Seetru Limited

Seetru are Bristol-based manufacturers of safety relief and other special purpose ancillary valves for a wide range of compressed air, industrial gas, refrigerants, powder, steam, liquid and liquefied gas applications. Seetru change-over valves offer increased plant and process efficiency.

Seetru liquid level gauges are primarily of two types, sight gauges and magnetic float bypass gauges. Many of the gauges are direct reading though most have optional electronic remote reading systems and computer interfaces.



Seetru Safety Relief Valves

COMPRESSED AIR & GAS | CRYOGENIC & LIQUEFIED GAS | LIQUID | HOT WATER | STEAM | REFRIGERATION | HYGIENIC | HYDROGEN



SAFETY RELIEF VALVES



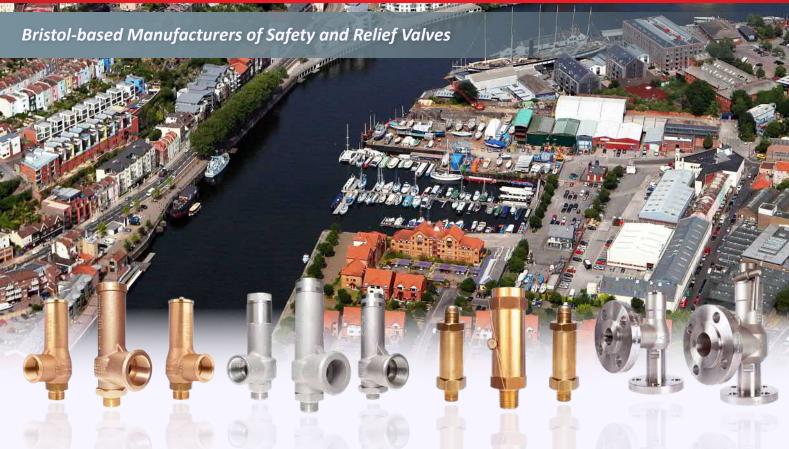
Seetru's range of safety relief valves with ASME BPVC VIII.1 & XIII (UV) and CRN approval

Last updated January 2024 – subject to change as more valve types get approved





Seetru Limited

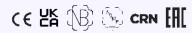


Seetru Limited was founded in 1949 with the aim of producing the finest liquid level gauges so customers could "see the true" level even under the most severe conditions. This philosophy of making the finest through innovation continued with the introduction of the Seetru range of pressure relief devices, circa 1950 the Seetru Tutchtite-sealing system revolutionized the safety valve market with valves that do not leak even after repeated popping even at high pressures.

Today, Seetru have an extensive range of Pressure Relief Valves and Liquid Level Gauges which carry a wide range of international approvals and are supplied worldwide.

Our Products

Seetru are Bristol-based manufacturers of safety relief valves and other special purpose ancillary valves for a wide range of compressed air, industrial gas, refrigerants, powder, steam, liquid and liquefied gas applications. These valves meet important international standards which include: ISO-4126-1 &-7 and ASME BPVC VIII.1 & XIII design codes as well as type test approvals from TÜV and the National Board. These products comply with the requirements of the European Pressure Equipment Directive (PED) and are available with both the CE mark as well as the UV stamp, and have wide international approvals such as the EAC (TR CU) customs union certification and declaration and the Canadian CRN. Seetru products are fully compliant with the requirements of the UK Pressure Equipment (Safety) Regulations and come with the UKCA mark.



Seetru also have a wide range of special purpose valves. The range includes Change-Over Valves (designed for switching parallel safety valves without interrupting operation), Minimum Pressure Check Valves (typically suitable for application on compressors), Air-Start Valves (designed to handle a two-stage operation for air starting of engines). We also manufacture a range of Air Receiver & In-line Check Valves.

Seetru liquid level gauges are primarily of two types, sight gauges and magnetic float by-pass gauges. Many of the gauges are direct reading though most have optional electronic remote reading systems and computer interfaces. The range includes the Quickmount, Seemag and CPI gauges for industrial and chemical applications, and the Seeflex and Seemag for marine applications. The Company's substantial design and development department, which includes TÜV approved testing facilities, enable us to provide extensive bespoke design, advisory and manufacturing services to develop or adapt individual products for new applications.



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ТҮРЕ	PRODUCT / DESIGN	MATERIALS	INLET CONNECTIONS	PRESSURES	APPLICATION / INDUSTRY	PAGE
818	Atmospheric Discharge	Brass	1/4" to 1" BSP, BSPT or NPT	0.48 to 46.0 bar	COMPRESSED AIR & GAS	<u>4-6</u>
848 / 841	Atmospheric Discharge	Stainless Steel	1/4" To 1/2" BSP, BSPT or NPT	0.55 to 21.0 bar	COMPRESSED AIR & GAS	<u>7-9</u>
616 / 611	Atmospheric Discharge	Brass	1/4" to 2" BSP, BSPT or NPT	2.0 to 55.0 bar	COMPRESSED AIR & GAS	<u>10-12</u>
106 / 116	Atmospheric Discharge	Brass or Aluminium	1" to 2" BSP, BSPT or NPT	0.50 to 12.0 bar	COMPRESSED AIR & GAS	<u>13-15</u>
636 Air & Gas	Enclosed Discharge	Bronze & Brass or Bronze & St. Steel or St. Steel	3/8" to 2" BSP, BSPT or NPT	0.32 to 55.2 bar	COMPRESSED AIR & GAS HYDROGEN	<u>16-18</u>
646 Air & Gas	Enclosed Discharge	Stainless Steel	3/8" to 2" BSP, BSPT or NPT	0.32 to 55.2 bar	COMPRESSED AIR & GAS HYDROGEN	<u>19-21</u>
636 Refrigeration	Enclosed Discharge	Bronze	3/8" to 1 1/2" BSP, BSPT or NPT (UNF)	7.0 to 55.2 bar	REFRIGERATION	22-24
646 Refrigeration	Enclosed Discharge	Stainless Steel	3/8" to 1 1/2" BSP, BSPT or NPT (UNF)	7.0 to 55.2 bar		<u>25-27</u>
329	Enclosed Discharge	Bronze or Stainless Steel	3/8" to 3/4" BSP, BSPT or NPT	53.0 to 370.0 bar	COMPRESSED AIR & GAS REFRIGERATION CRYOGENICS & LIQUEFIED GASES HYDROGEN	28-30
6G6	Enclosed Discharge Tri-Clamp Connections	Stainless Steel Fda Compliant Elastomer Sealing	1/2" to 1" TRI-CLAMP	0.32 to 55.2 bar	COMPRESSED AIR & GAS STEAM HYGIENIC	<u>31-33</u>
319	Enclosed Discharge	Brass	3/8" to 3/4" NPT or UNF	13.5 to 50.0 bar	REFRIGERATION	<u>34-36</u>
646 Flanged	Enclosed Discharge Flanged Connections	Stainless Steel	DN20 (3/4") or DN25 (1") DIN or ANSI FLANGES	0.32 to 49.0 bar	COMPRESSED AIR & GAS HYDROGEN	<u>37-39</u>

Atmospheric Discharge Safety Relief Valves

Seetru Limited

for compressed air or gases

Type 818 / 811

Safety valves made from Brass < Atmospheric discharge with threaded connections <

Example Applications

- Compressors
- Pressure vessels
- Pneumatic systems
- Transport and railway systems

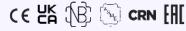


Specifications

- Inlet connections: ¼" to 1" (depending on bore size)
- Temperature: -60°C to +200°C (depending on seal material)
- Pressure range: 0.48 to 50.9 bar (depending on bore size)

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
- **EAC**

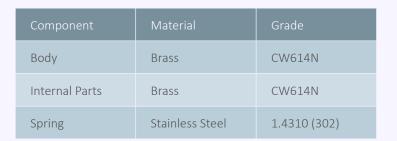








Materials of Construction



Seal Materials

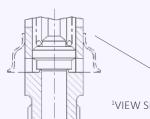
Seal Material	Temperature Range
FKM (Viton®)	-15°C to +200°C
Hydrogenated Nitrile (HNBR)	-60°C to +150°C

Easing Gear / Lifting Gear Options

- Standard option Rota-lift cap, twist type
- Spindle lift for 6mm and 8mm bore valves
- Ring-pull option available upon request

Other options:

¹Downward deflecting shroud available for valves with 8 to 15mm bore.



¹VIEW SHOWING OPTIONAL SHROUD AVAILABLE



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Bore size	6 n	nm	8 mm		10 mm		13	13 mm		15 mm	
Inlet Size	1/4"	3/8"	1/4"	3/8"	1/2"	1/2"	3/4"	1/2"	3/4"	3/4"	1"
Flow Area	28.3	mm²	50.27 mm²		78.54 mm²		132.7 mm²		181.5 mm²		
H - Height (Rota-lift cap)	53.5 mm			52mm-67mm 80 mm (up to 21 bar) depending on model 100 mm (21-46 bar)			95mm		119 mm		
TÜV allotted outflow coefficient 1	outflow coefficient 1 0.74			0.74		0.74		0.74		0.74	
NB Rated discharge coefficient (ASME) 0.748		748	0.748		-		-		-		
NB Certified rated slope (ASME)		-	-		1.66 sc	fm/psia	2.94 sc	fm/psia	4.04 sc	fm/psia	
Weight (approximate) Kg	0.	07	0.15		0	35	0.	40	0.	65	
Set Pressure range - PED (CE) bar	2.8-	36.0	C	0.55-43.7 0.48 – 50.		- 50.9	2.8-	40.0	2.5-	40.0	
Set Pressure range - ASME (UV) psi	/) psi 40.6- 522.0		43.5 – 633.6 34.8 – 738		40.6 -	- 580.0	36.25 -	- 580.0			
Relieving pressure/fully open pressure		Set pressure +10%									
Reseating pressure						Set press	ure -10%				

¹ TÜV alloted outflow coefficients for pressures above 3.0 bar, for lower pressures please see the flow rate tables or contact Seetru.

