

SECTION 5

Trunnion mounted valves

Full bore

BROEN
BALLOMAX®

Designed to last

Trunnion mounted valve - DN 150 - 600, PN 40/25/16

Type 3/A... - Full bore

Welding × Welding

Fully welded steel ball valve.

Materials

See next pages.

Applications

Stop valve for heating systems, district heating, cooling and industrial purposes.

Media

Water and other media not decomposing the steel. If in doubt, please contact BROEN BALLOMAX® Sales Department.

Surface treatment

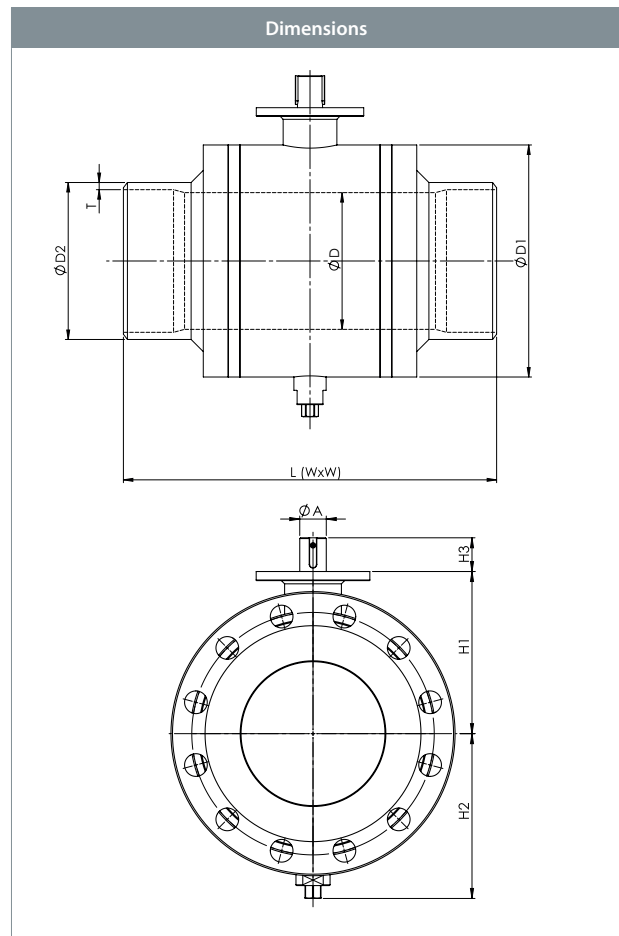
Eco-friendly protection finish against corrosion.

Approvals and certificates

BROEN is certified according to ISO 9001 and environmentally certified according to ISO 14001. BROEN BALLOMAX® is approved according to the requirements of Pressure Equipment Directive (PED). All ball valves as from DN 150 are CE-marked. The 3.1 certificate is available upon request.

Notice

As standard DN 150 - 600 is delivered with Double Block and Bleed (DBB) with normal temperature range up to 150°. Temperature range up to 200° on request. We recommend to add a BROEN-Gear.



| DN | BROEN No. | Bore | Kvs | net Weight kg | All dimensions in mm |
|-----|--------------|------|--------|---------------|----------------------|
| | | | | | L |
| 150 | 3/A150WW5D30 | 142 | 4498 | 67 | 457 |
| 200 | 3/A200WW5D30 | 190 | 9234 | 120 | 521 |
| 250 | 3/A250WW5D30 | 237 | 14428 | 193 | 559 |
| 300 | 3/A300WW5D30 | 285 | 20777 | 300 | 635 |
| 350 | 3/A350WW5D30 | 332 | 28280 | 467 | 762 |
| 400 | 3/A400WW5D30 | 375 | 36937 | 724 | 838 |
| 500 | 3/A500WW5D30 | 475 | 57716 | 1329 | 991 |
| 600 | 3/A600WW5D30 | 588 | 101788 | 2119 | 1143 |

Trunnion mounted valve - DN 150 - 600, PN 40/25/16



Type 3/A... - Full bore

| Accessories | BROEN No. | Dimension | Description |
|-------------|-----------|--------------|---|
| | - | DN 150 - 600 | BROEN-Gear. |
| | - | DN 150 - 600 | BROEN-Gear, Electric gear. |
| | - | DN 150 - 600 | Drain ball valve and pipe for Double Block and Bleed (DBB) with the following valve options DN 25 - 32 - 40 - 50. |
| | - | DN 150 - 600 | Base. |

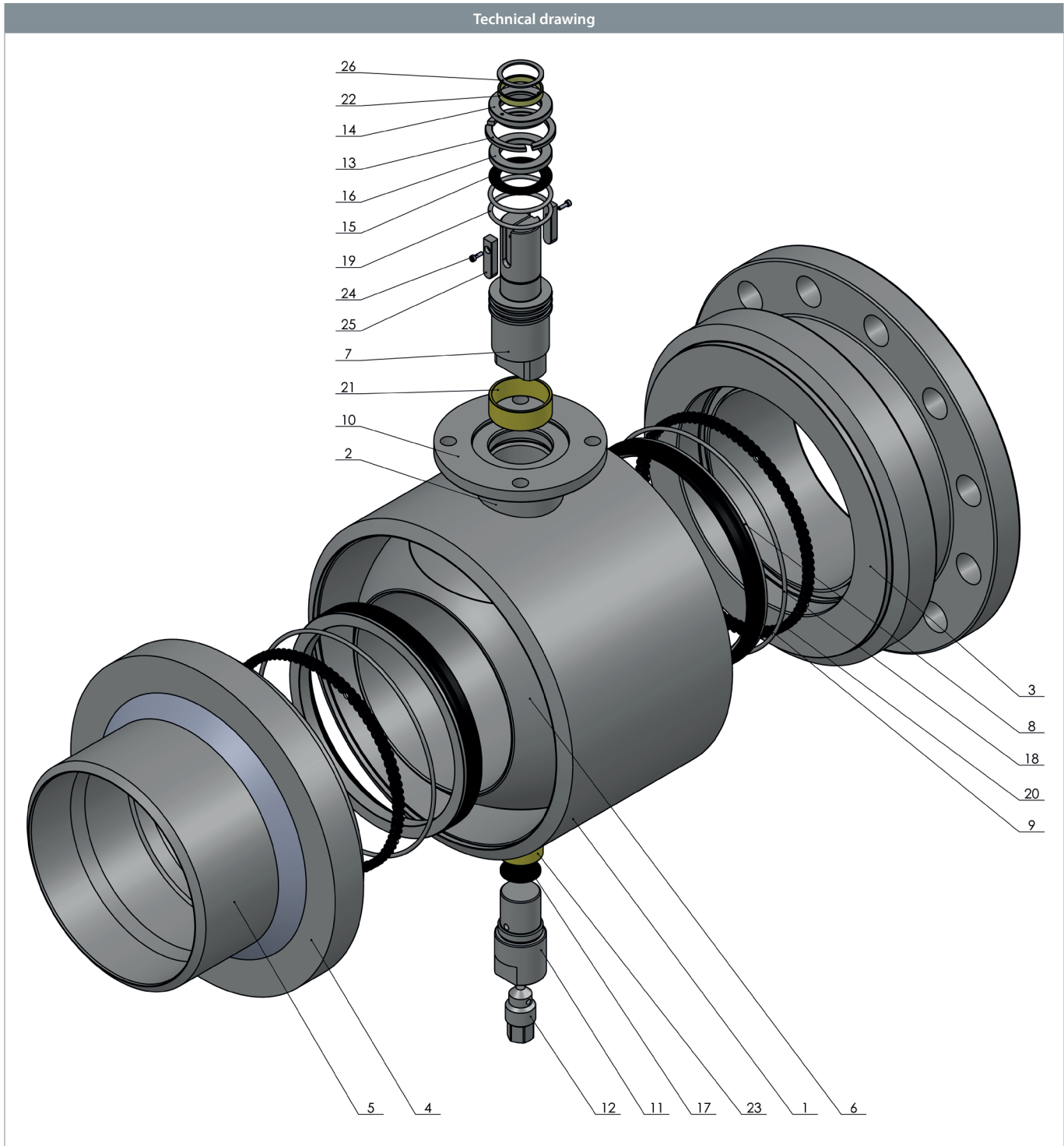
| All dimensions in mm | | | | | | | |
|----------------------|-------|------|-----|-----|-----|----|-----|
| D1 | D2 | T | H1 | H2 | H3 | A | ISO |
| 254 | 168,3 | 7,1 | 185 | 183 | 45 | 35 | F12 |
| 324 | 219,1 | 8,8 | 214 | 218 | 45 | 35 | F12 |
| 394 | 273 | 10 | 258 | 255 | 61 | 50 | F14 |
| 470 | 323,9 | 10 | 307 | 294 | 61 | 60 | F14 |
| 546 | 355,6 | 11 | 351 | 528 | 57 | 60 | F16 |
| 622 | 406,4 | 12,5 | 427 | 575 | 105 | 72 | F25 |
| 785 | 508 | 12,5 | 504 | 793 | 105 | 72 | F30 |
| 943 | 610 | 12,5 | 579 | 885 | 105 | 80 | F30 |

Trunnion mounted valve - DN 150 - 600, PN 40/25/16

Type 3/A... - Full bore



Technical drawing



Trunnion mounted valve - DN 150 - 600, PN 40/25/16



Type 3/A... - Full bore

| Material description | | |
|----------------------|------------|--|
| 1 | Valve body | Steel - P355NH / 1.0565 / EN 10028-3 |
| 2 | Stem guide | Steel - P355NH / 1.0565 / EN 10028-3 |
| 3 | Inner part | Steel - P355NH / 1.0565 / EN 10028-3 |
| 4 | Flange | Steel - P355NH / 1.0565 / EN 10028-3 |
| 5 | Pipe | Steel - P355NH / 1.0565 / EN 10028-3 |
| 6 | Ball | Steel - A350LF2 Class 1, EN coated |
| 7 | Stem | Stainless steel - X20Cr13 / AISI420 / 1.4021 |
| 8 | Seat | Steel - P355NH / 1.0565 / EN 10028-3 |
| 9 | Seal | PTFE+C |
| 10 | ISO-flange | Steel - S235JR / 1.0038 / EN 10025-2 |
| 11 | Trunnion | Steel - P355NH / 1.0565 / EN 10028-3 |
| 12 | Plug | Stainless steel - X20Cr13 / AISI420 / 1.4021 |
| 13 | Split ring | Stainless steel - X20Cr13 / AISI420 / 1.4021 |
| 14 | Sleeve | Stainless steel - X20Cr13 / AISI420 / 1.4021 |
| 15 | Washer | PTFE+C |
| 16 | Washer | Stainless steel - X20Cr13 / AISI420 / 1.4021 |
| 17 | Washer | PTFE+C |
| 18 | O-ring | EPDM |
| 19 | O-ring | EPDM |
| 20 | Spring | Stainless steel - X10CrNi18-8 / AISI302 / 1.4301 |
| 21 | Bearing | CS + PTFE |
| 22 | Bearing | CS + PTFE |
| 23 | Bearing | CS + PTFE |
| 24 | Screw | Steel - 8.8 |
| 25 | Key | Steel - C45 / 1.0503 / EN 10277-2 |
| 26 | Lock ring | Steel - 65G |

Trunnion mounted valve - DN 700 - 1000, PN 40/25/16

Type 3/A... - Full bore

Welding × Welding

Fully welded steel ball valve.

Materials

See next pages.

Applications

Stop valve for heating systems, district heating, cooling and industrial purposes.

Media

Water and other media not decomposing the steel. If in doubt, please contact BROEN BALLOMAX® Sales Department.

Surface treatment

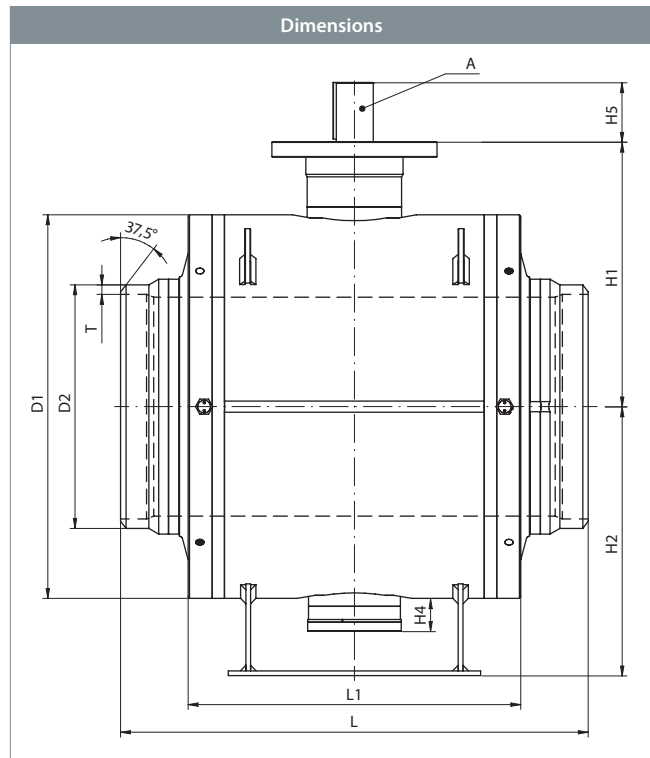
Eco-friendly protection finish against corrosion.

