68/EU (PED) / of pressure equipment conformity (Module F) according to point 9 of Annex III of the Directive 2014/68/EU of the European Parliament and of the Council (PED).

**Zákazník: / Customer:** Techplast Sp. z o.o., Poland  
**Zakázka TÜV SÜD Czech s.r.o.: /** 5402500045  
**Order No. of TÜV SÜD Czech s.r.o.:**  
**Výrobce / Distributor:** Techplast Sp. z o.o., ul.Przemysłowa 60,  
**Manufacturer / Distributor:** 34-120 Andrychów, Poland

### Posuzované tlakové zařízení / Assessed pressure equipment

**Název: / Name:** Nádoba - Plně ovinuté kompozitové lahve /  
Vessel - Fully wrapped composite cylinders  
**Druh: / Kind:** Tlaková nádoba / Pressure vessel  
**Výkres č.: / Drawing No.:** AS5-01-00  
**Výrobní č.: / Serial No.:** A11C/25/01510 – A11C/25/01518, A11C/25/01520 –  
A11C/25/01711 (201 pcs)  
**Zkušební tlak (PT):** 450 bar **Dovolený tlak (PS<sub>max</sub>):** 300 bar  
**Test pressure (PT):** **Allowable pressure (PS<sub>max</sub>):**  
**Dovolená teplota (TS<sub>min/max</sub>):** -40 / 60 °C  
**Allowable temperature (TS<sub>min/max</sub>):**  
**Tekutina / Skupina:** AIR / 2  
**Fluid / Group:**  
**Objem (V):** 9,0 L **Životnost: NLL - neomezena**  
**Volume (V):** **Final: NLL- non- limited life**  
**Datum první zkoušky :** 2025/07 **Datum příští zkoušky :** 2030/07  
**Date of initial inspection and test:** **Date of next inspection:**  
**Materiál lineru:** PET  
**Liner material:**  
**Místo výroby:** Techplast Sp. z o.o., 34-120 Andrychów, Poland  
**Place of production:**  
**Rok výroby: / Year of production:** 2025

Tímto osvědčujeme, že výsledky přezkoumání a zkoušek provedených na uvedeném tlakovém zařízení jsou ve shodě s požadavky / We herewith certify that results of tests carried out on mentioned pressure equipment meet the requirements of the

### SMĚRNICE EVROPSKÉHO PARLAMENTU A RADY 2014/68/EU Directive 2014/68/EU of the European Parliament and of the Council

Tlakové zařízení odpovídá typu dle Certifikátu EU přezkoušení typu číslo 08.324.016, a je označeno označením CE s připojeným identifikačním číslem oznámeného subjektu, jak je vyobrazeno níže: / Pressure equipment corresponds to the type given by EU Type Certificate number 08.324.016, and is labeled with the CE mark associated with the identification number of the Notified Body, as illustrated below:

# CE 1017

Tento certifikát se vydává pro účely vydání EU prohlášení o shodě tlakového zařízení s výše uvedeným technickým předpisem. / This Certificate is issued for the purpose of the issue of EU Declaration of conformity for pressure equipment with above mentioned technical regulation.

V / In Ostrava  
dne / date 14.07.2025



Ing. Michal Baroš  
vedoucí obchodní jednotky  
Business Unit Manager  
za Oznámený subjekt 1017  
On behalf of Notified Body 101



TÜV SÜD Czech s.r.o.  
Oznámený subjekt 1017 / Notified Body 1017



## CERTIFIKÁT / CERTIFICATE

Evidenční číslo / Registration number 18.126.634-1

shody tlakového zařízení s typem (modul F) vydaný podle oddílu 9 přílohy III směrnice Evropského parlamentu a Rady 2014/68/EU (PED) / of pressure equipment conformity (Module F) according to point 9 of Annex III of the Directive 2014/68/EU of the European Parliament and of the Council (PED).

**Zákazník: / Customer:** Techplast Sp. z o.o., Poland  
**Zakázka TÜV SÜD Czech s.r.o.: /** 5402500045  
**Order No. of TÜV SÜD Czech s.r.o.:**  
**Výrobce / Distributor: /** Techplast Sp. z o.o., ul.Przemysłowa 60,  
**Manufacturer / Distributor:** 34-120 Andrychów, Poland

### Posuzované tlakové zařízení / Assessed pressure equipment

**Název: / Name:** Nádoba - Plně ovinuté kompozitové lahve /  
Vessel - Fully wrapped composite cylinders  
**Druh: / Kind:** Tlaková nádoba / Pressure vessel  
**Výkres č.: / Drawing No.:** AS5-01-00  
**Výrobní č.: / Serial No.:** A11C/25/01712 – A11C/25/01746, A11C/25/01748 –  
A11C/25/01913 (201 pcs)  
**Zkušební tlak (PT):** 450 bar **Dovolený tlak (PS<sub>max</sub>):** 300 bar  
**Test pressure (PT):** **Allowable pressure (PS<sub>max</sub>):**  
**Dovolená teplota (TS<sub>min/max</sub>):** -40 / 60 °C  
**Allowable temperature (TS<sub>min/max</sub>):**  
**Tekutina / Skupina:** AIR / 2  
**Fluid / Group:**  
**Objem (V):** 9,0 L **Životnost: NLL - neomezena**  
**Volume (V):** **Final: NLL- non- limited life**  
**Datum první zkoušky :** 2025/07 **Datum příští zkoušky :** 2030/07  
**Date of initial inspection and test:** **Date of next inspection:**  
**Materiál lineru:** PET  
**Liner material:**  
**Místo výroby:** Techplast Sp. z o.o., 34-120 Andrychów, Poland  
**Place of production:**  
**Rok výroby: / Year of production:** 2025

Tímto osvědčujeme, že výsledky přezkoumání a zkoušek provedených na uvedeném tlakovém zařízení jsou ve shodě s požadavky / We herewith certify that results of tests carried out on mentioned pressure equipment meet the requirements of the

### SMĚRNICE EVROPSKÉHO PARLAMENTU A RADY 2014/68/EU Directive 2014/68/EU of the European Parliament and of the Council

Tlakové zařízení odpovídá typu dle Certifikátu EU přezkoušení typu číslo 08.324.016, a je označeno označením CE s připojeným identifikačním číslem oznámeného subjektu, jak je vyobrazeno níže: / Pressure equipment corresponds to the type given by EU Type Certificate number 08.324.016, and is labeled with the CE mark associated with the identification number of the Notified Body, as illustrated below:

# CE 1017

Tento certifikát se vydává pro účely vydání EU prohlášení o shodě tlakového zařízení s výše uvedeným technickým předpisem. / This Certificate is issued for the purpose of the issue of EU Declaration of conformity for pressure equipment with above mentioned technical regulation.

V / In Ostrava  
dne / date 21.07.2025



Ing. Michal Baroš  
vedoucí obchodní jednotky  
Business Unit Manager  
za Oznámený subjekt 1017  
On behalf of Notified Body 101

TÜV SÜD Czech s.r.o.,  
Novodvorská 994/138, CZ-142 21 Praha 4



Czech

# CERTIFIKÁT / CERTIFICATE

Evidenční číslo / Registration number: **17.848.626-1**

shody tlakového zařízení s typem (modul F) vydaný podle oddílu 9 přílohy III směrnice Evropského parlamentu a Rady 2014/68/EU / of pressure equipment conformity (Module F) according to point 9 of Annex III of the Directive 2014/68/EU of the European Parliament and of the Council

Výrobce: / Manufacturer: **Techplast Sp. z o.o.,**  
ul.Przemysłowa 60, 34-120 Andrychów, Poland

Zákazník: / Customer:

Nabídka č.: / Offer No.: **17.027.092** ze dne: / dated: **11.12.2024**

Zakázka TÜV SÜD Czech s.r.o.: / **5402500045**

Order No. of TÜV SÜD Czech s.r.o.:

na tlakové zařízení: / for pressure equipment:

Název: / Name **Nádoba - Plně ovinuté kompozitové lahve /**  
**Vessel - Fully wrapped composite cylinders**

Výkres č.: / Drawing No.: **AS5-01-00**

Výrobní č.: / Serial No.: **A11C/25/01146 – A11C/25/01158, A11C/25/01160 –**  
**A11C/25/01247 (101 pcs)**

Zkušební tlak (PT): **450 bar** Dovolený tlak (PS<sub>max</sub>): **300 bar**  
Test pressure (PT): Allowable pressure (PS<sub>max</sub>):

Dovolená teplota (TS<sub>min/max</sub>): **-40 / 60 °C**  
Allowable temperature (TS<sub>min/max</sub>):

Tekutina / Skupina: **AIR / 2**  
Fluid / Group:

Objem (V): **9,0 L** Životnost: **NLL - neomezena**  
Volume (V): Final: **NLL - non- limited life**

Datum první zkoušky: **2025/04** Datum příští zkoušky: **2030/04**  
Date of initial inspection and test: Date of next inspection:

Materiál lineru: **PET**

Liner material:

Místo výroby: **Techplast Sp. z o.o., 34-120 Andrychów, Poland**

Place of production:

Tímto osvědčujeme, že výsledky přezkoumání a zkoušek provedených na uvedeném tlakovém zařízení jsou ve shodě s požadavky / We herewith certify that results of tests carried out on mentioned pressure equipment meet the requirements of the

## SMĚRNICE EVROPSKÉHO PARLAMENTU A RADY 2014/68/EU Directive 2014/68/EU of the European Parliament and of the Council

Tlakové zařízení odpovídá typu dle Certifikátu EU přezkoušení typu číslo 08.324.016, a je označeno označením CE s připojeným identifikačním číslem oznámeného subjektu, jak je vyobrazeno níže: / Pressure equipment corresponds to the type given by EU Type Certificate number 08.324.016, and is labeled with the CE mark associated with the identification number of the Notified Body, as illustrated below:

# CE 1017

Tento certifikát se vydává pro účely vydání EU prohlášení o shodě tlakového zařízení s výše uvedeným technickým předpisem. / This Certificate is issued for the purpose of the issue of EU Declaration of conformity for pressure equipment with above mentioned technical regulation.

V / In **Ostrava**

dne / date **2025-04-14**

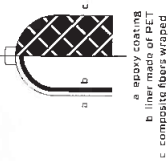


za Oznámený subjekt 1017  
On behalf of Notified Body 1017  
Ing. Michal Baroš  
vedoucí obchodní jednotky  
Business Unit Manager

TÜV SÜD Czech s.r.o. • Novodvorská 994 • 142 21 Prague 4 • Czech Republic • [certification.cz@tuvsud.com](mailto:certification.cz@tuvsud.com)  
Oznámený subjekt 1017 podle Směrnice 2014/68/EU / Notified Body 1017 according to Directive 2014/68/EU

TÜV®





# SAIFER® OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

## RECOMMENDATION

- Read the instruction carefully and keep to its conditions.
- Composite cylinders should be operated in accordance with their use.
- The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
- Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
- When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
- Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
- TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
- If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO11116-1 W19.2 wg DIN 477-1	75	95
25E wg EN 429-1 W26.0 wg DIN 477-1	95	110
		180

A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN144-1	85	100
5/8" 18UNF	85	100

## FILLING PROCESS

- Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2
- Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

## USE

- The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods.
- For the transport of the cylinders, there should be used containers, bins, pallets, etc. The cylinders should be transported securely to avoid unacceptable damage and impairment.
- The device used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
- It is acceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position during the transport.
- During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
- During the process of filling, surface temperature of the cylinder should not exceed 60 °C.
- The cylinders should be filled only by authorized and people with appropriate powers in accordance with the regulations, laws and provisions applicable in their country.
- The cylinder must be fitted with a valve, conforming with the recommended test pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
- Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
- Sample mounting torque values to the cylinders according to the tables A3 and A4.
- To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11145-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
- Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with O-rings.

## SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. It should be carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labelled with the word NULL.

## REMARKS

- ONE CAN ONLY FILL THE CYLINDERS WHICH
- Comply with the regulations of the country in which the cylinders are used.
- were marked with the date of last inspection, they were given a sign of a modified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.
- IT IS CATEGORICALLY FORBIDDEN TO
- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
  - USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
  - USE THE CYLINDERS WHOSE LIFE-SPAN IS INCOMPLETE.
  - USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER VALVE CONNECTIONS ETC.
  - LUBRICATE OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
  - USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY /ODBIÓR BUTLI PRZEPRAWIAJĄCY/		TUV SÜD Czech s.r.o. Ostrava, Teslova 2 Identification no.: 1017	
MANUFACTURER /PRODUCENT/		TECHPLAST Ltd. www.techplast.net VAT No.: PL 677147485	
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/		Krakowska 83P 34-120 Andrychów, Poland	
RECEPTION REPORT /RAPORT ODBIORU/		RA11C-2502003	
DRAWING NUMBER		AS5-01-00	
BODY CERT. MODULE B /SWADECTIVO MODULE B/		08.324.016	
SERIAL NO. /NUMER SERWISU/		A11C/25/00939	
GAS GAZ/	AIR COMPRESSED UN1002	VOLUME /POJEMNOŚĆ /	9.00 L
THREAD GWINT/	M18x1.5	WEIGHT /WAGA/	3.90 kg
DIAMETER ŚREDNICA/	174.00 mm	TEMP. OF WORK /TEMP. PRACY/	-40°C / +60°C
WORKING PRESSURE CIŚNIENIE PRACY/	300 BAR	MANUFACTURING DATE DATA PRODUKCJI/	2025/02
TEST PRESSURE CIŚNIENIE PRÓBY/	450 BAR	EXPIRATION DATE TERMIN WAŻNOŚCI/	NLL
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/		< 30 BAR/MIN	
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/		EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU	

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
/ZBIORNIKI OZNAČONO ZNAKIEM ZGODNOŚCI/

THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/SWADECTIVO MERYFIKACJI WYROBÓW MODUŁ F DO WGLĄDU U PRODUKCYJNY/



02 of 02  
ENG

# SAFER® OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

a. epoxy coating  
b. liner made of PET  
c. composite fibers wrapped  
in an epoxy matrix

## RECOMMENDATION

- 01 Read the instruction carefully and keep to its conditions.
- 02 Composite cylinders should be operated in accordance with their use.
- 03 The producer is not held responsible for the damages caused by incorrect operation use and maintenance of gas cylinders.
- 04 Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
- 05 When cylinders are serviced or repaired by the unauthorized staff, rather than by authorized service center of TECH-PLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
- 06 Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
- 07 TECH-PLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECH-PLAST company.
- 08 If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

## A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO1114-1 W19.2 wg DIN 477-1	75	95
25E wg EN 629-1 W26.8 wg DIN 477-1	95	110
		180

## A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN44-1	85	100
5/8" 18UNF	85	100

## FILLING PROCESS

- 01 Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2
- 02 Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

## USE

- 01 The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road
- 02 For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.
- 03 The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
- 04 It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
- 05 During storage of the cylinders, they should be protected against mechanical damage, overturning, vibration, fire, lightning strikes and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
- 06 During the process of filling, surface temperature of the cylinder should not exceed 60 °C.
- 07 Filling the cylinders with gas can be performed only by individuals and people with appropriate powers in accordance with the regulations, laws and norms applicable in their country.
- 08 The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
- 09 Valves for the cylinder should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- 10 The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
- 11 Sample mounting torque values to the cylinders according to the tables A.3. and A.4.
- 12 To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 1114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE, which is at least 0.1 millimeters thick.
- 13 Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with the sport caps and a ring.

## SERVICE

TECH-PLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECH-PLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections are carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labeled with the word NULL.

## REMARKS

- ONE CAN ONLY FILL THE CYLINDERS WHICH
- Comply with the regulations of the country in which the cylinders are used
- Do not have any visible damages to the cylinder valve connections etc. and the term of their re-inspection has not expired. Have not visible damages of the cylinder valve connections etc.
- IT IS CATEGORICALLY FORBIDDEN TO
- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
  - USE THE CYLINDERS WHOSE LIFE SPAN HAS EXPIRED.
  - USE THE CYLINDERS WHOSE LABELING IS ILLEGIBLE OR INCOMPLETE.
  - USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER VALVE CONNECTIONS ETC.
  - USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE CONNECTIONS ETC).
  - USE THE CYLINDERS WITH UNLIMITED LIFE SPAN.
  - USE A VACUUM (DO NOT USE A VACUUM)

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY  
/ODBOR BUTY PRZEPROWADZIŁ/

TÜV SÜD Czech s.r.o. Ostrava; Teslova 2  
Identification no.: 1017

MANUFACTURER  
/PRODUCENT/

TECHPLAST Ltd. www.techplast.net VAT No. PL 677147485

PRODUCTION PLANT  
/ZAKŁAD PRODUKCYJNY/

Krakowska 83p 34-120 Andrychów, Poland

RECEPTION REPORT  
/RAPORT ODBIORU/

RA11C-2502003

DRAWING NUMBER  
/NR RYSUNKU/

AS5-01-00

BODY CERT. MODULE B  
/SWADECTIVO MODUL B/

08.324.916

SERIAL NO  
/NUMER SERWISOWY/

A11C25/00938

GAS  
/GAZ/

9.00 L

THREAD  
/GWINT/

M18x1.5

DIAMETER  
/ŚREDNICA/

174.00 mm

VOLUME  
/POJEMNOŚĆ/

3.90 kg

WEIGHT  
/WAGA/

-40°C / +60°C

TEMP. OF WORK  
/TEMP. PRACY/

202502

WORKING PRESSURE  
/CIŚNIENIE PRACY/

300 BAR

TEST PRESSURE  
/CIŚNIENIE PROBNIE/

450 BAR

EXPIRATION DATE  
/TERMIN WAŻNOŚCI/

NULL

RECOMMENDED FILLING RATE  
/ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/

< 30 BAR/MIN

CYLINDERS MEET THE REQUIREMENTS OF  
/BUTLE SPEŁNIAJĄ WYMAGANIA/

EN 12245:2009+A1:2011  
DIRECTIVE 2014/68/EU


THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
/CYLINDRY BYŁY OZNAKOWANE ZNAKIEM ZGODNOŚCI/


1017

THE CERTIFICATE OF MODULE F IS AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/SWIADCENCTWO WERYFIKACJI WYROBU MODUŁ F DO WGLĄDU U PRODUCENTA/

Production Plant  
Technoplast Sp. z o.o.  
ul. Krakowska 83 p  
34-120 Andrychów, Poland  
U service@techplast.net  
W safety@techplast.net

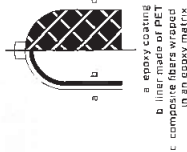
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ULTRA LIGHT  
COMPOSITE  
CYLINDERS







## SAIFER®

OPERATION  
AND MAINTENANCE  
MANUALOF FULLY WRAPPED GAS CYLINDER  
TRANSPORTABLE GAS CYLINDER

## RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
06. If the design or the structure of the cylinder can be made only with a written consent of the producer.
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

## A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO1116-1 W192 wg DIN 477-1	75	95
21E wg EN 229-1 W238.8 wg DIN 477-1	95	110
		180

## A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN144-1	85	100
5/8" 18UNF	85	100

## FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2
02. Cylinder filling temperature shall not exceed 50°C. Recommended filling rate is in Declaration of Conformity

## USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
02. For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.
03. The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position during the transport.
05. During storage of the cylinders, they should be protected against mechanical damage, overturning, vibration, fire, frost and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
06. During the process of filling, surface temperature of the cylinder should not exceed 60 °C.
07. Filling the cylinders with gas can be performed only by individuals and people with appropriate powers in accordance with the regulations, laws and norms applicable in their country.
08. The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
09. Valves for the cylinder should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
10. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
12. Tanks with pressure valves should be transported/loaded pressurized to min. 2 bar. Tanks without pressure valves should be fitted with transport caps with o-rings.

## SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections are carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labelled with the word NLL.

## REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH

Comply with the regulations of the country in which the cylinders are used.

of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.

IT IS CATEGORICALLY FORBIDDEN TO

- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
- USE THE CYLINDERS WHOSE LABELLING IS ILLEGIBLE OR INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER VALVE CONNECTIONS ETC.
- USE THE CYLINDERS WHOSE VALVES OR OTHER PARTS OF THE VALVE CONNECTIONS ETC.) ARE DAMAGED.
- USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY TUV SUD Czech s.r.o. Ostrava; Teslova 2 Identification no.: 1017	
MANUFACTURER /PODZIOŁ BULI PRZEPROWADZU/	TECHPLAST Ltd www.techplast.net VAT No.: PL 6772147485
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/	Krakowska 83p 34-120 Andrychów, Poland
RECEPTION REPORT /RAPORT ODBIORU/	RA11C-2502003
DRAWING NUMBER /NR RYSUNKU/	AS5-01-00
BODY CERT. MODULE B /SWADECTWO MODUŁ B/	08.324.016
SERIAL NO /NUMER SERWISU/	A11C/2500937
GAS /GAZ/	AIR COMPRESSED UN1002
THREAD /WAGA/	M18x1.5
DIAMETER /ŚREDNICA/	174.00 mm
TEMP. OF WORK /TEMP. PRACY/	-40°C / +60°C
WORKING PRESSURE /CIŚNIENIE PRACY/	300 BAR
TEST PRESSURE /CIŚNIENIE PROBNIE/	450 BAR
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/	< 30 BAR/MIN
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPĘDZAJĄ WYMAGANIA/	EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
/ZBIOŹNIKI OZNAČCZONO ZNAKIEM ZGODNOŚCI/

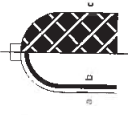
THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/SWADECTWO WERYFIKACJI WYROBU MODUŁ F DOSTĘPNE U PRODUCENTA/

Product on Display  
TUV SUD  
ul. Krakowska 83 p  
34-120 Andrychów, Poland

SAIFER®  
ULTRA LIGHT  
COMPOSITE  
CYLINDERS



E safety@techplast.net  
W safety@techplast.net



# SAFER® OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE TRANSPORTABLE GAS CYLINDER

## RECOMMENDATION

- Read the instruction carefully and keep to its conditions.
- Composite cylinders should be operated in accordance with their use.
- The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
- Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and authorized staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
- When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears any charges resulting from the design or the structure of the cylinder can be made only with a written consent of the producer.
- TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
- If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO11116-1 W49.2 wg DIN 477-1	75	95
25E wg EN 629-1 W20.8 wg DIN 477-1	95	110
		130

A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN1444-1	85	100
5/8"-18UNF	85	100

## FILLING PROCESS

- Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
- Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity

## USE

- The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
- For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and impurities.
- The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
- It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
- During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
- During the process of filling, surface temperature of the cylinder should not exceed 60 °C.
- Filling the cylinders with gas can be performed only by individuals and people with appropriate powers in accordance with the regulations, laws and norms applicable in their country.
- The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements of the cylinder should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
- Valves for the cylinder should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
- Sample mounting torque values to the cylinders according to the tables A.3 and A.4.
- To seal the connection between the valve and the cylinder, there should be used materials in accordance with the norm ISO 1114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
- Tanks with pressure valves should be transported/loaded/presurized to min. 2bar Tanks without pressure valves should be fitted with transport caps with O-rings.

## SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections are carried out by individuals who control pressure, maintain in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labeled with the word NULL.

## REMARKS

- ONE CAN ONLY FILL THE CYLINDERS WHICH
- Comply with the regulations of the country in which the cylinders are used,
  - were marked with the date of last inspection, the date of expiration date and the body and the head of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.
- IT IS CATEGORICALLY FORBIDDEN TO:
- USE THE CYLINDERS FOR ANY PURPOSE, OTHER THAN MENTIONED IN THE AUTHORIZATION.
  - USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
  - USE THE CYLINDERS WHOSE LABELING IS ILLEGIBLE OR INCOMPLETE.
  - USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.
  - USE THE CYLINDERS WHOSE HEAD OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC.)
  - LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
  - USE A VACUUM (DO NOT USE A VACUUM)

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY  
ODBOR BUTU PRZEPRAWOZU

TUV SÜD Czech s.r.o. Ostrava, Tešova 2  
Identification no.: 1017

MANUFACTURER /PRODUCENT/	TECHPLAST Ltd. www.techplast.net VAT No. PL 672147485
PRODUCTION PLANT ZAKŁAD PRODUKCJI	Krakowska 83P 34-120 Andrychów, Poland
RECEPTION REPORT RAPORT ODBIORU	RA11C-2502003
DRAWING NUMBER /NR RYSUNKU/	AS5-01-00
BODY CERT. MODULE B SMAKOWOŚĆ MODUŁ B/	08.324.016
SERIAL NO NUMER SERII	A11C25/00936

GAS GAZ	AIR COMPRESSED UW1002	VOLUME POJEMNOŚĆ /	9.00 L
THREAD GWINT	M18X1.5	WEIGHT WAGA	3.30 kg
DIAMETER ŚREDNICA	174.00 mm	TEMP. OF WORK TEMP. PRACY	-40°C / +60°C
WORKING PRESSURE CIŚNIENIE PRACY	300 BAR	MANUFACTURING DATE DATA PRODUKCJI	202502
TEST PRESSURE CIŚNIENIE PRÓBNIE	450 BAR	EXPIRATION DATE TERMIN WAŻNOŚCI	NLL

RECOMMENDED FILLING RATE  
ZALECANA PRĘDKOŚĆ NAPEŁNIANIA

CYLINDERS MEET THE REQUIREMENTS OF  
/BUTLE SPEŁNIAJĄ WYMAGANIA/

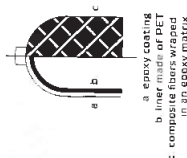
THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
ZBIORNIKI CZYNIĄCE ZGODNOŚĆ

THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
SMAKOWOŚĆ WERYFIKACJI WYROBU MODUŁ F DO WGLADU U PRODUCENTA

SAFER®  
ULTRA LIGHT  
COMPOSITE  
CYLINDERS





OPERATION  
AND MAINTENANCE  
MANUALOF FULLY INSULATED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

## RECOMMENDATION

- 01 Read the instruction carefully and keep to its conditions
- 02 Composite cylinders should be operated in accordance with their use
- 03 The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
- 04 Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with the necessary training and powers which are in accordance with the regulations applicable in their country of operation.
- 05 When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST, the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
- 06 Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
- 07 TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
- 08 If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

## A3. TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO11116-1 W19.2 wg DIN 477-1	75	95
25E wg EN 629-1 W23.6 wg DIN 477-1	95	110
		180

## A4. TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN144-1	85	100
5/8" 18UNF	85	100

## FILLING PROCESS

- 01 Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
- 02 Cylinder filling temperature shall not exceed 40°C. Recommended filling rate is in Declaration of Conformity.

## USE

- 01 The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
- 02 For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.
- 03 The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
- 04 It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
- 05 During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
- 06 During the process of filling, surface temperature of the cylinder should not exceed 40 °C.
- 07 The cylinders with gas can be performed only by individuals and people with appropriate powers in accordance with regulations, laws and norms applicable in their country.
- 08 The cylinder must be filled with a valve, connections with the recommended test pressure. Elements, connections and the valve should be checked according to the regulations, norms and laws applicable in the country in which the cylinder is used.
- 09 Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- 09 The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 3341.
- 10 Sample mounting torque values to the cylinders according to the tables A3 and A4.
- 11 To seal the connection between the valve and the cylinder, there should be used materials in accordance with the norm ISO 1114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
- 12 Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with O-rings.

## SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections are carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labeled with the word NULL.

## REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

Comply with the regulations of the country in which the cylinders are used, were marked with the date of last inspection, they were given a sign of a notified body and the term of their inspection has not expired, have not visible damages of the cylinder, valve, connections etc.

IT IS CATEGORICALLY FORBIDDEN TO:

- USE THE CYLINDERS FOR ANY PURPOSE, OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
- USE THE CYLINDERS WHOSE LABELING IS ILLEGIBLE OR INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC.).
- LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY  
/ODBIOR BUTLI PRZEPROWADZIŁ/

TUV SUD Czech s.r.o. Ostrava, Testova 2  
Identification no.: 1017

MANUFACTURER /PRODUCENT/	TECHPLAST Ltd. www.techplast.net VAT No.: PL 677214785	
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/	Krakowska 83P 34-120 Andrychów, Poland	
RECEPTION REPORT /RAPORT ODBIORU/	RA11C-2502003	
DRAWING NUMBER /NR RYSUNKU/	AS5-01-00	
BODY CERT. MODULE B /SMACZKOWO MODUŁ B/	08.324.016	
SERIAL NO /NUMER SERII/	A11C/25/00935	
GAS /GAZ/	VOLUME /POJEMNOŚĆ /	9.00 L
THREAD /GWINT/	WEIGHT /WAGA/	3.90 kg
DIAMETER /ŚREDNICA/	TEMP. OF WORK /TEMP. PRACY/	-40°C / +60°C
WORKING PRESSURE /CIŚNIENIE PRACY/	MANUFACTURING DATE /DATA PRODUKCJI/	202502
TEST PRESSURE /CIŚNIENIE PROBNIE/	EXPIRATION DATE /TERMIN WAZNOŚCI/	NULL
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/		< 30 BAR/MIN
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/		EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
ZBIORNIKI OZNACZONO ZNAKIEM ZGODNOŚCI

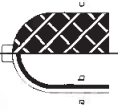
THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/SMACZKOWO WERYFIKACJI WYROBU MODUŁ F DO WGLĄDU U PRODUCENTA/



**SAFER®**  
ULTRA LIGHT  
COMPOSITE  
CYLINDERS

Production Plant  
Techplast Sp. z o.o.  
ul. Krakowska 83P  
34-120 Andrychów, Poland  
E: [skrzynka@techplast.net](mailto:skrzynka@techplast.net)  
W: [www.techplast.net](http://www.techplast.net)





a: epoxy coating  
b: inner made of PET  
c: composite fibers wound  
in an epoxy matrix

# SAIFER® OPERATION AND MAINTENANCE MANUAL

DE FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

## RECOMMENDATION

- Read the instruction carefully and keep to its conditions.
- Composite cylinders should be operated in accordance with their use.
- The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
- Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
- When cylinders are serviced or repaired by the unauthorized staff, either than by authorized service center of TECH-PLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
- Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
- TECH-PLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECH-PLAST company.
- If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

## A3 TABLE

Taper thread	Mounting torque [Nm]		
	Minimum	95	Maximum
3TE wg ISO11116-1 W19,2 wg DIN 477-1	75	95	140
25F wg EN 229-1 W2,8 wg DIN 477-1	95	110	180

## A4 TABLE

Straight thread	Mounting torque [Nm]		
	Minimum	85	Maximum
M18 x1,5 EN144-1	85	85	100
5/8" 18UNF	85	85	100

## FILLING PROCESS

- Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2
- Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity

## USE

- The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road
- For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.
- The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
- It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
- During storage of the cylinders, they should be protected against mechanical damage, overturning, vibrations and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
- During the process of filling, surface temperature of the cylinder should not exceed 60 °C. Filling the cylinders with gas can be performed only by individuals and people with appropriate powers in accordance with the regulations, laws and norms applicable in their country.
- The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
- Valves for the cylinder should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
- Sample mounting torque valves to the cylinders according to the tables A.3. and A.4.
- To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0,1 millimeters thick.
- Tools with abrasive valves should be transported/sealed pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with O-rings.

## SERVICE

TECH-PLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECH-PLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections are carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labeled with the word NLL.

## REMARKS

- ONE CAN ONLY FILL THE CYLINDERS WHICH:
- Comply with the regulations of the country in which the cylinders are used.
  - Have not reached the end of their useful life span.
  - Have not reached the end of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.
- IT IS CATEGORICALLY FORBIDDEN TO
- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
  - USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
  - USE THE CYLINDERS WHOSE LABELING IS ILLEGIBLE OR INCOMPLETE.
  - USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER VALVE CONNECTIONS ETC.
  - USE THE CYLINDERS WHICH ARE EQUIPPED OR LEAKING EQUIPMENT (THE VALVE CONNECTIONS ETC.).
  - USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
  - USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY  
/DOBÓR BUTŁI PRZEPROWADZU/  
TUV SUD Czech s.r.o. Ostrava, Testova 2  
Identification no.: 1017

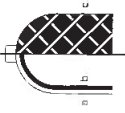
MANUFACTURER /PRODUCENT/ TECHPLAST Ltd. www.techplast.net VAT No.: PL 6772147485	PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/ Krakowska 83P 34-120 Andrychów, Poland
RECEPTION REPORT /RAPORT DOBORU/ RA11C-2502003	DRAWING NUMBER /NR RYSUNKU/ ASS-01-00
BODY CERT. MODULE B /SWIADECTWO MODUŁ B/ 08.324.016	SERIAL NO /NUMER SERII/ A11C/25/00934
GAS /GAZ/ AIR COMPRESSED /WYCIŚNIĘTY POWIETRZE	VOLUME /POJEMNOŚĆ / 9.00 L
THREAD /GWINT/ M18x1.5	WEIGHT /WAGA/ 3.80 kg
DIAMETER /ŚREDNICA/ 174.00 mm	TEMP. OF WORK /TEMP. PRACY/ -40°C / +60°C
WORKING PRESSURE /CIŚNIENIE PRACY/ 300 BAR	MANUFACTURING DATE /DATA PRODUKCJI/ 202502
TEST PRESSURE /CIŚNIENIE PROBE/ 450 BAR	EXPIRATION DATE /TERMIN WAŻNOŚCI/ NLL
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/ ≤ 30 BAR/MIN	
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPĘŁNIA WYMAGANIA/ EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU	

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
/ZBIORNIKI OZNAKOZONO ZNAKIEM ZGODNOŚCI/  
CE 1017

THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/SWIADECTWO MODUŁU F DOSTĘPNE DO WGLĄDU U PRODUCENTA.







## SAIFER® OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPARENT GAS CYLINDER

### RECOMMENDATION

- 01 Read the instruction carefully and keep to its conditions.
- 02 Composite cylinders should be operated in accordance with their use.
- 03 The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
- 04 Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and experienced staff who have appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
- 05 When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of SAIFER company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for the correct functioning.
- 06 Any changes in the design or the structure of the cylinder can be made only with a written consent of the producer.
- 07 TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
- 08 If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3. TABLE

Taper thread	Mounting torque [N·m]	
	Minimum	Maximum
17E wg ISO1116-1 W19.2 wg DIN 477-1	75	95
25E wg EN 629-1 W26.8 wg DIN 477-1	95	110
		180

### A4. TABLE

Straight thread	Mounting torque [N·m]	
	Minimum	Maximum
M8 x1.5 EN144-1	65	100
5/8" 18UNF	65	100

### FILLING PROCESS

- 01 Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
- 02 Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

### USE

- 01 The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
- 02 For the transport of the cylinders, these should be used containers, zinc, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and impurities.
- 03 The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
- 04 It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
- 05 During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
- 06 During the process of filling, surface temperature of the cylinder should not exceed 60 °C.
- 07 The cylinder must be fitted with a valve, connections with the appropriate fast pressure Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
- 08 Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- 09 The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
- 10 Sample mounting torque valves to the cylinders according to the tables A3, and A4.
- 11 To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11412-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
- 12 Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with O-rings.

### SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used and put out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labeled with the word NLL.

### REMARKS

- ONE CAN ONLY FILL THE CYLINDERS WHICH
- Comply with the regulations of the country in which the cylinders are used,
- were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired; have not visible damages of the cylinder, valve, connections etc.
- IT IS CATEGORICALLY FORBIDDEN TO:
- USE THE CYLINDERS FOR ANY PURPOSE, OTHER THAN MENTIONED IN THE AUTHORIZATION
  - USE THE CYLINDERS WHICH HAVE EXPIRED
  - USE THE CYLINDERS WHOSE LABELS ARE INCOMPLETE
  - USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER VALVE, CONNECTIONS ETC.
  - USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC.).
  - LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
  - USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY TUV SÜD Czech s.r.o. Ostrava; Teslova 2 ODBOR BUJI PRZEPRAWADZU Identification no.: 1017	
MANUFACTURER PRODUCENT	TECHPLAST Ltd. www.techplast.net VAT No. PL 6772147485
PRODUCTION PLANT ZAKŁAD PRODUKCYJNY	Krakowska 83p 34-120 Andrychów, Poland
RECEPTION REPORT RAPORT ODBIORU	RA11C-2502003
DRAWING NUMBER NR RYSUNKU	AS5-01-00
BODY CERT. MODULE B ŚWIADCZENIE MODUŁU B	08.324.016
SERIAL NO NUMER SERWISJNY	A11C/25/009933
GAS GAZ	AIR COMPRESSED UN1002
THREAD GWINT	VOLUME POJEMNOŚĆ / M18x1.5
DIAMETER ŚREDNICA	WEIGHT WAGA / 174.00 mm
WORKING PRESSURE CIŚNIENIE PRACY	TEMP. OF WORK TEMP. PRACY / 300 BAR
TEST PRESSURE CIŚNIENIE PROBNIE	MANUFACTURING DATE DATA PRODUKCJI / 450 BAR
RECOMMENDED FILLING RATE ZALECANA PRĘDKOŚĆ NAPEŁNIANIA	EXPIRATION DATE TERMIN WAŻNOŚCI / < 30 BAR/MIN
CYLINDERS MEET THE REQUIREMENTS OF BUTLE SPEŁNIAJĄ WYMAGANIA	EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU
THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY ZBIORNIKI OZNAČONE ZNAKIEM ZGODNOŚCI	CE 1017
THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER ŚWIADECZTWO WERYFIKACJI WYROBU MODUŁ F DO WGLĄDU U PRODUCENTA	

**SAIFER®**  
ULTRA LIGHT  
COMPOSITE  
CYLINDERS

Production Plant  
TUV SÜD  
ul. Krakowska 83 p  
34-120 Andrychów, Poland  
F: +48 14 677 21 47  
W: www.techplast.net



## OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

### RECOMMENDATION

- Read the instruction carefully and keep to its conditions.
- Composite cylinders should be operated in accordance with their use.
- The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
- Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and authorized staff of the producer or its authorized service center of TECHPLAST company, in accordance with the regulations applicable in their country of operation.
- When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company or if the cylinders are not operated in accordance with their use, the user bears the responsibility for their correct functioning.
- Any change in the design or the structure of the cylinder can be made only with a written consent of the producer.
- TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
- If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3. TABLE

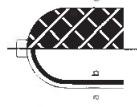
Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
1/2" wg ISO11116-1 W192 wg DIN 477-1	75	95
3/8" wg EN 429-1 W28.8 wg DIN 477-1	95	110
		140
		160

### A4. TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN1344-1	85	100
5/8" UNF	85	100

### FILLING PROCESS

- Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
- Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.



- a. epoxy coating
- b. inner liner of PET
- c. composite fiber in an epoxy matrix

### USE

- The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
- For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.
- The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
- It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
- During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
- During the process of filling, surface temperature of the cylinder should not exceed 40 °C. During the process of filling, the cylinder should be protected against mechanical damage and injuries in accordance with the regulations, laws and norms applicable in their country.
- The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
- Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
- Sample mounting torque values to the cylinders according to the tables A3 and A4.
- To seal the connection between the valve and the cylinder there should be used materials in accordance with the regulations, norms and laws applicable in their country. The producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
- Tanks with pressure valves should be transported/secured pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with O-rings.

### SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections are carried out by individuals who have a pressure monitor in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labeled with the word NLL.

### REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH

Comply with the regulations of the country in which the cylinders are used.

were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.

IT IS CATEGORICALLY FORBIDDEN TO

- USE THE CYLINDERS FOR ANY PURPOSE, OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WITH EXPIRED LIFE-SPAN.
- USE THE CYLINDERS WHICH LABELING IS ILLEGIBLE OR INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.
- USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC).
- LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS
- USE A VALUUM (DO NOT USE A VACUUM)

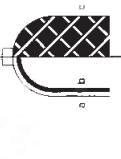
## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY ODBIÓR BUTLI PRZEPROWADZU		TUV SÜD Czech s.r.o. Ostrava, Taslova 2 Identification no.: 1017	
MANUFACTURER /PRODUCENT/		TECHPLAST Ltd. www.techplast.net VAT No.: PL 6772147465	
PRODUCTION PLANT ZAKŁAD PRODUKCYJNY		Krakowska 83F 34-120 Andrychów, Poland	
RECEPTION REPORT /RAPORT ODBIORU/		RA11C-2502003	
DRAWING NUMBER /NR RYSUNKU/		AS5-01-00	
BODY CERT. MODULE B SWIADCETWO MODUŁ B		08 324 016	
SERIAL NO /NUMER SERWISU/		A11C/25/00932	
GAS GAZ		VOLUME /POJEMNOŚĆ /	
THREAD GWINT		WEIGHT /WAGA/	
DIAMETER ŚREDNICA		TEMP. OF WORK /TEMP. PRACY/	
WORKING PRESSURE /CIŚNIENIE PRACY/		MANUFACTURING DATE /DATA PRODUKCJI/	
TEST PRESSURE /CIŚNIENIE PROBNIE/		EXPIRATION DATE /TERMIN WAZNOŚCI/	
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/		CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/	
EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU		1017	
THE CERTIFICATE OF MODULE F AVAILABLE AT THE MANUFACTURER /SWIADCETWO WERYFIKACJI WYROBU MODUŁ F DO WGLACU I PRODUCENTU/		CE	





02 of 02  
ENG



- a epoxy coating
- b liner made of PET
- c composite fibers wrapped in an epoxy matrix

# SAIFER

## OPERATION AND MAINTENANCE MANUAL

DE FULLY WRAPPED COMPOSITE TRANSPORTABLE GAS CYLINDER

### RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
06. Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company
08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO11146-1 W192.2 wg DIN 477-1	75	95
25E wg EN 629-1 W28.8 wg DIN 477-1	95	110
		130

### A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN146-1	85	100
5/8" 18UNF	85	100

### FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
02. Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity

### USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road
02. For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.
03. The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport
05. In the range of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
06. During the process of filling, surface temperature of the cylinder should not exceed 60 °C
07. Filling the cylinders with gas can be performed only by individuals and people with appropriate powers in accordance with the regulations, laws and norms applicable in their country.
08. The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, which are not in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
09. Valves for the cylinder should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used
10. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341
11. Sample mounting torque values to the cylinders according to the tables A.3 and A.4.
12. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11134-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick
13. Tanks with pressure valves should be transported/secured pressurized to min. 2bar tanks without pressure valves should be fitted with transport caps with o-rings.

### SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections are carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labeled with the word NULL.

### REMARKS

- ONE CAN ONLY FILL THE CYLINDERS WHICH:
- Comply with the regulations of the country in which the cylinders are used.
  - were marked with the date of last inspection, they were given a sign of a notified body and the term of their inspection has not expired, have not visible damages of the cylinder, valve, connections etc.
- IT IS CATEGORICALLY FORBIDDEN TO:
- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
  - USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED
  - USE THE CYLINDERS WHOSE LABELING IS ILLEGIBLE OR INCOMPLETE
  - USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE CONNECTIONS ETC.)
  - LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
  - USE A VACUUM (DO NOT USE A VACUUM).

### DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

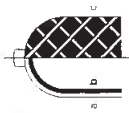
PRODUCT VERIFICATION WAS PERFORMED BY OŚRODEK BŁYTY PRZEPROWADZAJĄCY		TUV SÜD Czech s.r.o. Ostrava, Teslova 2 Identification no.: 1017	
MANUFACTURER /PRODUCENT/		TECHPLAST Ltd. www.techplast.net VAT No.: PL 6772147485	
PRODUCTION PLANT ZAKŁAD PRODUKCJI		Krakowska 83p 34-120 Andychów, Poland	
RECEPTION REPORT /RAPORT ODBIORU/		RA11C-2502003	
DRAWING NUMBER /NR RYSUNKU/		ASS-01-00	
BODY CERT. MODULE B SWIADECTWO MODUŁ B		08.324.016	
SERIAL NO NUMER SERII		A11C/25/00931	
GAS GAZ	AIR COMPRESSED UN1002	VOLUME POJEMNOŚĆ	9.00 L
THREAD GWINT	M18x1.5	WEIGHT MAGA	3.90 kg
DIAMETER ŚREDNICA	174.00 mm	TEMP. OF WORK TEMP. PRACY	-40°C / +60°C
WORKING PRESSURE CIŚNIENIE PRACY	300 BAR	MANUFACTURING DATE DATA PRODUKCJI	202502
TEST PRESSURE CIŚNIENIE PRÓBY	450 BAR	EXPIRATION DATE TERMIN WAŻNOŚCI	NULL
RECOMMENDED FILLING RATE ZALECANA PRĘDKOŚĆ WYPEŁNIANIA		< 30 BAR/MIN	
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/		EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU	
THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY /ZBLOKOWANO OZNACZENIEM ZGODNOŚCI/			
THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER /SWIADECTWO WERYFIKACJI WYROBU MODUŁ F DO WGLĄDU U PRODUCENTA/			



Production Plant  
Techplast Sp. z o.o.  
ul. Krakowska 83 p  
34-120 Andychów, Poland  
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# SAIFER® OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER



- a. epoxy coating
- b. liner made of PET
- c. composite fibers wrapped in an epoxy matrix

## RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff, holding the necessary training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff, rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
06. If the design or the structure of the cylinder can be made only with a written consent of the producer.
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

## A3 TABLE

Taper thread	Mounting torque [Nm]		
	Minimum	95	Maximum
17E wg ISO11116-1 W19.2 wg DIN 477-1	75	95	140
25E wg EN 629-1 W28.8 wg DIN 477-1	95	110	180

## A4. TABLE

Straight thread	Mounting torque [Nm]		
	Minimum	85	Maximum
M18 x1.5 EN144-1	85	85	100
5/8" 18UNF	85	85	100

## FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2
02. Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

## USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
02. For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.
03. The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
05. During storage of the cylinders, they should be protected against mechanical damage, overfilling, overpressure, corrosion, fire, lightning and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
06. During the process of filling, surface temperature of the cylinder should not exceed 60 °C. Filling the cylinders with gas can be performed only by individuals and people with appropriate powers in accordance with the regulations, laws and norms applicable in their country.
07. The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
08. Valves for the cylinder should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
09. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 15341.
10. Sample mounting torque values to the cylinders according to the tables A3 and A4.
11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
12. Tanks with pressure valves should be transported/loaded pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with o-rings.

## SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections are carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labeled with the word NLL.

## REMARKS

- ONE CAN ONLY FILL THE CYLINDERS WHICH
- a. Comply with the regulations of the country in which the cylinders are used.
  - b. Have not been damaged by any reason, which would affect the safe operation of the cylinder.
  - c. Have not been subjected to any inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.
- IT IS CATEGORICALLY FORBIDDEN TO
- a. USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
  - b. USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
  - c. USE THE CYLINDERS WHOSE LABELING IS ILLEGIBLE OR INCOMPLETE.
  - d. USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER VALVE, CONNECTIONS ETC.
  - e. USE THE CYLINDERS WHOSE EXPIRATION DATE OR FIN HAS EXPIRED (THE VALVE CONNECTIONS ETC.).
  - f. USE SEPARATE OR FILVALVES OR OTHER PARTS OF THE CYLINDERS.
  - g. USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY /DOBÓR BUTU/PRZEPROWADZU/		TUV SUD Czech s.r.o. Ostrava; Teslova 2 Identification no.: 11017	
MANUFACTURER /PRODUCENT/		TECHPLAST Ltd. www.techplast.net VAT No.: PL 6772147485	
PRODUCTION PLANT ZAKŁAD PRODUKCYJNY		Kielkowska 83P 34-120 Andrychów, Poland	
RECEPTION REPORT /RAPORT ODBIORU/		RA11C-2502003	
DRAWING NUMBER /NR RYSUNKU/		AS5-01-00	
BODY CERT. MODULE B SYMBOLECZNO MODULE B		08 324 016	
SERIAL NO. NUMER SERWISU		A11C/25/00930	
GAS GAZ/	AIR COMPRESSED UN1002	VOLUME /POJEMNOŚĆ / WAGA/	9.00 L
THREAD /GWINT/	M18x1.5	WEIGHT /WAGA/	3.30 kg
DIAMETER /ŚREDNICA/	174.00 mm	TEMP. OF WORK. /TEMP. PRACY/	-40°C / +60°C
WORKING PRESSURE /CIŚNIENIE PRACY/	300 BAR	MANUFACTURING DATE /DATA PRODUKCJI/	2025/02
TEST PRESSURE /CIŚNIENIE PRÓBY/	450 BAR	EXPIRATION DATE /TERMIN WAŻNOŚCI/	NLL
RECOMMENDED FILLING RATE ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/			
< 30 BAR/MIN			
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/			
EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU			

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
/ZBIOROWI ODMARZONO ZNAKIEM ZGODNOŚCI/

THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/SYMBOLECZNO WERYFIKACJI WYROBU/ MODUŁ F DO WGLĄDU U PRODUCENTA



Production Plant:  
Techplast Sp. z o.o.  
ul. Kielkowska 83 P  
34-120 Andrychów, Poland  
E: service@techplast.net  
V: 66 856 51 00 / 66 85 10 01



## OPERATION AND MAINTENANCE

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

## RECOMMENDATION

31. Read the instruction carefully and keep to its conditions.
32. Composite cylinders should be operated in accordance with their use.
33. The producer is **not** held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
34. Maintenance service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
35. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their safety.
36. The design or the structure of the cylinder can be made only with a written consent of the producer.
37. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
38. If any part(s) or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17F wg ISO11116-1 W19.2 wg DIN 477-1	75	140
25E wg EN 629-1 W20.8 wg DIN 477-1	95	180

#### A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN1044-1	85	100
5/8"-18UNF	85	100

## FILLING PROCESS

- 01 Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2
- 02 Cylinder-filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity

ש  
ת  
ר

01. The producer recommends the use of AUR European Agilent cement which applies to international transport of dangerous goods by road.
02. For the transport of the cylinders, there should be used containers, tins, pallets etc. The cylinders should be transported carefully to avoid overpressure and impurities.
03. The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
05. The use of the cylinders, they should be protected against mechanical damage, overturning, dropping and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
06. During the process of filling, surface temperature of the cylinder should not exceed 40 °C.
07. Filling the cylinders with liquefied gases, laws and norms applicable in their country.
08. The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
09. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 15341.
10. Sample mounting torque values to the cylinders according to the tables A.3, and A.4.
11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11134-2. If necessary, the producer recommends the use of Teflon tape type PTFE which is at least 0.1 millimeters thick.
12. Tanks with pressure valves should be transported/accepted pressurized to min. 2bar. Tanks without pressure valves should be filled with transport gas with 0-nitrogen.

## SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections are carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE OF PIN can be found on the label.

The cylinders with unlimited life-span are labeled with the word NLL

## REMARKS

THEY CAN ONLY GET THE TV IN THE WHICH

ONE CAN ONLY FILL THE CYLINDERS WITH WATER.

Comply with the regulations of the country in which the cylinders are to be used.

of their re-inspection has not expired, have not visible damage or any cylinder, valve, or component

IT IS CATEGORICALLY FORBIDDEN TO:

THE COURT FINDS THAT THE EVIDENCE DOES NOT ESTABLISH THAT THE DEFENDANT INTENDED TO OBTAIN A FURTHER ADVANTAGE OTHER THAN MENTIONED IN THE AUTHORIZATION.

- ① USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
- ② USE THE CYLINDERS WHOSE LABELING IS ILLEGIBLE OR INCOMPLETE.
- ③ USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.
- ④ USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE VALVE, CONNECTIONS ETC.
- ⑤ USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC.).
- ⑥ LUBRICATE OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- ⑦ USE A VACUUM (DO NOT USE A VACUUM)

PRODUCT VERIFICATION WAS PERFORMED BY  
/ODBIÓR BUTLI PRZEPROWADZIŁ/

Czech s.r.o. Ostrava; Teslova 2  
Identification no.: 1017

MANUFACTURER  
/PRODUCT/

www.techplast.net VAT No.: PL 6772147485

PRODUCTION PLANT  
ZAKŁAD PRODUKCJI

Krakowska 83P 34-120 Andrychow. Poland

RECEPTION REPORT  
REPORT NUMBER:

BA11C-2502003

**DRAWING NUMBER**  
**INR RVSUNKW**

AS5-01-00

**BODY CERT. MODULE B**  
**SWIADECTWO MODUŁ B**

09.324.016

SERIAL NO  
NUMBER SERVJNY/

A11C/25/00929

GAS GAZ/	AIR, COMPRESSED UN1002	M18x1.5 /GNWNT/	DIAMETER /ŚREDNICA/	WORKING PRESSURE /CIŚNIENIE PRACZY/	300 BAR	TEST PRESSURE /CIŚNIENIE PRÓBNIE/	450 BAR	TEMP. OF WORK /TEMP. PRACZY/	-40°C / +60°C	WEIGHT /WAGA/	VOLUME /POJEMNOŚĆ /	9,00 L
				MANUFACTURING DATE DATA PRODUKCJI/	2025/02	EXPIRATION DATE TERMIN WAŻNOŚCI/	NLL					
RECOMMENDED FILLING RATE ZALECANA PRĘDZOŚĆ NAPIĘCIA/								≤ 30 BAR/MIN				
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPŁYNIA WYMIAGANIA/												
EN 12245-2009+A1:2011 DIRECTIVE 2014/68/EU												

## CYLINDERS MEET THE REQUIREMENTS OF LITTLE SPAINIA LA WYMANIA/

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY

**THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER**



Production Plant  
Techplast Sp. z o.o.  
ul. Krakowska 83 P  
34-120 Andrychów





a epoxy coating  
b composite fibers  
c epoxy matrix

# SAFER® OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

## RECOMMENDATION

- Read the instruction carefully and keep to its conditions.
- Composite cylinders should be operated in accordance with their use.
- The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinder.
- Maintenance, service and repair of compressed gas cylinders can be carried out only by qualified and competent staff with the necessary training and powers which are in accordance with the regulations applicable in their country of operation.
- When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of the producer, the producer is not held responsible for the damages caused by their use. The user bears responsibility for the correct functioning of the cylinder.
- Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
- TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
- If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

## A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
1 1/2" wg ISO11116-1 W19.2 wg DIN 477-1	75	95
2 1/2" wg EN 629-1 W28.0 wg DIN 477-1	95	110
		180

## A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN144-1	85	100
5/8" 18UNF	85	100

## FILLING PROCESS

- Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
- Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

## USE

- The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
- For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and impairments.
- The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
- It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
- During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impairments and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
- During filling of the cylinders, the filling temperature of the cylinder should not exceed 60°C. Filling the cylinders with gas can be performed only by individuals and people with appropriate powers in accordance with the regulations, laws and norms applicable in their country.
- The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
- Valves for the cylinder should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 15341.
- Sample mounting torque values to the cylinders according to the tables A3 and A4.
- To seal the connection between the valve and the cylinder there should be used materials in accordance with the term ISO 11114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
- Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with O-rings.

## SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to avoid any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections are carried out by individuals who central pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labeled with the word NLL.

## REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

Comply with the regulations of the country in which the cylinders are used,

were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of a cylinder valves, connections etc.

IT IS CATEGORICALLY FORBIDDEN TO

- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
- USE THE CYLINDERS WHOSE LABELING IS ILLEGIBLE OR INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.
- LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

**PRODUCT VERIFICATION WAS PERFORMED BY**  
/ODBOR BUTLI PRZEPROWADZAJĄCY/

**TECHPLAST Ltd.** www.techplast.net VAT No.: PL 677147485  
/PRODUCENT/

**PRODUCTION PLANT**  
/ZAKŁAD PRODUKCYJNY/

**Krakowska 83p 34-120 Andrychów, Poland**

**RECEPTION REPORT**  
/RAPORT ODBIORU/

**RA11C-2502003**

**DRAWING NUMBER**  
/NR RYSUNKU/

**AS5-01-00**

**BODY CERT. MODULE B**  
/SIWADECTWO MODUŁ B/

**06.324.016**

**SERIAL NO**  
/NUMER SERWISU/

**A11C/25/00928**

<b>GAS</b> /GĄZ/	<b>AIR COMPRESSED</b> UN1002	<b>VOLUME</b> /POJEMNOŚĆ /	<b>9.00 L</b>
<b>THREAD</b> /GWINT/	<b>M18x1.5</b>	<b>WEIGHT</b> /WAGA/	<b>3.90 kg</b>
<b>DIAMETER</b> /ŚREDNICA/	<b>174.00 mm</b>	<b>TEMP. OF WORK</b> /TEMP. PRACY/	<b>-40°C / +60°C</b>
<b>WORKING PRESSURE</b> /CIŚNIENIE PRACY/	<b>300 BAR</b>	<b>MANUFACTURING DATE</b> /DATA PRODUKCJI/	<b>2025/02</b>
<b>TEST PRESSURE</b> /CIŚNIENIE PROBNIE/	<b>450 BAR</b>	<b>EXPIRATION DATE</b> /TERMIN WAŻNOŚCI/	<b>NLL</b>
<b>RECOMMENDED FILLING RATE</b> /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/		<b>&lt; 30 BAR/MIN</b>	
<b>CYLINDERS MEET THE REQUIREMENTS OF</b> /BUTLE SPEŁNIAJĄ WYMAGANIA/		<b>EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU</b>	

**THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY**  
/ZBIORNIKI DZIAŁAJĄCO ZNAKEM ZGODNOŚCI/

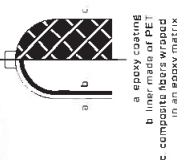
**1017**

**THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER**  
/SIWADECTWO WERYFIKACJI WYROBU MODUŁ F DO WGLĄDU U PRODUCENTA/



Production Plant  
Technol Sp. z o.o.  
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L  
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www.techplast.net





## SAIFER® OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

### RECOMMENDATION

- Read the instruction carefully and keep to its conditions.
- Composite cylinders should be operated in accordance with their use.
- The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
- Maintenance service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
- When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
- Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
- TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
- If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
1 1/2" wg ISO11116-1 W19.2 wg DIN 477-1	75	95
2 1/2" wg EN 629-1 W26.8 wg DIN 477-1	95	110
		180

A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN144-1	85	100
5/8" 18UNF	85	100

### FILLING PROCESS

- Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
- Cylinder filling temperature shall not exceed 50°C. Recommended filling rate is in Declaration of Conformity

### USE

- The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
- For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.
- The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
- It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
- During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
- During the process of filling, surface temperature of the cylinder should not exceed 60 °C.
- The cylinders should be filled and stored in accordance with appropriate powers in their country of operation in accordance with the regulations, laws and norms applicable in their country.
- The cylinder must be fitted with a valve, connections with the recommended test, pressure, Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
- Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
- Simple mounting torque valves to the cylinders according to the tables A3 and A4.
- To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE, which is at least 0.1 millimeters thick.
- Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with O-rings.

### SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.  
In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.  
Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country of operation and the inspection should be carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.  
For cylinders with a limited life-span, the EXPIRATION DATE or PIN can be found on the label.  
The cylinders with unlimited life-span are labeled with the word NLL.

### REMARKS

- ONE CAN ONLY FILL THE CYLINDERS WHICH  
Comply with the regulations of the country in which the cylinders are used,  
were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder valve, connections etc.  
IT IS CATEGORICALLY FORBIDDEN TO
- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
  - USE THE CYLINDERS FOR THE TRANSPORT OF DANGEROUS GOODS.
  - USE THE CYLINDERS WHOSE LABELING IS ILLEGIBLE OR INCOMPLETE.
  - USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER VALVE, CONNECTIONS ETC.
  - USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC.).
  - LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
  - USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY  
/ODPOR BUTU PRZEPROWADZU/  
Identification no.: 1017

MANUFACTURER /PRODUCENT/	TECHPLAST Ltd. www.techplast.net VAT No.: PL 877214765
PRODUCTION PLANT ZAKŁAD PRODUKCYJNY	Krakowska 83P 34-120 Andrychów, Poland
RECEPTION REPORT /RAPORT ODBIORU/	RA11C-2502003
DRAWING NUMBER /NR RYSUNKU/	AS5-01-00
BODY CERT. MODULE B SIWADECTWO MODUŁ B	08 324 016
SERIAL NO NUMER SERYJNY	A11C/2500926

GAS GAZ	AIR COMPRESSED UN1002	VOLUME /POJEMNOŚĆ /	9.00 L
THREAD /CIWINT/	M18x1.5	WEIGHT /WAGA/	3.90 kg
DIAMETER /ŚREDNICA/	174.00 mm	TEMP. OF WORK /TEMP. PRACY/	-40°C / +60°C
WORKING PRESSURE /CIŚNIENIE PRACY/	300 BAR	MANUFACTURING DATE /DATA PRODUKCJI/	202502
TEST PRESSURE /CIŚNIENIE PRÓBNIE/	450 BAR	EXPIRATION DATE /TERMIN WYDOBYTU/	NLL

RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ WYPEŁNIANIA/	< 30 BAR/MIN
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/	EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
/ZBIORNIKI OZNAČONO ZNAKIEM ZGODNOŚCI/

THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/SIWADECTWO WERYFIKACJI WYROBU MODUŁ F DO WGLĄDU U PRODUCENTA/



1017

**SAIFER®**  
ULTRA LIGHT  
COMPOSITE  
CYLINDERS

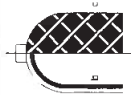
Production Plant  
Techplast Sp. z o.o.  
ul. Krakowska 83P  
34-120 Andrychów, Poland  
E: saifer@techplast.net  
W: saifer.pl / 081 872 14 765







# SAIFER® OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

a epoxy coating  
b liner made of PET  
c composite fibers wrapped  
in an epoxy matrix

## RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST, the producer is not responsible for the damages caused by their use, the user bears responsibility for their correct functioning.
06. Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

## A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
1/2" wg ISO11116-1 W192 wg DIN 477-1	75	95
25E wg EN 429-1 W283 wg DIN 477-1	95	110
		180

## A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN144-1	85	100
5/8" 18UNF	85	100

## FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2
02. Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

## USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
02. For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.
03. The devices used to protect valves, connectors (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
05. During storage of the cylinders, they should be protected against mechanical damage, overturning, vibrations and direct influence of adverse weather conditions. The cylinders should be stored in a dry place and should be kept away from fire.
06. During the process of filling, surface temperature of the cylinder should not exceed 60 °C. Filling the cylinders with gas can be performed only by individuals and people with appropriate powers in accordance with the regulations, laws and norms applicable in their country.
07. The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, connections and the valves should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
08. Valves for the cylinder should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
09. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13241.
10. Sample mounting torque values to the cylinders according to the tables A3 and A4.
11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
12. Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be filled with 1 bar support gas with O-rings.

## SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections are carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labeled with the word NLL.

## REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

- Comply with the regulations of the country in which the cylinders are used.
- Have not reached their expiration date.
- Have not reached their maximum filling pressure.
- Have not visible damages of the cylinder body and the term of their re-inspection has not expired.

IT IS CATEGORICALLY FORBIDDEN TO:

- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
- USE THE CYLINDERS WHOSE LABELING IS ILLEGIBLE OR INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER VALVE CONNECTIONS ETC.
- USE THE CYLINDERS WHOSE VALVES OR LEAKING EQUIPMENT (THE VALVE CONNECTIONS ETC.) ARE DAMAGED.
- USE THE CYLINDERS WHOSE VALVES OR LEAKING EQUIPMENT (THE VALVE CONNECTIONS ETC.) ARE DAMAGED.
- USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY DOBRO BUTL PRZEPRAWIAJĄCZU		TUV SUD Czech s.r.o. Ostrava; Teslova 2 Identification no.: 1017	
MANUFACTURER /PRODUCENT/		TECHPLAST Ltd. www.techplast.net VAT No. PL 6772147485	
PRODUCTION PLANT ZAKŁAD PRODUKCJI		Krakowska 83P 34-120 Andrychów, Poland	
RECEPTION REPORT /RAPORT ODBIORU/		RA11C-2502003	
DRAWING NUMBER /NR RYSUNKU/		AS5-01-00	
BODY CERT. MODULE B SIWADECTWO MODUŁ B		08.374.016	
SERIAL NO /NUMER SERYJNY/		A11C125/00924	
GAS GAZ	AIR COMPRESSED UN102	VOLUME /POJEMNOŚĆ /	9.00 L
THREAD /GWINT/	M18x1.5	WEIGHT /WAGA/	3.90 kg
DIAMETER /ŚREDNICA/	174.00 mm	TEMP. OF WORK /TEMP. PRACY/	-40°C / +60°C
WORKING PRESSURE /CIŚNIENIE PRACY/	300 BAR	MANUFACTURING DATE /DATA PRODUKCJI/	2025/02
TEST PRESSURE /CIŚNIENIE PROBNIE/	450 BAR	EXPIRATION DATE /TERMIN WAZNOŚCI/	NLL
RECOMMENDED FILLING RATE ZALECANA PRĘDKOŚĆ NAPEŁNIANIA		< 30 BAR/MIN	
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPĘŁNIAJĄ WYMAGANIA/		EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU	
THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY ZBIORNIKI OZNACZONO ZNAKIEM ZGODNOŚCI		1017	
THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER /SIWADECTWO WERYFIKACJI WYROBU/ MODUŁ F DOSTĘPNY U PRODUCEWY/		CE	





## SAFER® OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

### RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
06. Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO11146-1 W19,2 wg DIN 477-1	75	95
25E wg EN 629-1 W26,8 wg DIN 477-1	95	110
		130

### A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M16 x15 EN144-1	85	100
3/8" 18UNF	85	100

### FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
02. Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity

### USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
02. For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.
03. The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
05. During storage of the cylinders, they should be protected against mechanical damage, overpressure, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
06. During the process of filling, surface temperature of the cylinder should not exceed 60 °C. Filling with gas can be performed only by individuals and people with appropriate powers in accordance with regulations, laws and norms applicable in their country.
07. The cylinder must be equipped with valves, connections with the recommended test pressure. Elements, connections and the whole should be tested according to the regulations, norms and laws applicable in the country in which the cylinder is used.
08. Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
09. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 1534-1.
10. Sample mounting torque values to the cylinders according to the tables A3 and A4.
11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 1114-2. If necessary, the producer recommends the use of Teflon tape, Type PTFE which is at least 0,1 millimeters thick.
12. Tanks with pressure valves should be transported/stored pressurized to min. 2bar Tanks without pressure valves should be fitted with transport caps with o-rings.

### SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. The inspection should be carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labeled with the word NLL.

### REMARKS

- ONE CAN ONLY FILL THE CYLINDERS WHICH
- Comply with the regulations of the country in which the cylinders are used,
- were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.
- IT IS CATEGORICALLY FORBIDDEN TO
- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
  - USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
  - USE THE CYLINDERS WHOSE EXPIRATION DATE OR FIN HAS EXPIRED.
  - USE THE CYLINDERS WHICH HAVE VISIBLE DAMAGES OF THE CYLINDER, VALVE, CONNECTIONS ETC.
  - LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS
  - USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY TUV SUD Czech s.r.o. Ostrava, Teslova 2 identification no. 1017	
ZAKŁAD PRODUKCJI	
MANUFACTURER /PRODUCENT/	TECHPLAST Ltd. www.techplast.net VAT No : PL 6772147485
PRODUCTION PLANT ZAKŁAD PRODUKCJI	Krakowska 83p 34-120 Andrynow, Poland
RECEPTION REPORT /RAPORT ODBIORU/	RA11C-2502003
DRAWING NUMBER /NR DRYGUNU/	AS5-01-00
BODY CERT. MODULE B SIWAGCZYNOW	08.324.016
SERIAL NO /NUMER SER./	A11C/25/00923
GAS GAZ/	VOLUME /POJEMNOŚĆ /
THREAD GWINT/	WEIGHT /WAGA/
DIAMETER ŚREDNICA	TEMP. OF WORK /TEMP. PRACY/
WORKING PRESSURE /CIŚNIENIE PRACY/	MANUFACTURING DATE /DATA PRODUKCJI/
TEST PRESSURE /CIŚNIENIE PROBNIE/	EXPIRATION DATE /TERMIN WAZNOŚCI/
RECOMMENDED FILLING RATE ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/	
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/	
THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY /ZBIGNIAŁ OZNAKOZONO ZNAKIEM ZGODNOŚCI/	
THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER /ŚWIADECTWO WERYFIKACJI WYROBU MODUŁ F DO WGLĄDU U PRODUCENTA/	

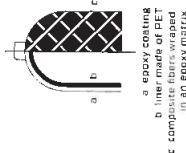


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# OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER



## RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and responsible persons with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
06. Any change in the design or the structure of the cylinder can be made only with a written consent of the producer.
07. TECHPLAST® recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

## A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO11136-1 W19,2 wg DIN 477-1	75	95
25E wg EN 6299-1 W28,9 wg DIN 477-1	95	110
		180

## A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1,5 EN144-1	85	100
5/8" 18UNF	85	100

## FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
02. Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity

## USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
02. For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported securely to avoid unacceptable damage and injuries.
03. The device used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position during the transport.
05. During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
06. During the process of filling, surface temperature of the cylinder should not exceed 60 °C.
07. The cylinder must be filled with a valve, connections with the recommended test pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
08. Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
09. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 1534-1.
10. Sample mounting torque valves to the cylinders according to the tables A3 and A4.
11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11142-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0,1 millimeters thick.
12. Tanks with pressure valves should be transported/secured pressurized to min. 2bar. Tanks without pressure valves should be filled with transport caps with O-rings.

## SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. The inspection should be made out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labeled with the word NLL.

## REMARKS

- ONE CAN ONLY FILL THE CYLINDERS WHICH
- Comply with the regulations of the country in which the cylinders are used.
- were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.
- IT IS CATEGORICALLY FORBIDDEN TO
- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
  - USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
  - USE THE CYLINDERS WHOSE EXPIRATION DATE OR FIN HAS EXPIRED.
  - USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS, ETC.
  - USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS, ETC).
  - LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
  - USE A VACUUM (DO NOT USE A VACUUM).

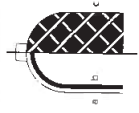
## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY /ODBOR BUTU PRZEPRAWADZU/		TÜV SÜD Czech s.r.o. Ostrava; Teslova 2 Identification no. :1017	
MANUFACTURER /PRODUCENT/		TECHPLAST Ltd. www.techplast.net VAT No.PL 6772147485	
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/		Krakowska 83P 34-120 Andrychów, Poland	
RECEPTION REPORT /RAPORT ODBIORU/		RA11C-2502003	
DRAWING NUMBER /NR RYSUNKU/		AS55-01-00	
BODY CERT. MODULE B /SWADEC TWO MODUŁ B/		08.324.016	
SERIAL NO /NUMER SERWISU/		A11C/25/00921	
GAS GAZ		VOLUME POJEMNOŚĆ /	
THREAD GWINT		WEIGHT WAGA /	
DIAMETER ŚREDNICA		TEMP. OF WORK TEMP. PRACY /	
WORKING PRESSURE CIŚNIENIE PRACY /		MANUFACTURING DATE DATA PRODUKCJI /	
TEST PRESSURE CIŚNIENIE PROBY /		EXPIRATION DATE TERMIN WAZNOŚCI /	
RECOMMENDED FILLING RATE ZALECANA PRĘDKOŚĆ NAPEŁNIANIA /		EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU	
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/		1017	
THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY /ZBIORNIKI OZNAČONO ZNAKIEM ZGODNOŚCI/		CE	
THE CERTIFICATE OF MODULE F IS AVAILABLE FOR INSPECTION AT THE MANUFACTURER /SWADEC TWO WERYFIKACJI WYROBU MODUŁ F DO WGLĄDU U PRODUCENTA/			



Production Plant  
Technoplast Sp. z o.o.  
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OPERATION  
AND MAINTENANCE  
MANUALOF FULLY WARMED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

## RECOMMENDATION

- 01 Read the instruction carefully and keep to its conditions.
- 02 Composite cylinders should be operated in accordance with their use.
- 03 The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
- 04 Maintenance, service and repair of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
- 05 When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, the producer is not responsible for the correct functioning of the cylinders.
- 06 Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
- 07 TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
- 08 If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

## A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO11116-1 W19.2 wg DIN 477-1	75	95
25E wg EN 629-1 W28.0 wg DIN 477-1	95	110
		180

## A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN144-1	85	100
5/8" 18UNF	85	100

## FILLING PROCESS

- 01 Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
- 02 Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

## USE

- 01 The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
- 02 For the transport of the cylinders, those should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and impurities.
- 03 The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
- 04 It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position during the transport.
- 05 During storage of the cylinders, they should be protected against mechanical damage, overcharging, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
- 06 During the process of filling, surface temperature of the cylinder should not exceed 60 °C.
- 07 The cylinder must be fitted with a valve, connections with the recommended tank pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
- 08 Valves for the cylinder should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- 09 The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
- 10 Sample mounting torque values to the cylinders according to the tables A3 and A4.
- 11 To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm EN 11116-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
- 12 Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with O-rings.

## SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In case of detect any potential damages, the producer recommends a visual inspection during the process of filling of gas cylinder.

Cylinders should be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used and not by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life span are labeled with the word NLL.

## REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH

Comply with the regulations of the country in which the cylinders are used.

were marked with the date of last inspection, they were given a sign of a notified body and the turn of their inspection has not expired, have not visible damages of the cylinder, valve, connections etc.

IT IS CATEGORICALLY FORBIDDEN TO

- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WHICH ARE EXPIRED.
- USE THE CYLINDERS WHOSE LABELING IS NOT COMPLETE.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER VALVE, CONNECTIONS, ETC.
- USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS, ETC.).
- LUBRICATE OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY  
TUV SUD Czech s.r.o. Ostrava; Testova 2  
Identification no.: 1017

MANUFACTURER /PODZIECIW/ TECHPLAST Ltd. www.techplast.net VAT No.: PL 6772147485	PRODUCTION PLANT /MIEJSCE WYROBU/ Krakowska 839 34-120 Andrychów, Poland
RECEPTION REPORT /RAPORT ODBIORU/ RA11C-2502003	DRAWING NUMBER /NUMER RYSUNKU/ AS5-01-00
BODY CERT. MODULE B /SWADECTWO MODUŁ B/ A11C/25/00920	SERIAL NO. /NUMER SERII/ 08 324 016
GAS GAZ/ AIR COMPRESSED UN1002	VOLUME /POJEMNOŚĆ / 9.00 L
THREAD GWINT/ M18x1.5	WEIGHT WAGA/ 3.90 Kg
DIAMETER ŚREDNICA/ 174.00 mm	TEMP. OF WORK TEMP. PRACY/ -40°C / +60°C
WORKING PRESSURE CIŚNIENIE PRACY/ 300 BAR	MANUFACTURING DATE DATA PRODUKCJI/ 2025/02
TEST PRESSURE CIŚNIENIE PROBNIE/ 450 BAR	EXPIRATION DATE TERMIN WAŻNOŚCI/ NLL
RECOMMENDED FILLING RATE ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/ ≤ 30 BAR/MIN	
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/ EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU	

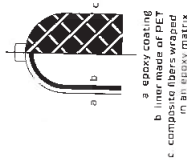
THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
ZBIOROWKI OZNACZONO ZNAKIEM ZGODNOŚCI/  
CE 1017

THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
SWADECTWO WERYFIKACJI WYROBU MODUŁ F DO WGLADU U PRODUCENTA

**SAFAR®**  
ULTRA LIGHT  
COMPOSITE  
CYLINDERS

Production Plant  
Techplast Sp. z o.o.  
Krakowska 839 P  
34-120 Andrychów, Poland  
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W: www.techplast.net



OPERATION  
AND MAINTENANCE  
MANUALOF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

## RECOMMENDATION

- Read the instruction carefully and keep to its conditions.
- Composite cylinders should be operated in accordance with their use.
- The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
- Maintenance, service and repair of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
- When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
- Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
- TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
- If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

## A3. TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO1116-1 W19,2 wg DIN 477-1	75	95
25E wg EN 629-1 W28,6 wg DIN 477-1	95	110
		180

## A4. TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x 1,5 EN144-1	85	100
5/8"-18UNF	85	100

## FILLING PROCESS

- Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2
- Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity

## USE

- The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
- For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.
- The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
- It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
- During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
- During the process of filling, surface temperature of the cylinder should not exceed 60 °C.
- Filling the cylinders with gas can be performed only by individuals and people with appropriate powers in accordance with the regulations, laws and norms applicable in their country.
- The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements in the country in which the cylinder is used.
- Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 1534-1.
- Sample mounting torque values to the cylinders according to the tables A.3 and A.4.
- To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
- Tanks with pressure values should be transported/loaded pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with O-rings.

## SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections are carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labeled with the word NULL.

## REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

- Comply with the regulations of the country in which the cylinders are used,
  - were marked with the date of last inspection, the date of expiration of the inspection body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve connections etc.
- IT IS CATEGORICALLY FORBIDDEN TO:
- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
  - USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
  - USE THE CYLINDERS WHOSE LABELING IS ILLEGIBLE OR INCOMPLETE.
  - USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE CONNECTIONS ETC.
  - LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDER.
  - USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY  
/ODBOR BUTL PRZEPROWADZIŁ/

MANUFACTURER  
/PRODUCENT/

PRODUCTION PLANT  
/ZAKŁAD PRODUKCYJNY/

RECEPTION REPORT  
/RAPORT ODBIORU/

DRAWING NUMBER  
/NR RYSUNKU/

BODY CERT. MODULE B  
/SWADECTIVO MODUŁ B/

SERIAL NO  
/NUMER SERIOWY/

TÜV SÜD Czech s.r.o. Ostrava: Testova 2  
Identification no.: 1017

TECHPLAST Ltd. www.techplast.net VAT No.: PL 6772147485

Krakowska 83P 34-120 Andrychów, Poland

RA111C-2502003

A85-01-00

08.324.016

A11C/25/00919

VOLUME  
/POJEMNOŚĆ /

WEIGHT  
/WAGA/

TEMP. OF WORK  
/TEMP. PRACY/

MANUFACTURING DATE  
/DATA PRODUKCJI/

EXPIRATION DATE  
/TERMIN WAŻNOŚCI/

RECOMMENDED FILLING RATE  
/ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/

CYLINDERS MEET THE REQUIREMENTS OF  
/BUTLE SPEŁNIAJĄ WYMAGANIA/

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
/ZBIORNIK CZYNIĄCY ZGODNOŚĆ/

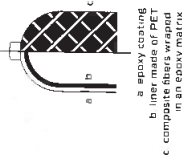
THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/SWADECTWO WERYFIKACJI WYROBU MODUŁ F DO WGLADU U PRODUCENTA/

SAFEBR®  
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COMPOSITE  
CYLINDERS

Technological Center  
Technologia Bezpieczeństwa  
34-120 Andrychów, Poland  
E: service@techplast.net  
W: www.techplast.net





OPERATION  
AND MAINTENANCE  
MANUALOF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

## RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST, the producer does not accept any responsibility for their correct functioning.
06. Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

## A3 TABLE

Taper thread	Mounting torque [Nm]		
	Minimum	Maximum	
17E wg ISO1116-1 W19,2 wg DIN 477-1	75	95	140
25E wg EN 629-1 W28,8 wg DIN 477-1	95	110	180

## A4 TABLE

Straight thread	Mounting torque [Nm]		
	Minimum	Maximum	
M18 x1,5 EN144-1	85	100	100
5/8" 18UNF	85	100	100

## FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
02. Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

## USE

01. The producer recommends the use of AUR European Agreement which applies to international transport of dangerous goods by road.
02. For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unnecessary damage and injuries.
03. The valves used to protect valves connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position during the transport.
05. During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities, and direct influence of strong weather conditions. The cylinders should be kept away from fire.
06. During the process of filling, surface temperature of the cylinder should not exceed 60 °C. Cylinders should not be filled with gas can be performed only by individuals and people with appropriate powers in accordance with the regulations, laws and norms applicable in their country.
07. The cylinder must be filled with a valve, connections with the recommended test pressure. Elements, connections and the valve should be secured according to their regulations, norms and laws applicable in the country in which the cylinder is used.
08. Valves for the cylinder should be secured in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
09. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
10. Sample mounting torque values to the cylinders according to the tables A.3 and A.4.
11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 1114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
12. Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with O-rings.

## SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections are carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labelled with the word NULL.

## REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

Comply with the regulations of the country in which the cylinders are used,

were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.

IT IS CATEGORICALLY FORBIDDEN TO:

- USE THE CYLINDERS FOR ANY PURPOSE, OTHER THAN MENTIONED IN THE AUTHORIZATION,
- USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED,
- USE THE CYLINDERS WHOSE LABELLING IS ILLEGIBLE OR INCOMPLETE,
- USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING CONNECTIONS (VALVE CONNECTIONS ETC.),
- LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS,
- USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY  
/OCENIŁ BUTYŁ PRZEPRAWIACZU/

TUV SUD Czech s.r.o. Ostrava, Taslova 2  
Identification no.: 1017

MANUFACTURER /PRODUCENT/	TECHPLAST Ltd. www.techplast.net VAT No.: PL 677214785
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/	Krakowska 839 34-120 Andrychów, Poland
RECEPTION REPORT /RAPORT ODBIORU/	RA11C-2502003
DRAWING NUMBER /NR RYSUNKU/	ASS-01-00
BODY CERT. MODULE B /SWIADCETWO MODUŁU B/	08 324 016
SERIAL NO. /NUMER SERWISU/	A11C/25/00918
GAS /GAZ/	AIR, COMPRESSED /WYŁOZ, CIŚNIENIE/
THREAD /GWINT/	M18x1.5
DIAMETER /ŚREDNICA/	174.00 mm
WORKING PRESSURE /CIŚNIENIE PRACY/	300 BAR
TEST PRESSURE /CIŚNIENIE PRÓBY/	450 BAR
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/	≤ 30 BAR/MIN
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/	EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU

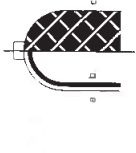
THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
/ZBIORNIKI OZNAKOWANO ZNAKIEM ZGODNOŚCI/

THE CERTIFICATE OF MODULE B AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/SWIADCETWO WERYFIKACJI WYROBU MODUŁU B DOSTĘPNE U PRODUCENTA/

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COMPOSITE  
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Production Plant  
Techplast Sp. z o.o.  
ul. Krakowska 839 p  
34-120 Andrychów, Poland  
E: sales@techplast.net  
W: www.techplast.net



OPERATION  
AND MAINTENANCE  
MANUALOF FULLY WELDED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

a. epoxy coating  
b. inner face of PET matrix  
c. composite fibre reinforcement in an epoxy matrix

## RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with the necessary skills and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST, the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
06. Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

## A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E w/ ISO 11116-1 W19.2 w/ DIN 477-1	75	95
25E w/ EN 629-1 W25.9 w/ DIN 477-1	95	110
		180

## A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M16 x1.5 EN144-1	85	100
5/8" 18UNF	85	100

## FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
02. Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

## USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
02. For the transport of the cylinders, there should be used containers, pne. pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and impurities.
03. The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position during the transport.
05. During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
06. During the process of filling, surface temperature of the cylinder should not exceed 60 °C.
07. The cylinders should be filled with gas in accordance with appropriate powers in their country of operation in accordance with the regulations, laws and norms applicable in their country.
08. The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
09. Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
10. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
11. Sample mounting torque values to the cylinders according to the tables A3 and A4.
12. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11116-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
13. Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with O-rings.

## SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In case of detect any potential damages, the producer recommends a visual inspection during the process of filling or when cylinder is used.

Cylinders are regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used and put out by individuals with control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labeled with the word NLL.

## REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH Comply with the regulations of the country in which the cylinders are used, were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder valve, connections etc.

IT IS CATEGORICALLY FORBIDDEN TO

- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WHICH HAVE BEEN EXPOSED TO EXCESSIVE HEAT OR TO CORROSION.
- USE THE CYLINDERS WHOSE LABELING IS ILLEGIBLE OR INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER VALVE, CONNECTIONS, ETC.
- USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS, ETC).
- LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

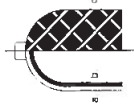
## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

* PRODUCT VERIFICATION WAS PERFORMED BY TUV SUD Czech s.r.o. Ostrava; Teslova 2 ODBOR BUTL PRZEPROWADZU Identification no. 1017	
MANUFACTURER /PODZIEWY/	TECHPLAST Ltd. www.techplast.net VAT No. PL 6772147485
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/	Kraśowska 83p 34-120 Andrychów, Poland
RECEPTION REPORT /RAPORT ODBIORU/	RA11C-2502003
DRAWING NUMBER /NR RYSUNKU/	AS5-01-00
BODY CERT. MODULE B SWIADECTWO MODUŁ B	08.324.016
SERIAL NO /NUMER SERWISNY/	A11C/25/000917
GAS GAZ	AIR COMPRESSED UN 1002
THREAD GWINT	M16x1.5
DIAMETER ŚREDNICA	174.00 mm
WORKING PRESSURE CIŚNIENIE PRACY	300 BAR
TEST PRESSURE CIŚNIENIE PROBNIE	450 BAR
RECOMMENDED FILLING RATE ZALECANA PRĘDKOŚĆ NAPEŁNIANIA	< 30 BAR/MIN
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/	EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU
THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY /ZEBORKI OZNAČZONO ZNAKIEM ZGODNOŚCI/	1017
THE CERTIFICATE OF MODULE F IS AVAILABLE FOR THE MANUFACTURER ŚWIADECTWO WERYFIKACJI WYROBU /MODUŁ F DO WŁAŚCICIELA PRODUKTU/	

**SAFER<sup>®</sup>**  
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Produced in Poland  
Wyprodukowano w Polsce  
ul. K. Teslova 2, 76-100 Andrychów  
34-120 Andrychów, Poland  
E: sprzed@techplast.net  
W: safer.pl, info@safer.com



OPERATION  
AND MAINTENANCE  
MANUALOF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

- a epoxy coating  
b inner made of PET  
composite fibers wrapped  
in an epoxy matrix  
c composite fibers wrapped  
in an epoxy matrix

## RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.  
02. Composite cylinders should be operated in accordance with their use.  
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.  
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.  
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECH-PLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.  
06. Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.  
07. TECH-PLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECH-PLAST company if any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.  
08.

## A3 TABLE

Taper thread	Mounting torque [N·m]		
	Minimum	Maximum	
17E wg ISO11116-1 W19,2 wg DIN 477-1	75	95	140
25E wg EN 229-1 W28,8 wg DIN 477-1	95	110	180

## A4 TABLE

Straight thread	Mounting torque [N·m]		
	Minimum	Maximum	
M18 x 1,5 EN146-1	85	100	
5/8" 18 UNF	85	100	

## FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.  
02. Cylinders filling temperature shall not exceed 40°C. Recommended filling rate is in Declaration of Conformity.

## USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.  
02. For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid inappropriate damage and injuries.  
03. The devices used to protect valves, connectors (e.g. protective cap) should be applied during the transport of the cylinders.  
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.  
05. During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.  
06. During the process of filling, surface temperature of the cylinder should not exceed 60 °C. Filling the cylinder with gas should be carried out in accordance with appropriate powers.  
07. The cylinders must be fitted with a valve, conforming with the recommended test pressure. Elements, on the stems and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinders are used.  
08. Valves for the cylinder, should be actuated in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.  
09. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 15341.  
10. Sample mounting torque values to the cylinders according to the tables A3 and A4.  
11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 1114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.  
12. Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with O-rings.

## SERVICE

TECH-PLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECH-PLAST company in order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.  
Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country of use. The inspection should be carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.  
For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.  
The cylinders with unlimited life-span are labeled with the word NULL.

## REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH Comply with the regulations of the country in which the cylinders are used, were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired. Have not visible damages of the cylinder, valve, connectors etc. IT IS CATEGORICALLY FORBIDDEN TO:  
■ USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.  
■ USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.  
■ USE THE CYLINDERS WHOSE VALVE IS INCOMPLETE OR INCOMPLETE.  
■ USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.  
■ USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC.).  
■ LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.  
■ USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY  
/DOBÓR BUTLI PRZEPROWADZU/

TUV SÜD Czech s.r.o. Ostrava, Teslova 2  
Identification no.: 1017

MANUFACTURER  
/PRODUCENT/

TECHPLAST Ltd. www.techplast.net VAT No.: PL 6772147485

PRODUCTION PLANT  
/RAPORT ODOBÓRU/

Krakowska 83P 34-120 Andrychów Poland

RECEPTION REPORT  
/RAPORT ODOBÓRU/

RA11C-2502003

DRAWING NUMBER  
/NR RYSUNKU/

ASS-01-00

BODY CERT. MODULE B  
SWIADECTWO MODUŁ B/

08.324.016

SERIAL NO.  
/NUMER SERII/

A11C/25/00915

GAS  
GAZ/

AIR COMPRESSED  
UN1002

VOLUME  
POJEMNOŚĆ /

9.00 L

THREAD  
GWINT/

M18x1.5

WEIGHT  
WAGA/

3.90 kg

DIAMETER  
ŚREDNICA/

174.00 mm

TEMP. OF WORK  
TEMP. PRACY/

-40°C / +60°C

WORKING PRESSURE  
CIŚNIENIE PRACY/

300 BAR

MANUFACTURING DATE  
DATA PRODUKCJI/

2025/02

TEST PRESSURE  
CIŚNIENIE PROBNIE/

450 BAR

EXPIRATION DATE  
TERMIN WYZNACZONY/

NULL

RECOMMENDED FILLING RATE  
ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/

< 30 BAR/MIN

CYLINDERS MEET THE REQUIREMENTS OF  
BUTLE SPŁYNIAJĄ, WYMAGANIAM/

EN 12245:2009+A1:2011

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
CYLINDRY BYŁY OZNACZONE ZNAKIEM ZGODNOŚCI/

DIRECTIVE 2014/68/EU

THE CERTIFICATE OF MODULE F IS AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
SWIADECTWO WERYFIKACJI WYROBU MODUŁ F DO WGLĄDU U PRODUCENTA/



SAFAR  
ULTRA LIGHT  
COMPOSITE  
CYLINDERS

Production Plant  
Techplast Sp. z o.o.  
ul. Krakowska 83 p  
34-120 Andrychów, Poland  
E: info@techplast.net  
SAFAR s.p. z o.o. z siedzibą w Andrychowie





# OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE TRANSPORTABLE GAS CYLINDER

## RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
06. Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

## A3 TABLE

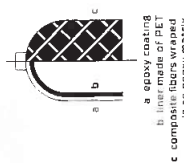
Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
1/2" wg ISO11116-1 W19,2 wg DIN 477-1	75	95
25E wg EN 259-1 W28,8 wg DIN 477-1	95	110
		180

## A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1,5 EN144-1	85	100
5/8" 18 UNF	85	100

## FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2
02. Cylinders filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity



# OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE TRANSPORTABLE GAS CYLINDER

## RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
06. Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

## A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
1/2" wg ISO11116-1 W19,2 wg DIN 477-1	75	95
25E wg EN 259-1 W28,8 wg DIN 477-1	95	110
		180

## A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1,5 EN144-1	85	100
5/8" 18 UNF	85	100

## FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2
02. Cylinders filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity

## USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
02. For the reason of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.
03. The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is not acceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
05. During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
06. During the process of filling, surface temperature of the cylinder should not exceed 60 °C.
07. The cylinder must be fitted with a valve, connections with their recommended test pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
08. Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
09. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 15341
10. Sample mounting torque values to the cylinders according to the tables A3 and A4.
11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0,2 millimeter's thick.
12. Tanks with pressure valves should be transported/agreed pressurized to min. 2bar Tanks without pressure valves should be fitted with transport caps with a ring.

## SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections should be carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labelled with the word NLL.

## REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH

Comply with the regulations of the country in which the cylinders are used.

were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connection is etc.

IT IS CATEGORICALLY FORBIDDEN TO

- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WHOSE LABELLING IS ILLEGIBLE OR INCOMPLETE.
- USE THE CYLINDERS WHOSE LABELLING IS ILLEGIBLE OR INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER VALVE, CONNECTIONS ETC.
- USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC.).
- LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOSCI / DECLARATION OF CONFORMITY

<b>PRODUCT VERIFICATION WAS PERFORMED BY</b> ODBIOR BUTLI PRZEPROWADZIL Identification no. : 1017	
<b>MANUFACTURER</b> (PRODUCENT) TECHPLAST Ltd. www.techplast.net VAT No. PL 6772147465	
<b>PRODUCTION PLANT</b> ZAKŁAD PRODUKCJI Krakowska 83p 34-120 Andrychów, Poland	
<b>RECEPTION REPORT</b> /RAPORT ODBIORU/ RA11C-2502003	
<b>DRAWING NUMBER</b> /NR RYSUNKU/ AS5-01-00	
<b>BODY CERT. MODULE B</b> SHWADECTWO MODUŁ B 38.324.016	
<b>SERIAL NO</b> /NUMER SERII/ A11C/25/00914	
<b>GAS</b> /GĄZ/ THREA /GWINT/ DIAMETER /ŚREDNICA/	<b>VOLUME</b> /POJEMNOŚĆ / 9.00 L <b>WEIGHT</b> /WAGA/ 3.90 kg <b>TEMP. OF WORK</b> /TEMP. PRACY/ -40°C / +60°C
<b>WORKING PRESSURE</b> /CIŚNIENIE PRACY/ 300 BAR	<b>MANUFACTURING DATE</b> /DATA PRODUKCJI/ 2025/02
<b>TEST PRESSURE</b> /CIŚNIENIE PRÓBNIE/ 450 BAR	<b>EXPIRATION DATE</b> /TERMIN WAŻNOŚCI/ NLL
<b>RECOMMENDED FILLING RATE</b> /BUTLE SPEŁNIAJĄ WYMAGANIA/ < 30 BAR/MIN	
<b>CYLINDERS MEET THE REQUIREMENTS OF</b> EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU	

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY **CE** 1017

THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER'S



Production Plant  
 Techplast Sp. z o.o.  
 34-120 Andrychów, Poland  
 www.techplast.net





# OPERATION AND MAINTENANCE MANUAL

OF FULLY TRANSPORTABLE GAS CYLINDER

## RECOMMENDATION

- Read the instruction carefully and keep to its conditions.
- Composite cylinders should be operated in accordance with their use.
- The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
- Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
- When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
- Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
- TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
- If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3. TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO11116-1 W19.2 wg DIN 477-1	75	95
23E wg EN 629-1 W26.8 wg DIN 477-1	95	110
		180

### A4. TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN144-1	85	100
5/8" BSUNF	85	100

## FILLING PROCESS

- Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
- Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

## USE

- The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by rail.
- For the transport of the cylinders, there should be used containers, lugs, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.
- The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
- It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
- During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
- During the process of filling, the temperature of the cylinder should not exceed 60 °C. Filling the cylinders should be carried out in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
- Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 15341.
- Sample mounting torque values to the cylinders according to the tables A3. and A4.
- To seal the connection between the valve and the cylinder there should be used materials in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. The producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
- Tanks with pressure valves should be transported/secured pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with O-rings.

## SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. The inspection should be carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labeled with the word NLL.

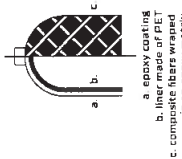
## REMARKS

- ONE CAN ONLY FILL THE CYLINDERS WHICH:
- Comply with the regulations of the country in which the cylinders are used,
  - were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.
- IT IS CATEGORICALLY FORBIDDEN TO:
- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
  - USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER VALVE, CONNECTIONS ETC.
  - USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER VALVE, CONNECTIONS ETC.
  - USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER VALVE, CONNECTIONS ETC.
  - LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
  - USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY (OSOBĘ BUTUJĄ PRZEPROWADZILI)		TUV SUD Czech s.r.o. Ostrava; Testova 2 Identification no.: 1017	
MANUFACTURER (PRODUCENT)			
TECHPLAST Ltd. www.techplast.net VAT No.: PL 677147485			
PRODUCTION PLANT (ZAKŁAD PRODUKCYJNY)			
Krakowska 83P 34-120 Andrychów, Poland			
RECEPTION REPORT (RAPORT ODBIORU)			
RA11C-2504005			
DRAWING NUMBER (NR RYSUNKU)			
AS6-01-00			
BODY CERT. MODULE B (SWIADCENIE MODUŁU B)			
08.324.016			
SERIAL NO (NUMER SERWISOWY)			
A11C1/2501170			
GAS (GAZ)	AIR COMPRESSED UN1002	VOLUME (POJEMNOŚĆ / WAGA)	9.00 L 3.90 kg
THREAD (GWINT)	M18x1.5	TEMP. OF WORK (TEMP. PRACY)	-40°C / +60°C
DIAMETER (ŚREDNICA)	174.00 mm	MANUFACTURING DATE (DATA PRODUKCJI)	2025/04
WORKING PRESSURE (CIŚNIENIE PRACY)	300 BAR	EXPIRATION DATE (TERMIN WAŻNOŚCI)	NLL
TEST PRESSURE (CIŚNIENIE PRÓBNIE)	450 BAR	RECOMMENDED FILLING RATE (ZALECANA PRĘDKOŚĆ NAPEŁNIANIA)	
< 30 BAR/MIN			
CYLINDERS MEET THE REQUIREMENTS OF (BUTLE SPEŁNIAJĄ WYMAGANIA)			
EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU			
THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY (ZBIORNIKI OZNAČONO ZNAKIEM ZGODNOŚCI)			
1017			
THE CERTIFICATE OF MODULE B IS AVAILABLE FOR INSPECTION AT THE MANUFACTURER (SWIADCENIE WERYFIKACJI WYROBU MODUŁU B DOSTĘPNE U PRODUCENTA)			



OPERATION  
AND MAINTENANCE  
MANUALOF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

## RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
06. Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

## A3. TABLE

Taper thread	Mounting torque [Nm]		
	Minimum	Maximum	
1/2" wg ISO11116-1 W19.2 wg DIN 477-1	75	95	140
2 5/8" wg EN 629-1 W28.8 wg DIN 477-1	95	110	180

## A4. TABLE

Straight thread	Mounting torque [Nm]		
	Minimum	Maximum	
M18 x1.5 EN146-1	85	100	
5/8" 18UNF	85	100	

## FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
02. Cylinders filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

## USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
02. For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.
03. The device used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
05. During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
06. During the process of filling, surface temperature of the cylinder should not exceed 60°C.
07. The cylinders should be filled only by qualified and competent staff with appropriate powers in accordance with the regulations, laws and norms applicable in their country.
07. The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
08. Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
09. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
10. Sample mounting torque values to the cylinders according to the tables A3 and A4.
11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11116-2. If the company, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
12. Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with o-rings.

## SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinders are used. The inspection should be carried out by individuals who central pressure maintains in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labelled with the word NLL.

## REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

Comply with the regulations of the country in which the cylinders are used.

were marked with the date of last inspection, they were given a sign of a certified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.

IT IS CATEGORICALLY FORBIDDEN TO:

- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WHICH ARE DAMAGED OR INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.
- USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC.).
- LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY  
/ODBOR BUTU PRZEPROWADZA/TUV SÜD Czech s.r.o. Ostrava, Teslova 2  
identification no.: 1017MANUFACTURER  
/PRODUCENT/

TECHPLAST Ltd. www.techplast.net VAI No. PL 6772147485

PRODUCTION PLANT  
/ZAKŁAD PRODUKCYJNY/

Krakowska 83p 34-120 Andrychów, Poland

RECEPTION REPORT  
/RAPORT ODBIORU/

RA11C-2504005

DRAWING NUMBER  
/NR RYSUNKU/

AS5-01-00

BODY CERT. MODULE B  
/SWIADCETWO MODUL B/

08.324.016

SERIAL NO  
/NUMER SER. JAWY/

A11C/2501167

GAS  
/GAZ/VOLUME  
/POJEMNOŚĆ/

9.00 L

THREAD  
/GWIĄT/

M18x1.5

WEIGHT  
/WAGA/

3.90 kg

DIAMETER  
/ŚREDNICA/

174.00 mm

TEMP. OF WORK  
/TEMP. PRACY/

-40°C / +60°C

WORKING PRESSURE  
/CIŚNIENIE PRACY/

300 BAR

MANUFACTURING DATE  
/DATA PRODUKCJI/

2025/04

TEST PRESSURE  
/CIŚNIENIE PROBY/

450 BAR

EXPIRATION DATE  
/TERMIN WAŻNOŚCI/

NLL

RECOMMENDED FILLING RATE  
/ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/

&lt; 30 BAR/MIN

CYLINDERS MEET THE REQUIREMENTS OF  
/BUTLE SPEŁNIAJĄ WYMAGANIA/EN 12245:2008+A1:2011  
DIRECTIVE 2014/68/EU

1017

THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/SWIADCETWO WERYFIKACJI WYROBU MODUL F DO WGLADU U PRODUCENTA/Production Plant  
Technoplast Sp. z o.o.  
ul. Krakowska 83P  
34-120 Andrychów, Poland  
E  
service@techplast.net  
safercylinders.com





## OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE TRANSPORTABLE GAS CYLINDER

### RECOMMENDATION

- Read the instruction carefully and keep to its conditions.
- Composite cylinders should be operated in accordance with their use.
- The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
- Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
- When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
- Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
- TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
- If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

A3. TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO11145-1 W19,2 wg DIN 477-1	75	95
25E wg EN 629-1 W26,8 wg DIN 477-1	95	110

A4. TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1,5 EN144-1	85	100
5/8" 18UNF	85	100

### FILLING PROCESS

- Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
- Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity

### USE

- The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
- For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and impurities.
- The device used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinder.
- It is acceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
- During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
- During the process of filling, surface temperature of the cylinder should not exceed 60°C.
- The cylinder must be filled with gas at a pressure not exceeding the pressure marked on the cylinder in accordance with the regulations, laws and norms applicable in their country.
- The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
- Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 15341.
- Sample mounting torque values to the cylinders according to the tables A3. and A4.
- To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
- Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with O-rings.

### SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder:

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. The user should put out by individuals who carried pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label

The cylinders with unlimited life-span are labelled with the word NLL.

### REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

Comply with the regulations of the country in which the cylinders are used,

were marked with the date of last inspection, they were given a sign of a modified body and the term of their re-inspection has not expired, have not visible damages of the cylinder valve, connections etc.

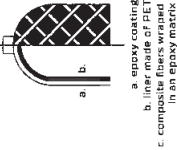
IT IS CATEGORICALLY FORBIDDEN TO

- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
- USE THE CYLINDERS WHOSE EXPIRATION DATE HAS EXPIRED.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER VALVE, CONNECTIONS, ETC.
- USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS, ETC).
- LUBRICATE DRILL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOSCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY /ODBIÓR BUTU PRZEPROWADZIŁ/		TUV SÜD Czech s.r.o. Ostrava, Teslova 2 Identification no.: 1017	
MANUFACTURER /PRODUCENT/		TECHPLAST Ltd. www.techplast.net VAT No.: PL 8772147185	
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/		Krakowska 83P 34-120 Andrychów, Poland	
RECEPTION REPORT /RAPORT ODBIORU/		RA11C-2504005	
DRAWING NUMBER /NR RYSUNKU/		AS5-01-00	
BODY CERT. MODULE B SYNADECTIVO MODUL B/		08.324.016	
SERIAL NO /NUMER SERWISU/		A11C/2501186	
GAS GAZ/	AIR, COMPRESSED UN/102	VOLUME /POJEMNOŚĆ /	9.00 L
THREAD /GWINT/	M18x1,5	WEIGHT /WAGA/	3.90 kg
DIAMETER /ŚREDNICA/	174.00 mm	TEMP. OF WORK /TEMP. PRACY/	-40°C / +60°C
WORKING PRESSURE /CIŚNIENIE PRACY/	300 BAR	MANUFACTURING DATE /DATA PRODUKCJI/	2025/04
TEST PRESSURE /CIŚNIENIE PROBNIE/	450 BAR	EXPIRATION DATE /TERMIN WYNGOSZI/	NLL
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/		< 30 BAR/MIN	
CYLINDERS MEET THE REQUIREMENTS OF /BUŁE SPEŁNIAJĄ WYMAGANIA/		EN 12245:2008+A1:2011 DIRECTIVE 2014/68/EU	
THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY /ZBIORNIKI OZNAKOWANO ZNAKIEM ZGODNOSCI/			
THE CERTIFICATE OF MODULE F IS AVAILABLE FOR INSPECTION AT THE MANUFACTURER /SWIADECTWO WERYFIKACJI WYROBU MODUL F DO WGLADU U PRODUCENTA/			





# SAFER<sup>®</sup> OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

## RECOMMENDATION

- D1. Read the instruction carefully and keep to its conditions.
- D2. Composite cylinders should be operated in accordance with their use.
- D3. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
- D4. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
- D5. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
- D6. Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
- D7. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
- D8. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

## A3. TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO11114-1 W19.2 wg DIN 477-1	75	95
25E wg EN 629-1 W26.8 wg DIN 477-1	95	110
		180

## A4. TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN144-1	85	100
5/8" 18UNF	85	100

## FILLING PROCESS

- O1. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
- O2. Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

## USE

- O1. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
- O2. For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.
- O3. The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
- O4. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
- O5. During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
- O6. During the process of filling, surface temperature of the cylinder should not exceed 60 °C. Filling the cylinders with gas can be performed only by individuals and powers with appropriate powers in accordance with the regulations, laws and norms applicable in the country.
- O7. The cylinder must be filled with clean, corrosion-free gas, connections with the recommended test pressure. Elements of the cylinder should be checked for leaks and repaired according to the regulations, norms and laws applicable in the country in which the cylinder is used.
- O8. Valves for the cylinder should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- O9. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 15341.
- O10. Sample mounting torque valves to the cylinders according to the tables A3 and A4.
- O11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
- O12. Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with o-rings.

## SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspection carried out by individuals who control pressure monitors is considered with the highest and highest priority of the control of the condition of the cylinders.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labeled with the word NULL.

## REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

Comply with the regulations of the country in which the cylinders are used,

were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.

IT IS CATEGORICALLY FORBIDDEN TO:

- USE THE CYLINDERS FOR ANY PURPOSE, OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
- USE THE CYLINDERS WHOSE LABELING IS ILLEGIBLE OR NEARLY LOST.
- USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE CONNECTIONS ETC).
- LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY /ODBIÓR BUTU/ PRZEPROWADZIŁ		TUV SÜD Czech s.r.o. Ostrava, Taislova 2 Identification no.: 1017	
MANUFACTURER /PRODUCENT/		TECHPLAST Ltd. www.techplast.net VAT No.: PL 677214765	
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/		Krakówśka 83P 34-120 Andrychów, Poland	
RECEPTION REPORT /RAPORT ODBIORU/		RA11C-2504005	
DRAWING NUMBER /NR RYSUNKU/		AS5-01-00	
BODY CERT. MODULE B /SWIADCETWO MODUŁ B/		08 324 016	
SERIAL NO. /NUMER SER. NO/		A11C/2501165	
GAS /GAZ/		VOLUME /POJEMNOŚĆ /	9.00 L
THREAD /GWINT/		WEIGHT /WAGA/	3.90 kg
DIAMETER /ŚREDNICA/		TEMP. OF WORK /TEMP. PRACY/	-40°C / +60°C
WORKING PRESSURE /CIŚNIENIE PRACY/		MANUFACTURING DATE /DATA PRODUKCJI/	2025104
TEST PRESSURE /CIŚNIENIE PRÓBNIE/		EXPIRATION DATE /TERMIN WAŻNOŚCI/	NULL
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/		< 30 BAR/MIN	
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/		EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU	
THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY /ZBIORNIKI OZNAČZONO ZNAKEM ZGODNOŚCI/		CE 1017	
THE CERTIFICATE OF MODULE F IS AVAILABLE FOR INSPECTION AT THE MANUFACTURER /SWIADCETWO WERYFIKACJI F JEST DOSTĘPNE DLA PRODUCENTA/			





a. epoxy coating  
b. liner made of PET  
c. composite material in an epoxy matrix

## OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

### RECOMMENDATION

- Read the instruction carefully and keep to its conditions.
- Composite cylinders should be operated in accordance with their use.
- The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
- Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
- When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
- Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
- TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
- If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

#### A3. TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO11116-1 W19.2 wg DIN 477-1	75	95
25E wg EN 629-1 W25.8 wg DIN 477-1	95	110
		180

#### A4. TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN 44-1	85	100
5/8" 18UNF	85	100

### FILLING PROCESS

- Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
- Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

### USE

- The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
- For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and impairities.
- The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
- It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
- During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impairities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
- The cylinders should be kept at a temperature of the cylinder should not exceed 60 °C.  
Filling the cylinders with gas can be performed only by individuals and people with appropriate powers in accordance with the regulations, laws and norms applicable in their country.
- The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
- Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
- Sample mounting torque values to the cylinders according to the tables A3 and A4.
- To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 13114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
- Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with O-ring.

### SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.  
In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.  
Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections are carried out by individuals who central pressure monitors in accordance with the rules and regulations of the country.  
For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.  
The cylinders with unlimited life-span are labelled with the word NLL.

### REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:  
Comply with the regulations of the country in which the cylinders are used,  
were marked with the date of last inspection, they were given a sign of a modified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.  
IT IS CATEGORICALLY FORBIDDEN TO:  

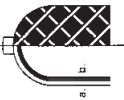
- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
- USE THE CYLINDERS WHOSE LABELLING IS ILLEGIBLE OR INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.
- USE THE CYLINDERS WHICH HAVE DAMAGES TO LEAKING EQUIPMENT (THE VALVE CONNECTIONS ETC.).
- LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

### DEKLARACJA ZGODNOSCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY /CZBIOŃ BUTLI PRZEPROWADZIŁ/	TUV SÜD Czech s.r.o. Ostrava, Teslova 2 Identification no.: 1017	
MANUFACTURER /PRODUCENT/	TECHPLAST Ltd. www.techplast.net VAT No.: PL 6772147485	
PRODUCTION PLANT ZAKŁAD PRODUKCJI	Krakowska 83P 34-120 Andrychów, Poland	
RECEPTION REPORT /RAPORT ODBIORU/	RA11C-2504005	
DRAWING NUMBER /NR DYSKUSJI/	AS5-01-00	
BODY CERT. MODULE B /SWIADCTWO MODUŁ B/	08.024.016	
SERIAL NO /NUMER SERII/	A11C25/01164	
GAS GAZ/	VOLUME POJEMNOŚĆ /	9.00 L
THREAD /GWINT/	WEIGHT WAGA/	3.90 kg
DIAMETER /ŚREDNICA/	TEMP. OF WORK TEMP. PRACY/	-40°C / +60°C
WORKING PRESSURE CIŚNIENIE PRACY/	MANUFACTURING DATE DATA PRODUKCJI/	2025/04
TEST PRESSURE CIŚNIENIE PROBNIE/	EXPIRATION DATE TERMIN WAŻNOŚCI/	NLL
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/		
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/		
THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY /ZEBIORNI OZNA CZONCZÓ ZNAKIEM ZGODNOSCI/		
THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER /SWIADCTWO WERYFIKACJI WYROBU MODUŁ F DO WGLĄDU U PRODUCENTA/		







# SAFER<sup>®</sup> OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

## RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
06. Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

## A3. TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO1114-1 W19,2 wg DIN 477-1	75	95
25E wg EN 629-1 W28,8 wg DIN 477-1	95	110
		180

## A4. TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1,5 EN144-1	85	100
5/8" 18UNF	85	100

## FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
02. Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

## USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
02. For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.
03. The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
05. During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influences of adverse weather conditions. The cylinders should be kept away from fire.
06. During the process of filling, surface temperature of the cylinder should not exceed 60 °C. During the cylinders with gas can be performed only by authorized service with appropriate powers in accordance with the regulations and laws applicable in their country.
07. The cylinder must be filled with valve connections with the recommended test pressure. Elements, components and their connections should be inspected and according to the regulations, norms and laws applicable in the country in which the cylinder is used.
08. Valves for the cylinder should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
09. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 15341.
10. Sample mounting torque valves to the cylinders according to the tables A3 and A4.
11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11134-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
12. Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with o-rings.

## SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. The inspection should be carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labelled with the word N.L.T.

## REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:-

- Comply with the regulations of the country in which the cylinders are used.
- were marked with the date of last inspection, they were given a sign of a modified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.

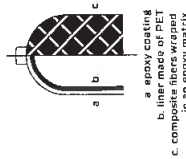
IT IS CATEGORICALLY FORBIDDEN TO:

- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
- USE THE CYLINDERS WHOSE LINER IS ILLEGIBLE OR INCOMPLETE.
- USE THE CYLINDERS WHOSE VALVE IS ILLEGIBLE OR INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC.).
- LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY /DOBÓR BUTU PRZEPRAWOZU/		TUV SÜD Czech s.r.o. Ostrava, Taslova 2 Identification no.:1017	
MANUFACTURER /PRODUCENT/		TECHPLAST Ltd. www.techplast.net VAT No.:PL 6772147485	
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/		Krakowska 83P 34-120 Andrychów, Poland	
RECEPTION REPORT /RAPORT DOBÓRU/		RA11C-2504005	
DRAWING NUMBER /NR RYSUNKU/		AS5-01-00	
BODY CERT. MODULE 9 /SWIADCETWO MODUŁ 9/		08.324.016	
SERIAL NO. /NUMER SERWISU/		A11C/2501163	
GAS /GAZ/		VOLUME /POJEMNOŚĆ /	9.00 L
THREAD /GWINT/		WEIGHT /WAGA/	3.90 kg
DIAMETER /ŚREDNICA/		TEMP. OF WORK /TEMP. PRACY/	-40°C / +60°C
WORKING PRESSURE /CIŚNIENIE PRACY/		MANUFACTURING DATE /DATA PRODUKCJI/	2025/04
TEST PRESSURE /CIŚNIENIE PRÓBNIE/		EXPIRATION DATE /TERMIN WAŻNOŚCI/	NLL
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/		* 30 BAR/MIN	
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/		EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU	
THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY /ZŁOŻONYCH OZNAKOWANO ZNAKIEM ZGODNOŚCI/		CE 1017	
THE CERTIFICATE OF MODULE 9 IS AVAILABLE FOR INSPECTION AT THE MANUFACTURER /SWIADCETWO WERYFIKACJI WYROBU MODUŁ 9 DO WGLĄDU U PRODUCENTA/			



OPERATION  
AND MAINTENANCE  
MANUALOF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

## RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
06. Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

## A3. TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO11116-1 W19,2 wg DIN 477-1	75	95
25E wg EN 629-1 W28,8 wg DIN 477-1	95	110
		180

## A4. TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1,5 EN144-1	85	100
5/8" 18UNF	85	100

## FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
02. Cylinder filling temperature shall not exceed 40°C. Recommended filling rate is in Declaration of Conformity.

## USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
02. For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and impurities.
03. The device used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
05. During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
06. During the process of filling, the filling temperature of the cylinder should not exceed 40 °C. Pressures in the cylinders can be performed only by individuals and people with appropriate powers in accordance with the regulations, laws and norms applicable in their country.
07. The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
08. Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
09. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 1534-1.
10. Sample mounting torque values to the cylinders according to the tables A3 and A4.
11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm EN 15753-1. The producer recommends the use of Teflon tape, type PTFE which is at least 0,1 millimeters thick.
12. Tanks with pressure valves should be transported/secured pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with O-rings.

## SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders which have not been regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used, inspections are carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labeled with the word NLL.

## REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

Comply with the regulations of the country in which the cylinders are used,

were marked with the date of last inspection, they were given a sign of a notified body and the term of their inspection has not expired, have not visible damages of the cylinder, valve, connections etc.

IT IS CATEGORICALLY FORBIDDEN TO:

- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WHOSE LABELING IS EXPIRED.
- USE THE CYLINDERS WHOSE LABELING IS ILLEGIBLE OR INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.
- USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC.).
- LUBRICATE DR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY  
/ODBIÓR BUTU PRZEPROWADZIŁ/TUV SUD Czech s.r.o. Ostrava, Teslova 2  
Identification no.: 1017MANUFACTURER  
/PRODUCENT/

TECHPLAST Ltd. www.techplast.net VAT No.: PL 6772147485

PRODUCTION PLANT  
/ZAKŁAD PRODUKCJI/

Krakowska 83P 34-120 Andrychów, Poland

RECEPTION REPORT  
/RAPORT ODBIORU/

RA11C-2504005

DRAWING NUMBER  
/NR RYSUNKU/

ASS-01-00

BODY CERT. MODULE B  
/SWIADCENIE MODUŁU B/

08 324 016

SERIAL NO  
/NUMER SERII/

A11C/2501162

GAS  
/GAZ/AIR, COMPRESSED  
UN1002VOLUME  
/POJEMNOŚĆ /

9.00 L

THREAD  
/GWINT/

M18x1,5

WEIGHT  
/WAGA/

3.90 kg

DIAMETER  
/ŚREDNICA/

174.00 mm

TEMP. OF WORK  
/TEMP. PRACY/

-40°C / +60°C

WORKING PRESSURE  
/CIŚNIENIE PRACY/

300 BAR

MANUFACTURING DATE  
/DATA PRODUKCJI/

2023/04

TEST PRESSURE  
/CIŚNIENIE PROBNIE/

450 BAR

EXPIRATION DATE  
/TERMIN WAŻNOŚCI/

NLL

RECOMMENDED FILLING RATE  
/ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/

&lt; 30 BAR/MIN

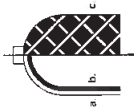
CYLINDERS MEET THE REQUIREMENTS OF  
/BUTLE SPEŁNIAJĄ WYMAGANIA/EN 12245:2009+A1:2011  
DIRECTIVE 2014/85/EUTHE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
/CYLINDRY OZNAKOWANO ZNAKIEM ZGODNOŚCI/

CE 1017

THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/SWIADCENIE MODUŁU F DOSTĘPNE DO WGLĄDU U PRODUCENTA/SAFAR  
ULTRA LIGHT  
COMPOSITE  
CYLINDERSPRODUCENT  
/Producent/  
Techplast Sp. z o.o.  
34-120 Andrychów, Poland  
E: info@techplast.net  
W: safar-cylinders.com

## OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER



- a. epoxy coating
- b. liner made of PET  
composite fibers wrapped  
in an epoxy matrix
- c. composite fibers wrapped  
in an epoxy matrix

### RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
06. Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3. TABLE

Taper thread	Mounting torque [N·m]		
	Minimum	95	Maximum
1/2" wg ISO11116-1 W19,2 wg DIN 477-1	75	95	140
25E wg EN 629-1 W28,6 wg DIN 477-1	95	110	180

### A4. TABLE

Straight thread	Mounting torque [N·m]		
	Minimum	85	Maximum
M18 x1,5 EN644-1	85		100
5/8" 18UNF	85		100

### FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
02. Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

### USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
02. For the transport of the cylinders, there should be used containers, bins, pallets, etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.
03. The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
05. During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
06. During the process of filling, surface temperature of the cylinder should not exceed 60°C.
07. The cylinder should be filled with gas in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
08. The cylinder must be fitted with a valve, conforming with the recommended test pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
09. Values for the cylinder should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
10. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 15341.
11. Sample mounting torque values to the cylinders according to the tables A3. and A4.
12. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11134-2. If necessary, the producer recommends the use of Teflon tape, type PTFE, which is at least 0.1 millimeters thick.
13. Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with O-rings.

### SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. The inspection should be carried out by individuals who control pressure maintainers in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labeled with the word NLL.

### REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

Comply with the regulations of the country in which the cylinders are used.

were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.

IT IS CATEGORICALLY FORBIDDEN TO

- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
- USE THE CYLINDERS WHOSE VALVE IS NOT COMPLETE.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.
- USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC).
- LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY /ODBIÓR BUTU PRZEPROWADZIŁ/		TUV SUD Czech s.r.o. Ostrava, Teslova 2 Identification no.: 1017	
MANUFACTURER /PRODUCENT/		TECHPLAST Ltd. www.techplast.net VAT No. PL 6772147485	
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/		Kakowska 83P 34-120 Andrychów, Poland	
RECEPTION REPORT /RAPORT ODBIORU/		RA11C-2504005	
DRAWING NUMBER /NR RYSUNKU/		AS5-01-00	
BODY CERT. MODULE B /SMIAŁCZYWO MODULE B/		08.324.016	
SERIAL NO /NUMER SERWANT/		A11C/250/1161	
GAS /GAZ/		VOLUME /POJEMNOŚĆ /	
THREAD /GHINT/		WEIGHT /WAGA/	
DIAMETER /ŚREDNICA/		TEMP. OF WORK /TEMP. PRACY/	
WORKING PRESSURE /CIŚNIENIE PRACY/		MANUFACTURING DATE /DATA PRODUKCJI/	
TEST PRESSURE /CIŚNIENIE PRÓBNIE/		EXPIRATION DATE /TERMIN WAZNOŚCI/	
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/		CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/	
EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU		CE 1017	
THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY /ZBIORNIK OZNACZONO ZNAKIEM ZGODNOŚCI/		THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER /ŚWIADECTWO WERYFIKACJI WYROBU DOSTĘPNE DO WGLĄDU U PRODUCENTA/	





# OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE TRANSPORTABLE GAS CYLINDER

## RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
06. Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

## A3. TABLE

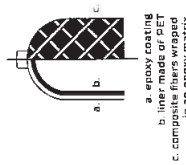
Taper threaded	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO11116-1 W19,2 wg DIN 477-1	75	95
25E wg EN 429-1 W28,6 wg DIN 477-1	95	110
		180

## A4. TABLE

Straight threaded	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1,5 EN1464-1	85	100
5/8" 18UNF	85	100

## FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
02. Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.



- a. epoxy coating
- b. liner made of PET
- c. composite fibers wrapped in an epoxy matrix

## USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
02. For the transport of the cylinders, these should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.
03. The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
05. During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
06. During the process of filling, surface temperature of the cylinder should not exceed 60 °C.
07. The cylinders should be filled only by authorized staff, in accordance with the regulations, norms and laws applicable in their country.
08. The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
09. Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
10. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 1534-1.
11. Sample mounting torque values to the cylinders according to the tables A3 and A4.
12. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11116-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0,1 millimeters thick.
13. Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with O-rings.

## SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. The inspection should be carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labeled with the word NLL.

## REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

- Comply with the regulations of the country in which the cylinders are used.
- were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.

IT IS CATEGORICALLY FORBIDDEN TO:

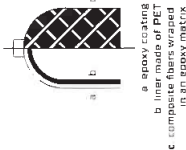
- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WHEN LIFE-SPAN IS EXHAUSTED.
- USE THE CYLINDERS WHICH ARE BEING ILLEGALLY REPAIRED OR INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER VALVE, CONNECTIONS ETC.
- USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC.).
- LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOSCI / DECLARATION OF CONFORMITY

<b>PRODUCT VERIFICATION WAS PERFORMED BY</b> /ODBIOR BUTU PRZEPROWADZU/		<b>TUV SUD Czech s.r.o. Ostrava, Teslova 2</b> Identification no.: 1017	
<b>MANUFACTURER</b> /PRODUCENT/		<b>TECHPLAST Ltd. www.techplast.net VAT No.: PL 8772147485</b>	
<b>PRODUCTION PLANT</b> /ZAKŁAD PRODUKCJI/		Katowicka 83P 34-120 Andrychów, Poland	
<b>RECEPTION REPORT</b> /RAPORT ODBIORU/		<b>RA11C-2504005</b>	
<b>DRAWING NUMBER</b> /NR RYSUNKU/		<b>AS5-01-00</b>	
<b>BODY CERT. MODULE B</b> /SWADECTWO MODUŁ B/		<b>08.324.016</b>	
<b>SERIAL NO</b> /NUMER SERWISU/		<b>A11C/2501160</b>	
<b>GAS</b> /GAZ/	<b>AIR, COMPRESSED</b> UN1002	<b>VOLUME</b> /POJEMNOŚĆ / /WAGA/	<b>9.00 L</b> <b>3.90 kg</b>
<b>THREAD</b> /GWINT/	<b>M18x1.5</b>	<b>TEMP. OF WORK</b> /TEMP. PRACY/	<b>-40°C / +60°C</b>
<b>DIAMETER</b> /ŚREDNICA/	<b>174.00 mm</b>	<b>MANUFACTURING DATE</b> /DATA PRODUKCJI/	<b>2025/04</b>
<b>WORKING PRESSURE</b> /CIŚNIENIE PRACY/	<b>300 BAR</b>	<b>EXPIRATION DATE</b> /TERMIN WAŻNOŚCI/	<b>NLL</b>
<b>TEST PRESSURE</b> /CIŚNIENIE PROBNIE/	<b>450 BAR</b>	<b>&lt; 30 BAR/MIN</b>	
<b>RECOMMENDED FILLING RATE</b> /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/			
<b>CYLINDERS MEET THE REQUIREMENTS OF</b> /BUTLE SPŁENIAJĄ WYNIAGANIA/			
<b>THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY</b> /ZBORNKI OZNAČZONO ZNAKEM ZGODNOSCI/			
<b>THE CERTIFICATE OF MODULE F IS AVAILABLE AT THE MANUFACTURER</b> /SWADECTWO WERYFIKACJI WYROBU MODUŁ F DO WGLĄDU U PRODUCENTA/			

PRZEDSIĘBIEMSTWO  
 Techplast Sp. z o.o.  
 ul. Katowicka 83 P  
 34-120 Andrychów, Poland  
 E: service@techplast.net  
 W: safercylinders.com



OPERATION  
AND MAINTENANCE  
MANUALDE FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

## RECOMMENDATION

- 01 Read the instruction carefully and keep to its conditions.
- 02 Composite cylinders should be operated in accordance with their use.
- 03 The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
- 04 Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
- 05 When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECH-PLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
- 06 Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
- 07 TECH-PLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECH-PLAST company.
- 08 If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

## A3 TABLE

Taper thread	Mounting torque [Nm]		
	Minimum	95	Maximum
17E wg ISO11145-1 W19.2 wg DIN 477-1	75	95	140
25E wg EN 629-1 W26.8 wg DIN 477-1	95	110	180

## A4 TABLE

Straight thread	Mounting torque [Nm]		
	Minimum	Maximum	
M18 x1.5 EN144-1	85	100	
5/8" 18UNF	85	100	

## FILLING PROCESS

- 01 Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
- 02 Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

## USE

- 01 The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
- 02 For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and impairments.
- 03 The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport in the cylinders.
- 04 It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
- 05 During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impairments and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
- 06 During the process of filling, surface temperature of the cylinder should not exceed 60 °C.
- 07 The cylinders should be filled with appropriate powers in accordance with the regulations, laws and norms applicable in their country.
- 07 The cylinder must be filled with a valve connected with the recommended test pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
- 08 Valves for the cylinder should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- 09 The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 1534-1.
- 10 Sample mounting torque values to the cylinders according to the tables A3 and A4.
- 11 To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11134-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 mm thick.
- 12 Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with O-rings.

## SERVICE

TECH-PLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECH-PLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used, and carried out by individuals who control pressure maintainers in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labelled with the word NLL.

## REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

Comply with the regulations of the country in which the cylinders are used,

were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder valve, connections etc.

IT IS CATEGORICALLY FORBIDDEN TO

- USE THE CYLINDERS FOR ANY PURPOSE, OTHER THAN MENTIONED IN THE AUTHORIZATION,
- USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED,
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER VALVE, CONNECTIONS ETC.,
- USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC.),
- LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS,
- USE A VACUUM (DO NOT USE A VACUUM).

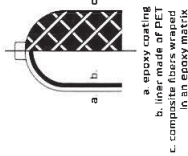
## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY /ODBIOR BUTLI PRZEFEROWAŁA/		TUV SÜD Czech s.r.o. Ostrava, Teslova 2 Identification no.: 1017	
MANUFACTURER /PRODUCENT/		TECHPLAST Ltd. www.techplast.net VAT No.: PL 677214785	
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/		Kraków 83P 34-120 Andrychów, Poland	
RECEPTION REPORT /RAPORT ODBIORU/		RA11C-2504005	
DRAWING NUMBER /NR RYSUNKU/		AS5-01-00	
BODY CERT. MODULE B /SMADEKTWO MODUŁ B/		08.324.018	
SERIAL NO /NUMER SERWISU/		A11C/2501158	
GAS GAZ/		VOLUME POJEMNOŚĆ /	9.00 L
THREAD GWINT/		WEIGHT WAGA/	3.90 kg
DIAMETER ŚREDNICA/		TEMP. OF WORK TEMP. PRACY/	-40°C / +60°C
WORKING PRESSURE CIŚNIENIE PRACY/		MANUFACTURING DATE DATA PRODUKCJI/	2023/04
TEST PRESSURE CIŚNIENIE PROBNIE/		EXPIRATION DATE TERMIN WAŻNOŚCI/	NLL
RECOMMENDED FILLING RATE ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/		< 30 BAR/MIN	
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/		EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU	
THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY /ZBIORNIKI OZNAČONO ZNAKIEM ZGODNOŚCI/		1017	
THE CERTIFICATE OF MODULE E IS AVAILABLE FOR INSPECTION AT THE MANUFACTURER SWIADECTWO WERYFIKACJI WYROBU MODUŁ E DO WGLĄDU U PRODUCENTA/			

**SAFEPER®**  
ULTRA LIGHT  
COMPOSITE  
CYLINDERS

Producing plant  
Techplast Sp. z o.o.  
ul. Krakowska 83 P  
34-120 Andrychów, Poland  
E: service@techplast.net  
W: www.techplasters.com



OPERATION  
AND MAINTENANCE  
MANUALOF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

## RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
06. Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

## A3. TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO1114-1 W19.2 wg DIN 477-1	75	95
25E wg EN 629-1 W28.8 wg DIN 477-1	95	110

## A4. TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN144-1	85	100
5/8" 18UNF	85	100

## FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
02. Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

## USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
02. For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.
03. The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
05. During the storage of the cylinders, they should be protected against mechanical damage, overheating, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
06. During the process of filling, surface temperature of the cylinder should not exceed 60 °C.
07. Filling the cylinders with gas can be performed only by individuals and people with appropriate powers in accordance with the regulations, laws and norms applicable in their country.
08. The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, in the country in which the cylinder is used.
09. Valves for the cylinder should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
10. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11134-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
12. Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with o-rings.

## SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections are carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labelled with the word NLL.

## REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

Comply with the regulations of the country in which the cylinders are used.

were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.

IT IS CATEGORICALLY FORBIDDEN TO:

- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
- USE THE CYLINDERS WHOSE LABELING IS ILLEGIBLE OR INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING FITTINGS (THE VALVE, CONNECTIONS ETC.).
- LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY /ODBIÓR BUTU PRZEPROMIENIA/	TUV SUD Czech s.r.o. Ostrava, Teslova 2 Identification no.: 1017
MANUFACTURER /PRODUCENT/	TECHPLAST Ltd. www.techplast.net VAT No: PL 8772147485
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/	Krakowska 83P 34-120 Andrychów, Poland
RECEPTION REPORT /RAPORT ODBIORU/	RA11C-2504005
DRAWING NUMBER /NR RYSUNKU/	AS5-01-00
BODY CERT. MODULE B /SMIATECZKO MODUŁ B/	08.324.016
SERIAL NO /NUMER SERII/	A11C25/01157
GAS GAZ/	AIR, COMPRESSED UN1002
VOLUME POJEMNOŚĆ /	9.00 L
WEIGHT WAGA/	3.90 kg
TEMP. OF WORK TEMP. PRACY/	-40°C / +60°C
WORKING PRESSURE CIŚNIENIE PRACY/	300 BAR
TEST PRESSURE CIŚNIENIE PROBY/	450 BAR
MANUFACTURING DATE DATA PRODUKCJI/	2025/04
EXPIRATION DATE TERMIN WAŻNOŚCI/	NLL
RECOMMENDED FILLING RATE ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/	≤ 30 BAR/MIN
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/	EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
ZBIORNIKI OZNACZONO ZNAKIEM ZGODNOŚCI/

THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
SMIATECZKO WERYFIKACJI WYROBU MODUŁ F DO WGLĄDU U PRODUCENTA/

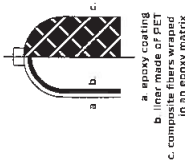
CE 1017

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OPERATION  
AND MAINTENANCE  
MANUALOF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

## RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
06. Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

## A3. TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO11114-1 W19.2 wg DIN 477-1	75	95
25E wg EN 629-1 W26.8 wg DIN 477-1	95	110
		180

## A4. TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN1/4-1	85	100
5/8" 18UNF	85	100

## FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
02. Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

## USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
02. For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.
03. The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
05. During usage of the cylinders, they should be protected against mechanical damage, overtuning, mechanical shock and impacts and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
06. During the process of filling, surface temperature of the cylinder should not exceed 60 °C. Filling the cylinders with gas can be performed only by individuals and people with appropriate powers in accordance with the regulations, laws and norms applicable in their country.
07. The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, which are used on the cylinder should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
08. Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
09. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
10. Sample mounting torque values to the cylinders according to the tables A3. and A4.
11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
12. Tanks with pressure valves should be transported/loaded pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with O-rings.

## SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections are carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labeled with the word NULL.

## REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

- COMPLY WITH THE REGULATIONS OF THE COUNTRY IN WHICH THE CYLINDERS ARE USED.
- WERE MARKED WITH THE DATE OF LAST INSPECTION, THEY WERE GIVEN A SIGN OF A QUALIFIED BODY AND THE TERM OF THEIR RE-INSPECTION HAS NOT EXPIRED, HAVE NOT VISIBLE DAMAGES OF THE CYLINDER VALVE, CONNECTIONS ETC.

IT IS CATEGORICALLY FORBIDDEN TO:

- USE THE CYLINDERS FOR ANY PURPOSE, OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
- USE THE CYLINDERS WHOSE LABELLING IS ILLEGIBLE OR INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER VALVE, CONNECTIONS ETC.
- USE THE CYLINDERS WHICH ARE DAMAGED OR LEAKING TO REPORT (THE VALVE, CONNECTIONS ETC.).
- LUBRICATE DRILL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

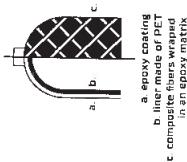
## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY ODBOR BOUTU PRZEPRAWOZU/ TUV SÜD Czech s.r.o. Ostrava; Testlova 2 Identification no.: 1017	
MANUFACTURER /PRODUCENT/ TECHPLAST Ltd. www.techplast.net VAT No. PL 6772147485	
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/ Krakowska 83P 34-120 Andrychów, Poland	
RECEPTION REPORT /RAPORT ODBIORU/ RA11C-2504005	
DRAWING NUMBER /NR RYSUNKU/ AS5-01-00	
BODY CERT. MODULE B /SWIADCENIE MODUŁU B/ 08.324.016	
SERIAL NO. /NUMER SERYJNY/ A11C2501156	
GAS /GĄZ/ AIR, COMPRESSED /POJEMNOŚĆ / UN1002	VOLUME /POJEMNOŚĆ / 9.00 L
THREAD /GWINT/ M18x1.5	HEIGHT /WAGA/ 3.90 kg
DIAMETER /ŚREDNICA/ 174.00 mm	TEMP. OF WORK /TEMP. PRACY/ -40°C / +60°C
WORKING PRESSURE /CIŚNIENIE PRACY/ 300 BAR	MANUFACTURING DATE /DATA PRODUKCJI/ 2025/04
TEST PRESSURE /CIŚNIENIE PRÓBNICZE/ 450 BAR	EXPIRATION DATE /TERMIN WAŻNOŚCI/ NULL
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/ < 30 BAR/MIN	
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/ EN 12245-2009+A1:2011 DIRECTIVE 2014/68/EU	
THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY /ZBIORNIKI OZNAČZONO ZNAKIEM ZGODNOŚCI/ CE 1017	
THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER /SWIADCENIE WERYFIKACJI WYROBU MODUŁ F DOSTĘPNE U PRODUCENTA/	

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OPERATION  
AND MAINTENANCE  
MANUALOF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

## RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
06. Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

## A3. TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO1116-1 W19.2 wg DIN 477-1	75	95
25E wg EN 629-1 W26.8 wg DIN 477-1	95	110
		180

## A4. TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN164-1	85	100
5/8" UNF	85	100

## FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
02. Cylinder filling temperature shall not exceed 40°C. Recommended filling rate is in Declaration of Conformity.

## USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
02. For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and impurities.
03. The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinder.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position during the transport.
05. During storage of the cylinders, they should be protected against mechanical damage, overturning, should be kept away from heat sources and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
06. During the process of filling, surface temperature of the cylinder should not exceed 40 °C.
07. Filling the cylinders with gas can be performed only by individuals and people with appropriate powers in accordance with the regulations, laws and norms applicable in their country.
08. The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
09. Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
10. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 15341.
11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 1114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
12. Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with O-rings.

## SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections are carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labelled with the word NLL.

## REMARKS

- ONE CAN ONLY FILL THE CYLINDERS WHICH:
- Comply with the regulations of the country in which the cylinders are used.
- Are not damaged or deformed, they were given a sign of a notified body and the term of their re-inspection has not expired, there are no visible damages of the cylinder, valve, connections etc.
- IT IS CATEGORICALLY FORBIDDEN TO
- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
  - USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
  - USE THE CYLINDERS WHOSE LABELING IS ILLEGIBLE OR INCOMPLETE.
  - USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.
  - USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC).
  - USE THE CYLINDERS WITH CRACKS OR OTHER PARTS OF THE CYLINDERS.
  - USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY /ODBIOR BUTLI PRZEPROWADZU/ TUV SUD Czech s.r.o. Ostrava, Teslova 2 Identification no.: 1017		
MANUFACTURER /PRODUCENT/ TECHPLAST Ltd., www.techplast.net VAT No.: PL 6772147485		
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/ Krakowska 83P 34-120 Andrychów, Poland		
RECEPTION REPORT /RAPORT ODBIORU/ RA11C-2504005		
DRAWING NUMBER /NR RYSUNKU/ AS5-01-00		
BODY CERT. MODULE B /SWIADECTWO MODUŁ B/ 08.324.016		
SERIAL NO. /NUMER SERII/ A11C/25/01/155		
GAS GAZ	AIR, COMPRESSED UN1002	VOLUME /POJEMNOŚĆ/ 9.00 L
THREAD /GWINT/ M18x1.5		WEIGHT /WAGA/ 3.90 kg
DIAMETER /ŚREDNICA/ 174.00 mm		TEMP. OF WORK /TEMP. PRACY/ -40°C / +60°C
WORKING PRESSURE /CIŚNIENIE PRACY/ 300 BAR		MANUFACTURING DATE /DATA PRODUKCJI/ 2025/04
TEST PRESSURE /CIŚNIENIE PRÓBNIE/ 450 BAR		EXPIRATION DATE /TERMIN WAŻNOŚCI/ NLL
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/ CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/ EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU		
THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER /SWIADECTWO WERYFIKACJI WYROBU MODUŁ F DO WGLĄDU U PRODUCENTA/ ZBIORNIKI OZNA CZONO ZAKŁEM ZGODNOŚCI		1017

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OPERATION  
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MANUALOF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

## RECOMMENDATION

- D1. Read the instruction carefully and keep to its conditions.
- D2. Composite cylinders should be operated in accordance with their use.
- D3. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
- D4. Maintenance service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
- D5. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
- D6. Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
- D7. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
- D8. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

## A3. TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO1114-1 W19,2 wg DIN 477-1	75	140
25E wg EN 629-1 W28,8 wg DIN 477-1	95	180

## A4. TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1,5 EN364-1	85	100
5/8" 18UNF	85	100

## FILLING PROCESS

- D1. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
- D2. Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

## USE

- D1. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
- D2. For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.
- D3. The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
- D4. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
- D5. During the use of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
- D6. During the process of filling, surface temperature of the cylinder should not exceed 60 °C.
- D7. Filling the cylinders with gas can be performed only by individuals and people with appropriate powers in accordance with the regulations, laws and norms applicable in their country.
- D8. The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, which are used according to the regulations, norms and laws applicable in the country in which the cylinder is used.
- D9. Values for the cylinder should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- D10. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 1534-1.
- D11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11134-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0,1 millimeters thick.
- D12. Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with o-rings.

## SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections are carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labeled with the word NLL.

## REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

Comply with the regulations of the country in which the cylinders are used,  
were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.

IT IS CATEGORICALLY FORBIDDEN TO:

- USE THE CYLINDERS FOR ANY PURPOSE, OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
- USE THE CYLINDERS WHOSE LABELING IS ILLIGIBLE OR INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC.).
- LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY ODBIOR BUTLI PRZEPRAWIAJĄCY		TÜV SÜD Czech s.r.o. Ostrava; Těšedova 2 Identification no.: 1017	
MANUFACTURER /PRODUCENT/		TECHPLAST Ltd. www.techplast.net VAT No.: PL 6772147485	
PRODUCTION PLANT ZAKŁAD PRODUKCYJNY		Krakowska 89P 34-120 Andrychów, Poland	
RECEPTION REPORT RAPORT ODBIORU		RA11C-2504005	
DRAWING NUMBER /NR RYSUNKU/		AS5-01-00	
BODY CERT. MODULE B SWIADCETWO MODUŁ B		08.324.016	
SERIAL NO /NUMER SERWISNY/		A11C/25/01154	
GAS /GAZ/	AIR, COMPRESSED UN1002	VOLUME /POJEMNOŚĆ /	9.00 L
THREAD /GWINT/	M18x1.5	WEIGHT /WAGA/	3.80 kg
DIAMETER /ŚREDNICA/	174.00 mm	TEMP. OF WORK /TEMP. PRACY/	-40°C / +60°C
WORKING PRESSURE /CIŚNIENIE PRACY/	300 BAR	MANUFACTURING DATE /DATA PRODUKCJI/	2025/04
TEST PRESSURE /CIŚNIENIE PRÓBNICZE/	450 BAR	EXPIRATION DATE /TERMIN WAŻNOŚCI/	NLL
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ WYPEŁNIANIA/		< 30 BAR/MIN	
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/		EN 12245 2009+A1:2011 DIRECTIVE 2014/68/EU	

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
ZBIORNIKI OZNAKOWANO ZNAKEM ZGODNOŚCI

THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
SWIADCETWO WERYFIKACJI WYROBU MODUŁ F DO WGLADU U PRODUCENTA



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OPERATION  
AND MAINTENANCE  
MANUALOF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

## RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
06. Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

## A3. TABLE

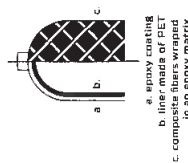
Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO11114-1 W19.2 wg DIN 477-1	75	95
25E wg EN 629-1 W26.8 wg DIN 477-1	95	110

## A4. TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN144-1	85	100
5/8" 18UNF	85	100

## FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
02. Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.



## USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
02. For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.
03. The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
05. On the range of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influences of adverse weather conditions. The cylinders should be kept away from fire.
06. During the process of filling, surface temperature of the cylinder should not exceed 60 °C.
07. Filling the cylinders with gas can be performed only by individuals and people with appropriate powers in accordance with the regulations, laws and norms applicable in their country.
08. The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, installed and according to the regulations, norms and laws applicable in the country in which the cylinder is used.
09. Values for the cylinder should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
10. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 15341.
11. Sample mounting torque valves to the cylinders according to the tables A3 and A4.
12. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11134-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeter thick.
13. Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with o-rings.

## SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections are carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labeled with the word NLL.

## REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:


Comply with the regulations of the country in which the cylinders are used.

were marked with the date of last inspection, they were given a sign of a modified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.

IT IS CATEGORICALLY FORBIDDEN TO:

- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
- USE THE CYLINDERS WHOSE LABELING IS ILLEGIBLE OR INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC).
- LUBRICATE OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY /OBJĘCI BUTLI PRZEPROWADZILI/		TUV SUD Czech s.r.o. Ostrava, Testova 2 Identification no.: 1017	
MANUFACTURER /PRODUCENT/		TECHPLAST Ltd. www.techplast.net VAT No.: PL 6772147485	
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/		Krakowska 83P 34-120 Andrychów, Poland	
RECEPTION REPORT /RAPORT OBJĘCIA/		RA11C-2504005	
DRAWING NUMBER /NR RYSUNKU/		AS5-01-00	
BODY CERT. MODULE B /SWIADCETWO MODUL B/		08 324.016	
SERIAL NO /NUMER SERIANY/		A11C/2501153	
GAS /GAZ/	AIR, COMPRESSED UN1002	VOLUME /POJEMNOŚĆ /	9.00 L
THREAD /WNIȚY/	M18x1.5	WEIGHT /WAGA/	3.90 kg
DIAMETER /ŚREDNICA/	174.00 mm	TEMP. OF WORK /TEMP. PRACY/	-40°C / +60°C
WORKING PRESSURE /CIŚNIENIE PRACY/	300 BAR	MANUFACTURING DATE /DATA PRODUKCJI/	2023/04
TEST PRESSURE /CIŚNIENIE PRÓBNIE/	450 BAR	EXPIRATION DATE /TERMIN WAŻNOŚCI/	NLL
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/		< 30 BAR/MIN	
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/		EN 12245: 2009+A1: 2011 DIRECTIVE 2014/68/EU	
THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY /IZBORNIKI OZNAČENO ZNAKEM ZGODNOŚCI/		 1017	
THE CERTIFICATE OF MODULE B AVAILABLE FOR INSPECTION AT THE MANUFACTURER /SWIADCETWO WERYFIKACJI WYROBU MODUL B DOSTĘPNE JEST U PRODUCENTA/			

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Production Plant  
Techplast Sp. z o.o.  
ul. Krakowska 83 P  
34-120 Andrychów, Poland  
E: service@techplast.net  
W: safercylinders.com





OPERATION  
AND MAINTENANCE  
MANUALOF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

## RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff, rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
06. Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

## A3. TABLE

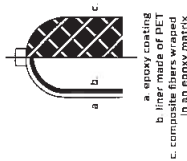
Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO1114-1 W19.2 wg DIN 477-1	75	95
25E wg EN 629-1 W26.8 wg DIN 477-1	95	110

## A4. TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN144-1	85	100
5/8" 18UNF	85	100

## FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
02. Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.



## USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
02. For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.
03. The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
05. During usage of the cylinders, they should be protected against mechanical damage, overturning, should be kept away from fire, should be kept away from fire.
06. During the process of filling, surface temperature of the cylinder should not exceed 60 °C.
07. Filling the cylinders with gas can be performed only by individuals and people with appropriate powers in accordance with the regulations, laws and norms applicable in their country.
08. The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, which are not approved by the producer, shall not be used.
09. Valves for the cylinder should be approved in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
10. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 13114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
12. Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with o-rings.

## SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections are carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labeled with the word NULL.

## REMARKS

- ONE CAN ONLY FILL THE CYLINDERS WHICH:
- COMPLY WITH THE REGULATIONS OF THE COUNTRY IN WHICH THE CYLINDERS ARE USED,
  - WERE MARKED WITH THE DATE OF LAST INSPECTION, THEY WERE GIVEN A SIGN OF A NOTIFIED BODY AND THE TERM OF THEIR RE-INSPECTION HAS NOT EXPIRED, HAVE NOT VISIBLE DAMAGES OF THE CYLINDER VALVE, CONNECTIONS ETC.
- IT IS CATEGORICALLY FORBIDDEN TO:
- USE THE CYLINDERS FOR ANY PURPOSE, OTHER THAN MENTIONED IN THE AUTHORIZATION,
  - USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED,
  - USE THE CYLINDERS WHOSE LABELING IS ILLEGIBLE OR INCOMPLETE,
  - USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER VALVE, CONNECTIONS ETC.,
  - USE THE CYLINDERS WHICH ARE NOT APPROVED BY THE PRODUCER (THE VALVE, CONNECTIONS ETC.),
  - LUBRICATE DRILL VALVES OR OTHER PARTS OF THE CYLINDERS,
  - USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY /ODBOR BUTY/PRZEPROVAZCU/ TÜV SÜD Czech s.r.o. Ostrava; Testova 2 Identification no.: 1017	
MANUFACTURER /PRODUCENT/ TECHPLAST Ltd. www.techplast.net VAT No.: PL 6772147485	
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/ Kraikowska 83p 34-120 Andrychów, Poland	
RECEPTION REPORT /RAPORT ODBIORU/ RA11C-2504005	
DRAWING NUMBER /NR RYSUNKU/ AS5-01-00	
BODY CERT. MODULE B /SWADECTWO MODUŁ B/ 08.324.016	
SERIAL NO. /NUMER SERWISU/ A11C/2501152	
AIR COMPRESSED UN1002	VOLUME /POJEMNOŚĆ / 9.00 L
GAS /GAZ/ M18x1.5	WEIGHT /WAGA/ 3.90 kg
THREAD /GWINT/ 174.00 mm	TEMP. OF WORK. /TEMP. PRACY/ -40°C / +60°C
DIAMETER /ŚREDNICA/ 300 BAR	MANUFACTURING DATE /DATA PRODUKCJI/ 202504
WORKING PRESSURE /CIŚNIENIE PRACY/ 450 BAR	EXPIRATION DATE /TERMIN WAŻNOŚCI/ NLL
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/ CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/ EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU	

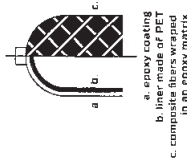
THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/ZBIÓRNIKI OZNACZONO ZNAKIEM ZGODNOŚCI/  
THE CERTIFICATE OF MODULE F DO VGLADU U PRODUCENTA  
/SWADECTWO WERYFIKACJI WYROBU MODUŁ F DO VGLADU U PRODUCENTA/



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OPERATION  
AND MAINTENANCE  
MANUALOF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

c. composite fibers wrapped in an epoxy matrix

b. liner made of PET composite fibers wrapped in an epoxy matrix

a. epoxy coating

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
06. Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

## A3. TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO11114-1 W19.2 wg DIN 477-1	75	95
25E wg EN 629-1 W26.8 wg DIN 477-1	95	110
		180

## A4. TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN164-1	85	100
5/8" 18UNF	85	100

## FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
02. Cylinder filling temperature shall not exceed 40°C. Recommended filling rate is in Declaration of Conformity.

## USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
02. For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.
03. The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
05. During storage of the cylinders, they should be protected against mechanical damage, overturning, and should be stored in a dry and clean place, free from direct influence of adverse weather conditions. The cylinders should be kept away from fire.
06. During the process of filling, surface temperature of the cylinder should not exceed 50 °C.
07. Filling the cylinders with gas can be performed only by individuals and people with appropriate powers in accordance with the regulations, laws and norms applicable in their country.
08. The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, connections and the valve should be used only after authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
09. Valves for the cylinder should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
09. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
10. Sample mounting torque values to the cylinders according to the tables A3. and A4.
11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
12. Tanks with pressure valves should be transported/cargoed pressurized to min. 2 bar. Tanks without pressure valves should be fitted with transport caps with O-rings.

## SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections are carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labelled with the word NLL.

## REMARKS

- ONE CAN ONLY FILL THE CYLINDERS WHICH:
- Comply with the regulations of the country in which the cylinders are used.
  - were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.
- IT IS CATEGORICALLY FORBIDDEN TO:
- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
  - USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
  - USE THE CYLINDERS WHOSE LABELING IS ILLEGIBLE OR INCOMPLETE.
  - USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER VALVE, CONNECTIONS ETC.
  - USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER BODY OR LIFE-SPAN EQUIPMENT (THE VALVE CONNECTIONS ETC).
  - USE THE CYLINDERS WHOSE VALVES OR OTHER PARTS OF THE CYLINDERS.
  - USE A VACUUM (DO NOT USE A VACUUM).

PRODUCT VERIFICATION WAS PERFORMED BY /ODBIOR BUTLI PRZEPROWADZŁ/		TUV SUD Czech s.r.o. Ostrava, Tellova 2 Identification no.: 1017	
MANUFACTURER /PRODUCENT/		TECHPLAST Ltd. www.techplast.net VAT No. PL 6772147485	
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/		Krakowska 83P 34-120 Andrychów, Poland	
RECEPTION REPORT /RAPORT ODBIORU/		RA11C-2504005	
DRAWING NUMBER /NR RYSUNKU/		AS5-01-00	
BODY CERT. MODULE B /SWADECTWO MODUŁ B/		08.324.018	
SERIAL NO /NUMER SERIANY/		A11C25010151	
GAS /GAZ/	AIR, COMPRESSED UN1002	VOLUME /POJEMNOŚĆ /	9.00 L
THREAD /GWINT/	M18x1.5	WEIGHT /WAGA/	3.90 kg
DIAMETER /ŚREDNICA/	174.00 mm	TEMP. OF WORK /TEMP. PRACY/	-40°C / +60°C
WORKING PRESSURE /CIŚNIENIE PRACY/	300 BAR	MANUFACTURING DATE /DATA PRODUKCJI/	2025/04
TEST PRESSURE /CIŚNIENIE PROBNIE/	450 BAR	EXPIRATION DATE /TERMIN WAŻNOŚCI/	NLL
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/			
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/			
EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU			
THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY /ZBUDOWKI OZNACZONO ZNAKIEM ZGODNOŚCI/			
1017			
THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER /SWADECTWO WERYFIKACJI WYROBÓW MODUŁ F DO WGLĄDU U PRODUCENTA/			

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ul. Krzywosiel 83 P.

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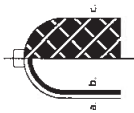
C

service@techplast.net

safercylinders.com

W



OPERATION  
AND MAINTENANCE  
MANUALOF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

- a. epoxy coating  
b. liner made of PET  
c. composite fibers wrapped  
in an epoxy matrix

## RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.  
02. Composite cylinders should be operated in accordance with their use.  
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.  
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.  
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.  
06. Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.  
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.  
08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

## A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO1114-1 W19.2 wg DIN 477-1	75	95
25E wg EN 629-1 W26.8 wg DIN 477-1	95	110
		180

## A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN144-1	85	100
5/8" 18UNF	85	100

## FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.  
02. Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

## USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.  
02. For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.  
03. The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.  
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position during the transport.  
05. During usage of the cylinders, they should be protected against mechanical damage, overturning, shock and vibration, which may lead to direct influence of adverse weather conditions. The cylinders should be kept away from fire.  
06. During the process of filling, surface temperature of the cylinder should not exceed 60 °C.  
07. Filling the cylinders with gas can be performed only by individuals and people with appropriate powers in accordance with the regulations, laws and norms applicable in their country.  
08. The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, which the cylinder must have should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.  
09. Valves for the cylinder should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.  
10. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.  
11. Sample mounting torque values to the cylinders according to the tables A3 and A4.  
12. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.  
13. Tanks with pressure valves should be transported/dumped pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with o-rings.

## SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.  
In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.  
Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections are carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.  
For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.  
The cylinders with unlimited life-span are labelled with the word NLL.

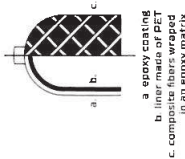
## REMARKS

- ONE CAN ONLY FILL THE CYLINDERS WHICH:  
Comply with the regulations of the country in which the cylinders are used,  
were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.  
IT IS CATEGORICALLY FORBIDDEN TO:  
■ USE THE CYLINDERS FOR OTHER THAN MENTIONED IN THE AUTHORIZATION,  
■ USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED,  
■ USE THE CYLINDERS WHOSE LABELLING IS ILLEGIBLE OR INCOMPLETE,  
■ USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.,  
■ USE THE CYLINDERS WHOSE INSPECTION IS NOT PERFORMED BY THE NOTIFIED BODY (THE VALVE CONNECTIONS ETC.),  
■ LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS,  
■ USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY /ODBIÓR BUTLI PRZEPROWADZIŁ/		TUV SÜD Czech s.r.o. Ostrava; Testlova 2 Identification no.: 1017	
MANUFACTURER /PRODUCENT/		TECHPLAST Ltd. www.techplast.net VAT No.: PL 677247485	
PRODUCTION PLANT ZAKŁAD PRODUKCYJNY/		Krakowska 83p 34-120 Andrychów, Poland	
RECEPTION REPORT /RAPORT ODBIORU/		RA11C-2504005	
DRAWING NUMBER /AN RYSUNKU/		AS5-01-00	
BODY CERT. MODULE B /SWADECTWO MODUŁ B/		08 324 016	
SERIAL NO /NUMER SERII/		A11C/2501150	
GAS /GAZ/		AIR COMPRESSED UN1002	VOLUME /POJEMNOŚĆ / 9.00 L
THREAD /GWINT/		M18x1.5	WEIGHT /WAGA/ 3.50 kg
DIAMETER /ŚREDNICA/		174.00 mm	TEMP. OF WORK /TEMP. PRACY/ -40°C / +60°C
WORKING PRESSURE /CIŚNIENIE PRACY/		300 BAR	MANUFACTURING DATE /DATA PRODUKCJI/ 2025/04
TEST PRESSURE /CIŚNIENIE PROBNIE/		450 BAR	EXPIRATION DATE /TERMIN WAZNOŚCI/ NLL
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/		< 30 BAR/MIN	
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/		EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU	

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
/BUTLE OZNACZONO ZNAKIEM ZGODNOŚCI/THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/SWADECTWO WERYFIKACJI WYROBU MODUŁ F DO WGLĄDU U PRODUCENTA/SAFER  
ULTRA LIGHT  
CYLINDERSTechplast Sp. z o.o.  
ul. Krakowska 83 p.  
34-120 Andrychów, Poland  
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www.techplast.com

OPERATION  
AND MAINTENANCE  
MANUALOF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

## RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
06. Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

## A3. TABLE

Taper thread	Mounting torque [Nm]		
	Minimum		Maximum
17E wg ISO1114-1 W19.2 wg DIN 477-1	75	95	140
25E wg EN 629-1 W28.8 wg DIN 477-1	95	110	180

## A4. TABLE

Straight thread	Mounting torque [Nm]		
	Minimum		Maximum
M18 x1.5 EN144-1	85		100
5/8" 18UNF	85		100

## FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
02. Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

## USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
02. For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.
03. The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
05. The range of the cylinders, they should be protected against mechanical damage, overfilling, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
06. During the process of filling, surface temperature of the cylinder should not exceed 40 °C. Filling the cylinders with gas can be performed only by individuals and people with appropriate powers in accordance with the regulations, laws and norms applicable in their country.
07. The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, not intended for use in the country in which the cylinder is used.
08. Valves for the cylinder should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
09. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
10. Sample mounting torque valves to the cylinders according to the tables A3. and A4.
11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11134-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeter thick.
12. Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with O-rings.

## SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections are carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labeled with the word NLL.

## REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

Comply with the regulations of the country in which the cylinders are used.

were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.

IT IS CATEGORICALLY FORBIDDEN TO:

- USE THE CYLINDERS FOR ANY PURPOSE, OTHER THAN MENTIONED IN THE AUTHORIZATION,
- USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED,
- USE THE CYLINDERS WHOSE LABELING IS ILLEGIBLE OR INCOMPLETE,
- USE THE CYLINDERS WHICH HAVE VISIBLE DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.,
- USE THE CYLINDERS WHOSE EXPIRATION DATE OR FIN HAS EXPIRED,
- LUBRICATE OIL VALVES OR OTHER PARTS OF THE CYLINDERS,
- USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY /ODBIÓR BUTLI PRZEPROWADZŁ/ TÜV SÜD Czech s.r.o. Ostrava, Těšlova 2 Identification no.: 1017	
MANUFACTURER /PRODUCEUR/ TECHPLAST Ltd. www.techplast.net VAT No.-PL 677214785	
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/ Krakowska 83P 34-120 Andrychów, Poland	
RECEPTION REPORT /RAPORT ODBIORU/ RA11C-2504005	
DRAWING NUMBER /NR RYSUNKU/ AS5-01-00	
BODY CERT. MODULE B /SWADECCTWO MODUŁ B/ 08 324 016	
SERIAL NO. /NUMER SERWISU/ A11C/2501149	
GAS /POJEMNOŚĆ /	VOLUME /POJEMNOŚĆ /
THREAD /GWINT/ M18x1.5	WEIGHT /WAGA/ 3.90 kg
DIAMETER /ŚREDNICA/ 174.00 mm	TEMP. OF WORK /TEMP. PRACY/ -40°C / +60°C
WORKING PRESSURE /CIŚNIENIE PRACY/ 300 BAR	MANUFACTURING DATE /DATA PRODUKCJI/ 2025/04
TEST PRESSURE /CIŚNIENIE PRÓBY/ 450 BAR	EXPIRATION DATE /TERMIN WAŻNOŚCI/ NLL
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ WYPEŁNIANIA/ ≤ 30 BAR/MIN	
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/ EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU	
THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY /ZBÓRNIKI OZNAČZONO ZNAKIEM ZGODNOŚCI/ CE 1017	
THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER /SWADECCTWO WERYFIKACJI WYRÓBU MODUŁ F DO WGLĄDU U PRODUCENTA/ 1017	

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PRODUCTION PLANT  
/ZAKŁAD PRODUKCYJNY/  
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34-120 Andrychów, Poland  
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OPERATION  
AND MAINTENANCE  
MANUALOF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

## RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
06. Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

## A3. TABLE

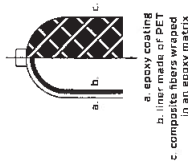
Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO11114-1 W19.2 wg DIN 477-1	75	95
25E wg EN 629-1 W26.8 wg DIN 477-1	95	110
		140
		180

## A4. TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN144-1	85	100
5/8" 18UNF	85	100

## FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
02. Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.



## USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
02. For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.
03. The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
05. The usage of the cylinders, they should be protected against mechanical damage, overloading, mechanical and chemical injuries and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
06. During the process of filling, surface temperature of the cylinder should not exceed 60 °C.
07. Filling the cylinders with gas can be performed only by individuals and people with appropriate powers in accordance with the regulations, laws and norms applicable in their country.
08. The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, which are not standardized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
09. Valves for the cylinder should be removed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
10. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 15341.
11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
12. Tanks with pressure valves should be transported/capped pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with o-rings.

## SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections are carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labelled with the word NULL.

## REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

Comply with the regulations of the country in which the cylinders are used.

were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.

IT IS CATEGORICALLY FORBIDDEN TO:

- USE THE CYLINDERS FOR ANY PURPOSE, OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
- USE THE CYLINDERS WHOSE LABELLING IS ILLEGIBLE OR INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.
- LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY /OBJĘTO WERYFIKACJĘ PRZEPROWADZIŁ/		TUV SÜD Czech s.r.o. Ostrava; Teslova 2 Identification no.: 1017	
MANUFACTURER /PRODUCENT/		TECHPLAST Ltd. www.techplast.net VAT No.: PL 6772147485	
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/		Krakowska 83P 34-120 Andrychów, Poland	
RECEPTION REPORT /RAPORT OBIORU/		RA11C-2504005	
DRAWING NUMBER /NR RYSUNKU/		AS5-01-00	
BODY CERT. MODULE B /SWIADCENIE MODUŁ B/		06.324.016	
SERIAL NO /NUMER SERII/		A11C/2501148	
GAS /GAZ/	AIR, COMPRESSED /TŁOKO CIŚNIENIE/	VOLUME /POJEMNOŚĆ /	9.00 L
THREAD /GWINT/	M18x1.5	WEIGHT /WAGA/	3.90 kg
DIAMETER /ŚREDNICA/	174.00 mm	TEMP. OF WORK /TEMP. PRACY/	-40°C / +60°C
WORKING PRESSURE /CIŚNIENIE PRACY/	300 BAR	MANUFACTURING DATE /DATA PRODUKCJI/	2025/04
TEST PRESSURE /CIŚNIENIE PROBNIE/	450 BAR	EXPIRATION DATE /TERMIN VAŻNOŚCI/	NLL
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/		< 30 BAR/MIN	
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/		EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU	

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
/ZEBRAWIŁ OZNACZENIE ZNAKIEM ZGODNOŚCI/

THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/SWIADCENIE WERYFIKACJI WYROBU MODUŁ F DO WSPŁUGI U PRODUCENTA/

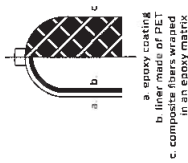
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## OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER



### RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
06. Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3. TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
1/2" wg ISO1114-1 W19.2 wg DIN 477-1	75	95
2 5/8" wg EN 629-1 W28.9 wg DIN 477-1	95	110
		180

### A4. TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN104-1	85	100
5/8" 18UNF	85	100

### FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
02. Cylinders filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

### USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
02. For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.
03. The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
05. During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
06. During the process of filling, surface temperature of the cylinder should not exceed 60 °C. Filling the cylinders with gas can be performed only by individuals and people with appropriate powers in accordance with the regulations, laws and norms applicable in their country.
07. The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements should be checked according to the regulations, norms and laws applicable in the country in which the cylinder is used.
08. Valves for the cylinder should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
09. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 15341.
10. Sample mounting torque values to the cylinders according to the tables A3. and A4.
11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 1114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
12. Tanks with pressure valves should be transported/secured pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with o-rings.

### SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections are carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labelled with the word NULL.

### REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

Comply with the regulations of the country in which the cylinders are used,  
were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.

IT IS CATEGORICALLY FORBIDDEN TO:

- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
- USE THE CYLINDERS WHOSE LABELLING IS ILLEGIBLE OR INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC.).
- LUBRICATE OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

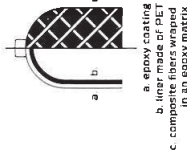
## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY /ODBIOR BUTU PRZEPRAWIAJĄCY/ TUV SÜD Czech s.r.o. Ostrava; Taislova 2 Identification no.: 1017	
MANUFACTURER /PRODUCENT/ TECHPLAST Ltd. www.techplast.net VAT No. PL 677147485	
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/ Krakowska 83P 34-120 Andrychów, Poland	
RECEPTION REPORT /RAPORT ODBIORU/ RA11C-2504005	
DRAWING NUMBER /NR RYSUNKU/ AS5-01-00	
BODY CERT. MODULE B /SWADECTWO MODUŁ B/ 08.324.016	
SERIAL NO /NUMER SERII JMY/ A11C25/01147	
GAS /GAZ/ AIR, COMPRESSED UN1002	VOLUME /POJEMNOŚĆ / 9.00 L
THREAD /GWINT/ M18x1.5	WEIGHT /WAGA/ 3.90 kg
DIAMETER /ŚREDNICA/ 174.00 mm	TEMP. OF WORK, /TEMP. PRACY/ -40°C / +60°C
WORKING PRESSURE /CIŚNIENIE PRACY/ 300 BAR	MANUFACTURING DATE /DATA PRODUKCJI/ 2025/04
TEST PRESSURE /CIŚNIENIE PRÓBY/ 450 BAR	EXPIRATION DATE /TERMIN WAZNOŚCI/ NULL
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/ ≤ 30 BAR/MIN	
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/ EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU	
THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY /ZBOPNIKI OZNAČZONO ZNAKIEM ZGODNOŚCI/ CE 1017	
THE CERTIFICATE OF MODULE F IS AVAILABLE FOR INSPECTION AT THE MANUFACTURER /SWADECTWO WERYFIKACJI WYROBU MODUŁ F DO WGLĄDU U PRODUCENTA/	



# OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER



## RECOMMENDATION

- Read the instruction carefully and keep to its conditions.
- Composite cylinders should be operated in accordance with their use.
- The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
- Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
- When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECH-PLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
- Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
- TECH-PLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECH-PLAST company.
- If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

## A3. TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO11116-1 W192 wg DIN 477-1	75	95
25E wg EN 629-1 W28.8 wg DIN 477-1	95	110

## A4. TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN146-1	85	100
5/8" 18UNF	85	100

## FILLING PROCESS

- Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
- Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

## USE

- The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
- For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.
- The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
- It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
- During use of the cylinders, they should be protected against mechanical damage, overpressure, mechanical and chemical injuries and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
- During the process of filling, surface temperature of the cylinder should not exceed 60 °C. Filling the cylinders with gas can be performed only by individuals and people with appropriate powers in accordance with the regulations, laws and norms applicable in their country.
- The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, which are not authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
- Valve for the cylinder should be removed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
- Sample mounting torque values to the cylinders according to the tables A3. and A4.
- To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11116-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeter thick.
- Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with O-rings.

## SERVICE

TECH-PLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECH-PLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder:

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections are carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labelled with the word NIL.

## REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

Comply with the regulations of the country in which the cylinders are used.

were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.

IT IS CATEGORICALLY FORBIDDEN TO:

- USE THE CYLINDERS FOR ANY PURPOSE, OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
- USE THE CYLINDERS WHOSE LABELING IS ILLEGIBLE OR INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.
- USE THE CYLINDERS WHOSE VALVE IS NOT AUTHORIZED FOR THE COUNTRY (THE VALVE CONNECTIONS ETC).
- LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

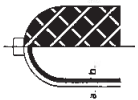
PRODUCT VERIFICATION WAS PERFORMED BY /OCBICOR BUTLI PRZEPROWADZIŁ/ TUV SÜD Czech s.r.o. Ostrava, Teslova 2 Identification no.: 1017	
MANUFACTURER /PRODUCENT/ TECHPLAST Ltd. www.techplast.net VAT No.: PL 677247485	
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/ Krakowska 83P 34-120 Andrychów, Poland	
RECEPTION REPORT /RAPORT ODBIORU/ RA11C-2504005	
DRAWING NUMBER /NR RYSUNKU/ ASS-01-00	
BODY CERT. MODULE B /ŚWIADECTWO MODUŁ B/ 08.324.016	
SERIAL NO /NUMER SERWISU/ A11C2501146	
GAS /GAZ/ AIR COMPRESSED UN1002	VOLUME /POJEMNOŚĆ / 9.00 L
THREAD /GWINT/ M18x1.5	WEIGHT /WAGA/ 3.90 kg
DIAMETER /ŚREDNICA/ 174.00 mm	TEMP. OF WORK /TEMP. PRACY/ -40°C +60°C
WORKING PRESSURE /CIŚNIENIE PRACY/ 300 BAR	MANUFACTURING DATE /DATA PRODUKCJI/ 202504
TEST PRESSURE /CIŚNIENIE PROBNIE/ 450 BAR	EXPIRATION DATE /TERMIN WAZNOŚCI/ NIL
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/ ≤ 30 BAR/MIN	
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/ EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU	

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
/ZBORNIAK OZNA CZOŃCZNYC ZNAKIEW ZGODNOŚCI/  
CE 1017

THE CERTIFICATE OF MODULE F IS AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/ŚWIADECTWO WERYFIKACJI WYROBU MODUŁ F DO WGLĄDU U PRODUCENTA/



PRODUCENT - FABRYKA  
TECHPLAST Sp. z o.o.  
ul. Krakowska 83P  
34-120 Andrychów, Poland  
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OPERATION  
AND MAINTENANCE  
MANUALOF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

- a. epoxy coating  
b. liner made of PET  
composite fibers wrapped  
in an epoxy matrix  
c. composite fibers wrapped  
in an epoxy matrix

## RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.  
02. Composite cylinders should be operated in accordance with their use.  
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.  
04. Maintenance service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.  
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.  
06. Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.  
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.  
08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

## A3. TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO11116-1 W19,2 wg DIN 477-1	75	95
25E wg EN 629-1 W28,8 wg DIN 477-1	95	110
		180

## A4. TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1,5 EN144-1	85	100
5/8" 18UNF	85	100

## FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.  
02. Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

## USE

01. The producer recommends the use of AUR European Agreement which applies to international transport of dangerous goods by road.  
02. For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.  
03. The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.  
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.  
05. During storage of the cylinders, they should be protected against mechanical damage, overfilling, overpressure, overtemperature and direct influence of adverse weather conditions. The cylinders should be kept away from fire.  
06. During the process of filling, surface temperature of the cylinder should not exceed 60 °C.  
07. Filling the cylinders with gas can be performed only by individuals and people with appropriate powers in accordance with the regulations, laws and norms applicable in their country.  
08. The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, components and their use should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.  
09. Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.  
10. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 15341.  
11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0,1 millimeters thick.  
12. Tanks with pressure valves should be transported/loaded pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with crings.

## SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.  
In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.  
Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections are carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.  
For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.  
The cylinders with unlimited life-span are labelled with the word NLL.

## REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:  
Comply with the regulations of the country in which the cylinders are used,  
were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.  
IT IS CATEGORICALLY FORBIDDEN TO:  
■ USE THE CYLINDERS FOR ANY PURPOSE, OTHER THAN MENTIONED IN THE AUTHORIZATION,  
■ USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED,  
■ USE THE CYLINDERS WHOSE LABELLING IS ILLEGIBLE OR INCOMPLETE,  
■ USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER VALVE CONNECTIONS ETC.,  
■ USE THE CYLINDERS WHOSE VALVE CONNECTIONS ARE NOT MARKED WITH THE EXPIRATION DATE (THE VALVE CONNECTIONS ETC.),  
■ USE THE CYLINDERS WHOSE VALVE CONNECTIONS ARE NOT MARKED WITH THE EXPIRATION DATE (THE VALVE CONNECTIONS ETC.),  
■ USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY /ODBIOR BUTU /PRZEPROWADZU/	TUV SÜD Czech s.r.o. Ostrava, Teslova 2 Identification no.: 1017
MANUFACTURER /PRODUCENT/	TECHPLAST Ltd. www.techplast.net VAT No.: PL 6772147485
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/	Krakowska 83P 34-120 Andrychów, Poland
RECEPTION REPORT /RAPORT ODBIORU/	RA11C-2504005
DRAWING NUMBER /NR RYSUNKU/	AS5-01-00
BODY CERT. MODULE B /SWADECTWO MODUŁ B/	08.324.016
SEAL NO /NUMER SERII/	A11C/2501196
GAS /GAZ/	AIR, COMPRESSED /POJEMNOŚĆ / UN1002
THREAD /GWINT/	M18x1,5 /WAGA/
DIAMETER /ŚREDNICA/	174,00 mm
TEMP. OF WORK /TEMP. PRACY/	40°C / +60°C
WORKING PRESSURE /CIŚNIENIE PRACY/	300 BAR
TEST PRESSURE /CIŚNIENIE PRÓBY/	450 BAR
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/	< 30 BAR/MIN
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/	EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
/ZBIORNIKI OZNAKOWANO ZNAKIEM ZGODNOŚCI/



THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/SWADECTWO WERYFIKACJI WYROBU MODUŁ F DO WGLADU U PRODUCENTA/

**SAFER<sup>®</sup>**  
ULTRA LIGHT  
COMPOSITE  
CYLINDERS

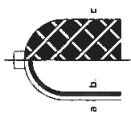
Production Plant  
TUV SÜD Czech s.r.o.  
ul. Kraskiewska 83 P  
34-120 Andrychów, Poland  
E: service@techplast.net  
W: safetyindex.pl.com





# OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE TRANSPORTABLE GAS CYLINDER



- a. epoxy coating  
b. liner made of PET  
c. composite fibers wrapped in an epoxy matrix

## RECOMMENDATION

31. Read the instruction carefully and keep to its conditions.
32. Compose cylinders should be operated in accordance with their use.
33. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
34. Maintenance service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
35. When cylinders are repaired or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
36. Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
37. TECHPLAST company reserves the right to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
38. In case of defects or damages of a new product, are found, put it away, secure it and inform the producer immediately.

### A3. TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO1116-1 W19-2 wg DIN 477-1	75	140
25E wg EN 629-1 W28.8 wg DIN 477-1	95	180

#### A4: TABLE

Straight thread	Mounting torque [N·m]	
	Minimum	Maximum
M18 x1.5 EN144-1	85	100
5/8"-18UNF	85	100

## FILLING PROCESS

031. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
032. Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

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01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
02. For the transport of the cylinders, three should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and impurities.
03. The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
05. During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
06. During the process of filling, surface temperature of the cylinder should not exceed 60 °C. Filling the cylinders with gas can be performed only by qualified persons with appropriate powers in accordance with the regulations, norms and standards applicable in their country.
07. The cylinder must be fitted with a valve, connections with the recommended seal pressure. Elements of the cylinder must be made of materials approved according to the regulations, norms and laws applicable in the country in which the cylinder is used.
08. Valves for the cylinder should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
09. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
10. Sample mounting torque values to the cylinders according to the tables A.3 and A.4.
11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape type PTFE which is at least 0.1 millimeters thick.
12. Valves with pressure vessels should be transported/capped pressurized to min. 2 bar. Tanks without pressure vessels should be fitted with transport caps with O-rings.

## SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections are carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited lifespans are labeled with the word **NI-1**.

## REMARKS

ONE CAN ONLY VEIL THE CY INDERS WHICH:

Comply with the regulations of the country in which the cylinders are used, were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder; valve, connections etc.

IT IS CATEGORICALLY FORBIDDEN TO:

- USE THE CYLINDERS FOR ANY PURPOSE, OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
- USE THE CYLINDERS WHOSE LABELING IS ILLEGIBLE OR INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.
- USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC).
- LUBRICATE OIL, VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT) USE A VACUUM.

PRODUCT VERIFICATION WAS PERFORMED BY  
VOBÍOR BUTLI PRZEPROWADZIŁ  
TÜV SÜD Czech s.r.o. Ostrava; Teslova 2  
Identification no. 1017

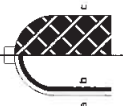
TECHPLAST Ltd. www.techplast.net VAT No.: PL 6772147485	
MANUFACTURER (PRODUCENT)	RA11C-2504005
PRODUCTION PLANT ZAKŁAD PRODUKCJI YAM	AsS-01-00
RECEPTION REPORT (RAPORT ODBIORU)	08 324 016
DRAWING NUMBER (NR RYSUNKU)	A11C/2501195
BODY CERT. MODULE B (SWADECZAKO MODULE B)	
SERIAL NO (NUMBER SERIALNY)	
GAS (GAZ)	VOLUME (POJEMNOŚĆ /
THREAD (GWINT)	WEIGHT (WAGA)
DIAMETER (ŚREDNICA)	TEMP. OF WORK. (TEMP. PRACY)
WORKING PRESSURE (CIŚNIENIE PRACY)	MANUFACTURING DATE (DATA PRODUKCJI)
TEST PRESSURE (CIŚNIENIE PROBY)	EXPIRATION DATE (TERMIN WAŻNOŚCI)
	< 30 BAR/MIN
	EN 12245-2009+A1:2011 DIRECTIVE 2014/68/EU

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
/ZBIORNIKI OZNACZONO ZNAKIEM ZGODNOSCI/

THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/ŚWIADECTWO WERYFIKACJI WYROBU MODUŁ F DO WGLĄDU U PRODUCENTA/



Production Plant  
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OF FULLY WRAPPED COMPOSITE TRANSPORTABLE GAS CYLINDER

## OPERATION AND MAINTENANCE MANUAL

### RECOMMENDATION

- Read the instruction carefully and keep to its conditions.
- Composite cylinders should be operated in accordance with their use.
- The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
- Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
- When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
- Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
- TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
- If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
1/6 wg ISO11116-1 W19.2 wg DIN 477-1	75	95
25E wg EN 629-1 W26.8 wg DIN 477-1	95	110
		180

### A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN344-1	85	100
5/8" 18UNF	85	100

### FILLING PROCESS

- Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
- Cylinder filling temperature shall not exceed 50°C. Recommended filling rate is in Declaration of Conformity.

### USE

- The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
- For the transport of the cylinders, these should be used: containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and impurities.
- The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
- It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
- During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
- During the process of filling, surface temperature of the cylinder should not exceed 60 °C.
- The cylinder must be fitted with a valve, connections with the recommended base pressure. Elements in accordance with the regulations, laws and norms applicable in their country.
- Connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
- Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
- Sample mounting torque values to the cylinders according to the tables A3 and A4.
- To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 mm thick.
- Tanks with pressure valves should be transported/stored pressurized to min. 2 bar. Tanks without pressure valves should be fitted with transport caps with orings.

### SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country, carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labelled with the word NLL.

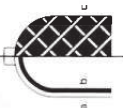
### REMARKS

- ONE CAN ONLY FILL THE CYLINDERS WHICH:
- Comply with the regulations of the country in which the cylinders are used.
  - were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.
  - IT IS CATEGORICALLY FORBIDDEN TO:
  - USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION,
  - USE THE CYLINDERS WITHOUT THE LABELING,
  - USE THE CYLINDERS WHOSE LABELING IS ILLEGIBLE OR INCOMPLETE,
  - USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.,
  - LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS,
  - USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY /OCB/AR BUTL PRZEPROWADZIŁ/ TECHPLAST Ltd. www.techplast.net VAT No.: PL 6772147085 Identification no.: 1017	
MANUFACTURER /PRODUCENT/ Kraśowska 83P 34-120 Andrychów, Poland	
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/ RA111C-2507009	
RECEPTION REPORT RAPORT ODBIORU/ A55-01-00	
DRAWING NUMBER /NR RYSUNKU/ 08.324.016	
BODY CERT. MODULE B /SIWIADECTWO MODUŁ B/ A111C/2507179	
SERIAL NO NUMER SERWANY/ GAS /GAZ/ THREAD /GWINT/ DIAMETER /ŚREDNICA/ WORKING PRESSURE /CIŚNIENIE PRACY/ TEST PRESSURE /CIŚNIENIE PROBNIE/	VOLUME /POJEMNOŚĆ / WEIGHT /MAGA/ TEMP. OF WORK /TEMP. PRACY/ MANUFACTURING DATE /DATA PRODUKCJI/ EXPIRATION DATE /TERMIN WAŻNOŚCI/ RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/ CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/ THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY ZBIOROWI OZNACZONO ZNAKIEM ZGODNOŚCI/ THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER /SIWIADECTWO WERYFIKACJI WYKONU MODUŁ F DO WGLĄDU U PRODUCENTA/





- a. epoxy coating
- b. liner made of PET
- c. composite in an epoxy matrix

## SAFAR<sup>®</sup>

# OPERATION AND MAINTENANCE MANUAL

OFFULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

### RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
06. Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. Any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3. TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO11116-1 W19-2 wg DIN 477-1	75	95
25E wg EN 629-1 W25.8 wg DIN 477-1	95	110
		180

### A4. TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN144-1	85	100
5/8" 18UNF	85	100

### FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min. then fill in accordance with point 2.
02. Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

### USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
02. For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.
03. The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, fired by the valve or rolled in a lying position, during the transport.
05. During the process of filling, surface temperature of the cylinder should not exceed 60 °C. Mechanical and chemical injuries, they should be protected against mechanical damage, overturning, in accordance with the regulations, laws and norms applicable in their country.
06. The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
07. Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
08. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
09. Sample mounting torque values, to the cylinders according to the tables A3. and A4.
10. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11116-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
11. Tanks with pressure valves should be transported/secured pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with O-rings.

### SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used, or by individuals with control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labeled with the word NULL.

### REMARKS

- ONE CAN ONLY FILL THE CYLINDERS WHICH:
- Comply with the regulations of the country in which the cylinders are used,
  - were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.
- IT IS CATEGORICALLY FORBIDDEN TO:
- USE THE CYLINDERS FOR ANY PURPOSE, OTHER THAN MENTIONED IN THE AUTHORIZATION,
  - USE THE CYLINDERS FOR TRANSPORT OF DANGEROUS GOODS,
  - USE THE CYLINDERS WHOSE LABELING IS ILLEGIBLE OR INCOMPLETE,
  - USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.,
  - USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC.),
  - LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS,
  - USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY  
TUV SUD Czech s.r.o. Ostrava; Testova 2  
/ZOBODUJE BUTLI PRZEPROWADZU/  
Identification no.: 1817

MANUFACTURER /PRODUCENT/	TECHPLAST Ltd. www.techplast.net VAT No.: PL 6772147485
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/	Krakowska 83P 34-120 Andrychów, Poland
RECEPTION REPORT /RAPORT ODBIORU/	RA11C-2507009
DRAWING NUMBER /NR RYSUNKU/	AS5-01-00
BODY CERT. MODULE B /SWAŁOCTWO MODUŁ B/	08.324.016
SERIAL NO. /NUMER SERWISU/	A11C2501718

GAS /GAZ/	AIR, COMPRESSED /WY1002/	VOLUME /POJEMNOŚĆ /	9.00 L
THREAD /GWINT/	M18x1.5	WEIGHT /WAGA/	3.90 kg
DIAMETER /ŚREDNICA/	174.00 mm	TEMP. OF WORK /TEMP. PRACY/	-40°C / +60°C
WORKING PRESSURE /CIŚNIENIE PRACY/	300 BAR	MANUFACTURING DATE /DATA PRODUKCJI/	202507
TEST PRESSURE /CIŚNIENIE PRÓBNIE/	450 BAR	EXPIRATION DATE /TERMIN WAŁOŚCISZ/	NULL

RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/	< 30 BAR/MIN
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/	EN 12245:2003+A1:2011 DIRECTIVE 2014/68/EU

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
/ZBIGNIOWI OZNACZONO ZNAKIEM ZGODNOŚCI/

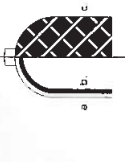
THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/SWAŁOCTWO NIEPRZYKŁĄCZY WYROBU MODUŁ F DO WGLĄDU U PRODUCENTA/

1017



Production Plant:  
Techplast Sp. z o.o.  
ul. Krakowska 83 p  
34-120 Andrychów, Poland  
E: service@techplast.net  
W: www.techplast.net





- a. epoxy coating  
b. inner made of PET  
c. composite in an epoxy matrix

## SAIFER® OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

### RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
06. Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. In any respects or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
1 1/8" wg ISO11116-1 W19.2 wg DIN 477-1	75	95
2 1/8" wg EN 629-1 W26.8 wg DIN 477-1	95	110
		180

### A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN144-1	85	100
5/8" UNF	85	100

### FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
02. Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

### USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
02. For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and impacts.
03. The device used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
05. During storage of the cylinders, they should be protected against mechanical damage, overcurrent, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
06. During the process of filling, surface temperature of the cylinder should not exceed 60 °C.
07. The cylinder must be fitted with a valve, connections with the recommended test pressure. European connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
08. Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
09. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 15541.
10. Sample mounting torque values to the cylinders according to the tables A.3 and A.4
11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
12. Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with o-rings.

### SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. The inspection should be carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labelled with the word NLL.

### REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

Comply with the regulations of the country in which the cylinders are used.  
were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.  
IT IS CATEGORICALLY FORBIDDEN TO:

- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WHOSE EXPIRATION DATE HAS EXPIRED OR IS INCOMPLETE.
- USE THE CYLINDERS WHOSE LABELLING IS INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.
- LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY  
/DOBÓR BOLI PRZEPRAWOZU/  
TUV SUD Czech s.r.o. Ostrava: Tešova 2  
Identification no.: 1017

MANUFACTURER  
/PRODUCENT/  
TECHPLAST Ltd. www.techplast.net VAT No. PL 6772147485

PRODUCTION PLANT  
/ZAKŁAD PRODUKCYJNY/  
Krakowska 83P 34-120 Andrychów, Poland

RECEPTION REPORT  
/RAPORT ODBIORU/  
RA11C-2507009

DRAWING NUMBER  
/NR RYSUNKU/  
AS5-01-00

BODY CERT. MODULE B  
/SWADECTWO MODUŁ B/  
08.324.016

SERIAL NO  
/NUMER SERYJNY/  
A11C12501717

GAS /GAZ/ AIR, COMPRESSED UN1002	VOLUME /POJEMNOŚĆ / 9.00 L
THREAD /GWINT/ M18x1.5	WEIGHT /WAGA/ 3.90 kg
DIAMETER /ŚREDNICA/ 174.00 mm	TEMP. OF WORK /TEMP. PRACY/ -40°C / +60°C

WORKING PRESSURE CIŚNIENIE PRACY/ 300 BAR	MANUFACTURING DATE DATA PRODUKCJI/ 2025/07
TEST PRESSURE CIŚNIENIE PRÓBY/ 450 BAR	EXPIRATION DATE TERMIN WALKOŚCI/ NLL

RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ WYPEŁNIANIA/ ≤ 30 BAR/MIN	CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/ EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU
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THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
/ZBIORNIKI OZNACZONO ZNAKIEM ZGODNOŚCI/  
CE 1017

THE CERTIFICATE OF MODULE F IS AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/SWADECTWO WERYFIKACJI WYROBU MODUŁ F DO WGLĄDU U PRODUCENTA/





02 of 02  
ENG

SAIFER®

OPERATION  
AND MAINTENANCE  
MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER



a: epoxy coating

b: liner made of PET

c: composite in an epoxy matrix

RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.

02. Composite cylinders should be operated in accordance with their use.

03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.

04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.

05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.

06. In case of changing the design or the structure of the cylinder can be made only with a written consent of the producer.

07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

A3

TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
1/8" wg ISO11116-1 W19.2 wg DIN 477-1	75	95
25E wg EN 629-1 W26.8 wg DIN 477-1	95	110
		180

A4

TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN144-1	95	100
5/8"-18UNF	85	100

FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2

02. Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity

USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.

02. For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.

03. The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.

04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.

05. During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.

06. During the process of filling, surface temperature of the cylinder should not exceed 60 °C.

07. The cylinder must be fitted with a valve, connections with the recommended fast pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.

08. Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.

09. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 15341.

10. Sample mounting torque values to the cylinders according to the tables A.3. and A.4.

11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11116-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.

12. Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with o-rings.

SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used, and must be carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labelled with the word NLL.

REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

Comply with the regulations of the country in which the cylinders are used,

were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.

IT IS CATEGORICALLY FORBIDDEN TO:

■ USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION,

■ REPAIR OR ALTER THE CYLINDERS,

■ USE THE CYLINDERS WITHOUT LABELING,

■ USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE CONNECTIONS ETC.

■ LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS

■ USE A VACUUM (DO NOT USE A VACUUM).

DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY  
/ODBIÓR BUTŁI PRZEPROWADZU/

TECHPLAST Ltd. [www.techplast.net](http://www.techplast.net) VAT No.: PL 677214785  
Identification no.: 1017

MANUFACTURER  
/PRODUCENT/

Krakowska 83P 34-120 Andrychów, Poland

PRODUCTION PLANT  
/ZAKŁAD PRODUKCYJNY/

RA11C-2507009

RECEPTION REPORT  
/RAPORT ODBIORU/

A55-01-00

DRAWING NUMBER  
/NR RYSUNKU/

08.324.016

BODY CERT. MODULE B  
/SWIADECTWO MODUŁU B/

A11C/250716

SERIAL NO  
/NUMER SERIOWY/

GAS /GAZ/	AIR, COMPRESSED UN1002	VOLUME /POJEMNOŚĆ /	9.00 L
THREAD /GWINT/	M18x1.5	WEIGHT /WAGA/	3.90 kg
DIAMETER /ŚREDNICA/	174.00 mm	TEMP. OF WORK /TEMP. PRACY/	-40°C / +60°C

WORKING PRESSURE  
CIŚNIENIE PRACY/

300 BAR MANUFACTURING DATE /DATA PRODUKCJI/ | 202507 |

TEST PRESSURE  
CIŚNIENIE PROŚBIE/

450 BAR EXPIRATION DATE /TERMIN WAŻNOŚCI/ | NLL |

RECOMMENDED FILLING RATE  
/ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/

< 30 BAR/MIN

CYLINDERS MEET THE REQUIREMENTS OF  
/BUTLE SPEŁNIAJĄ WYMAGANIA/

EN 12245:2009+A1:2011  
DIRECTIVE 2014/68/EU

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
/CZŁOPIKI OZNAKOZONO ZNAKIEM ZGODNOŚCI/

CE 1017

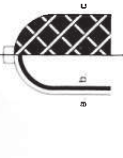
THE CERTIFICATE OF MODULE B IS AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/SWIADECTWO WERYFIKACJI WYROBU MODUŁU B DO WGLĄDU U PRODUCENTA/

SAIFER®

ULTRA LIGHT  
COMPOSITE  
CYLINDERS

Production Plant  
Technoplast Sp. z o.o.  
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t. [sales@techplast.net](mailto:sales@techplast.net)  
w. [www.techplast.net](http://www.techplast.net)





a. epoxy coating  
b. film made of PET  
c. completed cylinder  
in an epoxy matrix

## SAFAR<sup>®</sup>

# OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

### RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
06. Any claim concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
07. TECHPLAST company asks the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
1/8" wg ISO11116-1 W19.2 wg DIN 477-1	75	95
25E wg EN 629-1 W25B wg DIN 477-1	95	110
		180

### A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN144-1	85	100
5/8" 18UNF	85	100

### FILLING PROCEED

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
02. Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

### USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
02. For the transport of the cylinders, these should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.
03. The device used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
05. During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
06. During the process of filling, surface temperature of the cylinder should not exceed 60 °C.
07. The cylinders must be filled with a valve, connections with the recommended fast pressure. Elements in accordance with the regulations, laws and norms applicable in their country.
08. The cylinder must be fitted with a valve, connections with the recommended fast pressure. Elements in accordance with the regulations, laws and norms applicable in their country.
09. Connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
10. Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
11. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
12. Sample mounting torque valves to the cylinders according to the tables A3 and A4.
13. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11116-1. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
14. Tanks with pressure valves should be transported/stored pressurized to min. 2 bar. Tanks without pressure valves should be fitted with transport caps with o-rings.

### SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country of use. The inspection should be carried out by individuals with control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labeled with the word "NLL".

### REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

Comply with the regulations of the country in which the cylinders are used,

were marked with the date of last inspection, they were given a sign of a certified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.

IT IS CATEGORICALLY FORBIDDEN TO:

- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION,
- USE THE CYLINDERS WITHOUT LABELING,
- USE THE CYLINDERS WHOSE LABELING IS ILLEGIBLE OR INCOMPLETE,
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.,
- USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC.),
- LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS,
- USE A VACUUM (DO NOT USE A VACUUM)

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY  
/ODBIOR BUTU PRZEPRAWADZU/

TUV SUD Czech s.r.o. Ostrava; Teslova 2  
Identification no.: 1017

MANUFACTURER (PRODUCENT)	TECHPLAST Ltd. www.techplast.net VAT No.: PL 6772147485				
PRODUCTION PLANT (ZAKŁAD PRODUKCYJNY)	Krakowska 83P 34-120 Andrychów, Poland				
RECEPTION REPORT (RAPORT ODBIORU)	RA11C-2507009				
DRAWING NUMBER (NR RYSUNKU)	AS5-01-00				
BODY CERT. MODULE B (SWIADCETWO MODUŁ B)	08 324 016				
SERIAL NO (NUMER SERIJNY)	A11C12501713				
GAS (GAZ)	VOLUME (POJEMNOŚĆ /	9.00 L			
THREAD (GWINT)	WEIGHT (WAGA)	3.90 kg			
DIAMETER (ŚREDNICA)	TEMP. OF WORK (TEMP. PRACY)	-40°C / +60°C			
WORKING PRESSURE (CIŚNIENIE PRACY)	MANUFACTURING DATE (DATA PRODUKCJI)	202507			
TEST PRESSURE (CIŚNIENIE PRÓBNIE)	EXPIRATION DATE (TERMIN WAŻNOŚCI)	NLL			
RECOMMENDED FILLING RATE (ZALECANA PRĘDKOŚĆ NAPEŁNIANIA)					
CYLINDERS MEET THE REQUIREMENTS OF (BUTLE SPEŁNIAJĄ WYMAGANIA)					
EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU					

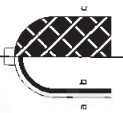
EN 12245:2009+A1:2011  
DIRECTIVE 2014/68/EU

1017

**SAFAR<sup>®</sup>**  
ULTRA LIGHT  
COMPOSITE  
CYLINDERS

Production Plant:  
Techplast Sp. z o.o.  
ul. Krakowska 83 p  
34-120 Andrychów, Poland  
E: service@techplast.net  
W: safarcylinders.com





- a epoxy coating  
b liner made of PET  
c composite  
in an epoxy matrix

## SAIFER<sup>®</sup>

# OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

### RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations of gas cylinders.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
06. Any claims concerning the design or the structure of the cylinder can be made only with a written request to the producer.
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3 TABLE

Taper thread	Mounting torque [N·m]	
	Minimum	Maximum
1/2" wg ISO11116-1 W19.2 wg DIN 477-1	75	95
25E wg EN 629-1 W2B3 wg DIN 477-1	95	110
		160

### A4 TABLE

Straight thread	Mounting torque [N·m]	
	Minimum	Maximum
M18 x1.5 EN144-1	85	100
5/8" 18UNF	85	100

### FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2
02. Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity

### USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
02. For the transport of the cylinders, they should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and impacts.
03. The device used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, laid by the valve or rolled in a lying position, during the transport.
05. During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
06. During the process of filling, surface temperature of the cylinder should not exceed 60 °C.
07. The cylinder must be fitted with a valve, connections with the appropriate powers in accordance with the regulations, laws and norms applicable in their country.
08. Connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
09. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
10. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
12. Tanks with pressure valves should be transported/secured pressurized to min. 2 bar. Tanks without pressure valves should be fitted with transport caps with o-rings.

### SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used, and must be checked out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the joint.

The cylinders with unlimited life-span are labeled with the word NLL.

### REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

Comply with the regulations of the country in which the cylinders are used,

were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.

IT IS CATEGORICALLY FORBIDDEN TO:

- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION,
- USE THE CYLINDERS WHICH ARE DAMAGED OR INCOMPLETE,
- USE THE CYLINDERS WHOSE LABELING IS EASILY OR INCOMPLETE,
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.,
- LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS,
- USE A VACUUM (DO NOT USE A VACUUM).

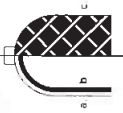
### DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY /ZOBÓR BUTU PRZEPRAWADZU/		TUV SÜD Czech s.r.o. Ostrava; Testova 2 Identification no.: 1017	
MANUFACTURER /PRODUCENT/		TECHPLAST Ltd. www.techplast.net VAT No.: PL 8772147485	
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/		Krakowska 83P 34-120 Andrychow, Poland	
RECEPTION REPORT /RAPORT ODBIORU/		RA11C-2507009	
DRAWING NUMBER /NR RYSUNKU/		ASS-01-00	
BODY CERT. MODULE B /SMIAŁEKTWO MODUŁ B/		08.324.016	
SERIAL NO NUMER SER. JNY/		A11C/2507172	
GAS /GAZ/	AIR COMPRESSED UN1002	VOLUME /POJEMNOŚĆ /	9.00 L
THREAD /GWINT/	M18x1.5	WEIGHT /WAGA/	3.80 kg
DIAMETER /ŚREDNICA/	174.00 mm	TEMP OF WORK /TEMP. PRACY/	-40°C / +60°C
WORKING PRESSURE /CIŚNIENIE PRACY/	300 BAR	MANUFACTURING DATE /DATA PRODUKCJI/	202507
TEST PRESSURE /CIŚNIENIE PROBNIE/	450 BAR	EXPIRATION DATE /TERMIN WAŻNOŚCI/	NLL
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/		< 30 BAR/MIN	
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/		EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU	
THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY /ZBÓRNIKI OZNAČONE ZNAKIEM ZGODNOŚCI/			
THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER /SMIAŁEKTWO WERYFIKACJI WYROBU MODUŁ F DO WGLĄDU U PRODUCENTA/		1017	

**SAIFER<sup>®</sup>**  
ULTRA LIGHT  
COMPOSITE  
CYLINDERS

Production Plant  
Technoplast Sp. z o.o.  
ul. Krakowska 83 P  
34-120 Andrychow, Poland  
E: service@techplast.net  
W: safety.cylinders.com





- a. epoxy coating  
b. liner made of PET  
c. composite in an epoxy matrix

## SAFAR<sup>®</sup>

# OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

### RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
06. Any changes concerning the design or the structure of the cylinder can be made only with a written agreement of the producer.
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. In any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3 TABLE

Taper thread	Mounting torque [Nm]		
	Minimum	95	Maximum
17E wg ISO11116-1 W19.2 wg DIN 477-1	75	95	140
25E wg EN 479-1 W29.8 wg DIN 477-1	95	110	190

### A4 TABLE

Straight thread	Mounting torque [Nm]		
	Minimum	85	Maximum
M18 x1.5 EN144-1	85	100	100
5/8" 18UNF	85	100	100

### FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2
02. Cylinder filling temperature shall not exceed 40°C. Recommended filling rate is in Declaration of Conformity

### USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
02. For the transport of the cylinders, they should be used caps, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and impurities.
03. The design used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, filled by the valve or rolled in a lying position, during the transport.
05. During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
06. During the process of filling, surface temperature of the cylinder should not exceed 40°C.
07. The cylinder must be filled with a valve, connections with the recommended test pressures. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
08. Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
09. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
10. Sample mounting torque values to the cylinders according to the tables A3, and A4.
11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
12. Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be filled with transport caps with O-rings.

### SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. The inspection should be carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labelled with the word NLL.

### REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

Comply with the regulations of the country in which the cylinders are used.

were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.

IT IS CATEGORICALLY FORBIDDEN TO:

- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WITHOUT PROPERLY TRAINED PERSONNEL.
- USE THE CYLINDERS WHOSE LABELLING IS INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.
- USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC.).
- LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

### DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY  
/DOBÓR BUTŁI PRZEPROWADZIŁ/

TECHPLAST Ltd. www.techplast.net VAT No.:PL 677217485  
Identification no.: 1017

MANUFACTURER  
/PRODUCENT/

PRODUCTION PLANT  
/ZAKŁAD PRODUKCYJNY/

RECEPTION REPORT  
/RAPORT DOBÓRU/

DRAWING NUMBER  
/NR RYSUNKU/

BODY CERT. MODULE B  
SWIADECTWO MODUŁ B/

SERIAL NO  
/NUMER SERIANY/

GAS  
/GAZ/

THREAD  
/GWINT/

DIAMETER  
/ŚREDNICA/

WORKING PRESSURE  
/CIŚNIENIE PRACY/

TEST PRESSURE  
/CIŚNIENIE PROBNIE/

RECOMMENDED FILLING RATE  
/ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/

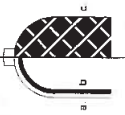
CYLINDERS MEET THE REQUIREMENTS OF  
/BUTLE SPEŁNIAJĄ WYMAGANIA/

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
/ZBIORNIKI OZNAKOWANO ZNAKIEM ZGODNOŚCI/

THE CERTIFICATE OF MODULE B IS AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/SWIADECTWO WERYFIKACJI WYROBÓW MODUŁ B DO WGLĄDU U PRODUCENTA/







- a epoxy coating  
b liner made of PET  
composite  
c composition in an epoxy matrix

## SAFEPOR® OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

### RECOMMENDATION

- Read the instruction carefully and keep to its conditions.
- Composite cylinders should be operated in accordance with their use.
- The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
- Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country or operation.
- When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears a responsibility for their correct functioning.
- A responsibility concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
- TECHPLAST company, the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
- If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
1/2 wg ISO11116-1 W19.2 wg DIN 477-1	75	95
25E wg EN 629-1 W2B3 wg DIN 477-1	95	110
		180

### A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN1344-1	85	100
5/8" 18UNF	85	100

### FILLING PROCESS

- Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
- Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

### USE

- The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
- For the transport of the cylinders, there should be used: capacitors, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and impairments.
- The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
- It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
- During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impairments, and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
- During the process of filling, surface temperature of the cylinder should not exceed 60 °C.
- The cylinder must be fitted with a valve, connections and the valve should be secured with appropriate powers in accordance with the regulations, laws and norms applicable in their country.
- The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
- Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
- Sample mounting torque values to the cylinders according to the tables A3 and A4.
- To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.3 millimeters thick.
- Tanks with pressure valves should be transported/stored pressurized to min. 2bar tanks without pressure valves should be fitted with transport caps with o-rings.

### SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling or each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. The inspection should be carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labelled with the word NULL.

### REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

Comply with the regulations of the country in which the cylinders are used.

were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.

IT IS CATEGORICALLY FORBIDDEN TO:

- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER VALVE, CONNECTIONS ETC.
- USE THE CYLINDERS WHOSE LABELLING IS ILLEGIBLE OR INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER VALVE, CONNECTIONS ETC.
- USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC).
- LUBRICATE OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM)

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY  
/ODBIÓR BUTU PRZEPROWADZIŁ/

TECHPLAST Ltd. www.techplast.net VAT No.: PL 677214785  
Identification no.: 1017

MANUFACTURER /PRODUCENT/	Kraśowska 83P 34-120 Andrychów, Poland		
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/	RA11C-2507008		
RECEPTION REPORT /RAPORT ODBIORU/	ASS-01-00		
DRAWING NUMBER /NR RYSUNKU/	08.324.016		
BODY CERT. MODULE B /SIWIADECTWO MODUŁ B/	A11C/2501548		
SERIAL NO /NUMER SERIANY/			

GAS /GAZ/	AIR, COMPRESSED UN1002	VOLUME /POJEMNOŚĆ /	9.00 L
THREAD /GWINT/	M18x1.5	WEIGHT /WAGA/	3.90 kg
DIAMETER /ŚREDNICA/	174.00 mm	TEMP. OF WORK /TEMP. PRACY/	-40°C / +60°C
WORKING PRESSURE /CIŚNIENIE PRACY/	300 BAR	MANUFACTURING DATE /DATA PRODUKCJI/	2025/07
TEST PRESSURE /CIŚNIENIE PRÓBNIE/	450 BAR	EXPIRATION DATE /TERMIN WAŻNOŚCI/	NLL
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/		< 30 BAR/MIN	
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/		EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU	

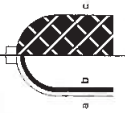
THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
ZBIORNIKI OZNACZONO ZNAKIEM ZGODNOŚCI

THE CERTIFICATE OF MODULE B AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
SIWIADECTWO B DOSTĘPNE DO WGLĄDU U PRODUCENTA/

**SAFEPOR®**  
ULTRA LIGHT  
COMPOSITE  
CYLINDERS

Production Plant  
Andrychów, Poland  
Technoplast Sp. z o.o.  
ul. Krakowska 83 P  
34-120 Andrychów, Poland  
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W safecylinders.com





a epoxy coating  
b inner made of PET  
c composite in an epoxy matrix

## SAFED® OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

### RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
06. A responsibility concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
07. TECHPLAST® recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO11116-1 W19.2 wg DIN 477-1	75	95
25E wg EN 629-1 W26.8 wg DIN 477-1	95	110
		190

### A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M19 x1.5 EN144-1	85	100
5/8" 18UNF	85	100

### FILLING PRODESS

01. Fill epoxy cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
02. Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

### USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
02. For the transport of the cylinders, these should be used conspicuously, bin, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and impurities.
03. The device used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
05. During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
06. During the process of filling, surface temperature of the cylinder should not exceed 60°C.
07. The cylinder must be fitted with a valve, connections with the recommended fast pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
08. Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
09. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
10. Sample mounting torque values to the cylinders according to the tables A3 and A4.
11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
12. Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with o-rings.

### SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. The inspection should be carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or EN can be found on the label.

The cylinders with unlimited life-span are labeled with the word NULL.

### REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

Comply with the regulations of the country in which the cylinders are used

were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve connections etc.

IT IS CATEGORICALLY FORBIDDEN TO:

- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS FOR WHICH THE EXPIRATION DATE OR EN IS NOT VALID.
- USE THE CYLINDERS WHOSE LABELING IS INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE CONNECTIONS ETC.
- USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC).
- LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY  
ZODBIOR BUTU PRZEPRAWIAJĄ  
Identification no.: 1017

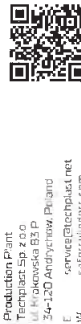
MANUFACTURER /PRODUCENT/	TECHPLAST Ltd. www.techplast.net VAT No.: PL 8772147485
PRODUCTION PLANT /ZAKŁAD PRODUKCJI/	Krakowska 83P 34-120 Andrychów, Poland
RECEPTION REPORT /RAPORT ODBIORU/	RA11C-2507008
DRAWING NUMBER /NR RYSUNKU/	AS5-01-00
BODY CERT. MODULE B /SWIADECTWO MODUŁ B/	08.324.016
SERIAL NO /NUMER SERII/	A11C12501549

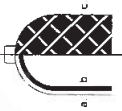
GAS /GAZ/	AIR COMPRESSED UN1002	VOLUME /POJEMNOŚĆ /	9.00 L
THREAD /GWINT/	M18x1.5	WEIGHT /WAGA/	3.90 kg
DIAMETER ŚREDNICA	174.00 mm	TEMP. OF WORK /TEMP. PRACY/	-46°C / +60°C
WORKING PRESSURE CIŚNIENIE PRACY	300 BAR	MANUFACTURING DATE /DATA PRODUKCJI/	2025/07
TEST PRESSURE CIŚNIENIE PRÓBNIE	450 BAR	EXPIRATION DATE /TERMIN WYKUSOCZI/	NULL

RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/	< 30 BAR/MIN
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/	EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
/ZBIORNIKI OZNA CZONO ZNAKIEM ZGODNOŚCI/

THE CERTIFICATE OF MODULE F IS AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/SWIADECTWO WERYFIKACJI WYROBU MODUŁ F DO WGLĄDU U PRODUCENTA/





- a. epoxy coating  
b. composite fibers  
c. composite matrix

## SAFAR<sup>®</sup> OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

### RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
06. The design or the structure of the cylinder can be made only with a written consent of the producer.
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO11116-1 W19.2 wg DIN 477-1	75	95
25E wg EN 629-1 W26.9 wg DIN 477-1	95	110
		180

### A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN144-1	85	100
5/8" BSUNF	85	100

### FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
02. Cylinder filling temperature shall not exceed 50°C. Recommended filling rate is in Declaration of conformity.

### USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
02. For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and impurities.
03. The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
05. During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from the flames and sources of heat.
06. The cylinders should be stored in a dry place with appropriate powers.
07. Filling the cylinders with gas should be carried out by qualified and competent staff with appropriate powers in accordance with the regulations, laws and norms applicable in their country.
08. The cylinder must be fitted with a valve, connections with the recommended test pressures. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
09. Values for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
10. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13543.
11. Sample mounting torque values to the cylinders according to the tables A3. and A4.

12. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 15848. In this way, the producer recommends the use of Teflon taping type PTFE which is at least 0.1 millimeters thick.

13. Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with O-rings.

### SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections are carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labelled with the word NLL.

### REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

Comply with the regulations of the country in which the cylinders are used.  
were marked with the date of last inspection, they were given a sign of a notepad body and the term of their re-inspection has not expired (have not visible damages of the cylinder, valve, connections etc.  
IT IS CATEGORICALLY FORBIDDEN TO:

- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS FOR COLD STORAGE.
- USE THE CYLINDERS WHOSE LABELING IS ILLEGIBLE OR INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.
- USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC).
- LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY  
/OBIOR BUTU PRZEPROWADZIŁ/  
TUV SÜD Czech s.r.o. Ostrava, Teslova 2  
Identification no.: 1017

MANUFACTURER  
/PRODUCENT/  
TECHPLAST Ltd. www.techplast.net VAT No.: PL 6772147465

PRODUCTION PLANT  
/ZAKŁAD PRODUKCYJNY/  
Krakowska 83P 34-120 Andrychów, Poland

RECEPTION REPORT  
/RAPORT OBIORU/  
RA11C-2507008

DRAWING NUMBER  
/NR RYSUNKU/  
AS5-01-00

BODY CERT. MODULE B  
/SWADECTWO MODUŁ B/  
08 324.016

SERIAL NO  
/NUMER SERWYJNY/  
A11C/25/01560

GAS  
/GĄZ/  
VOLUME  
/POJEMNOŚĆ/  
9.00 L

THREAD  
/GWINT/  
IM18x1.5  
WEIGHT  
/WAGA/  
3.90 kg

DIAMETER  
/ŚREDNICA/  
174.00 mm  
TEMP. OF WORK  
/TEMP. PRACY/  
-40°C / +60°C

WORKING PRESSURE  
/CIŚNIENIE PRACY/  
300 BAR  
MANUFACTURING DATE  
/DATA PRODUKCJI/  
2025/07

TEST PRESSURE  
/CIŚNIENIE PRÓBNIE/  
450 BAR  
EXPIRATION DATE  
/TERMIN VAZMOŚCI/  
NLL

RECOMMENDED FILLING RATE  
/ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/  
≤ 30 BAR/MIN  
CYLINDERS MEET THE REQUIREMENTS OF  
/BUTLE SPEŁNIAJĄ WYMAGANIA/  
EN 12245:2009+A1:2011  
DIRECTIVE 2014/68/EU

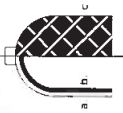
THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
/ZBIORWKI OZNAKOWANO ZNAKIEM ZGODNOŚCI/  
CE 1017

THE CERTIFICATE OF MODULE F IS AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/SWADECTWO WERYFIKACJI WYROBU MODUŁ F DO WGLADU U PRODUCENTA/

**SAFAR<sup>®</sup>**  
ULTRA LIGHT  
COMPOSITE  
CYLINDERS

Production team  
Techplast Sp. z o.o.  
ul. Krakowska 83 P  
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# SAFEBR<sup>®</sup>

## OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

### RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
06. Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3. TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO11116-1 W19.2 wg DIN 477-1	75	95
25E wg EN 629-1 W26.8 wg DIN 477-1	95	110
		180

### A4. TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN144-1	85	100
5/8" 18UNF	85	100

### FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
02. Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

### USE

01. The producer recommends the use of ADR European Agreement, which applies to international transport of dangerous goods by road.
02. For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and impairments.
03. The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
05. During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impairments and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
06. During the process of filling, surface temperature of the cylinder should not exceed 60 °C.
07. The cylinder must be fitted with a valve conforming with the recommended test pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
08. Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
09. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
10. Sample mounting torque values to the cylinders according to the tables A3, and A4.
11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
12. Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with O-rings.

### SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used and checked out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or PIN can be found on the label.

The cylinders with unlimited life-span are labeled with the word NLL.

### REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

Comply with the regulations of the country in which the cylinders are used,

were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.

