# PO8-W SERIES:
# WAFER TYPE SOFT SEATED BUTTERFLY VALVE

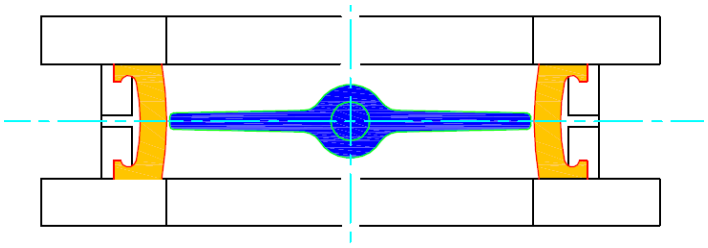
## PO8-WF Series:
## PNEUMATIC INFLATABLE SEAT BUTTERFLY VALVE

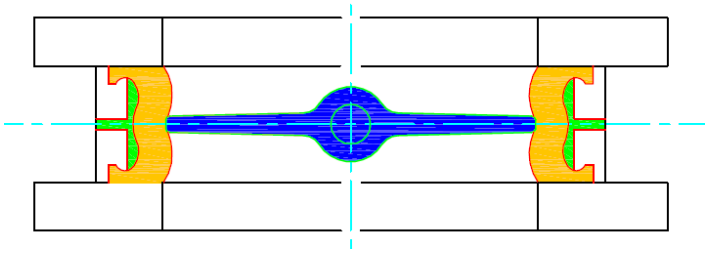
### DESCRIPTION

The POV-WF pneumatic inflatable seal butterfly valve is a valve that relies on compressed air to achieve tight sealing, and is suitable for handling dust, bulk materials, slurry, chemical powder, cement, quartz sand, fly ash, ceramics, carbon powder, dust, precious metal powder, etc.

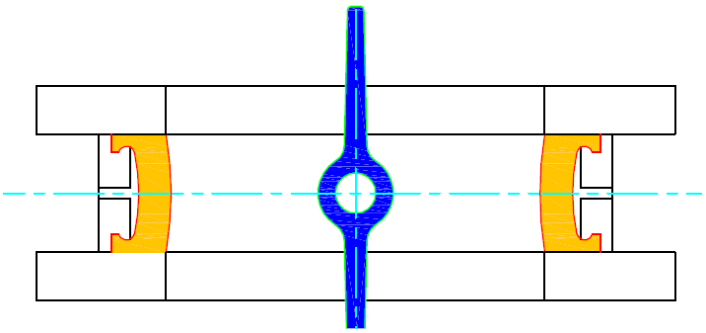
### WORKING PRINCIPLE

**A:** When the seat ring of the pneumatic inflatable butterfly valve is loose (non expansion), a fixed gap is formed between the seat ring and the valve disc.





**B:** When the compressed air enters the back of the seat ring, the surface of the seat ring will expand and cling to the surface of the valve disc to form an effective seal.



**C:** Before the valve is opened, the seat ring shall be loosened in advance to form a fixed gap again.

### WHY CHOOSE POV PNEUMATIC INFLATABLE VALVE FOR PNEUMATIC CONVEYING

Because other valves need to be equipped with additional valves to cut off the material flow when they are used for feeding pressure vessels, so that the lower valve can be closed. If only one valve is used, the material will be blocked and cannot be sealed. A level gauge is usually installed in the container to detect the level to determine the closing time of the upstream valve. POV-WF Type Pneumatic inflatable butterfly valve can cut off dense material flow without upper cut-off valve. The full channel of the pneumatic expansion valve is unobstructed and the feeding is very continuous. This realizes the timely feeding of the pressure vessel, and the pressure vessel does not need a level gauge. Some pneumatic conveying equipment use double butterfly valves, butterfly valves (still metal sealed), sliding plate valves and other valves. In order to reduce wear and prolong service life, the switching frequency of the valve is usually limited to 10-15 times/hour. This requires that the corresponding sending tank has a large volume. If the conveying pipeline is not large and the sending tank is large, fluidization equipment and/or booster are necessary; Otherwise, the pipeline will be overloaded and pipe blockage will occur. When the pneumatic infatable butterfly valve is opened and closed, a certain clearance is kept between the valve core and the sealing ring, which effectively reduces wear and improves the switching frequency of the valve.

