

KEYSTONE

The figure 269J is a double seal mix-proof piston valve, used for product isolation, where safe separation of process and CIP fluids is required.

Features

- Product contact parts manufactured from high quality 316L S/S bar.
- Heavy walled body construction.
- Semi-bright external surface finish.
- Compact, lightweight design.
- Heavy duty cast body clamps (bolted type).
- Various sealing options available.
- Seat material Viton®.
- Metal plug stop, protects seat seals from wear or damage.
- Resilient seated for positive isolation.
- Free draining design, eliminates product puddling and air pockets.
- Smooth ball shaped bodies, reduces turbulence and improves flow.
- Smooth internal surfaces for ease of cleaning.
- Maintenance friendly design.
- Reversible actuator.
- Leakage chamber between seals.
- Clamped body style offers full 360° orientation of actuator.
- Butt Weld end connections.
- Swage/crimp type fluid connectors to CIP poppet valves provided with valve.



Options

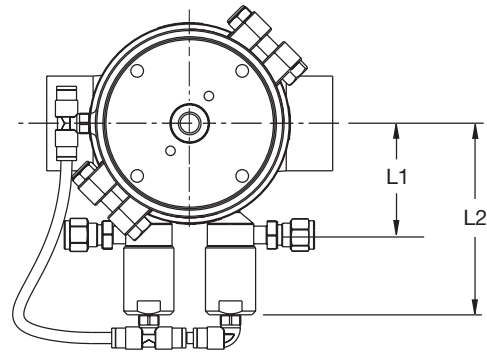
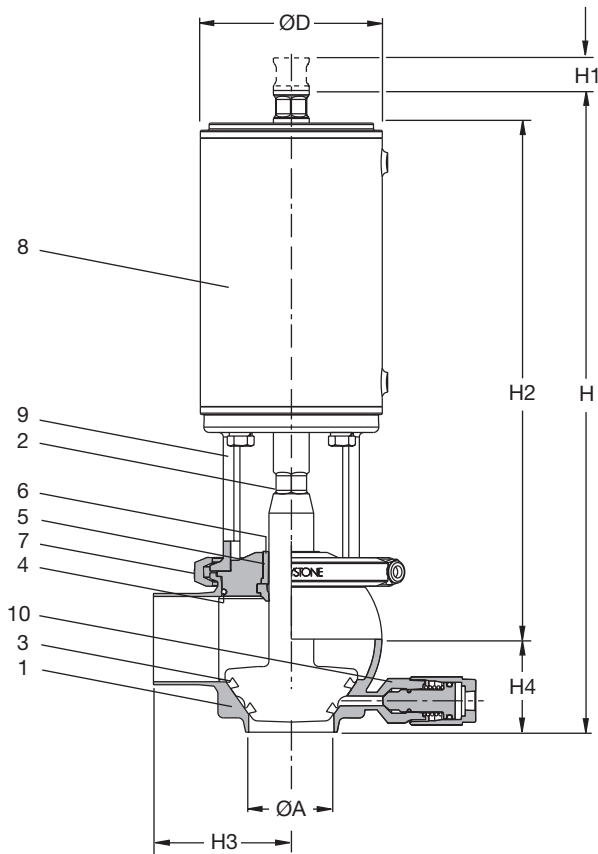
- Mirror polished internals.
- Clamp and thread end connections.
- 3 Position actuator.
- Booster actuator.
- Manual operator.
- Control head or feed back unit.
- Quick release body clamps.

General Applications

- Brewery
- Dairy
- Winery
- Cannery
- Food processing
- Pharmaceutical
- Chemical
- Beverage

Keystone Hygienic Products – Figure 269J

Double Seal Piston Valve



Parts List

No.	Description	Material	Standards
1	Body	316L S/S, 304L S/S	ASTM A276
2	Plug/shaft	316L S/S	ASTM A276
3	Seat seal	EPDM, Nitrile, PTFE, Viton®	FDA
4	Body seal	EPDM, Nitrile, Viton®	FDA
5	Stem seal	Santoprene®, EPDM, Nitrile, Viton®	FDA
6	Shaft bush	PTFE, UHMWPE	Commercial
7	Body clamp	304 CF8 S/S	ASTM A743 CF8
8	Actuator assembly	304 S/S	–
9	Sight housing	304 CF8 S/S	ASTM A743 CF8
10	CIP/Leak detect valves	316L S/S	ASTM A276

Notes

Metric bodies are also available.

