

# ON/OFF Valves

## Series VPOO/3 (S.2003)

Heavy Duty valve 3-way diverting



### Technical data

|                 |                                                |
|-----------------|------------------------------------------------|
| Size (DN)       | DN 15 — 150                                    |
| Pressure rating | PN16, PN40<br>ANSI 300                         |
| Connections     | Flanges UNI/DIN PN16, PN40<br>Flanges ANSI 300 |
| Type sealing    | Metallic (Class IV - V), soft (Class VI)       |
| Characteristic  | Linear                                         |
| Action          | Pneumatic with piston<br>(supply max 8 bar)    |
| Temperature     | from -196 to +350 °C                           |

### Description

Serie VPOO/3 "Heavy Duty" ON/OFF valves are linear, 3-way valves for industrial use. The Series VPOO/3 valve offers superior performance in nearly all types in liquid and gaseous services within a wide temperature range. Due to the modular body construction the valves can easily be upgraded to special applications. The Series VPOO/3 is the industry choice for a reliable and tough control valve. All Burocco valves are delivered after testing and calibration and ready for a long utilize, without maintenance.

### Options

- ⇒ Soft seal
- ⇒ Seals actuator FPM
- ⇒ Special 3 way DIVERTING CORRECT (size DN40-150)
- ⇒ High temperature extension (finned bonnet)
- ⇒ Extension (- 60 / - 100 °C)
- ⇒ Cryogenic extension (- 196 °C)
- ⇒ Bellows seal (double wall PN16, triple wall PN40)
- ⇒ Flanges can be drilled to ANSI 150 but with face to face and rating according to DIN
- ⇒ Full stainless steel actuator and yoke for corrosive environment
- ⇒ Handwheel for emergency operation
- ⇒ Valve positioners
- ⇒ Limit switches
- ⇒ Position feedback
- ⇒ Airset



### Flow rate coefficient (CV)

| DN  | CV  | KVs  |
|-----|-----|------|
| 15  | 4   | 3,5  |
| 20  | 7   | 6    |
| 25  | 12  | 10   |
| 32  | 18  | 15,5 |
| 40  | 28  | 24   |
| 50  | 48  | 41   |
| 65  | 72  | 61,5 |
| 80  | 105 | 90   |
| 100 | 160 | 136  |
| 150 | 300 | 256  |

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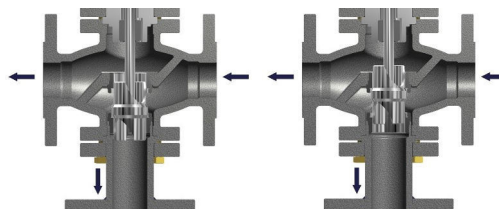


| Materials          |                                                                                           |
|--------------------|-------------------------------------------------------------------------------------------|
| Valve body *       | Nodular cast iron GGG 40 (PN16)<br>Carbon steel ASTM A216WCB<br>Stainless steel ASTM CF8M |
| Trim (plug - seat) | 316L / 17-4PH / 316L+Stellite /<br>Hastelloy / Monel                                      |
| Stem               | 316L / Hastelloy / Monel                                                                  |
| Packing            | PTFE, PTFE/CG, graphite, special                                                          |
| Body gasket        | SIL C4500, NOVAPHIT, PTFE, special                                                        |
| Acuator            | Stainless steel                                                                           |
| Yoke               | GGG 40 (epoxy varnish)<br>Stainless steel                                                 |

\* Special body material on request

### Function overview

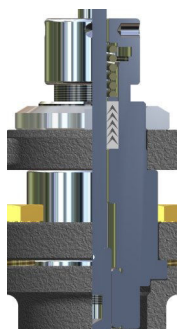
#### Diverting serie VPOO/3



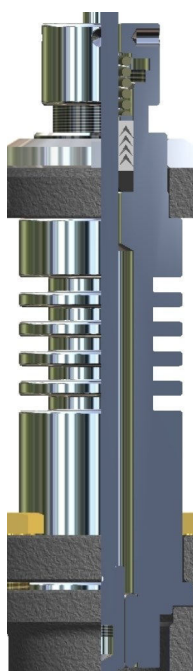
Normally open straight way

Normally open square way

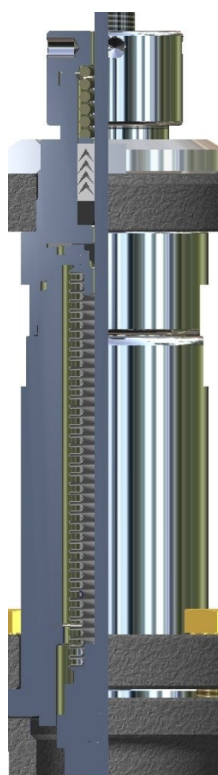
### Bonnet specifications (temperatures limit employment )



