

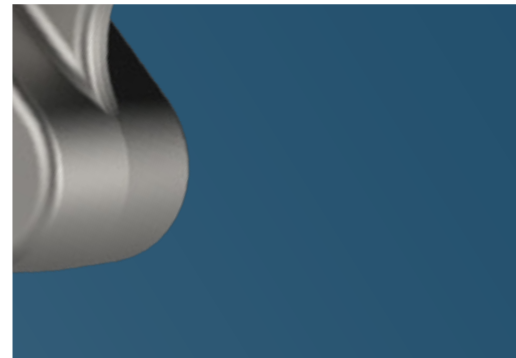
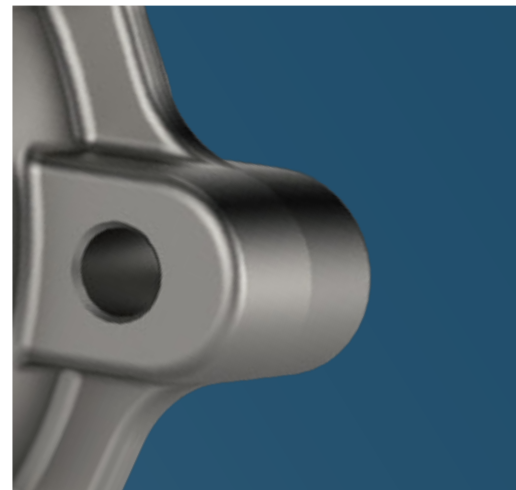
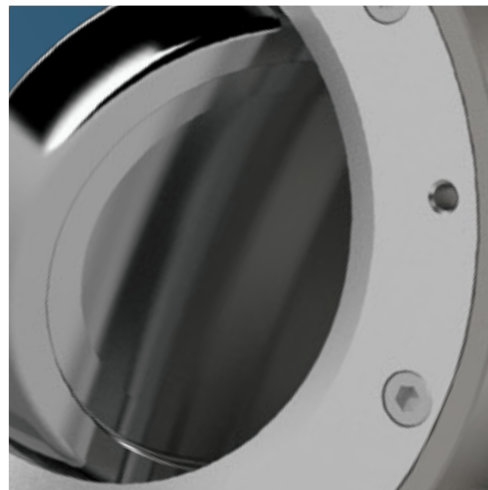
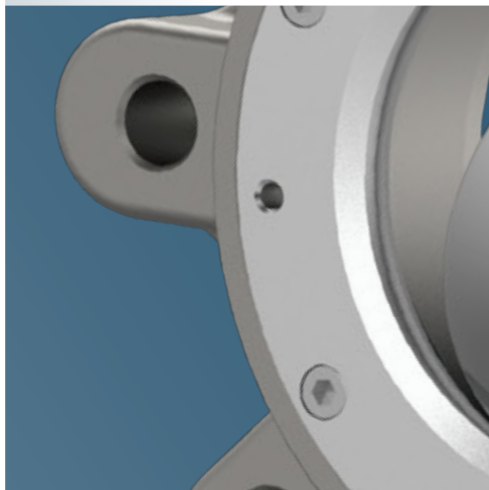
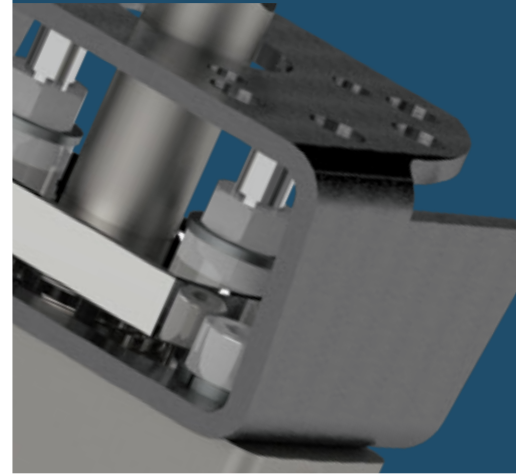
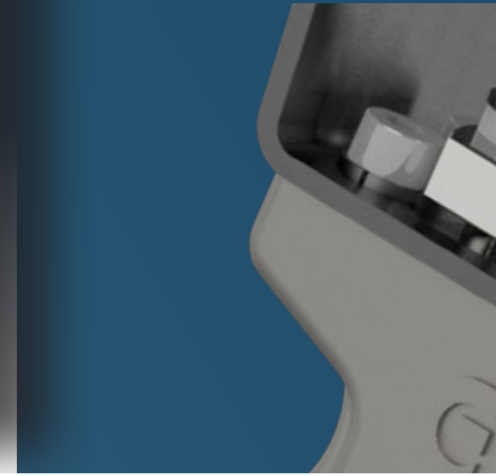


GHIBSON

valves

**Butterfly
valves**

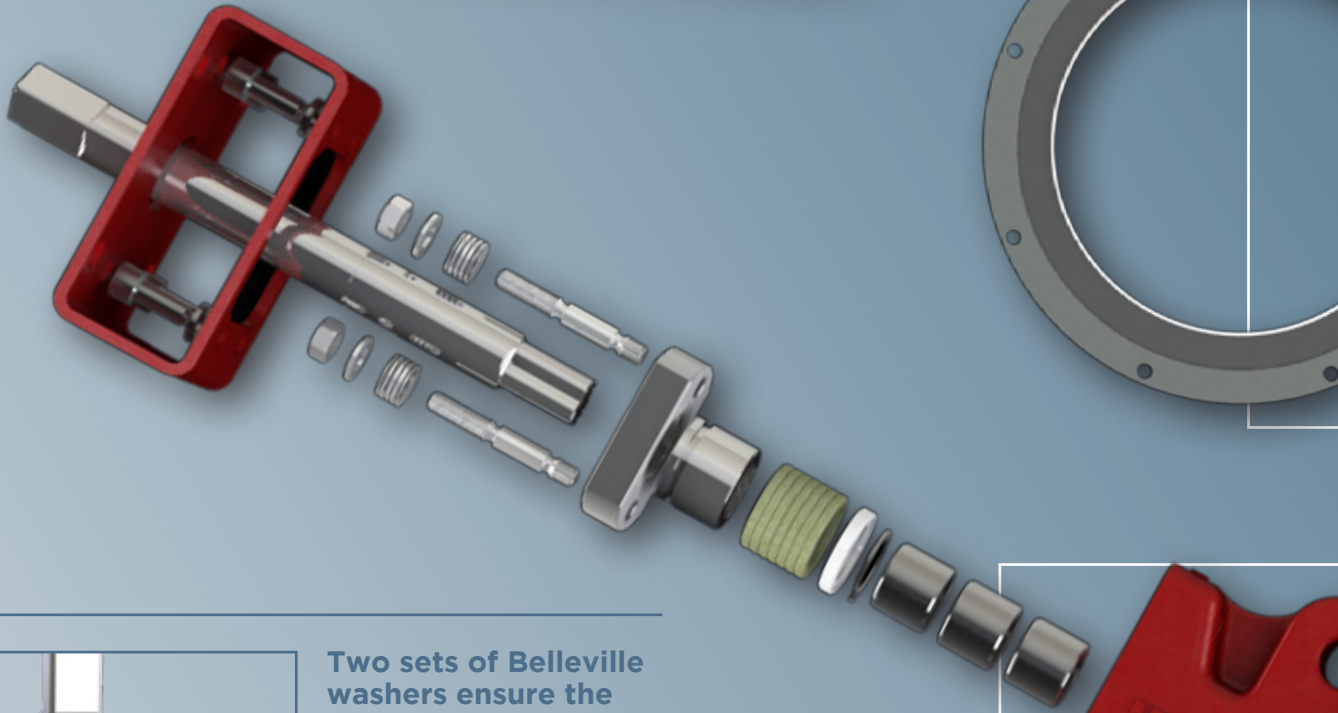
HD Series



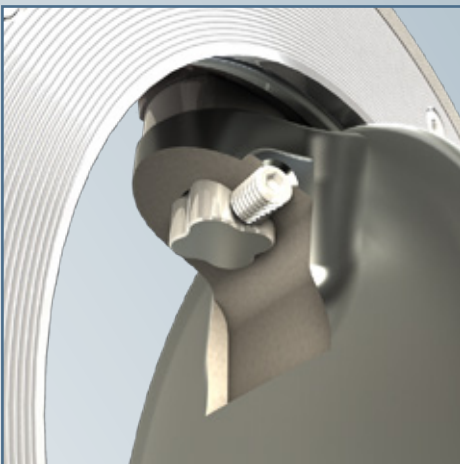


Butterfly valves

Double eccentric HD Series



Two sets of Belleville washers ensure the sealing along valve shafts even at high temperatures. The thrust of the two sets is transmitted to the packing through a floating gland to avoid that a possible expansion of the components could damage this sealing.

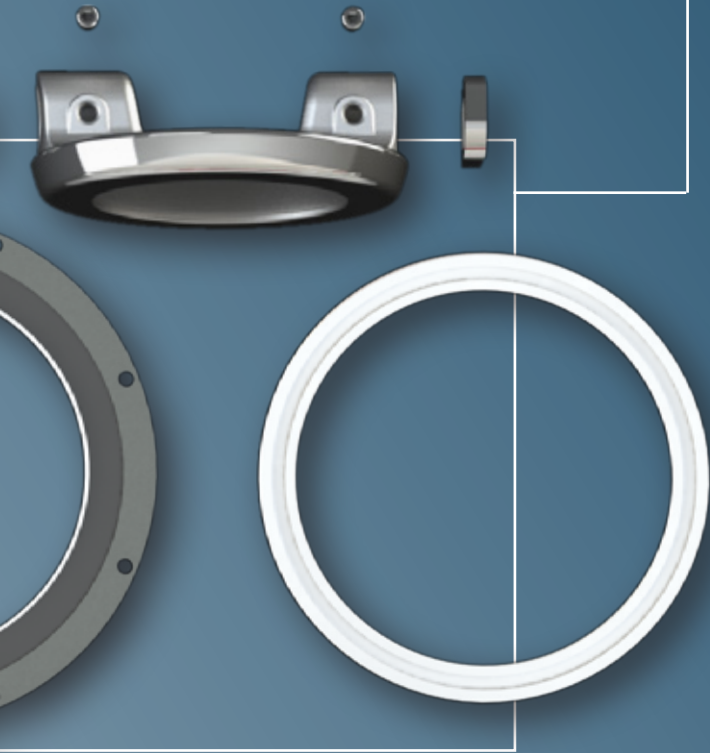


HD valve series was designed with a special shaped shaft-disc connection which ensures an accurate coupling while avoiding clearances. This design, thanks to a section larger than the classic square one, allows higher shaft tensile capacity.

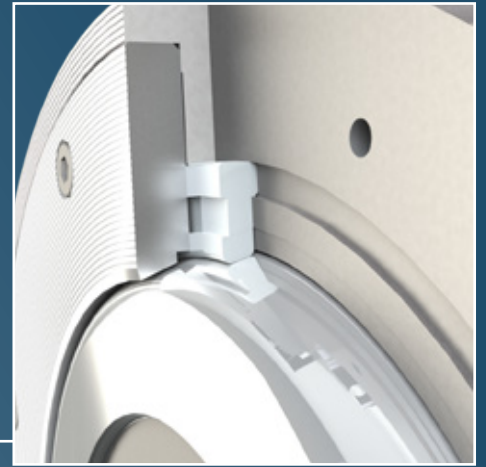




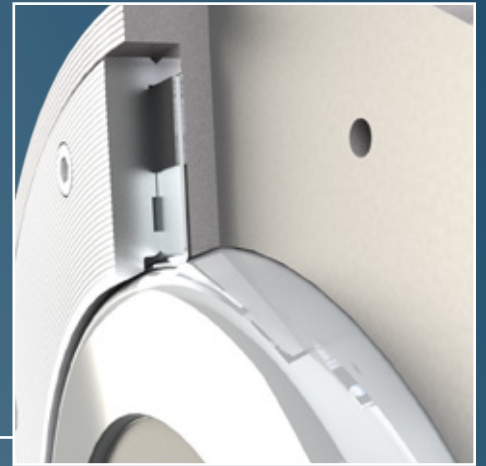
Metallic seat is composed by an inconel ring and two graphite packings.



