

KEYSTONE FIGURE 267J+ AND 268J+ (REVERSIBLE) HYGIENIC PROCESS VALVES SINGLE SEAL PISTON VALVE

The Figure 267J+ and 268J+ valves are single seal piston valves, used to control process or C.I.P. fluids

- F267J+ for isolating
- F268J+ for diverting or converging flows



GENERAL APPLICATIONS

- Dairy factories
- Breweries and beverage plants
- Wineries
- Canneries and food processing plants
- Pharmaceutical
- Chemical processing



TECHNICAL DATA

Working

temperature: $-5 \text{ to } +100 ^{\circ}\text{C}$

(-5 to 120°C

for static condition)

Sterilizing

temperature: Up to 140°C for 30 min's

(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: R½" (BSP)
Surface finish: Internal > 0.8 Ra,
external hairline / buffed

Length tolerance

between ends: ± 0.5 mm $\sim \pm 1.0$ mm

Parallelism or

squareness of ends: ±0.5° or less

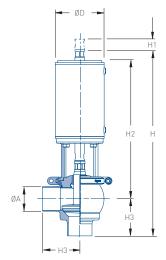
FEATURES

- Product contact parts are manufactured from high quality 316L stainless steel bar.
- Heavy walled body construction.
- Semi bright external surface finish.
- · Compact, lightweight design.
- Heavy duty cast body clamps (bolted type).
- Various sealing options available.
- Metal plug stop, protects seat seals from wear or damage.
- A wide choice of port configurations are available.
- 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.
- Clamped body style offers full 360° orientation of body ports.
- Butt weld end connections.

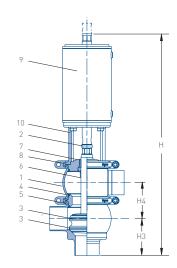
Options

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

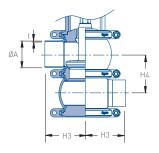
SINGLE SEAL PISTON VALVE



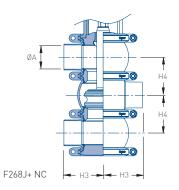
NOTE: F267J+ Standard



NOTE: F268J+ Standard



F267J+ NS



PARTS LIST

Description	Material	Standards
Body	316L S/S, 304L S/S	ASTM A276
Plug/shaft	316L S/S	ASTM A276
Seat seal	EPDM, Nitrile, PTFE, FPM	FDA
Intermediate seal ring	316L S/S	ASTM A276
Body seal	EPDM, Nitrile, FPM	FDA
Stem seal	Santoprene® , EPDM, Nitrile, FPM	FDA
Shaft bush	PTFE, UHMWPE	Commercial
Body clamp	304 CF8 S/S	ASTM A743 CF8
Actuator assembly	304 S/S	-
Sight housing	304 CF8 S/S	ASTM A743 CF8
	Body Plug/shaft Seat seal Intermediate seal ring Body seal Stem seal Shaft bush Body clamp Actuator assembly	Body 316L S/S, 304L S/S Plug/shaft 316L S/S Seat seal EPDM, Nitrile, PTFE, FPM Intermediate seal ring 316L S/S Body seal EPDM, Nitrile, FPM Stem seal Santoprene®, EPDM, Nitrile, FPM Shaft bush PTFE, UHMWPE Body clamp 304 CF8 S/S Actuator assembly 304 S/S

DIMENSIONS

DIFILITOIO												
Size	Size	ØA x t			1	Н	H1			Н3		
Imperial	Metric	Imperial	Metric	ØD	F267J+	F268J+	F267J+	F268J+	H2	Imperial	Metric	H4
1"	025	25.4 x 1.6	29.5 x 1.6	102	311	351	8	14	231	55.0	54.0	46.0
11/2"	040	38.1 x 1.6	41.5 x 1.6	102	317	376	17	15	237	61.5	60.5	58.5
2"	050	50.8 x 1.6	53.5 x 1.6	102	357	432	26	24	261	77.0	76.0	75.0
21/2"	065	63.5 x 1.6	69.5 x 1.6	102	374	461	26	24	267	88.5	87.5	87.5
3"	080	76.2 x 1.6	84.5 x 1.6	141	485	587	38	36	356	109.0	108.0	102.0
4"	100	101.6 x 1.6	103.5 x 1.6	168	589	720	38	36	428	142.0	141.0	130.5
5"	125	129.0 x 2.0	130.0 x 2.0	219	576	762	50	48	426	156.0	155.0	185.0
6"	150	152.4 x 2.0	155.0 x 2.0	219	576	762	50	48	413	156.0	155.0	185.0

NOTE

Metric bodies are created from standard inch bodies by expanding the ports to suit. Santoprene® is the registered trademark of Exxon Mobil.

