

Steam Traps

Thermostatic Steam Trap

(Non-Repairable)

WT1000
Thermostatic

STEAM TRAPS

Model	WT1000 (Non-Repairable)
Sizes	1/2", 3/4"
Connections	NPT
Body Material	Stainless Steel
PMO Max. Operating Pressure	300 PSIG
TMO Max. Operating Temperature	Saturated Steam Temperature
PMA Max. Allowable Pressure	1032 PSIG @ 100°F
TMA Max. Allowable Temperature	750°F @ 800 PSIG



Typical Applications

DRIP, TRACING: The **WT1000** is a low capacity thermostatic trap ideally sized for steam tracing. Thermostatic traps are small, light weight and have excellent air discharging capabilities. Discharging air at start-up allows steam to quickly enter the system. Trap body is permanently seal welded together and therefore non-repairable. Contains an extremely strong and rugged precision welded Stainless Steel thermal element. Its small discharge orifice, which makes it an optimal size trap for both drip and tracing applications, is susceptible to clogging depending on system conditions, therefore, a separate strainer should be installed.

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

- Excellent at discharging air which allows steam to enter system quickly; extremely important during start-up
- Welded stainless steel thermal element resists shock from water hammer
- Freeze-proof when trap is installed in a vertical orientation allowing for complete condensate drainage
- Stainless steel Barstock body
- In the unlikely event of bellows failure; trap discharge remains open

Installation & Maintenance

Trap can be installed in any orientation. The WT1000 steam trap body is seal-welded and therefore non-repairable. If a new trap is required, remove from line and replace. This product cannot be welded in-line or failure of the thermal element due to excess heat may occur. Available in NPT threaded connections only.

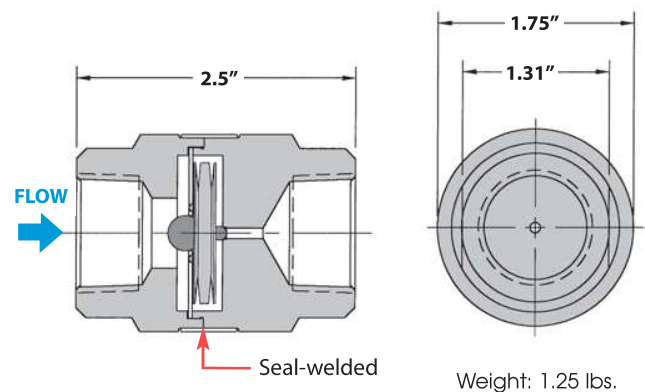
Sample Specification

The steam trap shall be of thermostatic type with stainless steel body and stainless steel thermal element.

MATERIALS

Trap Housing	Stainless Steel, AISI 304L
Thermal Element	Stainless Steel, 300 Series
Valve	Stainless Steel, AISI 440C

DIMENSIONS – inches



CAPACITIES – Condensate (lbs/hr)

Size	Model Code	Steam Inlet Pressure (PSIG)									
		5	10	20	50	100	125	150	200	250	300
1/2"	WT1000-12-N	95	140	195	305	435	485	530	610	685	750
3/4"	WT1000-13-N										

Steam Traps

Thermostatic Steam Trap

(Non-Repairable)

WT2000
Thermostatic

Model	WT2000 (Non-Repairable)
Sizes	1/2", 3/4"
Connections	NPT
Body Material	Stainless Steel
PMO Max. Operating Pressure	650 PSIG
TMO Max. Operating Temperature	Saturated Steam Temp.
PMA Max. Allowable Pressure	1032 PSIG @ 100°F
TMA Max. Allowable Temperature	750°F @ 800 PSIG



Typical Applications

DRIP, TRACING, PROCESS: The **WT2000** is a general purpose medium-capacity thermostatic trap that can be used for steam tracing, as a drip trap on steam mains and steam supply lines, as well as for process applications. They are also commonly used as an Air Vent on heat exchangers or at the ends of steam mains. Thermostatic traps 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, make the WT2000 an excellent choice for a variety of applications. Trap body is permanently seal welded together and therefore non-repairable. 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

- Thermostatic traps are excellent at discharging air, which allows steam to enter quickly; extremely important during start-up
- Integral strainer to protect trap from contamination
- Welded stainless steel thermal element resists shock from waterhammer
- Freeze-proof when 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
- Will operate at steam pressures up to 650 PSIG

Sample Specification

Steam trap shall be of thermostatic type with stainless steel body, thermal element, internal screen, and hardened valve and seat.