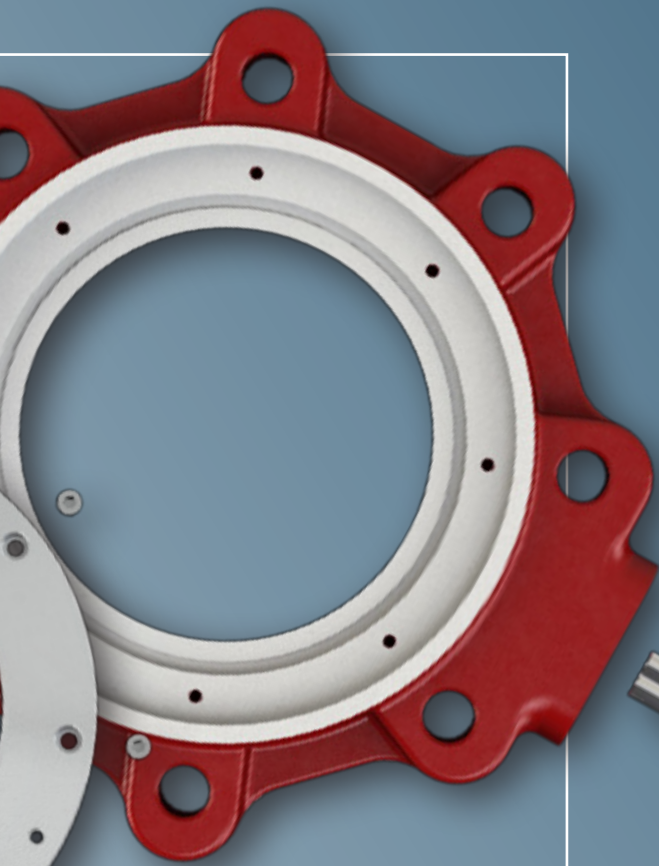
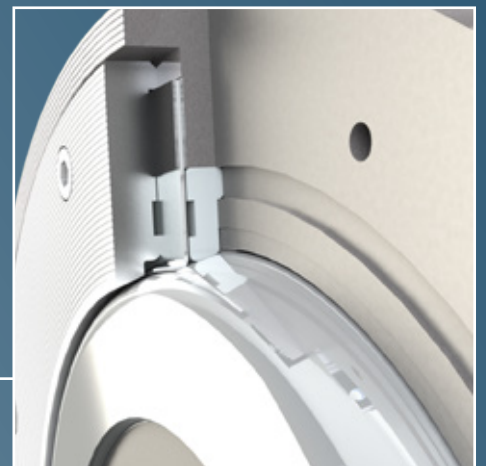
Detail of the RTFE seat



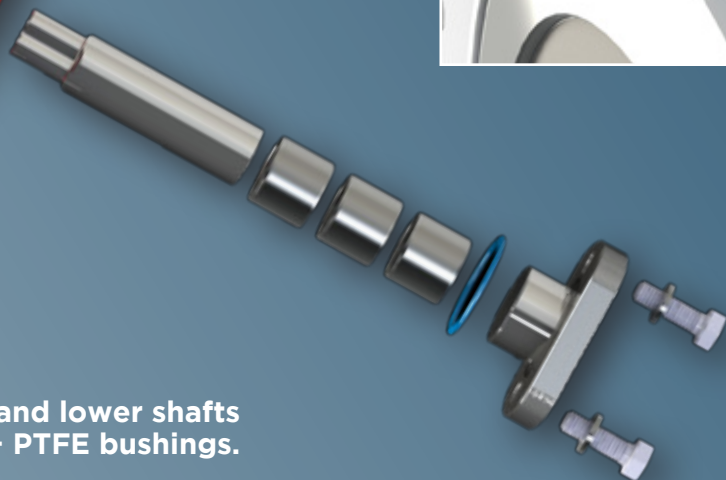
Detail of the metallic seat



Detail of the the Fire Safe design



Both upper and lower shafts are guided by st. steel + PTFE bushings.





Butterfly valves

Double eccentric HD Series

Ghibson high performance butterfly valves HD are specifically designed for high demanding applications where the valve performance is critical.

Available in different material and ratings.

The Fire safe version is Fire tested to API 607-6th edition.



HD series

- technical data
- components
 - RTFE seat
 - Inconel seat
 - "FIRE SAFE" design
- dimensions
- compatible flanges JIS
- torque values
- pressure / temperature
- bolts and rods dimensions
- installation instruction

Operators

- Handlever and Gearboxes
- Pneumatic Actuators
- Declutchable gearboxes
- Extension shaft
- Hydraulic Actuator

1
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GHIBSON

Zola Predosa
Bologna

Ghibson Italia srl reserves the right to change and/or update data/content without previous notice.





BVHD - Wafer
DN 50 - 500 • 2" - 20"

BLHD - Lug
DN 50 - 500 • 2" - 20"

Max working pressure:

BVHD/BLHD DN 50÷500: **25 Bar**
Flange: **PN 10-16-25 • A150**

Design:

EN 593~EN 736
EN 12516~EN 1092~EN12266
ISO 5211~DIN 3337~API 609~ASME B16.34
PED 2014/68/EU - Mod. H

Face to face:

DIN EN 558-1 Series 20~ISO 5752 Series 20
BS-5155 Series 4~MSS-SP67
NFE 29305-1
API 609 cat.B
API 609 cat.A (DN 350 excluded)

Testing:

EN 12266-1 Rate A (supersedes DIN 3230)
ISO 5208 Rate A ~ API 598
FIRE TEST API 607 VI Ed. September
Class V - Met/Met

Tag:

EN 19 ~ MSS SP-25



TYPE APPROVAL



TYPE APPROVAL



BODY

| material | references | standard coating | DN |
|------------------------------|-------------------------|--------------------------------|--------|
| Carbon steel (wafer, lug) | ASTM A216-WCB | High-temp coating - grey color | 50-500 |
| Stainless steel (wafer, lug) | ASTM A351 CF8M (A316) | - | 50-500 |
| Austenitic Stainless steel | ASTM A351 CK3MCuN (6MO) | - | 50-500 |
| SUPERDUPLEX | ASTM A890 Gr. 5A | - | 50-500 |

DISC

| material | references | DN |
|----------------------------|-------------------------|--------|
| Stainless steel | ASTM A351 CF8M (A316) | 50-500 |
| Austenitic Stainless steel | ASTM A351 CK3MCuN (6MO) | 50-500 |
| SUPERDUPLEX | ASTM A890 Gr. 5A | 50-500 |

BODY SEAT

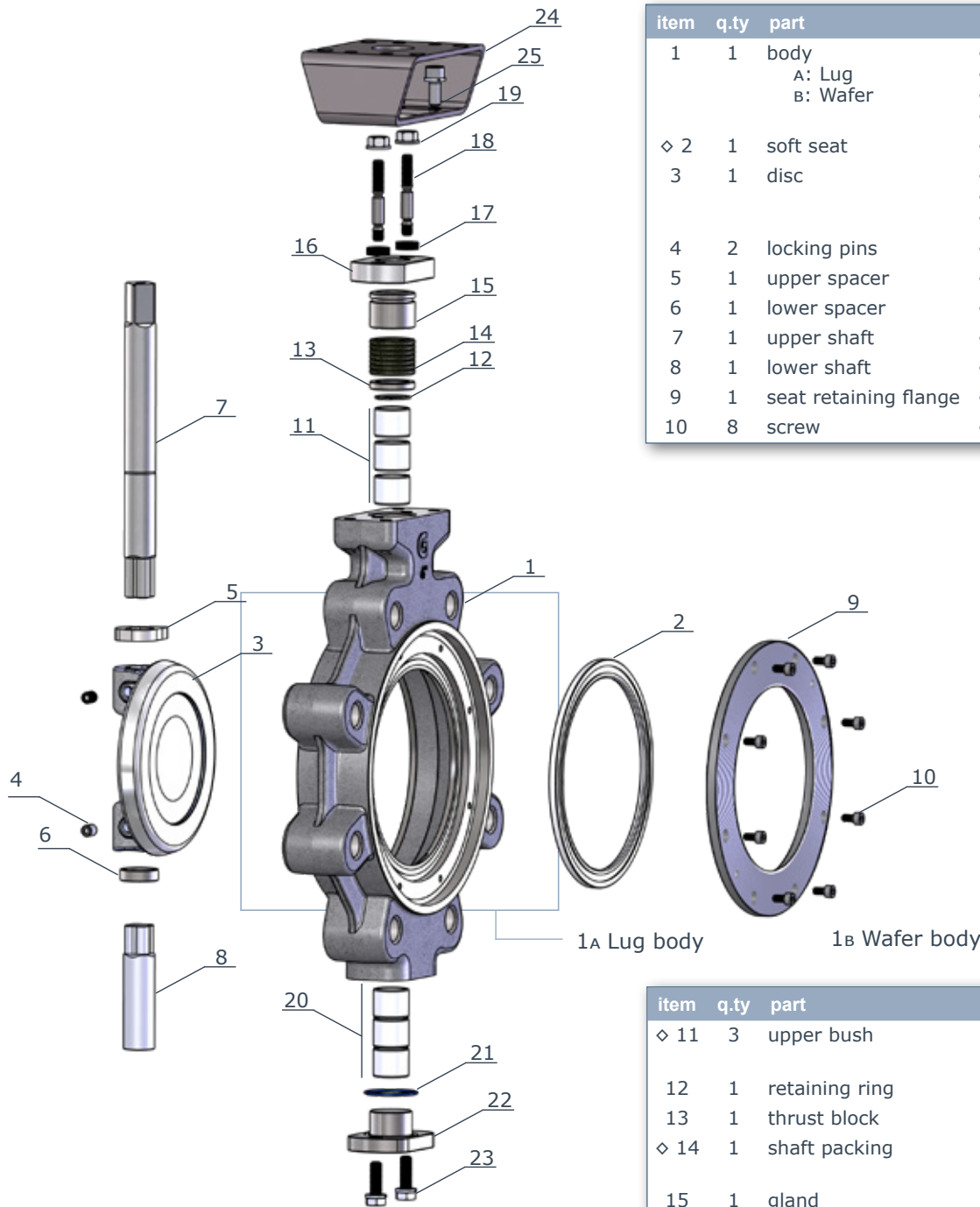
| ref. | material | working temp. |
|------|------------------------|----------------|
| RT | RTFE (PTFE reinforced) | -60°C / +230°C |
| MT | Inconel 625 | -60°C / +450°C |

On request can be supplied other materials as: LCB, Hastelloy, Monel, Uranus, Alloy, DUPLEX, Special steels, Special bronzes.
Special coating on request.



