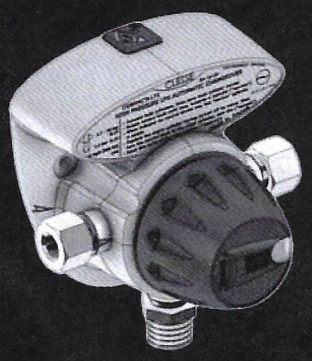
CLESSE

English—AS/NZ

COMPACTR175– High Pressure Automatic Change-over Telemetry ready



91030208 - Ind.B

This model accepts CompacTi telemetry - Sold separately

Application

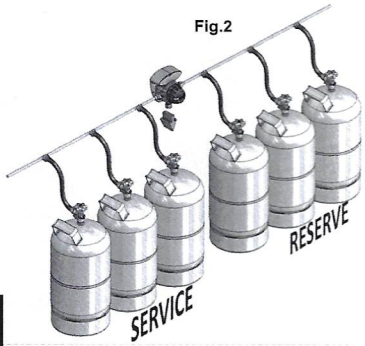
The COMPACTR175 range of Automatic Changeover (ACO) pressure is a first stage pressure reducer specifically designed for propane or LPG mixture which may be partially or totally of bio-renewable origin. Providing the intermediate high pressure requirements which must be used with a second stage regulator capable of accepting the outlet pressure delivered prior to use with appliances and before entering premises.

Fig.1



The device is designed to be connected directly upstream of final stage regulator/s and connected to 2 cylinders (Fig.1) or 2 groups of cylinders (multi-cylinder system) (Fig.2) to ensure a continued service to appliances even if the "SERVICE" bank of cylinders becomes empty or an exchange process is progressing. It can be used, for example, to power domestic and commercial premises either with a second stage regulator fitted or directly in special circumstances. Additionally the high pressure outlet of device allows for a remote location, using intermediate pressure pipework where it is impractical to run at low pressure.

Fig.2



HOW AN AUTOCHANGEOVER WORKS - OPERATION AND CONSTRUCTION

The automatic change-over provides continuous gas delivery by preferentially using one group of cylinders « SERVICE », until insufficient gas pressure remains to satisfy the consumer appliance demand. Then switching automatically to the other group of cylinders « RESERVE » to ensuring continuous supply of gas exists without interruption inconvenience to the consumer and the cylinders have been effectively emptied.

Note : in the further text, in order to simplify the reading, we refer only to 2 cylinders installations. In case of an installation with 2 groups of cylinders, the word "cylinder" will have to be understood as "group of cylinders".

The automatic change-over allows the off-take of gas firstly from the « SERVICE » cylinder (Fig.10), then off-takes gas from the « RESERVE » cylinder only when the « SERVICE » one is not able to supply the requested flow rate (Fig.10). An indicator (**B**) built in the hand wheel (**C**), informs on the functioning state. When it shows red, it indicates that gas is currently being supplied totally or partially from the « RESERVE » cylinder.

Warnings

- This automatic change-over must be used only with vapour phase LPG and be positioned above the gas cylinders as indicated in Fig.1, Fig.2, Fig.8 and Fig.10. It must not be used with cylinders supplying liquid phase LPG.
- The number and type of cylinders, the type of gas used, the location of the installation, the pressures and the type of safety devices may be subject to local rules and safety restrictions. Please refer to them.
- When, no cylinder is connected to one of the inlet connections, the automatic change-over still provides the regulating function. For safety reasons, the non-used inlet shall be sealed with an appropriate cap (Clesse P450200).
- This automatic change-over is not intended for gas installations in touring caravans and motor caravans.

Design and construction

Designed, assembled and tested in accordance with the European standard EN 16129. The main components of the automatic change-over are made of the following materials:

- body and cover: zinc alloy according to EN 1774,
- diaphragm and sealing: rubber conform to EN 549,
- wall fixing bracket : polyamide 6.6,
- protecting casing : ABS,
- rotating hand wheel : polyamide 6,
- connectors: either brass according to EN 12164 or zinc alloy according to EN 1774.

Both inlets connections are equipped with:

- non-return valves which prevent any leakage during cylinder changing,
- filters, which prevent the ingress of any debris.