Approvals and certificates

BROEN is certified according to ISO 9001 and environmentally certified according to ISO 14001. BROEN BALLOMAX® is approved according to the requirements of Pressure Equipment Directive (PED). All ball valves as from DN 350 are CE-marked. The 3.1 certificate is available upon request.

Notice

As standard DN 700 - 1000 is delivered with Double Block and Bleed (DBB) with normal temperature range up to 150°. Temperature range up to 200° on request. We recommend to add a BROEN-Gear.



| DN | BROEN No. | Bore | Kvs | net Weight kg | All dimensions in mm | |
|------|--------------|------|--------|---------------|----------------------|------|
| | | | | | L | L1 |
| 700 | 3/A700WW5D30 | 684 | 138544 | 4126 | 1346 | 976 |
| 800 | 3/A800WW5D30 | 780 | 180956 | 6145 | 1524 | 1124 |
| 900 | 3/A900WW5D30 | 874 | 229023 | 8230 | 1727 | 1214 |
| 1000 | 3/A910WW5D30 | 976 | 282744 | 12365 | 1850 | 1346 |

Trunnion mounted valve - DN 700 - 1000, PN 40/25/16



Type 3/A... - Full bore

| Accessories | BROEN No. | Dimension | Description |
|-------------|-----------|---------------|---|
| | - | DN 700 | BROEN-Gear |
| | - | DN 800 | |
| | - | DN 700 - 1000 | BROEN-Gear, Electric gear. |
| | - | DN 700 - 1000 | Lubrication fitting NPT. |
| | - | DN 700 - 1000 | Drain ball valve and pipe for Double Block and Bleed (DBB) with the following valve options DN 25 - 32 - 40 - 50. |

All dimensions in mm

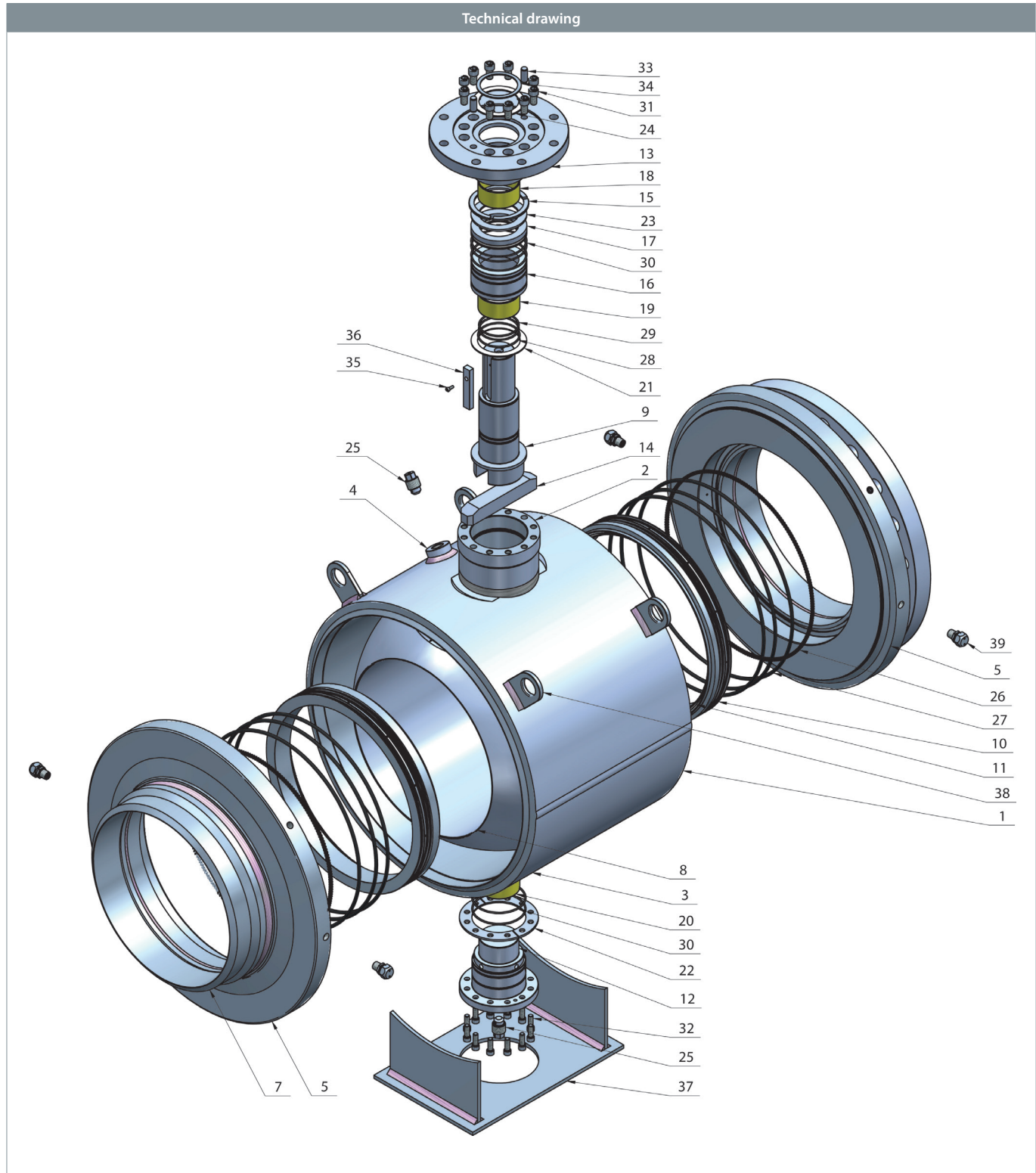
| D1 | D2 | T | H1 | H2 | H4 | H5 | A | ISO |
|------|--------|------|--------|--------|-------|-----|------|-----|
| 1126 | 711.0 | 14.2 | 806.0 | 790.0 | 109.0 | 200 | Ø120 | F35 |
| 1300 | 813.0 | 16.0 | 890.0 | 900.0 | 107.0 | 198 | Ø120 | F35 |
| 1450 | 914.0 | 20.0 | 941.0 | 1000.0 | 117.0 | 183 | Ø140 | F40 |
| 1650 | 1016.0 | 22.0 | 1121.0 | 1220.0 | 142.0 | 240 | Ø190 | F48 |

Trunnion mounted valve - DN 700 - 1000, PN 40/25/16

Type 3/A... - Full bore



Technical drawing



Trunnion mounted valve - DN 700 - 1000, PN 40/25/16



Type 3/A... - Full bore

| Material description | | |
|----------------------|-------------------------|--|
| 1 | Valve body | Steel - P355NH / 1.0565 / EN 10028-3 |
| 2 | Stem guide | Steel - P355NH / 1.0565 / EN 10028-3 |
| 3 | Trunnion guide | Steel - P355NH / 1.0565 / EN 10028-3 |
| 4 | Plug guide | Steel - P355NH / 1.0565 / EN 10028-3 |
| 5 | Inner part | Steel - P355NH / 1.0565 / EN 10028-3 |
| 6 | Flange | Steel - P355NH / 1.0565 / EN 10028-3 |
| 7 | Pipe | Steel - P355NH / 1.0565 / EN 10028-3 |
| 8 | Ball | ASTM A350 LF2 |
| 9 | Stem | Stainless steel - X20Cr13 / AISI420 / 1.4021 |
| 10 | Seat | Steel - P355NH / 1.0565 / EN 10028-3 |
| 11 | Seal | PTFE / PTFE+C (PTFE+C - 200°C) |
| 12 | Trunnion | Steel - P355NH / 1.0565 / EN 10028-3 |
| 13 | ISO-flange | Steel - S235JR / 1.0038 / EN 10025-2 |
| 14 | Ball key | Steel - C45 / 1.0503 / EN 10277-2 |
| 15 | Split ring | Stainless steel - X20Cr13 / AISI420 / 1.4021 |
| 16 | Sleeve | Stainless steel - X20Cr13 / AISI420 / 1.4021 |
| 17 | Packing | PTFE / PTFE+C |
| 18 | Bearing | CS + PTFE |
| 19 | Bearing | CS + PTFE |
| 20 | Bearing | CS + PTFE |
| 21 | Washer | PTFE+C |
| 22 | Washer | Steel - S235JR / 1.0038 / EN 10025-2 |
| 23 | Washer | Stainless steel - X20Cr13 / AISI420 / 1.4021 |
| 24 | Washer | PTFE |
| 25 | Plug | Stainless steel - X20Cr13 / AISI420 / 1.4021 |
| 26 | Spring | Stainless steel - X10CrNi18-9 / AISI302 / 1.4310 |
| 27 | O-ring | EPDM (AFLAS - 200°C) |
| 28 | O-ring | EPDM (AFLAS - 200°C) |
| 29 | O-ring | EPDM (AFLAS - 200°C) |
| 30 | O-ring | EPDM (AFLAS - 200°C) |
| 31 | Screw | Steel - 8.8 |
| 32 | Screw | Steel - 8.8 |
| 33 | Parallel pin | Steel - 8.8 |
| 34 | Lock ring | Steel - 65G |
| 35 | Screw | Steel - 8.8 |
| 36 | Key | Steel - C45 / 1.0503 / EN 10277-2 |
| 37 | Base | Steel - S235JR / 1.0038 / EN 10025-2 |
| 38 | Lifting eye | Steel - S235JR / 1.0038 / EN 10025-2 |
| 39 | Lubrication fitting NPT | Steel - P355NH / 1.0565 / EN 10028-3 |

Trunnion mounted valve - DN 150 - 600, PN 40

Type 3/A... - Full bore

Flange × Flange

Fully welded steel ball valve.

Materials

See next pages.

Applications

Stop valve for heating systems, district heating, cooling and industrial purposes.

Media

Water and other media not decomposing the steel. If in doubt, please contact BROEN BALLOMAX® Sales Department.

Surface treatment

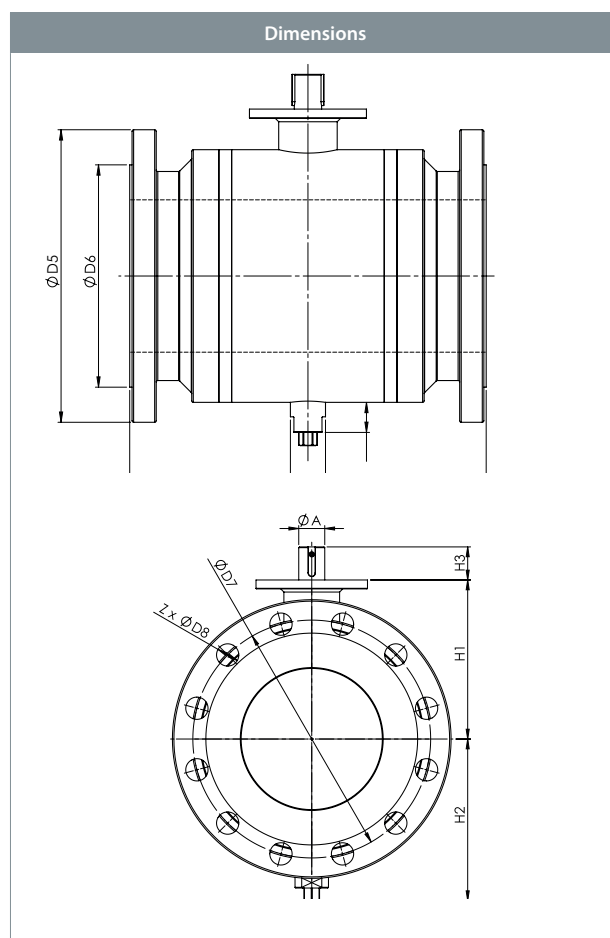
Eco-friendly protection finish against corrosion.

Approvals and certificates

BROEN is certified according to ISO 9001 and environmentally certified according to ISO 14001. BROEN BALLOMAX® is approved according to the requirements of Pressure Equipment Directive (PED). All ball valves as from DN 150 are CE-marked. The 3.1 certificate is available upon request.