IT IS CATEGORICALLY FORBIDDEN TO:

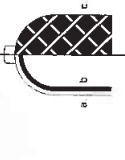
- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION,
- USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED,
- USE THE CYLINDERS WHOSE LIFE-SPAN IS INCOMPLETE,
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.
- LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS,
- USE A VACUUM (DO NOT USE A VACUUM)

### DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY /OCBIOR BUTU PRZEPROWADZIŁ/		TUV SUD Czech s.r.o. Ostrava, Teslova 2 Identification no.: 1017	
MANUFACTURER /PRODUCENT/	TECHPLAST Ltd. www.techplast.net VAT No.: PL 6772147485		
PRODUCTION PLANT /ZAKŁAD PRODUKCJI/	Krakowska 83P 34-120 Andrychów, Poland		
RECEPTION REPORT /RAPORT OCBIORU/	RA11C-2507008		
DRAWING NUMBER /NR RYSUNKU/	A55-01-00		
BODY CERT. MODULE B /SWIADCETWO MODUŁ B/	08.324.016		
SERIAL NO /NUMER SER. JAVI/	A11C/2501551		
GAS /GAZ/	AIR, COMPRESSED UN1002	VOLUME /POJEMNOŚĆ /	9.00 L
THREAD /GWINT/	M18x1.5	WEIGHT /WAGA/	3.90 kg
DIAMETER /ŚREDNICA/	174.00 mm	TEMP. OF WORK /TEMP. PRACY/	-40°C / +60°C
WORKING PRESSURE /CIŚNIENIE PRACY/	300 BAR	MANUFACTURING DATE /DATA PRODUKCJI/	2025/07
TEST PRESSURE /CIŚNIENIE PROBNIE/	450 BAR	EXPIRATION DATE /TERMIN WAŻNOŚCI/	NLL
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/		< 30 BAR/MIN	
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/			
THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY /ZBIOROWKI OZNA CZONO ZNAKIEM ZGODNOŚCI/			
THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER /SWIADCETWO WERYFIKACJI WYROBU MODUŁ F DO WGLĄDU U PRODUCENTA/			





**SAFEBR®****OPERATION  
AND MAINTENANCE  
MANUAL**OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER**RECOMMENDATION**

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECH-PLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
06. Any remarks concerning the design or the structure of the cylinder can be made only with a written consent from producer.
07. TECH-PLAST company asks the user to enter into a contract which guarantees service by the authorized service center of TECH-PLAST company.
08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

**A3 TABLE**

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
1/8" wg ISO11116-1 W19.2 wg DIN 477-1	75	95
25E wg EN 629-1 W28.8 wg DIN 477-1	95	110
		160

**A4 TABLE**

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M19 x1.5 EN144-1	85	100
5/8"-18UNF	85	100

**FILLING PROCESS**

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
02. Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

**USE**

01. The producer recommends the use of ADR European Agreement, which applies to international transport of dangerous goods by road.
02. For transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and impacts.
03. The device used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
05. During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
06. During the process of filling, surface temperature of the cylinder should not exceed 60 °C.
07. The cylinder must be fitted with a valve, connected lines with the recognized task pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
08. Valves for the cylinder should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
09. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 1354-1.
10. Sample mounting torque values to the cylinders according to the tables A.3 and A.4.
11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11144-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
12. Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with O-rings.

**SERVICE**

TECH-PLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECH-PLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. The inspection should be carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labelled with the word NLL.

**REMARKS**

ONE CAN ONLY FILL THE CYLINDERS WHICH:

Comply with the regulations of the country in which the cylinders are used.  
were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.  
IT IS CATEGORICALLY FORBIDDEN TO:

- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
- USE THE CYLINDERS WHOSE LIFE-SPAN IS NOT COMPLETE.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS, ETC.
- USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS, ETC.).
- LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

**DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY**

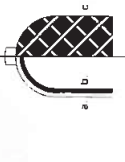
PRODUCT VERIFICATION WAS PERFORMED BY /ODBIOR BUTLI PRZEPROWADZIŁ/		TUV SUD Czech s.r.o. Ostrava, Teslova 2 Identification no.: 1017		
MANUFACTURER /PRODUCENT/		TECHPLAST Ltd. www.techplast.net VAT No.: PL 6772147485		
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/		Krakowska 83P 34-120 Andrychów, Poland		
RECEPTION REPORT /RAPORT ODBIORU/		RA11C-2507008		
DRAWING NUMBER /NR RYSUNKU/		AS5-01-00		
BODY CERT. MODULE B SMIAŁCZTWO MODUŁ B/		08.324.016		
SERIAL NO /NUMER SERII/		A11C/2501552		
GAS /GAZ/	AIR, COMPRESSED UN1002	VOLUME /POJEMNOŚĆ /		
		9.00 L		
		WEIGHT /WAGA/		
		3.90 kg		
THREAD /GWINT/	M18x1.5	TEMP. OF WORK /TEMP. PRACY/		
		-40°C / +60°C		
DIAMETER /ŚREDNICA/	174.00 mm	MANUFACTURING DATE /DATA PRODUKCJI/		
		2025/07		
WORKING PRESSURE /CIŚNIENIE PRACY/	300 BAR	EXPIRATION DATE /TERMIN WYPIECI/		
		NLL		
TEST PRESSURE /CIŚNIENIE PRÓBNIE/	450 BAR	RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/		
		< 30 BAR/MIN		
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/		EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU		

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
/ZBIORNIKI OZNAKOWANO ZNAKIEM ZGODNOŚCI/

THE CERTIFICATE OF MODULE F IS AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/SMIAŁCZTWO WERYFIKACJI WYROBU MODUŁ F DO WGLADU U PRODUCENTA/



Production Plant  
TUV SUD Czech s.r.o.  
Ul. Teslova 2  
34-120 Andrychów, Poland  
E: service@techplast.net  
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# SAFEBR®

## OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

### RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECH-PLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
06. Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
07. TECH-PLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECH-PLAST company.
08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO11116-1 W19.2 wg DIN 477-1	75	95
25E wg EN 629-1 W25.8 wg DIN 477-1	95	110
		180

### A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN144-1	85	100
5/8" 18UNF	85	100

### FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2
02. Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity

### USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
02. For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported securely to avoid unacceptable damage and injuries.
03. The cylinders should be secured to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
05. During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
06. During the process of filling, surface temperature of the cylinder should not exceed 60 °C.
07. The cylinders should be filled only by individuals and people with appropriate powers in accordance with the regulations, norms and laws applicable in their country.
08. The cylinder must be fitted with safety connections with the recommended test pressure. Burner, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
09. Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
10. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
12. Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with O-rings.

### SERVICE

TECH-PLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECH-PLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. The inspection should be carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or PIN can be found on the label.

The cylinders with unlimited life-span are labelled with the word "ILL".

### REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

Comply with the regulations of the country in which the cylinders are used.  
were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.  
IT IS CATEGORICALLY FORBIDDEN TO

- USE THE CYLINDERS FOR ANY PURPOSE, OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WHOSE LIFE SPAN HAS EXPIRED.
- USE THE CYLINDERS WHOSE INSPECTION IS INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS, ETC.
- LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

### DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY  
/ODBOR BUTU PRZEPROWADZU/

TECHPLAST Ltd. www.techplast.net VAT No.: PL 6772147485  
Identification no.: 1017

MANUFACTURER /PRODUCENT/	Krakowska 639 34-120 Andrychów, Poland
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/	RA11C-2507008
RECEIPT REPORT /RAPORT ODBIORU/	AS5-01-00
DRAWING NUMBER /NR RYSUNKU/	08 324.016
BODY CERT. MODULE B /SWIADCETWO MODUŁ B/	A11C/2501553
SERIAL NO /NUMER SERII/	

GAS /GAZ/	AIR, COMPRESSED UN102	VOLUME /POJEMNOŚĆ /	9.00 L
THREAD /GWINT/	M18x1.5	WEIGHT /WAGA/	3.90 kg
DIAMETER /ŚREDNICA/	174.00 mm	TEMP. OF WORK /TEMP. PRACY/	-40°C / +60°C

WORKING PRESSURE /CIŚNIENIE PRACY/	300 BAR	MANUFACTURING DATE /DATA PRODUKCJI/	2025/07
TEST PRESSURE /CIŚNIENIE PRÓBNIE/	450 BAR	EXPIRATION DATE /TERMIN WAŻNOŚCI/	NLL

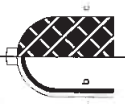
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/	< 30 BAR/MIN
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/	EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
/ZBIORNIKI OZNACZONO ZNAKIEM ZGODNOŚCI/

THE CERTIFICATE OF MODULE F IS AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/SWIADCETWO WERYFIKACJI WYROBU MODUŁ F DO WGLĄDU U PRODUCENTA/



Produkcja i montaż:  
u Krakowska 639 P  
34-120 Andrychów, Poland  
t. service@techplast.net  
w. safety@techplast.net



# SAIFER® OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

a. epoxy coating  
b. liner made of PET  
c. composite in an epoxy matrix

## RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
06. Any repairs concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
07. TECHPLAST company recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

## A3 TABLE

Taper thread	Mounting torque [Nm]		
	Minimum		Maximum
1/E wg ISO11116-1 W19.2 wg DIN 477-1	75	95	140
25E wg EN 629-1 W26.8 wg DIN 477-1	95	110	180

## A4 TABLE

Straight thread	Mounting torque [Nm]		
	Minimum		Maximum
M18 x1.5 EN144-1	85		100
5/8" 18UNF	85		100

## FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
02. Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

## USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
02. For the use of the cylinders, there should be sealed containers, bins, pallets, etc. The cylinders should be transported carefully to avoid undesirable damage and impairments.
03. The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, (lled by the valve or rolled in a lying position, during the transport.
05. During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impairments and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
06. During the process of filling, surface temperature of the cylinder should not exceed 60 °C. The cylinders should be filled only by authorized staff and people with appropriate powers in accordance with the regulations, laws and regulations applicable in their country.
07. The cylinder must be fitted with a valve connections with the recommended test pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
08. Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
09. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13343.
10. Sample mounting torque values to the cylinders according to the tables A.3. and A.4.
11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
12. Tons with pressure valves should be transported/stored pressurized to min. 2bar. Tons without pressure valves should be fitted with transport caps with a ring.

## SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. The inspection should be carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labeled with the word NLL.

## REMARKS

- ONE CAN ONLY FILL THE CYLINDERS WHICH:
- Comply with the regulations of the country in which the cylinders are used.
  - were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.
  - IT IS CATEGORICALLY FORBIDDEN TO:
  - USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
  - USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
  - USE THE CYLINDERS WHOSE INSPECTION IS INCOMPLETE.
  - USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS, ETC.
  - USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS, ETC.).
  - LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
  - USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY  
/ODBIOR BUTU PRZEPROWADZIŁ/

TÜV SÜD Czech s.r.o. Ostrava;  
Identification no.: 1017

MANUFACTURER  
/PRODUCENT/

TECHPLAST Ltd. www.techplast.net VAT No.: PL.677147485

PRODUCTION PLANT  
/MIEJSCOWOŚĆ PRODUKCJI/

Krakowska 83P 34-120 Andrychów, Poland

RECEPTION REPORT  
/RAPORT ODBIORU/

RA11C-2507008

DRAWING NUMBER  
/NR RYSUNKU/

ASS-01-00

BODY CERT. MODULE B  
/S/WIADECTWO MODUŁ B/

08.324.016

SERIAL NO  
/NUMER SERWISU/

A11C12/2501554

GAS  
/GAZ/

AIR, COMPRESSED  
UN1002

VOLUME  
/POJEMNOŚĆ/

9.00 L

THREAD  
/GNIOT/

M18x1.5

WEIGHT  
/WAGA/

3.90 kg

DIAMETER  
/ŚREDNICA/

174.00 mm

TEMP. OF WORK  
/TEMP. PRACY/

-40°C / +60°C

WORKING PRESSURE  
/CIŚNIENIE PRACY/

300 BAR

MANUFACTURING DATE  
/DATA PRODUKCJI/

2025/07

TEST PRESSURE  
/CIŚNIENIE PROBNIE/

450 BAR

EXPIRATION DATE  
/TERMIN WAŻNOŚCI/

NLL

RECOMMENDED FILLING RATE  
/ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/

< 30 BAR/MIN

CYLINDERS MEET THE REQUIREMENTS OF  
/BUTLE SPEŁNIĄ WYMAGANIA/

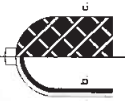
EN 12245:2009+A1:2011  
DIRECTIVE 2014/68/EU

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
/ZBIORNIKI OZNAKOWANO ZNAKIEM ZGODNOŚCI/

1017

THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/SWIADECTWO WERYFIKACJI WYROBU/MODUŁ F DO WGLĄDU U PRODUCENTA/





- a epoxy coating
- b liner made of PET
- c composite wrap made in an epoxy matrix

## SAFEBR<sup>®</sup>

# OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

### RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
06. Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. In any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO11116-1 W19.2 wg DIN 477-1	75	95
25E wg EN 6299-1 W26.8 wg DIN 477-1	95	110
		180

### A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN144-1	85	100
5/8" 18UNF	85	100

### FILLING PRODESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
02. Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

### USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
02. For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.
03. The cylinders should be used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
05. During storage of the cylinders, they should be protected against mechanical damage, occurring mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
06. During the process of filling, surface temperature of the cylinder should not exceed 60 °C.
07. The cylinders should be used only by individuals and people with appropriate powers in accordance with the regulations applicable in their country.
08. The cylinder must be filled with a valve connections with recommended test pressure. Elements, connections and the valve should be adapted according to the regulations, norms and laws applicable in the country in which the cylinder is used.
09. Values for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
10. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
12. Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with o-rings.

### SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. The inspection should be carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or F.N. can be found on the label.

The cylinders with unlimited life-span are labeled with the word NLL.

### REMARKS

- ONE CAN ONLY FILL THE CYLINDERS WHICH:
- Comply with the regulations of the country in which the cylinders are used.
  - were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.
- IT IS CATEGORICALLY FORBIDDEN TO
- USE THE CYLINDERS FOR ANY PURPOSE, OTHER THAN MENTIONED IN THE AUTHORIZATION.
  - USE THE CYLINDERS WHOSE LIFE SPAN HAS EXPIRED.
  - USE THE CYLINDERS WHOSE INSPECTION IS INCOMPLETE.
  - USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.
  - LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
  - USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY  
ZARZĄD BULI, PRZEPRAWIDZIA

TUV SUD Czech s.r.o. Ostrava: Testova 2  
Identification no.: 1017

MANUFACTURER  
/PRODUCENT/

TECHPLAST Ltd. www.techplast.net VAT No.: PL 6772147485

PRODUCTION PLANT  
/ZARZĄD PRODUKCYJNY/

Krakowska 83P 34-120 Andrychów, Poland

RECEPTION REPORT  
/RAPORT ODBIORU/

RA11C-2507008

DRAWING NUMBER  
/NR RYSUNKU/

ASS-01-00

BODY CERT. MODULE B  
/SIŁADZIECTWO MODUŁ B/

08.324.016

SERIAL NO  
/NUMER SERII/

A11C12501555

GAS  
/GAZ/

AIR, COMPRESSED  
UN102

VOLUME  
/POJEMNOŚĆ /

9.00 L

THREAD  
/GWINT/

M18x1.5

WEIGHT  
/WAGA/

3.90 kg

DIAMETER  
/ŚREDNICA/

174.00 mm

TEMP. OF WORK  
/TEMP. PRACY/

-40°C / +60°C

WORKING PRESSURE  
/CIŚNIENIE PRACY/

300 BAR

MANUFACTURING DATE  
/DATA PRODUKCJI/

2025/07

TEST PRESSURE  
/CIŚNIENIE PROBNIE/

450 BAR

EXPIRATION DATE  
/TERMIN WAŻNOŚCI/

NLL

RECOMMENDED FILLING RATE  
/ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/

< 30 BAR/MIN

CYLINDERS MEET THE REQUIREMENTS OF  
/BUTLE SPENIAJĄ WYMAGANIA/

EN 12245:2009+A1:2011  
DIRECTIVE 2014/68/EU

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
/CZŁOKI OZNAKOWANO ZNAKIEM ZGODNOŚCI/

1017

THE CERTIFICATE OF MODULE F IS AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/SIŁADZIECTWO WERYFIKACJI WYROBU MODUŁ F DO WGLĄDÓU U PRODUCENTA/





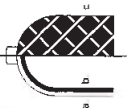
02 of 02

ENG

SAIFER®

OPERATION  
AND MAINTENANCE  
MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER



a. epoxy coating

b. inner mode of PET

c. composite in an epoxy matrix

RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
06. The producer is not responsible for the damage or the structure of the cylinder can be made only with a written consent of the producer.
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

A3. TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
1/2" wg ISO11116-1 W19.2 wg DIN 477-1	75	95
25E wg EN 629-1 W26.8 wg DIN 477-1	95	110
		180

A4. TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN144-1	85	100
5/8"-18UNF	85	100

FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
02. Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
02. For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid irreparable damage and impurities.
03. The device used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
05. During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
06. During the process of filling, surface temperature of the cylinder should not exceed 60 °C.
07. The cylinder must be filled with a valve, connections with the recommended test pressure. Elements, in accordance with the regulations, laws and not applicable in their country).
08. The cylinder must be filled with a valve, connections with the recommended test pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
09. Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
10. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
12. Tanks with pressure valves should be transported/stored pressurized to min. 2bar Tanks without pressure valves should be fitted with transport caps with O-rings.

SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. The inspection should be carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labeled with the word NLL.

REMARKS

- ONE CAN ONLY FILL THE CYLINDERS WHICH:
- Comply with the regulations of the country in which the cylinders are used.
- were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.
- IT IS CATEGORICALLY FORBIDDEN TO:
- USE THE CYLINDERS FOR ANY PURPOSE, OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
- USE THE CYLINDERS WHOSE LIFE-SPAN IS INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.
- USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC).
- LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY  
/ODBIOR BUTY PRZEPRAWADZU/

TÜV SÜD Czech s.r.o. Ostrava; Teslova 2  
Identification no.: 1017

MANUFACTURER  
/PRODUCENT/

TECHPLAST Ltd. www.techplast.net /VAT No.: PL 677147465

PRODUCTION PLANT  
/ZAKŁAD PRODUKCYJNY/

Krakowska 83P 34-120 Andrychów, Poland

RECEPTION REPORT  
/RAPORT ODBIORU/

RA11C-2507008

DRAWING NUMBER  
/NR RYSUNKU/

AS5-01-00

BODY CERT. MODULE B  
/SWIADCETWO MODUŁ B/

08 324.016

SERIAL NO  
NUMER SERII/NOY/

A11C/2501559

GAS  
/GAZ/

UN002

VOLUME  
/POJEMNOŚĆ/

9.00 L

THREAD  
/SZRUBY/

M18x1.5

WEIGHT  
/WAGA/

3.90 kg

DIAMETER  
/ŚREDNICA/

174.00 mm

TEMP. OF WORK  
/TEMP. PRACY/

-40°C / +60°C

WORKING PRESSURE  
/CIŚNIENIE PRACY/

300 BAR

MANUFACTURING DATE  
/DATA PRODUKCJI/

2025/07

TEST PRESSURE  
CIŚNIENIE PROBNIE/

450 BAR

EXPIRATION DATE  
/TERMIN WAZNOŚCI/

NLL


RECOMMENDED FILLING RATE  
/ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/

< 30 BAR/MIN

CYLINDERS MEET THE REQUIREMENTS OF  
/BUTLE SPĘŁNIAJĄ WYMAGANIA/

EN 12245:2009+A1:2011  
DIRECTIVE 2014/68/EU

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
/ZEBRAWY OZNAČONO ZNAKEM ZGODNOŚCI/



1017

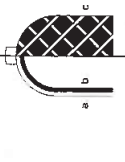
THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/SWIADCETWO WERYFIKACJI WYROBU MODUŁ F DO WGLĄDU U PRODUCENTA/

SAIFER®

ULTRA LIGHT  
COMPOSITE  
CYLINDERS

Production Plant  
ul. Krakowska 83 P  
34-120 Andrychów, Poland  
E: service@techplast.net  
W: www.techplast.com





## SAIFER® OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

### RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
06. During the design or the structure of the cylinder can be made only with a written consent of the producer.
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. In any damages or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
1/2" wg ISO11116-1 W19.2 wg DIN 477-1	75	95
25E wg EN 629-1 W26B wg DIN 477-1	95	110
		180

### A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN144-1	85	100
5/8" 18UNF	85	100

### FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2
02. Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

### USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
02. For the transport of the cylinders, these should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.
03. The device used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
05. During the process of filling, surface temperature of the cylinder should not exceed 60 °C.
06. The cylinders should be filled with appropriate powers and pressures in accordance with the regulations, laws and norms applicable in their country.
07. The cylinder must be fitted with a valve, connections with the recommended test pressure. Blanks, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
08. Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
09. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13541.
10. Sample mounting torque values to the cylinders according to the tables A.3. and A.4.
11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
12. Tanks with pressure valves should be transported/stored pressurized to min. 2 bar. Tanks without pressure valves should be fitted with transport caps with O-rings.

### SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. The inspection should be carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labelled with the word NULL.

### REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

Comply with the regulations of the country in which the cylinders are used.

were marked with the date of last inspection, they were given a sign of a certified body and the term of their re-inspection has not expired have not visible damages of the cylinder, valve, connections etc.

IT IS CATEGORICALLY FORBIDDEN TO:

- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WHICH HAVE EXPIRED.
- USE THE CYLINDERS WHOSE LABELLING IS INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE CONNECTIONS ETC.
- USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC.).
- LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

### DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY  
/OSBOR BUTU PRZEPRAWADZU/  
TECHPLAST Ltd. www.techplast.net VAT No.: PL 8772147485

MANUFACTURER /PRODUCENT/	Krakowska 83P 34-120 Andrychów, Poland
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/	RA11C-2507008
RECEPTION REPORT /RAPORT ODBIORU/	A85-01-00
DRAWING NUMBER /NR RYSUNKU/	08 324.016
BODY CERT. MODULE B SMIAŁOCTWO MODUŁ B/	A11C/2501557
NUMBER CERTIFY/	
GAS /GAZ/	VOLUME /POJEMNOŚĆ /
THREAD /GWINT/	WEIGHT /WAGA/
DIAMETER /ŚREDNICA/	TEMP. OF WORK /TEMP. PRACY/
WORKING PRESSURE /CIŚNIENIE PRACY/	MANUFACTURING DATE /DATA PRODUKCJI/
TEST PRESSURE /CIŚNIENIE PRÓBNIE/	EXPIRATION DATE /TERMIN WAŻNOŚCI/
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/	EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU

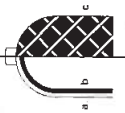
THE CYLINDERS WERE TESTED WITH THE MARK OF CONFORMITY  
/ZBIORNIKI OZNACZONO ZNAKIEM ZGODNOŚCI/

THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/SMIAŁOCTWO WERYFIKACJI WYROBU MODUŁ F DO WGLĄDU U PRODUCENTA/

**SAIFER®**  
ULTRA LIGHT  
COMPOSITE  
CYLINDERS

Production Plant  
/OSBOR BUTU PRZEPRAWADZU/  
ul. Krakowska 83 P  
34-120 Andrychów, Poland  
E: service@techplast.net  
W: saifer-cylinders.com





- a. apply coating  
b. line made of PET  
c. composite in an epoxy matrix

## SAIFER® OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

### RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
06. A person using the design or the structure of the cylinder can be made only with a written consent of the producer.
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3 TABLE

Taper thread	Mounting torque [N.m]	
	Minimum	Maximum
1/2" wg ISO11116-1 W19.2 wg DIN 477-1	75	95
25E wg EN 629-1 W28.8 wg DIN 477-1	95	110
		180

### A4 TABLE

Straight thread	Mounting torque [N.m]	
	Minimum	Maximum
M18 x1.5 EN144-1	85	100
5/8" 18UNF	85	100

### FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2
02. Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity

### USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
02. For the transport of the cylinders, they should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.
03. The device used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
05. During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
06. During the process of filling, surface temperature of the cylinder should not exceed 60 °C.
07. The cylinder must be fitted with a valve, connections with the design provided last pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
08. Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
09. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
10. Sample mounting torque values to the cylinders according to the tables A3 and A4.
11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11111-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
12. Tanks with pressure valves should be transported/stored pressurized to min. 2 bar. Tanks without pressure valves should be fitted with transport caps with o-rings.

### SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. The inspection should be carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labelled with the word NULL.

### REMARKS

- ONE CAN ONLY FILL THE CYLINDERS WHICH
- Comply with the regulations of the country in which the cylinders are used.
- were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder valve, connections etc.
- IT IS CATEGORICALLY FORBIDDEN TO:
- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
  - USE THE CYLINDERS WHOSE EXPIRATION DATE IS NOT COMPLETE.
  - USE THE CYLINDERS WHOSE LABELLING IS NOT COMPLETE.
  - USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER VALVE, CONNECTIONS ETC.
  - LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
  - USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY  
/ODBIOR BUTLI PRZEPROWADZIŁ/

TUV SÜD Czech s.r.o. Ostrava; Testlova 2  
Identification no.: 1017

MANUFACTURER  
/PRODUCENT/

TECHPLAST Ltd. www.techplast.net VAT No.: PL-6772147485

PRODUCTION PLANT  
/RAPORT ODBIORU/

Krakowska 83P 34-120 Andrychów, Poland

RECEPTION REPORT  
/RAPORT ODBIORU/

RA11C-2507008

DRAWING NUMBER  
/NR RYSUNKU/

AS5-01-00

BODY CERT. MODULE B  
/SWADECTWO MODUŁ B/

08.324.018

SERIAL NO  
/NUMER SERII/

A11C1/2501547

GAS  
/GAZ/

VOLUME  
/POJEMNOŚĆ/

9.00 L

THREAD  
/SZNIW/

WEIGHT  
/WAGA/

3.90 kg

DIAMETER  
/ŚREDNICA/

TEMP. OF WORK  
/TEMP. PRACY/

-40°C / +60°C

WORKING PRESSURE  
/CIŚNIENIE PRACY/

MANUFACTURING DATE  
/DATA PRODUKCJI/

2025/07

TEST PRESSURE  
/CIŚNIENIE PROBNIE/

EXPIRATION DATE  
/TERMIN VAZNOŚCI/

NULL

RECOMMENDED FILLING RATE  
/ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/

< 30 BAR/MIN

CYLINDERS MEET THE REQUIREMENTS OF  
/BUTLE SPEŁNIAJĄ WYMAGANIA/

EN 12245:2008+A1:2011  
DIRECTIVE 2014/68/EU

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
/ZEBOWIĄ OZNACZONO ZNAKEM ZGODNOŚCI/

CE 1017

THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/SWADECTWO WERYFIKACJI WYROBU MODUŁ F DO WGLADU U PRODUCENTA/





# SAFEDR® OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

## RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
06. Any changes concerning the design or the structure of the cylinder can be made only with a written permission of the producer.
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized producer or center of TECHPLAST company.
08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

## A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO11116-1 W12.2 wg DIN 477-1	75	95
25E wg EN 629-1 W28.8 wg DIN 477-1	95	110
		180

## A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN144-1	85	100
5/8" 18UNF	85	100

## FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2
02. Cylinder filling temperature shall not exceed 50°C. Recommended filling rate is in Declaration of Conformity

## USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
02. For the transport of cylinders, boxes should be used, containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.
03. The device used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
05. During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
06. During the process of filling, surface temperature of the cylinder should not exceed 50 °C.
07. The cylinder must be filled with a valve, connections with the recommended fast pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
08. Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
09. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
10. Sample mounting torque values to the cylinders according to the tables A.3. and A.4.
11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
12. Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with o-rings.

## SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.  
In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.  
Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used, but by individuals who control pressure monitors in accordance with the rules and regulations of the country.  
For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.  
The cylinders with unlimited life-span are labelled with the word NLL.

## REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:  
Comply with the regulations of the country in which the cylinders are used.  
were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.  
IT IS CATEGORICALLY FORBIDDEN TO:  
■ USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.  
■ USE THE CYLINDERS WHOSE LIFE-SPAN IS EXPIRED.  
■ USE THE CYLINDERS WHOSE LIFE-SPAN IS EXPIRING.  
■ USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.  
■ USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC.).  
■ LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.  
■ USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

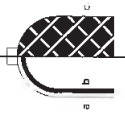
PRODUCT VERIFICATION WAS PERFORMED BY /ODBIOR BUTLI PRZEPROWADZIŁ/		TUV SUD Czech s.r.o. Ostrava, Testova 2 Identification no.: 1017	
MANUFACTURER /PRODUCENT/		TECHPLAST Ltd. www.techplast.net VAT No.: PL 6772147485	
PRODUCTION PLANT /FABRYKA PRODUKCJI/		Krakowska 83P 34-120 Andrychów, Poland	
RECEPTION REPORT /RAPORT ODBIORU/		RA11C-2507008	
DRAWING NUMBER /NR RYSUNKU/		A55-01-00	
BODY CERT. MODULE B /SZWADCTWO MODUŁ B/		08.324.016	
SERIAL NO /NUMER SERWANTY/		A11C/2501534	
GAS /GAZ/		VOLUME /POJEMNOŚĆ /	9.00 L
THREAD /GWINT/		WEIGHT /WAGA/	3.90 kg
DIAMETER /ŚREDNICA/		TEMP. OF WORK /TEMP. PRACY/	-40°C / +67°C
WORKING PRESSURE CIŚNIENIE PRACY/		MANUFACTURING DATE /DATA PRODUKCJI/	202507
TEST PRESSURE CIŚNIENIE PRÓBY/		EXPIRATION DATE /TERMIN WAŻNOŚCI/	NLL
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/		< 30 BAR/MIN	
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPENIAJĄ WYMAGANIA/		EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU	
THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY /ZBORYTKI OZNAKOWANO ZNAKIEM ZGODNOŚCI/		CE 1017	
THE CERTIFICATE OF MODULE F IS AVAILABLE FOR INSPECTION AT THE MANUFACTURER /SZWADCTWO WERYFIKACJI WYROBÓW MODUŁ F DOD WŁAŚCIU PRODUCENTA/			



Production Plant  
Technoplast Sp. z o.o.  
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W safedr.com







## SAFAR<sup>®</sup> OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

### RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
06. Any responsibility concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3 TABLE

Taper thread	Mounting torque [N·m]	
	Minimum	Maximum
1/2" wg ISO11116-1 W19.2 wg DIN 477-1	75	95
25E wg EN 629-1 W28B wg DIN 477-1	95	110
		180

### A4 TABLE

Straight thread	Mounting torque [N·m]	
	Minimum	Maximum
M18 x1.5 EN144-1	85	100
5/8" 18UNF	85	100

### FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
02. Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

### USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
02. For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.
03. The cylinders should be protected by protective caps (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
05. During mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
06. During the process of filling, surface temperature of the cylinder should not exceed 60 °C.
07. The cylinders should be used only by individuals and people with appropriate powers in accordance with the regulations, norms and standards applicable in their country.
08. The cylinder must be filled with a safe connections with the recommended test pressure. Elements, connections and the valve should be approved according to the regulations, norms and laws applicable in the country in which the cylinder is used.
09. Values for the cylinder should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
10. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
11. Sample mounting torque values to the cylinders according to the tables A3 and A4.
12. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
13. Tanks with pressure valves should be transported/stored pressurized to min. 2bar/Tanks without pressure valves should be fitted with transport caps with O-rings.

### SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used and checked out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or PIN can be found on the label.

The cylinders with unlimited life-span are labelled with the word NLL.

### REMARKS

- ONE CAN ONLY FILL THE CYLINDERS WHICH
- Comply with the regulations of the country in which the cylinders are used.
- were marked with the date of last inspection, they were given a sign of a notified body and the letter
- of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.
- IT IS CATEGORICALLY FORBIDDEN TO
- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
  - USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
  - USE THE CYLINDERS WHOSE LIFE-SPAN IS INCOMPLETE.
  - USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.
  - USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC).
  - LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
  - USE A VACUUM (DO NOT USE A VACUUM).

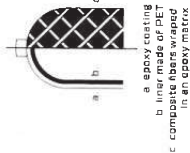
### DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY /ODBIÓR BUTU PRZEPRAWIAJĄCY/		TUV SÜD Czech s.r.o. Ostrava, Teslova 2 Identification no.: 1017	
MANUFACTURER /PRODUCENT/		TECHPLAST Ltd. www.techplast.net VAT No.: PL 8772147485	
PRODUCTION PLANT /ZAKŁAD PRODUKCJI/		Krakowska 83P 34-120 Andrychów, Poland	
RECEPTION REPORT /RAPORT ODBIORU/		RA11C-2507008	
DRAWING NUMBER /NR RYSUNKU/		ASS-01-00	
BODY CERT. MODULE B /SWADECTWO MODUŁ B/		08.324.016	
SERIAL NO /NUMER SERWISU/		A11C/25071536	
GAS /GAZ/	AIR COMPRESSED UN1002	VOLUME /POJEMNOŚĆ /	9.00 L
THREAD /GWINT/	M18x1.5	WEIGHT /WAGA/	3.90 kg
DIAMETER /ŚREDNICA/	174.00 mm	TEMP. OF WORK. /TEMP. PRACY/	-40°C / +61°C
WORKING PRESSURE /CIŚNIENIE PRACY/	300 BAR	MANUFACTURING DATE /DATA PRODUKCJI/	2025/07
TEST PRESSURE /CIŚNIENIE PRÓBY/	450 BAR	EXPIRATION DATE /TERMIN WAŻNOŚCI/	NLL
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/		< 30 BAR/MIN	
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/		EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU	
THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY /ZBIORKI OZNACZONO ZNAKIEM ZGODNOŚCI/			
THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER /SWADECTWO WERYFIKACJI WYROBU MODUŁ F DOSTĘPNA U PRODUCENTA/			



# SAIFER® OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER



a. epoxy coating  
b. composite fibers  
c. epoxy matrix

## RECOMMENDATION

- Read the instruction carefully and keep to its conditions.
- Composite cylinders should be operated in accordance with their use.
- The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
- Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent persons, holding the necessary training and powers which are in accordance with the regulations applicable in their country of operation.
- When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center or when the cylinders are not operated in accordance with their use, the user bears the responsibility for the resulting damages.
- Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
- TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
- If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

## A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO11116-1 W19.2 wg DIN 477-1	75	95
25E wg EN 6299-1 W28.9 wg DIN 477-1	95	110
		180

## A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN1474-1	85	100
5/8" UNF	65	100

## FILLING PROCESS

- Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
- Cylinder filling temperature shall not exceed 50°C. Recommended filling rate is in Declaration of Conformity.

## USE

- The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
- For the transport of the cylinders, these should be used: containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and impurities.
- The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
- It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
- During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
- During the process of filling, surface temperature of the cylinder should not exceed 50 °C. The cylinders should be filled in accordance with the regulations, norms and laws applicable in their country.
- The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, in accordance with the regulations, laws and norms applicable in their country.
- Connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
- Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
- Sample mounting torque values to the cylinders according to the tables A.3. and A.4.
- To see the connection between the valve and the cylinder there should be used materials in accordance with the regulations, norms and laws applicable in the country, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeter thick.
- Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with O-rings.

## SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. The inspection should be carried out by individuals who control of pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labeled with the word NULL.

## REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

Comply with the regulations of the country in which the cylinders are used,

were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.

IT IS CATEGORICALLY FORBIDDEN TO:

- USE THE CYLINDERS FOR ANY PURPOSE, OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WITHOUT LABELING.
- USE THE CYLINDERS WHOSE LABELING IS ILLEGIBLE OR INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.
- USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC.).
- LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY  
/ODBIÓR BUTLI PRZEPROWADZU/

MANUFACTURER /PRODUCENT/	TECHPLAST Ltd. www.techplast.net VAT No.: PL 8772147485
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/	Krakowska 83P 34-120 Andrychów, Poland
RECEPTION REPORT RAPORT ODBIORU	RA11C-2507008
DRAWING NUMBER /NR RYSUNKU/	AS5-01-00
BODY CERT. MODULE B /SMIADECTWO MODUŁ B/	08.324.016
SERIAL NO /NUMER SERWISU/	A11C/250/1532

GAS /GAZ/	AIR, COMPRESSED UN1002	VOLUME /POJEMNOŚĆ /	9.00 L
THREAD /GWINT/	M18x1.5	WEIGHT /WAGA/	3.90 kg
DIAMETER /ŚREDNICA/	174.00 mm	TEMP. OF WORK /TEMP. PRACY/	-40°C / +50°C
WORKING PRESSURE CIŚNIENIE PRACY/	300 BAR	MANUFACTURING DATE /DATA PRODUKCJI/	2025/07
TEST PRESSURE CIŚNIENIE PRÓBNIE/	450 BAR	EXPIRATION DATE /TERMIN WAZNOŚCI/	NLL
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/		< 30 BAR/MIN	
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/		EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU	

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
/ZBIORNIKI OZNAKOWANO ZNAKIEM ZGODNOŚCI/

THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/SMIADECTWO WERYFIKACJI WYROBU MODUŁ F DO WGLADU U PRODUCENTA/

**SAIFER®**  
ULTRA LIGHT  
COMPOSITE  
CYLINDERS



Production Plant  
/ZAKŁAD PRODUKCYJNY/  
ul. Krakowska 83 P  
34-120 Andrychów, Poland  
E: service@techplast.net  
W: saifer@indera.com



# OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

- a epoxy coating
- b lining made of PET
- c reinforcement in an epoxy matrix

## RECOMMENDATION

- Read the instruction carefully and keep to its conditions.
- Composite cylinders should be operated in accordance with their use.
- The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
- Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and authorized service center of TECHPLAST company or if the cylinders are not operated in accordance with the regulations applicable in their country of operation.
- When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company or if the cylinders are not operated in accordance with the regulations applicable in their country of operation, the user bears the responsibility for their correct functioning.
- Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
- TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
- If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO1116-1 W19.2 wg DIN 477-1	75	95
25E wg EN 429-1 W20.9 wg DIN 477-1	95	110
		130

A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN144-1	85	100
5/8"-18UNF	85	100

## FILLING PROCEED

- Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
- Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

## USE

- The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
- For the transport of the cylinders, these should be used: containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.
- The device used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
- It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
- During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical injuries and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
- During the process of filling, surface temperature of the cylinder should not exceed 60 °C.
- The cylinder must be fitted with a valve, connections with the recommended last pressure. Elements, connections and this valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
- Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13541.
- Sample mounting torque valves to the cylinders according to the tables A.3. and A.4.
- To seal the connection between the valve and the cylinder there should be used materials in accordance with the table A.3. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
- Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with O-rings.

## SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company in order to detect any potential damages. The producer recommends a visual inspection during the process of filling of each cylinder. Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. The inspection must be carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country. For cylinders with a limited life-span, the EXPIRATION DATE or PIN can be found on the label. The cylinders with unlimited life-span are labelled with the word NLL.

## REMARKS

- ONE CAN ONLY FILL THE CYLINDERS WHICH:
- Comply with the regulations of the country in which the cylinders are used.
  - were marked with the date of last inspection. They were given a sign of a notified body and the term of their re-inspection has not expired. Have not visible damages of the cylinder, valve, connections etc.
  - IT IS CATEGORICALLY FORBIDDEN TO:
  - USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
  - USE THE CYLINDERS FOR FILLING OF OTHER GASES.
  - USE THE CYLINDERS WHOSE LABELING IS INCOMPLETE.
  - USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.
  - USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC.).
  - LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
  - USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY  
/ODBIÓR BUTLI PRZEPROWADZU/

TUV SÜD Czech s.r.o. Ostrava, Teslova 2  
Identification no.: 1017

MANUFACTURER  
/PRODUCENT/

TECHPLAST Ltd. www.techplast.net VAT No.: PL 6772147485

PRODUCTION PLANT  
/ZAKŁAD PRODUKCYJNY/

Krakowska 83P 34-120 Andrychów, Poland

RECEPTION REPORT  
RAPORT ODBIORU/

RA11C-2507008

DRAWING NUMBER  
/NR RYSUNKU/

AS5-01-00

BODY CERT. MODULE B  
/SWIACECTWO MODUŁ B/

08 324 016

SERIAL NO  
NUMER SERIANY/

A11C/2501546

GAS /GAZ/	AIR COMPRESSED UN1002	VOLUME /POJEMNOŚĆ /	9.00 L
THREAD /GWINT/	M18x1.5	WEIGHT /WAGA/	3.90 kg
DIAMETER /SREĆNICA/	174.00 mm	TEMP. OF WORK. /TEMP. PRACY/	-40°C / +60°C
WORKING PRESSURE /CIŚNIENIE PRACY/	300 BAR	MANUFACTURING DATE /DATA PRODUKCJI/	2025/07
TEST PRESSURE /CIŚNIENIE PRÓBNIE/	450 BAR	EXPIRATION DATE /TERMIN WAŻNOŚCI/	NLL

RECOMMENDED FILLING RATE  
/ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/

< 30 BAR/MIN

CYLINDERS MEET THE REQUIREMENTS OF  
/BUTLE SPĘDZAJĄ WYMAGANIA/

EN 12245:2009+A1:2011  
DIRECTIVE 2014/68/EU

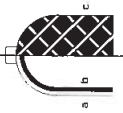
THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
/ZBIOŃKI OZNAČONO ZNAKIEM ZGODNOŚCI/

CE 1017

THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/SWIACECTWO WERYFIKACJI WYROBU MODUŁ F DO WGLĄDU I PRODUCENTA/



Production Plant  
Zakład Produkcyjny  
ul. Krakowska 83 P  
34-120 Andrychów, Poland  
E: service@techplast.net  
W: safecylinders.com



- a epoxy coating  
b neck made of PET  
c composite filling matrix in an epoxy matrix

## SAIFER® OPERATION AND MAINTENANCE MANUAL

OF FULLY WELDED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

### RECOMMENDATION

- Read the instruction carefully and keep to its conditions.
- Compatible cylinders should be operated in accordance with their use.
- The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
- Maintenance service and repairs of compressed gas cylinders can be carried out only by qualified and competent personnel with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
- When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center or company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for the consequences.
- Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
- TECHPLAST recommends the user to enter into a contract which guarantees services by the authorized service center of TECHPLAST company.
- If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO1116-1 W19.2 wg DIN 477-1	75	95
25E wg EN 429-1 W28.8 wg DIN 477-1	95	110
		180

### A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN144-1	85	100
5/8" 18UNF	85	100

### FILLING PROCESS

- Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
- Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

### USE

- The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
- For the transport of the cylinders, they should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and impurities.
- The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
- It is unacceptable that the cylinders are thrown, filled by the valve or rolled in a lying position, during the transport.
- During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
- During the process of filling, surface temperature of the cylinder should not exceed 60 °C.
- The cylinders should be filled and placed in a lying position with appropriate powers in accordance with the regulations, laws and norms applicable in the country.
- The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, connections, and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
- Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13241.
- Sample mounting torque values to the cylinders according to the tables A.3. and A.4.
- To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 1414-2. If necessary, the producer recommends the use of Teflon tape, type PIPE which is at least 0.1 millimeters thick.
- Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with orings.

### SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. The inspection should be carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labelled with the word NULL.

### REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

Comply with the regulations of the country in which the cylinders are used.

were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.

IT IS CATEGORICALLY FORBIDDEN TO:

- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS FOR FILLING OF OTHER GASES.
- USE THE CYLINDERS WHOSE LABELING IS INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.
- USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC).
- LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY  
/ODBIOR BUTU PRZEPRAWIDŁU/

TUV SUD Czech s.r.o. Ostrava; Tešlova 2  
Identification no.: 1017

MANUFACTURER /PRODUCENT/	TECHPLAST Ltd. www.techplast.net VAT No.-PL 6772147465
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/	Krakowska 83P 34-120 Andrychów, Poland
RECEPTION REPORT RAPORT ODBIORU/	RA11C-2507008
DRAWING NUMBER /NR RYSUNKU/	AS5-01-00
BODY CERT. MODULE B /SIŁADCECTWO MODUŁ B/	08.324.016
SERIAL NO NUMER SERII/NUM/	A11C/25/01543

GAS /GAZ/	AIR, COMPRESSED UN102	VOLUME /POJEMNOŚĆ /	9.00 L
THREAD /GWINT/	M18x1.5	WEIGHT /WAGA/	3.90 kg
DIAMETER /ŚREDNICA/	174.00 mm	TEMP. OF WORK /TEMP. PRACY/	-40°C / +60°C

WORKING PRESSURE /CIŚNIENIE PRACY/	300 BAR	MANUFACTURING DATE /DATA PRODUKCJI/	2025/07
TEST PRESSURE /CIŚNIENIE PROBY/	450 BAR	EXPIRATION DATE /TERMIN WAŻNOŚCI/	NLL

RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/	< 30 BAR/MIN
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/	EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
/ZBIORNIKI CZYNIĄCZNIO ZNAKOWE ZGODNOŚCI/

THE CERTIFICATE OF MODULE F IS AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/SWIADCENIE WERYFIKACJI WYROBU MODUŁ F DO WGLADU U PRODUCENTA/

**SAIFER®**  
ULTRA LIGHT  
COMPOSITE  
CYLINDERS

Production Plant  
Zakład Przemysłowy  
ul. Krakowska 83P  
34-120 Andrychów, Poland  
C saifertechplast.net  
W saifertechplast.com







a epoxy casting  
b composite fibers  
c epoxy matrix

## SAFEP® OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

### RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with the necessary training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST, the user bears the responsibility for their cost, including the cost of repairing the damage caused by the unauthorized staff.
06. Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
176 wg ISO11116-1 W19.2 wg DIN 477-1	75	95
25E wg EN 429-1 W29.8 wg DIN 477-1	95	110
		130

### A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN144-1	85	100
5/8" 18UNE	85	100

### FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
02. Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

### USE

01. The producer recommends the use of ADR European Agreement, which applies to international transport of dangerous goods by road.
02. For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.
03. The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position during the transport.
05. During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
06. During the process of filling, surface temperature of the cylinder should not exceed 60°C.
07. Filling the cylinders should be carried out in accordance with the regulations, laws and norms with appropriate powers in accordance with the regulations, laws and norms applicable in their country.
08. The cylinders must be fitted with a valve, connections with the recommended test pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
09. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
10. Sample mounting torque valves to the cylinders according to the tables A3 and A4.
11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 13341. In the necessary, the producer recommends the use of Teflon tape, type PTFE, which is at least 0.1 millimeter's thick.
12. Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with O-rings.

### SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspection should be carried out by a specialist who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labelled with the word NLL.

### REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

Comply with the regulations of the country in which the cylinders are used

were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.

IT IS CATEGORICALLY FORBIDDEN TO:

- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WHICH ARE DAMAGED OR CORRODED.
- USE THE CYLINDERS WHICH LABELING IS ILLEGIBLE OR INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.
- USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC.).
- LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY  
/ODBIÓR BUTY PRZEPRAWIAJĄCY/

TUV SÜD Czech s.r.o. Ostrava; Testova 2  
Identification no.: 1017

MANUFACTURER /PRODUCENT/	TECHPLAST Ltd. www.techplast.net VAT No.: PL 677147485
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/	Krakowska 83P 34-120 Andrychów, Poland
RECEPTION REPORT /RAPORT ODBIORU/	RA11C-2507008
DRAWING NUMBER /NR RYSUNKU/	AS5-01-00
BODY CERT. MODULE B /ŚWIADCZENIE MODUŁ B/	08 324 016
SERIAL NO /NUMER SERIALNY/	A11C1Z501524

GAS /GAZ/	VOLUME /POJEMNOŚĆ / N102	9.00 L
THREAD /GNIOT/	WEIGHT /WAGA/	3.90 kg
DIAMETER /ŚREDNICA/	TEMP. OF WORK. /TEMP. PRACY/	-40°C / +60°C
WORKING PRESSURE /CIŚNIENIE PRACY/	MANUFACTURING DATE /DATA PRODUKCJI/	2025/07
TEST PRESSURE /CIŚNIENIE PROBNIE/	EXPIRATION DATE /TERMIN WAŻNOŚCI/	NLL

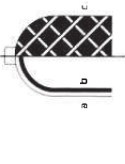
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/	< 30 BAR/MIN
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/	EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
/ZBIORNIKI OZNACZONO ZNAKIEM ZGODNOŚCI/

THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/ŚWIADECTWO WERYFIKACJI WYROBU MODUŁ F DOSTĘPNE U PRODUCENTA/



Produkcja Plant  
Technologia Sp. z o.o.  
ul. Krakowska 83 P  
34-120 Andrychów, Poland  
E safety@techplast.net  
W safetycylinders.com



- a epoxy coating  
b liner made of PET  
c composite material in an epoxy matrix

## SAFEBR<sup>®</sup> OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

### RECOMMENDATION

- D1. Read the instruction carefully and keep to its conditions.
- D2. Composite cylinders should be operated in accordance with their use.
- D3. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
- D4. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
- D5. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECH-PLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
- D6. Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
- D7. TECH-PLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECH-PLAST company.
- D8. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
1/2" wg ISO11116-1 W19.2 wg DIN 477-1	75	95
25E wg EN 629-1 W26.8 wg DIN 477-1	95	110
		180

### A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M1.8 x1.5 EN144-1	85	100
5/8" UNF	85	100

### FILLING PROCESS

- D1. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
- D2. Cylinder filling temperature shall not exceed 40°C. Recommended filling rate is in Declaration of Conformity.

### USE

- D1. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
- D2. For the transport of the cylinders, these should be used as cylinders, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and impact risks.
- D3. The device used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
- D4. It is unacceptable that the cylinders are thrown, lifted by the valve or roller in a lying position, during the transport.
- D5. During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
- D6. During the process of filling, surface temperature of the cylinder should not exceed 40°C.
- D7. The cylinder must be fitted with a valve, connections with the appropriate powers in accordance with the regulations, laws and norms applicable in their country.
- D8. The cylinder must be fitted with a valve, connections with the appropriate test pressure. Blowmarks, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
- D9. Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- D10. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
- D11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
- D12. Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with O-rings.

### SERVICE

TECH-PLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECH-PLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. The inspection should be carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labeled with the word NLL.

### REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

Comply with the regulations of the country in which the cylinders are used.

were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder valve, connections etc.

IT IS CATEGORICALLY FORBIDDEN TO:

- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
- USE THE CYLINDERS WHOSE VALVES ARE INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER VALVE, CONNECTIONS ETC.
- USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC).
- LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

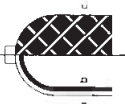
## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY /DOBÓR BUTU PRZEPROWADZU/		TUV SUD Czech s.r.o. Ostrava, Teslova 2 Identification no.: 1017
MANUFACTURER /PRODUCENT/		TECHPLAST Ltd. www.techplast.net VAT No.: PL 677147485
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/		Krakowska 83P 34-120 Andrychów, Poland
RECEPTION REPORT /RAPORT DOBÓRU/		RA11C-2507009
DRAWING NUMBER /NR RYSUNKU/		ASS-01-00
BODY CERT. MODULE B /SWIADECTWO MODUŁ B/		08.324.016
SERIAL NO /NUMER SERIANY/		A11C12501744
GAS /GAZ/	AIR, COMPRESSED UN1002	VOLUME /POJEMNOŚĆ / 9.00 L
	THREAD /CIĘWNI/	WEIGHT /WAGA/ 3.90 kg
	DIAMETER /ŚREDNICA/	TEMP. OF WORK /TEMP. PRACY/ -40°C / +60°C
WORKING PRESSURE CIŚNIENIE PRACY/	300 BAR	MANUFACTURING DATE /DATA PRODUKCJI/
	450 BAR	EXPIRATION DATE /TERMIN WAŻNOŚCI/ 2025/07
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/		NLL
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/		EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
/ZBIORNIKI OZNAKOZONO ZNAKIEM ZGODNOŚCI/

THE CERTIFICATE OF MODULE F IS AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/SWIADECTWO WERYFIKACJI WYROBU MODUŁ F DO WGLĄDU U PRODUCENTA/





- a epoxy coating  
b liner made of PET  
c composite material

## SAFEBR<sup>®</sup>

# OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

### RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
06. Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO11146-1 W19.2 wg DIN 477-1	75	95
25E wg EN 629-1 W26.8 wg DIN 477-1	95	110
		180

### A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18x1.5 EN144-1	85	100
5/8" 18UNF	85	100

### FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
02. Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

### USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
02. For the use of the cylinders, there should be used containers, bins, pallets, etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.
03. The device used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
05. During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
06. During the process of filling, surface temperature of the cylinder should not exceed 60 °C.
07. The cylinder must be filled with a valve, connections with the recommended tank pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
08. Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
09. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
10. Sample mounting torque values to the cylinders according to the tables A.3. and A.4.
11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
12. Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with o-rings.

### SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. The inspection should be carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labeled with the word **NULL**.

### REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

Comply with the regulations of the country in which the cylinders are used.

were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.

IT IS CATEGORICALLY FORBIDDEN TO:

- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
- USE THE CYLINDERS WHOSE INSPECTION IS INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.
- LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

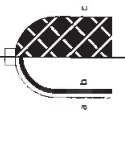
### DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY /ODBIÓR BUTLI PRZEPROWADZIŁ/		TUV SÜD Czech s.r.o. Ostrava: Teslova 2 Identification no.: 1017	
MANUFACTURER /PRODUCENT/		TECHPLAST Ltd. www.techplast.net VAT No. PL 677147485	
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/		Krakowska 83p 34-120 Andrychów, Poland	
RECEPTION REPORT /RAPORT ODBIORU/		RA11C-2507009	
DRAWING NUMBER /NR RYSUNKU/		AS5-01-00	
BODY CERT. MODULE B /SWIADCETWO MODUŁ B/		08.324.016	
SERIAL NO /NUMER SERWISU/		A11C2501743	
GAS /GAZ/	AIR, COMPRESSED UN1002	VOLUME /POJEMNOŚĆ /	9.00 L
THREAD /GWINT/	M18x1.5	WEIGHT /WAGA/	3.90 kg
DIAMETER /ŚREDNICA/	174.00 mm	TEMP. OF WORK /TEMP. PRACY/	-40°C / +60°C
WORKING PRESSURE /CIŚNIENIE PRACY/	300 BAR	MANUFACTURING DATE /DATA PRODUKCJI/	2025/07
TEST PRESSURE /CIŚNIENIE PRÓBNIE/	450 BAR	EXPIRATION DATE /TERMIN WAŻNOŚCI/	NULL
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/		< 30 BAR/MIN	
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPECYJALNA WYMAGANIA/		EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU	
THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY /ZBIORIKI OZNAKOZONO ZNAKIEM ZGODNOŚCI/		CE 1017	
THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER /SWIADCETWO WERYFIKACJI WYROBÓW MODUŁ F DO WGLĄDU U PRODUCENTA/			



Production Plant:  
Techplast Sp. z o.o.  
ul. Krakowska 83 p  
34-120 Andrychów, Poland  
E: service@techplast.net  
W: safebr.cylinders.com





- a. epoxy coating  
b. liner made of PET  
c. composite matrix in an epoxy matrix

## SAFAR<sup>®</sup> OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

### RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
06. Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. If any evidence or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO11116-1 W19.2 wg DIN 477-1	75	95
25E wg EN 629-1 W26.8 wg DIN 477-1	95	110
		180

### A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN144-1	B5	100
5/8" UNF	B5	100

### FILLING PROCESS

01. Fill epoxy cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
02. Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

### USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
02. For the use of the cylinders, there should be used containers, line, pallets etc. The cylinders should be transported carefully to avoid undesirable damage and impurities.
03. The device used to protect valves, connections (i.e. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
05. During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
06. During the process of filling, surface temperature of the cylinder should not exceed 60°C.
07. The cylinder must be fitted with a valve, connections with their recommended test pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
08. Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
09. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
10. Sample mounting torque values to the cylinders according to the tables A.3. and A.4.
11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
12. Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with O-rings.

### SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. The inspection should be carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or PIN can be found on the label.

The cylinders with unlimited life-span are labeled with the word NLL.

### REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

Comply with the regulations of the country in which the cylinders are used.

were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.

IT IS CATEGORICALLY FORBIDDEN TO:

- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
- USE THE CYLINDERS WHOSE INSULATION IS COMPLETE.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.
- LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY  
/DOBÓR BUTLI PRZEPROWADZIŁ/

TÜV SÜD Czech s.r.o. Ostrava; Testova 2  
Identification no.: 1017

MANUFACTURER  
/PRODUCENT/

TECHPLAST Ltd. www.techplast.net VAT No. PL 6772147485

PRODUCTION PLANT  
/ZAKŁAD PRODUKCYJNY/

Krakowska 83P 34-120 Andrychów, Poland

RECEPTION REPORT  
/RAPORT DOBIÓR/

RA11C-2507009

DRAWING NUMBER  
/NR RYSUNKU/

AS5-01-00

BODY CERT. MODULE B  
/SWIADCETWO MODUŁ B/

08.324.016

SERIAL NO  
/NUMER SERII/

A11C1/2501742

GAS  
/GAZ/

VOLUME  
/POJEMNOŚĆ/

9.00 L

THREAD  
/GWINT/

M18x1.5

WEIGHT  
/WAGA/

3.90 kg

DIAMETER  
/ŚREDNICA/

174.00 mm

TEMP. OF WORK  
/TEMP. PRACY/

-40°C / +60°C

WORKING PRESSURE  
/CIŚNIENIE PRACY/

300 BAR

MANUFACTURING DATE  
/DATA PRODUKCJI/

202507

TEST PRESSURE  
/CIŚNIENIE PRÓBY/

450 BAR

EXPIRATION DATE  
/TERMIN WAŻNOŚCI/

NLL

RECOMMENDED FILLING RATE  
/ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/

< 30 BAR/MIN

CYLINDERS MEET THE REQUIREMENTS OF  
/BUTLE SPEŁNIAJĄ WYMAGANIA/

EN 12245:2009+A1:2011  
DIRECTIVE 2014/68/EU

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
/CYLINDRY OZNACZONO ZNAKIEM ZGODNOŚCI/

CE

THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/SWIADCETWO WERYFIKACJI WYROBU MODUŁ F DO WGLĄDU U PRODUCENTA/

SAFAR<sup>®</sup>  
ULTRA LIGHT  
COMPOSITE  
CYLINDERS



Production Plant

Technologia B&B

ul. Krakowska 83 P

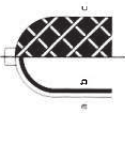
34-120 Andrychów, Poland

E: service@techplast.net

W: safar@techplast.net







- a epoxy coating  
b liner made of PET  
c composition of the epoxy matrix

## SAFAR<sup>®</sup> OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

### RECOMMENDATION

- Read the instruction carefully and keep to its conditions.
- Composite cylinders should be operated in accordance with their use.
- The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
- Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
- When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECH-PLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
- Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
- TECH-PLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECH-PLAST company.
- If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E w8 ISO11116-1 W19.2 w8 DIN 477-1	75	95
25E w8 EN 4299-1 W26.9 w8 DIN 477-1	95	110
		160

### A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN144-1	85	100
5/8" 18UNF	85	100

### FILLING PROCESS

- Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
- Cylinder filling temperature shall not exceed 40°C. Recommended filling rate is in Declaration of Conformity.

### USE

- The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
- For the use of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and impairments.
- The devices used to protect valves, connections (e.g. protective caps) should be applied during the transport of the cylinders.
- It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position during the transport.
- During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
- During the process of filling, surface temperature of the cylinder should not exceed 40 °C.
- The cylinders should be used only by qualified and competent staff with appropriate powers in accordance with the regulations, laws and norms applicable in their country.
- The cylinder must be fitted with a valve, connections with the producer's test pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
- Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13364.
- Sample mounting torque values to the cylinders according to the tables A3 and A4.
- To seal the connection between the valve and the cylinder, there should be used materials in accordance with the norm ISO 11142-2. If necessary, the producer recommends the use of Teflon tape type PTFE which is at least 0.1 millimeters thick.
- Tanks with pressure valves should be transported/stored pressurized to min. 2 bar. Tanks without pressure valves should be fitted with transport caps with O-rings.

### SERVICE

TECH-PLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECH-PLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used, and put out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labelled with the word NLL.

### REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

Comply with the regulations of the country in which the cylinders are used.

were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.

IT IS CATEGORICALLY FORBIDDEN TO

- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WHOSE LIFE SPAN HAS EXPIRED.
- USE THE CYLINDERS WHOSE INSPECTION IS INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.
- USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC.).
- LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

### DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY  
TUV SÜD Czech s.r.o. Ostrava; Teslova 2  
Identification no.: 1017

MANUFACTURER  
/PRODUCENT/  
TECHPLAST Ltd. www.techplast.net VAT No.: PL 6772147485

PRODUCTION PLANT  
/ZAKŁAD PRODUKCYJNY/  
Krakowska 83P 34-120 Andrychów, Poland

RECEPTION REPORT  
/RAPORT ODBIORU/  
RA11C-2507009

DRAWING NUMBER  
/RYSUJEK/  
AS5-01-00

BODY CERT. MODULE B  
/SWADECTWO MODUŁ B/  
08.324.016

SERIAL NO  
/NUMER SERWISU/  
A11C/2501741

GAS  
/GAZ/  
AIR COMPRESSED  
UN1002

THREAD  
/GWIŃT/  
M18x1.5

DIAMETER  
/ŚREDNICA/  
174.00 mm

WORKING PRESSURE  
/CIŚNIENIE PRACY/  
300 BAR

TEST PRESSURE  
/CIŚNIENIE PRÓBNIE/  
450 BAR

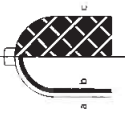
RECOMMENDED FILLING RATE  
/ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/  
< 30 BAR/MIN

CYLINDERS MEET THE REQUIREMENTS OF  
/BUTLE SPĘŁNIAJĄ WYMAGANIA/  
EN 12245:2009+A1:2011  
DIRECTIVE 2014/68/EU

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
/ZBIOROWKI OZNAČZONO ZNAKIEM ZGODNOŚCI/  
CE 1017

THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/SWADECTWO WERYFIKACJI WYROBÓW MODUŁ F DO WGLĄDU U PRODUCENTA/





- a epoxy coating  
b line made of PET  
c composition in an epoxy matrix

## SAFAR<sup>®</sup>

# OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

### RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
06. Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO11116-1 W19.2 wg DIN 477-1	75	95
25E wg EN 629-1 W2B.8 wg DIN 477-1	95	110
		180

### A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN144-1	85	100
5/8" 18UNF	85	100

### FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
02. Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

### USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
02. For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and impurities.
03. The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
05. During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
06. During the process of filling, surface temperature of the cylinder should not exceed 60 °C.
07. The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
08. Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
09. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
10. Sample mounting torque values to the cylinders according to the tables A3 and A4.
11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11116-1. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
12. Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with o-rings.

### SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country of their use. The inspection should be carried out by individuals who control pressure indicators in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labelled with the word NLL.

### REMARKS

- ONE CAN ONLY FILL THE CYLINDERS WHICH:
- Comply with the regulations of the country in which the cylinders are used,
  - were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.
- IT IS CATEGORICALLY FORBIDDEN TO:
- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
  - USE THE CYLINDERS WITHOUT THE LABELLING.
  - USE THE CYLINDERS WHOSE LABELLING IS ILLEGIBLE OR INCOMPLETE.
  - USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.
  - LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
  - USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY  
/OCBÓR BUTLI PRZEPROWADZŁ/  
TUV SÜD Czech s.r.o. Ostrava, Teslova 2  
Identification no.: 1017

MANUFACTURER /PRODUKTU/	TECHPLAST Ltd. www.techplast.net VAT No.: PL 6772147485
PRODUCTION PLANT /FABRYKA PRODUKTU/	Krakowska 83P 34-120 Andrychów, Poland
RECEPTION REPORT /RAPORT ODBIORU/	RA11C-2507009
DRAWING NUMBER /NR RYSUNKU/	AS5-01-00
BODY CERT. MODULE B /SWIADCETWO MODUŁ B/	08.324.016
SERIAL NO /NUMER SERWANY/	A11C/25071740
GAS /GAZ/	AIR, COMPRESSED UN1002
THREAD /GWINT/	M18x1.5
VOLUME /POJEMNOŚĆ /	9.00 L
DIAMETER /ŚREDNICA/	174.00 mm
WEIGHT /WAGA/	3.90 kg
TEMP. OF WORK /TEMP. PRACY/	-40°C / +60°C
WORKING PRESSURE CIŚNIENIE PRACY	300 BAR
TEST PRESSURE CIŚNIENIE PROBNIE	450 BAR
MANUFACTURING DATE DATA PRODUKCJI	2025/07
EXPIRATION DATE TERMIN WAŻNOŚCI	NLL
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/	< 30 BAR/MIN
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/	EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU

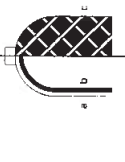
THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
/ZBIORNIKI OZNAČZONO ZNAKIEM ZGODNOŚCI/

THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/SWIADCETWO WERYFIKACJI WYPOBU MODUŁ F DO WGLADU U PRODUCENTA/

**SAFAR<sup>®</sup>**  
ULTRA LIGHT  
COMPOSITE  
CYLINDERS

Production Plant  
Techplast Sp. z o.o.  
ul. Krakowska 83 P  
34-120 Andrychów, Poland  
E: service@techplast.net  
W: safaricylinders.com





## SAIFER® OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

### RECOMMENDATION

- Read the instruction carefully and keep to its conditions.
- Composite cylinders should be operated in accordance with their use.
- The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
- Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
- When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
- Any repair, repair, concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
- TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
- If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3 TABLE

Taper thread	Mounting torque [Nm]		
	Minimum	Maximum	
1 1/8" wg ISO11116-1 W19.2 wg DIN 477-1	75	95	140
2 1/8" wg EN 629-1 W28.8 wg DIN 477-1	95	110	180

### A4 TABLE

Straight thread	Mounting torque [Nm]		
	Minimum	Maximum	
M18 x1.5 EN1044-1	85	100	
5/8" 18UNF	85	100	

### FILLING PROCESS

- Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
- Cylinder filling temperature shall not exceed 50°C. Recommended filling rate is in Declaration of Conformity.

### USE

- The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
- For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unexpected damage and impairment.
- The devices used to protect valves connections (e.g. protective cap) should be applied during the transport of the cylinders.
- It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
- During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
- During the process of filling, surface temperature of the cylinder should not exceed 60 °C.
- The cylinders should be filled only by authorized staff in accordance with appropriate powers in accordance with the regulations, laws and norms applicable in their country.
- The cylinder must be fitted with a valve connections with the recommended test pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
- Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
- Sample mounting torque values to the cylinders according to the tables A3 and A4.
- To seal the connection between the valve and the cylinder, there should be used materials in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE, which is at least 0.1 millimeters thick.
- Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with O-rings.

### SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.  
Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used, and carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.  
For cylinders with a limited life-span, the EXPIRATION DATE or FILL can be found on the label.  
The cylinders with unlimited life-span are labelled with the word NULL.

### REMARKS

- ONE CAN ONLY FILL THE CYLINDERS WHICH:
- Comply with the regulations of the country in which the cylinders are used,
  - were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.
- IT IS CATEGORICALLY FORBIDDEN TO:
- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
  - USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
  - USE THE CYLINDERS WHOSE VALVE IS INCOMPLETE.
  - USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.
  - LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
  - USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY  
/OŚWIADCZENIE PRZEPROWADZIŁ/

TIV SUD Czech s.r.o. Ostrava, Teslova 2  
Identification no.: 1017

MANUFACTURER  
/PRODUKCENT/

TECHPLAST Ltd. www.techplast.net VAT No.: PL 67747485

PRODUCTION PLANT  
/ZAKŁAD PRODUKCYJNY/

Krakowska 83p 34-120 Andrychów, Poland

RECEPTION REPORT  
/RAPORT ODBIORU/

RA11C-2507009

DRAWING NUMBER  
/NR RYSUNKU/

AS5-01-00

BODY CERT. MODULE B  
/SWIADCZECTWO MODUŁU B/

08.334.016

SERIAL NO  
/NUMER SERII/

A11C/25/01739

GAS  
/GAZ/

AIR, COMPRESSED  
UN1002

THREAD  
/GWINT/

M18x1.5

DIAMETER  
/ŚREDNICA/

174.00 mm

WORKING PRESSURE  
/CIŚNIENIE PRACY/

300 BAR

TEST PRESSURE  
/CIŚNIENIE PRÓBNIE/

450 BAR

RECOMMENDED FILLING RATE  
/ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/

< 30 BAR/MIN

CYLINDERS MEET THE REQUIREMENTS OF  
/BUTLE SPEŁNIAJĄ WYMAGANIA/

EN 12245:2009+A1:2011  
DIRECTIVE 2014/85/EU

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
/ZBORNIAK OZNA CZONO ZNAKIEM ZGODNOŚCI/

1017

THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/SWIADCZECTWO WERYFIKACJI WYROBU MODUŁU F DO WISZĄCU/ U PRODUCENTA/

SAIFER®

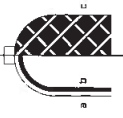
ULTRA LIGHT  
COMPOSITE  
CYLINDERS



Współpraca z firmami:  
Technoplast Sp. z o.o.  
ul. Krakowska 83 p.  
34-120 Andrychów, Poland  
E: service@techplast.net  
W: saifercylinders.com

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Technoplast Sp. z o.o.  
ul. Krakowska 83 p.  
34-120 Andrychów, Poland  
E: service@techplast.net  
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- a empty coating  
b inner made of PET  
c composite in an epoxy matrix

## SAFER<sup>®</sup> OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

### RECOMMENDATION

- Read the instruction carefully and keep to its conditions.
- Composite cylinders should be operated in accordance with their use.
- The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
- Maintenance service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
- When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
- Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
- TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
- If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3 TABLE

Taper thread	Mounting torque [Nm]		
	Minimum	95	Maximum
1/2" wg ISO11116-1 W19.2 wg DIN 477-1	75	95	140
25E wg EN 629-1 W26B wg DIN 477-1	95	110	180

### A4 TABLE

Straight thread	Mounting torque [Nm]		
	Minimum	85	Maximum
M18 x1.5 EN144-1	85	100	100
5/8" 18UNF	85		100

### FILLING PROCESS

- Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
- Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

### USE

- The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
- For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and impurities.
- The device used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
- It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position during the transport.
- During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
- During the process of filling, surface temperature of the cylinder should not exceed 60°C.
- The cylinders should be filled in accordance with the regulations, norms and laws applicable in their country.
- The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
- Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
- Sample mounting to torque valves to the cylinders according to the tables A.3. and A.4.
- To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 13341. If necessary, the producer recommends the use of Teflon tape type PTFE which is at least 0.1 millimeters thick.
- Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with o-rings.

### SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. The inspection should be carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labelled with the word NULL.

### REMARKS

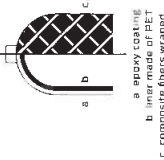
- ONE CAN ONLY FILL THE CYLINDERS WHICH:
- Comply with the regulations of the country in which the cylinders are used.
  - were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.
- IT IS CATEGORICALLY FORBIDDEN TO
- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
  - USE THE CYLINDERS WITHOUT LABELLING.
  - USE THE CYLINDERS WHOSE LABELLING IS ILLEGIBLE OR INCOMPLETE.
  - USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER VALVE, CONNECTIONS ETC.
  - USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC).
  - LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
  - USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY /OŚWIADCZENIE PRZEPROWADZIŁ/	TUV SUD Czech s.r.o. Ostrava, Teslova 2 Identification no.: 1017
MANUFACTURER /PRODUCENT/	TECHPLAST Ltd. www.techplast.net VAT No.: PL 6772147485
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/	Krakowska 83P 34-120 Andrychów, Poland
RECEPTION REPORT /RAPORT ODBIORU/	RA11C-2507009
DRAWING NUMBER /NR RYSUNKU/	AS5-01-00
BODY CERT. MODULE B /SWADEC TWO MODUŁ B/	08 324 016
SERIAL NO NUMER SERII/	A11C/25101737
GAS /GAZ/	VOLUME /POJEMNOŚĆ /
THREAD /GWINT/	WEIGHT /WAGA/
DIAMETER /ŚREDNICA/	TEMP. OF WORK /TEMP. PRACY/
WORKING PRESSURE /CIŚNIENIE PRACY/	MANUFACTURING DATE /DATA PRODUKCJI/
TEST PRESSURE /CIŚNIENIE PRÓBNIE/	EXPIRATION DATE /TERMIN WAŻNOŚCI/
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/	
CYLINDERS MEET THE REQUIREMENTS OF /CYLINDRY SPEŁNIAJĄ WYMAGANIA/	
THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY /ZBIORNIKI OZNAKOWANO ZNAKIEM ZGODNOŚCI/	
THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER /SWADEC TWO WERYFIKACJI WYROBU MODUŁ F DO WGLĄDU U PRODUCENTA/	







## SAFAR<sup>®</sup> OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

### RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
06. Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO11116-1 W19.2 wg DIN 477-1	75	95
25E wg EN 629-1 W28.8 wg DIN 477-1	95	110
		160

### A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN144-1	85	100
5/8" 18UNF	85	100

### FILLING PROCEED

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
02. Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

### USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
02. For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported safely to avoid undesirable damage and impairments.
03. The cylinders should be secured to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
05. During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impairments and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
06. During the process of filling, surface temperature of the cylinder should not exceed 60 °C.
07. The cylinders should be filled only by qualified staff with appropriate powers in accordance with the regulations, laws and regulations applicable in their country.
08. The cylinder must be fitted with valve connections with the recommended test pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
09. Valves for the cylinder should be approved in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
10. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13344.
11. Sample mounting torque values to the cylinders according to the tables A3 and A4.
12. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
13. Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with O-rings.

### SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used and out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labeled with the word NLL.

### REMARKS

- ONE CAN ONLY FILL THE CYLINDERS WHICH:
- COMPLY WITH THE REGULATIONS OF THE COUNTRY IN WHICH THE CYLINDERS ARE USED.
  - WERE MARKED WITH THE DATE OF LAST INSPECTION, THEY WERE GIVEN A SIGN OF A NOTIFIED BODY AND THE TERM OF THEIR RE-INSPECTION HAS NOT EXPIRED, HAVE NOT VISIBLE DAMAGES OF THE CYLINDER, VALVE, CONNECTIONS ETC.
  - IT IS CATEGORICALLY FORBIDDEN TO:
  - USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
  - USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
  - USE THE CYLINDERS WHOSE LIFE-SPAN IS INCOMPLETE.
  - USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.
  - LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
  - USE A VACUUM (DO NOT USE A VACUUM).

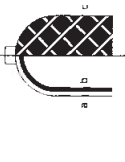
## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY  
/ODBOR BUTU PRZEPROWADZIŁ/  
Identification no. :1017

MANUFACTURER /PRODUCENT/	TECHPLAST Ltd. www.techplast.net VAT No.: PL 6772147485				
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/	Krakowska 83P 34-120 Andrychów, Poland				
RECEPTION REPORT /RAPORT ODBIORU/	RA11C-2507009				
DRAWING NUMBER /NR RYSUNKU/	AS5-01-00				
BODY CERT. MODULE B /SWIADCTWO MODUŁ B/	08.324.016				
SERIAL NO /NUMER SERII/	A11C/2501736				
GAS /GAZ/	AIR, COMPRESSED UN1002	VOLUME /POJEMNOŚĆ /	9.00 L		
	THREAD /SWIET/	WEIGHT /WAGA/	3.90 kg		
DIAMETER /ŚREDNICA/	174.00 mm	TEMP. OF WORK /TEMP. PRACY/	-40°C / +60°C		
WORKING PRESSURE /CIŚNIENIE PRACY/	300 BAR	MANUFACTURING DATE /DATA PRODUKCJI/	202507		
TEST PRESSURE /CIŚNIENIE PROBNIE/	450 BAR	EXPIRATION DATE /TERMIN WAŻNOŚCI/	NLL		
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/					
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/					
EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU					



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- a easy coating  
b inner made of PET  
c composite material in an epoxy matrix

## SAFER<sup>®</sup>

# OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

### RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation<sup>01</sup>, use and maintenance of gas cylinders.
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
06. Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3 TABLE

Taper thread	Mounting torque [Nm]		
	Minimum		Maximum
17E wg ISO11116-1 W19.2 wg DIN 477-1	75	95	140
25E wg EN 629-1 W28 B wg DIN 477-1	95	110	160

### A4 TABLE

Straight thread	Mounting torque [Nm]		
	Minimum		Maximum
M18 x1.5 EN1464-1	85		100
5/8" 18UNF	85		100

### FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
02. Cylinder filling temperature shall not exceed 40°C. Recommended filling rate is in Declaration of Conformity.

### USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods.
02. For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and impurities.
03. The cylinders should be secured to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
05. During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
06. During the process of filling, surface temperature of the cylinder should not exceed 60 °C. Filling should only be carried out by qualified and people with appropriate powers in accordance with the regulations, laws and regulations applicable in their country.
07. The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
08. Valves for the cylinder, should be stored in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
09. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
10. Sample mounting torque values to the cylinders according to the tables A3 and A4.
11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
12. Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with o-rings.

### SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. The inspection should be carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labeled with the word NULL.

### REMARKS

- ONE CAN ONLY FILL THE CYLINDERS WHICH:
- Comply with the regulations of the country in which the cylinders are used.
  - were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder valve, connections etc.
  - IT IS CATEGORICALLY FORBIDDEN TO:
  - USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION
  - USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
  - USE THE CYLINDERS WHOSE LIFE-SPAN IS NEARLY EXHAUSTED.
  - USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER VALVE, CONNECTIONS ETC.
  - USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC.).
  - LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
  - USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY  
/ODBIÓR BUTU PRZEPROWADZU/

TUV SUD Czech s.r.o. Ostrava, Teslova 2  
Identification no.: 1017

MANUFACTURER /PRODUCENT/	TECHPLAST Ltd. www.techplast.net VAT No.: PL 6772147465		
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/	Katowska 83P 34-120 Andrychów, Poland		
RECEPTION REPORT /RAPORT ODBIORU/	RA11C-2507009		
DRAWING NUMBER /NR RYSUNKU/	AS5-01-00		
BODY CERT. MODULE B /SWADECYJNY MODUŁ B/	08.324.016		
SERIAL NO. /NUMER SERWANY/	A11C/25101735		
GAS /GAZ/	AR, COMPRESSED UN102	VOLUME /POJEMNOŚĆ/	9.00 L
THREAD /GWINT/	M18x1.5	WEIGHT /WAGA/	3.90 kg
DIAMETER /ŚREDNICA/	174.00 mm	TEMP. OF WORK /TEMP. PRACY/	-40°C / +60°C
WORKING PRESSURE CIŚNIENIE PRACY/	300 BAR	MANUFACTURING DATE /DATA PRODUKCJI/	2025/07
TEST PRESSURE CIŚNIENIE PRÓBY/	450 BAR	EXPIRATION DATE /TERMIN WAZNOŚCI/	NULL
RECOMMENDED FILLING RATE /ZALECANA PRĘDZOŚĆ WYPEŁNIANIA/	≤ 30 BAR/MIN		
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/	EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU		

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
/ZBIORNIKI OZNAČZONO ZNAKIEM ZGODNOŚCI/

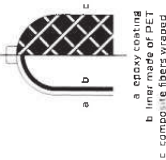
1017

THE CERTIFICATE OF MODULE B AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/SWADECYJNY WERYFIKACJI WYROBU MODUŁ B DO WGLĄDU U PRODUCENTA/

**SAFER<sup>®</sup>**  
ULTRA LIGHT  
COMPOSITE  
CYLINDERS

Production Plant  
TUV SUD Czech s.r.o.  
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# SAFEBR<sup>®</sup>

## OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

### RECOMMENDATION

- 01 Read the instruction carefully and keep to its conditions.
- 02 Composite cylinders should be operated in accordance with their use.
- 03 The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
- 04 Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
- 05 When cylinders are serviced or repaired by the unauthorized staff, rather than by authorized service center of TECH-PLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
- 06 Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
- 07 TECH-PLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECH-PLAST company.
- 08 If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
1/2" wg ISO11116-1 W19.2 wg DIN 477-1	75	95
25E wg EN 629-1 W26.8 wg DIN 477-1	95	110
		180

### A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN144-1	85	100
5/8" 18UNF	85	100

### FILLING PROCESS

- 01 Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
- 02 Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

### USE

- 01 The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
- 02 For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.
- 03 The devices used to protect valves connections (e.g. protective cap) should be applied during the transport of the cylinders.
- 04 It is not permitted to store the cylinders horizontally. The cylinders should be stored in a lying position, during the transport.
- 05 During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
- 06 During the process of filling, surface temperature of the cylinder should not exceed 60 °C. The cylinders should be filled and used in accordance with the regulations, norms and laws applicable in their country.
- 07 The cylinder must be fitted with valve connections with the recommended test pressure. Elements, connections and the valve must be protected according to the regulations, norms and laws applicable in the country in which the cylinder is used.
- 08 Values for the cylinder should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- 09 The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13241.
- 10 Sample mounting torque values to the cylinders according to the tables A3 and A4.
- 11 To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape type PTFE which is at least 0.1 millimeters thick.
- 12 Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with O-rings.

### SERVICE

TECH-PLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECH-PLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections are carried out by individuals who control pressure monitors in accordance with the local regulations.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labelled with the word **NLL**.

### REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

Comply with the regulations of the country in which the cylinders are used.

were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder valve connections etc.

IT IS CATEGORICALLY FORBIDDEN TO:

- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION
- USE THE CYLINDERS WHOSE LIFE SPAN HAS EXPIRED.
- USE THE CYLINDERS WHOSE VALVE CONNECTIONS ARE INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES OF THE CYLINDER VALVE CONNECTIONS ETC.
- USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE CONNECTIONS ETC.).
- LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY /ODBIOR BUTU PRZEPROWADZU/	TUV SÜD Czech s.r.o. Ostrava, Teslova 2 Identification no. :1017
MANUFACTURER /PRODUCENT/	TECHPLAST Ltd. www.techplast.net VAT No.-PL 6772147485
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/	Krakowska 83P 34-120 Andrychów, Poland
RECEPTION REPORT /RAPORT ODBIORU/	RAA11C-2507009
DRAWING NUMBER /NR RYSUNKU/	AS5-01-00
BODY CERT. MODULE B /SWADEC TWO MODUŁ B/	08 324 016
SERIAL NO /NUMER SERII/	A11C/2501734
GAS /GAZ/	VOLUME /POJEMNOŚĆ /
THREAD /GNIOT/	WEIGHT /WAGA/
DIAMETER /ŚREDNICA/	TEMP. OF WORK /TEMP. PRACY/
WORKING PRESSURE /CIŚNIENIE PRACY/	MANUFACTURING DATE /DATA PRODUKCJI/
TEST PRESSURE /CIŚNIENIE PRÓBNIE/	EXPIRATION DATE /TERMIN WAŻNOŚCI/
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/	
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/	
THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY CYLINDERS MEET THE REQUIREMENTS OF /ZBIOREK OZNACZONO ZNAKIEM ZGODNOŚCI/	
THE CERTIFICATE OF MODULE F IS AVAILABLE FOR INSPECTION AT THE MANUFACTURER /SWADEC TWO WERYFIKACJI WYROBU MODUŁ F DO WGLADU I PRODUCENTA/	



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OPERATION  
AND MAINTENANCE  
MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER



a epoxy coating  
b inner made of PET  
c composite fiber wrapped  
in an epoxy matrix

## RECOMMENDATION

- 01 Read the instruction carefully and keep to its conditions.
- 02 Composite cylinders should be operated in accordance with their use.
- 03 The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of Gas cylinders.
- 04 Maintenance, service and repairs of compressed Gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
- 05 When cylinders are serviced or repaired by the unauthorized staff; rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
- 06 Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
- 07 TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
- 08 If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

## A3 TABLE

Taper thread	Mounting torque [N·m]	
	Minimum	Maximum
17E wg ISO11116-1 W19,2 wg DIN 477-1	75	95
25E wg EN 629-1 W28,8 wg DIN 477-1	95	110
		180

## A4 TABLE

Straight thread	Mounting torque [N·m]	
	Minimum	Maximum
M18 x1,5 EN144-1	85	100
5/8" 18UNF	85	100

## FILLING PROCESS

- 01 Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
- 02 Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

## USE

- 01 The producer recommends the use of ADR European Agreement which applies to international transport dangerous goods by road.
- 02 For the transport of the cylinders, there should be used trolleys, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and impurities.
- 03 The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
- 04 It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position during the transport.
- 05 During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
- 06 During the process of filling, surface temperature of the cylinder should not exceed 60 °C.
- 07 The cylinders should be filled and used only by individuals and people with appropriate powers in accordance with the regulations, laws and norms applicable in their country.
- 08 The cylinders must be fitted with valves, connections with the recommended test pressure. Elements, connectors and the valve should be used in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- 09 Values for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- 10 The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
- 11 Sample mounting torque values to the cylinders according to the tables A3 and A4.
- 12 To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11124-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
- 13 Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be filled with transport caps with O-rings.

## SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Used cylinders are carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labeled with the word NLL.

## REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

Comply with the regulations of the country in which the cylinders are used,

were marked with the data of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.

IT IS CATEGORICALLY FORBIDDEN TO:

- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
- USE THE CYLINDERS WHOSE EXPIRATION DATE OR FIN HAS EXPIRED.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES OF THE CYLINDER, VALVE, CONNECTIONS, ETC.
- LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM)

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY (OSBOROŃ BUTLI/PRZEPROWADZIŁ		TUV SUD Czech s.r.o. Ostrava: Tělová 2 Identification no.: 1017	
MANUFACTURER (PRODUCENT)		TECHPLAST Ltd. www.techplast.net VAT No. PL 6772147485	
PRODUCTION PLANT (ZAKŁAD PRODUKCYJNY)		Krakowska 83P 34-120 Andrychów Poland	
RECEPTION REPORT (RAPORT ODBIORU)		RA11C-2507009	
DRAWING NUMBER (NR RYSUNKU)		AS5-01-00	
BODY CERT. MODULE B (SYGNALIZACJA MODUŁU B)		08.324.016	
SERIAL NO. (NUMER SERII/NV)		A11C/25/01733	
GAS (GAZ)	AIR COMPRESSED (UN1002)	VOLUME (POJEMNOŚĆ / MAGA)	9.00 L
THREAD (GWINT)	M18x1.5	WEIGHT (WAGA)	3.80 Kg
DIAMETER (ŚREDNICA)	174.00 mm	TEMP. OF WORK (TEMP. PRACY)	-40°C / +60°C
WORKING PRESSURE (CIŚNIENIE PRACY)	300 BAR	MANUFACTURING DATE (DATA PRODUKCJI)	202507
TEST PRESSURE (CIŚNIENIE PRÓBNIE)	450 BAR	EXPIRATION DATE (TERMIN WAŻNOŚCI)	NLL
RECOMMENDED FILLING RATE (ZALECANA PRĘDKOŚĆ NAPEŁNIANIA)		< 30 BAR/MIN	
CYLINDERS MEET THE REQUIREMENTS OF (BUTLE SPEŁNIAJĄ WYMAGANIA)		EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU	

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
(ZBIORNIKI OZNAKOWANO ZNAKIEM ZGODNOŚCI)

THE CERTIFICATE OF MODULE F IS AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
(SWIADECTWO WERTPRACI WYROBU MODUŁ F DO WGLADU U PRODUCENTA)

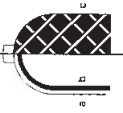
SAIFER®

ULTRA LIGHT  
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CYLINDERS

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- a. epoxy coating
- b. wire fibers wrapped
- c. composite matrix

# SAFAR® OPERATION AND MAINTENANCE MANUAL

OF FULLY REPAIRED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

## RECOMMENDATION

- 01 Read the instruction carefully and keep to its conditions.
- 02 Components cylinders should be operated in accordance with their use
- 03 The product is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
- 04 Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent persons, holding training and powers which are in accordance with the regulations applicable in their country of operation.
- 05 When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
- 06 Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
- 07 TECHPLAST recommends the user to enter into a contract when guarantees service by the authorized service center of TECHPLAST company.
- 08 If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

## A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
1 1/2" wg ISO11116-1 W19.2 wg DIN 477-1	75	95
2 1/2" wg EN 429-1 W28.8 wg DIN 477-1	95	110
		130

## A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN144-1	85	100
5/8" 18UNF	85	100

## FILLING PROCESS

- 01 Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
- 02 Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

## USE

- 01 The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
- 02 For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and impairments.
- 03 The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
- 04 It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
- 05 During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical injuries and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
- 06 The cylinders should be stored at a temperature of the cylinder should not exceed 60 °C. Filling the cylinders with gas can be performed only by individuals and people with appropriate powers in accordance with the regulations, laws and norms applicable in their country.
- 07 The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
- 08 Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- 09 The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 15541.
- 10 Sample mounting torque valves to the cylinders according to the tables A3, and A4.
- 11 To seal the connection between the valve and the cylinder there should be used materials in accordance with the ISO 11116-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
- 12 Tanks with pressure valves should be transported/stored pressurized to min. 2 bar. Tanks without pressure valves should be fitted with transport caps with crings.

## SERVICE

TECHPLAST recommends the user to enter into a contract when guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections are carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labeled with the word NLL.

## REMARKS

- ONE CAN ONLY FILL THE CYLINDERS WHICH:
- Comply with the regulations of the country in which the cylinders are used,
  - were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.
- IT IS CATEGORICALLY FORBIDDEN TO
- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION
  - USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED
  - USE THE CYLINDERS WHOSE LABELING IS ILLEGIBLE OR INCOMPLETE
  - USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER VALVE, CONNECTIONS ETC.
  - USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC.),
  - LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
  - USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY /ODBIÓR BUTLI PRZEPROMADZU/ TECHPLAST Ltd. www.techplast.net VAT No.: PL 6772147465 Identification no.: 1017	
MANUFACTURER /PRODUCENT/ Kraśowska 83P 34-120 Andrychów, Poland	
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/ RA111C-2507009	
RECEPTION REPORT /RAPORT ODBIORU/ A55-01-00	
DRAWING NUMBER /NR RYSUNKU/ 08.324.016	
BODY CERT. MODULE B /SWIADECTWO MODUŁ B/ A111C/250732	
SERIAL NO /NUMER SERII/ VOLUME /POJEMNOŚĆ/ 9.00 L	
THREAD /GWINT/ M18x1.5	
DIAMETER /SZEROKOŚĆ/ 174.00 mm	
WORKING PRESSURE /CIŚNIENIE PRACY/ 300 BAR	
TEST PRESSURE /CIŚNIENIE PRÓBY/ 450 BAR	
TEMP. OF WORK /TEMP. PRACY/ -40°C / +63°C	
MANUFACTURING DATE /DATA PRODUKCJI/ 2025/07	
EXPIRATION DATE /TERMIN WAŻNOŚCI/ NLL	
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/ ≤ 30 BAR/MIN	
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/ EN 12245:2008+A1:2011 DIRECTIVE 2014/68/EU	
THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY /ZEBOWNIŁ CZYNIACZKO ZNAKIEM ZGODNOŚCI/ 1017	
THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER /SWIADECTWO WERYFIKACJI WYROBU MODUŁ F DO WGLĄDU U PRODUCENTA/	



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# SAFER<sup>®</sup>

## OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

a. epoxy casting  
b. fine fibers wrapped  
c. composite fibers wrapped  
in an epoxy matrix

### RECOMMENDATION

- Read the instruction carefully and keep to its conditions.
- Composite cylinders should be operated in accordance with their use.
- The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
- Maintenance service and repair of compressed gas cylinders can be carried out only by qualified and authorized personnel and powers which are in accordance with the regulations applicable in their country of operation.
- When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for correct functioning.
- Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
- TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
- If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

A3 TABLE

Taper thread	Mounting torque [Nm]		
	Minimum	95	Maximum
17E wg ISO11116-1 W19x2 wg DIN 477-1	75	95	140
25E wg EN 479-1 W25x8 wg DIN 477-1	95	110	180

A4 TABLE

Straight thread	Mounting torque [Nm]		
	Minimum	85	Maximum
M18 x1.5 EN164-1	85	100	100
5/8" 18UNF	85	100	100

### FILLING PROCESS

- Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
- Cylinder filling temperature shall not exceed 40°C. Recommended filling rate is in Declaration of Conformity.

### USE

- The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
- For the transport of the cylinders, there should be used containers, tins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.
- The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
- It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position during the transport.
- During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical injuries and direct influence of adverse weather conditions. The cylinders should be stored in a dry, well-ventilated place.
- During the process of filling, surface temperature of the cylinder should not exceed 40 °C.
- Filling the cylinders with gas can be performed only by individuals and people with appropriate powers in accordance with the regulations, laws and norms applicable in their country.
- The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
- Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13364.
- Sample mounting torque values to the cylinders according to the tables A.3. and A.4.
- To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
- Tanks with pressure valves should be transported/stored pressurized to min. 2 bar. Tanks without pressure valves should be filled with transport caps with O-rings.

### SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections are carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labelled with the word NLL.

### REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

- Comply with the regulations of the country in which the cylinders are used.
- Are marked with the date of last inspection. They were given a sign of a notified body and the term of their inspection has not expired (there are no visible damages of the cylinder, valve, connections etc.

IT IS CATEGORICALLY FORBIDDEN TO:

- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
- USE THE CYLINDERS WHOSE LABELING IS ILLEGIBLE OR INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER VALVE CONNECTIONS ETC.
- USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE CONNECTIONS ETC.).
- USE LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

### DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY /COBÓR BUTLI PRZEPROWADZIŁ/		TUV SÜD Czech s.r.o. Ostrava, Teslova 2 Identification no.: 1017	
MANUFACTURER /PRODUCENT/		TECHPLAST Ltd. www.techplast.net VAT No.: PL 877217485	
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/		Krakowska 839 34-120 Andrychów, Poland	
RECEPTION REPORT /RAPORT ODBIORU/		RA11C-2507009	
DRAWING NUMBER /NR RYSUNKU/		AS5-01-00	
BODY CERT. MODULE B /SWIADECTWO MODUŁ B/		08 324 016	
SERIAL NO /NUMER SERYJNY/		A11C/2501731	
GAS /GAS/		VOLUME /POJEMNOŚĆ/	
THREAD /GWINT/		WEIGHT /WAGA/	
DIAMETER /ŚREDNICA/		TEMP. OF WORK /TEMP. PRACY/	
WORKING PRESSURE /CIŚNIENIE PRACY/		MANUFACTURING DATE /DATA PRODUKCJI/	
TEST PRESSURE /CIŚNIENIE PRÓBNIE/		EXPIRATION DATE /TERMIN WAŻNOŚCI/	
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/		CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/	
EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU		1017	

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
/ZBIOROWO OZNACZONO ZNAKIEM ZGODNOŚCI/

THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/SWIADECTWO WERYFIKACJI WYROBU MODUŁ F DO WGLADU U PRODUCENTA/



Production Plant  
Techplast Sp. z o.o.  
ul. Krakowska 839 P  
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E: service@techplast.net  
W: safercylinders.com





# SAFER<sup>®</sup> OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

## RECOMMENDATION

- 01. Read the instruction carefully and keep to its conditions
- 02. Composite cylinders should be operated in accordance with their use
- 03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders
- 04. Maintenance service and repairs of compressed gas cylinders can be carried out only by qualified and competent persons holding the necessary qualifications and powers which are in accordance with the regulations applicable in their country of operation.
- 05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center responsibility for the safety of the cylinders is not operated in accordance with their use, the user bears responsibility for the safety of the cylinders.
- 06. Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
- 07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
- 08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

A3 TABLE

Taper thread	Mounting torque [Nm]		
	Minimum		Maximum
1/2" wg ISO11116-1 W19.2 wg DIN 477-1	75	95	140
25E wg EN 4299-1 W28.9 wg DIN 477-1	95	110	180

A4 TABLE

Straight thread	Mounting torque [Nm]		
	Minimum		Maximum
M18 x1.5 EN144-1	85		100
5/8"-18UNF	85		100

## FILLING PROCESS

- 01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
- 02. Cylinder filling temperature shall not exceed 40°C. Recommended filling rate is in Declaration of Conformity

## USE

- 01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
- 02. For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and impurities.
- 03. The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinder.
- 04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
- 05. During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be stored in a dry place.
- 06. During the process of filling, surface temperature of the cylinder should not exceed 40 °C. Filling the cylinders with gas can be performed only by individuals and people with appropriate powers in accordance with the regulations, laws and norms applicable in their country.
- 07. The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
- 08. Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- 09. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
- 10. Sample mounting torque valves to the cylinders according to the tables A.3. and A.4.
- 11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
- 12. Tanks with pressure valves should be transported/stored pressurized to min. 2 bar. Tanks without pressure valves should be fitted with transport caps with springs.

## SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections are carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labelled with the word NLL.

## REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

Comply with the regulations of the country in which the cylinders are used.

were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connectors etc.

IT IS CATEGORICALLY FORBIDDEN TO:

- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
- USE THE CYLINDERS WHOSE LABELING IS ILLEGIBLE OR INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.
- LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY  
/OCBÓR BUTLI PRZEPROWADZIŁ/

TECHPLAST LTD. www.techplast.net VAT No.: PL 677217485

PRODUCTION PLANT  
/ZAKŁAD PRODUKCYJNY/

Krakowska 83P 34-120 Andrychów, Poland

RECEPTION REPORT  
/RAPORT OCBÓR/

RA11C-2507009

DRAWING NUMBER  
/NR RYSUNKU/

AS5-01-00

BODY CERT. MODULE B  
/SWIADCTWO MODUŁ B/

08.324.016

SERIAL NO  
/NUMER SERIANY/

A11C125010730

GAS  
/GAZ/

VOLUME  
/POJEMNOŚĆ/

9.00 L

THREAD  
/ŚWIWIT/

MT8x1.5

WEIGHT  
/MAGA/

3.90 kg

DIAMETER  
/ŚREDNICA/

174.00 mm

TEMP. OF WORK  
/TEMP. PRACY/

-40°C / +60°C

WORKING PRESSURE  
/CIŚNIENIE PRACY/

300 BAR

MANUFACTURING DATE  
/DATA PRODUKCJI/

202507

TEST PRESSURE  
/CIŚNIENIE PRÓBNIE/

450 BAR

EXPIRATION DATE  
/TERMIN WAŻNOŚCI/

NLL

RECOMMENDED FILLING RATE  
/ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/

< 30 BAR/MIN

CYLINDERS MEET THE REQUIREMENTS OF  
/BUTLE SPEŁNIAJĄ WYMAGANIA/

EN 12245:2009+A1:2011  
DIRECTIVE 2014/68/EU

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
/ZBIORNIK OZNACZONO ZNAKIEM ZGODNOŚCI/

1017

THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/SWIADCTWO WERYFIKACJI WYROBU MODUŁ F DO WGLĄDU U PRODUCENTA/

CE



Production Plant  
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W: safety.cylinders.com



## OPERATION AND MAINTENANCE

a epoxy coating  
b liner made of PET  
c composite fibers wrapped

- 21 Read the instruction carefully and keep to its conditions.
- 22 Composite cylinders should be operated in accordance with their use
- 23 The producer is not held responsible for the damages caused by incorrect operation, use and maintenance
- 24 of gas cylinders.
- 25 Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and
- 26 competent staff with appropriate training and powers which are in accordance with the regulations
- 27 applicable in their country of operation.
- 28 When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center
- 29 of TECHLAST company, or if the cylinders are not operated in accordance with their use, the user bears
- 30 responsibility for their correct functioning.
- 31 Any changes concerning the design or the structure of the cylinder can be made only with a written
- 32 consent of the producer.
- 33 TECHLAST recommends the user to enter into a contract which guarantees service by the authorized
- 34 service center of TECHLAST company.
- 35 If any defects or damages of a new product are found, put it away, secure it and inform the producer

Taper threaded	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO1116-1 W192 wg DIN 477-1	75	140
25E wg EN 629-1 W268 wg DIN 477-1	95	180

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M10 x 1.5 EN144-1	85	100
5/8"-18UNF	85	100

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2
02. Cylinder-filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

01 The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
02. For the transport of the cylinders, there should be used containers, bms, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.
03. The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
05. The design of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
06. During the process of filling, storage temperature of the cylinder should not exceed 60 °C.
07. The cylinder must be filled with a valve, connections with that appropriate powers in accordance with the regulations, laws and norms applicable in their country.
08. The cylinder must be filled with a valve, connections with that recommended test pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
09. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
10. Sample mounting torque values to the cylinders according to the tables A.3 and A.4.
11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least O1 millimeters thick.
12. Valves with pressure valves should be transported/ stored pressurized to min. 2bar. Tanks without pressure valves should be filled with transport caps with O-rings.

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

- in order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each syringe.

ONE CAN ONLY FILL THE CYLINDERS WHICH:

ONE CAN ONLY FILL THE CYLINDERS WHICH:

Comply with the regulations of the country in which the cylinders are used;  
 Have been marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.  
 IT IS CATEGORICALLY FORBIDDEN TO:

- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
- USE THE CYLINDERS WHOSE LABELING IS ILLEGIBLE OR INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER VALVE CONNECTIONS ETC.
- USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT [THE VALVE CONNECTIONS ETC.].
- LUBRICATE OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VAPOR).

MANUFACTURER  
/PRODUCENT/  
TECHPLAST Ltd.

PRODUCTION PLANT  
ZAKŁAD PRODUKCYJNY

RECEPTION REPORT

**DRAWING NUMBER**  
JAN 05/2012/11

**BODY CERT. MODULE B**  
**SWIADECTWO MODUŁ B**

SERIAL NO  
NUMBER SERYJNY

**GAS**  
/GAZ/

THREAD  
/GW/NT/

DIAMETER  
/SREDNICA/  
174.00 mm

CIŚNIENIE PRACY/	300 BAR
------------------	---------

CIŚNIENIE PRÓBNE/

**WZALECANA PRĘDKOŚĆ NAPEŁNIANIA**

/BUTLE SPEŁNIAJĄ WYMAGANIA/

THE CERTIFICATE OF MODULI FAVOURABLE

OWOŚCIE, WYKONANO WYKŁADY W TRYBIE

# STARS

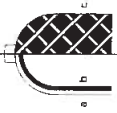


COMPOSITE  
CYLINDERS



Production Plant  
Techplast Sp. z o.o.  
ul. Krakowska 83 F  
34-120 Andrychów  
E: service@t  
tel. 033 461 11 44





- a epoxy coating  
b inner liner of PET  
c composite fibers wrapped  
in an epoxy matrix

## SAFAR<sup>®</sup> OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

### RECOMMENDATION

- 01 Read the instruction carefully and keep to its conditions.
- 02 Composite cylinders should be operated in accordance with their use.
- 03 The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
- 04 Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
- 05 When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST, the producer is not responsible for the correct functioning.
- 06 Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
- 07 TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
- 08 If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3 TABLE

Taper thread	Mounting torque [Nm]		
	Minimum	95	Maximum
17E wg ISO1116-1 W19.2 wg DIN 477-1	75	95	140
25E wg EN 429-1 W26.8 wg DIN 477-1	95	110	180

### A4 TABLE

Straight thread	Mounting torque [Nm]		
	Minimum	85	Maximum
M18 x1.5 EN144-1	85		100
5/8"-18UNF	95		100

### FILLING PRODESS

- 01 Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
- 02 Cylinder filling temperature shall not exceed 40°C. Recommended filling rate is in Declaration of Conformity.

### USE

- 01 The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
- 02 For the transport of the cylinders, there should be used containers, bars, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and impurities.
- 03 The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
- 04 It is unacceptable that the cylinders are thrown, filled by the valve or rolled in a lying position, during the transport.
- 05 During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be stored in a dry place.
- 06 During the process of filling, surface temperature of the cylinder should not exceed 40 °C.
- 07 Filling the cylinders with gas can be performed only by individuals and people with appropriate powers in accordance with the regulations, laws and norms applicable in their country.
- 07 The cylinder must be fitted with a valve, connections with this recommended test pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
- 08 Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- 09 The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
- 10 Sample mounting torque valves to be cylinder according to the tables A.3. and A.4.
- 11 To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 1314-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
- 12 Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be filled with transport loads with oxygen.

### SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections are carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labelled with the word NLL.

### REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

Comply with the regulations of the country in which the cylinders are used.

Have not reached the date of last inspection, they were given a sign of a notified body and the term of their inspection has not expired, have not visible damages of the cylinder, valve, connections etc.

IT IS CATEGORICALLY FORBIDDEN TO:

- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
- USE THE CYLINDERS WHOSE LABELING IS ILLEGIBLE OR INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.
- OPERATE ON THE VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

### DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY  
ODBIOR BULI PRZEPRAWADZU/  
TUV SUD Czech s.r.o. Ostrava, Teslova 2  
Identification no.: 1017

MANUFACTURER /PRODUCENT/	TECHPLAST Ltd. www.techplast.net VAT No.: PL 6772147485		
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/	Krakowska 83P 34-120 Andrychów, Poland		
RECEPTION REPORT /RAPORT ODBIORU/	RA11C-2507009		
DRAWING NUMBER /NR RYSUNKU/	AS5-01-00		
BODY CERT. MODULE B /SYNTECTYWY MODUŁ B/	08.324.016		
SERIAL NO /NUMER SERIOWY/	A11C/2501728		
GAS /GAZ/	AIR, COMPRESSED UNY02	VOLUME /POJEMNOŚĆ/	9.00 L
THREAD /GWINT/	M18x1.5	WEIGHT /WAGA/	3.90 kg
DIAMETER /ŚREDNICA/	174.00 mm	TEMP. OF WORK /TEMP. PRACY/	-40°C / +60°C
WORKING PRESSURE /CIŚNIENIE PRACY/	300 BAR	MANUFACTURING DATE /DATA PRODUKCJI/	2025/07
TEST PRESSURE /CIŚNIENIE PRÓBY/	450 BAR	EXPIRATION DATE /TERMIN WAŻNOŚCI/	NLL
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/			
CYLINDERS MEET THE REQUIREMENTS OF /BULIE SPEŁNIAJĄ WYMAGANIA/			
EN 12245:2008+A1:2011 DIRECTIVE 2014/68/EU			

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
ZBIORNIKI OZNACZONO ZNAKEM ZGODNOŚCI

THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
IŚWIACTWO WERYFIKACJI WYROBU MODUŁ F DO WGLADU U PRODUCENTA/

**SAFAR<sup>®</sup>**  
ULTRA LIGHT  
COMPOSITE  
CYLINDERS

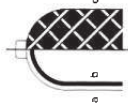
Production Plant:  
Techplast Sp. z o.o.  
ul. Krakowska 83 P  
34-120 Andrychów, Poland  
E service@techplast.net  
W safar-cylinders.com



# SAFER<sup>®</sup>

## OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE TRANSPORTABLE GAS CYLINDER



- a epoxy casting
- b liner made of ERT
- c composite fibers wrapped in an epoxy matrix

### RECOMMENDATION

- 01 Read the instruction carefully and keep to its conditions.
- 02 Composite cylinders should be operated in accordance with their use.
- 03 The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
- 04 Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
- 05 When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST, the producer does not accept any responsibility for their correct functioning.
- 06 Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
- 07 TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
- 08 If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO1116-1 W19,2 wg DIN 477-1	75	95
25E wg EN 629-1 W26,8 wg DIN 477-1	95	110
		100

### A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1,5 EN144-1	85	100
5/8" 18UNF	85	100

### FILLING PROCESS

- 01 Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2
- 02 Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity

### USE

- 01 The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
- 02 For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and impurities.
- 03 The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
- 04 It is unacceptable that the cylinder are thrown, filled by the valve or rolled in a lying position, during the transport.
- 05 During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be stored in a dry place.
- 06 During the process of filling, surface temperature of the cylinder should not exceed 60 °C. Filling the cylinders with gas can be performed only by individuals and people with appropriate powers in accordance with the regulations, laws and norms applicable in their country.
- 07 This cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
- 08 Valves for the cylinder should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- 09 The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
- 10 Sample mounting torque valves to the cylinders according to the tables A.3. and A.4.
- 11 To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 1114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
- 12 Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be filled with transport caps with on-fits.

### SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections are carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labelled with the word NLL.

### REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

Comply with the regulations of the country in which the cylinders are used.

Are marked with the date of last inspection, they were given a sign of a notified body and the term of their inspection has not expired, there are no visible damages of the cylinder, valve, connections etc.

IT IS CATEGORICALLY FORBIDDEN TO!

