STEAM TRAPS

WT1000

Thermostatic Steam Trap

Model	**WT1000**
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, TRACER: The **WT1000** thermostatic steam trap was specifically designed for drip and tracing applications as well as an air vent for heat exchangers. Like all thermostatic traps, the WT1000 is small, light, and has excellent air handling capabilities. The discharging of air on start-up allows steam to enter the system more quickly.

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

- **Excellent air handling capability which allows steam to enter and the system to warm up faster; extremely important during start up**
- **Welded stainless steel thermal element which resists shock from water hammer**
- **Freezeproof when trap is installed in a vertical orientation allowing for complete condensate drainage**
- **Body is produced from solid stainless steel barstock**

SAMPLE SPECIFICATION

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

INSTALLATION & MAINTENANCE

Trap can be installed in any position. Steam trap is non-repairable. If new trap is needed, remove from line and replace.

OPTIONS

Special bellows available upon request.

MATERIALS

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

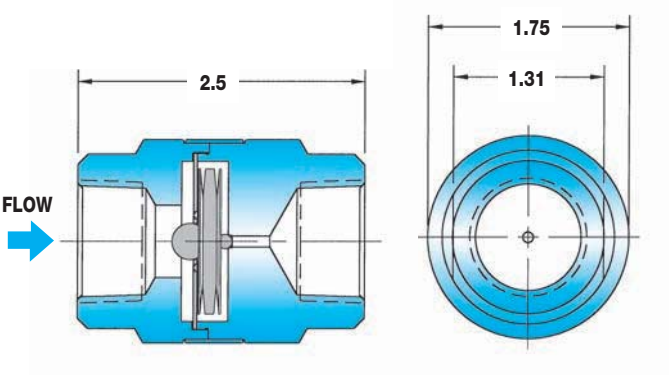
HOW TO SIZE/ORDER

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

Application: 435 lbs/hr at 100 PSIG working inlet pressure

Size/Model: **WT1000**, Specify pipe size and connections (1/2", 3/4")

DIMENSIONS – *inches*



CAPACITIES – *Condensate (lbs/hr)*

	Steam Inlet Pressure (PSIG)									
MODEL	5	10	20	50	100	125	150	200	250	300
WT1000	95	140	195	305	435	485	530	610	685	750

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

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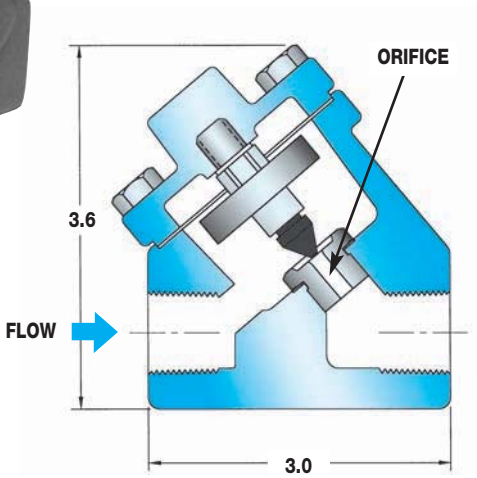
STEAM TRAPS
WT2500
Thermostatic Steam Trap

Model	**WT2500**
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**

Units: Inches



TYPICAL APPLICATIONS

DRIP, TRACER, PROCESS: The **WT2500** thermostatic steam trap is used for drip, tracing and process applications. Their compact size, excellent air handling capability and wide operating pressure range make them a great choice for most applications. Thermostatic traps are far superior to bucket traps and thermodynamic disc traps in their ability to remove air from the system.

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 allowing air to be discharged rapidly and steam to enter the system quickly during start up**
- **Welded stainless steel thermal element that resists shock from water hammer**
- **Freezeproof 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

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.

MAINTENANCE & INSTALLATION

Trap can be installed in any position. If replacement is required, remove the cover and replace the internal working components. Repair kit includes thermal element, seat and gasket. For full maintenance details see Installation and Maintenance Manual.

OPTION

Fail-closed bellows available upon request.

SLR = Steam lock release

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: **WT2501**, 3/16" orifice, Specify pipe size (1/2", 3/4")

CAPACITIES – *condensate (lbs/hr)*

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

Notes: 1) 5/16" orifice size is standard and is normally used on process equipment.
2) 3/16" orifice size is offered for reduced capacity and normally used for tracing applications.

STEAM TRAPS

WT2000C

Thermostatic Steam Trap

Model	**WT2000C**
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, TRACER, PROCESS: The **WT2000C** thermostatic steam trap is used for drip, tracing, and process applications. Their compact size, all stainless steel construction, excellent air handling capabilities, and the ability to operate over a wide pressure range make them a good choice for most applications. They can also be used as an air vent on heat exchangers. Thermostatic traps are far superior to bucket traps and thermodynamic traps in their ability to remove air from the system. The discharging of air on start up allows steam to enter the system more quickly.

