

SERIE A

DN 50 ÷ 1 200 / PN 10 KNIFE GATE VALVE, UNIDIRECTIONAL



- 1-PC wafer type cast body, short face to face
- full bore
- knife with special guide for fast and trouble-free closing
- metal or soft sealing seat
- rising stem
- wide range of material options for soft elastomer seats
- low torque

APPLICATION:

- sewage treatment plants, sludge management
- paper industry
- food industry
- chemical industry
- storage and transport of bulk materials

ADVANTAGES:

- low pressure drop
- low weight
- easy to install between flanges in or on the end of pipe (or under silo)
- low maintenance costs
- long service life



TECHNICAL DATA:

Working medium:

liquid substances with a maximum solids concentration of 5% (eg. waste water and sludge, paper pulp) or bulk media (powders, granules), in which the size of the mechanical particles does not exceed 10 mm, depending on construction materials of the knife gate valve

Maximal working pressure:

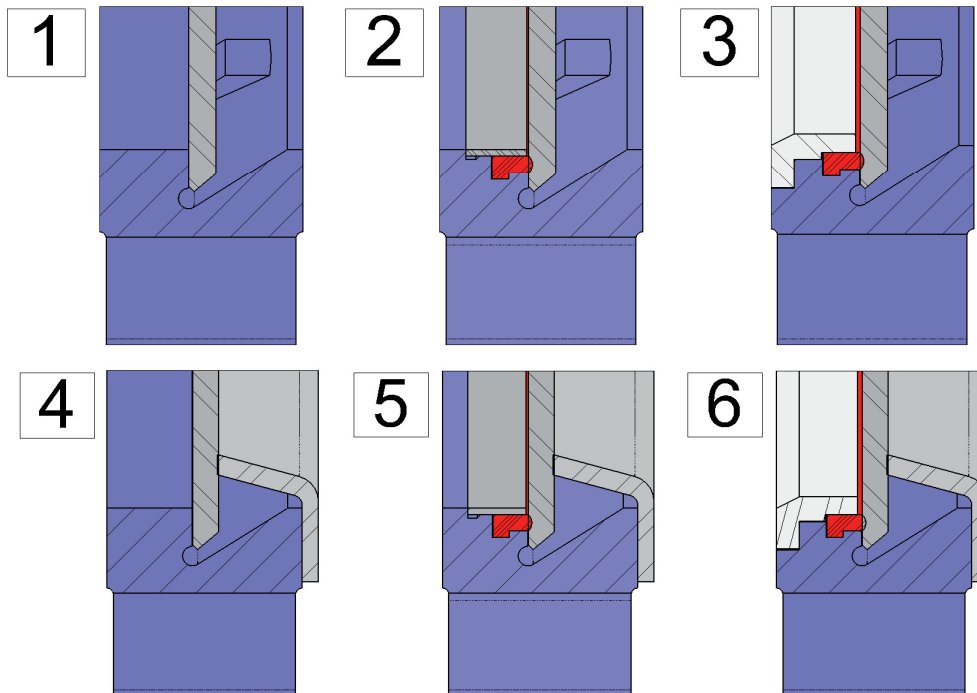
| DN | Max. working pressure (bar) |
|------------|-----------------------------|
| 50 - 250 | 10 |
| 300 | 6 |
| 350 - 400 | 6 |
| 450 | 5 |
| 500 - 600 | 4 |
| 700 - 1200 | 2 |

The stated maximum working pressure values are valid for knife gate valves installed with an arrow on the body in accordance with the direction of flow of the working substance in the pipeline.

In the case of gravity flow of loose media (installation of the valve under silo), the knife gate valves serie A are mounted with the arrow on the body in the opposite direction to the flow of the working medium and the maximum working pressure reaches only 30% of the values given above.

Maximum temperature range: depends on the design and construction materials of the knife gate valves, working medium and working conditions

Fig. 1



Type of seat

- 1 metal-metal
- 2 metal-elastomer
- 3 metal-elastomer with scraper to protect the seat from abrasion
- 4 metal-metal with deflector to protect the body from abrasion
- 5 metal-elastomer with deflector to protect the body from abrasion
- 6 metal-elastomer with scraper to protect the seat from abrasion and with deflector to protect the body from abrasion

Tightness (%)

- 98,8
- 100
- 100
- 98,8
- 100
- 100

Note

In order to select the appropriate type of seat and materials of body, knife, seat and packing don't hesitate to contact our sales department.

