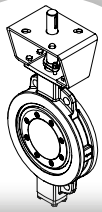




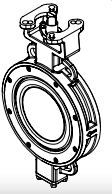
New 301 restyling.
Butterfly Valves Rubber Seated
with Top Mounting ISO 5211

OUR PRODUCTION



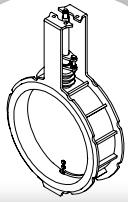
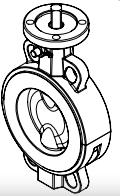
501M series - Triple Eccentric Metal Seated Butterfly Valves

401N series and 401N-FS series - Double Eccentric Butterfly Valves



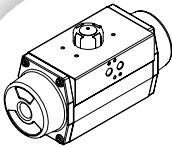
301/301E series - Butterfly Valves with rubber seat - ISO 5211

301TSS/301TT series - Butterfly Valves with PTFE lined

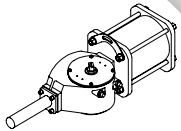


HT600 series - Damper Valves for high temperature

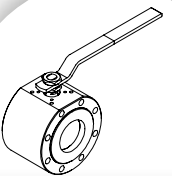
AP/APM series and AP040/210 series - Pneumatic Rotary Actuators



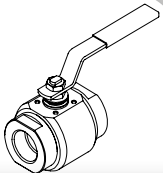
APG series - Scotch Yoke Pneumatic Actuators



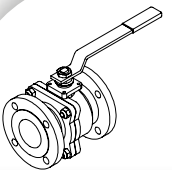
S10FS series - Wafer Flat Body Ball Valves



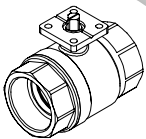
S20 series - Two-pieces 800 p.s.i. Ball Valves



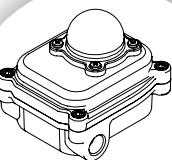
S30 series - Split Body Ball Valves / **S30T series** - Trunnion Ball Valves



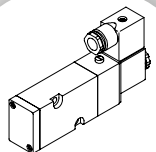
S40, S50, S60, S70, S80 series - Threaded actuated and manual ball valves



MBX series - Limit Switch Box



SOV series - Solenoid Valves 5/2 or 3/2 way



ACCESSORIES



Sirca International SpA was founded in the late seventies, and started doing business as a manufacturer of complete automation and pneumatic regulation systems.

Our flagship product is rotating pneumatic quarter-turn actuators which are compact, lightweight and highly reliable.

Subsequently, our company entered the Italian market with the production and sale of rubber-seated butterfly valves, double eccentric butterfly valves, ball valves and check valves.

In time at Sirca International we began marketing and producing accessories to actuate, control and regulate valves. These were installed on our own valves and actuators in order to offer our customers complete "assemblies" that are capable of meeting the most varied system requirements.

Beginning in the 1990s, our company began looking at foreign markets and in a short time we started exporting more than 60% of our production.

This type of market development requires continuous product innovation as well as continuous effort to maintain product competitiveness and quality.

With this motivation and these objectives, with the arrival of the new millennium we at Sirca International began designing and producing the triple eccentric butterfly valve metal-seated that are currently top of the range of the valves produced at Sirca.

The main strong points of Sirca International SpA lie in our product quality, competitive price, large warehouse stocks and in the reliability of our services. These confirm our status as a Leading Company on the national and international markets.



Production site

Accuracy in producing valve and pneumatic actuator components is fundamental. And it is for this reason that at Sirca International we have a large stock of top-of-the-range CNC machines with CAD-CAM technology. Amongst the machine tools we use are automatic saws, twin-spindle lathes, with double/triple tower and horizontal machining centres.



Coordinate Measuring Machine.
CMM



Optical emission spectrometer.
PMI testing (Positive Material Identification)



Coating thickness gauges.
For coating thickness measurement on metals.



Hardness testing machine.
Metal and rubber materials.

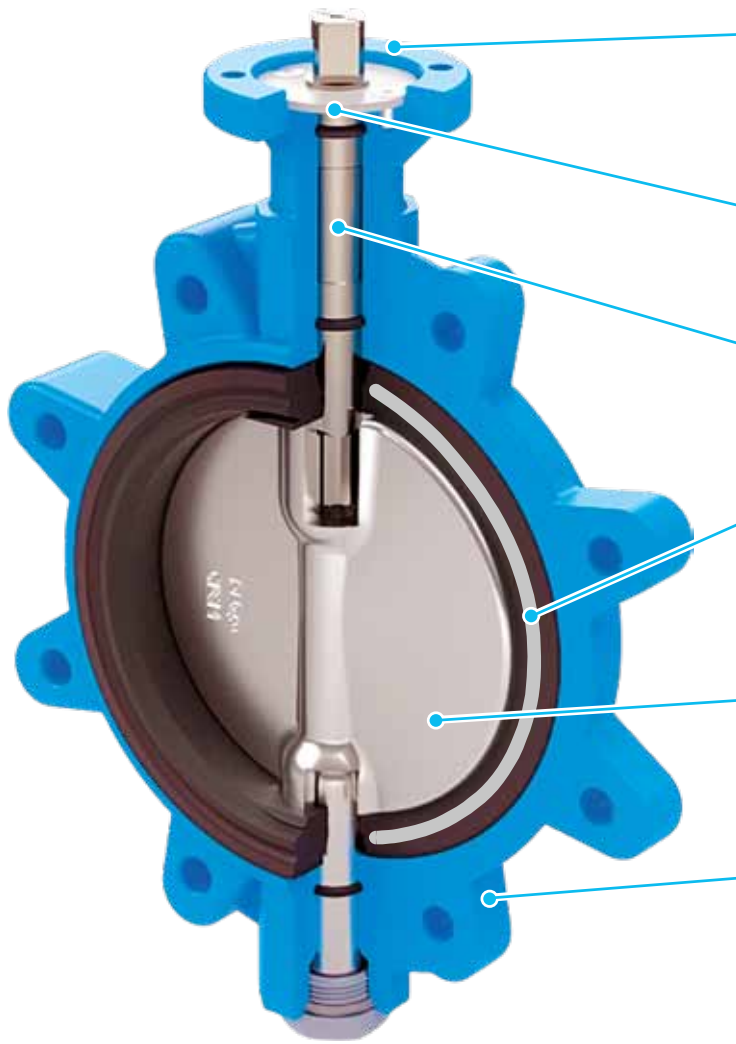


Vertical hydraulic test machine.
For butterfly and ball valves.



Leak test machine.
For pneumatic rotary actuators.

Construction features



Top Mounting Connection

New Top Mounting Flange according to ISO 5211 with possibility of direct mounting pneumatic actuators, electric controls, etc.

Antiblow-out

New Integrated antiblow-out shaft system, according to API 609

Stem

The upper stem features a square connection made in accordance with ISO 5211. In addition, all stems have a milling refer to the position of the disc.

