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STAY IN CONTROL

# SERIES 950 FLANGED SEGMENT BALL VALVE


**Body design**
Flanged / Wafer

**Nominal size**
DN25 – DN500

**Working pressure**
16/25/40/63 bar

**Flange connection**
PN6/PN10/PN16/PN25/
PN40/PN64/Class 150/
Class 300/Class 600

**Working temperature**
-100 °C/+420 °C

**Industry**
Paper Industry
Chemical Industry
Iron steel Industry
Mine Industry
Waste Water Ind.

**Leakage Class**
Class A

**Features**
One Piece Design
Special Seat
Full Bore
Heating Jacked Option

# SERIES ART.95X

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## DESCRIPTION

ABO Type 950 Flanged V-port segment ball valve is specifically designed for precise flow control, while also providing reliable shut-off capability. Its specially notched segment ball creates high shear forces, effectively cutting through media containing fibers and solid particles. This robust design makes the V-port segment ball valve an ideal control solution for pulp and paper applications, as well as other demanding processes involving fibrous or particulate fluids.

## WORKING MEDIUM

Pulp and Paper / Waste Water Treatment
Food And Beverage / Steel and metal industry
Chemical and petrochemical industries

## SIZES

DN50 to DN500 *(Other sizes are available on request)*

## WORKING PRESSURE AND TEMPERATURE

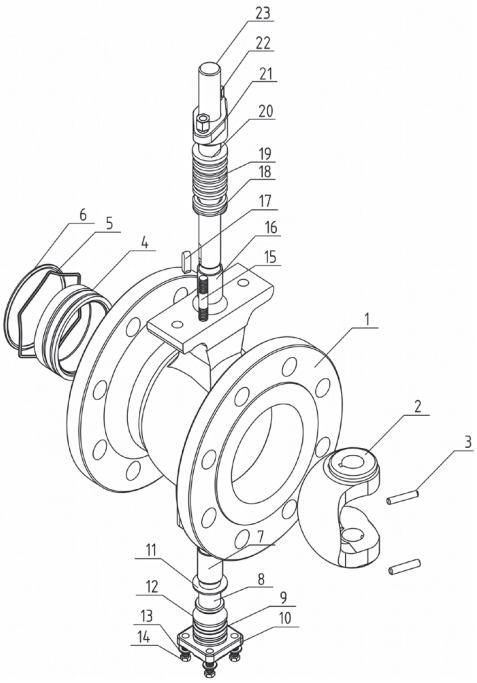
Pressure: 6-10-16-40-63-100 Bar
Temperature: From -100°C /420°C

## CONNECTION

DIN PN10, PN16 *(Other pressure class available on request like PN40, PN63,PN100)*
ASME B16.5 -class 150 *(Other pressure class available on request like Class 300,Class 600)*

### Standart part list

| Part No | Part Name | Part Material |
|---|---|---|
| 1 | Body | WCB /CF8 /CF8M /DUBLEX /ALLOY /HASTELLOY |
| 2 | V-port Segment | CF8 /CF8M /DUBLEX /ALLOY /HASTELLOY |
| 3 | Pin | 304 /316 /DUBLEX /ALLOY /HASTELLOY |
| 4 | Seat | CF8 /CF8M /DUBLEX /ALLOY /HASTELLOY (With Stellite) |
| 5 | Spring | 304 /316 /DUBLEX /ALLOY /HASTELLOY |
| 6 | O-ring | Viton or Metal (Depends on media) |
| 7 | Bearing | Metal with PTFE |
| 8 | Lower Stem | 304 /316 /DUBLEX /ALLOY /HASTELLOY |
| 9 | O-ring | Viton or Metal (Depends on media) |
| 10 | Packing Gland | CF8 /CF8M /DUBLEX /ALLOY /HASTELLOY |
| 11 | Gasket | PTFE |
| 12 | Gasket | PTFE |
| 13 | Washer | 304 /316 /DUBLEX /ALLOY /HASTELLOY |
| 14 | Bolt | 304 /316 /DUBLEX /ALLOY /HASTELLOY |
| 15 | Bolt | 304 /316 /DUBLEX /ALLOY /HASTELLOY |
| 16 | Bearing | Metal with PTFE |
| 17 | Key | 304 /316 /DUBLEX /ALLOY /HASTELLOY |
| 18 | Packing | PTFE OR GRAPHITE |
| 19 | Packing | PTFE OR GRAPHITE |
| 20 | Packing | PTFE OR GRAPHITE |
| 21 | Packing Gland | CF8 /CF8M /DUBLEX /ALLOY /HASTELLOY |
| 22 | Nut | 304 /316 /DUBLEX /ALLOY /HASTELLOY |
| 23 | Upper Stem | 304 /316 /DUBLEX /ALLOY /HASTELLOY |



# DESIGN ADVANTAGES

**BODY**

Single-piece body construction eliminates potential leakage paths associated with separate flanges or locking rings. This robust design enhances structural integrity, reduces the number of sealing interfaces, and ensures reliable leak-tight performance. By minimizing assembly components, the single-piece body also improves overall safety, simplifies maintenance, and extends service life, making it ideal for demanding industrial applications.