- Face to face: according to manufacturer
- Installation between flanges acc. to: EN 1092-1/ DIN PN10
- Operating: up to DN 500 - hand wheel
DN 600-1200 - gear box with hand wheel
- Options: non-rising stem
extended stem
hand wheel with lock
quick-closing hanged lever
chain wheel
electric, pneumatic or hydraulic actuator
low control
knife position indicator
limit switches
other type or color of coating according to customer requirements
delivery including counter-flanges, bolting and sealing material

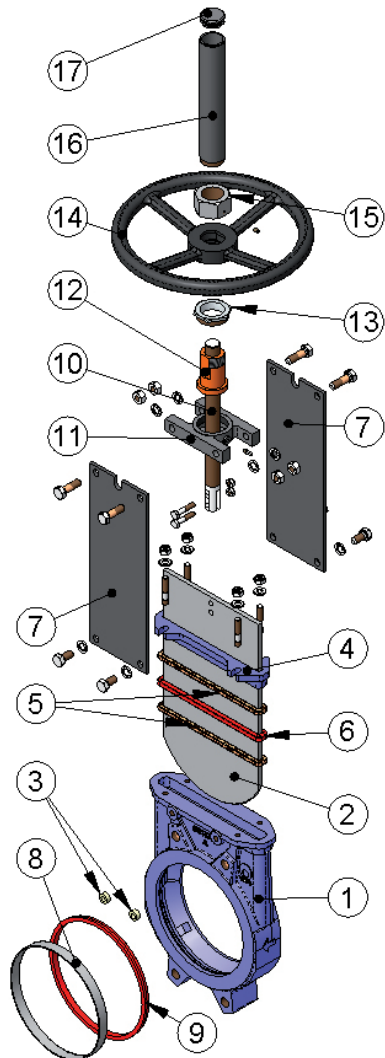
Testing:

each knife gate valve is tested according to EN 12266 and supplied with accompanying documentation according to EN 10204

Certification:

PED 2014/68/EU
ATEX (II, 2 a 22 GD) 94/9/ES

Fig. 2



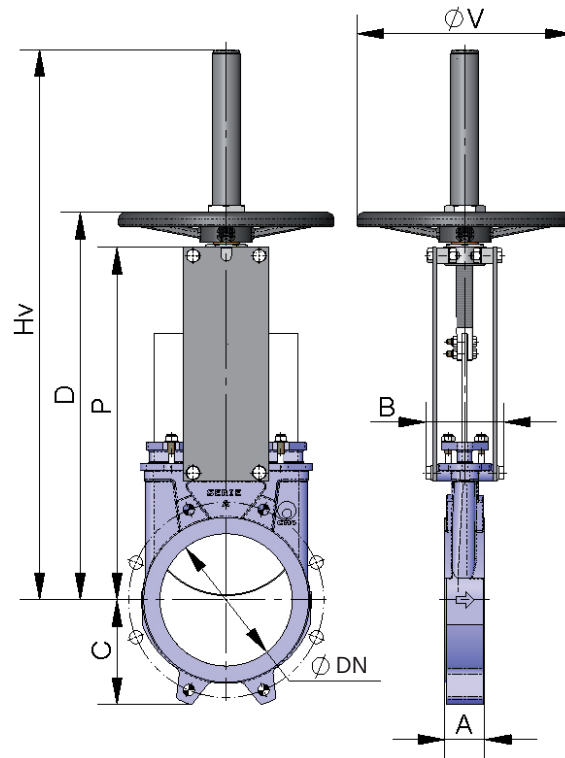
| Pozice | Description | Basic material options of knife gate valve with EPDM seat | |
|--------|---------------|-----------------------------------------------------------|----------|
| 1 | Body | GJL-2501*) | CF8M |
| 2 | Knife | AISI 304 | AISI 316 |
| 3 | Guide | RCH1000 | |
| 4 | Packing gland | GJS-500*) | CF8M |
| 5 | Packing | Synt. + PTFE | |
| 6 | O-ring | EPDM | |
| 7 | Support plate | S275JR | |
| 8 | Metallic ring | AISI 316 | |
| 9 | Seat | EPDM | |
| 10 | Stem | AISI 303 | |
| 11 | Yoke | ocel | |
| 12 | Stem nut | bronz | |
| 13 | Nut | ST 44.2 galvanized | |
| 14 | Hand wheel | GJS-500 | |
| 15 | Nut | ocel | |
| 16 | Hood | ocel | |
| 17 | Top cap | plast | |