Valves with Rota-lift Easing Gear



Standard Thread Connection Types



- BSP Parallel male thread
- BSP Taper male thread
- NPT male thread

H

Valve Selection Guide



	Approval Required	Valve Type	Select Bore		Thread Type	Easing Gear	Seal Material		
			"06" = 6mm	8mm					
	PED (CE)	"818"	"88" = 8mm			Select easing gear (rota-lift is the standard option)	Viton®		
			"10" = 10mm						
	PED (CE), ASME (UV) & CRN	"811"	"13" = 13mm	size from above table	Select thread type		HNBR		
			"15" = 15mm				ПИВК		

EAC marking available upon request

Example of Valve Selection Process

INLET THREAD



Example	CE	818	06	1/4"	BSP Taper		Viton	10.5 bar
Selection	Approval	Valve Type	Bore = 6mm	Inlet Size	Thread Type	Easing Gear	Seal	Set Pressure



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

Capacity Table - In accordance with TÜV, AIR at 0°C and 1013mbar. Normal m³/hour

Type 818: Flow rates at 10% above the set pressure

Set Pressure		Bore Size (D0)						
		6mm	8mm	10mm	13mm	15mm		
bar	psi	Nm³/Hour	Nm³/Hour	Nm³/Hour	Nm³/Hour	Nm³/Hour		
0.48	6.96			42.8				
0.55	7.975		29.5	46.1				
1	14.5		41.56	64.9				
1.5	21.75		55.04	86.0				
	29		67.48	105.4				
2.5	36.25		92.83	145.1		335.1		
2.8	40.6	58.6	100.97	157.8	266.6	364.5		
3	43.5	59.85	106.4	166.3	281.0	384.1		
	58	75.11	133.53	208.7	352.6	482.1		
5	72.5	90.38	160.67	251.1	424.3	580.0		
	87	105.64	187.8	293.4	495.9	678.0		
7	101.5	120.9	214.94	335.8	567.6	775.9		
8	116	136.17	242.07	378.2	639.2	873.9		
9	130.5	151.43	269.21	420.6	710.9	971.8		
10	145	166.69	296.34	463.0	782.5	1,069.8		
11	159.5	181.96	323.48	505.4	854.2	1,167.8		
12	174	197.22	350.6	547.8	925.8	1,265.7		
13	188.5	212.48	377.75	590.2	997.5	1,363.7		
14	203	227.75	404.88	632.6	1,069.1	1,461.6		
15	217.5	243.01	432.02	675.0	1,140.8	1,559.6		
20	290	319.33	567.69	887.0	1,499.1	2,049.4		
25	362.5	395.64	703.37	1,099.0	1,857.3	2,539.2		
30	435	471.96	839.04	1,311.0	2,215.6	3,028.9		
35	507.5	548.28	974.71	1,522.9	2,573.9	3,518.7		
36	522	563.54	1001.85	1,565.4	2,645.5	3,616.7		
40	580		1110.39	1,734.9	2,932.1	4,008.5		
43.7	633.65		1210.79	1,891.9				
45	652.5			1,946.9				
50	725			2,159.0				
50.9	738.05			2197.12				

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

Type 811 (818): Flow rates at 10% above the set pressure

C-1 D	1	Bore Size (D0)					
Set Pressure		6mm	8mm	10mm	13mm	15mm	
Psi	Bar	SCFM	SCFM	SCFM	SCFM	SCFM	
35	2.41			88.3			
36.25	2.50			90.6		220.5	
40	2.76			97.4		237.1	
41	2.80	35.9		99.2	175.8	241.5	
43.5	3.00	37.6	66.8	103.8	183.9	252.7	
50	3.45	41.9	74.4	115.7	204.9	281.5	
60	4.14	48.5	86.1	133.9	237.2	325.9	
70	4.83	55.1	97.9	152.2	269.5	370.4	
80	5.52	61.6	109.6	170.5	301.9	414.8	
90	6.21	68.3	121.4	188.7	334.2	459.3	
100	6.90	74.9	133.1	206.9	366.5	503.7	
150	10.34	107.9	191.8	298.2	528.2	725.8	
200	13.79	140.9	250.5	389.5	689.8	947.9	
250	17.24	173.9	309.2	480.8	851.5	1170.1	
300	20.69	206.9	367.9	572.0	1013.2	1392.2	
350	24.14	240.0	427.1	663.3	1174.8	1614.4	
400	27.59	273.0	485.9	754.6	1336.5	1836.5	
450	31.03	306.0	544.6	845.9	1498.1	2058.7	
500	34.48	339.1	603.4	937.2	1659.8	2280.8	
522	36.00	353.6	629.2	977.3	1730.9	2378.5	
550	37.93		662.2	1028.5	1821.5	2503.0	
580	40.00		697.4	1083.2	1918.5	2636.2	
600	41.38		720.9	1119.7			
633.65	43.70		760.5	1181.2			
650	44.83			1210.9			
667	46.00			1242.0			
725	50			1347.91			
738.05	50.9			1371.73			



Atmospheric Discharge Safety Relief Valves

Seetru Limited

for compressed air or gases

Type 848 / 841

Safety valves made from Stainless Steel < Atmospheric discharge with threaded connections <

Example Applications

- Compressors
- Pressure vessels
- Pneumatic systems
- Transport and railway systems



Specifications

- Inlet connections: ¼" to 1/2"
- Temperature:-60°C to +200°C (depending on seal material)
- Pressure range: 0.55 to 21.0 bar

Approvals

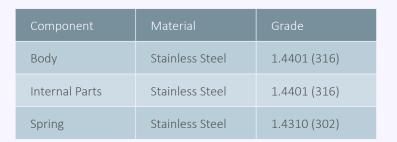
- Designed in accordance with BS EN ISO-4126-1 &-7
- PED 2014/68/EU (CE)
- PE(S)R UK SI 2016 No. 1105 (UKCA)
- ASME BPVC VIII.1 & XIII (UV)
- CRN
- EAC







Materials of Construction



Seal Materials

Seal Material	Temperature Range
Viton® (FKM)	-15°C to +200°C
Hydrogenated Nitrile (HNBR)	-60°C to +150°C

Easing Gear / Lifting Gear Options

- Standard option Rota-lift cap, twist type
- Other option Spindle lift



Valves with Rota-lift Easing Gear

Bore size	8mm				
Inlet Size	1/4" 3/8" 1/2"				
Flow Area		50.27 mm ²			
H - Height (Rota-lift cap)		nm (1/4" & 3 56mm (1/2")			
TÜV alloted outflow coefficient ¹	0.67				
NB Rated discharge coefficient (ASME)	0.748				
Weight (approximate) Kg	0.3				
Set Pressure range - PED (CE) bar		0.55- 21.0			
Set Pressure range - ASME (UV) psi		43.5- 304.5			
Relieving pressure/fully open pressure	Set Pressure +10% (0.1 bar below 1.0 bar)				
Reseating pressure	Set pressure-10% (0.3 bar below 3.0 bar)				

 $^{^1}$ TÜV alloted outflow coefficients for pressures above 3.0 bar, for lower pressures please see the flow rate tables or contact Seetru.

H INLET THREAD

Standard Thread Connection Types



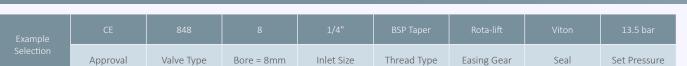
- BSP Parallel male thread
- BSP Taper male thread
- NPT male thread

Valve Selection Guide



Approval Required	Valve type	Select Bore	Inlet Size	Thread Type	Easing Gear	Seal Material
PED (CE)	848	8mm	Select inlet size from above table	Select thread type	Select easing gear	Viton®
PED (CE), ASME (UV) & CRN	841				(rota-lift is the standard option)	HNBR

EAC marking available upon request





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

Capacity Table - In accordance with TÜV, AIR at 0°C and 1013mbar. Normal m³/hour Type 848: Flow rates at 10% above the set pressure.



Cat Duana	**	Bore Size (D0)		
Set Pressure		8mm		
bar	psi	Nm³/Hour		
0.55	7.975	31.6		
1	14.5	44.5		
1.5	21.75	58.36		
2	29	70.7		
2.5	36.25	86.33		
2.8	40.6	93.9		
3	43.5	98.9		
4	58	124.1		
5	72.5	149.4		
6	87	174.7		
7	101.5	199.8		
8	116	225.1		
9	130.5	250.3		
10	145	275.5		
_11	159.5	300.8		
_12	174	326.0		
13	188.5	351.2		
14	203	376.5		
15	217.5	401.7		
20	290	527.9		
21	304.5	553.1		

Capacity Table - In accordance with ASME BPVC.XIII, AIR at 60°F and 14.7 psia/scfm. SCFM Type 841 (848): Flow rates at 10% above the set pressure.

