



**PENTAIR
HYGIENIC PROCESS VALVES
(FORMERLY KEYSTONE)**

**F267J+ / F268J+
HYGIENIC
SINGLE SEAT VALVES
REVERSIBLE ACTUATOR TYPE**

PENTAIR HYGIENIC PROCESS VALVES (Formerly Keystone)

HYGIENIC SINGLE SEAT VALVES

The F267J+ and F268J+ valves are single seat 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 to +100°C (-5 to 120°C for static condition)
Sterilizing temperature:	Up to 140°C for 30min (Steam for static condition)
Maximum pressure, valve body:	10bar 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)
Surface finish:	Internal < 0.8 Ra, external hairline / buffed
Length tolerance between ends:	±0.5mm ~ ±1.0mm
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 seat 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.

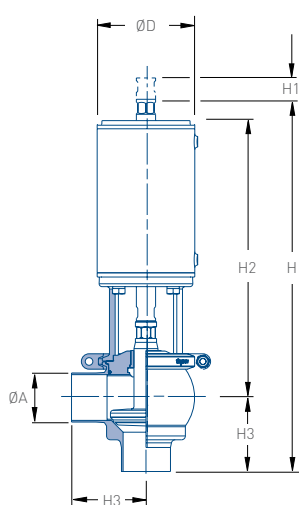
OPTIONS

- 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

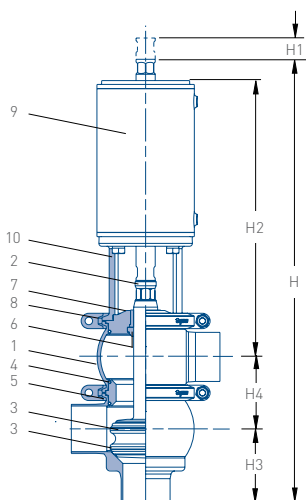
PENTAIR SINGLE SEAT VALVES

F267J+ / F268J+ (REVERSIBLE) HYGIENIC PROCESS VALVES

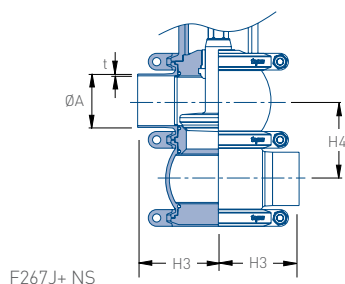
TECHNICAL SPECIFICATIONS



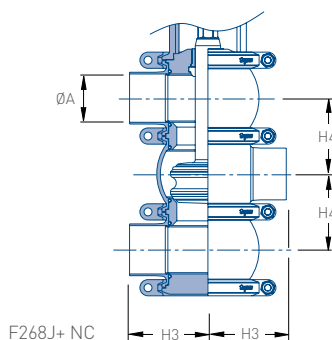
NOTE: F267J+ Standard



NOTE: F268J+ Standard



F267J+ NS



F268J+ NC

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, NBR, PTFE, FKM	FDA
4	Intermediate seal ring	316L S/S	ASTM A276
5	Body seal	EPDM, NBR, FKM	FDA
6	Stem seal	Santoprene®, EPDM, NBR, FKM	FDA
7	Shaft bush	PTFE, UHMWPE	Commercial
8	Body clamp	304 CF8 S/S	ASTM A743 CF8
9	Actuator assembly	304 S/S	-
10	Sight housing	304 CF8 S/S	ASTM A743 CF8

DIMENSIONS (mm)

Size Inch OD	Size Metric	ØA x t		ØD	H		H1		H2	H3		H4
		Inch OD	Metric		F267J+	F268J+	F267J+	F268J+		Inch OD	Metric	
1"	025	25.4 x 1.6	29.5 x 1.6	102	311	351	8	14	231	55.0	54.0	46.0
1.5"	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
2.5"	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	497	156.0	155.0	185.0
6"	150	152.4 x 2.0	155.0 x 2.0	219	576	762	50	48	510	156.0	155.0	185.0

NOTE:

Metric bodies are created from standard Inch OD bodies by fitting eccentric reducers.

Santoprene® is the registered trademark of Exxon Mobil.

PENTAIR SINGLE SEAT VALVES

F267J+ / F268J+ (REVERSIBLE) HYGIENIC PROCESS VALVES

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 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)

Supply pressure bar/(psi)	Valve size (actuator size)				
	025-040 (100S)	050-065 (100)	080-100 (140)	100* (170)	125-150 (200)
4.1 (60)	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.

PENTAIR SINGLE SEAT VALVES

F267J+ / F268J+ (REVERSIBLE) HYGIENIC PROCESS VALVES

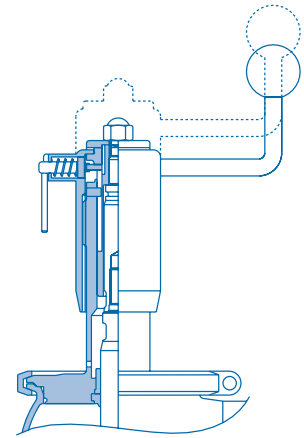
MANUAL OPERATOR

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.