*) With epoxy protective coating: 80 µm, RAL 5015

DIMENSIONS

Serie A with hand wheel

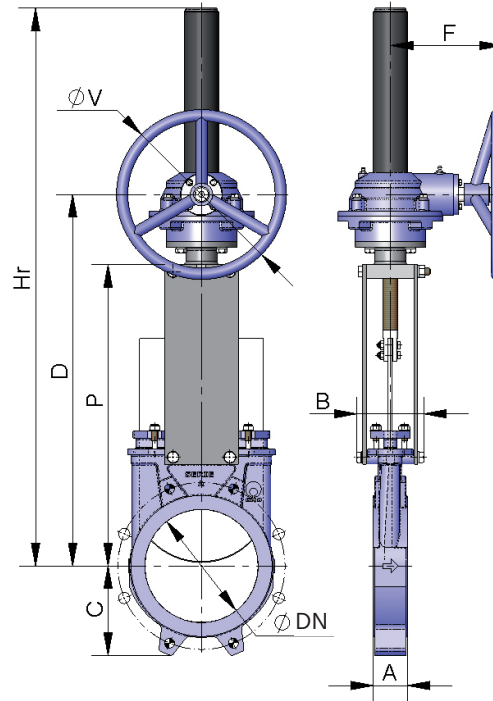
Fig. 3



| DN | ΔP (Kg/cm ²) | A | B | C | P | Hv | D | ØV | kg |
|-----|-------------------------------------|-----|-----|-----|------|------|------|-----|-----|
| 50 | 10 | 40 | 92 | 63 | 241 | 409 | 280 | 225 | 7 |
| 65 | 10 | 40 | 92 | 70 | 268 | 436 | 307 | 225 | 8 |
| 80 | 10 | 50 | 92 | 92 | 294 | 469 | 333 | 225 | 9 |
| 100 | 10 | 50 | 92 | 105 | 334 | 502 | 373 | 225 | 11 |
| 125 | 10 | 50 | 102 | 120 | 367 | 585 | 406 | 225 | 13 |
| 150 | 10 | 60 | 102 | 130 | 419 | 644 | 458 | 225 | 17 |
| 200 | 10 | 60 | 119 | 160 | 525 | 815 | 578 | 325 | 28 |
| 250 | 10 | 70 | 119 | 198 | 626 | 1016 | 679 | 325 | 40 |
| 300 | 6 | 70 | 119 | 234 | 726 | 1116 | 779 | 380 | 56 |
| 350 | 6 | 96 | 290 | 256 | 797 | 1336 | 906 | 450 | 94 |
| 400 | 6 | 100 | 290 | 292 | 903 | 1442 | 1012 | 450 | 116 |
| 450 | 5 | 106 | 290 | 308 | 989 | 1628 | 1098 | 450 | 162 |
| 500 | 4 | 110 | 290 | 340 | 1101 | 1738 | 1210 | 450 | 191 |

