MOLDOVA EUROPEANĂ

Luxfer Gas Cylinders

CYLINDER TYPE: 634/1/Q

TECHNICAL CHARACTERISTICS

1.1 Dimensions:

Water Capacity (min.)-	2.0	litres
Minimum Wall Thickness-	6.80	mm
Diameter (external)-	102	mm
Test Pressure -	300	bar
Length (approx.)-	395	mm
Weight (Approx. Empty) -	2.54	kg

1.2 Minimum Mechanical Properties:

0.2% Proof	280 N/mm^2
UTS	330 N/mm^2
Elongation	12%

1.3 Material:

Aluminium alloy AA6061 is an alloy containing magnesium and silicon in proportion to form magnesium silicide, thus making the alloy heat treatable. The alloy combines medium strength, good formability and machinability with excellent corrosion resistance.

1.4 Composition:

	WT/%		
	Min		**Max**
Silicon	0.40	-	0.8
Iron			0.7
Copper	0.15	-	0.40
Manganese			0.15
Magnesium	0.8	-	1.2
Chromium	0.04	-	0.35
Zinc			0.25
Titanium			0.15
Lead			0.0030*
Bismuth			0.0030*
Others {Each			0.05
{Total			0.15

* Limit set by Luxfer on Suppliers

1.5 Properties (Typical):

Temper Condition	**0.2% Proof N/mm^2**	**UTS N/mm^2**	**Elongation % (On $5.65\sqrt{S_o}$)**
T6	315	356	14.2

1.6 Physical Constants:

Specific gravity	2.7
Electrical conductivity	43.1% IACS
Modulus of elasticity	69 Gpa

1.7 Manufacturing Process:

Luxfer manufacture seamless aluminium alloy cylinders by cold impact extrusion. The open end of the shell formed by extrusion is subsequently closed by heading (hot formed in a die) to give the characteristic cylinder profile. Solution heat treatment, quenching into cold water and artificial ageing is carried out to develop the mechanical properties. This is followed by machining of the threads, stamping of marks and inscriptions, pressure testing, internal cleaning, full inspection, painting as required and packing.

SECTION TWO STRENGTH CALCULATIONS

2.1 Calculation of Minimum Wall Thickness:

Based on wall thickness equation from the EC Directive 84/526/EC :

Cylinder Type: 634/1/Q

Use,
$$a = \frac{P_h \cdot D}{\frac{20 \cdot R}{4/3} + P_h}$$

Where,

a	=	Minimum Wall Thickness - (mm)
P_h	=	Hydraulic Test Pressure - (bar)
D	=	Nominal External Diameter of Cylinder - (mm)
R	=	Lesser of R_e or 0.85 R_m
R_e	=	0.2% proof stress of material - (N/mm^2)
R_m	=	Tensile strength of material - (N/mm^2)

For 634/1/Q

P_h	=	300	bar
D	=	102	mm
R_e	=	280	N/mm^2
R_m	=	330	N/mm^2
R	=	Lesser of 280 or 0.85 x 330 = 280.5	N/mm^2

$$a = \frac{300 \cdot 102}{\frac{20 \cdot 280}{4/3} + 300}$$

$\therefore$ a = 6.80 mm

This is the value of 6.80 mm shown on the cylinder drawing.

The minimum wall thickness of 6.80 mm is greater than $\left(\frac{D}{100}+1.5\text{mm}\right)$

Where D = External diameter.

i.e. min. wall of 634/1/Q is 6.80 mm $\left(\frac{D}{100}+1.5=2.52\text{ mm}\right)$

2.2 Hydraulic Burst Test

Cylinder Type: 634/1/Q

The measured burst pressure (P_r) shall be not less than:

$$P_{rt}=\frac{20a\cdot R_m}{D-a}$$

Where; P_r = Actual burst pressure measured during testing - bar
P_{rt} = Calculated minimum theoretical burst pressure - bar
a = Calculated minimum wall thickness - mm
D = The nominal external diameter of the cylinder – mm
Rm = The minimum guaranteed tensile strength – N/mm^2

Applying to the 634/1/Q:

Where; a = 6.80 mm
D = 102 mm
Rm = 330 N/mm^2

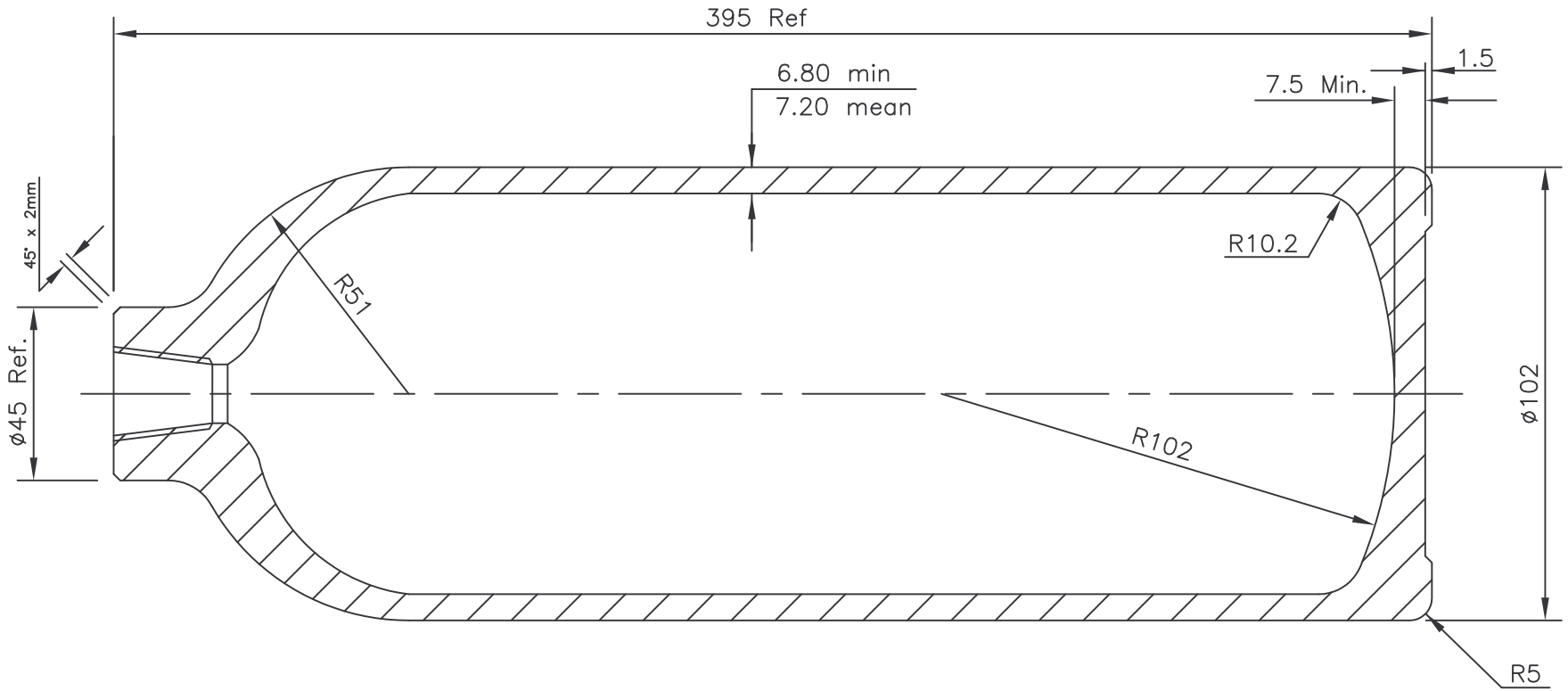
Then,

$$P_{rt}=\frac{20\cdot 6.80\cdot 330}{102-6.80}$$

∴ **P_{rt} = 472 bar**

Simon Nicholson
Senior Design Engineer

Luxfer Gas Cylinders Ltd.



MATERIAL: ALUMINIUM ALLOY AA 6061 T6	WATER CAPACITY: 2.00L (Min)	CHARGING PRESSURE @15°C: 200 BAR	CHECKED	A.S.N.	© LUXFER GAS CYLINDERS LTD. 2011 The copyright of this drawing belongs to Luxfer Small Cylinders. It is supplied on the express terms that it is to be treated as confidential and is not to be copied or communicated to any other person. It is not to be used for the purpose of construction or manufacture unless expressly authorised for that purpose on each occasion that it is used.
UTS (min.): 330 N/mm²	EMPTY WEIGHT: 2.54 Kg (Min.)	DEVELOPED PRESSURE ———	DATE	18.May.11	
0.2% PROOF STRESS: 280 N/mm²	THREAD: 28.8 DIN477	TEST PRESSURE: 300 BAR	DESIGN: E.E.C.	ALL DIMENSIONS IN MM U.O.S. GENERAL TOLERANCE ±0.5	TITLE: 2.0L PERMANENT GAS CYLINDER
ELONGATION ON: 5.65 √A (min.) 12%	FILLING RATIO: ———	BURST PRESSURE: (min.) ———			L.S.C. No.: 634/1/Q ISSUE : 2 Taken From 423/1/Q Family Drawing M5409

LUXFER
GAS CYLINDERS

Colwick, Nottingham, NG4 2BH, England
Tel: [44] (0115) 980 3800
Fax: [44] (0115) 980 3899
www.luxfercylinders.com

European Authorized Representative
OBELIS S.A. Bd Général Wahis 53, B-1030 Brussels, BELGIUM
Phone: +32 (0)2 732 594, Fax: +32 (0)2 732 6003
Email: mail@obelis.net
Representative: Mr. Gideon Elkayam

Certificate No. TPED0014328 **Issue No.**

Directives 2010/35/EU (TPED), 2008/68/EC

Declaration of Conformity

Customer Name REV GAS INDUSTRIES LTD

Address
KOBANYAI UT 49
BUDAPEST 1101
HUNGARY

Customer Order Reference BGZ23-00039-1

Sales Order / Works Order Number 508615/100270588

Manufacturer Luxfer Gas Cylinders Ltd. Colwick, Nottingham NG4 2BH. UK

Description of Pressure Equipment

Seamless aluminium alloy AA6061 high pressure gas cylinders

Conformity Assessment Procedure Followed: ADR 6.2.2.11: Xa IS

Design Specification: 84/526/EEC

EC Type Examination Certificate Reference No: 01/GB/230

Cylinder Type: A634/1/Q **Manufacture Date** 03/2023

Cylinder Capacity 2.0lt.

TPED Details of Valves (if fitted - if not fitted must state "Valves Not Fitted"):

Valves Not Fitted

Notified Body monitoring Luxfer's Quality Assurance System under the TPED for IS:

LRQA Nederland B.V. (0343), George Hintzenweg 77, 3068 AX Rotterdam, The Netherlands.

Cylinder Serial Numbers covered by this Declaration of Conformity:

Serial No. - M053826 - M054125

Total Number of Cylinders 300

Declaration The above noted cylinders are in compliance with the requirements of Directive 2010/35/EU and conform to the regulation(s)and standard(s) mentioned in the EC Type examination (Module B) or in the type approval (1.8.7.2 from the ADR 2021) and with the pertinent requirements of 6.2 of ADR 2021. This declaration of conformity is issued under the sole responsibility of the manufacturer.

Signed

Simon Nicholson, Senior Design Engineer for & on behalf of Luxfer Gas Cylinders Ltd.

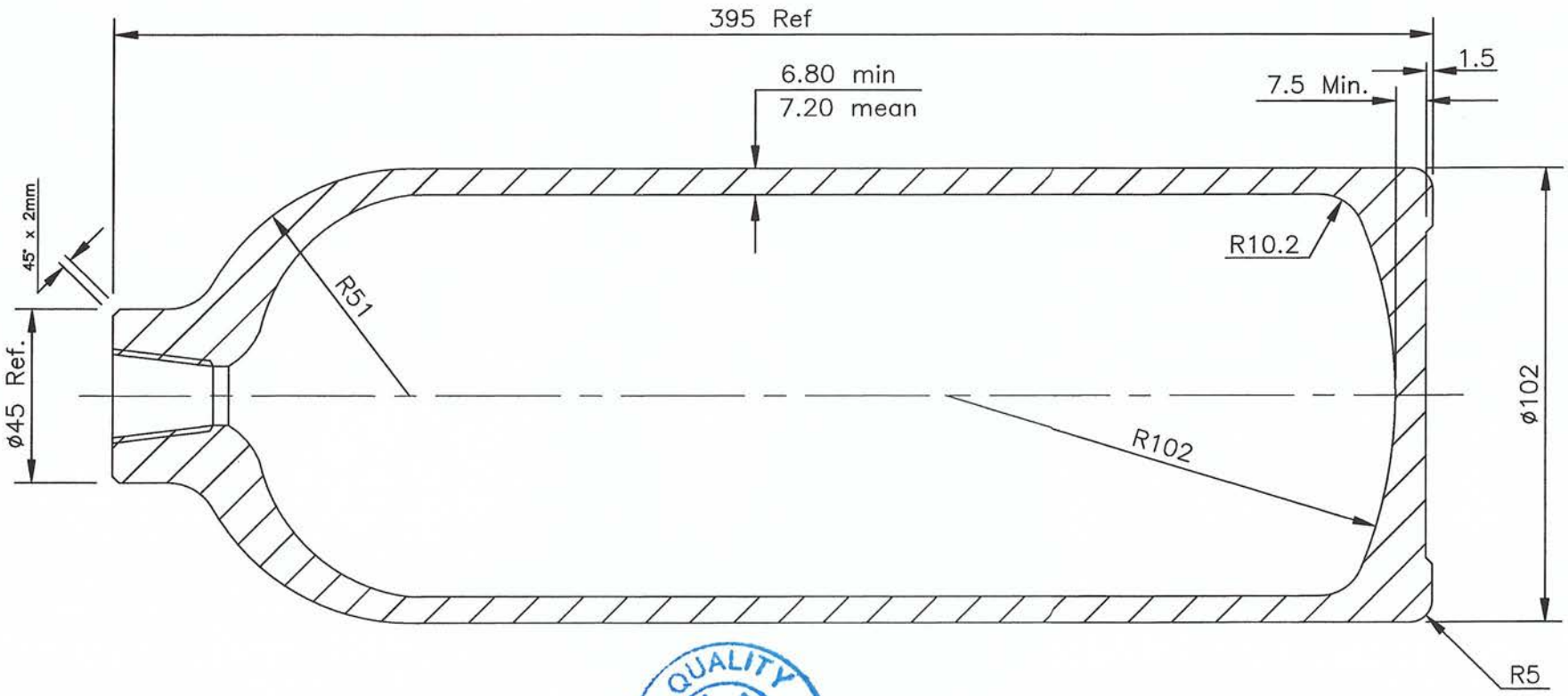
Luxfer's Official Stamp QUALITY RELIABILITY

