

# ***BIMETALLIC THERMOSTATIC STEAM TRAPS***

***BV A105***

***BV F304***

***BF***

***BX 13 F316***

***BB***

***BC 8***

***BC 20***

***BC 30***

***BC 40***

***BD A105***

***BD F11***

***BD 60S F22***

***BD 60 S1***

***BD 80S F11***

***BD 80S F22***

***BX 80 F22***

***BD 100 F22***

***BD 120 A105***

***BD 120 F22***

***BC 20 S1***

***BCS 8 F316***

***BCS 20 F316***

***BCS 30 F316***

***BCS 40 F316***

***BE 8***

***BE 20***

***BE 30***

***BE 40***

***MP***

***MF 8***

***GO BACK***

### 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

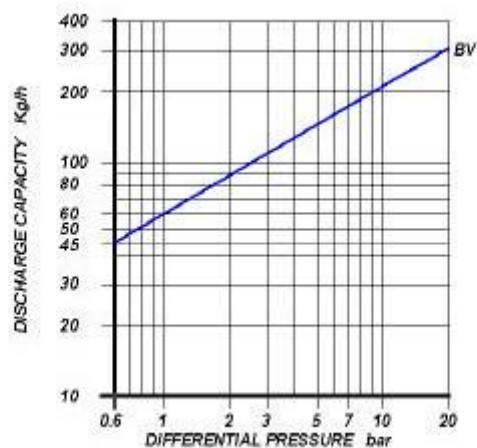
Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.



### 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

1/2" – 3/4"

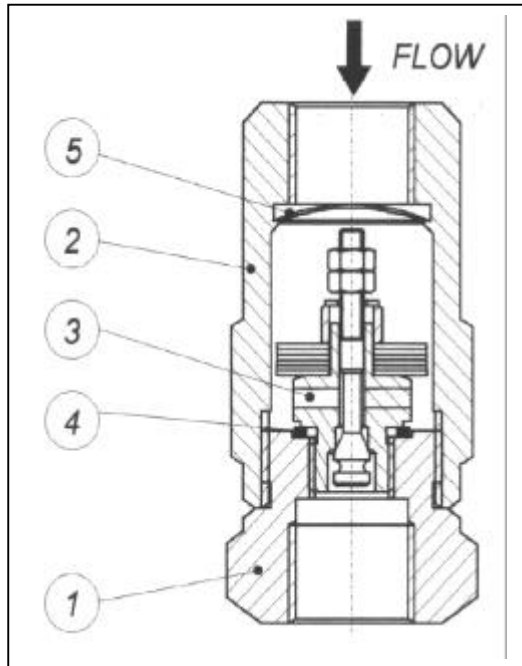
#### CONNECTIONS

SCREWED      ANSI B1.20.1 (NPT) / BS21 (BSP)

#### LIMITING CONDITIONS ( according to ISO 6552 )

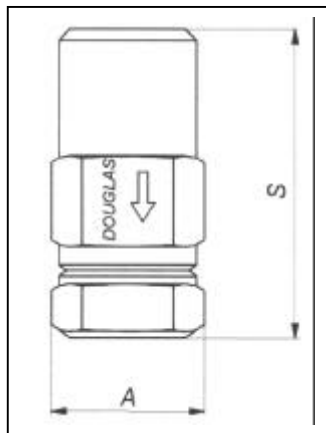
|                                |          |
|--------------------------------|----------|
| Steam Trap rating              | ANSI 300 |
| PMA: Max allowable pressure    | 50 bar   |
| TMA: max allowable temperature | 390°C    |
| PMO: max working pressure      | 20 bar   |
| TMO: max working temperature   | 250°C    |

## BIMETALLIC THERMOSTATIC STEAM TRAPS BV A 105



| POS. | DESCRIPTION    | MATERIALS       | SPARES |
|------|----------------|-----------------|--------|
| 1    | Outlet body    | ASTM A 105      |        |
| 2    | Inlet body     | ASTM A 105      |        |
| 3    | Valve assembly | STAINLESS STEEL | X      |
| 4    | Gasket         | AISI 304        | X      |
| 5    | Screen         | AISI 304        | X      |

| Size<br>(inches) | S  | A  | Weight<br>(Kg) |
|------------------|----|----|----------------|
| 1/2"             | 80 | 36 | 0.6            |
| 3/4"             | 93 | 36 | 0.8            |



### INSTALLATION

The steam trap can be installed on horizontal or vertical lines. For installation with superheated steam, please contact our Technical Department

### HOW TO SERVICE

By installing a new element assembly you can bring the BV steam trap to the "as new from factory" condition. This operation is carried out in a few minutes without removing the trap from the pipeline. Unscrew the body (1) (2). Unscrew and remove the valve assembly (3). Clean the inside of the trap fit a new gasket (4) and screw in the new valve assembly (3). Reassembly the bodies (1) (2). The discharge temperature may be adjusted without removing the trap from the line. For information about this operation, to be performed only by qualified personnel, please ask our Technical Department.

**How to order: i.e.** BV 3/4" SW A 105

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

OFFICIAL WEB SITE: [www.douglas-italia.com](http://www.douglas-italia.com)

### 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

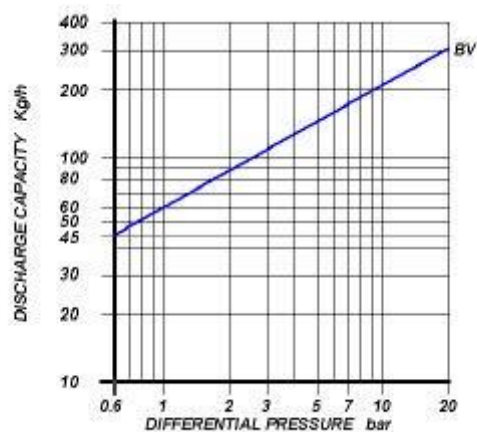
Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.



### 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

1/2" – 3/4"

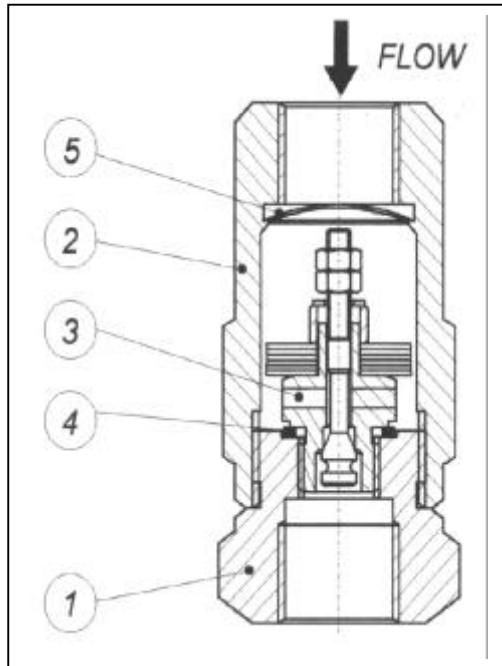
#### CONNECTIONS

SCREWED      ANSI B1.20.1 (NPT) / BS21 (BSP)

#### LIMITING CONDITIONS ( according to ISO 6552 )

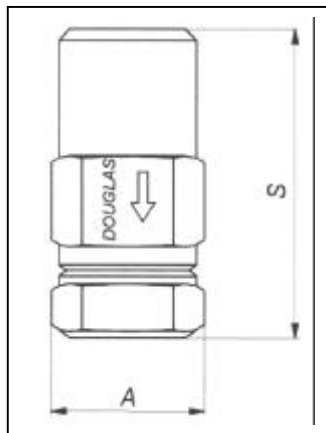
|                                |          |
|--------------------------------|----------|
| Steam Trap rating              | ANSI 300 |
| PMA: Max allowable pressure    | 50 bar   |
| TMA: max allowable temperature | 500°C    |
| PMO: max working pressure      | 20 bar   |
| TMO: max working temperature   | 250°C    |

## BIMETALLIC THERMOSTATIC STEAM TRAPS BV F 304



| POS. | DESCRIPTION    | MATERIALS       | SPARES |
|------|----------------|-----------------|--------|
| 1    | Outlet body    | ASTM A182 F304  |        |
| 2    | Inlet body     | ASTM A182 F 304 |        |
| 3    | Valve assembly | STAINLESS STEEL | X      |
| 4    | Gasket         | AISI 304        | X      |
| 5    | Screen         | AISI 304        | X      |

| Size<br>(inches) | S  | A  | Weight<br>(Kg) |
|------------------|----|----|----------------|
| 1/2"             | 80 | 36 | 0.6            |
| 3/4"             | 93 | 36 | 0.8            |



### INSTALLATION

The steam trap can be installed on horizontal or vertical lines. For installation with superheated steam, please contact our Technical Department

### HOW TO SERVICE

By installing a new element assembly you can bring the BV steam trap to the "as new from factory" condition. This operation is carried out in a few minutes without removing the trap from the pipeline. Unscrew the body (1) (2). Unscrew and remove the valve assembly (3). Clean the inside of the trap fit a new gasket (4) and screw in the new valve assembly (3). Reassembly the bodies (1) (2). The discharge temperature may be adjusted without removing the trap from the line. For information about this operation, to be performed only by qualified personnel, please ask our Technical Department.

**How to order: i.e.** BV 3/4" SW F 304

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### 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

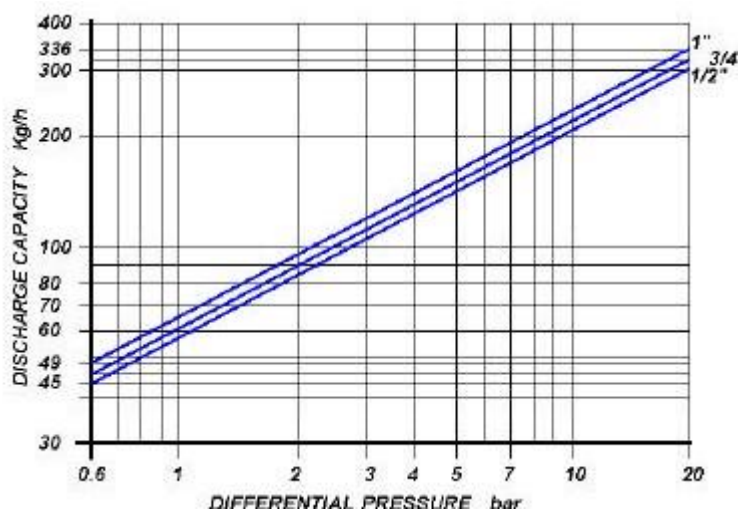
Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.



### 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

1/2" – 3/4" – 1"

### CONNECTIONS

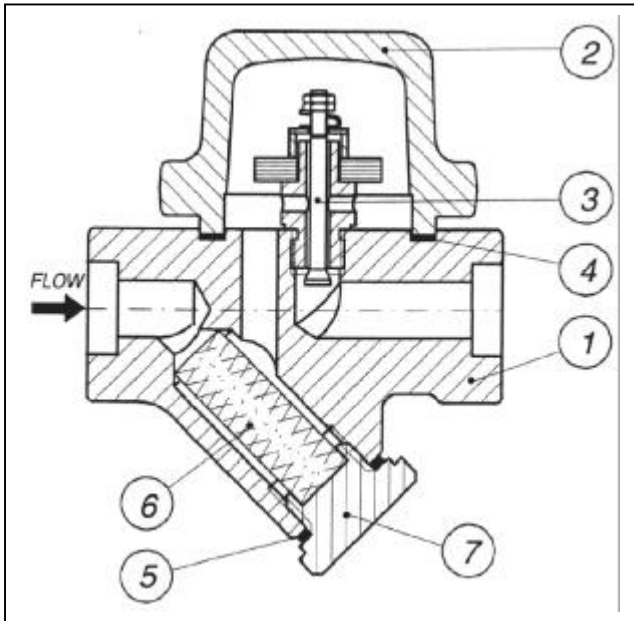
|             |                                 |
|-------------|---------------------------------|
| SCREWED     | ANSI B1.20.1 (NPT) / BS21 (BSP) |
| SOCKET WELD | ANSI B16.11                     |
| FLANGED     | ANSI 150#/300#/600#/UNI/DIN     |

### 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      | 20 bar   |
| TMO: max working temperature   | 350°C    |



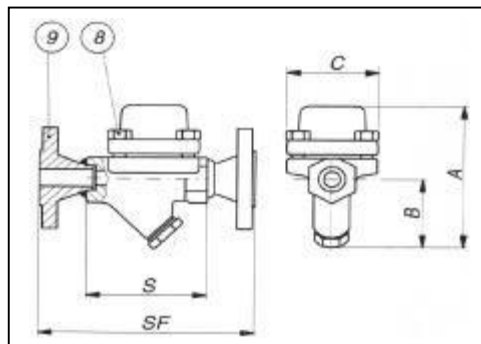
## BIMETALLIC THERMOSTATIC STEAM TRAPS BF



| POS. | DESCRIPTION      | MATERIALS       | SPARES |
|------|------------------|-----------------|--------|
| 1    | Body             | ASTM A105       |        |
| 2    | Cover            | ASTM A105       |        |
| 3    | Valve assembly   | STAINLESS STEEL | X      |
| 4    | Gasket           | 316 / GRAPHITE  | X      |
| 5    | Gasket           | 316 / GRAPHITE  | X      |
| 6    | Screen           | AISI 304        | 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   | A   | B  | C  | Weight<br>(Kg) | UNI-DIN<br>PN16-25-40 |     | 150# |     | 300# |     | 600# |     |
|                  |     |     |    |    |                | SF                    | Kg  | SF   | Kg  | SF   | Kg  | SF   | Kg  |
| ½"               | 93  | 120 | 60 | 70 | 2.5            | 159                   | 4.1 | 153  | 5.7 | 173  | 4.1 | 183  | 4.3 |
| ¾"               | 93  | 120 | 60 | 70 | 2.5            | 163                   | 4.9 | 163  | 4.1 | 183  | 5.3 | 193  | 5.7 |
| 1"               | 105 | 130 | 70 | 70 | 3.5            | 175                   | 6.3 | 185  | 3.9 | 195  | 6.9 | 215  | 7.3 |



### 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 direction of flow on vertical lines must be downwards. For installation with superheated steam, please contact our Technical Department.

### HOW TO SERVICE

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

**How to order: i.e.** BF ¾" 300 RF

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## 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

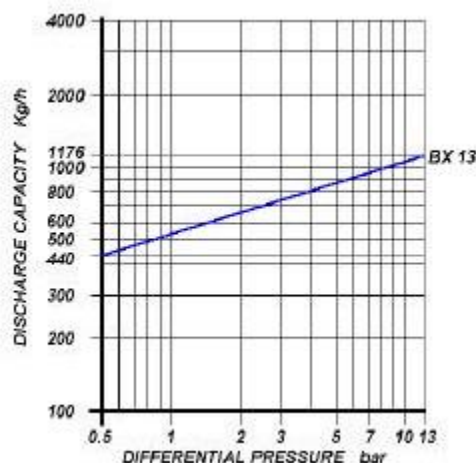
Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.



## 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

1/2" – 3/4"

### CONNECTIONS

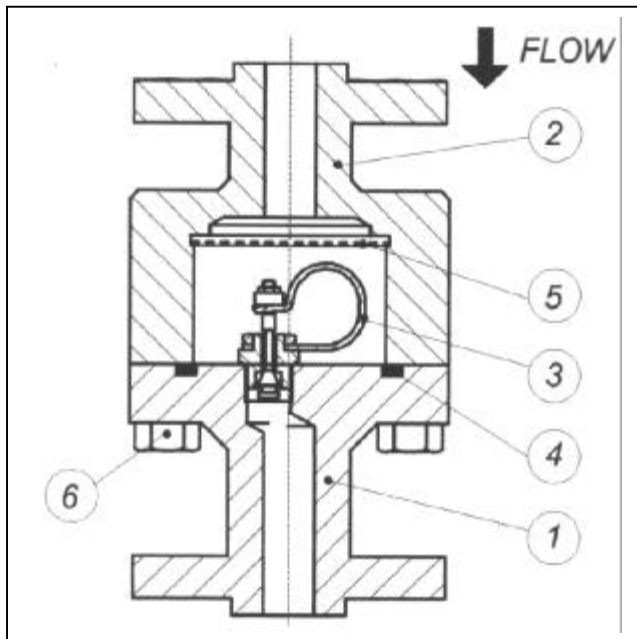
FLANGED      ANSI 150#/300#/600#/UNI/DIN

### 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    |

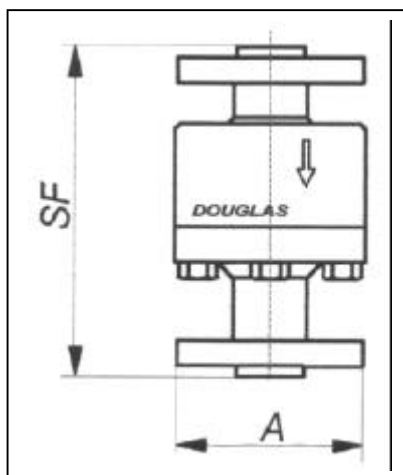


## BIMETALLIC THERMOSTATIC STEAM TRAPS BX 13 F 316



| POS. | DESCRIPTION    | MATERIALS       | SPARES |
|------|----------------|-----------------|--------|
| 1    | Body           | ASTM A182 F316  |        |
| 2    | Cover          | ASTM A182 F316  |        |
| 3    | Valve assembly | STAINLESS STEEL | X      |
| 4    | Gasket         | 316 / GRAPHITE  | X      |
| 5    | Screen         | AISI 304        | X      |
| 6    | Bolt           | ASTM A193 B8    | X      |

| Flanged          |     |     |    |
|------------------|-----|-----|----|
| Size<br>(inches) | A   | SF  | Kg |
| 1/2"             | 96  | 200 | 5  |
| 3/4"             | 118 | 206 | 6  |



### INSTALLATION

The steam trap can be installed on horizontal or vertical lines. For installation with superheated steam, please contact our Technical Department

### HOW TO SERVICE

By installing a new element assembly you can bring the BX 13 F316 steam trap to the "as new from factory" condition. Unscrew the bolts (6) and remove cover (2) and gasket (4). Unscrew and remove the element (3). Clean the inside of the trap, clean screen (5) and screw in the element-gasket assembly. Fit a new gasket (3), fit screen (5) and reinstall cover (2) tightening the bolts (6).