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

- **Thermostatic traps have excellent air handling capability allowing air to be discharged rapidly and steam to enter the system quickly during start up**
- **Integral strainer to protect trap from contamination**
- **Welded stainless steel thermal element which resists shock from water hammer**
- **Freezeproof 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

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

MAINTENANCE

Steam trap is non-repairable. If failure or malfunction occurs, remove and replace.

OPTIONS

Fail-closed bellows avaiable upon request.

SLR = Steam lock release

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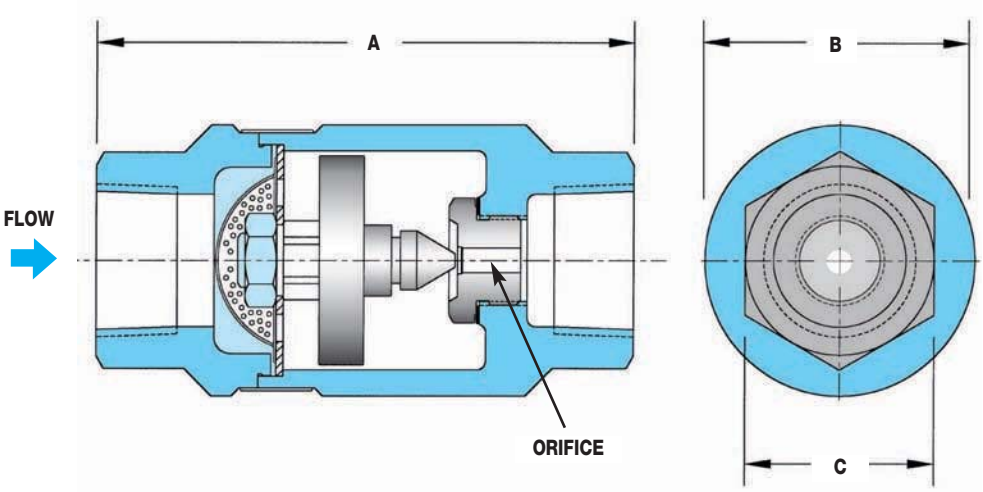
STEAM TRAPS
WT2000C
Thermostatic Steam Trap



DIMENSIONS & WEIGHTS – *inches/pounds*

Size	A	B	C	Weight (lbs)
1/2", 3/4"	3.75	1.88	1.31	1.5

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: **WT2001C**, 3/16" orifice, Specify connection size

CAPACITIES – *Condensate (lbs/hr)*

Model	Orifice Size	Steam Inlet Pressure (PSIG) 5	10	20	50	100	125	150	200	250	300	350	400	450	500	600	650
WT2001C	3/16"	441	625	882	1391	1827	1969	2095	2305	2483	2636	2777	2903	3019	3129	3323	3413
WT2003C	5/16"	903	1271	1811	2861	3754	4043	4300	4730	5093	5413	5702	5959	6195	6421	6820	7004

Notes: 1) 5/16" orifice size is standard and is normally used on process equipment.
2) 3/16" orifice size is offered for reduced capacity and normally used for 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

WT3000

Thermostatic Steam Trap (Repairable)

Model	**WT3000**
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

PROCESS: The **WT3000** thermostatic steam trap is used for industrial process applications. Their compact size, all stainless steel construction, excellent air handling capability and wide operating pressure range make them a great choice for most process applications. Thermostatic traps are far superior to bucket traps and thermodynamic disc traps in their ability to remove air from the system.

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 650 PSIG**
- **Thermostatic traps have excellent air handling capability allowing air to be discharged rapidly and steam to enter the system quickly during start up**
- **Welded stainless steel thermal element that resists shock from water hammer**
- **Freezeproof 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

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

MAINTENANCE

If the trap fails, remove the cover and replace the internal working components. Repair kit includes thermal element, seat and gasket. For full maintenance details see Installation and Maintenance Manual.

OPTIONS

Strainer, blowdown valve, and steam lock release.

S = Strainer (**WT3001S**)

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

SLR = Steam lock release

Fail-closed Bellows

Special Bellows For additional sub-cooling of condensate (down to 43°F below saturated steam temperature)

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 is required to satisfy the condensate load. (Select steam inlet pressure, follow column down to correct capacity (lbs/hr) block)
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)

Add **S** to end of the model code if a Strainer is required

Add **SB** to end of the model code if a Strainer & Blowdown Valve is required

Examples:

3/4" WT3003S 3/4" connections with strainer, 5/16" orifice

1/2" WT3001SB 1/2" connections with strainer and blowdown valve, 3/16" orifice

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WT3000
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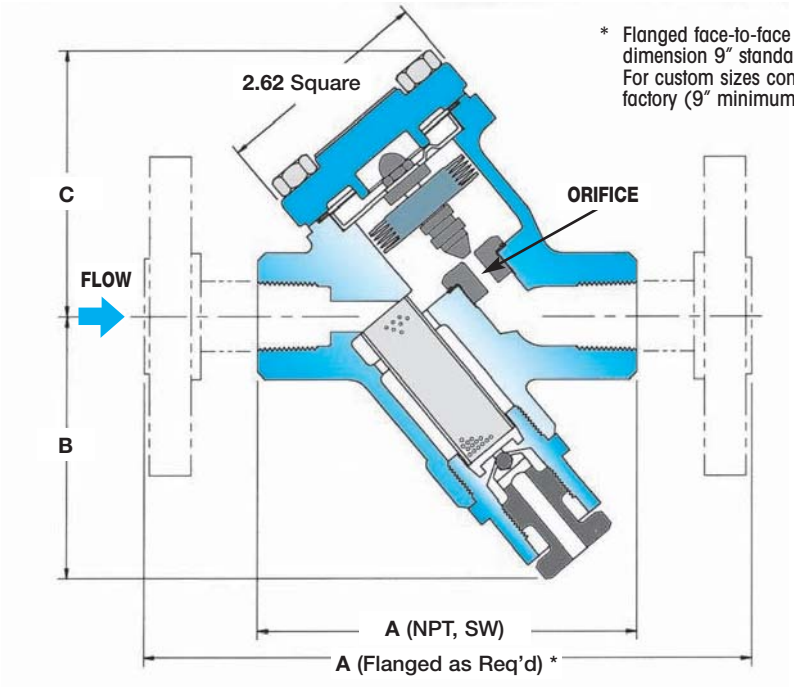

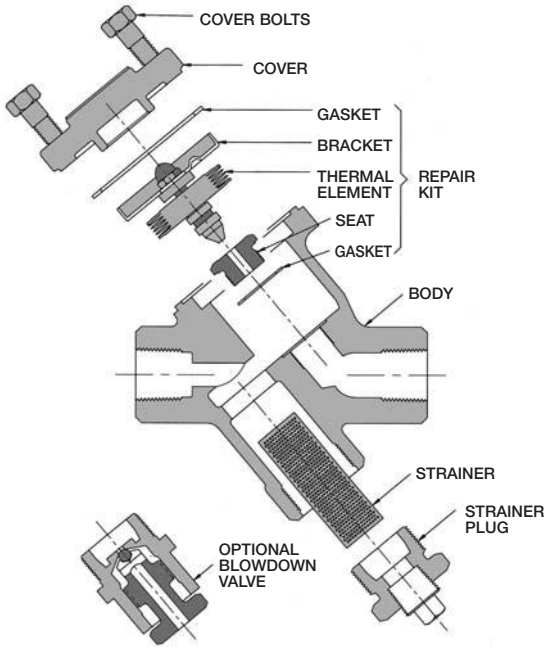

DIMENSIONS & WEIGHTS – *inches/pounds*

Size	Connection	A	B	C	Weight (lbs)
Series WT3000, WT3000S (Strainer)					
1/2"	NPT, SW	4.5	2.57	3.13	4.5
3/4"	NPT, SW	4.5	2.57	3.13	4.5
Series WT3000SB (Strainer & Blowdown Valve)					
1/2"	NPT, SW	4.5	3.2	3.13	4.5
3/4"	NPT, SW	4.5	3.2	3.13	4.5

***S** = Strainer only* ***SB** = Strainer and Blowdown*

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
Screen*	0.046 Perforated Stainless Steel AISI 304
Blowdown Valve*	Stainless Steel AISI 303

** Screen and blowdown valve are optional*

CAPACITIES – *Condensate (lbs/hr)*

Model	Pipe Size	Orifice Size	Steam Inlet Pressure (PSIG) 5	10	20	50	100	125	150	200	250	300	350	400	450	500	600	650
WT3001	1/2", 3/4"	3/16"	441	625	882	1391	1827	1969	2095	2305	2483	2636	2777	2903	3019	3129	3323	3413
WT3003		5/16"	903	1271	1811	2861	3754	4043	4300	4730	5093	5413	5702	5959	6195	6421	6820	7004

Notes:
1) 5/16″ orifice size is standard and is normally used on process equipment.
2) 3/16″ orifice size is offered for reduced capacity.
3) 5/64″ low capacity orifice is available upon request.

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

WT4000

Thermostatic Steam Trap (Repairable)

Model	**WT4000**
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** thermostatic steam trap is used for industrial process applications. Their compact size, all stainless steel construction, excellent air handling capability and wide operating pressure range make them a great choice for most process applications. Thermostatic traps are far superior to bucket traps and thermodynamic disc traps in their ability to remove air from the system.

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 300 PSIG**
- **Thermostatic traps have excellent air handling capability allowing air to be discharged rapidly and steam to enter the system quickly during start up**
- **Welded stainless steel thermal element that resists shock from water hammer**
- **Freezeproof 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

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 thermal element, seat and gasket. For full maintenance details see Installation and Maintenance Manual.

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 and metallurgy required for application.

