

# Purge Assemblies

## FPV-1 Series

### Technical Data

- ⊙ Maximum working pressure: 4500 psig
- ⊙ Material of the main components:  
 Seat: PCTFE (diaphragm valve)  
 Diaphragm: Elgiloy (diaphragm valve)
- ⊙ Temperature: -10°F~+150°F (-23°C~+65°C)
- ⊙ Leak rates:  
 Internal:  $\leq 1 \times 10^{-9}$  mbar·l/s helium  
 External:  $\leq 1 \times 10^{-9}$  mbar·l/s helium
- ⊙ Minimum orifice:  $\Phi 0.13''$  (3.2 mm)

### Product Types

- ⊙ Straight Purge Assemblies  
 Consisting of a diaphragm valve and a check valve (see Fig. 1-1).  
 Connecting the auxiliary inlet port (see Fig. 1-2) of the regulator or in between the regulator and the cylinder (see Fig. 1-3) to allow the corrosive or toxic gas to be vented through to a safe location.

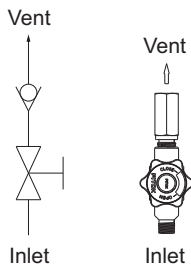


Fig. 1-1

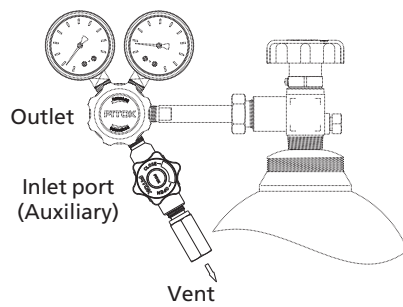


Fig. 1-2

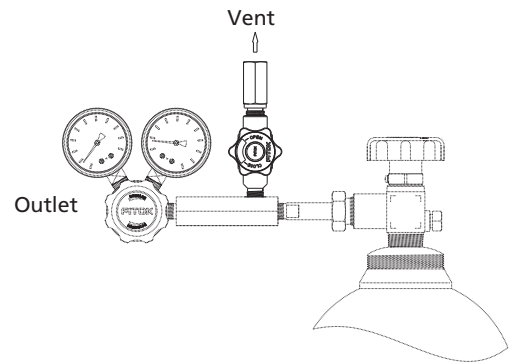


Fig. 1-3

- ⊙ Tee Purge Assemblies  
 Consisting of a diaphragm valve, check valve, tee, and cylinder connections (see Fig. 2-1).  
 Connecting the cylinder with the regulator. Before installing a new cylinder, open the diaphragm valve, and the remaining gas is vented safely; or after a new cylinder is installed, close the regulator and open the diaphragm valve, enabling the process gas inside the cylinder to purge the atmospheric contamination between the cylinder and the regulator (see Fig. 2-2).

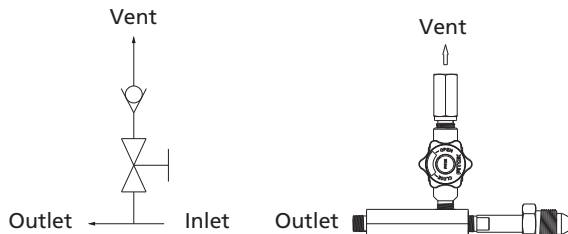


Fig. 2-1

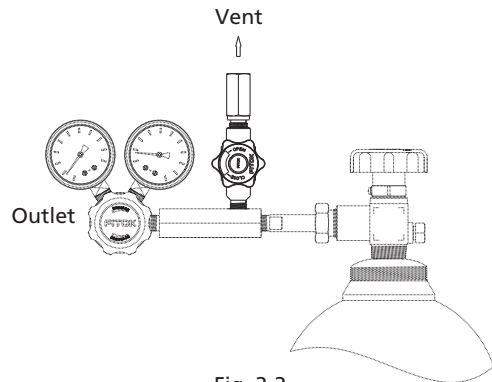


Fig. 2-2

◎ Cross Purge Assemblies

Consisting of a tee purge assembly and two additional diaphragm valves (see Fig. 3-1).

Except for process gas, purging is also made possible with inert gas from outside (see Fig. 3-2). The steps are as follows: Before installing a new cylinder, close the diaphragm valve beside the regulator, and open the shutoff diaphragm valve on the vent line to release the residual pressure.

After installing a new cylinder, open the diaphragm valve on the bottom, allowing the inert gas from outside to purge the atmospheric contaminations between the cylinder and the diaphragm valve.

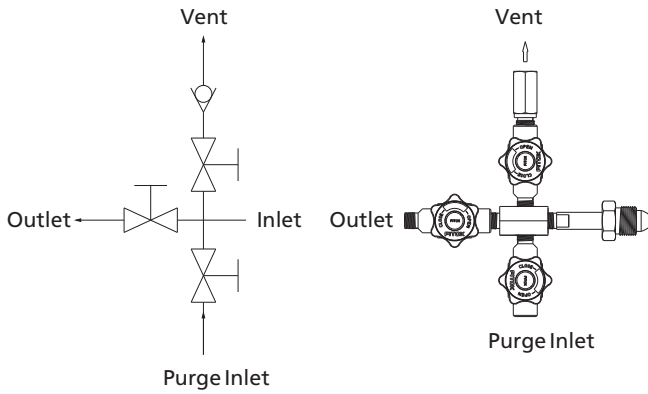


Fig. 3-1

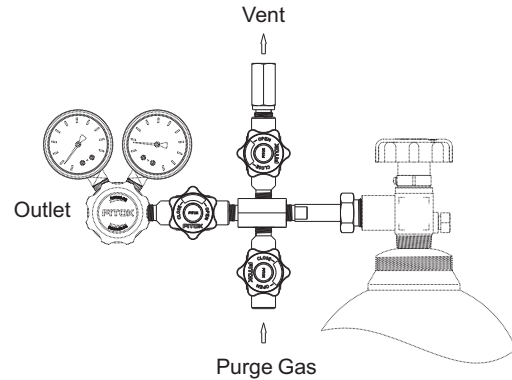


Fig. 3-2

### Part Number Description

FPV – 1C      6L      –      DIN1      –      00      –      00      –      00

Product Type		Body Material		Inlet Port		Vent Port		Outlet Port		Purge Inlet	
S	Straight Purge Assemblies	6L	316L SS	00	1/4" Female NPT	00	1/4" Female NPT	Same as Same as Vent Port		Same as Same as Vent Port	
T	Tee Purge Assemblies	SS	316 SS	01	1/4" Male NPT	01	1/4" Male NPT				
C	Cross Purge Assemblies			C_ _ _	CGA Number (USA)	10	1/4" Tube Fitting				
				DIN_	DIN Number (Germany)	20	6 mm Tube Fitting				
					Refer to page B-28 for cylinder connections based on specific gas type. Cylinder connections compliant to other standards are available upon request. Please contact FITOK Group for details.	21	8 mm Tube Fitting				
							Other connections are available upon request				