Installation and Maintenance

Trap can be installed in any position. The WT2000 steam trap body is seal-welded and therefore non-repairable. If a new trap is required, remove from line and replace. Cannot be welded in-line or failure of the thermal element may occur. Available in NPT threaded connections only.

Helpful Selection Information

Two orifice sizes are available: The 3/16" orifice should be used on all drip and tracing applications as well as small process applications with lower condensate loads. The 5/16" orifice is available to be used on process applications if additional capacity is required.

Options

- Special Bellows Option; available upon request:
 - Fail-closed Bellows (standard bellows fails in open position)
 - 43°F Sub-cool Bellows (Note: Standard bellows are designed for approximately 5°F sub-cool temperature)
- **SLR** = Steam lock release
- Standard models contain a non-cleanable strainer screen. Also available without screen where it is desirable to flush dirt and scale thru the trap. Recommend WT2003 with larger orifice if used without strainer.

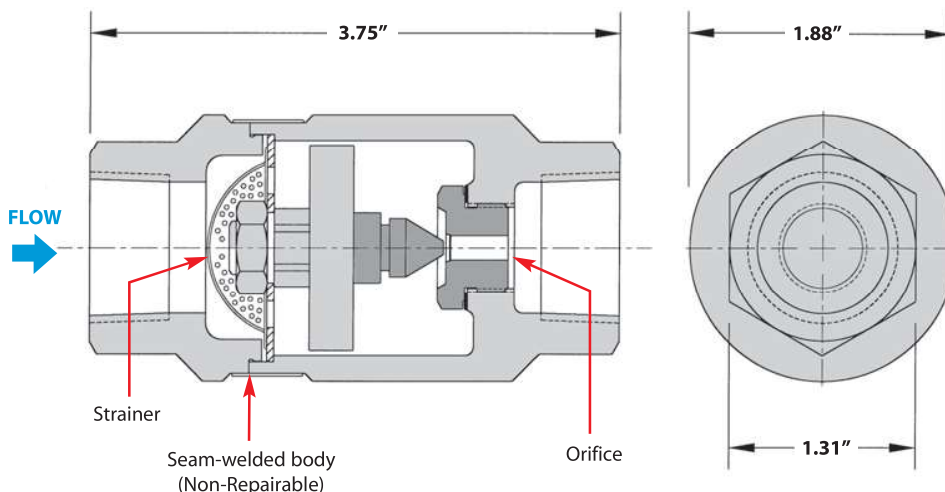
Steam Traps

Thermostatic Steam Trap

(Non-Repairable)

WT2000
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STEAM TRAPS



Weight: 1.5 lbs.

MATERIALS

Trap Housing	Stainless Steel, ASTM A351-CF3
Thermal Element	Stainless Steel
Valve & Seat	Stainless Steel, AISI 416
Strainer Screen	Stainless Steel

How to Size / Order

Select working pressure; follow column down to correct capacity (lbs/hr) block. Example:

Application: 1827 lbs/hr at 100 PSIG working inlet pressure
Size/Model: **WT2001-12-N**, 1/2" NPT, 3/16" orifice

CAPACITIES – Condensate (lbs/hr)

Size	Model Code	Orifice Size	Steam Inlet Pressure (PSIG)														
			5	10	20	50	100	125	150	200	250	300	350	400	500	600	650
1/2"	WT2001-12-N	3/16"	441	625	882	1391	1827	1969	2095	2305	2483	2636	2777	2903	3129	3323	3413
3/4"	WT2001-13-N		903	1271	1811	2861	3754	4043	4300	4730	5093	5413	5702	5959	6421	6820	7004
1/2"	WT2003-12-N	5/16"	903	1271	1811	2861	3754	4043	4300	4730	5093	5413	5702	5959	6421	6820	7004
3/4"	WT2003-13-N		903	1271	1811	2861	3754	4043	4300	4730	5093	5413	5702	5959	6421	6820	7004

Note: 3/16" orifice should be used on all drip and tracing applications.

