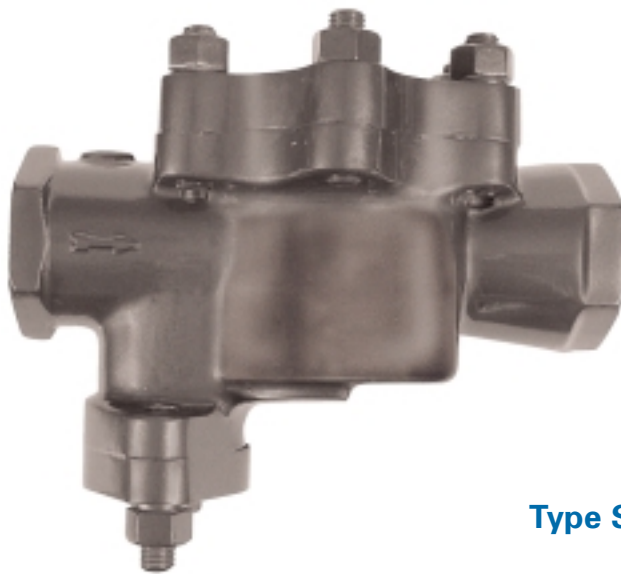
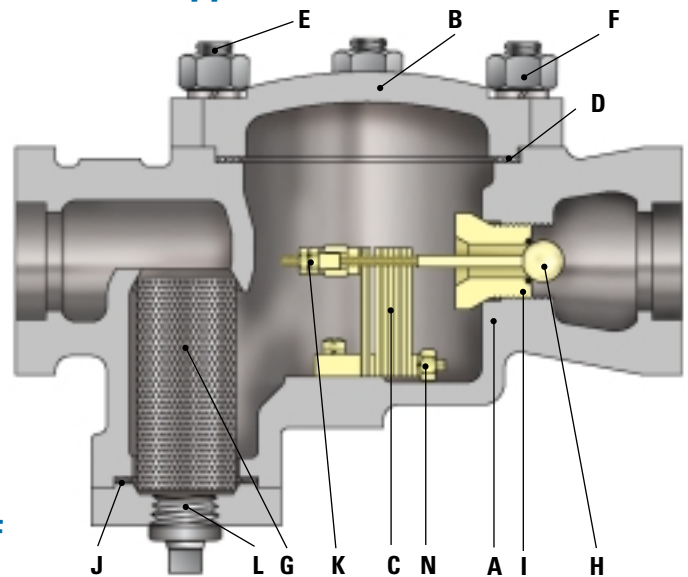


# VELAN UNIVERSAL BIMETALLIC STEAM TRAPS

## Type SSF with Air Vent, Check Valve, Strainer & Optional Temperature Controller To Service Large Volume Process Applications



Type SSF



### TYPE SSF DESIGN FEATURES

- **Universal operation**

The individual segments of the bimetallic element act consecutively, developing forces in close relation to the saturated steam curve. This permits sensitive, efficient trap operation at all pressures from 1 psi to maximum, without orifice change or adjustment. An ideal feature for "complete trap standardization".

- **Easy internal maintenance**

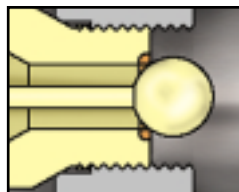
The removal of the body cover provides easy access to the bimetallic element and seat. The removal of the strainer cover permits quick and easy removal of the strainer.

- **Automatic air venting - good discharge capacity**

Air and cold condensate is discharged through a full orifice efficiently ensuring fast warm-up of equipment.

- **Valve seats Stellite**

All Velan valve seats are Stellite faced to increase their resistance to the high degree of wear through velocity of flow, dirt and scale.



- **Integral strainer**

An integral stainless steel strainer protects the trap operating mechanism from damage by dirt or scale. No extra fittings or installation costs are required. Free strainer area minimum 5 to 1. Perforation is 0.031" (0.8 mm).

- **Positive closing**

Every Velan trap closes tightly on saturated steam temperature. Positive closing for long periods on dry superheated steam has enormous advantages in power plant and marine service.

- **All-position installation** simplifies piping layout.

- **Silent operation** – no violent line shocks.

- **Freezeproof**

Velan traps do not require a reservoir of priming water in the body to operate. When installed vertically with inlet on top, they drain completely when cold, and are freezeproof without insulation.

- **Positive condensate drainage** for process work.

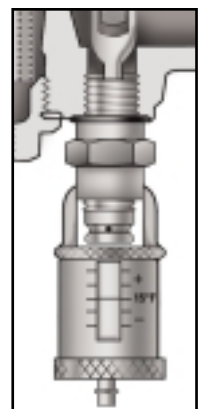
- **Silent operation** – no violent line shocks.

- **Optional Temperature controller**

An ingenious device that can be adapted to most Velan models permitted adjustment of factory setting under full steam pressure. Condensate discharge temperature can be increased or decreased to meet the specific requirements of any process application. Up to 30% of energy can be saved by extracting the sensible heat of steam.

- **Optional Extras include:**

Thermometer, strainer blowdown valve and Piping King Units complete with valving.



