



Hoffman Specialty

Installation & Maintenance
Instructions
HS-251(B)

Thermodisc Trap Series TD6520

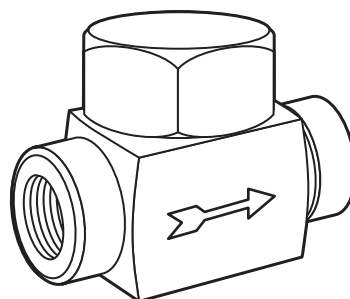
A thermodynamic steam trap for high pressure steam drips, tracer lines and other light to moderate loads.

Standard Models

Maximum Temperature: 800°F (426°C)

Maximum Pressure: 600 psi (41.4 bar)

Available in 3/8" to 1" NPT Pipe Sizes



Thermodisc Trap

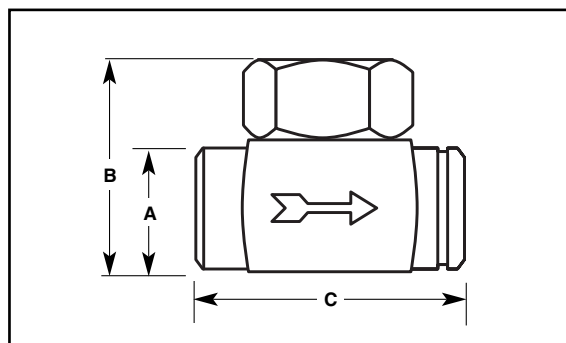
	 WARNING
	• Before using product, read and understand instructions. • Save these instructions for future reference.
	• All work must be performed by qualified personnel trained in the proper application, installation, and maintenance of steam systems in accordance with all applicable codes and ordinances. • To prevent serious burns, wear heat resistant gloves when opening and closing steam valves, or handling hot equipment.
	• To prevent serious personal injury from steam pipe blow down, connect a temporary pipe between the steam pipe opening and a drain, or stand at least 100 ft. (30m) from the front of the pipe opening.
	• To prevent property damage, personal injury, or death, cap off the gate valves if they are not connected to a drain and when they are not in use for test or pressure relief. Failure to follow this warning could cause property damage, personal injury or death.

IMPORTANT: If you are uncertain about the product's adaptability for your application, please call the factory or authorized representative before using the product.

Engineered for life

Dimensions in. (mm)

Model	Size in.	A	B	C	Weight (Approx.) lbs. (kg)
TD6523	$\frac{3}{8}$	1½ (38)	1⅜ (35)	2 (51)	0.8 (0.36)
TD6524	$\frac{1}{2}$	1½ (38)	2 (51)	2¾ (70)	1.3 (0.59)
TD6526	$\frac{3}{4}$	2 (51)	2⅞ (62)	2¾ (70)	2.1 (0.95)
TD6528	1	2 (51)	2⅞ (73)	3¼ (83)	3.2 (1.45)



Series TD6520 Thermodisc Trap Capacities (Gross Ratings)

Model	Size in.	Pressure Differential in Pounds Per Square Inch (bar)													
		2 (0.14)	5 (0.35)	10 (0.69)	25 (1.7)	50 (3.5)	75 (5.2)	100 (6.9)	150 (10.4)	200 (13.8)	250 (17.3)	300 (20.7)	400 (27.6)	500 (34.5)	600 (41.4)
		Capacities in Pounds Per Hour (kg/hr) -10°F Below Saturation													
TD6523	3/8	180 (82)	185 (84)	190 (86)	210 (95)	255 (116)	315 (143)	375 (170)	500 (227)	610 (277)	700 (318)	790 (358)	955 (433)	1105 (501)	1250 (567)
TD6524	1/2	290 (132)	310 (141)	345 (156)	440 (200)	580 (263)	710 (322)	810 (367)	995 (451)	1140 (517)	1275 (578)	1405 (637)	1630 (739)	1825 (828)	2000 (907)
TD6526	3/4	395 (179)	420 (191)	465 (211)	600 (272)	815 (370)	1000 (454)	1160 (526)	1440 (653)	1675 (760)	1895 (860)	2095 (950)	2430 (1102)	2750 (1247)	3050 (1383)
TD6528	1	620 (201)	660 (299)	730 (331)	920 (417)	1215 (551)	1490 (676)	1740 (789)	2195 (996)	2585 (1173)	2910 (1320)	3230 (1465)	3770 (1710)	4245 (1926)	4700 (2132)

INSTALLATION –

Locate the trap where it will be accessible for maintenance and inspection. Position the trap below the equipment to be drained.