Seat

The inner metal ring inside it guarantees geometric and dimensional stability and allows to the valve to be used in low vacuum conditions.

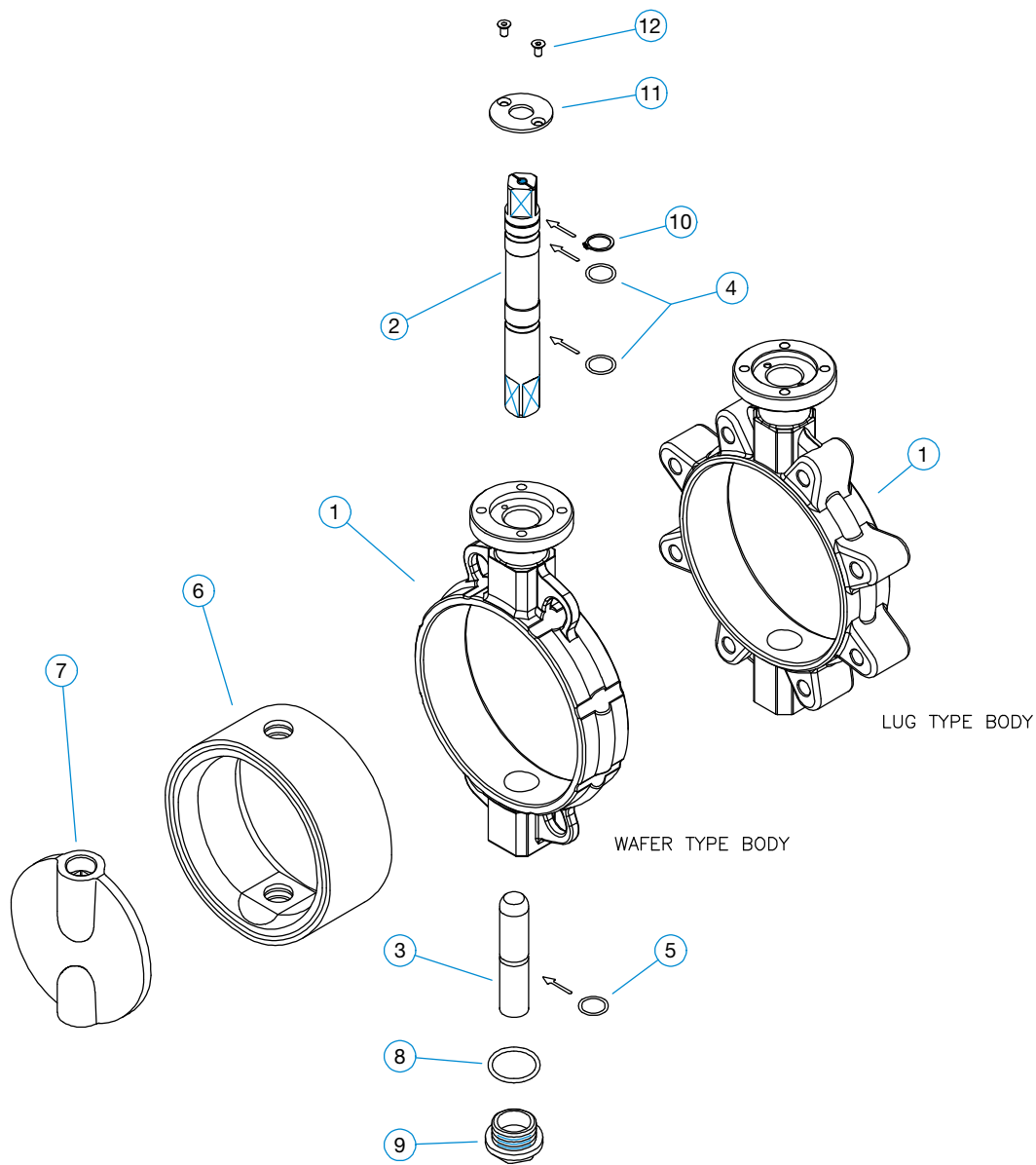
Disc

The disc, made by casting, guarantees a large flow pass like this ensuring low pressure drops and minimal turbulence.

Body

One-piece valve body casting ensures high strenght with minimum weight. It can be supplied in a wide choice of materials, for both Wafer and Lug models, so as to meet all possible installation requirements.

| | |
|--------------------------------|--|
| Shape | Wafer and Lug type (on request Double FLanged) |
| Size Range | From 1.1/2" to 40" (from DN40 to DN1000) |
| Flow direction | Bidirectional |
| Design | EN12516-2, ASME B16.34, API609 |
| Top mounting connection | Flange dimensions according to ISO 5211 Square stem connection according to ISO 5211 |
| Flange drilling | PN6, PN10, PN16 according to UNI EN 1092-1 ANSI 150 according to ASME B16.5 Other on request. |
| Face to Face dimension | According to UNI EN 558-1 basic series 20 |
| Working pressure | According to UNI EN 12516-1 and ASME B16.34 Max working pressure: 20 bar VACUUM CONDITIONS: Low Vacuum (from 1,013 bar to 0,033 bar) |
| Operating temeperature | Standard: -20 °C ÷ +160 °C (-4 °F ÷ +320 °F) depending on the body and gasket materials |
| Leakage class | NO leakage class, according to API598 / EN12266-1 |
| Applications | Liquids or gases in industrial environments, plants, water treatment, Law vacuum, other applications with compatible materials and working conditions |
| Declarations | 2014/68/UE "PED"; 2014/34/UE "ATEX"; IEC 61508 IEC 61511 "SIL"; EAC TR-CU 10, TR-CU 32 |