**BALL**

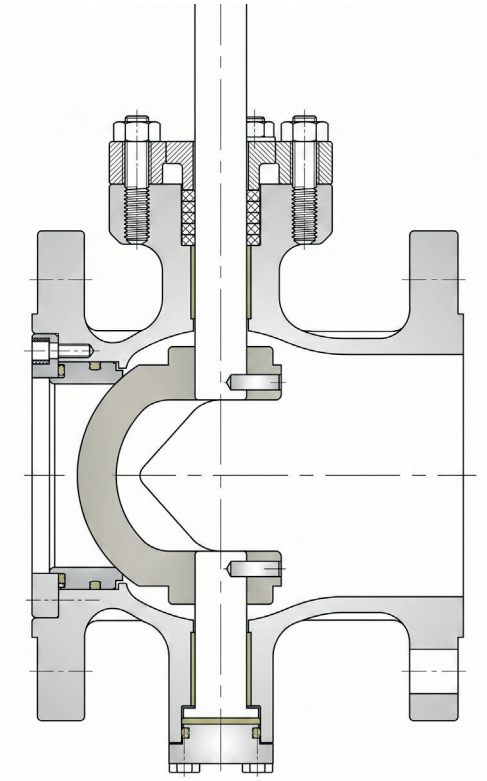
The specially engineered V-notch ball design delivers high shear force for effective media cutting and precise flow control. The precision-ground notched-ball surface ensures smooth operation with reduced operating torque while maintaining tight shut-off performance. This design is particularly advantageous for metal-seated segment valves, providing reliable sealing, enhanced durability, and extended service life even under demanding operating conditions. Nitriding, Tungsten Carbide, Stellite alloy, and Nickel-based alloy coatings are available to enhance resistance against abrasive media. These surface treatment options significantly improve wear resistance, corrosion resistance, and overall durability, ensuring reliable performance and extended service life in severe and abrasive operating conditions.

**SEAT**

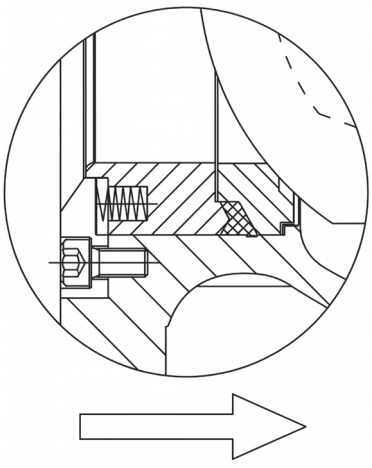
The special seat design eliminates the cavity between the seat and the valve body, preventing media accumulation and potential jamming. This design ensures consistent and reliable sealing performance by allowing smooth operation and reducing the risk of blockage. As a result, valve reliability, operational safety, and service life are significantly enhanced, even in demanding process conditions.

**STEM**

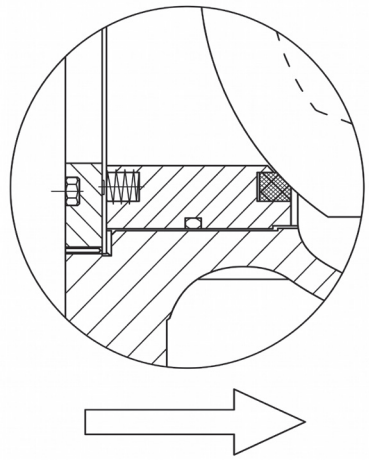
The stem is precision-ground to ensure excellent alignment with the actuator, preventing rocking motion and reducing the risk of failure in V-port segmented valves. Close-fit spline or pin-key connections are available between the stem and the segment ball, providing reliable torque transmission without motion loss or dead band, ensuring precise and consistent valve operation.