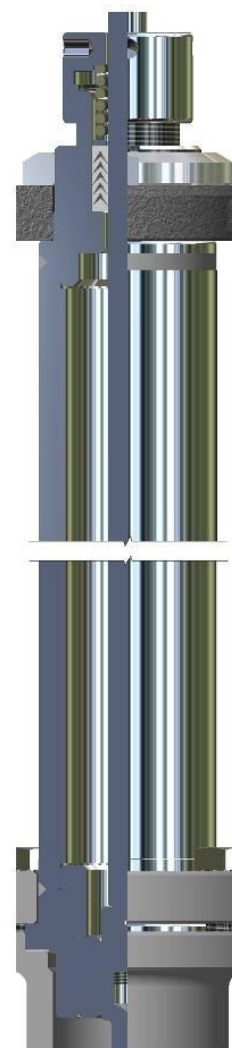
Standar (-30°C / +250 °C)



Finned (-30°C / +350 °C)



Bellows (-100°C / +350 °C)



Criogenic (-196°C / +180 °C)

# ON/OFF Valves

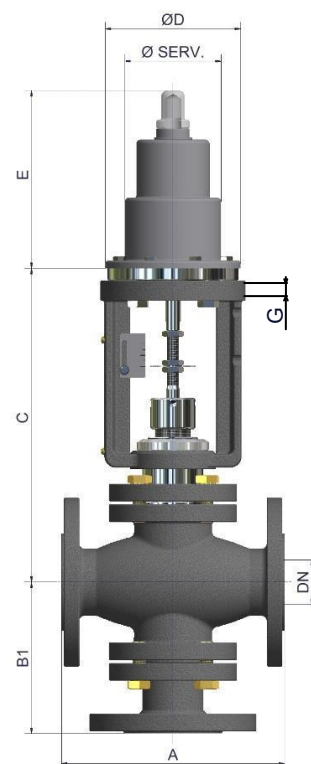
## Series VPOO/3 (S.2003)

Heavy Duty valve 3-way diverting



Dimensions (mm) and weight (kg) serie 2000 - UNI/DIN PN16/40 ANSI 150

| Type actuator with piston |            |       |
|---------------------------|------------|-------|
| Ø SERV                    | D (mm)     | G     |
| S82                       | 122        | 1/8"G |
| S118                      | 165        | 1/4"G |
| S136                      | 185        |       |
| S153                      | 215        |       |
| S235                      | On request |       |



### Dimensions

| DN  | A   | B1  | C          |                       |                        |                        |                        |            | D          | E          |
|-----|-----|-----|------------|-----------------------|------------------------|------------------------|------------------------|------------|------------|------------|
|     |     |     | Standard   | -60 °C<br>(extension) | -100 °C<br>(extension) | -200 °C<br>(criogenic) | High.Temp.<br>(finned) | Bellows    |            |            |
| 15  | 130 | 156 | 314        | 376                   | 451                    | 746                    | 400                    | 420        | 122        | 190        |
| 20  | 150 | 156 | 314        | 376                   | 451                    | 746                    | 400                    | 420        | 122        | 190        |
| 25  | 160 | 156 | 314        | 376                   | 451                    | 746                    | 400                    | 420        | 122 / 165  | 190 / 206  |
| 32  | 180 | 156 | 314        | 376                   | 451                    | 746                    | 400                    | 420        | 122 / 165  | 190 / 206  |
| 40  | 200 | 156 | 314        | 376                   | 451                    | 746                    | 400                    | 420        | 122 / 165  | 190 / 206  |
| 50  | 230 | 166 | 314        | 376                   | 451                    | 746                    | 400                    | 420        | 122 / 165  | 190 / 206  |
| 65  | 290 | 220 | 341        | 403                   | 478                    | 773                    | 426                    | 447        | 165 / 185  | 216 / 242  |
| 80  | 310 | 220 | 341        | 403                   | 478                    | 773                    | 426                    | 447        | 165 / 185  | 216 / 242  |
| 100 | 350 | 240 | 361        | 423                   | 498                    | 793                    | 446                    | 467        | 185 / 215  | 242 / 292  |
| 150 | 480 | 350 | On request | On request            | On request             | On request             | On request             | On request | On request | On request |