HOW TO SIZE/ORDER

Refer to the Capacity Chart to determine which model is required to satisfy the condensate load. (Select steam inlet pressure; follow column down to correct capacity (lbs/hr) block) Example:

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

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

Add **S** to end of model code if a Strainer is required

Add **SB** to end of model code if a Strainer & Blowdown Valve is required

Examples:

3/4" WT4001S	3/4" connections with strainer, 5/16" orifice
1" WT4003SB	1" connections with strainer and blowdown valve, 7/16" orifice

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WT4000
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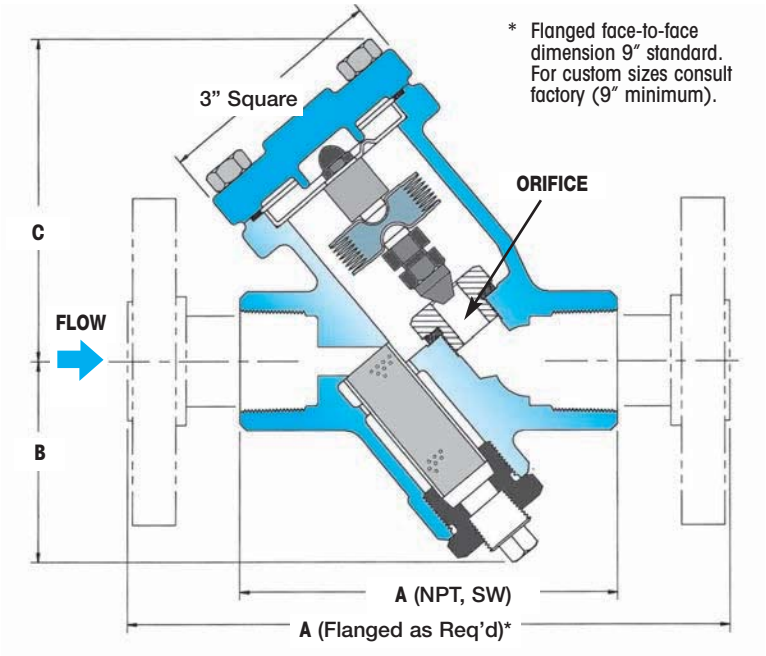

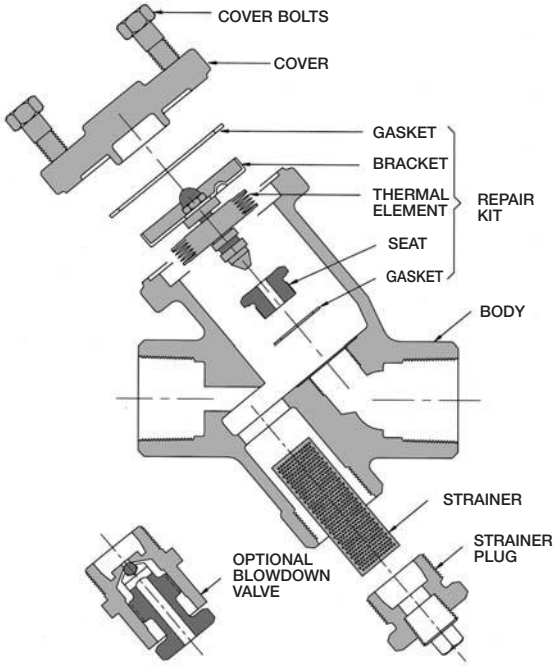

DIMENSIONS & WEIGHTS – *inches/pounds*

Size	Connection	A	B	C	Weight (lbs)
Series WT4000, WT4000S (Strainer)					
3/4"	NPT, SW	4.81	2.57	4.12	4.5
1"	NPT, SW	4.81	2.57	4.12	4.5
Series WT4000SB (Strainer & Blowdown Valve)					
3/4"	NPT, SW	4.81	3.12	4.12	4.5
1"	NPT, SW	4.81	3.12	4.12	4.5

***S** = Strainer only* ***SB** = Strainer and Blowdown*

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
Screen*	0.046 Perforated Stainless Steel AISI 304
Blowdown Valve*	Stainless Steel AISI 300

** Screen and blowdown valve are optional*

CAPACITIES – *Condensate (lbs/hr)*

Model	Pipe Size	Orifice Size	Steam Inlet Pressure (PSIG) 1	2	5	10	20	50	100	125	150	200	250	300
WT4001	**3/4", 1"**	**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

Notes: *1) 7/16" orifice size is standard and is normally used on process equipment.*
2) 5/16" orifice size is offered for reduced capacity.

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
WT5000
Adjustable Discharge Temperature Steam Trap

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 condenstate 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 accomodate any such back-up.

FEATURES

- **Excellent for various steam tracing and small process applications using the sensible heat of condendate**
- **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.

