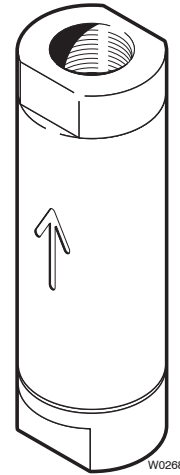


Installation/Parts
C80-991-2400

Hydra-Cell[®]
INDUSTRIAL VALVES

Model: C80 Airbleed Priming Valve



Installation

Locate the C80 airbleed priming valve as close to the pump's discharge port as possible. Note the directional arrow on the valve body indicating flow direction (see illustration.) Discharge from the C80 valve can be purged to a catch pan if fluid is not to be recirculated.

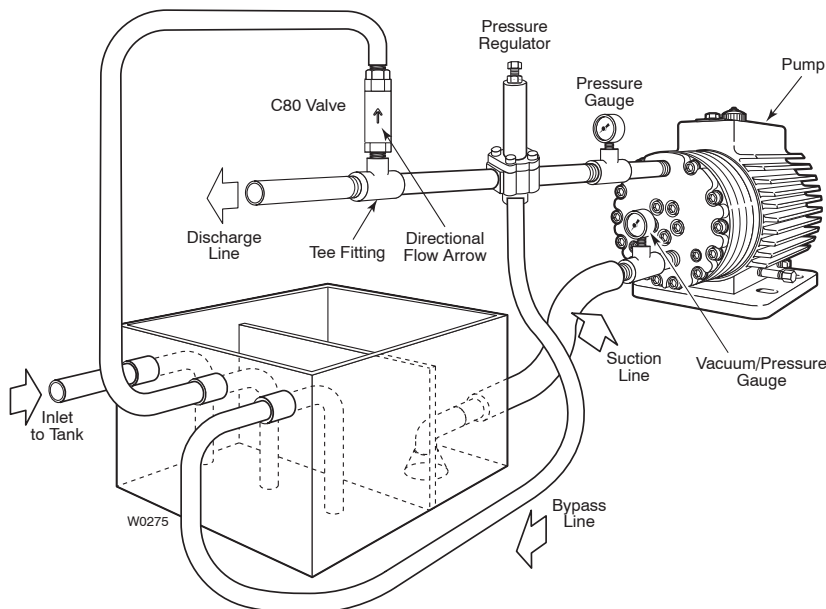
Caution: if an elevated tank is used, care must be taken to not allow fluid to syphon backwards through the valve.

Mounting Position

The C80 valve may be positioned before or after the pressure regulating valve in the discharge line. The preferred mounting position of the C80 is vertical from a tee fitting. If other than vertical position is required for the C80, the branch of the tee fitting must remain in a vertical position as shown.