BVHD - Wafer • RTFE seat
DN 50 - 500 • 2" - 20"
PN 10 - 16 - 25 • ANSI 150

BLHD - Lug • RTFE seat
DN 50 - 500 • 2" - 20"
PN 10 - 16 - 25 • ANSI 150



| item | q.ty | part | material |
|------|------|----------------------------|--|
| 1 | 1 | body A: Lug B: Wafer | <ul style="list-style-type: none"> • A216 - WCB • A351 - CF8M (AISI 316) • A351 - CK3MCuN (6MO) • ASTM A890 Gr.5A (S.DUPLEX) |
| ◇ 2 | 1 | soft seat | • RTFE (PTFE reinforced) |
| 3 | 1 | disc | <ul style="list-style-type: none"> • A351 - CF8M (AISI 316) • A351 - CK3MCuN (6MO) • ASTM A890 Gr.5A (S.DUPLEX) |
| 4 | 2 | locking pins | • AISI316 |
| 5 | 1 | upper spacer | • AISI316 |
| 6 | 1 | lower spacer | • AISI316 |
| 7 | 1 | upper shaft | • ASTM A564 Gr630 |
| 8 | 1 | lower shaft | • ASTM A564 Gr630 |
| 9 | 1 | seat retaining flange | • AISI 316 |
| 10 | 8 | screw | • AISI 316 |

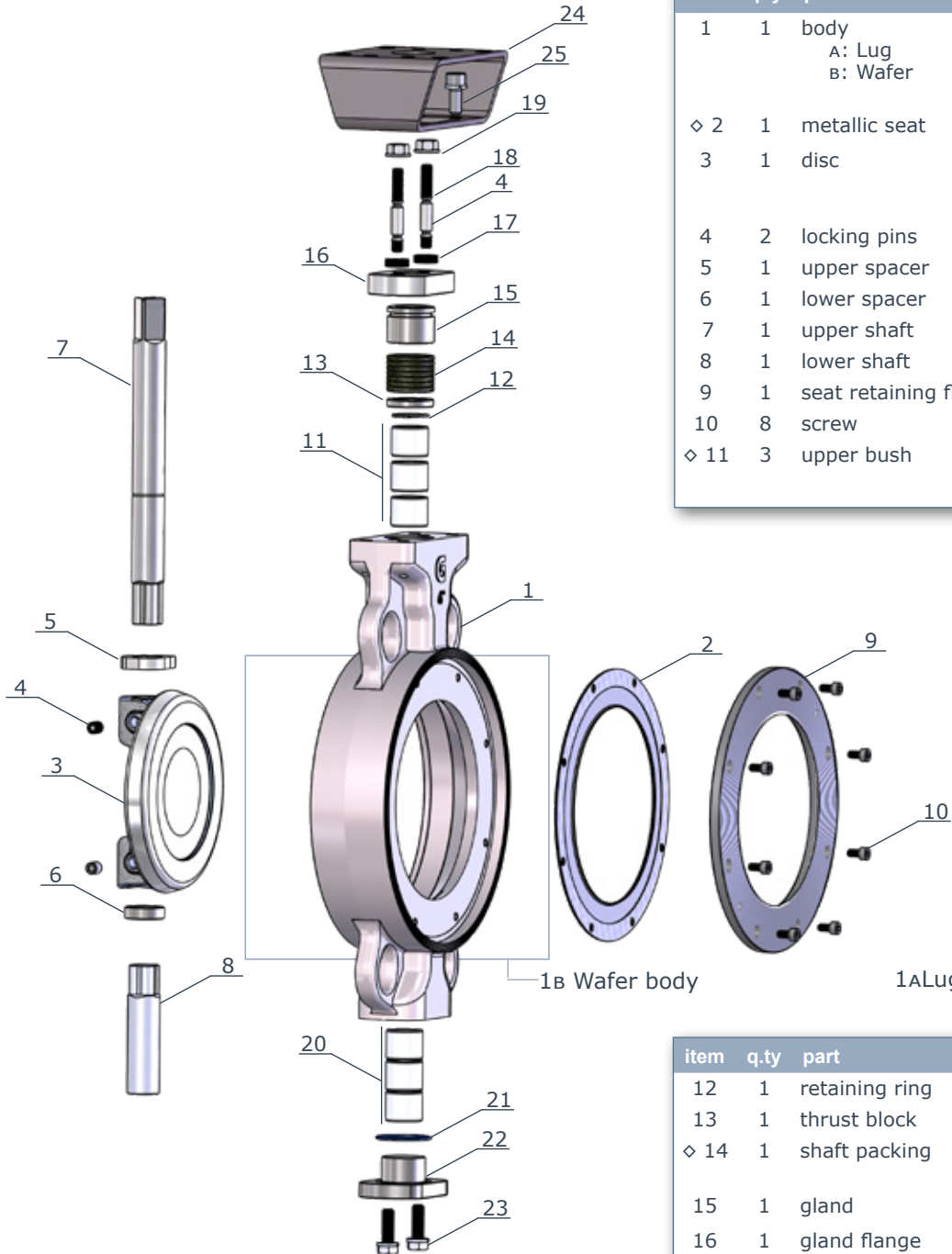
| item | q.ty | part | material |
|------|------|----------------|--|
| ◇ 11 | 3 | upper bush | <ul style="list-style-type: none"> • stainless steel + PTFE • steel + PTFE |
| 12 | 1 | retaining ring | • A 316 |
| 13 | 1 | thrust block | • A 316 |
| ◇ 14 | 1 | shaft packing | <ul style="list-style-type: none"> • graphite • PTFE (on request) |
| 15 | 1 | gland | • AISI316 |
| 16 | 1 | gland flange | • AISI316 |
| 17 | 2 | springs set | • stainless steel |
| 18 | 2 | rods | • AISI 316 |
| 19 | 2 | nut | • AISI 316 |
| ◇ 20 | 3 | lower bush | <ul style="list-style-type: none"> • stainless steel + PTFE • steel + PTFE |
| ◇ 21 | 1 | O.ring | • PTFE |
| 22 | 1 | lower plug | • AISI 316 |
| 23 | 2 | screw | • AISI 316 |
| 24 | 1 | upper flange | • steel epoxy coated |
| 25 | 4 | screw | • AISI 316 |

◇ parts included in spare kit



BVHD - Wafer • Inconel seat
DN 50 - 500 • 2" - 20"
PN 10 - 16 - 25 • ANSI 150

BLHD - Lug • Inconel seat
DN 50 - 500 • 2" - 20"
PN 10 - 16 - 25 • ANSI 150



| item | q.ty | part | material |
|------|------|----------------------------|--|
| 1 | 1 | body A: Lug B: Wafer | <ul style="list-style-type: none"> • A216 - WCB • A351 - CF8M (AISI 316) • A351 - CK3MCuN (6MO) • ASTM A890 Gr.5A (S.DUPLEX) |
| ◇ 2 | 1 | metallic seat | • Inconel 625 + graphite |
| 3 | 1 | disc | <ul style="list-style-type: none"> • A351 - CF8M (AISI 316) • A351 - CK3MCuN (6MO) • ASTM A890 Gr.5A (S.DUPLEX) |
| 4 | 2 | locking pins | • AISI316 |
| 5 | 1 | upper spacer | • AISI316 |
| 6 | 1 | lower spacer | • AISI316 |
| 7 | 1 | upper shaft | • ASTM A564 Gr630 |
| 8 | 1 | lower shaft | • ASTM A564 Gr630 |
| 9 | 1 | seat retaining flange | • AISI 316 |
| 10 | 8 | screw | • AISI 316 |
| ◇ 11 | 3 | upper bush | <ul style="list-style-type: none"> • stainless steel + PTFE • steel + PTFE |

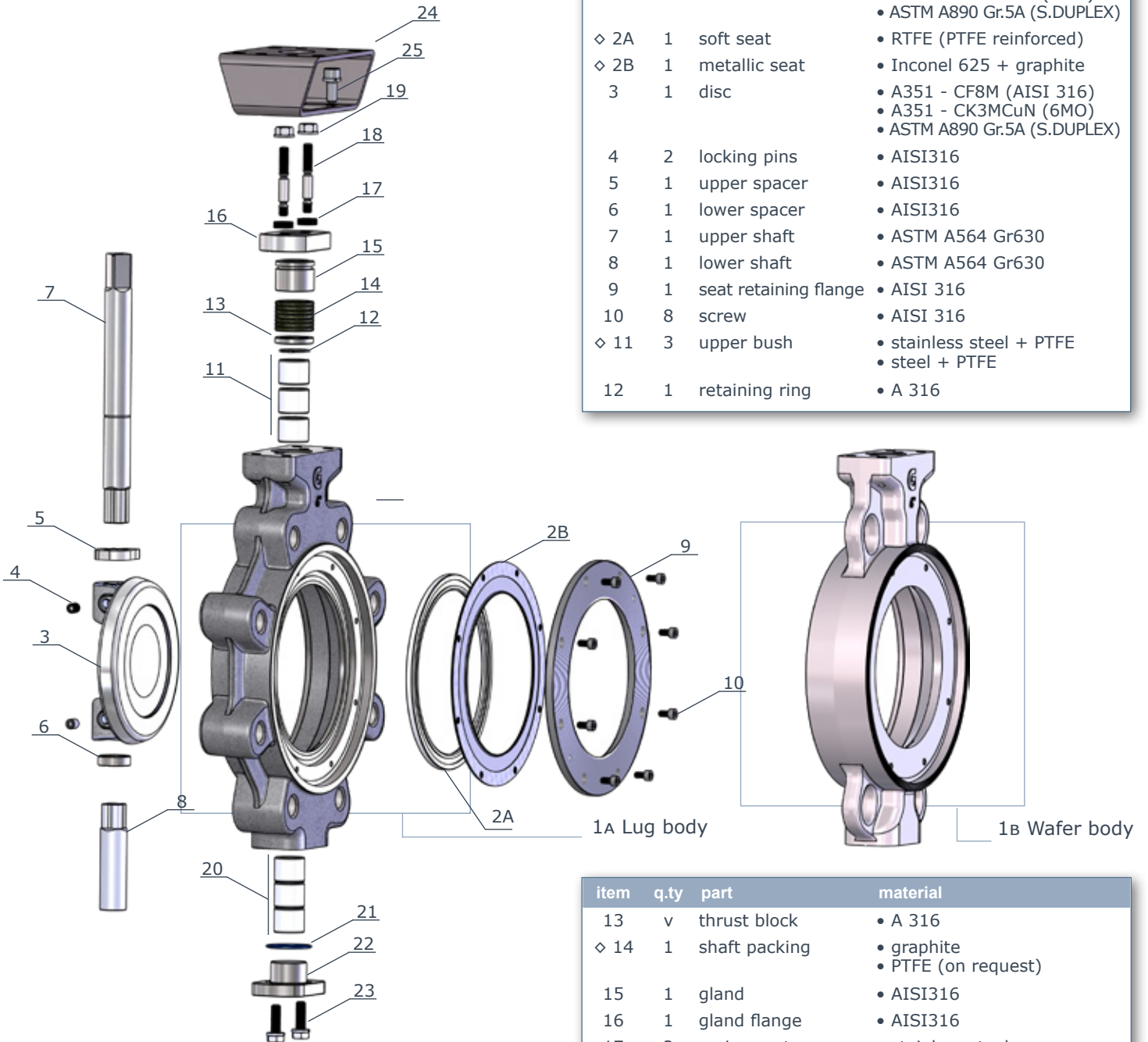
| item | q.ty | part | material |
|------|------|----------------|--|
| 12 | 1 | retaining ring | • A 316 |
| 13 | 1 | thrust block | • A 316 |
| ◇ 14 | 1 | shaft packing | <ul style="list-style-type: none"> • graphite • PTFE (on request) |
| 15 | 1 | gland | • AISI316 |
| 16 | 1 | gland flange | • AISI316 |
| 17 | 2 | springs set | • stainless steel |
| 18 | 2 | rods | • AISI 316 |
| 19 | 2 | nut | • AISI 316 |
| ◇ 20 | 3 | lower bush | <ul style="list-style-type: none"> • stainless steel + PTFE • steel + PTFE |
| ◇ 21 | 1 | packing | • graphite |
| 22 | 1 | lower plug | • AISI 316 |
| 23 | 2 | screw | • AISI 316 |
| 24 | 1 | upper flange | • steel epoxy coated |
| 25 | 4 | screw | • AISI 316 |

