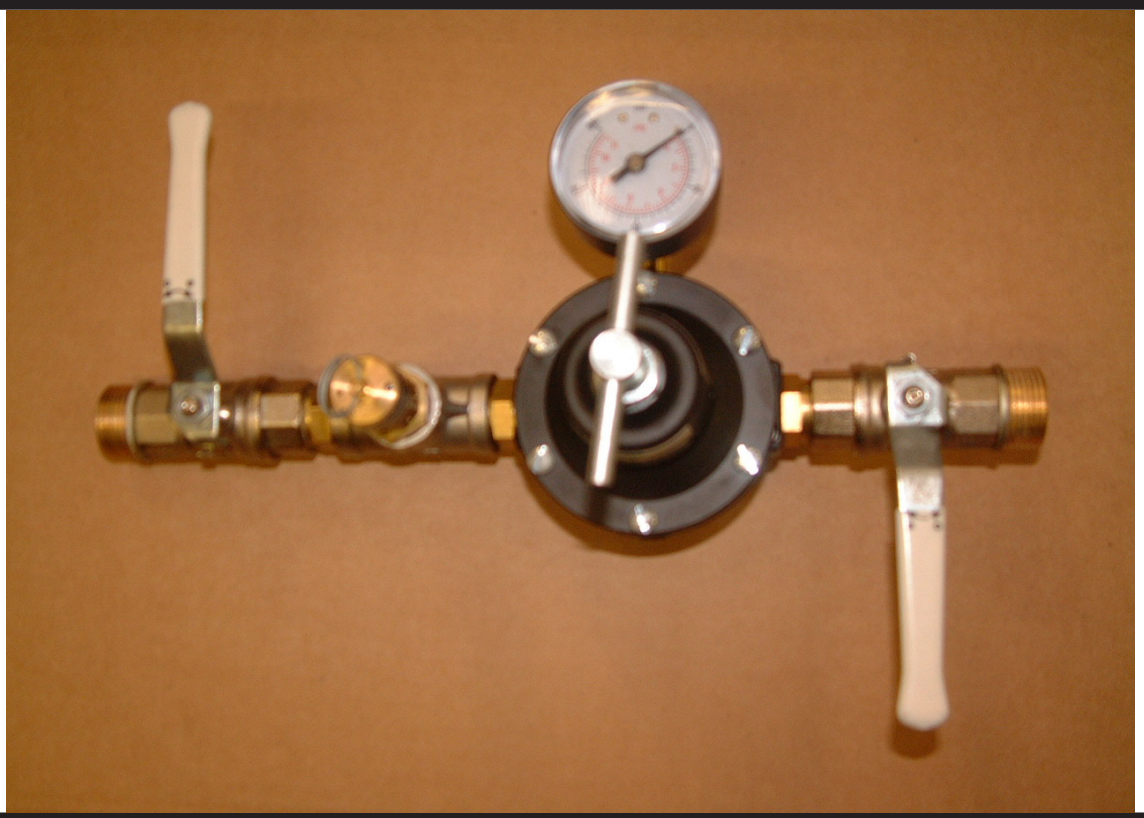
Instructions for Use



Simplex Pressure Reducing Stations

2005351
Revision 2
19/07/13

BeaconMedæs®

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1) DESCRIPTION

BeaconMedæs pressure reducing stations are designed to regulate line pressure from 11 bar or 7 bar inlet pressure as required. Assemblies comply to HTM2022 and HTM02-01 standards.

Assemblies shall be sized for three different flow rate capacities 1000 lpm, 2000 lpm or 3000 lpm as standard.

The regulator assemblies are designed for economy, maximum design life and reliability whilst requiring minimum maintenance.

Simplex Assemblies

Simplex surgical air assemblies are intended for installation either upstream or downstream of the surgical air AVSU, in order to provide a guaranteed 7 bar pressure at the front of the gas terminal unit. Simplex units are intended for in line installation.

