

## Features

- Double offset design reduces torque and seal wear
- High quality, passivated 316SS (CF8M) construction for superior corrosion protection
- Multiple RPTFE V-type rings for superior shaft sealing
- One piece, reinforced Teflon (RPTFE) seal
- Bolted seat retainer keeps seat stable and allows easy changeout
- Belleville washers for consistent, self-adjusting stem seal pressure
- Bi-directional seal design ensures increased sealing force in either flow direction
- 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

## Applications

Rack & Pinion/ 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 4 seconds per 90° rotation. Valve can be mounted in any orientation. High performance lug butterfly valves are used to control the flow of waters, oils, air, certain caustics, and other media compatible with the materials of construction for general service and where an expanded temperature range or higher pressure is required. Available in either failsafe spring return or double acting designs.

Also suitable for end of line applications

## 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>	316 stainless steel CF8M
<b>Disc</b>	316 stainless steel CF8M
<b>Disc Seat/Liner</b>	RPTFE
<b>Stem/Stem Seals</b>	17-4PH SS
<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. High performance butterfly valves with 316 stainless steel lug body are designed for commercial and industrial applications. Valve mounts between two standard ANSI/ASME Class 125/ 150 flanges. Disc is spherically machined 316SS. Flange gaskets required. Double offset design to reduce seal wear.

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

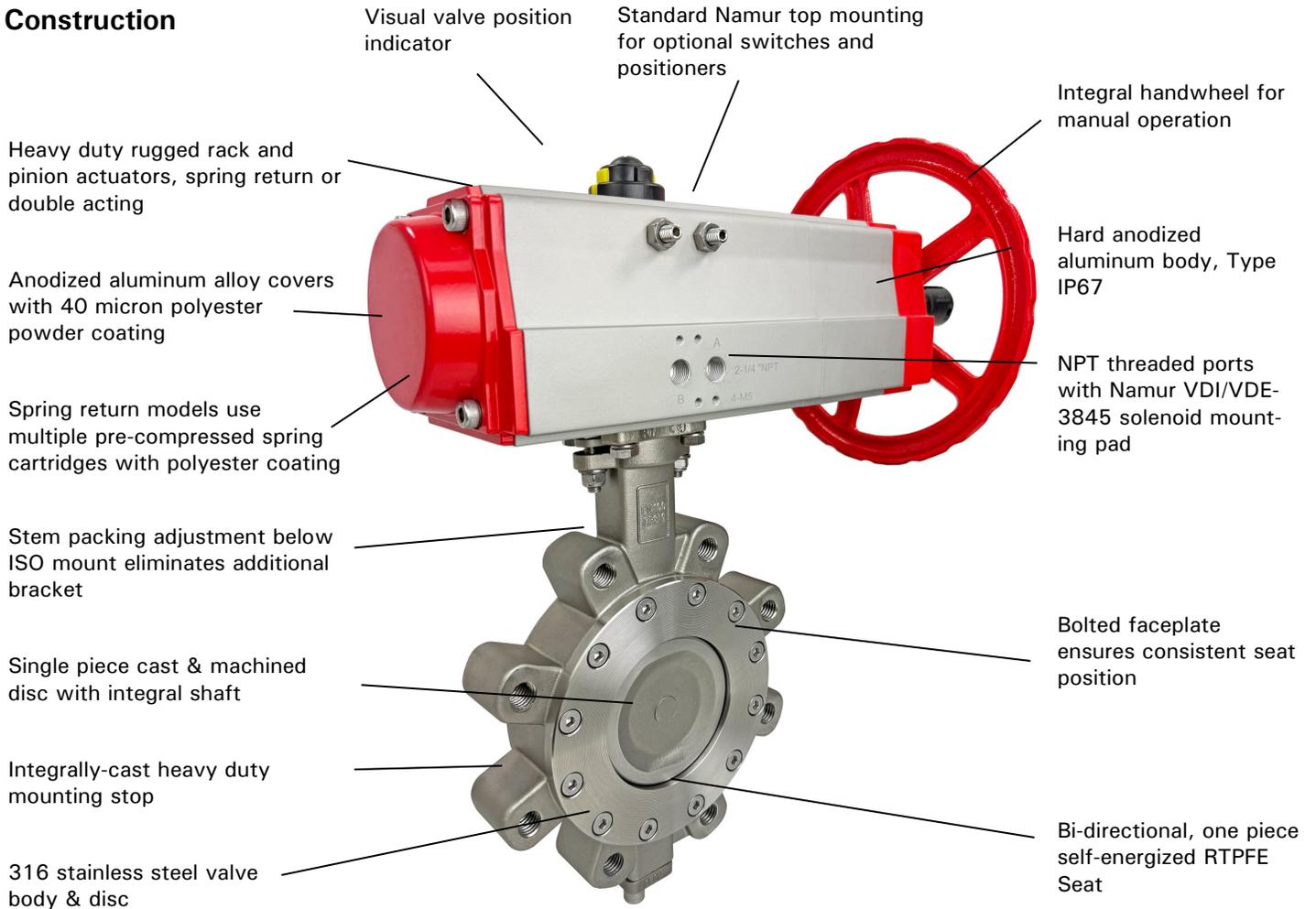
- CE Declaration of conformity
- EN ISO 12100:2010
- EN ISO 4414:2010
- ISO5211/ DIN3337 valve mounting
- Namur VDI/VDE 3845 accessory mounting
- ATEX- Ex II 2 G Ex h IIC T6 Gb; Ex II 2 D Ex H IIIB T85°C Db
- SIL3 per IEC 61508:2010



