

GENIE®

Cylinder User Manual.

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GENIE® Cylinder User Manual

Smart, Convenient and Portable

Safety

The GENIE® cylinder has been designed to the required EN and ISO standards. It contains either a gas at high pressure or a gas stored as liquid and should be treated with care and caution.

It is important that you read this manual before using this product for the first time to ensure you are familiar with all the product features, operating instructions and guidelines for use.

Handling and transportation

The GENIE® cylinder handle has also been designed as a guard to protect the cylinder valve from accidental damage.

GENIE® cylinders should always be transported and used in an upright position, never on their side or inverted.

! NEVER drag a GENIE® cylinder on the ground, either lift and carry it, or use the GENIE® wheel unit.

GENIE® cylinder handles should never be used as lifting points for cables, straps, crane hooks or anything other than hands.

For more detailed information on the handling and transportation, go to our website at www.BOOnline.co.uk/genie

Stacking

GENIE® cylinders are designed to stack together. This should always be done on flat, even ground.

! NEVER stack more than two (2) GENIE® cylinders. Always place the largest GENIE® cylinder at the bottom of the stack.

! NEVER stack GENIE® cylinders with the regulator attached.

! NEVER stack GENIE® cylinders with the wheel unit attached.

! NEVER use GENIE® cylinders whilst stacked.

If you would like to use two (2) GENIE® cylinders at the same time then use the GENIE® twin cylinder stacking adaptor.

Know your GENIE®



A HDPE jacket, **B** Rugged detachable wheel unit, **C** Coloured gas hazard identification ring, **D** Ergonomically designed handles and valve protection, **E** Digital Intelligence Unit (DIU), **F** High performance regulator

Technical data

Cylinder size (litre)	Vessel working pressure (bar)	Water capacity (litre)	Diameter (mm)	Height (mm)	Empty weight (kg)
10	300	10	320	569	16.2
20	300	20	320	662	20.7

Pressure (bar)	Cylinder size (litre)	Pureshield Argon* (m ³)	Argoshield Light** (m ³)	Argoshield Universal† (m ³)	Nitrogen (m ³)	Oxygen (m ³)	Helium (m ³)
300	10	3.03	3.1*	3.21**	2.61	3.05	2.62
300	20	6.06	6.2*	6.42**	5.22	6.10	5.24

* Conforms with ISO14175-11-Ar

** 93% argon + 5% CO₂ + 2% oxygen mixture. Conforms with ISO14175-M24-ArCO-512.

† 86% argon + 12% CO₂ + 2% oxygen mixture. Conforms with ISO14175-M24-ArCo-1212.

The cylinder label gives the full weight, see this for exact information.

Digital Display

The Digital Intelligence Unit (DIU) display differs, depending on the gas supplied. It provides information on how much gas is left in the cylinder. When gas levels get below 25% and 10%, an alarm and flashing light indicate this.

Operation

To start push the button on the DIU to initiate the display.



After 3 seconds the start up screen will change to one of the many versions, depending on the type of gas the cylinder contains.

The DIU only remains active for 30 seconds before shutting down if no further operations have been carried out.

Start up screen for the nitrogen (N₂) GENIE® cylinder



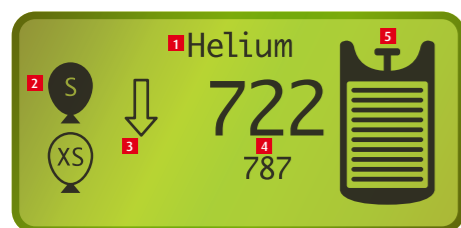
- 1** Gas type
- 2** Percentage of contents left
- 3** Cylinder pressure when full – this value doesn't change during use
- 4** Number of black bars indicates the contents remaining

Start up screen for the shielding gas GENIE®



- 1 Gas type
- 2 Welding flow rate
- 3 Flow rate units
- 4 Arrow shows direction of next flow rate
- 5 Value is the number of minutes of welding time left
- 6 Number of black bars indicates the contents remaining

Start up screen for helium (He)/balloon gas GENIE® cylinder



- 1 Gas type
- 2 Balloon size chosen shows in black
- 3 Arrow shows direction of next balloon size
- 4 The approximate number of balloons that can be filled with the remaining gas at the selected balloon size
- 5 Number of black bars indicates the contents remaining

Extra small balloons (XS) are between 80 and 179mm (3 to 7") diameter.

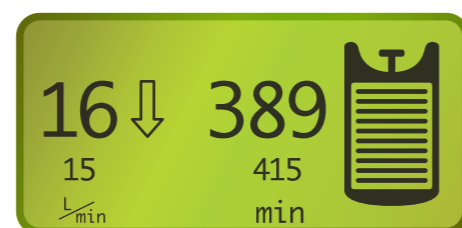
Small balloons (S) are between 180 and 240mm (7.1 to 9.5") diameter.

Medium balloons (M) are between 250 and 350mm (10 to 14") diameter.