Notice

As standard DN 150 - 600 is delivered with Double Block and Bleed (DBB) with normal temperature range up to 150°. Temperature range up to 200° on request. We recommend to add a BROEN-Gear.



| DN | BROEN No. | Bore | Kvs | net Weight kg | All dimensions in mm |
|-----|--------------|------|--------|---------------|----------------------|
| | | | | | L |
| 150 | 3/A150KK5D30 | 142 | 4498 | 84 | 350 |
| 200 | 3/A200KK5D30 | 190 | 9234 | 167 | 457 |
| 250 | 3/A250KK5D30 | 237 | 14428 | 277 | 533 |
| 300 | 3/A300KK5D30 | 285 | 20777 | 426 | 610 |
| 350 | 3/A350KK5D30 | 332 | 28280 | 585 | 686 |
| 400 | 3/A400KK5D30 | 375 | 36937 | 918 | 762 |
| 500 | 3/A500KK5D30 | 475 | 57716 | 1625 | 914 |
| 600 | 3/A600KK5D30 | 588 | 101788 | 2519 | 1067 |

Trunnion mounted valve - DN 150 - 600, PN 40



Type 3/A... - Full bore

| Accessories | BROEN No. | Dimension | Description |
|-------------|-----------|--------------|---|
| | | DN 150 - 600 | BROEN-Gear. |
| | - | DN 150 - 600 | BROEN-Gear, Electric gear. |
| | - | DN 150 - 600 | Drain ball valve and pipe for Double Block and Bleed (DBB) with the following valve options DN 25 - 32 - 40 - 50. |
| | - | DN 150 - 600 | Base. |

All dimensions in mm

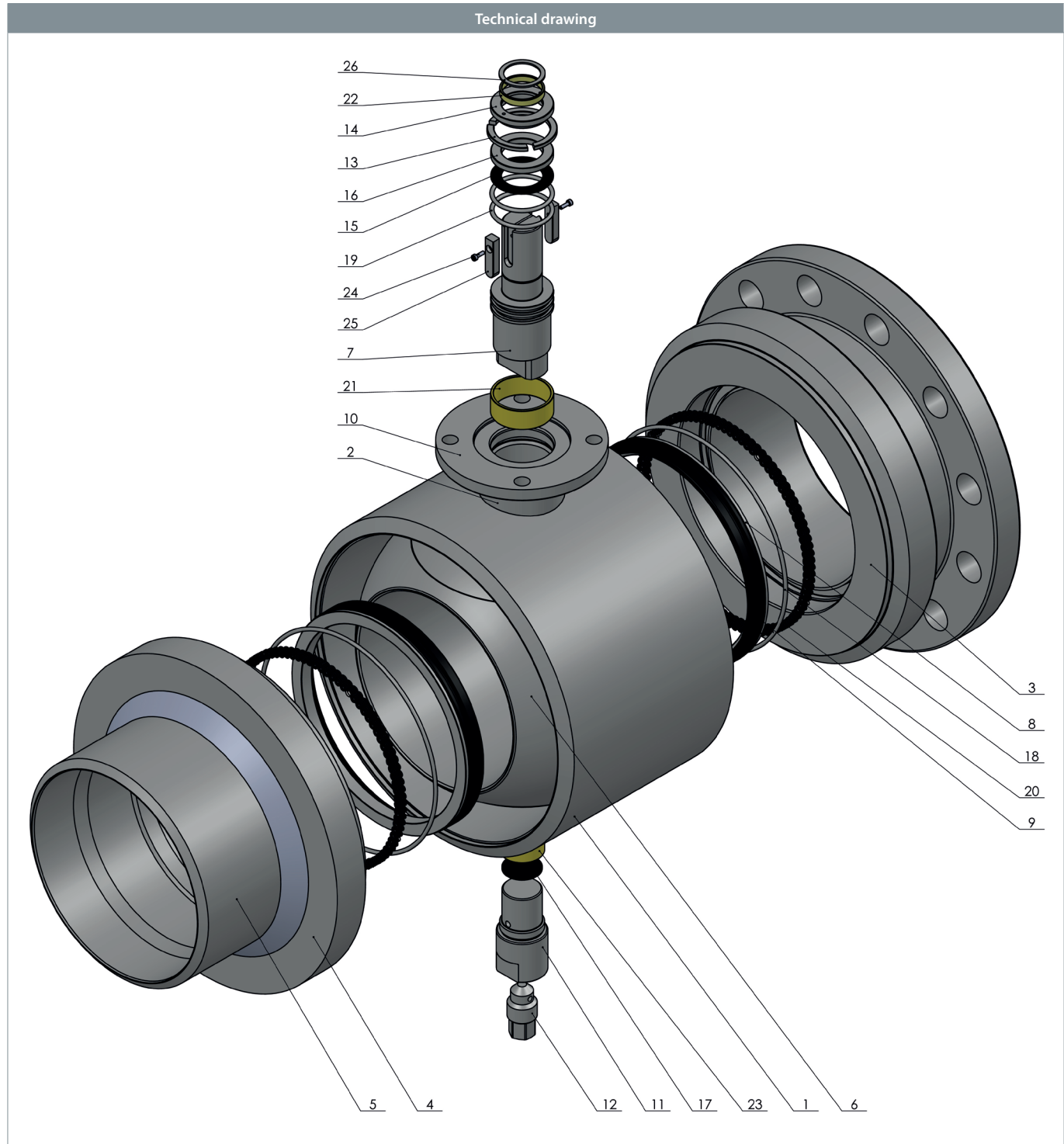
| D5 | D7 | D8 | H1 | H2 | H3 | A | ISO |
|-----|-----|----|-----|-----|-----|----|-----|
| 300 | 250 | 26 | 185 | 183 | 45 | 35 | F12 |
| 375 | 320 | 30 | 214 | 218 | 45 | 35 | F12 |
| 450 | 385 | 33 | 258 | 255 | 61 | 50 | F14 |
| 515 | 450 | 33 | 307 | 294 | 61 | 60 | F14 |
| 580 | 510 | 36 | 351 | 528 | 57 | 60 | F16 |
| 580 | 585 | 39 | 427 | 575 | 105 | 72 | F25 |
| 580 | 670 | 42 | 504 | 793 | 105 | 72 | F30 |
| 580 | 795 | 48 | 579 | 885 | 105 | 80 | F30 |

Trunnion mounted valve - DN 150 - 600, PN 40

Type 3/A... - Full bore



Technical drawing



Trunnion mounted valve - DN 150 - 600, PN 40



Type 3/A... - Full bore

| Material description | | |
|----------------------|------------|--|
| 1 | Valve body | Steel - P355NH / 1.0565 / EN 10028-3 |
| 2 | Stem guide | Steel - P355NH / 1.0565 / EN 10028-3 |
| 3 | Inner part | Steel - P355NH / 1.0565 / EN 10028-3 |
| 4 | Flange | Steel - P355NH / 1.0565 / EN 10028-3 |
| 5 | Pipe | Steel - P355NH / 1.0565 / EN 10028-3 |
| 6 | Ball | Steel - A350LF2 Class 1, EN coated |
| 7 | Stem | Stainless steel - X20Cr13 / AISI420 / 1.4021 |
| 8 | Seat | Steel - P355NH / 1.0565 / EN 10028-3 |
| 9 | Seal | PTFE+C |
| 10 | ISO-flange | Steel - S235JR / 1.0038 / EN 10025-2 |
| 11 | Trunnion | Steel - P355NH / 1.0565 / EN 10028-3 |
| 12 | Plug | Stainless steel - X20Cr13 / AISI420 / 1.4021 |
| 13 | Split ring | Stainless steel - X20Cr13 / AISI420 / 1.4021 |
| 14 | Sleeve | Stainless steel - X20Cr13 / AISI420 / 1.4021 |
| 15 | Washer | PTFE+C |
| 16 | Washer | Stainless steel - X20Cr13 / AISI420 / 1.4021 |
| 17 | Washer | PTFE+C |
| 18 | O-ring | EPDM |
| 19 | O-ring | EPDM |
| 20 | Spring | Stainless steel - X10CrNi18-8 / AISI302 / 1.4301 |
| 21 | Bearing | CS + PTFE |
| 22 | Bearing | CS + PTFE |
| 23 | Bearing | CS + PTFE |
| 24 | Screw | Steel - 8.8 |
| 25 | Key | Steel - C45 / 1.0503 / EN 10277-2 |
| 26 | Lock ring | Steel - 65G |

Trunnion mounted valve - DN 700 - 1000, PN 40

Type 3/A... - Full bore

Flange × Flange

Fully welded steel ball valve.

Materials

See next pages.

Applications

Stop valve for heating systems, district heating, cooling and industrial purposes.

Media

Water and other media not decomposing the steel. If in doubt, please contact BROEN BALLOMAX® Sales Department.

Surface treatment

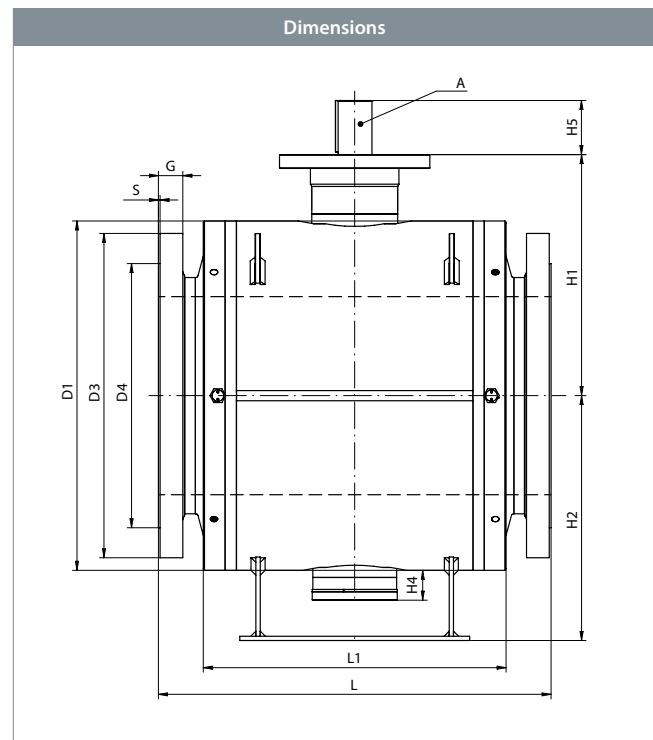
Eco-friendly protection finish against corrosion.

Approvals and certificates

BROEN is certified according to ISO 9001 and environmentally certified according to ISO 14001. BROEN BALLOMAX® is approved according to the requirements of Pressure Equipment Directive (PED). All ball valves as from DN 350 are CE-marked. The 3.1 certificate is available upon request.

Notice

As standard DN 700 - 1000 is delivered with Double Block and Bleed (DBB) with normal temperature range up to 150°. Temperature range up to 200° on request. We recommend to add a BROEN-Gear.



| DN | BROEN No. | Bore | Kvs | net Weight kg | All dimensions in mm | |
|------|--------------|------|--------|---------------|----------------------|------|
| | | | | | L | L1 |
| 700 | 3/A700KK5D30 | 684 | 138544 | 4427 | 1245 | 936 |
| 800 | 3/A800KK5D30 | 780 | 180956 | 6295 | 1372 | 1054 |
| 900 | 3/A900KK5D30 | 874 | 229023 | 9230 | 1524 | 1214 |
| 1000 | 3/A910KK5D30 | 976 | 282744 | 13725 | 2050 | 1346 |

Trunnion mounted valve - DN 700 - 1000, PN 40



Type 3/A... - Full bore

| Accessories | BROEN No. | Dimension | Description |
|-------------|-----------|---------------|---|
| | - | DN 700 | BROEN-Gear |
| | - | DN 800 | |
| | - | DN 700 - 1000 | BROEN-Gear, Electric gear. |
| | - | DN 700 - 1000 | Lubrication fitting NPT. |
| | - | DN 700 - 1000 | Drain ball valve and pipe for Double Block and Bleed (DBB) with the following valve options DN 25 - 32 - 40 - 50. |