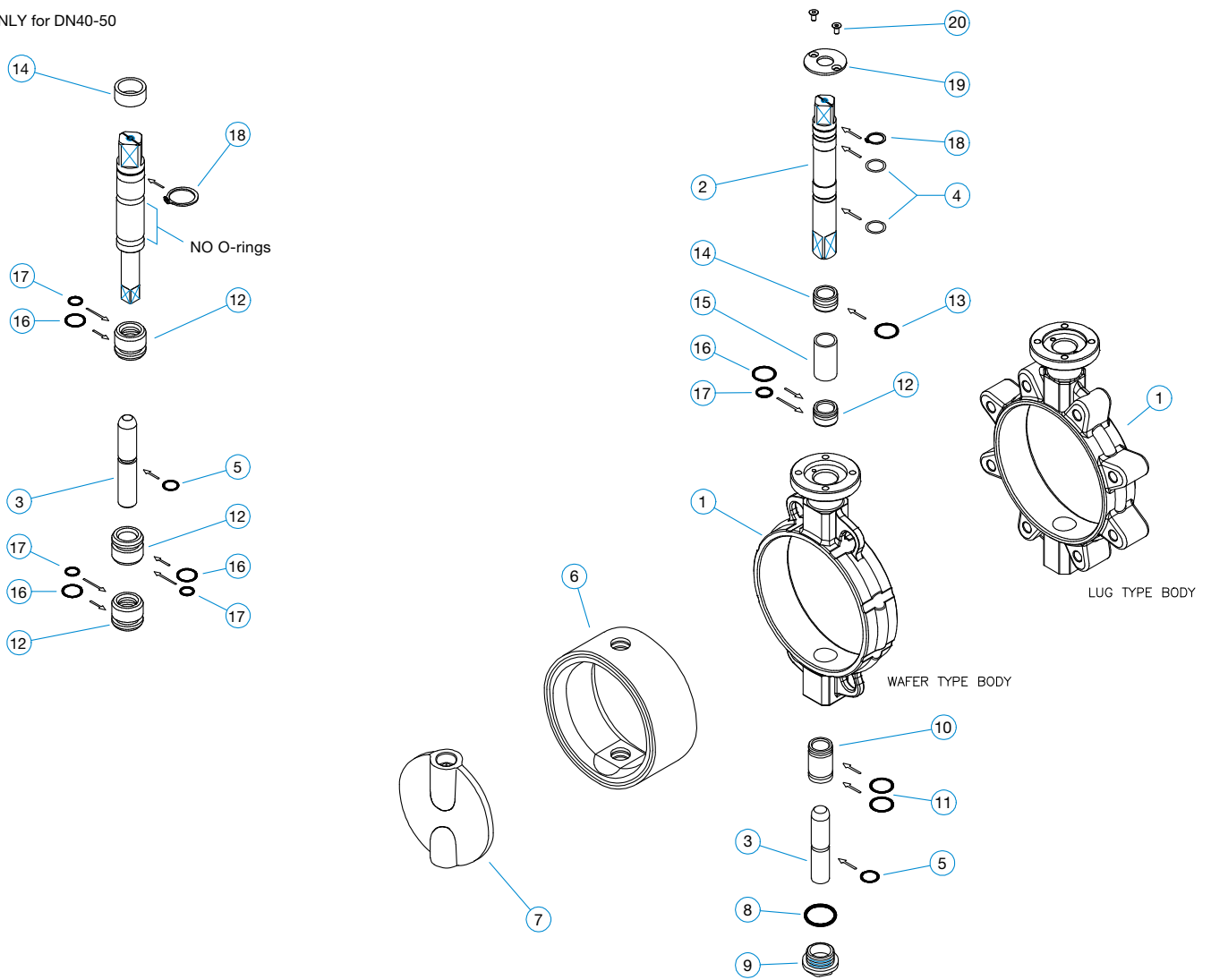
| BOM - DUCTILE IRON CONFIGURATION | | | |
|----------------------------------|----------------------------|--|------|
| ITEM | DESCRIPTION | STANDARD MATERIALS | Q.TY |
| 1 | BODY | EN GJS 400/15 (GGG40), Br/AI ASTM B148 gr. 95800 | 1 |
| 2 | UPPER STEM | AISI 316, 416, 630, F51, Monel K500 | 1 |
| 3 | LOWER STEM | AISI 316, 416, 630, F51, Monel K500 | 1 |
| 4* | O-RING | NBR, VITON | 2 |
| 5* | O-RING | NBR, VITON | 1 |
| 6* | GASKET | NBR, VITON, EPDM | 2 |
| 7 | DISC | EN GJS400/15 (GGG40) ASTM A216 gr. WCB ASTM A351 gr. CF8M Br/AI ASTM B148 gr. 95800 BUNA-N, EPDM, VITON Coated | 1 |
| 8* | O-RING | NBR, VITON | 1 |
| 9 | PLUG | CARBON STEEL | 1 |
| 10 | SEEGER | CARBON STEEL+ENP | 1 |
| 11 | ANTI BLOW OUT PLATE | CARBON STEEL+ENP | 1 |
| 12 | SCREW | STAINLESS STEEL | 2 |

* Suggested spare parts for ordinary maintenanc

NOTE: Other materials are available on request.

301 Steel Configuration DN40-DN300 - Exploded view

ONLY for DN40-50



| BOM - STEEL CONFIGURATION | | | |
|---------------------------|---------------------|--|------|
| ITEM | DESCRIPTION | STANDARD MATERIALS | Q.TY |
| 1 | BODY | ASTM A216 gr. WCB ASTM A351 gr. CF8M | 1 |
| 2 | UPPER STEM | AISI 316, 416, 630 | 1 |
| 3 | LOWER STEM | AISI 316, 416, 630 | 1 |
| 4* | O-RING | NBR, VITON | 2 |
| 5* | O-RING | NBR, VITON | 1 |
| 6* | GASKET | NBR, VITON, EPDM | 1 |
| 7 | DISC | EN GJS400/15 (GGG40) ASTM A216 gr. WCB ASTM A351 gr. CF8M ASTM B148 gr. 9580 EPDM, VITON Coated HALARN Coated | 1 |
| 8* | O-RING | NBR, VITON | 1 |
| 9 | PLUG | CARBON STEEL, STAINLESS STEEL | 1 |
| 10 | LOWER BUSHING | BRONZE | 1 |
| 11* | O-RING | NBR, VITON | 2 |
| 12 | UPPER BUSHING | BRONZE | 1 |
| 13* | O-RING | NBR, VITON | 1 |
| 14 | UPPER BUSHING | BRONZE | 1 |
| 15 | SPACER | CARBON STEEL + ENP | 1 |
| 16* | O-RING | NBR, VITON | 1 |
| 17* | O-RING | NBR, VITON | 1 |
| 18 | SEEGER | CARBON STEEL+ENP | 1 |
| 19 | ANTI BLOW OUT PLATE | AISI 316 | 1 |
| 20 | SCREW | STAINLESS STEEL | 2 |