Dimensions (mm)

Size		ØA x t		H3								
Inch	Metric	Inch	Metric	ØD	H	H1	H2	Inch	Metric	H4	L1	L2
1"	025	25.4 x 1.6	29.5 x 1.6	85	288	10	214	55.0	54.0	55.0	54.0	97.5
1.5"	040	38.1 x 1.6	41.5 x 1.6	102	352.5	15	280	74.5	73.5	49.5	60.5	103.0
2"	050	50.8 x 1.6	53.5 x 1.6	102	361	26	286	77.0	76.0	52.0	60.5	103.0
2.5"	065	63.5 x 1.6	69.5 x 1.6	141	446	38	354	102.5	101.5	68.0	75.5	118.5
3"	080	76.2 x 1.6	84.5 x 1.6	141	459	38	360	109.0	108.0	74.0	75.5	118.5
4"	100	101.6 x 1.6	103.5 x 1.6	141	471	38	377	142.0	141.0	92.5	88.5	131.5
5"	125	129.0 x 2.0	130.0 x 2.0	219	522	50	400	143.0	142.0	103.0	101.5	144.5
6"	150	152.4 x 2.0	155.0 x 2.0	219	547	50	413	156.0	155.0	115.0	101.5	144.5

Working Principle

The F269J valves are operated by compressed air, via a linear pneumatic actuator, that can be supplied with or without spring return.

The at-rest position of the valve, although normally closed (down position), can also be provided in the open (up position), this is determined by the actuator mode being either Spring Extend (SE) or Spring Retract (SR) respectively as selected at time of order. The mode can also be easily changed on site by simply inverting actuator assembly. (See separate Repair and Maintenance Instructions for details).

When air pressure is applied to the cylinder, two small pneumatic normally open (NO) poppet valves, a leak detecting and a CIP valve instantly close and the main valve plug moves through its entire stroke changing the valve from the closed to open position.

When the air is removed or vented from the cylinders the main valve closes, following which the two smaller valves open, thereby venting and draining the leakage chamber to atmosphere. With the main valve in the closed position the leakage chamber can be flushed with water or CIP to clean away product residues.

While the valve is in the closed position, one side of the valve can be CIP cleaned while product remains on the opposite side fully protected from possible contamination by the double seals and leakage chamber.

Technical Specifications

Working Temperature:	-5 to +100°C (-5 to 120°C for static condition)
Sterilizing Temperature:	up to 140°C for 30 min. (Steam for static condition)
Maximum Pressure, Valve Body:	10 Bar fluid pressure
Maximum Pressure Valve Seat:	See separate plug lifting chart
Minimum Pressure:	Full vacuum
Operating Air Pressure:	4 to 8 Bar max
Air Connections:	R1/8" (BSP)
CIP/Detect Line Connections:	8 mm OD tube
Surface Finish:	Internal > 0.8Ra, External hairline / buffed
Length Tolerance Between Ends:	±0.5 mm~±1.0 mm
Parallelism or Squareness of Ends:	±0.5° or less

Air Consumption for Single Acting Actuators (Liters of Free Air)

Press Bar	Valve Size				
	025	040 050	065 080 100	125 150	
4.0	0.7	1.5	3.9	8.7	
6.0	1.0	2.2	5.8	13.0	
8.0	1.4	3.0	7.8	17.4	

Recommended Seat Flushing CIP Flow/Velocity Information

With the main valve in the closed position, it is recommended the leakage chamber be flushed with water or CIP solutions to clean away any product residues after each valve operation. Also for the most effective clean, the main valve should be pulsed open during entire system's cleaning cycle.