Sat Prassura		Bore Size (D0) ——	Bore Size (D0)								
Set Pressure		8mm									
psi	bar	SCFM									
43.5	3.00	66.8									
50	3.45	74.4									
60	4.14	86.1									
70	4.83	97.9									
80	5.52	109.6									
90	6.21	121.4									
100	6.90	133.1									
150	10.34	191.8									
200	13.79	250.5									
250	17.24	309.2									
300	20.69	367.9									
304.5	21.00	373.2									

Atmospheric Discharge Safety Relief Valves

Seetru Limited

for compressed air or gases

Type 616 / 611

Safety valves made from Brass < Atmospheric discharge with threaded connections <

Example Applications

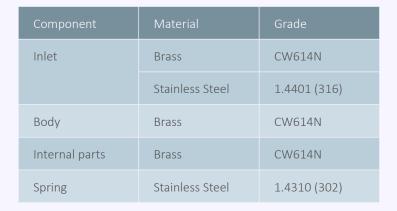


- Pressure vessels
- Pneumatic systems
- Transport and railway systems

Specifications

- Inlet connections: ¼" to 2" (depending on bore size)
- Temperature:-40°C to +200°C (depending on seal material)
- Pressure range: 2.0 to 55.0 bar (depending on bore size)

Materials of Construction





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 (for 18mm & 20mm bore valves only)
- EAC



Seal Materials

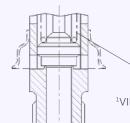
Seal Material	Temperature Range
Viton® (FKM)	-15°C to +200°C
Nitrile (NBR)	-40°C to +120°C

Easing Gear / Lifting Gear Options

- Standard option Rota-lift cap, twist type
- None No easing gear
- Lever lift available on request (10-20mm bores)

Other options:

¹Downward deflecting shroud available for valves with 10 to 20mm bores (show image)



¹VIEW SHOWING OPTIONAL SHROUD AVAILABLE



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	1

Bore Size	8mm		10	0mm (9.	6mm)			13mm			18mm			20mm	
Inlet Size	1/4"	3/8"	1/2"	3/8"	1/2" 3	3/4"	1"	3/4"	1"	1 1/4"	1"	1 1/4"	1 1/2"	1"	1 1 1 2" 2"
Flow Area	Ē	50.27mm	2		72.4m	m²		1	.32.7mm	2.7mm ² 254.5mm ²		12		314.0mm²	
H - Height (Rota-lift cap version)	81mm			109mm (up to 19 bar) 119.5mm (19-44 bar)		148mm (up to 18 bar) 156mm (18-36 bar)			166mm						
TÜV allotted outflow coefficient ¹	0.7			0.71			0.81		0.81		0.76				
NB Certified rated slope (ASME)	X		X		6.04 scfm/psia		7.32 scfm/psia								
Weight (approximate) Kg		0.4		0.8 1.0			1.8			2.1					
Set Pressure range - PED (CE) bar		14.5- 55.0)		2.3- 44.0 2.8- 41.4		2.1- 36.0		2.0- 18.0						
Set Pressure range - ASME (UV) psi	psi X			Х			Χ		3	0.45- 522	2.0		29.0- 261.0		
Relieving pressure/fully open pressure					Set p	Set pressure +10%									
Reseating pressure								Set p	ressure -	-10%					

Valves with Rota-lift Easing Gear



Standard Thread Connection Types



- BSP Parallel male thread
- BSP Taper male thread
- NPT male thread

INLET THREAD

Valve Selection Guide



	Approval Required	Valve Type	Select Bore	Inlet Size	Thread Type	Easing Gear	Seal Material	
		616	82 = 8mm					
	PED (CE)	(Brass inlet)	10 = 9.6mm		Select thread	Select easing gear (rota-lift is the standard option)	Viton® (FKM)	
		626	10 - 9.011111				VILOII (I KIVI)	
		(St. Steel inlet)	13 = 13mm	Select inlet				
	PED (CE),	611 (Brass inlet)	18 = 18mm	size from above table	type		Nitrilo (NDD)	
	ASME (UV) & CRN	621 (St. Steel inlet)	20 = 20mm				Nitrile (NBR)	

EAC marking available upon request



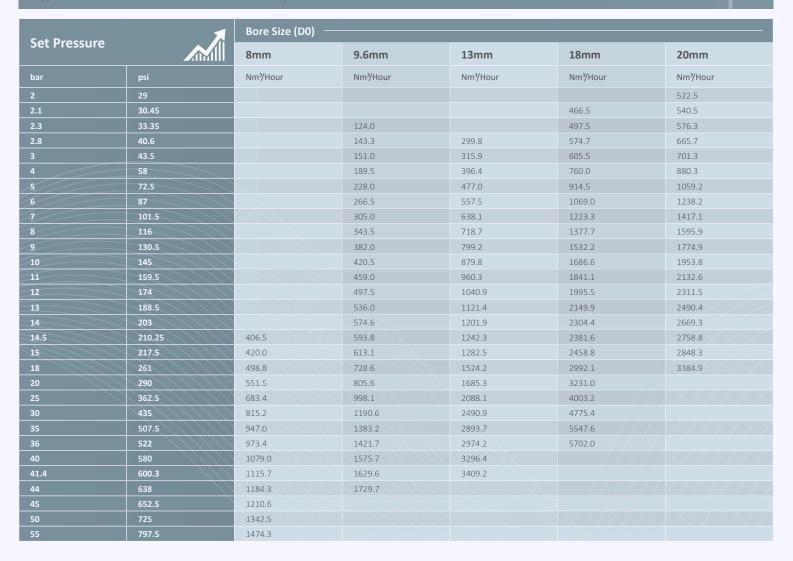
Example	CE	616	13	1"	BSP Taper	Rota-lift	Viton	10.5 bar
Selection	Approval	Valve Type	Bore = 13mm	Inlet Size	Thread Type	Easing Gear	Seal	Set Pressure



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

Capacity Table - In accordance with TÜV, AIR at 0°C and 1013mbar. Normal m³/hour

Type 616: Flow rates at 10% above the set pressure



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

Type 616 (611): Flow rates at 10% above the set pressure

Cat Duasauus	7	Bore Size (D0)	Bore Size (D0)							
Set Pressure		8mm	9.6mm	13mm	18mm	20mm				
psi	bar	SCFM	SCFM	SCFM	SCFM	SCFM				
29	2.00					341				
30.45	2.50				291	525				
35	2.41				321	389				
40	2.80				355	429				
50	3.45				421	510				
60	4.14				487	590				
70	4.83				554	671				
80	5.52				620	751				
90	6.21	Not	Not	Not	687	832				
100	6.90	ASME	ASME	ASME	753	912				
150	10.34	Approved	Approved	Approved	1085	1315				
200	13.79				1418	1717				
250	17.24				1750	2120				
300	20.69				2082					
350	24.14				2414					
400	27.59				2746					
450	31.03				3079					
500	34.48				3411					
522	36.00				3557					



Atmospheric Discharge Safety Relief Valves

Seetru Limited

for compressed air or gases

Type 106 / 116

Safety valves made from Brass or Aluminum <

Atmospheric discharge with threaded connections – FKS approved <

Example Applications

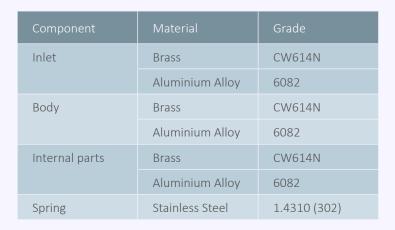


- Pressure vessels
- Pneumatic systems
- Particle laden air/gas (FKS)
- Transport vehicles

Specifications

- Inlet connections: 1" to 2"
- Temperature: -40°C to +200°C (depending on seal material)
- Pressure range: 0.5 to 12.0 bar

Materials of Construction





Approvals

- FKS approval for particle laden gases
- 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
- **EAC**









Seal Materials

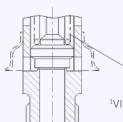
Seal Material	Temperature Range
Viton® (FKM)	-15°C to +200°C
Nitrile (NBR)	-40°C to +120°C

Easing Gear / Lifting Gear Options

Standard option – Rota-lift cap, twist type

Other options:

¹Downward deflecting shroud available



¹VIEW SHOWING OPTIONAL SHROUD AVAILABLE

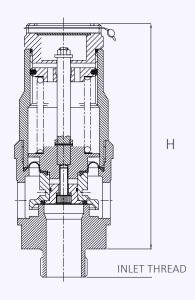


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Valves with Rota-lift Easing Gear



