

## 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
- EPDM 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. EPDM seals typically used for on-off control of water 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>	EPDM
<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

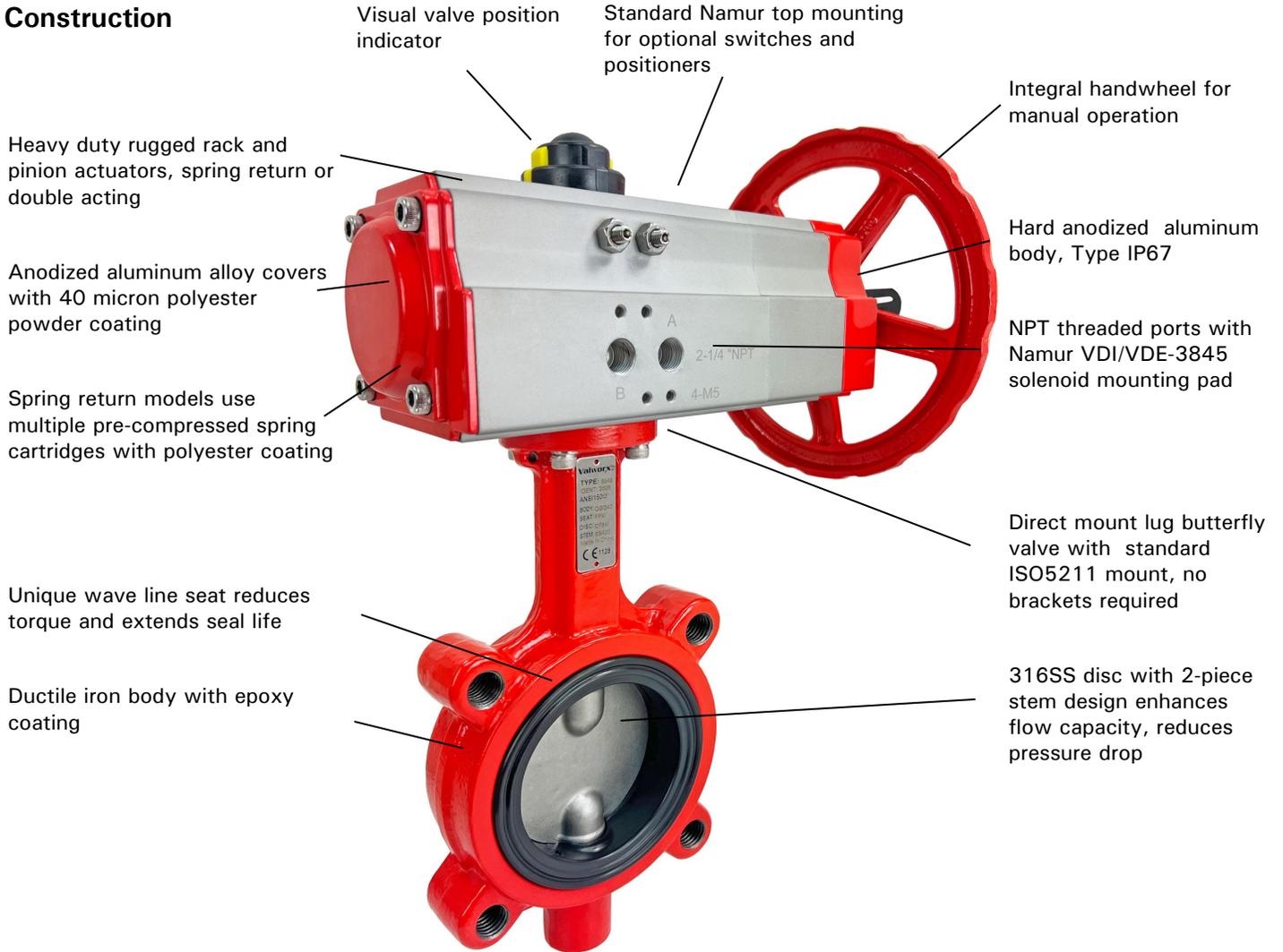
- CE Declaration of conformity
- EN ISO 12100:2010
- EN ISO 4414:2010
- ISO5211/ DIN3337 valve mounting
- Namur VDI/VDE 3845 accessory mounting
- ATEX- Ex II 2 G Ex h IIC T6 Gb; Ex II 2 D Ex H IIIB T85°C Db
- SIL3 per IEC 61508:2010