Initials of Issuer Sign: T Cameron

Issue Date 10/03/2023

LUXFER
GAS CYLINDERS

Colwick, Nottingham, NG4 2BH, England.
Tel: +44 (0) 115 980 3800
Fax: +44 (0) 115 980 3899
www.luxfercylinders.com



MATERIAL: ALUMINIUM ALLOY AA 6061 T6	WATER CAPACITY: 2.00L (min.)	CHARGING PRESSURE @15°C: 200 BAR	DRAWN A.S.N.	DATE 22.July.2020	© LUXFER GAS CYLINDERS LTD.2020
UTS (min.): 330 N/mm^2	EMPTY WEIGHT: 2.54 Kg (approx.)	DEVELOPED PRESSURE ——	CHECKED P.H.	DATE 22.July.2020	The copyright of this drawing belongs to Luxfer Gas Cylinders. It is supplied on the express terms that it is to be treated as confidential and is not to be copied or communicated to any other person. It is not to be used for the purpose of construction or manufacture unless expressly authorised for that purpose on each occasion that it is used.
0.2% PROOF STRESS: 280 N/mm^2	THREAD: 25E	TEST PRESSURE: 300 BAR	DESIGN: The design and manufacture of this cylinder conform to: 84/526/EEC 2010/35/EU (TPED)		
ELONGATION ON: 5.65 $\sqrt{A}$ (min.) 12%	FILLING RATIO: ——	BURST PRESSURE: (min.) 472 BAR	Based on Approved Type: 423/1/Q EC Approval No.: 84/526/EEC/UK18 TPED Approval Certificate: 01/GB/230		All Dim. in mm u.o.s.

TITLE 2.0L Permanent Gas Cylinder

634/1/Q ISSUE : 3 M6378

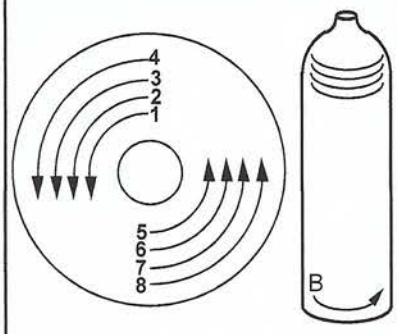
A102Z75

LUXFER
GAS CYLINDERS

CUSTOMER MARKING INSTRUCTION SHEET

Cylinder Type	634/1/Q			Suffix: 33		Issue No: 2	
Customer	REV GAS INDUSTRIES LTD.					Mod. No: M6668	
Approved For:	TPED (2010/35/EU)						
Drawn	A.S.N.	Date	06.05.22				

Stamping Positions :



For Internal use only

Cyl. Diameter :	102mm
Nose ref:	--------
Packing Req:	--------

VALVE WEIGHT	------- KG
CAGE WEIGHT	------- KG
COLLAR WEIGHT	------- KG
CIRCLIP WEIGHT	------- KG
GAS WEIGHT	------- KG

Line	Char Size	Description
1		
2	3 mm	25E GB LUXFER 634 - [1] AA6061 T6
3	3 mm	6.8MM [2] KG 2.0 L PW200 PH300BAR
4	3 mm	[3] 84/526 [4] (5) [6]
5		
6		
7		
8		
Base	3 mm	LUK [7] 102Z75 [8] [9]

Notes:

1) LUXFER SERIAL NUMBER
2) EMPTY WEIGHT OF CYLINDER ONLY
3) IDENTIFICATION NUMBER OF TPED NOTIFIED BODY (e.g. LRQA Netherlands B.V. = 0343)
4) COUNTRY OF APPROVAL OF INSPECTION BODY IN 3. (e.g. LRQA Netherlands B.V. = NL)
5) NOTIFIED BODY INSPECTION STAMP (e.g. LRQA)
6) YEAR FOLLOWED BY MONTH OF INITIAL TEST (e.g: 2022/05)
7) BATCH NUMBER
8) CAST NUMBER
9) INSPECTORS MARK FOR PROOF OF CONCENTRICITY VERIFICATION

QUALITY ★ RELIABILITY ★

LUXFER
GAS CYLINDERS

Colwick, Nottingham, NG4 2BH, England
Tel: +44 (0) 115 980 3800 Fax: +44 (0) 115 980 3899
www.luxfercylinders.com

Statement of Hydrostatic Pressure Test.

Customer: Rev Gas Industires, Kobanyai ut 49, Budapest 1101, Hungary.

Customer Order Reference: BGZ23-00039-1

Cylinders, Type **A634/1/Q** with the following Luxfer cylinder serial Nos. M053826 – M054125 as detailed on TPED Declaration of Conformity No. **TPED0014328** dated 10/03/2023, were all individually subjected to a successful Hydrostatic Pressure Test at a pressure of 300 bar held for a minimum of 60 seconds on the date stamped on the cylinders:

For & on Behalf of Luxfer Gas Cylinders Ltd:

P.S. Cameron

Certification Officer.
23/03/2023

LUXFER
GAS CYLINDERS

Colwick, Nottingham, NG4 2BH, England
Tel: +44 (0) 115 980 3800 Fax: +44 (0) 115 980 3899
www.luxfercylinders.com

Customer Requested Manufacturing Information.

General Information:

Customer: REV GAS INDUSTRIES LTD, KOBANYAI UT 49, BUDAPEST 1101, HUNGARY
Cylinder Type A634/11/Q
Luxfer Cylinder Serial Numbers: **M053826 – M054125**
Original TPED Declaration of Conformity No. **TPED0014328**
Customer Order Number: **BGZ23-00039-1**

Manufacturing Information:
Hydro Test Pressure: 300 Bar for 60 seconds minimum duration.
Material Cast Code:
KID (see attached material certificates).

Batch Mechanical Test Results:
UTS: Specification minimum value = 330 MPa
0.2% Proof Stress (Yield): Specification minimum value = 280 MPa
Elongation: Specification minimum value = 12%
Burst Pressure: Specification minimum value = 472 Bar

Cylinder Type	Batch (Cast)	Serial Nos.	Yield *(MPa)	UTS *(MPa)	Burst Pressure* (Bar)	% Elong*	Hydro Test Date
A634/11/Q	7230381 (KID)	M053286 – M053956	322.1	359.7	557	16.9	MARCH 2023
A634/11/Q	7230382 (KID)	M053957 – M054082	322.4	362.1	562	16.8	MARCH 2023
A634/11/Q	7230383 (KID)	M054083 – M054125	328.9	363.4	569	15.3	MARCH 2023

*Note: 1 tensile, bend and burst test per 202 cylinders per type, per material cast and heat treatment cycle.

Manufacturers Declaration:

Luxfer Gas Cylinders Ltd in Nottingham UK, Designed & Manufactured the Gas Cylinders stated above.

The above stated information is authentic & was extracted from the Manufacturing Records for the Cylinder Serial Numbers quoted. All tests results, in process inspections & measurement were fully in accordance with the Design Specification, the Approved Design Drawing & the Transportable Pressure Equipment Directive (TPED) 2010/35/EU as was previously declared on the TPED Declaration of Conformity that was issued when the Cylinders were first delivered.

For & on Behalf of Luxfer Gas Cylinders:

QUALITY ★ RELIABILITY ★

Paul Cameron
Certification Officer
23/03/2023

Type : 634/1/Q
Drawing Issue : 3
Test Witness : TPED-D

Order No. : 100270588 / 100270587
Minimum Burst: 472
Spec : 84/526/EEC

Lot Number	Cast	Qty	Burst Batch	Burst Result	Tensile Batch	Width mm	Wall mm	Area mm²	Proof N/mm²	UTS N/mm²	Elong %	Bend
23/0816	KID	135	7230381	557	7230381	18.86	7.33	138.24	322.1	359.7	16.9	PASS
23/0817	KID	131	7230382	562	7230382	18.85	7.26	136.85	322.4	362.1	16.8	PASS
23/0818	KID	183	7230383	569	7230383	18.87	7.25	136.81	328.9	363.4	15.3	PASS

Samples tested in accordance with BS EN ISO 6892-1, 10.3.2 Testing rate based on strain rate (method A)

Signed for Luxfer Gas Cylinders

Dan Toporowski

QUALITY RELIABILITY

Signed for Inspection Authority

TYPE - A634-1-Q

GENERIC CODE - 102Z75

DATE - 7-3-23

INSPECTION - LRQA MOD D

QTY = 300/100

JOB ID No. 1250 1249

LUXFER ORDER No. 100270588 270587

CUSTOMER(S) - Rev Gas / MATAR EEC 155.3

		CAST	KID		KID		KID																
		LOT NUMBER	23/0816		23/0817		23/0818																
		BURST BATCH No.	7230381		7230382		7230383																
QA CHECKS ONLY	MIN WALL THICKNESS	6.8	7.16		7.20		7.12	/															
	MAX MID WALL THICKNESS		7.40		7.30		7.32																
	MIN BASE THICKNESS	7.5	8.11		8.14		8.07	/															
	WATER CAPACITY (L)	2.0L	2.05		2.05		2.05	/															
	EMPTY WEIGHT (Kg)	2.54 KG	2.55		2.56		2.55																
472	BURST RESULT (BAR)		557		562		569																
	Serial No (LBB TEST)																						
	TENSILE BATCH No.		7230381		7230382		7230383																
QA CHECKS ONLY	MIN WALL THICKNESS	6.8	7.06		7.11		7.12	/															
	MAX MID WALL THICKNESS		7.36		7.35		7.36																
	MIN BASE THICKNESS	7.5	8.10		8.13		8.08	/															
	WATER CAPACITY (L)	2.0L	2.05		2.05		2.05	/															
	EMPTY WEIGHT (Kg)	2.54 KG	2.56		2.56		2.55																
	COLLAR	N/A	BATCH	QTY	BATCH	QTY	BATCH	QTY	BATCH	QTY	BATCH	QTY	BATCH	QTY	BATCH	QTY	BATCH	QTY	BATCH	QTY	BATCH	QTY	BATCH
			7230381	135	7230382	131	7230383	183															

BATCH NUMBERS COVERED MAXIMUM 202 CYLINDERS

TOTAL QUANTITY			135		131		183																
Sign on lot completetion check all batches covered and are under the right cast, total the quantity in the lot			BS		MG		MG																
QA to sign box for correct information inputted into LOT																							

TOTAL= 449 0

155 3 EEC

APRAGAZ

Member of CEOC INTERNATIONAL

Chaussée de Vilvorde, 156
Vilvoordsesteenweg 156
B-1120 Bruxelles/Brussel
Tel.: 32 (0)2 264 03 60
Fax: 32 (0)2 268 89 58
http://www.apragaz.com
info@apragaz.com

BELAC
084 - INSP
17020

NOTIFIED BODY TYPE APPROVAL CERTIFICATE

Issued in accordance with Pt. 1.8.7.2.4 (Renewal) of ADR 2021 agreement and following:
Directive 2010/35/EU *(TPED)*
Directives 2008/68/EC *(Annex 1)* & 2020/1833/EU

Certificate N°:
01/GB/230
Index 1 – Rev. 1

Manufacturer: *LUXFER GAS Cylinders Ltd.*
Colwick, Nottingham, NG4 2BH
ENGLAND

Concerned Equipment: *Seamless aluminium alloy refillable Gas Cylinders.*

Drawing n° 834/1/Q Issue 4

Test pressure: ***300*** *bar*
Diameter (out): ***102*** *mm*
Wall thickness min (Cylindrical part): ***6.8*** *mm*
Bottom thickness min (Central part): ***7.5*** *mm*

Range of cylinders involved, according to Technical file "Cylinder Type: 423/1/Q"

	Min.	*Max.*
Cylinder Length (mm)	*306*	*823.5*
Water Capacity (L)	*1.5*	*4.7*

Concerned EC Directives & Standards used for this type approval (renewal):
TPED (2010/35/EU), ADR 2021 and Annex I, Parts 1 to 3 to 84/526/EEC

The conformity assessment of the concerned equipment will be performed in accordance with:

- Pt. 1.8.7.3 of ADR (Supervision of the manufacture)
- Pt. 1.8.7.4 of ADR (Initial inspection and tests)

This will be performed by a relevant body which can be either:

- A TPED - ADR notified / inspection body (**Xa**), *See Pt 6.2. of ADR, or*
- The in-house Inspection Service of the manufacturer (**IS**), *See Pt 6.2. of ADR.*

The manufacturer will be allowed to affix the ⅄ *mark followed by the appropriate notified body identification number to approved equipment under the conditions described in the chapter 3 of the TPED Directive (2010/35/EU).*

The Certificate is valid until 12th October 2031

Approval Date: ***25/02/2022***
Name: ***B. NEVE ir***
Position: ***General Manager***
Notified body identification n°: ***0029***
Signature:
Notified body (Xa): **APRAGAZ**
Notified body reference / Technical file: *0110/F.1390*

QUALITY RELIABILITY

Certificat d'analyse / Certificate of Analysis

SHA

Ref. client / CustomerRef. :
668350

Commande / Order
0010400668-10

Point d'origine / Point of Origin
SHAWINIGAN ALUMINIUM INC.
3201 , Avenue de l'Aluminium
Shawinigan
Québec, Canada
G9N 0E9