Bore Size		25	mm			
Inlet Size	1"	1 1/4"	1 1/2"	2"		
Flow Area	491mm²					
H - Height (Rota-lift cap version)		172	!mm			
TÜV allotted outflow coefficient ¹	0.78 (Above 3.6 bar)					
NB Certified rated slope (ASME)	11.3 scfm/psia					
Weight (approximate) Kg	2	2.8 (for b	rass valve))		
Set Pressure range - PED (CE) bar		0.5-12	2.0 bar			
Set Pressure range - ASME (UV) psi		7.25-17	74.0 bar			
Relieving pressure/fully open pressure		Set press	ure +10%			
Reseating pressure		Set press	sure-10%			



Standard Thread Connection Types



- BSP Parallel male thread
- BSP Taper male thread
- NPT male thread

Valve Selection Guide



	Approval Required	Valve type	Bore Size	Inlet Size	Thread Type	Easing Gear	Downward Deflecting Shroud Required?	Seal Material
	PED (CE) PED (CE), ASME (UV) & CRN	106 (Brass valve)		Select inlet size from above table	Select thread type	Select easing gear (rota-lift is the standard option)	Yes or No	Viton® (FKM)
		116 (Aluminium valve)	25=25mm					
		101 (Brass valve)						Nitrile (NBR)
		111 (Aluminium valve)						

EAC marking available upon request



Example	CE	106	25	1"	BSP Taper		Shroud?		3.1 bar
Selection	Approval	Valve Type	Bore = 25mm	Inlet Size	Thread Type	Easing Gear	No	Seal	Set Pressure



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

Capacity Table - In accordance with TÜV, AIR at 0°C and 1013mbar. Normal m³/hour Type 106/116: Flow rates at 10% above the set pressure



C. I D.	Cat Busanus		Bore Size (D0)						
Set Pressure		25mm							
bar	Psi g	Nm³/Hour							
0.5	7.25	308							
1	14.5	466							
2	29	795							
3	43.5	1110							
4	58	1411							
5	72.5	1698							
6	87	1985							
7	101.5	2272							
8	116	2559							
9	130.5	2846							
10	145	3133							
11	159.5	3420							
12	174	3707							

Capacity Table - In accordance with ASME BPVC.XIII, AIR at 60°F and 14.7 psia/scfm. SCFM Type 106/116: Flow rates at 10% above the set pressure.

C. I D.	A	Bore Size (D0)	
Set Pressure		25mm	
psi	bar	SCFM	
7.25	0.50	282	
10	2.50	313	
20	1.38	426	
30	2.80	539	
40	2.76	663	
50	3.45	786	
60	4.14	912	
70	4.83	1036	
80	5.52	1161	
90	6.21	1285	
100	6.90	1409	
150	10.34	2031	
174	12.00	2329	



Enclosed Discharge Safety Relief Valves

Seetru Limited

for compressed air or gases

Type 636 / 631

Safety valves with bronze body < Enclosed discharge valve with threaded connections <

Example Applications

- Air / gas compressors
- Pressure vessels
- Pneumatic systems
- Medical gases
- Technical gases

Specifications

- Inlet connections: 3/8" to 2" (depending on bore size)
- Temperature:-40°C to +200°C (depending on seal material)
- Pressure range: 0.32 to 55.2 bar (depending on bore size)

Materials of Construction

Component	Material	Grade
Inlet	Brass	CW614N
	Stainless Steel	1.4401 (316)
Body	Bronze	CC491K SB-62 C83600
Internal parts	Brass	CW614N
	Stainless Steel	1.4401 (316)
Spring	Stainless Steel	1.4310 (302)



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
- EAC



Seal Materials

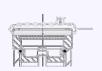
Seal Material	Temperature Range
Viton® (FKM)	-15°C to +200°C
Nitrile (NBR)	-40°C to +120°C

Standard seal materials shown, others are available.

Easing Gear / Lifting Gear Options

Standard option:

Rota-lift, twist type (not gas tight)



Other Options:



Sealed Cap (gas tight cap)



Unsealed lever (not gas tight)



Sealed lever (gas tight)



	_

Bore size	9	9.5/10mm			13.7mm		17mm			20mm		25mm			
Inlet Size	3/8"	1/2"	3/4"	1/2"	3/4"	1"	1"	1 1/4"	1 1/2"	1"	1 1/4"	1 1/2"	1 1/4"	1 1/2"	2"
Outlet Size		3/4"			1"			1 1/2"			2"			2"	
Flow Area		70.9mm² bove 1.55 ba	ar)		147.7mm²			227mm²			314mm²			490.4mm²	
H - Height (Rota-lift cap version)	102mm (up to 33 bar) 116mm (33-55.2 bar)			m (up to 3 mm (35-4		204mm			227mm			252mm			
TÜV alloted outflow coefficient	0.78		0.71		0.74 (1.0 to 2.4 bar) 0.84 (2.4 to 35.0 bar)			0.76 (3.0 to 22.0 bar) 0.80 (22.0 to 35.0 bar)			0.85				
NB Certified rated slope (ASME)	1.7	74 scfm/ps	iia	3.47 scfm/psia		5.60 scfm/psia		sia	7.77 scfm/psia		12.26 scfm/psia				
Weight (approximate) Kg		0.8		1.1		3.6			4.0		5.1				
Set Pressure range - PED (CE) bar	0	.48 to 55.2	2	C).32 to 49.	0	1.0 to 35.0		3.0 to 35.0		5.65 to 30.0				
Set Pressure range - ASME (UV) psi	22	22.5 to 800.4		20.3 to 710.5		34.8 to 507.5		.5	43.5 to 507.5		82.0 to 435.0				
Relieving pressure/fully open pressure	Set Pressure +10%														
Reseating pressure						Set	Pressure -	10% (0.3 l	oar minimu	um)					

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.

Standard Thread Connection Types



- BSP Parallel male thread
- BSP Taper male thread
- NPT male thread

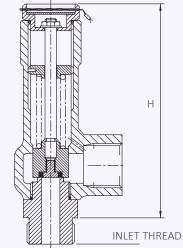
Standard Outlet Connection Types



- BSP Parallel female thread
- NPT female thread

Valve Selection Guide





Valves with Rota-lift Easing Gear

Approval Required	Valve type	Select Bore	Inlet Size	Thread Type	Outlet Thread Type	Easing Gear	Seal Material
DED (CE)	636 (Brass inlet)					Select easing gear/top fitting	Viton® (FKM)
PEU (CE)	,	Select bore size	Select inlet size from above table	Select Inlet	Select Outlet		Nitrile (NRB)
DED (CE) ASME	631 (Brass inlet)	from above table		thread type	thread type		
PED (CE), ASME (UV) & CR	651 (St. Steel inlet						Other

EAC marking available upon request



Example	CE/PED	636	20	1 1/2"	BSP Taper	BSP parallel	Rota-lift	Viton	10.5 bar
Selection	Approval	Valve Type	Bore = 20mm	Inlet Size	Inlet Thread Type	Outlet Thread Type	Easing Gear	Seal	Set Pressure



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

Capacity Table - In accordance with TÜV, AIR at 0°C and 1013mbar. Normal m³/hour Type 636/656: Flow rates at 10% above the set pressure



Set Pressure		Bore Size (D0)							
		9.5mm	13.7mm	17mm	20mm	25mm			
bar	psi	Nm³/Hour	Nm³/Hour	Nm³/Hour	Nm³/Hour	Nm³/Hour			
0.32	4.64		114.2						
0.48	6.96	48.9	124.5						
1	14.5	76.9	164.9	241.8					
2	29	121.0	229.1	367.6					
3	43.5	162.4	307.5	560.2	701.4				
4	58	203.8	385.9	703.0	880.3				
5	72.5	245.3	464.3	845.9	1059.2				
5.65	81.93	272.2	515.3	938.7	1175.5	2054.3			
6	87	286.7	542.7	988.7	1238.2	2163.7			
7	101.5	328.1	621.2	1131.6	1417.0	2476.4			
8	116	369.5	699.6	1274.5	1596.0	2789.0			
9	130.5	410.9	778.0	1417.3	1774.9	3101.7			
10	145	452.4	856.4	1560.2	1953.8	3414.3			
15	217.5	659.5	1248.5	2274.5	2848.2	4977.5			
20	290	866.6	1640.6	2988.7	3742.8	6540.7			
25	362.5	1073.8	2032.7	3703.0	4881.2	8103.9			
30	435	1280.9	2424.8	4417.3	5823.0	9667.1			
35	507.5	1488.1	2816.9	5131.6	6764.6				
40	580	1695.2	3209.0						
45	652.5	1902.3	3601.1						
49	710.5	2068.0	3914.8						
50	725	2109.4							
55.2	800.4	2324.8							

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 631/651: Flow rates at 10% above the set pressure