**How to order:** i.e. BX 13 F316 3/4" 300 RF

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### 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

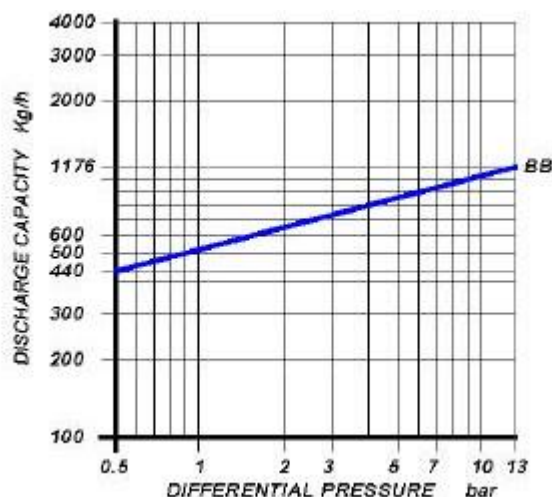
Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.



### 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

1/2" – 3/4"

### CONNECTIONS

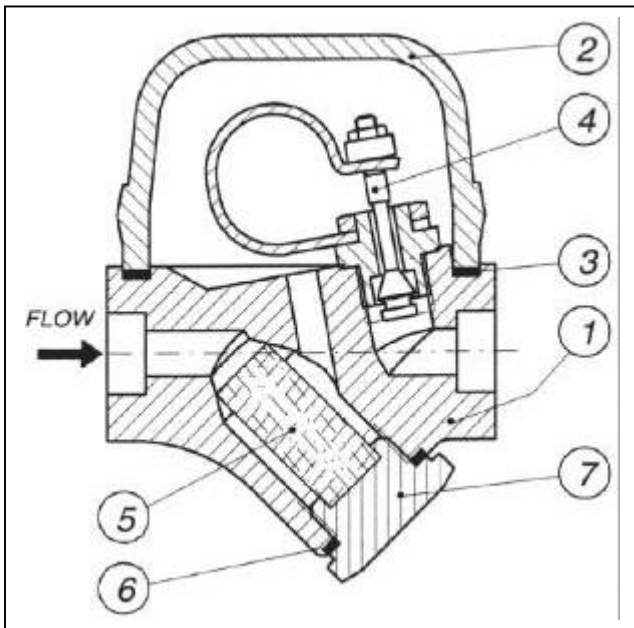
|             |                                 |
|-------------|---------------------------------|
| SCREWED     | ANSI B1.20.1 (NPT) / BS21 (BSP) |
| SOCKET WELD | ANSI B16.11                     |
| FLANGED     | ANSI 150#/300#/600#/UNI/DIN     |

### 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

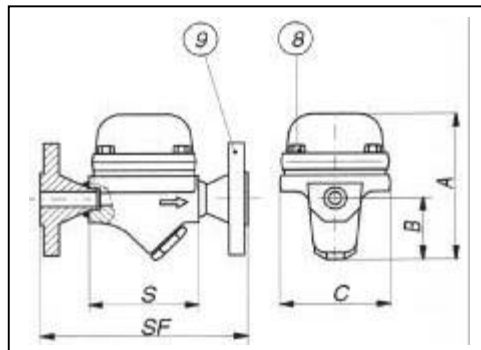
# BB



| 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

| Size<br>(inches) | S   | A   | B  | C   | Weight<br>(Kg) | Flanged               |     |      |     |      |     |      |     |
|------------------|-----|-----|----|-----|----------------|-----------------------|-----|------|-----|------|-----|------|-----|
|                  |     |     |    |     |                | UNI-DIN<br>PN16-25-40 |     | 150# |     | 300# |     | 600# |     |
|                  |     |     |    |     |                | SF                    | Kg  | SF   | Kg  | SF   | Kg  | SF   | Kg  |
| ½"               | 100 | 150 | 55 | 100 | 3.8            | 166                   | 5.4 | 160  | 5.2 | 180  | 5.4 | 190  | 5.6 |
| ¾"               | 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 direction of flow on vertical lines must be downwards. For installation with superheated steam, please contact our Technical Department

### HOW TO SERVICE

By installing a new element assembly 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 by qualified personnel, please ask our Technical Department.

**How to order: i.e.** BB ¾" 300 RF

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

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### 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

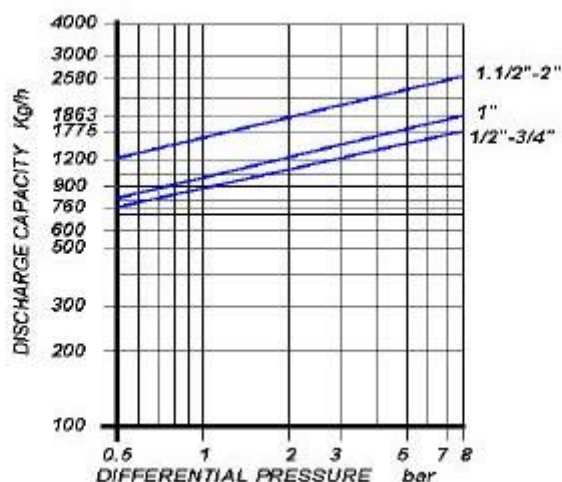
Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.



### 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

1/2" – 3/4" – 1" – 1. 1/2" – 2"

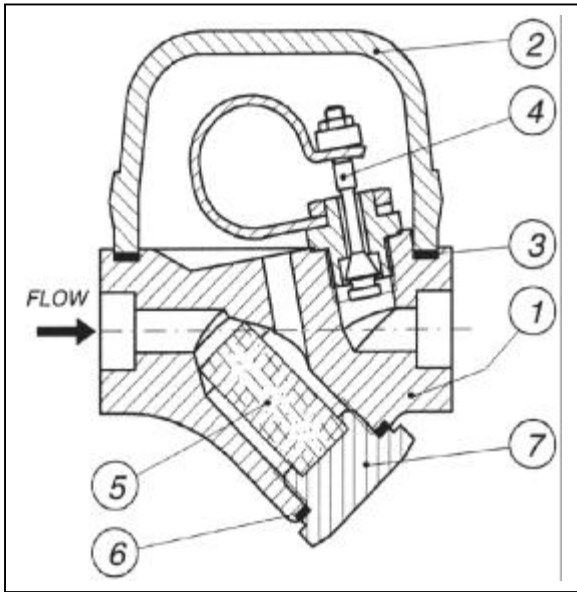
### CONNECTIONS

|             |                                 |
|-------------|---------------------------------|
| 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 )

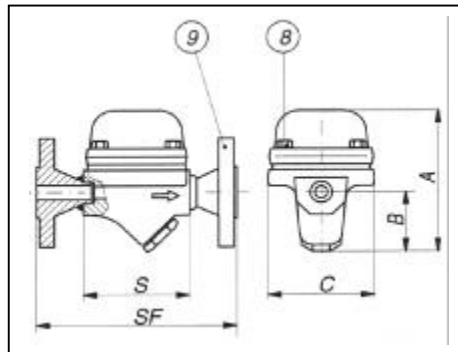
|                                |          |
|--------------------------------|----------|
| Steam Trap rating              | ANSI 300 |
| PMA: Max allowable pressure    | 50 bar   |
| TMA: max allowable temperature | 390°C    |
| PMO: max working pressure      | 8 bar    |
| TMO: max working temperature   | 250°C    |

## BIMETALLIC THERMOSTATIC STEAM TRAPS BC 8



| 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   | A   | B  | C   | Weight<br>(Kg) | UNI-DIN<br>PN16-25-40 |     | 150# |      | 300# |      | 600# |      |
|                  |     |     |    |     |                | SF                    | Kg  | SF   | Kg   | SF   | Kg   | 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    |
| 1"               | 120 | 160 | 65 | 100 | 4.5            | 190                   | 7.3 | 200  | 6.7  | 210  | 7.9  | 230  | 8.3  |
| 1 1/2"           | 160 | 205 | 80 | 170 | 13             | 240                   | 17  | 250  | 16   | 260  | 19.4 | 280  | 20.2 |
| 2"               | 160 | 205 | 80 | 170 | 13             | 246                   | 19  | 250  | 18.5 | 260  | 20.2 | 280  | 22.4 |



### 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 direction of flow on vertical lines must be downwards. For installation with superheated steam, please contact our Technical Department

### HOW TO SERVICE

By installing a new element assembly you can bring the BC steam trap to the "as new from factory" condition. Unscrew the 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 by qualified personnel, please ask our Technical Department.

**How to order: i.e.** BC 20 1" 150 RF

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

OFFICIAL WEB SITE: [www.douglas-italia.com](http://www.douglas-italia.com)



### 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

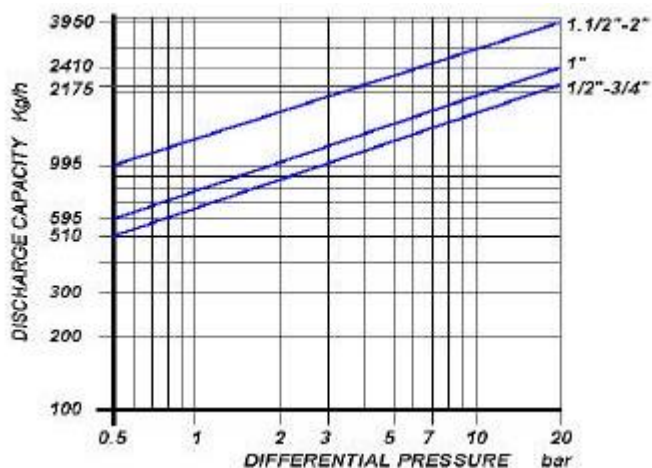
Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.



### 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

1/2" – 3/4" – 1" – 1 1/2" – 2"

### CONNECTIONS

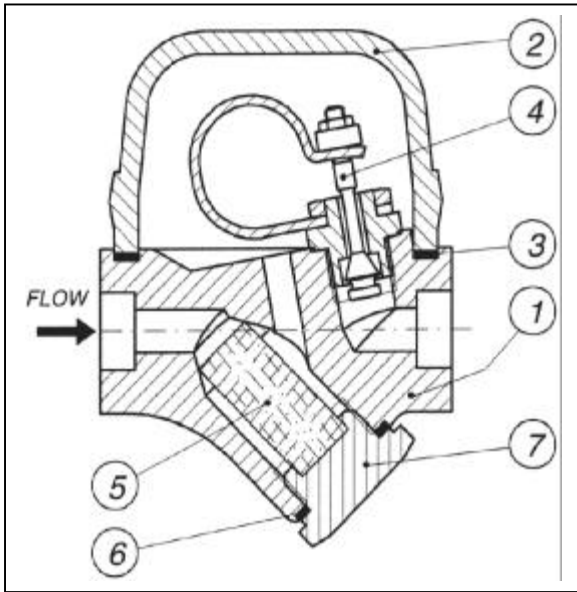
|             |                                 |
|-------------|---------------------------------|
| SCREWED     | ANSI B1.20.1 (NPT) / BS21 (BSP) |
| SOCKET WELD | ANSI B16.11                     |
| FLANGED     | ANSI 150#/300#/600#/UNI/DIN     |

### 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      | 20 bar   |
| TMO: max working temperature   | 275°C    |



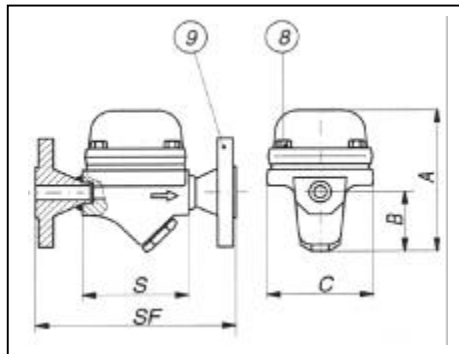
## BIMETALLIC THERMOSTATIC STEAM TRAPS BC 20



| 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   | A   | B  | C   | Weight<br>(Kg) | UNI-DIN<br>PN16-25-40 |     | 150# |      | 300# |      | 600# |      |
|                  |     |     |    |     |                | SF                    | Kg  | SF   | Kg   | SF   | Kg   | 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    |
| 1"               | 120 | 160 | 65 | 100 | 4.5            | 190                   | 7.3 | 200  | 6.7  | 210  | 7.9  | 230  | 8.3  |
| 1 1/2"           | 160 | 205 | 80 | 170 | 13             | 240                   | 17  | 250  | 16   | 260  | 19.4 | 280  | 20.2 |
| 2"               | 160 | 205 | 80 | 170 | 13             | 246                   | 19  | 250  | 18.5 | 260  | 20.2 | 280  | 22.4 |



### 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 direction of flow on vertical lines must be downwards. For installation with superheated steam, please contact our Technical Department

### HOW TO SERVICE

By installing a new element assembly you can bring the BC steam trap to the "as new from factory" condition. Unscrew the 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 by qualified personnel, please ask our Technical Department.

**How to order: i.e.** BC 20 1" 150 RF

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

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### 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

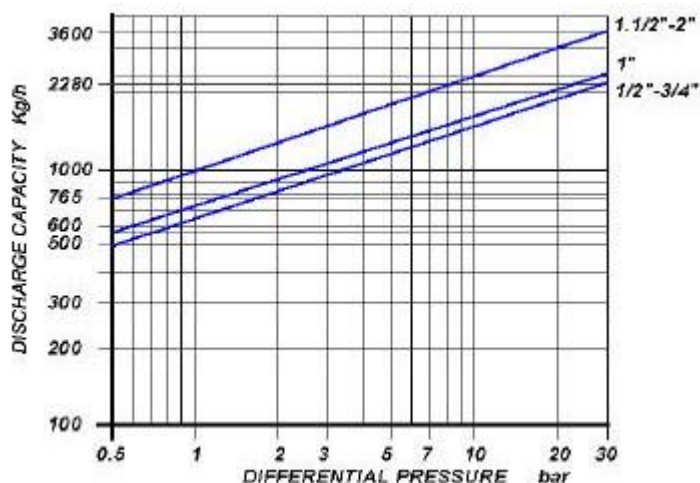
Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.



### 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

1/2" – 3/4" – 1" – 1 1/2" – 2"

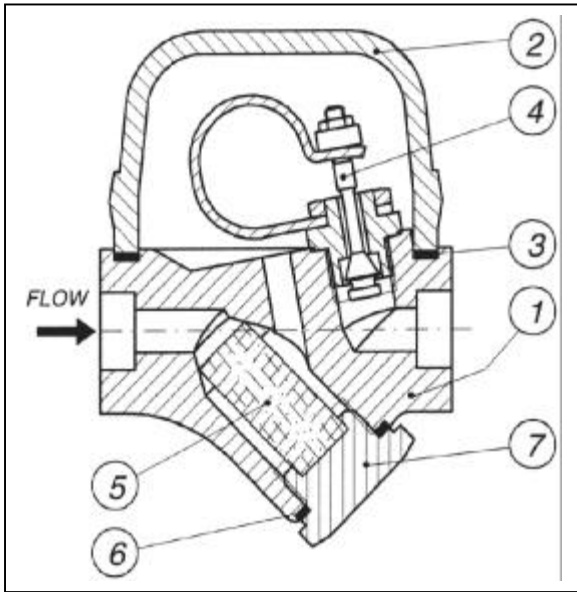
### CONNECTIONS

|             |                                 |
|-------------|---------------------------------|
| 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 )

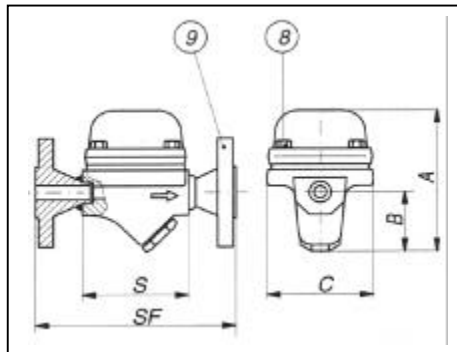
|                                |          |
|--------------------------------|----------|
| Steam Trap rating              | ANSI 300 |
| PMA: Max allowable pressure    | 50 bar   |
| TMA: max allowable temperature | 390°C    |
| PMO: max working pressure      | 30 bar   |
| TMO: max working temperature   | 300°C    |

## BIMETALLIC THERMOSTATIC STEAM TRAPS BC 30



| 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   | A   | B  | C   | Weight<br>(Kg) | UNI-DIN<br>PN16-25-40 |     | 150# |      | 300# |      | 600# |      |
|                  |     |     |    |     |                | SF                    | Kg  | SF   | Kg   | SF   | Kg   | 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    |
| 1"               | 120 | 160 | 65 | 100 | 4.5            | 190                   | 7.3 | 200  | 6.7  | 210  | 7.9  | 230  | 8.3  |
| 1 1/2"           | 160 | 205 | 80 | 170 | 13             | 240                   | 17  | 250  | 16   | 260  | 19.4 | 280  | 20.2 |
| 2"               | 160 | 205 | 80 | 170 | 13             | 246                   | 19  | 250  | 18.5 | 260  | 20.2 | 280  | 22.4 |



### 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 direction of flow on vertical lines must be downwards. For installation with superheated steam, please contact our Technical Department

### HOW TO SERVICE

By installing a new element assembly you can bring the BC steam trap to the "as new from factory" condition. Unscrew the 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 by qualified personnel, please ask our Technical Department.

**How to order: i.e.** BC 20 1" 150 RF

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### 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

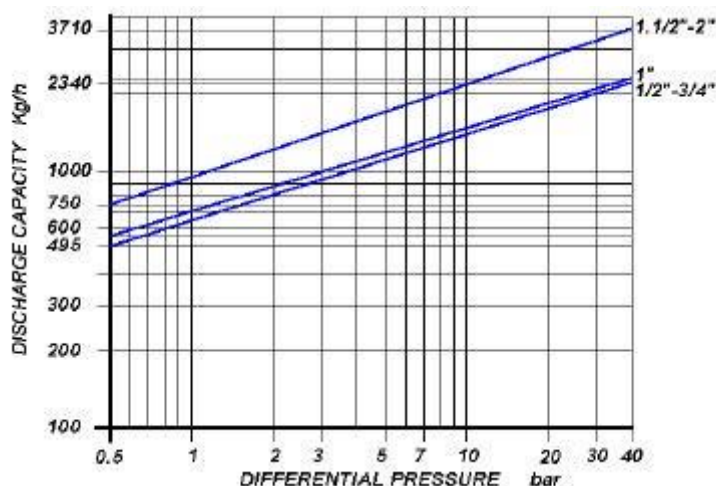
Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.