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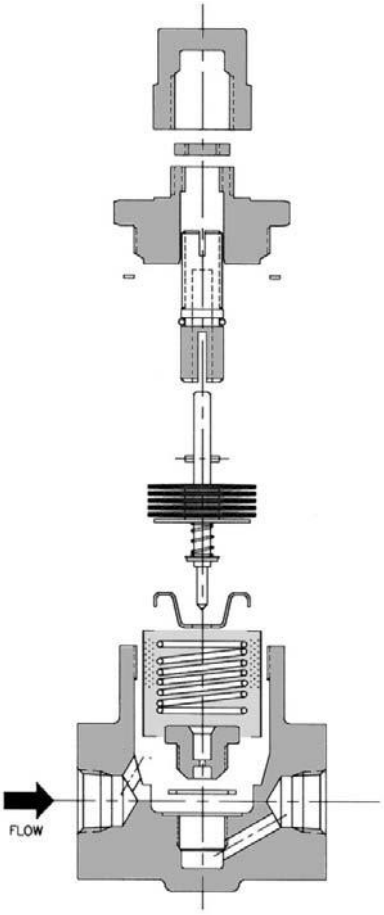
STEAM TRAPS
WT5000
Adjustable Discharge Temperature Steam Trap



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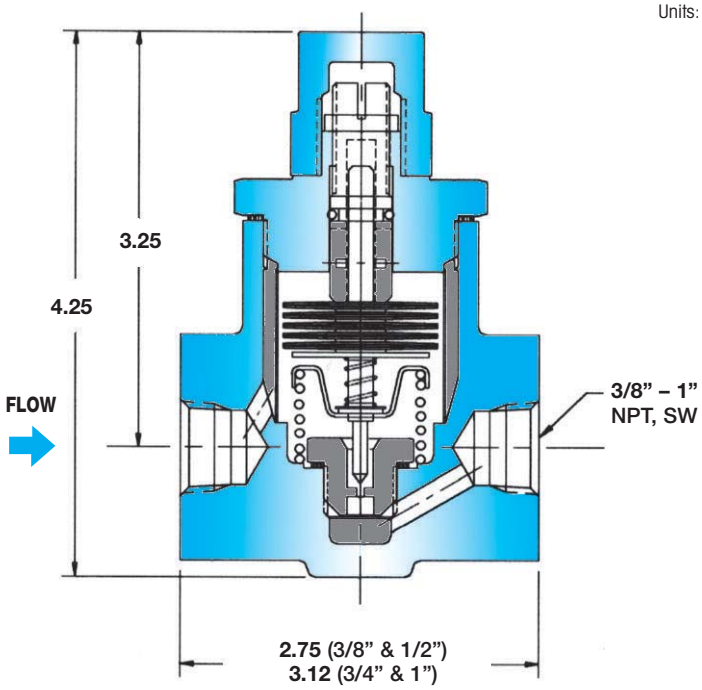


MATERIALS

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.

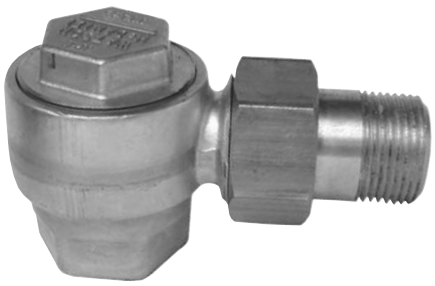
4) To ensure proper operation and eliminate possible steam loss, the Set Temperature should be lower than 27˚F subcool (degrees below inlet steam saturation temperature).

STEAM TRAPS

TT25B/TT125

Thermostatic Steam Trap (Repairable)

Model	**TT25B, TT125**
Sizes	**1/2", 3/4"**
Connections	**NPT**
Body Material	**Brass**
PMO Max. Operating Pressure	**TT25B 25 PSIG** **TT125 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**



TYPICAL APPLICATIONS

TT25B/TT125 thermostatic steam traps are predominantly used in the HVAC industry. They are referred to as radiator traps because the quick-disconnect right angle connection is found on most radiator installations. 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.

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

- **Excellent air handling capability**
- **In-line repairable**
- **Welded stainless steel thermal element**
- **Stainless seat on TT125**
- **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

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

MAINTENANCE

If the trap fails, remove the cover and replace the internal working components. Repair kit includes thermal element, seat and gasket. For full maintenance details see Installation and Maintenance Manual.