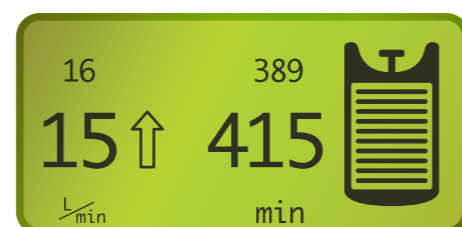
Large balloons (L) are between 380 and 480mm (15 to 18.5") diameter.

Extra large balloons (XL) are between 500 and 700mm (19 to 27.5") diameter.

If you have a helium/balloon gas or shielding gas GENIE® cylinder, a balloon size or gas flow rate will have been pre-selected. To change this, select the direction of the arrow as needed by pressing and holding the button down (increase = ↑ and decrease = ↓). Then press the button to select the required size of balloon or welding flow rate.



Shielding gas screen showing welding time left at 16 l/min. Arrow denotes if button is pressed next value will be 15 l/min.



Shielding gas screen showing welding time left at 15 l/min. Arrow denotes if button is pressed next value will be 16 l/min.

Please note: The readouts for the number of balloons that can be filled or the welding time remaining are for indication purposes only and should not be taken as absolute value or guarantee. Changing the value on the display does not alter the actual flow rate from the unit.

Alarms

There are two audio and visual alarms on the DIU:

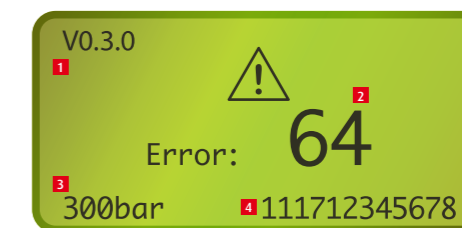
- At 25% full, the alarm sounds and warning LED flashes twice for 0.2 seconds followed by a 1 second gap then twice again. The bars on the cylinder graphic also flash
- At 10% full, the alarm sounds and warning LED flashes twice for 0.5 seconds with a 0.5 second gap. The bar on the cylinder graphic also flash
- At empty the alarm sounds and warning LED flashes twice cylinder symbol also flashes

Please note: These alarms only occur the first time the GENIE® cylinder is turned on after an alarm condition is met.

Error screen

Should a problem occur with the DIU an error screen will appear. The GENIE® cylinder is still safe to use but no information about the contents will be available.

Example of an error screen



- 1 Version number
- 2 Error code
- 3 Cylinder pressure when full
- 4 Serial number

DIU has no user serviceable components and under no circumstances should any attempt be made to open or interfere with the DIU unit.

Accessories

Use only approved GENIE® accessories, as non-approved items may damage the GENIE® cylinder and you may be charged a fee to repair the cylinder.

Each accessory comes with its own instructions and warranty. Please ensure that you read these thoroughly before using the product.

Using your GENIE®

Before using your GENIE® cylinder, you will need to attach a regulator, or in the case of helium used as a balloon gas, a balloon inflator. The regulators and inflators come with their own instructions.

Regulators

Safety is priority for BOC. Therefore, the GENIE® cylinder handles have been specifically designed to protect the valve and regulator.

Only GENIE® gas and pressure specific regulators should be used to guarantee performance and genuine products should be used at all times.

GENIE® cylinder regulator options

Gas type	Max inlet pressure (bar)	Model	Genie® regulator description	Outlet connection	Delivery range
Argon, Argon Mix	300	GAr-300-30-3	Flow, 1 Gauge, Shielding Gas	G 3/8	0 - 30 lpm
Nitrogen	300	GN2HP-300-30-7	High Pressure, 1 Gauge, Nitrogen	7/16"	0-50 bar
Nitrogen	300	GN2-300-30-3	Pressure, 1 Gauge, Nitrogen	G 3/8	0-10 bar
Oxygen	300	G02-300-2-3	Pressure, 1 Gauge, Oxygen	G 3/8	0-10 bar

Fitting regulators

Regulators are designed for use with specific gases or groups of gases and must only be fitted to their respective cylinders. Detailed instructions on how to fit and check your regulator can be found on www.BOCOnline.co.uk/genie

Key instructions

1. Ensure the regulator is in good condition before fitting to the cylinder. Gauges should be intact with threads and seats undamaged.
2. Clean the cylinder valve and regulator threads using a dry, clean piece of lint free cloth to remove dirt, moisture, oil and grease particles.



Attaching the wheel unit

The GENIE® wheel unit is suitable for any size of GENIE® cylinder.

1. Place the wheel unit on a flat surface.
2. Ensure the two (2) clips 'A' are in the open position with their upper faces away from the side of the wheel unit.
3. On the inside of the wheel unit you will see three locating pillars, two at the front and one over the axle. On the underside of the GENIE® cylinder you will see three indents which you need to align with the pillars. Note: The DIU this will always face away from the axle.
4. Lift the GENIE® cylinder and place it into the wheel unit.
5. Push the claw of the clip into the opening on the base of the GENIE® cylinder and push down to lock in position.
6. To release the wheel unit from the GENIE® cylinder simply open the clips and lift the cylinder from the wheel unit.