Expédié à / Ship to :
LUXFER GAS CYLINDERS LIMITED
COLWICK
NOTTINGHAM
NC, Great Britain
NG4 2BH

KID

Vendu à / Sold to :
LUXFER GAS CYLINDERS LIMITED
COLWICK
NOTTINGHAM
NC, Great Britain
NG4 2BH

Paul Cameron
18.07.2022

Date d'exp. / Shipping Date:	2021-11-08
Connaissement / Bill of Lading:	2626-133422-105902
Liste d'exp. / Shiplist:	105902
Équipement / Equipment :	7423A
Alliage (AA) / Alloy (AA) :	69271 (6061)
Produit / Product :	Aluminum Extrusion Ingot
Matériel Client / Customer Part:	
Dimension :	101 X 5500 MM 4.0 X 216.5 IN

Analyse en % du poids / Analysis in % of weight

No d'échantillon de coulée Sample No of Drop	No Lot Lot No	Poids net (kg) Net Weight (kg)	Poids net (lb) Net Weight (lb)	Pièces Pieces	Si Na	Fe Pb	Cu Sn	Mn	Mg	Cr	Zn	Ti	Bi	Ga
21110101B	8427564	1,204	2,654.366	10	0.60 0.0000	0.16 0.001	0.24 0.000	0.01	0.89	0.084	0.00	0.01	0.000	0.01 ✓
21110101B	8427565	1,203	2,652.161	10	0.60 0.0000	0.16 0.001	0.24 0.000	0.01	0.89	0.084	0.00	0.01	0.000	0.01 ✓
21110101B	8427566	1,202	2,649.956	10	0.60 0.0000	0.16 0.001	0.24 0.000	0.01	0.89	0.084	0.00	0.01	0.000	0.01 ✓
21110101B	8427567	1,203	2,652.161	10	0.60 0.0000	0.16 0.001	0.24 0.000	0.01	0.89	0.084	0.00	0.01	0.000	0.01 ✓
21110101B	8427568	1,204	2,654.366	10	0.60 0.0000	0.16 0.001	0.24 0.000	0.01	0.89	0.084	0.00	0.01	0.000	0.01 ✓
21110101B	8427569	1,205	2,656.570	10	0.60 0.0000	0.16 0.001	0.24 0.000	0.01	0.89	0.084	0.00	0.01	0.000	0.01 ✓
21110101A	8427570	1,203	2,652.161	5	0.59 0.0000	0.16 0.001	0.24 0.000	0.01	0.89	0.084	0.00	0.01	0.000	0.01 ✓

Paquets : **Bundles :**	11	**Poids net :** **Net Weight :**	kg lb	13,237 29,183	**Pièces :** **Pieces :**	110	**Tare :**	kg lb	259 571	**Poids brut :** **Gross Weight :**	kg lb	13,496 29,754

LES LINGOTS TRI-LOK 23KG, LES LINGOTS EN FORME DE T, LES GUEUSES, LES LINGOTS DE LAMINAGE MIS AU REBUT ET AUTRES LINGOTS DE REFUSION ONT TENDANCE A FORMER DES CAVITÉS SUCEPTIBLES D'EMPRISONNER DE L'EAU, POUR ÉLIMINER L'HUMIDITÉ AVANT LEUR EMPLOI DANS TOUT PROCÉDÉ DE FUSION ET POUR PRÉVENIR LES RISQUES D'EXPLOSION, LES LINGOTS DEVRAIENT ETRE SOUMIS A UN SÉCHAGE INTENSIF PAR CHAUFFAGE PRÉLIMINAIRE AVANT DE LES INCORPORER À DU METAL EN FUSION. NE CONTIENT PAS DE MATIÈRE RADIOACTIVE. TRI-LOK 23 KG INGOT, TEE INGOT, SOWS, SCRAPPED SHEET INGOT ON OTHER INGOT FOR REMELTING ARE PRONE TO THE FORMATION OF SHRINKAGE CAVITIES WHICH WILL PERMIT ENTRAPMENT OF WATER. TO ELIMINATE MOISTURE PRIOR TO USE IN ANY MELTING OPERATION AND TO SAFEGUARD AGAINST POSSIBLE EXPLOSION HAZARDS. INGOTS SHOULD BE THOROUGHLY DRIED BY PREHEATING BEFORE LOADING THEM INTO MOLTEN METAL. DOES NOT CONTAIN RADIOACTIVE MATERIALS.

/ Ghita Ouaziz Paul Cameron
18.07.2022

L'EXACTITUDE DE CES ANALYSES EST DANS LES NORMES DES LIMITES COMMERCIALES.
THE ANALYSES HERE ARE ACCURATE WITHIN COMMERCIAL LIMITS.

Certificat d'analyse / Certificate of Analysis

SHA

Ref. client / CustomerRef. :
668350

Commande / Order
0010400668-10

Point d'origine / Point of Origin
SHAWINIGAN ALUMINIUM INC.
3201 , Avenue de l'Aluminium
Shawinigan
Québec, Canada
G9N 0E9

Expédié à / Ship to :
LUXFER GAS CYLINDERS LIMITED
COLWICK
NOTTINGHAM
NC, Great Britain
NG4 2BH

Vendu à / Sold to :
LUXFER GAS CYLINDERS LIMITED
COLWICK
NOTTINGHAM
NC, Great Britain
NG4 2BH

Date d'exp. / Shipping Date: 2021-11-08
Connaissement / Bill of Lading: 2626-133422-105902
Liste d'exp. / Shiplist: 105902
Équipement / Equipment : 7423A

Alliage (AA) / Alloy (AA) : 69271 (6061)
Produit / Product : Aluminum Extrusion Ingot
Matériel Client / Customer Part:
Dimension : 101 X 5500 MM
4.0 X 216.5 IN

Analyse en % du poids / Analysis in % of weight

No d'échantillon de coulée / Sample No of Drop	No Lot / Lot No	Poids net (kg) / Net Weight (kg)	Poids net (lb) / Net Weight (lb)	Pièces / Pieces	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Bi	Ga
					Na	Pb	Sn							
21110101B				5	0.60	0.16	0.24	0.01	0.89	0.084	0.00	0.01	0.000	0.01 ✓
					0.0000	0.001	0.000							
21110101A	8427572	1,204	2,654.366	10	0.59	0.16	0.24	0.01	0.89	0.084	0.00	0.01	0.000	0.01 ✓
					0.0000	0.001	0.000							
21110101A	8427573	1,204	2,654.366	10	0.59	0.16	0.24	0.01	0.89	0.084	0.00	0.01	0.000	0.01 ✓
					0.0000	0.001	0.000							
21110101A	8427574	1,200	2,645.547	10	0.59	0.16	0.24	0.01	0.89	0.084	0.00	0.01	0.000	0.01 ✓
					0.0000	0.001	0.000							
21110101A	8427575	1,205	2,656.570	10	0.59	0.16	0.24	0.01	0.89	0.084	0.00	0.01	0.000	0.01 ✓
					0.0000	0.001	0.000							

Paquets :	11	**Poids net :**	kg	13,237	**Pièces :**	110	**Tare :**	kg	259	**Poids brut :** kg 13,496
Bundles :		**Net Weight :**	lb	29,183	**Pieces :**			lb	571	**Gross Weight :** lb 29,754

LES LINGOTS TRI-LOK 23KG, LES LINGOTS EN FORME DE T, LES GUEUSES, LES LINGOTS DE LAMINAGE MIS AU REBUT ET AUTRES LINGOTS DE REFUSION ONT TENDANCE A FORMER DES CAVITÉS SUCEPTIBLES D'EMPRISONNER DE L'EAU, POUR ÉLIMINER L'HUMIDITÉ AVANT LEUR EMPLOI DANS TOUT PROCÉDÉ DE FUSION ET POUR PRÉVENIR LES RISQUES D'EXPLOSION. LES LINGOTS DEVRAIENT ETRE SOUMIS À UN SÉCHAGE INTENSIF PAR CHAUFFAGE PRÉLIMINAIRE AVANT DE LES INCORPORER À DU METAL EN FUSION. NE CONTIENT PAS DE MATIÈRE RADIOACTIVE. TRI-LOK 23 KG INGOT, TEE INGOT, SOWS, SCRAPPED SHEET INGOT ON OTHER INGOT FOR REMELTING ARE PRONE TO THE FORMATION OF SHRINKAGE CAVITIES WHICH WILL PERMIT ENTRAPMENT OF WATER, TO ELIMINATE MOISTURE PRIOR TO USE IN ANY MELTING OPERATION AND TO SAFEGUARD AGAINST POSSIBLE EXPLOSION HAZARDS. INGOTS SHOULD BE THOROUGHLY DRIED BY PREHEATING BEFORE LOADING THEM INTO MOLTEN METAL. DOES NOT CONTAIN RADIOACTIVE MATERIALS.

/ Ghita Ouaziz
Paul Cameron
18.07.2022

L'EXACTITUDE DE CES ANALYSES EST DANS LES NORMES DES LIMITES COMMERCIALES.
THE ANALYSES HERE ARE ACCURATE WITHIN COMMERCIAL LIMITS.

Certificat d'analyse / Certificate of Analysis

SHA

Ref. client / CustomerRef. :
668350

Commande / Order
0010400668-10

Point d'origine /Point of Origin
SHAWINIGAN ALUMINIUM INC.
3201 , Avenue de l'Aluminium
Shawinigan
Québec, Canada
G9N 0E9

Expédié à / Ship to :
LUXFER GAS CYLINDERS LIMITED
COLWICK
NOTTINGHAM
NC, Great Britain
NG4 2BH

Vendu à / Sold to :
LUXFER GAS CYLINDERS LIMITED
COLWICK
NOTTINGHAM
NC, Great Britain
NG4 2BH

Date d'exp. / Shipping Date: 2021-11-08
Connaissement / Bill of Lading: 2626-133422-105902
Liste d'exp. / Shiplist: 105902
Équipement / Equipment : 7423A

Alliage (AA) / Alloy (AA) : 69271 (6061)
Produit / Product : Aluminum Extrusion Ingot
Matériel Client / Customer Part:
Dimension : 101 X 5500 MM
4.0 X 216.5 IN

Analyse en % du poids / Analysis in % of weight					Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Bi	Ga
No d'échantillon de coulée / Sample No of Drop	No Lot / Lot No	Poids net (kg) / Net Weight (kg)	Poids net (lb) / Net Weight (lb)	Pièces / Pieces	Na	Pb	Sn							

THIS IS TO CERTIFY THAT THE UT INSPECTION, EXCESS SILICON, GRAIN SIZE, HARDNESS AND HYDROGEN REQUIREMENTS HAVE ALL BEEN MET.
MATERIAL COMPLIES WITH SPECIFICATION WPS GLOBAL-6061-001, ISSUE 02
CERTIFICATE IS IN ACCORDANCE WITH THE BS EN 10204-2004(E): CERTIFICATE TYPE 3.1
NO MORE THAN 2 CAST (HEAT) NUMBERS SHOULD BE SHIPPED AT THE SAME TIME/LOAD
USE HARD WOOD ONLY FOR BRACING
H.S. CODE 7601.20
ALUMINIUM ALLOYED INGOT
THIS IS TO CERTIFY THAT THE UT INSPECTION, EXCESS SILICON, GRAIN SIZE, HARDNESS AND HYDROGEN REQUIREMENTS HAVE ALL BEEN MET.
MATERIAL COMPLIES WITH SPECIFICATION WPS GLOBAL-6061-001, ISSUE 02
CERTIFICATE IS IN ACCORDANCE WITH THE BS EN 10204-2004(E): CERTIFICATE TYPE 3.1

Paquets : / **Bundles :**	11	**Poids net :** / **Net Weight :**	kg / lb	13,237 / 29,183	**Pièces :** / **Pieces :**	110	**Tare :**	kg / lb	259 / 571	**Poids brut :** / **Gross Weight :**	kg / lb	13,496 / 29,754

LES LINGOTS TRI-LOK 23KG, LES LINGOTS EN FORME DE T, LES GUEUSES, LES LINGOTS DE LAMINAGE MIS AU REBUT ET AUTRES LINGOTS DE REFUSION ONT TENDANCE A FORMER DES CAVITÉS SUCEPTIBLES D'EMPRISONNER DE L'EAU. POUR ÉLIMINER L'HUMIDITÉ AVANT LEUR EMPLOI DANS TOUT PROCÉDÉ DE FUSION ET POUR PRÉVENIR LES RISQUES D'EXPLOSION, LES LINGOTS DEVRAIENT ETRE SOUMIS A UN SÉCHAGE INTENSIF PAR CHAUFFAGE PRÉLIMINAIRE AVANT DE LES INCORPORER À DU METAL EN FUSION. NE CONTIENT PAS DE MATIÈRE RADIOACTIVE. TRI-LOK 23 KG INGOT, TEE INGOT, SOWS, SCRAPPED SHEET INGOT ON OTHER INGOT FOR REMELTING ARE PRONE TO THE FORMATION OF SHRINKAGE CAVITIES WHICH WILL PERMIT ENTRAPMENT OF WATER. TO ELIMINATE MOISTURE PRIOR TO USE IN ANY MELTING OPERATION AND TO SAFEGUARD AGAINST POSSIBLE EXPLOSION HAZARDS. INGOTS SHOULD BE THOROUGHLY DRIED BY PREHEATING BEFORE LOADING THEM INTO MOLTEN METAL. DOES NOT CONTAIN RADIOACTIVE MATERIALS.

/ Ghita Ouaziz

Paul Cameron
18.07.2022

L'EXACTITUDE DE CES ANALYSES EST DANS LES NORMES DES LIMITES COMMERCIALES.
THE ANALYSES HERE ARE ACCURATE WITHIN COMMERCIAL LIMITS.