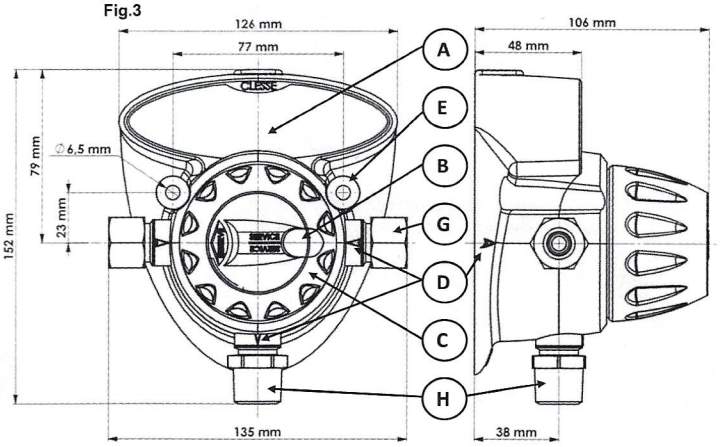
The dimensions are shown on Fig.3.

Note that the dimensions between the connections are approximated as they depend on the type of connection.

Manufacturers details

CLESSE CompacTi

Fig.3



Automatic change-over functioning and factors affecting performance

Type of gas in the cylinders

LPG (liquefied petroleum gas) contained in the cylinders is composed mainly with butane and propane. It contains also, in minor quantity, other hydrocarbons. Depending on the country and the gas distributors, 3 types of gas are generally marketed:

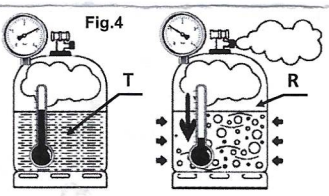
- commercial butane, which contains approximately 80% of butane,
- commercial propane, which contains approximately 80% propane,
- LPG mix, which contains an undefined mixture of butane and propane.

Vaporisation in the cylinder (Fig.4)

In a cylinder (Fig.4), LPG is liquid at the bottom (**T**) and vapour under pressure at the top (**R**). When there is an off-take of gas, the gas volume (**R**) is regenerated by boiling of the liquid part. This vaporisation cools down the liquid. The liquid is then heated up by the cylinder wall in contact with atmosphere.

Note that hydrocarbon components delivering high pressure (propane) vaporise faster than those delivering low pressure (butane).

Fig.4



Pressure in cylinder (Fig.5)

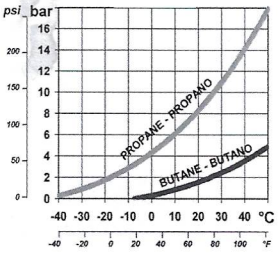
The pressure in the cylinder depends only on the composition and temperature of LPG at any instant.

The graph (Fig.5) shows the pressure gauge in the cylinder for butane and propane.

During off-take, the temperature decreases, then the pressure decreases.

When only a small amount of liquid remains in the cylinder, the pressure is lower than when the cylinder was full. This is due to the preferential vaporisation of hydrocarbons delivering higher pressure.

Fig.5



Typical low rate capacity of cylinders (Fig.6)

The maximum flow rate depends on:

- the type of gas,
- the level in the cylinder,
- the ambient temperature,
- the using time,
- the dimension and material of the cylinder,
- the number of cylinder.

Fig.6

	Cylinder size or nearest kg	Offtake rate kg/h	Offtake rate kW (kilowatt)	Offtake rate MJ (Megajoules)	Offtake BTU (British Thermal Units)
Butane	15	0.70	9.70	35	33,250
Propane	13	1.05	14.60	52	50,000
	19	1.32	18.35	66	62,750
	47	2.37	32.94	118	112,500

Table (Fig.6) shows typical flow rate capacity for one 10-15 kg load steel cylinder, half full, depending on type of gas (butane or propane), using time and temperature.

Your regional distributor

Automatic change-over function

The indicator (**B**) embossed in the hand wheel indicates the « SERVICE » cylinder. The other cylinder is the « RESERVE » one.

