

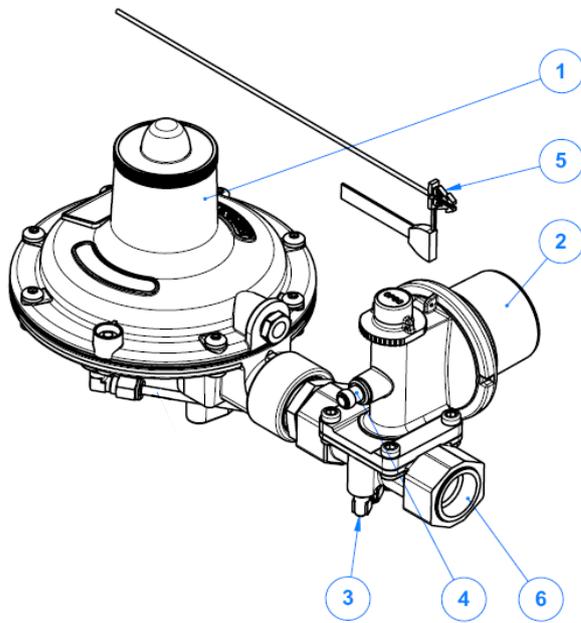


**CLESSE PART No.**  
**006836RB**

**BP2303 U/OPSO**  
**Regulator only**  
**30-40kg/h**

**SUPPLIED BY**  
**CLESSE**  
**(UK) LIMITED**

06/23



**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. This regulator requires 1st Stage pressure reduction to 4 bar or below. Due to liquefaction at low ambient temperatures, Clesse recommend the use of inlet pressure of 2 bar or below and the regulator has been marked to show this.
3. If the regulator is to be fitted as a wall mounted assembly, a wall mounting bracket can be fitted to the regulator (Part No. 004520AA).
4. Install so that the regulator vent position ensures rain water does not enter and allows drainage of any water condensate.
5. Before fitting regulator to wall end PE kit, ensure that the pipe is clear of any debris. Use a 1/2" M/F filter (Part No. 004401) if there is any doubt, as debris will cause regulator failure.
7. Perform a gas tightness test to the requirements of UKLPG COP22 or BS 5482:1 – 2005 to suit the installation. There is a test point on the regulator, only use a small 3.5mm flat bladed screw driver and avoid over tightening when finished.
9. Fully commission assembly, checking operating pressures only when the appliances are available and connected. Otherwise, check for soundness and lockup before leaving. The regulator is pre-set at the factory and does not normally need adjustment. If operating pressure adjustment is required, see overleaf.
10. Use Leak Detection Fluid on the test point and OPSO flange (if fitting the wall bracket), checking for any leakage and wiping off any remaining residues. If not using LPG for test media, purge the assembly fully before leaving site.
10. Adjustment of UPSO and Limited Relief Valve is not possible. OPSO setting is pre-set and should not require adjustment.
11. Fit the OPSO seal, passing the wire through the hole in the OPSO body and clear plastic OPSO cap.

**Engineer information on regulator design**

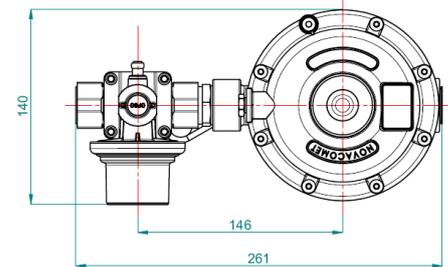
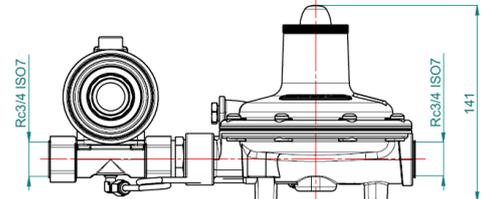
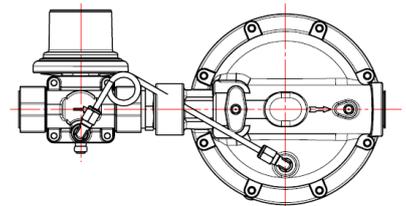
Regulators manufactured to EN13785 standards are set to give OPSO setting typically between 90 and 110mb on a 37mb regulator, with the relief valve system operating at 75mb. This not only satisfies statutory requirements in the UK but offers greater resistance to inconvenient OPSO tripping found on regulators designed to BS3016.

This regulator uses an external impulse pipe system to activate an inline Over Pressure Shut Off (OPSO). This has a number of advantages over internal systems, particularly in commercial sized applications. Reduction of nuisance OPSO tripping is achieved by delaying the reaction of the OPSO; the tube acts as a dampener to alleviate high pressure surge caused by sudden shutting off of gas downstream in modern installations systems using, for example, solenoids.