**Seat Design**



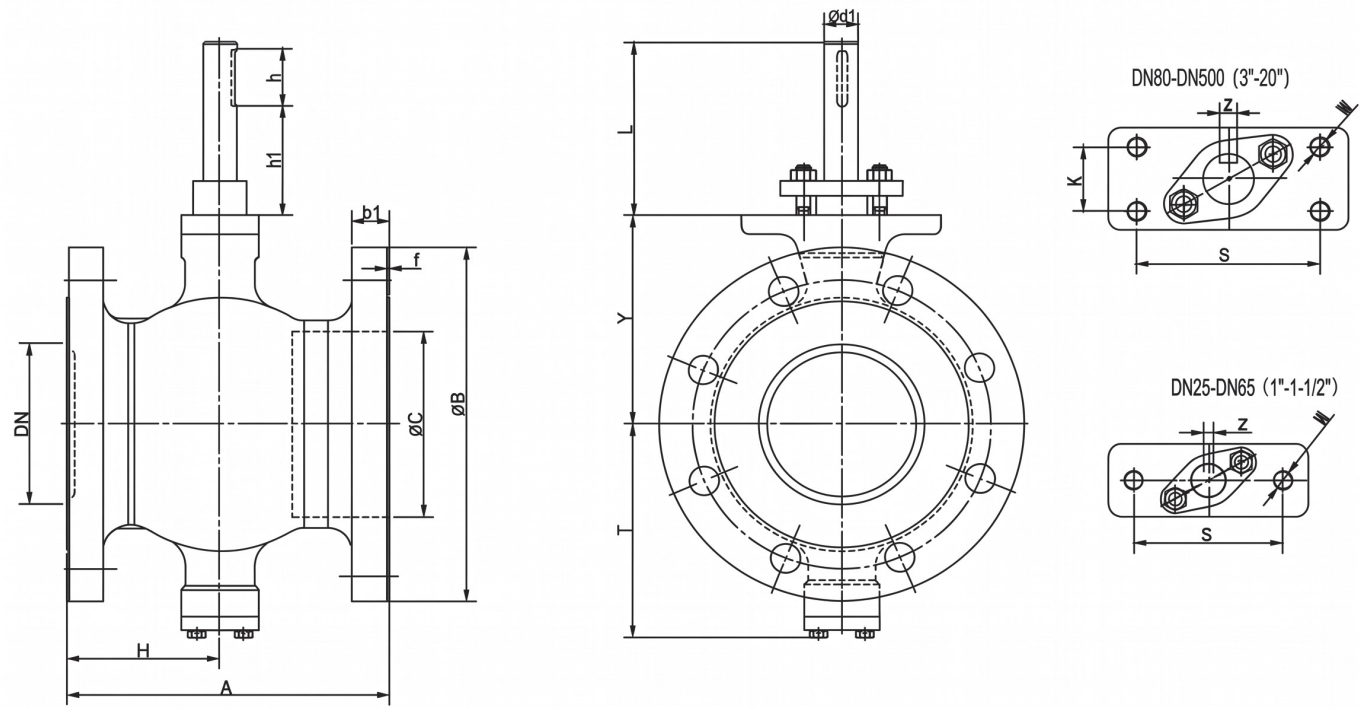
High Temp Metal Seat



Soft Seat

# P16 CONNECTION

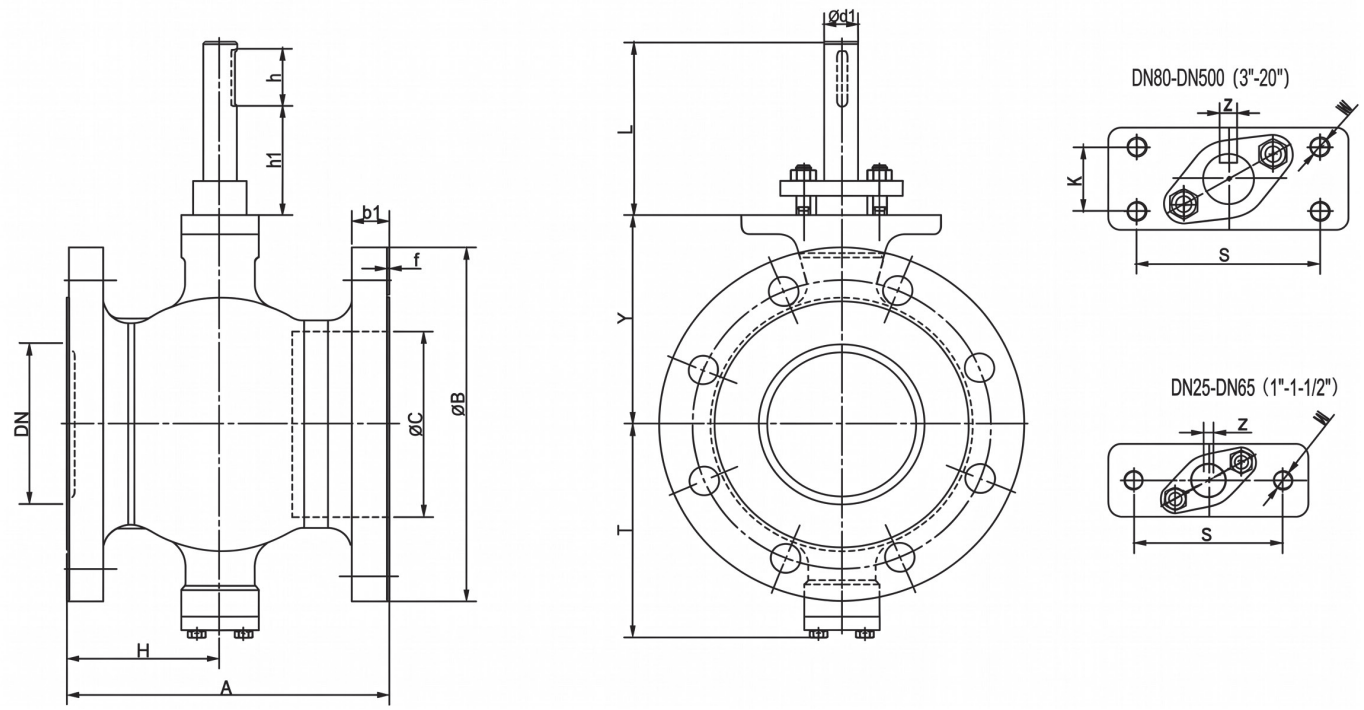
## Dimension




| DN | A | H | C | B | b1 | f | L | Y | T | d | S | K | Z | M |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 25 | 102 | 35 | 38 | 115 | 16 | 2 | 75 | 73 | 81 | 16 | 75 | / | 5 | 2-M10 |
| 32 | 102 | 35 | 45 | 140 | 18 | 2 | 75 | 78 | 86 | 16 | 75 | / | 5 | 2-M10 |
| 40 | 114 | 35 | 50 | 150 | 18 | 2 | 75 | 80 | 90 | 16 | 75 | / | 5 | 2-M10 |
| 50 | 124 | 35 | 62 | 165 | 20 | 2 | 75 | 90 | 93 | 16 | 75 | / | 5 | 2-M10 |
| 65 | 145 | 35 | 73 | 185 | 20 | 2 | 75 | 105 | 108 | 16 | 75 | / | 5 | 2-M10 |
| 80 | 165 | 35 | 90 | 200 | 20 | 2 | 75 | 118 | 123 | 20 | 90 | 28 | 6 | 4-M10 |
| 100 | 194 | 35 | 115 | 220 | 22 | 2 | 75 | 130 | 138 | 20 | 90 | 28 | 6 | 4-M10 |
| 125 | 194 | 40 | 134 | 250 | 22 | 2 | 80 | 145 | 148 | 25 | 90 | 28 | 8 | 4-M10 |
| 150 | 229 | 50 | 164 | 285 | 24 | 2 | 94 | 170 | 170 | 30 | 110 | 40 | 8 | 4-M12 |
| 200 | 243 | 50 | 206 | 340 | 24 | 2 | 94 | 201 | 200 | 30 | 110 | 40 | 8 | 4-M12 |
| 250 | 297 | 60 | 260 | 405 | 26 | 2 | 98 | 237 | 240 | 40 | 135 | 40 | 12 | 4-M16 |
| 300 | 338 | 60 | 316 | 460 | 28 | 2 | 98 | 282 | 286 | 40 | 135 | 40 | 12 | 4-M16 |
| 350 | 400 | 60 | 372 | 520 | 30 | 2 | 125 | 337 | 330 | 50 | 140 | 64 | 14 | 4-M16 |
| 400 | 400 | 80 | 420 | 580 | 32 | 2 | 172 | 372 | 367 | 60 | 170 | 80 | 18 | 4-M20 |
| 450 | 520 | 90 | 470 | 640 | 40 | 2 | 172 | 432 | 422 | 70 | 190 | 90 | 20 | 4-M24 |
| 500 | 600 | 100 | 516 | 715 | 44 | 2 | 180 | 498 | 490 | 80 | 190 | 90 | 22 | 4-M24 |

