

### Features

- Lug butterfly valve with ISO5211 direct mount actuator
- Unique wave line seat reduces torque and extends seal life
- Ductile iron body with epoxy coating and 316SS disc
- Rack and pinion quarter turn (90°) rotation
- Spring Return or Double Acting Actuators
- Type IP67 weatherproof actuator
- Variable open/close stroke setting
- ATEX approved
- Highly visible valve position indicator
- Actuator factory lubricated for normal lifetime
- NBR main seat

### Applications

Pneumatic/ manual actuated butterfly valves for control of water and other media compatible with the materials of construction. The de-clutch option can be used for manual operation or to set a stop limit for opening or closing. Cycle times approx. 1 to 3 seconds per 90° rotation. Valve can be mounted in any orientation. NBR seals typically used for on-off control of oils, air vacuum, and other media compatible with the materials of construction. Available in either failsafe spring return or double acting designs.

### Operation

Double acting actuators require air pressure to open and air pressure to close. Spring return actuators require air pressure to open and utilize springs to close for failsafe operation. Pulling the handwheel détente pin allows manual operation of the valve via the handwheel. Re-engaging the détente pin mid-stroke creates a partial stroke position, ie the automatic stroke begins/ends at the locked handwheel position. Rotating the handwheel counterclockwise rotates the output drive counterclockwise when viewed from the top.

### Construction

|                           |                                                                                |
|---------------------------|--------------------------------------------------------------------------------|
| <b>Valve Body</b>         | Epoxy coated ductile iron                                                      |
| <b>Disc</b>               | 316 stainless steel CF8M                                                       |
| <b>Disc Seat/Liner</b>    | NBR (Buna-N)                                                                   |
| <b>Stem/Stem Seals</b>    | 420 stainless steel / V-ring (same material as seat)                           |
| <b>Actuator Seals</b>     | NBR (Buna-N)                                                                   |
| <b>Actuator Body</b>      | Extruded aluminium- 35 micron anodizing, 40 micron polyester coated end covers |
| <b>Position Indicator</b> | Glass filled Polyamide                                                         |
| <b>Fasteners</b>          | Stainless Steel                                                                |



### Description

Valworx heavy duty pneumatic/manual combination actuator features hard anodized aluminum enclosure, type IP67. Actuators are available in double acting and spring return models. Direct mount butterfly valve with epoxy-coated ductile iron lug body are designed for commercial and industrial applications. Valve mounts between two standard ANSI/ASME Class 125/150 and other international flanges. Seat to flange seal, eliminates the need for flange gaskets. Disc is precision machined 316SS. Two piece stem and disc design enhances the flow capacity and reduces turbulence. Standard Namur mounting pads for optional accessory confirmation switches, pilot valves and valve positioners. Rotation adjustment +5° at the 0° and 90° positions. The integral handwheel is used for manual operation and setting a limit stop.