**Technical Information**

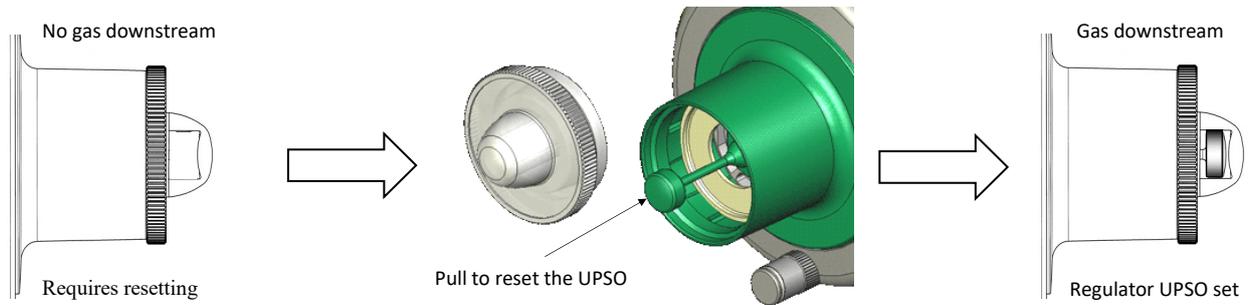
Regulator	BP2303U/OPSO
Capacity kg/h (kW)*	30kg/h (415)
Set Pressure	37mbar (33-45)
Inlet Pressure(2nd Stage)	0.6-2 bar
Limited relief Valve	75 mbar
OPSO Set Pressure	110 mbar
UPSO Pressure	27-30 mbar
Design Standard	EN13785
Inlet connection	Rc3/41F ISO/7 (BSP)
Outlet connection	Rc3/4F ISO/7 (BSP)

Item	Qty	Description
1	1	BP2202 U/OPSO Giro 37mb 2nd Stage Regulator
2	2	OPSO Unit
3	1	Pressure Impulse Pipe
4	1	Pressure Test point
5	1	OPSO sealing wire
6	N/A	3/4" BSP inlet Connection



Operating Conditions	Settings
Lock-up Pressure	50mb or less
Operating pressure	37mb +/- 5mb
Operating temperature	-20°C to 45°C
Max Operating Inlet Pressure	4bar
Optional vent location and special builds available	

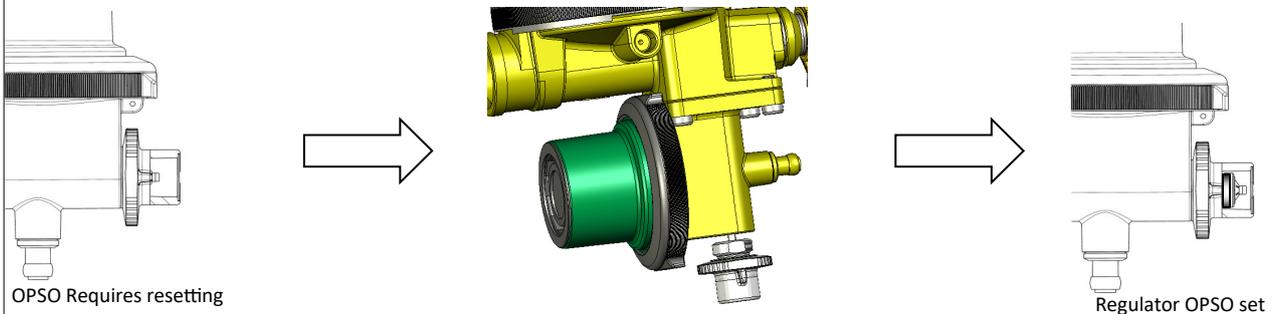
### Under Pressure Shut Off Valve Reset on a 2nd Stage Regulator



#### Before resetting the Under Pressure Shut Off

1. Ensure any valves downstream of the regulator are closed before introducing gas into the pipework
2. Check gas is available, turned on upstream of the regulator and that the OPSO is also set
3. Unscrew the large clear plastic cap on the main body of the regulator as shown
4. Under this cap is the green UPSO reset (spindle), gently pull the green re-set, hold in this position whilst downstream pipework fills with gas. **Do not push the reset spindle**
5. Replace the cap, finger-tight and commission the installation if required.
6. When reset the green spindle is clearly visible under the clear cap as shown with the best viewing angle from the side.

### Over Pressure Shut Off Valve Reset on a 2nd Stage Regulator



1. Over Pressure Shut Off must be reset by a qualified gas engineer, who should establish any cause for tripping, particular if this device trips repeatedly
2. The device is fitted with a sealing wire, this must be replaced when reset
3. If the OPSO has tripped together with UPSO then the OPSO must be reset first
4. The gas supply does not require to be turned on, but ensure downstream valves have been turned off before resetting
5. Remove sealing wire and unscrew the OPSO reset cap, in doing so this will begin to engage the reset spindle
6. The OPSO cap is attached to the green reset indicator inside and is used to pull the device to reset—pull the cap firmly
7. When reset, replace cap, reseal with new wire seal, if required proceed to reset UPSO.

### Nominal Pressure Adjustment



Regulator adjustment is not normally required—however in the event that this is needed:

1. Remove the clear UPSO cap, remove and discard the white plastic tamperproof disc and adjust to give the desired pressure.
2. Replace the UPSO cap

Adjust the disc to alter outlet pressure

### OPSO Adjustment



1. Remove the OPSO cap and adjust to give the desired pressure.
2. Reset OPSO and recheck settings.
3. Replace cap.

ANY ADJUSTMENT CAN ONLY BE PERFORMED BY A SUITABLE QUALIFIED GAS ENGINEER.

Adjust here to alter OPSO pressure