All dimensions in mm

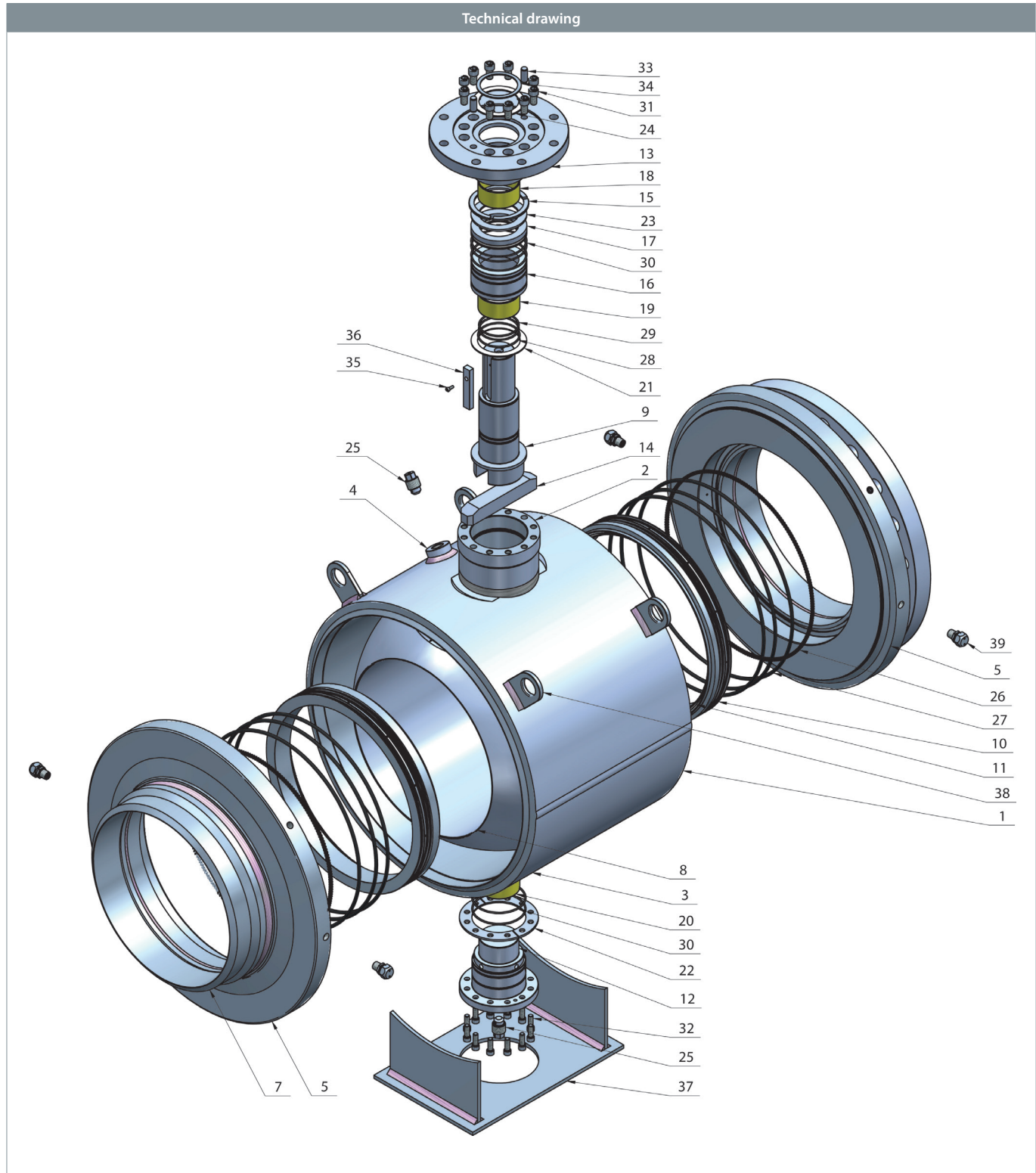
| D1 | D3 | D4 | G | S | H1 | H2 | H4 | H5 | A | ISO |
|------|------|------|-----|---|--------|--------|-------|-----|------|-----|
| 1126 | 995 | 840 | 86 | 5 | 806.0 | 790.0 | 109.0 | 200 | Ø120 | F35 |
| 1300 | 1140 | 960 | 90 | 5 | 890.0 | 900.0 | 107.0 | 198 | Ø120 | F35 |
| 1450 | 1250 | 1070 | 95 | 5 | 941.0 | 1000.0 | 117.0 | 183 | Ø140 | F40 |
| 1650 | 1360 | 1180 | 100 | 5 | 1121.0 | 1220.0 | 142.0 | 240 | Ø190 | F48 |

Trunnion mounted valve - DN 700 - 1000, PN 40

Type 3/A... - Full bore



Technical drawing



Trunnion mounted valve - DN 700 - 1000, PN 40



Type 3/A... - Full bore

| Material description | | |
|----------------------|-------------------------|--|
| 1 | Valve body | Steel - P355NH / 1.0565 / EN 10028-3 |
| 2 | Stem guide | Steel - P355NH / 1.0565 / EN 10028-3 |
| 3 | Trunnion guide | Steel - P355NH / 1.0565 / EN 10028-3 |
| 4 | Plug guide | Steel - P355NH / 1.0565 / EN 10028-3 |
| 5 | Inner part | Steel - P355NH / 1.0565 / EN 10028-3 |
| 6 | Flange | Steel - P355NH / 1.0565 / EN 10028-3 |
| 7 | Pipe | Steel - P355NH / 1.0565 / EN 10028-3 |
| 8 | Ball | ASTM A350 LF2 |
| 9 | Stem | Stainless steel - X20Cr13 / AISI420 / 1.4021 |
| 10 | Seat | Steel - P355NH / 1.0565 / EN 10028-3 |
| 11 | Seal | PTFE / PTFE+C (PTFE+C - 200°C) |
| 12 | Trunnion | Steel - P355NH / 1.0565 / EN 10028-3 |
| 13 | ISO-flange | Steel - S235JR / 1.0038 / EN 10025-2 |
| 14 | Ball key | Steel - C45 / 1.0503 / EN 10277-2 |
| 15 | Split ring | Stainless steel - X20Cr13 / AISI420 / 1.4021 |
| 16 | Sleeve | Stainless steel - X20Cr13 / AISI420 / 1.4021 |
| 17 | Packing | PTFE / PTFE+C |
| 18 | Bearing | CS + PTFE |
| 19 | Bearing | CS + PTFE |
| 20 | Bearing | CS + PTFE |
| 21 | Washer | PTFE+C |
| 22 | Washer | Steel - S235JR / 1.0038 / EN 10025-2 |
| 23 | Washer | Stainless steel - X20Cr13 / AISI420 / 1.4021 |
| 24 | Washer | PTFE |
| 25 | Plug | Stainless steel - X20Cr13 / AISI420 / 1.4021 |
| 26 | Spring | Stainless steel - X10CrNi18-9 / AISI302 / 1.4310 |
| 27 | O-ring | EPDM (AFLAS - 200°C) |
| 28 | O-ring | EPDM (AFLAS - 200°C) |
| 29 | O-ring | EPDM (AFLAS - 200°C) |
| 30 | O-ring | EPDM (AFLAS - 200°C) |
| 31 | Screw | Steel - 8.8 |
| 32 | Screw | Steel - 8.8 |
| 33 | Parallel pin | Steel - 8.8 |
| 34 | Lock ring | Steel - 65G |
| 35 | Screw | Steel - 8.8 |
| 36 | Key | Steel - C45 / 1.0503 / EN 10277-2 |
| 37 | Base | Steel - S235JR / 1.0038 / EN 10025-2 |
| 38 | Lifting eye | Steel - S235JR / 1.0038 / EN 10025-2 |
| 39 | Lubrication fitting NPT | Steel - P355NH / 1.0565 / EN 10028-3 |

Trunnion mounted valve - DN 150 - 600, PN 25

Type 3/A... - Full bore

Flange × Flange

Fully welded steel ball valve.

Materials

See next pages.

Applications

Stop valve for heating systems, district heating, cooling and industrial purposes.

Media

Water and other media not decomposing the steel. If in doubt, please contact BROEN BALLOMAX® Sales Department.

Surface treatment

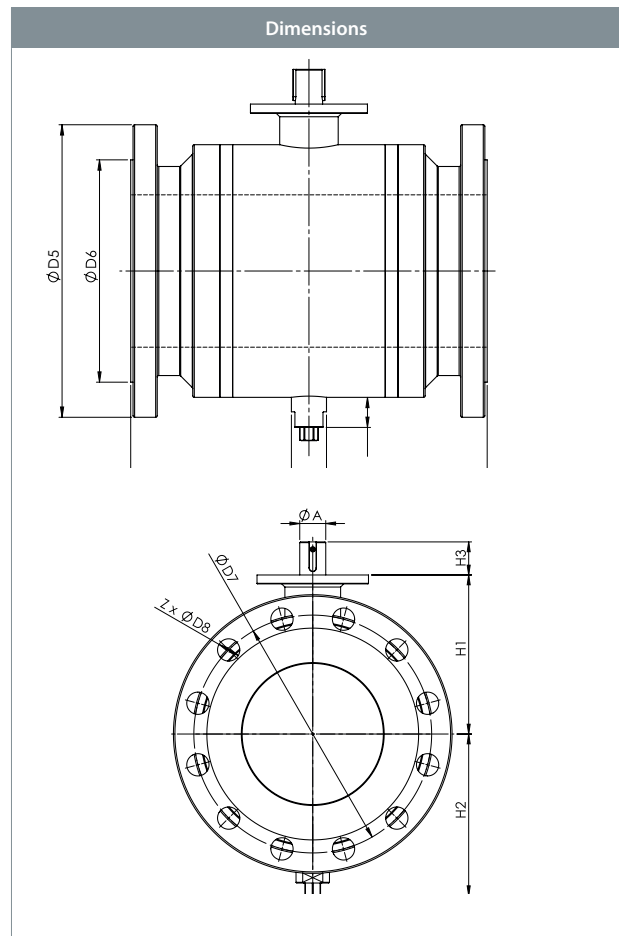
Eco-friendly protection finish against corrosion.

Approvals and certificates

BROEN is certified according to ISO 9001 and environmentally certified according to ISO 14001. BROEN BALLOMAX® is approved according to the requirements of Pressure Equipment Directive (PED). All ball valves as from DN 150 are CE-marked. The 3.1 certificate is available upon request.

Notice

As standard DN 150 - 600 is delivered with Double Block and Bleed (DBB) with normal temperature range up to 150°. Temperature range up to 200° on request. We recommend to add a BROEN-Gear.



| DN | BROEN No. | Bore | Kvs | net Weight kg | All dimensions in mm |
|-----|--------------|------|--------|---------------|----------------------|
| | | | | | L |
| 150 | 3/A150KK4D30 | 142 | 4498 | 84 | 350 |
| 200 | 3/A200KK4D30 | 190 | 9234 | 161 | 457 |
| 250 | 3/A250KK4D30 | 237 | 14428 | 265 | 533 |
| 300 | 3/A300KK4D30 | 285 | 20777 | 410 | 610 |
| 350 | 3/A350KK4D30 | 332 | 28280 | 567 | 686 |
| 400 | 3/A400KK4D30 | 375 | 36937 | 874 | 762 |
| 500 | 3/A500KK4D30 | 475 | 57716 | 1611 | 914 |
| 600 | 3/A600KK4D30 | 588 | 101788 | 2537 | 1067 |

Trunnion mounted valve - DN 150 - 600, PN 25



Type 3/A... - Full bore

| Accessories | BROEN No. | Dimension | Description |
|-------------|-----------|--------------|---|
| | | DN 150 - 600 | BROEN-Gear. |
| | - | DN 150 - 600 | BROEN-Gear, Electric gear. |
| | - | DN 150 - 600 | Drain ball valve and pipe for Double Block and Bleed (DBB) with the following valve options DN 25 - 32 - 40 - 50. |
| | - | DN 150 - 600 | Base. |

All dimensions in mm

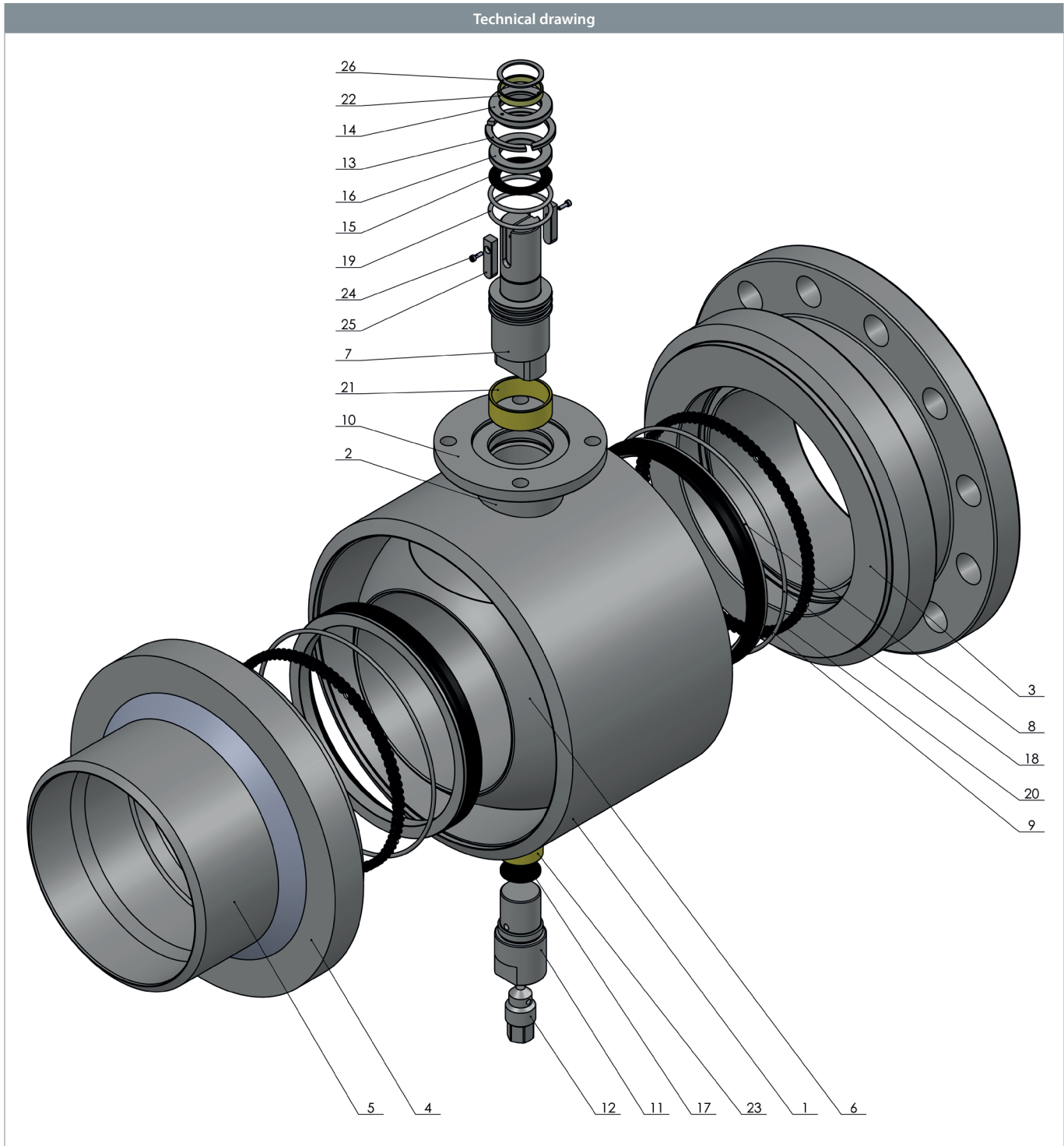
| D5 | D7 | D8 | H1 | H2 | H3 | A | ISO |
|-----|-----|----|-----|-----|-----|----|-----|
| 300 | 250 | 26 | 185 | 183 | 45 | 35 | F12 |
| 360 | 310 | 26 | 214 | 218 | 45 | 35 | F12 |
| 425 | 370 | 30 | 258 | 255 | 61 | 50 | F14 |
| 485 | 430 | 30 | 307 | 294 | 61 | 60 | F14 |
| 555 | 490 | 33 | 351 | 528 | 57 | 60 | F16 |
| 620 | 550 | 36 | 427 | 575 | 105 | 72 | F25 |
| 730 | 660 | 36 | 504 | 793 | 105 | 72 | F30 |
| 845 | 770 | 39 | 579 | 885 | 105 | 80 | F30 |

