

STEAM TRAPS

WT5000

Adjustable Discharge Temperature Steam Trap

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Model	WT5000
Sizes	3/8", 1/2", 3/4, 1"
Connections	NPT, SW
Body Material	Stainless Steel
PMO Max. Operating Pressure	650 PSIG
TMO Max. Operating Temperature	662°F
PMA Max. Allowable Pressure	900 PSIG
TMA Max. Allowable Temperature	800°F

TYPICAL APPLICATIONS

TRACER: The **WT5000** Series Bimetal Steam Trap is used in steam tracing applications (process lines, instrumentation and winterization, general steam jacketing) and small process applications where accurate control of condensate discharge temperature is required to utilize the sensible heat of the condensate.

HOW IT WORKS

Bimetallic plates of dissimilar metals respond to steam temperature variations, whereby the metals are relaxed at relatively cool conditions (such as start-up) and the trap is open for the discharge of condensate. As temperature nears the preset subcool temperature below saturation, the metals react and expand, closing the trap and preventing the loss of live steam. External field adjustability of the bimetal element allows precise control of the condensate discharge temperature.

The condensate temperature can be field adjusted as follows:

To **INCREASE** the temperature, turn the adjuster screw:
COUNTERCLOCKWISE

To **DECREASE** the temperature, turn the adjuster screw:
CLOCKWISE

Note: The lower the set temperature, the more condensate will back-up in front of the trap inlet connection. Therefore, consideration should be given to providing adequate piping to accommodate any such back-up.

FEATURES

- Excellent for various steam tracing and small process applications using the sensible heat of condensate
- Field adjustable bimetal element allows precise control of condensate discharge temperature
- Internal screen and seat/plug design help prevent pipe scale and debris from accumulating on seating surfaces to provide trouble-free operation
- In-line repairable

**SAMPLE SPECIFICATION**

The steam trap shall be of thermostatic type with stainless steel body, seat, valve plug and bimetallic element. Bimetal element shall be externally adjustable for control of condensate discharge temperature. Trap must be in-line repairable with a replaceable bimetal element, valve plug and seat.

INSTALLATION

Isolation valves should be installed with trap. Trap can be installed in any position.

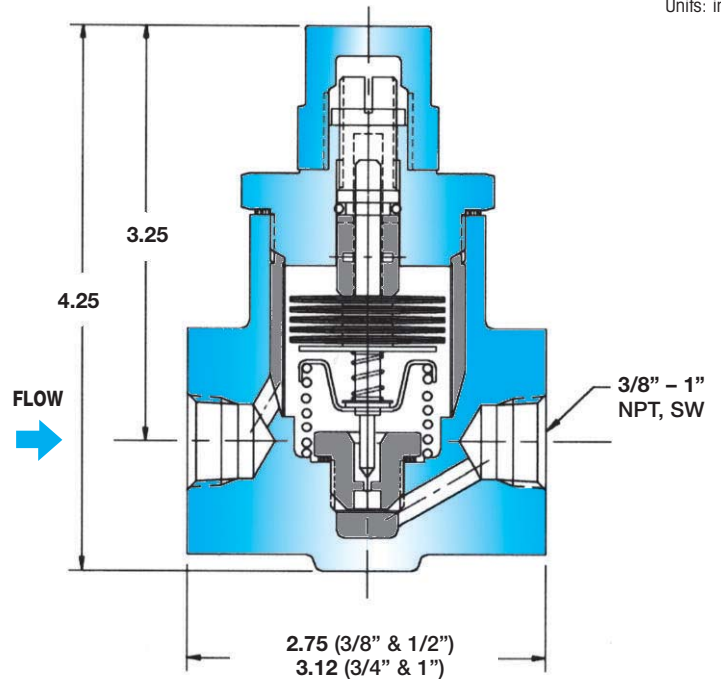
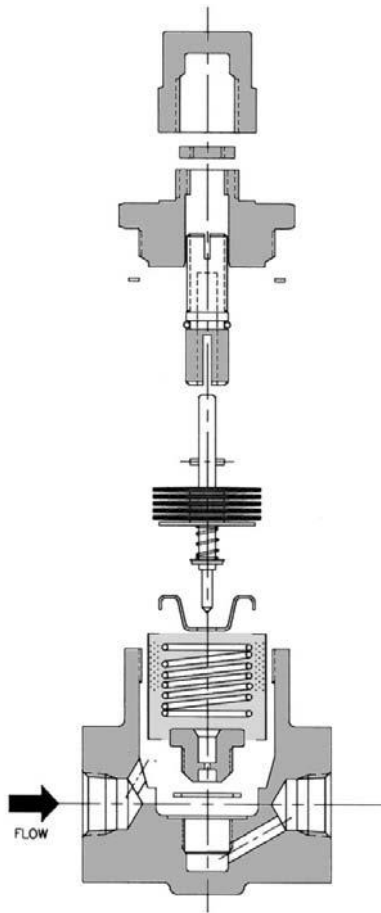
MAINTENANCE

If trap fails, remove cover and replace the internal working components. Repair kit includes bimetallic element (including valve stem and plug), seat and gasket. For full maintenance details see Installation and Maintenance Manual.

WT5000

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Units: inches



MATERIALS

Body and Cover	304 Stainless Steel
Bimetal Element	GB14
Valve Seat	420 Stainless Steel
Gaskets	A240 S31600
Valve Stem	420 Stainless Steel

HOW TO SIZE/ORDER

From the chart below, confirm that application capacity requirements are satisfied at the working Inlet Pressure and desired Set and Discharge Temperatures. Example:

Application: Discharge of 300 lbs/hr at a working inlet pressure of 125 PSIG and 240°F set temperature

Size/Model: **WT5000**, Specify pipe size (3/8", 1/2", 3/4", 1") and connections (NPT, SW)

Note: WT5000 trap can pass up to 336 lbs/hr of condensate at a working inlet pressure of 125 PSIG and condensate set temperature of 240°F (see Capacity Chart).

Maximum Trap Capacities at Various Inlet Pressures and Set Temperatures – Condensate (lbs/hr)

Set Temperature	Steam Inlet Pressure (PSIG)														
	15	30	50	100	125	150	200	250	300	350	400	450	500	600	650
220°F	56	70	102	144	161	177	204	228	250	270	289	306	323	354	368
240°F	116	164	212	300	336	368	425	475	520	562	600	637	671	735	756
260°F	134	190	245	346	387	424	490	548	600	648	693	735	775	849	883
280°F	143	202	261	370	413	453	523	584	640	691	739	784	826	905	942

- Notes:
- 1) Capacities in chart are based on discharging condensate to atmosphere with a condensate temperature of 200°F.
 - 2) Maximum discharge capacity up to 970 lbs/hr, depending on operating condition requirements.
 - 3) Contact factory for additional information including other condensate set and discharge temperatures.
 - 4) To ensure proper operation and eliminate possible steam loss, the Set Temperature should be lower than 27°F subcool (degrees below inlet steam saturation temperature).