Air Actuated High Performance Butterfly Valves–All Stainless

Stainless Steel Wafer Body ANSI/ASME 150
3" to 8" Sizes

SERIES
5796
5797

Features

- Double offset design reduces seal wear
- High quality, 316SS (CF8M) construction
- Reinforced Teflon (RPTFE) seats for expanded temperature range
- Heavy–duty, single piece cast & machined disc with integral mounting sleeve
- Spring loaded seat cover for easier removal and replacement of the valve seat
- Direct mount wafer butterfly valve with ISO5211 mount
- 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)

Description

Air actuated mount high performance butterfly valves with 316 stainless steel wafer body are designed for commercial and industrial applications. Valve mounts between two standard ANSI/ASME Class 125/ 150 flanges. Disc is precision machined 316SS. 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.

Applications

High performance wafer 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.

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/316SS/ V-ring (same material as seat)
Actuator Body/End Covers	316 Stainless steel
Valve Position Indicator	Plastic
Fasteners	ASTM 304 Stainless Steel
Actuator Seals	NBR

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

- ANSI/ASME B16.5 CLASS150
- ANSI/ASME B16.1 CLASS125
- EN1092 PN10, PN16
- JIS B 2239 10K, 16K
- CE Conformance– PED 2014-/68/UE

Options

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

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

Stem packing adjustment below ISO mount eliminates additional bracket

Single piece cast & machined disc with integral shaft service

RTPFE Seat

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 wafer butterfly valve with standard ISO5211 mount, no brackets required

Spring-loaded faceplate for easy seat removal

Integrally-cast heavy duty mounting stop

International standard ISO5211 valve mounting pad

Pressure Rating

Pressure Rating: 285 PSI (19.7 Bar)

Temperature Range

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

Valve Temperature Rating: RPTFE Seals: -20 to 500°F (-29 to 260°C)

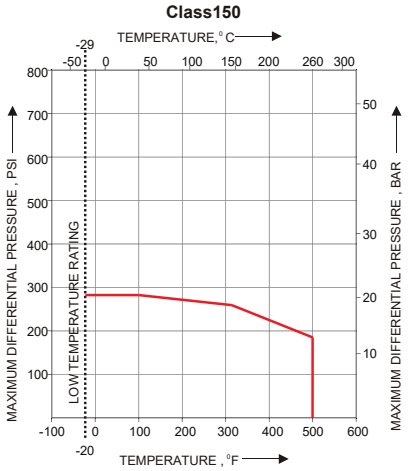
Specifications (English units)

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)
Wafer Body EPDM Seals: DOUBLE ACTING								
579603	3	2.9	165	285	Air, oil and other fluids compatible with materials of construction	1/1	58-87	24.4
579604	4	3.8	400	285	Air, oil and other fluids compatible with materials of construction	2/2	58-87	24.4
579606	6	5.6	1050	285	Air, oil and other fluids compatible with materials of construction	2/2	58-87	54.9
579608	8	7.4	2200	285	Air, oil and other fluids compatible with materials of construction	4/4	58-87	97.6
Wafer Body EPDM Seals: SPRING RETURN								
579703	3	2.9	165	285	Air, oil and other fluids compatible with materials of construction	2/1	58-87	24.4
579704	4	3.8	400	285	Air, oil and other fluids compatible with materials of construction	2/1	58-87	24.4
579706	6	5.6	1050	285	Air, oil and other fluids compatible with materials of construction	2/1	58-87	54.9

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



Rated value for 150 Lb body			
Temperature °F	Temperature °C	CF8M (PSI)	CF8M (bar)
-20.2 to 100.4	-29to 38	275.6	19.0
199.4	93	235.0	16.2
300.2	149	214.7	14.8
399.2	204	194.4	13.4
500	260	169.7	11.7

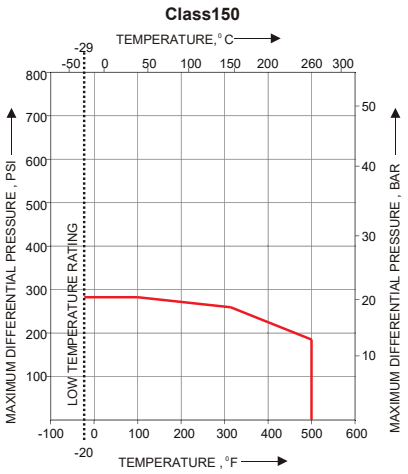
Specifications (Metric units)

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° (liters)
Wafer Body EPDM Seals: DOUBLE ACTING								
579603	80	73.7	143	19.7	Air, oil and other fluids compatible with materials of construction	1/1	4-6	0.4
579604	100	96.5	346	19.7	Air, oil and other fluids compatible with materials of construction	2/2	4-6	0.4
579606	150	142.2	908	19.7	Air, oil and other fluids compatible with materials of construction	2/2	4-6	0.9
579608	200	188.0	1903	19.7	Air, oil and other fluids compatible with materials of construction	4/4	4-6	1.6
Wafer Body EPDM Seals: SPRING RETURN								
579703	80	73.7	143	19.7	Air, oil and other fluids compatible with materials of construction	2/1	4-6	0.4
579704	100	96.5	346	19.7	Air, oil and other fluids compatible with materials of construction	2/1	4-6	0.4
579706	150	142.2	908	19.7	Air, oil and other fluids compatible with materials of construction	2/1	4-6	0.9