# SOFT SEATED BUTTERFLY VALVE

PO8-WF

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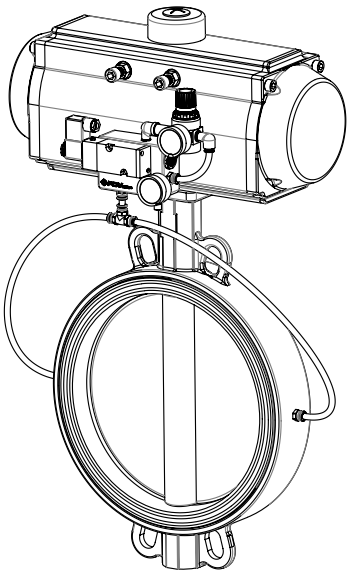
## PNEUMATIC INFLATABLE SEAT BUTTERFLY VALVE



### FEATURES

The POV-WF pneumatic inflatable seal butterfly valve has before performance features:

A. The butterfly valve adopts the air flushing type seat ring. When the valve is opened and closed, there is no contact between the valve plate and the seat ring.

B. The valve is driven by a pneumatic actuator, which is convenient and rapid to switch, simple in structure and easy to maintain.

C. The valve disc is hemispherical, with small rotary resistance, small wear and long service life.

D. Wear compensation: when the surface of the expansion seat ring is worn, the expansion effect of the seat ring can provide more compensation

E. The expansion seat ring does not contact the valve disc during the closing and opening process, and only sticks to the valve disc surface after it is completely closed

### ORDERING CODE

PO 8 6 7 □ — 1 □ □ □ — W H —

| Seal Material | |
|---|---|
| 2 | EPDM |
| 3 | NBR |
| V | VITON |
| H | HYPALON |
| Q | SILICON RUBBER |
| F | Others |

| Body Material | |
|---|---|
| 2 | Ductile Cast Iron |

| Disc Material | |
|---|---|
| 2 | DI c/w Nickel Coated |
| 3 | A216 WCB |
| A | A351 CF8 / SS304 |
| B | A351 CF8M / SS316 |
| C | A351 CF3M / SS316L |
| D | Duplex S.S. 2507 |
| E | Duplex S.S. 2205 |
| G | Super S.S. 1.4529 |
| K | B148 C95400 |
| N | B148 C95800 |
| H | Halar Coated |
| R | Rubber Coated |
| L | Nylon Coated |
| F | Others |

| Pressure Rating | |
|---|---|
| 2 | PN10 |
| 3 | PN16 |
| A | CLASS150LB |
| E | JIS 5K |
| F | JIS 10K |

— □ □ —

| Fail Position | |
|---|---|
| D | Fail Stay |
| O | Fail Open |
| C | Fail Close |

| Explosion-Proof Grade | |
|---|---|
| 0 | NA |
| 2 | EXd II CT5 |

— □ □

| Accessory | |
|---|---|
| BLANK | NA |
| L | Limit Switch |

| Accessory | |
|---|---|
| BLANK | NA |
| D | Declutchable Gear |

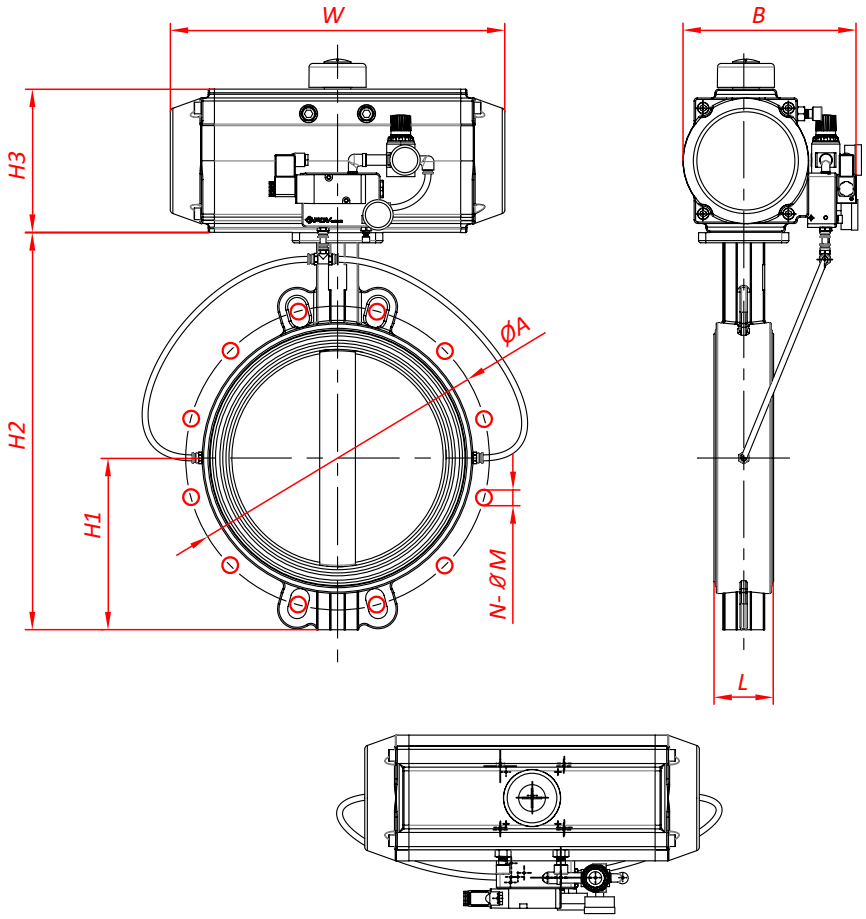
Example: PO8672-12A2-WF-C0-L: Pneumatic Inflatable seat Butterfly Valve, Ductile Cast Iron Body, SS304 Disc, EPDM Seat, PN10, with Pneumatic actuator, Single acting fail close, c/w Limit switch.