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

Steam Traps

Thermostatic Steam Trap

(Repairable)

WT3000
Thermostatic

Model	WT3000 (Repairable)
Sizes	1/2", 3/4"
Connections	NPT, SW, FLG
Body Material	Stainless Steel
Options	Strainer, Blowdown Valve
PMO Max. Operating Pressure	650 PSIG
TMO Max. Operating Temperature	Saturated Steam Temp.
PMA Max. Allowable Pressure	906 PSIG @ 100°F
TMA Max. Allowable Temperature	750°F @ 725 PSIG



Typical Applications

DRIP, TRACING, PROCESS: The **WT3000** is a general purpose medium capacity thermostatic trap that can be used for steam tracing; as a drip trap on steam mains and steam supply lines; as well as for process applications. All internal working components can be replaced while the trap body remains in-line. Thermostatic traps 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 WT3000 an excellent choice for a variety of 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 650 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 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 a 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 WT3000S model comes with an optional strainer. WT3000SB comes with optional blowdown valve for flushing dirt and scale from strainer.

Helpful Selection Information

Two orifice sizes are available: The 3/16" orifice should be used on all drip and tracing applications as well as small process applications with lower condensate loads. The 5/16" orifice is available to be used on process applications if additional capacity is required.

Options

Strainer, blowdown valve, steam lock release and special bellows available.

S = Strainer (**WT3001S**)

SB = Strainer and blowdown valve (**WT3001SB**)

SLR = Steam lock release

Special Bellows Option; available upon request:

- Fail-closed Bellows (standard bellows fails in open position)
- 43°F Sub-cool Bellows (Note: Standard bellows are designed for approximately 5°F sub-cool temperature)

How to Size / Order

Refer to the Capacity Chart to determine which model, the WT3001 or WT3003 is required to satisfy the condensate load based on steam inlet pressure.

Example:

Application: 3754 lbs/hr at 100 PSIG steam inlet pressure
Size/Model: **WT3003S**, 5/16" orifice with strainer,
Specify size & connections (NPT, SW, FLG)

Example Model Codes:

WT3003S-13-N 3/4" NPT with strainer, and 5/16" orifice.

WT3001SB-12-N 1/2" NPT with strainer and blowdown valve, 3/16" orifice

Steam Traps

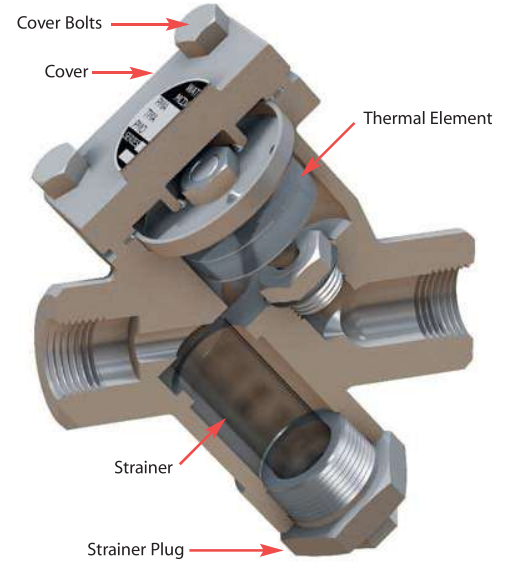
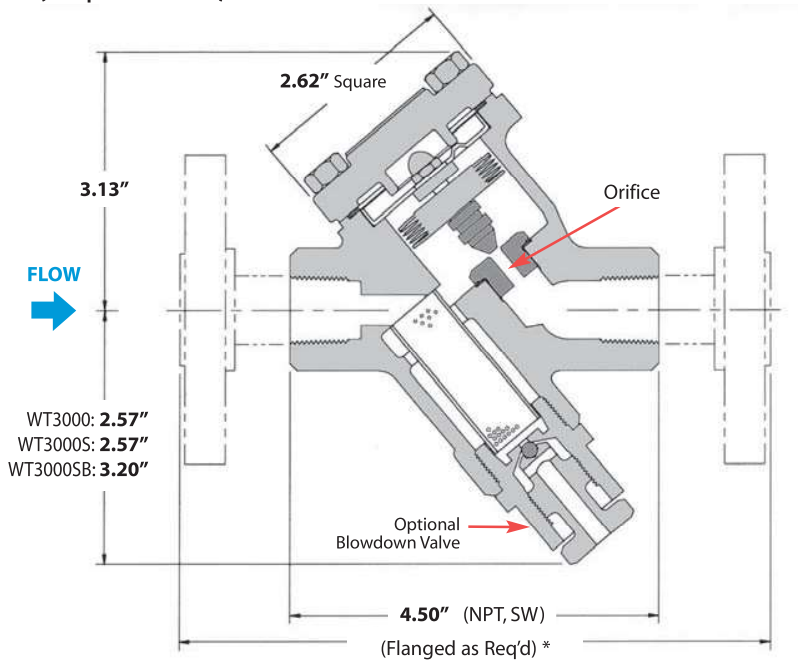
Thermostatic Steam Trap

