

## Compressed Air Cylinders

Designed using leading technology and advanced materials, Dräger's range of Composite Cylinders can be used in any application where breathing becomes difficult or impossible.



Through continuous product improvement and investment in technology, Dräger provides the highest quality pneumatics, carrying systems and high performance, ultra lightweight, carbon composite cylinders. Because Dräger manufacture all elements of the breathing apparatus system – mask, carrying systems, pneumatics and cylinders – you can be assured of the highest quality and maximum performance.

Dräger carbon composite cylinders are manufactured and tested using automated, computer controlled processes. Continuous re-investment in plant and equipment ensures that Dräger cylinders are manufactured and tested in accordance with the most technologically advanced processes available. Automatic data collection ensures full traceability of materials used and the effective monitoring of critical process parameters.

These ranges of cylinders are manufactured from a seamless aluminium liner, which is subsequently over wrapped with carbon

and glass fibres. The aluminium liner is cold drawn from AA 6061 aluminium plate and then wrapped with carbon fibre in an epoxy matrix, using a computer controlled 4 axis wrapping machine.

An external layer of glass fibre in an epoxy matrix is then wrapped onto the cylinder. This external layer of glass fibre is applied to enhance the resistance of the cylinder to impact and abrasion in service.

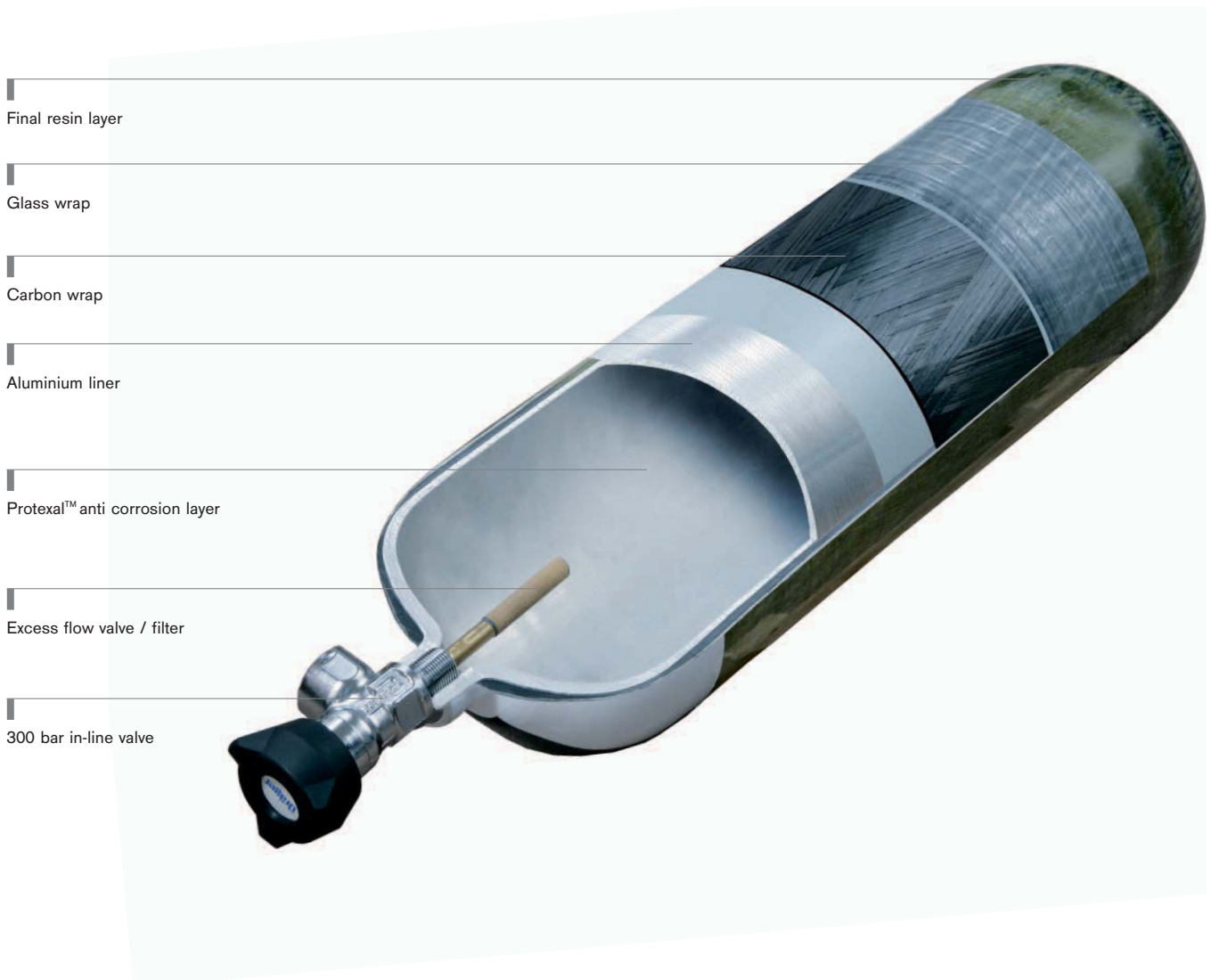
Following a high temperature curing of the epoxy matrix, an external gel coat is applied to the surface of the cylinder. This coating provides a smooth, easily cleaned surface for the cylinder.