◇ parts included in spare kit



BVHD - Wafer • "FIRE SAFE" design
DN 50 - 500 • 2" - 20"
PN 10-16-25 • ANSI 150

BLHD - Lug • "FIRE SAFE" design
DN 50 - 500 • 2" - 20"
PN 10-16-25 • ANSI 150



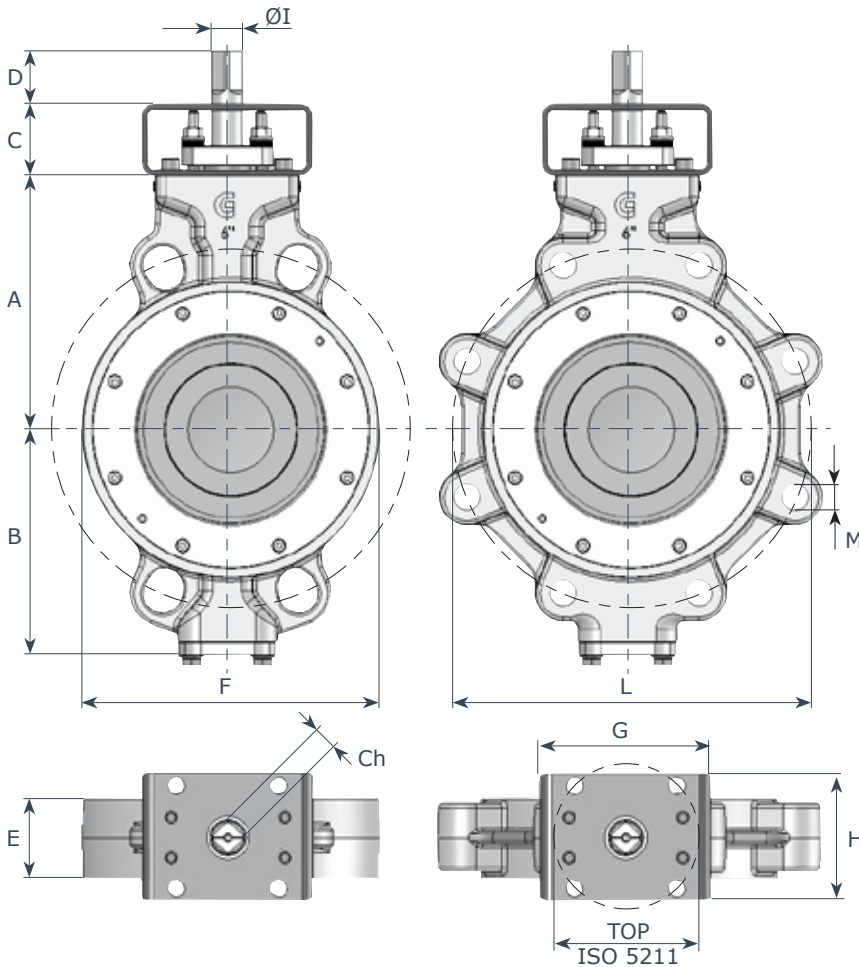
| item | q.ty | part | material |
|------|------|----------------------------|--|
| 1 | 1 | body A: Lug B: Wafer | <ul style="list-style-type: none"> • A216 - WCB • A351 - CF8M (AISI 316) • A351 - CK3MCuN (6MO) • ASTM A890 Gr.5A (S.DUPLEX) |
| ◇ 2A | 1 | soft seat | <ul style="list-style-type: none"> • RTFE (PTFE reinforced) |
| ◇ 2B | 1 | metallic seat | <ul style="list-style-type: none"> • Inconel 625 + graphite |
| 3 | 1 | disc | <ul style="list-style-type: none"> • A351 - CF8M (AISI 316) • A351 - CK3MCuN (6MO) • ASTM A890 Gr.5A (S.DUPLEX) |
| 4 | 2 | locking pins | <ul style="list-style-type: none"> • AISI316 |
| 5 | 1 | upper spacer | <ul style="list-style-type: none"> • AISI316 |
| 6 | 1 | lower spacer | <ul style="list-style-type: none"> • AISI316 |
| 7 | 1 | upper shaft | <ul style="list-style-type: none"> • ASTM A564 Gr630 |
| 8 | 1 | lower shaft | <ul style="list-style-type: none"> • ASTM A564 Gr630 |
| 9 | 1 | seat retaining flange | <ul style="list-style-type: none"> • AISI 316 |
| 10 | 8 | screw | <ul style="list-style-type: none"> • AISI 316 |
| ◇ 11 | 3 | upper bush | <ul style="list-style-type: none"> • stainless steel + PTFE • steel + PTFE |
| 12 | 1 | retaining ring | <ul style="list-style-type: none"> • A 316 |

| item | q.ty | part | material |
|------|------|---------------|--|
| 13 | v | thrust block | <ul style="list-style-type: none"> • A 316 |
| ◇ 14 | 1 | shaft packing | <ul style="list-style-type: none"> • graphite • PTFE (on request) |
| 15 | 1 | gland | <ul style="list-style-type: none"> • AISI316 |
| 16 | 1 | gland flange | <ul style="list-style-type: none"> • AISI316 |
| 17 | 2 | springs set | <ul style="list-style-type: none"> • stainless steel |
| 18 | 2 | rods | <ul style="list-style-type: none"> • AISI 316 |
| 19 | 2 | nut | <ul style="list-style-type: none"> • AISI 316 |
| ◇ 20 | 3 | lower bush | <ul style="list-style-type: none"> • stainless steel + PTFE • steel + PTFE |
| ◇ 21 | 1 | packing | <ul style="list-style-type: none"> • graphite |
| 22 | 1 | lower plug | <ul style="list-style-type: none"> • AISI 316 |
| 23 | 2 | screw | <ul style="list-style-type: none"> • AISI 316 |
| 24 | 1 | upper flange | <ul style="list-style-type: none"> • steel epoxy coated |
| 25 | 4 | screw | <ul style="list-style-type: none"> • AISI 316 |

◇ parts included in spare kit

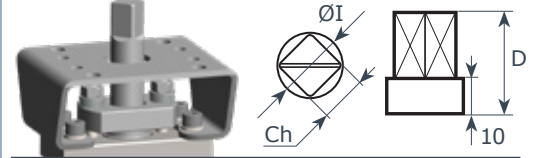


BVHD/BLHD dimensions

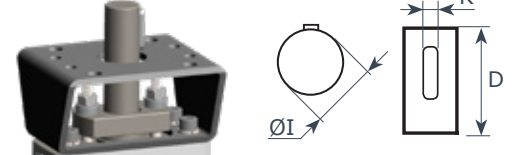


SHAFT

DN 50-150



DN 200-500

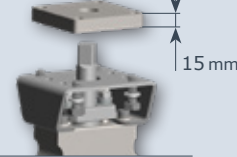


OPTIONAL ⁽²⁾
DN 200-500



OPTIONAL SPACER

DN 50-150



Spacer F07/F10
Material:
Painted carbon steel
Optional: Stainless Steel

| DN | " | A | B | C | D | E | F | G | H | Ø I | Ch | K | TOP | OPTIONAL D ⁽²⁾ | Ch ⁽²⁾ |
|-----|------------------|-----|-----|-----|----|-----|-----|-----|-----|-----|----|----|---------|------------------------------|-------------------|
| 50 | 2 | 117 | 81 | 50 | 34 | 43 | 95 | 100 | 70 | 14 | 11 | - | F05/F07 | - | - |
| 65 | 2 ^{1/2} | 120 | 93 | 50 | 34 | 46 | 105 | 100 | 70 | 14 | 11 | - | F05/F07 | - | - |
| 80 | 3 | 129 | 101 | 50 | 34 | 46 | 127 | 100 | 70 | 14 | 11 | - | F05/F07 | - | - |
| 100 | 4 | 160 | 128 | 50 | 34 | 52 | 150 | 100 | 70 | 18 | 14 | - | F05/F07 | - | - |
| 125 | 5 | 170 | 159 | 50 | 38 | 56 | 174 | 120 | 90 | 22 | 17 | - | F07/F10 | - | - |
| 150 | 6 | 179 | 168 | 50 | 38 | 56 | 210 | 120 | 90 | 22 | 17 | - | F07/F10 | - | - |
| 200 | 8 | 218 | 207 | 60 | 40 | 61 | 270 | 120 | 90 | 25 | - | 8 | F07/F10 | 23 | 22 |
| 250 | 10 | 257 | 232 | 80 | 60 | 69 | 325 | 160 | 130 | 30 | - | 10 | F12 | 23 | 22 |
| 300 | 12 | 300 | 270 | 80 | 60 | 78 | 378 | 160 | 130 | 35 | - | 10 | F12 | 28 | 27 |
| 350 | 14 | 328 | 304 | 100 | 60 | 92 | 432 | 200 | 140 | 40 | - | 12 | F14 | 28 | 27 |
| 400 | 16 | 387 | 340 | 100 | 60 | 102 | 485 | 200 | 140 | 45 | - | 14 | F14 | 37 | 36 |
| 500 | 20 | 451 | 427 | 100 | 75 | 127 | 580 | 200 | 165 | 60 | - | 18 | F16 | 47 | 46 |

| DN | PN 10 | | | PN 16 | | | PN 25 | | | ANSI 150 | | | Kg. | |
|-----|-------|----|-----|-------|----|-----|-------|----|-----|------------------|----|-------|-------|------|
| | M | n. | L | M | n. | L | M | n. | L | M ⁽¹⁾ | n. | L | wafer | lug |
| 50 | M16 | 4 | 125 | M16 | 4 | 125 | M16 | 4 | 125 | M16 | 4 | 120.7 | 3.5 | 5.7 |
| 65 | M16 | 8 | 145 | M16 | 8 | 145 | M16 | 8 | 145 | M16 | 4 | 139.7 | 4.0 | 7 |
| 80 | M16 | 8 | 160 | M16 | 8 | 160 | M16 | 8 | 160 | M16 | 4 | 152.4 | 4.8 | 7.6 |
| 100 | M16 | 8 | 180 | M16 | 8 | 180 | M20 | 8 | 190 | M16 | 8 | 190.5 | 8 | 9.7 |
| 125 | M16 | 8 | 210 | M16 | 8 | 210 | M24 | 8 | 220 | M20 | 8 | 215.9 | 10.1 | 14.8 |
| 150 | M20 | 8 | 240 | M20 | 8 | 240 | M24 | 8 | 250 | M20 | 8 | 241.3 | 13.5 | 17.6 |
| 200 | M20 | 8 | 295 | M20 | 12 | 295 | M24 | 12 | 310 | M20 | 8 | 298.5 | 22 | 32 |
| 250 | M20 | 12 | 350 | M24 | 12 | 355 | M27 | 12 | 370 | M22 | 12 | 362.0 | 35 | 46 |
| 300 | M20 | 12 | 400 | M24 | 12 | 410 | M27 | 16 | 430 | M22 | 12 | 431.8 | 50 | 62 |
| 350 | M20 | 16 | 460 | M24 | 16 | 470 | M30 | 16 | 490 | M24 | 12 | 476.3 | 83 | 110 |
| 400 | M24 | 16 | 515 | M27 | 16 | 525 | M33 | 16 | 550 | M27 | 16 | 539.8 | 107 | 140 |
| 500 | M24 | 20 | 620 | M30 | 20 | 650 | M33 | 20 | 660 | M27 | 20 | 635.0 | 200 | 250 |