(Repairable)

WT3000

Thermostatic

STEAM TRAPS



Weight: 4.5 lbs.

* Flanged face-to-face dimension 9" standard. For custom sizes consult factory (9" minimum).

Size/Connection*	Model Code	Orifice Size	Description
1/2" NPT	WT3001-12-N	3/16"	No Strainer
3/4" NPT	WT3001-13-N	3/16"	No Strainer
1/2" NPT	WT3001S-12-N	3/16"	Strainer
3/4" NPT	WT3001S-13-N	3/16"	Strainer
1/2" NPT	WT3001SB-12-N	3/16"	Strainer & Blowdown
3/4" NPT	WT3001SB-13-N	3/16"	Strainer & Blowdown
1/2" NPT	WT3003-12-N	5/16"	No Strainer
3/4" NPT	WT3003-13-N	5/16"	No Strainer
1/2" NPT	WT3003S-12-N	5/16"	Strainer
3/4" NPT	WT3003S-13-N	5/16"	Strainer
1/2" NPT	WT3003SB-12-N	5/16"	Strainer & Blowdown
3/4" NPT	WT3003SB-13-N	5/16"	Strainer & Blowdown

* For Socket Weld Connection change **N** to **SW**

MATERIALS

Cover & Body	Stainless Steel, AISI 316L
Thermal Element	Stainless Steel, AISI 300
Valve & Seat	Stainless Steel, AISI 416
Cover Gasket	Stainless Steel, AISI 316
Seat Gasket	Stainless Steel, AISI 316
Cover Bolts	Steel, ASTM A193 GR B7 Nickel Plated
Strainer*	0.046 Perforated Stainless Steel AISI 304
Blowdown Valve*	Stainless Steel AISI 303

* Strainer and blowdown valve are optional

CAPACITIES — Condensate (lbs/hr)

Model	Orifice Size	Steam Inlet Pressure (PSIG)														
		5	10	20	50	100	125	150	200	250	300	350	400	500	600	650
WT3001	3/16"	441	625	882	1391	1827	1969	2095	2305	2483	2636	2777	2903	3129	3323	3413
WT3003	5/16"	903	1271	1811	2861	3754	4043	4300	4730	5093	5413	5702	5959	6421	6820	7004

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

Steam Traps

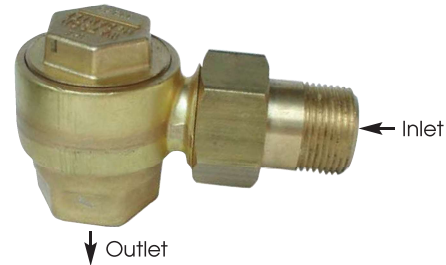
Thermostatic Steam Trap

(Repairable)

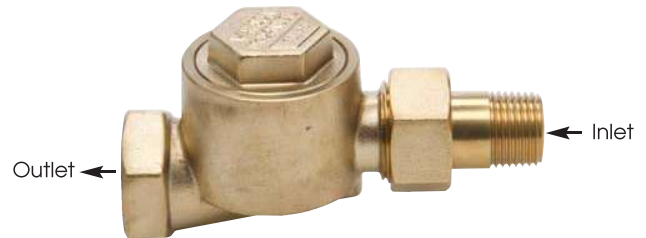
TA25B, TA125 TS25B, TS125

Model	TA25B, TA125, TS25B, TS125
Sizes	1/2", 3/4"
Connections	NPT
Body Material	Brass
PMO Max. Operating Pressure	TA25B, TS25B 25 PSIG TA125, TS125 125 PSIG
TMO Max. Operating Temperature	Saturated Steam Temperature
PMA Max. Allowable Pressure	125 PSIG up to 450°F
TMA Max. Allowable Temperature	450°F @125 PSIG