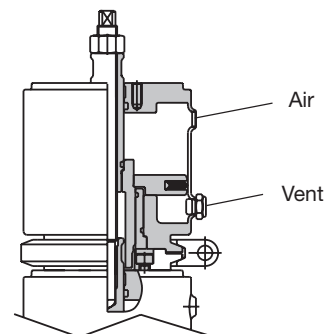
CIP Flow Rate: 3.5 - 4.0 L/min @ 1.5 bar inlet pressure.

CIP Velocity: 1.5 m/sec (minimum).

3-Position Actuator

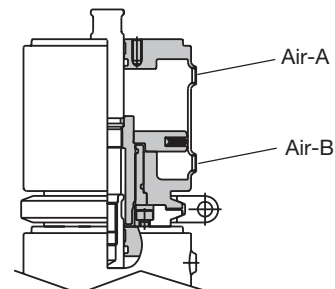
The 3-Position Actuator can be used for an adjusted flow control at any position throughout the valve's entire stroke.

For example on dosing or filling to give optional full flow or partial flows, for topping up, or varying flow between product or CIP duties.



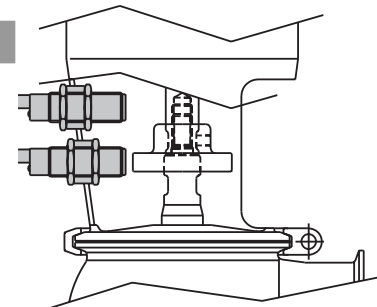
Booster Actuator

The Booster Actuator can be used where extra force is required to hold seal tightness under extra high line pressures, or for opening valves against high line pressures.



Position Sensors

Standard Ø18 mm barrel type proximity sensors can be center mounted in the special slot provided within the sighthousing cone, and a target can be easily fitted to the plug shaft.



Valve Type

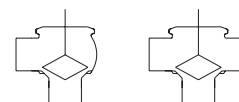
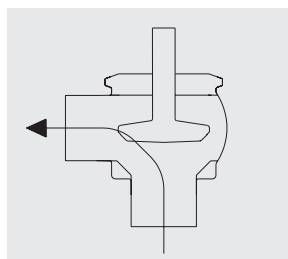
Type Configuration

F269J-STD

Standard Flow

L

T



Keystone Hygienic Products – Figure 269J

Double Seal Piston Valve

Typical Specifying Sequence

Example:	AA -	F269J	A	SE	B	L	M	6S	V	V	S	X
Body Size												
Inch												
Metric												
A = (1")												
B = (1.5")												
C = (2")												
D = (2.5")												
E = (3")												
F = (4")												
G = (5")												
H = (6")												
I = (8")												
Figure Number												
F269J - Double Block and Bleed Valve												
Valve Style												
A - STD (Std.)												
D - Other												
Actuator Type												
SE - Spring Extend (Std.)												
LE - Long Stroke (SE)												
End Connection												
B - Butt Weld (Std.)												
C - Clamp ISO												
J - Male thread RJT												
I - Male thread IDF												
S - Male thread SMS												
M - Male thread RJT Modified												
D - Male thread DIN 11851												
E - Other												
Port Configuration												
L T LT TL LL TT												
Actuator Accessory												
M - Metric 6mm Air Fittings (Std.)												
I - Imperial 1/4" Air Fittings												
X - None												
Material Type/Finish, Welded Parts												
6S - 316L SS (Semi-bright) (Std.)												
6P - 316L SS (Polished)												
4S - 304L SS (Semi-bright)												
4P - 304L SS (Polished)												
Body Seal Materials												
E - EPDM (Std.)												
N - Nitrile												
V - Viton®												
Plug Seal Materials												
E - EPDM (Std.)												
N - Nitrile												
V - Viton®												
Stem Seal Materials												
S - Santoprene® Wiper Type (Std.)												
V - Viton® Wiper Type												
D - Diaphragm (Only available on some sizes)												
E - EPDM												
F - Viton® O-Ring Type												
N - Nitrile												
Actuator Optional Extras												
T - 3 Position actuator												
U - Booster actuator												
D - Damper actuator												
X - None												

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