When the pressure in the « SERVICE » cylinder is sufficient, the entire flow rate is delivered by the « SERVICE » cylinder only.

When the pressure becomes insufficient, the flow rate is delivered:

- from both « SERVICE » and « RESERVE » cylinders (at the very end of the « SERVICE » cylinder contents),
- in totality from the « RESERVE » cylinder (when the « SERVICE » cylinder is empty).

In any condition, if the « SERVICE » and « RESERVE » cylinders are of identical type, the « SERVICE » cylinder will empty before the « RESERVE » one.

The indicator (B) shows red when the « SERVICE » cylinder does not deliver the entire flow, and indicates the cylinder requires replacement. The gas supply when switching from « SERVICE » to « RESERVE » bank is automatic. The hand wheel (**C**) should only be rotated by the person exchanging the cylinder.

Telemetry function

COMPACTR175 is also equipped for future capability to install (optional) Clesse electronic optimization called CompacTi. This electronic backplate system provides additional enhancements for remote or local app accessibility to the ACO with connectivity such as Bluetooth or IoT and software and App solutions to manage cylinder exchange. Additionally built-in electronic pressure and temperature sensors further enhance cylinder emptying capability.

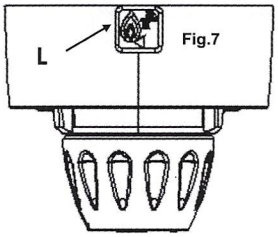


Fig.7

If this feature is not used at installation ensure the plastic Ti cover (**L**) (Fig.7) is fixed in place before mounting the automatic change-over.

Marking

In conformity with EN 16129 requirements the main characteristics are marked on the automatic change-over (**A**) using a laser process providing a high resistance.

Additionally, arrows (**D**) are engraved in casing to show the direction of the inlet and outlet flow of gas.

Automatic change-over marking *(refer to product laser marking)*	0175TR..
Manufacturer mane	**CLESSE**
Referring standard	**EN 16129**
Product commercial name	**COMPACTR175**
Type of gas	PROPANE and LPG mixtures
Flow capacity	6, 8, 10 or 12.5 kg/h 300, 400, 500 or 625 MJ/h
Inlet pressure range (Pu)	See Eg.1.7 - 16 bar
Outlet set pressure (Pd)	See Eg. 1.2 bar
Inlet connection (**G**)	NPT or Inverted flare *(depending on model)* See G.xx Eg. G.18 - Female NPT 1/4''
Outlet connection (**H**)	BSPT (Rc) or NPT *(depending on model)* See H.xx Eg. H.19 - Male Rc 1/2"
Manufacturing date	ww/aa (week / year)
Other marking	Could include distributors name and or local Standards designation
Operating temperature	-20°C to +50°C

Warning before installation

FAILURE TO FOLLOW THESE INSTRUCTIONS CONTAINED IN THIS DOCUMENT WILL RESULT IN THE EXCLUSION OF THE LIABILITY OF THE MANUFACTURER FOR ANY DAMAGE OR LOSSES THAT COULD OCCUR.

Pressurised gases may be dangerous. Failure to follow these instructions or to properly install and maintain this product could result in an explosion or in a fire, that could cause damage property , serious injuries and fatal accident.

Installation, inspection and maintenance must be performed by persons with the necessary competence (certified in certain countries), in relation to the type of gas and its required usage.

The installation must be performed, inspected, used and maintained in conformity with the laws in force in the country of installation. If in doubt, contact qualified service or installation personnel/engineer.

Check that the automatic change-over has not been damaged or contaminated during storage and transport. Make sure that cylinder and installation valves are closed and that no sources of ignition are nearby. Verify that the inlet connection (**G**) and the outlet connection (**H**) of the automatic change-over are compatible with those of the installation. If present, thoroughly clean (blow through) upstream tubing. If required, check the suitability, conservation status and validity of seals and connecting hoses. If gaskets must be used in the installation (connector with a nut), check the presence of the gasket and its integrity. Replace it if necessary.

The automatic change-over must be connected directly to a cylinder, or a multi cylinder system. In case of use of a second stage regulator downstream the automatic change-over, make sure the regulator setting is compatible with the output pressure indicated on this automatic change-over.