# P25 CONNECTION

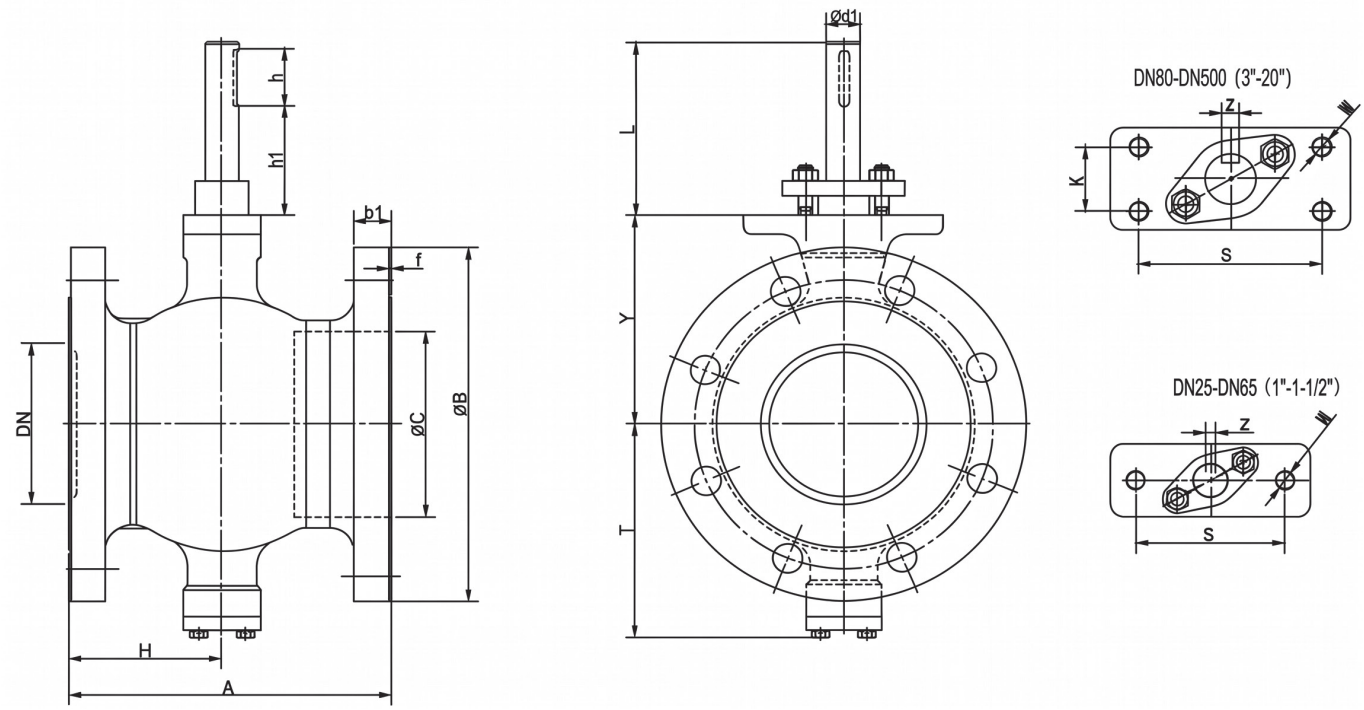
**Dimension**




| DN | A | H | C | B | b1 | f | L | Y | T | d | S | K | Z | M |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 25 | 102 | 35 | 40 | 115 | 16 | 2 | 75 | 86 | 88 | 20 | 90 | 28 | 6 | 4-M10 |
| 32 | 102 | 35 | 48 | 140 | 18 | 2 | 75 | 90 | 90 | 20 | 90 | 28 | 6 | 4-M10 |
| 40 | 114 | 35 | 56 | 150 | 18 | 2 | 80 | 93 | 95 | 25 | 90 | 28 | 8 | 4-M10 |
| 50 | 124 | 35 | 65 | 165 | 20 | 2 | 80 | 98 | 98 | 25 | 90 | 28 | 8 | 4-M10 |
| 65 | 145 | 35 | 81 | 185 | 22 | 2 | 95 | 125 | 130 | 30 | 110 | 40 | 8 | 4-M12 |
| 80 | 165 | 35 | 95 | 200 | 24 | 2 | 95 | 128 | 128 | 30 | 110 | 40 | 8 | 4-M12 |
| 100 | 194 | 35 | 115 | 235 | 24 | 2 | 95 | 142 | 142 | 30 | 110 | 40 | 8 | 4-M12 |
| 125 | 194 | 40 | 138 | 270 | 26 | 2 | 100 | 170 | 175 | 40 | 135 | 40 | 12 | 4-M16 |
| 150 | 229 | 50 | 170 | 300 | 28 | 2 | 125 | 215 | 215 | 50 | 140 | 64 | 14 | 4-M16 |
| 200 | 243 | 50 | 208 | 360 | 30 | 2 | 125 | 228 | 228 | 50 | 140 | 64 | 14 | 4-M16 |
| 250 | 297 | 60 | 265 | 425 | 32 | 2 | 150 | 260 | 260 | 60 | 170 | 80 | 18 | 4-M20 |
| 300 | 338 | 60 | 320 | 485 | 34 | 2 | 150 | 310 | 310 | 60 | 170 | 80 | 18 | 4-M20 |