All units are supplied complete with stub pipes and union fittings. Pressure gauges are incorporated downstream to monitor outlet pressure and pressure relief valves are provided to maintain safe working pressure in the event of regulator failure. Isolation Line ball valves are included upstream and downstream of the regulator for maintenance purposes.

Testing

All units are fully tested and inspected prior to despatch.

2) MECHANICAL INSTALLATION

Site the Unit so as to enable periodic inspection and maintenance.

The Simplex Regulator Assembly is designed for in – line installation, however, it is recommended that pipe work immediately up and down stream is supported with suitable fixings.

Copper stubbed connectors are provided for soldering into pipe work.

3) OPERATION

The Regulator is in place to reduce the pipeline pressure. Should the Regulator fail to regulate, the Pressure Relief valve will discharge air to prevent damage to the apparatus/ equipment down stream. Simplex Units are fitted on Surgical Air Installations and as such can be completely isolated for maintenance.

Adjustment to the Regulators is made using the Tee Bar on top of the Regulator, these are factory set and locked, they should not require adjustment on installation, however, periodic adjustment during service may be necessary.

4) GENERAL MAINTENANCE

SAFETY NOTES;

a) Before working on pressurised system, care should be taken not to create a hazard, discharging of Pressure Relief Valves is noisy and can create dust/ particles to become airborne.

b) On medical Air applications, "Work Permit" will be required.

Should maintenance be required on a Regulator or Pressure Relief Valve, the Unit should be de – pressurized as follows:

1) As previously mentioned, the Simplex Regulator installation will need to be shut down for maintenance.

2) Should the Regulator require a full Overhaul, it is recommended that it be removed from the Assembly, this is achieved by simply undoing the Unions up and down stream which allows Regulator removal.

ROUTINE MAINTENANCE.

EVERY SIX MONTHS.

1) Check Regulator setting(s).

2) Lift Pressure Relief Valve(s) Pull Ring to ensure free operation.

EVERY TWELVE MONTHS.

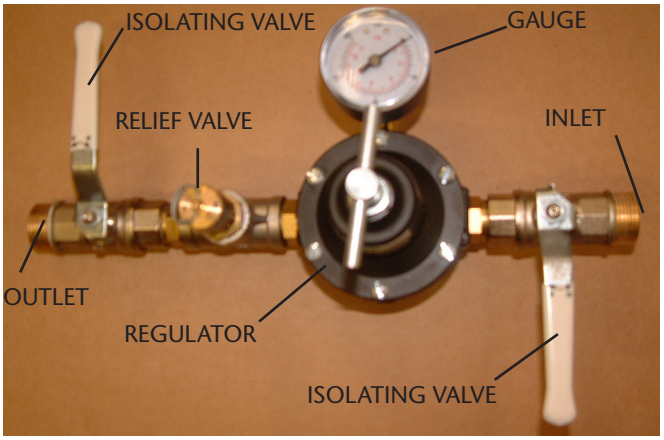
1) Remove Safety Valves and check setting on an external test rig.

NOTE;
Under no circumstances should any attempt be made to increase the pressure of the down stream pipe work to lift the Pressure Relief Valves, however, if the Output Isolation Valve is closed, it is possible to check the Lift Pressure but bear in mind the gauge reading may not be accurate.

5) FAULT DIAGNOSIS

SYMPTOM	FAULT	ACTION
Bonnet vent hole leaks.	Punctured diaphragm.	Replace diaphragm
Set Pressure creeps up.	Reg. Valve Plunger Sticking in knurled back Cap.	Lubricate using fomblin oxygen safe grease.
	Reg. Valve Plunger seal damaged or deformed.	Replace Plunger.
Vent hole on knurled cap on rear of Reg. Leaks.	Damaged Plunger 'o' ring.	Replace 'o' ring.
Knurled cap outer leaks.	Damaged cap 'o' ring.	Replace 'o' ring.

Simplex Layout



Part Numbers

Part Number	Pressure	Flow
1827570	7-4 bar	1000 lpm
1827571	7-4 bar	2000 lpm
1827572	7-4 bar	3000 lpm

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