Trunnion mounted valve - DN 150 - 600, PN 25

Type 3/A... - Full bore



Technical drawing



Trunnion mounted valve - DN 150 - 600, PN 25



Type 3/A... - Full bore

| Material description | | |
|----------------------|------------|--|
| 1 | Valve body | Steel - P355NH / 1.0565 / EN 10028-3 |
| 2 | Stem guide | Steel - P355NH / 1.0565 / EN 10028-3 |
| 3 | Inner part | Steel - P355NH / 1.0565 / EN 10028-3 |
| 4 | Flange | Steel - P355NH / 1.0565 / EN 10028-3 |
| 5 | Pipe | Steel - P355NH / 1.0565 / EN 10028-3 |
| 6 | Ball | Steel - A350LF2 Class 1, EN coated |
| 7 | Stem | Stainless steel - X20Cr13 / AISI420 / 1.4021 |
| 8 | Seat | Steel - P355NH / 1.0565 / EN 10028-3 |
| 9 | Seal | PTFE+C |
| 10 | ISO-flange | Steel - S235JR / 1.0038 / EN 10025-2 |
| 11 | Trunnion | Steel - P355NH / 1.0565 / EN 10028-3 |
| 12 | Plug | Stainless steel - X20Cr13 / AISI420 / 1.4021 |
| 13 | Split ring | Stainless steel - X20Cr13 / AISI420 / 1.4021 |
| 14 | Sleeve | Stainless steel - X20Cr13 / AISI420 / 1.4021 |
| 15 | Washer | PTFE+C |
| 16 | Washer | Stainless steel - X20Cr13 / AISI420 / 1.4021 |
| 17 | Washer | PTFE+C |
| 18 | O-ring | EPDM |
| 19 | O-ring | EPDM |
| 20 | Spring | Stainless steel - X10CrNi18-8 / AISI302 / 1.4301 |
| 21 | Bearing | CS + PTFE |
| 22 | Bearing | CS + PTFE |
| 23 | Bearing | CS + PTFE |
| 24 | Screw | Steel - 8.8 |
| 25 | Key | Steel - C45 / 1.0503 / EN 10277-2 |
| 26 | Lock ring | Steel - 65G |

Trunnion mounted valve - DN 700 - 1000, PN 25

Type 3/A... - Full bore

Flange × Flange

Fully welded steel ball valve.

Materials

See next pages.

Applications

Stop valve for heating systems, district heating, cooling and industrial purposes.

Media

Water and other media not decomposing the steel. If in doubt, please contact BROEN BALLOMAX® Sales Department.

Surface treatment

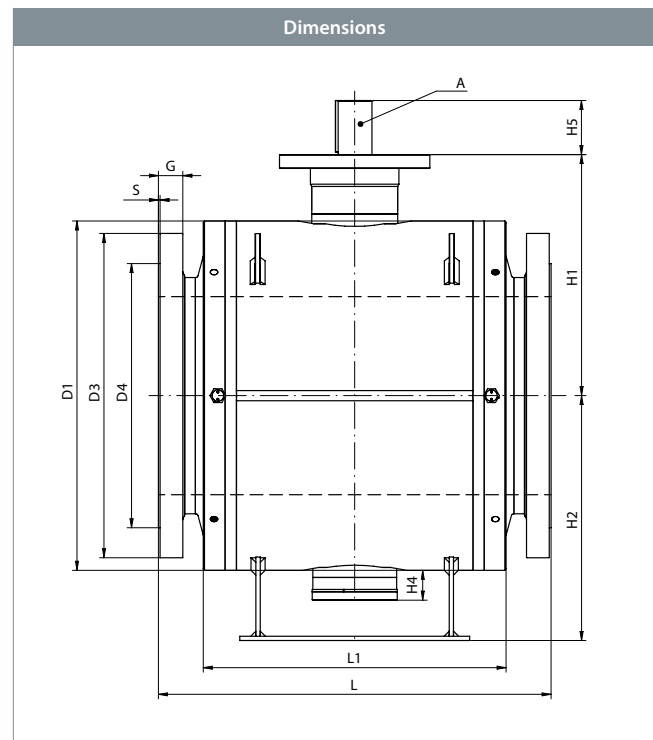
Eco-friendly protection finish against corrosion.

Approvals and certificates

BROEN is certified according to ISO 9001 and environmentally certified according to ISO 14001. BROEN BALLOMAX® is approved according to the requirements of Pressure Equipment Directive (PED). All ball valves as from DN 350 are CE-marked. The 3.1 certificate is available upon request.

Notice

As standard DN 700 - 1000 is delivered with Double Block and Bleed (DBB) with normal temperature range up to 150°. Temperature range up to 200° on request. We recommend to add a BROEN-Gear.



| DN | BROEN No. | Bore | Kvs | net Weight kg | All dimensions in mm | |
|------|--------------|------|--------|---------------|----------------------|------|
| | | | | | L | L1 |
| 700 | 3/A700KK4D30 | 684 | 138544 | 4318 | 1245 | 976 |
| 800 | 3/A800KK4D30 | 780 | 180956 | 6460 | 1372 | 1138 |
| 900 | 3/A900KK4D30 | 874 | 229023 | 8728 | 1524 | 1214 |
| 1000 | 3/A910KK4D30 | 976 | 282744 | 13041 | 2050 | 1346 |

Trunnion mounted valve - DN 700 - 1000, PN 25



Type 3/A... - Full bore

| Accessories | BROEN No. | Dimension | Description |
|-------------|-----------|---------------|---|
| | - | DN 700 | ROEN-Gear. |
| | - | DN 800 | |
| | - | DN 700 - 1000 | BROEN-Gear, Electric gear. |
| | - | DN 700 - 1000 | Lubrication fitting NPT. |
| | - | DN 700 - 1000 | Drain ball valve and pipe for Double Block and Bleed (DBB) with the following valve options DN 25 - 32 - 40 - 50. |

All dimensions in mm

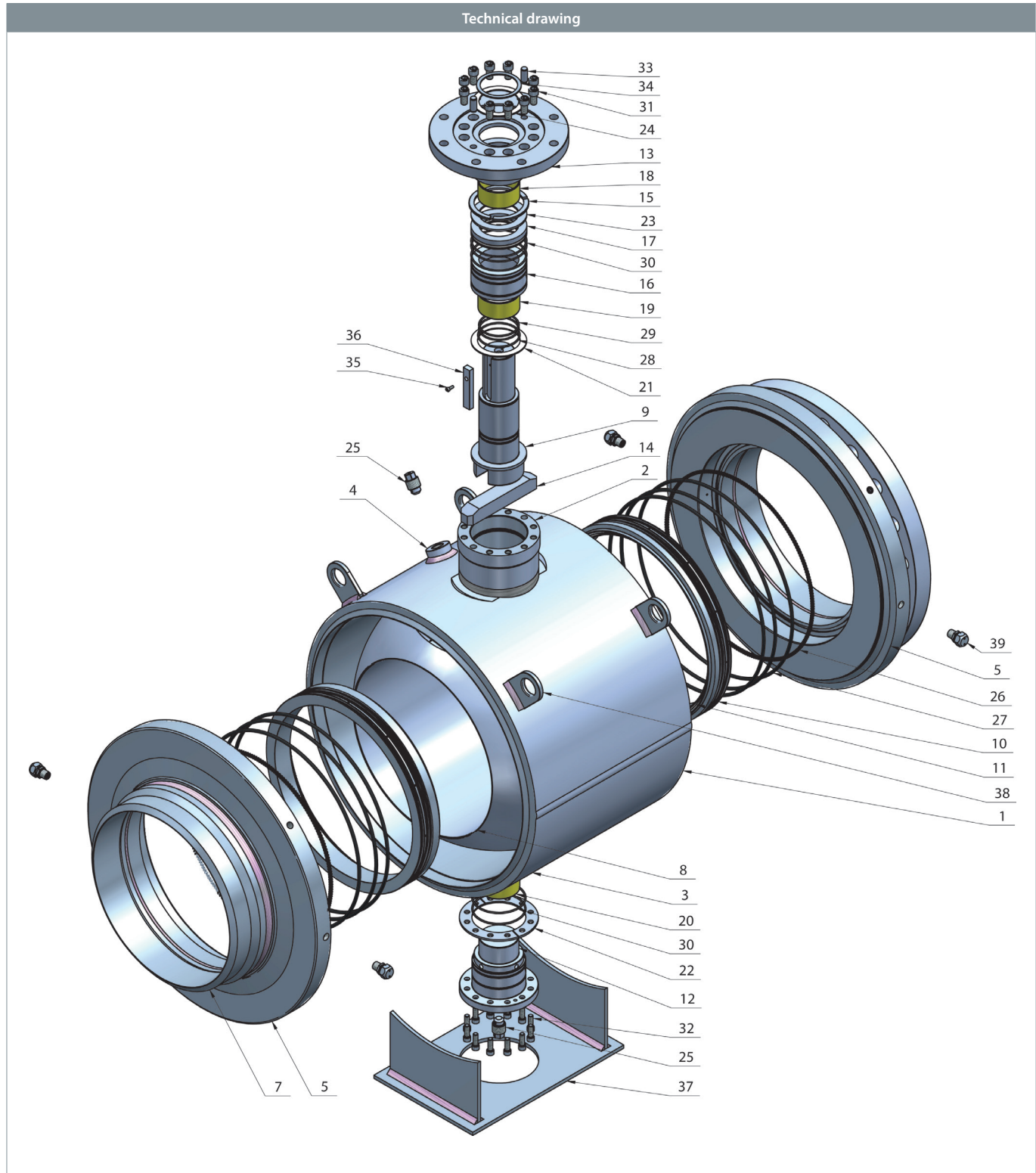
| D1 | D3 | D4 | G | S | H1 | H2 | H4 | H5 | A | ISO |
|------|------|------|----|---|--------|--------|-------|-----|------|-----|
| 1126 | 960 | 820 | 50 | 5 | 806.0 | 790.0 | 109.0 | 200 | Ø120 | F35 |
| 1300 | 1085 | 930 | 53 | 5 | 890.0 | 900.0 | 107.0 | 198 | Ø120 | F35 |
| 1450 | 1185 | 1030 | 53 | 5 | 941.0 | 1000.0 | 117.0 | 183 | Ø140 | F40 |
| 1650 | 1320 | 1140 | 63 | 5 | 1121.0 | 1220.0 | 142.0 | 240 | Ø190 | F48 |