NOTE ⁽¹⁾: in case of ANSI150 flanges, threading can be ANSI B1.1 UNC2B



Compatible flanges JIS B2220 :2004

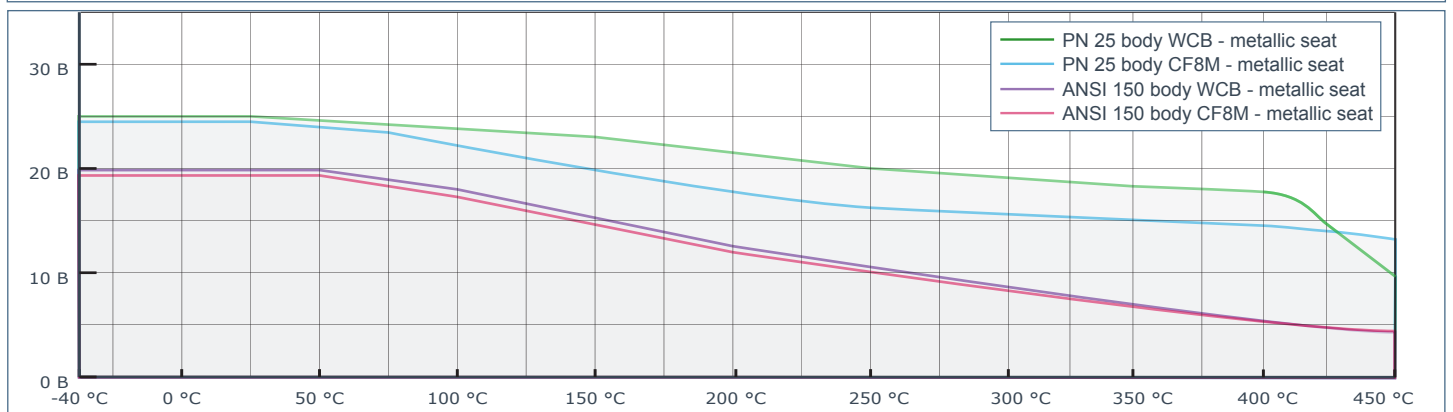
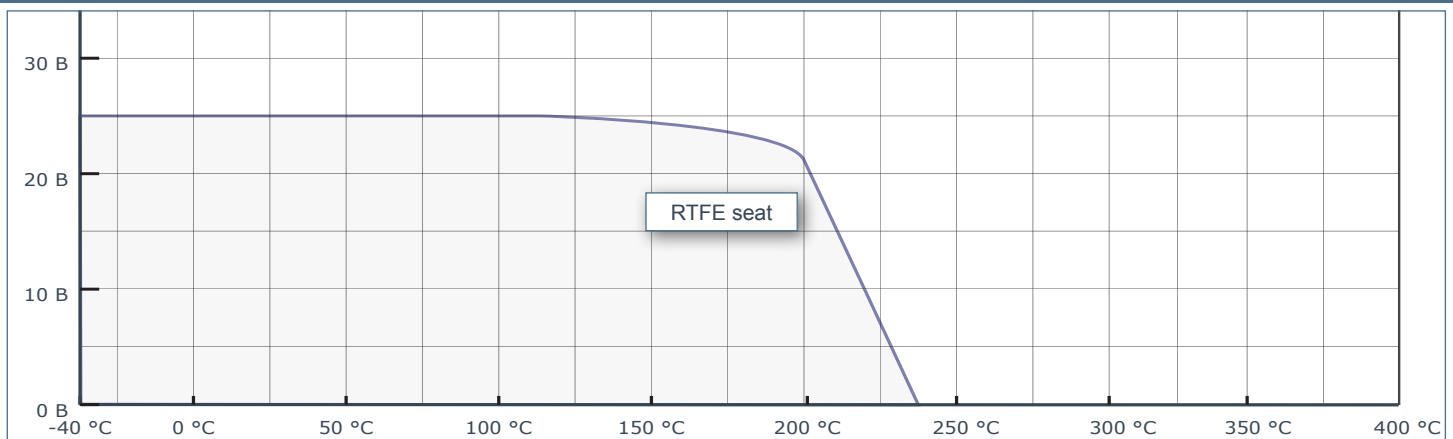
| DN | BVHD - wafer (Pmax = 25bar) | | | | | BLHD - lug (Pmax = 25bar) | | | | |
|-----|---------------------------------|---------|---------|---------|---------|---------------------------|---------|---------|---------|---------|
| | JIS 5K | JIS 10K | JIS 16K | JIS 20K | JIS 30K | JIS 5K | JIS 10K | JIS 16K | JIS 20K | JIS 30K |
| 50 | ✗ | ✓ | ● | ● | ● | ✗ | ● | ● | ● | ✗ |
| 65 | ● | ✓ | ● | ● | ✗ | ● | ● | ● | ● | ✗ |
| 80 | ● | ● | ● | ● | ✗ | ● | ● | ● | ● | ● |
| 100 | ✗ | ● | ✓ | ✓ | ✓ | ✗ | ● | ● | ● | ● |
| 125 | ● | ● | ✓ | ✓ | ✓ | ● | ● | ● | ● | ● |
| 150 | ● | ✓ | ✗ | ✗ | ✗ | ● | ✓ | ✗ | ✗ | ✗ |
| 200 | ✗ | ● | ✓ | ✓ | ● | ✗ | ● | ● | ● | ● |
| 250 | ● | ✓ | ✗ | ✗ | ✗ | ● | ● | ✗ | ✗ | ✗ |
| 300 | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ |
| 350 | ✗ | ✗ | ● | ● | ● | ✗ | ✗ | ● | ● | ● |
| 400 | ✗ | ● | ● | ● | ✗ | ✗ | ● | ● | ● | ✗ |
| 500 | please contact Technical Office | | | | | | | | | |

✓ standard ● on request ✗ not possible

Torque values - Nm | safety factor excluded

| seat: RTFE - fluid: H ₂ O - 20°C | | | | | seat: INCONEL - fluid: H ₂ O - 20°C | | | | |
|---|-----------------------|------|------|------|--|-----------------------|------|------|------|
| DN | working pressure: BAR | | | | DN | working pressure: BAR | | | |
| | 10 | 16 | 20 | 25 | | 10 | 16 | 20 | 25 |
| 50 | 24 | 30 | 40 | 47 | 50 | 36 | 44 | 58 | 68 |
| 65 | 34 | 38 | 48 | 60 | 65 | 51 | 56 | 70 | 86 |
| 80 | 38 | 45 | 54 | 68 | 80 | 57 | 67 | 78 | 97 |
| 100 | 45 | 56 | 62 | 81 | 100 | 68 | 83 | 89 | 114 |
| 125 | 85 | 90 | 105 | 120 | 125 | 124 | 133 | 154 | 168 |
| 150 | 130 | 145 | 170 | 210 | 150 | 186 | 212 | 248 | 302 |
| 200 | 180 | 240 | 270 | 390 | 200 | 261 | 350 | 392 | 570 |
| 250 | 330 | 450 | 520 | 580 | 250 | 480 | 668 | 765 | 848 |
| 300 | 580 | 640 | 740 | 850 | 300 | 848 | 941 | 1085 | 1244 |
| 350 | 780 | 1030 | 1190 | 1550 | 350 | 950 | 1250 | 1500 | 1850 |
| 400 | 850 | 1400 | 1750 | 2275 | 400 | 1750 | 2180 | 2470 | 2830 |
| 500 | 1925 | 2560 | 2980 | 3875 | 500 | 2740 | 3445 | 3910 | 4500 |

Pressure / Temperature

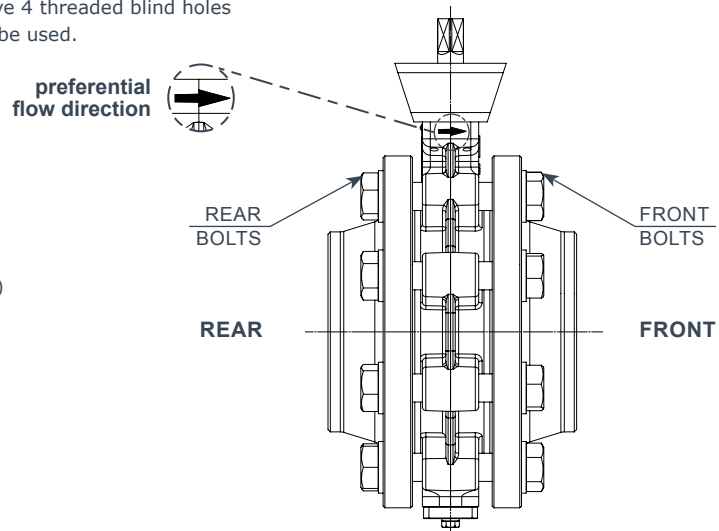




Bolts and rods dimensions

| DN | Wafer valves | | | | | | | | | | | |
|-----|-----------------------|---------|----|-----------------------|---------|----|-----------------------|---------|----|-----------------------|---------|----|
| | PN10 | | | PN16 | | | PN25 | | | A150 | | |
| | Bolts | Rods | N° | Bolts | Rods | N° | Bolts | Rods | N° | Bolts | Rods | N° |
| 50 | M16x110 | M16x130 | 4 | M16x110 | M16x130 | 4 | M16x120 | M16x130 | 4 | M16x120 | M16x130 | 4 |
| 65 | M16x120 | M16x130 | 8 | M16x120 | M16x130 | 8 | M16x120 | M16x140 | 8 | M16x130 | M16x140 | 4 |
| 80 | M16x120 | M16x130 | 8 | M16x120 | M16x130 | 8 | M16x130 | M16x140 | 8 | M16x130 | M16x140 | 4 |
| 100 | M16x130 | M16x140 | 8 | M16x130 | M16x140 | 8 | M20x140 | M20x150 | 8 | M16x130 | M16x150 | 8 |
| 125 | M16x130 | M16x150 | 8 | M16x140 | M16x150 | 8 | M24x150 | M24x170 | 8 | M20x140 | M20x160 | 8 |
| 150 | M20x140 | M20x150 | 8 | M20x140 | M20x150 | 8 | M24x150 | M24x170 | 8 | M20x140 | M20x160 | 8 |
| 200 | M20x150 | M20x160 | 8 | M20x150 | M20x160 | 12 | M24x160 | M24x180 | 12 | M20x160 | M20x170 | 8 |
| 250 | M20x160 | M20x180 | 12 | M24x160 | M24x180 | 12 | M27x180 | M27x200 | 12 | M22x170 | M22x200 | 12 |
| 300 | M20x170 | M20x180 | 12 | M24x180 | M24x200 | 12 | M27x200 | M27x220 | 16 | M22x180 | M22x200 | 12 |
| 350 | M20x180 | M20x200 | 12 | M24x200 | M24x220 | 16 | M30x220 | M30x240 | 16 | M24x220 | M24x220 | 12 |
| 400 | M24x200 | M24x220 | 16 | M27x220 | M27x240 | 16 | M33x240 | M33x260 | 16 | M27x220 | M27x240 | 16 |
| 500 | M24x220 | M24x240 | 16 | M30x240 | M30x280 | 16 | M33x260 | M33x300 | 16 | M27x260 | M27x280 | 16 |
| | * REAR: Bolts M24x60 | | 4 | * REAR: Bolts M30x70 | | 4 | * REAR: Bolts M33x80 | | 4 | * REAR: Bolts M27x80 | | 4 |
| | * FRONT: Bolts M24x70 | | 4 | * FRONT: Bolts M30x80 | | 4 | * FRONT: Bolts M33x90 | | 4 | * FRONT: Bolts M27x90 | | 4 |

* Valves DN500 (both LUG and WAFER execution) have 4 threaded blind holes each side, therefore screws marked with * are to be used.



