

### 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
- Bolted seat retainer keeps seat stable and allows easy changeout
- Belleville washers for consistent, self-adjusting stem seal pressure
- One piece, reinforced Teflon (RPTFE) seal
- Bi-directional seal design ensures increased sealing force in either flow direction
- Spring Return or Double Acting Actuators
- 316 Stainless steel actuator body, pistons and pinion
- Actuator pre-lubricated and tested to minimum 1 million cycles
- NEMA 4/4X (IP66) enclosure for washdown applications
- Namur and ISO mounting standards
- Highly visible valve position indicator
- Coated springs for additional corrosion resistance (spring return only)
- Dry or lubricated pilot air supply

### Applications

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. All-stainless construction for applications requiring superior corrosion resistance. Double Offset design 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 stainless steel rack & pinion actuators use air pressure to open and air pressure to close the ball valve (4-way pilot). Spring return stainless steel rack & pinion actuators use air pressure to open and springs to close the ball valve (3-way pilot). Actuator will work with filtered dry or lubricated compressed air. Recommended air supply pilot pressure should be between 58 and 87 PSI. Easy to read visual valve position indicator located on top of actuator.

### Construction

Valve Body	316 stainless steel CF8M
Disc	316 stainless steel CF8M
Disc Seat/Liner	RPTFE
Stem/Stem Seals	17-4PH SS
Actuator Body/End Covers	316 Stainless steel
Valve Position Indicator	Plastic
Fasteners	ASTM 304 Stainless Steel
Actuator Seals	NBR



### Description

Air actuated mount 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. Heavy duty quarter turn stainless steel rack & pinion actuators designed for long life and tested for a minimum 1 million+ operations. 316L stainless steel valve body for excellent corrosion resistance. Standard Namur mounting pads for optional accessory confirmation switches and pilot valves.

### Approvals– Actuators

- CE Declaration of conformity– EN ISO 12100:2010/ EN ISO 4414:2010
- ISO5211/ DIN3337 valve mounting
- Namur VDI/VDE 3845 accessory mounting

### Standards– Valves

- 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 Features

Heavy duty rugged Rack & Pinion design

316 stainless steel actuator body, pistons & stem

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

Stainless steel fasteners

Bi-directional, one piece self-energized RTPFE Seat

Spherically machined disc edge reduces wear & torque

Washer seals between stem and body brush away particles

Thrust ring for anti-blowout, anti-static

Visual valve position indicator

Standard Namur top mounting for optional limit switches

316 stainless internal components

NPT pilot air ports and additional Namur VDI/VDE-3845 solenoid mounting pad

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

Stem packing adjustment below ISO mount is accessible with actuator installed

Bolted faceplate ensures consistent seat position

Integrally-cast heavy duty mounting stop

International standard ISO5211 valve mounting pad

## Pressure Rating

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

**Vacuum Rating:** Full vacuum

## Temperature Range

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

**Valve Temperature Rating:** RPTFE Seals: -40 to 450° F (-40 to 230° C)

## Options

- Namur direct mount pilot solenoid valves
- Limit switch/Visual valve position indicator
- Digital Smart Positioner



## Specifications (English units)

Stock Number	Pipe Size (inch)	Orifice Diam. (inch)	Cv Flow Factor	Pressure Max.(PSI)	Fluid Media*	Cycle Time/90° (seconds) (Open/Close)	Recommended Air Pilot Pressure (PSI)	Air Volume /90° (cubic inches)
<b>HIGH PERFORMANCE LUG BODY BUTTERFLY VALVE, RPTFE SEALS: DOUBLE ACTING</b>								
<b>579403A</b>	3	2.8	180	285	Air, oil and other fluids compatible with materials of construction	1/1	58-87	24.4
<b>579404A</b>	4	3.6	375	285	Air, oil and other fluids compatible with materials of construction	2/2	58-87	54.9
<b>579406A</b>	6	5.7	1350	285	Air, oil and other fluids compatible with materials of construction	2/2	58-87	97.6
<b>HIGH PERFORMANCE LUG BODY BUTTERFLY VALVE, RPTFE SEALS: SPRING RETURN</b>								
<b>579503A</b>	3	2.8	180	285	Air, oil and other fluids compatible with materials of construction	3/1	58-87	54.9
<b>579504A</b>	4	3.6	375	285	Air, oil and other fluids compatible with materials of construction	3/1	58-87	97.6
<b>579506A</b>	6	5.7	1350	285	Air, oil and other fluids compatible with materials of construction	3/1	58-87	97.6