Serie A with gear box

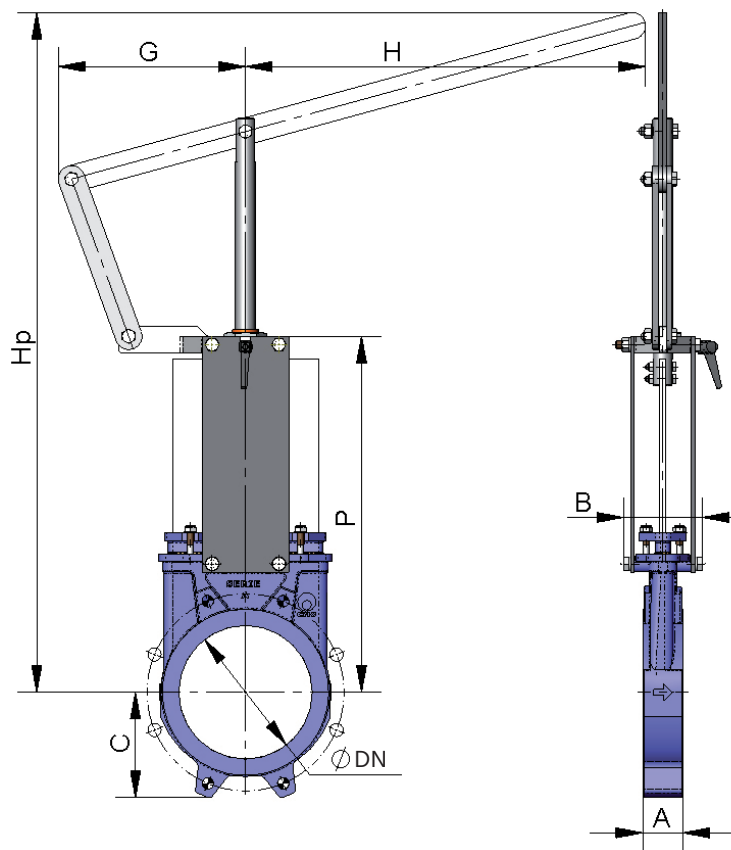
Fig. 4



| DN | ΔP (Kg/cm ²) | A | B | C | P | D | F | ØV | Hr | kg |
|------|-------------------------------------|-----|-----|-----|------|------|-----|-----|------|------|
| 50 | 10 | 40 | 92 | 63 | 241 | 366 | 198 | 300 | 540 | 17 |
| 65 | 10 | 40 | 92 | 70 | 268 | 392 | 198 | 300 | 566 | 18 |
| 80 | 10 | 50 | 92 | 92 | 294 | 418 | 198 | 300 | 592 | 19 |
| 100 | 10 | 50 | 92 | 105 | 334 | 458 | 198 | 300 | 632 | 20 |
| 125 | 10 | 50 | 102 | 120 | 367 | 491 | 198 | 300 | 665 | 24 |
| 150 | 10 | 60 | 102 | 130 | 419 | 543 | 198 | 300 | 717 | 26 |
| 200 | 10 | 60 | 119 | 160 | 525 | 648 | 198 | 300 | 942 | 50 |
| 250 | 10 | 70 | 119 | 198 | 626 | 749 | 198 | 300 | 1043 | 63 |
| 300 | 6 | 70 | 119 | 234 | 726 | 850 | 198 | 300 | 1194 | 77 |
| 350 | 6 | 96 | 290 | 256 | 797 | 891 | 218 | 450 | 1335 | 106 |
| 400 | 6 | 100 | 290 | 292 | 903 | 997 | 218 | 450 | 1441 | 134 |
| 450 | 5 | 106 | 290 | 308 | 989 | 1083 | 218 | 450 | 1677 | 173 |
| 500 | 4 | 110 | 290 | 340 | 1101 | 1195 | 218 | 450 | 1789 | 216 |
| 600 | 4 | 110 | 290 | 400 | 1307 | 1401 | 218 | 450 | 2045 | 284 |
| 700 | 2 | 110 | 320 | 453 | 1506 | 1612 | 260 | 450 | 2401 | 430 |
| 800 | 2 | 110 | 320 | 503 | 1720 | 1825 | 288 | 650 | 2715 | 615 |
| 900 | 2 | 110 | 320 | 583 | 1953 | 2055 | 288 | 650 | 3043 | 768 |
| 1000 | 2 | 110 | 320 | 613 | 2137 | 2246 | 288 | 650 | 3351 | 972 |
| 1100 | 2 | 150 | 340 | 670 | 2375 | 2515 | 352 | 850 | 3675 | 1142 |
| 1200 | 2 | 150 | 340 | 728 | 2616 | 2760 | 352 | 850 | 4042 | 1298 |

Serie A with quick-closing lever

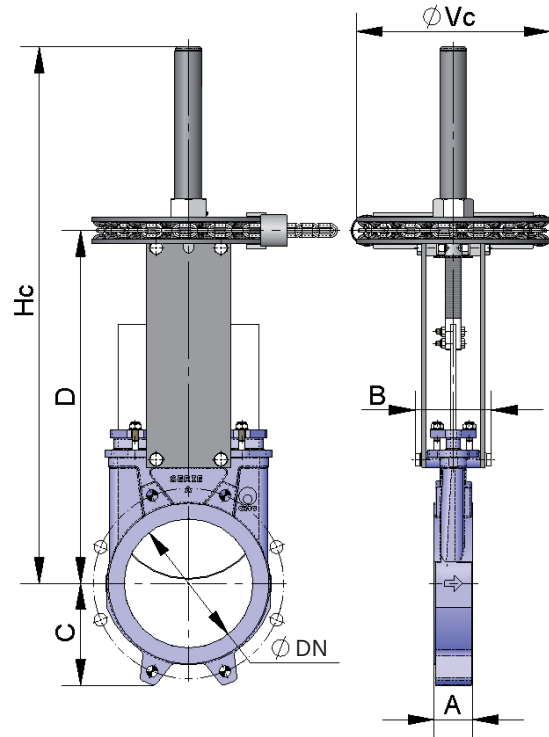
Fig. 5



| DN | ΔP (Kg/cm ²) | A | B | C | P | G | H | Hp | kg |
|-----|-------------------------------------|----|-----|-----|-----|-----|-----|------|----|
| 50 | 10 | 40 | 92 | 63 | 264 | 155 | 325 | 504 | 8 |
| 65 | 10 | 40 | 92 | 70 | 291 | 155 | 325 | 526 | 9 |
| 80 | 10 | 50 | 92 | 92 | 317 | 155 | 325 | 549 | 10 |
| 100 | 10 | 50 | 92 | 105 | 357 | 155 | 325 | 605 | 11 |
| 125 | 10 | 50 | 102 | 120 | 390 | 155 | 425 | 902 | 14 |
| 150 | 10 | 60 | 102 | 130 | 442 | 155 | 425 | 956 | 16 |
| 200 | 10 | 60 | 119 | 160 | 551 | 290 | 620 | 1027 | 32 |
| 250 | 10 | 70 | 119 | 198 | 652 | 290 | 620 | 1416 | 54 |
| 300 | 6 | 70 | 119 | 234 | 752 | 290 | 620 | 1525 | 57 |

