

# Industrial Excess Flow Valves

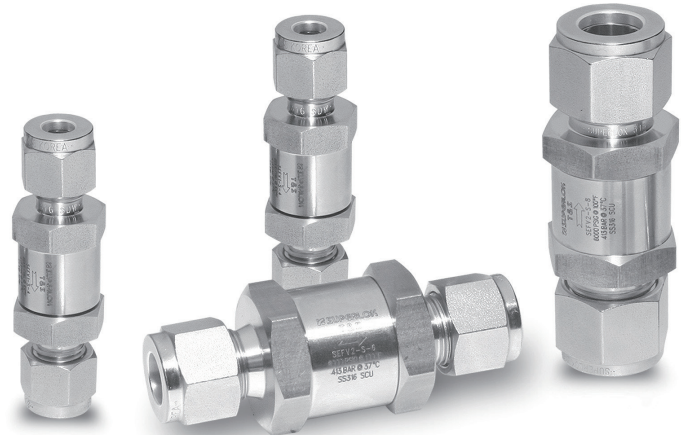
## SEFV Series

### Introduction

- Excess Flow Valves are designed to limit flow of fluid to a predetermined rate.
- When flow reaches a predetermined rate the poppet will trip, limiting or stopping flow.
- When pressure is equalized across the valve, the poppet will reset to open.

### Features

- 2-Piece Body
  - Allows for simple spring and seal maintenance.
- Spring-loaded actuation.
  - The bleed vent allows the valve to automatically reset.
- Automatic reset.
  - Can be assembled in any system or application.
- Variety of end connections available.
  - Can be assembled in any system or application.
- Stainless steel construction.



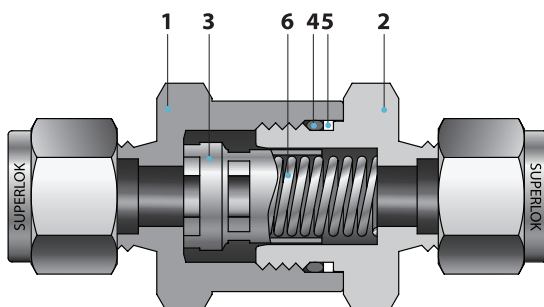
### Specifications

Pressure rating	6000psig (413bar) @100°F(38°C)
Temperature rating	-10 to 400°F (-23 to 204 °C)
Body material	316 Stainless Steel
End Connections	1/8" to 1/2" and 6mm to 12mm

### Testing

Every Valve is factory tested for proper functionality.