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

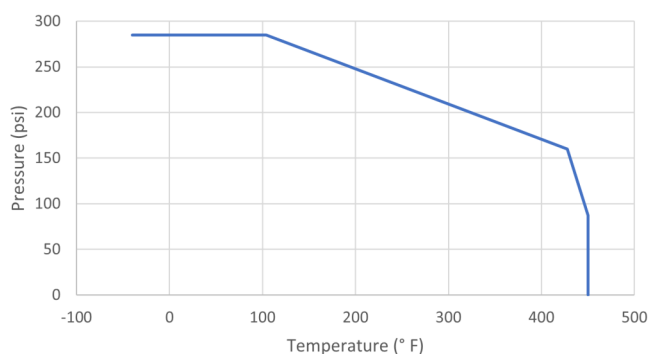
\* Consult compatibility chart for other fluid media. Suitable for vacuum up to 29 inHg

\* See P/T Chart

## PT Chart

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

**Pressure vs Temperature- Standard Units**



## Specifications (Metric units)

Stock Number	Pipe Size (inch)	Orifice Diam. (mm)	Kv Flow Factor	Pressure Max.(Bar)	Fluid Media*	Cycle Time/90° (seconds)	Recommended Air Pilot Pressure (PSI)	Air Volume /90° (liters)
<b>HIGH PERFORMANCE LUG BODY BUTTERFLY VALVE, RPTFE SEALS: DOUBLE ACTING</b>								
579403A	80	72.0	155.7	19.7	Air, oil and other fluids compatible with materials of construction	1/1	4-6	0.4
579404A	100	91.0	324.4	19.7	Air, oil and other fluids compatible with materials of construction	2/2	4-6	0.9
579406A	150	145.0	1167.8	19.7	Air, oil and other fluids compatible with materials of construction	2/2	4-6	1.6
<b>HIGH PERFORMANCE LUG BODY BUTTERFLY VALVE, RPTFE SEALS: SPRING RETURN</b>								
579503A	80	72.0	155.7	19.7	Air, oil and other fluids compatible with materials of construction	3/1	4-6	0.9
579504A	100	91.0	324.4	19.7	Air, oil and other fluids compatible with materials of construction	3/1	4-6	1.6
579506A	150	145.0	1167.8	19.7	Air, oil and other fluids compatible with materials of construction	3/1	4-6	1.6

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

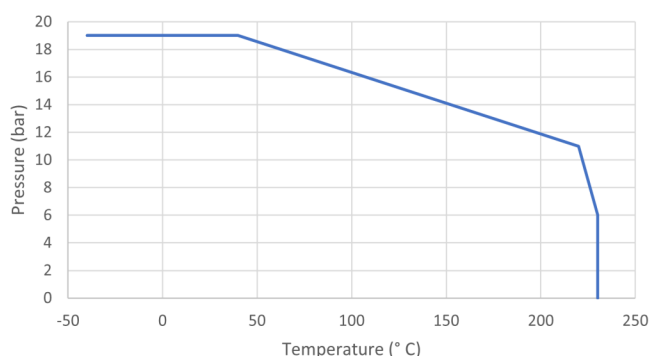
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\* See P/T Chart