NOTE 1

Screw and rod dimensions have been calculated with:

- spiralwound gasket ASME B16.20a (ex API 601)
- washer EN ISO 7089 (ex UNI 6592) - on both flanges
- welding neck flanges PN 10/16/25 (EN1092-1 Type 11)
- welding neck flanges ANSI150 (ANSI B16.5)

NOTE 2

Number of nuts should be double when WAFER valves are assembled with threaded rods.

| DN | Lug valves | | | | | | | | | | | | | | | |
|-----|----------------|----|----------------|----|----------------|----|----------------|----|----------------|----|----------------|----|----------------|----|----------------|----|
| | PN10 | | | | PN16 | | | | PN25 | | | | A150 | | | |
| | Rear | | Front | | Rear | | Front | | Rear | | Front | | Rear | | Front | |
| | Bolts | N° | Bolts | N° | Bolts | N° | Bolts | N° | Bolts | N° | Bolts | N° | Bolts | N° | Bolts | N° |
| 50 | M16x45 | 4 | M16x45 | 4 | M16x45 | 4 | M16x45 | 4 | M16x45 | 4 | M16x45 | 4 | M16x45 | 4 | M16x45 | 4 |
| 65 | M16x40 | 8 | M16x50 | 8 | M16x40 | 8 | M16x50 | 8 | M16x45 | 8 | M16x55 | 8 | M16x45 | 4 | M16x55 | 4 |
| 80 | M16x45 | 8 | M16x55 | 8 | M16x45 | 8 | M16x55 | 8 | M16x50 | 8 | M16x55 | 8 | M16x45 | 4 | M16x55 | 4 |
| 100 | M16x50 | 8 | M16x50 | 8 | M16x50 | 8 | M16x50 | 8 | M20x55 | 8 | M20x55 | 8 | M16x55 | 8 | M16x55 | 8 |
| 125 | M16x55 | 8 | M16x55 | 8 | M16x55 | 8 | M16x55 | 8 | M24x55 | 8 | M24x60 | 8 | M20x55 | 8 | M20x55 | 8 |
| 150 | M20x55 | 8 | M20x55 | 8 | M20x55 | 8 | M20x55 | 8 | M24x60 | 8 | M24x60 | 8 | M20x55 | 8 | M20x60 | 8 |
| 200 | M20x55 | 8 | M20x65 | 8 | M20x55 | 8 | M20x65 | 8 | M24x60 | 12 | M24x70 | 12 | M20x60 | 8 | M20x65 | 8 |
| 250 | M20x60 | 12 | M20x70 | 12 | M24x60 | 12 | M24x70 | 12 | M27x65 | 12 | M27x75 | 12 | M22x65 | 12 | M22x70 | 12 |
| 300 | M20x65 | 12 | M20x70 | 12 | M24x70 | 12 | M24x75 | 12 | M27x75 | 16 | M27x80 | 16 | M22x70 | 12 | M22x80 | 12 |
| 350 | M20x70 | 12 | M20x80 | 12 | M24x70 | 16 | M24x90 | 16 | M30x80 | 16 | M30x100 | 16 | M24x80 | 12 | M24x90 | 12 |
| 400 | M24x75 | 16 | M24x90 | 16 | M27x80 | 16 | M27x90 | 16 | M33x90 | 16 | M33x100 | 16 | M27x80 | 16 | M27x100 | 16 |
| 500 | M24x90 | 16 | M24x90 | 16 | M30x100 | 16 | M30x100 | 16 | M33x110 | 16 | M33x110 | 16 | M27x110 | 16 | M27x110 | 16 |
| | * bolts M24x60 | 4 | * bolts M24x70 | 4 | * bolts M30x70 | 4 | * bolts M30x80 | 4 | * bolts M33x80 | 4 | * bolts M33x90 | 4 | * bolts M27x80 | 4 | * bolts M27x90 | 4 |

* Valves DN500 (both LUG and WAFER execution) have 4 threaded blind holes each side, therefore screws marked with * are to be used.

Installation

Valve/pipe assembly

1. Leave a space between flanges to allow easy installation of the valve (see fig. 1). Insert two gaskets between flange and valve (not supplied).
2. HD butterfly valves are bi-directional and can be installed with the flow in both directions. There is however a preferential direction (see fig.2), which minimize turbulences when fluid is under pressure.
3. HD Butterfly valves can be installed with the shaft axis in any direction. It is however preferable to keep it vertical.
4. Center valve body between flanges, then tighten the bolts.
ATTENTION: Non correct centering of the valve may damage valve disc.
5. After start-up make sure that there are no leakings and that the valve is properly operating

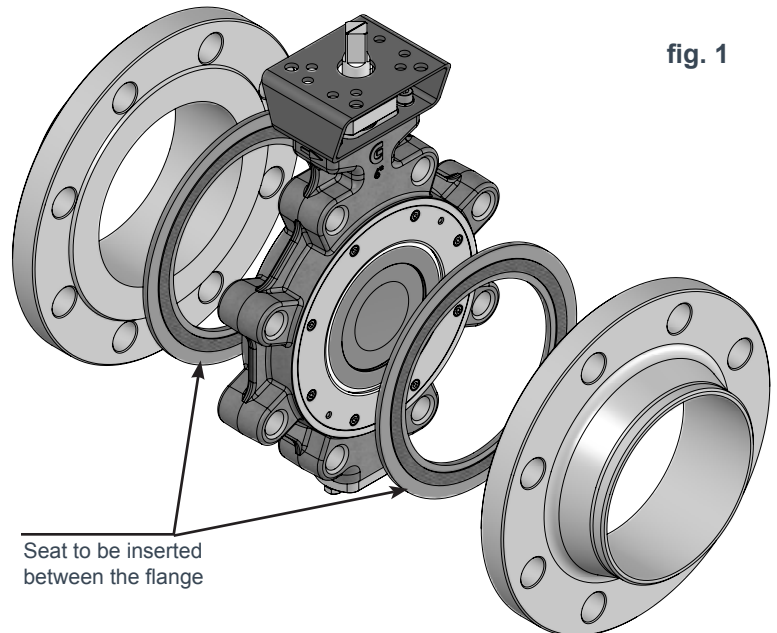


fig. 1

Remarks:

- Always remove the valve before any flange welding to avoid possible damages due to heat
- On top of upper shaft there is a notch parallel to disc indicating its position. (for valves DN>200 refer to the key).
- When actuator or gear box are assembled on the valve, please consider that there is a mechanical stop allowing only anti-clockwise rotation.
- Valve is closed when disc is against the stop.

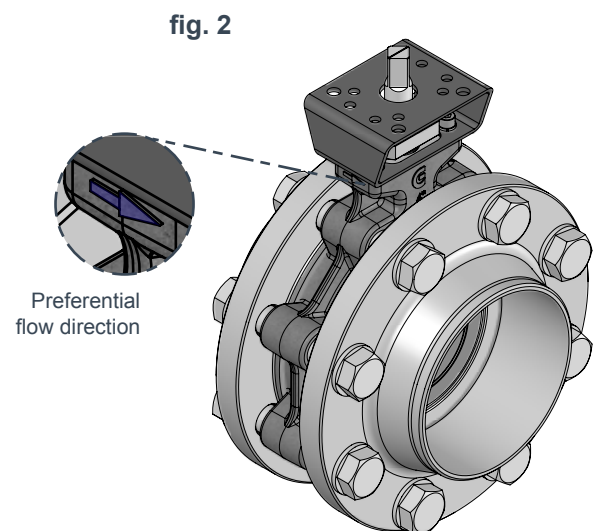


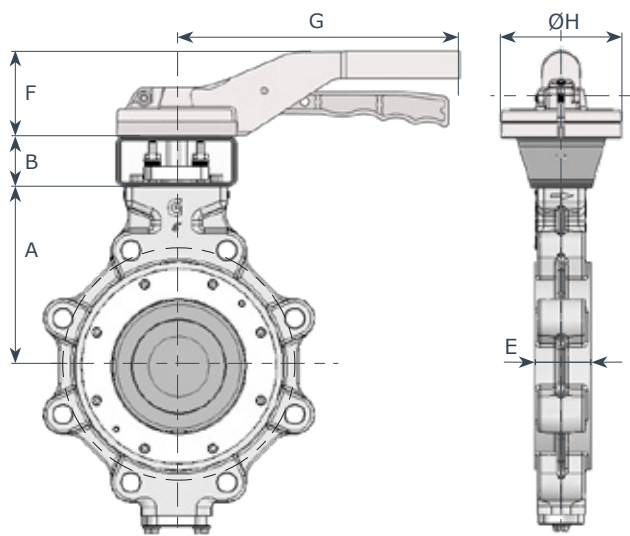
fig. 2

Valve/pipe disassembly

1. Make sure that there is no fluid under pressure upstream or downstream the valve. Disconnect any electronic as well as pneumatic device.
2. Make sure that valve disc is closed.
3. Loose bolts and widen piping flanges. While keeping the valve, remove bolts and disassemble the valve.

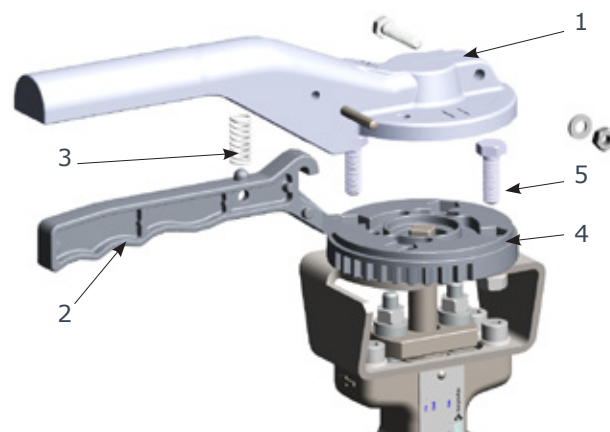


Handlever



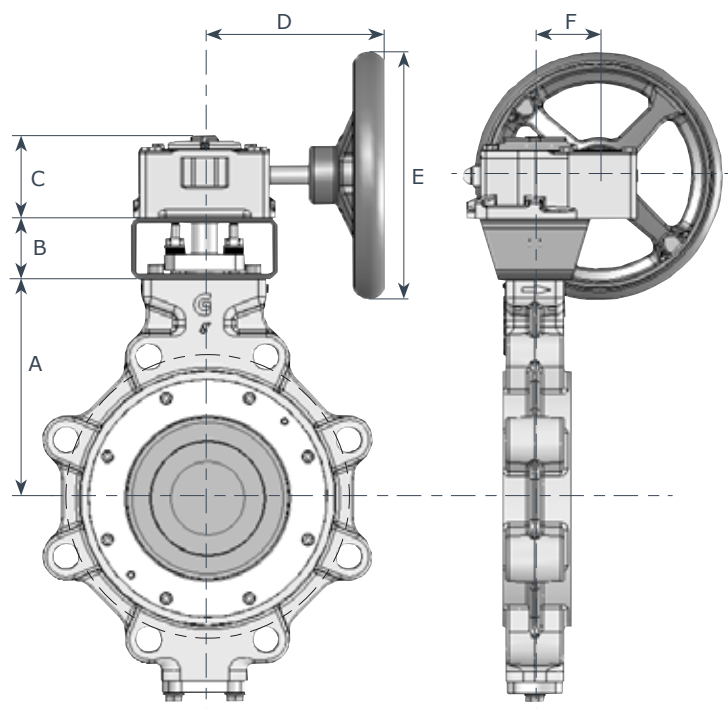
| DN | " | A | B | E | F | G | ØH | aluminium | | St. Steel | |
|-----|-------|-----|----|----|----|-----|-----|-----------|--------|-----------|--------|
| | | | | | | | | Kg wafer | Kg lug | Kg wafer | Kg lug |
| 50 | 2 | 117 | 50 | 43 | 67 | 220 | 93 | 4.1 | 6.3 | 5.2 | 7.4 |
| 65 | 2 1/2 | 120 | 50 | 46 | 67 | 220 | 93 | 4.6 | 7.6 | 5.7 | 8.7 |
| 80 | 3 | 129 | 50 | 46 | 67 | 220 | 93 | 5.4 | 8.2 | 6.5 | 9.3 |
| 100 | 4 | 160 | 50 | 52 | 67 | 275 | 93 | 8.7 | 10.4 | 10.0 | 11.7 |
| 125 | 5 | 170 | 50 | 56 | 76 | 340 | 125 | 11.1 | 15.8 | - | - |
| 150 | 6 | 179 | 50 | 56 | 76 | 340 | 125 | 14.5 | 18.6 | - | - |