### Materials of Construction

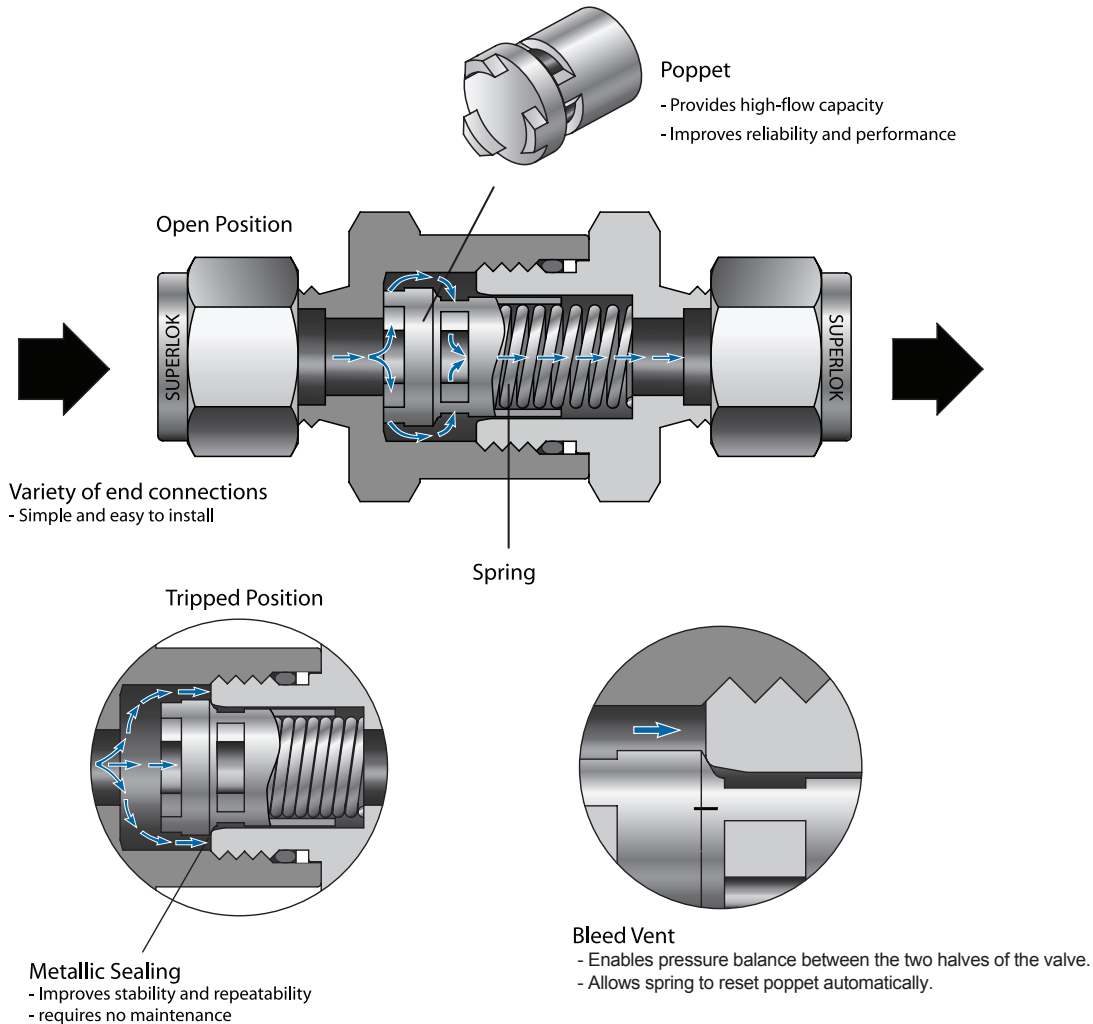


No.	Component	Material Grade / ASTM Specification
		Stainless Steel
*1	INLET BODY	A276-316
*2	OUTLET BODY	A276-316
*3	POPPET	A276-316
*4	O-RING	VITON
5	BACK-UP RING	PTFE
*6	SPRING	Stainless Steel 304

• Wetted components are marked "\*"

## Operation

- The poppet is loaded by a spring in the open position during normal system operation.
- If the system becomes unbalanced and the downstream pressure drops, the poppet rapidly moves to the tripped position.
- The poppet will remain in the tripped position until system pressure becomes equal across the bleed vent in the poppet.
- The bleed vent in the poppet will allow the pressure to slowly equalize across the valve if the downstream line is closed or repaired.
- When the system pressure becomes equal, the spring automatically resets the poppet to the open position.



