

## STEAM TRAPS

**WD900S**

## Thermodynamic Steam Trap

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|                                |                               |
|--------------------------------|-------------------------------|
| Model                          | <b>WD900S/WD900LS</b>         |
| Sizes                          | <b>1/2", 3/4", 1"</b>         |
| Connections                    | <b>NPT, SW, 600# FLG</b>      |
| Body Material                  | <b>Low Carbon Chrome-Moly</b> |
| Options                        | <b>Insulation Cap</b>         |
| PMO Max. Operating Pressure    | <b>900 PSIG</b>               |
| TMO Max. Operating Temperature | <b>842°F</b>                  |
| PMA Max. Allowable Pressure    | <b>1500 PSIG @ 100°F</b>      |
| TMA Max. Allowable Temperature | <b>842°F @ 981 PSIG</b>       |

**TYPICAL APPLICATIONS**

**DRIP:** The **WD900S/WD900LS** thermodynamic steam trap is primarily used as a drip trap on high pressure steam mains and steam supply lines. Ideal for outdoor applications that are subject to freezing and for superheated steam conditions.

**HOW IT WORKS**

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

**FEATURES**

- "Quick-Change" seat and disc for easy in-line repair
- High pressure applications up to 900 PSIG
- Integral strainer to protect trap from contamination
- Hardened stainless steel seat and disc for extended service life even at extremely high pressures
- Single trap model will operate over the entire pressure range (20-900 PSIG)
- Suitable for superheated steam
- Freezeproof when trap is piped in a vertical orientation for complete drainage of condensate
- Trap will function in any orientation (horizontal preferred)

**SAMPLE SPECIFICATION**

The steam trap shall be a thermodynamic style with body material in chrome-moly alloy steel. Available in size 1/2" and 3/4" Class 600 socket weld ends or flanges. Also available in ANSI 300 FNPT. 1" Unit shall have hardened stainless steel seat and disc with a removable stainless steel strainer.

**INSTALLATION**

Trap can be installed in any position; however, horizontal is preferred. Installation should include isolation valves.

**MAINTENANCE**

The complete replacement of seat and disc can be performed while the steam trap remains in line. The strainer should be periodically cleaned to eliminate dirt, which is the most common cause of premature failure. For full maintenance details see Installation and Maintenance Manual.

**OPTIONS**

Customized Flanged Connections:  
Specify size, face-to-face dimensions and metallurgy required for application.

**WD900LS**

The **WD900LS** is a low capacity version of the standard **WD900S** and recommended for working pressures of 120 PSIG and above.

**HOW TO SIZE/ORDER**

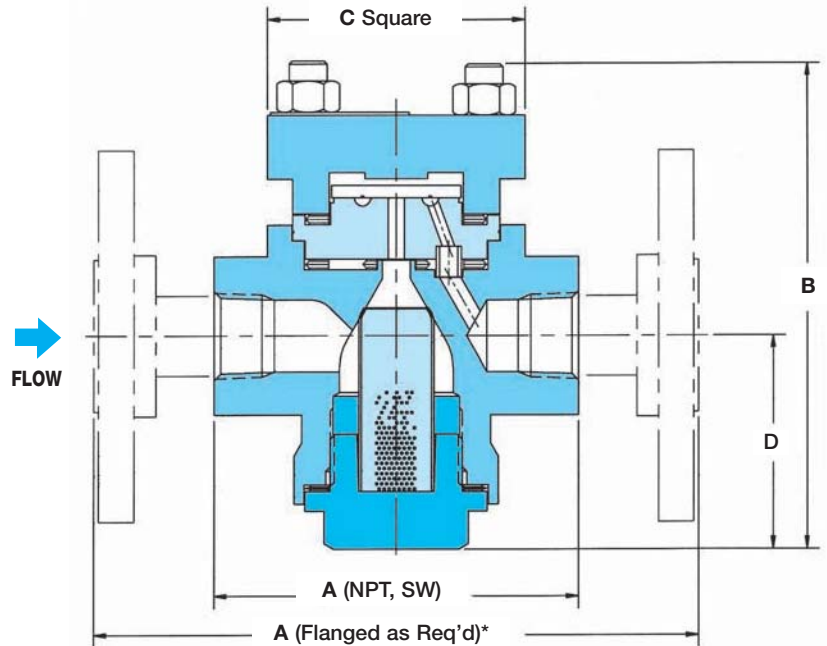
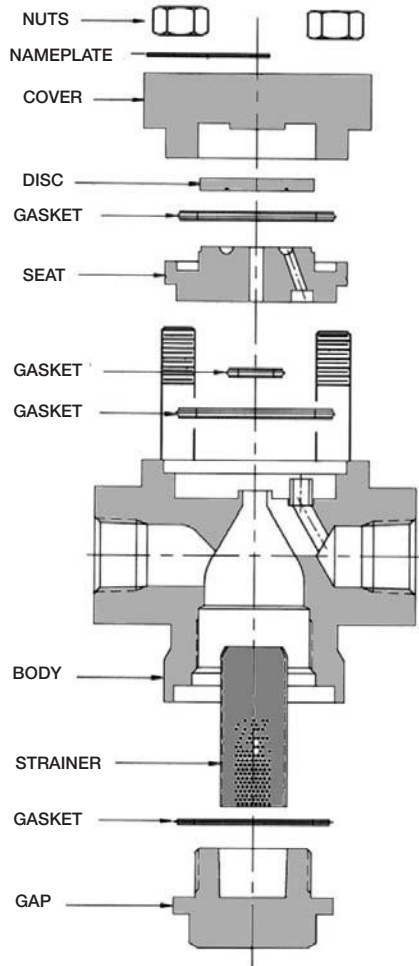
Select working pressure; follow column down to correct capacity (lbs/hr) block. Example:

Application: 220 lbs/hr at 650 PSIG working inlet pressure

Size/Model: **WD900LS**, specify pipe size and connections

## WD900S

Thermodynamic Steam Trap



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

### DIMENSIONS & WEIGHTS – inches/pounds

| Size/Model          | Connection | A   | B   | C   | D   | Weight (lbs) |
|---------------------|------------|-----|-----|-----|-----|--------------|
| 1/2" WD900S/WD900LS | NPT, SW    | 3.6 | 4.8 | 2.6 | 2.1 | 4.5          |
| 1/2" WD900S/WD900LS | *600# FLG  | 9.0 | 4.8 | 2.6 | 2.1 | 9.0          |
| 3/4" WD900S/WD900LS | NPT, SW    | 3.6 | 4.8 | 2.6 | 2.1 | 4.5          |
| 3/4" WD900S/WD900LS | *600# FLG  | 9.0 | 4.8 | 2.6 | 2.1 | 11.0         |
| 1" WD900S/WD900LS   | NPT, SW    | 6.5 | 4.8 | 2.6 | 2.1 | 4.5          |
| 1" WD900S/WD900LS   | *600# FLG  | 9.0 | 4.8 | 2.6 | 2.1 | 11.0         |

### MATERIALS

|              |                           |
|--------------|---------------------------|
| Body         | Alloy Steel, GR WC9       |
| Seat         | Stainless Steel, AISI 420 |
| Cover        | Alloy Steel, GR WC9       |
| Strainer Cap | Alloy Steel, GR WC9       |
| Strainer     | Stainless Steel, AISI 300 |
| Disc         | Stainless Steel, AISI 420 |
| Gasket       | Stainless Steel, AISI 304 |
| Studs        | SA-193, GR B7             |
| Nuts         | SA-194, GR 2H             |

### CAPACITIES – Condensate (lbs/hr)

| Model   | Steam Inlet Pressure (PSIG) |     |     |     |     |     |     |     |     |     |     |     |
|---------|-----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|         | 20                          | 50  | 100 | 150 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 |
| WD900S  | 243                         | 411 | 555 | 641 | 700 | 781 | 835 | 874 | 905 | 930 | 951 | 968 |
| WD900LS |                             |     |     | 181 | 210 | 253 | 290 | 325 | 360 | 381 | 405 | 429 |

**Notes: WD900S:** 1) Minimum recommended working pressure: 20 PSIG.  
2) Maximum back pressure not to exceed 80% of inlet pressure (measured in absolute pressure) or trap may not close.

**WD900LS:** 1) Minimum recommended working pressure: 120 PSIG.  
2) Maximum back pressure not to exceed 50% of inlet pressure (measured in absolute pressure) or trap may not close.