# CLASS 150 CONNECTION

**Dimension**



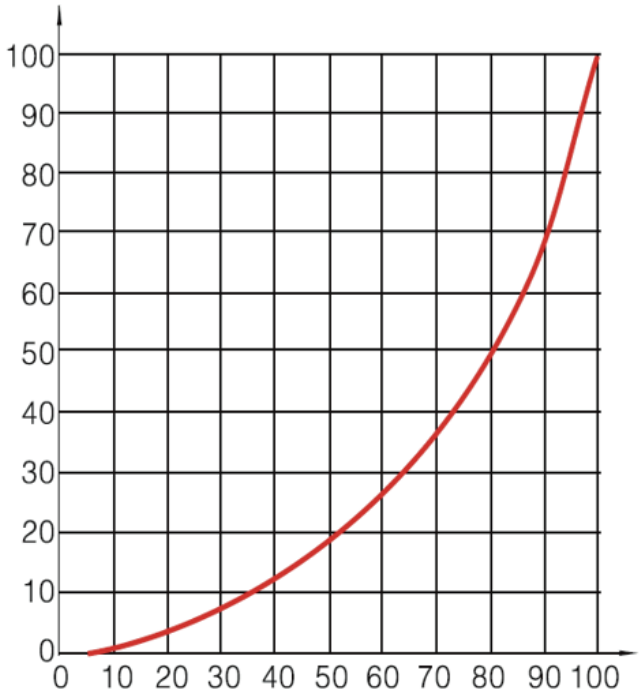

| DN | A | H | C | B | b1 | f | L | Y | T | d | S | K | Z | M |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1” | 102 | 35 | 38 | 108 | 14,5 | 2 | 75 | 73 | 81 | 16 | 75 | / | 5 | 2-M10 |
| 1 1/4” | 102 | 35 | 45 | 115 | 14,5 | 2 | 75 | 78 | 86 | 16 | 75 | / | 5 | 2-M10 |
| 1 1/2” | 114 | 35 | 50 | 127 | 14,5 | 2 | 75 | 80 | 90 | 16 | 75 | / | 5 | 2-M10 |
| 2” | 124 | 35 | 62 | 152 | 16,3 | 2 | 75 | 90 | 93 | 16 | 75 | / | 5 | 2-M10 |
| 2 1/2” | 145 | 35 | 73 | 180 | 18 | 2 | 75 | 105 | 108 | 16 | 75 | / | 5 | 2-M10 |
| 3” | 165 | 35 | 90 | 191 | 19,5 | 2 | 75 | 118 | 123 | 20 | 90 | 28 | 6 | 4-M10 |
| 4” | 194 | 35 | 115 | 230 | 24 | 2 | 75 | 130 | 138 | 20 | 90 | 28 | 6 | 4-M10 |
| 5” | 194 | 40 | 134 | 255 | 24,3 | 2 | 80 | 145 | 148 | 25 | 90 | 28 | 8 | 4-M10 |
| 6” | 229 | 50 | 164 | 280 | 26 | 2 | 94 | 170 | 170 | 30 | 110 | 40 | 8 | 4-M12 |
| 8” | 243 | 50 | 206 | 340 | 29 | 2 | 94 | 201 | 200 | 30 | 110 | 40 | 8 | 4-M12 |
| 10” | 297 | 60 | 260 | 405 | 30,6 | 2 | 98 | 237 | 240 | 40 | 135 | 40 | 12 | 4-M16 |
| 12” | 338 | 60 | 316 | 485 | 32.2 | 2 | 98 | 282 | 286 | 40 | 135 | 40 | 12 | 4-M16 |
| 14” | 400 | 60 | 372 | 535 | 35,4 | 2 | 125 | 337 | 330 | 50 | 140 | 64 | 14 | 4-M16 |
| 16” | 400 | 80 | 420 | 595 | 37 | 2 | 172 | 372 | 367 | 60 | 170 | 80 | 18 | 4-M20 |
| 18” | 520 | 90 | 470 | 635 | 40,1 | 2 | 172 | 432 | 422 | 70 | 190 | 90 | 20 | 4-M24 |
| 20” | 600 | 100 | 516 | 700 | 44 | 2 | 180 | 498 | 490 | 80 | 190 | 90 | 22 | 4-M24 |

# TORQUE AND FLOW CHARACTERISTIC

### Valve Torque-NM (1.3 Include Safety Factor)

| SEAT TYPE | SIZE | DN25 | DN32 | DN40 | DN50 | DN65 | DN80 | DN100 | DN125 | DN150 | DN200 | DN250 | DN300 | DN350 | DN400 | DN450 | DN500 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SOFT SEAT | 10 BAR | 20 | 25 | 30 | 35 | 51 | 65 | 82 | 115 | 172 | 245 | 432 | 600 | 1210 | 1800 | 3200 | 4700 |
| METAL SEAT | 10 BAR | 20 | 25 | 30 | 35 | 51 | 85 | 121 | 187 | 305 | 502 | 899 | 1410 | 1990 | 3210 | 4560 | 6550 |
| METAL / SOFT SEAT | 20 BAR | 30 | 36 | 40 | 42 | 64 | 100 | 145 | 224 | 364 | 598 | 1105 | 1530 | 2540 | 4050 | 5670 | 8300 |
| METAL / SOFT SEAT | 30 BAR | 70 | 90 | 140 | 150 | 305 | 302 | 432 | 602 | 954 | 1520 | 2340 | 3500 | 6230 | 7230 | 11000 | 13550 |
| METAL / SOFT SEAT | 50 BAR | 150 | 230 | 270 | 520 | 645 | 641 | 903 | 1640 | 1610 | 2740 | 4759 | 7000 | 9400 | 13100 | 17400 | 22000 |
| METAL / SOFT SEAT | 70 BAR | 210 | 320 | 380 | 732 | 929 | 934 | 999 | 2210 | 2235 | 3900 | 6540 | 10100 | 13050 | 17980 | 24300 | 31000 |

