tyco
Flow Control

KEYSTONE

# 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.**

**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)
- Seat material VITON®.
- 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.
- Spring extend actuator (normally down).
- Clamped body style offers full 360° orientation of body ports.
- Butt weld end connections.

F267/8J/2/00

**Options:**

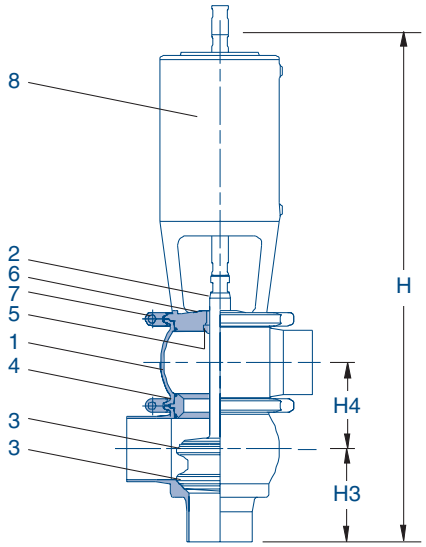
- Mirror polished internals.
- Clamp and thread end connections.
- Manual operating device.
- 3 Position actuator.
- Booster actuator.
- Spring retract actuator function (normally up)
- Control head or feed back unit.
- Quick release body clamps.

**Note:**

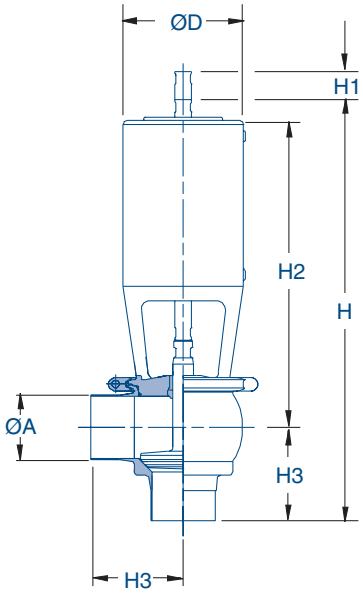
VITON® is the registered trademark of Du Pont.

**General Applications**

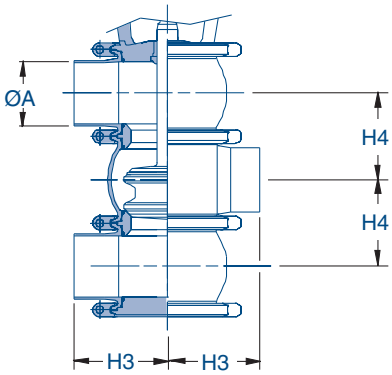
- Dairy factories.
- Breweries & Beverage Plants.
- Wineries.
- Canneries & Food Processing Plants.
- Pharmaceutical.
- Chemical processing.



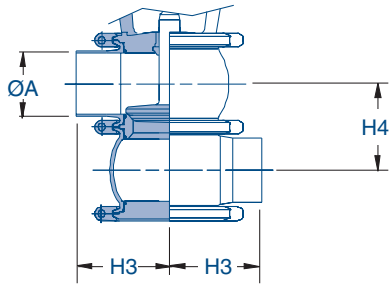

F268J - STD.




F267J - STD.




F268J - NC




F267J - NS

## 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 | VITON® , EPDM, PTFE | FDA |
| 4 | Body seal | VITON® , EPDM | FDA |
| 5 | Stem seal | SANTOPRENE®, VITON® | FDA |
| 6 | Shaft bush | PTFE, UHMWPE | Commercial |
| 7 | Body clamp | 304 CF8 S/S | ASTM A743 CF8 |
| 8 | Actuator assembly | 304 S/S | - |

## Dimensions (mm)

| Size | | ØA x t | ØD | H (F267J) | H (F268J) | H1 | H2 | H3 | H4 |
|---|---|---|---|---|---|---|---|---|---|
| 025 | (1") | 25.4 x 1.6 | 85 | 295 | 341 | 10.0 | 214 | 55.0 | 46.0 |
| 040 | (1.5") | 38.1 x 1.6 | 85 | 313 | 371 | 15.5 | 220 | 61.5 | 58.5 |
| 050 | (2") | 50.8 x 1.6 | 102 | 411 | 486 | 26.0 | 288 | 77.0 | 75.0 |
| 065 | (2.5") | 63.5 x 1.6 | 102 | 428.5 | 515 | 26.0 | 294 | 88.5 | 86.5 |
| 080 | (3") | 76.2 x 1.6 | 141 | 531 | 633 | 38.0 | 364 | 109.0 | 102.0 |
| 100 | (4") | 101.6 x 1.6 | 141 | 577 | 707.5 | 38.0 | 377 | 142.0 | 130.5 |
| 125 | (5") | 129.0 x 2.0 | 219 | 544 | 701 | 50 | 370 | 148.0 | 157.0 |
| 150 | (6") | 152.4 x 2.0 | 219 | 570 | 752.5 | 50 | 383 | 161.0 | 182.5 |

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SANTOPRENE® is the registered trademark of Monsanto.