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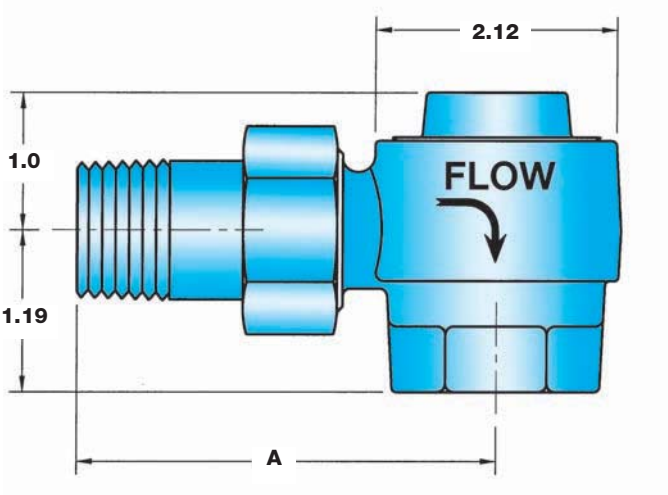
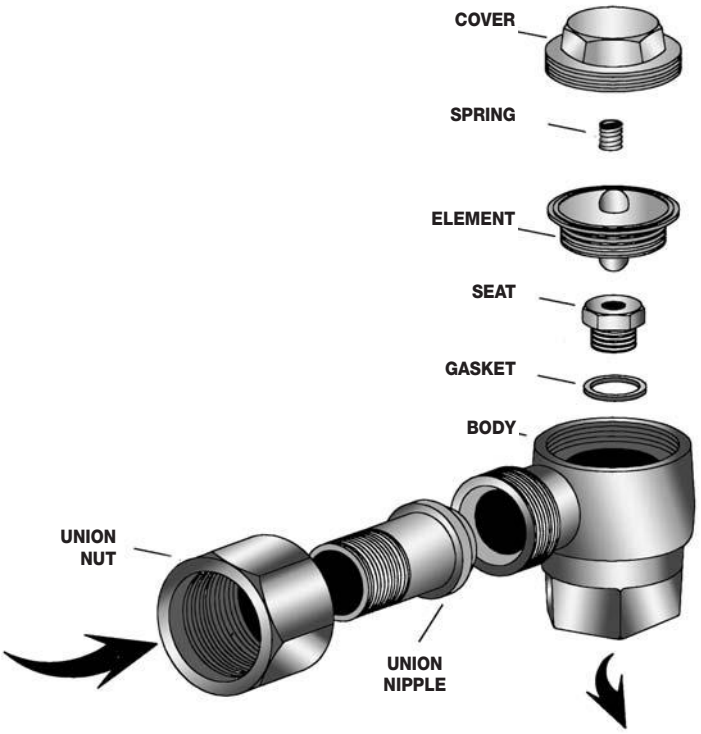
STEAM TRAPS
TT25B/TT125
Thermostatic Steam Trap





DIMENSIONS & WEIGHTS – *inches/pounds*

Model	Pipe Size	A	Weight (lbs)
TT25B, TT125	1/2″	2.1875	1.5
TT25B, TT125	3/4″	3.062	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″ **TT125**

CAPACITIES – *Condensate (lbs/hr)*

	Differential Pressure (PSI)				
Pipe Size	15	25	40	65	125
1/2″	825	1070	1323	1610	1950
3/4″	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	TT25B: Brass ASTM B-21 TT125: Stainless Steel, AISI 303
Gasket	Brass, ASTM B-21
Union Nipple	Brass, ASTM B-16
Union Nut	Brass, ASTM B-16

STEAM TRAPS

FDA400 Series

Thermostatic Clean Steam Trap (Repairable)

Model	**FDA401, FDA402, FDA403**
Sizes	**1/2", 3/4"**
Connections	**Tri-clamp**
Body Material	**Stainless Steel**
PMO Max. Operating Pressure	**90 PSIG**
TMO Max. Operating Temperature	**Saturated Steam Temperature**
PMA Max. Allowable Pressure	**145 PSIG up to 338ºF**
TMA Max. Allowable Temperature	**350ºF @ 132 PSIG**

FDA402
shown

Sanitary Clamp for Trap Body

TYPICAL APPLICATIONS

DRIP, PROCESS: The **FDA400 Series** thermostatic steam traps are used on clean steam applications as drip traps on piping runs as well as drainage for CIP/SIP systems and various process vessels. The FDA400 Series allows for a 90˚ connection on either the inlet or outlet capable of 360˚ orientation.

HOW IT WORKS

The thermostatic trap contains a welded 316L 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 closing the trap tightly.

FEATURES

- **Universal horizontal connection swivels to any angle**
- **All wetted parts are 316L stainless steel**
- **Electro-polish finish of 20-25 microinches RA on internal body**
- **Electro-polish finish of 25-32 microinches RA on external body**
- **Operates close to saturation curve to minimize condensate back-up**
- **Completely self-draining in the vertical downward flow orientation**

MATERIALS

Body	Stainless Steel, AISI 316L
Gasket	Teflon Coated Elastomer
Element Plate	Stainless Steel, AISI 316L
Thermal Element	Stainless Steel, AISI 316L
Clamp	Stainless Steel, AISI 304

CAPACITIES – *Condensate (lbs/hr)*

Orifice Size (inches)	Differential Pressure (PSI) 5	10	20	50	75	90
9/64	140	240	400	690	850	950
5/16	850	1200	1695	2690	3165	3400

Note: Capacities at 10˚F below saturation.