### Flow Characteristic




| Size | CV |
|---|---|
| DN25 | 36 |
| DN32 | 56 |
| DN40 | 94 |
| DN50 | 152 |
| DN65 | 262 |
| DN80 | 358 |
| DN100 | 540 |
| DN125 | 906 |
| DN150 | 1424 |
| DN200 | 2176 |
| DN250 | 3532 |
| DN300 | 5732 |
| DN350 | 8245 |
| DN400 | 10651 |
| DN450 | 12878 |
| DN500 | 16343 |

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# SERIES 951 WAFER SEGMENT BALL VALVE

**Body design**
Flanged / Wafer

**Nominal size**
DN25 – DN500

**Working pressure**
16/25/40/63 bar

**Flange connection**
PN6/PN10/PN16/PN25/
PN40/PN64/Class 150/
Class 300/Class 600

**Working temperature**
-100 °C/+420 °C

**Industry**
Paper Industry
Chemical Industry
Iron steel Industry
Mine Industry
Waste Water Ind.

**Leakage Class**
Class A

**Features**
One Piece Design
Special Seat
Full Bore
Heating Jacked Option

# SERIES ART.95X

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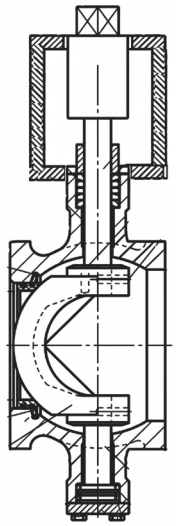
## DESRIPTION

ABO Type 951 WAFER V-port segment ball valve is specifically designed for precise flow control, while also providing reliable shut-off capability. Its specially notched segment ball creates high shear forces, effectively cutting through media containing fibers and solid particles. This robust design makes the V-port segment ball valve an ideal control solution for pulp and paper applications, as well as other demanding processes involving fibrous or particulate fluids.

## WORKING MEDIUM

Pulp and Paper / Waste Water Treatment
Food And Beverage / Steel and metal industry
Chemical and petrochemical industries



## SIZES

DN50 to DN500

## WORKING PRESSURE AND TEMPERATURE

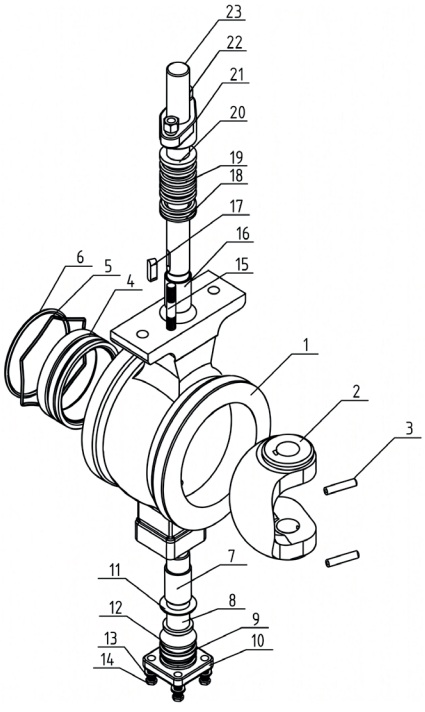
Pressure: 6-10-16-40 Bar
Temperature: From -100°C /420°C