	A	Bore Size (D0)							
Set Pressure		9.5mm	13.7mm	17mm	20mm	25mm			
psi	bar	SCFM	SCFM	SCFM	SCFM	SCFM			
20.3	1.40		131.9						
22.5	2.50	68.7	139.4						
30	2.07	81.5	165.5						
34.8	2.80	90.6	183.8	296.7					
40	2.76	100.4	203.7	328.7					
43.5	3.00	106.9	217.0	350.2	486.0				
50	3.45	119.2	241.8	390.3	541.5				
82	5.66	179.3	363.9	587.3	814.9	1285.8			
100	6.90	213.2	432.6	698.1	968.7	1528.4			
150	10.34	307.2	623.4	1006.1	1395.9	2202.6			
200	13.79	401.2	814.2	1314.0	1823.2	2876.8			
250	17.24	495.3	1005.0	1621.9	2250.4	3550.8			
300	20.69	589.3	1195.8	1929.8	2677.6	4224.9			
350	24.14	683.3	1386.6	2237.8	3104.9	4899.1			
400	27.59	777.4	1577.4	2545.7	3532.2	5573.3			
435	30.00	843.2	1711.0	2761.2	3831.2	6045.2			
450	31.03	871.4	1768.2	2853.6	3959.3				
500	34.48	965.4	1959.0	3161.5	4386.6				
507.5	35.00	979.5	1987.6	3207.7	4450.7				
550	37.93	1059.4	2149.8						
600	41.38	1153.4	2340.6						
650	44.83	1247.5	2531.4						
700	48.28	1341.5	2722.2						
710.5	49.00	1361.3	2762.3						
750	51.72	1435.5							
800.4	55.20	1530.3							



Enclosed Discharge Safety Relief Valves

for compressed air or gases



Type 646 / <u>641</u>

Safety valves with Stainless Steel body < Enclosed discharge valve with threaded connections <

Example Applications

- Air / gas compressors
- Pressure vessels
- Pneumatic systems
- Medical gases
- Technical gases

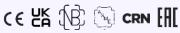
Specifications

- Inlet connections: 3/8" to 2" (depending on bore size)
- Temperature:-40°C to +200°C (depending on seal material)
- Pressure range: 0.32 to 55.2 bar (depending on bore size)



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
- EAC



Materials of Construction

Component	Material	Grade
Inlet	Stainless Steel	1.4401 (316)
Body	Stainless Steel	1.4408 (316)
Internal Parts	Stainless Steel	1.4401 (316)
Spring	Stainless Steel	1.4310 (302)

Seal Materials

Seal Material	Temperature Range
Viton® (FKM)	-15°C to +200°C
Nitrile (NBR)	-40°C to +120°C

Standard seal materials shown, others are available.

Easing Gear / Lifting Gear Options

• Standard option: Rota-lift cap, twist type (not gas tight)



• Other Options:

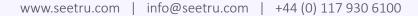


Sealed Cap (gas tight cap)



Sealed lever (gas tight)





			_
	1	1	

Bore size	!	9.5/10mm 13.7mm			17mm			20mm			25mm				
Inlet Size	3/8"	1/2"	3/4"	1/2"	3/4"	1"	1"	1 1/4"	1 1/2"	1"	1 1/4"	1 1/2"	1 1/4"	1 1/2"	2"
Outlet Size		3/4"			1"			1 1/2"		2"		2"			
Flow Area		70.9mm² (above 1.55 bar)			147.7mm²	2	227mm²			314mm²			490.4mm²		
H - Height (Rota-lift cap version)	116mm 143mm (u 172.5mm		m (up to 3 mm (35-4		211mm		227mm		252mm						
TÜV alloted outflow coefficient	0.78			0.71		0.74 (1.0 to 2.4 bar) 0.84 (2.4 to 35.0 bar)		0.76 (3.0 to 22.0 bar) 0.80 (22.0 to 35.0 bar)		0.85					
NB Certified rated slope (ASME)	1.	74 scfm/ps	sia	3.47 scfm/psia 5.60 scfm/psia		7.77 scfm/psia		sia	12.26 scfm/psia		sia				
Weight (approximate) Kg		0.8			1.1		3.6			4.0			5.1		
Set Pressure range - PED (CE) bar	С	.48 to 55.2	2	(0.32 to 49.	0		1.0 to 35.0	1		3.0 to 35.0)	5	5.65 to 30.0)
Set Pressure range - ASME (UV) psi	2:	2.5 to 800.	4	20.3 to 710.5		34	4.8 to 507.	5	4	3.5 to 507	.5	8	2.0 to 435.	0	
Relieving pressure/fully open pressure							Set Pressure +10%								
Reseating pressure							Set F	ressure -:	10%						

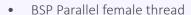
Maximum permissible built up back pressure = 10% of set pressure at or below which flow is not reduced. Stable operation on flows down to 50% of valve rated capacity.

Standard Thread Connection Types



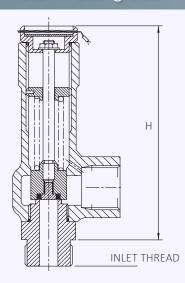
- BSP Parallel male thread
- BSP Taper male thread
- NPT male thread

Standard Outlet Connection Types



NPT female thread

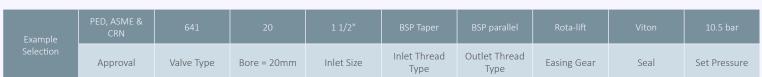
Valves with Rota-lift Easing Gear





Approval Required	Valve type	Select Bore	Inlet Size	Inlet Thread Type	Outlet Thread Type	Easing Gear	Seal Material
PED (CE)	646	Select bore size from above table	Select inlet size from above table	Select Inlet thread type	Select Outlet	Select easing gear/top fitting	Viton® (FKM)
PED (CE), ASME					thread type		Nitrile (NRB)
(UV) & CRN	641						Other

EAC marking available upon request





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

Capacity Table - In accordance with TÜV, AIR at 0°C and 1013mbar. Normal m³/hour Type 646: Flow rates at 10% above the set pressure



Cot Duossiino		Bore Size (D0)				
Set Pressure		9.5mm	13.7mm	17mm	20mm	25mm
bar	psi	Nm³/Hour	Nm³/Hour	Nm³/Hour	Nm³/Hour	Nm³/Hour
0.32	4.64		114.2			
0.48	6.96	48.9	124.5			
1	14.5	76.9	164.9	241.8		
2	29	121.0	229.1	367.6		
3	43.5	162.4	307.5	560.2	701.4	
4	58	203.8	385.9	703.0	880.3	
5	72.5	245.3	464.3	845.9	1059.2	
5.65	81.93	272.2	515.3	938.7	1175.5	2054.3
6	87	286.7	542.7	988.7	1238.2	2163.7
7	101.5	328.1	621.2	1131.6	1417.0	2476.4
8	116	369.5	699.6	1274.5	1596.0	2789.0
9	130.5	410.9	778.0	1417.3	1774.9	3101.7
10	145	452.4	856.4	1560.2	1953.8	3414.3
15	217.5	659.5	1248.5	2274.5	2848.2	4977.5
20	290	866.6	1640.6	2988.7	3742.8	6540.7
25	362.5	1073.8	2032.7	3703.0	4881.2	8103.9
30	435	1280.9	2424.8	4417.3	5823.0	9667.1
35	507.5	1488.1	2816.9	5131.6	6764.6	
40	580	1695.2	3209.0			
45	652.5	1902.3	3601.1			
49	710.5	2068.0	3914.8			
50	725	2109.4				
55.2	800.4	2324.8				

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 641: Flow rates at 10% above the set pressure



Set Pressure	X	Bore Size (D0)				
Jet Flessule		9.5mm	13.7mm	17mm	20mm	25mm
psi	bar	SCFM	SCFM	SCFM	SCFM	SCFM
20.3	1.40		131.9			
22.5	2.50	68.7	139.4			
30	2.07	81.5	165.5			
34.8	2.80	90.6	183.8	296.7		
40	2.76	100.4	203.7	328.7		
43.5	3.00	106.9	217.0	350.2	486.0	
50	3.45	119.2	241.8	390.3	541.5	
82	5.66	179.3	363.9	587.3	814.9	1285.8
100	6.90	213.2	432.6	698.1	968.7	1528.4
150	10.34	307.2	623.4	1006.1	1395.9	2202.6
200	13.79	401.2	814.2	1314.0	1823.2	2876.8
250	17.24	495.3	1005.0	1621.9	2250.4	3550.8
300	20.69	589.3	1195.8	1929.8	2677.6	4224.9
350	24.14	683.3	1386.6	2237.8	3104.9	4899.1
400	27.59	777.4	1577.4	2545.7	3532.2	5573.3
435	30.00	843.2	1711.0	2761.2	3831.2	6045.2
450	31.03	871.4	1768.2	2853.6	3959.3	
500	34.48	965.4	1959.0	3161.5	4386.6	
507.5	35.00	979.5	1987.6	3207.7	4450.7	
550	37.93	1059.4	2149.8			
600	41.38	1153.4	2340.6			
650	44.83	1247.5	2531.4			
700	48.28	1341.5	2722.2			
710.5	49.00	1361.3	2762.3			
750	51.72	1435.5				
800.4	55.20	1530.3				



Enclosed Discharge Safety Relief Valves

for refrigeration

Seetru Limited

Type 636 / 631

Safety valves with bronze body < Enclosed discharge valve with threaded connections <

Example Applications

- Compressor manufacture
- Industrial refrigeration
- Commercial refrigeration
- Ice making machinery
- Air conditioning

Specifications

- Inlet connections: 3/8" to 1 1/2" (depending on bore size)
- Temperature:-30°C to +200°C
- Pressure range: 6.6 to 55.2 bar (depending on bore size)

Materials of Construction

Component	Material	Grade
Inlet	Brass	CW614N
Body	Bronze	CC491K SB-62 C83600
Internal Parts	Brass	CW614N
Spring	Stainless Steel	1.4310 (302)



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
- EAC



Seal Materials

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

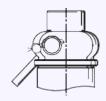
Standard seal materials shown, others are available.