### Valve

- Pressure- ANSI/ASME B16.5 CLASS150
- JIS B 2239 10K, 16K
- Top Flange– ISO 5211
- Face– API 609 Class B
- Leakage- ISO 5208 Category 3, API 598 Table 5
- CE Conformance– PED 2014/68/EU Annex III Module B

## Construction



## Pressure Rating

**Pressure Rating:** 285 PSI (19.7 Bar)

**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:** RTPFE Seals: -40 to 450°F (-40 to 230°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

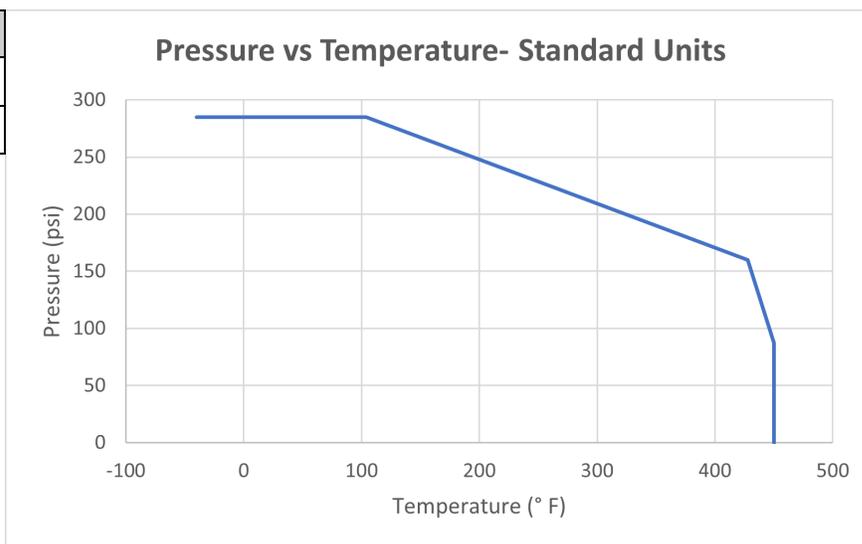
## Specifications (English units)