To achieve satisfactory operation in all conditions of use you must carefully assess the capacity of vaporisation of cylinders used and the losses of pressure in pipes, fittings, valves and other components.

protected against any other agent (dust, sand, mortar, grease, oil, ...) that could enter the product or be corrosive.

The position shall be higher than the cylinder valves with the outlet connection valve orientated vertically downward (Fig.8).

ALWAYS ORIENTATE THE OUTLET CONNECTION DOWNWARD


Fig.8

All upstream tubes and pigtails shall have a steady fall back to the cylinders and their length shall not be excessively long (Fig.1, Fig.2 and Fig.8). The automatic change-over shall be fixed on a wall, or suitable vertical surface, using 2 screw holes (**E**). Make sure that the types of connection on the hoses or tubes to be connected to inlets (**G**) and outlet (**H**) are compatible with those of the automatic change-over. Attach these connections following the gas passage direction, indicated by the arrows (**D**) and test for gas leakage as per local regulations.



Important: the automatic change-over "Telemetry ready" includes a magnetic function. For an optimal functionality of telemetry backplate, if the automatic change-over is fixed on a metallic surface, it is recommended to interface a plastic base (10 mm thick at least) between the metallic surface and the automatic change-over.



Commissioning

After installation is completed, replacement of a cylinder, closing the supplying valve then it is necessary to commission the gas installation:

1) open all upstream valves (« SERVICE » and « RESERVE »), one by one. It's important to avoid any quick opening that could generate an excessive pressure on the inlet of the automatic change-over.

2) slowly open the downstream valves, if any.

The indicator doesn't show red colour anymore. Check joints with a suitable leak detection fluid.

Cylinder replacement

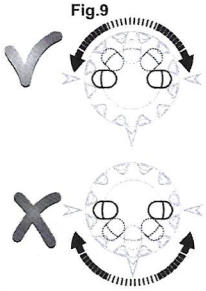
The « SERVICE » cylinder is empty when the indicator is red in a stable no-flow or sustained low-flow condition.

It is recommended to check this condition after a stabilisation time of a few hours.

To replace an empty cylinder (Fig.10) :

- close the empty « SERVICE » cylinder valve,
- rotate the hand wheel (**C**) half turn to the previous « RESERVE » cylinder a click stop can normally be felt (respect the manual hand wheel direction of rotation as indicated in Fig.9). Now this becomes « SERVICE » cylinder and the red colour indicator disappears,
- replace the empty cylinder with a full one and tighten the connections,
- open its valve. This cylinder is now the new « RESERVE » cylinder.

On completion always re-check joints with a suitable Leak Detection Fluid.


Fig.9

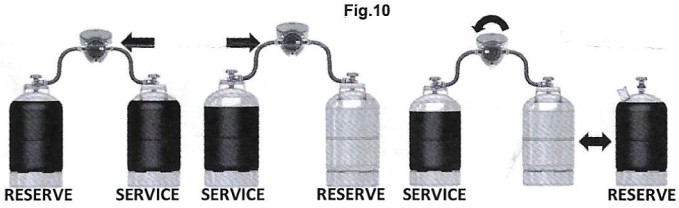


Fig.10

Maintenance

Due to normal wear or damage that may occur from external sources, it is recommended the operation of the automatic change-over and gas installation shall be inspected periodically. In normal use conditions and in order to guarantee the correct operation of the installation, we recommend replacing the automatic change-over within 10 years of use. In severe service conditions, the inspections shall be more frequent and the automatic change-over replaced sooner.

Locating the unique product Serial No. and date of manufacture

The product is marked with a unique Serial Number (Fig.11). Please record this below for your service records together date of first commissioning.

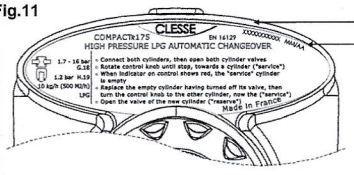


Fig.11 — Product unique serial number — Date of manufacture

Date of manufacture	MM/YY .....
Unique 11 digits serial n°	.....
Date of first commissioning	DD/MM/YY .....