Trunnion mounted valve - DN 700 - 1000, PN 25

Type 3/A... - Full bore



Technical drawing



Trunnion mounted valve - DN 700 - 1000, PN 25



Type 3/A... - Full bore

| Material description | | |
|----------------------|-------------------------|--|
| 1 | Valve body | Steel - P355NH / 1.0565 / EN 10028-3 |
| 2 | Stem guide | Steel - P355NH / 1.0565 / EN 10028-3 |
| 3 | Trunnion guide | Steel - P355NH / 1.0565 / EN 10028-3 |
| 4 | Plug guide | Steel - P355NH / 1.0565 / EN 10028-3 |
| 5 | Inner part | Steel - P355NH / 1.0565 / EN 10028-3 |
| 6 | Flange | Steel - P355NH / 1.0565 / EN 10028-3 |
| 7 | Pipe | Steel - P355NH / 1.0565 / EN 10028-3 |
| 8 | Ball | ASTM A350 LF2 |
| 9 | Stem | Stainless steel - X20Cr13 / AISI420 / 1.4021 |
| 10 | Seat | Steel - P355NH / 1.0565 / EN 10028-3 |
| 11 | Seal | PTFE / PTFE+C (PTFE+C - 200°C) |
| 12 | Trunnion | Steel - P355NH / 1.0565 / EN 10028-3 |
| 13 | ISO-flange | Steel - S235JR / 1.0038 / EN 10025-2 |
| 14 | Ball key | Steel - C45 / 1.0503 / EN 10277-2 |
| 15 | Split ring | Stainless steel - X20Cr13 / AISI420 / 1.4021 |
| 16 | Sleeve | Stainless steel - X20Cr13 / AISI420 / 1.4021 |
| 17 | Packing | PTFE / PTFE+C |
| 18 | Bearing | CS + PTFE |
| 19 | Bearing | CS + PTFE |
| 20 | Bearing | CS + PTFE |
| 21 | Washer | PTFE+C |
| 22 | Washer | Steel - S235JR / 1.0038 / EN 10025-2 |
| 23 | Washer | Stainless steel - X20Cr13 / AISI420 / 1.4021 |
| 24 | Washer | PTFE |
| 25 | Plug | Stainless steel - X20Cr13 / AISI420 / 1.4021 |
| 26 | Spring | Stainless steel - X10CrNi18-9 / AISI302 / 1.4310 |
| 27 | O-ring | EPDM (AFLAS - 200°C) |
| 28 | O-ring | EPDM (AFLAS - 200°C) |
| 29 | O-ring | EPDM (AFLAS - 200°C) |
| 30 | O-ring | EPDM (AFLAS - 200°C) |
| 31 | Screw | Steel - 8.8 |
| 32 | Screw | Steel - 8.8 |
| 33 | Parallel pin | Steel - 8.8 |
| 34 | Lock ring | Steel - 65G |
| 35 | Screw | Steel - 8.8 |
| 36 | Key | Steel - C45 / 1.0503 / EN 10277-2 |
| 37 | Base | Steel - S235JR / 1.0038 / EN 10025-2 |
| 38 | Lifting eye | Steel - S235JR / 1.0038 / EN 10025-2 |
| 39 | Lubrication fitting NPT | Steel - P355NH / 1.0565 / EN 10028-3 |

Trunnion mounted valve - DN 150 - 600, PN 16

Type 3/A... - Full bore

Flange × Flange

Fully welded steel ball valve.

Materials

See next pages.

Applications

Stop valve for heating systems, district heating, cooling and industrial purposes.

Media

Water and other media not decomposing the steel. If in doubt, please contact BROEN BALLOMAX® Sales Department.

Surface treatment

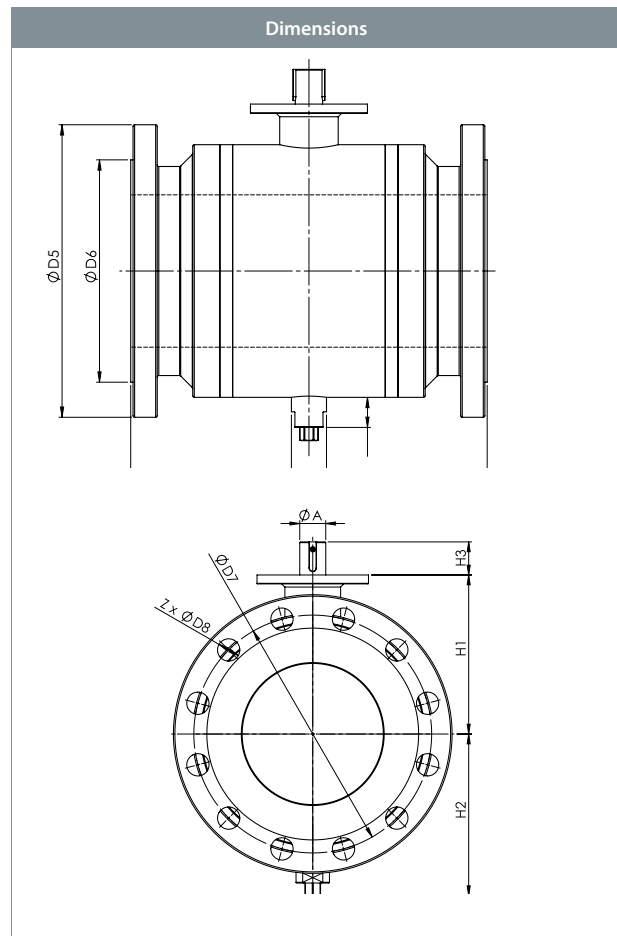
Eco-friendly protection finish against corrosion.

Approvals and certificates

BROEN is certified according to ISO 9001 and environmentally certified according to ISO 14001. BROEN BALLOMAX® is approved according to the requirements of Pressure Equipment Directive (PED). All ball valves as from DN 150 are CE-marked. The 3.1 certificate is available upon request.

Notice

As standard DN 150 - 600 is delivered with Double Block and Bleed (DBB) with normal temperature range up to 150°. Temperature range up to 200° on request. We recommend to add a BROEN-Gear.



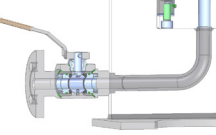
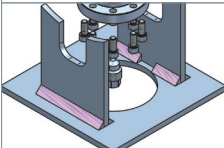


| DN | BROEN No. | Bore | Kvs | net Weight kg | All dimensions in mm |
|-----|--------------|------|--------|---------------|----------------------|
| | | | | | L |
| 150 | 3/A150KK3D30 | 142 | 4498 | 79 | 350 |
| 200 | 3/A200KK3D30 | 190 | 9234 | 155 | 457 |
| 250 | 3/A250KK3D30 | 237 | 14428 | 260 | 533 |
| 300 | 3/A300KK3D30 | 285 | 20777 | 395 | 610 |
| 350 | 3/A350KK3D30 | 332 | 28280 | 563 | 686 |
| 400 | 3/A400KK3D30 | 375 | 36937 | 866 | 762 |
| 500 | 3/A500KK3D30 | 475 | 57716 | 1607 | 914 |
| 600 | 3/A600KK3D30 | 588 | 101788 | 2519 | 1067 |

Trunnion mounted valve - DN 150 - 600, PN 16



Type 3/A... - Full bore

| Accessories | BROEN No. | Dimension | Description |
|---|-----------|--------------|---|
|  | | DN 150 - 600 | BROEN-Gear. |
|  | - | DN 150 - 600 | BROEN-Gear, Electric gear. |
|  | - | DN 150 - 600 | Drain ball valve and pipe for Double Block and Bleed (DBB) with the following valve options DN 25 - 32 - 40 - 50. |
|  | - | DN 150 - 600 | Base. |

All dimensions in mm

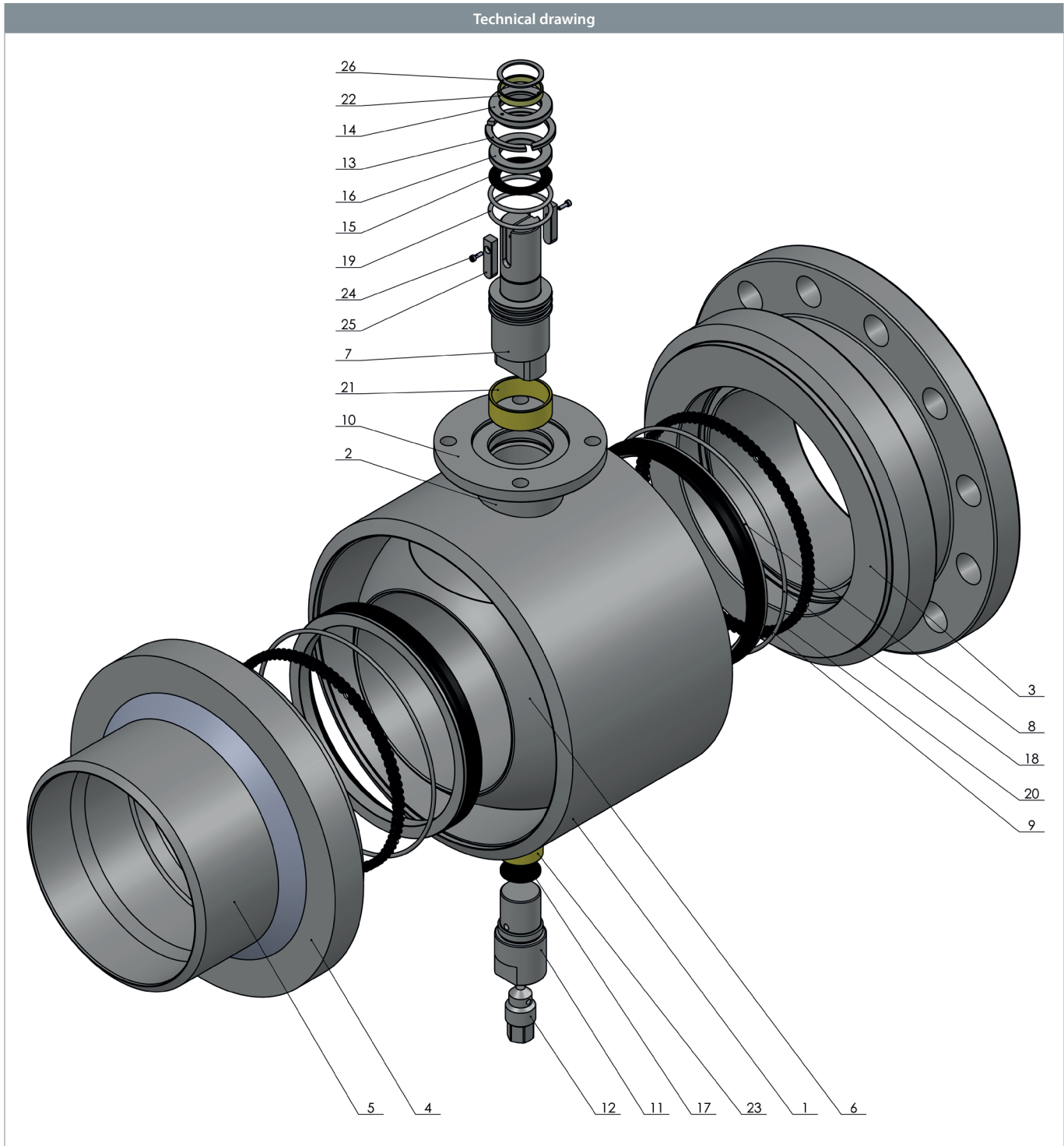
| D5 | D7 | D8 | H1 | H2 | H3 | A | ISO |
|-----|-----|----|-----|-----|-----|----|-----|
| 285 | 240 | 22 | 185 | 183 | 45 | 35 | F12 |
| 340 | 295 | 22 | 214 | 218 | 45 | 35 | F12 |
| 405 | 355 | 26 | 258 | 255 | 61 | 50 | F14 |
| 460 | 410 | 26 | 307 | 294 | 61 | 60 | F14 |
| 520 | 470 | 26 | 351 | 528 | 57 | 60 | F16 |
| 580 | 525 | 30 | 427 | 575 | 105 | 72 | F25 |
| 715 | 650 | 33 | 504 | 793 | 105 | 72 | F30 |
| 840 | 770 | 36 | 579 | 885 | 105 | 80 | F30 |

Trunnion mounted valve - DN 150 - 600, PN 16

Type 3/A... - Full bore



Technical drawing



Trunnion mounted valve - DN 150 - 600, PN 16



Type 3/A... - Full bore

| Material description | | |
|----------------------|------------|--|
| 1 | Valve body | Steel - P355NH / 1.0565 / EN 10028-3 |
| 2 | Stem guide | Steel - P355NH / 1.0565 / EN 10028-3 |
| 3 | Inner part | Steel - P355NH / 1.0565 / EN 10028-3 |
| 4 | Flange | Steel - P355NH / 1.0565 / EN 10028-3 |
| 5 | Pipe | Steel - P355NH / 1.0565 / EN 10028-3 |
| 6 | Ball | Steel - A350LF2 Class 1, EN coated |
| 7 | Stem | Stainless steel - X20Cr13 / AISI420 / 1.4021 |
| 8 | Seat | Steel - P355NH / 1.0565 / EN 10028-3 |
| 9 | Seal | PTFE+C |
| 10 | ISO-flange | Steel - S235JR / 1.0038 / EN 10025-2 |
| 11 | Trunnion | Steel - P355NH / 1.0565 / EN 10028-3 |
| 12 | Plug | Stainless steel - X20Cr13 / AISI420 / 1.4021 |
| 13 | Split ring | Stainless steel - X20Cr13 / AISI420 / 1.4021 |
| 14 | Sleeve | Stainless steel - X20Cr13 / AISI420 / 1.4021 |
| 15 | Washer | PTFE+C |
| 16 | Washer | Stainless steel - X20Cr13 / AISI420 / 1.4021 |
| 17 | Washer | PTFE+C |
| 18 | O-ring | EPDM |
| 19 | O-ring | EPDM |
| 20 | Spring | Stainless steel - X10CrNi18-8 / AISI302 / 1.4301 |
| 21 | Bearing | CS + PTFE |
| 22 | Bearing | CS + PTFE |
| 23 | Bearing | CS + PTFE |
| 24 | Screw | Steel - 8.8 |
| 25 | Key | Steel - C45 / 1.0503 / EN 10277-2 |
| 26 | Lock ring | Steel - 65G |

Trunnion mounted valve - DN 700 - 1000, PN 16

Type 3/A... - Full bore

Flange × Flange

Fully welded steel ball valve.