Serie A with chain wheel

Fig. 6

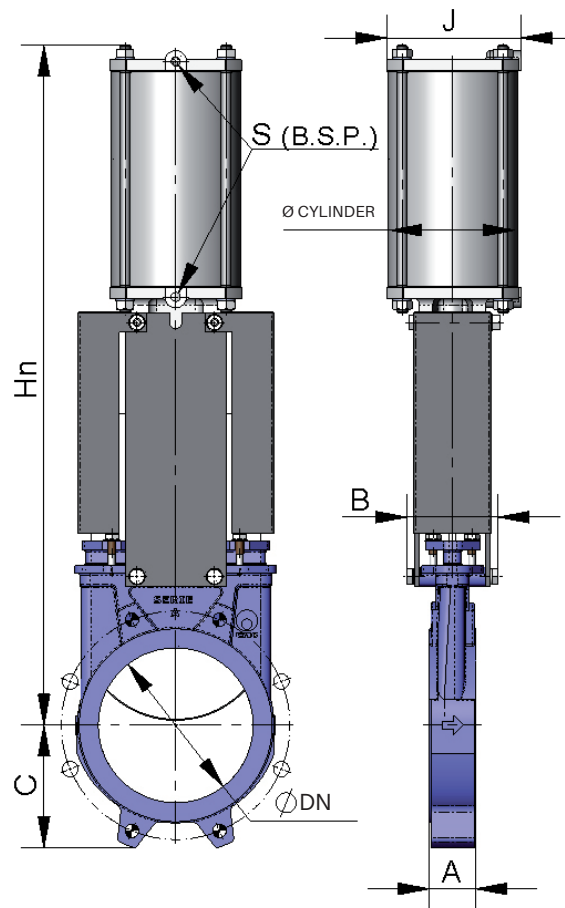


| DN | ΔP (Kg/cm ²) | A | B | C | D | Hc | ØVc | kg |
|-------|-------------------------------------|-----|-----|-----|------|------|--------------|------|
| 50 | 10 | 40 | 92 | 63 | 264 | 409 | 225 | 7 |
| 65 | 10 | 40 | 92 | 70 | 291 | 436 | 225 | 8 |
| 80 | 10 | 50 | 92 | 92 | 317 | 469 | 225 | 9 |
| 100 | 10 | 50 | 92 | 105 | 357 | 502 | 225 | 11 |
| 125 | 10 | 50 | 102 | 120 | 390 | 585 | 225 | 13 |
| 150 | 10 | 60 | 102 | 130 | 442 | 644 | 225 | 17 |
| 200 | 10 | 60 | 119 | 160 | 551 | 815 | 300 | 29 |
| 250 | 10 | 70 | 119 | 198 | 652 | 1016 | 300 | 40 |
| 300 | 6 | 70 | 119 | 234 | 752 | 1116 | 300 | 53 |
| 350 | 6 | 96 | 290 | 256 | 879 | 1336 | 402 | 93 |
| 400 | 6 | 100 | 290 | 292 | 985 | 1442 | 402 | 126 |
| 450 | 5 | 106 | 290 | 308 | 1071 | 1628 | 402 | 160 |
| 500 | 4 | 110 | 290 | 340 | 1183 | 1738 | 402 | 193 |
| 600* | 4 | 110 | 290 | 400 | 1389 | 2046 | 402 | 264 |
| 700* | 2 | 110 | 320 | 453 | 1506 | 2406 | 402* | 435 |
| 800* | 2 | 110 | 320 | 503 | 1720 | 2790 | 402* | 580 |
| 900* | 2 | 110 | 320 | 583 | 1953 | 3130 | 402* | 740 |
| 1000* | 2 | 110 | 320 | 613 | 2137 | 3440 | 402* | 925 |
| 1200* | 2 | 150 | 340 | 728 | 2616 | 4050 | 402* | 1350 |