Safety instructions

Periodically and in any case after first commissioning, or after a prolonged disuse, after an intervention on the gas installation or in suspicion of possible gas leaks always check gas pressure tightness of the system with an appropriate methods such a leak detector fluid (eg. DETECTO CLESSE).

NEVER USE FLAME FOR LEAK TEST

In the case of smell of gas and/or gas leaks, shut off the valves and ventilate the rooms (open doors and windows) before working on the potential causes of the gas leak. If the leak persists, turn off gas cylinder valve, disconnecting them, taking them to outdoors (only if possible to do so safely) and call qualified service personnel.

In case of use, do not lay the gas cylinder and do not move the cylinder with the system in use. **NSTRUCTIONS TO BE KEPT BY THE USER**

The content of this instruction sheet is presented solely as information, as despite efforts to ensure its correctness, it should not be interpreted as an explicit or implicit cover guarantee for the products or services described or for their use or applicability. We reserve the right to change or improve product design or specifications at any moment and without notice.

91030210 - Ind.A

CLESSE

English - AS/NZ

BP2284 Low pressure regulator
Integrated OPSO / UPSO / EFV
Excess Flow Valve
meeting requirements of AS/NZS5601.1 Clause 5.2.11

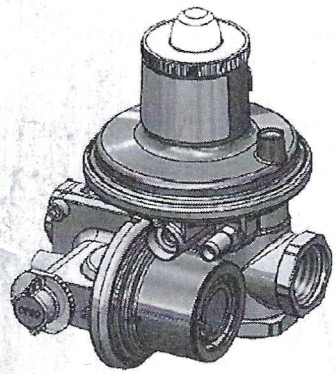


Fig.1

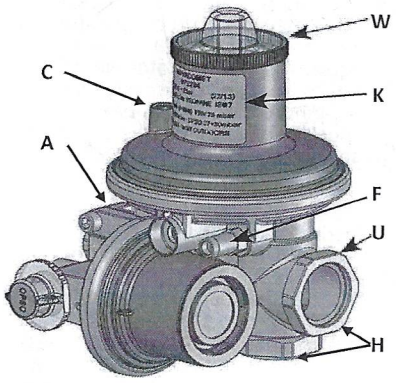


Fig.2

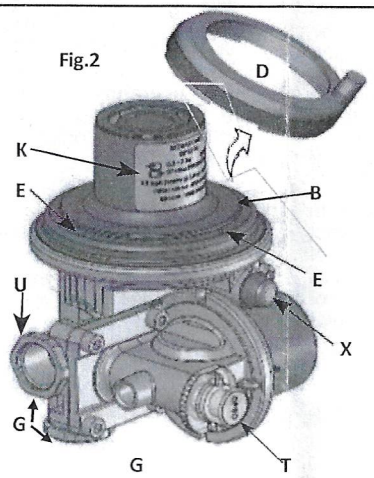




Fig.3

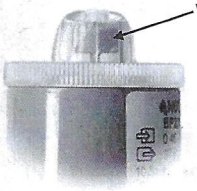
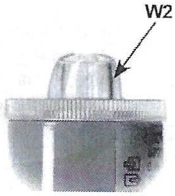
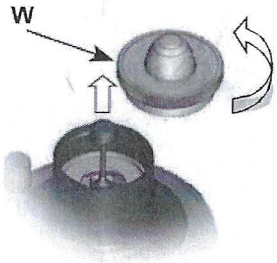


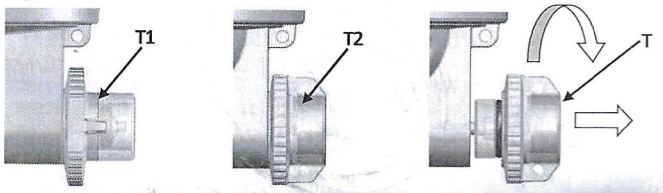
Fig.4





Non-contractual images

Fig.5



	Designation		Designation
A	Body regulator	H	Gas outlet connections
B	Cover regulator	J	Security seal
C	Connectable vent	K	Label
D	GIRO protection	T	OPSO indicator and reset
E	Vents holes	U	Spanner profile
F	Pressure testing point plug	W	UPSO/EFV indicator and reset
G	Gas inlet connections		