### 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

1/2" – 3/4" – 1" – 1 1/2" – 2"

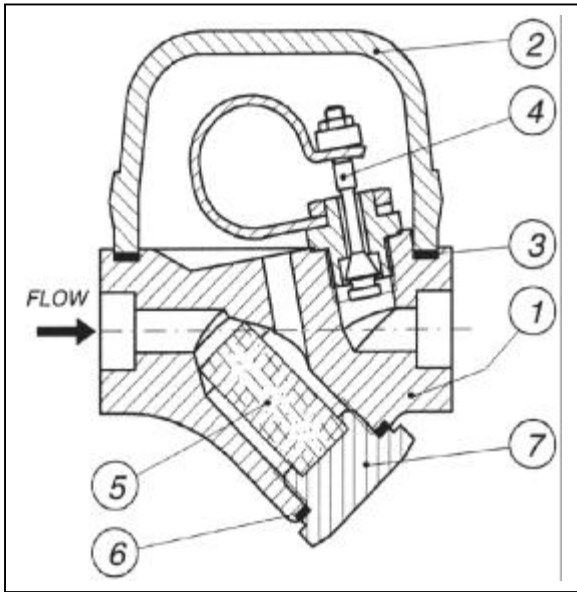
### CONNECTIONS

|             |                                 |
|-------------|---------------------------------|
| 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 )

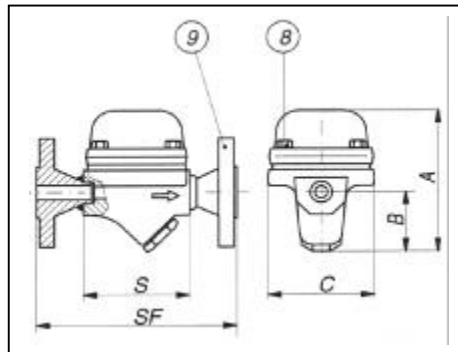
|                                |          |
|--------------------------------|----------|
| Steam Trap rating              | ANSI 300 |
| PMA: Max allowable pressure    | 50 bar   |
| TMA: max allowable temperature | 390°C    |
| PMO: max working pressure      | 40 bar   |
| TMO: max working temperature   | 300°C    |

## BIMETALLIC THERMOSTATIC STEAM TRAPS BC 40



| 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   | A   | B  | C   | Weight<br>(Kg) | UNI-DIN<br>PN16-25-40 |     | 150# |      | 300# |      | 600# |      |
|                  |     |     |    |     |                | SF                    | Kg  | SF   | Kg   | SF   | Kg   | 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    |
| 1"               | 120 | 160 | 65 | 100 | 4.5            | 190                   | 7.3 | 200  | 6.7  | 210  | 7.9  | 230  | 8.3  |
| 1 1/2"           | 160 | 205 | 80 | 170 | 13             | 240                   | 17  | 250  | 16   | 260  | 19.4 | 280  | 20.2 |
| 2"               | 160 | 205 | 80 | 170 | 13             | 246                   | 19  | 250  | 18.5 | 260  | 20.2 | 280  | 22.4 |



### 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 direction of flow on vertical lines must be downwards. For installation with superheated steam, please contact our Technical Department

### HOW TO SERVICE

By installing a new element assembly you can bring the BC steam trap to the "as new from factory" condition. Unscrew the 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 by qualified personnel, please ask our Technical Department.

**How to order: i.e.** BC 20 1" 150 RF

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### 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

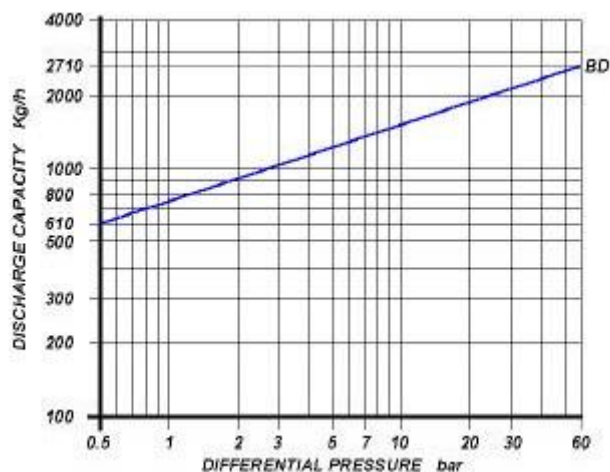
Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.



### 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

1/2" – 3/4" – 1"

### CONNECTIONS

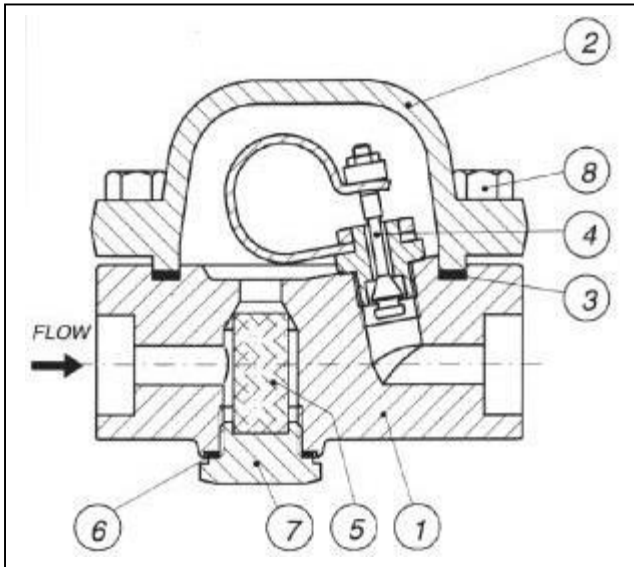
|             |                             |
|-------------|-----------------------------|
| SCREWED     | ANSI B1.20.1 (NPT)          |
| BUTTWELD    | ANSI B16.25                 |
| SOCKET WELD | ANSI B16.11                 |
| FLANGED     | ANSI 150#/300#/600#/UNI/DIN |

### LIMITING CONDITIONS ( according to ISO 6552 )

|                                |          |
|--------------------------------|----------|
| Steam Trap rating              | ANSI 600 |
| PMA: Max allowable pressure    | 100 bar  |
| TMA: max allowable temperature | 390°C    |
| PMO: max working pressure      | 60 bar   |
| TMO: max working temperature   | 340°C    |



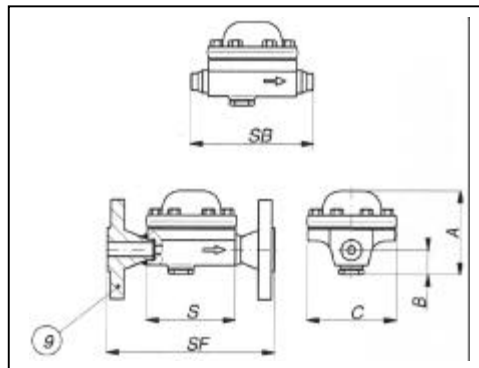
## BIMETALLIC THERMOSTATIC STEAM TRAPS BD A 105



| 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   | SB  | A   | B  | C   | Weight<br>(Kg) | UNI-DIN<br>PN16-25-40 |      | 150# |     | 300# |      | 600# |      |
|                  |     |     |     |    |     |                | SF                    | Kg   | SF   | Kg  | SF   | Kg   | SF   | Kg   |
| ½"               | 145 | 200 | 130 | 35 | 145 | 8              | 211                   | 9.5  | 205  | 9.2 | 225  | 9.5  | 235  | 10.5 |
| ¾"               | 145 | 200 | 130 | 35 | 145 | 8              | 215                   | 10   | 215  | 9.5 | 235  | 10.5 | 245  | 11   |
| 1"               | 145 | 200 | 130 | 35 | 145 | 8              | 215                   | 10.5 | 225  | 10  | 235  | 11.2 | 255  | 11.5 |



### 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 direction of flow on vertical lines must be downwards. For installation with superheated steam, please contact our Technical Department

### HOW TO SERVICE

By installing a new element assembly you can bring the BD steam trap to the "as new from factory" condition. Unscrew the 8 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 by qualified personnel, please ask our Technical Department.

**How to order: i.e.** BD A 105 ¾" 300 RF

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## 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

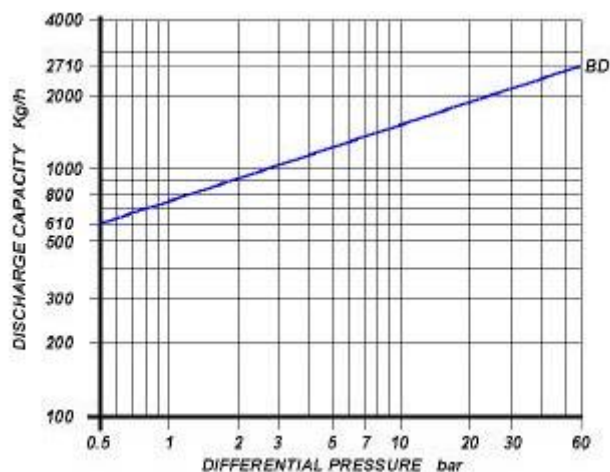
Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.



## 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

1/2" – 3/4" – 1"

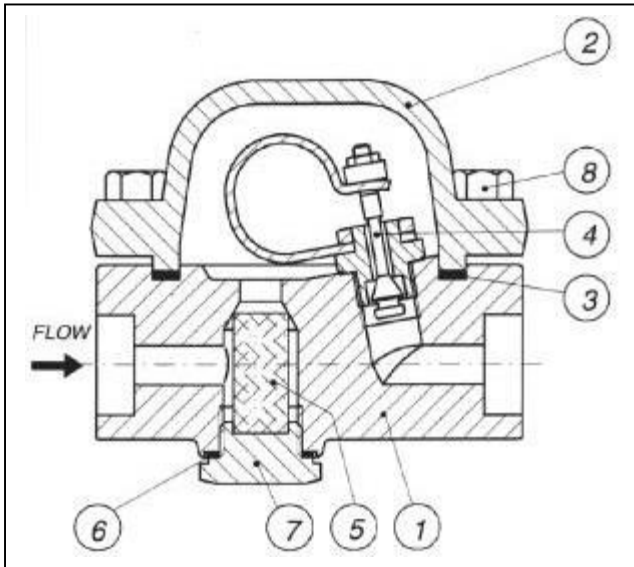
### CONNECTIONS

|             |                             |
|-------------|-----------------------------|
| SCREWED     | ANSI B1.20.1 (NPT)          |
| BUTTWELD    | ANSI B16.25                 |
| SOCKET WELD | ANSI B16.11                 |
| FLANGED     | ANSI 150#/300#/600#/UNI/DIN |

### LIMITING CONDITIONS ( according to ISO 6552 )

|                                |          |
|--------------------------------|----------|
| Steam Trap rating              | ANSI 600 |
| PMA: Max allowable pressure    | 100 bar  |
| TMA: max allowable temperature | 510°C    |
| PMO: max working pressure      | 60 bar   |
| TMO: max working temperature   | 340°C    |

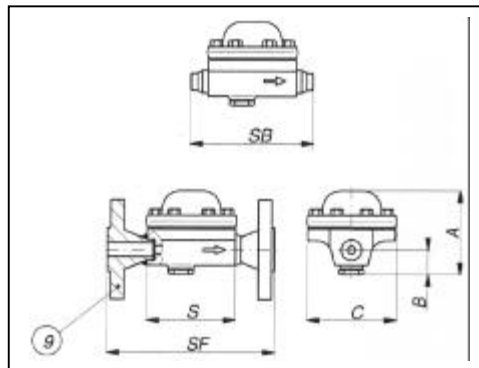
## BIMETALLIC THERMOSTATIC STEAM TRAPS BD F 11



| POS. | DESCRIPTION      | MATERIALS       | SPARES |
|------|------------------|-----------------|--------|
| 1    | Body             | ASTM A182 F11   |        |
| 2    | Cover            | ASTM A182 F11   |        |
| 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 A182 F11   |        |

\* Optional

| Flanged          |     |     |     |    |     |                |                       |      |      |     |      |      |      |      |
|------------------|-----|-----|-----|----|-----|----------------|-----------------------|------|------|-----|------|------|------|------|
| Size<br>(inches) | S   | SB  | A   | B  | C   | Weight<br>(Kg) | UNI-DIN<br>PN16-25-40 |      | 150# |     | 300# |      | 600# |      |
|                  |     |     |     |    |     |                | SF                    | Kg   | SF   | Kg  | SF   | Kg   | SF   | Kg   |
| ½"               | 145 | 200 | 130 | 35 | 145 | 8              | 211                   | 9.5  | 205  | 9.2 | 225  | 9.5  | 235  | 10.5 |
| ¾"               | 145 | 200 | 130 | 35 | 145 | 8              | 215                   | 10   | 215  | 9.5 | 235  | 10.5 | 245  | 11   |
| 1"               | 145 | 200 | 130 | 35 | 145 | 8              | 215                   | 10.5 | 225  | 10  | 235  | 11.2 | 255  | 11.5 |



### 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 direction of flow on vertical lines must be downwards. For installation with superheated steam, please contact our Technical Department

### HOW TO SERVICE

By installing a new element assembly you can bring the BD steam trap to the "as new from factory" condition. Unscrew the 8 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 by qualified personnel, please ask our Technical Department.

**How to order: i.e.** BD A 105 ¾" 300 RF

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

OFFICIAL WEB SITE: [www.douglas-italia.com](http://www.douglas-italia.com)

### 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

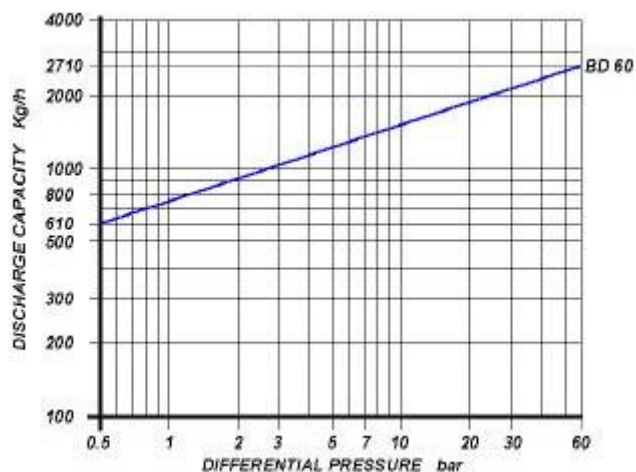
Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.



### 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

1/2" – 3/4" – 1"

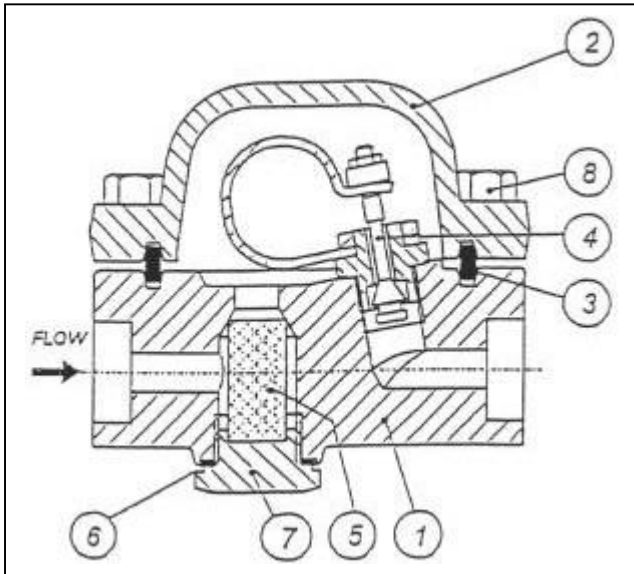
#### CONNECTIONS

|             |                                 |
|-------------|---------------------------------|
| SCREWED     | ANSI B1.20.1 (NPT) / BS21 (BSP) |
| SOCKET WELD | ANSI B16.11                     |
| FLANGED     | ANSI B16.5                      |

#### LIMITING CONDITIONS ( according to ISO 6552 )

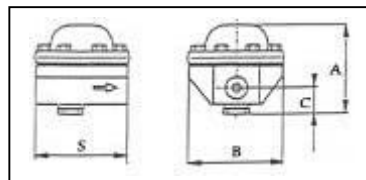
|                                |          |
|--------------------------------|----------|
| Steam Trap rating              | ANSI 800 |
| PMA: Max allowable pressure    | 137 bar  |
| TMA: max allowable temperature | 570°C    |
| PMO: max working pressure      | 60 bar   |
| TMO: max working temperature   | 340°C    |

## BIMETALLIC THERMOSTATIC STEAM TRAPS BD 60S F22



| POS. | DESCRIPTION    | MATERIALS       | SPARES |
|------|----------------|-----------------|--------|
| 1    | Body           | ASTM A182 F22   |        |
| 2    | Cover          | ASTM A182 F22   |        |
| 3    | Gasket         | 316 / GRAPHITE  | X      |
| 4    | Valve assembly | STAINLESS STEEL | X      |
| 5    | Screen         | AISI 316        | X      |
| 6    | Gasket         | 316 / GRAPHITE  | X      |
| 7    | Strainer cap   | ASTM A182 F22   |        |
| 8    | Bolts          | ASTM A193 B8    |        |

| Size<br>(inches) | S   | A   | B   | C  |
|------------------|-----|-----|-----|----|
| 1/2"             | 145 | 140 | 170 | 35 |
| 3/4"             | 145 | 140 | 170 | 35 |
| 1"               | 145 | 140 | 170 | 35 |



### 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 direction of flow on vertical lines must be downwards. For installation with superheated steam, please contact our Technical Department

### HOW TO SERVICE

By installing a new element assembly you can bring the BD 60S F22 steam trap to the "as new from factory" condition. Unscrew the 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 by qualified personnel, please ask our Technical Department.

**How to order: i.e.** BD 60S F22 3/4" NPT

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## 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

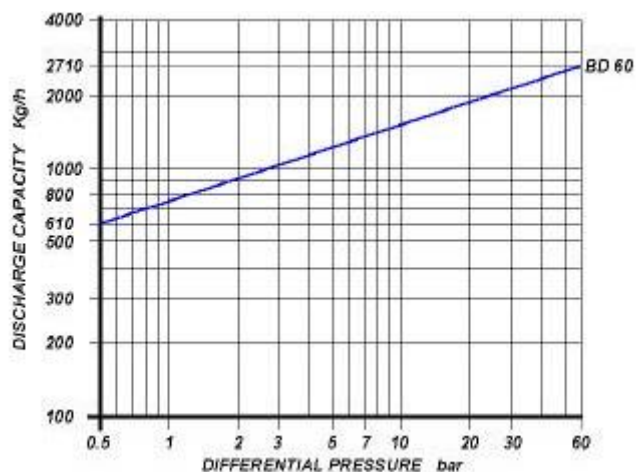
Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.