Certificat d'analyse / Certificate of Analysis

SHA

Ref. client / CustomerRef. :
668350

Commande / Order
0010400668-10

Point d'origine / Point of Origin
SHAWINGAN ALUMINIUM INC.
3201 , Avenue de l'Aluminium
Shawinigan
Québec, Canada
G9N 0E9

Expédié à / Ship to :
LUXFER GAS CYLINDERS LIMITED
COLWICK
NOTTINGHAM
NC, Great Britain
NG4 2BH

Vendu à / Sold to :
LUXFER GAS CYLINDERS LIMITED
COLWICK
NOTTINGHAM
NC, Great Britain
NG4 2BH

Date d'exp. / Shipping Date:	2021-11-08
Connaissement / Bill of Lading:	2626-133422-105902
Liste d'exp. / Shiplist:	105902
Équipement / Equipment :	7423A
Alliage (AA) / Alloy (AA) :	69271 (6061)
Produit / Product :	Aluminum Extrusion Ingot
Matériel Client / Customer Part:	
Dimension :	101 X 5500 MM 4.0 X 216.5 IN

Analyse en % du poids / Analysis in % of weight					Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Bi	Ga
No d'échantillon de coulée Sample No of Drop	No Lot Lot No	Poids net (kg) Net Weight (kg)	Poids net (lb) Net Weight (lb)	Pièces Pieces	Na	Pb	Sn							

NO MORE THAN 2 CAST (HEAT) NUMBERS SHOULD BE SHIPPED AT THE SAME TIME/LOAD
USE HARD WOOD ONLY FOR BRACING
H.S. CODE 7601.20
ALUMINIUM ALLOYED INGOT
HYDROGEN VALUES:(21077401) = 0.128 (21089501) = 0.106 (21090101)= 0.13 (21100401)=0.13 (21095101)= 0.12 (21110101)=0.11

Paquets :	11	**Poids net :**	kg	13,237	**Pièces :**	110	**Tare :**	kg	259	**Poids brut :**	kg	13,496
Bundles :		**Net Weight :**	lb	29,183	**Pieces :**			lb	571	**Gross Weight :**	lb	29,754

LES LINGOTS TRI-LOK 23KG, LES LINGOTS EN FORME DE T, LES GUEUSES, LES LINGOTS DE LAMINAGE MIS AU REBUT ET AUTRES LINGOTS DE REFUSION ONT TENDANCE A FORMER DES CAVITÉS SUCEPTIBLES D'EMPRISONNER DE L'EAU, POUR ÉLIMINER L'HUMIDITÉ AVANT LEUR EMPLOI DANS TOUT PROCÉDÉ DE FUSION ET POUR PRÉVENIR LES RISQUES D'EXPLOSION, LES LINGOTS DEVRAIENT ETRE SOUMIS A UN SÉCHAGE INTENSIF PAR CHAUFFAGE PRÉLIMINAIRE AVANT DE LES INCORPORER À DU METAL EN FUSION. NE CONTIENT PAS DE MATIÈRE RADIOACTIVE. TRI-LOK 23 KG INGOT, TEE INGOT, SOWS, SCRAPPED SHEET INGOT ON OTHER INGOT FOR REMELTING ARE PRONE TO THE FORMATION OF SHRINKAGE CAVITIES WHICH WILL PERMIT ENTRAPMENT OF WATER. TO ELIMINATE MOISTURE PRIOR TO USE IN ANY MELTING OPERATION AND TO SAFEGUARD AGAINST POSSIBLE EXPLOSION HAZARDS. INGOTS SHOULD BE THOROUGHLY DRIED BY PREHEATING BEFORE LOADING THEM INTO MOLTEN METAL. DOES NOT CONTAIN RADIOACTIVE MATERIALS.

/ Ghita Ouaziz *Paul Cameron*
18.07.2022

L'EXACTITUDE DE CES ANALYSES EST DANS LES NORMES DES LIMITES COMMERCIALES.
THE ANALYSES HERE ARE ACCURATE WITHIN COMMERCIAL LIMITS.

Certificate of Registration

QUALITY MANAGEMENT SYSTEM - ISO 9001:2015

This is to certify that:

Luxfer Gas Cylinders Limited
Division of Luxfer Group Limited
Private Road 2
Colwick Industrial Estate
Nottingham
NG4 2BH
United Kingdom

Holds Certificate Number: FM 23214

and operates a Quality Management System which complies with the requirements of ISO 9001:2015 for the following scope:

The design, development, manufacture, assembly and supply of aluminium alloy seamless high pressure gas cylinders, medical gas therapy devices, alternative fuel devices, and associated products and aluminium cold impact extrusion to customer order and specification requirements appropriate to the destination country

For and on behalf of BSI:

Matt Page, Managing Director Assurance - UK & Ireland

Original Registration Date: 1993-02-15
Latest Revision Date: 2022-07-19

Effective Date: 2022-05-19
Expiry Date: 2025-05-18

...making excellence a habit.™

EC CERTIFICATE OF AUTHORISATION

In accordance with the requirements of the Transportable Pressure Equipment Directive 2010/35/EU

This is to certify that the quality system of

Luxfer Gas Cylinders Limited
Colwick
Nottinghamshire
United Kingdom

has been assessed against the requirements of the ADR 2021 1.8.7.6 for inspections and test, and conforms to the requirements for the products shown below:

Production, Final Inspection & Testing of Seamless Aluminium Alloy High Pressure Gas Cylinders

Approval is subject to the continued maintenance of the quality system in accordance with the requirements of the ADR 2021 and continuing to comply with the EC Type Approval Certificate(s) as listed on the attached schedule.

Authorisation is hereby given to use the LRQA Nederland B.V. Notified Body Identification Number in accordance with the requirements of the specified Directive in relation to the products as identified above.

Certificate No.:	0343/BHM/TPED/COV0612076/1
Original Approval:	14 November 2000
Current Certificate:	19 May 2022
Certificate Expiry:	18 May 2025
Notified Body No. 0343	

S M Williams

S. M. Williams on behalf of LRQA Nederland B.V.

EC CERTIFICATE OF AUTHORISATION
0343/BHM/TPED/COV0612076/1

In accordance with the requirements of the Transportable Pressure Equipment Directive 2010/35/EU

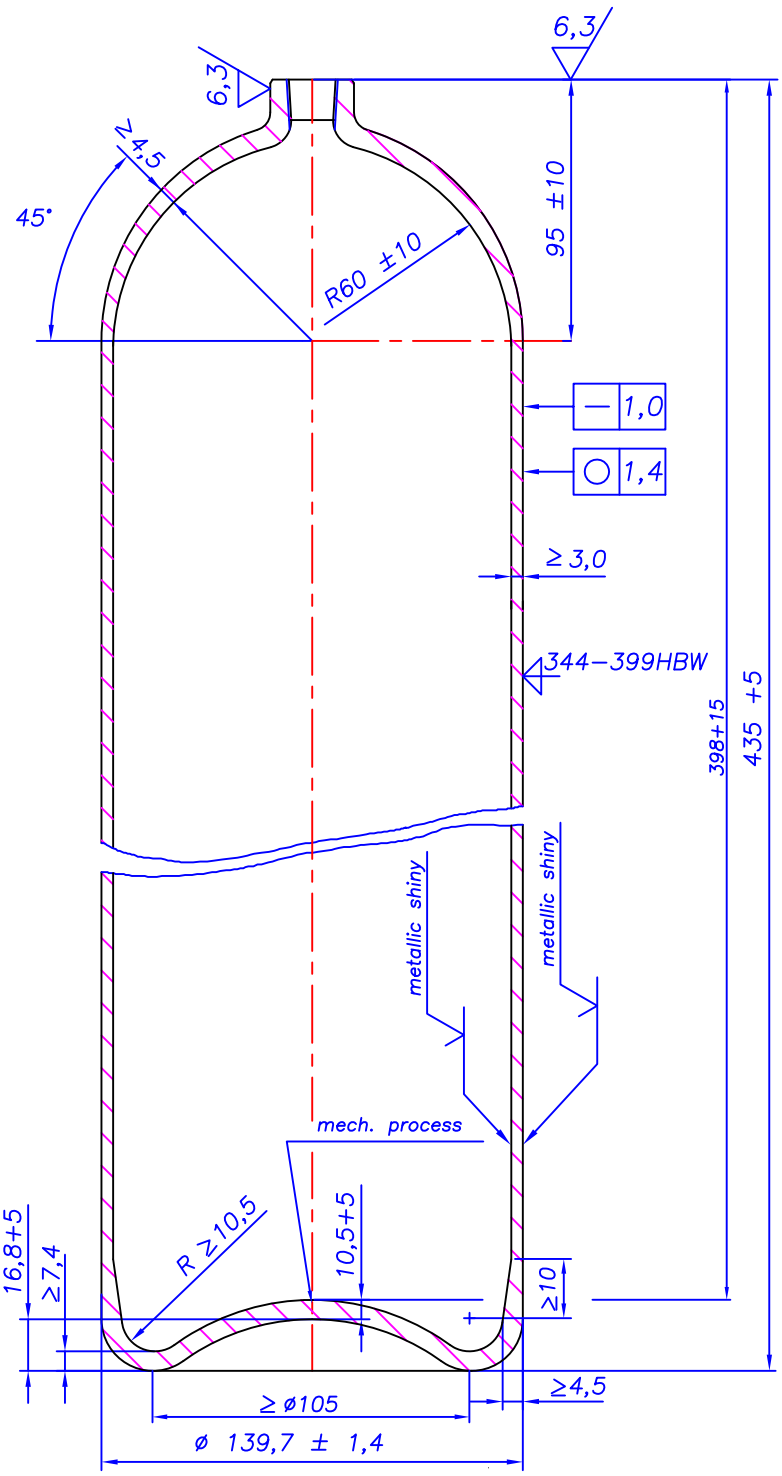
Products	Certificate Number	Issuing Notified Body	Expiry Date
Gas Cylinder 899/1/E	0343/TPED/ROT/COV1312186/05	LRQA NL B.V. (0343)	26/06/2023
Gas Cylinder 886/1/E	0343/TPED/ROT/COV1312186/06	LRQA NL B.V. (0343)	11/02/2023
Gas Cylinder 255/1/E	0343/TPED/ROT/COV1312186/07	LRQA NL B.V. (0343)	07/04/2024
Gas Cylinder 243/1/E	0343/TPED/ROT/COV1312186/08	LRQA NL B.V. (0343)	07/04/2024
Gas Cylinder 242/1/E	0343/TPED/ROT/COV1312186/09	LRQA NL B.V. (0343)	07/04/2024
Gas Cylinder 904/1/E	0343/TPED/ROT/COV1312186/10	LRQA NL B.V. (0343)	07/04/2024
Gas Cylinder 902/1/E	0343/TPED/ROT/COV1312186/11	LRQA NL B.V. (0343)	07/04/2024
Gas Cylinder 238/1/E	0343/TPED/ROT/COV1312186/14	LRQA NL B.V. (0343)	31/08/2024
Gas Cylinder - Part No. L3380N	0343/TPED/ROT/COV1512594/1	LRQA NL B.V. (0343)	22/11/2025
Gas Cylinder - Part No. P3378N	0343/TPED/ROT/COV1512254/1	LRQA NL B.V. (0343)	18/01/2026
Gas Cylinder - Part No. P3342I	0343/TPED/ROT/COV1512059/1	LRQA NL B.V. (0343)	19/01/2026
Gas Cylinder - Part No. P3347I	0343/TPED/ROT/COV1512059/2	LRQA NL B.V. (0343)	19/01/2026
Cylinder Family P7017N	0343/TPED/ROT/COV1619370/1	LRQA NL B.V. (0343)	26/10/2026
Cylinder Family P7018N	0343/TPED/ROT/COV1619370/2	LRQA NL B.V. (0343)	26/10/2026
Gas Cylinder – Part No. P3320N	0343/TPED/ROT/COV1711146/1	LRQA NL B.V. (0343)	13/03/2027
Gas Cylinder – Part No. P7030N	0343/TPED/ROT/COV1740229/1	LRQA NL B.V. (0343)	07/06/2027
Gas Cylinder – Part No. P7031N	0343/TPED/ROT/COV1740229/2	LRQA NL B.V. (0343)	07/06/2027
Gas Cylinder – Part No 708/1/N	0343/TPED/ROT/COV1740151/1	LRQA NL B.V. (0343)	23/07/2027
Gas Cylinder – Part No. 967/1/X	0343/TPED/ROT/COV1740218/1	LRQA NL B.V. (0343)	05/09/2027
Gas Cylinder – Part No. P3389I	0343/TPED/ROT/COV1723386/1	LRQA NL B.V. (0343)	12/11/2027
Gas Cylinder – Part No. P3391I	0343/TPED/ROT/COV1723386/2	LRQA NL B.V. (0343)	12/11/2027
Gas Cylinder – Part No. 669/1/I	0343/TPED/ROT/COV1711678/1	LRQA NL B.V. (0343)	20/12/2027
Gas Cylinder – Part No. 968/1/I	0343/TPED/ROT/COV1713735/1	LRQA NL B.V. (0343)	26/02/2028
Gas Cylinder – Part No. P7028N	0343/TPED/ROT/PRJ11066776/1	LRQA NL B.V. (0343)	15/10/2028
Gas Cylinder – Part No. P7033N	0343/TPED/ROT/PRJ11066781/1	LRQA NL B.V. (0343)	15/10/2028
Gas Cylinder – Part No. P7029N	0343/TPED/ROT/PRJ11066788/1	LRQA NL B.V. (0343)	15/10/2028
Gas Cylinder – Part No. P7034N	0343/TPED/ROT/PRJ11069176/1	LRQA NL B.V. (0343)	15/10/2028
Gas Cylinder – Part No. P7036N	0343/TPED/ROT/PRJ11069441/1	LRQA NL B.V. (0343)	15/10/2028
Gas Cylinder – Part No. P7038N	0343/TPED/ROT/PRJ11074699/1	LRQA NL B.V. (0343)	15/10/2028
Gas Cylinder – Part No. P7035N	0343/TPED/ROT/PRJ11069169/1	LRQA NL B.V. (0343)	24/10/2028
Gas Cylinder – Part No. P7034I	0343/TPED/ROT/PRJ1109995753/1	LRQA NL B.V. (0343)	12/05/2029
Gas Cylinder -- Part No. P7043N	0343/TPED/BHM/PRJ11091669/1	LRQA NL B.V. (0343)	21/05/2029
Gas Cylinder – Part No. P7046N	0343/TPED/BHM/PRJ11091669/2	LRQA NL B.V. (0343)	20/06/2029
Gas Cylinder – Part No. P7042N	0343/TPED/BHM/PRJ11091669/3	LRQA NL B.V. (0343)	13/08/2029
Gas Cylinder – Part No. 972/1/I	0343/TPED/ROT/PRJ1110016683/1	LRQA NL B.V. (0343)	15/01/2030
Gas Cylinder – Part No. 973/1/X	0343/TPED/ROT/PRJ11100226309/1	LRQA NL B.V. (0343)	27/01/2030
Gas Cylinder – Part No. 951/1/I	0343/TPED/BHM/PRJ11100294817/1	LRQA NL B.V. (0343)	03/02/2031
Gas Cylinder – Part No. 955/1/I	0343/TPED/BHM/PRJ11100299876/1	LRQA NL B.V. (0343)	03/02/2031
Gas Cylinder – Part No. 975/1/I	0343/TPED/BHM/PRJ11100265024/1	LRQA NL B.V. (0343)	11/02/2031
Gas Cylinder – Part No. 713/1/N	0343/TPED/BHM/PRJ11100258364/1	LRQA NL B.V. (0343)	24/02/2031
Gas Cylinder – Part No. 893/1/I	0343/TPED/BHM/PRJ11100297135/3/047	LRQA NL B.V. (0343)	18/04/2031
Gas Cylinder – Part No. 950/1/I	0343/TPED/BHM/PRJ11100297135/3/053	LRQA NL B.V. (0343)	18/04/2031
Gas Cylinder – Part No. P3305I	0343/TPED/BHM/PRJ11100297135/3/045	LRQA NL B.V. (0343)	28/04/2031
Gas Cylinder – Part No. L3355I	0343/TPED/BHM/PRJ11100297135/3/081	LRQA NL B.V. (0343)	20/05/2031
Gas Cylinder – Part No. 953/1/I	0343/TPED/BHM/PRJ11100297016/3/083	LRQA NL B.V. (0343)	03/06/2031