# SOFT SEATED BUTTERFLY VALVE

PO8-WF

## PO8-WF Series:
## PNEUMATIC INFLATABLE SEAT BUTTERFLY VALVE

### DIMENSIONS




### DIMENSIONS OF PNEUMATIC INFLATABLE SEAT BUTTERFLY VALVE IN RATING PN10

| | Size | L | GB standard (PN10) | | H1 | H2 | H3 | W | B | POADA Model | H3 | W | B | POASR Model |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | ΦA | N-M | | | DOUBLE ACTING TYPE | | | | SINGLE ACTING TYPE | | | |
| PN10 PRESSURE RATING | DN25 | 33 | 85 | 4-12 | 46 | 94 | 72 | 145 | 138 | POADA-20 | 72 | 145 | 138 | POASR-20K(B) |
| | DN32 | 33 | 100 | 4-16 | 46 | 94 | 72 | 145 | 138 | POADA-20 | 72 | 145 | 138 | POASR-20K(B) |
| | DN40 | 33 | 110 | 4-16 | 53 | 94 | 72 | 145 | 138 | POADA-20 | 72 | 145 | 138 | POASR-20K(B) |
| | DN50 | 42 | 125 | 4-16 | 55 | 140 | 72 | 145 | 138 | POADA-20 | 88 | 168 | 149 | POASR-40K(B) |
| | DN65 | 44 | 145 | 4-16 | 64 | 153 | 72 | 145 | 138 | POADA-20 | 88 | 168 | 149 | POASR-40K(B) |
| | DN80 | 44 | 160 | 8-16 | 73 | 159 | 88 | 168 | 149 | POADA-40 | 100 | 182 | 161 | POASR-80K(B) |
| | DN100 | 50 | 180 | 8-16 | 88 | 182 | 100 | 182 | 161 | POADA-80 | 110 | 202 | 169 | POASR-130K(B) |
| | DN125 | 56 | 210 | 8-16 | 102 | 190 | 110 | 202 | 169 | POADA-130 | 135 | 268 | 186 | POASR-200K(B) |
| | DN150 | 56 | 240 | 8-20 | 115 | 203 | 135 | 268 | 186 | POADA-200 | 157 | 300 | 208 | POASR-300K(B) |
| | DN200 | 60 | 295 | 8-20 | 145 | 245 | 157 | 300 | 208 | POADA-300 | 174 | 395 | 221 | POASR-500K(B) |
| | DN250 | 68 | 350 | 12-20 | 184 | 273 | 174 | 395 | 221 | POADA-500 | 198 | 462 | 240 | POASR-850K(B) |
| | DN300 | 78 | 400 | 12-20 | 207 | 311 | 198 | 462 | 240 | POADA-850 | 232 | 510 | 272 | POASR-1200K(B) |
| | DN350 | 78 | 460 | 16-20 | 247 | 363 | 232 | 510 | 272 | POADA-1200 | 256 | 557 | 292 | POASR-1750K(B) |
| | DN400 | 102 | 515 | 16-24 | 275 | 375 | 256 | 557 | 292 | POADA-1750 | 291 | 660 | 324 | POASR-2100K(B) |
| | DN450 | 114 | 565 | 20-24 | 307 | 406 | 291 | 660 | 324 | POADA-2100 | 332 | 727 | 359 | POASR-2500K(B) |
| | DN500 | 127 | 620 | 20-24 | 330 | 438 | 332 | 727 | 359 | POADA-2500 | - | - | - | - |