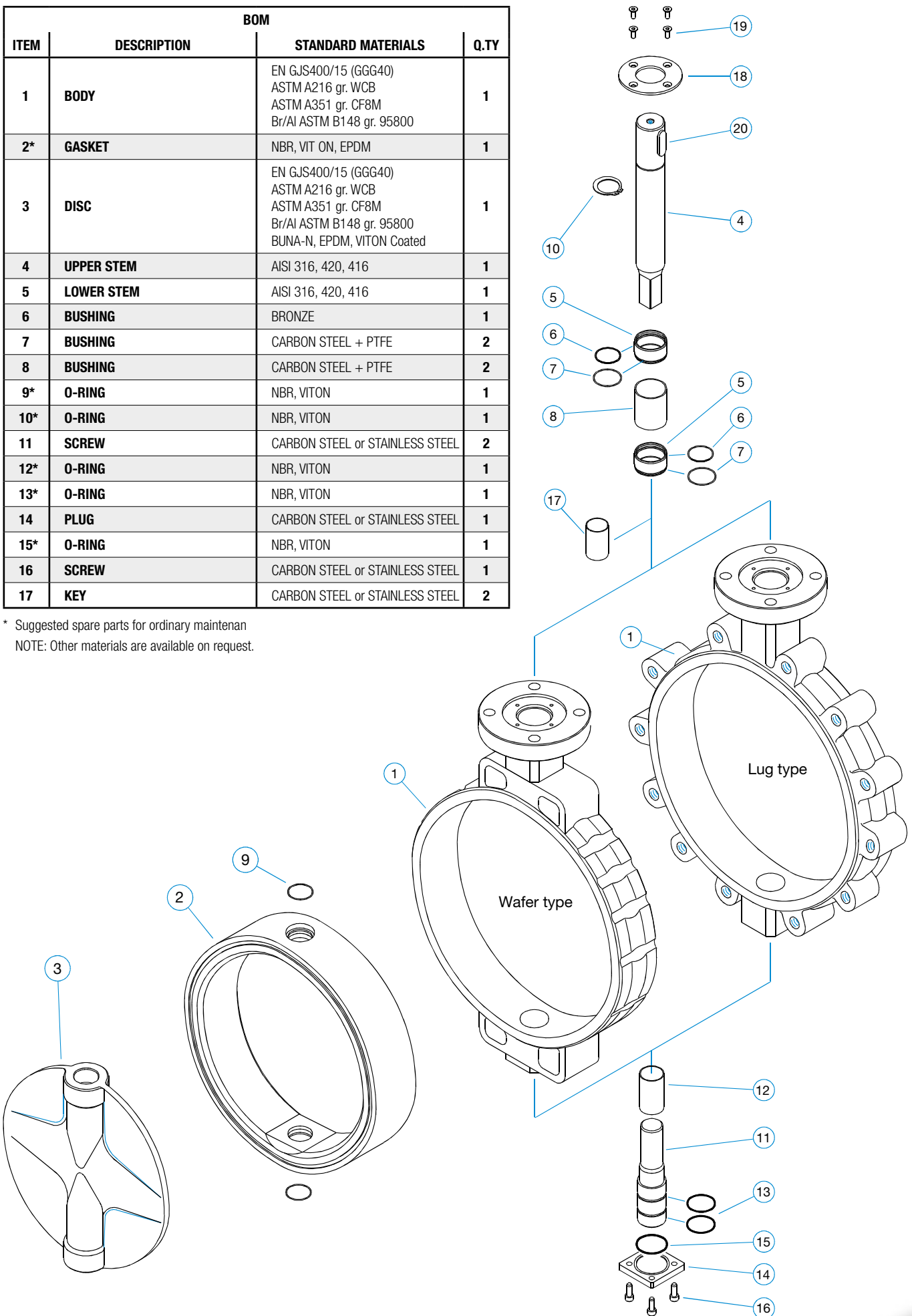
* Suggested spare parts for ordinary maintenanc

NOTE: Other materials are available on request.

301 DN350-DN600 - Exploded view

| BOM | | | |
|------|-------------|--|------|
| ITEM | DESCRIPTION | STANDARD MATERIALS | Q.TY |
| 1 | BODY | EN GJS400/15 (GGG40) ASTM A216 gr. WCB ASTM A351 gr. CF8M Br/AI ASTM B148 gr. 95800 | 1 |
| 2* | GASKET | NBR, VIT ON, EPDM | 1 |
| 3 | DISC | EN GJS400/15 (GGG40) ASTM A216 gr. WCB ASTM A351 gr. CF8M Br/AI ASTM B148 gr. 95800 BUNA-N, EPDM, VITON Coated | 1 |
| 4 | UPPER STEM | AISI 316, 420, 416 | 1 |
| 5 | LOWER STEM | AISI 316, 420, 416 | 1 |
| 6 | BUSHING | BRONZE | 1 |
| 7 | BUSHING | CARBON STEEL + PTFE | 2 |
| 8 | BUSHING | CARBON STEEL + PTFE | 2 |
| 9* | O-RING | NBR, VITON | 1 |
| 10* | O-RING | NBR, VITON | 1 |
| 11 | SCREW | CARBON STEEL or STAINLESS STEEL | 2 |
| 12* | O-RING | NBR, VITON | 1 |
| 13* | O-RING | NBR, VITON | 1 |
| 14 | PLUG | CARBON STEEL or STAINLESS STEEL | 1 |
| 15* | O-RING | NBR, VITON | 1 |
| 16 | SCREW | CARBON STEEL or STAINLESS STEEL | 1 |
| 17 | KEY | CARBON STEEL or STAINLESS STEEL | 2 |

* Suggested spare parts for ordinary maintenanc
NOTE: Other materials are available on request.



301 DN700-DN1000 - General Features



301 series butterfly valve was created to satisfy fluid interception and regulation applications in large diameter systems (DN700÷DN1000). Some advantages of this valve are the low weight which allows easy installation and low production cost, while maintaining high resistance and safety requirements. 301 series butterfly valves are bi-directional. The sealing gasket protrudes from the valve body ensuring a seal on pipeline flanges without the use of additional gaskets. These valves are available in Wafer, Lug and Flanged variations.

Wafer type has four blind threaded holes according to PN and ANSI flange standards.

Lug type has ears with blind threaded holes according to PN and ANSI flange standards. It allows the valve to be used as a foot valve at the end of a pipeline.

Flanged type has two flanges, at the ends, according to PN and ANSI flange standards.

All sizes of 301 series can be mounted on the flanges according to actual flanges norms, UNI EN 1092-1 for PN6-10-16 and ASME B16.47 series A for class ANSI150. The simple structure of the valve and the use of few components guarantee long life of the valve as well as reducing maintenance operations. The wide choice of materials available and the possibility of performing particular applications allow the use of the valve in the most varied working conditions.

Project Design

S301 valves are manufactured in diameters from DN700 up to DN1000. The valves have a perfect “bubble tight shut off” seal in every direction of the fluid at the maximum admissible rating pressure, max 10 bar.

The seat is made of vulcanized rubber material on a metal support that allows geometric stability and use in low vacuum conditions.

The disc has a slim profile to ensure low pressure drop and minimum turbulence.

The body and stems are always protected from the fluid, only the seat and the disc are in direct contact with the fluid. Large diameter S301 valves can be automated with different types of actuators: pneumatic, electric, hydraulic or with handwheel and gear devices.

The body is coated with epoxy paint to protect the valve from corrosion and to make it suitable for installation in marine environments.

The valve is self-cleaning and has a double tightening on the shafts. The casting one-pieces can be supplied in different materials in Wafer, Lug and Flanged application.

Technical Features

The rounded profile of the Disc and the particular shape of the Seat allow to obtain a low torque during the closing action and guarantee a perfect bubble seal. The high resistance shafts enter in the discs for 2/3 of the diameter of the disc.

