



- ① Connection (DIN 477)
- ② Handweel for pressure adjustment
- ③ Hoseline connection (DIN EN 559)
- ④ Safety / cylinder pressure gauge (DIN EN 562)
- ⑤ Safety / working pressure gauge (DIN EN 562)
- ⑥ Shutoff valve (optional)

Caution:

Observe all applicable accident prevention regulations governing »Welding, cutting and related working procedures« (in Germany, VBG 15).

Preparations and operating procedure

A number of operations are required to connect the pressure reducer and prepare it for use.

- Unscrew and remove the cap from the gas cylinder.
- Inspect the thread on the gas cylinder valve for damage
- Screw-mount the pressure reducer to the closed valve on the gas cylinder by means of the union nut (1), tightening securely with a wrench.
- Acetylene pressure reducer with hoop-type connector (7), (8).
- Check to ensure that the shutoff valve (6) is securely closed.
- Unscrew the handweel (2) which is used for pressure adjustment as far as it will go. so as to relieve tension on the pressure spring.
- Connect the hoseline to the union (3).
- Slowly open the gas cylinder valve. The pressure in the cylinder will now be indicated by the safety / cylinder pressure gauge (4).
- Set the working pressure by turning the handweel (2) clockwise until the desired pressure is indicated by the safety / working pressure gauge (5).
- As for as argon regulators are concerned, set the Liter.
- Slowly open the shutoff valve, allowing gas to flow into the connected hoseline.
- With the free flow of gas, a slight pressure drop may occur; if necessary, readjust with the handweel (2).
- On finishing work, close the cylinder valve, fully relieve the pressure in the pressure reducer by turning the Handweel (2) anticlockwise, then close the shutoff valve (6).
- Secure gas cylinders against falling over and protect them from and excessive heat.
- All the specified pressures refer to gauge pressures in bar.
- Repairs may only be carried out by the manufacturer or authorized repair shops. Use only genuine ewo replacement parts.

Troubleshooting

<u>Effect</u>	<u>Cause</u>	<u>Remedy</u>
Drain valve blows up	→ Valve pin pollutes or damaged	→ Repair by manufacturer or authorized
Poor or constantly fluctuating flow through the pressure reducer.	→ Contamination in valve due to loosening of the threaded nipple. This in turn loosens the sintered filter element in the connecting socket which then vibrates, allowing small particles to penetrate the valve.	→ Repair by manufacturer or authorized repair shop.
Difficulty in securing the union nut to the gas cylinder valve	→ Thread on cylinder valve or pressure reducer union nut damaged.	→ Possible remedies: A) Replace cylinder B) Return pressure reducer to manufacturer or authorized repair shop for repair.
Safety / cylinder or working pressure gauge failure, needle passes beyond	→ Spring in pressure gauge broken.	→ Replace pressure gauge. Caution: When unscrewing and removing a pressure gauge, make sure that it is facing downwards, otherwise brass swarf could fall into the pressure reducer and give rise to functional

Important technical information

- The purpose of pressure reducers is to reduce the high pressure of the compressed gas in a cylinder from e.g. 200 bar (300) admission pressure P1 to a much lower output pressure (gauge) P2.
- A pressure reducer is a device designed to reduce a generally modified admission pressure to an output pressure which is as near constant as possible, even if the flow rate varies.
- In the case of pressure reducers for acetylene cylinders, it must not be possible to set a higher output pressure than 1,5 bar (gauge) with the gas outlet closed. The pressure which develops if gas withdrawal is interrupted, does not count as output pressure in the sense of these remarks.
- The nominal flow rate is that given in the table below for the gas flow rate specified for types of equipment used.

Gas type Oxygen or other compressed gases P1 = 200 bar	Category	Maximum output pressure P2 bar	Nominal gas flow rate in normal condition m ³ /h
	K 3	10	30
	4	20	60
Acetylene P1 = 25 bar	2	1,5	5
Output pressure gauges with other indicating ragers are permitted, provided they comply with the requirements of DIN EN 562.			

Identifying colours

Gastype	Ident.letter
Acetylene	A
Oxygen	O
CO ₂ ; nitrogen, inert gas	N
Propan	P
Compressed air	D
Hydrogen	H

- In the Federal Republic of Germany, oxygen and acetylene cylinder pressure reducers require type approval. The approval marking and the manufacturer's mark must be shown in embossed or indented form on the housing.
- In the case of acetylene pressure reducers, components coming into contact with acetylene may not be made of copper or copper alloys containing more than 70 % copper, or silver alloys. The materials used for components coming into contact with acetylene must be adequately resistant to acetone.
- Components coming into contact with oxygen in oxygen pressure reducers must be free of grease, glycerine, oil and any other lubricant. Leather must not be used in the high pressure part of oxygen pressure reducers. Oxygen pressure reducers must be designed and constructed in such a way as to prevent them from catching fire.
- The connection between the pressure reducer and the cylinder valve must be secure and absolutely gas tight. It must be configured in accordance with the gas type corresponding to DIN 477. Hand-tightened connections are permissible, provided they have been found suitable by a recognized test centre for use in conjunction with the pressure reducers concerned. Cylinder pressure reducers for oxygen, acetylene and propane/butane must be provided with an output pressure gauge. Pressure reducers for the other gases must be provided with an output pressure gauge or volume indicator. The configurations of the pressure gauges and pressure gauge unions must comply with DIN EN 562.
- The adjustment range of the handwheel of any cylinder pressure reducer must be restricted in such a way that the adjusting spring cannot be forced to a height where it is completely compressed. The handwheel must also be secured to prevent it from being unscrewed and removed completely. In addition, in the case of acetylene cylinder pressure reducers, the depth to which the adjusting screw can be tightened must be restricted in such a way that the output pressure cannot exceed 1,5 bar (gauge).
- Depending on the type of gas (combustible or non-combustible), the hose connections specified in DIN EN 559 (which can be released) are to be used.
- For all combustible gases, both the connection to the gas cylinder complying with DIN 477 and the gas outlet connection must be provided with a left-hand thread complying with DIN EN 559 (notched marking in the hexagon nut).

Applies to the following articles:

Line pressure regulator 200 bar

Article No.

Type No.

101268 to 101270

639.11 to 639.13