# SOFT SEATED BUTTERFLY VALVE

PO8–WF

## PO8-WF Series:
## PNEUMATIC INFLATABLE SEAT BUTTERFLY VALVE

### DIMENSIONS OF PNEUMATIC INFLATABLE SEAT BUTTERFLY VALVE IN RATING PN16

PN16 PRESSURE RATING

| Size | L | GB standard (PN16) | | H1 | H2 | H3 | W | B | POADA Model | H3 | W | B | POASR Model |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ΦA | N-M | | | DOUBLE ACTING TYPE | | | | SINGLE ACTING TYPE | | | |
| DN25 | 33 | 85 | 4-12 | 46 | 94 | 72 | 145 | 138 | POADA-20 | 72 | 145 | 138 | POASR-20K(B) |
| DN32 | 33 | 100 | 4-16 | 46 | 94 | 72 | 145 | 138 | POADA-20 | 72 | 145 | 138 | POASR-20K(B) |
| DN40 | 33 | 110 | 4-16 | 53 | 94 | 72 | 145 | 138 | POADA-20 | 72 | 145 | 138 | POASR-20K(B) |
| DN50 | 42 | 125 | 4-16 | 55 | 140 | 72 | 145 | 138 | POADA-20 | 88 | 168 | 149 | POASR-40K(B) |
| DN65 | 44 | 145 | 4-16 | 64 | 153 | 72 | 145 | 138 | POADA-20 | 88 | 168 | 149 | POASR-40K(B) |
| DN80 | 44 | 160 | 8-16 | 73 | 159 | 88 | 168 | 149 | POADA-40 | 100 | 182 | 161 | POASR-80K(B) |
| DN100 | 50 | 180 | 8-16 | 88 | 182 | 100 | 182 | 161 | POADA-80 | 110 | 202 | 169 | POASR-130K(B) |
| DN125 | 56 | 210 | 8-16 | 102 | 190 | 110 | 202 | 169 | POADA-130 | 135 | 268 | 186 | POASR-200K(B) |
| DN150 | 56 | 240 | 8-20 | 115 | 203 | 135 | 268 | 186 | POADA-200 | 157 | 300 | 208 | POASR-300K(B) |
| DN200 | 60 | 295 | 12-20 | 145 | 245 | 157 | 300 | 208 | POADA-300 | 174 | 395 | 221 | POASR-500K(B) |
| DN250 | 68 | 355 | 12-24 | 184 | 273 | 174 | 395 | 221 | POADA-500 | 198 | 462 | 240 | POASR-850K(B) |
| DN300 | 78 | 410 | 12-24 | 207 | 311 | 198 | 462 | 240 | POADA-850 | 232 | 510 | 272 | POASR-1200K(B) |
| DN350 | 78 | 470 | 16-24 | 247 | 363 | 232 | 510 | 272 | POADA-1200 | 256 | 557 | 292 | POASR-1750K(B) |
| DN400 | 102 | 525 | 16-27 | 275 | 375 | 256 | 557 | 292 | POADA-1750 | 291 | 660 | 324 | POASR-2100K(B) |
| DN450 | 114 | 585 | 20-27 | 307 | 406 | 291 | 660 | 324 | POADA-2100 | 332 | 727 | 359 | POASR-2500K(B) |
| DN500 | 127 | 650 | 20-30 | 330 | 438 | 332 | 727 | 359 | POADA-2500 | - | - | - | - |