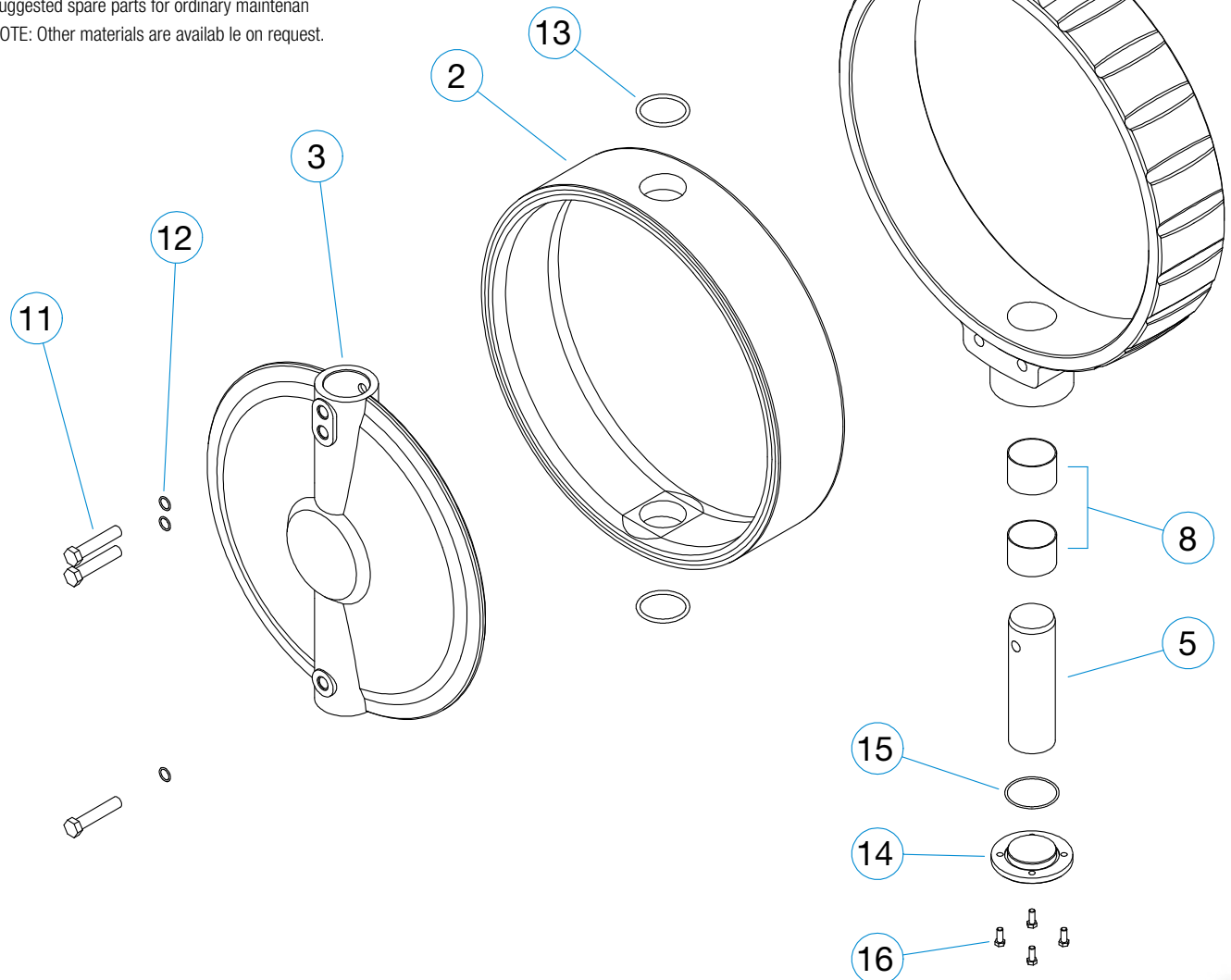
The shafts are driven by PTFE coated bushings that guarantee a low torque as well as a linear movement of the disc. In the upper part a bushing with internal and external o-rings prevents dust and/or liquids from entering the body or coming into contact with the shafts.

The shafts are fixed on the discs with special screws. The large diameter 301 series butterfly valves have a cap with o-ring in the lower part that blocks the shaft and eliminates leaks to the outside.

301 DN700-DN1000 - Exploded view

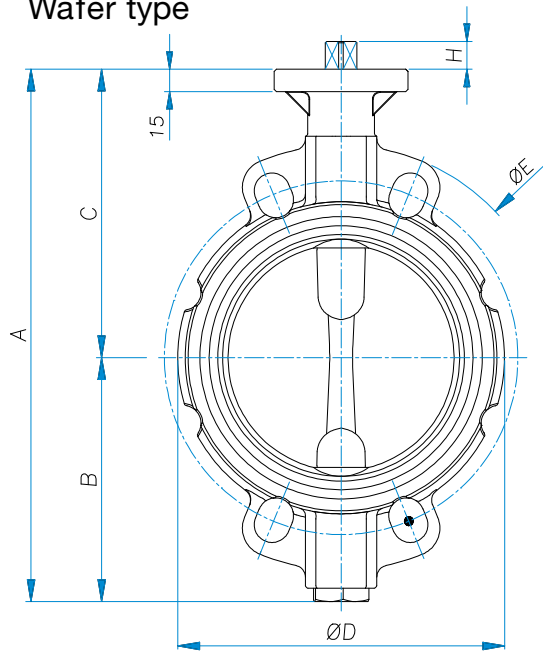
| BOM | | | |
|------|-------------|--|------|
| ITEM | DESCRIPTION | STANDARD MATERIALS | Q.TY |
| 1 | BODY | EN GJS400/15 (GGG40) ASTM A216 gr. WCB ASTM A351 gr. CF8M Br/AI ASTM B148 gr. 95800 | 1 |
| 2* | GASKET | NBR, VITON, EPDM | 1 |
| 3 | DISC | EN GJS400/15 (GGG40) ASTM A216 gr. WCB ASTM A351 gr. CF8M Br/AI ASTM B148 gr. 95800 BUNA-N, EPDM, VITON Coated | 1 |
| 4 | UPPER STEM | AISI 316, 420, 416 | 1 |
| 5 | LOWER STEM | AISI 316, 420, 416 | 1 |
| 6 | BUSHING | BRONZE | 1 |
| 7 | BUSHING | CARBON STEEL + PTFE | 2 |
| 8 | BUSHING | CARBON STEEL + PTFE | 2 |
| 9* | O-RING | NBR, VITON | 1 |
| 10* | O-RING | NBR, VITON | 1 |
| 11 | SCREW | CARBON STEEL or STAINLESS STEEL | 3 |
| 12* | O-RING | NBR, VITON | 3 |
| 13* | O-RING | NBR, VITON | 2 |
| 14 | PLUG | CARBON STEEL or STAINLESS STEEL | 1 |
| 15* | O-RING | NBR, VITON | 1 |
| 16 | SCREW | CARBON STEEL or STAINLESS STEEL | 4 |
| 17 | KEY | CARBON STEEL or STAINLESS STEEL | 2 |

* Suggested spare parts for ordinary maintenance
NOTE: Other materials are available on request.

