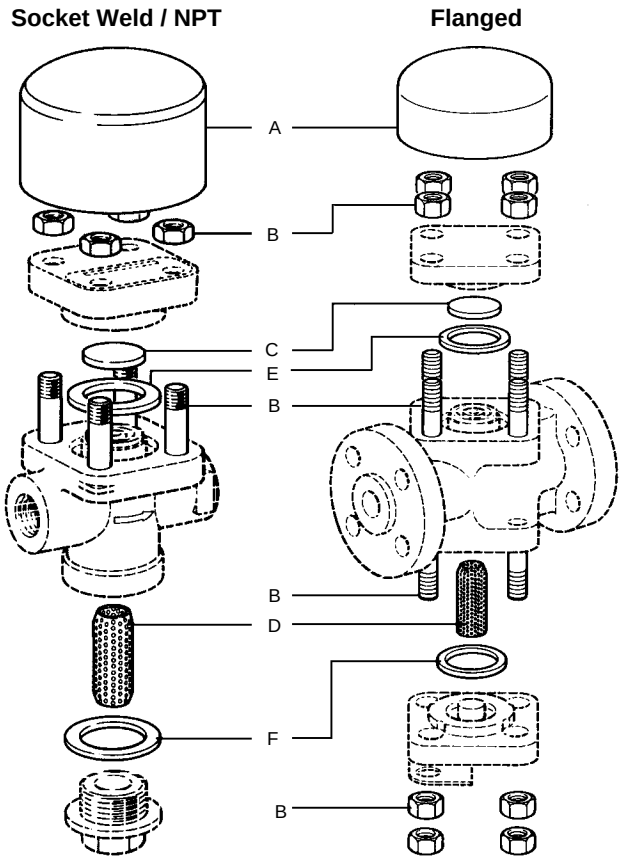
Spare Parts



Socket Weld / NPT

Description	Part No.	Stock No.
Insulating Cover	A	0685680
Set of Cover Studs & Nuts (set of 4)	B	0685681
Disc (pkt of 3)	C	0169081
Strainer Screen	D	0685682
Cover Gaskets (Pkt of 3)	E, F	0685684

Flanged - ASTM body

Description	Part No.	Stock No.
Insulating Cover	A	0685685
Set of Cover Studs & Nuts (set of 8)	B	0685687
Disc (pkt of 3)	C	0169081
Strainer Screen	D	0685682
Cover Gaskets (Pkt of 3)	E, F	0685686

For additional technical information, contact Spirax Sarco Applications Engineering Department
Toll Free 1-800-833-3246 (In PA) 1-800-522-2384

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INSTALLATION AND MAINTENANCE INSTRUCTIONS

IMI 2.525 **August 1996**

Thermo-Dynamic® Steam Traps TD62

Description and Operation

The Spirax Sarco TD62 is a Thermo-Dynamic® disc type steam trap. The trap cycles open and closed to discharge condensate close to steam temperature and closes tight between discharges.

The disc, which is the only moving part, rises and falls in response to dynamic forces produced by the partial re-evaporation (flashing) of hot condensate. Cool condensate, air and other non-condensible gases enter the trap through the central orifice, lift the disc, and are discharged through the outlet orifice. When the condensate approaches steam temperature, a portion of it flashes as it enters the trap. The flash steam passes at high velocity over the underside of the disc and collects in the control chamber above. The resulting pressure imbalance forces the disc downward onto the seating surfaces, stopping the flow. The trap remains tightly closed until the loss of heat through the cap lowers the control chamber pressure, allowing the inlet pressure to raise the disc and repeat the cycle.

An insulating cover minimizes the effect of ambient conditions.

Limiting Operating Conditions	TD 62
Maximum Operating Pressure (PMO)	900 psig (62 barg)
Minimum Operating Pressure	20 psig (1.4 barg)
Maximum Return Line Pressure(Back Pressure)	80% of trap inlet pressure
Maximum Operating Temperature	842°F at all operating pressures*

* With optional high-temperature bolting, the TD62 may be used within the pressure/temperature limits of ANSI Class 600, Group 1.9 , with a maximum operating temperature of 1100 ˚F (at 190 psig) and a maximum operating pressure of 900 psig (at 900 ˚F).

The TD62 may be subjected to a cold hydraulic test pressure of 2250 psig (155 barg).