- USE THE CYLINDERS FOR ANY PURPOSE, OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WHOSE LIFE SPAN HAS EXPIRED.
- USE THE CYLINDERS WHOSE LABELING IS ILLEGIBLE OR INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER VALVE, CONNECTIONS ETC.
- USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC.).
- OPERATE ON JUL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

### DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY  
/ODBÓR BUTU PRZEPROWADZIŁ/

TUV SÜD Czech s.r.o. Ostrava, Teslova 2  
Identification no.: 1017

MANUFACTURER  
/PRODUCENT/

TECHPLAST Ltd. www.techplast.net VAT No. PL 677147485

PRODUCTION PLANT  
/ZAKŁAD PRODUKCYJNY/

Krakowska 83P 34-120 Andrychów, Poland

RECEPTION REPORT  
/RAPORT ODBIORU/

RA11C-2507009

DRAWING NUMBER  
/NR RYSUNKU/

ASS-01-00

BODY CERT. MODULE B  
/SWIADCETWO MODUŁ B/

08.324.016

SERIAL NO  
/NUMER SERIANY/

A11C125101727

GAS  
/GĄZ/

AIR, COMPRESSED  
UN1002

THREAD  
/GWINT/

M18x1.5

DIAMETER  
/SZEROKOŚĆ/

174.00 mm

WORKING PRESSURE  
/CIŚNIENIE PRACY/

300 BAR

TEST PRESSURE  
/CIŚNIENIE PRÓBNIE/

450 BAR

RECOMMENDED FILLING RATE  
/ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/

< 30 BAR/MIN

CYLINDERS MEET THE REQUIREMENTS OF  
/BUTLE SPEŁNIAJĄ WYMAGANIA/

EN 12245:2009+A1:2011  
DIRECTIVE 2014/68/EU

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
/ZBIORNIKI OZNAKOWANO ZNAKIEM ZGODNOŚCI/

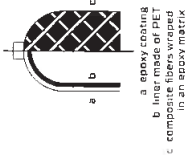
CE 1017

THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/SWIADCETWO WERYFIKACJI WYROBÓW MODUŁ F DO WGLĄDU U PRODUCENTA/

**SAFER<sup>®</sup>**  
ULTRA LIGHT  
COMPOSITE  
CYLINDERS

Production Plant  
Techplast Sp. z o.o.  
ul. Krakowska 83 P  
34-120 Andrychów, Poland  
E: service@techplast.net  
W: safercylinders.com



OPERATION  
AND MAINTENANCE  
MANUALOF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

## RECOMMENDATION

- 01 Read the instruction carefully and keep to its conditions.
- 02 Composite cylinders should be operated in accordance with their use.
- 03 The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
- 04 Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
- 05 When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST, the producer is not operated in accordance with their use, the user bears responsibility for their correct functioning.
- 06 Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
- 07 TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
- 08 If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

## A3 TABLE

Taper thread	Mounting torque [Nm]		
	Minimum	95	Maximum
17E wg ISO1116-1 W192 wg DIN 477-1	75	95	140
25E wg EN 429-1 W268 wg DIN 477-1	95	110	180

## A4 TABLE

Straight thread	Mounting torque [Nm]		
	Minimum	85	Maximum
M18 x1.5 EN144-1	85		100
5/8" 18UNF	85		100

## FILLING PROCESS

- 01 Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
- 02 Cylinder filling temperature shall not exceed 40°C. Recommended filling rate is in Declaration of Conformity.

## USE

- 01 The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
- 02 For the transport of the cylinders, there should be used containers, tins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.
- 03 The devices used to protect valve connections (e.g. protective cap) should be applied during the transport of the cylinders.
- 04 It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
- 05 During storage of the cylinders, they should be protected against mechanical damage, overturning, vibration and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept in an upright position.
- 06 During the process of filling, surface temperature of the cylinder should not exceed 40 °C.
- 07 Filling the cylinders with gas can be performed only by individuals and people with appropriate powers in accordance with the regulations, laws and norms applicable in their country.
- 07 The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
- 08 Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- 09 The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
- 10 Sample mounting torque values to the cylinders according to the tables A.3 and A.4.
- 11 To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
- 12 Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with O-rings.

## SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections are carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labelled with the word NLL.

## REMARKS

- ONE CAN ONLY FILL THE CYLINDERS WHICH:
- 1 COMPY with the regulations of the country in which the cylinders are used.
  - 2 DO NOT HAVE ANY VISUAL DAMAGES OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC.)
  - 3 OF THEIR RE-INSPECTION TESTED EXPERT HAS NOT VISUAL DAMAGES AT THE CYLINDER, VALVE, CONNECTIONS ETC.
- IT IS CATEGORICALLY FORBIDDEN TO:
- 1 USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
  - 2 USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
  - 3 USE THE CYLINDERS WHOSE LABELING IS ILLEGIBLE OR INCOMPLETE.
  - 4 USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.
  - 5 USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC.).
  - 6 USE ANY OTHER VALVE OR OTHER PARTS OF THE CYLINDERS.
  - 7 USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY  
/DOBÓR BUTU PRZEPROWADZIŁ/TUV SUD Czech s.r.o. Ostrava, Teslova 2  
Identification no.: 1017MANUFACTURER  
/PRODUCENT/

TECHPLAST Ltd. www.techplast.net VAT No. PL 677147485

PRODUCTION PLANT  
/ZAKŁAD PRODUKCYJNY/

Krakowia 83P 34-120 Andrychów, Poland

RECEPTION REPORT  
/RAPORT DOBÓRU/

RA11C-2507009

DRAWING NUMBER  
/NR RYSUNKU/

ASS-01-00

BODY CERT. MODULE B  
/SWIADECTWO MODUŁ B/

08.324.016

SERIAL NO  
/NUMER SERIANY/

A11C/25/01726

GAS  
/GAZ/AIR, COMPRESSED  
UN1002VOLUME  
/POJEMNOŚĆ /

9.00 L

THREAD  
/GWINT/

M18x1.5

WEIGHT  
/WAGA/

3.90 kg

DIAMETER  
/ŚREDNICA/

174.00 mm

TEMP. OF WORK,  
/TEMP. PRACY/

-40°C / +40°C

WORKING PRESSURE  
/CIŚNIENIE PRACY/

300 BAR

MANUFACTURING DATE  
/DATA PRODUKCJI/

2025/07

TEST PRESSURE  
/CIŚNIENIE PRÓBY/

450 BAR

EXPIRATION DATE  
/TERMIN WAŻNOŚCI/

NLL

RECOMMENDED FILLING RATE  
/ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/

&lt; 30 BAR/MIN

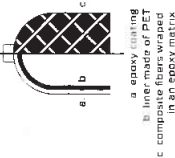
CYLINDERS MEET THE REQUIREMENTS OF  
/BUTLE SPEŁNIAJĄ WYMAGANIA/EN 12245:2009+A1:2011  
DIRECTIVE 2014/68/EUTHE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
/BUTLE SŁEPIENIAJĄ ZNAKIEM ZGODNOŚCI/

CE

THE CERTIFICATE OF MODULE F IS AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/SWIADECTWO WERYFIKACJI WYROBU MODUŁ F DO WGLĄDU U PRODUCENTA/

1017

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COMPOSITE  
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# SAFAR<sup>®</sup>

## OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE TRANSPORTABLE GAS CYLINDER

### RECOMMENDATION

- Read the instruction carefully and keep to its conditions.
- Composite cylinders should be operated in accordance with their use.
- The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
- Maintenance, services and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with the necessary training and powers which are in accordance with the regulations applicable in their country of operation.
- When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST, the user bears the responsibility for their correct functioning.
- Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
- TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
- If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
1 1/2 wg ISO11116-1 W19.2 wg DIN 477-1	75	95
2 1/2 wg EN 4394 W26.8 wg DIN 477-1	95	110
		150

### A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN144-1	85	100
5/8" 18UNF	85	100

### FILLING PROCESS

- Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
- Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

### USE

- The producer recommends the use of AUR European Agreement which applies to international transport of dangerous goods by road.
- For the transport of the cylinders, there should be used containers, tins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and impurities.
- The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
- It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
- During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be stored in a dry place.
- During the process of filling, surface temperature of the cylinder should not exceed 40 °C.
- Filling the cylinders with gas can be performed only by individuals and people with appropriate powers in accordance with the regulations, laws and norms applicable in their country.
- The cylinder must be fixed with a valve, connections with the recommended test pressure. Elements, connections and the valve should be authorized and according to the regulations, norms and laws applicable in the country in which the cylinder is used.
- Valves for the cylinder should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13543.
- Simple mounting torque valves to the cylinders according to the tables A.3. and A.4.
- To seal the connection between the valve and the cylinder there should be used o-rings in accordance with the norm ISO 1114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
- Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be filled with transport caps with springs.

### SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections are carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labeled with the word NLL.

### REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

Comply with the regulations of the country in which the cylinders are used.

Are marked with the date of last inspection. They were given a sign or a notified body and the term of their next inspection had not expired. There were no visual damages of the cylinder, valve, connections etc.

IT IS CATEGORICALLY FORBIDDEN TO:

- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
- USE THE CYLINDERS WHOSE LABELING IS ILLEGIBLE OR INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER VALVE CONNECTIONS ETC.
- USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE CONNECTIONS ETC.).
- LUBRICATE OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

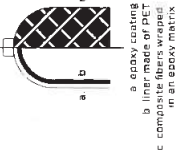
### DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY /ODBIOR BUTU PRZEPROWADZIŁ/	TÜV SÜD Czech s.r.o. Ostrava, Teslova 2 Identification no. :1017
MANUFACTURER /PRODUCENT/	TECHPLAST Ltd. www.techplast.net/VAT No.:PL 677217495
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/	Krakowska 83P 34-120 Andrychów, Poland
RECEPTION REPORT /RAPORT ODBIORU/	RA11C-2507009
DRAWING NUMBER /NR RYSUNKU/	AS5-01-00
BODY CERT. MODULE B /SMIADECTWO MODUŁ B/	08.324.016
SERIAL NO NUMER SERWISU/	A11C125010725
GAS /GAZ/	VOLUME /POJEMNOŚĆ /
THREAD /GWINT/	WEIGHT /WAGA/
DIAMETER /ŚREDNICA/	TEMP. OF WORK /TEMP. PRACY/
WORKING PRESSURE /CIŚNIENIE PRACY/	MANUFACTURING DATE /DATA PRODUKCJI/
TEST PRESSURE /CIŚNIENIE PRÓBNIE/	EXPIRATION DATE /TERMIN WAŻNOŚCI/
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/	
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/	
THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY /ZBIOROWKI OZNACZONO ZNAKEM ZGODNOŚCI/	
THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER /SMIADECTWO WERYFIKACJI WYROBU MODUŁ F DO WGLĄDU U PRODUCENTA/	



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# SAFER<sup>®</sup>

## OPERATION AND MAINTENANCE MANUAL

OF FULLY WIREDED COMPOSITE TRANSPORTABLE GAS CYLINDER

### RECOMMENDATION

- Read the instruction carefully and keep to its conditions.
- Composite cylinders should be operated in accordance with their use.
- The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
- Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with the necessary tools and powers which are in accordance with the regulations applicable in their country of operation.
- When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of the producer, the producer is not held responsible for the damages caused by the use of the cylinders without responsibility for their correct functioning.
- Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
- TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
- If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3 TABLE

Taper thread	Mounting torque [Nm]		
	Minimum	95	Maximum
1 1/2" wg ISO11116-1 W19.2 wg DIN 477-1	75	95	140
2 1/2" wg EN 629-1 W26.8 wg DIN 477-1	95	110	180

### A4 TABLE

Straight thread	Mounting torque [Nm]		
	Minimum	85	Maximum
M18 x1.5 EN144-1	85		100
5/8" 18UNF	85		100

### FILLING PROCESS

- Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
- Cylinder filling temperature shall not exceed 40°C. Recommended filling rate is in Declaration of Conformity.

### USE

- The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
- For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and impairments.
- The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
- It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
- During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be stored in a dry, well-ventilated place.
- During the process of filling, surface temperature of the cylinders should not exceed 40 °C. Filling the cylinders with gas can be performed only by individuals and people with appropriate powers in accordance with the regulations, laws and norms applicable in their country.
- The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
- Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
- Sample mounting torque values to the cylinders according to the tables A.3 and A.4.
- To seal the connection between the valve and the cylinder there should be used o-rings in accordance with the norm ISO 1114-2. If necessary, the producer recommends the use of Teflon tape type PTFE which is at least 0.1 millimeters thick.
- Tanks with pressure vessels should be transported/stored pressurized to min. 2 bar. Tanks without pressure vessels should be filled with transport caps with o-rings.

### SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections are carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.


For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labelled with the word NULL.

### REMARKS

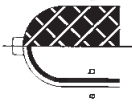
- ONE CAN ONLY FILL THE CYLINDERS WHICH:
- Comply with the regulations of the country in which the cylinders are used.
  - Are marked with the date of last inspection, they were given a sign of a notified body and the term of their inspection has not expired (they have not visible damages of the cylinder, valve, connections etc).
- IT IS CATEGORICALLY FORBIDDEN TO:
- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
  - USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
  - USE THE CYLINDERS WHOSE LABELLING IS ILLEGIBLE OR INCOMPLETE.
  - USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER VALVE, CONNECTIONS ETC.
  - USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC.).
  - LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
  - USE A VACUUM (DO NOT USE A VACUUM).

### DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY /ODBIÓR BUTU PRZEPROWADZU/		TUV SUD Czech s.r.o. Ostrava, Teslova 2 Identification no.: 1017	
MANUFACTURER /PRODUCENT/		TECHPLAST Ltd. www.techplast.net VAT No.: PL 677214785	
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/		Krakowska 83P 34-120 Andrychów, Poland	
RECEPTION REPORT /RAPORT ODBIORU/		RA11C-2507009	
DRAWING NUMBER /NR RYSUNKU/		AS5-01-00	
BODY CERT. MODULE B /SWIADCETWO MODUŁ B/		08.324.016	
SERIAL NO /NUMER SERYJNY/		A11C/2501724	
GAS /GAZ/		VOLUME /POJEMNOŚĆ /	9.00 L
THREAD /GWINT/		WEIGHT /WAGA/	3.90 kg
DIAMETER /ŚREDNICA/		TEMP. OF WORK /TEMP. PRACY/	-40°C / +60°C
WORKING PRESSURE /CIŚNIENIE PRACY/		MANUFACTURING DATE /DATA PRODUKCJI/	202507
TEST PRESSURE /CIŚNIENIE PRÓBNICZE/		EXPIRATION DATE /TERMIN WAZNOŚCI/	NULL
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/		< 30 BAR/MIN	
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/		EN 12245:2008+A1:2011 DIRECTIVE 2014/68/EU	
THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY /ZBIORNIKI OZNAKOWANO ZNAKIEN ZGODNOŚCI/		 1017	
THE CERTIFICATE OF MODULE B IS AVAILABLE FOR INSPECTION AT THE MANUFACTURER /SWIADCETWO WERYFIKACJI WYROBU MODUŁ B DO WGLĄDU U PRODUCENTA/			



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OPERATION  
AND MAINTENANCE  
MANUALOF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

- a. epoxy coating  
b. inner made of PET  
c. composite fibers wrapped  
in an epoxy matrix

## RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST, the producer is not operated in accordance with their use, the user bears the responsibility for their correct functioning.
06. Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

## A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
1/2" wg ISO1116-1 W12.2 wg DIN 477-1	75	140
25E wg EN 429-1 W26.8 wg DIN 477-1	95	190

## A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN144-1	85	100
5/8" 18UNF	85	100

## FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2
02. Cylinder filling temperature shall not exceed 40°C. Recommended filling rate is in Declaration of Conformity.

## USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
02. For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and impurities.
03. The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
05. During storage of the cylinders, they should be protected against mechanical damage, overturning, exposure to excessive temperatures and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
06. During the process of filling, surface temperature of the cylinder should not exceed 40 °C.
07. Filling the cylinders with gas can be performed only by individuals and people with appropriate powers in accordance with the regulations, laws and norms applicable in their country.
07. The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
08. Valves for the cylinder should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
09. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
10. Sample mounting torque values to the cylinders according to the tables A.3. and A.4.
11. To seal the connection between the valve and the cylinder there should be used natrium in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
12. Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be filled with transport caps with O-rings.

## SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections are carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE, or FIN can be found on the label.

The cylinders with unlimited life-span are labelled with the word NLL.

## REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

Comply with the regulations of the country in which the cylinders are used.

Do not have any visible damages to the cylinder body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.

IT IS CATEGORICALLY FORBIDDEN TO:

- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
- USE THE CYLINDERS WHOSE LABELING IS ILLEGIBLE OR INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.
- USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC.).
- USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY  
/OCBÓR BUTU PRZEPRAWACZU/

TUV SUD Czech s.r.o. Ostrava, Teslova 2  
Identification no.: 1017

MANUFACTURER /PRODUCENT/	TECHPLAST Ltd. www.techplast.net VAT No.: PL 6772147485	
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/	Krakowska 639 34-120 Andrychów, Poland	
RECEPTION REPORT /RAPORT ODBIORU/	RA11C-2507009	
DRAWING NUMBER /NR RYSUNKU/	AS5-01-00	
BODY CERT. MODULE B /SZKŁEKTWO MODUŁ B/	08.374.016	
SERIAL NO /NUMER SERYJNY/	A11C/2501723	
GAS /GAZ/	AIR COMPRESSED UN102	VOLUME /POJEMNOŚĆ / 9.30 L
THREAD /GWINT/	M18x1.5	WEIGHT /WAGA/ 3.90 kg
DIAMETER /ŚREDNICA/	174.00 mm	TEMP. OF WORK /TEMP. PRACY/ -40°C / +60°C
WORKING PRESSURE CIŚNIENIE PRACY/	300 BAR	MANUFACTURING DATE /DATA PRODUKCJI/
TEST PRESSURE CIŚNIENIE PROBY/	450 BAR	EXPIRATION DATE /TERMIN WAŻNOŚCI/
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/		≤ 30 BAR/MIN
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/		EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
/CZŁONKOWI OZNACZONO ZNAKIEM ZGODNOŚCI/

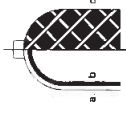
1017

THE CERTIFICATE OF MODULE F IS AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/SMIENCTWO WERYFIKACJI WYROBU/ MODUŁ F DO WGLĄDU U PRODUCENTA/

SAFBR  
ULTRA LIGHT  
COMPOSITE  
CYLINDERS



Production Plant  
Technoplast Sp. z o.o.  
ul. Krakowska 639  
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www.techplast.com

OPERATION  
AND MAINTENANCE  
MANUALOF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

- a epoxy coating  
b liner made of PET  
c composite fibers wrapped  
in an epoxy matrix

## RECOMMENDATION

- 01 Read the instruction carefully and keep to its conditions.
- 02 Composite cylinders should be operated in accordance with their use.
- 03 The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
- 04 Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
- 05 When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST, the producer is not operated in accordance with their use, the user bears responsibility for their correct functioning.
- 06 Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
- 07 TECHPLAST recommends the user to enter into a contract which guarantees services by the authorized service center of TECHPLAST company.
- 08 If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

## A3 TABLE

Taper thread	Mounting torque [Nm]		
	Minimum	95	Maximum
17x wg ISO11116-1 M12 x wg DIN 477-1	75	95	140
25E wg EN 4294-1 W2B.8 wg DIN 477-1	95	110	180

## A4 TABLE

Straight thread	Mounting torque [Nm]		
	Minimum	85	Maximum
M18 x1,5 EN144-1	85		100
5/8"-18UNF	85		100

## FILLING PROCESS

- 01 Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
- 02 Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

## USE

- 01 The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
- 02 For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and impurities.
- 03 The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
- 04 It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
- 05 During storage of the cylinders, they should be protected against mechanical damage, overturning, vibration and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept in an upright position.
- 06 During the process of filling, surface temperature of the cylinder should not exceed 60 °C. Filling the cylinders with gas can be performed only by individuals and people with appropriate powers in accordance with the regulations, laws and norms applicable in their country.
- 07 The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
- 08 Valves for the cylinder should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- 09 The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
- 10 Sample mounting torque valves to the cylinders according to the tables A.3. and A.4.
- 11 To seal the connection between the valve and the cylinder there should be used o-rings in accordance with the norm ISO 11141-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
- 12 Tables with pressure values should be transported/stored pressurized to min. 2 bar. Tanks without pressure valves should be fitted with transport caps with O-rings.

## SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections are carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labelled with the word NLL.

## REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

Comply with the regulations of the country in which the cylinders are used.  
Have not reached the date of expiration when they are given a sign of a certified body and the term of their inspection has not expired.  
Have not visible damages of the cylinder, valve, connections etc.

IT IS CATEGORICALLY FORBIDDEN TO:

- 01 USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
- 02 USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
- 03 USE THE CYLINDERS WHOSE LABELLING IS ILLEGIBLE OR INCOMPLETE.
- 04 USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER VALVE, CONNECTIONS ETC.
- 05 USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC).
- 06 USE ANY OTHER PARTS OR OTHER PARTS OF THE CYLINDERS.
- 07 USE A VALVE (DO NOT USE A VALVE).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY /ZOBOR BUTU PRZEPRAWADZU/ TUV SUD Czech s.r.o. Ostrava, Teslova 2 Identification no.: 1017	
MANUFACTURER /PRODUCENT/	TECHPLAST Ltd. www.techplast.net VAT No. PL 6772147485
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/	Krakowska 83P 34-120 Andrychów, Poland
RECEPTION REPORT /RAPORT ODBIORU/	RA11C-2507009
DRAWING NUMBER /NR RYSUNKU/	AS5-01-00
BODY CERT. MODULE B /SWIADCTWO MODUŁU B/	08.324.016
SERIAL NO /NUMER SERW./	A11C/2507121
GAS /GĄZ/	AIR, COMPRESSED UN1002
THREAD /GWINT/	M18x1.5
DIAMETER /ŚREDNICA/	174.00 mm
WORKING PRESSURE CIŚNIENIE PRACY/	300 BAR
TEST PRESSURE CIŚNIENIE PROBNIE/	450 BAR
VOLUME /POJEMNOŚĆ /	9.00 L
WEIGHT /WAGA/	3.90 kg
TEMP. OF WORK /TEMP. PRACY/	-40°C / +60°C
MANUFACTURING DATE DATA PRODUKCJI/	2025/07
EXPIRATION DATE TERMIN WAZNOŚCI/	NLL
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/	< 30 BAR/MIN
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIĄĄ WYMAGANIA/	EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU
THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY /ZBÓRWA OZNAČONO ZNAKEM ZGODNOŚCI/	
THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER /SWIADCTWO WERYFIKACJI WYROBU MODUŁ F DO WGLĄDU U PRODUCENTA/	

**SAFAR®**  
ULTRA LIGHT  
COMPOSITE  
CYLINDERS

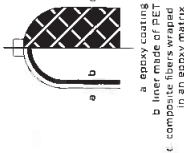
Production Plant  
Technoplast Sp. z o.o.  
ul. Krakowska 83 P  
34-120 Andrychów, Poland  
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# SAFER<sup>®</sup>

## OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER



### RECOMMENDATION

- Read the instruction carefully and keep to its conditions.
- Composite cylinders should be operated in accordance with their use.
- The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
- Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
- When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center or the producer, the producer and the cylinders are not operated in accordance with their use, the user bears responsibility for their correct function.
- Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
- TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
- If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3 TABLE

Taper thread	Mounting torque [Nm]		
	Minimum	75	Maximum
17E wg ISO1116-1 W19.2 wg DIN 477-1		95	140
25E wg EN 429-1 W26.8 wg DIN 477-1	95	110	180

### A4. TABLE

Straight thread	Mounting torque [Nm]		
	Minimum	85	Maximum
M18 x1.5 EN144-1		85	100
5/8" 18UNF		85	100

### FILLING PROCESS

- Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
- Cylinder filling temperature shall not exceed 40°C. Recommended filling rate is in Declaration of Conformity.

### USE

- The producer recommends the use of AQR European Agreement which applies to international transport of dangerous goods by road.
- For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and impurities.
- The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
- It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
- During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be stored in a dry place.
- During the process of filling, surface temperature of the cylinder should not exceed 40 °C. Filling the cylinders with gas can be performed only by individuals and people with appropriate powers in accordance with the regulations, laws and norms applicable in their country.
- The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
- Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
- Sample mounting torque values to the cylinders according to the tables A.3 and A.4.
- To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
- Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with O-rings.

### SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections are carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labeled with the word NLL.

### REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

- Comply with the regulations of the country in which the cylinders are used.
- Have no visible damages.
- Have not expired, they were given a sign of a studied body and the term of their next inspection has not expired, have not visible damages of the cylinder, valve, connections etc.

IT IS CATEGORICALLY FORBIDDEN TO

- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
- USE THE CYLINDERS WHOSE LABELING IS ILLEGIBLE OR INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.
- USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC.).
- USE LUBRICANTS OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

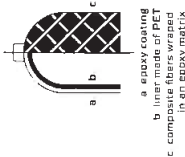
### DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY /OCENA BUDUJĄCEGO PRZEPROWADZONA/		TUV SÜD Czech s.r.o. Ostrava; Testlova 2 Identification no.: 1017	
MANUFACTURER /PRODUCENT/		TECHPLAST Ltd. www.techplast.net VAT No. PL 8772147485	
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/		Krakowska 83P 34-120 Andrychów, Poland	
RECEPTION REPORT /RAPORT ODBIORU/		RA11C-2507009	
DRAWING NUMBER /NR RYSUNKU/		AS5-01-00	
BODY CERT. MODULE B /SWIADCENIE MODUŁU B/		08.324.016	
SERIAL NO /NUMER SERII/		A11C125/01720	
GAS /GAZ/		VOLUME /POJEMNOŚĆ/	
THREAD /GWINT/		WEIGHT /WAGA/	
DIAMETER /ŚREDNICA/		TEMP. OF WORK. /TEMP. PRACY/	
WORKING PRESSURE /CIŚNIENIE PRACY/		MANUFACTURING DATE /DATA PRODUKCJI/	
TEST PRESSURE /CIŚNIENIE PRÓBY/		EXPIRATION DATE /TERMIN WAŻNOŚCI/	
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/		EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU	
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/		1017	
THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY /ZBIOFINKI OZNACZĄCZĄ ZNAKEM ZGODNOŚCI/		CE	
THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER /SWIADCENIE WERYFIKACJI WYROBU MODUŁU F DO WGLĄDU U PRODUCENTA/			





## SAFBR®

OPERATION  
AND MAINTENANCE  
MANUALOF FULLY WELDED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

## RECOMMENDATION

- 01 Read the instruction carefully and keep to its conditions.
- 02 Composite cylinders should be operated in accordance with their use.
- 03 The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
- 04 Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with the necessary tools and powers which are in accordance with the regulations applicable in their country of operation.
- 05 When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of the producer, the producer does not accept any responsibility for their correct functioning.
- 06 Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
- 07 TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
- 08 If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

A3 TABLE

Taper thread	Mounting torque [Nm]		
	Minimum	95	Maximum
17E wg ISO11116-1 W19.2 wg DIN 477-1	75	95	140
25E wg EN 429-1 W20.9 wg DIN 477-1	95	110	180

A4 TABLE

Straight thread	Mounting torque [Nm]		
	Minimum	85	Maximum
M18 x1.5 EN1444-1	85	100	100
5/8" 18UNF	85	100	100

## FILLING PROCESS

- 01 Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
- 02 Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

## USE

- 01 The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
- 02 For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and impact etc.
- 03 The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
- 04 It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
- 05 During storage of the cylinders, they should be protected against mechanical damage, overturning, shock and chemical impurities and direct influence of adverse weather conditions. The cylinders should be stored in a dry place.
- 06 During the process of filling, surface temperature of the cylinder should not exceed 60 °C.  
Filling the cylinders with gas can be performed only by individuals and people with appropriate powers in accordance with the regulations, laws and norms applicable in their country.
- 07 The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
- 08 Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- 09 The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 15341.
- 10 Sample mounting torque valves to the cylinders according to the tables A.3 and A.4.
- 11 To seal the connection between the valve and the cylinder, there should be used materials in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE, which is at least 0.1 millimeters thick.
- 12 Tanks with pressure valves should be transported/loaded/preserved pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with locking.

## SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.  
In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.  
Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections are carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.  
For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.  
The cylinders with unlimited life-span are labelled with the word NLL.

## REMARKS

- ONE CAN ONLY FILL THE CYLINDERS WHICH:  
Comply with the regulations of the country in which the cylinders are used,  
Have been inspected and approved by the competent authority or a certified body and the term of their re-inspection has not expired and not visible damages of the cylinder (valve, connections etc.)  
IT IS CATEGORICALLY FORBIDDEN TO:  
■ USE THE CYLINDERS FOR ANY PURPOSE, OTHER THAN MENTIONED IN THE AUTHORIZATION.  
■ USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.  
■ USE THE CYLINDERS WHOSE LABELING IS ILLEGIBLE OR INCOMPLETE.  
■ USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER VALVE CONNECTIONS ETC.  
■ USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE CONNECTIONS ETC.).  
■ USE ANY OTHER FILLING MATERIAL OR OTHER PARTS OF THE CYLINDERS.  
■ USE A VALUUM (DO NOT USE A VALUUM).

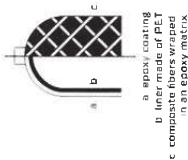
## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY /ODBIÓR BUTY PRZEPROWADZIŁ/		TUV SUD Czech s.r.o. Ostrava, Teslova 2 identification no.: 1017	
MANUFACTURER /PRODUCENT/	TECHPLAST Ltd. www.techplast.net VAT No.: PL 6772147485		
PRODUCTION PLANT /ZAKŁAD PRODUKCJI JNY/	Krakowska 83P 34-120 Andrychów, Poland		
RECEPTION REPORT /RAPORT ODBIORU/	RA11C-2507008		
DRAWING NUMBER /NR RYSUNKU/	AS5-01-00		
BODY CERT. MODULE B /SIWACECTWO MODUŁ B/	08 324 016		
SERIAL NO /NUMER SERIANY/	A11C/2501/558		
GAS /G/	AIR, COMPRESSED UN1002	VOLUME /POJEMNOŚĆ /	9.00 L
	THREAD /GWINT/	WEIGHT /MAGA/	3.90 kg
DIAMETER /ŚREDNICA/	174.00 mm	TEMP. OF WORK /TEMP. PRACY/	-40°C / +60°C
	WORKING PRESSURE /CIŚNIENIE PRACY/	MANUFACTURING DATE /DATA PRODUKCJI/	2025/07
TEST PRESSURE /CIŚNIENIE PRÓBY/	300 BAR	EXPIRATION DATE /TERMIN WAŻNOŚCI/	NLL
	450 BAR	RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/	
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/			
EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU			

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
/ZBIORNIKI OZNAKOZONO ZNAKIEM ZGODNOŚCI/THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/SWIADCETWO WERYFIKACJI WYROBU MODUŁ F DO WGLĄDU U PRODUCENTA/SAFBR®  
ULTRA LIGHT  
COMPOSITE  
CYLINDERSProduction Plant  
Templast Sp. z o.o.  
ul. Krakowska 83 P  
34-120 Andrychów, Poland  
E service@techplast.net  
W safbr.com

# OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER



## RECOMMENDATION

- 01 Compose the instruction carefully and keep it to its conditions.
- 02 Respective cylinders should be operated in accordance with their use
- 03 The producer is not held responsible for the damages caused by incorrect operation, use and maintenance  
04 of gas cylinders.
- 05 Maintenance service and repairs of compressive gas cylinders can be carried out only by qualified and  
06 competent staff with appropriate training and powers which are in accordance with the regulations  
07 applicable in their country of operation.
- 08 When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center  
09 of TECHLAST company, if the cylinders are not operated in accordance with their use the user bears  
10 A full responsibility of their correct functioning.
- 11 At no time the design or the structure of the cylinder can be made only with a written  
12 consent of the producing design office.
- 13 TECHLAST recommends the user to enter into a contract which guarantees service by the authorized  
14 service center of TECHLAST company.
- 15 If any defects or damages of a new product are found, put it away, secure it and inform the producer  
16 immediately.

### A3 TABLE

Taper threaded	Mounting torque [Nm]	
	Minimum	Maximum
17E w/ ISO11116-1 W192 wg DIN 477-1	75	95
25E wg EN 629-1 W28J wg DIN 477-1	95	110
		180

A4. TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN144-1	95	100
5/8" 18UNF	85	100

## FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
02. Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

MSN

01. The producer recommends the use of ADR European Agreement which applies to nominal transport of dangerous goods by road
02. For the transport of the cylinder, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and impurities.
03. The devices used to protect valves connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
05. The weight of the cylinders, they should be protected against mechanical damage, overloading, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from the
06. During the process of filling, surface temperature of the cylinder should not exceed 60 °C. The filling should be performed only by individuals and people with appropriate powers in accordance with the regulations.
07. The cylinder must be fitted with a valve, constructed with the recommended test pressure. Elements, connections and the valve should be subjected according to the regulations, norms and laws applicable in the country in which the cylinder is used.
08. Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used
09. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
10. Sample mounting torque values to the cylinders according to the tables A.3, and A.4.
11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE, which is at least Ø1 millimetres thick
12. Tanks with pressure vessels should be transported/loaded/preserved to min. 2bar. Tanks without pressure vessels should be fitted with transport caps with fittings.

## SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections are carried out by individuals who control pressure monitors

in accordance with the rules and regulations of the country.

The cylinders with unlimited life-span are labeled with the word NLL

## REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

Comply with the regulations of the country in which the cylinders are used, were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.

IT IS CATEGORICALLY FORBIDDEN TO:

USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.

- USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
- USE THE CYLINDERS WHOSE LABELING IS ILLEGIBLE OR INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER VALVE CONNECTIONS ETC.
- USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC).
- LUBRICATE FOR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY  
/ODBIÓR BUTLI PRZEPROWADZIŁ/

MANUFACTURER/  
PRODUCENT/

PRODUCTION PLANT  
ZAKŁAD PRODUKCJI

RECEPTION REPORT  
RAPORT ODBIORU

DRAWING NUMBER /NR RYSUNKU/	AS5-01-00
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08.324.01

SERIAL NO	A11C/25/01650
NUMBER SER(YNY)	

GAS GAZ	AIR, COMPRESSED WNIÓZ	THREAD CIĄNIT	DIAMETER ŚREDNICA	174,00 mm	WORKING PRESSURE CIŚNIENIE PRACY	300 BAR	TEST PRESSURE CIŚNIENIE PROBNIE	450 BAR	RECOMMENDED FILLING RATE ZALECANA PRĘDKOŚĆ WYPEŁNIANIA	CYLINDERS MEET THE REQUIREMENTS OF BUTLE SPRAWIAJĄ WYMAGANIA
VOLUME POJEMNOŚĆ		WEIGHT WAGA		TEMP OF WORK TEMP PRACY	MANUFACTURING DATE DATA PRODUKCJI	EXPIRATION DATE TERMIN VAŻNOŚCI	NULL	< 30 BAR/MIIN	EN 12245: 2009+A1: 2011 DIRECTIVE 2014/68/EU	
9,00 L		3,30 kg								
				-40°C / +60°C	2025/07					

**CYLINDERS MEET THE REQUIREMENTS OF**

WYKONANIE WYMAGANIAW  
DIREKTYWY 2014/68/EU

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
/ZBIORNIKI OZNACZONO ZNAKIEM ZGODNOSCII

THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER

„ZWIĄDECTWO WERYFIKACJI WYROBÓW MODUŁ F DO WGLADU I PRODUKENTA”



ULTRA LIGHT  
COMPOSITE  
CYLINDERS



PRODUCTION EDITOR

Techplast Sp. z o.o.

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service@techplast





## OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

### RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
06. Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO11116-1 W19.2 wg DIN 477-1	75	95
25E wg EN 629-1 W26.8 wg DIN 477-1	95	110
		160

### A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M1.8 x1.5 EN14-1	85	100
5/8" 18UNF	85	100

### FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
02. Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity

### USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
02. For the transport of the cylinders, there should be used containers, lining, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and impurities.
03. The device used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position during the transport.
05. During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
06. During the process of filling, surface temperature of the cylinder should not exceed 60°C.
07. The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
08. Values for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
09. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
10. Sample mounting to torque valves to the cylinders according to the tables A.3. and A.4.
11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 15848-2. Usually, the producer recommends the use of Teflon tape type PTFE which is at least 0.1 millimeters thick.
12. Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with o-rings.

### SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. The inspection should be carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labelled with the word NLL.

### REMARKS

- ONE CAN ONLY FILL THE CYLINDERS WHICH:
- Comply with the regulations of the country in which the cylinders are used,
  - were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve connections etc.
- IT IS CATEGORICALLY FORBIDDEN TO:
- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
  - REPAIR OR ALTER THE CYLINDERS.
  - USE THE CYLINDERS WITHOUT LABELING SUITABLE OR INCOMPLETE.
  - USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.
  - LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
  - USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

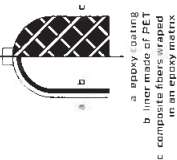
PRODUCT VERIFICATION WAS PERFORMED BY /OŚRODEK BUTL/PRZEPROWADZU/		TUV SUD Czech s.r.o. Ostrava; Teslova 2 Identification no.: 1017	
MANUFACTURER /PRODUCENT/		TECHPLAST Ltd. www.techplast.net VAT No.: PL 6772147485	
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/		Krakowska 83P 34-120 Andrychów, Poland	
RECEPTION REPORT /RAPORT ODBIORU/		RA11C-2507009	
DRAWING NUMBER /NR RYSUNKU/		ASS-01-00	
BODY CERT. MODULE B /SZTAFCIENNO MODUL B/		08.324.016	
SERIAL NO /NUMER SERII/		A11C12501793	
GAS /GAZ/	AIR, COMPRESSED UN1002	VOLUME /POJEMNOŚĆ /	9.00 L
THREAD /GWINT/	M18x1.5	WEIGHT /WAGA/	3.90 kg
DIAMETER /ŚREDNICA/	174.00 mm	TEMP. OF WORK /TEMP. PRACY/	-40°C / +60°C
WORKING PRESSURE /CIŚNIENIE PRACY/	300 BAR	MANUFACTURING DATE /DATA PRODUKCJI/	2025/07
TEST PRESSURE /CIŚNIENIE PROBNIE/	450 BAR	EXPIRATION DATE /TERMIN WAŻNOŚCI/	NLL
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ WYPEŁNIANIA/			
< 30 BAR/MIN			
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/			
EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU			

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
/BUTLE OZNAKOWANO ZNAKIEM ZGODNOŚCI/

THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/SZTAFCIENNO WERYFIKACJI WYROBU MODUŁ F DO WGLĄDU U PRODUCENTA/



Production Plant  
Technoplast Sp. z o.o.  
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## SAIFER® OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

### RECOMMENDATION

- Read the instruction carefully and keep to its conditions
- Composite cylinders should be operated in accordance with their use
- The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
- Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation
- When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning
- Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer
- TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company
- If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately

### A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
1/2" wg ISO11136-1 W19.2 wg DIN 477-1	75	95
25E wg EN 629-1 W26.8 wg DIN 477-1	95	110
		190

### A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN144-1	95	100
5/8" 18UNF	95	100

### FILLING PROCESS

- Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2
- Cylinder filling temperature shall not exceed 50°C. Recommended filling rate is in Declaration of Conformity.

### USE

- The producer recommends the use of ADR European Agreement, which applies to international transport of dangerous goods by road
- For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.
- The device used to protect valves connections (e.g. protective cap) should be applied during the transport of the cylinders.
- It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport of the cylinders.
- During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire
- During the process of filling, surface temperature of the cylinder should not exceed 50 °C. Filling the cylinders with gas can be performed only by individuals and people with appropriate powers in accordance with the regulations, laws and norms applicable in their country
- The user must be fitted with valve connections with the recommended test pressure. Elements, connected to the valve, should be checked according to the regulations, norms and laws applicable in the country in which the cylinder is used.
- Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13241.
- Sample mounting torque values to the cylinders according to the tables A3 and A4
- To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE, which is at least 0.1 millimeter's thick.
- Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with O-rings.

### SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. The inspection should be carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or PN can be found on the label.

The cylinders with unlimited life-span are labelled with the word NULL.

### REMARKS

- ONE CAN ONLY FILL THE CYLINDERS WHICH:
- Comply with the regulations of the country in which the cylinder is used.
  - were marked with the data of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.
- IT IS CATEGORICALLY FORBIDDEN TO
- USE THE CYLINDERS FOR ANY PURPOSE, OTHER THAN MENTIONED IN THE AUTHORIZATION.
  - USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
  - USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
  - USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.
  - USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC).
  - LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
  - USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY /OŚRODOK B+T1 PRZEPRAWADZU/		TUV SÜD Czech s.r.o. Ostrava; Tesełova 2 Identification no.: 1017	
MANUFACTURER /PRODUCENT/		TECHPLAST Ltd. www.techplast.net VAT No.: PL 677247485	
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/		Krakowska 83P 34-120 Andrychów, Poland	
RECEPTION REPORT /RAPORT ODBIORU/		RA11C-2507008	
DRAWING NUMBER /NR RYSUNKU/		AS5-01-00	
BODY CERT. MODULE B /SWIADCETWO MODUŁ B/		08.324.016	
SERIAL NO. /NUMER SERWISU/		A11C/2501645	
GAS /GAZ/	AIR COMPRESSED UN1002	VOLUME /POJEMNOŚĆ /	9.00 L
THREAD /GWINT/	M18x1.5	WEIGHT /WAGA/	3.90 kg
DIAMETER /ŚREDNICA/	174.00 mm	TEMP. OF WORK /TEMP. PRACY/	-40°C / +60°C
WORKING PRESSURE /CIŚNIENIE PRACY/	300 BAR	MANUFACTURING DATE /DATA PRODUKCJI/	2025/07
TEST PRESSURE /CIŚNIENIE PRÓBNIE/	450 BAR	EXPIRATION DATE /TERMIN WAŻNOŚCI/	NULL
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/		< 30 BAR/MIN	
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/		EN 12245 2009+A1:2011 DIRECTIVE 2014/68/EU	

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
/ZBIORNIKI OZNAKOWANO ZNAKAMI ZGODNOŚCI/

THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/SWIADCETWO WERYFIKACJI WYROBU MODUŁ F DO WGLĄDU U PRODUCENTA/







# SAFER<sup>®</sup>

## OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

### RECOMMENDATION

- Read the instruction carefully and keep to its conditions.
- Composite cylinders should be operated in accordance with their use or gas cylinders.
- The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
- Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
- When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
- Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
- TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
- If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
1/2" wg ISO11116-1 W19.2 wg DIN 477-1	75	95
25E wg EN 629-1 W28.8 wg DIN 477-1	95	110
		180

### A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M13 x1.5 EN144-1	85	100
5/8"-18UNF	85	100

### FILLING PROCESS

- Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
- Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

### USE

- The producer recommends the use of ADR European Agreement, which applies to international transport of dangerous goods by road.
- For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and impurities.
- The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
- It is acceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
- During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
- During the process of filling, surface temperature of the cylinder should not exceed 60°C. Cylinders should be filled in accordance with the regulations, laws and norms applicable in their country.
- The cylinder must be fitted with a valve, connections with the recommended test pressures. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
- Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13541.
- Sample mounting torque values to the cylinders according to the tables A3 and A4.
- To seal the connection between the valve and the cylinder, there should be used materials in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape, type PE PTFE which is at least 0.1 millimeters thick.
- Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with o-rings.

### SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company in order to detect any potential damages. The producer recommends a visual inspection during the process of filling of gas cylinder. Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used, but by individuals who control pressure indicators in accordance with the rules and regulations of the country. For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label. The cylinders with unlimited life-span are labelled with the word NLL.

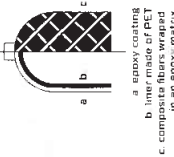
### REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH: Comply with the regulations of the country in which the cylinders are used, were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc. IT IS CATEGORICALLY FORBIDDEN TO:  
■ USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.  
■ USE THE CYLINDERS WHOSE LIFE-SPAN IS EXHAUSTED.  
■ USE THE CYLINDERS WHOSE VALVES OR CONNECTIONS ARE DAMAGED OR INCOMPLETE.  
■ USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.  
■ LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.  
■ USE A VACUUM (DO NOT USE A VACUUM)

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY /ODBIÓR BUTU PRZEFEROWADZU/		TUV SUD Czech s.r.o. Ostrava; Testova 2 Identification no.: 1017	
MANUFACTURER /PRODUCENT/		TECHPLAST Ltd. www.techplast.net VAT No.: PL 677147485	
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/		Karkowska 83P 34-120 Andrychów, Poland	
RECEPTION REPORT /RAPORT ODBIORU/		RA11C-2507008	
DRAWING NUMBER /NR RYSUNKU/		AS5-01-00	
BODY CERT. MODULE B /SWIADECTWO MODUŁ B/		08 324 016	
SERIAL NO /NUMER SERIANY/		A11C/2501643	
GAS /GAZ/	AIR, COMPRESSED /WZM1002	VOLUME /POJEMNOŚĆ / M3/GAL/	9.00 L 3.90 kg
THREAD /GWINT/	M18x1.5	TEMP. OF WORK /TEMP. PRACY/	-40°C / +80°C
DIAMETER /ŚREDNICA/	174.00 mm	MANUFACTURING DATE /DATA PRODUKCJI/	2025/07
WORKING PRESSURE /CIŚNIENIE PRACY/	300 BAR	EXPIRATION DATE /TERMIN WAŻNOŚCI/	NLL
TEST PRESSURE /CIŚNIENIE PRÓBNIE/	450 BAR	RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ WYPEŁNIANIA/	
		< 30 BAR/MIN	
		CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/	
		EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU	
		THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY /ZBIOROWKI OZNAČZONO ZNAKIEM ZGODNOŚCI/	
		CE 1017	
		THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER /SWIADECTWO WERYFIKACJI WYROBU MODUŁ F DO WGLADU J. PRODUCENTA/	





# SAFBR<sup>®</sup>

## OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

### RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
06. Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
1/8" wg ISO11116-1 W19.2 wg DIN 477-1	75	95
25E wg EN 629-1 W26.9 wg DIN 477-1	95	110
		160

### A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN144-1	85	100
5/8" UNJF	85	100

### FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
02. Cylinder filling temperature shall not exceed 40°C. Recommended filling rate is in Declaration of Conformity

### USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
02. For the transport of the cylinders, these should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and impurities.
03. The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
05. During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
06. During the process of filling, surface temperature of the cylinders should not exceed 40°C. Filling must be carried out by qualified staff with appropriate training and powers which are in accordance with the regulations, laws and norms applicable in their country.
07. The cylinder must be fired with a valve, connections with the recommended test pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
08. Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
09. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 15341.
10. Sample mounting torque valves to the cylinders according to the tables A.3. and A.4.
11. To seal the connection body near the valve and one cylinder there should be used materials in accordance with the norm ISO 15341. The producer recommends the use of Teflon tape, type PTFE, which is at least 0.1 millimeters thick.
12. Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with springs.

### SERVICE

TECHPLAST, according to the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.  
In order to detect any potential damages, the producer recommends a visual inspection during the process of filling and use of the cylinders.  
Cylinder must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections are carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labeled with the word NLL.

### REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

Comply with the regulations of the country in which the cylinders are used,  
were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, their risk value damages of the cylinder, valve, connections etc. IT IS CATEGORICALLY FORBIDDEN TO:

- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WHICH ARE DAMAGED OR CORRODED.
- USE THE CYLINDERS WHOSE LABELING IS ILLEGIBLE OR INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.
- USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC.).
- LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY  
/DOBÓR BUTU PRZEPROWADZIŁ/

TUV SUD Czech s.r.o. Ostrava, Testova 2  
Identification no.: 1017

MANUFACTURER  
/PRODUCENT/

TECHPLAST Ltd. www.techplast.net VAT No.: PL 677214785

PRODUCTION PLANT  
/ZAKŁAD PRODUKCYJNY/

Katowista 83P 34-120 Andrychów, Poland

RECEPTION REPORT  
/RAPORT ODBIORU/

RA11C-2507009

DRAWING NUMBER  
/NR RYSUNKU/

A55-01-00

BODY CERT. MODULE B  
/SMIAŁECTWO MODUŁ B/

08.324.016

SERIAL NO  
/NUMER SERWANY/

A11C/25071738

GAS  
/GAZ/

AIR, COMPRESSED  
UN1002

VOLUME  
/POJEMNOŚĆ /

9.00 L

THREAD  
/GWINT/

M18x1.5

WEIGHT  
/WAGA/

3.80 kg

DIAMETER  
/ŚREDNICA/

174.00 mm

TEMP. OF WORK  
/TEMP. PRACY/

-40°C / +60°C

WORKING PRESSURE  
/CIŚNIENIE PRACY/

300 BAR

MANUFACTURING DATE  
/DATA PRODUKCJI/

202507

TEST PRESSURE  
/CIŚNIENIE PRÓBNIE/

450 BAR

EXPIRATION DATE  
/TERMIN WAŻNOŚCI/

NLL

RECOMMENDED FILLING RATE  
/ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/

< 30 BAR/MIN

CYLINDERS MEET THE REQUIREMENTS OF  
/BUTLE SPEŁNIAJĄ WYMAGANIA/

EN 12245:2009+A1:2011

DIRECTIVE 2014/68/EU

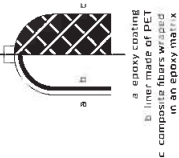
CE

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
/ZBIORNIKI OZNAKOWANO ZNAKIEM ZGODNOŚCI/

THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/SMIAŁECTWO WERYFIKACJI WYROBU MODUŁ F DO WGLĄDU U PRODUCENTA/



Production Plant  
Techplast Sp. z o.o.  
ul. Katowista 83 P  
34-120 Andrychów, Poland  
E: service@techplast.net  
W: safbr cylinders.com



# SAIFER<sup>®</sup>

## OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

### RECOMMENDATION

- 01. Read the instruction carefully and keep to its conditions.
- 02. Composite cylinders should be operated in accordance with their use.
- 03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
- 04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
- 05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
- 06. Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
- 07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
- 08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO11116-1 W192.2 wg DIN 477-1	75	95
25E wg EN 629-1 W268 wg DIN 477-1	95	110
		180

### A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN144-1	85	100
5/8" 18UNF	85	100

### FILLING PROCESS

- 01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
- 02. Cylinder filling temperature shall not exceed 40°C. Recommended filling rate is in Declaration of Conformity.

### USE

- 01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
- 02. For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.
- 03. The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
- 04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
- 05. During the transport of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
- 06. During the process of filling, surface temperature of the cylinder should not exceed 40 °C. Filling the cylinders with gas can be performed only by individuals and people with appropriate powers in accordance with the regulations, laws and norms applicable in their country.
- 07. The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, materials and accessories used should be in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- 08. Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- 09. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
- 10. Sample mounting torque values to the cylinders according to the tables A.3. and A.4.
- 11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape type PTFE which is at least 0.1 millimeters thick.
- 12. Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with O-rings.

### SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling or each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections are carried out by individuals who control pressure monitors in accordance with the laws and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labelled with the word NULL.

### REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

- Comply with the regulations of the country in which the cylinders are used.
- were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.

IT IS CATEGORICALLY FORBIDDEN TO:

- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
- USE THE CYLINDERS WHOSE LABELLING IS ILLEGIBLE OR INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC).
- LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM)

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

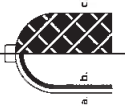
PRODUCT VERIFICATION WAS PERFORMED BY /ODBIOR BUTLI PRZEPROWADZU/	TUV SUD Czech s.r.o. Ostrava, Teslova 2 Identification no.: 1017
MANUFACTURER /PRODUCENT/	TECHPLAST Ltd. www.techplast.net VAT No.: PL 877214705
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/	Krakowska 83P 34-120 Andrychów, Poland
RECEPTION REPORT /RAFORT ODBIORU/	RA11C-2507009
DRAWING NUMBER	AS5-01-00
BODY CERT. MODULE B /SZKIEŁTWO MODUŁ B/	08.224.016
SERIAL NO. /NUMER SER. JNY/	A11C/2501715
GAS /GAZ/	AIR, COMPRESSED /POJEMNOŚĆ /
THREAD /GWINT/	M18x1.5
DIAMETER /ŚREDNICA/	174.00 mm
WORKING PRESSURE /CIŚNIENIE PRACY/	300 BAR
TEST PRESSURE /CIŚNIENIE PROBNIE/	450 BAR
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/	< 30 BARMIN
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/	EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU
THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY /ZBIORNIKI OZNACZONO ZNAKIEN ZGODNOŚCI/	
THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER /SWIADECTWO WERYFIKACJI WYROBU MODUŁ F DO WGLĄDU U PRODUCENTA/	



ULTRA LIGHT  
COMPOSITE  
CYLINDERS



Production Plant  
Techplast Sp. z o.o.  
ul. Krakowska 83 p  
34-120 Andrychów, Poland  
E: service@techplast.net  
W: safety.cylinders.com



- a. epoxy coating  
b. liner made of PET  
c. composite matrix  
in an epoxy matrix

## SAFER<sup>®</sup> OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

### RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
06. Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
176 wg ISO11116-1 W19,2 wg DIN 477-1	75	95
256 wg EN 629-1, W25,8 wg DIN 477-1	95	110
		180

### A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
MLB x1,5 EN144-1	85	100
5/8" 18UNF	85	100

### FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
02. Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

### USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
02. For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.
03. The device used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
05. During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
06. During the process of filling, surface temperature of the cylinder should not exceed 60 °C. Cylinders should be filled in a lying position and should be secured with appropriate powers in accordance with the regulations, laws and norms applicable in their country.
07. The cylinder must be fitted with a valve, connections with the recommended test pressure. Elbow joints, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
08. Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
09. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
10. Sample mounting torque values to the cylinders according to the tables A3 and A4.
11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11116-1. In addition, the producer recommends the use of Teflon tape, type PTFE which is at least 0,1 millimeter thick.
12. Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with O-rings.

### SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.  
Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspection should be carried out by individuals who have authority in accordance with the rules and regulations of the country.  
For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.  
The cylinders with unlimited life-span are labelled with the word NLL.

### REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:  
Comply with the regulations of the country in which the cylinders are used,  
were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.  
IT IS CATEGORICALLY FORBIDDEN TO:

- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES OR INCOMPLETE LABELLING.
- USE THE CYLINDERS WHICH LABELLING IS ILLEGIBLE OR INCOMPLETE
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER VALVE, CONNECTIONS ETC.,
- LUBRICATE OR OIL VALVES OR HAVE DAMAGED OR LEAVING EQUIPMENT (THE VALVE, CONNECTIONS ETC).
- USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY  
ODBIOR BUTLI PRZEPROWADZU  
Identification no.: 1017

MANUFACTURER /PRODUCENT/	TECHPLAST Ltd. www.techplast.net VAT No.: PL 6772147485
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/	Krakowska 83P 34-120 Andrychów, Poland
RECEPTION REPORT /RAPORT ODBIORU/	RA11C-2507009
DRAWING NUMBER /NR RYSUNKU/	AS5-01-00
BODY CERT. MODULE B /SMIADECTWO MODUŁ B/	08.324.016
SERIAL NO /NUMER SERII/	A11C/2501714
GAS /GAZ/	VOLUME /POJEMNOŚĆ /
THREAD /GWINT/	WEIGHT /WAGA/
DIAMETER /ŚREDNICA/	TEMP. OF WORK /TEMP. PRACY/
WORKING PRESSURE /CIŚNIENIE PRACY/	MANUFACTURING DATE /DATA PRODUKCJI/
TEST PRESSURE /CIŚNIENIE PROBNIE/	EXPIRATION DATE /TERMIN WAZNOŚCI/
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/	
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/	
THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY /ZEBIORNIKI OZNA CZONO ZNAKIEM ZGODNOŚCI/	
THE CERTIFICATE OF MODULE F IS AVAILABLE FOR INSPECTION AT THE MANUFACTURER /SMIADECTWO WERYFIKACJI WYROBU MODUŁ F DO WGLĄDU U PRODUCENTA/	

EN 12245:2009+A1:2011  
DIRECTIVE 2014/68/EU

CE

1017

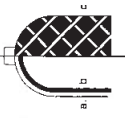
**SAFER<sup>®</sup>**  
ULTRA LIGHT  
COMPOSITE  
CYLINDERS



Production Plant  
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ul. Krakowska 83 P  
34-120 Andrychów, Poland  
E: service@techplast.net  
W: safercylinders.com







- a epoxy coating  
b liner made of PET  
c composite material in an epoxy matrix

## SAFER<sup>®</sup> OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

### RECOMMENDATION

- 01 Read the instruction carefully and keep to its conditions.
- 02 Composite cylinders should be operated in accordance with their use.
- 03 The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
- 04 Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
- 05 When cylinders are serviced or repaired by the unauthorized staff, rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
- 06 Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
- 07 TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
- 08 If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO11116-1, W19,2 wg DIN 477-1	75	95
25E wg EN 629-1 W26,8 wg DIN 477-1	95	110
		180

### A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1,5 EN14-1	95	100
5/8" 18UNF	85	100

### FILLING PROCESS

- 01 Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
- 02 Cylinder filling temperature shall not exceed 40°C. Recommended filling rate is in Declaration of Conformity.

### USE

- 01 The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
- 02 For the transport of the cylinders there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.
- 03 The device used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
- 04 It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
- 05 During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
- 06 During the process of filling, surface temperature of the cylinder should not exceed 40°C. Cylinders should be filled in accordance with the regulations, laws and norms applicable in their country.
- 07 The cylinder must be fitted with a valve, connections with the recommended test pressure. Elongations, connections, and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
- 08 Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- 09 The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13543.
- 10 Sample mounting torque valves to the cylinders according to the tables A.3. and A.4.
- 11 To seal the connection between the valve and the cylinder there should be used materials in accordance with the regulations, norms and laws applicable in their country. In any case, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
- 12 Tanks with pressure valves should be transported pressurized to min. 2 bar. Tanks without pressure valves should be fitted with transport caps with o-rings.

### SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.  
In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of the cylinders.  
Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspection should be carried out by the users who control pressure indicators in accordance with the rules and regulations of the country.  
For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labelled with the word NLL.

### REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

Comply with the regulations of the country in which the cylinders are used.  
were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.  
IT IS CATEGORICALLY FORBIDDEN TO:

- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WHOSE LABELLING IS ILLEGIBLE OR INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER VALVE CONNECTIONS ETC.
- USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC.).
- LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY  
/OCBÓR BUTLI PRZEPROWADZIŁ/

TUV SÜD Czech s.r.o. Ostrava, Teslova 2  
Identification no.: 1017

MANUFACTURER  
/PRODUCENT/

TECHPLAST Ltd. www.techplast.net VAT No.: PL 677214785

PRODUCTION PLANT  
/ZAKŁAD PRODUKCYJNY/

Krakowska 83P 34-120 Andrychów, Poland

RECEPTION REPORT  
/RAPORT OCBÓR/

RA11C-2507008

DRAWING NUMBER  
/NR RYSUNKU/

A55-01-00

BODY CERT. MODULE B  
/SWADECTWO MODUŁ B/

08.324.016

SERIAL NO  
/NUMER SERIANY/

A11C/2501711

GAS  
/GAZ/

AIR, COMPRESSED  
UN1002

THREAD  
/ŚWIWIT/

M18x1.5

DIAMETER  
/ŚREDNICA/

174.00 mm

WORKING PRESSURE  
/CIŚNIENIE PRACY/

300 BAR

TEST PRESSURE  
/CIŚNIENIE PRÓBNIE/

450 BAR

RECOMMENDED FILLING RATE  
/ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/

< 30 BAR/MIN

CYLINDERS MEET THE REQUIREMENTS OF  
/BUTLE SPEŁNIAJĄ WYMAGANIA/

EN 12245:2009+A1:2011  
DIRECTIVE 2014/68/EU

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
/ZBICIENIKI OZNAKOWANO ZNAKIEM ZGODNOŚCI/

1017

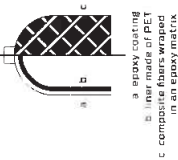
THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/SWADECTWO WERYFIKACJI WYROBÓW MODUŁ F DO WGLĄDU U PRODUCENTA/



Production Plant:  
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E: service@techplast.net  
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02 of 02  
ENG



# SAFEBR® OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

## RECOMMENDATION

- Read the instruction carefully and keep to its conditions.
- Composite cylinders should be operated in accordance with their use.
- The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
- Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
- When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
- Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
- TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
- If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
1/2" wg ISO11116-1 W19.2 wg DIN 477-1	75	95
1/2" wg EN 629-1 W20.8 wg DIN 477-1	95	110
		150

A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN144-1	85	100
5/8" 18UNF	85	100

## FILLING PROCESS

- Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
- Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

## USE

- The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
- For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.
- The device used to protect valve connections (e.g. protective cap) should be applied during the transport of the cylinders.
- It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position during the transport.
- On both ends of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impacts and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
- During the process of filling, surface temperature of the cylinder should not exceed 60 °C.
- Filling the cylinders with gas can be performed only by individuals and people with appropriate powers in accordance with the regulations, laws and norms applicable in their country.
- The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, which are damaged or damaged according to the regulations, norms and laws applicable in the country in which the cylinder is used.
- Valves for the cylinder should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
- Simple mounting torque valves to the cylinders according to the tables A.3. and A.4.
- To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE, which is at least 0.1 millimeters thick.
- Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with o-rings.

## SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections are carried out by individuals who control pressure monitors in accordance with the laws and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labelled with the word NLL.

## REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

- Comply with the regulations of the country in which the cylinders are used.
- were marked with the date of last inspection, they were given a sign of a modified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.

IT IS CATEGORICALLY FORBIDDEN TO:

- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION
- USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
- USE THE CYLINDERS WHOSE LABELLING IS ILLEGIBLE OR INCOMPLETE.
- USE THE CYLINDERS WHOSE VALVE CONNECTIONS ARE DAMAGED OR HAVE VALVE CONNECTIONS ETC.
- USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC.).
- LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM)

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY  
/ODBIOR BUTLI PRZEPHAWADZA/  
Identification no.: 1017

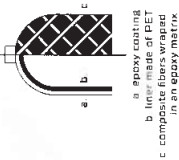
MANUFACTURER /PRODUCENT/	TECHPLAST Ltd. www.techplast.net VAT No. PL 677247485		
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/	Krakowska 83p 34-120 Andrychów, Poland		
RECEPTION REPORT /RAPORT ODBIORU/	RA11C-2507008		
DRAWING NUMBER /NR RYSUNKU/	AS5-01-00		
BODY CERT. MODULE B /SWADECCTWO MODUŁ B/	08.324.016		
SERIAL NO /NUMER SERWANT/	A11C1/25/01521		
GAS /GAZ/	AIR, COMPRESSED UN1002	VOLUME /POJEMNOŚĆ /	9.00 L
THREAD /GWINT/	M18x1.5	WEIGHT /WAGA/	3.90 Kg
DIAMETER /ŚREDNICA/	174.00 mm	TEMP. OF WORK /TEMP. PRACY/	-40°C / +60°C
WORKING PRESSURE /CIŚNIENIE PRACY/	300 BAR	MANUFACTURING DATE /DATA PRODUKCJI/	2025/07
TEST PRESSURE /CIŚNIENIE PRÓBY/	450 BAR	EXPIRATION DATE /TERMIN WYZNACZCZ/	NLL
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/		< 30 BAR/MIN	
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/		EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU	

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
ZBIORNIKI OZNACZONO ZNAKIEM ZGODNOŚCI

THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
SWADECCTWO WERYFIKACJI WYROBU MODUŁ F DO WGLADU U PRODUCENTA/



Production Plant  
Tęczyński Sp. z o.o.  
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## SAFPER<sup>®</sup> OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

### RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
06. Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3 TABLE

Taper thread	Mounting torque [Nm]		
	Minimum	95	Maximum
1/2" wg ISO11116-1 W19,2 wg DIN 477-1	75	95	140
25E wg EN 629-1 W288 wg DIN 477-1	95	110	180

### A4 TABLE

Straight thread	Mounting torque [Nm]		
	Minimum	85	Maximum
M18 x1,5 EN144-1	85	100	100
5/8" 10UNF	85	100	100

### FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
02. Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

### USE

01. The producer recommends the use of ADR European Agreement, which applies to international transport of dangerous goods by road.
02. For the transport of the cylinders, there should be used cartons, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and impurities.
03. The device used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
05. During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
06. During the process of filling, surface temperature of the cylinder should not exceed 60 °C.
07. The cylinder must be fitted with a valve, connections with the recommended test pressures. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
08. Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
09. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 15341.
10. Sample mounting torque values to the cylinders, according to the tables A3 and A4.
11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11116-1. If necessary, the producer recommends the use of Teflon tape, type PTFE, which is at least 0.1 millimeters thick.
12. Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with o-rings.

### SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. The inspection should be carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labeled with the word NLL.

### REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

Comply with the regulations of the country in which the cylinders are used.

were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder valve, connections etc.

IT IS CATEGORICALLY FORBIDDEN TO:

- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION
- USE THE CYLINDERS WHICH HAVE EXPIRED VALIDITY OF THE EXPIRATION DATE
- USE THE CYLINDERS WHICH ARE MISSING ANY OF THE LABELS
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER VALVE, CONNECTIONS ETC.
- USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC.)
- LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY  
/OBSZAR BUTU PRZEPROWADZU/

TUV SÜD Czech s.r.o. Ostrava; Tešlova 2  
Identification no.: 1017

### MANUFACTURER

TECHPLAST Ltd. www.techplast.net VAT No.: PL 6772147485

### PRODUCTION PLANT

Krakowska 89P 34-120 Andrychów, Poland

### RECEPTION REPORT

RA11C-2507008

### DRAWING NUMBER

AS5-01-00

### BODY CERT. MODULE B

08.324.016

### SERIAL NO

A11C/2501520

### GAS

VOLUME  
/POJEMNOŚĆ/

9.00 L

### THREAD

M18x1.5

WEIGHT  
/WAGA/

3.90 kg

### DIAMETER

174.00 mm

TEMP. OF WORK  
/TEMP. PRACY/

-40°C / +60°C

### WORKING PRESSURE

300 BAR

MANUFACTURING DATE  
/DATA PRODUKCJI/

2025/07

### TEST PRESSURE

450 BAR

EXPIRATION DATE  
/TERMIN WAŻNOŚCI/

NLL

### RECOMMENDED FILLING RATE

< 30 BAR/MIN

CYLINDERS MEET THE REQUIREMENTS OF  
/BUTLE SPEŁNIAJĄ WYMAGANIA/

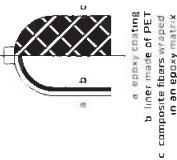
EN 12245:2009+A1:2011  
DIRECTIVE 2014/68/EU

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
CE

THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/SZKIEŁO WERYFIKACJI WYROBU MODUŁ F DO WGLĄDU U PRODUCENTA/



02 of 02  
ENG



# SAIFER<sup>®</sup>

## OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

### RECOMMENDATION

- Read the instruction carefully and keep to its conditions.
- Composite cylinders should be operated in accordance with their use.
- The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
- Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
- When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
- Any changes concerning the design or the structure of this cylinder can be made only with a written consent of the producer.
- TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
- If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
175 wg ISO11116-1 W19.2 wg DIN 477-1	75	95
25E wg EN 629-1 W28.8 wg DIN 477-1	95	110
		180

### A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN104-1	85	100
5/8-18UNF	85	100

### FILLING PROCESS

- Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
- Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

### USE

- The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
- For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.
- The device used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
- It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
- During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
- During the process of filling, surface temperature of the cylinder should not exceed 60 °C. Filling the cylinders with gas can be performed only by individuals and people with appropriate powers in accordance with the regulations, laws and norms applicable in their country.
- The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, in the country in which the cylinder is used.
- Values for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13241.
- Sample mounting torque values to the cylinders according to the tables A.3 and A.4.
- To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE, which is at least 0.1 millimeter's thick.
- Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves must be fitted with transport caps with o-rings.

### SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections are carried out by individuals who control pressure monitors in accordance with the regulations and norms applicable in the country in which the cylinder is used.

For cylinders with a limited life-span, the EXPIRATION DATE or PIN can be found on the label.

The cylinders with unlimited life-span are labelled with the word NLL.

### REMARKS

- ONE CAN ONLY FILL THE CYLINDERS WHICH:
- Comply with the regulations of the country in which the cylinders are used.
  - were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.
- IT IS CATEGORICALLY FORBIDDEN TO:
- USE THE CYLINDERS FOR ANY PURPOSE, OTHER THAN MENTIONED IN THE AUTHORIZATION.
  - USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
  - USE THE CYLINDERS WHOSE LABELING IS ILLEGIBLE OR INCOMPLETE.
  - USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC.).
  - LIBERATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
  - USE A VACUUM (DO NOT USE A VACUUM).

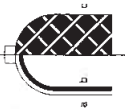
### DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY /ODBOR BUTLI PRZEPROWADZA/	TÜV SÜD Czech s.r.o. Ostrava; identification no.: 1017
MANUFACTURER /PRODUCENT/	TECHPLAST Ltd. www.techplast.net VAT No.: PL 6772147485
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/	Krakowska 83P 34-120 Andrychów, Poland
RECEPTION REPORT /RAPORT ODBIORU/	RA11C-2507009
DRAWING NUMBER /NR RYSUNKU/	AS5-01-00
BODY CERT. MODULE B /SWIADCETWO MODUŁ B/	08.324.016
SERIAL NO /NUMER SERII/	A11C/2501848
GAS /GAZ/	VOLUME /POJEMNOŚĆ /
THREAD /GWINT/	WEIGHT /WAGA/
DIAMETER /ŚREDNICA/	TEMP. OF WORK /TEMP. PRACY/
WORKING PRESSURE /CIŚNIENIE PRACY/	MANUFACTURING DATE /DATA PRODUKCJI/
TEST PRESSURE /CIŚNIENIE PROBNIE/	EXPIRATION DATE /TERMIN WAŻNOŚCI/
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/	EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/	1017
THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY /ZBIORNIKI OZNAKOWANO ZNAKEM ZGODNOŚCI/	CE
THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER /SWIADCETWO WERYFIKACJI WYROBU MODUŁ F DO WGLADU U PRODUCENTA/	



Production Plant  
Technoplast Sp. z o.o.  
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- a epoxy coating  
b inner made of PET  
c conductive layer in an epoxy matrix

## SAFER<sup>®</sup> OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

### RECOMMENDATION

- Read the instruction carefully and keep to its conditions.
- Composite cylinders should be operated in accordance with their use.
- The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
- Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
- When cylinders are serviced or repaired by the unauthorized staff, rather than by authorized service center of TECH-PLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
- Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
- TECH-PLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECH-PLAST company.
- If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3 TABLE

Taper thread	Mounting torque [N·m]		
	Minimum	75	Maximum
17E w8 ISO11116-1 W19.2 w8 DIN 477-1		95	140
25E w8 EN 659-1 W26.8 w8 DIN 477-1	95	110	180

### A4 TABLE

Straight thread	Mounting torque [N·m]		
	Minimum	85	Maximum
M18 x1.5 EN144-1	85		100
5/8" UNF	85		100

### FILLING PROCESS

- Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
- Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity

### USE

- The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
- For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.
- The device used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
- It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
- During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
- During the process of filling, surface temperature of the cylinder should not exceed 60°C.
- The cylinders should be filled with gas by qualified and competent staff with appropriate training and powers, in accordance with the regulations, laws and norms applicable in their country.
- The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
- Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
- Sample mounting torque values to the cylinders according to the tables A3 and A4.
- To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11116-1. However, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
- Tanks with pressure valves should be transported/stored pressurized to min.2bar. Tanks without pressure valves should be fitted with transport caps with o-rings.

### SERVICE

TECH-PLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECH-PLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. The inspection should be carried out by individuals who control pressure meters in accordance with the rules and regulations of this country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labeled with the word NLL.

### REMARKS

- ONE CAN ONLY FILL THE CYLINDERS WHICH:
- Comply with the regulations of the country in which the cylinders are used.
  - were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder valve, connections etc.
- IT IS CATEGORICALLY FORBIDDEN TO
- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION
  - USE THE CYLINDERS FOR USE UNDER EXCESSIVE PRESSURE
  - USE THE CYLINDERS WHEN LABELLING IS UNREADABLE OR INCOMPLETE
  - USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER VALVE, CONNECTIONS, ETC.
  - USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS, ETC.)
  - LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS
  - USE A VACUUM (DO NOT USE A VACUUM)

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY  
/ODBOR BUIŁY PRZEPRAWADZU/

TUV SUD Czech s.r.o. Ostrava, Tislova 2  
Identification no.: 1017

MANUFACTURER  
/PRODUCENT/

TECHPLAST Ltd. www.techplast.net VAT No.: PL 8772147485

PRODUCTION PLANT  
/ZAKŁAD PRODUKCJI/

Krakowska 83P 34-120 Andrychów, Poland

RECEPTION REPORT  
/RAPORT ODBIORU/

RA11C-2507009

DRAWING NUMBER  
/NR RYSUNKU/

AS5-01-00

BODY CERT. MODULE B  
/SMIAŁCZĄCEGO MODUŁU B/

08.324.016

SERIAL NO  
/NUMER SERII/

A11C125/01847

GAS  
/GAZ/

AIR, COMPRESSED  
UN1002

VOLUME  
/POJEMNOŚĆ /

9.00 L

THREAD  
/GWINT/

M16x1.5

WEIGHT  
/WAGA/

3.90 kg

DIAMETER  
/ŚREDNICA/

174.00 mm

TEMP. OF WORK,  
/TEMP. PRACY/

-40°C / +60°C

WORKING PRESSURE  
/CIŚNIENIE PRACY/

300 BAR

MANUFACTURING DATE  
/DATA PRODUKCJI/

2025/07

TEST PRESSURE  
/CIŚNIENIE PROBY/

450 BAR

EXPIRATION DATE  
/TERMIN WAŻNOŚCI/

NLL

RECOMMENDED FILLING RATE  
/ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/

≤ 30 BAR/MIN

CYLINDERS MEET THE REQUIREMENTS OF  
/BUTLE SPEŁNIAJĄ WYMAGANIA/

EN 12245:2009+A1:2011

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
ZBIORNIKI OZNACZONE ZNAKIEM ZGODNOŚCI/

CE 1017

THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/SMIAŁCZĄCEGO WERYFIKACJI WYROBU MODUŁ F DO WGLĄDU U PRODUCENTA/



Production Plant  
Temple's Sp. z o.o.  
ul. Krakowska 83 P  
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02 of 02  
ENG



# SAIFER® OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

## RECOMMENDATION

- 01 Read the instruction carefully and keep to its conditions.
- 02 Composite cylinders should be operated in accordance with their use.
- 03 The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
- 04 Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
- 05 When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
- 06 Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
- 07 TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
- 08 If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

## A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
175 wg ISO11116-1 W19.2 wg DIN 477-1	75	95
25E wg EN 629-1 W26.8 wg DIN 477-1	95	110
		180

## A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 M1.5 EN144-1	85	100
5/8" 18UNF	85	100

## FILLING PROCESS

- 01 Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
- 02 Cylinder filling temperature shall not exceed 50°C. Recommended filling rate is in Declaration of Conformity

## USE

- 01 The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
- 02 For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.
- 03 The device used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
- 04 It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
- 05 During storage of the cylinders, they should be protected against mechanical damage, overtopping, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
- 06 During the process of filling, surface temperature of the cylinder should not exceed 60 °C. Filling the cylinders with gas can be performed only by individuals and people with appropriate powers in accordance with the regulations, laws and norms applicable in their country.
- 07 The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, which are damaged or deteriorated according to the regulations, norms and laws applicable in the country in which the cylinder is used.
- 08 Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- 09 The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
- 10 Sample mounting torque values to the cylinders according to the tables A.3 and A.4.
- 11 To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE, which is at least 0.1 millimeters thick.
- 12 Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with O-rings.

## SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections are carried out by individuals who control pressure monitors in accordance with the regulations and requirements applicable in their country.

For cylinders with a limited life-span, the EXPIRATION DATE or PIN can be found on the label.

The cylinders with unlimited life-span are labeled with the word NULL.

## REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

- Comply with the regulations of the country in which the cylinders are used.
- were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.

IT IS CATEGORICALLY FORBIDDEN TO:

- USE THE CYLINDERS FOR ANY PURPOSE, OTHER THAN MENTIONED IN THE AUTHORIZATION
- USE THE CYLINDERS WHOSE LIFE SPAN HAS EXPIRED.
- USE THE CYLINDERS WHOSE LABELING IS ILLEGIBLE OR INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC.).
- LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY /OBSÓB BUTŁ PRZEPRAWIĄDZŁ/ TÜV SÜD Czech s.r.o. Ostrava; Tieslova 2 Identification no.: 1017	
MANUFACTURER /PRODUCENT/ TECHPLAST Ltd. www.techplast.net VAT No.: PL 677247465	
PRODUCTION PLANT /FABRYCZNA PRZEMYSŁOWA/ Krakowska 83p 34-120 Andrychów, Poland	
RECEPTION REPORT /RAPORT ODBIORU/ RA11C-2507009	
DRAWING NUMBER /NR RYSUNKU/ AS5-01-00	
BODY CERT. MODULE B /SWIADCENIE MODUŁU B/ 08.324.016	
SERIAL NO /NUMER SERII JAV/ A11C/25/01846	
GAS /GAZ/ AIR COMPRESSED UN1002	VOLUME /POJEMNOŚĆ / 9.00 L
THREAD /GWINT/ M18x1.5	WEIGHT /WAGA/ 3.90 Kg
DIAMETER /ŚREDNICA/ 174.00 mm	TEMP. OF WORK, /TEMP. PRACY/ -40°C / +60°C
WORKING PRESSURE /CIŚNIENIE PRACY/ 300 BAR	MANUFACTURING DATE /DATA PRODUKCJI/ 2025/07
TEST PRESSURE /CIŚNIENIE PRÓBNIE/ 450 BAR	EXPIRATION DATE /TERMIN VAŻNOŚCI/ NULL
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/ ≤ 30 BAR/MIN	
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/ EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU	

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY

CY 1917

THE CERTIFICATE OF MODULE F IS AVAILABLE FOR INSPECTION AT THE MANUFACTURER

/SWIADCENIE WERYFIKACJI WYROBU MODUŁ F DO WGLĄDU U PRODUCENTA

SAIFER®

ULTRA LIGHT  
COMPOSITE  
CYLINDERS

Production Plant  
Techniska Sp. z o.o.  
ul. Krakowska 83 p  
34-120 Andrychów, Poland  
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W: saifer.techplasters.com





- a epoxy coating
- b line made of PET
- c composite filling matrix

## SAFER<sup>®</sup> OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

### RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their safe functioning.
06. Any changes concerning the design or the structure of the cylinder can be made only with a written consent from the producer.
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. In any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO11116-1 W16.2 wg DIN 477-1	75	95
25E wg EN 629-1 W26.8 wg DIN 477-1	95	110
		180

### A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN144-1	85	100
5/8" 18UNF	85	100

### FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
02. Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

### USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
02. For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and impurities.
03. The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
05. During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from the open flame. The temperature of the cylinder should not exceed 60 °C.
06. Filling the cylinders with gas can be performed only by individual and people with appropriate powers in accordance with the regulations, laws and norms applicable in their country.
07. The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
08. Valves for the cylinder should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
09. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
10. Sample mounting torque values to the cylinders according to the tables A3 and A4.
11. To seal the connection between the valve and the cylinder there should be used material in accordance with the norm ISO 1114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
12. Tanks with pressure valves should be transported/stored pressurized to min. 2 bar. Tanks without pressure valves should be fitted with transport caps with O-rings.

### SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections are carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or F.N. can be found on the label.

The cylinders with unlimited life-span are labelled with the word NLL.

### REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

Comply with the regulations of the country in which the cylinders are used,

were marked with the date of last inspection, they were given a sign of a modified body and the term of their re-inspection has not expired; have not visible damages of the cylinder; valve, connections etc.

IT IS CATEGORICALLY FORBIDDEN TO

- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
- USE THE CYLINDERS WHOSE LABELING IS ILLEGIBLE OR INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.
- LUBRICATE OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY /ODBOR BUTŁ PRZEPRAWIAJĄCY/ Identification no.: 1017	
MANUFACTURER /PRODUCENT/	TECHPLAST Ltd. www.techplast.net VAT No.: PL 8772147485
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/	Krakowska 83P 34-120 Andrychów, Poland
RECEPTION REPORT /RAPORT ODBIORU/	RA11C-2507009
DRAWING NUMBER /NR RYSUNKU/	ASS-01-00
BODY CERT. MODULE B /SWADECTWO MODUŁ B/	08.324.016
SERIAL NO /NUMER SER. JEDN/	A11C/2501845
GAS /GAZ/	AIR, COMPRESSED /POLEMANOSĆ / UN1002
THREAD /GWINT/	M18x1.5
DIAMETER /ŚREDNICA/	174.00 mm
WORKING PRESSURE /CIŚNIENIE PRACY/	300 BAR
TEST PRESSURE /CIŚNIENIE PROBNIC/	450 BAR
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/	
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/	
THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY /ZBIORNIK OZNACZONO ZNAKIEM ZGODNOŚCI/	
THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER /SWADECTWO WERYFIKACJI WYROBU MODUŁ F DO WGŁĄD U PRODUCENTA/	
CE 1017	
EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU	

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ULTRA LIGHT  
COMPOSITE  
CYLINDERS

Production Plant  
Techplast Sp. z o.o.  
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W: [safercylinders.com](http://safercylinders.com)





# SAIFER® OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

## RECOMMENDATION

- Read the instruction carefully and keep to its conditions.
- Composite cylinders should be operated in accordance with their use.
- The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
- Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
- When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
- Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
- TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
- If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

A3. TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO11116-1 W19.2 wg DIN 477-1	75	95
25E wg EN 629-1 W26.8 wg DIN 477-1	95	110
		180

A4. TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN144-1	85	100
5/8" 18UNF	85	100

## FILLING PROCESS

- Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
- Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

## USE

- The producer recommends the use of AIBR European Agreement which applies to international transport of dangerous goods by road.
- For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and impurities.
- The device used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
- It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
- Due to storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
- During the process of filling, surface temperature of the cylinder should not exceed 60 °C. Filling the cylinders with gas can be performed only by individuals and people with appropriate powers in accordance with the regulations, laws and norms applicable in their country.
- The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, in the country in which the cylinder is used.
- Valves for the cylinder should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13241.
- Samples mounting torque valves to the cylinders according to the tables A.3. and A.4.
- To seal the connection between the valve and the cylinder there should be used national in accordance with the norm ISO 11134-2. If necessary, the producer recommends the use of Teflon tape type PTFE which is at least 0.1 millimeters thick.
- Tanks with pressure valves should be transported/stored pressurized to min. 2 bar. Tanks without pressure valves should be fitted with transport caps with o-rings.

## SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspection and repair should be carried out by individuals who control pressure monitors according to the relevant national regulations in their country.

For cylinders with a limited life-span, the EXPIRATION DATE of FIN can be found on the label.

The cylinders with unlimited life-span are labeled with the word NLL.

## REMARKS

- ONE CAN ONLY FILL THE CYLINDERS WHICH:
- Comply with the regulations of the country in which the cylinders are used.
  - were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.
- IT IS CATEGORICALLY FORBIDDEN TO
- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
  - USE THE CYLINDERS WHOSE LIFE SPAN HAS EXPIRED.
  - USE THE CYLINDERS WHOSE LABELING IS DAMAGED OR INCOMPLETE.
  - USE THE CYLINDERS WHOSE VALVES OR CONNECTIONS ARE DAMAGED OR HAVE EXPIRED DATE OF INSPECTION.
  - USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC).
  - LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
  - USE A VACUUM (DO NOT USE A VACUUM)

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY  
/OŚWIADCZENIE BYŁO PRZEPROWADZANE/

TUV SÜD Czech s.r.o. Ostrava, Testova 2  
Identification no.: 1017

MANUFACTURER  
/PRODUCENT/

TECHPLAST Ltd. www.techplast.net VAT No.: PL. 6772147485

PRODUCTION PLANT  
/ZAKŁAD PRODUKCYJNY/

Krakowska 83p 34-120 Andrychów, Poland

RECEPTION REPORT  
/RAPORT ODBIORU/

RA11C-2507009

DRAWING NUMBER  
/NR RYSUNKU/

AS5-01-00

BODY CERT. MODULE B  
/SWADECENCTWO MODUŁ B/

08.374.016

SERIAL NO  
/NUMER SERII/

A11C/25/01844

GAS  
/GAZ/

AIR, COMPRESSED  
UN1002

VOLUME  
/POJEMNOŚĆ /

9.00 L

THREAD  
/GWINT/

M18x1.5

WEIGHT  
/WAGA/

3.90 kg

DIAMETER  
/ŚREDNICA/

174.00 mm

TEMP. OF WORK  
/TEMP. PRACY/

-40°C / +60°C

WORKING PRESSURE  
/CIŚNIENIE PRACY/

300 BAR

MANUFACTURING DATE  
/DATA PRODUKCJI/

2025/07

TEST PRESSURE  
/CIŚNIENIE PROBNIE/

450 BAR

EXPIRATION DATE  
/TERMIN WAŻNOŚCI/

NLL

RECOMMENDED FILLING RATE  
/ZALECANA PRĘDKOŚĆ WYPEŁNIANIA/

< 30 BAR/MIN

CYLINDERS MEET THE REQUIREMENTS OF  
/BUTLE SPEŁNIAJĄ WYMAGANIA/

EN 12245:2009+A1:2011  
DIRECTIVE 2014/68/EU

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
ZBIORNIKI OZNACZONO ZNAKIEM ZGODNOŚCI

1017

THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
SWADECENCTWO WERYFIKACJI WYROBU MODUŁ F DO WGLADU U PRODUCENTA/

ULTRA LIGHT  
COMPOSITE  
CYLINDERS

Production Plant  
Technopolis 52 2-0-0  
ul. Krakowska 83 p  
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## OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

### RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
06. Any changes concerning the design or the structure of the cylinder can be made only with a written agreement of the producer.
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
1/8" wg ISO11116-1 W19.2 wg DIN 477-1	75	95
25E wg EN 429-1 W28.8 wg DIN 477-1	95	110
		180

### A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN144-1	85	100
5/8" UNF	85	100

### FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
02. Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

### USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
02. For the transport of the cylinders, these should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and impurities.
03. The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
05. During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
06. During the process of filling, surface temperature of the cylinder should not exceed 60°C.
07. The cylinders should be filled with appropriate gases and pressures in accordance with the regulations, laws and norms applicable in their country.
08. The cylinder must be fitted with a valve, connections with the recommended test pressures. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
09. Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
10. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used, which is at least 0.1 mm thickness thick.
12. Tanks with pressure valves should be transported/stored pressurized to min. 2 bar. Tanks without pressure valves should be fitted with transport caps with o-rings.

### SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company in order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinder must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspection is carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labeled with the word NLL.

### REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH Comply with the regulation of the country in which the cylinders are used, were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder valve, connections etc. IT IS CATEGORICALLY FORBIDDEN TO:

- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WITHOUT THE LABELING.
- USE THE CYLINDERS WHICH LABELING IS ILLEGIBLE OR INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER VALVE, CONNECTIONS ETC.
- USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC.).
- LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

### DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY  
/ODBOR BUTU PRZEPROWADZIŁ/

TIV SUD Czech s.r.o. Ostrava, Teslova 2  
Identification no.: 1017

MANUFACTURER /PRODUCENT/	TECHPLAST Ltd. www.techplast.net VAT No.: PL 6772147485
PRODUCTION PLANT /ZAKŁAD PRODUKCYJNY/	Krakowska 83P 34-120 Andrychów, Poland
RECEPTION REPORT /RAPORT ODBIORU/	RA11C-2507009
DRAWING NUMBER /NR RYSUNKU/	ASS-01-00
BODY CERT. MODULE B /SWIADECTWO MODUŁ B/	08 324 016
SERIAL NO /NUMER SERIOWY/	A11C/25101843

GAS /GAZ/	AIR, COMPRESSED /WYCIŚNIĘTY POKŁADZONY/	VOLUME /POJEMNOŚĆ/	9.00 L
THREAD /GWINT/	M18x1.5	WEIGHT /WAGA/	3.90 kg
DIAMETER /ŚREDNICA/	174.00 mm	TEMP. OF WORK /TEMP. PRACY/	-40°C / +60°C

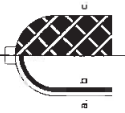
WORKING PRESSURE /CIŚNIENIE PRACY/	300 BAR	MANUFACTURING DATE /DATA PRODUKCJI/	2025/07
TEST PRESSURE /CIŚNIENIE PRÓBY/	450 BAR	EXPIRATION DATE /TERMIN WAŻNOŚCI/	NLL

RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ WYPEŁNIANIA/	< 30 BAR/MIN
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/	EN 12245:2008+A1:2011 DIRECTIVE 2014/68/EU

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
/ZBIOROWO OZNA CZONO ZNAKIEM ZGODNOŚCI/

THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/SWIADECTWO WERYFIKACJI WYROBU MODUŁ F DO WGLADU U PRODUCENTA/





- a epoxy coating
- b inner made of PET
- c composite material and epoxy resin in an epoxy matrix

## SAFAR<sup>®</sup> OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

### RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
06. Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO11116-1 W19.2 wg DIN 477-1	75	95
29E wg EN 629-1 W28.8 wg DIN 477-1	95	110
		160

### A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN144-1	85	100
5/8" UNF	85	100

### FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
02. Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

### USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
02. For the transport of the cylinders, these should be used: containers, bins, pallets, etc. The cylinders should be transported carefully to avoid unacceptable damage and impurities.
03. The device used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, loaded by the valve or rolled in a lying position, during the transport.
05. During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
06. During the process of filling, surface temperature of the cylinder should not exceed 60 °C.
07. The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements in accordance with the regulations, laws and norms applicable in their country.
08. The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements in accordance with the regulations, laws and norms applicable in their country.
09. Values for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
10. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
11. To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11116-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
12. Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with o-rings.

### SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.  
In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.  
Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. The inspection should be carried out by individuals who control pressure indicators in accordance with the rules and regulations of the country.  
For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.  
The cylinders with unlimited life-span are labeled with the word NLL.

### REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:  
Comply with the regulations of the country in which the cylinders are used,  
were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.  
IT IS CATEGORICALLY FORBIDDEN TO  

- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WHOSE USE DATE HAS EXPIRED.
- USE THE CYLINDERS WHOSE LIFE-SPAN IS INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.
- LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY /OBSŁUGA BUTLI PRZEPROWADZIŁ/		TUV SÜD Czech s.r.o. Ostrava; Teslova 2 Identification no.: 1017	
MANUFACTURER /PRODUCENT/		TECHPLAST Ltd. www.techplast.net VAT No.: PL 6772147485	
PRODUCTION PLANT ZAKŁAD PRODUKCYJNY		Kraikowska 83P 34-120 Andrychów, Poland	
RECEPTION REPORT /RAPORT ODBIORU/		RA11C-2507009	
DRAWING NUMBER /NR RYSUNKU/		AS5-01-00	
BODY CERT. MODULE B /SIWADECTWO MODUŁ B/		08.324.016	
SERIAL NO /NUMER SERWISU/		A11C/2501842	
GAS /GAZ/		VOLUME /POJEMNOŚĆ /	
THREAD /WNIĘT/		WEIGHT /WAGA/	
DIAMETER /ŚREDNICA/		TEMP. OF WORK /TEMP. PRACY/	
WORKING PRESSURE /CIŚNIENIE PRACY/		MANUFACTURING DATE /DATA PRODUKCJI/	
TEST PRESSURE /CIŚNIENIE PRÓBNIE/		EXPIRATION DATE /TERMIN WAŻNOŚCI/	
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/		CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/	
CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER /SIWADECTWO WERYFIKACJI WYROBU MODUŁ F DO WGLĄDU U PRODUCENTA/		EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU	
		1017	





## OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE TRANSPORTABLE GAS CYLINDER

### RECOMMENDATION

- 01 Read the instruction carefully and keep to its conditions
- 02 Composite cylinders should be operated in accordance with their use
- 03 This producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders
- 04 Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation
- 05 When cylinders are serviced or repaired by this unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning
- 06 Any charges concerning the design or the structure of the cylinder can be made only with a written consent of the producer
- 07 TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company
- 08 If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately

A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO1116-1 W19.2 wg DIN 477-1	75	95
25E wg EN 629-1 W26.8 wg DIN 477-1	95	110
	95	190

A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN144-1	85	100
5/8" 18UNF	85	100

### FILLING PRODESS

- 01 Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2
- 02 Cylinder filling temperature shall not exceed 40°C. Recommended filling rate is in Declaration of Conformity.

### USE

- 01 The producer recommends the use of ADR European Agreement, which applies to international transport of dangerous goods by road.
- 02 For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and impurities.
- 03 The devices used to protect valves, connections (if e.g. protective cap) should be applied during the transport of the cylinders.
- 04 It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
- 05 During storage of the cylinders, they should be protected against mechanical damages, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
- 06 During the process of filling, surface temperature of the cylinder should not exceed 40 °C.
- 07 Filling the cylinders with gas can be performed only by individuals and people with appropriate powers, in accordance with the regulations, laws and norms applicable in their country.
- 08 The cylinders must be fitted with a valve, connections with the recommended test pressure. Elements, which would according to the regulations, norms and laws applicable in the country in which the cylinder is used.
- 09 Values for the cylinder should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- 10 The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
- 11 Sample mounting torque values to the cylinders according to the tables A.3. and A.4.
- 12 To seal the connection between the valve and the cylinder there should be used materials in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeter's thick.
- 13 Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with o-rings.

### SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections are carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labeled with the word NLL.

### REMARKS

- ONE CAN ONLY FILL THE CYLINDERS WHICH:
- Conform with the regulations of the country in which the cylinders are used.
  - were marked with this date of last inspection, they were given a sign of a modified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.
  - IT IS CATEGORICALLY FORBIDDEN TO:
  - USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
  - USE THE CYLINDERS WHOSE LIFE-SPAN HAS EXPIRED.
  - USE THE CYLINDERS WHOSE LABELLING IS ILLEGIBLE OR INCOMPLETE.
  - USE THE CYLINDERS WHOSE LABELLING IS ILLEGIBLE TO THE CYLINDER VALVE CONNECTIONS ETC.
  - USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC.).
  - LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
  - USE A VACUUM (DO NOT USE A VACUUM).

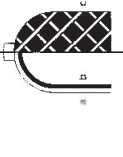
## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY /OCBÓR BUTY PRZEPROWADZIŁ/		TUV SUD Czech s.r.o. Ostrava, Teslova 2 Identification no.: 1017	
MANUFACTURER /PRODUCENT/		TECHPLAST Ltd. www.techplast.net VAT No.: PL 6772147485	
PRODUCTION PLANT /ZAKŁAD PRODUKCJI/		Kraśowska 83P 34-120 Andrychów, Poland	
RECEPTION REPORT /RAPORT OCBÓRU/		RA11C-2507009	
DRAWING NUMBER /NR RYSUNKU/		AS5-01-00	
BODY CERT. MODULE B /SWADECYWY MODUŁ B/		08.324.016	
SERIAL NO. /NUMER SERII/		A11C/2501841	
GAS /GAZ/	AIR, COMPRESSED /UN1002	VOLUME /POJEMNOŚĆ/	9.00 L
THREAD /GWINT/	M18x1.5	WEIGHT /WAGA/	3.80 kg
DIAMETER /ŚREDNICA/	174.00 mm	TEMP. OF WORK /TEMP. PRACY/	40°C / +60°C
WORKING PRESSURE /CIŚNIENIE PRACY/	300 BAR	MANUFACTURING DATE /DATA PRODUKCJI/	202507
TEST PRESSURE /CIŚNIENIE PRÓBY/	450 BAR	EXPIRATION DATE /TERMIN WAŻNOŚCI/	NLL
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/		≤ 30 BAR/MIN	
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/		EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU	

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
ZBIORNIKI OZNACZONO ZNAKIEM ZGODNOŚCI

THE CERTIFICATE OF MODULE B AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
SWIADECTWO WERYFIKACJI WYROBU MODUŁ B DO WGLADU U PRODUCENTA/





a. body coating  
b. inner made of PET  
c. composite matrix in an epoxy matrix

## SAFAR<sup>®</sup> OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

### RECOMMENDATION

01. Read the instruction carefully and keep to its conditions.
02. Composite cylinders should be operated in accordance with their use.
03. The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
04. Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
05. When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
06. Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
07. TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
08. If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3 TABLE

Taper thread	Mounting torque [N·m]	
	Minimum	Maximum
17E wg ISO11116-1 W19,2 wg DIN 477-1	75	95
25E wg EN 629-1 W268 wg DIN 477-1	95	110
		180

### A4 TABLE

Straight thread	Mounting torque [N·m]	
	Minimum	Maximum
M18 x1,5 EN144-1	85	100
5/8"-18UNF	85	100

### FILLING PROCESS

01. Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
02. Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity

### USE

01. The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
02. For the transport of the cylinders, there should be used containers, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and injuries.
03. The devices used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
04. It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position during the transport.
05. During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
06. The process of filling at surface temperature of the cylinder should not exceed 60 °C. Filling the cylinders with gas can be performed only by individuals and people with appropriate powers in accordance with the regulations, laws, and norms applicable in their country.
07. The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
08. Valves for the cylinder, should be screwed in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
09. The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13341.
10. Sample mounting torque values to the cylinders according to the tables A.3, and A.4.
11. To seal the connection between the valve and the cylinder, there should be used materials in accordance with ISO 11116-2. In any case, the producer recommends the use of Teflon tape, type PTFE, which is at least 0.1 millimeters thick.
12. Tanks with pressure valves should be transported/stored pressurized to min. 2bar. Tanks without pressure valves should be fitted with transport caps with O-rings.

### SERVICE

TECHPLAST, manufacturer, the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. Inspections are carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labeled with the word NLL.

### REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

Comply with the regulations of the country in which the cylinders are used.

were marked with the date of last inspection, they were given a sign of a modified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.

IT IS CATEGORICALLY FORBIDDEN TO:

- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WHICH ARE DAMAGED OR CORRODED.
- USE THE CYLINDERS WHOSE LABELING IS ILLEGIBLE OR INCOMPLETE.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.
- USE THE CYLINDERS WHICH HAVE DAMAGED OR LEAKING EQUIPMENT (THE VALVE, CONNECTIONS ETC.).
- LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

## DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY  
/CZŁOBIOR BUTLI PRZEPRAWOZU/

TUV SÜD Czech s.r.o. Ostrava,  
Teslova 2  
Identification no.: 1017

MANUFACTURER /PRODUCENT/	TECHPLAST Ltd. www.techplast.net VAT No.: PL 6772147485
PRODUCTION PLANT /ZAKŁAD PRODUKCJI/	Krakowska 83P 34-120 Andrychów, Poland
RECEPTION REPORT /RAPORT CZŁOBIOR/	RA11C-2507009
DRAWING NUMBER /NR RYSUNKU/	AS5-01-00
BODY CERT. MODULE B /SWIADCETWO MODUŁ B/	08.324.016
SERIAL NO. /NUMER SERII/	A11C12501840

GAS /GAZ/	AIR, COMPRESSED UN1002	VOLUME /POJEMNOŚĆ /	9.00 L
THREAD /WNIĘT/	M18x1.5	WEIGHT /WAGA/	3.90 kg
DIAMETER /ŚREDNICA/	174.00 mm	TEMP. OF WORK /TEMP. PRACY/	-40°C / +60°C

WORKING PRESSURE /CIŚNIENIE PRACY/	300 BAR	MANUFACTURING DATE /DATA PRODUKCJI/	202607
TEST PRESSURE /CIŚNIENIE PROBY/	450 BAR	EXPIRATION DATE /TERMIN WAŻNOŚCI/	NLL

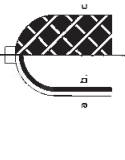
RECOMMENDED FILLING RATE /ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/	< 30 BAR/MIN
CYLINDERS MEET THE REQUIREMENTS OF /BUTLE SPEŁNIAJĄ WYMAGANIA/	EN 12245:2009+A1:2011 DIRECTIVE 2014/68/EU

THE CYLINDERS WERE STAMPED WITH THE MARK OF CONFORMITY  
/ZBÓRNIKI OZNACZONO ZNAKIEM ZGODNOŚCI/

THE CERTIFICATE OF MODULE F IS AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/SWIADCETWO WERYFIKACJI WYROBU MODUŁ F DO WGLADU U PRODUCENTA/







- a. epoxy coating  
b. liner made of PET  
c. compound made of epoxy matrix

## SAFEBR<sup>®</sup> OPERATION AND MAINTENANCE MANUAL

OF FULLY WRAPPED COMPOSITE  
TRANSPORTABLE GAS CYLINDER

### RECOMMENDATION

- Read the instruction carefully and keep to its conditions.
- Composite cylinders should be operated in accordance with their use.
- The producer is not held responsible for the damages caused by incorrect operation, use and maintenance of gas cylinders.
- Maintenance, service and repairs of compressed gas cylinders can be carried out only by qualified and competent staff with appropriate training and powers which are in accordance with the regulations applicable in their country of operation.
- When cylinders are serviced or repaired by the unauthorized staff rather than by authorized service center of TECHPLAST company, or if the cylinders are not operated in accordance with their use, the user bears responsibility for their correct functioning.
- Any changes concerning the design or the structure of the cylinder can be made only with a written consent of the producer.
- TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.
- If any defects or damages of a new product are found, put it away, secure it and inform the producer immediately.

### A3 TABLE

Taper thread	Mounting torque [Nm]	
	Minimum	Maximum
17E wg ISO11116-1 W19.2 wg DIN 477-1	75	95
25E wg EN 629-1 W26.9 wg DIN 477-1	95	110
		180

### A4 TABLE

Straight thread	Mounting torque [Nm]	
	Minimum	Maximum
M18 x1.5 EN144-1	85	100
5/8" 18UNF	85	100

### FILLING PROCESS

- Fill empty cylinder to 5 bar and leave for 5 min, then fill in accordance with point 2.
- Cylinder filling temperature shall not exceed 60°C. Recommended filling rate is in Declaration of Conformity.

### USE

- The producer recommends the use of ADR European Agreement which applies to international transport of dangerous goods by road.
- For the transport of the cylinders, there should be used cartriages, bins, pallets etc. The cylinders should be transported carefully to avoid unacceptable damage and impurities.
- The device used to protect valves, connections (e.g. protective cap) should be applied during the transport of the cylinders.
- It is unacceptable that the cylinders are thrown, lifted by the valve or rolled in a lying position, during the transport.
- During storage of the cylinders, they should be protected against mechanical damage, overturning, mechanical and chemical impurities and direct influence of adverse weather conditions. The cylinders should be kept away from fire.
- During the process of filling, surface temperature of the cylinder should not exceed 60°C. It is unacceptable that the cylinders are filled with compressed gas with inappropriate powers in accordance with the regulations, laws and norms applicable in their country.
- The cylinder must be fitted with a valve, connections with the recommended test pressure. Elements, connections and the valve should be authorized according to the regulations, norms and laws applicable in the country in which the cylinder is used.
- Values for the cylinder, should be stamped in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used.
- The producer recommends to screw a valve to the cylinder in accordance with the norm ISO 13541.
- Sample mounting to torque valves to the cylinders according to the tables A.3. and A.4.
- To seal the connection between the valve and the cylinder, there should be used materials in accordance with the norm ISO 11114-2. If necessary, the producer recommends the use of Teflon tape, type PTFE which is at least 0.1 millimeters thick.
- Tanks with pressure valves should be transported/stored pressurized to max. 2 bar. Tanks without pressure valves should be fitted with transport caps with O-rings.

### SERVICE

TECHPLAST recommends the user to enter into a contract which guarantees service by the authorized service center of TECHPLAST company.

In order to detect any potential damages, the producer recommends a visual inspection during the process of filling of each cylinder.

Cylinders must be regularly inspected in accordance with the regulations, norms and laws applicable in the country in which the cylinder is used. The inspection should be carried out by individuals who control pressure monitors in accordance with the rules and regulations of the country.

For cylinders with a limited life-span, the EXPIRATION DATE or FIN can be found on the label.

The cylinders with unlimited life-span are labeled with the word NLL.

### REMARKS

ONE CAN ONLY FILL THE CYLINDERS WHICH:

Comply with the regulations of the country in which the cylinders are used,  
were marked with the date of last inspection, they were given a sign of a notified body and the term of their re-inspection has not expired, have not visible damages of the cylinder, valve, connections etc.  
IT IS CATEGORICALLY FORBIDDEN TO:

- USE THE CYLINDERS FOR ANY PURPOSE OTHER THAN MENTIONED IN THE AUTHORIZATION.
- USE THE CYLINDERS WHERE THE LIFE-SPAN HAS EXPIRED.
- USE THE CYLINDERS WHICH ARE DAMAGED OR HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.
- USE THE CYLINDERS WHICH HAVE VISUAL DAMAGES TO THE CYLINDER, VALVE, CONNECTIONS ETC.
- LUBRICATE OR OIL VALVES OR OTHER PARTS OF THE CYLINDERS.
- USE A VACUUM (DO NOT USE A VACUUM).

### DEKLARACJA ZGODNOŚCI / DECLARATION OF CONFORMITY

PRODUCT VERIFICATION WAS PERFORMED BY  
/ODBOR BUTU PRZEPROWADZU/

TUV SUD Czech s.r.o. Ostrava, Teslova 2  
Identification no.: 1017

MANUFACTURER  
/PRODUCENT/

TECHPLAST Ltd. www.techplast.net VAT No.: PL 677247485

PRODUCTION PLANT  
/ZAKŁAD PRODUKCYJNY/

Krakowska 83P 34-120 Andrychów, Poland

RECEPTION REPORT  
/RAPORT ODBIORU/

RA11C-2507009

DRAWING NUMBER  
/NR RYSUNKU/

AS5-01-00

BODY CERT. MODULE B  
/SIWADECTWO MODUŁ B/

08 324.016

SERIAL NO  
/NUMER SERYJNY/

A11C/25101839

GAS  
/GAZ/

AIR, COMPRESSED  
/LW102/

THREAD  
/GWINT/

M18x1.5

DIAMETER  
/ŚREDNICA/

174.00 mm

WORKING PRESSURE  
/CIŚNIENIE PRACY/

300 BAR

TEST PRESSURE  
/CIŚNIENIE PRÓBY/

450 BAR

RECOMMENDED FILLING RATE  
/ZALECANA PRĘDKOŚĆ NAPEŁNIANIA/

< 30 BAR/MIN

CYLINDERS MEET THE REQUIREMENTS OF  
/BUTLE SPEŁNIAJĄ WYMAGANIA/

EN 12245:2009+A1:2011  
DIRECTIVE 2014/68/EU

1017

THE CERTIFICATE OF MODULE F AVAILABLE FOR INSPECTION AT THE MANUFACTURER  
/SWIADECTWO MODUŁU F DOSTĘPNE DO WGLĄDU U PRODUCENTA/



Production Plant  
Techplast Sp. z o.o.  
ul. Krakowska 83 P  
34-120 Andrychów, Poland  
E: [samco@techplast.net](mailto:samco@techplast.net)  
W: [safecylinders.com](http://safecylinders.com)