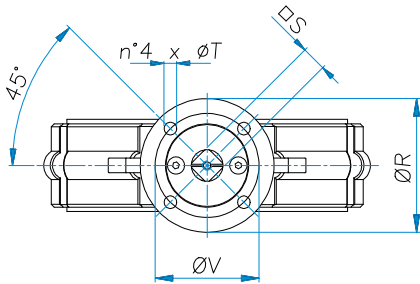
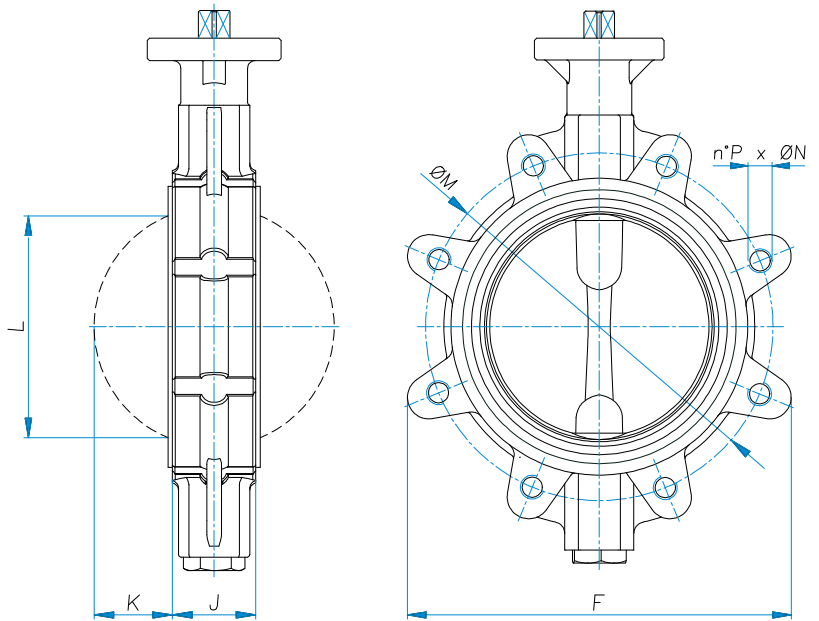


Overall dimensions from DN40 to DN300

Wafer type



Lug type



Weights (kg)

| DN | mm | 40 | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 |
|----|-------|--------|-----|--------|-----|-----|------|------|------|------|------|
| | inc | 1.1/2" | 2" | 2.1/2" | 3" | 4" | 5" | 6" | 8" | 10" | 12" |
| kg | Wafer | 2,2 | 2,9 | 3,9 | 4,2 | 5,0 | 7,4 | 8,5 | 11,8 | 18,5 | 29,8 |
| | Lug | 2,6 | 3,5 | 4,9 | 5,4 | 7,0 | 10,0 | 11,1 | 17,0 | 27,4 | 40,4 |

| DN | A | B | C | ØD | ØE | F | J** | K | L | ØM | | | | ØN | | | | P | | | | ØR | □S | H | ØT | ØV | ISO 5211 |
|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|------|------|-------|-----|------|------|----------|-----|------|------|------|-----|----|----|----|-----|----------|
| | | | | | | | | | | PN6 | PN10 | PN16 | A150 | PNG | PN10 | PN16 | A150*** | PN6 | PN10 | PN16 | A150 | | | | | | |
| 40 | 188 | 90 | 98 | 90 | 145 | 111 | 34 | 6,6 | 31 | 100 | 110 | 110 | 98,6 | M12 | M16 | M16 | 1/2" UNC | 4 | 4 | 4 | 4 | 65 | 11 | 12 | 7 | 50 | F05 |
| 50 | 205 | 96 | 109 | 103 | 160 | 120 | 43,5 | 7,2 | 36 | 110 | 125 | 125 | 120,6 | M12 | M16 | M16 | 5/8" UNC | 4 | 4 | 4 | 4 | 65 | 11 | 12 | 7 | 50 | F05 |
| 65 | 230 | 108 | 122 | 122 | 180 | 138 | 46 | 13 | 53 | 130 | 145 | 145 | 139,7 | M12 | M16 | M16 | 5/8" UNC | 4 | 8 | 8 | 4 | 90 | 14 | 16 | 9 | 70 | F07 |
| 80 | 250 | 118 | 132 | 140 | 198 | 150 | 46 | 19,3 | 69 | 150 | 160 | 160 | 152,4 | M16 | M16 | M16 | 5/8" UNC | 4 | 8 | 8 | 4 | 90 | 14 | 16 | 9 | 70 | F07 |
| 100 | 285 | 132 | 153 | 162 | 230 | 213 | 52 | 27 | 90 | 170 | 180 | 180 | 190,5 | M16 | M16 | M16 | 5/8" UNC | 4 | 8 | 8 | 8 | 90 | 14 | 16 | 9 | 70 | F07 |
| 125 | 327 | 150 | 177 | 200 | 256 | 243 | 56,5 | 36,4 | 115 | 200 | 210 | 210 | 215,9 | M16 | M16 | M16 | 3/4" UNC | 8 | 8 | 8 | 8 | 90 | 17 | 19 | 9 | 70 | F07 |
| 150 | 359 | 165 | 194 | 220 | 286 | 267 | 56,5 | 48,6 | 142 | 225 | 240 | 240 | 241,3 | M16 | M20 | M20 | 3/4" UNC | 8 | 8 | 8 | 8 | 90 | 17 | 19 | 9 | 70 | F07 |
| 200 | 419 | 194 | 225 | 243 | 310 | 330 | 60 | 69,8 | 199 | 280 | 295 | 295 | 298,4 | M16 | M20 | M20 | 3/4" UNC | 8 | 8 | 12 | 8 | 125 | 17 | 19 | 11 | 102 | F10 |
| 250 | 495 | 220 | 275 | 263 | 348 | 402 | 68 | 90 | 238 | 335 | 350 | 355 | 362,0 | M16 | M20 | M24 | 7/8" UNC | 12 | 12 | 12 | 12 | 150 | 22 | 24 | 13 | 125 | F12 |
| 300 | 559 | 262 | 297 | 382 | 414 | 473 | 78 | 111 | 289 | 395 | 400 | 410 | 431,8 | M20 | M20 | M24 | 7/8" UNC | 12 | 12 | 12 | 12 | 150 | 22 | 24 | 13 | 125 | F12 |