## 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

1/2" – 3/4" – 1"

### CONNECTIONS

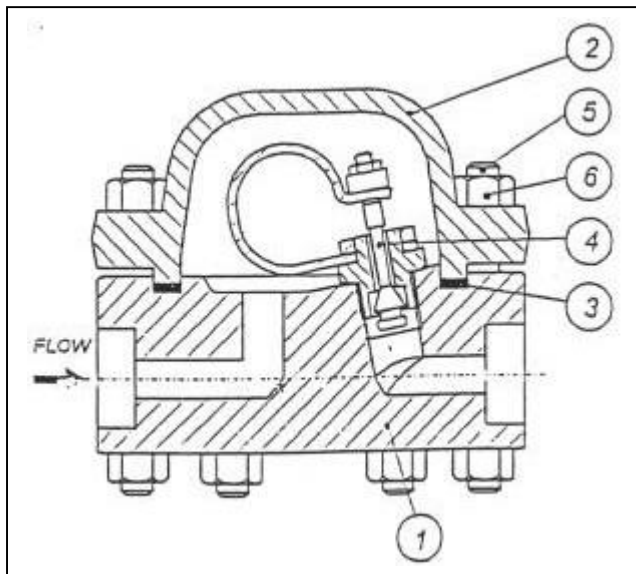
|             |                                 |
|-------------|---------------------------------|
| SCREWED     | ANSI B1.20.1 (NPT) / BS21 (BSP) |
| SOCKET WELD | ANSI B16.11                     |
| FLANGED     | ANSI B16.5                      |

### LIMITING CONDITIONS ( according to ISO 6552 )

|                                |          |
|--------------------------------|----------|
| Steam Trap rating              | ANSI 800 |
| PMA: Max allowable pressure    | 137 bar  |
| TMA: max allowable temperature | 570°C    |
| PMO: max working pressure      | 60 bar   |
| TMO: max working temperature   | 340°C    |

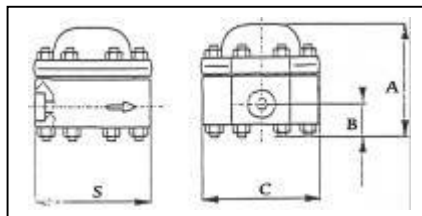


## BIMETALLIC THERMOSTATIC STEAM TRAPS BD 60 S1



| POS. | DESCRIPTION    | MATERIALS       | SPARES |
|------|----------------|-----------------|--------|
| 1    | Body           | SA F2205        |        |
| 2    | Cover          | SA F2205        |        |
| 3    | Gasket         | 316 / GRAPHITE  | X      |
| 4    | Valve assembly | STAINLESS STEEL | X      |
| 5    | Studs          | ASTM A193 B8    |        |
| 6    | Nuts           | ASTM A194 Gr.8  |        |

| Size<br>(inches) | S   | A   | B  | C   |
|------------------|-----|-----|----|-----|
| ½"               | 145 | 140 | 35 | 170 |
| ¾"               | 145 | 140 | 35 | 170 |
| 1"               | 145 | 140 | 35 | 170 |



### 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 direction of flow on vertical lines must be downwards. For installation with superheated steam, please contact our Technical Department

### HOW TO SERVICE

By installing a new element assembly you can bring the BD 60 S1 steam trap to the "as new from factory" condition. Unscrew the bolts (5) 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 (5). The discharge temperature may be adjusted without removing the trap from the line. For information about this operation, to be performed only by qualified personnel, please ask our Technical Department.

**How to order: i.e.** BD 60 S1 ¾" NPT

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OFFICIAL WEB SITE: [www.douglas-italia.com](http://www.douglas-italia.com)

## 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

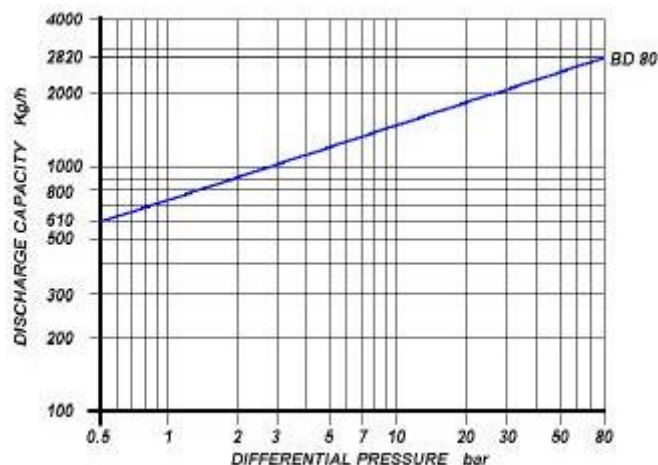
Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.



## 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

1/2" – 3/4" – 1"

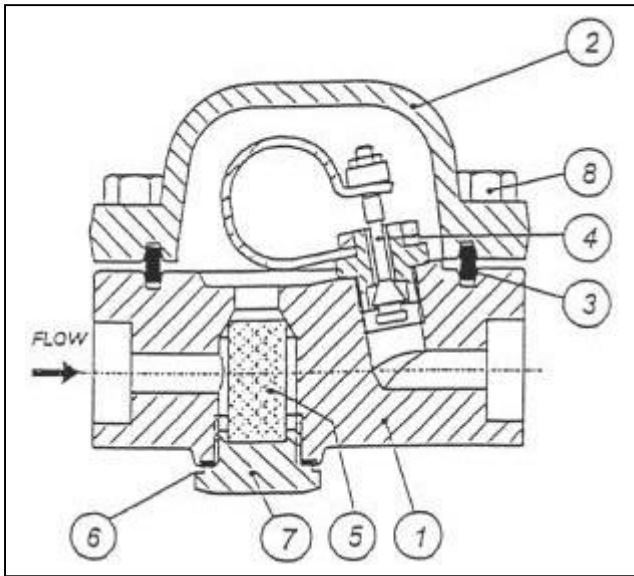
### CONNECTIONS

|             |                                 |
|-------------|---------------------------------|
| SCREWED     | ANSI B1.20.1 (NPT) / BS21 (BSP) |
| SOCKET WELD | ANSI B16.11                     |

### LIMITING CONDITIONS ( according to ISO 6552 )

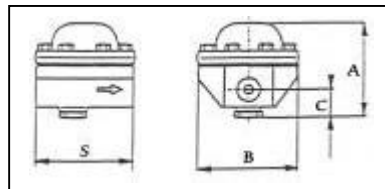
|                                |           |
|--------------------------------|-----------|
| Steam Trap rating              | ANSI 1500 |
| PMA: Max allowable pressure    | 258 bar   |
| TMA: max allowable temperature | 570°C     |
| PMO: max working pressure      | 80 bar    |
| TMO: max working temperature   | 340°C     |

## BIMETALLIC THERMOSTATIC STEAM TRAPS BD 80S F11



| POS. | DESCRIPTION    | MATERIALS       | SPARES |
|------|----------------|-----------------|--------|
| 1    | Body           | ASTM A 182 F11  |        |
| 2    | Cover          | ASTM A 182 F11  |        |
| 3    | RJ             | ASTM A 182 F304 | X      |
| 4    | Valve assembly | STAINLESS STEEL | X      |
| 5    | Screen         | AISI 316        | X      |
| 6    | Gasket         | 316 / GRAPHITE  | X      |
| 7    | Strainer cap   | ASTM A 182 F11  |        |
| 8    | Bolts          | ASTM A193 B8    |        |

| Size<br>(inches) | S   | A   | B   | C  |
|------------------|-----|-----|-----|----|
| 1/2"             | 180 | 150 | 190 | 45 |
| 3/4"             | 180 | 150 | 190 | 45 |
| 1"               | 180 | 150 | 190 | 45 |



### 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 direction of flow on vertical lines must be downwards. For installation with superheated steam, please contact our Technical Department

### HOW TO SERVICE

By installing a new element assembly you can bring the BD 80S F11 steam trap to the "as new from factory" condition. Unscrew the 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 by qualified personnel, please ask our Technical Department.

**How to order: i.e.** BD 80S F11 3/4" NPT

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### 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

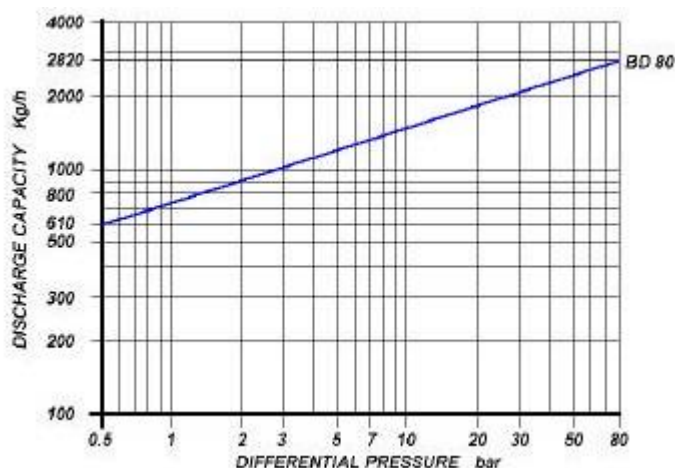
Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.



### 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

1/2" – 3/4" – 1" – 1 1/2" – 2"

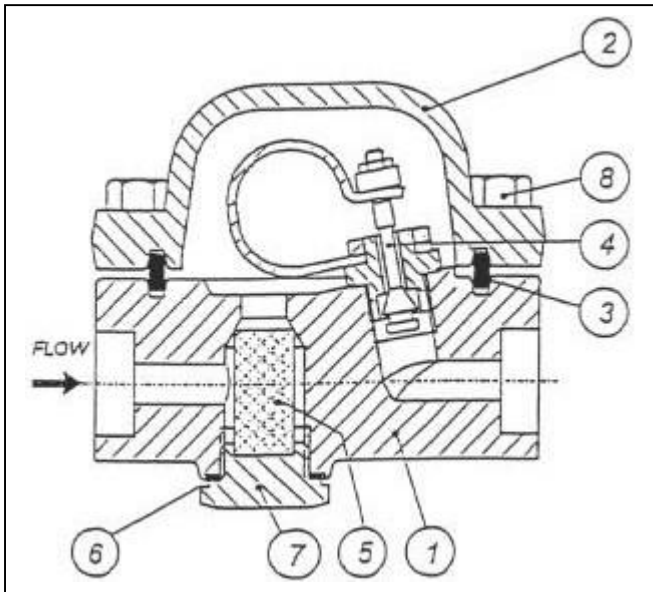
#### CONNECTIONS

|             |                                 |
|-------------|---------------------------------|
| SCREWED     | ANSI B1.20.1 (NPT) / BS21 (BSP) |
| SOCKET WELD | ANSI B16.11                     |

#### LIMITING CONDITIONS ( according to ISO 6552 )

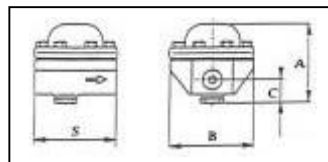
|                                |           |
|--------------------------------|-----------|
| Steam Trap rating              | ANSI 1500 |
| PMA: Max allowable pressure    | 258 bar   |
| TMA: max allowable temperature | 570°C     |
| PMO: max working pressure      | 80 bar    |
| TMO: max working temperature   | 340°C     |

## BIMETALLIC THERMOSTATIC STEAM TRAPS BD 80S F22



| POS. | DESCRIPTION    | MATERIALS       | SPARES |
|------|----------------|-----------------|--------|
| 1    | Body           | ASTM A 182 F22  |        |
| 2    | Cover          | ASTM A 182 F22  |        |
| 3    | RJ             | ASTM A 182 F22  | X      |
| 4    | Valve assembly | STAINLESS STEEL | X      |
| 5    | Screen         | AISI 316        | X      |
| 6    | Gasket         | 316 / GRAPHITE  | X      |
| 7    | Strainer cap   | ASTM A 182 F22  |        |
| 8    | Bolts          | ASTM A193 B8    |        |

| Size<br>(inches) | S   | A   | B   | C  |
|------------------|-----|-----|-----|----|
| 1/2"             | 180 | 150 | 190 | 45 |
| 3/4"             | 180 | 150 | 190 | 45 |
| 1"               | 180 | 150 | 190 | 45 |



### 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 direction of flow on vertical lines must be downwards. For installation with superheated steam, please contact our Technical Department

### HOW TO SERVICE

By installing a new element assembly you can bring the BD 80S F22 steam trap to the "as new from factory" condition. Unscrew the 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 by qualified personnel, please ask our Technical Department.

**How to order: i.e.** BD 80S F22 3/4" NPT

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## 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

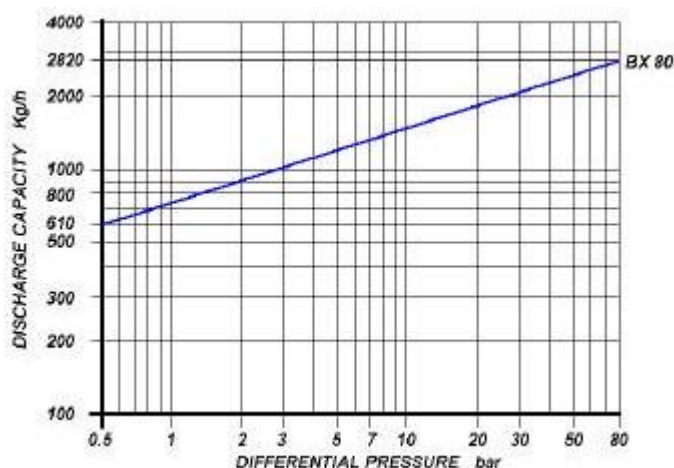
Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.



## 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

1" – 2"

### CONNECTIONS

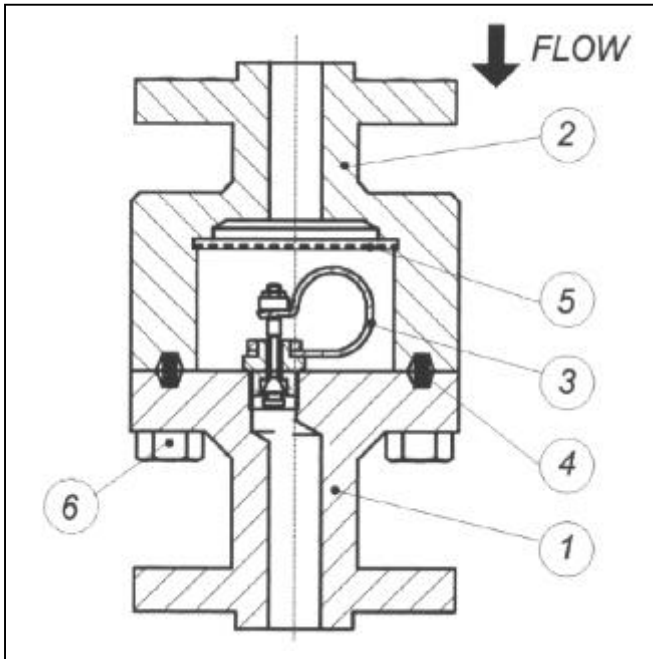
|             |                                 |
|-------------|---------------------------------|
| SCREWED     | ANSI B1.20.1 (NPT) / BS21 (BSP) |
| SOCKET WELD | ANSI B16.11                     |
| FLANGED     | ANSI 1500                       |

### LIMITING CONDITIONS ( according to ISO 6552 )

|                                |           |
|--------------------------------|-----------|
| Steam Trap rating              | ANSI 1500 |
| PMA: Max allowable pressure    | 258 bar   |
| TMA: max allowable temperature | 570°C     |
| PMO: max working pressure      | 80 bar    |
| TMO: max working temperature   | 340°C     |

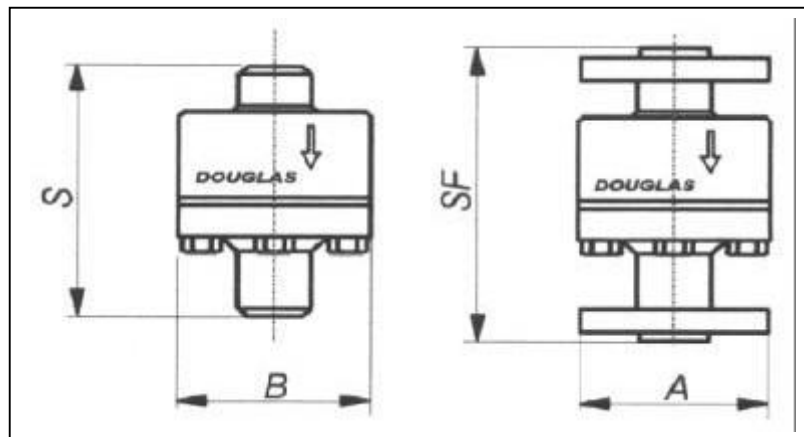


## BIMETALLIC THERMOSTATIC STEAM TRAPS BX 80 F22



| POS. | DESCRIPTION    | MATERIALS       | SPARES |
|------|----------------|-----------------|--------|
| 1    | Body           | ASTM A182 F22   |        |
| 2    | Cover          | ASTM A182 F22   |        |
| 3    | Valve assembly | STAINLESS STEEL | X      |
| 4    | Gasket RJ      | ASTM A182 F304  | X      |
| 5    | Screen         | AISI 304        | X      |
| 6    | Bolt           | ASTM A193 B8    | X      |

| Size<br>(inches) | S   | B   | A   | SF  | Weight<br>(Kg) |
|------------------|-----|-----|-----|-----|----------------|
| 1"               | 173 | 180 | 149 | 243 | 30.2           |
| 2"               | 173 | 180 | 216 | 262 | 44.6           |



### INSTALLATION

The steam trap can be installed on horizontal or vertical lines. For installation with superheated steam, please contact our Technical Department

### HOW TO SERVICE

By installing a new element assembly you can bring the BX 80 F22 steam trap to the "as new from factory" condition. Unscrew the bolts (6) and remove cover (2) and gasket (4). Unscrew and remove the element (3). Clean the inside of the trap, clean screen (5) and screw in the element-gasket assembly. Fit a new gasket (3), fit screen (5) and reinstall cover (2) tightening the bolts (6).

**How to order: i.e.** BX 80 F22 1" NPT

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## 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

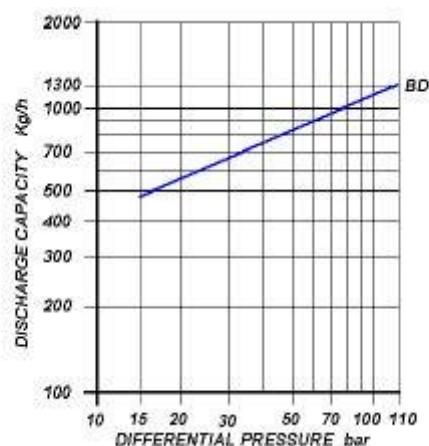
Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.