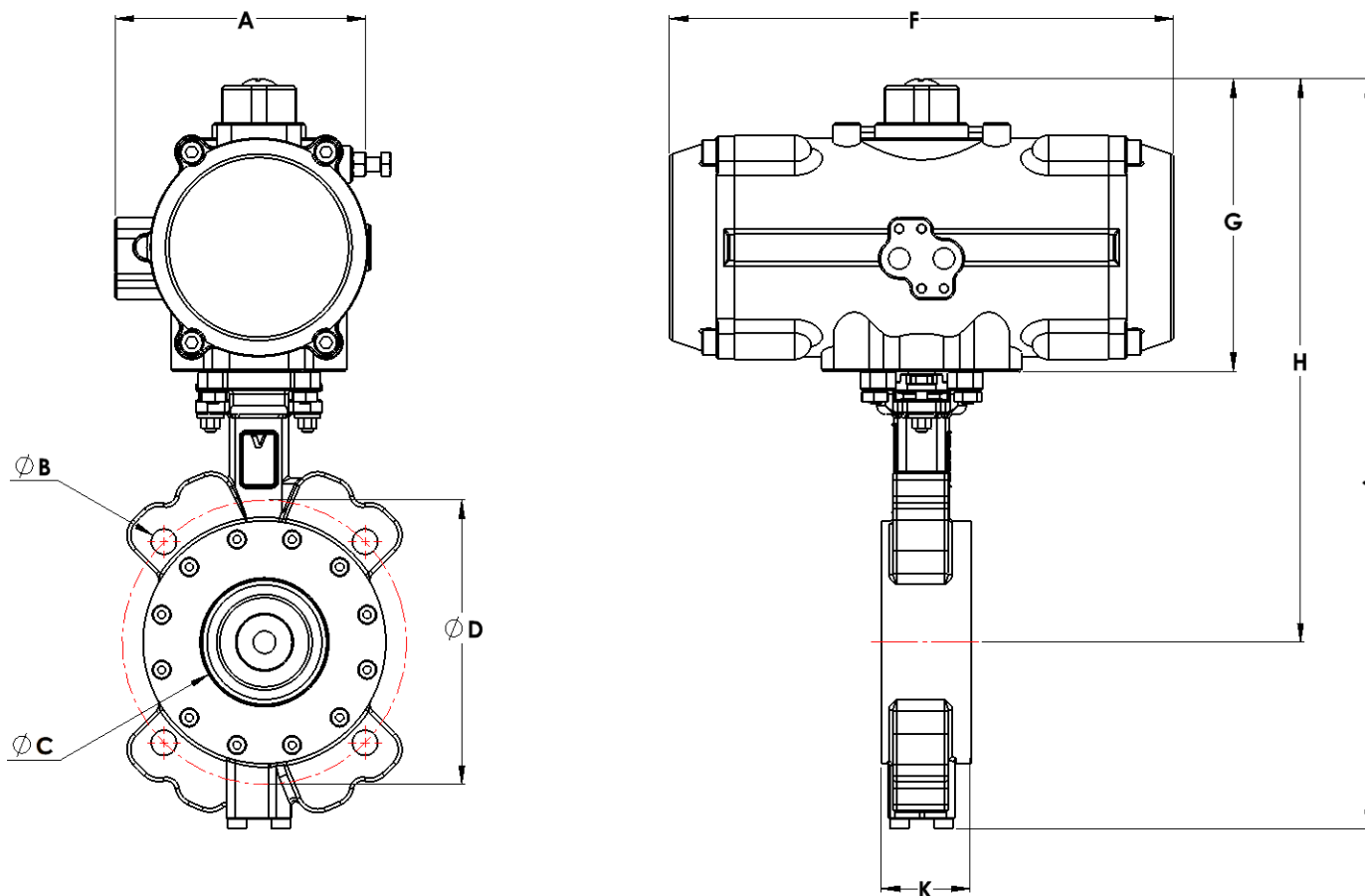
## PT Chart

<b>Pressure vs Temperature</b>					
Temp °C	-40	40	220	230	230
Pressure- Bar	19	19	11	6	0