### 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



Heavy duty rugged rack and pinion actuators, spring return or double acting

Anodized aluminum alloy covers with 40 micron polyester powder coating

Spring return models use multiple pre-compressed spring cartridges with polyester coating

Unique wave line seat reduces torque and extends seal life

Ductile iron body with epoxy coating

Visual valve position indicator

Standard Namur top mounting for optional switches and positioners

Integral handwheel for manual operation

Hard anodized aluminum body, Type IP67

NPT threaded ports with Namur VDI/VDE-3845 solenoid mounting pad

Direct mount lug butterfly valve with standard ISO5211 mount, no brackets required

316SS disc with 2-piece stem design enhances flow capacity, reduces pressure drop

## 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:** EPDM seals 0 to 248° F (-18 to 120°C)  
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>								
527502	2	1.97	124	230	Water	24.4	1-1	1/4
527504	3	3.15	470	230	Water	54.9	2-1	1/4
527505	4	3.94	929	230	Water	91.5	2-1	1/4
527507	6	5.91	2243	230	Water	201.4	3-1	1/4
<b>DOUBLE ACTING</b>								
527402	2	1.97	124	230	Water	18.3	1-1	1/4
527404	3	3.15	470	230	Water	24.4	1-1	1/4
527405	4	3.94	929	230	Water	42.7	1-1	1/4
527407	6	5.91	2243	230	Water	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>								
527502	50	50	107	16	Water	0.4	1-1	1/4
527504	80	80	404	16	Water	0.9	2-1	1/4
527505	100	100	799	16	Water	1.5	2-1	1/4
527507	150	150	1929	16	Water	3.3	3-1	1/4
<b>DOUBLE ACTING</b>								
527402	50	50	107	16	Water	0.3	1-1	1/4
527404	80	80	404	16	Water	0.4	1-1	1/4
527405	100	100	799	16	Water	0.7	1-1	1/4
527407	150	150	1929	16	Water	1.5	1-1	1/4

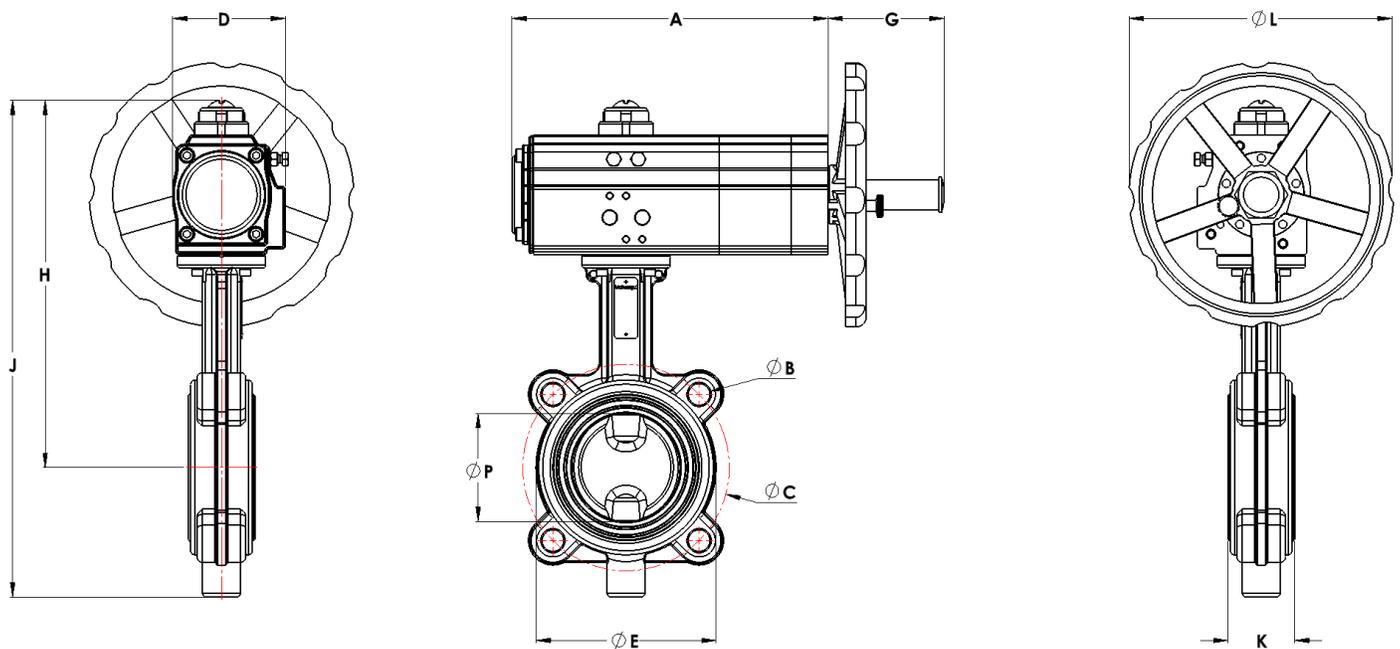
Kv = The number of m³ per hour of 20° C water at 1 bar pressure drop