## 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

1/2" – 3/4" – 1"

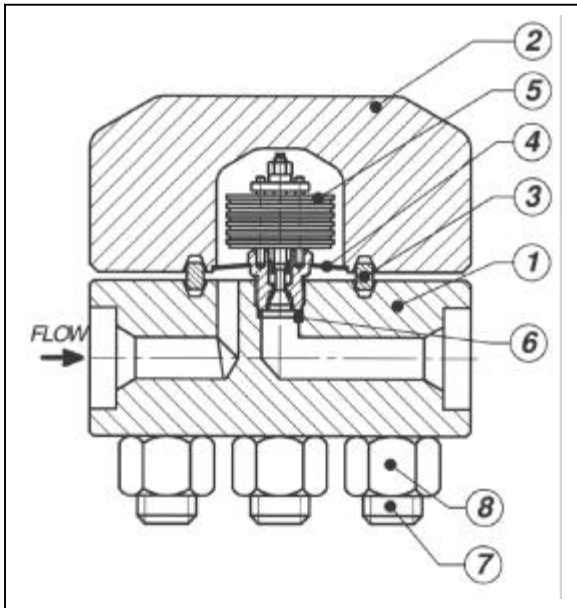
### CONNECTIONS

|             |                                 |
|-------------|---------------------------------|
| SOCKET WELD | ANSI B16.11                     |
| FLANGED     | ANSI B16.5 RF-RJ ( 600 – 1500 ) |

### LIMITING CONDITIONS ( according to ISO 6552 )

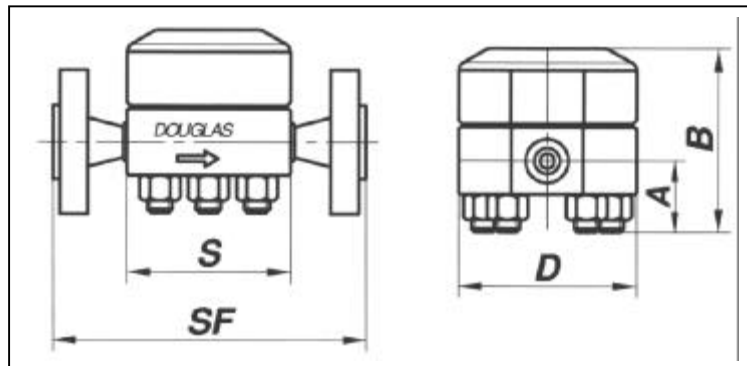
|                                |           |
|--------------------------------|-----------|
| Steam Trap rating              | ANSI 1500 |
| PMA: Max allowable pressure    | 250 bar   |
| TMA: max allowable temperature | 580°C     |
| PMO: max working pressure      | 110 bar   |
| TMO: max working temperature   | 550°C     |

## BIMETALLIC THERMOSTATIC STEAM TRAPS BD 100 F22



| POS. | DESCRIPTION        | MATERIALS              | SPARES |
|------|--------------------|------------------------|--------|
| 1    | Body               | ASTM A182 F22          |        |
| 2    | Cover              | ASTM A182 F22          |        |
| 3    | Cover gasket RJ    | ASTM A182 F304         | X      |
| 4    | Screen             | AISI 304               | X      |
| 5    | Seat               | NITRONIC 50 + STELLITE | X      |
| 5    | Valve              | NITRONIC 60            | X      |
| 5    | Bimetallic element | STAINLESS STEEL        | X      |
| 6    | Gasket seat        | ASTM A182 F316         | X      |
| 7    | Studs              | ASTM A320 L7           |        |
| 8    | Nuts               | ASTM A194 Gr.4         |        |

| Flanged          |     |    |     |     |                |      |    |       |    |
|------------------|-----|----|-----|-----|----------------|------|----|-------|----|
| Size<br>(inches) | S   | A  | B   | D   | Weight<br>(Kg) | 600# |    | 1500# |    |
|                  |     |    |     |     |                | SF   | Kg | SF    | Kg |
| 1/2"             | 151 | 50 | 175 | 160 | 25             | 252  | 29 | 270   | 34 |
| 3/4"             | 151 | 50 | 175 | 160 | 25             | 262  | 30 | 288   | 35 |
| 1"               | 151 | 50 | 175 | 160 | 25             | 270  | 33 | 292   | 38 |



### INSTALLATION

The steam trap is designed for installation on horizontal line with the cover at the top. The steam trap may be used on superheated steam. Condensate is discharged below steam temperature (30°). Subcooling temperature may be adjusted on field without removing the trap from the line. For information for this operation, to be performed only by qualified personnel, please ask our technical department.

### HOW TO SERVICE

By installing a new valve assembly you can bring the BD 100 steam trap to the "as new from factory" condition. Unscrew the 8 nuts (8). Remove cover (2) and RJ gasket (3). Unscrew and remove valve assembly (5) with screen (4). Clean the inside of the trap and clean or replace the screen (4). Screw in the new valve assembly (5) with screen (4) and reinstall cover (2) tightening the nuts (8).

**How to order: i.e.** BD 100 1" 1500 RF

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OFFICIAL WEB SITE: [www.douglas-italia.com](http://www.douglas-italia.com)

## 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

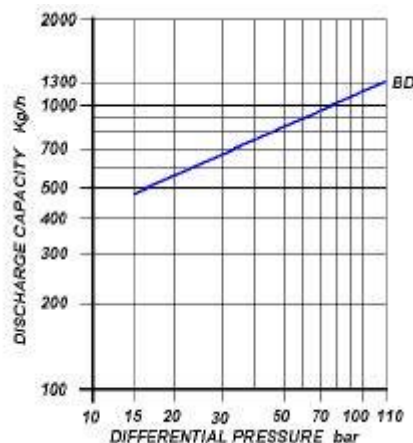
Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.



## 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

1/2" – 3/4" – 1" – 1 1/2"

### CONNECTIONS

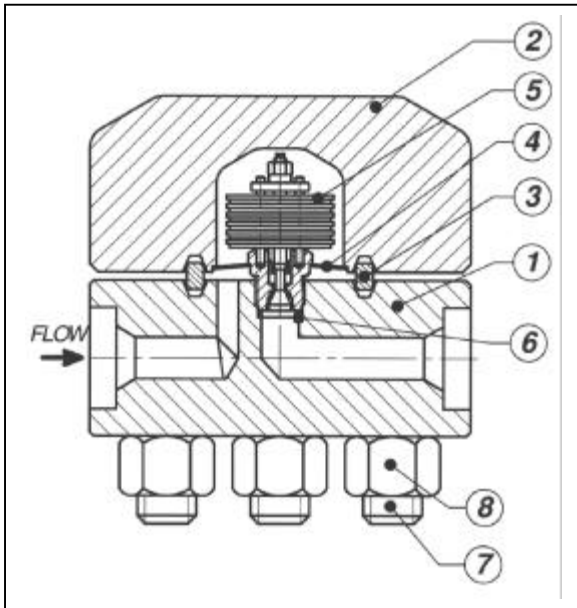
|             |                                  |
|-------------|----------------------------------|
| SOCKET WELD | ANSI B16.11                      |
| FLANGED     | ANSI B16.5 RF-RJ ( 1500 – 2500 ) |

### LIMITING CONDITIONS ( according to ISO 6552 )

|                                |           |
|--------------------------------|-----------|
| Steam Trap rating              | ANSI 2500 |
| PMA: Max allowable pressure    | 425 bar   |
| TMA: max allowable temperature | 425°C     |
| PMO: max working pressure      | 110 bar   |
| TMO: max working temperature   | 400°C     |

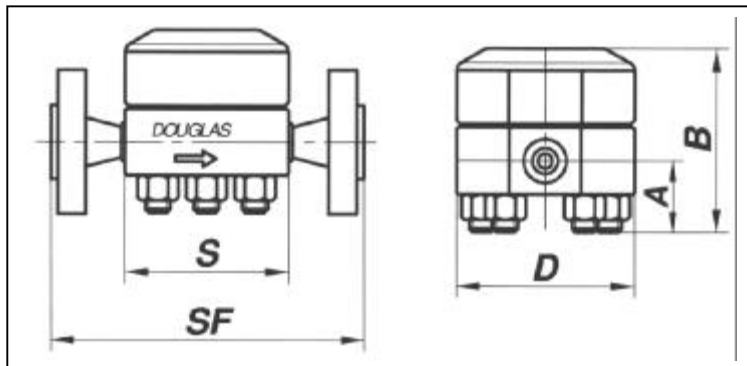
## BIMETALLIC THERMOSTATIC STEAM TRAPS

### BD 120 A105



| POS. | DESCRIPTION        | MATERIALS              | SPARES |
|------|--------------------|------------------------|--------|
| 1    | Body               | ASTM A105              |        |
| 2    | Cover              | ASTM A105              |        |
| 3    | Cover gasket RJ    | ASTM A182 F304         | X      |
| 4    | Screen             | AISI 304               | X      |
| 5    | Seat               | NITRONIC 50 + STELLITE | X      |
| 5    | Valve              | NITRONIC 60            | X      |
| 5    | Bimetallic element | STAINLESS STEEL        | X      |
| 6    | Gasket seat        | ASTM A182 F316         | X      |
| 7    | Studs              | ASTM A320 B7           |        |
| 8    | Nuts               | ASTM A194 2H           |        |

| Flanged          |     |    |     |     |                |             |    |         |    |         |    |
|------------------|-----|----|-----|-----|----------------|-------------|----|---------|----|---------|----|
| Size<br>(inches) | S   | A  | B   | D   | Weight<br>(Kg) | 1500 RF -RJ |    | 2500 RF |    | 2500 RJ |    |
|                  |     |    |     |     |                | SF          | Kg | SF      | Kg | SF      | Kg |
| 1/2"             | 185 | 70 | 200 | 200 | 35             | 322         | 40 | 341     | 44 | 341     | 44 |
| 3/4"             | 185 | 70 | 200 | 200 | 35             | 322         | 40 | 341     | 44 | 341     | 44 |
| 1"               | 185 | 70 | 200 | 200 | 35             | 328         | 43 | 360     | 48 | 360     | 49 |
| 1 1/2"           | 185 | 70 | 200 | 200 | 35             | 345         | 47 | 402     | 54 | 405     | 55 |



#### INSTALLATION

The steam trap is designed for installation on horizontal line with the cover at the top. The steam trap may be used on superheated steam. Condensate is discharged below steam temperature (30°). Subcooling temperature may be adjusted on field without removing the trap from the line. For information for this operation, to be performed only by qualifield personnel, please ask our technical department.

#### HOW TO SERVICE

By installing a new valve assembly you can bring the BD 120 A105 steam trap to the "as new from factory" condition. Unscrew the 8 nuts (8). Remove cover (2) and RJ gasket (3). Unscrew and remove valve assembly (5) with screen (4). Clean the inside of the trap and clean or replace the screen (4). Screw in the new valve assembly (5) with screen (4) and reinstall cover (2) tightening the nuts (8).

**How to order:** i.e. BD 120 A105 1" 1500 RF

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## 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

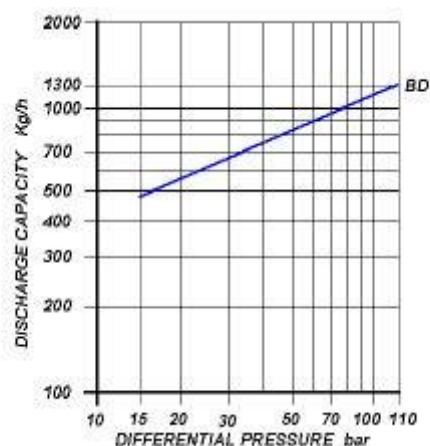
Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.



## 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

1/2" – 3/4" – 1" – 1 1/2"

### CONNECTIONS

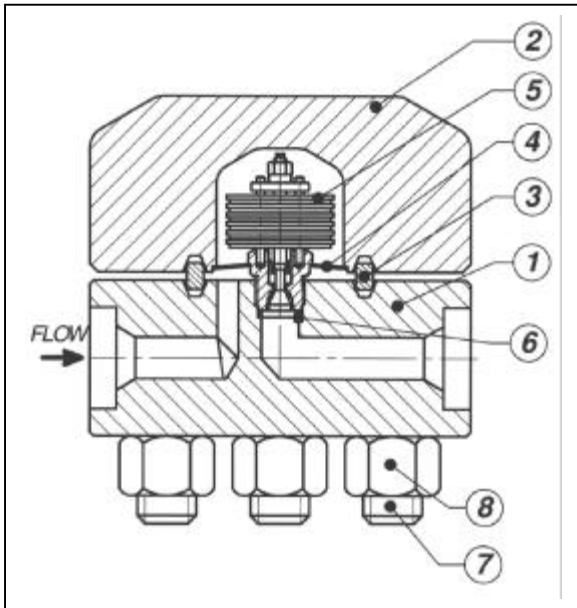
|             |                                  |
|-------------|----------------------------------|
| SOCKET WELD | ANSI B16.11                      |
| FLANGED     | ANSI B16.5 RF-RJ ( 1500 – 2500 ) |

### LIMITING CONDITIONS ( according to ISO 6552 )

|                                |           |
|--------------------------------|-----------|
| Steam Trap rating              | ANSI 2500 |
| PMA: Max allowable pressure    | 430 bar   |
| TMA: max allowable temperature | 580°C     |
| PMO: max working pressure      | 110 bar   |
| TMO: max working temperature   | 550°C     |

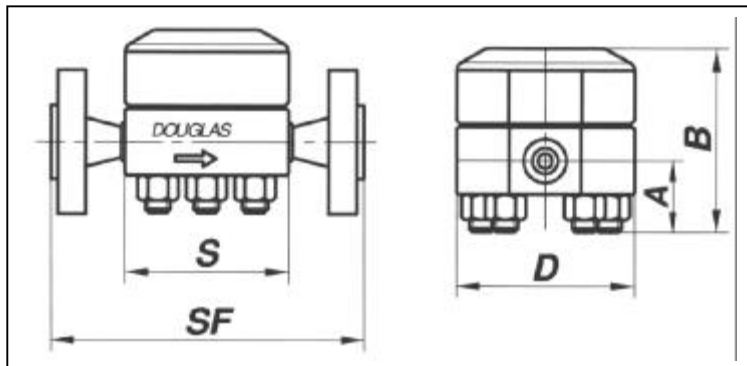
## BIMETALLIC THERMOSTATIC STEAM TRAPS

### BD 120 F22



| POS. | DESCRIPTION        | MATERIALS              | SPARES |
|------|--------------------|------------------------|--------|
| 1    | Body               | ASTM A182 F22          |        |
| 2    | Cover              | ASTM A182 F22          |        |
| 3    | Cover gasket RJ    | ASTM A182 F304         | X      |
| 4    | Screen             | AISI 304               | X      |
| 5    | Seat               | NITRONIC 50 + STELLITE | X      |
| 5    | Valve              | NITRONIC 60            | X      |
| 5    | Bimetallic element | STAINLESS STEEL        | X      |
| 6    | Gasket seat        | ASTM A182 F316         | X      |
| 7    | Studs              | ASTM A320 L7           |        |
| 8    | Nuts               | ASTM A194 Gr.4         |        |

| Flanged          |     |    |     |     |                |             |    |         |    |         |    |
|------------------|-----|----|-----|-----|----------------|-------------|----|---------|----|---------|----|
| Size<br>(inches) | S   | A  | B   | D   | Weight<br>(Kg) | 1500 RF -RJ |    | 2500 RF |    | 2500 RJ |    |
|                  |     |    |     |     |                | SF          | Kg | SF      | Kg | SF      | Kg |
| 1/2"             | 185 | 70 | 200 | 200 | 35             | 305         | 36 | 331     | 42 | 331     | 42 |
| 3/4"             | 185 | 70 | 200 | 200 | 35             | 322         | 40 | 341     | 44 | 341     | 44 |
| 1"               | 185 | 70 | 200 | 200 | 35             | 328         | 43 | 360     | 48 | 360     | 49 |
| 1 1/2"           | 185 | 70 | 200 | 200 | 35             | 345         | 47 | 402     | 54 | 405     | 55 |



#### INSTALLATION

The steam trap is designed for installation on horizontal line with the cover at the top. The steam trap may be used on superheated steam. Condensate is discharged below steam temperature (30°). Subcooling temperature may be adjusted on field without removing the trap from the line. For information for this operation, to be performed only by qualifield personnel, please ask our technical department.

#### HOW TO SERVICE

By installing a new valve assembly you can bring the BD 120 F22 steam trap to the "as new from factory" condition. Unscrew the 8 nuts (8). Remove cover (2) and RJ gasket (3). Unscrew and remove valve assembly (5) with screen (4). Clean the inside of the trap and clean or replace the screen (4). Screw in the new valve assembly (5) with screen (4) and reinstall cover (2) tightening the nuts (8).

**How to order:** i.e. BD 120 F22 1" 1500 RF

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### 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.



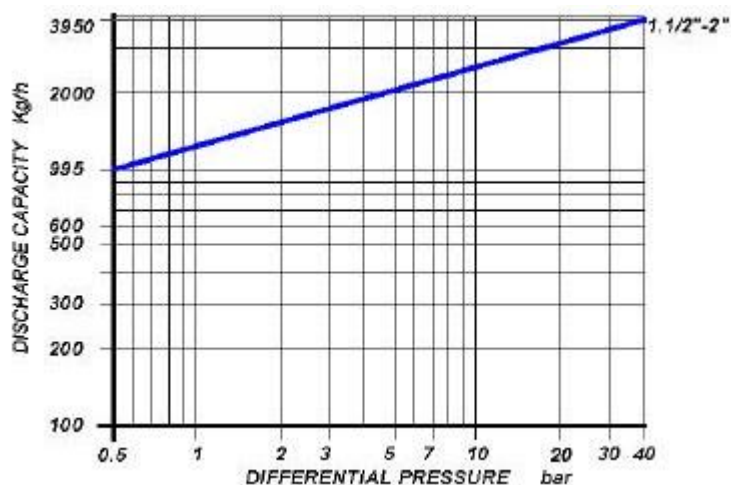
### MAIN FEATURES

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

1 1/2" – 2"

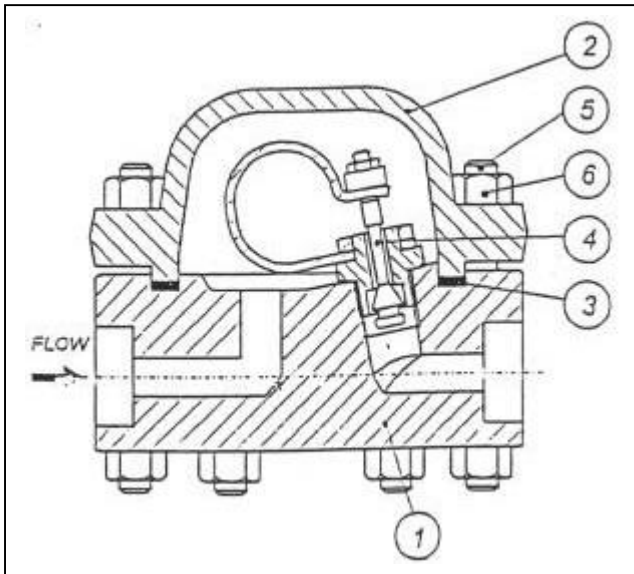
#### CONNECTIONS

|             |                                 |
|-------------|---------------------------------|
| SCREWED     | ANSI B1.20.1 (NPT) / BS21 (BSP) |
| SOCKET WELD | ANSI B16.11                     |
| FLANGED     | ANSI B16.5                      |

#### LIMITING CONDITIONS ( according to ISO 6552 )

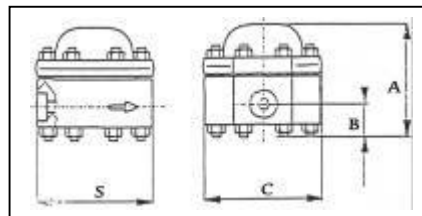
|                                |          |
|--------------------------------|----------|
| Steam Trap rating              | ANSI 800 |
| PMA: Max allowable pressure    | 137 bar  |
| TMA: max allowable temperature | 570°C    |
| PMO: max working pressure      | 20 bar   |
| TMO: max working temperature   | 275°C    |

## BIMETALLIC THERMOSTATIC STEAM TRAPS BC 20 S1



| POS. | DESCRIPTION    | MATERIALS       | SPARES |
|------|----------------|-----------------|--------|
| 1    | Body           | SA F2205        |        |
| 2    | Cover          | SA F2205        |        |
| 3    | Gasket         | 316 / GRAPHITE  | X      |
| 4    | Valve assembly | STAINLESS STEEL | X      |
| 5    | Studs          | ASTM A193 B8    |        |
| 6    | Nuts           | ASTM A194 Gr.8  |        |

| Size<br>(inches) | S   | A   | B  | C   |
|------------------|-----|-----|----|-----|
| 1½"              | 160 | 190 | 60 | 180 |
| 2"               | 160 | 190 | 60 | 180 |



### 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 direction of flow on vertical lines must be downwards. For installation with superheated steam, please contact our Technical Department

### HOW TO SERVICE

By installing a new element assembly you can bring the BC 20 S1 steam trap to the "as new from factory" condition. Unscrew the bolts (5) 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 (5). The discharge temperature may be adjusted without removing the trap from the line. For information about this operation, to be performed only by qualified personnel, please ask our Technical Department.