Pressure vs Temperature- Metric Units



## Dimensions: Double Acting

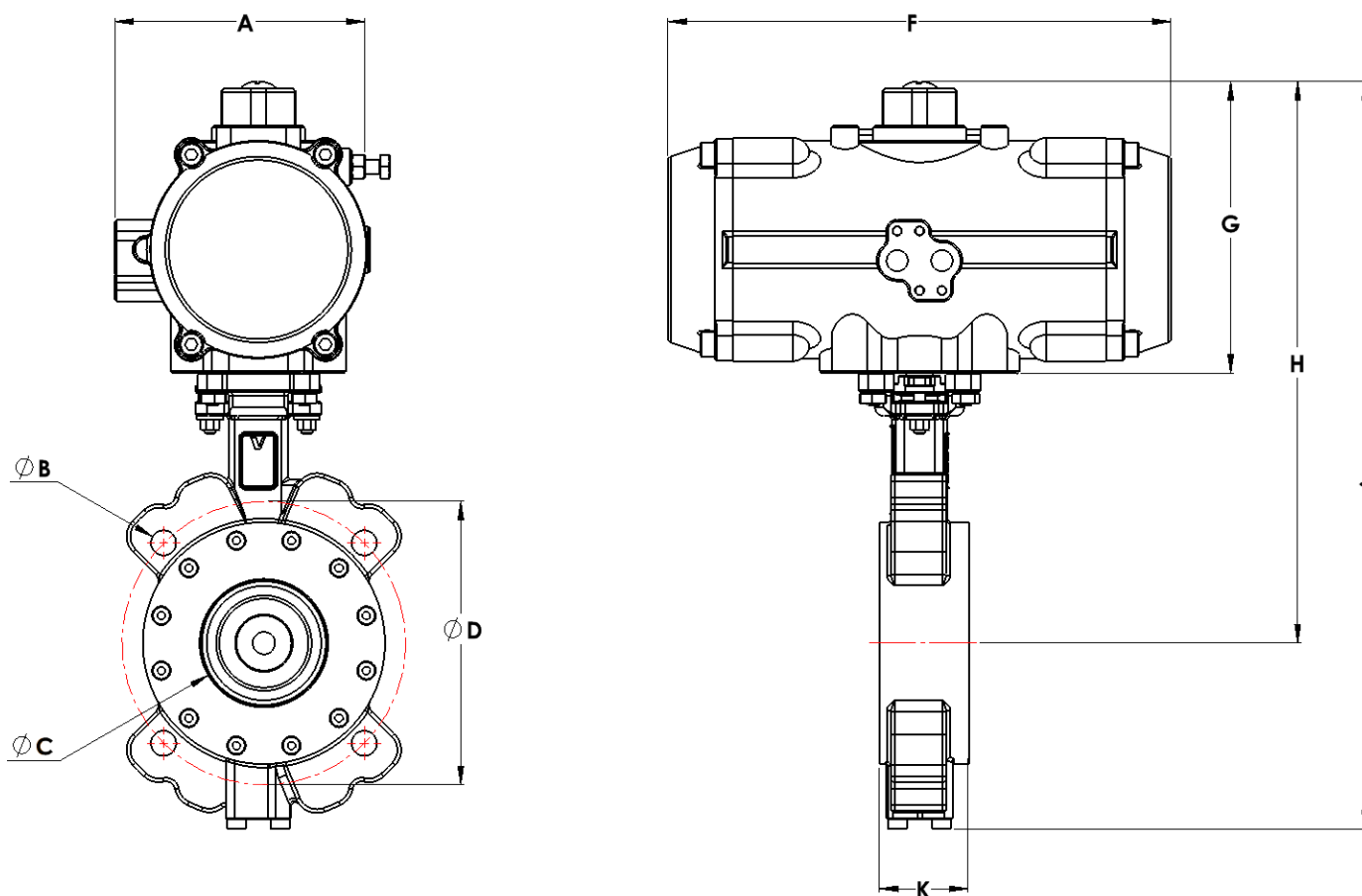


### Valves suitable between flanges:

- ◆ ANSI/ASME B16.5 CLASS 150
- ◆ ANSI/ASME B16.1 CLASS 125

Pipe Size		A	B	C	D	F	G	H	J	K	Weight
<b>3</b> <b>DN80</b>	inch	4.5	4) 5/8-11	2.8	6.0	8.0	5.8	12.5	16.4	1.2	27.1 lb
	mm	114.3	-	72.0	152.4	203.2	147.3	317.5	416.6	48.0	12.3 lg
<b>4</b> <b>DN100</b>	inch	5.0	8) 5/8-11	3.6	7.5	10.6	6.7	14.3	19.2	2.1	43.3 lb
	mm	127.0	-	91.0	190.5	269.2	170.2	363.2	487.7	54.0	19.7 kg
<b>6</b> <b>DN150</b>	inch	5.7	8) 3/4-10	5.7	9.5	11.9	7.6	15.5	21.5	2.2	66.5 lb
	mm	144.8	-	145.0	241.3	302.3	193.0	393.7	546.1	57.0	30.2 kg

## Dimensions: Spring Return



### Valves suitable between flanges:

- ◆ ANSI/ASME B16.5 CLASS 150
- ◆ ANSI/ASME B16.1 CLASS 125

Pipe Size		A	B	C	D	F	G	H	J	K	Weight
3 DN80	inch	5.0	4) 5/8-11	2.8	6.0	10.6	6.8	11.5	15.4	1.2	37.3 lb
	mm	127.0	-	72.0	152.4	269.2	172.7	292.1	391.2	48.0	16.9 kg
4 DN100	inch	5.7	8) 5/8-11	3.6	7.5	11.9	7.6	13.4	18.3	2.1	55.9 lb
	mm	144.8	-	91.0	190.5	302.3	193.0	340.4	464.8	54.0	25.4 kg
6 DN150	inch	5.7	8) 3/4-10	5.7	9.5	11.9	7.6	15.5	21.5	2.2	68.4 lb
	mm	144.8	-	145.0	241.3	302.3	193.0	393.0	546.1	57.0	31.1 kg