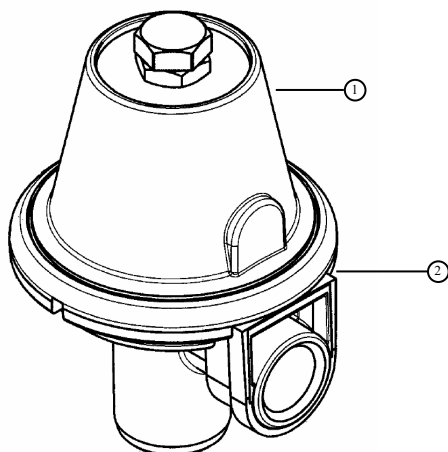




CLESSE PART No.
002700AQ

FIRST STAGE REGULATOR
CLESSE APZ400
CALOR No. 026153

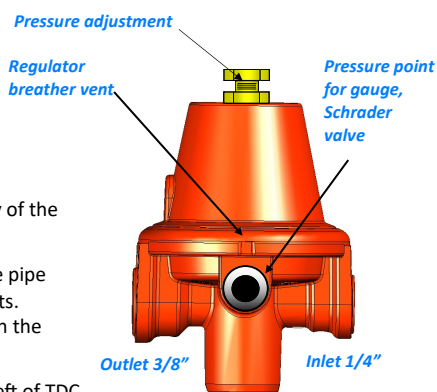
SUPPLIED BY
CLESSE
(UK) LIMITED



THIS REGULATOR IS PRE-SET TO 0.75BAR

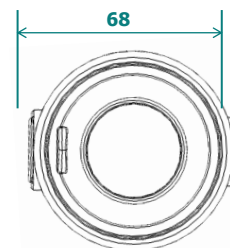
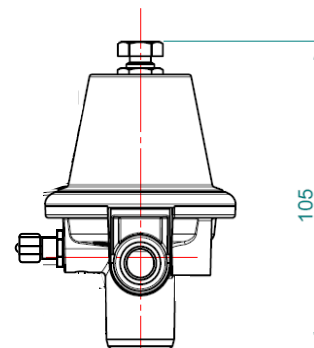
Technical Information	
Regulator	APZ400 OPSO
Capacity kg/h (kW)	40 (553)
Set Pressure	0.75 bar (0.5-2bar)
Inlet Pressure	1.25-16 bar
OPSO Set Pressure	N/A
Design Standard	BS EN16129
Inlet connection	1/4" Rp
Outlet connection	Rc3/8F ISO/7 (BSP)

Item	Qty	Description
1	1	APZ 400 0.75bar pre-set 1st Stage Regulator
2	1	Pressure test point (Schrader type) c/w cap



Assembly Instruction

1. Check the contents of the box, ensuring that the regulator meets the pressure and capacity of the installation and all items are present and not damaged.
2. Assemble any components using PTFE tape to BS EN 751:3 Type G or Clesstite on the male pipe threads. Tighten the regulator or POL without applying undue strain on pre-assembled joints. Assemble to achieve a gas tight seal using a flat jawed spanner on the appropriate points on the regulator.
3. The POL connection should be fitted to the first stage regulator and set at an angle of 45° left of TDC or horizontal dependant on location. This joint should be tightened to approximately 30 Nm.
4. Always position the regulator to ensure drainage of diaphragm cover.
5. Any steel pipe (not supplied) should be threaded, de-burred, and thoroughly cleaned of any loose material before assembly onto the First Stage regulator assembly. Use a flat jawed spanner when screwing the pipe.
6. Install the completed assembly onto the vessel and tighten any securing clamps after the regulator POL connection has been made, ensuring no undue strain on the assembly occurs when doing so, particularly the POL fitting.
7. Perform a gas tightness test to the requirements of UKLPG COP22 or BS 5482:1 – 2005.
8. Use Leak Detection Fluid on the test point and POL connection, wiping off any remaining residues. If not using LPG for test media, purge the assembly fully before leaving site, ensuring all pipework is plugged or capped.
9. Fully commission assembly, checking operating pressures only when the appliances are available and connected. Otherwise, check for soundness and lockup before leaving.
10. This Regulator is not pre-set, and requires adjustment. This must be set using a calibrated pressure gauge at a convenient downstream location. Only set a pressure suitable for downstream regulator and pipework limitations. Once set, use the locking nut prevent tampering. Guidance for correct setting of HP regulators is given overleaf.

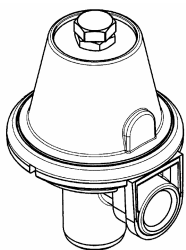


Incorrect setting of first stage pressure particular where vessel pressure is low is a major cause of 2nd stage UPSO activation. Likewise, incorrect setting when the vessel pressure is high can lead to OPSO tripping.

*Operating Conditions	Settings
Pressure Range	0.7-2 bar
Inlet Operating Pressure to achieve max capacity	2.5 - 16bar
Operating temperature	-20°C to 45°C
Lockup Pressure	30% above nominal pressure setting

Nominal Pressure Adjustment

Regulator adjustment is required:



- 1) Fit the adjustment screw and locking nut to regulator, if not already done so.
- 2) Adjust pressure as required, clockwise to increase.
- 3) When correctly set, tighten locking nut to prevent tampering.

ANY ADJUSTMENT CAN ONLY BE PERFORMED BY A SUITABLE QUALIFIED GAS ENGINEER, ENSURING THAT THE PRESSURES SELECTED ARE SUITABLE FOR THE DOWNSTREAM PIPEWORK.

Guide to Correct Nominal Pressure Adjustment

The pressure setting on a 1st stage regulator should be performed ideally at an inlet pressure of 7bar, this being the average condition in the UK. This can be impractical on site, therefore, below we have given some guidance into achieving optimum results from your Clesse APZ400 regulator.

Vessel vapour pressures below 7 bar will result in higher nominal regulator pressure, likewise, higher vessel vapour pressure will result in lower nominal regulator pressures. Therefore, care should be taken when setting HP regulators where vessel vapour pressure is either below 4.5bar or above 9.5 bar.

For accurate setting of nominal pressure

An approximation for every 1bar +/- of the 7bar vessel pressure should be used:

- Above 7bar vessel pressure — reduce nominal setting by 40mbar
- Below 7bar vessel pressure — increase nominal setting by 40mbar

The correction should be used between pressures of 4.5 to 9.5bar and determined at a flow rate between 20% to 80% of regulator capacity.

This will ensure that the regulator maintains the desired nominal pressure setting during most ambient temperature and vessel contents conditions encountered.

Outside 4.5—9.5 bar inlet pressure range, extra care should be taken, it is recommended to re-check setting when vessel pressures have stabilised e.g. next fill

Make sure that in the case of setting HP regulators at low inlet pressure, the 2nd stage regulator maintains its rated capacity sufficient to supply appliances at a reducing pressure when the vessel pressure increases. e.g. when setting at 0.75bar, make sure the 2nd stage regulator is capable to supply the demand with an inlet pressure of 0.6bar.