**How to order: i.e.** BC 20 S1 2" NPT

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### 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

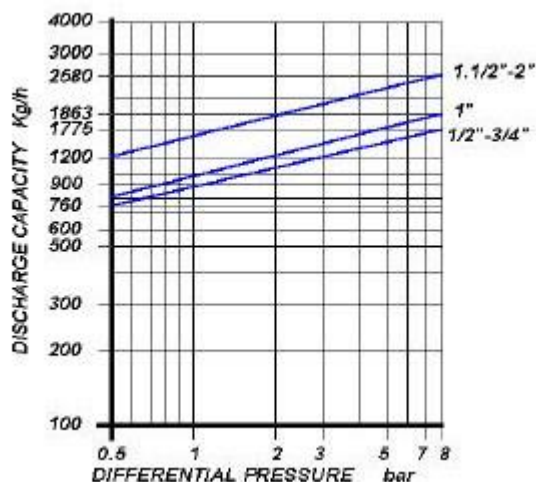
Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.



### 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

1/2" – 3/4" – 1" – 1 1/2" – 2"

### CONNECTIONS

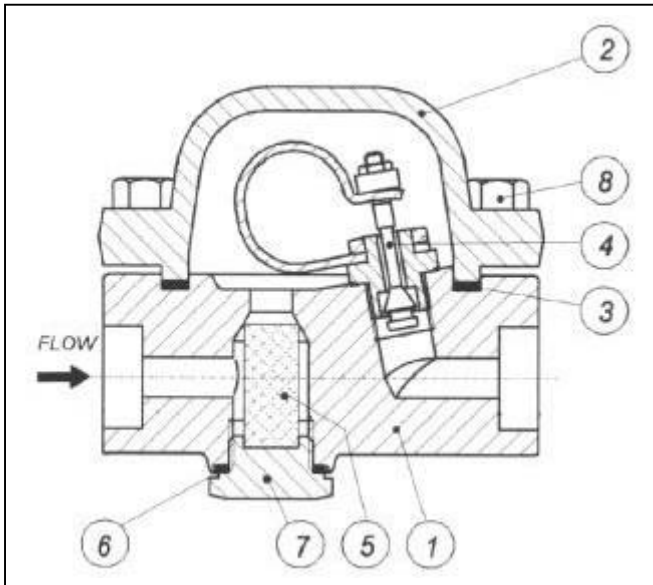
|             |                                 |
|-------------|---------------------------------|
| SCREWED     | ANSI B1.20.1 (NPT) / BS21 (BSP) |
| SOCKET WELD | ANSI B16.11                     |
| FLANGED     | ANSI 150#/300#/600#/UNI/DIN     |

### LIMITING CONDITIONS ( according to ISO 6552 )

|                                |          |
|--------------------------------|----------|
| Steam Trap rating              | ANSI 800 |
| PMA: Max allowable pressure    | 132 bar  |
| TMA: max allowable temperature | 500°C    |
| PMO: max working pressure      | 8 bar    |
| TMO: max working temperature   | 250°C    |

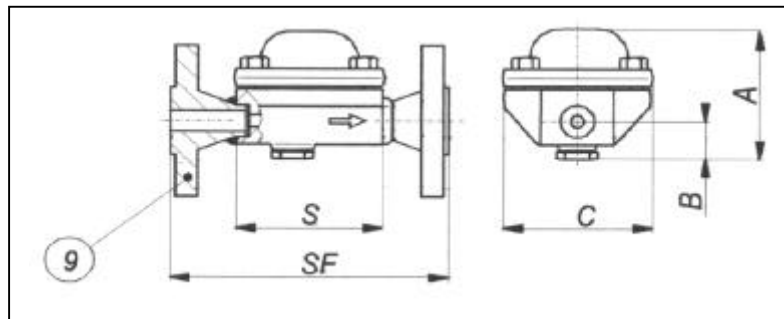


## BIMETALLIC THERMOSTATIC STEAM TRAPS BCS 8 F316



| POS. | DESCRIPTION    | MATERIALS       | SPARES |
|------|----------------|-----------------|--------|
| 1    | Body           | ASTM A182 F316  |        |
| 2    | Cover          | ASTM A182 F316  |        |
| 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 A182 F316  |        |
| 8    | Bolts          | ASTM A193 B8    |        |
| 9    | Flange         | ASTM A182 F316  |        |

| Flanged          |     |     |    |     |                |                       |      |      |      |      |      |      |    |
|------------------|-----|-----|----|-----|----------------|-----------------------|------|------|------|------|------|------|----|
| Size<br>(inches) | S   | A   | B  | C   | Weight<br>(Kg) | UNI-DIN<br>PN16-25-40 |      | 150# |      | 300# |      | 600# |    |
|                  |     |     |    |     |                | SF                    | Kg   | SF   | Kg   | SF   | Kg   | SF   | Kg |
| 1/2"             | 100 | 129 | 35 | 135 | 7              | 166                   | 8.5  | 160  | 8.2  | 180  | 8.5  | 190  | 9  |
| 3/4"             | 100 | 129 | 35 | 135 | 7              | 170                   | 8.5  | 170  | 8.2  | 190  | 8.5  | 200  | 9  |
| 1"               | 120 | 129 | 35 | 135 | 7              | 190                   | 10   | 200  | 10.2 | 210  | 10.7 | 230  | 12 |
| 1 1/2"           | 160 | 181 | 52 | 180 | 15             | 240                   | 16.1 | 250  | 16   | 260  | 16.5 | 280  | 17 |
| 2"               | 160 | 181 | 52 | 180 | 15             | 246                   | 18   | 250  | 20   | 260  | 21   | 280  | 23 |



### 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 direction of flow on vertical lines must be downwards. Before welding a SW trap, remove element (4). This operation can be avoided by using arc electrode welding. For installation with superheated steam, please contact our Technical Department

### HOW TO SERVICE

By installing a new element assembly you can bring the BC steam trap to the "as new from factory" condition. Unscrew the 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 by qualified personnel, please ask our Technical Department.

**How to order: i.e.** BCS 20 F316 1" 150 RF

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### 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

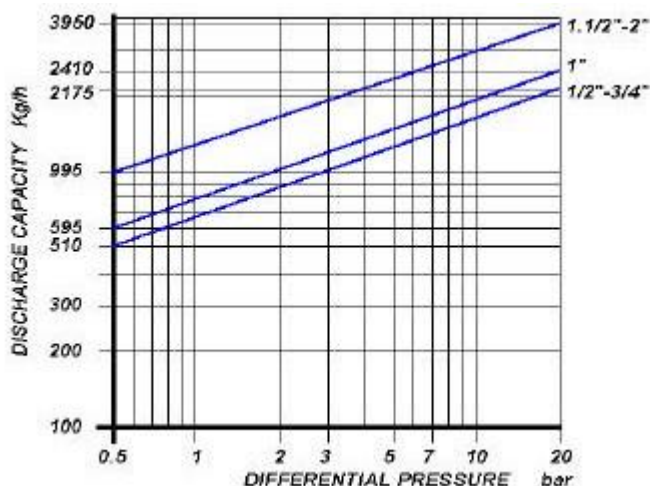
Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.



### 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

1/2" – 3/4" – 1" – 1 1/2" – 2"

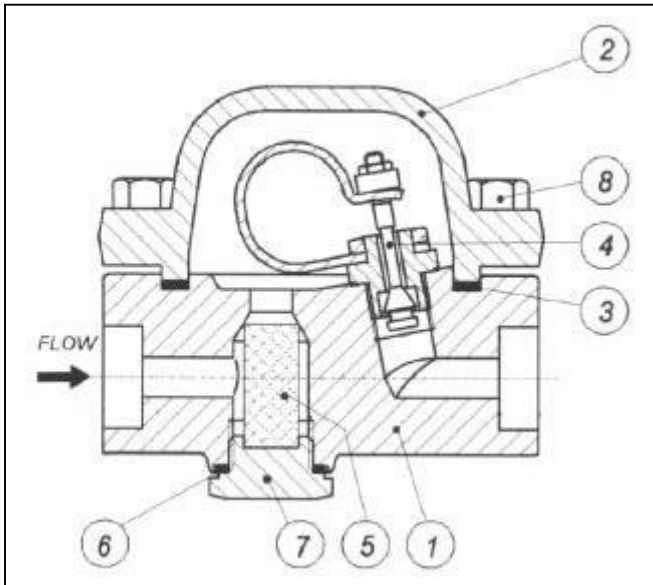
#### CONNECTIONS

|             |                                 |
|-------------|---------------------------------|
| 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 )

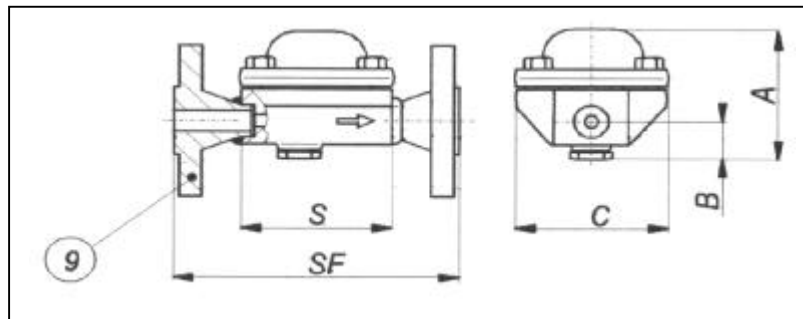
|                                |          |
|--------------------------------|----------|
| Steam Trap rating              | ANSI 800 |
| PMA: Max allowable pressure    | 132 bar  |
| TMA: max allowable temperature | 500°C    |
| PMO: max working pressure      | 20 bar   |
| TMO: max working temperature   | 275°C    |

## BIMETALLIC THERMOSTATIC STEAM TRAPS BCS 20 F316



| POS. | DESCRIPTION    | MATERIALS       | SPARES |
|------|----------------|-----------------|--------|
| 1    | Body           | ASTM A182 F316  |        |
| 2    | Cover          | ASTM A182 F316  |        |
| 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 A182 F316  |        |
| 8    | Bolts          | ASTM A193 B8    |        |
| 9    | Flange         | ASTM A182 F316  |        |

| Flanged          |     |     |    |     |                |                       |      |      |      |      |      |      |    |
|------------------|-----|-----|----|-----|----------------|-----------------------|------|------|------|------|------|------|----|
| Size<br>(inches) | S   | A   | B  | C   | Weight<br>(Kg) | UNI-DIN<br>PN16-25-40 |      | 150# |      | 300# |      | 600# |    |
|                  |     |     |    |     |                | SF                    | Kg   | SF   | Kg   | SF   | Kg   | SF   | Kg |
| 1/2"             | 100 | 129 | 35 | 135 | 7              | 166                   | 8.5  | 160  | 8.2  | 180  | 8.5  | 190  | 9  |
| 3/4"             | 100 | 129 | 35 | 135 | 7              | 170                   | 8.5  | 170  | 8.2  | 190  | 8.5  | 200  | 9  |
| 1"               | 120 | 129 | 35 | 135 | 7              | 190                   | 10   | 200  | 10.2 | 210  | 10.7 | 230  | 12 |
| 1 1/2"           | 160 | 181 | 52 | 180 | 15             | 240                   | 16.1 | 250  | 16   | 260  | 16.5 | 280  | 17 |
| 2"               | 160 | 181 | 52 | 180 | 15             | 246                   | 18   | 250  | 20   | 260  | 21   | 280  | 23 |



### 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 direction of flow on vertical lines must be downwards. Before welding a SW trap, remove element (4). This operation can be avoided by using arc electrode welding. For installation with superheated steam, please contact our Technical Department

### HOW TO SERVICE

By installing a new element assembly you can bring the BC steam trap to the "as new from factory" condition. Unscrew the 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 by qualified personnel, please ask our Technical Department.

**How to order:** i.e. BCS 20 F316 1" 150 RF

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### 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

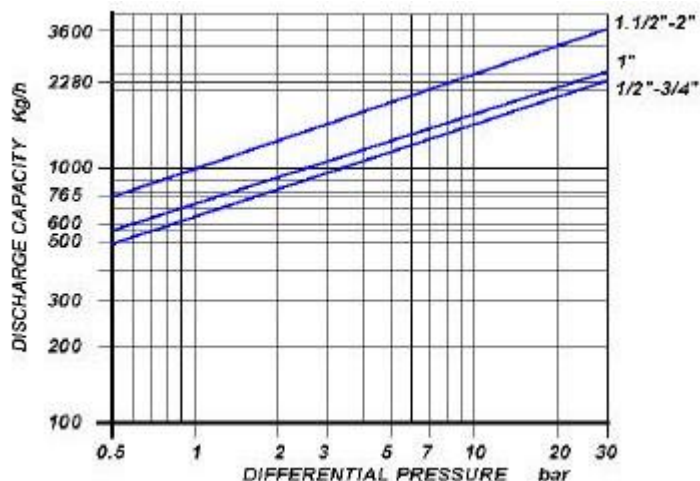
Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.



### 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

1/2" – 3/4" – 1" – 1 1/2" – 2"

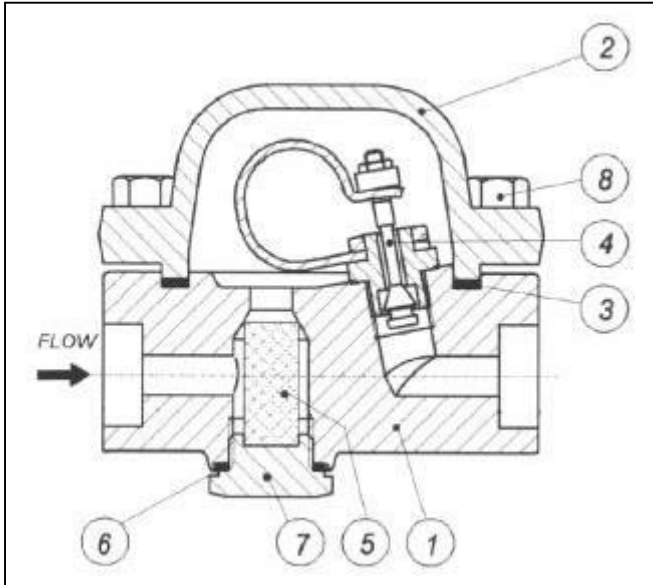
#### CONNECTIONS

|             |                                 |
|-------------|---------------------------------|
| 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 )

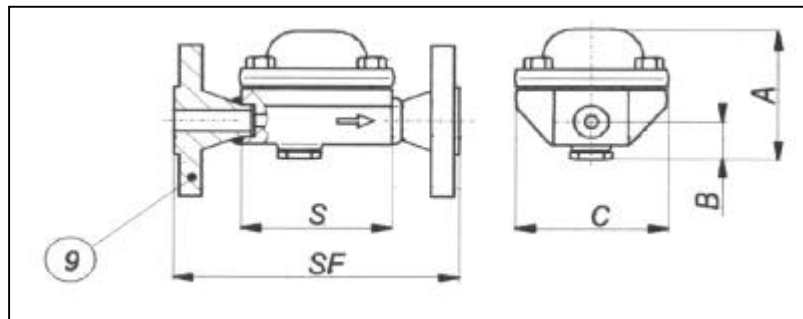
|                                |          |
|--------------------------------|----------|
| Steam Trap rating              | ANSI 800 |
| PMA: Max allowable pressure    | 132 bar  |
| TMA: max allowable temperature | 500°C    |
| PMO: max working pressure      | 30 bar   |
| TMO: max working temperature   | 300°C    |

## BIMETALLIC THERMOSTATIC STEAM TRAPS BCS 30 F316



| POS. | DESCRIPTION    | MATERIALS       | SPARES |
|------|----------------|-----------------|--------|
| 1    | Body           | ASTM A182 F316  |        |
| 2    | Cover          | ASTM A182 F316  |        |
| 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 A182 F316  |        |
| 8    | Bolts          | ASTM A193 B8    |        |
| 9    | Flange         | ASTM A182 F316  |        |

| Flanged          |     |     |    |     |                |                       |      |      |      |      |      |      |    |
|------------------|-----|-----|----|-----|----------------|-----------------------|------|------|------|------|------|------|----|
| Size<br>(inches) | S   | A   | B  | C   | Weight<br>(Kg) | UNI-DIN<br>PN16-25-40 |      | 150# |      | 300# |      | 600# |    |
|                  |     |     |    |     |                | SF                    | Kg   | SF   | Kg   | SF   | Kg   | SF   | Kg |
| 1/2"             | 100 | 129 | 35 | 135 | 7              | 166                   | 8.5  | 160  | 8.2  | 180  | 8.5  | 190  | 9  |
| 3/4"             | 100 | 129 | 35 | 135 | 7              | 170                   | 8.5  | 170  | 8.2  | 190  | 8.5  | 200  | 9  |
| 1"               | 120 | 129 | 35 | 135 | 7              | 190                   | 10   | 200  | 10.2 | 210  | 10.7 | 230  | 12 |
| 1 1/2"           | 160 | 181 | 52 | 180 | 15             | 240                   | 16.1 | 250  | 16   | 260  | 16.5 | 280  | 17 |
| 2"               | 160 | 181 | 52 | 180 | 15             | 246                   | 18   | 250  | 20   | 260  | 21   | 280  | 23 |



### 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 direction of flow on vertical lines must be downwards. Before welding a SW trap, remove element (4). This operation can be avoided by using arc electrode welding. For installation with superheated steam, please contact our Technical Department

### HOW TO SERVICE

By installing a new element assembly you can bring the BC steam trap to the "as new from factory" condition. Unscrew the 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 by qualified personnel, please ask our Technical Department.