SINGLE SEAL PISTON VALVE

WORKING PRINCIPLE

The F267J+ and F268J+ 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 normally open (up position), this is determined by the actuator mode being either Spring Extend (SE) or Spring Retract (SR) as selected at time of order. The mode can also be easily changed on site by simply inverting the actuator assembly. (See separate Installation, Operation and Maintenance Instructions for details).

When air pressure is applied to the cylinder, the valve plug moves through its entire stroke changing from one state to the other. In the case of the F267J+ from open to closed or vice a versa, and the F268J+ changing the flow path from one direction to the other.

These valves have only a few simple moving parts resulting in a very reliable valve in service.

AIR CONSUMPTION FOR SINGLE ACTING ACTUATORS (litres of free air)

	Valve size (actuator size)									
Supply pressure	025-040	050-065	080-100	100*	125-150					
bar/(psi)	(100S)	(100)	(140)	(170)	(200)					
4.1 (50)	0.89	1.23	3.28	4.71	8.94					
6.2 (90)	1.25	1.72	4.60	6.60	12.54					
8.3 (120)	1.61	2.21	5.92	8.50	16.14					

^{* (}Option)

¹⁰⁰ size valves can also be fitted with the Model 170 actuator as an option. This will boost the pressure holding power if required.

SINGLE SEAL PISTON VALVE

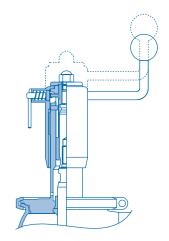
MANUAL OPERATOR

The manual operator replaces the air driven actuator, and is used where variable control of flow is required or automation is not possible. Flow is fully adjustable throughout the entire stroke of the valve.

The manual operator comes equipped with a visual position indicator and a locking device that can be engaged at any position.

The lever crank allows quick and easy

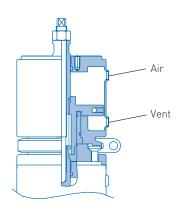
The lever crank allows quick and easy operation of the valve.



3-POSITION ACTUATOR

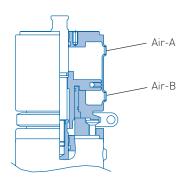
The 3-position actuator can be used for an adjusted flow control at any position throughout the valves entire stroke.

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.



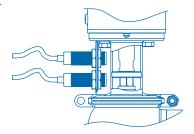
BOOSTER ACTUATOR

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 provided as a kit, complete with mounting bracket and sensor target.



VALVE TYPE Type Configuration F267J+ STD Standard flow L Τ F267J+ NS Standard flow LL LT TL TT F267J+ NWS Standard flow LL LT TL TT F268J+ STD LL LT TL TT Standard flow F268J+ NC Standard flow LLL LTL LTT TLT TTLTTT F268J+ NWC Standard flow LLL LTL LTT TLT TTL TTT

SINGLE SEAL PISTON VALVE

SELECTION GUIDE

SELECTION GUIDE		TO 10 1									
Example:	AA-	F268J+	A SSE	В	LL-	М	65	V	V	V	Х
Body size											
Imperial Me	tric 025 040 050 065 080 100 125										
Figure number											
F267J+ Stop valve F268J+ Diverge/converge valve											
\(\begin{align*} \begin{align*} A & STD (std) \\ B & NS/NC (extra body) \\ C & NWS/NWC (extra body+rever) \\ O & Other \end{align*}	rse plug)										
Actuator type											
SSE Spring extend (std) SSR Spring retract SDA Double air/acting MO Manual operator											
End connection											
B Butt weld (std) S C Clamp ISO M J Male thread RJT D I Male thread IDF E	Male thread SMS Male thread RJT I Male thread DIN Other										
Port configuration											
L T LT TL LL T											
LLL LLT LTT TTL TLL T	11										
Actuator accessory M Metric 6 mm air fittings (std) I Imperial ¼" air fittings X None											
Material type/finish, welded parts	5										
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 NitrileV FPM											
Plug seal materials											
 E EPDM (std) N Nitrile V FPM P PTFE 											
Stem seal materials											
S Santoprene® wiper type (std) D Diaphram (only available on s E EPDM V FPM wiper type F FPM o-ring type N Nitrile	some sizes)										
Actuator optional extras											
T 3-position actuator D Damper actuator 3 3A compliant U Booster actuator X None											



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