### Approvals/Standards

#### Actuator

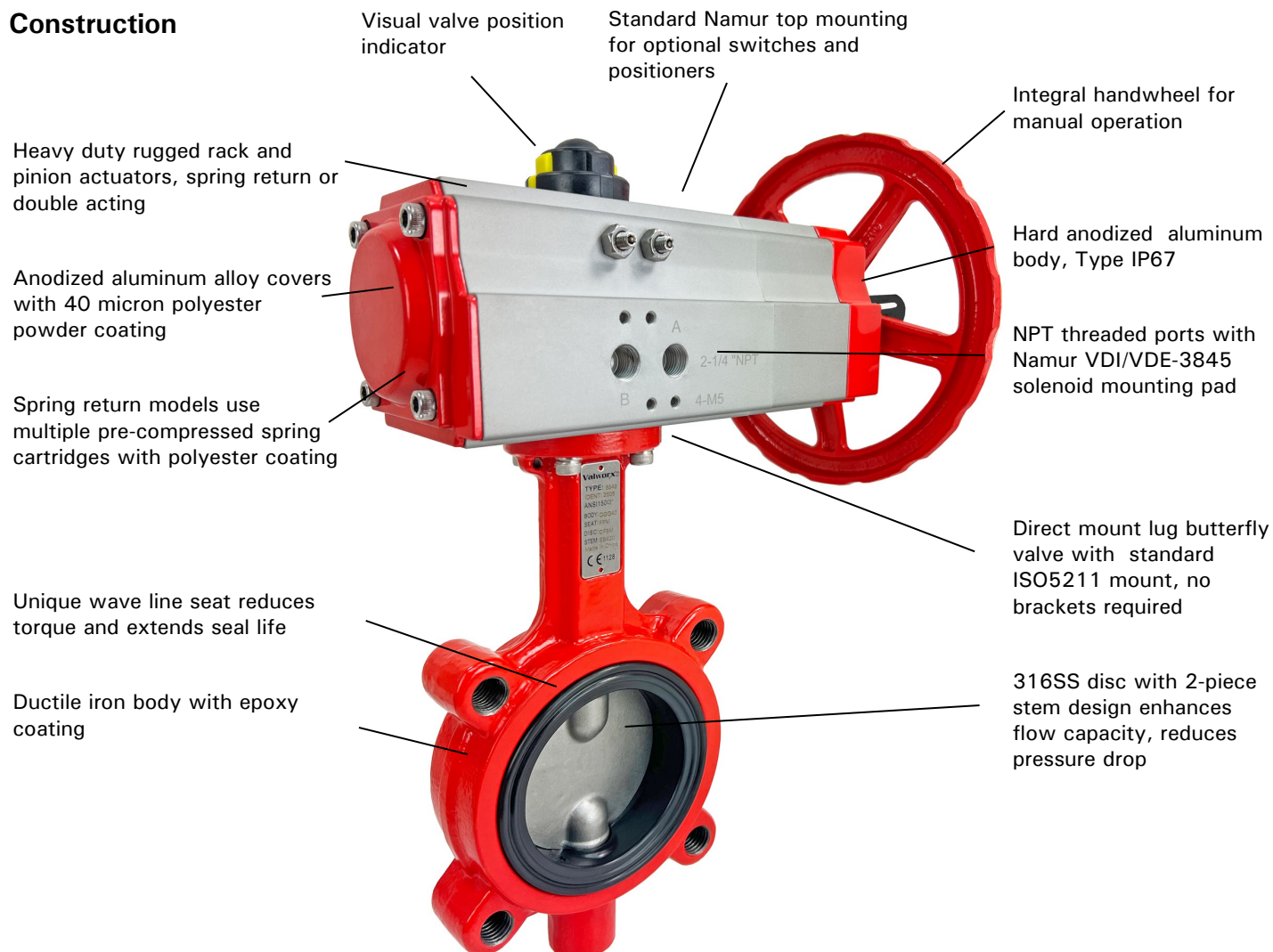
- CE Declaration of conformity
- EN ISO 12100:2010
- EN ISO 4414:2010
- ISO5211/ DIN3337 valve mounting
- Namur VDI/VDE 3845 accessory mounting
- ATEX- Ex II 2 G Ex h IIC T6 Gb; Ex II 2 D Ex H IIIB T85°C Db
- SIL3 per IEC 61508:2010



#### Valve

- Design complies with API-609, MSS SP-67
- Tests per API-598, AWWA C502-87
- CE conformance- PED 2014/68/UE
- Suitable flanges- ANSI/ASME Class 125/150