Valve cap / Top Fitting

Standard option – Sealed Cap (gas tight cap)



Other option – Sealed lever (gas tight)





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Bore size		9.5			13.7mm			17mm	
Inlet Size	3/8"	1/2"	3/4"	1/2"	3/4"	1"	1"	1 1/4"	1 1/2"
Outlet Size	3/4"			1"			1 1/2"		
Flow Area	70.9mm²			147.7mm²				227mm²	
H - Height (Rota-lift cap version)	99mm (up to 33 bar) 113mm (33-55.2 bar)			135mm (up to 33 bar) 168mm (33-49 bar)			204mm		
TÜV alloted outflow coefficient	0.78				0.71			0.84	
NB Certified rated slope (ASME)	1	74 scfm/ps	ia	3.47 scfm/psia			5.60 scfm/psia		
Weight (approximate) Kg		0.8		1.1			3.6		
Set Pressure range - PED (CE) bar		7.0 to 55.2		7.0 to 49.0			6.6 to 35.0		
Set Pressure range - ASME (UV) psi	1	.01.5 to 800.	4	1	01.5 to 710.	5	95.7 to 507.5		
Relieving pressure/fully open pressure	Set pressure +10%								
Reseating pressure				Set	: pressure -1	0%			

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.

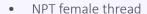
Standard INLET Thread Connection Types



- BSP Parallel male thread
- BSP Taper male thread
- NPT male thread

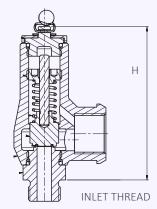
Standard OUTLET Thread Connection Types





Valves with Rota-lift Easing Gear







Аррі	roval Required	Valve type	Select Bore	Inlet Size	Inlet Thread Type	Outlet Threa Type	Easing Gear	Seal Material
	PED (CE)	636	C-1+ h :	C-1+:- -+-:	C-1+ Inl-+ +hd		Cl C :- +	Daniff, and all the many
	D (CE), ASME (UV) & CRN	631	Select bore size from above table	Select inlet size from above table	Select Inlet thread type	Select Outlet thread type	Sealed Cap is the standard option.	Perfluroelastomer (FFKM)

EAC marking available upon request



	Example	CE/PED, ASME/UV & CRN	631	9.5		NPT	NPT	Sealed Cap	FFKM	16.2 bar
ı	Selection	Approval	Valve Type	Bore = 9.5mm	Inlet Size	Inlet Thread Type	Outlet Thread Type	Easing Gear	Seal	Set Pressure



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

Capacity Table - In accordance with TÜV, AIR at 0°C and 1013mbar. Normal m³/hour Type 636: Flow rates at 10% above the set pressure



Set Pressure		Bore Size (D0)	Bore Size (D0)							
Set Flessule	set riessuie		13.7mm	17mm						
bar	psi	Nm³/Hour	Nm³/Hour	Nm³/Hour						
7	101.5	328.1	621.2	1131.6						
8	116	369.5	699.6	1274.5						
9	130.5	410.9	778.0	1417.3						
10	145	452.4	856.4	1560.2						
15	217.5	659.5	1248.5	2274.5						
20	290	866.6	1640.6	2988.7						
25	362.5	1073.8	2032.7	3703.0						
30	435	1280.9	2424.8	4417.3						
35	507.5	1488.1	2816.9	5131.6						
40	580	1695.2	3209.0							
45	652.5	1902.3	3601.1							
49	710.5	2068.0	3914.8							
50	725	2109.4								
55.2	800.4	2324.8								

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 631: Flow rates at 10% above the set pressure

Set Pressure		Bore Size (D0)					
Set Flessule		9.5mm	13.7mm	17mm			
psi	bar	SCFM	SCFM	SCFM			
100	6.90	213.2	432.6	698.1			
150	10.34	307.2	623.4	1006.1			
200	13.79	401.2	814.2	1314.0			
250	17.24	495.3	1005.0	1621.9			
300	20.69	589.3	1195.8	1929.8			
350	24.14	683.3	1386.6	2237.8			
400	27.59	777.4	1577.4	2545.7			
435	30.00	843.2	1711.0	2761.2			
450	31.03	871.4	1768.2	2853.6			
500	34.48	965.4	1959.0	3161.5			
507.5	35.00	979.5	1987.6	3207.7			
550	37.93	1059.4	2149.8				
600	41.38	1153.4	2340.6				
650	44.83	1247.5	2531.4				
700	48.28	1341.5	2722.2				
710.5	49.00	1361.3	2762.3				
750	51.72	1435.5					
800.4	55.20	1530.3					



Enclosed Discharge Safety Relief Valves

for refrigeration

Seetru Limited

Type 646 / 641

Safety valves with stainless steel body < Enclosed discharge valve with threaded connections <

Example Applications

- Compressor manufacture
- Industrial refrigeration
- Commercial refrigeration
- Ice making machinery
- Air conditioning

Specifications

- Inlet connections: 3/8" to 1 1/2" (depending on bore size)
- Temperature:-30°C to +200°C
- Pressure range: 6.6 to 55.2 bar (depending on bore size)

Materials of Construction

Component	Material	Grade
Inlet	Stainless Steel	1.4401 (316)
Body	Stainless Steel	1.4408 (316)
Internal Parts	Stainless Steel	1.4401 (316)
Spring	Stainless Steel	1.4310 (302)



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
- EAC



Seal Materials

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

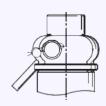
Standard seal materials shown, others are available.

Valve cap / Top Fitting

• **Standard option** – Sealed Cap (gas tight cap)



• Other option – Sealed lever (gas tight)





₩	

Bore size	9.5		13.7mm			17mm			
Inlet Size	3/8"	1/2"	3/4"	1/2"	3/4"	1"	1"	1 1/4"	1 1/2"
Outlet Size		3/4"		1"			1 1/2"		
Flow Area	70.9mm²		147.7mm²		227mm²				
H - Height (Sealed cap version)	99mm (up to 33 bar) 113mm (33-55.2 bar)		135mm (up to 33 bar) 168mm (33-49 bar)		204mm				
TÜV alloted outflow coefficient	0.78		0.71		0.84				
NB Certified rated slope (ASME)	1	.74 scfm/ps	ia	3.47 scfm/psia		5.60 scfm/psia		a	
Weight (approximate) Kg		0.8		1.1			3.6		
Set Pressure range - PED (CE) bar		7.0 to 55.2		7.0 to 49.0		6.6 to 35.0			
Set Pressure range - ASME (UV) psi	101.5 to 800.4		101.5 to 710.5		95.7 to 507.5				
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.

Standard INLET Thread Connection Types



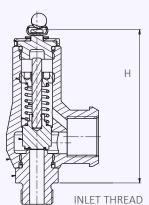
- BSP Parallel male thread
- BSP Taper male thread
- NPT male thread

Standard OUTLET Thread Connection Types



- BSP Parallel female thread
- NPT female thread

Valves with Rota-lift Easing Gear





Approval Required	Valve type	Select Bore	Inlet Size	Inlet Thread Type	Outlet Threa Type	Easing Gear	Seal Material
PED (CE)	646	C-l+ b:	C-1+:1-+-:	C-1+ I -+ +	Calaat Outlat	Cl C	Dard
PED (CE), ASME (UV) & CRN	641	Select bore size from above table	Select inlet size from above table	Select Inlet thread type	Select Outlet thread type	Sealed Cap is the standard option.	Perfluroelastomer (FFKM)

EAC marking available upon request



Example	CE/PED, ASME/UV & CRN	641		3/4"	NPT	NPT	Sealed Cap	FFKM	16.2 bar
Selection	Approval	Valve Type	Bore = 9.5mm	Inlet Size	Inlet Thread Type	Outlet Thread Type	Easing Gear	Seal	Set Pressure



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

Capacity Table - In accordance with TÜV, AIR at 0°C and 1013mbar. Normal m³/hour Type 646: Flow rates at 10% above the set pressure



Set Pressure		Bore Size (D0)					
Set Pressure	Set Pressure		13.7mm	17mm			
bar	psi	Nm³/Hour	Nm³/Hour	Nm³/Hour			
7	101.5	328.1	621.2	1131.6			
8	116	369.5	699.6	1274.5			
9	130.5	410.9	778.0	1417.3			
10	145	452.4	856.4	1560.2			
15	217.5	659.5	1248.5	2274.5			
20	290	866.6	1640.6	2988.7			
25	362.5	1073.8	2032.7	3703.0			
30	435	1280.9	2424.8	4417.3			
35	507.5	1488.1	2816.9	5131.6			
40	580	1695.2	3209.0				
45	652.5	1902.3	3601.1				
49	710.5	2068.0	3914.8				
50	725	2109.4					
55.2	800.4	2324.8					

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 641: Flow rates at 10% above the set pressure

