

Steam Traps

Thermostatic Steam Trap

(Repairable)

WT4000
Thermostatic

Model	WT4000 (Repairable)
Sizes	3/4", 1"
Connections	NPT, SW, FLG
Body Material	Stainless Steel
Options	Strainer, Blowdown Valve
PMO Max. Operating Pressure	300 PSIG
TMO Max. Operating Temperature	Saturated Steam Temperature
PMA Max. Allowable Pressure	906 PSIG @ 100°F
TMA Max. Allowable Temperature	750°F @ 725 PSIG



Typical Applications

PROCESS: The **WT4000** is a high capacity version of the WT3000, for removing condensate and air from larger process applications. This steam trap is fully repairable while the body remains in-line. Like all thermostatic traps, they are small, light weight, operate over a wide pressure range, and have excellent air handling capabilities. Discharging air at start-up allows steam to quickly enter the system. All stainless steel construction and integral strainer option make the WT4000 an excellent choice for most process applications. Contains an extremely strong and rugged precision welded Stainless Steel thermal element which is highly resistant to waterhammer.

How It Works

This thermostatic trap contains a welded stainless steel thermal element that expands when heated and contracts when cooled to 5°F below saturated steam temperature. When air or sub-cooled condensate are present, the trap is in the open discharge position. When steam reaches the trap, the element expands and closes off tightly.

Features

- The thermal element and seat can be easily removed and replaced in minutes with the trap body still in-line
- Operates at steam pressures up to 300 PSIG
- Thermostatic traps are excellent at discharging air, which allows steam to enter quickly; extremely important during start-up
- Welded stainless steel thermal element resists shock from waterhammer
- Freeze-proof when the trap is installed in a vertical orientation allowing for complete condensate drainage
- Body is produced from stainless steel investment casting
- Hardened stainless steel seat for extended service life
- Available with integral strainer and blowdown valve

Sample Specification

The steam trap shall be of thermostatic type with stainless steel body, thermal element, and internal strainer. Trap must be in-line repairable with a bolt-on type cover that is sealed with a spiral wound Stainless Steel AISI 316 gasket. Seat and valve to be hardened stainless steel.

Installation and Maintenance

Trap can be installed in any orientation. All internal working components are extremely easy to replace and can be performed while the trap body remains connected in-line. Repair kit includes ALL parts to fully rebuild the steam trap including thermal element, seat and gasket. The WT4000 does not contain a strainer. The WT4000S contains a strainer. WT4000SB contains a blowdown valve for flushing dirt and scale from strainer.

Helpful Selection Information

Two orifice sizes are available: 7/16" standard capacity and 5/16" reduced capacity. Select these models for steam systems with maximum working pressure of 300 PSIG.

Options

Strainer, blowdown valve, and steam lock release.

S = Strainer (**WT4001S**)

SB = Strainer and blowdown valve (**WT4001SB**)

SLR = Steam lock release

Customized flanged connections: Specify size, face-to-face dimensions.

How to Size / Order

Refer to the Capacity Chart to determine which model, the WT4001 or WT4003 is required to satisfy the condensate load based on steam inlet pressure.

Example:

Application: 5610 lbs/hr at 100 PSIG steam inlet pressure

Size/Model: **WT4001S**, 5/16" orifice, and strainer
Specify size & connections (NPT, SW, FLG)

Example Model Codes:

WT4001S-13-N 3/4" NPT with strainer, and 5/16" orifice

WT4003SB-14-N 1" NPT with strainer and blowdown valve, 7/16" orifice

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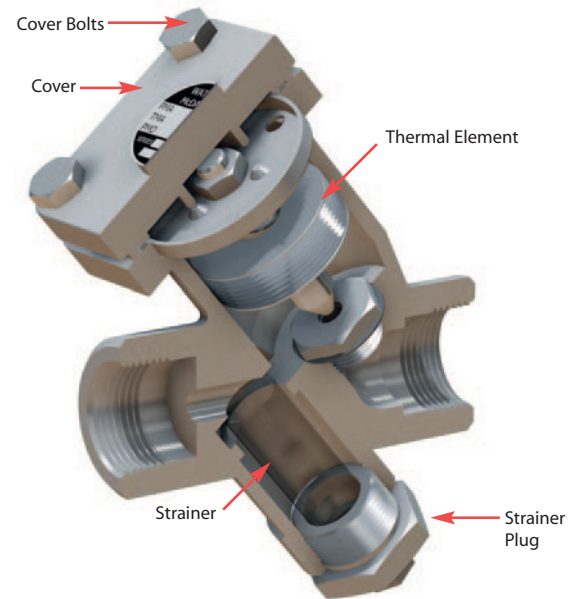
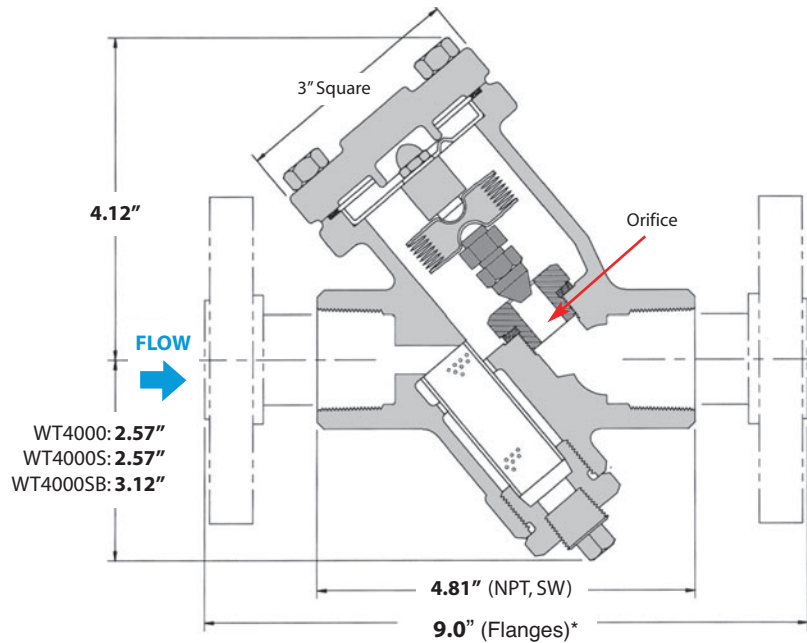
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*For custom sizes consult factory (9" minimum).

NPT Weight: 4.5 lbs.

Size/Connection*	Model Code	Orifice Size	Description
3/4" NPT	WT4001-13-N	5/16"	No Strainer
1" NPT	WT4001-14-N	5/16"	No Strainer
3/4" NPT	WT4001S-13-N	5/16"	Strainer
1" NPT	WT4001S-14-N	5/16"	Strainer
3/4" NPT	WT4001SB-13-N	5/16"	Strainer & Blowdown
1" NPT	WT4001SB-14-N	5/16"	Strainer & Blowdown
3/4" NPT	WT4003-13-N	7/16"	Strainer
1" NPT	WT4003-14-N	7/16"	Strainer
3/4" NPT	WT4003S-13-N	7/16"	Strainer
1" NPT	WT4003S-14-N	7/16"	Strainer
3/4" NPT	WT4003SB-13-N	7/16"	Strainer & Blowdown
1" NPT	WT4003SB-14-N	7/16"	Strainer & Blowdown

* For Socket Weld Connection change N to SW

MATERIALS

Body	Stainless Steel, AISI 316L
Cover	Stainless Steel, AISI 316L
Cover Gasket	Spiral Wound Stainless Steel, AISI 316
Cover Bolts	Steel, ASTM A193 GR B7 Nickel Plated
Thermal Element	Stainless Steel, AISI 302
Valve & Seat	Hardened Stainless Steel, AISI 416
Seat Gasket	Stainless Steel, AISI 316
Strainer*	0.046 Perforated Stainless Steel AISI 304
Blowdown Valve*	Stainless Steel AISI 300

* Strainer and blowdown valve are optional

CAPACITIES — Condensate (lbs/hr)

Model	Orifice Size	Steam Inlet Pressure (PSIG)											
		1	2	5	10	20	50	100	125	150	200	250	300
WT4001	5/16"	605	855	1350	1910	2705	4275	5610	6045	6425	7070	7615	8095
WT4003	7/16"	940	1325	2095	2960	4190	6620	8695	9365	9950	10955	11800	12540

Back Pressure as Percentage of Inlet Pressure	10	20	25	30	40	50	60	70	80	90
Percentage Decrease in Trap Capacity	0	0	0	2	5	12	20	30	40	55