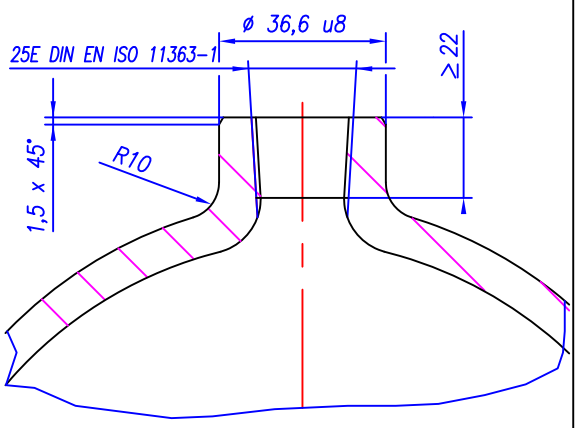
Products	Certificate Number	Issuing Notified Body	Expiry Date
Gas Cylinder – Part No. 898/1/N	0343/TPED/BHM/PRJ11100297135/3/077	LRQA NL B.V. (0343)	23/06/2031
Gas Cylinder – Part No. 897/1/I	0343/TPED/BHM/PRJ11100297135/3/071	LRQA NL B.V. (0343)	06/07/2031
Gas Cylinder – Part No. L3107N	0343/TPED/BHM/PRJ11100297135/3/121	LRQA NL B.V. (0343)	03/08/2031
Gas Cylinder – Part No. P3359YI	0343/TPED/BHM/PRJ11100297135/3/148	LRQA NL B.V. (0343)	12/09/2031
Gas Cylinder – Part No. L3104N	0343/TPED/BHM/PRJ11100297135/3/124	LRQA NL B.V. (0343)	13/09/2031
Gas Cylinder – Part No. 272/1/N	0343/TPED/BHM/PRJ11100297135/3/134	LRQA NL B.V. (0343)	13/09/2031
Gas Cylinder – Part No. 941/1/I	0343/TPED/BHM/PRJ11100297135/3/144	LRQA NL B.V. (0343)	13/09/2031
Gas Cylinder – Part No. L3121N	0343/TPED/BHM/PRJ11100297135/3/118	LRQA NL B.V. (0343)	16/09/2031
Gas Cylinder – Part No. 875/1/N	0343/TPED/BHM/PRJ11100297135/3/136	LRQA NL B.V. (0343)	23/09/2031
Gas Cylinder – Part No. P3320I	0343/TPED/BHM/PRJ11100297135/3/142	LRQA NL B.V. (0343)	23/09/2031
Gas Cylinder – Part No. P2806Z	01/GB/218 Index 1 – Rev. 0	Apragaz (0029)	12/10/2031
Gas Cylinder – Part No. P2871Z	01/GB/219 Index 1 – Rev. 0	Apragaz (0029)	12/10/2031
Gas Cylinder – Part No. L3067Z	01/GB/220 Index 1 – Rev. 0	Apragaz (0029)	12/10/2031
Gas Cylinder – Part No. P2810Z	01/GB/221 Index 1 – Rev. 0	Apragaz (0029)	12/10/2031
Gas Cylinder – Part No. P2851Z	01/GB/222 Index 1 – Rev. 0	Apragaz (0029)	12/10/2031
Gas Cylinder – Part No. L2889Z	01/GB/223 Index 1 – Rev. 0	Apragaz (0029)	12/10/2031
Gas Cylinder – Part No. L2815Z	01/GB/224 Index 1 – Rev. 0	Apragaz (0029)	12/10/2031
Gas Cylinder – Part No. P3136Z	01/GB/225 Index 1 – Rev. 0	Apragaz (0029)	12/10/2031
Gas Cylinder – Part No. P3068Z	01/GB/226 Index 1 – Rev. 0	Apragaz (0029)	12/10/2031
Gas Cylinder – Part No. L3178Z	01/GB/227 Index 1 – Rev. 0	Apragaz (0029)	12/10/2031
Gas Cylinder – Part No. 285/1/Q	01/GB/228 Index 1 – Rev. 0	Apragaz (0029)	12/10/2031
Gas Cylinder – Part No. 834/1/Q	01/GB/230 Index 1 – Rev. 0	Apragaz (0029)	12/10/2031
Gas Cylinder – Part No. 424/1/Q	01/GB/231 Index 1 – Rev. 0	Apragaz (0029)	12/10/2031
Gas Cylinder – Part No. L2922G	01/GB/232 Index 1 – Rev. 0	Apragaz (0029)	12/10/2031
Gas Cylinder – Part No. 605/1/Q	01/GB/234 Index 1 – Rev. 0	Apragaz (0029)	12/10/2031
Gas Cylinder – Part No. P2802Z	01/GB/235 Index 1 – Rev. 0	Apragaz (0029)	12/10/2031
Gas Cylinder – Part No. 818/1/Q	01/GB/297 Index 1 – Rev. 0	Apragaz (0029)	25/10/2031
Gas Cylinder – Part No. 868/1/Q	02/GB/318 Index 1 – Rev. 0	Apragaz (0029)	25/10/2031
Gas Cylinder – Part No. 656/1/Q	02/GB/320 Index 1 – Rev. 0	Apragaz (0029)	25/10/2031
Gas Cylinder – Part No. L2921G	03/GB/567 Index 1 – Rev. 0	Apragaz (0029)	25/10/2031
Gas Cylinder – Part No. L3055G	03/GB/691 Index 1 – Rev. 0	Apragaz (0029)	25/10/2031
Gas Cylinder – Part No. P3325N / P3325I	09/GB/1765 Index 3 – Rev. 0	Apragaz (0029)	25/10/2031
Gas Cylinder – Part No. P3337N / P3337I	09/GB/1863 Index 2 – Rev. 0	Apragaz (0029)	25/10/2031
Gas Cylinder – Part No. P3338N / P3338I	09/GB/1864 Index 3 – Rev. 0	Apragaz (0029)	25/10/2031
Gas Cylinder – Part No. P3339I / L3379I, P3382N	09/GB/1865 Index 4 – Rev. 0	Apragaz (0029)	25/10/2031
Gas Cylinder – Part No. P3340N / P3340I, P3394I	09/GB/1866 Index 3 – Rev. 0	Apragaz (0029)	25/10/2031
Gas Cylinder – Part No. L3347N / P3341I, P3341N	09/GB/1867 Index 3 – Rev. 0	Apragaz (0029)	25/10/2031
Gas Cylinder – Part No. P3342N / P3342I	09/GB/1868 Index 2 – Rev. 0	Apragaz (0029)	25/10/2031
Gas Cylinder – Part No. P3330N / P3330I	09/GB/1872 Index 2 – Rev. 0	Apragaz (0029)	25/10/2031
Gas Cylinder – Part No. P3332N / P3332I	09/GB/1873 Index 2 – Rev. 0	Apragaz (0029)	25/10/2031
Gas Cylinder – Part No. P3333N / P3333I	09/GB/1874 Index 2 – Rev. 0	Apragaz (0029)	25/10/2031
Gas Cylinder – Part No. P3230N	0343/BHM/TPED/PRJ11100315925/2	LRQA NL B.V. (0343)	16/01/2032
Gas Cylinder – Part No. P3124N	0343/BHM/TPED/PRJ11100315933/2	LRQA NL B.V. (0343)	16/01/2032

Schedule Issue: 02
Date of Schedule Issue: 19 May 2022
Notified Body No. 0343

S. M. Williams on behalf of LRQA Nederland B.V.

size limit	allowance
36,6 u8	+ 0,099 + 0,060





hydro pressure test: Ph min. 30 s	ultrasonic test	Pb ≥ 480 bar	Py ≥ 401 bar	
Reg 850 MPa	Rm 980 – 1099 MPa	A>max{12500/Rm;14}%		

(name of gas)
Permanent and liquefied gases (except Methane, H2, CO and mixturers thereof)

(allowance)
DIN ISO 2768
– grob –

on a scale of ––––

weight appr. 5,5 kg

(material,semifinished part)
34CrMo4 (S<0,01%, P<0,02%, S+P<0,025%)
R 139,7 x 3,1 (Mw.+20%) DIN EN 10297-1

	date	name
2017		
editing:	19.12.	Seifert
constr.:		
techn.:		

(description)
Cylinder body 5l

(test pressure) 300 bar

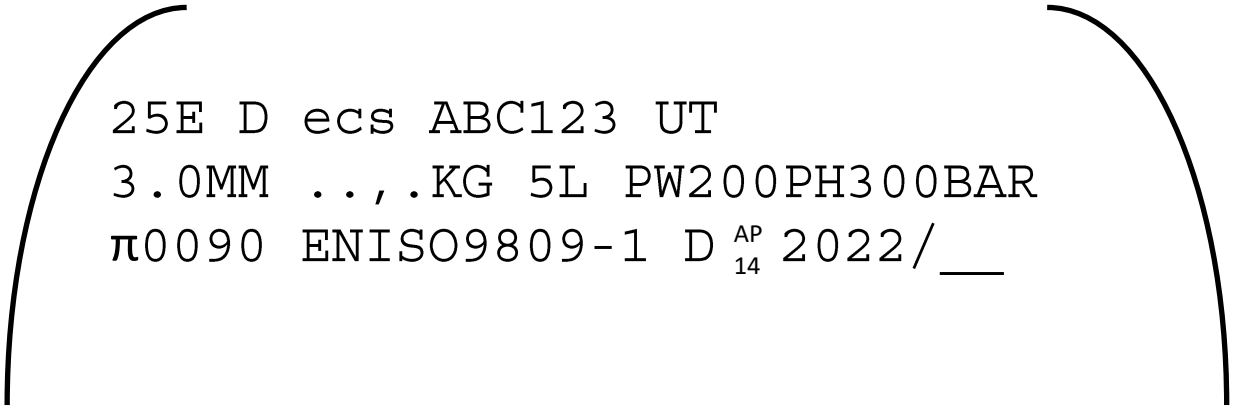
(regulation) DIN EN ISO 9809-1:2010/ ISO 9809-1:2010
(RL 2010/35/EU) 0090/EN49/12

(company)
ecs AG
eurocylinder systems

(drawing number)
13 052 147 7e

repl. of 17.03.2016

Front:



Back:

	17.03.2022	**Marking**
	Mund	REV 5L 57027
		Revision 0

eurocylinder systems AG • Auenstrasse 21 • D-99510 Apolda

Konformitätserklärung

Conformity declaration / Déclaration de conformité / Dichiarazione di conformità

Folgende Stahlflaschen wurden in Übereinstimmung mit der Richtlinie 2010/35/EU hergestellt.

The following steel cylinders were manufactured acc. directive 2010/35/EU.
Les bouteilles en acier suivantes ont été fabriquées en conformité avec la directive 2010/35/UE. Le bombole sono state prodotte secondo la direttiva 2010/35/UE.

