

CD-80S Series Controlled Disc Steam Traps Installation and Maintenance Manual

This bulletin should be used by experienced personnel as a guide to the installation and maintenance of CD-80S Series Controlled Disc steam traps. Selection or installation of equipment should always be accompanied by competent technical assistance. We encourage you to contact Armstrong or its local representative if further information is required.

**Please read and save
these instructions**



Installation

Table 1. Pressure Limitations				
Model No.	Connection Size	Min. Operating Pressure	Max. Operating Pressure	Max. Allowable Pressure
CD-80S CD-82S	1/2", 3/4"	100 psig (6.9 barg)	1,000 psig (68.9 barg)	1500 psig @ 650°F (103.4 barg @ 343°C)

Note: Armstrong CD-80S Series steam traps may be installed in any position as long as proper flow direction is observed and the trap is not inverted. The CD-80S Series Controlled Disc traps may be insulated.

1. Before installing any trap, blow down the piping that leads to the unit's inlet. Use full line pressure. Be sure that the maximum operating pressure (MOP) of the trap is adequate for the installation. (The MOP is stamped on the forging or nameplate.)
2. Install the trap inlet below the liquid level of the equipment to be drained. Figure 1 shows the recommended piping method. **Use good piping practices. Make inlet piping as short as possible. Use a minimum number of elbows and other restrictions in inlet and outlet piping. Install a dirt pocket in the line ahead of the trap.**

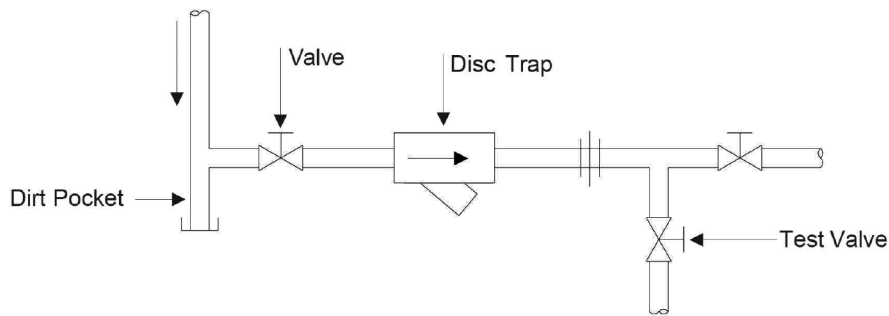


Figure 1

3. To allow maintenance and provide maximum service, install a valve on each side of the trap and a downstream testing tee. All valves should be of the fullported type to avoid restricting flow.
4. Install a union downstream of the trap unless the discharge line is open and short.
5. When a disc trap discharges to a return system, extreme caution should be exercised to avoid conditions that create excessive back pressure. For best results, the back pressure in the return lines should not exceed 50% of the inlet pressure. If elevating condensate is necessary, remember that every two feet of lift creates about one pound of back pressure.
6. Where freezing might be encountered, install a pressure or temperature actuated safety drain device on the inlet piping, directly ahead of the trap. If the trap discharges to a closed return, another safety drain device should be installed in the discharge piping.

Designs, materials, weights and performance ratings are approximate and subject to change without notice. Visit armstronginternational.com for up-to-date information.

Maintenance

To assist you in the troubleshooting and repair of steam traps, Armstrong makes available the following reference material:

- Handbook P-101-B “Steam Conservation Guidelines for Condensate Drainage”

In order to ensure continuous optimum performance from any steam trap, it should be inspected according to the following schedule:

Table 2. Suggested Yearly Trap Testing Frequency					
Operating Pressure (PSIG)	Application				
	Drip	Tracer	Coil	Process	Critical Drip, Tracer, Coil or Process
0 - 100	1	1	2	3	4 or Continuous Real Time Monitoring
101 - 250	2	3	2	3	4 or Continuous Real Time Monitoring
251 - 450	2	3	3	4	4 or Continuous Real Time Monitoring
451 and above	3	4	4	4	4 or Continuous Real Time Monitoring

Normal Maintenance

Wear progresses simultaneously on both the disc and the seating surfaces. Simply replacing the disc is not sufficient to repair a disc trap. Replace the disc, seat and gaskets with a CD-80S Series Repair Kit if the disc/seat are not sealing due to wear.

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