Fig.6

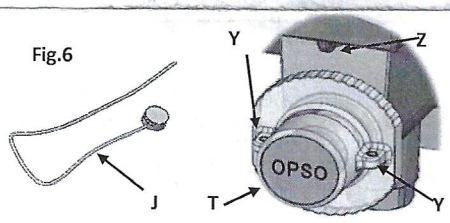
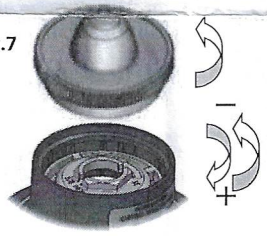


Fig.7



Application

The BP2284 low pressure regulator with an over-pressure shut off safety device (OPSO) is designed to be used primarily with LPG in vapour service (butane, propane or their mixture) which may be partially or totally of bio-renewable origin.

DO NOT USE WITH LPG IN THE LIQUID PHASE.

Can also be used with all other non -aggressive gases (methane, air, nitrogen, etc...).

To ensure optimum operation throughout its duration, the gas used must not contain aggressive substances (e.g. phthalates or plasticisers that can be extracted from the hoses from the LPG in the liquid phase).

The BP2284 model is commonly used for pressure reduction in natural gas or LPG and installed upstream of the meter. LPG installations (non-network) is commonly used as a second stage regulator (downstream of a first stage regulator).

Operating temperature -20° C/+60° C.

This device has in addition enhanced safety features integrated within the device to and under pressure system providing additional excess flow protection in case of events such as pipe or hose fracture, displacement, fire or earthquake. Therefore no additional devices are required to meet national requirements AS/NZS5601.1 clause 5.2.11 as this provides primary excess flow protection requirements. For optimal protection in excess flow conditions , the inlet pressure supply should not exceed 150 kPa (1.5 bar).

Design and construction

Designed, assembled and tested in accordance with the European standard EN 16129. The main components of the regulator are made of the following materials:

- body and cover: zinc alloy,
- diaphragm and sealing: rubber conform to EN 549.

The cover of the regulator may be proposed in two versions (Fig.1 and Fig.2):

- (**A**) single vent hole (**C**) with a connection for tube,
- (**B**) adjustable vent hole system for models fitted with a ring "GIRO" (**E/D**).

The regulator has two inlets (**G**) caps fixed on the inlet and outlet connections of BP2284 model may be unscrewed, removed and re-positioned as needed to organise the requested configuration. Depending on the model, the regulator can be equipped with:

- an outlet pressure adjustment system (servicing that must be carried out only by qualified persons during commissioning) (Fig.7),
- an over-pressure relief valve (PRV) with a limited flow rate,
- an over-pressure shut off safety device (OPSO) (Fig.5),
- an under-pressure shut off also acting as an excess flow safety device (UPSO) (Fig.4),
- a pressure testing point for tube connection (**F**),
- a security seal (**J**),
- a wall fixing bracket (Fig.3).

Marking

In conformity with EN 16129 requirements, the following information is marked on the regulator label (**K**):

- inlet (**G**) and outlet (**H**) connection type,
- inlet pressure range, indicated in kPa,
- outlet adjustable pressure range), indicated in kPa,
- regulator capacity, indicated in kg/h or MJ/h and gas type,
- setting of the over-pressure relief valve PRV, if any, indicated in kPa,
- setting of the over-pressure shut off-safety device OPSO, if any, indicated in kPa,
- setting of the under-pressure shut off safety device UPSO, in kPa,
- referring standard,
- manufacturing date: ww/yy (week/year),
- "VENT OUTDOORS".

Over-pressure relief valve with a limited flow rate (PRV)

Its function is to protect the regulator from untimely intervention of OPSO due to small overpressure (fast pressurization, small impurities on the seat, temperature increase, etc...). The relief valve closes automatically when the overpressure is reduced. When opened, the gas is released through the vent hole (**E/C**) of the regulator.