Set Pressure		Bore Size (D0)					
		9.5mm	13.7mm	17mm			
psi	bar	SCFM	SCFM	SCFM			
100	6.90	213.2	432.6	698.1			
150	10.34	307.2	623.4	1006.1			
200	13.79	401.2	814.2	1314.0			
250	17.24	495.3	1005.0	1621.9			
300	20.69	589.3	1195.8	1929.8			
350	24.14	683.3	1386.6	2237.8			
400	27.59	777.4	1577.4	2545.7			
435	30.00	843.2	1711.0	2761.2			
450	31.03	871.4	1768.2	2853.6			
500	34.48	965.4	1959.0	3161.5			
507.5	35.00	979.5	1987.6	3207.7			
550	37.93	1059.4	2149.8				
600	41.38	1153.4	2340.6				
650	44.83	1247.5	2531.4				
700	48.28	1341.5	2722.2				
710.5	49.00	1361.3	2762.3				
750	51.72	1435.5					
800.4	55.20	1530.3					



Enclosed Discharge Safety Relief Valves

for compressed air or gases

cryogenic & liquefied gas refrigeration

Seetru Limited

Type 329

Safety valves with either Bronze or Stainless Steel body < Enclosed discharge valve with threaded connections <

Example Applications

- Air/Gas systems
- Natural Gas
- CNG/LNG
- Pressure vessels
- Medical gases
- **Technical Gases**
- CO2 refrigeration
- Ammonia refrigeration (Stainless steel)
- Cryogenic applications
- Liquefied gases

Specifications

- Inlet connections: 3/8" to 3/4"
- Temperature range:-196°C to +70°C
- Pressure range: 53.0 to 370.0 bar

Materials of Construction

Component	Material	Grade	
Inlet	Stainless Steel	1.4401 (316)	
Body	Bronze	C83600	
	Stainless Steel	1.4408 (316)	
Internal Parts	Brass	BS EN 12164 CW614N	
	Stainless Steel	1.4401 (316)	
Spring	Stainless Steel	1.4310 (302)	



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)
- EAC
- CRN



Seal Materials

Seal Material	Temperature Range
PTFE (up to 202 bar) PPS (202 to 370 bar)	-196°C to +70°C

Standard seal materials shown, others are available.

Top Fitting Options

- Standard Option Sealed Cap (gas tight cap)

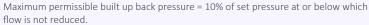




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Valve drawing





Standard Thread Connection Types

- BSP Parallel male thread
- BSP Taper male thread
- NPT male thread

Standard Outlet Connection Types



- BSP Parallel female thread
- NPT female thread

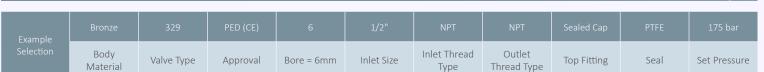
Valve Selection Guide



Valve Type	Body Material	Approval Required	Select Bore	Inlet Size	Inlet Thread Type	Outlet Thread Type	Easing Gear	Seal Material
	Stainless Steel	PED (CE)		Select inlet size	Coloot Inlat	Coloot Outlet		
329	Bronze	PED (CE), ASME (UV, NB), CRN	6mm	from above table	Select Inlet thread type	Select Outlet thread type	Sealed cap	PTFE

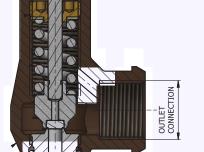
EAC marking available upon request

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









Capacity Table - In accordance with TÜV, AIR at 0°C and 1013mbar. Normal m³/hour Type 329: Flow rates at 10% above the set pressure



0.15		Bore Size (D0)		
Set Pressure		6mm		
bar	psi	Nm³/Hour		
53	768.5	879.6		
60	870.0	993.8		
70	1015.0	1156.9		
80	1160.0	1320.0		
90	1305.0	1483.1		
100	1450.0	1646.3		
150	2175.0	2461.9		
200	2900.0	3277.5		
250	3625.0	4093.1		
300	4350.0	4908.7		
350	5075.0	5724.4		
370	5365.0	6050.6		

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 329: Flow rates at 10% above the set pressure

C.I.D.		Bore Size (D0)	
Set Pressure		6mm	
psi	bar	SCFM	
768.5	53	602	
870	60	680	
913.5	63	714	
1203.5	83	937	
1305	90	1015	
1450	100	1127	
2175	150	1685	
2900	200	2243	
2929	202	2266	
3480	240	2690	
3625	250	2802	
4350	300	3360	
5075	350	3918	
5365	370	4141	



Enclosed Discharge Safety Relief Valves

for compressed air or gases

steam

hygienic

Type 6G6 / 6G1

Clean Service/Hygienic Safety valves with Stainless Steel body < Enclosed discharge valve with Tri-Clamp inlet connections <

Safety valve for food industry & other hygienic applications including clean steam & gas applications

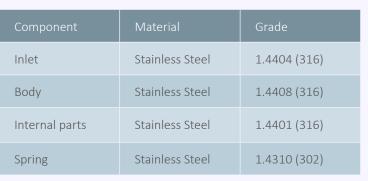
Example Applications

- Compressed air or gas
- Food production plants
- Hygienic applications
- Pressure vessels
- Medical gases
- Technical gases
- Steam systems

Specifications

- Inlet connections: 1/2" to 1" Tr-Clamp (depending on bore size)
- Temperature:-15°C to +200°C (depending on seal material)
- Pressure range: 0.32 to 55.2 bar (depending on bore size)
 - Maximum 12 bar for Steam Applications.

Materials of Construction



SURFACE FINISH

Process Contact Surface

In accordance with ASME BPE-2005 Table SF-5. Surface designation Ra Max 15 μ inches, 0.4 μ m, Electropolished.

Other Surfaces

Not greater than 60 $\mu inches$, 1.5 μm

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
- EAC



Seetru Limited

Seal Materials

Seal Material	Temperature Range
Perfluoroelastomer (FFKM)	-15°C to +200°C

Standard seal materials shown, others are available.
Elastomer soft sealing specifically developed for food & pharmaceutical industries.

Compliant to:

- 1. FDA 21 CFR 177.2600
- 2. United States Pharmacopoeia (USP) Class VI
- ${\it 3. SP3A Sanitary Standards for Multiple Use Rubber Dairy Equipment No 18-03.}\\$

Easing Gear / Lifting Gear Options

Standard option:



Sealed Cap (gas tight cap)

• Other Options:



Sealed lever (gas tight)





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Bore size	9.5mm (6G	610/6G110)	13.7mm (66	6613/6G113)
Inlet Size	1/2"	3/4"	3/4"	1"
Outlet Size	3/	/4"	1	
Flow Area	70.9	mm²	147.	7mm²
H - Height (Sealed cap version)	160)mm	180	lmm
TÜV alloted outflow coefficient	0.	78	0.	71
NB Certified rated slope (ASME)	1.71 sc	fm/psia	3.47 sc	fm/psia
Weight (approximate) Kg	0	.9	1	.3
Set Pressure range - PED (CE) bar	0.48 to 55.2 (max	12 bar for Steam)	0.32 to 49.0 (max	12 bar for Steam)
Set Pressure range - ASME (UV) psi	22.5 to	800.4	20.3 to	710.5
Relieving pressure/fully open pressure	Set pressure +10% (0.1 bar below 1.0 bar)		Set pressure + 10% (0.3 bar below 1.4 bar)	
Reseating pressure		Set pressure -10%	(0.3 bar minimum)	

Stable operation on flows down to 50% of valve rated capacity.

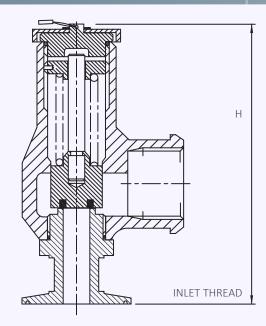
Standard Thread Connection Types

 Tri-Clamp® compatable generally in accordance with ASME BPE 2005 & BS 4825-3.

Standard Outlet Connection Types

BSP Female Pipe threads (G)

Valve drawing



Valve Selection Guide

Approval Required	Valve type	Select Bore		Easing Gear	Seal Material
PED (CE)	6G6	Select bore size	Select inlet size	Select easing	Perfluroelastomer (FFKM)
PED (CE), ASME (UV) & CR	6G1	from above table	from above table	gear/top fitting	Other

EAC marking available upon request

Example	PED, ASME & CRN	6G1	9.5mm	1/2"	Sealed Cap	Perfluroelastomer (FFKM)	3.5 bar
Selection	Approval	Valve Type	Bore Size	Inlet Size	Easing Gear	Seal	Set Pressure



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

Capacity Table - In accordance with TÜV, AIR at 0°C and 1013mbar. Normal m^3 /hour

Type 6G6: Flow rates at 10% above the set pressure

0.15	1	Bore Size (D0)	
Set Pressu	re Mil	9.5mm (6G610)	13.7mm (6G613)
bar	psi	Nm³/Hour	Nm³/Hour
0.32	4.64		114.2
0.48	6.96	48.9	124.5
1	14.5	76.9	164.9
2	29	121.0	229.1
3	43.5	162.4	307.5
4	58	203.8	385.9
5	72.5	245.3	464.3
5.65	81.93	272.2	515.3
6	87	286.7	542.7
7	101.5	328.1	621.2
8	116	369.5	699.6
9	130.5	410.9	778.0
10	145	452.4	856.4
15	217.5	659.5	1248.5
20	290	866.6	1640.6
25	362.5	1073.8	2032.7
30	435	1280.9	2424.8
35	507.5	1488.1	2816.9
40	580	1695.2	3209.0
45	652.5	1902.3	3601.1
49	710.5	2068.0	3914.8
50	725	2109.4	
55.2	800.4	2324.8	

