

# BIMETALLIC THERMOSTATIC STEAM TRAPS **BB**

### **BIMETALLIC THERMOSTATIC**

The operating principle is based on a balance between the steam force (pressure related) trying to open the discharge valve and the bimetal force (temperature related) which acts to close it. At saturated steam temperature the bimetal force keeps the valve closed, while with subcooled condensate the pressure opens the valve.



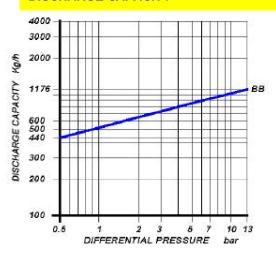
#### **MAIN FEATURES**

Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.

### **APPLICATIONS**

- □ Tracing lines
- ☐ Marine applications
- ☐ Turbines
- ☐ Steam mains
- ⊒ Tanks

#### **DISCHARGE CAPACITY**



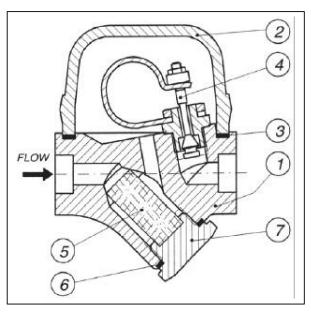
Cold water capacities are 2 to 4 times greater than the above . Safety factor = 1.2-1.5

### | SIZES | ½" - 3¼" |

| CONNECTIONS |                                 |
|-------------|---------------------------------|
| SCREWED     | ANSI B1.20.1 (NPT) / BS21 (BSP) |
| SOCKET WELD | ANSI B16.11                     |
| FLANGED     | ANSI 150#/300#/600#/UNI/DIN     |

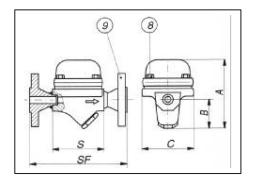
| LIMITING CONDITIONS (according to ISO 6552) |          |  |  |  |  |  |  |
|---|----------|--|--|--|--|--|--|
| Steam Trap rating                           | ANSI 300 |  |  |  |  |  |  |
| PMA: Max allowable pressure                 | 50 bar   |  |  |  |  |  |  |
| TMA: max allowable temperature              | 390°C    |  |  |  |  |  |  |
| PMO: max working pressure                   | 13 bar   |  |  |  |  |  |  |
| TMO: max working temperature                | 250°C    |  |  |  |  |  |  |
|   |          |  |  |  |  |  |  |

## BIMETALLIC THERMOSTATIC STEAM TRAPS BB



| POS.       | DESCRIPTION      | MATERIALS       | SPARES |  |  |  |  |
|------------|------------------|-----------------|--------|--|--|--|--|
|            |                  |                 |        |  |  |  |  |
| 1          | Body             | ASTM A105       |        |  |  |  |  |
| 2          | Cover            | ASTM A105       |        |  |  |  |  |
| 3          | Gasket           | 316 / GRAPHITE  | X      |  |  |  |  |
| 4          | Valve assembly   | STAINLESS STEEL | X      |  |  |  |  |
| 5          | Screen           | AISI 304        | X      |  |  |  |  |
| 6          | Gasket           | 316 / GRAPHITE  | X      |  |  |  |  |
| 7          | Strainer cap     | ASTM A105       |        |  |  |  |  |
| 7          | Blow-off valve * | AISI 416        |        |  |  |  |  |
| 8          | Bolts            | ASTM A193 B7    |        |  |  |  |  |
| 9          | Flange           | ASTM A105       |        |  |  |  |  |
| * Optional |                  |                 |        |  |  |  |  |

|                  |     |     |    |     | Flanged        |   |     |               |     |               |     |     |     |
|------------------|-----|-----|----|-----|----------------|---|-----|---------------|-----|---------------|-----|-----|-----|
| Size<br>(inches) | S   | Α   | В  | С   | Weight<br>(Kg) | UNI-DIN         150#           PN16-25-40         SF Kg           SF Kg         SF Kg |     | 300#<br>SF Kg |     | 600#<br>SF Kg |     |     |     |
| 1/2"             | 100 | 150 | 55 | 100 | 3.8            | 166   | 5.4 | 160           | 5.2 | 180           | 5.4 | 190 | 5.6 |
| 3/4"             | 100 | 150 | 55 | 100 | 3.8            | 170   | 6.1 | 170           | 5.4 | 190           | 6.6 | 200 | 7   |



### **INSTALLATION**

The steam trap can be installed on horizontal or vertical lines. Do not fit the trap upside down since this position will not allow the cleaning of the strainer. For the same reason the directory of flow on vertical lines must be downwards. For installation with superheated steam, please conctact our Technical Departement

### **HOW TO SERVICE**

By installing a new element assemly you can bring the BB steam trap to the "as new from factory" condition. Unscrew the 4 bolts (8) and remove cover (2) and gasket (3). Unscrew and remove the element (4). Clean the inside of the trap and screw in the element-gasket assembly. Fit a new gasket (3) and reinstall cover (2) tightening the bolts (8). To service the strainer, unscrew cap (7), withdraw screen (5) and clean or replace it. Screwing the cap back in place, always fit a new gasket (6). The discharge temperature may be adjusted without removing the trap from the line. For information about this operation, to be performed only be qualified personnel, please ask our Thecnical Departement.

How to order: i.e. BB 3/4" 300 RF

### **DOUGLAS ITALIA S.p.A** Località Pradaglie – 29013 CARPANETO PIACENTINO ( PC )

OFFICIAL WEB SITE: www.douglas-italia.com