



Installation and Maintenance

Armstrong CD-40 and CD-60 Series Controlled Disc Steam Traps

This bulletin should be used by experienced personnel as a guide to the installation and maintenance of CD-40 and CD-60 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.

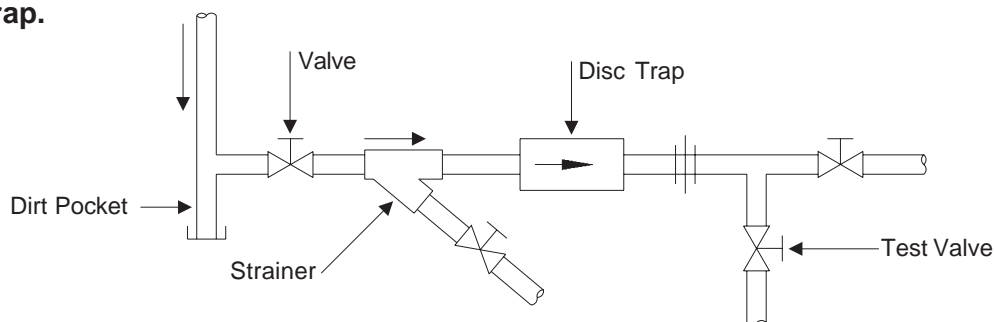
Table 1. Maximum Operating Pressure

Model No.	Connection Size	Minimum Operating Pressure	Maximum Operating Pressure
CD-40 Series	3/8", 1/2", 3/4", 1"	10 psi	600 psi
CD-60 Series			

Installation:

Note: Armstrong Series CD-40 and CD-60 steam traps may be installed in any position as long as proper flow direction is observed and the trap is not inverted. Since Armstrong Controlled Disc traps do not rely upon radiation losses to operate properly, they can be completely 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 casting 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.**





Installation and Maintenance

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- 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. Install a strainer ahead of the trap if it does not have an integral strainer.
- 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.

Maintenance:

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

- Handbook N-101 "Steam Conservation Guidelines for Condensate Drainage"
- Video Tape "Guidelines for Steam Trap Troubleshooting and Testing"
- Video Tape "Guidelines for Steam Trap Repair"

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

Operating Pressure (PSIG)	Application			
	Drip	Tracer	Coil	Process
0 - 100	1	1	2	3
101 - 250	2	2	2	3
251 - 450	2	2	3	4
451 and above	3	3	4	12

The renewal of both the CD-40 and the CD-60 is accomplished by replacing the capsule. The method of replacement, however, differs between the two series.

CD-40 Series:

- 1) Close the inlet and outlet valves, make sure the trap is cold.
- 2) Remove the trap from the line. You may replace the trap with a spare to minimize down time, or service it immediately.
- 3) Open the trap and remove the strainer screen, if there is one.



Installation and Maintenance

Armstrong CD-40 and CD-60 Series Controlled Disc Steam Traps

- 4) Remove the old capsule and clean the metal-to-metal seating surfaces.
- 5) Clean any dirt or sediment from the trap.
- 6) Check that the body is free from erosion, especially near the inlet and outlet connections.
- 7) Install a new capsule. If a strainer screen is included, clean or replace it, as necessary.
- 8) Reassemble the trap and restore it to service or place it in stock.

CD-60 Series:

- 1) Close the inlet and outlet valves, make sure the trap is cold.
- 2) Unscrew the four bolts, and remove the cap from the trap.
- 3) Lift out the screen and unscrew the capsule.
- 4) Discard the old gasket and clean both gasket surfaces.
- 5) Clean any dirt or sediment from the trap body and cap.
- 6) Check that the body is free from erosion, especially near the inlet and outlet connections.
- 7) Install a new capsule and a **new gasket**, then secure the cap to the body using a cross-tightening pattern as you would when putting on an automobile wheel.
- 8) Once all the bolts have been securely tightened, open the valves in the supply and discharge lines. Check the equipment for normal operation.

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