The preferred installation is when the trap is installed in a horizontal pipe with the service cap on top.

If freeze protection is required locate the trap in a vertical pipe with the outlet pointing down, the outlet must be pitched to a vented return to assure complete condensate removal.

Make sure the trap is correctly sized for peak load demands.

Piping upstream and downstream of the trap should be at least equal to or one pipe size larger than trap connection.

Install separate traps on each piece of equipment to be drained. Pitch all apparatus drain lines towards the trap.

Locate the trap below the condensate outlet by installing pipe (A). Install a tee fitting (B) with a dirt pocket (C) to collect dirt and scale. Connect the side outlet of the tee to a Gate Valve (D) and Y strainer (E) with 20-mesh screen.

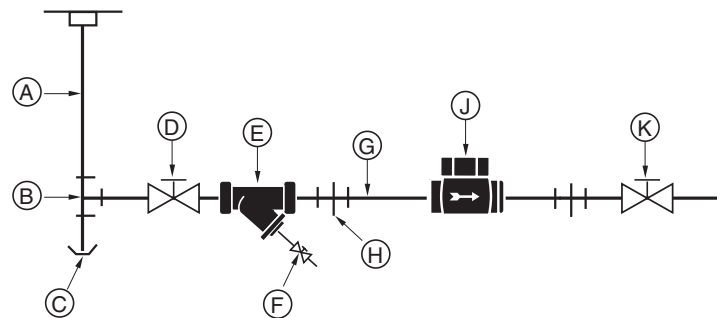
Install a blow-down valve (F) in the strainer screen pocket. Install an outlet pipe (G) with a union (H) from the strainer outlet. The outlet pipe (G) should be temporarily capped to prevent steam discharge.

Blow down piping with steam or air to remove dirt scale.

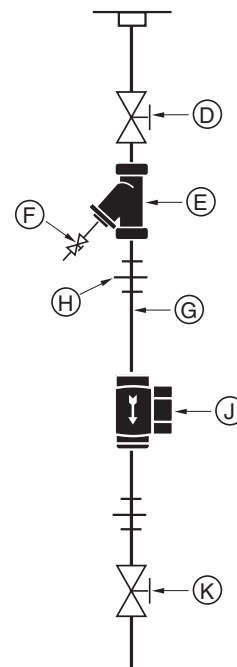
CAUTION

To prevent serious personal injury from steam pipe blow down, connect a temporary pipe between the steam pipe opening and a drain, or stand at least 100 ft. (30m) from the front of the pipe opening.

When the piping is cleaned install the trap (J). Connect the trap discharge to the return line. A shut-off valve (K) should be installed to isolate the trap from the return line to allow servicing the trap.



Standard Horizontal Installation Detail



Alternate Freeze Proof Installation



MAINTENANCE

SCHEDULE:

- Initially every 2-3 days after start-up until system is clean, every 6 months thereafter.

1. Inspect joints for leaks. Stop leaks by tightening cover.
2. Clean strainers by opening blow-down valves and allowing full pressure steam to pass for two minutes. Then close the valves.
3. All steam traps should be tested for proper operation at regular intervals. We recommend inspection every six months.

Thermodisc traps cycle during normal operation. Using a stethoscope you should hear the trap snap open and condensate passing. The trap should then snap shut and be quiet for several seconds. A continuous hissing sound would indicate the trap is not closing. Rapid cycling (machine gunning sound) would indicate the seat is worn and **the trap needs to be replaced**.

SERVICE

When parts have become worn or damaged it is necessary to replace the trap.

Steps to inspect the thermodisc traps.

1. Close inlet and outlet shut-off valves to the trap. Open the strainer blow-down valve to relieve any internal pressure. Allow the trap to cool.
2. Open the trap's top cover slowly making sure there is no internal pressure. Once safe, remove the cap entirely. Inspect the trap seat and disc for dirt or wear. Use a soft cloth and solvent only when cleaning these parts. Do not use any rough hard implement or wire brush.
3. Make sure the disc is installed with the grooved side toward the seat.
4. Reinstall the cap and torque to the value shown. Use anti-seize compound on the cap threads. Avoid getting the compound on the seat or the disc.
5. Close the blow-down valve on the strainer screen. Slowly open the outlet shut-off valve and then the inlet shut-off valve.
6. Observe for proper operation.

Model	Size in.	Torque lbf-ft (N•m)
TD6523	3/8	65-75 (88-102)
TD6524	1/2	85-95 (116-129)
TD6526	3/4	105-115 (143-156)
TD6528	1	120-130 (163-177)