Daily cylinder use


GENIE® cylinders are designed for either continuous or intermittent use. At the end of any period of use, or when you are leaving the cylinder unattended, close the cylinder valve by turning the wheel in a CLOCKWISE direction.


Children and GENIE® cylinder

Children should never be allowed to use or operate a GENIE® cylinder.

3. Carefully locate regulator seats into the valve, place the nut over the threads ensuring that you do not cross thread, and tighten with the appropriate spanner.
4. DO NOT OVERTIGHTEN, as this will damage your regulator.
5. Turn the regulator knob counter clockwise until it stops.
6. Slowly open the cylinder valve.
7. Turn the regulator knob clockwise to set normal delivery pressure or flow.

 NEVER dismantle or modify a regulator to make it fit.

 NEVER use adaptors between the cylinder valve and the regulator to make it fit.

 NEVER use oil or lubricants on the cylinder valve or regulator threads. Oil or lubricants can trap dirt and make the regulator difficult to fit or leak, they can also be carried into the regulator and cause a malfunction. If the cylinder contains oxygen then any oil or lubricants will ignite in the presence of oxygen.

Only enough force should be used to provide a leak tight seal between the cylinder valve and the regulator. If excessive force is used the cylinder may move within its outer jacket. While this is not a safety hazard, should this occur it is an indication that excessive force has been used in tightening the regulator to the cylinder.

Removing regulators

1. Close the cylinder valve.
2. Release all gas from the regulator and system until the gauge(s) read zero.
3. Turn the regulator knob counter clockwise until it stops.
4. Loosen the regulator using the appropriate spanner and then remove the regulator.

Store the regulator in its box, in a clean, dry environment.


Maintenance and care


The GENIE® cylinder has been designed to require no maintenance from the customer at all.

While the HDPE cylinder jacket has been made as strong and durable as possible, it can still be damaged by misuse.

Should you wish to clean the GENIE® cylinder, use a mild detergent such as washing up liquid diluted with warm water. Use a clean cloth to sponge the GENIE® cylinder clean.

 NEVER immerse a GENIE® cylinder in water.

 NEVER use a power washer on a GENIE® cylinder.

 NEVER use chemicals or solvents on a GENIE® cylinder.

Damage

Check the GENIE® cylinder for damage before leaving your collection point. When returning the GENIE® cylinder, the unit will be checked for damage. BOC will have a set of acceptable and unacceptable damage standards to which your item will be assessed.

Should the GENIE® cylinder be damaged, you will be required to reimburse BOC for the damage you have caused.

Troubleshooting

The Digital Intelligence Unit will not display?
Press the button once, firmly in the centre.

If the unit fails to display, then return the GENIE® cylinder to where you bought it from. The GENIE® cylinder will be safe to use but no contents information will be available.

FAQ's

Q: Does a normal regulator fit within the handle area?

No, existing regulators are too big to fit within the space between the handles of the GENIE® cylinder. GENIE® regulators are compact versions of the larger regulators, specifically designed to meet the requirements of the GENIE® cylinder.

The small size of the GENIE® regulator has the advantage of being within the handle area, which means the regulator should not get damaged, should the cylinder be pushed over.

Q: Do the GENIE® regulators fit on the current steel cylinders?

Yes, although they have been specifically designed for use with a GENIE® cylinder, they will fit on a standard steel cylinder if that cylinder is fitted with the same valve as the GENIE® cylinder.

Q: Are the wheels only for the larger cylinder?

No, the wheels can be fitted to any size of the GENIE® cylinder.

Q: Why is the cylinder more stable?

The diameter of 320mm gives the cylinder more stability, the cylinder is less likely to topple over.

Q: Where can I buy GENIE®?

Contact BOC on 0800 111 333.

Q: Where can I buy GENIE® accessories?

Contact BOC on 0800 111 333.

Q: Who should I contact to report a damaged/faulty cylinder?

Contact BOC on 0800 111 333.

Customer service/Information and Support

To explore the full range of GENIE® gas cylinders, regulators and accessories, please visit www.BOCOnline.co.uk/genie. For orders and other queries please call our Customer Helpline on 0800 111 333.

Contact details

BOC
Customer Service Centre
Priestley Road, Worsley
Manchester M28 2UT, United Kingdom

Tel 0800 111 333
Fax 0800 111 555

BOC – turning ideas into solutions

BOC is a member of The Linde Group, the leading global gases and engineering company. BOC is the UK's largest provider of industrial, specialist and medical gases, as well as related products and services. As a leader in the application of technology, we are constantly looking for new ways to provide our customers with high quality products and innovative solutions.

At BOC we help our customers to create added value, clearly discernible competitive advantage and hence greater profitability. To achieve this we have a comprehensive range of products, services and technical support, which can be customised to meet the individual requirements of our clients.

To keep ahead of the competition in today's market, you need a partner for whom quality, service, process and productivity optimisation are an integral part of customer support. We are there for you and with you, helping to build your success.

BOC's reputation has been forged through partnerships – with customers, with relevant regulatory authorities and with key suppliers. In this way, we deliver comprehensive and consistent benefits to you.

BOC – world-leading knowledge and resources adapted to local requirements.

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