Auftragsnummer: Order no / M. de commande / Ordine no:	22/57027/1
Kunde: Customer / Cliente / Client:	Rév Gas Industries Ltd.
Stückzahl: Quantity / Quantité / Quantità:	200
Fassungsraum: Volume / Volume / Volume:	5 l
Prüfdruck: Test pressure / Pression d'épreuve / Pressione Prova:	300 bar
Herstellernummern: Manufacturer's no. / No. di série / Numero de serie:	LWL101-LWL190, LWM001-LWM111 (excl.LWM024)
Kundennummern: Customer no / No. di cliente / Numero client:	-
Vorschrift: Rule / Règlementation / Regola:	EN ISO 9809 - 1 : 2010
Zulassungsnummer: Approval no / Numéro de agrément / Approvazione no:	0090/EN49/12
Konformitätszeichen: Conformity mark / No de conformité / Conformità no:	π
Kennnummer: Reference no / Numéro d'identification / Riferimento no:	0090

Apolda, 16.09.2022

i.A./pp. Förtsch
(ecs AG)

F10 Ausgabe 2 / 01.06.2022

eurocylinder systems AG
Auenstrasse 21, D-99510 Apolda
Tel: +49 (0) 3644 621 - 0
Fax: +49 (0) 3644 621 - 203

Vorstand:
Michael Dathe
Vorsitzender des Aufsichtsrates:
Daniel Spannagel

Sitz Apolda
Amtsgericht Jena: HRB 501 803
UST-Id-Nr.: DE150089541
St.-Nr.: 162/100/00856

UniCredit Bank AG
BLZ 820 200 87, Kto. 404 24 25
SWIFT-BIC: HYVEDEMM098
IBAN: DE04 8202 0087 0004 0424 25

Deutsche Bank AG
BLZ 820 700 00, Kto. 399 400 100
SWIFT-BIC: DEUTDE8E
IBAN: DE25 8207 0000 0399 4001 00

Landesbank Baden-Württemberg
BLZ 600 501 01
SWIFT-BIC: SOLADEST600
IBAN: DE39 6005 0101 0004 6603 98

Die Kennzeichnung mit P15Y durch die eurocylinder systems AG erfolgt im Auftrag nach den Vorgaben des Kunden. Die eurocylinder systems AG überprüft nicht, ob die rechtlichen Voraussetzungen für eine Kennzeichnung P15Y vorliegen. Es ist die ausschließliche Pflicht des Kunden und allen folgenden Eigentümern zu überprüfen, dass die einschlägigen Vorschriften der ADR/RID P200 eingehalten werden. Die eurocylinder systems AG ist nicht verantwortlich sicherzustellen, ob der Kunde und alle folgenden Eigentümer zu einer Kennzeichnung mit P15Y autorisiert sind oder ob die Voraussetzungen für die Kennzeichnung P15Y vorliegen.

The labeling with P15Y by eurocylinder systems AG is carried out in the order according to the customer's specifications. Eurocylinder systems AG does not check whether the legal requirements for a P15Y label are met. It is the sole responsibility of the customer and any subsequent owners to check that the relevant provisions of ADR/RID P200 are complied with. Eurocylinder systems AG is not responsible for ensuring whether the customer and all subsequent owners are authorized to label with P15Y or whether the requirements for labeling P15Y are met.

Le marquage avec P15Y par eurocylinder systems AG est effectué à la commande selon les spécifications du client. eurocylinder systems AG ne vérifie pas si les exigences légales pour une étiquette P15Y sont remplies. Il est de la seule responsabilité du client et des éventuels propriétaires ultérieurs de vérifier que les dispositions pertinentes de l'ADR/RID P200 sont respectées. eurocylinder systems AG n'est pas responsable de s'assurer que le client et tous les propriétaires ultérieurs sont autorisés à étiqueter avec P15Y ou si les exigences d'étiquetage P15Y sont remplies.

La marcatura con P15Y da parte di eurocylinder systems AG viene effettuata per conto del cliente secondo le specifiche del cliente. Eurocylinder systems AG non verifica se i requisiti legali per una marcatura P15Y sono soddisfatti. È dovere esclusivo del cliente e di tutti i successivi proprietari verificare che siano rispettate le disposizioni pertinenti dell'ADR/RID P200. Eurocylinder systems AG non è responsabile di garantire se il cliente e tutti i successivi proprietari sono autorizzati a etichettare P15Y o se i requisiti per la marcatura P15Y sono soddisfatti.

eurocylinder systems AG
Auenstrasse 21, D-99510 Apolda
Tel: +49 (0) 3644 621 - 0
Fax: +49 (0) 3644 621 - 203

Vorstand:
Michael Dathe
Vorsitzender des Aufsichtsrates:
Daniel Spannagel

Sitz Apolda
Amtsgericht Jena: HRB 501 803
UST-Id-Nr.: DE150089541
St.-Nr.: 162/100/00856

UniCredit Bank AG
BLZ 820 200 87, Kto. 404 24 25
SWIFT-BIC: HYVEDEMM098
IBAN: DE04 8202 0087 0004 0424 25

Deutsche Bank AG
BLZ 820 700 00, Kto. 399 400 100
SWIFT-BIC: DEUTDE8E
IBAN: DE25 8207 0000 0399 4001 00

Landesbank Baden-Württemberg
BLZ 600 501 01
SWIFT-BIC: SOLADEST600
IBAN: DE39 6005 0101 0004 6603 98

BEPD Betriebseigener Prüfdienst der eurocylinder systems AG
Inhouse inspection service of eurocylinder systems AG
Service de contrôle interne de eurocylinder systems AG

ecs AG eurocylinder systems

eurocylinder systems AG, Auenstraße 21, D-99510 Apolda ✆ + 49 (0) 36 44 - 62 1-0 + 49 (0) 36 44 - 62 12 03 www.eurocylinders.com

ZERTIFIKAT

CERTIFICATE / CERTIFICAT

über die Konformität der Herstellung gemäß RL 2010/35/EU, ADR/RID 2021, 1.8.7.4
of conformity of manufacture acc. to dir. 2010/35/EU ADR/RID 2021, 1.8.7.4
de conformité de la fabrication selon la dir. 2010/35/EU ADR/RID 2021, 1.8.7.4

Zertifikat-Nr., Certificate No., N° de certificate **: Π / LWL / 1123 / 2022**

Name und Anschrift des Herstellers / Fertigungsstätte: **eurocylinder systems AG**
Name and address of manufacturer/place of manufacture **Auenstraße 21**
Nom et adresse du fabricant / Lieu de fabrication: **99510 Apolda**

Hiermit wird bescheinigt, dass die ortsbeweglichen Druckgeräte die Anforderungen der RL 2010/35/EU und des ADR/RID 2021 erfüllen. Die Druckgeräte entsprechen den zur Baumusterzulassung eingereichten Unterlagen und sind mit dem abgebildeten Zeichen gekennzeichnet. This is to certify, that the transportable pressure equipment listed below meet the requirements of the Transportable Pressure Equipment Directive 2010/35/EU and the ADR/RID 2021. The pressure equipment complies the documents submitted for type approval and is marked with the following symbol. Nous certifions ci-joint que les appareils à pression mobiles sur différents lieux répondent aux exigences conformément à la directive 2010/35/EU et à la directive ADR/RID 2021. Les appareils à pression répondent aux contrôles des prototypes CE et sont caractérisés par les sigles représentés.

π 0090

Die Druckgeräte sind mit einem Ventil mit PI-Kennzeichnung auszurüsten.
The pressure devices are tob e fitted with a valve with PI-marking.
Les appareils à pression sont equips d´une vanne avec le caractére PI.

Geprüft nach Richtlinie 2010/35/EU, ADR/RID 2021: Tested under Directive 2010/35/EU, ADR/RID 2021 : Contrôlé selon la directive 2010/35/EU, ADR/RID 2021:	**Erstmalige Prüfung** Initial inspection and test Contrôle et épreuves initiaux
Prüfbericht-Nr.: Test report No.: Nr. de rapport de contrôle:	**LWL / 2022**
Herstell-Nr.: Manufacturer´s serial No.: Nr. du fabricant:	**LWL001 – LWL190, außer 043, 052, 056, 060, 081, 092**
Beschreibung des Druckgerätes: Description of pressure equipment: Description de l'appareil à pression:	**Nahtlose Stahlflaschen Familie EN 49 / 5,0 l** Seamless steel cylinder ...., family / l Surface en acier sans raccords ...., Famille / l
Norm: Standard: Standard:	**EN ISO 9809 – 1 : 2010**
Zertifikat-Nr. des Baumusters: Type certificate No.: Nr. de certificat du prototype:	**0090 / EN49 / 12**

Tropschug

Apolda, 15.09.2022
(Ort, Datum) (place, date)
Betriebseigener Prüfdienst der eurocylinder systems AG
Inhouse inspection service of eurocylinder systems AG,
Service de contrôle interne de eurocylinder systems AG

Der betriebseigene Prüfdienst ist zertifiziert durch die Benannte Stelle TÜV Thüringen e.V., Melchendorfer Str. 64, D-99096 Erfurt, Kennnummer 0090.
The inhouse inspection service is certified by the Notified Body TÜV Thüringen e.V., Melchendorfer Str. 64, D-99096 Erfurt, identification number 0090.
Le service d'inspection de la maison a été certifiée par l'organisme notifié TÜV Thüringen e.V., Melchendorfer Str. 64, D-99096 Erfurt, numéro d'identification 0090.

ecs eurocylinder systems	BEPD-Qualitätssicherungssystem **Prüfbericht** Inspection Report/rapport du test	Ausgabe: 3/02.01.2020	F007_01.1.1 Seite 1/2

Prüfberichts-nr.
Report-nr.
Rapport-n° L W L/2022

Zertifikat-nr. π /LWL/1123/2022
Certficate-nr. CE/ / /
N° de certificat

Glühlos/batch-nr./lot / Jahr/year/an

Volumen 5,0 dm³
Volume dm³
Volume dm³

Prüfdruck 300 bar
Test pressure bar
Pression d'épreuve bar

Abmessung 139,7 × 3,1
Dimensions
Dimensions

Gütepass 14 / 2022
Material certificate
Certificat matière

Zulassungs-Nr. 0090/EN49/12
Approved-nr.
N° d´homologation

Zeichnungs-Nr. 130521477
Drawing-nr.
Plan-n°

Chargen-Nr. 209965
Charge-nr.
Charge-n°

Prüflosgröße Stück
Inspection lot size pieces
Volume du lot de contrôle 202 pieces

Werkstoff 34CrMo4
Material
Matière

Chargen-Kennzeichnung grau
Charge identification
Identification de la charge

1. Angaben zur Wärmebehandlung
Information to the heat treatment
Informations concernant le traitment thermique

Vergüten/Quenching and tempering/Trempe et revenu

	°C	min
Austenitisieren Austenising Austénisation	880	10
Badtemperatur Bath temperature Température du bain	25 - 38	
Polymerkonzentration Polymer concentration Polymére concentration	% Kontrollwert 5,45 % % Check value % % Valeur contrôle %	
Anlassen Tempering Revenu	565	50

Arbeitsvorbereiter
Operations sheduler
Préparateur du travail i.A. 21.07.22
Unterschrift signing signature / Datum date date

2. Bestätigung über die Einhaltung der technologischen Parameter
Compliance with technical parameters
Conformité des caractéristique techniques

Härter
Hardener
Trempeur i.A. Vigh-Hofmann 16.08.2022
Unterschrift signing signature / Datum date date

3. Ergebnis der Werkstoffprüfung (einschl. Berst-/Härteprüfung)
Result of the material test (inclusive bursting test/ hardness test)
Résultat du contrôle matière (incluse essai de rupture/test de dureté)

Vorgabewerte **erreicht / nicht erreicht**
Allowed values are / are not reached
Valeurs autorisées sont / ne sont pas atteintes

BEPD-WP
Inhouse inspection service
Service de contrôle interne 18. Aug. 2022
Unterschrift signing signature / Datum date date


100
90
80
70
60
50
40
30
20
10
0
BEPD Tropschug
Betriebseigener Prüfdienst der ecs AG
Inhouse inspection service of ecs AG
Service contrôle interne de ecs AG
LWL
18. Aug. 2022
43410

Werkstoffprüfbericht/Material Test Report/Procés-verbal de contrôle matiére

Dieser Prüfbericht gehört zur Glühlos - Nr. LWL/2022 **und dem dazugehörigen Kontrollbericht.**
This test report is part of heat treatment batch- nr. ____ and the corresponding inspection report.
Le présent procés-verbal fait partie de no. de lot de traitement thermique____ et du procés-verbal de contrôle.