* from DN 600 with gear and chain wheel

Serie A with double-acting pneumatic actuator

Fig. 7



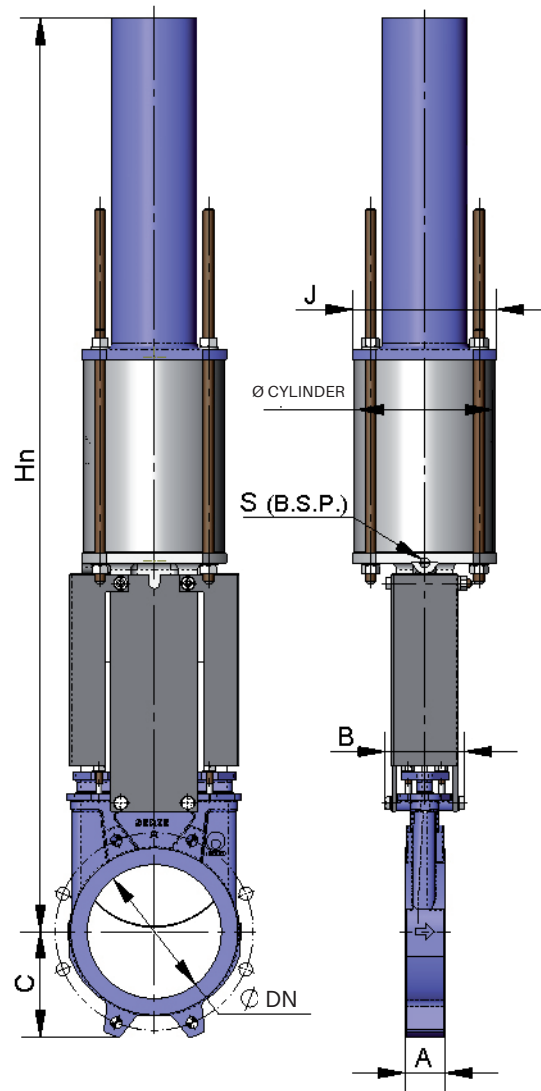
| DN | ΔP (Kg/cm ²) | A | B | C | Ø cylinder | Ø piston rod | J | S (B.S.P.) | Hn | kg |
|------|-------------------------------------|-----|-----|-----|---------------|-----------------|-----|---------------|------|------|
| 50 | 10 | 40 | 92 | 63 | 80 | 20 | 96 | 1/4" | 415 | 7 |
| 65 | 10 | 40 | 92 | 70 | 80 | 20 | 96 | 1/4" | 455 | 8 |
| 80 | 10 | 50 | 92 | 92 | 80 | 20 | 96 | 1/4" | 498 | 9 |
| 100 | 10 | 50 | 92 | 105 | 100 | 20 | 115 | 1/4" | 565 | 12 |
| 125 | 10 | 50 | 102 | 120 | 125 | 25 | 138 | 1/4" | 636 | 18 |
| 150 | 10 | 60 | 102 | 130 | 125 | 25 | 138 | 1/4" | 717 | 22 |
| 200 | 10 | 60 | 119 | 160 | 160 | 30 | 175 | 1/4" | 874 | 37 |
| 250 | 10 | 70 | 119 | 198 | 200 | 30 | 218 | 3/8" | 1036 | 58 |
| 300 | 6 | 70 | 119 | 234 | 200 | 30 | 218 | 3/8" | 1182 | 72 |
| 350 | 6 | 96 | 290 | 256 | 250 | 40 | 270 | 3/8" | 1380 | 130 |
| 400 | 6 | 100 | 290 | 292 | 250 | 40 | 270 | 3/8" | 1530 | 155 |
| 450 | 5 | 106 | 290 | 308 | 300 | 45 | 382 | 1/2" | 1677 | 225 |
| 500 | 4 | 110 | 290 | 340 | 300 | 45 | 382 | 1/2" | 1839 | 257 |
| 600 | 4 | 110 | 290 | 400 | 300 | 45 | 382 | 1/2" | 2146 | 340 |
| 700 | 2 | 110 | 320 | 453 | 350 | 45 | 426 | 1/2" | 2481 | 556 |
| 800 | 2 | 110 | 320 | 503 | 350 | 45 | 426 | 1/2" | 2798 | 679 |
| 900 | 2 | 110 | 320 | 583 | 400 | 50 | 508 | 1/2" | 3167 | 840 |
| 1000 | 2 | 110 | 320 | 613 | 400 | 50 | 508 | 1/2" | 3451 | 1053 |
| 1100 | 2 | 150 | 340 | 670 | 400 | 50 | 508 | 1/2" | 3792 | 1210 |
| 1200 | 2 | 150 | 340 | 728 | 400 | 50 | 508 | 1/2" | 4135 | 1366 |

Note:

The control air pressure of a standard pneumatic actuator is in the range of 6–10 kg / cm². In order to design a suitable pneumatic if the control air pressure is less than 6 bar, please contact our sales department.

