THREE-WAY DUAL SHUT-OFF VALVES

The function of a three-way valve is to permit replacement of one of the pressure relief devices, while the other is protecting the pressure vessel. In this way, a vessel is protected from over-pressure during servicing. It also allows a pressure relief device to be replaced in-situ, without removing the system refrigerant charge.

Applications

All three-way valves are suitable for HCFC and HFC refrigerants along with their associated oils. The 802 series is also suitable for ammonia.

Refrigeration standard, EN378, specifies that a three-way valve is required on vessels of a certain size. EN378, or an equivalent National Standard, should be consulted for further guidance. It should be recognised however that a three-way valve can be fitted to a vessel of any size, to enable safe, easy and economical replacement of pressure relief devices.

Main features

- Proven robust design
- Compact

Technical Specification

Allowable operating pressure = 0 to 31 barg (802 series)
Allowable operating pressure = 0 to 46 barg (92 series)
Allowable operating temperature = -29°C to +149°C

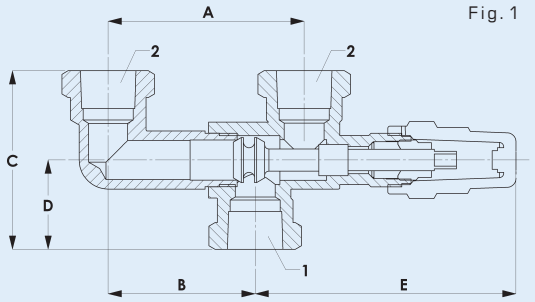
Materials of Construction

The 92 and 802 series valve bodies are made from brass and carbon steel respectively. The stem is made from plated steel. The stem seal packing is made from either PTFE or graphite based material.
The seal cap is made from moulded plastic.

Installation – Main issues

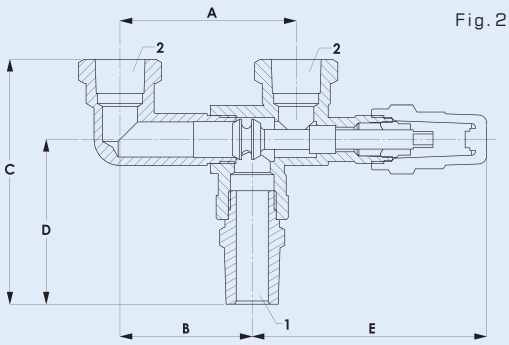
1. Assemble the three-way valve to a vessel using a high strength pipe nipple.
2. The pipework must not impose loads on the valve. Loads can occur due to misalignment, thermal expansion, discharge gas thrust, etc

Fig. 1



1 Inlet
2 Outlet

Fig. 2



Type	Part No	Inlet Conn Size (inch)	Outlet Conn Size (inch)	Dimensions (mm)					Drawing reference	Weight (kg)	Kv (m³/hr)	CE Cat
				A	B	C	D	E				
92	923	3/8 FPT	3/8 FPT	70	52	64	32	93	fig.1	0.51	2.80	SEP
92	923M	3/8 MPT	3/8 FPT	70	52	90	57	93	fig.2	0.57	2.80	SEP
92	925	1/2 FPT	1/2 FPT	70	52	64	32	93	fig.1	0.47	2.83	SEP
92	925M	1/2 MPT	1/2 FPT	70	52	97	65	93	fig.2	0.57	2.83	SEP
92	927	3/4 FPT	3/4 FPT	70	52	70	35	100	fig.1	0.70	3.48	SEP
802*	8021A	1/2 FPT	1/2 FPT	92	59	86	44	146	fig.1	1.47	4.78	SEP
802*	8022A	3/4 FPT	3/4 FPT	92	59	86	44	146	fig.1	1.33	7.60	SEP
802*	8024-CE	1 FPT	1 FPT	148	94	99	51	191	fig.1	3.70	10.07	SEP (Cat I)
802*	8025-CE	1 1/4 FPT	1 1/4 FPT	148	94	99	51	191	fig.1	3.25	14.36	Cat I (Cat II)

*Suitable for Ammonia. Brackets indicate CE category for Ammonia use.