Every batch of 200 cylinders is subjected to exhaustive testing in accordance with the legislative design and manufacturing codes (EN 12245 and 97/23/EC), under the supervision of a Notified Body. All relevant production data is retained electronically for the full working life of the cylinder.



Valved carbon composite cylinder

## HIGH PERFORMANCE LIGHT WEIGHT COMPRESSED AIR CYLINDER



### Extended range

Dräger offers a further selection of cylinders ranging from the 2l short duration to 4.7l cylinders with the same choice of valves offered for Dräger manufactured cylinders, with final assembly PED approved.

The cylinder Twin Pack is a dedicated twin cylinder package designed to be used with Dräger's professional range of Compressed Air Breathing Apparatus.

In addition Dräger offer a range of steel cylinders to suit low cost applications such as the marine industry, whilst maintaining a continuous high standard of application.

All Dräger valved cylinder assemblies are fully approved to the European Pressure Equipment Directive and PED approved to BS EN 1964-1:1999

### Cylinder valves

A wide range of cylinder valves for use with breathing apparatus produced by Dräger are available for use with Dräger cylinders and are approved to EN 144-1 and EN 144-2.

The Excess flow valve, available as an option, prevents uncontrolled flow upon accidental opening. Components within the valve allow the excess flow feature to be enabled or disabled by the user as it is not detrimental to the performance when not activated.

Operation is simple with single valve activation and ratchet to prevent inadvertent valve closure, in accordance with EN 137.

### Quality Standards & Approvals

Dräger's commitment to design and manufacturing excellence is further underlined by our BS EN ISO 9001:2000 quality system approval. The cylinders themselves have been given approval to EN12245:2002, module combination B+D, as well as a wide range of national approvals around the world.

All European variants are CE marked in accordance with the requirements of the Pressure Equipment Directive 97/23 EC and EN 12245:2002.

## ORDER INFORMATION

## Cylinders (Notified Body Lloyd's Register)

## 200 bar Steel cylinder

4.0l / 200 bar Steel	B 10 435
6.0l / 200 bar Steel	33 53 735
7.0l / 200 bar Steel	33 53 736

## 300 bar Steel cylinder

6.0l / 300 bar Steel	33 55 002
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## 300 bar CFK Cylinder

4.7l / 300 bar Carbon Composite	33 53 731
6.0l / 300 bar Carbon Composite	33 53 732
6.8l / 300 bar Carbon Composite	33 53 733
9.0l / 300 bar Carbon Composite	33 53 734

## Customised Labelling

19 00 032

## Accessories

## Cylinder Covers

Cylinder Cover 6.8l Composite, 6.0l Composite and Steel (Set of 10 pcs)	B 00 946
Cylinder Cover 6.0l / 300 bar, 6.8l / 300 bar Composite (Set of 10 pcs)	B 00 947
Cylinder Cover 9.0l Composite (Set of 10 pcs)	B 00 949
Cylinder Cover PVC-each, 6.8l / 300 bar Composite	33 10 619
Cylinder Cover PVC-each, 9.0l / 300 bar Composite	33 10 621
Cylinder Cover Nomex-each 6.8l / 300 bar Composite	33 10 622
Cylinder Cover Nomex-each 9.0l / 300 bar Composite	33 10 624

## Connection Pieces for Cylinders

Connection piece, 300 bar	33 37 660
Connection piece, 200 bar	33 39 615

## Charging Connector

Direct Charging Connector, 300 bar	33 37 702
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## Charging Hoses

Direct Charging Hose 1.5 m (with gauge)	33 36 641
Direct Charging Hose 3 m (with gauge)	33 36 642

## Upgrade Kits

Excess Flow Valve (EFV) Upgrade Kit (1 x grey handwheel, 1 x nut, 1 x EFV)	V 11 134
Excess Flow Valve	V 11 011



ST-3968-2005

**200 bar in-line valve**  
With flame retardant hand wheel.



ST-3968-2005

**300 bar in-line valve with integrated gauge**  
With flame retardant hand wheel.



D-1640S-2009

**Right-angle valve**  
With flame retardant hand wheel.



ST-3970-2005

**Excess Flow Valve (EFV)**

## TECHNICAL DATA

## Composite Cylinders

Water Capacity (litres)	6.0	6.8	9.0	4.7
Free Air Capacity (litres)	1636	1854	2454	1274
Working Duration (minutes)	41	46	60	32
Nominal Duration (minutes)	31	36	50	22
Service Pressure (bar)	300	300	300	300
Weight (kg)	3.70	4.09	5.30	2.80
Diameter (mm)	152.5 / 154.0	152.5 / 154.0	175.5 / 177.0	137
Length (mm)	492 / 495	546 / 549	549.5 / 552.5	480
Design Life (years)	20	20	20	15
Thread	M18 x 1.5	M18 x 1.5	M18 x 1.5	M18 x 1.5
Certification	EN 12245:2002	EN 12245:2002	EN 12245:2002	EN 12245:2002



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