TA Type • Right-Angle Connection



TS Type • Straight-thru Connection



Typical Applications

TA & TS type steam traps are predominantly used in the HVAC industry. They are referred to as radiator traps because the quick-disconnect right angle connection of the TA Type is found on most steam radiator installations. The TS Type offers a straight-through connection alternative. TA and TS Series radiator traps were designed specifically for removing condensate and air from 2-pipe steam heating systems. Their excellent air-handling capabilities, compact size, and economical cost make them a great choice for air vents on heat exchangers or for steam trap applications on OEM equipment. 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. When air and condensate are present the trap is in the open discharge position. When steam reaches the trap the element expands and closes off tightly.

Features

- Excellent air handling capability
- In-line repairable
- Welded stainless steel thermal element
- Stainless seat on TA125 & TS125
- High thermal efficiency

Sample Specification

The steam trap shall be of thermostatic type with brass or bronze body and stainless steel thermal element. Trap must be in-line repairable.

Installation and Maintenance

Trap can be installed in any orientation. The bodies are made from a high-quality brass forging and are easily repairable while the steam trap remains in-line by removing the cap and replacing the seat and thermal element. Repair kit includes thermal element, seat and gasket.

Steam Traps

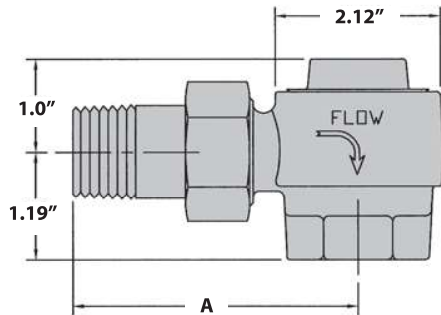
Thermostatic Steam Trap

(Repairable)

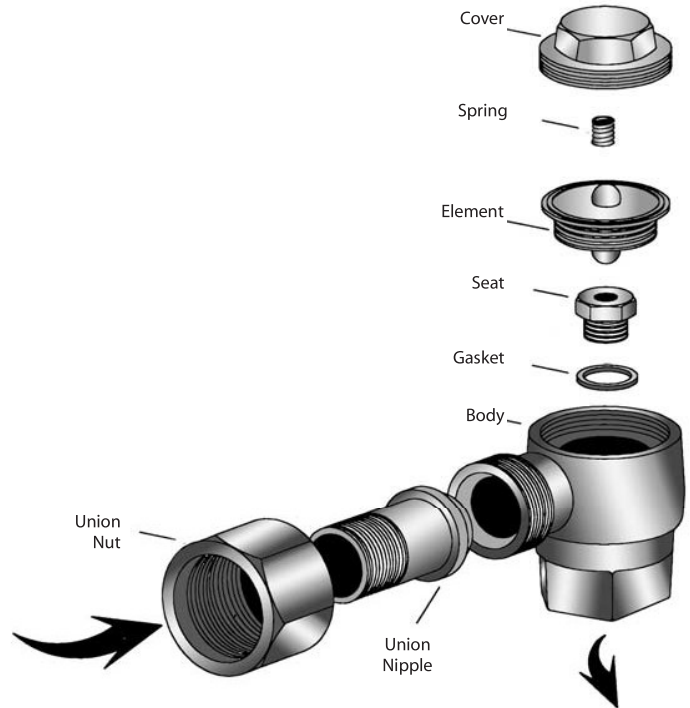
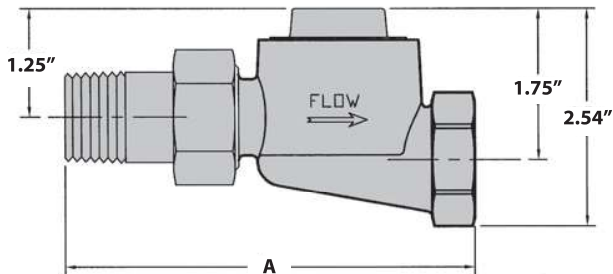
TA25B, TA125 TS25B, TS125

STEAM TRAPS

TA Type • Right-Angle Connection



TS Type • Straight-thru Connection



DIMENSIONS & WEIGHTS – inches

Model	Pipe Size	A	Weight (lbs)
TA25B, TA125	1/2"	2.1875	1.5
TA25B, TA125	3/4"	3.062	1.5
TS25B, TS125	1/2"	4.500	1.5
TS25B, TS125	3/4"	4.625	1.5

Note: Other Union Connections and Lengths are available; consult factory.