**How to order: i.e.** BCS 20 F316 1" 150 RF

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

OFFICIAL WEB SITE: [www.douglas-italia.com](http://www.douglas-italia.com)



### 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

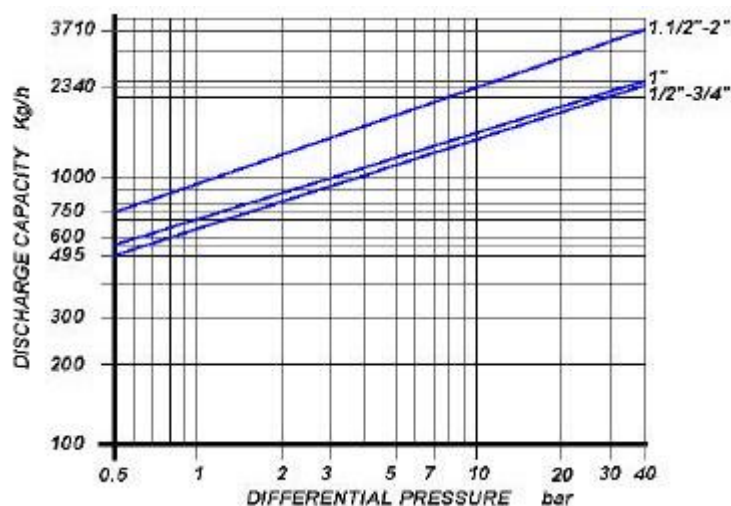
Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.



### 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

1/2" – 3/4" – 1" – 1 1/2" – 2"

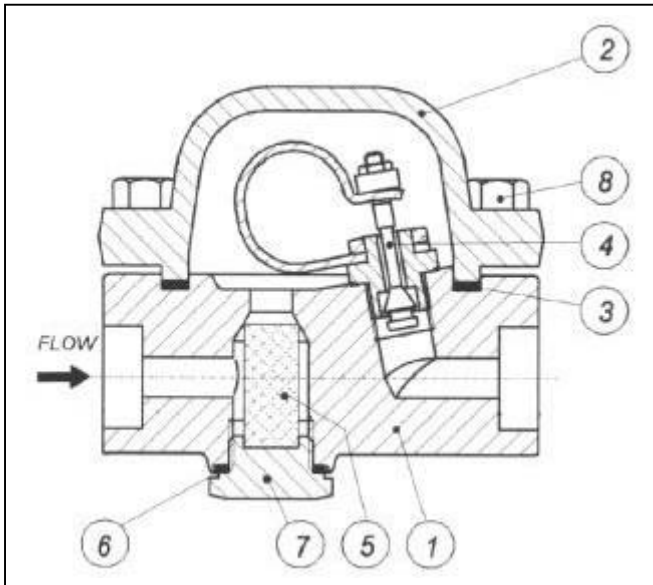
### CONNECTIONS

|             |                                 |
|-------------|---------------------------------|
| 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 )

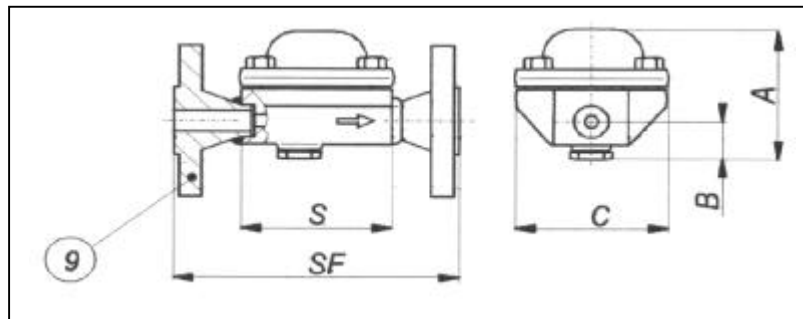
|                                |          |
|--------------------------------|----------|
| Steam Trap rating              | ANSI 800 |
| PMA: Max allowable pressure    | 132 bar  |
| TMA: max allowable temperature | 500°C    |
| PMO: max working pressure      | 40 bar   |
| TMO: max working temperature   | 300°C    |

## BIMETALLIC THERMOSTATIC STEAM TRAPS BCS 40 F316



| POS. | DESCRIPTION    | MATERIALS       | SPARES |
|------|----------------|-----------------|--------|
| 1    | Body           | ASTM A182 F316  |        |
| 2    | Cover          | ASTM A182 F316  |        |
| 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 A182 F316  |        |
| 8    | Bolts          | ASTM A193 B8    |        |
| 9    | Flange         | ASTM A182 F316  |        |

| Flanged          |     |     |    |     |                |                       |      |      |      |      |      |      |    |
|------------------|-----|-----|----|-----|----------------|-----------------------|------|------|------|------|------|------|----|
| Size<br>(inches) | S   | A   | B  | C   | Weight<br>(Kg) | UNI-DIN<br>PN16-25-40 |      | 150# |      | 300# |      | 600# |    |
|                  |     |     |    |     |                | SF                    | Kg   | SF   | Kg   | SF   | Kg   | SF   | Kg |
| 1/2"             | 100 | 129 | 35 | 135 | 7              | 166                   | 8.5  | 160  | 8.2  | 180  | 8.5  | 190  | 9  |
| 3/4"             | 100 | 129 | 35 | 135 | 7              | 170                   | 8.5  | 170  | 8.2  | 190  | 8.5  | 200  | 9  |
| 1"               | 120 | 129 | 35 | 135 | 7              | 190                   | 10   | 200  | 10.2 | 210  | 10.7 | 230  | 12 |
| 1 1/2"           | 160 | 181 | 52 | 180 | 15             | 240                   | 16.1 | 250  | 16   | 260  | 16.5 | 280  | 17 |
| 2"               | 160 | 181 | 52 | 180 | 15             | 246                   | 18   | 250  | 20   | 260  | 21   | 280  | 23 |



### 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 direction of flow on vertical lines must be downwards. Before welding a SW trap, remove element (4). This operation can be avoided by using arc electrode welding. For installation with superheated steam, please contact our Technical Department

### HOW TO SERVICE

By installing a new element assembly you can bring the BC steam trap to the "as new from factory" condition. Unscrew the 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 by qualified personnel, please ask our Technical Department.

**How to order:** i.e. BCS 20 F316 1" 150 RF

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

OFFICIAL WEB SITE: [www.douglas-italia.com](http://www.douglas-italia.com)

### 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

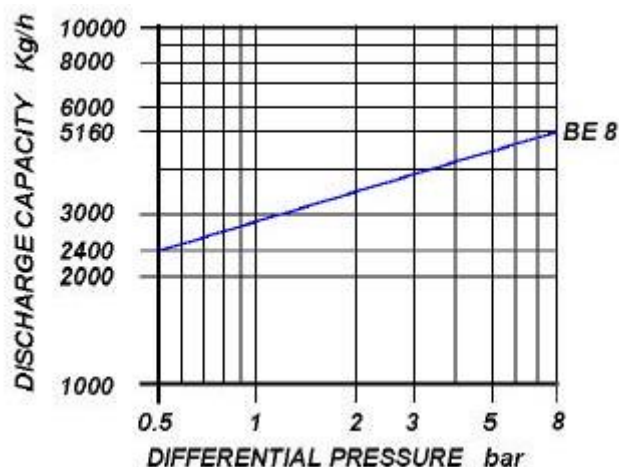
Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.



### 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

1½" – 2"

#### CONNECTIONS

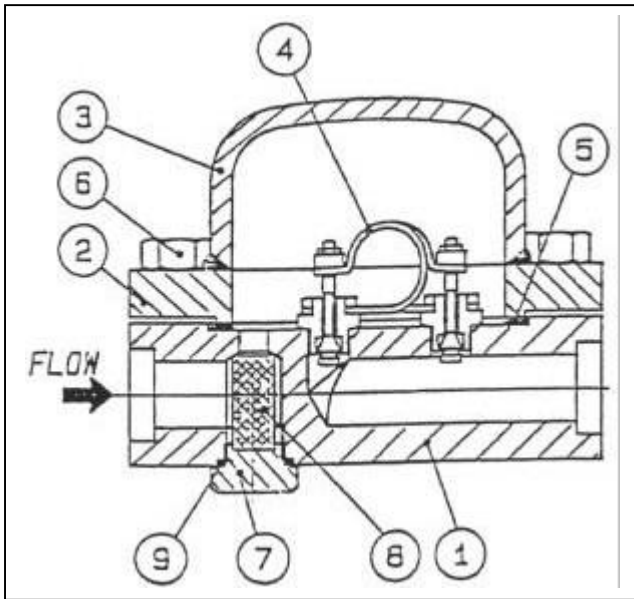
|             |                                 |
|-------------|---------------------------------|
| SCREWED     | ANSI B1.20.1 (NPT) / BS21 (BSP) |
| SOCKET WELD | ANSI B16.11                     |

#### LIMITING CONDITIONS ( according to ISO 6552 )

|                                       |          |
|---------------------------------------|----------|
| Steam Trap rating                     | ANSI 800 |
| PMA: Max allowable pressure           | 136 bar  |
| TMA: max allowable temperature        | 390°C    |
| PMO: max working pressure ( BE 8 )    | 8 bar    |
| TMO: max working temperature ( BE 8 ) | 250°C    |

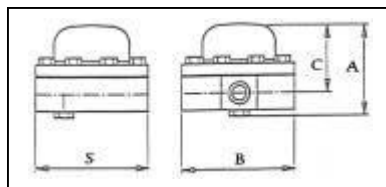
## BIMETALLIC THERMOSTATIC STEAM TRAPS

### BE 8



| POS. | DESCRIPTION        | MATERIALS       | SPARES |
|------|--------------------|-----------------|--------|
| 1    | Body               | ASTM A105       |        |
| 2    | Cover flange       | ASTM A105       |        |
| 3    | Cover              | ASTM A106 WPB   |        |
| 4    | Valve assembly N.2 | STAINLESS STEEL | X      |
| 5    | Gasket             | 316 / GRAPHITE  | X      |
| 6    | Bolts              | ASTM A193 B7    |        |
| 7    | Strainer cap       | ASTM A105       |        |
| 8    | Screen             | AISI 304        | X      |
| 9    | Gasket             | 316 / GRAPHITE  | X      |

| Size<br>(inches) | S     | A   | B   | C   |
|------------------|-------|-----|-----|-----|
| 1½"              | 248.5 | 205 | 260 | 155 |
| 2"               | 248.5 | 205 | 260 | 155 |



#### 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 direction of flow on vertical lines must be downwards. For installation with superheated steam, please contact our Technical Department

#### HOW TO SERVICE

By installing a new element assembly you can bring the BE steam trap to the "as new from factory" condition. Unscrew the bolts (6) and remove cover (3) and gasket (5). Unscrew and remove the element (4). Clean the inside of the trap and screw in the element-gasket assembly. Fit a new gasket (5) and reinstall cover (3) tightening the bolts (6). To service the strainer, unscrew cap (7), withdraw screen (8) and clean or replace it. Screwing the cap back in place, always fit a new gasket (9). The discharge temperature may be adjusted without removing the trap from the line. For information about this operation, to be performed only by qualified personnel, please ask our Technical Department.

**How to order: i.e.** BE 8 2" NPT

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OFFICIAL WEB SITE: [www.douglas-italia.com](http://www.douglas-italia.com)

### 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

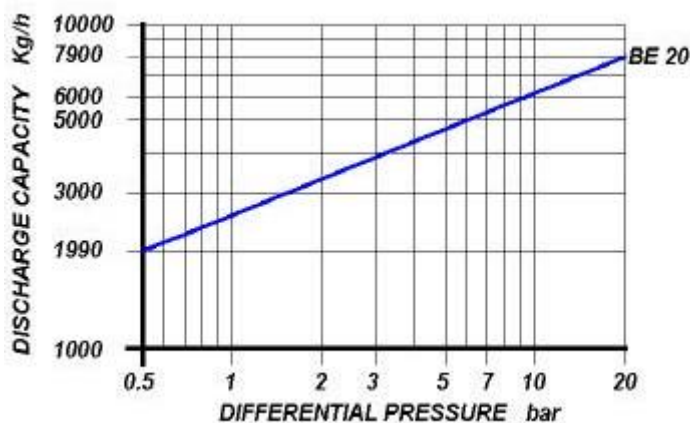
Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.



### 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

1½" – 2"

#### CONNECTIONS

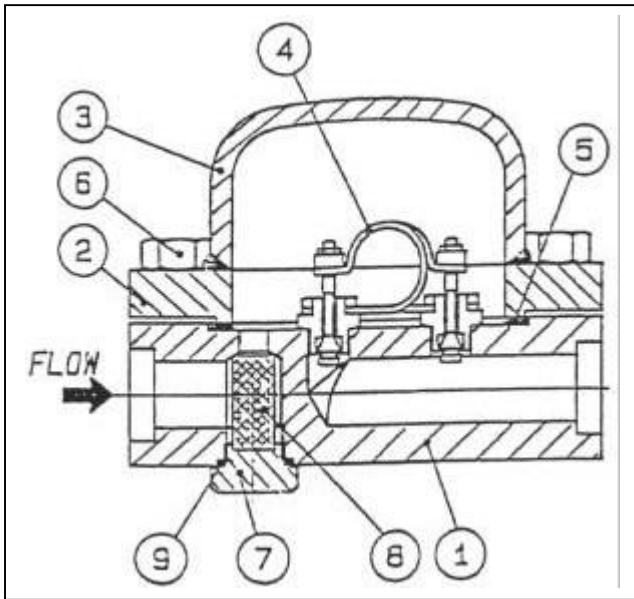
|             |                                 |
|-------------|---------------------------------|
| SCREWED     | ANSI B1.20.1 (NPT) / BS21 (BSP) |
| SOCKET WELD | ANSI B16.11                     |

#### LIMITING CONDITIONS ( according to ISO 6552 )

|  |          |
|--|----------|
| Steam Trap rating                      | ANSI 800 |
| PMA: Max allowable pressure            | 136 bar  |
| TMA: max allowable temperature         | 390°C    |
| PMO: max working pressure ( BE 20 )    | 20 bar   |
| TMO: max working temperature ( BE 20 ) | 275°C    |

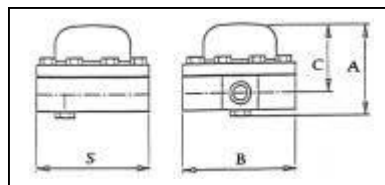


## BIMETALLIC THERMOSTATIC STEAM TRAPS BE 20



| POS. | DESCRIPTION        | MATERIALS       | SPARES |
|------|--------------------|-----------------|--------|
| 1    | Body               | ASTM A105       |        |
| 2    | Cover flange       | ASTM A105       |        |
| 3    | Cover              | ASTM A106 WPB   |        |
| 4    | Valve assembly N.2 | STAINLESS STEEL | X      |
| 5    | Gasket             | 316 / GRAPHITE  | X      |
| 6    | Bolts              | ASTM A193 B7    |        |
| 7    | Strainer cap       | ASTM A105       |        |
| 8    | Screen             | AISI 304        | X      |
| 9    | Gasket             | 316 / GRAPHITE  | X      |

| Size<br>(inches) | S     | A   | B   | C   |
|------------------|-------|-----|-----|-----|
| 1½"              | 248.5 | 205 | 260 | 155 |
| 2"               | 248.5 | 205 | 260 | 155 |



### 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 direction of flow on vertical lines must be downwards. For installation with superheated steam, please contact our Technical Department

### HOW TO SERVICE

By installing a new element assembly you can bring the BE steam trap to the "as new from factory" condition. Unscrew the bolts (6) and remove cover (3) and gasket (5). Unscrew and remove the element (4). Clean the inside of the trap and screw in the element-gasket assembly. Fit a new gasket (5) and reinstall cover (3) tightening the bolts (6). To service the strainer, unscrew cap (7), withdraw screen (8) and clean or replace it. Screwing the cap back in place, always fit a new gasket (9). The discharge temperature may be adjusted without removing the trap from the line. For information about this operation, to be performed only by qualified personnel, please ask our Technical Department.

**How to order: i.e.** BE 20 2" NPT

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### 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.