SAMPLE SPECIFICATION

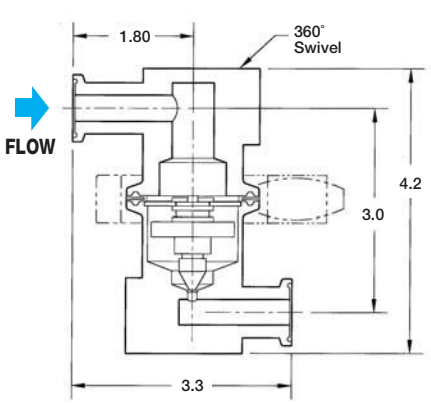
The Steam Trap shall be all 316L stainless steel thermostatic type with a balanced pressure bellows that operates close to saturated steam temperatures. Inlet, outlet or both connections must contain a 90˚ swivel arrangement capable of 360˚ orientation. Internal body parts shall have an electro-polish finish of 20-25 microinches RA internally and a 25-32 finish externally. The unit shall have a split-body sanitary clamp design for easy maintenance. Trap shall be completely self-draining when mounted vertically.

INSTALLATION & MAINTENANCE

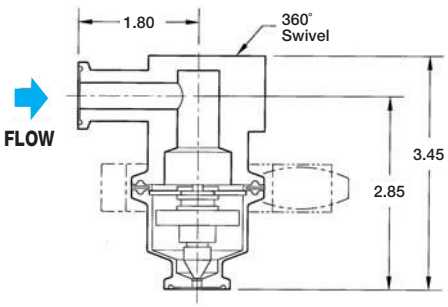
Trap is designed for installation in a vertical, downward flow orientation to ensure that the self-draining clean steam requirement is satisfied. For full maintenance details see Installation and Maintenance Manual.

FDA400 Series **Connections: 1/2" & 3/4"**

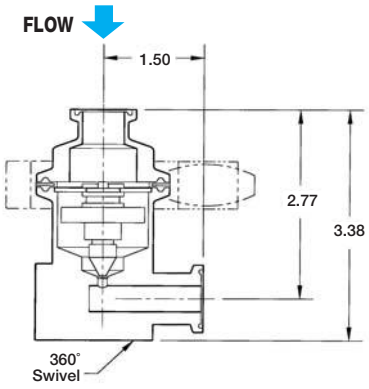
Units: inches



FDA401 Inlet: 90˚ Angle
Outlet: 90˚ Angle



FDA402 Inlet: 90˚ Angle
Outlet: Straight



FDA403 Inlet: Straight
Outlet: 90˚ Angle

STEAM TRAPS

FDA500

Thermostatic Clean Steam Trap (Repairable)

Model	**FDA500, FDA510**
Sizes	**1/2", 3/4", 1"**
Connections	**Tri-clamp, NPT, Tube Weld**
Body Material	**Stainless Steel**
PMO Max. Operating Pressure	**90 PSIG**
TMO Max. Operating Temperature	**Saturated Steam Temperature**
PMA Max. Allowable Pressure	**145 PSIG up to 338°F**
TMA Max. Allowable Temperature	**350°F @ 132 PSIG**

Sanitary Clamp for Trap Body

TYPICAL APPLICATIONS

DRIP, PROCESS: The **FDA500 Series** thermostatic steam traps are used on clean steam applications as drip traps on piping runs as well as drainage for CIP/SIP systems and various process vessels.

HOW IT WORKS

The thermostatic trap contains a welded 316L 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 closing the trap tightly.

FEATURES

- **All wetted parts are 316L stainless steel**
- **Electro-polish finish of 20-25 microinches RA on internal body**
- **Electro-polish finish of 25-32 microinches RA on external body**
- **Operates close to saturation curve to minimize condensate back-up**
- **Completely self-draining in the vertical downward flow orientation**

SAMPLE SPECIFICATION

The steam Trap shall be all 316L stainless steel thermostatic type with a balanced pressure bellows that operates close to saturated steam temperatures. Internal body parts shall have an electro-polish finish of 20-25 microinches RA internally and a 25-32 finish externally. The unit shall have a split-body sanitary clamp design for easy maintenance. Trap shall be completely self-draining when mounted vertically.

INSTALLATION

Trap is designed for installation in a vertical, downward flow orientation to ensure that the self-draining clean steam requirement is satisfied. Isolation valves should be installed for maintenance purposes. For welded installations, removal of the body gasket and thermal element is necessary.

MAINTENANCE

Dirt is the most common cause of premature failure. Therefore, the upstream strainer should be periodically inspected and cleaned. For full maintenance details see Installation and Maintenance Manual.