Over-pressure shut off safety device (OPSO)

Its function is to protect regulator downstream installation and appliances from overpressure that could be as a result of:

- LPG in liquid service that could go through the regulator,
- impurities (dust, ice, ...) on the seat of the regulator,
- excessive thermal expansion,
- excessive shocks on the regulator,
- non regular commissioning.

When one of the previous situation occurs, then the OPSO automatically shuts off the gas flow. The reset is only possible via a manual operation.

Under-Pressure/Excess Flow Shut Off safety device (UPSO)

Its function is to protect the downstream appliances from under -pressure that could be generated by:

- gas exhaustion in cylinders / tanks or insufficient vaporisation capacity,
- gas supply interruption in the upstream pipe or supply valve closing,
- gas supply pipe or upstream regulator filter obstruction (if any),
- excessive gas consumption.

When one of the previous situation occurs, then the UPSO automatically shuts off the gas flow. The reset is only possible via a manual operation.

Similarly when the flow of gas downstream of the BP2284 exceeds its normal capacity, for example pipework is pulled out, disconnected or fire, the UPSO device will also act as an excess flow safety device, and automatically interrupts the gas flow at 20% to 120% above nominal rated capacity where inlet pressure is 50-150 kPa.

So for example.

Nominal rated capacity of 10 kg/h - 500 MJ/h (printed on the label) then excess flow activates between 600-1100 MJ/h (12 to 22 kg/h).

So, for installation where excess flow protection is required, the maximum inlet pressure to the regulator should not exceed 150 kPa (1.5 bar) and the minimum inlet pressure be above 50 kPa (0.5 bar) to avoid nuisance tripping.

This safety device does not protect against a leak resulting from partial damage to the pipe or faulty connections (incorrect tightening, missing gasket, damaged gasket, etc.). It can only be reset manually.

Warning before installation

FAILURE TO FOLLOW THESE INSTRUCTIONS CONTAINED IN THIS DOCUMENT WILL RESULT IN THE EXCLUSION OF THE LIABILITY OF THE MANUFACTURER FOR ANY DAMAGE OR LOSSES THAT COULD OCCUR.

Pressurised gases can be dangerous. Failure to follow these instructions or to properly install and maintain this product could result in an explosion or in a fire, that could cause damage to property or serious injuries.

performed by persons with the necessary competence (certified in certain countries), in relation to the type of gas and its required usage.

Check that the regulator has not been damaged or contaminated during storage and transport. Make sure that cylinder and installation valves are closed and that no sources of ignition are nearby. Verify that the inlet connection (G) and the outlet connection

(H) of the regulator are compatible with those of the installation. Thoroughly clean (blow through) tubing. If required, check the suitability, conservation status and validity of seals and connecting hoses. If gaskets must be used in the installation (connector with a nut), check the presence of the gasket and its integrity. Replace it if necessary.

To achieve satisfactory operation in all conditions of use you must carefully assess the capacity of vaporisation of cylinders or bulk storage used and the losses of pressure in pipes, fittings, valves and other components.

Installation

The BP2284 should be installed outdoors or inside a vented cabinet (see local regulations) and positioned or protected to prevent direct penetration of running water, submerging , snow, and runoff that could cause water to pool on the atmospheric side of the regulator diaphragms. They must also be protected against any other agent (dust, sand, mortar, grease, oil, ...) that could block vent (**C**) or be corrosive.

ALWAYS POSITION THE VENT DOWNWARD to prevent water entering and/or accumulating in the regulator by humidity condensation.

Connect the inlet (**G**) and outlet (**H**) following the gas passage direction, indicated by the arrows (**P**).

Use a spanner, close to the pipe on the spanner profiles (**U**) to apply the connecting torque.

Buffer volume

In order to ensure correct operation , particularly in the event of sudden variations of flow (a burner with cyclic on/off operation, for example), and good function of excess flow device the downstream piping should be of sufficient volume in relation to the volumic flow rate (Qv), in accordance with the following formula:

V (litres) > Qv ((n)m^3/h) x 2.

If necessary, a buffer or pipework of sufficient volume should be added downstream of the regulator.