COMPONENTS



| | | DN 50-150 | DN 50-100 |
|---|------------------|-----------------|-----------------|
| 1 | lever | aluminium | A351 CF8M |
| 2 | trigger | aluminium | A351 CF8M |
| 3 | spring | stainless steel | stainless steel |
| 4 | disc positioning | aluminium | A351 CF8M |
| 5 | screws | stainless steel | stainless steel |

Gearboxes - coupling and dimensions



AB series

body: ductile iron GGG40
 worm gears: steel
 sector gear: ductile iron
 shaft: steel
 handwheel: steel
 protection: IP67
 T: -20 / +120 °C

*low/high
 temperature
 execution on
 request*

RTFE seated valve / fluid: H2O / T: 20°C

| DN | " | A | B | C | D | E | F | type | kg wafer | kg lug |
|-----|-------|-----|-----|-----|-------|-----|-----|--------|----------|--------|
| 50 | 2 | 117 | 50 | 55 | 157.5 | 200 | 43 | AB150 | 5.7 | 7.9 |
| 65 | 2 1/2 | 120 | 50 | 55 | 157.5 | 200 | 43 | AB150 | 6.2 | 9.2 |
| 80 | 3 | 129 | 50 | 55 | 157.5 | 200 | 43 | AB150 | 7.0 | 9.8 |
| 100 | 4 | 160 | 50 | 55 | 157.5 | 200 | 43 | AB150 | 10.2 | 11.9 |
| 125 | 5 | 170 | 50 | 63 | 217 | 200 | 52 | AB215 | 13.6 | 18.3 |
| 150 | 6 | 179 | 50 | 63 | 217 | 200 | 52 | AB215 | 17 | 21.1 |
| 200 | 8 | 218 | 60 | 63 | 217 | 200 | 52 | AB215 | 26.2 | 34.7 |
| 250 | 10 | 257 | 80 | 88 | 282 | 300 | 71 | AB550 | 43.5 | 54.5 |
| 300 | 12 | 300 | 80 | 88 | 282 | 300 | 71 | AB550 | 58.5 | 70.5 |
| 350 | 14 | 328 | 100 | 102 | 322 | 500 | 105 | AB1250 | 105 | 132 |
| 400 | 16 | 387 | 100 | 102 | 322 | 500 | 105 | AB1250 | 129 | 162 |
| 500 | 20 | 451 | 100 | 126 | 425 | 600 | 130 | AB1950 | 232 | 282 |

INCONEL seated valve / fluid: H2O / T: 20°C

| DN | " | A | B | C | D | E | F | type | kg wafer | kg lug |
|-----|-------|-----|-----|-----|-------|-----|-----|------------|----------|--------|
| 50 | 2 | 117 | 50 | 55 | 157.5 | 200 | 43 | AB150 | 5.7 | 7.9 |
| 65 | 2 1/2 | 120 | 50 | 55 | 157.5 | 200 | 43 | AB150 | 6.2 | 9.2 |
| 80 | 3 | 129 | 50 | 55 | 157.5 | 200 | 43 | AB150 | 7.0 | 9.8 |
| 100 | 4 | 160 | 50 | 55 | 157.5 | 200 | 43 | AB150 | 10.2 | 11.9 |
| 125 | 5 | 170 | 50 | 63 | 217 | 200 | 52 | AB215 | 13.6 | 18.3 |
| 150 | 6 | 179 | 50 | 63 | 217 | 200 | 52 | AB215 | 17.0 | 21.1 |
| 200 | 8 | 218 | 60 | 88 | 282 | 300 | 71 | AB550 | 36.2 | 44.7 |
| 250 | 10 | 257 | 80 | 93 | 282 | 400 | 86 | AB880 | 49 | 60 |
| 300 | 12 | 300 | 80 | 93 | 282 | 400 | 86 | AB880 | 64 | 76 |
| 350 | 14 | 328 | 100 | 102 | 322 | 500 | 105 | AB1250 | 105 | 132 |
| 400 | 16 | 387 | 100 | 126 | 425 | 600 | 143 | AB1950 | 139 | 172 |
| 500 | 20 | 451 | 100 | 126 | 398 | 600 | 143 | AB1950 PR4 | 245 | 295 |



Pneumatic actuator

Rack & Pinion Actuators - MT/MTS Series

Max air pressure: 10 bar Double travel stop
 Temperature: -20°C / +80°C open/close: ±10°
 Torque range: 31/3564 Nm

Scotch Yoke Actuators - CHD Series

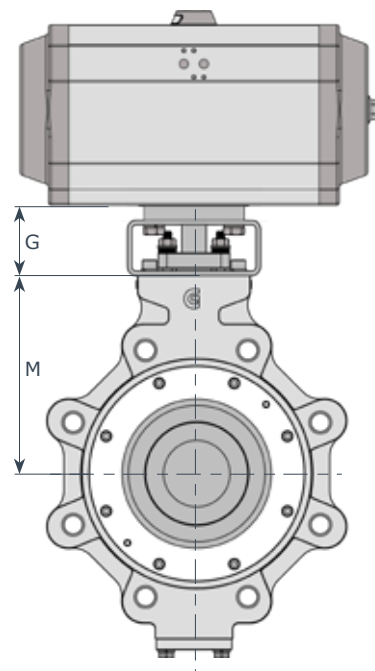
Max air pressure: 6 bar Double travel stop
 Temperature: -20 / +80°C open/close: ±6°
 Torque Range: 1200/305000 Nmt

Fluid: H2O - T: 20° C - Air pressure: 5,5 Bar - Seat: RTFE

| DN | M | PN 10 | | | | PN 16 | | | | PN 20 / PN 25 | | | |
|-----|-----|-------|-----|--------------|-----|-------|-----|--------------|-----|---------------|-----|--------------|-----|
| | | DA | | SR | | DA | | SR | | DA | | SR | |
| | | mod. | G | mod. | G | mod. | G | mod. | G | mod. | G | mod. | G |
| 50 | 117 | MT 15 | 65 | MTS 25 | 65 | MT 20 | 65 | MTS 30 | 65 | MT 25 | 65 | MTS 35 | 65 |
| 65 | 120 | MT 20 | 65 | MTS 30 | 65 | MT 20 | 65 | MTS 30 | 65 | MT 25 | 65 | MTS 35 | 65 |
| 80 | 129 | MT 20 | 65 | MTS 30 | 65 | MT 25 | 65 | MTS 35 | 65 | MT 30 | 65 | MTS 40 | 65 |
| 100 | 160 | MT 20 | 65 | MTS 35 | 65 | MT 25 | 65 | MTS 40 | 65 | MT 35 | 65 | MTS 45 | 65 |
| 125 | 170 | MT 30 | 65 | MTS 45 | 65 | MT 35 | 65 | MTS 45 | 65 | MT 35 | 65 | MTS 50 | 65 |
| 150 | 179 | MT 35 | 65 | MTS 50 | 65 | MT 40 | 65 | MTS 50 | 65 | MT 45 | 65 | MTS 55 | 65 |
| 200 | 218 | MT 40 | 110 | MTS 50 | 110 | MT 45 | 110 | MTS 60 | 110 | MT 50 | 110 | MTS 65 | 100 |
| 250 | 257 | MT 50 | 200 | MTS 60 | 200 | MT 55 | 200 | MTS 65 | 200 | MT 60 | 200 | MTS 70 | 200 |
| 300 | 300 | MT 60 | 200 | MTS 70 | 200 | MT 60 | 200 | MTS 70 | 200 | MT 70 | 200 | MTS 75 | 200 |
| 350 | 328 | MT 60 | 200 | MTS 70 | 200 | MT 65 | 200 | MTS 75 | 200 | MT 70 | 200 | CHD16-030B01 | 200 |
| 400 | 387 | MT 65 | 200 | MTS 70 | 200 | MT 70 | 200 | CHD16-030B01 | 200 | MT 75 | 200 | CHD25-035B01 | 200 |
| 500 | 451 | MT 70 | 200 | CHD16-035B01 | 0 | MT 75 | 200 | CHD25-038B01 | 200 | CHD16-030 | 0 | CHD25-043B01 | 200 |

Fluid: H2O - T: 20° C - Air pressure: 5,5 Bar - Seat: INCONEL

| DN | M | PN 10 | | | | PN 16 | | | | PN 20 / PN 25 | | | |
|-----|-----|-------|-----|--------------|-----|-----------|-----|--------------|-----|---------------|-----|--------------|-----|
| | | DA | | SR | | DA | | SR | | DA | | SR | |
| | | mod. | G | mod. | G | mod. | G | mod. | G | mod. | G | mod. | G |
| 50 | 117 | MT 20 | 65 | MTS 30 | 65 | MT 20 | 65 | MTS 35 | 65 | MT 25 | 65 | MTS 35 | 65 |
| 65 | 120 | MT 25 | 65 | MTS 35 | 65 | MT 25 | 65 | MTS 35 | 65 | MT 30 | 65 | MTS 40 | 65 |
| 80 | 129 | MT 25 | 65 | MTS 35 | 65 | MT 25 | 65 | MTS 35 | 65 | MT 35 | 65 | MTS 45 | 65 |
| 100 | 160 | MT 25 | 65 | MTS 35 | 65 | MT 30 | 65 | MTS 40 | 65 | MT 35 | 65 | MTS 45 | 65 |
| 125 | 170 | MT 35 | 65 | MTS 45 | 65 | MT 35 | 65 | MTS 50 | 65 | MT 40 | 65 | MTS 50 | 65 |
| 150 | 179 | MT 45 | 65 | MTS 50 | 65 | MT 45 | 65 | MTS 55 | 65 | MT 50 | 65 | MTS 60 | 65 |
| 200 | 218 | MT 45 | 110 | MTS 60 | 110 | MT 50 | 110 | MTS 60 | 100 | MT 60 | 110 | MTS 70 | 200 |
| 250 | 257 | MT 55 | 200 | MTS 70 | 200 | MT 60 | 200 | MTS 70 | 200 | MT 65 | 200 | MTS 70 | 200 |
| 300 | 300 | MT 65 | 200 | MTS 70 | 200 | MT 65 | 200 | MTS 70 | 200 | MT 70 | 200 | MTS 75 | 200 |
| 350 | 328 | MT 65 | 200 | MTS 70 | 200 | MT 70 | 200 | MTS 75 | 200 | MT 70 | 200 | CHD16-035B01 | 200 |
| 400 | 387 | MT 70 | 200 | CHD16-035B01 | 200 | MT 75 | 200 | CHD25-035B01 | 200 | CHD16-025 | 200 | CHD25-038B01 | 200 |
| 500 | 451 | MT 75 | 200 | CHD25-038B01 | 200 | CHD16-030 | 0 | CHD25-043B01 | 200 | CHD16-035 | 0 | CHD30-043B01 | 200 |



NOTE

G quote can change depending on valve/actuator coupling.