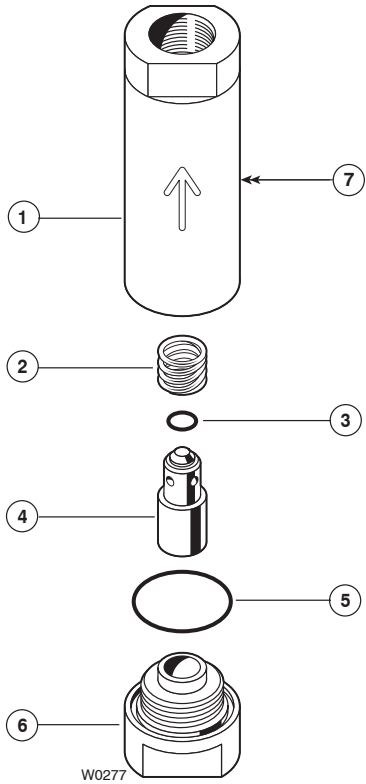
Operation

The C80 Airbleed Priming Valve provides an open port to atmosphere to allow the pump to clear the air (or vapor) from the pumping chambers at low pressure. At start-up, this allows the pump to move the air past the one way check valves in the pump rather than compressing the air and not producing flow. Once the air has been purged from the pumping chambers and the pump is producing the proper amount of flow, the fluid passing through the air bleed valve causes a pressure drop sufficient enough to move the internal poppet against a spring to the seat closing the port to atmosphere and allows the pump and system to operate normally. The device is reactivated when the outlet pressure of the pump drops below approximately 75 psi. This occurs when the pump is allowed to suck in large portions of air or the fluid degasses when the pump is not running. It also occurs anytime the pump is shut down and the outlet pressure drops below the minimum or at initial start-up when the pump is dry. The valve automatically closes when the pump produces the proper amount of flow. This process repeats automatically as necessary.



NOTE: The C80 valve is not designed to work as a continuous air/fluid separator. The valve will not allow air to escape the discharge stream on a continuous basis. Once the valve is activated shut, it acts as a plug completely sealing the port. The valve re-opens only when the outlet pressure drops below a specified minimum pressure (75 psi, 5 bar.) Proper care should be taken to ensure system exceeds this minimum pressure.

Parts



Specifications

Pressure Range

Metallic models 75-2500 psi (5 to 172 bar)
 Non-metallic models 75-250 psi (5 to 17 bar)

Minimum Discharge Pressure Required

75 psi (5 bar)

Maximum Temperature

Metallic models 300°F/ 148°C
 Non-metallic models 200°F/ 93°C

Flow Range

1.5 to 10 gpm (5 to 37 l/min)

Inlet/Outlet Ports

3/8" NPT, 3/8" BSPT

O-ring

Buna, Viton, Neoprene, or EPDM

Internal Wetted Parts

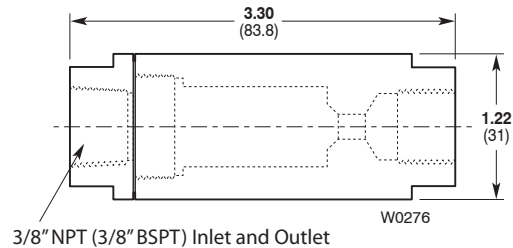
Hastelloy C

Weight

12 ounces

Ref. No.	Part Number	Description	Quantity/ Pump
1	C80-001-1010	Body, brass, NPT.....	1
	C80-001-1011	Body, brass, BSPT	1
	C80-001-1000	Body, SST, NPT	1
	C80-001-1001	Body, SST, BSPT.....	1
	C80-001-1050	Body, Kynar, NPT	1
	C80-001-1051	Body, Kynar, BSPT	1
2	C80-004-3105	Spring, Hastelloy C276, Flow range A: 1.4-3 GPM (5-11 LPM)	1
	C80-004-3110	Spring, Hastelloy C276, Flow range B: 2.4-5 GPM (9-19 LPM)	1
	C80-004-3115	Spring, Hastelloy C276, Flow range C: 4.6-7 GPM (17-26 LPM)	1
	C80-004-3120	Spring, Hastelloy C276, Flow range D: 6.5-10 GPM (24-37 LPM)	1
3	D10-047-2110	Poppet O-ring, Buna-N.....	1
	D10-047-2111	Poppet O-ring, Viton	1
	D10-047-2112	Poppet O-ring, Neoprene	1
	D10-047-2113	Poppet O-ring, EPDM.....	1
4	C80-003-1000	Poppet, Hastelloy C276.....	1
5	D10-035-2110	Body O-ring, Buna-N.....	1
	D10-035-2111	Body O-ring, Viton	1
	D10-035-2112	Body O-ring, Neoprene	1
	D10-035-2113	Body O-ring, EPDM.....	1
6	C80-002-1010	End Plug, brass, NPT	1
	C80-002-1011	End Plug, brass, BSPT.....	1
	C80-002-1000	End Plug, SST, NPT	1
	C80-002-1001	End Plug, SST, BSPT	1
	C80-002-1050	End Plug, Kynar, NPT.....	1
	C80-002-1051	End Plug, Kynar, BSPT.....	1
7	C80-005-1010	Nameplate	1

Dimensions



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