## Construction



## Pressure Rating

**Pressure Rating:** 230 PSI (16 Bar)  
Vacuum 29in Hg

**Pilot Media:** Filtered, dry or lubricated compressed air

**Pilot Air Pressure– Double Acting:** 43-120 PSI (3-8 Bar)

**Pilot Air Pressure– Spring Return:** 87-120 PSI (6-8 Bar)

## Temperature Range

**Actuator Temperature Rating:** -4 to 176°F (-20 to 80°C)

**Valve Temperature Rating:** NBR seals 5 to 185° F (-15 to 85°C)

## Options

**DMS:** Direct Mount Solenoid  
- pilot to electrically operate the ball valve

**VPS:** Valve Position Switches  
- limit switches to confirm valve position

**PVP:** Pneumatic Valve Positioner  
- position the ball with 4-20mA

Lock out/Tag out device

Inline mounting

**Specifications (English units)**

| Stock Number         | Pipe Size (inch) | Orifice Diam. (inch) | Cv Flow Factor | Pressure Max. (PSI) | Fluid Media*     | Air Volume/ 90° (cubic inches) | Cycle Time/90° (seconds) | Pilot Air Port (NPT) |
|----------------------|------------------|----------------------|----------------|---------------------|------------------|--------------------------------|--------------------------|----------------------|
| <b>SPRING RETURN</b> |                  |                      |                |                     |                  |                                |                          |                      |
| 527702               | 2                | 1.97                 | 124            | 230                 | Air, Oil, Vacuum | 24.4                           | 1-1                      | 1/4                  |
| 527704               | 3                | 3.15                 | 470            | 230                 | Air, Oil, Vacuum | 54.9                           | 2-1                      | 1/4                  |
| 527705               | 4                | 3.94                 | 929            | 230                 | Air, Oil, Vacuum | 91.5                           | 2-1                      | 1/4                  |
| 527707               | 6                | 5.91                 | 2243           | 230                 | Air, Oil, Vacuum | 201.4                          | 3-1                      | 1/4                  |
| <b>DOUBLE ACTING</b> |                  |                      |                |                     |                  |                                |                          |                      |
| 527602               | 2                | 1.97                 | 124            | 230                 | Air, Oil, Vacuum | 18.3                           | 1-1                      | 1/4                  |
| 527604               | 3                | 3.15                 | 470            | 230                 | Air, Oil, Vacuum | 24.4                           | 1-1                      | 1/4                  |
| 527605               | 4                | 3.94                 | 929            | 230                 | Air, Oil, Vacuum | 42.7                           | 1-1                      | 1/4                  |
| 527607               | 6                | 5.91                 | 2243           | 230                 | Air, Oil, Vacuum | 91.5                           | 1-1                      | 1/4                  |

Cv is the GPM of water at 60° F that will pass through the valve with 1 PSI pressure drop

\* Consult compatibility chart for other fluid media. Suitable for vacuum up to 29 inHg

**Specifications (Metric units)**

| Stock Number         | Pipe Size (DN) | Orifice Diam. (mm) | Kv Flow Factor | Pressure Max. (Bar) | Fluid Media*     | Air Volume/90° (cubic liters) | Cycle Time/90° (seconds) | Pilot Air Port (NPT) |
|----------------------|----------------|--------------------|----------------|---------------------|------------------|-------------------------------|--------------------------|----------------------|
| <b>SPRING RETURN</b> |                |                    |                |                     |                  |                               |                          |                      |
| 527702               | 50             | 50                 | 107            | 16                  | Air, Oil, Vacuum | 0.4                           | 1-1                      | 1/4                  |
| 527704               | 80             | 80                 | 404            | 16                  | Air, Oil, Vacuum | 0.9                           | 2-1                      | 1/4                  |
| 527705               | 100            | 100                | 799            | 16                  | Air, Oil, Vacuum | 1.5                           | 2-1                      | 1/4                  |
| 527707               | 150            | 150                | 1929           | 16                  | Air, Oil, Vacuum | 3.3                           | 3-1                      | 1/4                  |
| <b>DOUBLE ACTING</b> |                |                    |                |                     |                  |                               |                          |                      |
| 527602               | 50             | 50                 | 107            | 16                  | Air, Oil, Vacuum | 0.3                           | 1-1                      | 1/4                  |
| 527604               | 80             | 80                 | 404            | 16                  | Air, Oil, Vacuum | 0.4                           | 1-1                      | 1/4                  |
| 527605               | 100            | 100                | 799            | 16                  | Air, Oil, Vacuum | 0.7                           | 1-1                      | 1/4                  |
| 527607               | 150            | 150                | 1929           | 16                  | Air, Oil, Vacuum | 1.5                           | 1-1                      | 1/4                  |