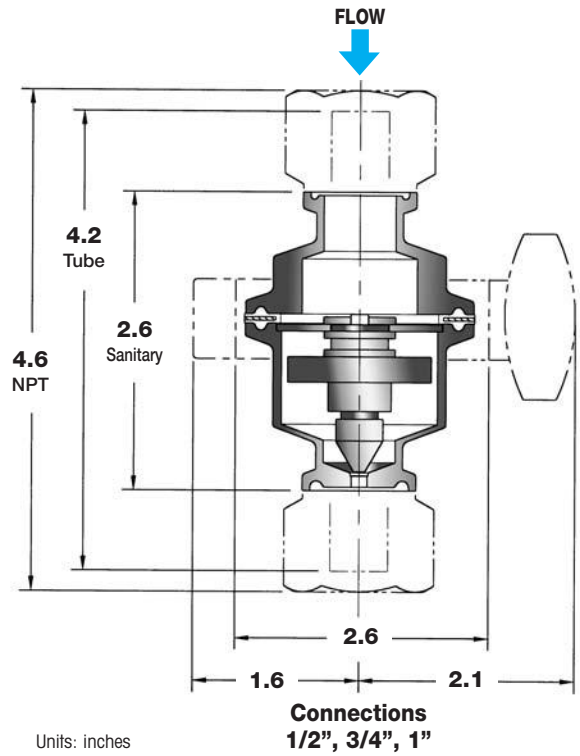
MATERIALS

Body	Stainless Steel, AISI 316L
Gasket	Teflon/Encapsulated Viton
Element Plate	Stainless Steel, AISI 316L
Thermal Element	Stainless Steel, AISI 316L
Clamp	Stainless Steel, AISI 304

CAPACITIES – *Condensate (lbs/hr)*

Model	Orifice (inches)	Differential Pressure (PSI) 5	10	20	50	75	90
FDA500	9/64	140	240	400	690	850	950
FDA510	5/16	850	1200	1695	2690	3165	3400

Note: Capacities at 10°F below saturation.



STEAM TRAPS

FDA600

Thermostatic Clean Steam Trap

Model	**FDA600**
Sizes	**1/2", 3/4", 1"**
Connections	**Tri-clamp, NPT, Tube Weld**
Body Material	**Stainless Steel**
PMO Max. Operating Pressure	**110 PSIG**
TMO Max. Operating Temperature	**Saturated Steam Temperature**
PMA Max. Allowable Pressure	**145 PSIG up to 338°F**
TMA Max. Allowable Temperature	**350°F @ 132 PSIG**

TYPICAL APPLICATIONS

DRIP, PROCESS: The **FDA600** Steam Traps are used on clean steam applications as drip traps on piping runs as well as drainage for CIP/SIP systems and various process vessels.

HOW IT WORKS

The thermostatic trap contains a welded 316L 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 closing the trap tightly.

FEATURES

- **All wetted parts are 316L stainless steel**
- **Operates close to saturation curve to minimize condensate back-up**
- **Completely self-draining in the vertical downward flow orientation**

SAMPLE SPECIFICATION

The Steam Trap shall be all 316L stainless steel thermostatic type with a balanced pressure bellows that operates close to saturated steam temperatures. The unit shall have a split-body design for easy maintenance. Trap shall be completely self-draining when mounted vertically.

INSTALLATION

The trap is designed for installation in a vertical, downward flow orientation to ensure that the self-draining clean steam requirement is satisfied. Isolation valves should be installed for maintenance purposes. For welded installations, removal of the body gasket and thermal element is necessary.

MAINTENANCE

Dirt is the most common cause of premature failure. Therefore, the upstream strainer should be periodically cleaned. For full maintenance details see Installation and Maintenance Manual.

MATERIALS

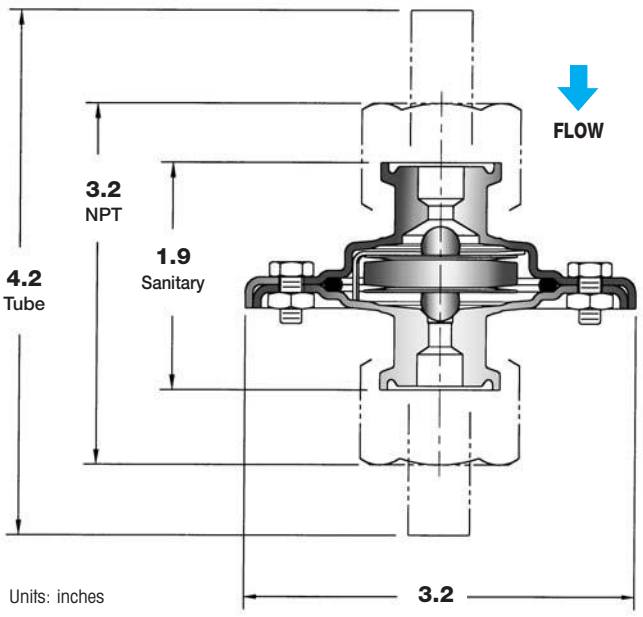
Body	Stainless Steel, AISI 316L
Thermal Element	Stainless Steel, AISI 316L
O-Ring, FDA Grade	Teflon Coated Silicone/FEP
Nuts & Bolts	Stainless Steel, AISI 316L

HOW TO SIZE/ORDER

Size/Model: **FDA600**, Specify pipe size and connections.

CAPACITIES – *Condensate (lbs/hr)*

Condensate Temp Below Saturation	Differential Pressure (PSI) 1	5	10	20	50	75	110
10 °F	32	105	175	290	615	805	1160
20 °F	42	115	225	440	1060	1500	1850
Cold Water	735	1070	1375	1900	3100	3500	4600



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