## Technical Data

### Pressure - Temperature Ratings

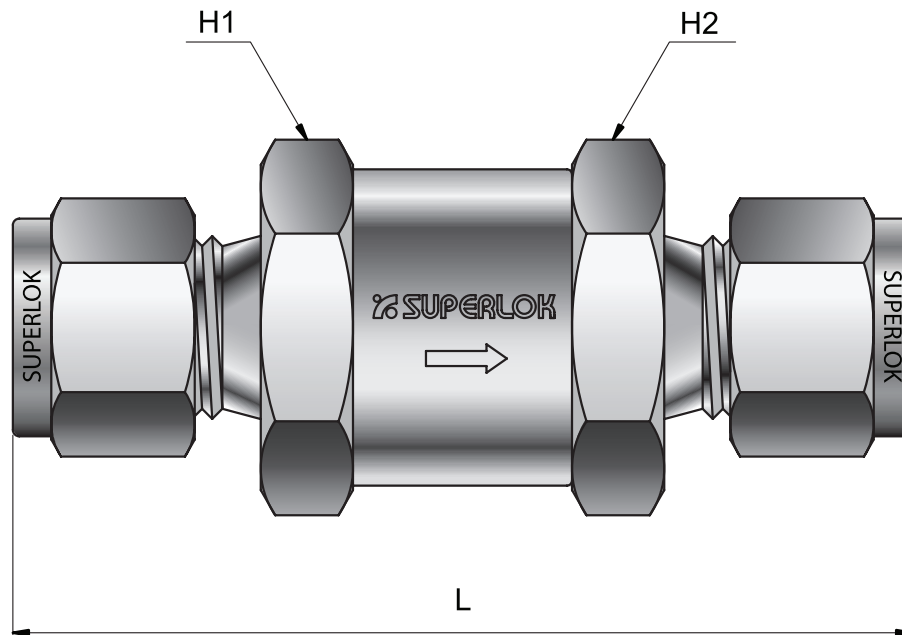
- Ratings based on Viton o-rings - other elastomers available upon request.
- 5000 psig (344 bar) for the SEFV series valves with end connections 3/8" female NPT.
- 4600 psig (316 bar) for the SEFV series valves with end connections 1/2" female NPT.

Body Material	316 Stainless Steel
Temperature Rating °F (°C)	Working Pressure, psig (bar)
-10 to 100 (-23 to 27)	6000 (413)
200 (93)	5160 (355)
250 (121)	4910 (338)
300 (148)	4660 (321)
400 (204)	4280 (294)

O-ring Material	Temperature Rating °F (°C)
VITON	-10 to 400 (-23 to 204)
Buna-N	-40 to 250 (-40 to 121)
Ethylene Propylene	-50 to 300 (-45 to 148)
Kalrez	-10 to 400 (-23 to 204)

• Viton O-ring is standard.

## SEFV Series



### Table of Dimensions

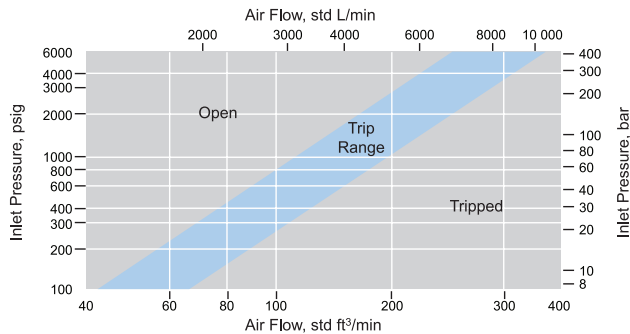
Part Number	End Connections		Dimensions, Inch (mm)			
	INLET	OUTLET	L	H1	H2	
SEFV1	S4	1/4" SUPERLOK	2.43 (61.7)	11/16 (17.4)		
	S6M	6mm SUPERLOK	2.43 (61.7)			
	F2N	1/8" Female NPT	1.87 (47.5)			
	F4N	1/4" Female NPT	2.12 (53.8)			
	M2N	1/8" Male NPT	1.79 (45.5)			
	M4N	1/4" Male NPT	2.17 (55.1)			
	M4N-S4	1/4" Male NPT	1/4" SUPERLOK			2.30 (58.4)
	M4N-F4N	1/4" Male NPT	1/4" Female NPT			2.13 (54.1)
SEFV2	S6	3/8" SUPERLOK	2.75 (69.9)	1 (25.4)		
	S8	1/2" SUPERLOK	2.97 (75.4)			
	S8M	8mm SUPERLOK	2.70 (68.6)			
	S10M	10mm SUPERLOK	2.80 (71.1)			
	S12M	12mm SUPERLOK	2.96 (75.2)			
	F6N	3/8" Female NPT	2.55 (64.8)	1-1/16 (27.0)		
	F8N	1/2" Female NPT	3.03 (77.0)			
	M6N	3/8" Male NPT	2.36 (59.9)	1 (25.4)		
	M8N	1/2" Male NPT	2.73 (69.3)			
	M8N-S6	3/8" Male NPT	3/8" SUPERLOK			2.56 (65.0)
	M8N-S8	1/2" Male NPT	1/2" SUPERLOK			2.85 (72.4)
	M6N-F6N	3/8" Male NPT	3/8" Female NPT			2.46 (62.5)
	M8N-F8N	1/2" Male NPT	1/2" Female NPT	2.89 (73.4)	1 (25.4)	1-1/16 (27.0)