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

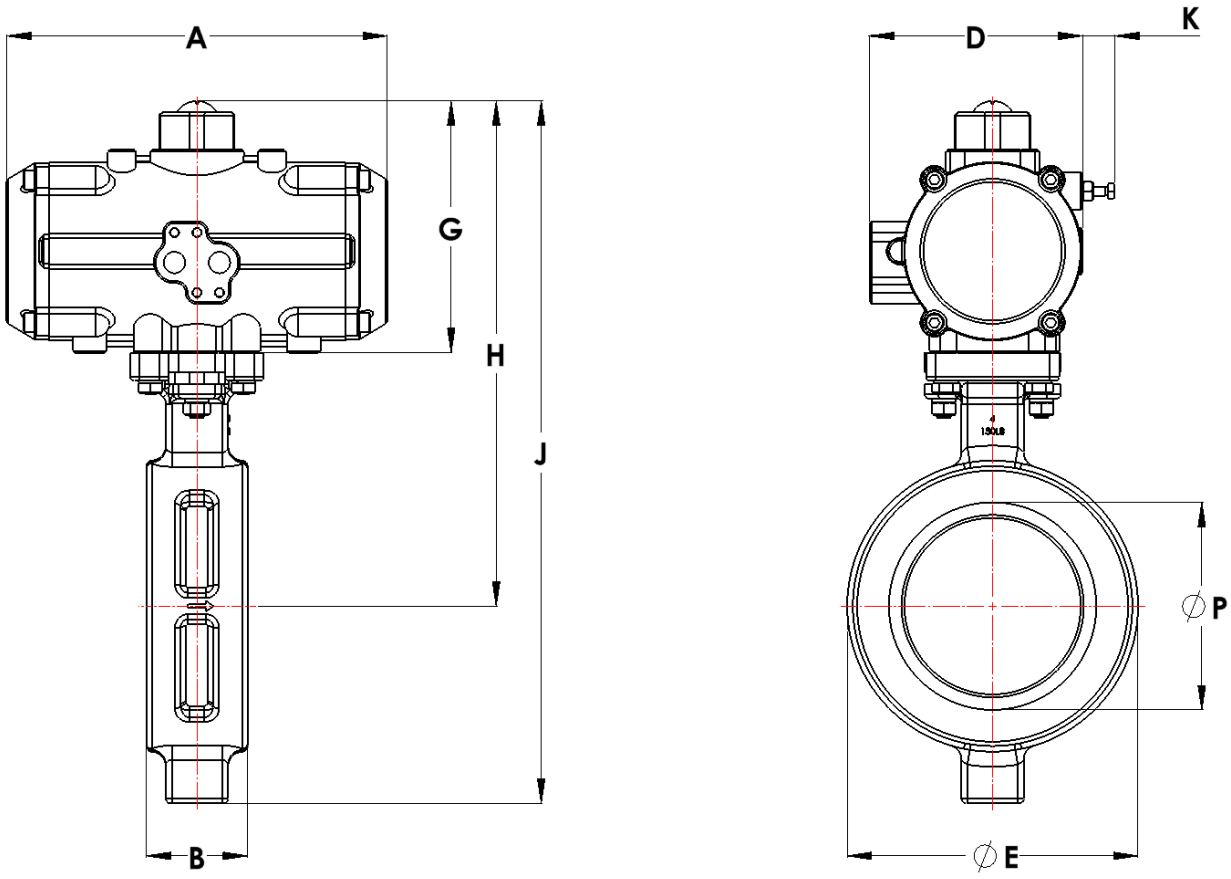
* Consult compatibility chart for other fluid media. Suitable for vacuum up to 29 inHg

* See P/T Chart



Rated value for 150 Lb body			
Temperature °F	Temperature °C	CF8M (PSI)	CF8M (bar)
-20.2 to 100.4	-29to 38	275.6	19.0
199.4	93	235.0	16.2
300.2	149	214.7	14.8
399.2	204	194.4	13.4
500	260	169.7	11.7