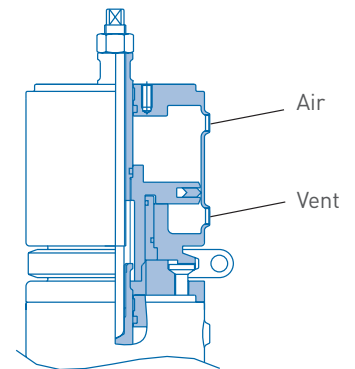
The lever crank allows quick and easy operation of the valve.



3-POSITION ACTUATOR

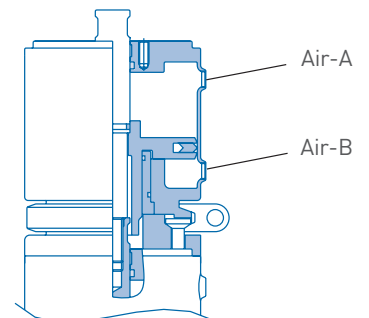
The 3-position actuator can be used for an adjusted flow control at any position throughout the valve's entire stroke.

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.



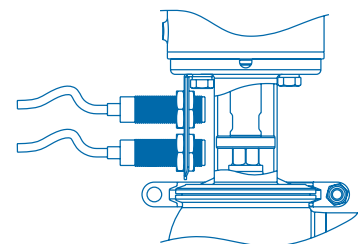
BOOSTER ACTUATOR

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

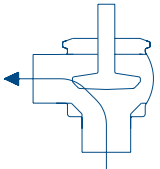


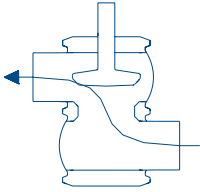




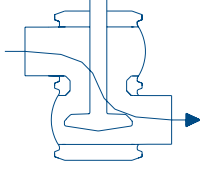




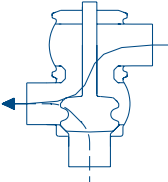




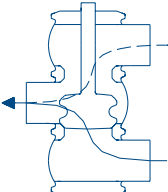



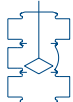
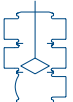
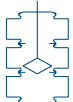
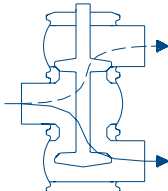




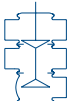
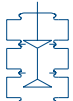
Standard Ø18mm barrel type proximity sensors can be provided as a kit, complete with mounting bracket and sensor target.



PENTAIR SINGLE SEAT VALVES

F267J+ / F268J+ (REVERSIBLE) HYGIENIC PROCESS VALVES

VALVE TYPE

Type	Configuration					
<p>F267J+ STD Standard flow</p> 	L	T				
						
<p>F267J+ NS Standard flow</p> 	LL	LT	TL	TT		
						
<p>F267J+ NWS Standard flow</p> 	LL	LT	TL	TT		
						
<p>F268J+ STD Standard flow</p> 	LL	LT	TL	TT		
						
<p>F268J+ NC Standard flow</p> 	LLL	LTL	LTT	TLT	TTL	TTT
						
<p>F268J+ NWC Standard flow</p> 	LLL	LTL	LTT	TLT	TTL	TTT
						

PENTAIR SINGLE SEAT VALVES

F267J+ / F268J+ (REVERSIBLE) HYGIENIC PROCESS VALVES

SELECTION GUIDE

Example:	AA-	F268J+	A	SSE	B	LL-	M	6S	V	V	V	X
Body size												
Inch OD												
A 1"												
B 1.5"												
C 2"												
D 2.5"												
E 3"												
F 4"												
G 5"												
H 6"												
Metric												
M 025												
O 040												
P 050												
Q 065												
R 080												
S 100												
T 125												
U 150												
Figure												
F267J+ Stop valve												
F268J+ Diverge/converge valve												
Valve style												
A STD (std)												
B NS/NC (extra body)												
C NWS/NWC (extra body+reverse plug)												
D Other												
Actuator type												
SSE Spring extend (std)												
SSR Spring retract												
SDA Double air/acting												
MO Manual operator												
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							
LLL	LLT	LTT	TTL	TLL	TTT							
Actuator accessory												
M Metric 6mm air fittings (std)												
I Inch 1/4" air fittings												
X None												
Material type/finish, welded parts												
6S 316L Stainless Steel (semi bright) (std)												
6P 316L Stainless Steel (polished)												
4S 304L Stainless Steel (semi bright)												
4P 304L Stainless Steel (polished)												
Body seal materials												
E EPDM (std)												
N NBR												
V FKM												
Plug seal materials												
E EPDM (std)												
N NBR												
V FKM												
P PTFE												
Stem seal materials												
S Santoprene® wiper type (std)												
D Diaphragm (only available on some sizes)												
E EPDM												
V FKM wiper type												
F FKM O-ring type												
N NBR												
Actuator optional extras												
T 3-position actuator												
D Damper actuator												
3 3A compliant												
U Booster actuator												
X None												



PENTAIR FLOW CONTROL PACIFIC PTY LTD

12-14 KAIMIRO STREET, PUKETE INDUSTRIAL ESTATE, HAMILTON, 3200, NEW ZEALAND PACIFICNZHYGIENICSALES@PENTAIR.COM WWW.PENTAIR.COM

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