Materials

See next pages.

Applications

Stop valve for heating systems, district heating, cooling and industrial purposes.

Media

Water and other media not decomposing the steel. If in doubt, please contact BROEN BALLOMAX® Sales Department.

Surface treatment

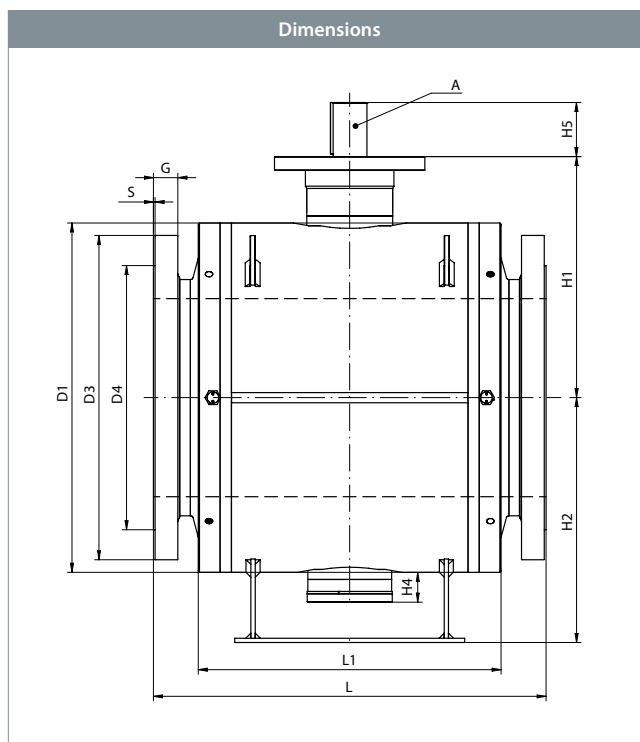
Eco-friendly protection finish against corrosion.

Approvals and certificates

BROEN is certified according to ISO 9001 and environmentally certified according to ISO 14001. BROEN BALLOMAX® is approved according to the requirements of Pressure Equipment Directive (PED). All ball valves as from DN 350 are CE-marked. The 3.1 certificate is available upon request.

Notice

As standard DN 700 - 1000 is delivered with Double Block and Bleed (DBB) with normal temperature range up to 150°. Temperature range up to 200° on request. We recommend to add a BROEN-Gear.



| DN | BROEN No. | Bore | Kvs | net Weight kg | All dimensions in mm | |
|------|--------------|------|--------|---------------|----------------------|------|
| | | | | | L | L1 |
| 700 | 3/A700KK3D30 | 684 | 138544 | 4318 | 1245 | 976 |
| 800 | 3/A800KK3D30 | 780 | 180956 | 6460 | 1372 | 1184 |
| 900 | 3/A900KK3D30 | 874 | 229023 | 8728 | 1524 | 1214 |
| 1000 | 3/A910KK3D30 | 976 | 282744 | 13041 | 2050 | 1346 |

Trunnion mounted valve - DN 700 - 1000, PN 16



Type 3/A... - Full bore

| Accessories | BROEN No. | Dimension | Description |
|-------------|-----------|---------------|---|
| | - | DN 700 | BROEN-Gear. |
| | - | DN 800 | |
| | - | DN 700 - 1000 | BROEN-Gear, Electric gear. |
| | - | DN 700 - 1000 | Lubrication fitting NPT. |
| | - | DN 700 - 1000 | Drain ball valve and pipe for Double Block and Bleed (DBB) with the following valve options DN 25 - 32 - 40 - 50. |

All dimensions in mm

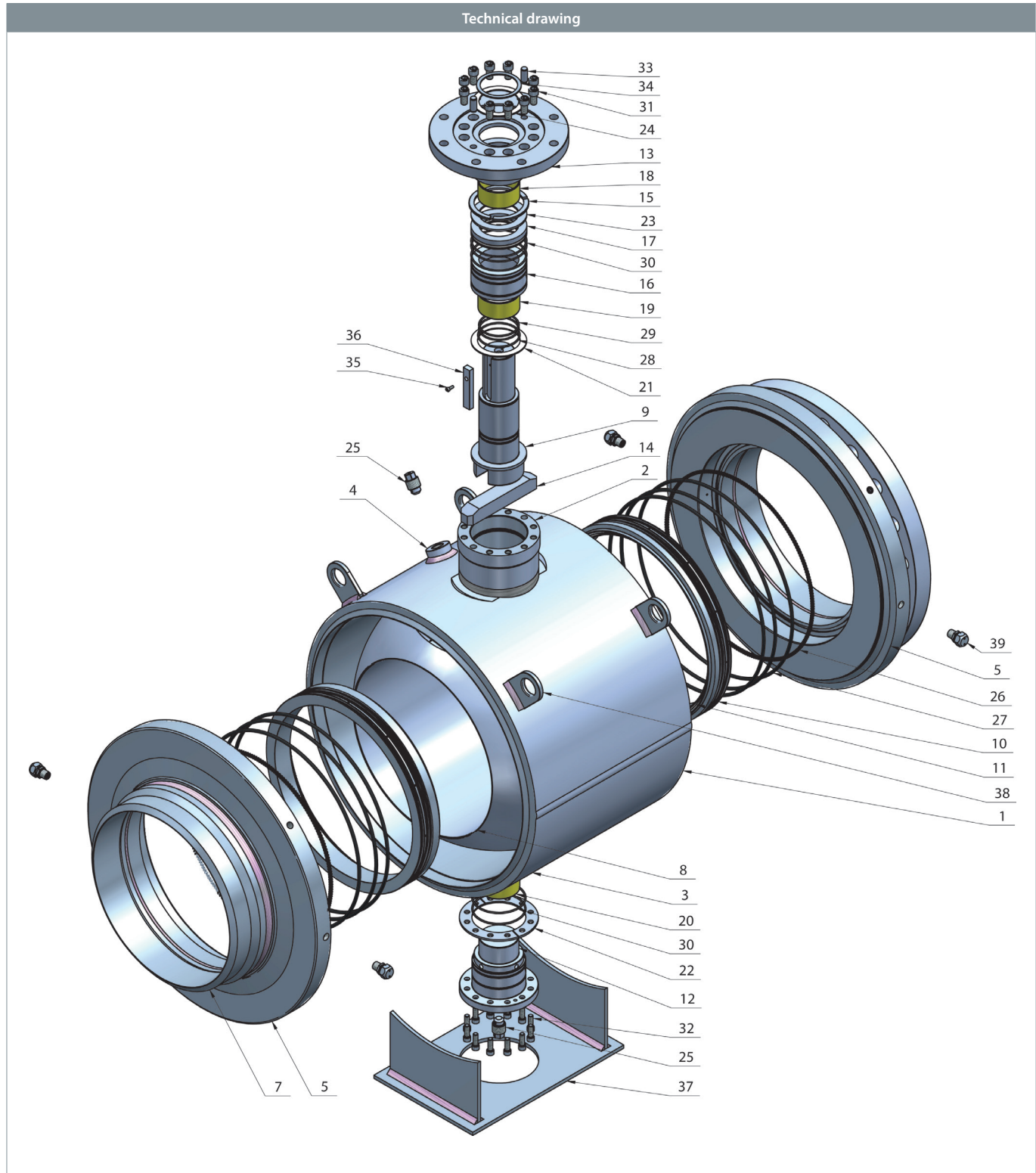
| D1 | D3 | D4 | G | S | H1 | H2 | H4 | H5 | A | ISO |
|------|------|------|----|---|--------|--------|-------|-----|------|-----|
| 1126 | 910 | 795 | 40 | 5 | 806.0 | 790.0 | 109.0 | 200 | Ø120 | F35 |
| 1300 | 1025 | 900 | 41 | 5 | 890.0 | 900.0 | 107.0 | 198 | Ø120 | F35 |
| 1450 | 1125 | 1000 | 48 | 5 | 941.0 | 1000.0 | 117.0 | 183 | Ø140 | F40 |
| 1650 | 1255 | 1115 | 59 | 5 | 1121.0 | 1220.0 | 142.0 | 240 | Ø190 | F48 |

Trunnion mounted valve - DN 700 - 1000, PN 16

Type 3/A... - Full bore



Technical drawing



Trunnion mounted valve - DN 700 - 1000, PN 16



Type 3/A... - Full bore

| Material description | | |
|----------------------|-------------------------|--|
| 1 | Valve body | Steel - P355NH / 1.0565 / EN 10028-3 |
| 2 | Stem guide | Steel - P355NH / 1.0565 / EN 10028-3 |
| 3 | Trunnion guide | Steel - P355NH / 1.0565 / EN 10028-3 |
| 4 | Plug guide | Steel - P355NH / 1.0565 / EN 10028-3 |
| 5 | Inner part | Steel - P355NH / 1.0565 / EN 10028-3 |
| 6 | Flange | Steel - P355NH / 1.0565 / EN 10028-3 |
| 7 | Pipe | Steel - P355NH / 1.0565 / EN 10028-3 |
| 8 | Ball | ASTM A350 LF2 |
| 9 | Stem | Stainless steel - X20Cr13 / AISI420 / 1.4021 |
| 10 | Seat | Steel - P355NH / 1.0565 / EN 10028-3 |
| 11 | Seal | PTFE / PTFE+C (PTFE+C - 200°C) |
| 12 | Trunnion | Steel - P355NH / 1.0565 / EN 10028-3 |
| 13 | ISO-flange | Steel - S235JR / 1.0038 / EN 10025-2 |
| 14 | Ball key | Steel - C45 / 1.0503 / EN 10277-2 |
| 15 | Split ring | Stainless steel - X20Cr13 / AISI420 / 1.4021 |
| 16 | Sleeve | Stainless steel - X20Cr13 / AISI420 / 1.4021 |
| 17 | Packing | PTFE / PTFE+C |
| 18 | Bearing | CS + PTFE |
| 19 | Bearing | CS + PTFE |
| 20 | Bearing | CS + PTFE |
| 21 | Washer | PTFE+C |
| 22 | Washer | Steel - S235JR / 1.0038 / EN 10025-2 |
| 23 | Washer | Stainless steel - X20Cr13 / AISI420 / 1.4021 |
| 24 | Washer | PTFE |
| 25 | Plug | Stainless steel - X20Cr13 / AISI420 / 1.4021 |
| 26 | Spring | Stainless steel - X10CrNi18-9 / AISI302 / 1.4310 |
| 27 | O-ring | EPDM (AFLAS - 200°C) |
| 28 | O-ring | EPDM (AFLAS - 200°C) |
| 29 | O-ring | EPDM (AFLAS - 200°C) |
| 30 | O-ring | EPDM (AFLAS - 200°C) |
| 31 | Screw | Steel - 8.8 |
| 32 | Screw | Steel - 8.8 |
| 33 | Parallel pin | Steel - 8.8 |
| 34 | Lock ring | Steel - 65G |
| 35 | Screw | Steel - 8.8 |
| 36 | Key | Steel - C45 / 1.0503 / EN 10277-2 |
| 37 | Base | Steel - S235JR / 1.0038 / EN 10025-2 |
| 38 | Lifting eye | Steel - S235JR / 1.0038 / EN 10025-2 |
| 39 | Lubrication fitting NPT | Steel - P355NH / 1.0565 / EN 10028-3 |

BROEN-Gear - DN 200 - 800

Type 3-TPA... - Full bore

BROEN-Gear

Hand-operated gearbox.

BROEN-Gear - supports control of the fittings when the high opening torque of the valve prevents the use of a lever.