\* 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

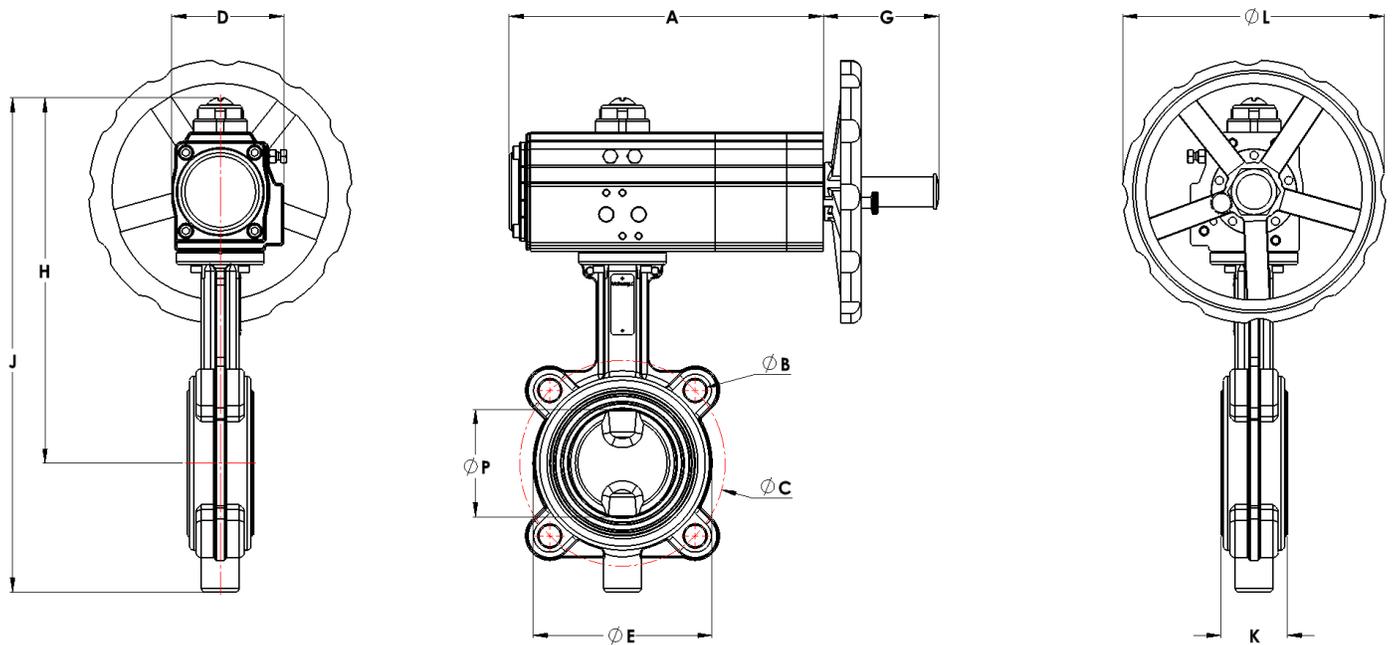


Pipe Size		A	B	C	D	E	G	H	J	K	L	P	Weight lbs (kg)
2	inch	9.2	5/8-11	4.8	2.8	3.9	3.3	9.3	12.3	1.8	7.7	1.9	15.6 lb
DN50	mm	233.7		120.5	71.1	99.0	83.8	236.2	312.4	46.0	195.0	50.0	7.1 kg
3	inch	10.7	5/8-11	6.0	3.6	5.1	4.0	11.3	15.1	1.9	7.7	3.2	21.3 lb
DN80	mm	271.8		152.4	91.4	129.0	101.6	287.0	383.5	49.0	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