How to Size / Order

Select differential pressure; follow column down to correct capacity (lbs/hr) block. Example:

Application: 2100 lbs/hr at 40 PSI differential pressure

Size/Model: 3/4" TA125

CAPACITIES – Condensate (lbs/hr)

Size	Model Code	PMO (PSIG)	Steam Inlet Pressure (PSIG)				
			15	25	40	65	125
1/2"	TA25B-12-N TS25B-12-N	25	825	1070			
	TA125-12-N TS125-12-N	125	825	1070	1323	1610	1950
3/4"	TA25B-13-N TS25B-13-N	25	1290	1700			
	TA125-13-N TS125-13-N	125	1290	1700	2100	2575	3300

MATERIALS

Body	Forged Brass, CA 377
Element	Welded Stainless Steel, AISI 302
Cover	Forged Brass, CA 377
Spring	Stainless Steel, AISI 304
Seat	TA25B/TS25B: Brass ASTM B-21 TA125/TS125: Stainless Steel, AISI 303
Gasket	Brass, ASTM B-21
Union Nipple	Brass, ASTM B-16
Union Nut	Brass, ASTM B-16

Steam Traps

Thermostatic Steam Trap

(Repairable)

WT2500

Thermostatic



Model	WT2500 (Repairable)
Sizes	1/2", 3/4"
Connections	NPT
Body Material	Cast Iron
PMO Max. Operating Pressure	250 PSIG
TMO Max. Operating Temperature	406°F
PMA Max. Allowable Pressure	250 PSIG up to 450°F
TMA Max. Allowable Temperature	450°F @ 250 PSIG

Typical Applications

DRIP, TRACING, PROCESS: The WT2500 is a general purpose medium capacity thermostatic trap that can be used for steam tracing; as a drip trap on steam mains and steam supply lines; as well as for process applications. All internal working components can be replaced while the trap 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. The WT2500 is an excellent choice for a variety of applications. Contains an extremely strong and rugged precision welded Stainless Steel thermal element which is highly resistant to waterhammer.

How It Works

The thermostatic trap contains a welded stainless steel thermal element that expands when heated and contracts when cooled. When air and 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 250 PSIG
- Thermostatic traps have excellent air handling capability
- Welded stainless steel thermal element resists shock from water hammer
- Freeze-proof when trap is installed in a vertical orientation allowing for complete condensate drainage
- Hardened stainless steel seat for extended service life

MATERIALS

Cover & Body	Cast Iron ASTM A-126 Class B
Thermal Element	Stainless Steel, AISI 302
Valve & Seat	Stainless Steel, AISI 416
Cover Gasket	Garlock

CAPACITIES — condensate (lbs/hr)

Size	Model Code	Orifice Size	Steam Inlet Pressure (PSIG)								
			5	10	20	50	100	125	150	200	250
1/2"	WT2501-12-N	3/16"	441	625	882	1391	1827	1969	2095	2305	2483
3/4"	WT2501-13-N	3/16"									
1/2"	WT2503-12-N	5/16"	903	1271	1811	2861	3754	4043	4300	4730	5093
3/4"	WT2503-13-N	5/16"									

Sample Specification

The steam trap shall be of a thermostatic type with cast iron body and stainless steel thermal element. Trap must be in-line repairable with a bolt-on type cover that is sealed with a spiral wound Stainless Steel AISI 316 gasket. Valve and seat 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 in line by removing the four-bolt cover. Repair kit includes ALL parts to fully rebuild the steam trap including thermal element, seat and gasket.

Helpful Selection Information

Two orifice sizes are available: The 3/16" orifice should be used on all drip and tracing applications as well as small process applications with lower condensate loads. The 5/16" orifice is available to be used on process applications if additional capacity is required.

Options

SLR = Steam lock release

How to Size / Order

Select working pressure; follow column down to correct capacity (lbs/hr). Example:

Application: 1827 lbs/hr at 100 PSIG working inlet pressure
 Size/Model: **WT2501-12-N**, 1/2" NPT, 3/16" orifice.