Commissioning

On completion of installation, replacement of a cylinder, closing the supplying valve and after every intervention of the OPSO or UPSO safety device, it is necessary to carry out the commissioning operation as follows:

- ensure that there are no ignition sources nearby,
- slowly open all gas cylinder supply valves. It is important to avoid any sudden action surge of high pressure gas that could cause the intervention trip of the OPSO,
- if it triggers check and reset, if necessary (Fig.5), the OPSO device,
- rearm the UPSO device (Fig.4), taking care to ensure that the valves downstream of the regulator are closed together with appliances turned off (an open valve may compromise manual reset),
- slowly open any downstream valves, if necessary, and proceed with the commissioning of gas appliances,
- check the tightness of the connections using an appropriate method (e.g. Leak detection fluid / Pressure drop measurement / ...),
- check operating pressures to ensure appliances function correctly and with correct lock up pressure at no flow.

OPSO indicator

Its function is to indicate the current state of the OPSO valve. Check the transparent reset handgrip (**T**) on the side of the regulator (Fig.5):

- if the green indicator is not visible through the reset handgrip, it means that the OPSO has intervened (Fig.5-T2),
- if the green indicator is visible (Fig.5-T1), it means that the OPSO did not intervene. In case of lack of gas pressure, there may be other causes such as: cylinder/bulk gas tank valve closed, empty cylinder, any excess flow valve of the pipe intervened (including UPSO), obstructions, etc, ...

OPSO reset

- close all gas supply valves (cylinders or others) and all connected appliances,
- cut and remove the security seal (if any). Action only by qualified personnel,
- slowly unscrew the cap reset handgrip (Fig.5) (**T**). This opens the gas flow and allows the balancing of pressure in the device,
- firmly pull the transparent OPSO cap reset (**T**) in order to re-latch the device to complete the resetting,

screw back the cap (**T**).

If necessary replace the security seal (**J**) inserting it in the hole (**Y**) of the cap reset and into the hole (**Z**) of the body (Fig.6).

Repeat the commissioning.

If after resetting the OPSO safety valve it continues to trigger and block the gas flow, DO NOT CONTINUE to USE the regulator, close all gas supplies and contact your installer.

UPSO indicator

Its function is to indicate the current state of the UPSO valve.

Check the transparent cap (**W**) over the knob (Fig.4):

- if the green indicator is not visible through the cap, it means that the UPSO intervened (Fig.4-W2),
- if the green indicator is visible (Fig.4-W1), it means that the UPSO did not intervene and that there could be other reasons for the lack of gas pressure.

UPSO reset

- ensure that ALL downstream valves are closed,
- press the reset button (**X**) for a few seconds (Fig.2) or unscrew the cap (**W**) and pull up the green tie rod located inside the cover (Fig.4),

replace back the cap (**W**).

Note: the UPSO safety valve must be reset after installation and after any OPSO safety valve reset.

Maintenance

Due to normal wear or damage that may occur from external sources, it is recommended the operation of the regulator and gas installation shall be inspected periodically. In normal use conditions and in order to guarantee the correct operation of the installation, we recommend replacing the regulator within 10 years of use. In severe service conditions, the inspections shall be more frequent and the regulator replaced sooner.

Safety instructions

Periodically and in any case after first commissioning, after a prolonged disuse, after an intervention on the gas installation or in suspicion of possible gas leaks always check gas pressure tightness of the installation with an appropriate methods (e.g. Leak detection spray / Pressure drop measurement / etc.).

NEVER USE FLAME FOR LEAK TEST

In the case of smell of gas and/or gas leaks, shut off the valves and ventilate the rooms (open doors and windows) before working on the potential causes of the gas leak. If the leak persists, turn off gas cylinder valve, disconnecting them, taking them to outdoors

(only if possible to do so safely) and call qualified service personnel.

In case of use, do not lay the gas cylinder and do not move the cylinder with the system in use.

INSTRUCTIONS TO BE KEPT BY THE USER

The content of this instruction sheet is presented solely as information, as despite efforts to ensure its correctness, it should not be interpreted as

an explicit or implicit cover guarantee for the products or services described or for their use or applicability.

We reserve the right to change or improve product design or specifications at any moment and without notice.

We do not assume any responsibility for the selection, use or maintenance of any product.

The responsibility for proper selection, use and maintenance remains solely with the purchaser.

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