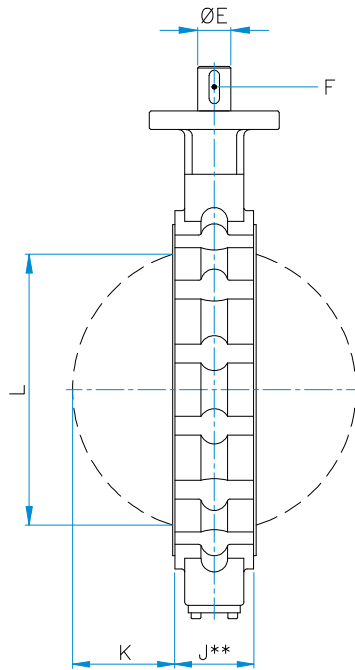
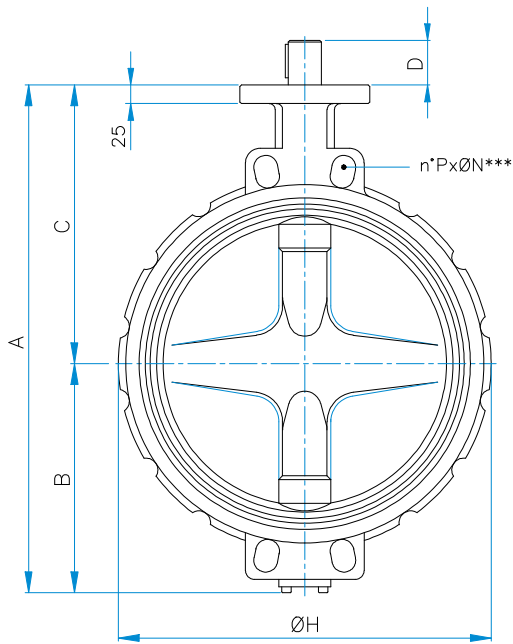
* Only for DN65 PN10-16, where steel flange and consequently butterfly valve are required with 4 holes, these may be supplied by agreement between valve manufacturer and purchaser.

** J dimension according to UNI EN 558, basic series 20.
L is the measurement of the disc chord, in full opening position.

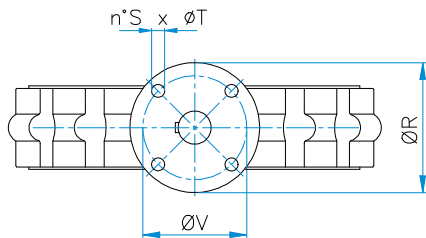
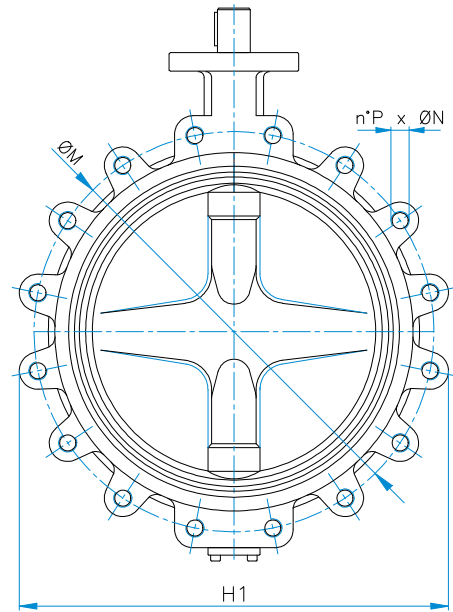
*** For flanges ASME B16.5 class ANSI 150 thread according to ANSI B1.1 type UNC
On request, holes with metric thread for flanges ASME B16.5 class ANSI 150

Overall dimensions from DN600 to DN1000

Wafer type



Lug type



Weights (kg)

| DN | mm | 350 | 400 | 450 | 500 | 600 | 700 | 750 | 800 | 900 | 1000 |
|----|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|
| | inc | 14" | 16" | 18" | 20" | 24" | 28" | 30" | 32" | 36" | 40" |
| kg | Wafer | 50 | 70 | 90 | 110 | 210 | 250 | 315 | 365 | 440 | 575 |
| | Lug | 60 | 90 | 110 | 150 | 270 | 350 | 415 | 465 | 530 | 672 |

| DN | A | B | C | D | ØE | F | ØH | H1 | J** | K | L | ØM | | | | ØN | | | | P | | | | ØR | S | ØT | ØV |
|------|------|-------|-------|-----|------|---------------|------|------|-----|-----|-----|------|------|------|--------|-----|------|------|--------------|-----|------|------|------|-----|---|----|-----|
| | | | | | | | | | | | | PN6 | PN10 | PN16 | A150 | PNG | PN10 | PN16 | A150*** | PN6 | PN10 | PN16 | A150 | | | | |
| 350 | 632 | 281 | 351 | 60 | 44,5 | 14x9x45 | 436 | 516 | 78 | 126 | 324 | 445 | 460 | 470 | 476,2 | M20 | M20 | M24 | 1" UNC | 12 | 16 | 16 | 12 | 175 | 4 | 18 | 140 |
| 400 | 681 | 305,5 | 375,5 | 60 | 44,5 | | 483 | 590 | 102 | 138 | 367 | 495 | 515 | 525 | 539,8 | M20 | M24 | M27 | 1" UNC | 16 | 16 | 16 | 16 | 175 | 4 | 18 | 140 |
| 450 | 749 | 349 | 400 | 60 | 44,5 | | 540 | 644 | 114 | 157 | 417 | 550 | 565 | 585 | 577,8 | M20 | M24 | M27 | 1.1/8" - 8UN | 16 | 20 | 20 | 16 | 175 | 4 | 18 | 140 |
| 500 | 798 | 373 | 425 | 60 | 44,5 | | 580 | 715 | 127 | 179 | 468 | 600 | 620 | 650 | 635,0 | M20 | M24 | M30 | 1.1/8" - 8UN | 20 | 20 | 20 | 20 | 175 | 4 | 18 | 140 |
| 600 | 936 | 445 | 491 | 90 | 63 | 18x11x80 | 710 | 830 | 153 | 218 | 572 | 705 | 725 | 770 | 749,3 | M24 | M27 | M33 | 1.1/4" - 8UN | 20 | 20 | 20 | 20 | 210 | 4 | 22 | 165 |
| 700 | 1120 | 540 | 580 | 90 | 75 | | 792 | 910 | 165 | 261 | 666 | 810 | 840 | 840 | 863,6 | M24 | M27 | M33 | 1.1/4" - 8UN | 24 | 24 | 24 | 28 | 300 | 8 | 18 | 254 |
| 750 | 1195 | 585 | 610 | 90 | 75 | n°2-22x14x80 | 860 | 970 | 190 | 279 | 719 | // | // | // | 914,4 | // | // | // | 1.1/4" - 8UN | // | // | // | 28 | 300 | 8 | 18 | 254 |
| 800 | 1242 | 612 | 630 | 90 | 75 | | 825 | 1040 | 190 | 304 | 774 | 920 | 950 | 950 | 977,9 | M27 | M30 | M36 | 1.1/2" - 8UN | 24 | 24 | 24 | 28 | 360 | 8 | 18 | 254 |
| 900 | 1350 | 660 | 690 | 120 | 95 | n°2-25x14x110 | 1008 | 1150 | 203 | 339 | 858 | 1020 | 1050 | 1050 | 1085,9 | M27 | M30 | M36 | 1.1/2" - 8UN | 24 | 28 | 28 | 32 | 360 | 8 | 22 | 298 |
| 1000 | 1500 | 740 | 760 | 120 | 95 | | 1135 | 1260 | 216 | 383 | 957 | 1120 | 1160 | 1170 | 1200,2 | M27 | M33 | M39 | 1.1/2" - 8UN | 28 | 28 | 28 | 36 | 415 | 8 | 22 | 298 |

** J dimension according to UNI EN 558, basic series 20.L is the measurement of the disc chord, in full opening position.