Declutchable manual gearboxes

ILGD Series

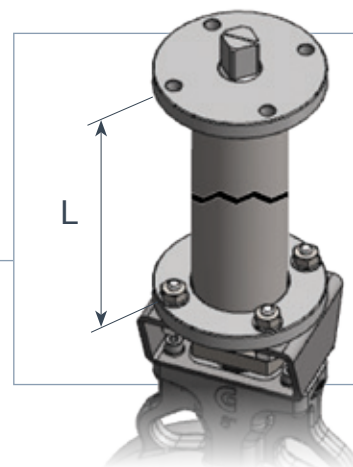
body: ductile iron GGG40 shaft: steel protection: IP65
 worm gears: steel handwheel: steel IP67 on req.
 sector gear: ductile iron T: -20/+120°C

| Ø valve | double action actuator | | spring return actuator | |
|---------|------------------------|--------------|------------------------|--------------|
| | actuator type | gearbox type | actuator type | gearbox type |
| 50-100 | MT20-35 | ILGD200 | MTS25-45 | ILGD200 |
| 125-150 | MT30-40 | ILGD200 | MTS45-55 | ILGD600 |
| | MT45-55 | ILGD600 | MTS60 | ILGD900 |
| 200 | MT40-55 | ILGD600 | MTS50 | ILGD600 |
| | MT60 | ILGD900 | MTS60-65 | ILGD900 |
| | - | - | MTS70 | ILGD1500 |
| 250 | MT50-55 | ILGD600 | MTS60-65 | ILGD900 |
| | MT60-65 | ILGD900 | MTS70 | ILGD1500 |
| 300 | MT60-65 | ILGD900 | MTS70 | ILGD1500 |
| | MT70 | ILGD1500 | MTS75 | ILGD2400 |
| 350 | MT60-70 | ILGD1500 | MTS70 | ILGD2400 |
| | - | - | MTS75 | ILGD5000 |
| 400 | MT60-70 | ILGD1500 | MTS60-70 | ILGD1500 |
| | MT75 | ILGD5000 | on req. | on req. |
| 500 | MT70-75 | ILGD5000 | on req. | on req. |



Waterproof valve shaft extension

When necessary, it's possible to extend the valve shaft as indicated in the figure. Construction is in carbon steel with protective paint (on request stainless steel).



NOTE

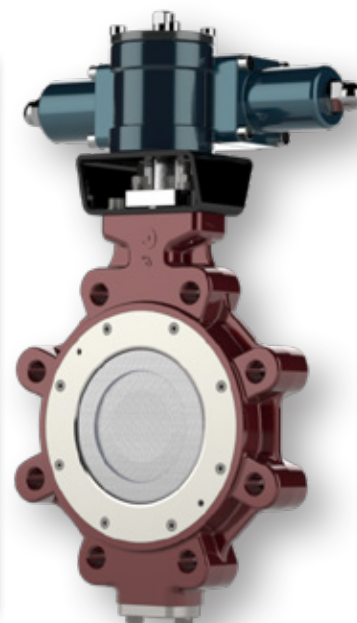
Our technical department is available to solve special applications.

"L" measure should be indicated when ordering.

Hydraulic actuator

- Technical features:
 - » ductile iron cast body
 - » steel rack and pinion
 - » NBR seats
- fluid type:
 - » hydraulic oil type : HPL
 - » DIN51524-2 / ISO 6743-4.
 - » Viscosity 15/200 cst
- working pressure: 10 - 120 bar
- working temperature: -20°C / +80°C

| Fluid: H2O - T: 20° C - Seat: RTFE | | | | | | | | | | | | | |
|------------------------------------|---------------------|--------|-------|--------|---------------|--------|----------------------|--------|-------|--------|---------------|--------|--|
| DN | Oil pressure: 60Bar | | | | | | Oil pressure: 120Bar | | | | | | |
| | PN 10 | | PN 16 | | PN 20 / PN 25 | | PN 10 | | PN 16 | | PN 20 / PN 25 | | |
| | DA | SR | DA | SR | DA | SR | DA | SR | DA | SR | DA | SR | |
| 50 | H28DA | H40SRA | H28DA | H40SRA | H28DA | H40SRA | H28DA | H40SRB | H28DA | H40SRB | H28DA | H40SRB | |
| 65 | H28DA | H40SRA | H28DA | H40SRA | H28DA | H40SRA | H28DA | H40SRB | H28DA | H40SRB | H28DA | H40SRB | |
| 80 | H28DA | H40SRA | H28DA | H40SRA | H28DA | H40SRA | H28DA | H40SRB | H28DA | H40SRB | H28DA | H40SRB | |
| 100 | H28DA | H40SRA | H28DA | H40SRA | H28DA | H50SRA | H28DA | H40SRB | H28DA | H40SRB | H28DA | H40SRB | |
| 125 | H28DA | H50SRA | H40DA | H50SRA | H40DA | H50SRA | H28DA | H40SRB | H28DA | H40SRB | H28DA | H40SRB | |
| 150 | H40DA | H50SRA | H40DA | H63SRA | H50DA | H63SRA | H28DA | H40SRB | H28DA | H50SRB | H40DA | H50SRB | |
| 200 | H50DA | H63SRA | H50DA | H63SRA | H63DA | H80SRA | H40DA | H50SRB | H40DA | H50SRB | H50DA | H63SRB | |
| 250 | H50DA | H80SRA | H63DA | H80SRA | H63DA | - | H50DA | H63SRB | H50DA | H63SRB | H50DA | H80SRB | |
| 300 | H63DA | - | H63DA | - | H80DA | - | H50DA | H80SRB | H50DA | H80SRB | H63DA | H80SRB | |
| 350 | H80DA | - | H80DA | - | - | - | H63DA | H80SRB | H63DA | - | H80DA | - | |
| 400 | H80DA | - | - | - | - | - | H80DA | H80SRB | H80DA | - | H80DA | - | |
| 500 | - | - | - | - | - | - | H80DA | - | H80DA | - | - | - | |



| Fluid: H2O - T: 20° C - Seat: INCONEL | | | | | | | | | | | | | |
|---------------------------------------|---------------------|--------|-------|--------|---------------|--------|----------------------|--------|-------|--------|---------------|--------|--|
| DN | Oil pressure: 60Bar | | | | | | Oil pressure: 120Bar | | | | | | |
| | PN 10 | | PN 16 | | PN 20 / PN 25 | | PN 10 | | PN 16 | | PN 20 / PN 25 | | |
| | DA | SR | DA | SR | DA | SR | DA | SR | DA | SR | DA | SR | |
| 50 | H28DA | H40SRA | H28DA | H40SRA | H28DA | H40SRA | H28DA | H40SRB | H28DA | H40SRB | H28DA | H40SRB | |
| 65 | H28DA | H40SRA | H28DA | H40SRA | H28DA | H50SRA | H28DA | H40SRB | H28DA | H40SRB | H28DA | H40SRB | |
| 80 | H28DA | H40SRA | H28DA | H40SRA | H40DA | H50SRA | H28DA | H40SRB | H28DA | H40SRB | H28DA | H40SRB | |
| 100 | H28DA | H40SRA | H28DA | H50SRA | H40DA | H50SRA | H28DA | H40SRB | H28DA | H40SRB | H28DA | H40SRB | |
| 125 | H40DA | H50SRA | H40DA | H63SRA | H40DA | H63SRA | H28DA | H40SRB | H28DA | H50SRB | H28DA | H50SRB | |
| 150 | H50DA | H63SRA | H50DA | H63SRA | H50DA | H80SRA | H40DA | H50SRB | H40DA | H50SRB | H40DA | H63SRB | |
| 200 | H50DA | H80SRA | H50DA | H80SRA | H63DA | - | H40DA | H50SRB | H50DA | H63SRB | H50DA | H80SRB | |
| 250 | H63DA | - | H63DA | - | H80DA | - | H50DA | H63SRB | H50DA | H80SRB | H63DA | H80SRB | |
| 300 | H80DA | - | H80DA | - | - | - | H63DA | H80SRB | H63DA | - | H63DA | - | |
| 350 | H80DA | - | - | - | - | - | H63DA | - | H63DA | - | H80DA | - | |
| 400 | - | - | - | - | - | - | H80DA | - | H80DA | - | - | - | |
| 500 | - | - | - | - | - | - | - | - | - | - | - | - | |









MORE THAN 35 YEARS OF HIGH QUALITY EXPERIENCE

Ghibson Italia can now boast of more than 35 years of experience in manufacturing of industrial valves.

In these 35 years we have designed and manufactured in our facilities in Italy butterfly valves and check valves, for the most different industrial applications.

We export our products all over the world always providing our customers with the best assistance during all the phases: design, installation, maintenance.

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Water Treatment
Pulp & Paper
Power Plant
Nuclear Plant
HVAC
Chemical & Petrochemical
Powder Conveying Systems
Food & Beverage

APPLICATIONS

Steam isolation - Vacuum service - Refining
Cooling Water systems - Metallurgical processes
Powder transportation & storage
Oil field recovery - Liquid natural gas
Steam service - Steam Turbine
Saltwater Service - District heating & cooling
Hot Air & Smokes
Chemicals storage & transportation
Food & Beverage processes

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- RESEARCH & DEVELOPMENT
- DESIGN
- CUSTOMIZATION
- PRODUCTION & LOGISTIC
- SALES & MARKETING
- QUALITY CONTROL
- CERTIFICATIONS
- PACKING AND SHIPPING
- AFTER SALES SUPPORT

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Very large choice of materials including valves of every alloy of carbon or stainless steel, bronze, aluminium, as well as with PTFE or Polypropylene.

We manufacture rubber seated valves with many elastomer types (EPDM, NBR, FKM, Silicone, Carboxidate among others), as well as PTFE, RTFE seated valves with many different coatings such as Halar, Rilsan, PFA, Chenisil, etc.

We can offer a total assistance:

- before selling we can start from dimensioning the valves and actuators, make selection of materials for all parts upon knowing the specification, prepare all types of drawings etc.
- after selling we make final documentation, provide installation supervision, undertake commissioning etc.

BUTTERFLY VALVES

Rubber Seated
PTFE Seated
High Performance
Damper Valves

ACTUATORS & OPTIONS

Pneumatic - Electric - Hydraulic

CONTROL SYSTEMS

CUSTOMIZED VALVES

CHECK VALVES

Disc type
Swing type
Dual plate

CERTIFICATIONS





G**HIBSON**
valves

not just valves, but solutions



Ghibson Italia srl

Via Dozza, 2 40069 Zola Predosa BO Italy
tel +39 051 835711 info@ghibson.it

ghibsonvalves.com