- All dimensions in millimeters unless specified as "inch". Dimension are for reference only, subject to change.
- Dimensions based on SUPERLOK nuts finger-tight.
- ISO Tapered Threads are available upon request

## Flow Data at 70°F (20°C)

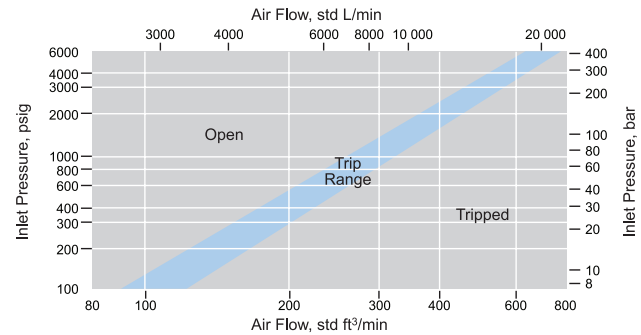
### Air Flow - SEFV1 Series

Connection Sizes : 1/8", 1/4", 6mm



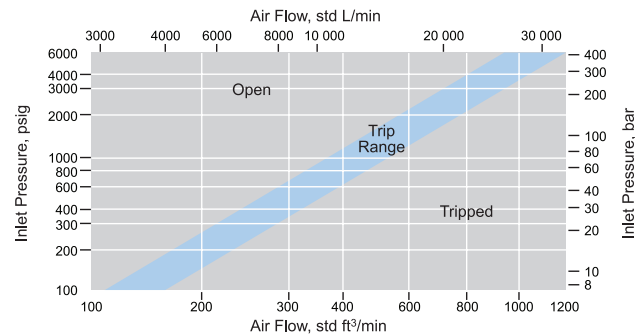
### Air Flow - SEFV2 Series

Connection Sizes : 3/8", 8mm, 10mm



### Air Flow - SEFV2 Series

Connection Sizes : 1/2", 12mm



### Water Flow - SEFV1, SEF2 Series

Series	Connection Size	Cv	Trip Range U.S. gal/min (L/min)
SEFV1	1/8", 1/4", 6mm	0.5	3.9 to 5.8 (14.7 to 21.9)
SEFV2	3/8", 8mm, 10mm	1.1	8.2 to 10.0 (31.0 to 37.9)
	1/2", 12mm		11.2 to 14.9 (42.4 to 56.4)

## Ordering Information

Example : **SEFV1** - **M4N** - **S4** - **EP** - **SS**

1
2 3
2 3
4
5

### 1. Valve Series

SEFV1  
SEFV2

### 2. Port Type (Inlet x Outlet)

S : SUPERLOK Tube Fitting  
M : Male Pipe Thread  
F : Female Pipe Thread

### 3. Port Size

#### Pipe Thread Designation

Size (inch)	1/8	1/4	3/8	1/2
Screwed BSPT	2R	4R	6R	8R
Screwed NPT	2N	4N	6N	8N

#### Tube O.D Designation

Tube O.D (inch)	1/4	3/8	1/2	-
Designation	4	6	8	-
Tube O.D (mm)	6	8	10	12
Designation	6M	8M	10M	12M

### 4. O-ring Material

Nil : Viton (Standard)  
N : Buna N  
EP : Ethylene propylene (EPDM)  
KAL : Kalrez

### 5. Body Material

SS : 316 Stainless Steel