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>Lug Body RPTFE Seals: SPRING RETURN</b>								
547603	3	2.87	180	285	Air, oil and other fluids compatible with materials of construction	128.1	2-1	1/4
547604	4	3.78	375	285	Air, oil and other fluids compatible with materials of construction	201.4	3-1	1/4
547606	6	5.70	1350	285	Air, oil and other fluids compatible with materials of construction	341.7	4-1	1/4
<b>Lug Body RPTFE Seals: DOUBLE ACTING</b>								
547503	3	2.87	180	285	Air, oil and other fluids compatible with materials of construction	54.9	1-1	1/4
547504	4	3.78	375	285	Air, oil and other fluids compatible with materials of construction	91.5	1-1	1/4
547506	6	5.70	1350	285	Air, oil and other fluids compatible with materials of construction	201.4	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

Pressure vs Temperature					
Temp °F	-40	104	428	450	450
Pressure- PSI	285	285	160	87	0



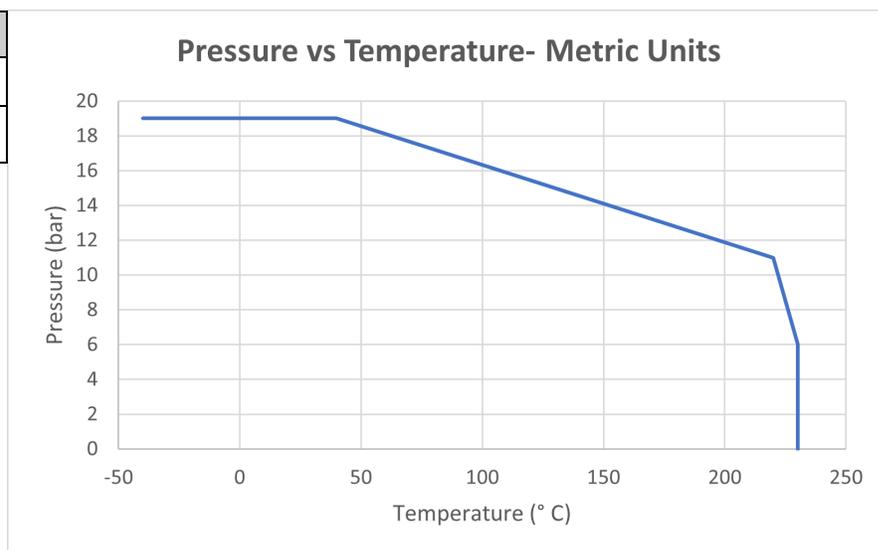
## Specifications (Metric units)

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>Lug Body RPTFE Seals: SPRING RETURN</b>								
547603	80	72.0	155.7	16	Air, oil and other fluids compatible with materials of construction	2.1	2-1	1/4
547604	100	91.0	324.4	16	Air, oil and other fluids compatible with materials of construction	3.3	2-1	1/4
547606	150	145.0	1167.8	16	Air, oil and other fluids compatible with materials of construction	5.6	4-1	1/4
<b>Lug Body RPTFE Seals: DOUBLE ACTING</b>								
547503	80	72.0	155.7	16	Air, oil and other fluids compatible with materials of construction	0.9	1-1	1/4
547504	100	91.0	324.4	16	Air, oil and other fluids compatible with materials of construction	1.5	1-1	1/4
547506	150	145.0	1167.8	16	Air, oil and other fluids compatible with materials of construction	3.3	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