## CONNECTION

DIN PN10, PN16, PN25, PN40
ASME B16.5 -class 150, Class 300

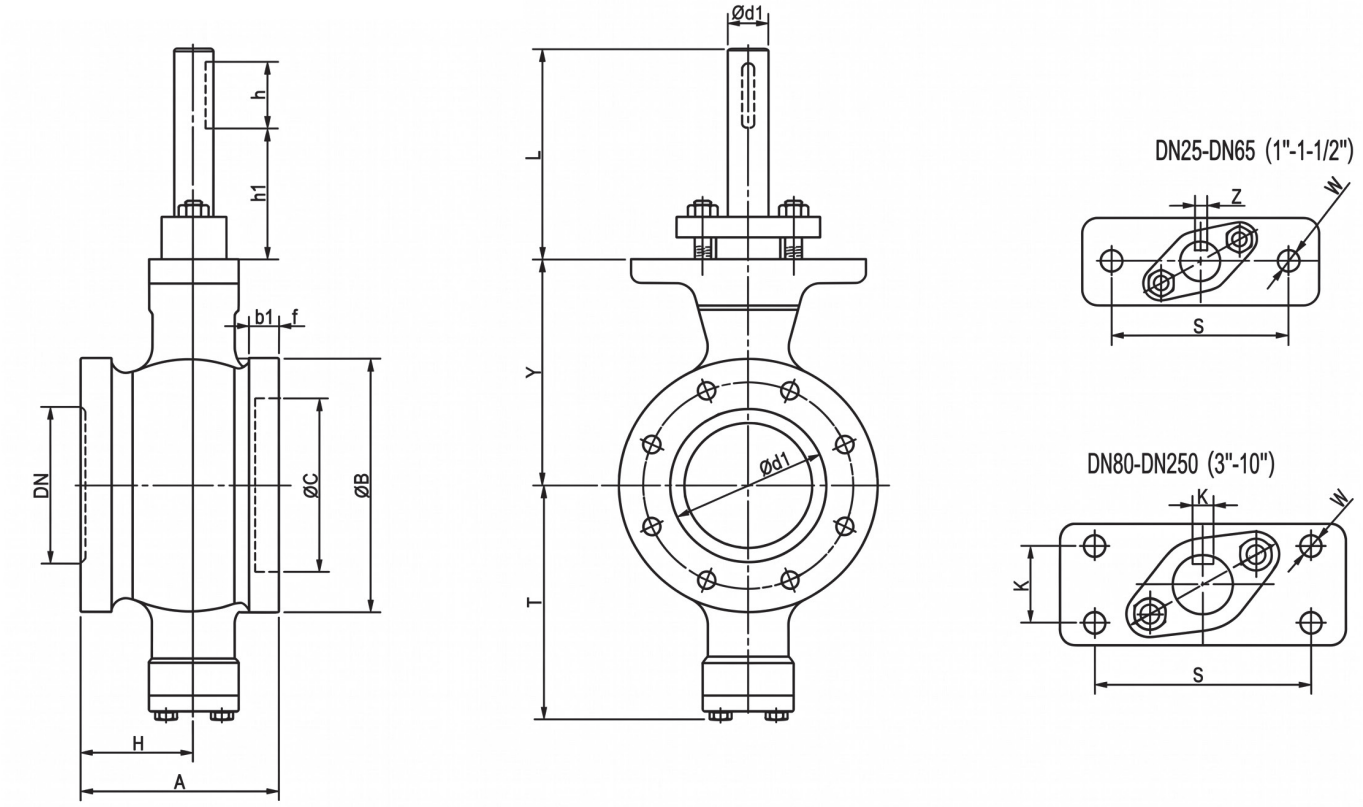
**Standart part list**

| Part No | Part Name | Part Material |
|---|---|---|
| 1 | Body | WCB /CF8 /CF8M /DUBLEX /ALLOY /HASTELLOY |
| 2 | V-port Segment | CF8 /CF8M /DUBLEX /ALLOY /HASTELLOY |
| 3 | Pin | 304 /316 /DUBLEX /ALLOY /HASTELLOY |
| 4 | Seat | CF8 /CF8M /DUBLEX /ALLOY /HASTELLOY (With Stellite) |
| 5 | Spring | 304 /316 /DUBLEX /ALLOY /HASTELLOY |
| 6 | O-ring | Viton or Metal (Depends on media) |
| 7 | Bearing | Metal with PTFE |
| 8 | Lower Stem | 304 /316 /DUBLEX /ALLOY /HASTELLOY |
| 9 | O-ring | Viton or Metal (Depends on media) |
| 10 | Packing Gland | CF8 /CF8M /DUBLEX /ALLOY /HASTELLOY |
| 11 | Gasket | PTFE |
| 12 | Gasket | PTFE |
| 13 | Washer | 304 /316 /DUBLEX /ALLOY /HASTELLOY |
| 14 | Bolt | 304 /316 /DUBLEX /ALLOY /HASTELLOY |
| 15 | Bolt | 304 /316 /DUBLEX /ALLOY /HASTELLOY |
| 16 | Bearing | Metal with PTFE |
| 17 | Key | 304 /316 /DUBLEX /ALLOY /HASTELLOY |
| 18 | Packing | PTFE OR GRAPHITE |
| 19 | Packing | PTFE OR GRAPHITE |
| 20 | Packing | PTFE OR GRAPHITE |
| 21 | Packing Gland | CF8 /CF8M /DUBLEX /ALLOY /HASTELLOY |
| 22 | Nut | 304 /316 /DUBLEX /ALLOY /HASTELLOY |
| 23 | Upper Stem | 304 /316 /DUBLEX /ALLOY /HASTELLOY |