Volumen/Volume/Volume: 5,0 dm³ **Zulassung**/Approval/Permission: 0090/EN49/12

Ergebnisse der Werkstoffprüfung/Results of the material test/ Résultat du contrôle matiére:
nach DIN EN ISO 9809 – 1 : 2010 / nach DIN EN ISO 9809 – 2 : 2010

Zugversuch Tensile test Essai de traction	Abmessungen Dimensions Dimensions nach DIN EN ISO 6892 – 1 : 2017 B nach DIN EN ISO 6892 – 2 : 2017 B				Kraft Force Force N		ΔI mm	Härte an Prüfflasche Hardness of the test cylinder Dureté de la bouteille d' essai nach DIN EN ISO 6506–1:2015 [HB 30]
Prüftemp. Test temp. Temp. d'epreuve [°C]	Breite Width Largeur [mm]	Dicke Thickness Epaisseur [mm]	Fläche Area Surface [mm²]	Messlänge Measuring length Longueur de mesure [mm]	Streck-grenze Yield point Limite apparente d'elasticité [N/mm²]	Zugfestig-keit Tensile strength Résistance a' la traction [N/mm²]	Dehnung Elongation Allongement [%]	
20	20,0	3,5	70,0	45	67500 964	73000 1043	7,6 16,9	360

Kerbschlagbiegeversuch/ Impact test/ Essai de résilience nach DIN EN ISO 148 – 1 : 2011							Biegeversuch Bend test/ Essai de pliage nach DIN EN ISO 7438 : 2012 (D= 6 s ; 180°) 4 × ohne Anriss
Proben-Nr. Sample no. Numero d'echantillon	Breite Width Largeur [mm]	Höhe Height Hauteur [mm]	Fläche Area Surface [cm²]	Arbeit Work Travail [J]	Kerbschlag-zähigkeit Impact value Résilience [J/ cm²]	Mittelwert Mean value Valeur moyenne [J/ cm²]	
LWL.1	3,6	8,0	0,288	37,0	128	122	Hals – und Bodenprüfung Neck and bottom test Contrôle de col et fond
LWL.2	3,6	8,0	0,288	33,5	116		----------
LWL.3	3,6	8,0	0,288	35,5	123		
							Berstprüfung Bursting test/Essai de rupture
							568 bar

Probelage: Position of the sample/ Position de flexion	Längs / longitudinal
Prüftemperatur: Test temperature/ Temperature d'epreuve	-50°C
Kerbform: Form of the notch/ Form de l'entaille	V nach DIN EN ISO 148 – 1 : 2011
Kerbrichtung: Direction of the notch/ Direction de l'entaille	Senkrecht / perpendicular
Prüfmaschine : Test machine/ Machine d'essai	PS 30

Prüfer/ tester/ contrôleur
BEPD-WP
Apolda, 18.08.2022

Leitung BEPD
direction inhouse inspection service/service de contrôle interne
Unterschrift signing signature / Datum date date

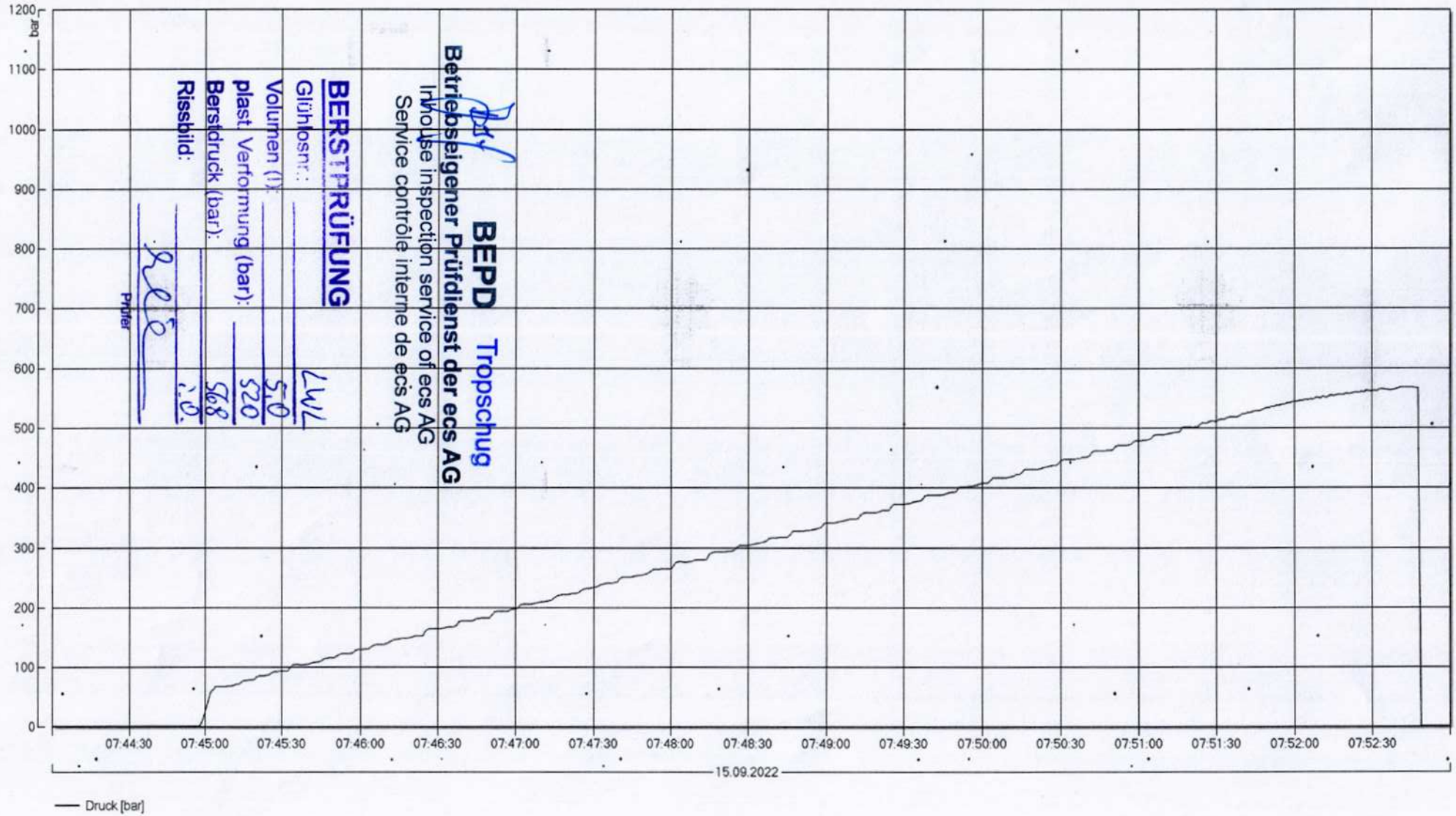
BEPD Tropschug
Betriebseigener Prüfdienst der ecs AG
Inhouse inspection service of ecs AG
Service contrôle interne de ecs AG

Messwerte / Trend
Gerätename: Berstpruefung (Seriennummer J500F904428)
Zeitbereich: 15.09.2022 07:44:00 bis 15.09.2022 07:53:00

Vorlage: 2022-09
Glühlos LWL
Manometer Nr. 082502279

15.09.2022 11:53:41

ecs eurocylinder systems



BEPD Tropschug
Betriebseigener Prüfdienst der ecs AG
In-house inspection service of ecs AG
Service contrôle interne de ecs AG

BERSTPRÜFUNG

Glühlosnr.: LWL
Volumen (l): 5.0
plast. Verformung (bar): 520
Berstdruck (bar): 568
Rissbild: o.k.

Prüfer

EUROCYLINDER SYSTEMS AG

Parameter :lwl-5-0 29.01.13 - 00:06

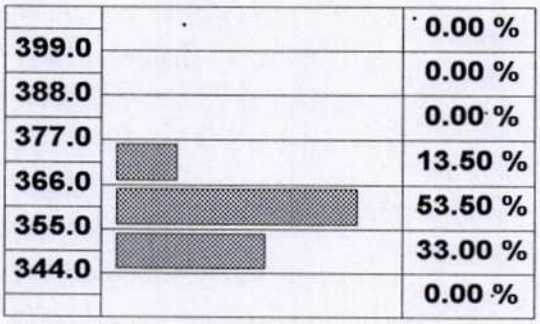
Chargen-Nr.	
SB-Nr.	LWL
Volumen	5,0
Fl.-Beh.-Typ	
Schicht	1
Anlagenfahrer	Felsberg
Prüfmethode	HB 30
Härteminimum	344
Härtemaximum	399

Meßwerte/Flasche	1
Meßwerte gesamt	200
Losanzahl	200
Anzahl Klassen	5
Anzahl Härteverlauf	100

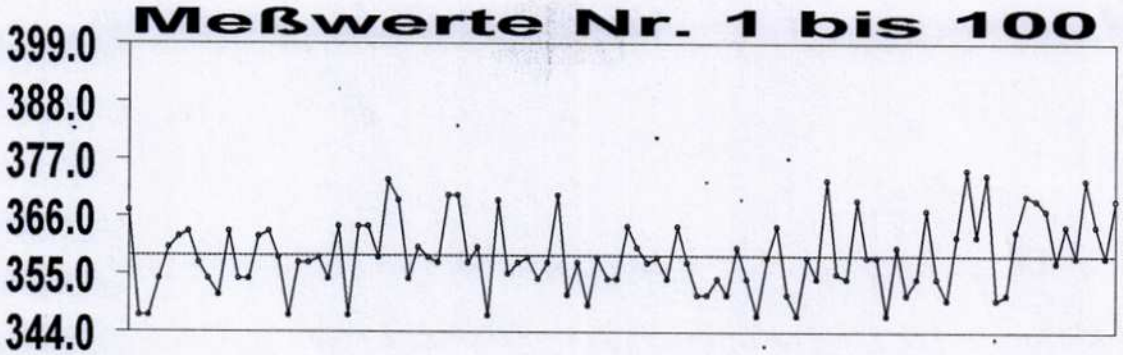
Statistikwerte :[HB 30]

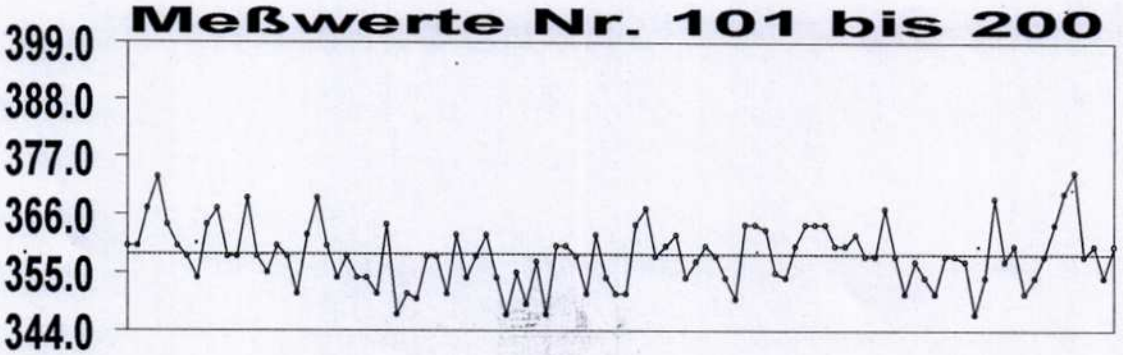
Gesamtanzahl	:	200
Anzahl in Grenzen	:	200
Anzahl zu weich	:	0
Anzahl zu hart	:	0
Anzahl ST	:	200
kleinster Wert	:	347.0
größter Wert	:	375.0
Xquer	:	358.380
Standardabweichung	:	6.434

Histogramm :



Härteverlauf :[HB 30]





BEPD Tropschug
Betriebseigener Prüfdienst der ecs AG
Inhouse inspection service of ecs AG
Service contrôle interne de ecs AG

Datum: 15. Sep. 2022 Unterschrift: _____

KARL DEUTSCH

Gesamtprotokoll

STFL ECHOGRAPH 1155 [55281]

EUROCYLINDER SYSTEMS

Datum des Ausdrucks: 14.09.2022 20:24:54

Prüflose-Nr.	LWL
Abmessung	139,7x3,0
Werkstoff	34CrMo4
Charge	209965
Prüfspezifikation	ENISO 9809-1

letztes Pruefdatum: 14.09.2022 20:22:45

Pruefdaten:

Programm: 140-5-130521477.dat(0.TE)

Parameter-Auswahl:

USEL: 140x3,0.usel(0.TE)

DAV: 600.dav(0.TE)

Ultraschall

Ultraschall1

Ultraschall2

Ultraschall3

Ultraschall4

Ultraschall5

Statistik:

	Stueck	%	Laenge [m]	%
Gesamt:	192	100.00	417.26	100.00
Gut:	192	100.00	417.26	100.00
auffällig/Wiederholungsprü.	0	0.00	0.00	0.00
unsichere Kopplung	0	0.00	0.00	0.00

BEPD Tropschug Unterschrift:

Betriebseigener Prüfdienst der ecs AG
Inhouse inspection service of ecs AG
Service contrôle interne de ecs AG

[redacted]	BEPD-Qualitätssicherungssystem Wasserdruckprüfung	Ausgabe: 1/01.05.2014	F011_01.1.1

Bescheinigung über die Durchführung der Wasserdruckprüfung

Certificate about the realisation of the hydraulic test
Certificat sur la mise en œuvre de l'examen de pression hydraulique

Los / Batch / Lot: LWL

Prüfdruck / Test pressure / Pression d'essai: 300 bar (Manometer Nr.: 121502075)

Stückzahl / Piece no. / No. de pièces: 200 gut / good / bonnes: 198 schlecht / defect / rebut: 2

Die Stahlflaschen wurden mit dem Prüfdruck beaufschlagt. Bei den für gut befundenen Stahlflaschen zeigten sich keine Undichtigkeiten und keine bleibenden Verformungen.
The cylinders have been impinged with the test pressure. In case of the as good considered steel cylinders were no leakages and permanent deformations. / Les bouteilles en acier ont été soumises à la pression d'essai. Les bouteilles en acier considérées comme bonnes ne présentent aucune fuite ni aucune déformation permanente.

Volumenermittlung / Determination of volume / Détermination du volume

Bei 10 % der Stahlflaschen des Loses wurde das Volumen ermittelt.
The volume of 10 % of the steel cylinders from the lot was determined./ Le volume de 10 % des bouteilles en acier a été déterminé.

Volumen (min.)/ Volume (min.) : 50 l

Lfd.Nr./ Serial no./No.cour.	Volumen(l)/ Volume(l)	Lfd.Nr./ Serial no./No.cour.	Volumen(l)/ Volume(l)
01	5,1	11	5,1
02	5,1	12	5,1
03	5,1	13	5,1
04	5,1	14	5,1
05	5,1	15	5,1
06	5,1	16	5,1
07	5,1	17	5,1
08	5,1	18	5,1
09	5,1	19	5,1
10	5,1	20	5,1

Der Prüfer bestätigt die Prüfung und Einhaltung der Anforderungen nach Kontrollvorschrift KV011_01 bezüglich Sichtprüfung der Außenseite, Innenbesichtigung, Gewindeprüfung, Maßkontrolle und Fußringsitz. / The tester confirm the check and the compliance in terms of the requirements to test direction KV011_01 regarding external visual testing, internal visual testing, thread test, dimensional inspection and base ring fit. L'inspecteur confirme la vérification et la conformité avec les exigences de contrôle KV011_01 concernant l'inspection visuelle à l'extérieur et à l'intérieur, contrôle de taraudage, contrôle dimensionnel et que la bague de pièd convient.