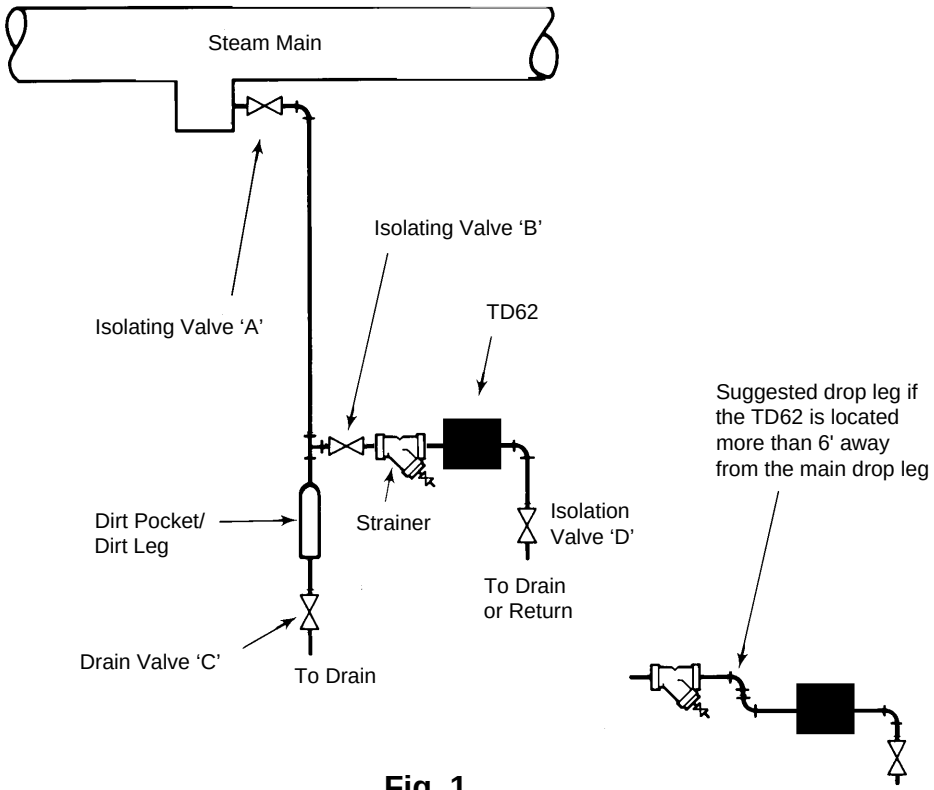

Fig. 1

Installation

The preferred installation is in a horizontal pipe with the insulating cap upward. The trap will operate in any position, but the service life may be affected.
Full-flow isolating valves should be installed so as to permit the isolation of the trap from both supply and return line pressure. If the trap discharges to atmosphere, the discharge should be directed to a safe place.
Observe the flow direction markings on the trap body.
The discs and seating surfaces of these traps have been produced to a high degree of flatness to achieve good shutoff under high pressure conditions. An internal screen helps prevent dirt and scale from entering the trap. If foreign particles become entrapped between the disc and seat, the high flow velocities can cause rapid wear and erosion. An external strainer and/or dirt pocket will provide additional protection.
Access for removal of the integral strainer screen must be provided.
The insulating cap may be removed to facilitate installation, but it must be replaced before the trap is put into service.

Start-Up and Venting Air (See Fig. 1)

With high pressure systems, initial startup can take several hours (or days) to bring the system to normal running pressures and temperature.
Even if the Spirax Sarco TD62 trap has replaced another trap while the main system has remained running, it may still be necessary to vent air from the drop leg. If the TD trap is some distance from Isolating Valve 'A', it could be possible to air lock the pipework between Valve 'A' and the TD steam trap (i.e., the trap closes to air and does not readily allow steam to enter the pipework.)
To overcome this on startup, Drain Valve 'C' should be cracked open to discharge the air, condensate and any pipe debris. If it is anticipated that large amounts of debris are present, Valve 'B' should be closed to prevent that debris from entering the steam trap.
When the debris has been removed, Valve 'C' should be fully closed, and Valves 'A' and 'B' slowly opened to the full position.
When the trap is more than six feet away from the vertical drain leg, a suitable drop leg at the inlet to the trap can improve its longevity by ensuring that the trap does not see a mixture of steam and condensate.

Important: After the trap has been in service for approximately 24 hours, it is essential that the cover nuts be tightened to a torque of 33-37 ft•lb. This will ensure proper compression of the gasket.

Maintenance and Repair

Complete isolation of the trap from both the supply and the return line is required before any servicing is performed. The insulcap (if installed) can be removed by pulling straight up. The seat is vacuum brazed into the body, and is not removable. If the seating surfaces are flat and completely free of marks or wiredrawing lines, a new disc will improve the performance. If the seating surfaces are visibly worn or damaged in any way, the trap may be beyond reasonable repair. The strainer screen should be removed and cleaned. New gaskets should be used when the trap is reassembled. The gasket faces must be clean and undamaged. The TD62 strainer cap (socket weld and NPT) must be torqued 105-117 ft.-lb. The cover nuts must be tightened in a diagonally opposite sequence to a torque of 33-37 ft.lb. It is essential that the nuts be retorqued after the trap has been in service for 24 hours. The trap should be returned to service using the start up procedure outlined above.