

# **Installation and Maintenance**

# **CD-33/33S Controlled Disc Traps**

This bulletin should be used by experienced personnel as a guide to installation and maintenance of Series CD-33 Controlled Disc steam traps.

## Installation:

Before installing any trap, blowdown the piping that leads to the trap's inlet. Use full line pressure. Be sure that the maximum operating pressure (MOP) of the trap is adequate for the installation.

Install the trap inlet below the liquid level of the equipment to be drained. 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.

To allow for maintenance, install a valve on each side of the trap and a down stream testing tee (unless test valve is used as the down stream valve). All valves should be full ported type to avoid restricting flow. Install a strainer ahead of the trap if it does not have an integral strainer.

If possible, install the trap in the horizontal position. For freeze-resistant applications, inlet piping must be pitched towards the pipe for gravity flow. Additionally, the trap must be installed vertically, discharging downward. Discharge piping must be self-draining.

### **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; both disc and seat must be renewed. In cases of minor wear causing cycling, the disc may be replaced but the seat surfaces must also be lapped and/or cleaned again to near flatness.

### **Additional Notes:**

Minimum pressure for satisfactory operation is 3.5 psig.

Maximum back pressure should not exceed 80% of the inlet pressure. If back pressure exceeds 80% of inlet pressure, the trap may not shut. At 50% to 70% back pressure traps may become unstable. Therefore, Armstrong suggests limiting back pressure to 50% of inlet pressure.



If a trap's seat wear is deeper than .01" (.25mm), it has progressed beyond the depth of the hardened seat surface of most disc traps. If the seat is lapped flat, the softer material is exposed, and additional service life will be shortened. Theoretically the seats may be lapped or machined at will, however, any alteration of the internal components of any disc trap can change its operating characteristics. Armstrong does not recommend relapping the seating area of the Series CD-33 controlled disc traps.



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