BEPD-WPS/US
inhouse inspection service
service de contrôle interne

i.A. Kaiser 14.09.2022
Unterschrift signing signature / Datum date date

Leitung BEPD
direction inhouse inspection service
service de contrôle interne

Unterschrift signing signature / Datum date date

BEPD Tropschug
Betriebseigener Prüfdienst der ecs AG
Inhouse inspection service of ecs AG
Service contrôle interne de ecs AG

SB-NR.: LWL ORGINALLISTE/ORGINAL LIST/RELEVE ORGINAL SEITE :1

Auftrag/order/commande: 22-57123-1

Kunde/customer/client : Sauerstoffw. Gu

EUROCYLINDER SYSTEMS AG

Volumen/volume/volume V/l:	5 l
Prüfdruck/test pressure/pression d epreuve:	300 bar
Gasart/kind of gas/sorte du gaz:	Sauerstoff
Fülldruck/filling pressure/pression d service:	200 bar
Masse Anbauteile/mass of add-on pieces/poids pieces montretees:	0 Kg

Behälter/ cylinder/ bouteille Nr./No.	Leermasse/ empty weight/ poids vide m/kg	Kunde/ customer/ client Nr./No	Tara m/kg	Volumen/ volume/ volume V/l	Bemerkungen/ Remarks/ notes
LWL001	7.05	527322			
LWL002	7.06	527323			
LWL003	7.05	527324			
LWL004	7.06	527325			
LWL005	7.05	527326			
LWL006	7.06	527327			
LWL008	7.06	527329			
LWL009	7.06	527330			
LWL007	7.07	527328			
LWL010	7.07	527331			
LWL011	7.07	527332			
LWL012	7.09	527333			
LWL013	7.07	527334			
LWL014	7.06	527335			
LWL015	7.07	527336			
LWL016	7.06	527337			
LWL017	7.05	527338			
LWL018	7.06	527339			
LWL019	7.06	527340			
LWL020	7.05	527341			
LWL021	7.04	527342			
LWL022	7.03	527343			
LWL023	7.03	527344			
LWL024	7.08	527345			
LWL025	7.02	527346			
LWL026	7.01	527347			
LWL027	7.02	527348			
LWL028	7.02	527349			
LWL029	7.09	527350			
LWL030	7.06	527351			
LWL031	7.03	527352			
LWL032	7.02	527353			
LWL033	7.03	527354			
LWL034	7.07	527355			
LWL036	7.07	527357			
LWL035	7.06	527356			
LWL038	7.02	527359			
LWL037	7.02	527358			
LWL039	7.08	527360			
LWL040	7.07	527361			

40 STÜCK / PIECES / PIECES VON INSGESAMT/ OF TOTAL/ D AU TOT/ 100

APOLDA, 16.09.2022

Ohne Unterschrift gültig. Valid without signature. Valable sans signature.

SB-NR.: LWL ORGINALLISTE/ORGINAL LIST/RELEVE ORGINAL SEITE :2

Auftrag/order/commande: 22-57123-1

Kunde/customer/client : Sauerstoffw. Gu

Volumen/volume/volume V/l:	5 l
Prüfdruck/test pressure/pression d epreuve:	300 bar
Gasart/kind of gas/sorte du gaz:	Sauerstoff
Fülldruck/filling pressure/pression d service:	200 bar
Masse Anbauteile/mass of add-on pieces/poids pieces montretees:	0 Kg

Behälter/ cylinder/ bouteille Nr./No.	Leermasse/ empty weight/ poids vide m/kg	Kunde/ customer/ client Nr./No	Tara m/kg	Volumen/ volume/ volume V/l	Bemerkungen/ Remarks/ notes
LWL041	7.02	527362			
LWL042	7.03	527363			
~~LWL043~~	~~6.84~~	~~527364~~			
LWL044	6.86	527365			
LWL045	6.90	527366			
LWL046	7.06	527367			
LWL047	6.98	527368			
LWL048	7.02	527369			
LWL049	7.01	527370			
LWL050	7.01	527371			
LWL051	7.03	527372			
~~LWL052~~	~~7.07~~	~~527373~~			
LWL053	7.06	527374			
LWL054	7.05	527375			
LWL055	7.02	527376			
~~LWL056~~	~~7.02~~	~~527377~~			
LWL057	7.06	527378			
LWL058	7.03	527379			
LWL059	7.05	527380			
~~LWL060~~	~~7.09~~	~~527381~~			
LWL061	7.06	527382			
LWL062	7.00	527383			
LWL063	7.05	527384			
LWL064	7.06	527385			
LWL065	7.06	527386			
LWL066	7.01	527387			
LWL067	7.07	527388			
LWL068	7.03	527389			
LWL069	7.03	527390			
LWL070	7.03	527391			
LWL071	7.06	527392			
LWL072	7.07	527393			
LWL073	7.06	527394			
LWL074	7.03	527395			
LWL075	7.04	527396			
LWL076	7.04	527397			
LWL077	7.03	527398			
LWL078	7.02	527399			
LWL079	7.02	527400			
LWL080	7.01	527401			

36

40 STÜCK / PIECES / PIECES VON INSGESAMT/ OF TOTAL/ D AU TOT/ 100

APOLDA, 16.09.2022

Ohne Unterschrift gültig. Valid without signature. Valable sans signature.

SB-NR.: LWL ORGINALLISTE/ORGINAL LIST/RELEVE ORGINAL SEITE :3

Auftrag/order/commande: 22-57123-1

Kunde/customer/client : Sauerstoffw. Gu

Volumen/volume/volume V/l:	5 l
Prüfdruck/test pressure/pression d epreuve:	300 bar
Gasart/kind of gas/sorte du gaz:	Sauerstoff
Fülldruck/filling pressure/pression d service:	200 bar
Masse Anbauteile/mass of add-on pieces/poids pieces montretees:	0 Kg

Behälter/ cylinder/ bouteille Nr./No.	Leermasse/ empty weight/ poids vide m/kg	Kunde/ customer/ client Nr./No	Tara m/kg	Volumen/ volume/ volume V/l	Bemerkungen/ Remarks/ notes
~~LWL081~~	~~7.02~~	~~527402~~			
LWL082	7.02	527403			
LWL083	7.03	527404			
LWL084	6.89	527405			
LWL085	7.00	527406			
LWL086	7.01	527407			
LWL087	7.04	527408			
LWL088	7.07	527409			
LWL089	7.08	527410			
LWL090	7.10	527411			
LWL091	6.91	527412			
~~LWL092~~	~~6.85~~	~~527413~~			
LWL093	7.06	527414			
LWL094	7.04	527415			
LWL095	7.01	527416			
LWL096	7.04	527417			
LWL097	7.02	527418			
LWL098	6.86	527419			
LWL099	7.07	527420			
LWL100	7.07	527421			

18

20 STÜCK / PIECES / PIECES VON INSGESAMT/ OF TOTAL/ D AU TOT/ 100

APOLDA, 16.09.2022

Ohne Unterschrift gültig. Valid without signature. Valable sans signature.

SB-NR.: LWL ORGINALLISTE/ORGINAL LIST/RELEVE ORGINAL SEITE :1

EUROCYLINDER SYSTEMS

Auftrag/order/commande: 22-57027-1

Kunde/customer/client : Rev Gas Industr

Volumen/volume/volume V/l:	5 l
Prüfdruck/test pressure/pression d epreuve:	300 bar
Gasart/kind of gas/sorte du gaz:	verd. Gas
Fülldruck/filling pressure/pression d service:	200 bar
Masse Anbauteile/mass of add-on pieces/poids pieces montretees:	0 Kg

Behälter/ cylinder/ bouteille Nr./No.	Leermasse/ empty weight/ poids vide m/kg	Kunde/ customer/ client Nr./No	Tara m/kg	Volumen/ volume/ volume V/l	Bemerkungen/ Remarks/ notes
LWL101	7.06	1			
LWL102	7.04	2			
LWL103	7.06	3			
LWL104	7.05	4			
LWL105	7.07	5			
LWL106	7.07	6			
LWL107	7.07	7			
LWL108	7.08	8			
LWL109	7.04	9			
LWL110	7.00	10			
LWL111	7.07	11			
LWL112	7.06	12			
LWL113	7.06	13			
LWL114	7.07	14			
LWL115	7.08	15			
LWL116	7.05	16			
LWL117	7.06	17			
LWL118	7.06	18			
LWL119	7.02	19			
LWL120	7.05	20			
LWL121	7.06	21			
LWL122	7.06	22			
LWL123	7.07	23			
LWL124	7.07	24			
LWL125	7.07	25			
LWL126	7.03	26			
LWL127	7.04	27			
LWL128	7.04	28			
LWL129	7.02	29			
LWL130	7.02	30			
LWL131	7.02	31			
LWL132	7.04	32			
LWL133	7.04	33			
LWL134	7.05	34			
LWL135	7.07	35			
LWL136	7.02	36			
LWL137	7.06	37			
LWL138	7.05	38			
LWL139	7.05	39			
LWL140	7.05	40			

40 STÜCK / PIECES / PIECES VON INSGESAMT/ OF TOTAL/ D AU TOT/ 200

APOLDA, 14.09.2022

Ohne Unterschrift gültig. Valid without signature. Valable sans signature.

SB-NR.: LWL ORGINALLISTE/ORGINAL LIST/RELEVE ORGINAL SEITE :2

EUROCYLINDER SYSTEMS

Auftrag/order/commande: 22-57027-1

Kunde/customer/client : Rev Gas Industr

Volumen/volume/volume V/l:	5 l
Prüfdruck/test pressure/pression d epreuve:	300 bar
Gasart/kind of gas/sorte du gaz:	verd. Gas
Fülldruck/filling pressure/pression d service:	200 bar
Masse Anbauteile/mass of add-on pieces/poids pieces montretees:	0 Kg

Behälter/ cylinder/ bouteille Nr./No.	Leermasse/ empty weight/ poids vide m/kg	Kunde/ customer/ client Nr./No	Tara m/kg	Volumen/ volume/ volume V/l	Bemerkungen/ Remarks/ notes
LWL141	7.04	41			
LWL142	7.02	42			
LWL143	7.05	43			
LWL144	7.06	44			
LWL145	7.05	45			
LWL146	7.05	46			
LWL147	7.03	47			
LWL148	7.06	48			
LWL149	7.07	49			
LWL150	7.07	50			
LWL151	7.05	51			
LWL152	7.05	52			
LWL153	7.09	53			
LWL154	7.07	54			
LWL155	7.05	55			
LWL156	7.04	56			
LWL157	7.07	57			
LWL158	7.07	58			
LWL159	7.03	59			
LWL160	7.04	60			
LWL161	7.05	61			
LWL162	7.02	62			
LWL163	7.03	63			
LWL164	7.08	64			
LWL165	7.08	65			
LWL166	7.08	66			
LWL167	7.07	67			
LWL168	7.08	68			
LWL169	7.05	69			
LWL170	7.08	70			
LWL171	7.08	71			
LWL172	7.07	72			
LWL173	7.07	73			
LWL174	7.04	74			
LWL175	7.07	75			
LWL176	7.05	76			
LWL177	7.06	77			
LWL178	7.07	78			
LWL179	7.04	79			
LWL180	7.08	80			

40 STÜCK / PIECES / PIECES VON INSGESAMT/ OF TOTAL/ D AU TOT/ 200

APOLDA, 14.09.2022

Ohne Unterschrift gültig. Valid without signature. Valable sans signature.

SB-NR.: LWL ORGINALLISTE/ORGINAL LIST/RELEVE ORGINAL SEITE :3

Auftrag/order/commande: 22-57027-1

Kunde/customer/client : Rev Gas Industr

Volumen/volume/volume V/l:	5 l
Prüfdruck/test pressure/pression d epreuve:	300 bar
Gasart/kind of gas/sorte du gaz:	verd. Gas
Fülldruck/filling pressure/pression d service:	200 bar
Masse Anbauteile/mass of add-on pieces/poids pieces montretees:	0 Kg

Behälter/ cylinder/ bouteille Nr./No.	Leermasse/ empty weight/ poids vide m/kg	Kunde/ customer/ client Nr./No	Tara m/kg	Volumen/ volume/ volume V/l	Bemerkungen/ Remarks/ notes
LWL181	7.04	81			
LWL182	7.06	82			
LWL183	7.02	83			
LWL184	7.04	84			
LWL185	7.06	85			
LWL186	7.05	86			
LWL187	7.05	87			
LWL188	7.05	88			
LWL189	7.09	89			
LWL190	7.06	90			

10 STÜCK / PIECES / PIECES VON INSGESAMT/ OF TOTAL/ D AU TOT/ 200

APOLDA, 14.09.2022

Ohne Unterschrift gültig. Valid without signature. Valable sans signature.

Geanta pentru depozitarea si transportul buteliei de oxigen
TB 100

Descriere:

Geanta de oxigenoterapie Versapak TB 100 este special conceputa pentru a transporta butelii de oxigen de până la 5 litri (inclusiv reductorul de presiune), precum și toate materialele necesare pentru a aplica terapia cu oxigen, adică Pipe Guedel, sonde endotraheale, laringoscop, masca oxigen, kit de resuscitare, etc. Geanta este inscriptionata de jur imprejur cu benzi reflectorizante pentru a putea fi reperata cu usurinta pe timp de noapte. Geanta este prevazuta cu o fereastra transparenta pentru a putea vizuliza presiunea oxigenului fara a fi necesara scoaterea buteliei din geanta.

Caracteristici tehnice:

- Dimensiune: 65 x 22 cm
- Capacitate: 25,28 L
- Greutate: 1.58 kg
- Material: 600D Polyester
- Colour EB02.016: Rosu
- Capacitate incarcare: 15 kg

VERSAPAK CONTACT

Loc. Macău FN, Com. Aghireșu, jud. Cluj, România

Email: sales@versapak.ro
office@versapak.ro

Telefon: 0743.088.323
0264/284140

Fax: 0264/284136