### Indicative weight\*

| DN | 15   | 20 | 25        | 32        | 40        | 50      | 65      | 80      | 100       | 150        |
|----|------|----|-----------|-----------|-----------|---------|---------|---------|-----------|------------|
| kg | 16,5 | 19 | 20 / 23,5 | 24,5 / 28 | 25 / 28,5 | 34 / 37 | 55 / 59 | 59 / 63 | 79,5 / 84 | On request |

\* without positioner, airset or other accessories

### Extra weight with bonnet extension

| DN     | -60 / -100 °C | -200 °C | High Temp. | Bellows    |
|--------|---------------|---------|------------|------------|
| 15-50  | + 2           | + 3,5   | + 1        | + 1,5      |
| 65-100 | + 2           | + 4     | + 3        | + 2        |
| 150    | + 5           | + 15    | + 10       | On request |

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# ON/OFF Valves

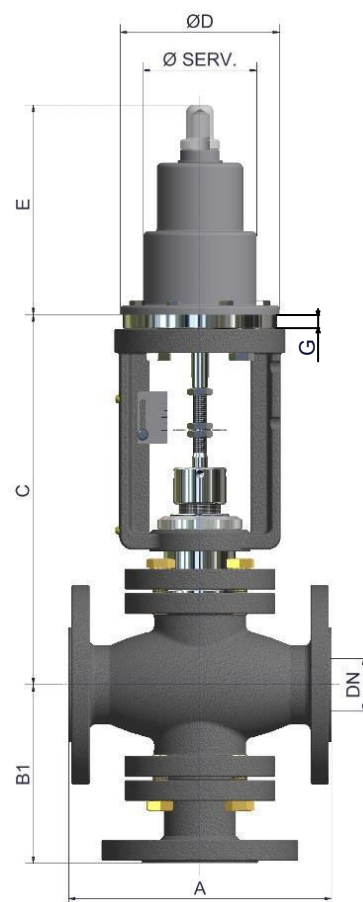
## Series VPOO/3 (S.2003)

Heavy Duty valve 3-way diverting



Dimensions (mm) and weight (kg) serie VPOO/3 - ANSI 300

| Type actuator with piston |            |        |
|---------------------------|------------|--------|
| Ø SERV                    | D (mm)     | G      |
| S82                       | 122        | 1/8" G |
| S118                      | 165        | 1/4" G |
| S136                      | 185        |        |
| S153                      | 215        |        |
| S235                      | On request |        |



Dimensions

| DN  | A   | B1  | C          |                       |                        |                        |                        |            | D          | E          |
|-----|-----|-----|------------|-----------------------|------------------------|------------------------|------------------------|------------|------------|------------|
|     |     |     | Standard   | -60 °C<br>(extension) | -100 °C<br>(extension) | -200 °C<br>(criogenic) | High.Temp.<br>(finned) | Bellows    |            |            |
| 25  | 197 | 156 | 314        | 376                   | 451                    | 746                    | 400                    | 420        | 122 / 165  | 190 / 206  |
| 40  | 235 | 156 | 314        | 376                   | 451                    | 746                    | 400                    | 420        | 122 / 165  | 190 / 206  |
| 50  | 267 | 166 | 314        | 376                   | 451                    | 746                    | 400                    | 420        | 122 / 165  | 190 / 206  |
| 80  | 318 | 220 | 341        | 403                   | 478                    | 773                    | 426                    | 447        | 165 / 185  | 216 / 242  |
| 100 | 368 | 240 | 361        | 423                   | 498                    | 793                    | 446                    | 467        | 185 / 215  | 242 / 292  |
| 150 | 473 | 350 | On request | On request            | On request             | On request             | On request             | On request | On request | On request |

Indicative weight\*

| DN | 25        | 40        | 50      | 80      | 100       | 150        |
|----|-----------|-----------|---------|---------|-----------|------------|
| kg | 20,5 / 24 | 27 / 30,5 | 36 / 39 | 61 / 65 | 83,5 / 88 | On request |

\* without positioner, airset or other accessories

Extra weight with bonnet extension

| DN     | -60 / -100 °C | -200 °C | High Temp. | Bellows    |
|--------|---------------|---------|------------|------------|
| 25-50  | + 2           | + 3,5   | + 1        | + 1,5      |
| 80-100 | + 2           | + 4     | + 3        | + 2        |
| 150    | + 5           | + 15    | + 10       | On request |

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