Serie A with single-acting pneumatic actuator

Fig. 8



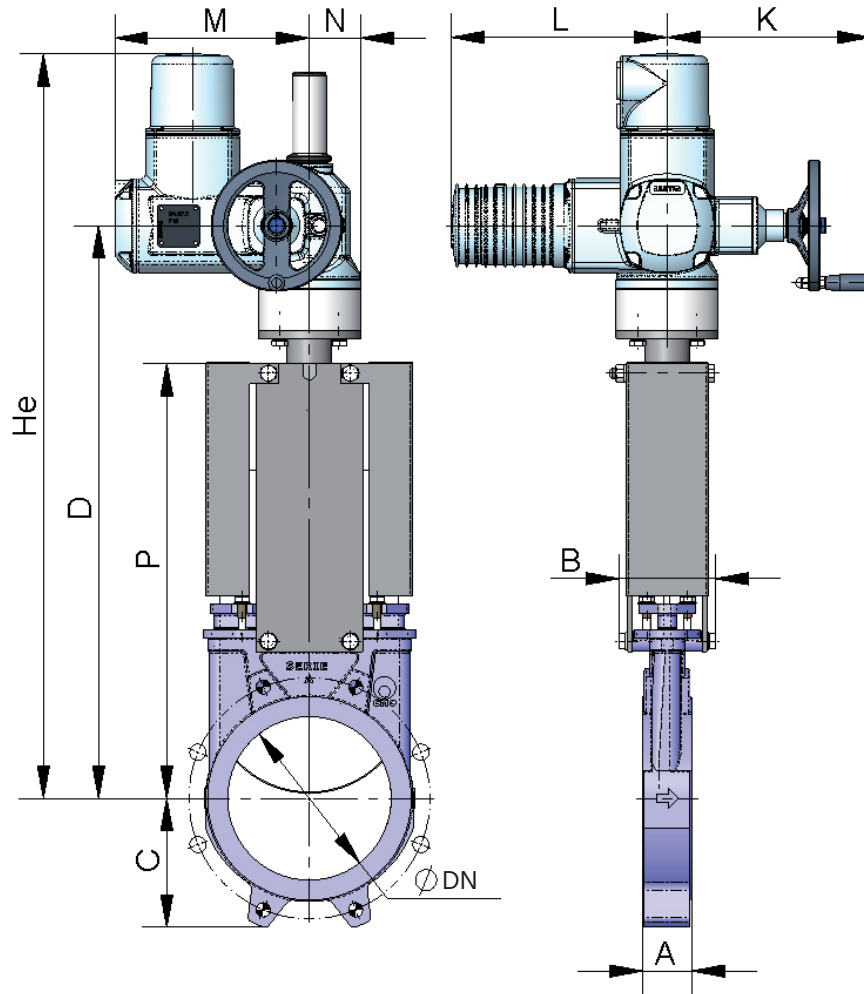
| DN | ΔP (Kg/cm ²) | A | B | C | Ø cylinder | Ø piston rod | J | S (B.S.P.) | Hn | kg |
|-----|-------------------------------------|----|-----|-----|---------------|-----------------|-----|---------------|------|-----|
| 50 | 10 | 40 | 92 | 63 | 125 | 25 | 138 | 1/4" | 781 | 19 |
| 65 | 10 | 40 | 92 | 70 | 125 | 25 | 138 | 1/4" | 806 | 22 |
| 80 | 10 | 50 | 92 | 92 | 125 | 25 | 138 | 1/4" | 833 | 23 |
| 100 | 10 | 50 | 92 | 105 | 125 | 25 | 138 | 1/4" | 873 | 24 |
| 125 | 10 | 50 | 102 | 120 | 160 | 30 | 175 | 1/4" | 909 | 35 |
| 150 | 10 | 60 | 102 | 130 | 160 | 30 | 175 | 1/4" | 960 | 36 |
| 200 | 10 | 60 | 119 | 160 | 200 | 30 | 218 | 3/8" | 1355 | 66 |
| 250 | 10 | 70 | 119 | 198 | 250 | 40 | 270 | 3/8" | 1844 | 130 |
| 300 | 6 | 70 | 119 | 234 | 250 | 40 | 270 | 3/8" | 2005 | 143 |

Note:

The control air pressure of a standard pneumatic actuator is in the range of 6–10 kg / cm². In order to design a suitable pneumatic if the control air pressure is less than 6 bar, please contact our sales department.