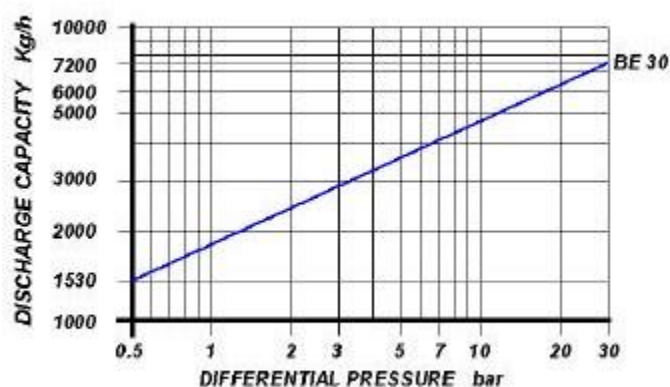
### MAIN FEATURES

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

1½" – 2"

#### CONNECTIONS

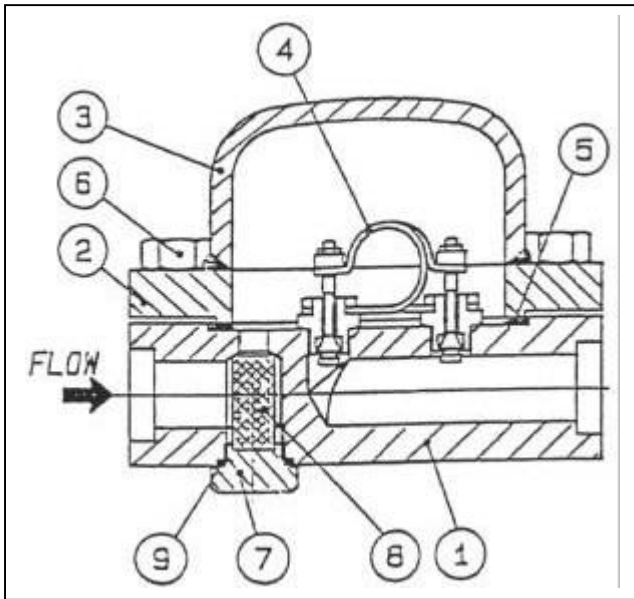
|             |                                 |
|-------------|---------------------------------|
| SCREWED     | ANSI B1.20.1 (NPT) / BS21 (BSP) |
| SOCKET WELD | ANSI B16.11                     |

#### LIMITING CONDITIONS ( according to ISO 6552 )

|  |          |
|--|----------|
| Steam Trap rating                      | ANSI 800 |
| PMA: Max allowable pressure            | 136 bar  |
| TMA: max allowable temperature         | 390°C    |
| PMO: max working pressure ( BE 30 )    | 30 bar   |
| TMO: max working temperature ( BE 30 ) | 300°C    |

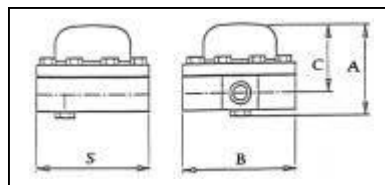
## BIMETALLIC THERMOSTATIC STEAM TRAPS

# BE 30



| POS. | DESCRIPTION        | MATERIALS       | SPARES |
|------|--------------------|-----------------|--------|
| 1    | Body               | ASTM A105       |        |
| 2    | Cover flange       | ASTM A105       |        |
| 3    | Cover              | ASTM A106 WPB   |        |
| 4    | Valve assembly N.2 | STAINLESS STEEL | X      |
| 5    | Gasket             | 316 / GRAPHITE  | X      |
| 6    | Bolts              | ASTM A193 B7    |        |
| 7    | Strainer cap       | ASTM A105       |        |
| 8    | Screen             | AISI 304        | X      |
| 9    | Gasket             | 316 / GRAPHITE  | X      |

| Size<br>(inches) | S     | A   | B   | C   |
|------------------|-------|-----|-----|-----|
| 1½"              | 248.5 | 205 | 260 | 155 |
| 2"               | 248.5 | 205 | 260 | 155 |



### 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 direction of flow on vertical lines must be downwards. For installation with superheated steam, please contact our Technical Department

### HOW TO SERVICE

By installing a new element assembly you can bring the BE steam trap to the "as new from factory" condition. Unscrew the bolts (6) and remove cover (3) and gasket (5). Unscrew and remove the element (4). Clean the inside of the trap and screw in the element-gasket assembly. Fit a new gasket (5) and reinstall cover (3) tightening the bolts (6). To service the strainer, unscrew cap (7), withdraw screen (8) and clean or replace it. Screwing the cap back in place, always fit a new gasket (9). The discharge temperature may be adjusted without removing the trap from the line. For information about this operation, to be performed only by qualified personnel, please ask our Technical Department.

**How to order: i.e.** BE 30 2" NPT

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### 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

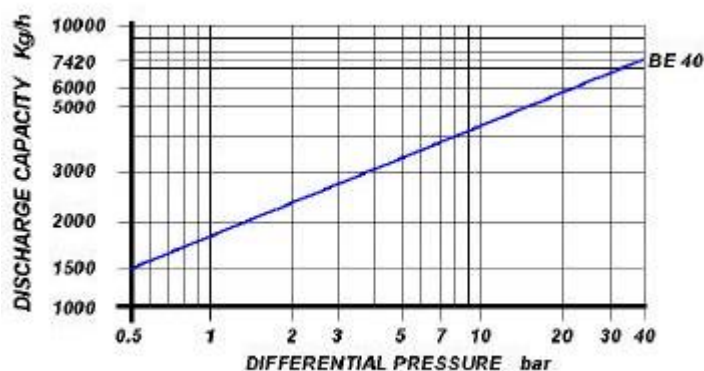
Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.



### 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

1½" – 2"

#### CONNECTIONS

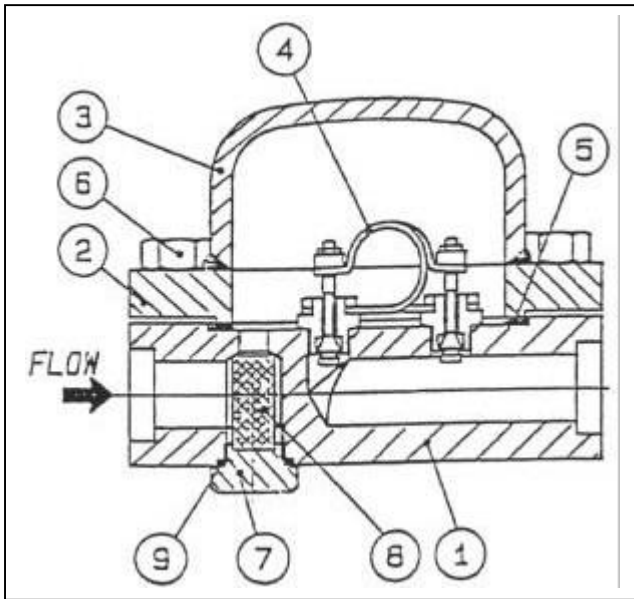
|             |                                 |
|-------------|---------------------------------|
| SCREWED     | ANSI B1.20.1 (NPT) / BS21 (BSP) |
| SOCKET WELD | ANSI B16.11                     |

#### LIMITING CONDITIONS ( according to ISO 6552 )

|  |          |
|--|----------|
| Steam Trap rating                      | ANSI 800 |
| PMA: Max allowable pressure            | 136 bar  |
| TMA: max allowable temperature         | 390°C    |
| PMO: max working pressure ( BE 40 )    | 40 bar   |
| TMO: max working temperature ( BE 40 ) | 300°C    |

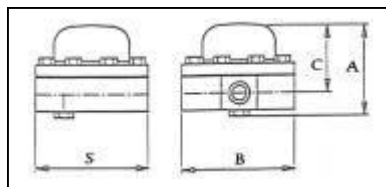
## BIMETALLIC THERMOSTATIC STEAM TRAPS

# BE 40



| POS. | DESCRIPTION        | MATERIALS       | SPARES |
|------|--------------------|-----------------|--------|
| 1    | Body               | ASTM A105       |        |
| 2    | Cover flange       | ASTM A105       |        |
| 3    | Cover              | ASTM A106 WPB   |        |
| 4    | Valve assembly N.2 | STAINLESS STEEL | X      |
| 5    | Gasket             | 316 / GRAPHITE  | X      |
| 6    | Bolts              | ASTM A193 B7    |        |
| 7    | Strainer cap       | ASTM A105       |        |
| 8    | Screen             | AISI 304        | X      |
| 9    | Gasket             | 316 / GRAPHITE  | X      |

| Size<br>(inches) | S     | A   | B   | C   |
|------------------|-------|-----|-----|-----|
| 1½"              | 248.5 | 205 | 260 | 155 |
| 2"               | 248.5 | 205 | 260 | 155 |



### 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 direction of flow on vertical lines must be downwards. For installation with superheated steam, please contact our Technical Department

### HOW TO SERVICE

By installing a new element assembly you can bring the BE steam trap to the "as new from factory" condition. Unscrew the bolts (6) and remove cover (3) and gasket (5). Unscrew and remove the element (4). Clean the inside of the trap and screw in the element-gasket assembly. Fit a new gasket (5) and reinstall cover (3) tightening the bolts (6). To service the strainer, unscrew cap (7), withdraw screen (8) and clean or replace it. Screwing the cap back in place, always fit a new gasket (9). The discharge temperature may be adjusted without removing the trap from the line. For information about this operation, to be performed only by qualified personnel, please ask our Technical Department.

**How to order: i.e.** BE 40 2" NPT

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OFFICIAL WEB SITE: [www.douglas-italia.com](http://www.douglas-italia.com)



### 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

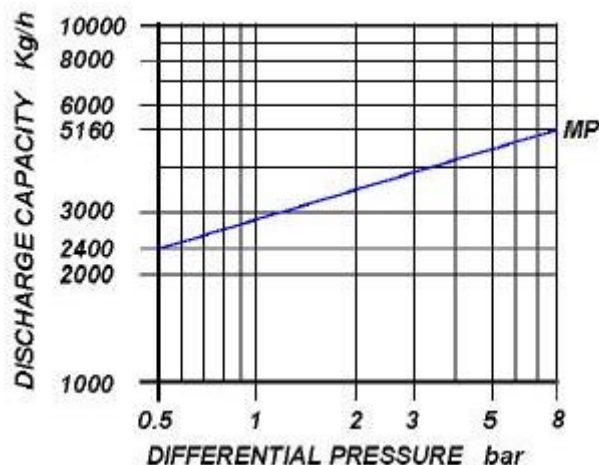
Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.



### 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

1½" – 2"

#### CONNECTIONS

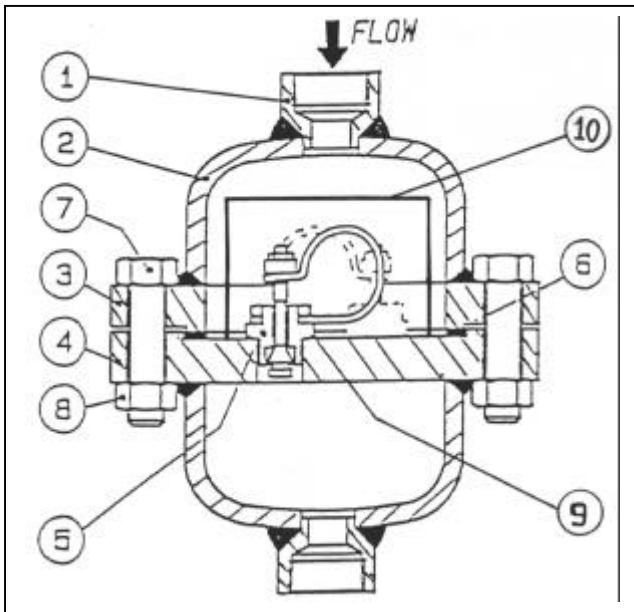
|             |                                 |
|-------------|---------------------------------|
| SCREWED     | ANSI B1.20.1 (NPT) / BS21 (BSP) |
| SOCKET WELD | ANSI B16.11                     |
| FLANGED     | ANSI 150#/300#/600#/UNI/DIN     |

#### LIMITING CONDITIONS ( according to ISO 6552 )

|                                       |          |
|---------------------------------------|----------|
| Steam Trap rating                     | ANSI 800 |
| PMA: Max allowable pressure           | 136 bar  |
| TMA: max allowable temperature        | 390°C    |
| PMO: max working pressure ( MP 8 )    | 8 bar    |
| TMO: max working temperature ( MP 8 ) | 250°C    |

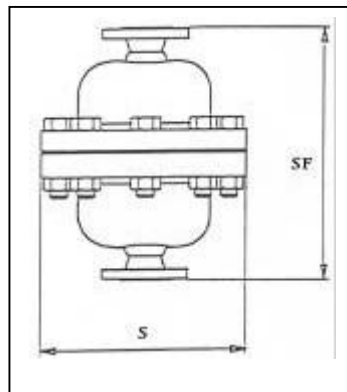
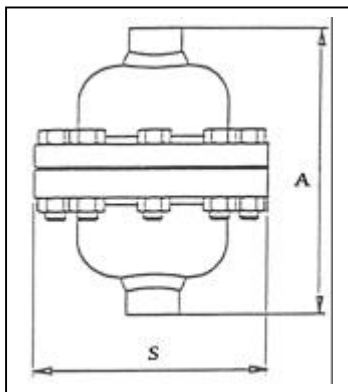
**NB: MP model are available for differential pressure up to 40 bar, size up to 8" for high capacity.**  
**Please contact our technical department.**

## BIMETALLIC THERMOSTATIC STEAM TRAPS MP



| POS. | DESCRIPTION         | MATERIALS      | SPARES |
|------|---------------------|----------------|--------|
| 1    | Connections         | ASTM A105      |        |
| 2    | Caps                | ASTM A106 WPB  |        |
| 3    | Flange              | ASTM A105      |        |
| 4    | Flange              | ASTM A105      |        |
| 5    | Valve assembly N° 2 | STAILESS STEEL | X      |
| 6    | Gasket              | 316 / GRAPHITE | X      |
| 7    | Bolts               | ASTM A193 B7   |        |
| 8    | Nuts                | ASTM A194 2H   |        |
| 9    | Gasket              | S.S 304        | X      |
| 10   | Screen              | AISI 304       | X      |

| Flanged          |     |     |                |                       |    |      |    |      |    |      |    |
|------------------|-----|-----|----------------|-----------------------|----|------|----|------|----|------|----|
| Size<br>(inches) | S   | A   | Weight<br>(Kg) | UNI-DIN<br>PN16-25-40 |    | 150# |    | 300# |    | 600# |    |
|                  |     |     |                | SF                    | Kg | SF   | Kg | SF   | Kg | SF   | Kg |
| 1½"              | 260 | 315 | 34             | 350                   | 40 | 350  | 40 | 350  | 40 | 350  | 40 |
| 2"               | 260 | 315 | 38             | 350                   | 44 | 350  | 44 | 350  | 44 | 350  | 44 |



### INSTALLATION

The steam trap can be installed on horizontal or vertical lines. For installation with superheated steam, please contact our Technical Department

### HOW TO SERVICE

By installing a new element assembly you can bring the MP steam trap to the "as new from factory" condition. Unscrew the bolts (7) and remove cover (2), remove gasket (6) and screen (10). Unscrew and remove the element (5). Clean the inside of the trap and screw in the element-gasket assembly, clean screen (10). Fit a new gasket (6), fit screen (10) and reinstall cover (2) tightening the bolts (7). The discharge temperature may be adjusted without removing the trap from the line. For information about this operation, to be performed only by qualified personnel, please ask our Technical Department.

**How to order: i.e.** MP 8 2" 150 RF

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

OFFICIAL WEB SITE: [www.douglas-italia.com](http://www.douglas-italia.com)

### 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

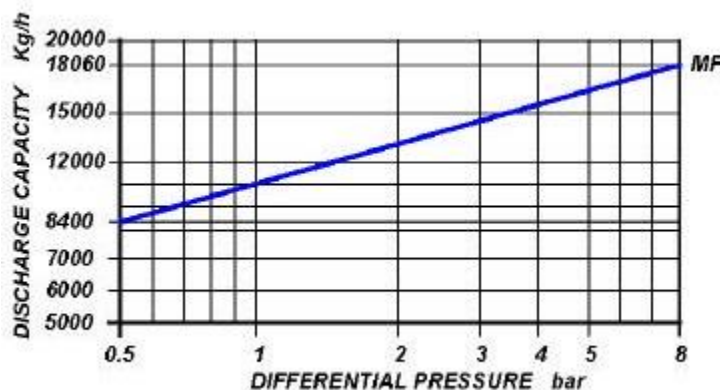
Free air discharge. Suitable on superheated steam. It withstands frost and waterhammer. Modulating discharge only with condensate.



### 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

4"

#### CONNECTIONS

FLANGED      ANSI 150#/300#/600#/UNI/DIN

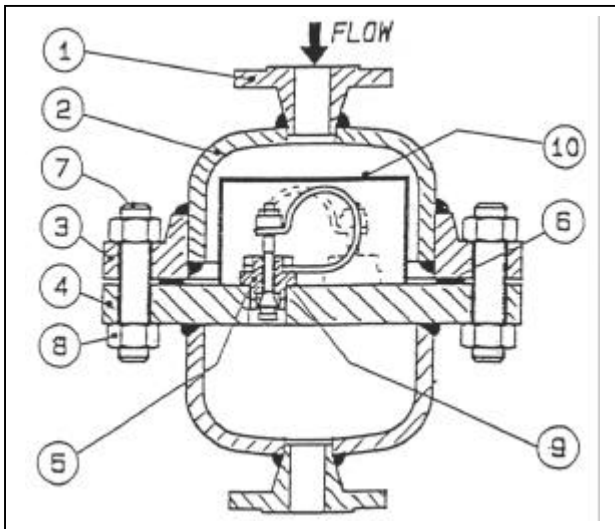
#### LIMITING CONDITIONS ( according to ISO 6552 )

|                                |          |
|--------------------------------|----------|
| Steam Trap rating              | ANSI 300 |
| PMA: Max allowable pressure    | 50 bar   |
| TMA: max allowable temperature | 390°C    |
| PMO: max working pressure      | 8 bar    |
| TMO: max working temperature   | 250°C    |

**NB: MF model are available for differential pressure up to 40 bar, size up to 8" for high capacity.  
Please contact our technical departement.**

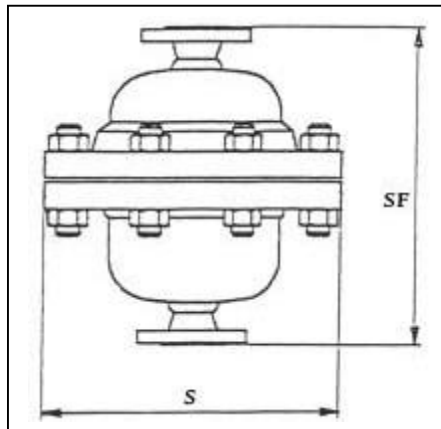
## BIMETALLIC THERMOSTATIC STEAM TRAPS

# MF 8



| POS. | DESCRIPTION         | MATERIALS      | SPARES |
|------|---------------------|----------------|--------|
| 1    | Connections         | ASTM A105      |        |
| 2    | Caps                | ASTM A106 WPB  |        |
| 3    | Flange              | ASTM A105      |        |
| 4    | Flange              | ASTM A105      |        |
| 5    | Valve assembly N° 7 | STAILESS STEEL | X      |
| 6    | Gasket              | 316 / GRAPHITE | X      |
| 7    | Bolts               | ASTM A193 B7   |        |
| 8    | Nuts                | ASTM A194 2H   |        |
| 9    | Gasket              | S.S 304        | X      |
| 10   | Screen              | AISI 304       | X      |

| Flanged          |     |                |                       |     |      |     |      |     |      |     |
|------------------|-----|----------------|-----------------------|-----|------|-----|------|-----|------|-----|
| Size<br>(inches) | S   | Weight<br>(Kg) | UNI-DIN<br>PN16-25-40 |     | 150# |     | 300# |     | 600# |     |
|                  |     |                | SF                    | Kg  | SF   | Kg  | SF   | Kg  | SF   | Kg  |
| 4"               | 521 | 162            | 515                   | 176 | 515  | 176 | 515  | 186 | 515  | 200 |



### INSTALLATION

The steam trap can be installed on horizontal or vertical lines. For installation with superheated steam, please contact our Technical Departement

### HOW TO SERVICE

By installing a new element assembly you can bring the MF 8 steam trap to the "as new from factory" condition. Unscrew the bolts (7) and remove cover (2), remove gasket (6) and screen (10). Unscrew and remove the element (5). Clean the inside of the trap and screw in the element-gasket assembly, clean screen (10). Fit a new gasket (6), fit screen (10) and reinstall cover (2) tightening the bolts (7). The discharge temperature may be adjusted without removing the trap from the line. For information about this operation, to be performed only by qualified personnel, please ask our Thecnical Departement.

**How to order: i.e.** MF 8 4" 150 RF

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