Dimensions: Double Acting

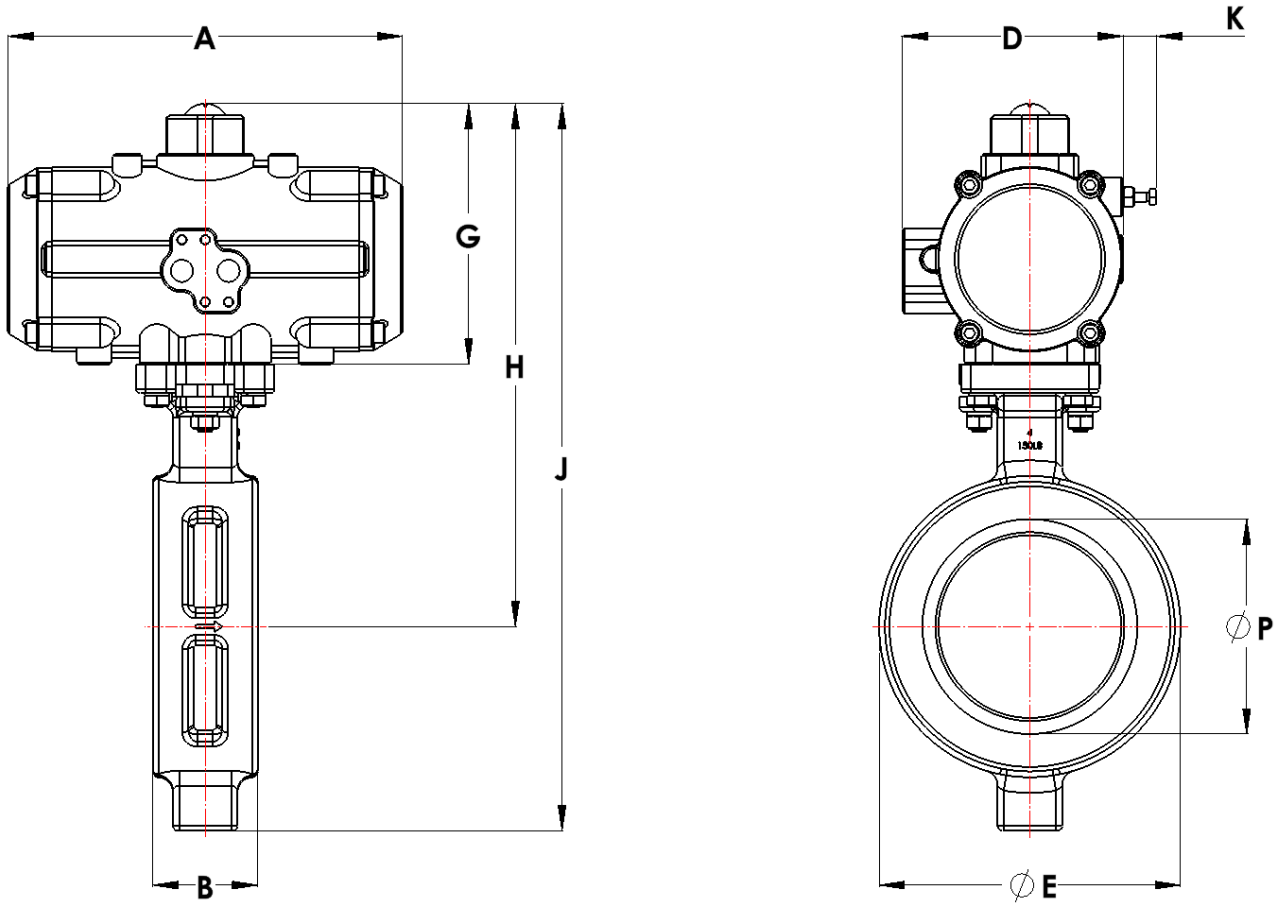


Suitable between flanges:

- ANSI/ASME B16.5 CLASS150
- ANSI/ASME B16.1 CLASS125
- EN1092 PN10, PN16
- JIS B 2239 10K, 16K
- BS 10 Table D, Table E

Pipe Size		A	B	D	E	G	H	J	K	P	Weight
3	inch	8.0	1.9	4.5	5.2	5.8	10.6	14.1	0.8	2.8	25 lb
	mm	204.0	49.0	113.5	131.0	147.3	269.2	358.1	17.1	72.0	11.3 kg
4	inch	8.0	2.1	4.5	6.1	5.8	11.1	15.2	0.8	3.7	27 lb
	mm	204.0	54.0	113.5	155.0	147.3	281.9	386.1	17.1	94.0	12.2 kg
6	inch	10.6	2.2	5.0	8.5	6.7	13.3	18.7	0.8	5.5	49 lb
	mm	270.0	57.0	127.0	216.0	170.2	337.8	475.0	17.1	140.0	22.2 kg
8	inch	11.9	2.5	5.7	10.6	7.6	15.4	22.2	1.1	7.3	72 lb
	mm	302.0	64.0	145.0	270.0	193.0	391.2	563.9	27.4	185.0	32.7 kg

Dimensions: Spring Return



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Pipe Size		A	B	D	E	G	H	J	K	P	Weight
3	inch	8.0	1.9	4.5	5.2	5.8	10.6	14.1	0.8	2.8	26 lb
	mm	204.0	19.0	113.5	131.0	147.3	269.2	358.1	17.1	72.0	11.8 kg
4	inch	8.0	2.1	4.5	6.1	5.8	11.1	15.2	0.8	3.7	28 lb
	mm	204.0	54.0	113.5	155.0	147.3	281.9	386.1	17.1	94.0	12.7 kg
6	inch	10.6	2.2	5.0	8.5	6.7	13.3	18.7	0.8	5.5	50 lb
	mm	270.0	57.0	127.0	216.0	170.2	337.8	475.0	17.1	140.0	22.7 kg