Seria A with electric actuator

Fig. 9

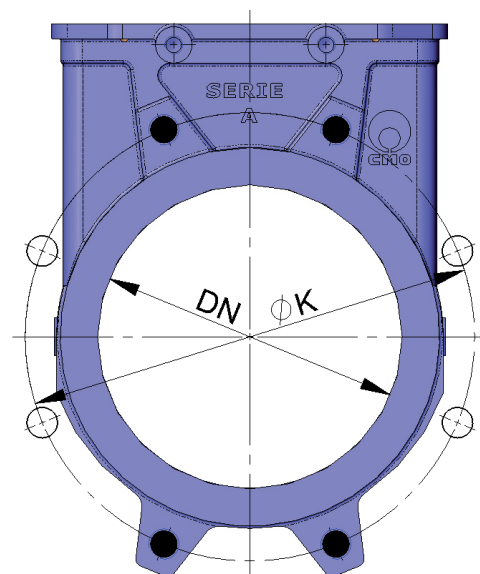


| DN | ΔP (Kg/cm ²) | A | B | C | D | K | L | M | N | P | He | kg |
|------|-------------------------------------|-----|-----|-----|------|-----|-----|-----|-----|------|------|------|
| 50 | 10 | 40 | 92 | 63 | 40 | 249 | 265 | 238 | 62 | 241 | 595 | 24 |
| 65 | 10 | 40 | 92 | 70 | 426 | 249 | 265 | 238 | 62 | 268 | 622 | 25 |
| 80 | 10 | 50 | 92 | 92 | 452 | 249 | 265 | 238 | 62 | 294 | 647 | 26 |
| 100 | 10 | 50 | 92 | 105 | 492 | 249 | 265 | 238 | 62 | 334 | 687 | 27 |
| 125 | 10 | 50 | 102 | 120 | 525 | 249 | 265 | 238 | 62 | 367 | 720 | 30 |
| 150 | 10 | 60 | 102 | 130 | 577 | 249 | 265 | 238 | 62 | 419 | 772 | 32 |
| 200 | 10 | 60 | 119 | 160 | 685 | 249 | 265 | 238 | 62 | 525 | 990 | 42 |
| 250 | 10 | 70 | 119 | 198 | 785 | 249 | 265 | 238 | 62 | 626 | 1090 | 55 |
| 300 | 6 | 70 | 119 | 234 | 885 | 249 | 265 | 238 | 62 | 726 | 1190 | 72 |
| 350 | 6 | 96 | 290 | 256 | 940 | 254 | 283 | 248 | 65 | 797 | 1305 | 99 |
| 400 | 6 | 100 | 290 | 292 | 1045 | 254 | 283 | 248 | 65 | 903 | 1460 | 136 |
| 450 | 5 | 106 | 290 | 308 | 1175 | 336 | 389 | 286 | 91 | 989 | 1755 | 166 |
| 500 | 4 | 110 | 290 | 340 | 1290 | 336 | 389 | 286 | 91 | 1101 | 1870 | 245 |
| 600 | 4 | 110 | 290 | 400 | 1495 | 336 | 389 | 286 | 91 | 1307 | 2045 | 362 |
| 700 | 2 | 110 | 320 | 453 | 1661 | 336 | 389 | 286 | 91 | 1506 | 2401 | 432 |
| 800 | 2 | 110 | 320 | 503 | 1875 | 339 | 389 | 286 | 91 | 1720 | 2715 | 630 |
| 900 | 2 | 110 | 320 | 583 | 2108 | 339 | 389 | 286 | 91 | 1953 | 3043 | 764 |
| 1000 | 2 | 110 | 320 | 613 | 2292 | 339 | 389 | 286 | 91 | 2137 | 3351 | 998 |
| 1200 | 2 | 150 | 340 | 728 | 2760 | 336 | 389 | 528 | 125 | 2616 | 4042 | 1350 |

DIMENSIONS FOR ASSEMBLY BETWEEN FLANGES

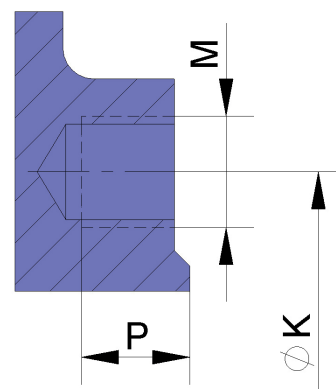
| DN | ΔP (Kg/cm ²) | ○ | ● | M thread | P | ØK |
|------|-------------------------------------|----|----|-------------|----|------|
| 50 | 10 | 4 | - | M 16 | 8 | 125 |
| 65 | 10 | 4 | - | M 16 | 8 | 145 |
| 80 | 10 | 4 | 4 | M 16 | 9 | 160 |
| 100 | 10 | 4 | 4 | M 16 | 9 | 180 |
| 125 | 10 | 4 | 4 | M 16 | 9 | 210 |
| 150 | 10 | 4 | 4 | M 20 | 10 | 240 |
| 200 | 8 | 4 | 4 | M 20 | 10 | 295 |
| 250 | 6 | 6 | 6 | M 20 | 12 | 350 |
| 300 | 6 | 6 | 6 | M 20 | 12 | 400 |
| 350 | 5 | 10 | 6 | M 20 | 21 | 460 |
| 400 | 5 | 10 | 6 | M 24 | 21 | 515 |
| 450 | 3 | 14 | 6 | M 24 | 22 | 565 |
| 500 | 3 | 14 | 6 | M 24 | 22 | 620 |
| 600 | 3 | 14 | 6 | M 27 | 22 | 725 |
| 700 | 2 | 16 | 8 | M 27 | 22 | 840 |
| 800 | 2 | 16 | 8 | M 30 | 22 | 950 |
| 900 | 2 | 20 | 8 | M 30 | 20 | 1050 |
| 1000 | 2 | 20 | 8 | M 33 | 20 | 1160 |
| 1100 | 2 | 20 | 12 | M 33 | 20 | 1270 |
| 1200 | 2 | 20 | 12 | M 36 | 22 | 1380 |

Fig.10



○ through holes

● blind holes



The data in the catalogue are informative and the supplier reserves the right to make technical changes.