# PN 10, PN16, PN25 , CLASS 150 CONNECTION

**Dimension**



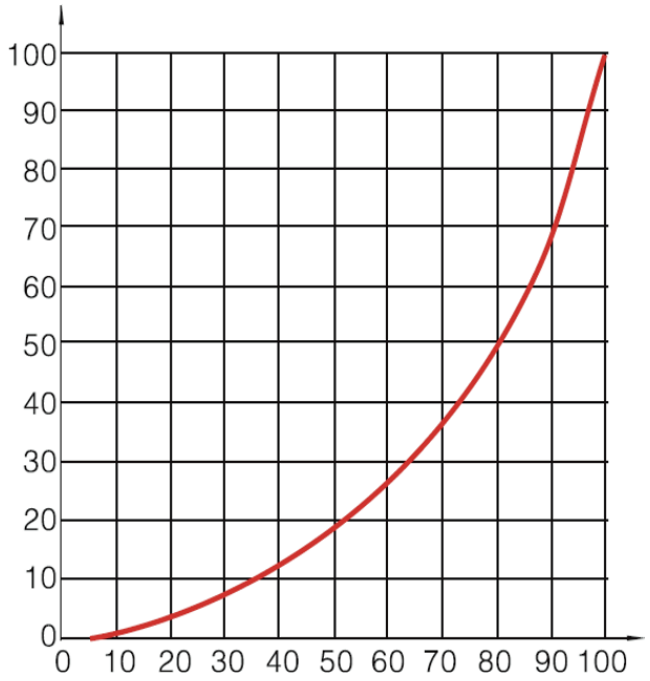

| DN | A | H | C | B | L | Y | T | d | S | K | Z | M |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 25 | 50 | 35 | 38 | 68 | 75 | 73 | 81 | 16 | 75 | / | 5 | 2-M10 |
| 32 | 60 | 35 | 45 | 76 | 75 | 78 | 86 | 16 | 75 | / | 5 | 2-M10 |
| 40 | 60 | 35 | 50 | 84 | 75 | 80 | 90 | 16 | 75 | / | 5 | 2-M10 |
| 50 | 75 | 35 | 62 | 100 | 75 | 90 | 93 | 16 | 75 | / | 5 | 2-M10 |
| 65 | 100 | 35 | 73 | 118 | 75 | 105 | 108 | 16 | 75 | / | 5 | 2-M10 |
| 80 | 100 | 35 | 90 | 132 | 75 | 118 | 123 | 20 | 90 | 8 | 6 | 4-M10 |
| 100 | 115 | 35 | 115 | 158 | 75 | 130 | 138 | 20 | 90 | 28 | 6 | 4-M10 |
| 125 | 129 | 40 | 134 | 184 | 80 | 145 | 148 | 25 | 90 | 28 | 8 | 4-M10 |
| 150 | 160 | 50 | 164 | 216 | 94 | 170 | 170 | 30 | 110 | 40 | 8 | 4-M12 |
| 200 | 200 | 50 | 206 | 268 | 94 | 201 | 200 | 30 | 110 | 40 | 8 | 4-M12 |
| 250 | 240 | 60 | 260 | 326 | 98 | 237 | 240 | 40 | 135 | 40 | 12 | 4-M16 |

# TORQUE AND FLOW CHARACTERISTIC

### Valve Torque-NM (1.3 Include Safety Factor)

| SEAT TYPE | SIZE | DN25 | DN32 | DN40 | DN50 | DN65 | DN80 | DN100 | DN125 | DN150 | DN200 | DN250 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| METAL / SOFT SEAT | 10 BAR | 20 | 25 | 30 | 35 | 51 | 70 | 90 | 115 | 180 | 250 | 430 |
| METAL / SOFT SEAT | 20 BAR | 30 | 36 | 40 | 42 | 64 | 100 | 145 | 224 | 364 | 598 | 1105 |

### Flow Characteristic




| Size | CV |
|---|---|
| DN25 | 36 |
| DN32 | 56 |
| DN40 | 94 |
| DN50 | 152 |
| DN65 | 262 |
| DN80 | 358 |
| DN100 | 540 |
| DN125 | 906 |
| DN150 | 1424 |
| DN200 | 2176 |
| DN250 | 3532 |

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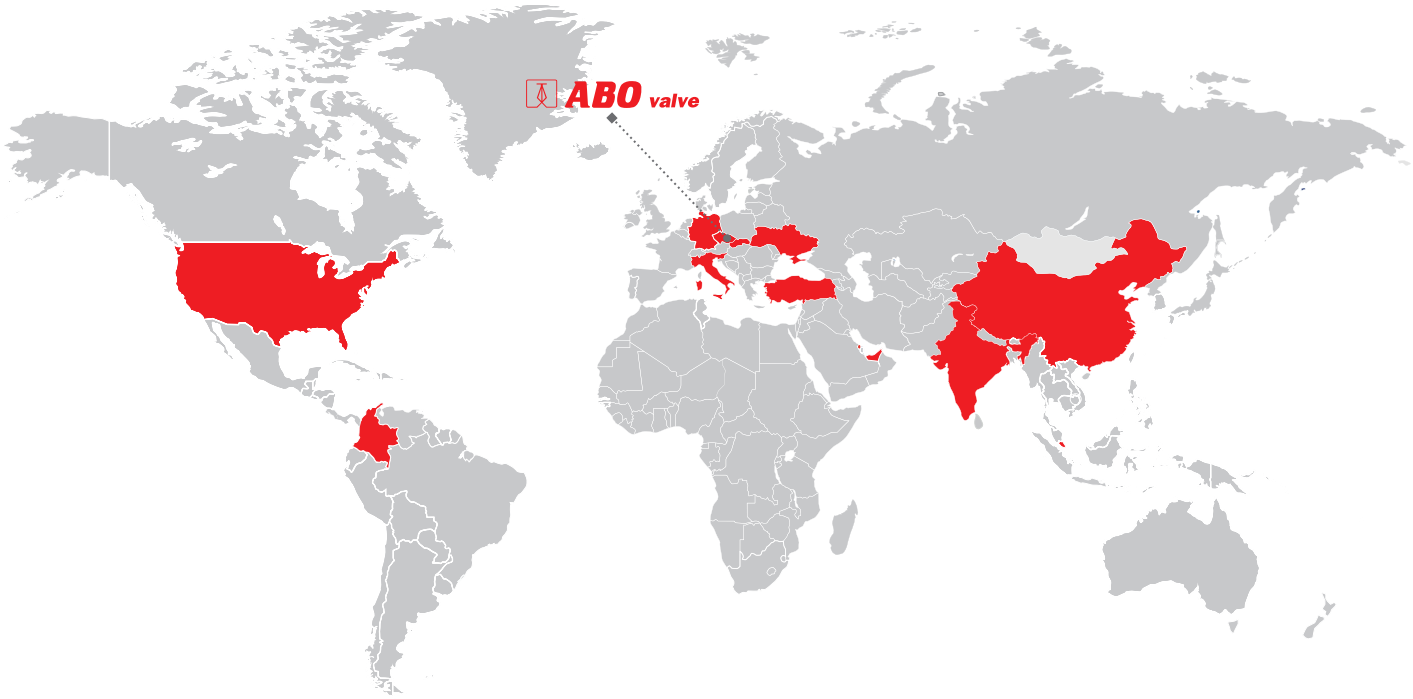


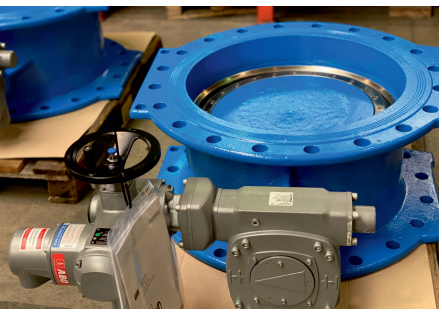


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