### DIMENSIONS OF PNEUMATIC INFLATABLE SEAT BUTTERFLY VALVE IN RATING CLASS150LBS

CLASS 150LBS PRESSURE RATING

| Size | L | ANSI standard (CLASS 150LBS) | | H1 | H2 | H3 | W | B | POADA Model | H3 | W | B | POASR Model |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ΦA | N-M | | | DOUBLE ACTING TYPE | | | | SINGLE ACTING TYPE | | | |
| DN25 | 33 | 79.5 | 4-14 | 46 | 94 | 72 | 145 | 138 | POADA-20 | 72 | 145 | 138 | POASR-20K(B) |
| DN32 | 33 | 88.9 | 4-14 | 46 | 94 | 72 | 145 | 138 | POADA-20 | 72 | 145 | 138 | POASR-20K(B) |
| DN40 | 33 | 98.5 | 4-14 | 53 | 94 | 72 | 145 | 138 | POADA-20 | 72 | 145 | 138 | POASR-20K(B) |
| DN50 | 42 | 120.7 | 4-16 | 55 | 140 | 72 | 145 | 138 | POADA-20 | 88 | 168 | 149 | POASR-40K(B) |
| DN65 | 44 | 139.7 | 4-16 | 64 | 153 | 72 | 145 | 138 | POADA-20 | 88 | 168 | 149 | POASR-40K(B) |
| DN80 | 44 | 152.4 | 4-16 | 73 | 159 | 88 | 168 | 149 | POADA-40 | 100 | 182 | 161 | POASR-80K(B) |
| DN100 | 50 | 190.5 | 8-16 | 88 | 182 | 100 | 182 | 161 | POADA-80 | 110 | 202 | 169 | POASR-130K(B) |
| DN125 | 56 | 215.9 | 8-20 | 102 | 190 | 110 | 202 | 169 | POADA-130 | 135 | 268 | 186 | POASR-200K(B) |
| DN150 | 56 | 241.3 | 8-20 | 115 | 203 | 135 | 268 | 186 | POADA-200 | 157 | 300 | 208 | POASR-300K(B) |
| DN200 | 60 | 298.5 | 8-20 | 145 | 245 | 157 | 300 | 208 | POADA-300 | 174 | 395 | 221 | POASR-500K(B) |
| DN250 | 68 | 362 | 12-24 | 184 | 273 | 174 | 395 | 221 | POADA-500 | 198 | 462 | 240 | POASR-850K(B) |
| DN300 | 78 | 431.8 | 12-24 | 207 | 311 | 198 | 462 | 240 | POADA-850 | 232 | 510 | 272 | POASR-1200K(B) |
| DN350 | 78 | 476.3 | 12-27 | 247 | 363 | 232 | 510 | 272 | POADA-1200 | 256 | 557 | 292 | POASR-1750K(B) |
| DN400 | 102 | 539.8 | 16-27 | 275 | 375 | 256 | 557 | 292 | POADA-1750 | 291 | 660 | 324 | POASR-2100K(B) |
| DN450 | 114 | 577.9 | 16-30 | 307 | 406 | 291 | 660 | 324 | POADA-2100 | 332 | 727 | 359 | POASR-2500K(B) |
| DN500 | 127 | 635 | 20-30 | 330 | 438 | 332 | 727 | 359 | POADA-2500 | - | - | - | - |

# SOFT SEATED BUTTERFLY VALVE

PO8-WF

## PO8-WF Series:
## PNEUMATIC INFLATABLE SEAT BUTTERFLY VALVE

### DIMENSIONS OF PNEUMATIC INFLATABLE SEAT BUTTERFLY VALVE IN RATING JIS5K

JIS 5K PRESSURE RATING

| Size | L | JIS standard (JIS 5K) | | H1 | H2 | H3 | W | B | POADA Model | H3 | W | B | POASR Model |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ΦA | N-M | | | DOUBLE ACTING TYPE | | | | SINGLE ACTING TYPE | | | |
| DN25 | 33 | 75 | 4-10 | 46 | 94 | 72 | 145 | 138 | POADA-20 | 72 | 145 | 138 | POASR-20K(B) |
| DN32 | 33 | 90 | 4-12 | 46 | 94 | 72 | 145 | 138 | POADA-20 | 72 | 145 | 138 | POASR-20K(B) |
| DN40 | 33 | 95 | 4-12 | 53 | 94 | 72 | 145 | 138 | POADA-20 | 72 | 145 | 138 | POASR-20K(B) |
| DN50 | 42 | 105 | 4-12 | 55 | 140 | 72 | 145 | 138 | POADA-20 | 88 | 168 | 149 | POASR-40K(B) |
| DN65 | 44 | 130 | 4-12 | 64 | 153 | 72 | 145 | 138 | POADA-20 | 88 | 168 | 149 | POASR-40K(B) |
| DN80 | 44 | 145 | 4-16 | 73 | 159 | 88 | 168 | 149 | POADA-40 | 100 | 182 | 161 | POASR-80K(B) |
| DN100 | 50 | 165 | 8-16 | 88 | 182 | 100 | 182 | 161 | POADA-80 | 110 | 202 | 169 | POASR-130K(B) |
| DN125 | 56 | 200 | 8-16 | 102 | 190 | 110 | 202 | 169 | POADA-130 | 135 | 268 | 186 | POASR-200K(B) |
| DN150 | 56 | 230 | 8-16 | 115 | 203 | 135 | 268 | 186 | POADA-200 | 157 | 300 | 208 | POASR-300K(B) |
| DN200 | 60 | 280 | 8-20 | 145 | 245 | 157 | 300 | 208 | POADA-300 | 174 | 395 | 221 | POASR-500K(B) |
| DN250 | 68 | 345 | 12-20 | 184 | 273 | 174 | 395 | 221 | POADA-500 | 198 | 462 | 240 | POASR-850K(B) |
| DN300 | 78 | 390 | 12-20 | 207 | 311 | 198 | 462 | 240 | POADA-850 | 232 | 510 | 272 | POASR-1200K(B) |
| DN350 | 78 | 435 | 12-22 | 247 | 363 | 232 | 510 | 272 | POADA-1200 | 256 | 557 | 292 | POASR-1750K(B) |
| DN400 | 102 | 495 | 16-22 | 275 | 375 | 256 | 557 | 292 | POADA-1750 | 291 | 660 | 324 | POASR-2100K(B) |
| DN450 | 114 | 555 | 16-22 | 307 | 406 | 291 | 660 | 324 | POADA-2100 | 332 | 727 | 359 | POASR-2500K(B) |
| DN500 | 127 | 605 | 20-22 | 330 | 438 | 332 | 727 | 359 | POADA-2500 | - | - | - | - |