## 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.
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.

## Technical Specifications

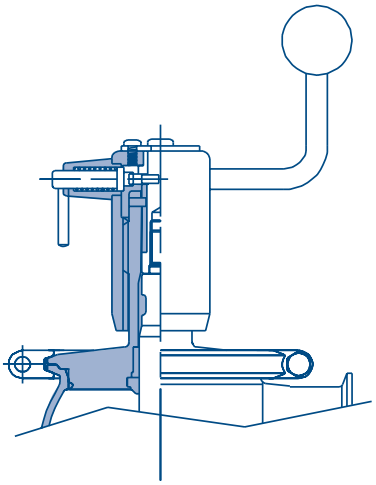
| | |
|---|---|
| Working Temperature: | -5 to +100°C<br>(-5 to 120°C for static condition) |
| Sterilising Temperature: | up to 140°C for 30 min's.<br>(Steam for static condition) |
| Maximum Pressure, valve body: | 10 Bar fluid pressure. |
| Maximum Pressure valve seat: | See separate plug lifting chart. |
| Minimum Pressure: | Full vacuum. |
| Operating air pressure: | 4 to 8 Bar max. |
| Air connections: | R1/8" (BSP). |
| Surface finish: | Internal > 0.8Ra,External hairline / buffed. |
| Length tolerance between ends: | ±0.5mm~±1.0mm. |
| Parallelism or squareness of ends: | ±0.5° or less. |

## Air Consumption for single acting actuators (Litres of free air)

| **Press** | **Valve Size** | | | |
|---|---|---|---|---|
| **Bar** | **025 040** | **050 065** | **080 100** | **125 150** |
| 4.0 | 0.7 | 1.5 | 3.9 | 8.70 |
| 6.0 | 1.05 | 2.25 | 5.85 | 13.05 |
| 8.0 | 1.4 | 3.0 | 7.8 | 17.4 |

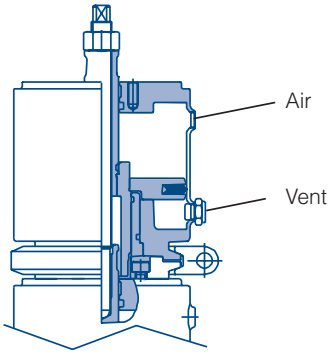
## Manual operator

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.



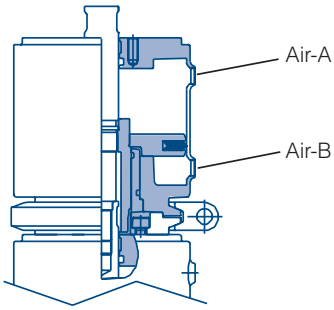
## 3-Position actuator

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



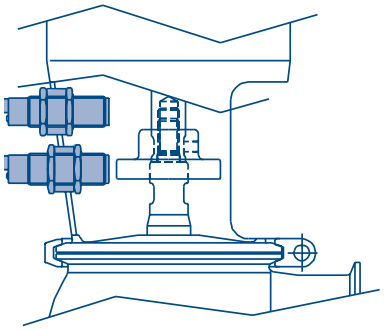

## Booster actuator

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.

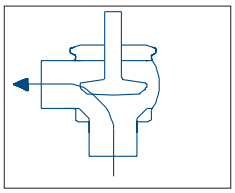
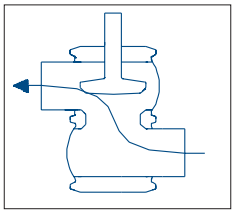
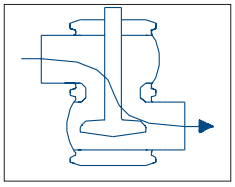
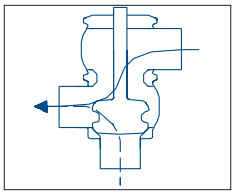
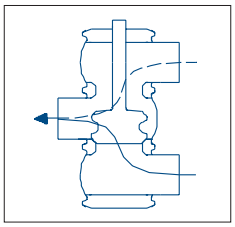
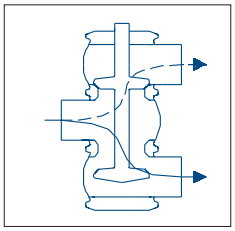



## Position sensors

Standard Ø18mm barrel type proximity sensors can be centre mounted, in the special slot provided within the sight-housing cone, and a target can be easily fitted to the plug shaft.



## Valve type

| Type | Configuration |
|---|---|
| F267J-STD<br>Standard Flow | L T<br>  |
| F267J-NS<br>Standard Flow | LL LT TL TT<br>  |
| F267J-NWS<br>Standard Flow | LL LT TL TT<br>  |
| F268J-STD<br>Standard Flow | LL LT TL TT<br>  |
| F268J-NC<br>Standard Flow | LLL LTL LTT TLT TTL TTT<br>  |
| F268J-NWC<br>Standard Flow | LLL LTL LTT TLT TTL TTT<br>  |

## Typical Specifying Sequence

| Example: | 025 | F268J | A | SE | B | LL | F | 6S | V | V | S | X |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

**Size:**
025 (1")
040 (1.5")
050 (2")
065 (2.5")
080 (3")
100 (4")
125 (5")
150 (6")

**Figure Number:**
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:**
SE - Spring Extend (std)
SR - Spring Retract
MO - Manual Operator
DA - Double Air/Acting

**End Connection:**
B - Butt weld (std)
C - Clamp ISO
J - Male thread RJT
D - Male thread IDF
E - Other

**Port Configuration:**
L T LT TL LL TT
LLL LLT LTT TTL TLL TTT

**Actuator Accessory:**
F - Air fittings included (std)
D - Drilled for actuator optional extra
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:**
V - VITON® (std)
E - EPDM

**Plug Seal Materials:**
V - VITON® (std)
E - EPDM
P - PTFE

**Stem Seal Materials:**
S - SANTOPRENE® (std)
V - VITON®

**Actuator Optional Extras:**
T - 3 Position actuator
U - Booster actuator
X - None