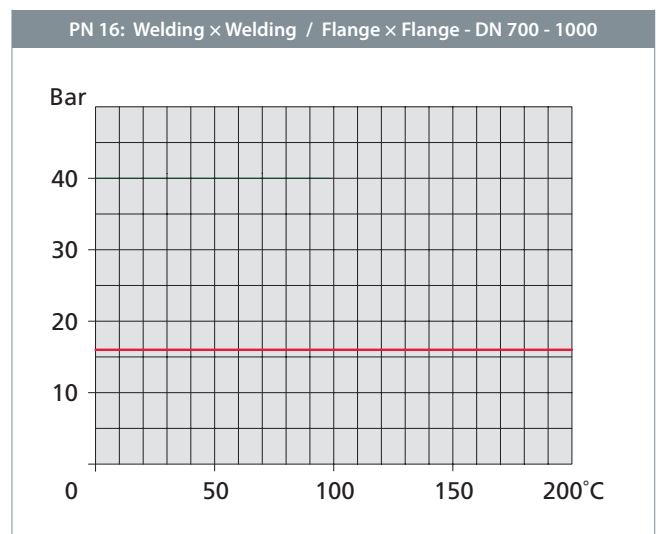
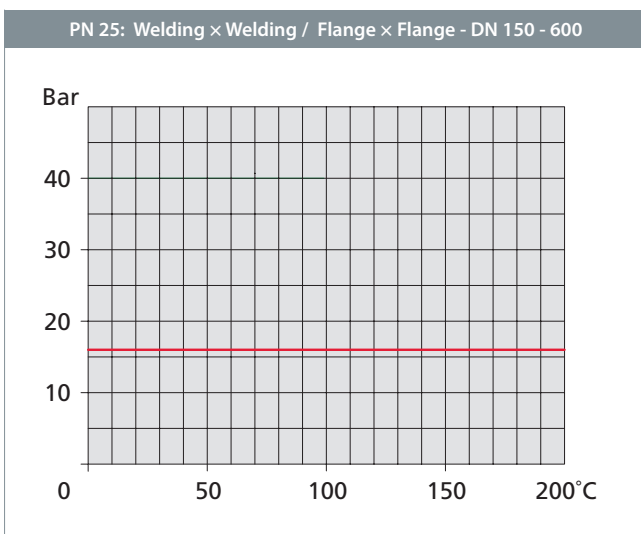
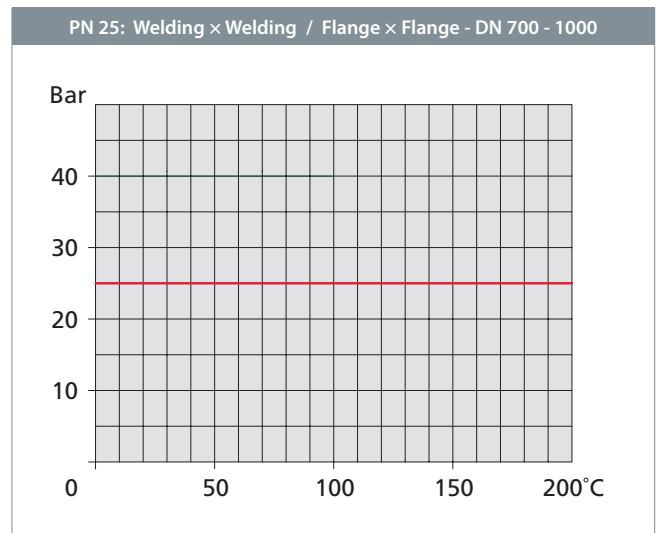
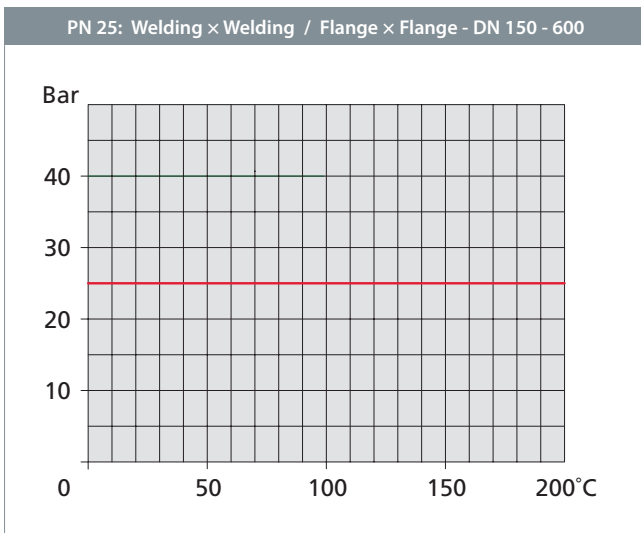
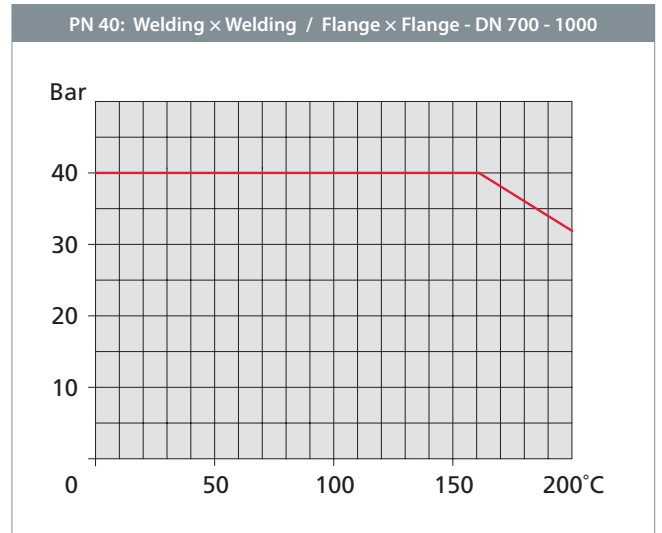
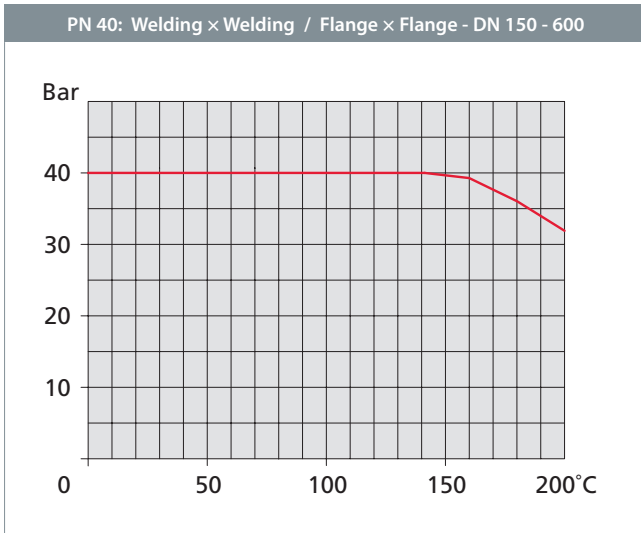
The gear is used for manual control of the fittings between the OPEN - CLOSED end positions (30° rotation angle), substantially reducing the force required for its operation. The end positions are enforced by stops that are adjusted during the installation of the gear on the fittings and then protected against regulation.



| DN | BROEN No. | PN |
|-----|-----------|------------|
| 150 | 3-TRA042 | 40, 25, 16 |
| 200 | 3-TRA043 | 40, 25, 16 |
| 250 | 3-TRA044 | 40, 25, 16 |
| 300 | 3-TRA045 | 40, 25, 16 |
| 350 | 3-TRA003 | 40, 25, 16 |
| 400 | 3-TRA060 | 40, 25, 16 |
| 500 | 3-TRA059 | 40, 25, 16 |
| 600 | 3-TRA062 | 40, 25, 16 |

Pressure and temperature graph - DN 150 - 1000, PN 40/25/16

Full bore



Pressure drop graph - DN 150 - 1000

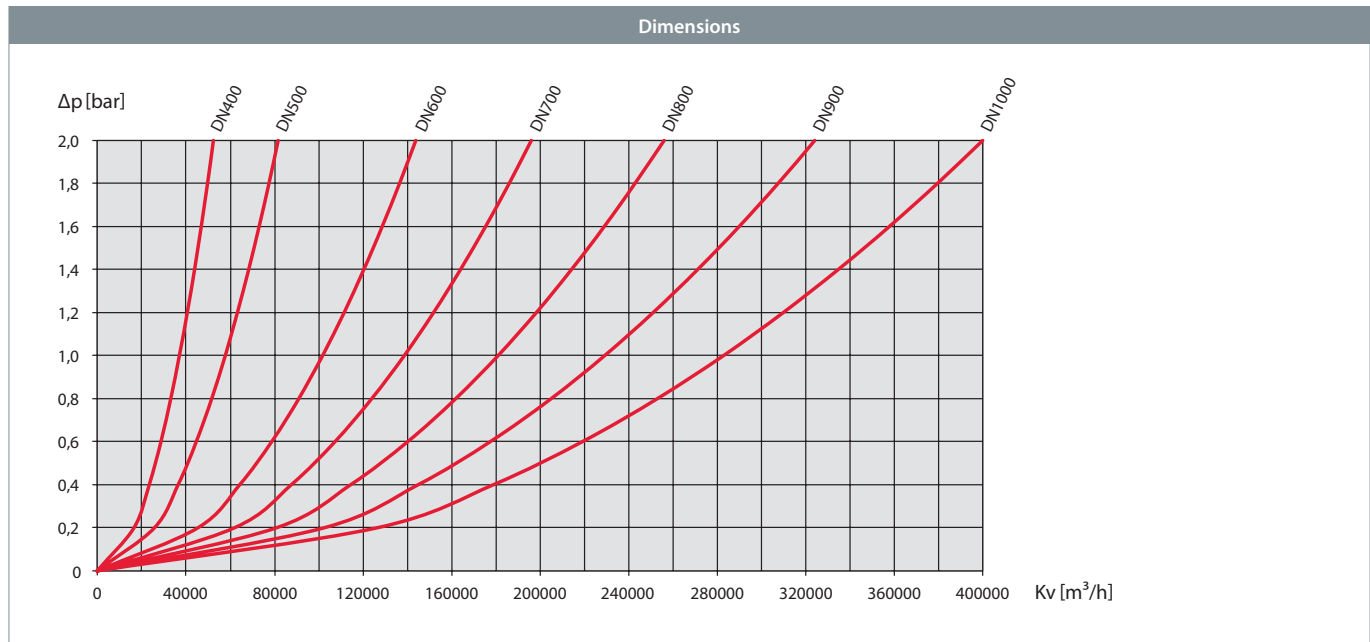
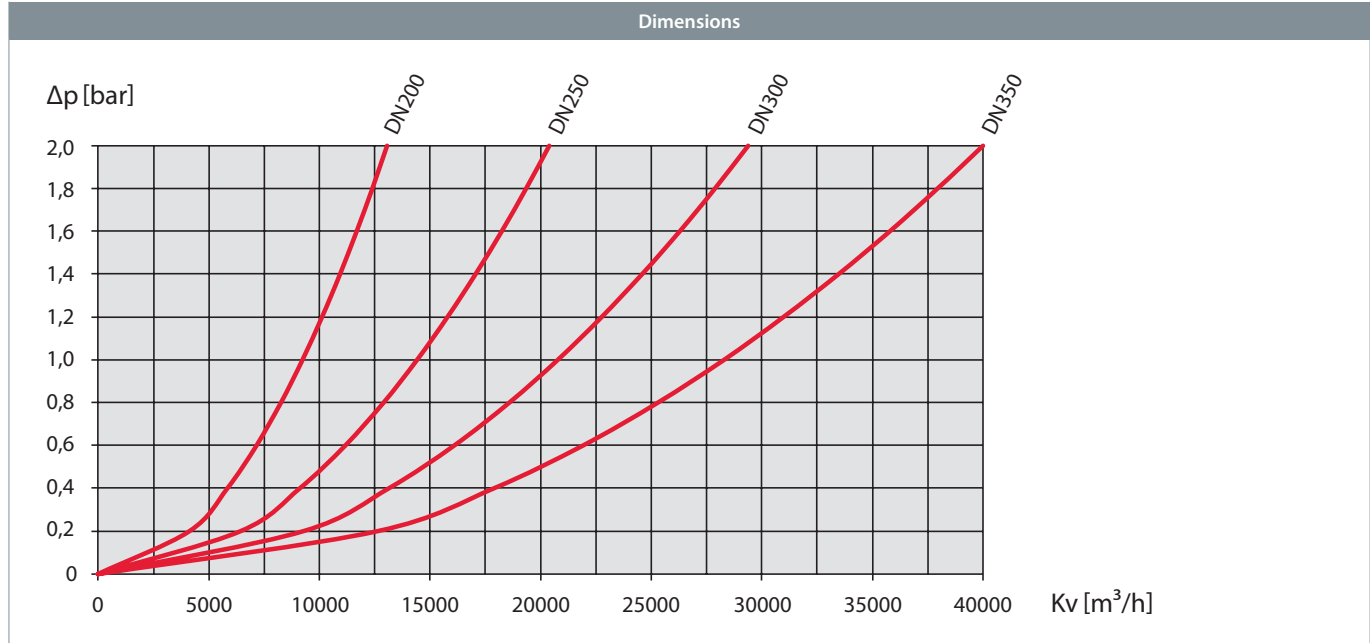
Full bore

Pressure drop graph

Ball valve in fully open position.
Medium: water density in 1000 kg/m³

Definitions

Kvs: M³ water per hour at pressure drop 1 bar.



| DN | 150 | 200 | 250 | 300 | 350 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
|-----|------|------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|
| Kvs | 4498 | 9234 | 14428 | 20777 | 28280 | 36937 | 57715 | 101788 | 138544 | 180956 | 229023 | 282744 |

Operating torque - DN 150 - 1000, PN 40/25/16

Full bore

Operating torque

The torque stated is for guidance only; it has been obtained by measuring on new ball valves. The torque is to be understood as the pull-off torque applicable for a closed, but recently activated ball valve.

The value stated may rise to a factor of 1.5 after a long period of inactivity.