### DIMENSIONS OF PNEUMATIC INFLATABLE SEAT BUTTERFLY VALVE IN RATING JIS10K

JIS 10K PRESSURE RATING

| Size | L | JIS standard (JIS 10K) | | H1 | H2 | H3 | W | B | POADA Model | H3 | W | B | POASR Model |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ΦA | N-M | | | DOUBLE ACTING TYPE | | | | SINGLE ACTING TYPE | | | |
| DN25 | 33 | 90 | 4-12 | 46 | 94 | 72 | 145 | 138 | POADA-20 | 72 | 145 | 138 | POASR-20K(B) |
| DN32 | 33 | 100 | 4-16 | 46 | 94 | 72 | 145 | 138 | POADA-20 | 72 | 145 | 138 | POASR-20K(B) |
| DN40 | 33 | 105 | 4-16 | 53 | 94 | 72 | 145 | 138 | POADA-20 | 72 | 145 | 138 | POASR-20K(B) |
| DN50 | 42 | 120 | 4-16 | 55 | 140 | 72 | 145 | 138 | POADA-20 | 88 | 168 | 149 | POASR-40K(B) |
| DN65 | 44 | 140 | 4-16 | 64 | 153 | 72 | 145 | 138 | POADA-20 | 88 | 168 | 149 | POASR-40K(B) |
| DN80 | 44 | 150 | 8-16 | 73 | 159 | 88 | 168 | 149 | POADA-40 | 100 | 182 | 161 | POASR-80K(B) |
| DN100 | 50 | 175 | 8-16 | 88 | 182 | 100 | 182 | 161 | POADA-80 | 110 | 202 | 169 | POASR-130K(B) |
| DN125 | 56 | 210 | 8-20 | 102 | 190 | 110 | 202 | 169 | POADA-130 | 135 | 268 | 186 | POASR-200K(B) |
| DN150 | 56 | 240 | 8-20 | 115 | 203 | 135 | 268 | 186 | POADA-200 | 157 | 300 | 208 | POASR-300K(B) |
| DN200 | 60 | 290 | 12-20 | 145 | 245 | 157 | 300 | 208 | POADA-300 | 174 | 395 | 221 | POASR-500K(B) |
| DN250 | 68 | 355 | 12-22 | 184 | 273 | 174 | 395 | 221 | POADA-500 | 198 | 462 | 240 | POASR-850K(B) |
| DN300 | 78 | 400 | 16-22 | 207 | 311 | 198 | 462 | 240 | POADA-850 | 232 | 510 | 272 | POASR-1200K(B) |
| DN350 | 78 | 445 | 16-22 | 247 | 363 | 232 | 510 | 272 | POADA-1200 | 256 | 557 | 292 | POASR-1750K(B) |
| DN400 | 102 | 510 | 16-24 | 275 | 375 | 256 | 557 | 292 | POADA-1750 | 291 | 660 | 324 | POASR-2100K(B) |
| DN450 | 114 | 565 | 20-24 | 307 | 406 | 291 | 660 | 324 | POADA-2100 | 332 | 727 | 359 | POASR-2500K(B) |
| DN500 | 127 | 620 | 20-24 | 330 | 438 | 332 | 727 | 359 | POADA-2500 | - | - | - | - |