# VELAN UNIVERSAL BIMETALLIC STEAM TRAPS

## STANDARD MATERIALS

| PART |                         | MATERIALS                                            |
|------|-------------------------|------------------------------------------------------|
| A    | Body                    | Cast carbon steel WCB<br>[C. Max. 0.25 ]             |
| B    | Cover                   | Carbon steel                                         |
| C    | Bimetal element         | Truflex GB-14                                        |
| D    | Cover gasket            | Stainless steel spiral wound<br>with graphite filler |
| E    | Cover stud              | Alloy steel                                          |
| F    | Cover nut               | Carbon steel                                         |
| G    | Strainer                | Stainless steel                                      |
| H    | Stem & ball             | SS, ball valve 58 Rc                                 |
| I    | Seat                    | SS hardfaced Stellite 6                              |
| J    | Strainer cover gasket   | Stainless steel spiral wound<br>with graphite filler |
| K    | Adjusting nut & locknut | Stainless steel                                      |
| L    | Strainer blow-down plug | Carbon steel                                         |
| N    | Fixing screw & washer   | Stainless steel                                      |

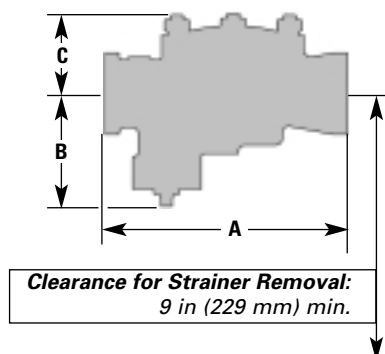
## SSF APPLICATIONS

- For draining: oil storage tank coils, acid stills, purifiers, feed water heaters, flush tanks, separators, vacuum pans, heat exchangers, high pressure process equipment, high pressure main lines and general industrial service in medium to high pressure/temperature applications with high condensate discharge rates.

Widely used in Power, Petroleum and Chemical Plants, Marine service and Steel Industries to meet safety requirements.

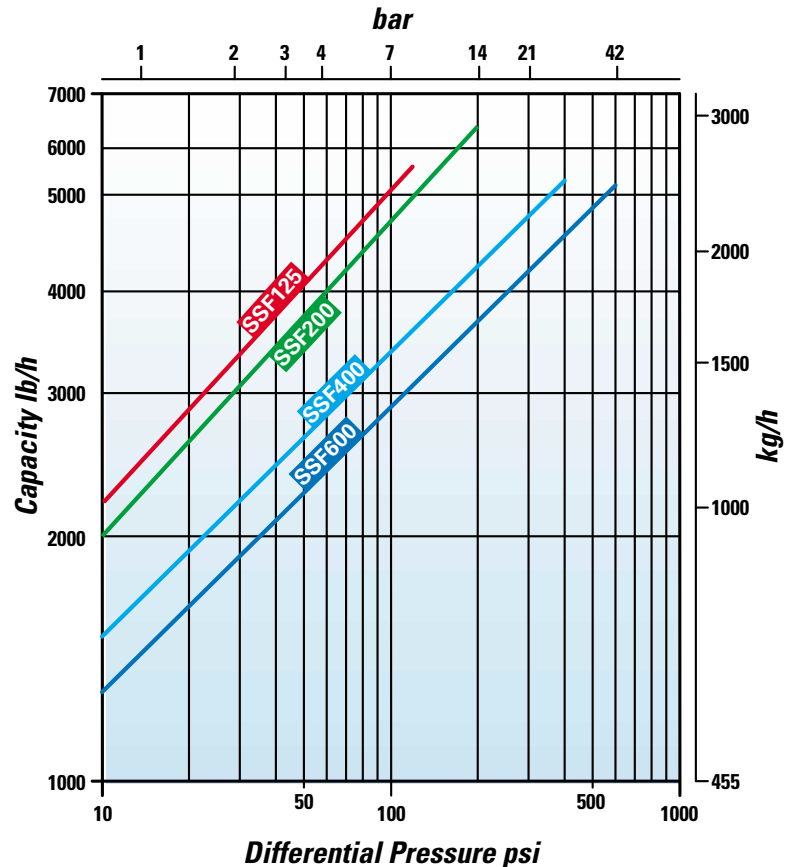
## CONNECTIONS:

- Screwed
- Socketweld
- Buttweld
- Flanged



## CAPACITY

The performance graph indicates the continuous discharge capacities of condensate per hour at various pressure differentials across the trap.



## ENGINEERING DATA

| TYPE    | PRESSURE RANGE<br>psi/bar | MATERIAL | MAX. TEMP.<br>°F/°C       | ORIFICE<br>in/mm | MAX. CAPACITY<br>lb/h kg/h |
|---------|---------------------------|----------|---------------------------|------------------|----------------------------|
| SSF-125 | 0-125<br>0-8.5            | WCB      | 850 <sup>(1)</sup><br>454 | 1<br>25          | 5,750<br>2,608             |
| SSF-200 | 0-200<br>0-14             |          |                           | 7/8<br>22        | 6,400<br>2,903             |
| SSF-400 | 0-400<br>0-28             |          |                           | 9/16<br>14       | 5,300<br>2,409             |
| SSF-600 | 0-600<br>0-42             |          |                           | 1/2<br>12.7      | 5,200<br>2,360             |

(1) Permissible, but not recommended for prolonged use above 800°F (426°C).

## DIMENSIONS & WEIGHTS

| TYPE    | SIZE<br>in/mm | A<br>Face to Face |           |               | B<br>Center to Bottom | C<br>Center to Top | Weight<br>lb/kg |          |          |
|---------|---------------|-------------------|-----------|---------------|-----------------------|--------------------|-----------------|----------|----------|
|         |               | SCR/SW            | BW        | FLG           |                       |                    | SCR/SW          | BW       | FLG      |
| SSF-125 | 2<br>50       |                   |           |               |                       |                    |                 |          |          |
| SSF-200 | 1 1/2<br>40   | 11<br>279         | 17<br>432 | 14 1/4<br>362 | 5 3/8<br>137          | 3 1/2<br>89        | 30<br>14        | 33<br>15 | 40<br>18 |
| SSF-400 | 2             |                   |           |               |                       |                    |                 |          |          |
| SSF-600 | 50            |                   |           |               |                       |                    |                 |          |          |