

Features of the BK series

- Robust regulator for roughest operating conditions (unaffected by waterhammer and frost)
- Suitable for superheated steam applications
- Automatic air-venting (steam trap can be used for thermal air-venting in steam systems)
- Installation in any position (horizontal and vertical lines)
- Stage nozzle acts as non-return valve
- Stainless steel internals
- Repairable in-line
- Base bushing ensures positive metal-to-metal sealing between body and regulator.
- Up to Δp 275 bar g
- Optional extra: Integrated steam trap monitoring for BK 45 (temperature or steam loss)

Application

For open-loop controlled heating processes.

Draining of

- saturated steam lines
- superheated steam lines
- steam tracers

Can also be used for thermal air-venting

Air-venting

Steam trap for thermostatic air-venting with bimetallic regulator

The thermostatic steam traps with corrosion-resistant Duo S.S. (bimetallic) regulator of the BK series can also be used for air-venting.

Application

Thermostatic steam trap for automatic air-venting and discharge of non-condensable gases and steam/air mixtures from steam lines and heat exchangers.

Special adjustment might be required.

Pressure/Temperature Ratings

| Type | PN / Class | ΔPMX [bar] | Material | | Max. Pressure / Temp. Rating ¹⁾ | | p/T | |
|-----------------------------|---------------|-----------------------|----------|-----------------------|--|-------------------|---------------------------|---------------------------|
| | | | EN | ASTM | PMA [bar] | TMA [°C] | [bar/°C] | |
| BK 45, BK 45U ³⁾ | PN 40 | 22 | 1.0460 | A105 | 40.0 | 450 | 27.6 / 300 | 13.1 / 450 |
| BK 45, BK 45U ³⁾ | Class 300 | 22 | 1.0460 | A105 | 51.1 | 425 | 39.8 / 300 | 28.8 / 425 |
| BK 45-LT | Class 300 | 22 | – | SA350 LF2 | 51.1 | 425 | 51.1 / –46 ⁴⁾ | 28.8 / 425 ⁴⁾ |
| BK 15 DN 40, 50 | PN 40 | 22 | 1.0460 | A105 | 40.0 | 450 | 27.6 / 300 | 13.1 / 450 |
| BK 15 DN 40, 50 | Class 300 | 22 | 1.0460 | A105 | 51.1 | 425 | 39.8 / 300 | 28.8 / 425 |
| BK 46 | PN 40 | 32 | 1.5415 | A182-F1 ²⁾ | 40.0 | 450 | 39.0 / 250 | 27.6 / 450 |
| BK 46 | Class 300 | 32 | 1.5415 | A182-F1 ²⁾ | 51.7 | 450 | 41.1 / 250 | 29.8 / 450 |
| BK 37 | PN 63/100 | 45 | 1.5415 | A182-F1 ²⁾ | 100.0 | 530 ⁴⁾ | 100.0 / 450 ⁴⁾ | 30.9 / 530 ⁴⁾ |
| BK 27N DN 40, 50 | PN 63 | 45 | 1.5415 | A182-F1 ²⁾ | 63.0 | 500 | 47.6 / 300 | 25.8 / 500 |
| BK 28 | PN 100 | 85 | 1.5415 | A182-F1 ²⁾ | 181.0 ⁴⁾ | 530 ⁴⁾ | 100.0 / 450 ⁴⁾ | 30.9 / 530 ⁴⁾ |
| BK 29 | PN 160 | 110 | 1.7335 | A182-F12 | 201.0 ⁴⁾ | 540 ⁴⁾ | 131.5 / 450 ⁴⁾ | 44.5 / 540 ⁴⁾ |
| BK 212 | PN 630 | 275 | 1.7383 | A182-F22 | 630.0 ⁴⁾ | 540 ⁴⁾ | 447.0 / 500 ⁴⁾ | 261.0 / 540 ⁴⁾ |
| BK 212-F91 | – | 275 | 1.4903 | A182-F91 | 775.0 ⁴⁾ | 580 ⁴⁾ | 607.0 / 500 ⁴⁾ | 205.0 / 580 ⁴⁾ |
| BK 212-S | PN 630 | 275 | 1.7383 | A182-F22 | 630 | 580 | 289.0 / 540 ⁴⁾ | 163.0 / 580 ⁴⁾ |
| BK 212-F91-S | – | 275 | 1.4903 | A182-F91 | 775 | 625 | 473.0 / 575 ⁴⁾ | 255.0 / 625 ⁴⁾ |
| BK 212-F92 | – | 275 | 1.4901 | – | 800 | 650 | 418.0 / 600 ⁴⁾ | 207.0 / 650 ⁴⁾ |
| BK 37-ASME | Class 400/600 | 45 | – | A182-F12 | 103.4 ⁴⁾ | 500 ⁴⁾ | 85.7 / 300 ⁴⁾ | 42.8 / 500 ⁴⁾ |
| BK 28-ASME | Class 600 | 85 | – | A182-F12 | 103.4 ⁴⁾ | 500 ⁴⁾ | 85.7 / 300 ⁴⁾ | 50.6 / 500 ⁴⁾ |
| BK 29-ASME | Class 900 | 110 | – | A182-F12 | 155.0 ⁴⁾ | 540 ⁴⁾ | 101.4 / 450 ⁴⁾ | 43.6 / 540 ⁴⁾ |
| BK 212-ASME | Class 2500 | 275 | – | A182-F22 | 430.9 ⁴⁾ | 593 ⁴⁾ | 235.0 / 500 ⁴⁾ | 63.0 / 593 ⁴⁾ |

