

STEAM TRAPS

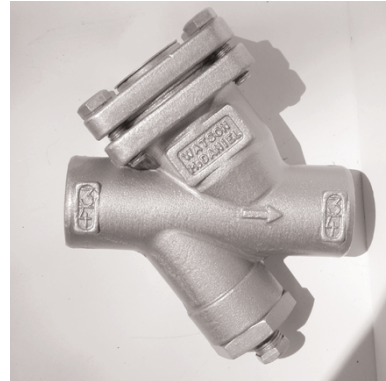
WD3100

Watson McDaniel reserves the right to change the designs and/or materials of its products without notice.
©2002 Watson McDaniel Company

Thermodynamic Steam Trap (Repairable)

Revised 7/2002

Model	WD3100
Sizes	1/2", 3/4"
Connections	NPT, SW, 600# FLG
Body Material	Stainless Steel
Options	Strainer & Blowdown Valve
PMO Max. Operating Pressure	675 PSIG
TMO Max. Operating Temperature	750°F
PMA Max. Allowable Pressure	906 PSIG @ 100°F
TMA Max. Allowable Temperature	750°F @ 675 PSIG



TYPICAL APPLICATIONS

DRIP: The **WD3100** thermodynamic steam traps are commonly used as drip traps on steam mains and steam supply lines. The internal working mechanism of the WD3100 can be completely replaced while the trap body remains in-line. The internal capsule is completely jacketed in steam, increasing performance and thermal efficiency. Ideal for outdoor applications that are subject to freezing or for superheated steam conditions.

HOW IT WORKS

The thermodynamic trap has cyclic on-off operation with a disk that is pushed open by incoming condensate and closes tightly when steam tries to escape.

FEATURES

- Self contained screw in thermodynamic capsule can be replaced in minutes with the trap body still in-line
- Internal capsule is steam jacketed to reduce cycle rates and extend service life
- Available with integral strainer and blowdown valve to protect the trap from contamination.
- High pressure applications up to 675 psig
- Hardened stainless steel seat and disc for extended service life even at high pressure
- Unaffected by superheated steam
- Trap will function in any orientation (horizontal preferred)
- Weldable body

SAMPLE SPECIFICATION

The steam trap shall be thermodynamic disc type with an all stainless steel construction featuring an optional integral strainer and blowdown valve. The trap shall have a hardened stainless steel seat and disc in a removable capsule that is steam jacketed to reduce cycle rates. Unit shall be capable of installation in any orientation and self-draining when mounted vertically.

INSTALLATION

Trap can be installed in any position; however, horizontal is preferred. Installation should include a separate 20 mesh strainer if the integral strainer option is not chosen.

MAINTENANCE

If trap fails for any reason, remove the cover attached with four bolts. Unscrew the capsule and replace. Replacement of the internal capsule takes only a few minutes and no piping needs to be disturbed. For full maintenance details see Installation and Maintenance Manual.

OPTIONS

Strainer and blowdown valve.

MATERIALS

Body	Stainless Steel, AISI 316L
Cover	Stainless Steel, AISI 316L
Cover Gasket	Stainless Steel, AISI 316
Cover Bolts	Steel ASTM A193 Gr B7 Nickel Plated
Thermodynamic Capsule	
Bonnet	Hardened Stainless Steel AISI 416
Disc	Hardened Stainless Steel AISI 420
Seat	Hardened Stainless Steel AISI 420
Seat Gasket	Stainless Steel, AISI 316
Screen*	0.046" Stainless Steel AISI 304

*Only on models with strainers.

HOW TO ORDER

Specify model and pipe size.

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

Add **SB** to the end of the model code if strainer and blowdown valve are required.

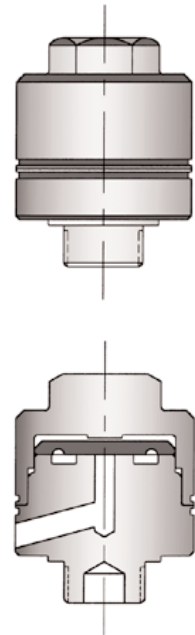
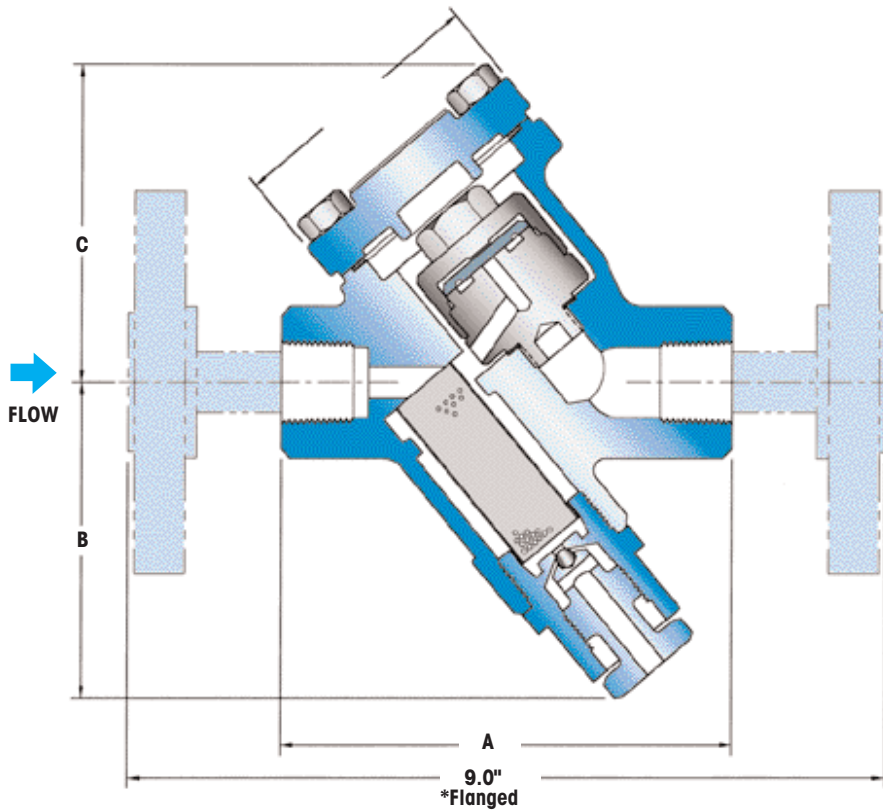
Example:

1/2" NPT WD3100SB 1/2" NPT connections with strainer and blowdown valve.

1/2" SW WD3100 1/2" SW connections

WD3100

Thermodynamic Steam Trap



Replacement Capsule

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

DIMENSIONS & WEIGHTS – inches/pounds					
Model/Size	Connection	A	B	C	Weight (lbs)
Series WD3100, WD3100S (Strainer)					
1/2"	NPT, SW	4.5	3.06	3.13	2.0
3/4"	NPT, SW	4.5	3.06	3.13	2.0
Series WD3100SB (Strainer & Blowdown Valve)					
1/2"	NPT, SW	4.5	3.25	3.13	2.25
3/4"	NPT, SW	4.5	3.25	3.13	2.25

CAPACITIES – Condensate (lbs/hr)									
Temperature	Differential Pressure (PSI)								
	150	200	250	300	350	400	500	600	675
COLD	370	405	460	500	540	580	640	700	730
HOT	270	295	305	355	370	395	420	450	480