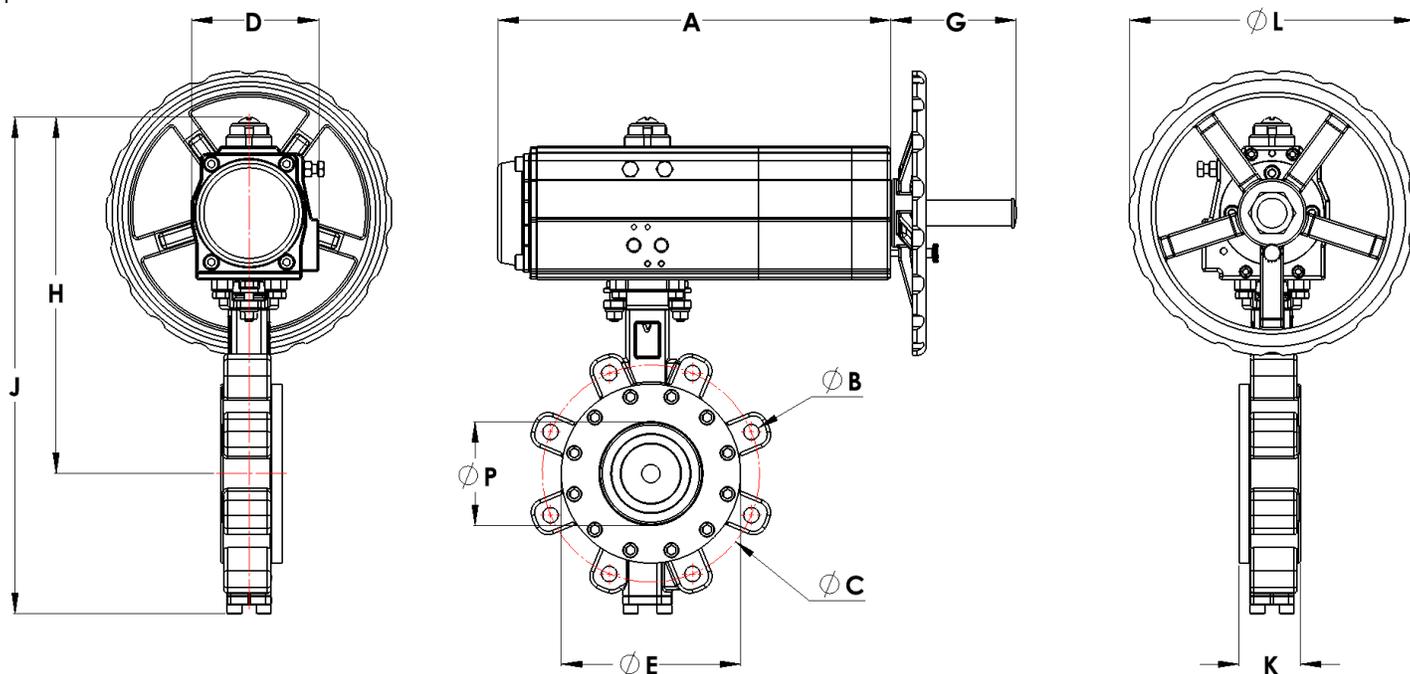
Pressure vs Temperature					
Temp °C	-40	40	220	230	230
Pressure- Bar	19	19	11	6	0



## Dimensions: Spring Return

Suitable between flanges:

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

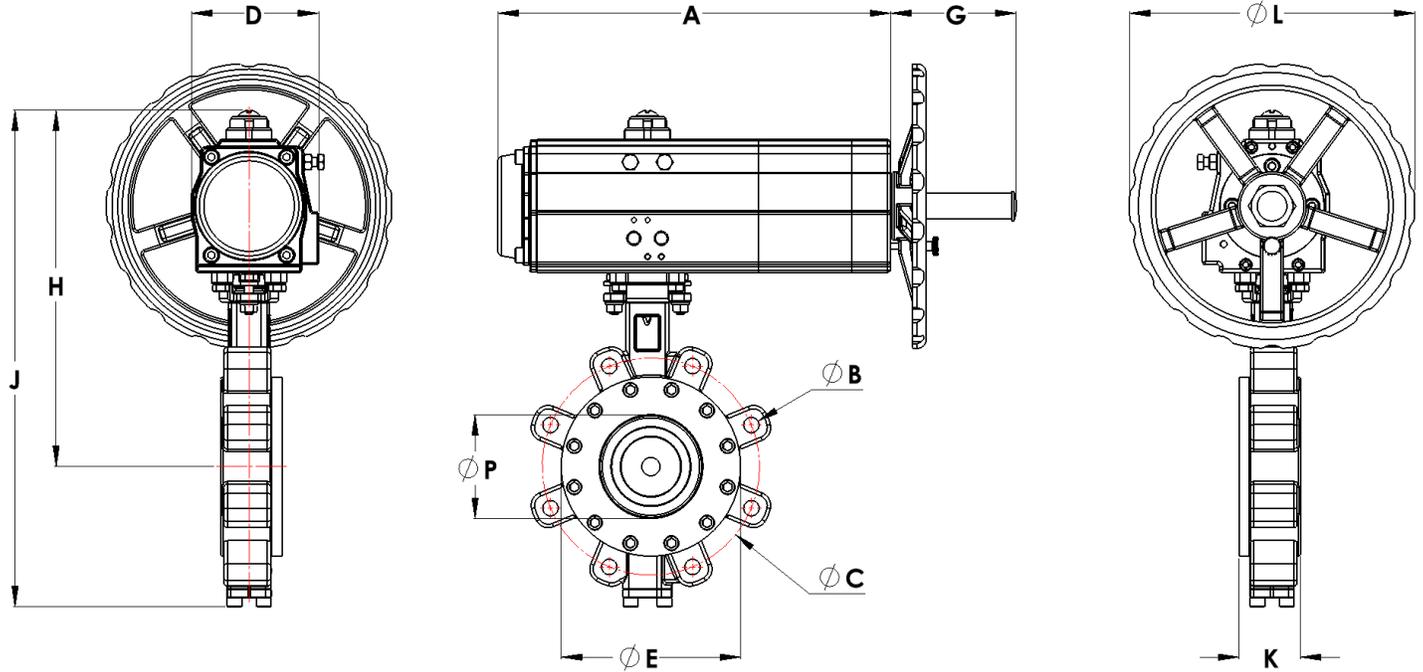


Pipe Size		A	B	C	D	E	G	H	J	K	L	P	Weight lbs (kg)
3	inch	13.6	4) 5/8-11	2.8	4.3	6.0	4.9	11.7	15.6	1.2	9.8	2.8	40.0 lbs
DN80	mm	345.4	-	72.0	109.2	130.0	124.5	297.2	396.2	48.0	25.0	72.0	18.2 kg
4	inch	15.8	8) 5/8-11	3.6	5.0	6.2	5.2	13.6	18.5	2.1	5.7	3.6	67.0 lbs
DN100	mm	401.3	-	91.0	127.0	157.0	132.1	345.4	469.9	54.0	400.0	91.0	30.5 kg
6	inch	20.1	8) 3/4-10	5.7	5.4	8.5	6.3	15.5	21.5	2.2	19.7	5.7	101.6 lbs
DN150	mm	510.5	-	145.0	137.2	216.0	160.0	393.7	546.1	57.0	500.0	145.0	46.2 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)
3	inch	10.7	4) 5/8-11	2.8	3.6	6.0	4.0	10.8	14.7	1.2	7.7	2.8	26.7 lbs
DN80	mm	271.8	-	72.0	91.4	130.0	101.6	274.3	373.4	48.0	195.0	72.0	12.1 kg
4	inch	13.4	8) 5/8-11	3.6	3.9	6.2	4.3	12.1	17.0	2.1	9.8	3.6	41.2 lbs
DN100	mm	340.4	-	91.0	99.1	157.0	109.2	307.3	431.8	54.0	250.0	91.0	18.7 kg
6	inch	15.8	8) 3/4-10	5.7	5.0	8.5	5.2	14.8	20.8	2.2	15.7	5.7	74.9 lbs
DN150	mm	401.3	-	145.0	127.0	216.0	132.1	375.9	528.3	57.0	400.0	145.0	34.0 kg