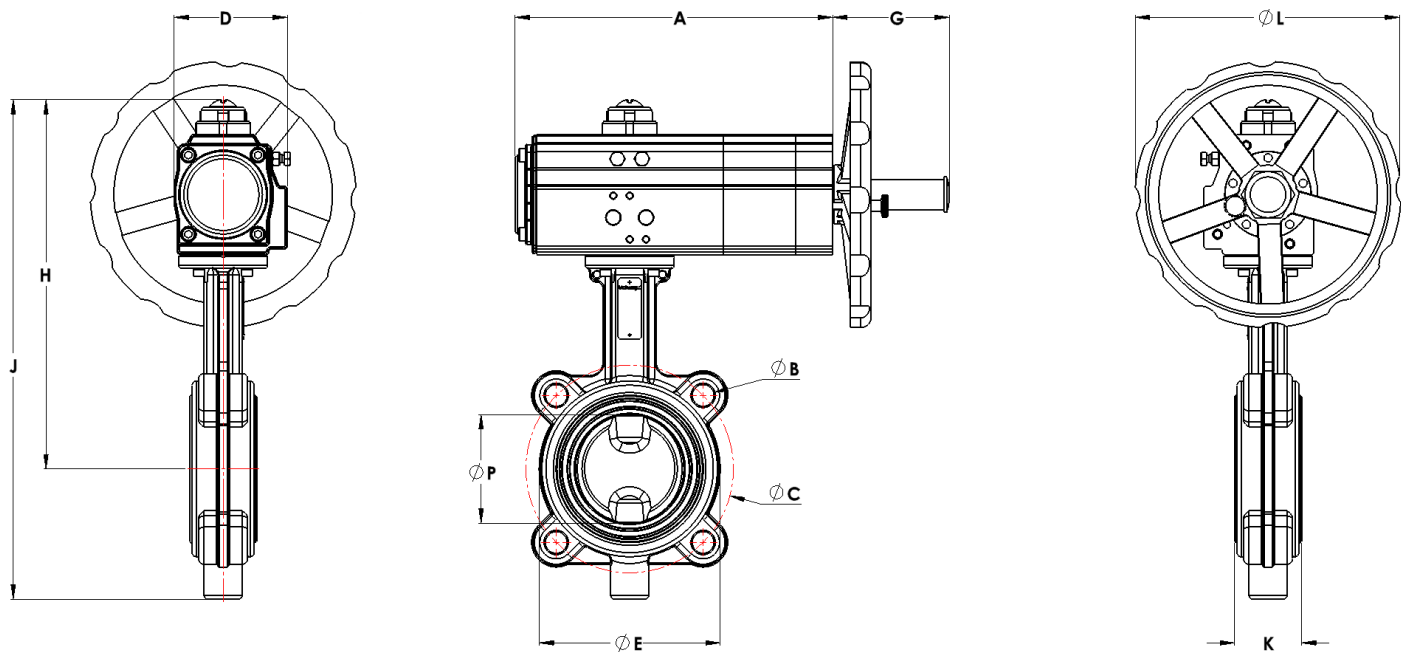
Kv = The number of m³ per hour of 20° C water at 1 bar pressure drop

\* Consult compatibility chart for other fluid media. Suitable for vacuum up to 29 inHg

## Dimensions: Spring Return

Suitable between flanges:

- ◆ ANSI/ASME B16.5 CLASS150
- ◆ ANSI/ASME B16.1 CLASS125

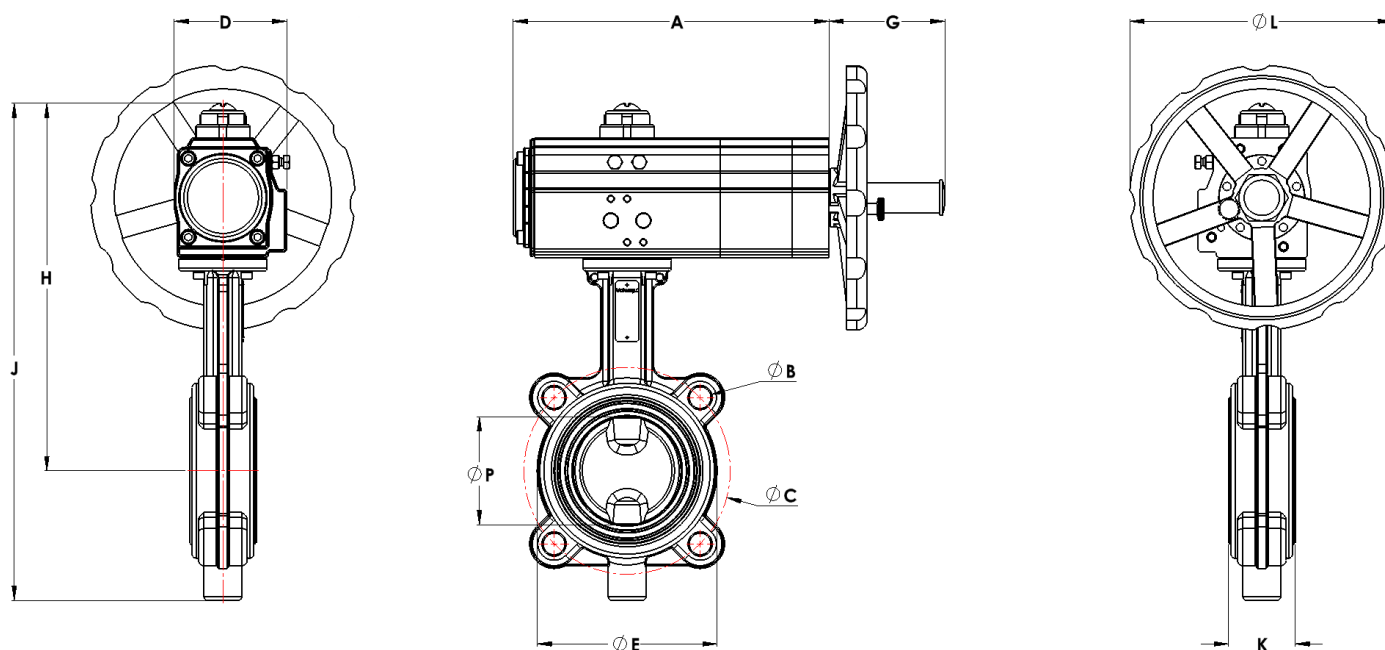


| Pipe Size |      | A     | B      | C     | D     | E     | G     | H     | J     | K    | L     | P     | Weight lbs (kg) |
|-----------|------|-------|--------|-------|-------|-------|-------|-------|-------|------|-------|-------|-----------------|
| 2         | inch | 9.2   | 5/8-11 | 4.8   | 2.8   | 3.9   | 3.3   | 9.3   | 12.3  | 1.8  | 7.7   | 1.9   | 15.6 lb         |
| DN50      | mm   | 233.7 |        | 120.5 | 71.1  | 99.0  | 83.8  | 236.2 | 312.4 | 46.0 | 195.0 | 50.0  | 7.1 kg          |
| 3         | inch | 10.7  | 5/8-11 | 6.0   | 3.6   | 5.1   | 4.0   | 11.3  | 15.1  | 1.9  | 7.7   | 3.2   | 21.3 lb         |
| DN80      | mm   | 271.8 |        | 152.4 | 91.4  | 129.0 | 101.6 | 287.0 | 383.5 | 49.0 | 195.0 | 80.0  | 9.7 kg          |
| 4         | inch | 13.4  | 5/8-11 | 7.5   | 3.9   | 6.2   | 4.3   | 12.0  | 16.5  | 2.2  | 9.8   | 3.9   | 35.7 lb         |
| DN100     | mm   | 340.4 |        | 190.5 | 99.1  | 157.0 | 109.2 | 304.8 | 419.1 | 56.0 | 250.0 | 100.0 | 16.2 kg         |
| 6         | inch | 15.8  | 3/4-10 | 9.5   | 5.0   | 8.4   | 5.2   | 14.9  | 20.4  | 2.3  | 15.7  | 5.9   | 64.6 lb         |
| DN150     | mm   | 401.3 |        | 241.3 | 127.0 | 213.0 | 132.1 | 378.5 | 518.2 | 59.0 | 400.0 | 150.0 | 29.4 kg         |

## Dimensions: Double Acting

Suitable between flanges:

- ◆ ANSI/ASME B16.5 CLASS150
- ◆ ANSI/ASME B16.1 CLASS125



| Pipe Size |      | A     | B      | C     | D    | E     | G     | H     | J     | K    | L     | P     | Weight lbs (kg) |
|-----------|------|-------|--------|-------|------|-------|-------|-------|-------|------|-------|-------|-----------------|
| 2         | inch | 8.3   | 5/8-11 | 4.8   | 2.6  | 3.9   | 2.9   | 8.6   | 11.6  | 1.8  | 7.1   | 1.9   | 11.6 lb         |
| DN50      | mm   | 210.8 |        | 120.5 | 66.0 | 99.0  | 73.7  | 218.4 | 294.6 | 46.0 | 180.0 | 50.0  | 5.3 kg          |
| 3         | inch | 9.2   | 5/8-11 | 6.0   | 2.8  | 5.1   | 3.3   | 10.5  | 14.3  | 1.9  | 7.7   | 3.2   | 17.1 lb         |
| DN80      | mm   | 233.7 |        | 152.4 | 71.1 | 129.0 | 83.8  | 266.7 | 363.2 | 49.0 | 195.0 | 80.0  | 7.8 kg          |
| 4         | inch | 9.6   | 5/8-11 | 7.5   | 3.1  | 6.2   | 3.5   | 11.3  | 15.8  | 2.2  | 7.1   | 3.9   | 24.3 lb         |
| DN100     | mm   | 243.8 |        | 190.5 | 78.7 | 157.0 | 88.9  | 287.0 | 401.3 | 56.0 | 180.0 | 100.0 | 11.0 kg         |
| 6         | inch | 13.4  | 3/4-10 | 9.5   | 3.9  | 8.4   | 4.3   | 13.4  | 19.0  | 2.3  | 9.8   | 5.9   | 40.5 lb         |
| DN150     | mm   | 340.4 |        | 241.3 | 99.1 | 213.0 | 109.2 | 340.4 | 482.6 | 59.0 | 250.0 | 150.0 | 18.4 kg         |