

# Atmospheric Discharge Safety Relief Valves

Seetru Limited

for refrigeration

## Type 319

Inline Safety Valves made from Brass <  
Atmospheric discharge valve with threaded connections <

### Example Applications

- Refrigeration compressor manufacture
- Industrial refrigeration
- Commercial refrigeration
- Ice making machinery
- Air conditioning

### Specifications

- Inlet connections: 3/8" to 1/2" or 7/8" x 14UNF (depending on bore size)
- Temperature: -30°C to +200°C
- Pressure range: 13.5 to 55.2 bar (depending on bore size)

### Materials of Construction

Component	Material	Grade
Inlet	Brass	CW614N
Body	Brass	CW614N
Internal Parts	Brass	CW614N
Spring	Stainless Steel	1.4310 (302) & 1.4568 (301)

### Approvals

- Designed in accordance with BS EN ISO-4126-1 & -7
- PED 2014/68/EU (CE)
- PE(S)R UK SI 2016 No. 1105 (UKCA)
- ASME BPVC VIII.1 & XIII (UV)
- CRN



### Seal Materials

Seal Material	Temperature Range
Perfluoroelastomer (FFKM)	-30°C to +200°C

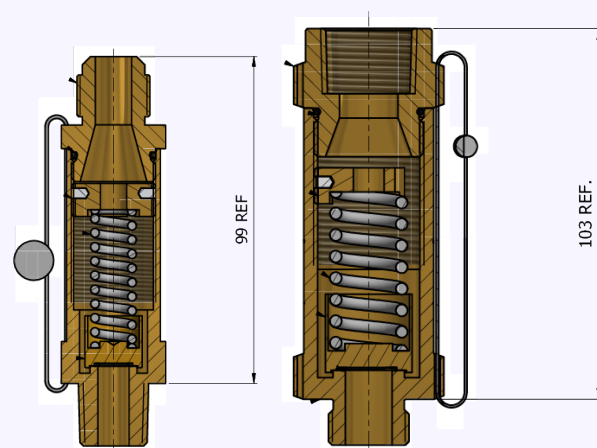
Standard seal materials shown, others are available.

## Technical information by bore size

Bore size	9.5		13.08mm	
Inlet Size	3/8"	1/2"	1/2"	7/8" (UNF)
Outlet Size	1/2" or 5/8" Flare		3/4" NPT Female	
Flow Area	71mm²		134.4mm²	
H - Height	99mm		103mm	
TÜV allotted outflow coefficient	0.485		0.71	
NB Certified rated slope (ASME)	1.04 scfm/psia		3.47 scfm/psia	
Weight (approximate) Kg	0.8		1.3	
Set Pressure range - PED (CE) bar	13.5 to 50.0		16.2 to 26.8	
Set Pressure range - ASME (UV) psi	195.75 to 725.0		235.0 to 388.6	
Relieving pressure/fully open pressure	Set pressure +10%			
Reseating pressure	Set pressure -10%			

Maximum permissible built up back pressure = 10% of set pressure at or below which flow is not reduced.  
Stable operation on flows down to 50% of valve rated capacity.

## Valve drawing



## Standard INLET Thread Connection Types

- NPT male thread
- UNF male thread

## Standard OUTLET Thread Connection Types

- Flare outlet
- NPT female thread

## Valve Selection Guide

Approval Required	Select Bore	Inlet Size	Inlet Thread Type	Outlet Threa Type	Seal Material
PED (CE)	Select bore size from above table	Select inlet size from above table	Select Inlet thread type	Select Outlet thread type	Perfluoroelastomer (FFKM)
PED (CE), ASME (UV) & CRN					

EAC marking available upon request

**\*Please send your selected details to Seetru and we can provide the full ordering code, price and lead-time.**

## Example of Valve Selection Process

Example Selection	CE/PED, ASME/UV & CRN	9.5	1/2"	NPT	5/8" Flare	FFKM	16.2 bar/ 235 psi
	Approval	Bore = 9.5mm	Inlet Size	Inlet Thread Type	Outlet	Seal	Set Pressure

## Capacity Table - In accordance with ISO 4126, Air at 0°C at 1.013 bar - Kg/min

Type 319-Inline valve: Flow rates at 10% above the set pressure



Set Pressure		Bore Size (D0)			
		9.5mm	13.08mm		
bar	psi	Kg/min	Kg/Min		
13.5	195.75	7.9			
14	203	8.2			
16	232	9.3			
16.2	234.9	9.5	18.7		
18	261	10.4			
20	290	11.5			
24	348	13.7			
25.9	375.55	14.8	29.3		
26	377	14.9			
26.8	388.6	15.4	30.2		
28	406	15.9			
30	435	17.1			
35	507.5	19.9			
40	580	22.7			
45	652.5	25.5			
50	725	28.2			

For any intermediate pressures/flows please contact Seetru

## Capacity Table - In accordance with ASME BPVC.XIII, AIR at 60°F and 14.7 psia/scfm. SCFM

Type 319-Inline Valve: Flow rates at 10% above the set pressure



Set Pressure		Bore Size (D0)			
		9.5mm	13.08mm		
psi	bar	SCFM	SCFM		
195.75	13.50	239.2			
200	13.79	244.0			
235	16.20	284.0	609.0		
250	17.24	301.2			
300	20.69	358.5			
325	22.41	387.0			
350	24.14	415.5			
375.6	25.90	444.9	954.0		
388.6	26.80	459.9	987.0		
400	27.59	472.9			
450	31.03	530.0			
500	34.48	587.0			
550	37.93	644.5			
600	41.38	702.0			
650	44.83	759.0			
700	48.28	816.0			
725	50.00	845.0			

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