## Compressed Air Cylinders



# difficult or impossible.

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

Draeger cylinders are manufactured and tested using automated, computer controlled processes. Continuous re-investment in plant and equipment ensures that Draeger 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.

Valved carbon composite cylinder

### ORDER INFORMATION

Cylinders (Notified Body Lloyds Register)	
200 bar steel cylinder	
6.0L / 200 bar Steel, in line valve (V11130)	3354635
6.0L / 200 bar Steel, in line ratchet valve (3353876)	3354638
300 bar steel cylinder	
6.0L / 300 bar Steel, in line valve (V11110)	3354636
6.0L / 300 bar Steel, in line ratchet valve (3353875)	3354639
9.0L / 200 bar Steel, in line valve (V11130)	3354637
9.0L / 200 bar Steel, in line ratchet valve (3353876)	3354640
300 bar Carbon Composite	
6.8L / 300 bar Carbon Composite in line valve (V11110)	3352653
6.8L / 300 bar Carbon Composite in line ratchet valve (3353875)	3354626
6.8L / 300 bar Carbon Composite right angled valve (3353871)	3354629
6.8L / 300 bar Carbon Composite right angled ratchet valve (3353872)	3354632
9.0L / 300 bar Carbon Composite in line valve (V11110)	3352652
9.0L / 300 bar Carbon Composite in line ratchet valve (3353875)	3354627
9.0L / 300 bar Carbon Composite right angled valve (3353871)	3354630
9.0L / 300 bar Carbon Composite right angled ratchet valve (3353872)	3354633
200 bar Carbon Composite	
9.0L / 200 bar Carbon Composite in line valve (V11110)	3354501
9.0L / 200 bar Carbon Composite in line ratchet valve (3353876)	3354628
9.0L / 200 bar Carbon Composite right angled valve (3353873)	3354631
9.0L / 200 bar Carbon Composite right angled ratchet valve (3353874)	3354634

### SUBSIDIARIES

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Designed using leading technology and advanced materials, Draeger's range of Composite Cylinders can be used in any application where breathing becomes

> 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.



High performance light weight compressed air cylinder



### TECHNICAL DATA

#### Composite Cylinders 6.0 6.8 9.0 4.7 Water Capacity (litres) 1636 1854 2454 1274 Free Air Capacity (litres) 41 46 60 32 Working Duration (minutes) 31 36 50 22 Nominal Duration (Minutes) Service Pressure (bar) 300 300 300 300 3.70 4.09 Weight (Kg) 5.30 3.40 152.5 / 154.0 152.5 / 154.0 175.5 / 177.0 137 Diameter (mm) 492 / 495 546 / 549 549.5 / 552.5 490 Length (mm) 20 20 20 15 Design Life (years) Thread M18 x 1.5 M18 x 1.5 M18 x 1.5 M18 x 1.5 EN12245:2002 Certification EN12245:2002 EN12245:2002 EN12245:2002

### Extended range

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

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

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

ODDED INCODMATION

### All Draeger valved cylinder assemblies are fully approved to pressure equipment directive and PED approved to BS EN 1964-1:1999

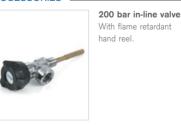
### Cylinder valves

A wide range of cylinder valves for use with breathing apparatus produced by Draeger are available for use with Draeger cylinders and are approved to EN144-1 and EN144-2.

The Excess flow valve, available as an option, prevents uncontrolled flow on 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.

ORDER INFORMATION	
Accessories	
Cylinder Covers	
Cylinder Cover 6.0L / 200 bar Steel	3331041
Cylinder Cover 9.0L / 200 bar Steel	3331248
Cylinder Cover PVC (zipped), 6.8L / 300 bar Composite	3310619
Cylinder Cover PVC (zipped), 9.0L / 200 bar Composite	3310620
Cylinder Cover PVC (zipped), 9.0L / 300 bar Composite	3310621
Cylinder Cover Nomex 6.8L / 300 bar Composite	3310622
Cylinder Cover Nomex 9.0L / 200 bar Composite	3310623
Cylinder Cover Nomex 9.0L / 300 bar Composite	3310624
Connection Pieces for Cylinders	
Connection piece, 300 bar	3337660
Connection piece, 200 bar	3339615
Charging Connector	
Direct Charging Connector, 300 bar	3337702
Charging Hoses	
Direct Charging Hose 1.5m (without gauge)	3336645
Direct Charging Hose 1.5m (with gauge)	3336641
Direct Charging Hose 3m (with gauge)	3336642
Upgrade Kits	
Excess Flow Valve (EFV) Upgrade Kit (1 x grey handwheel, 1 x nut, 1 x EFV)	V11134
Excess Flow Valve	V11011

### ACCESSORIES





Excess flow valve

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

### Quality Standards & Approvals

Draeger'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 12254:2002.

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



#### Right-angle valve With flame retardant hand reel.