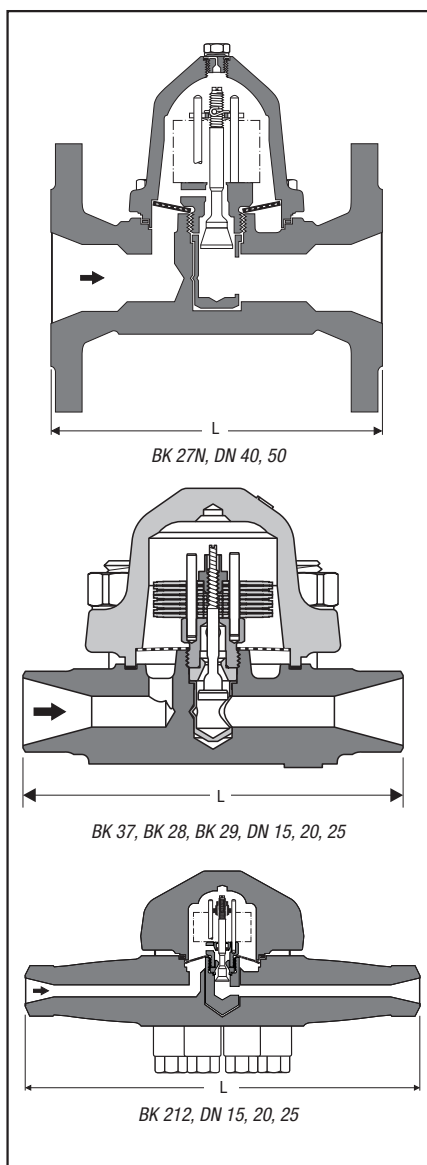
¹⁾ Limits for body/cover. Functional requirements may restrict the use to below the limits quoted.

For full details on limiting conditions depending on end connection and type of regulator see data sheet.

²⁾ Material complies with EN and ASTM requirements.

³⁾ Opening undercooling approx. 30 K.

⁴⁾ Only applicable for traps with butt-weld (BW) or socket-weld (SW) ends DN 25. Note that limits will be lower for traps with other dimensions or flanged end connections.



Available End Connections and Overall Lengths in mm

| Type | Connection | DN 15 [1/2"] | DN 20 [3/4"] | DN 25 [1"] | DN 40 [1 1/2"] | DN 50 [2"] |
|---|--|------------------|-----------------|---------------|-------------------|---------------|
| BK 45 <small>RHOMBUSline®</small> | Flanged EN PN 40 | 150 | 150 | 160 | 230 | 230 |
| | Flanged ASME 150 ¹⁾ | 150 | 150 | 160 | 230 | 230 |
| | DN 15 – 25 Flanged ASME 300 ¹⁾ | 150 | 150 | 160 | 230 | 230 |
| BK 15 DN 40, 50 | Screwed sockets | 95 | 95 | 95 | 130 | 230 |
| | Socket-weld (SW) | 95 | 95 | 95 | 130 | 230 |
| | Butt-weld (BW) | 200 | 200 | 200 | 250 | 250 |
| BK 46 <small>RHOMBUSline®</small> | Flanged EN PN 40 | 150 | 150 | 160 | – | – |
| | Flanged ASME 300 | 150 | 150 | 160 | – | – |
| | Screwed sockets | 95 | 95 | 95 | – | – |
| | Socket-weld (SW) | 95 | 95 | 95 | – | – |
| BK 27N DN 40,50 | Flanged EN PN 40 | – | – | – | 230 | 230 |
| | Flanged EN PN 63 | – | – | – | 260 | 300 |
| | Flanged ASME 400/600 | – | – | – | 241 | 292 |
| | Socket-weld (SW) | – | – | – | 180 | 180 |
| | Butt-weld (BW) | – | – | – | 180 | 180 |
| BK 37 | Flanged EN PN 63/100 | 210 | 230 | 230 | – | – |
| | BK 28 | Socket-weld (SW) | 160 | 160 | 160 | – |
| Butt-weld (BW) | | 160 | 160 | 160 | – | – |
| BK 29 | Flanged EN PN 160 | 210 | 230 | 230 | – | – |
| | Socket-weld (SW) | 160 | 160 | 160 | – | – |
| | Butt-weld (BW) | 160 | 160 | 160 | – | – |
| BK 212... Series | Butt-weld (BW) | 330 | 330 | 330 | – | – |
| | Socket-weld (SW) | 330 | 330 | 330 | – | – |
| BK 37-ASME | Flanged ASME 400/600 | 230 | 230 | 230 | – | – |
| | Socket-weld (SW) | 160 | 160 | 160 | – | – |
| | Butt-weld (BW) | 160 | 160 | 160 | – | – |
| BK 28-ASME | Flanged ASME 400/600 | 230 | 230 | 230 | – | – |
| | Socket-weld (SW) | 160 | 160 | 160 | – | – |
| | Butt-weld (BW) | 160 | 160 | 160 | – | – |
| BK 29-ASME | Flanged ASME 900/1500 | 230 | 230 | 254 | – | – |
| | Socket-weld (SW) | 200 | 200 | 200 | – | – |
| | Butt-weld (BW) | 200 | 200 | 200 | – | – |

¹⁾ BK 45 with ASME flanges: overall length 172 mm available on request.

Capacity Charts

The charts show the maximum hot condensate capacities.