*** For butterfly valves wafer type, from Dn700 to DN1000 the body has only four dead threaded holes on each side.

**** From DN350 to DN600 flange drilling according to ASME B16.5 class ANSI 150. From DN700 to DN1000 flange drilling according to ASME B16.47 series A class ANSI 150. Thread according to ANSI B1.1 type UNC up to 1" included. Thread according to ANSI B1.1 type 8-UN over 1" excluded. On request, holes with metric thread for flanges ASME B16.5/B16.47 class ANSI 150

Torque values (Nm)

| Δ^P (bar) | SIZE (mm/inch) | | | | | | | | | | | | | | | | | | | |
|------------------|----------------|----|--------|----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|-------|-------|
| | 40 | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 600 | 700 | 750 | 800 | 900 | 1000 |
| | 1 1/2" | 2" | 2 1/2" | 3" | 4" | 5" | 6" | 8" | 10" | 12" | 14" | 16" | 18" | 20" | 24" | 28" | 30" | 32" | 36" | 40" |
| 0 | 11 | 12 | 28 | 35 | 38 | 64 | 70 | 85 | 180 | 325 | 400 | 515 | 840 | 1150 | 2130 | 2403 | 2785 | 3329 | 5067 | 6496 |
| 3 | 12 | 13 | 29 | 42 | 45 | 78 | 80 | 110 | 190 | 400 | 460 | 680 | 925 | 1355 | 2300 | 2606 | 3018 | 3608 | 5491 | 7040 |
| 6 | 13 | 14 | 30 | 48 | 51 | 82 | 84 | 125 | 260 | 472 | 600 | 775 | 1100 | 1490 | 2685 | 2880 | 3430 | 4100 | 6240 | 8000 |
| 10 | 14 | 18 | 34 | 50 | 54 | 94 | 100 | 140 | 300 | 570 | 750 | 920 | 1320 | 1690 | 3200 | 4800 | 5720 | 6940 | 10400 | 14540 |
| 16 | 17 | 23 | 38 | 59 | 60 | 108 | 119 | 200 | 370 | 715 | 900 | 1114 | 1545 | 1815 | 5420 | // | // | // | // | // |
| 20 | 18 | 25 | 46 | 67 | 69 | 138 | 145 | 275 | 450 | 820 | 1035 | 1340 | 1710 | 2210 | 5790 | // | // | // | // | // |

NOTE:

The table above gives the recommended maximum torque values to be applied to the SIRCA butterfly valves. They represent the sum of the amounts of the mechanical friction caused by opening and closing the valve in relation the various pressure drops. These to torque do NOT include the Safety Factor, besides these values apply to any type of application.

Cv values

| Angle of opening | SIZE (mm/inch) | | | | | | | | | | | | | | | | | | | |
|------------------|----------------|-----|--------|-----|-----|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 40 | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 600 | 700 | 750 | 800 | 900 | 1000 |
| | 1 1/2" | 2" | 2 1/2" | 3" | 4" | 5" | 6" | 8" | 10" | 12" | 14" | 16" | 18" | 20" | 24" | 28" | 30" | 32" | 36" | 40" |
| 90° | 80 | 130 | 200 | 300 | 550 | 1125 | 1950 | 3250 | 5000 | 7500 | 10000 | 12500 | 17500 | 22000 | 28000 | 29100 | 33300 | 37880 | 47950 | 59200 |
| 80° | 70 | 105 | 160 | 240 | 475 | 1000 | 1650 | 2725 | 4300 | 6050 | 8100 | 10800 | 14000 | 17500 | 24000 | 25317 | 28971 | 32956 | 41717 | 51504 |
| 70° | 55 | 90 | 130 | 205 | 400 | 830 | 1350 | 2200 | 3600 | 5000 | 6700 | 9000 | 12000 | 15000 | 20500 | 22026 | 25205 | 28671 | 36293 | 44808 |
| 60° | 45 | 70 | 105 | 160 | 305 | 625 | 1030 | 1750 | 2750 | 4050 | 5100 | 6500 | 9200 | 11500 | 16500 | 19162 | 21928 | 24944 | 31575 | 38983 |
| 50° | 26 | 53 | 83 | 125 | 235 | 490 | 800 | 1300 | 2150 | 3100 | 4100 | 5100 | 7100 | 8700 | 11750 | 16671 | 19077 | 21701 | 27470 | 33916 |
| 40° | 18 | 27 | 42 | 63 | 120 | 250 | 410 | 700 | 1150 | 1600 | 2200 | 2650 | 3700 | 4600 | 6100 | 14504 | 16597 | 18880 | 23899 | 29507 |
| 30° | 11 | 17 | 26 | 38 | 73 | 155 | 250 | 420 | 670 | 1000 | 1300 | 1700 | 2300 | 2800 | 3800 | 12619 | 14440 | 16426 | 20792 | 25671 |
| 20° | 5 | 9 | 15 | 22 | 42 | 88 | 145 | 250 | 390 | 550 | 750 | 900 | 1250 | 1600 | 2200 | 10978 | 12563 | 14290 | 18089 | 22333 |
| 10° | 3 | 6 | 10 | 15 | 28 | 60 | 98 | 170 | 260 | 380 | 500 | 650 | 900 | 1125 | 1500 | 9551 | 10929 | 12433 | 15738 | 19430 |

Cv (pure number) gives the flow rate of water in U.S. gallons per minute passing through the valve, creating a pressure drop of 1 psi at a temperature of + 68° F (American units). In metric units this coefficient is defined as the Kv which likewise represents the flow rate in m³/h passing through the valve with a pressure drop of 1 bar at a temperature of 20° C. The relation between Cv and Kv expressed in the above units is a follows: Cv= 1.16 Kv.

S301 ISO5211 with hand lever



S301 ISO5211 with handwheel gear box



S301 ISO 5211 with pneumatic actuators AP/PM series. Direct mounting



S301 ISO 5211 with disengageable gear box and pneumatic actuators AP040/210 series



S301 ISO5211 with 230V-50Hz one phase or 400V-50Hz three phases IP67 electric actuator



S301 ISO5211 with disengageable gear box, pneumatic actuators, limit switch box and pneumatic control group





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