For any intermediate pressures/flows please contact Seetru

Capacity Table - In accordance ASME section VIII Div I, AIR at 60°F and 14.7 psia/scfm. SCFM

Type 6G1: Flow rates at 10% above the set pressure

Cat Danson	🛪	Bore Size (D0)	
Set Pressu	re Mil	9.5mm (6G610)	13.7mm (6G613)
psi	bar	SCFM	SCFM
20.3	1.40		131.9
22.5	2.50	68.7	139.4
30	2.07	81.5	165.5
34.8	2.80	90.6	183.8
40	2.76	100.4	203.7
43.5	3.00	106.9	217.0
50	3.45	119.2	241.8
82	5.66	179.3	363.9
100	6.90	213.2	432.6
150	10.34	307.2	623.4
200	13.79	401.2	814.2
250	17.24	495.3	1005.0
300	20.69	589.3	1195.8
350	24.14	683.3	1386.6
400	27.59	777.4	1577.4
435	30.00	843.2	1711.0
450	31.03	871.4	1768.2
500	34.48	965.4	1959.0
507.5	35.00	979.5	1987.6
550	37.93	1059.4	2149.8
600	41.38	1153.4	2340.6
650	44.83	1247.5	2531.4
700	48.28	1341.5	2722.2
710.5	49.00	1361.3	2762.3
750	51.72	1435.5	
800.4	55.20	1530.3	

Atmospheric Discharge Safety Relief Valves

Seetru Limited

for refrigeration

Type 319

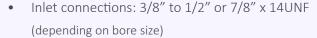
Inline Safety Valves made from Brass < Atmospheric discharge valve with threaded connections <

Example Applications



- Industrial refrigeration
- Commercial refrigeration
- Ice making machinery
- Air conditioning

Specifications



- Temperature:-30°C to +200°C
- Pressure range: 13.5 to 55.2 bar (depending on bore size)

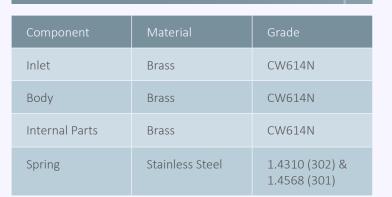


Approvals

- 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
- EAC



Materials of Construction



Seal Materials

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

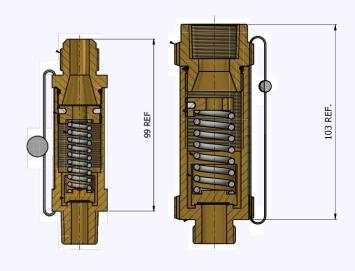
Standard seal materials shown, others are available.



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Valve drawing

Bore size	9	.5	13.0	8mm
Inlet Size	3/8"	1/2"	1/2"	7/8" (UNF)
Outlet Size	1/2" or 5	/8" Flare	3/4" NP	T Female
Flow Area	71n	nm²	134.4	4mm²
H - Height	199	mm	103	mm
TÜV alloted outflow coefficient	0.4	l85	0.	71
NB Certified rated slope (ASME)	1.04 sc	fm/psia	3.47 sc	fm/psia
Weight (approximate) Kg	0	.8	1	.3
Set Pressure range - PED (CE) bar	13.5 t	o 50.0	16.2 t	o 26.8
Set Pressure range - ASME (UV) psi	195.75	to 725.0	235.0 t	o 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.

Standard INLET Thread Connection Types

- NPT male thread
- UNF male thread

Standard OUTLET Thread Connection Types

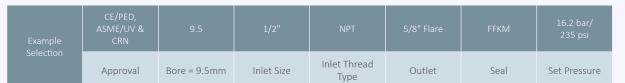
- Flare outlet
- NPT female thread

Valve Selection Guide



Approval Required	Select Bore	Inlet Size	Inlet Thread Type	Outlet Threa Type	Seal Material
PED (CE)	Calaat hana siaa	Calaat inlat aiaa	C-1+ In-1-+ +h	Calaat Outlat	Dfll+
PED (CE), ASME (UV) & CRN	Select bore size from above table	Select inlet size from above table	Select Inlet thread type	Select Outlet thread type	Perfluroelastomer (FFKM)

EAC marking available upon request





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

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



		Bore Size (D0)			
Set Pressure	Set Pressure		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			



Enclosed Discharge Safety Relief Valves

for compressed air or gases

Seetru Limited

Type 64613 / 64113 Flanged

Safety valves with Stainless Steel body < Enclosed discharge valve with flanged connections <

Example Applications

- Air / gas compressors
- Pressure vessels
- Pneumatic systems
- Medical gases
- Technical gases

Specifications

- Inlet connections: DN20 (3/4") or DN25 (1") DIN or ANSI flanges
- Temperature: -40°C to +200°C (depending on seal material)
- Pressure range: 0.32 to 49.0 bar



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
- EAC



Materials of Construction

Component	Material	Grade
Inlet	Stainless Steel	1.4401 (316)
Body	Stainless Steel	1.4408 (316)
Internal parts	Stainless Steel	1.4401 (316)
Spring	Stainless Steel	1.4310 (302)

Seal Materials

Seal Material	Temperature Range
Viton® (FKM)	-15°C to +200°C
Nitrile (NBR)	-40°C to +120°C

Standard seal materials shown, others are available.

Easing Gear / Lifting Gear Options

Standard Option: Sealed Cap (gas tight cap)



Other Option: Sealed lever (gas tight)







Valve Drawing



Н

INLET THREAD

Bore size	13.7mm	
Inlet Size	DN20 (3/4")	DN25 (1")
Outlet Size	DN2	5 (1")
Flow Area	147.4	lmm²
H - Height (Sealed cap version)	197mm (up to 35 bar) 226mm (35-49 bar)	
TÜV alloted outflow coefficient	0.71	
NB Certified rated slope (ASME)	3.47 scfm/psia	
Weight (approximate) Kg	3.2	
Set Pressure range - PED (CE) bar	0.32 to 49.0	
Set Pressure range - ASME (UV) psi	20.3 to 710.5	
Relieving pressure/fully open pressure	Set pressure +10% (0.3 bar below 1.4 bar)	
Reseating pressure	Set pressure-10%	(0.3 bar minimum)

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.

Standard Thread Connection Types

- DIN EN1092 Flange PN16, PN25 or PN40
- ASME Flange CL150, CL300 or CL600

Standard Outlet Connection Types

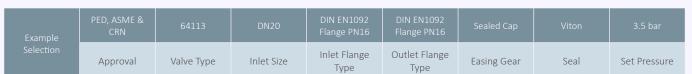
- DIN EN1092 Flange PN16, PN25 or PN40
- ASME Flange CL150, CL300 or CL600

Valve Selection Guide



Approval Required	Valve type	Inlet Size	Inlet Flange Type	Outlet Flange Type	Easing Gear	Seal Material	
PED (CE)	64613	Select inlet size from above table	Select Inlet	Select Outlet	Select easing	Viton® (FKM)	
PED (CE), ASME	64442			flange type		gear/top fitting	Nitrile (NBR)
(UV) & CRN	64113					Other	

EAC marking available upon request







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

Capacity Table - In accordance with TÜV, AIR at 0°C and 1013mbar. Normal m³/hour

Type 64613: Flow rates at 10% above the set pressure

Set Pressure		Bore Size (D0)
Set Pressu	re AMI	13.7mm
bar	psi	Nm³/Hour
0.32	4.64	114.2
0.48	6.96	124.5
1	14.5	164.9
2	29	229.1
3	43.5	307.5
4	58	385.9
5	72.5	464.3
5.65	81.93	515.3
6	87	542.7
7	101.5	621.2
8	116	699.6
9	130.5	778.0
10	145	856.4
15	217.5	1248.5
20	290	1640.6
25	362.5	2032.7
30	435	2424.8
35	507.5	2816.9
40	580	3209.0
45	652.5	3601.1
49	710.5	3914.8

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 64113: Flow rates at 10% above the set pressure

Sot Drossum		Bore Size (D0)
Set Pressu	re Mil	13.7mm
psi	bar	SCFM
20.3	1.40	131.9
22.5	2.50	139.4
30	2.07	165.5
34.8	2.80	183.8
40	2.76	203.7
43.5	3.00	217.0
50	3.45	241.8
82	5.66	363.9
100	6.90	432.6
150	10.34	623.4
200	13.79	814.2
250	17.24	1005.0
300	20.69	1195.8
350	24.14	1386.6
400	27.59	1577.4
435	30.00	1711.0
450	31.03	1768.2
500	34.48	1959.0
507.5	35.00	1987.6
550	37.93	2149.8
600	41.38	2340.6
650	44.83	2531.4
700	48.28	2722.2
710.5	49.00	2762.3





SAFETY RELIEF VALVES



SINCE/DEPUIS

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Since 1953, Quality Products to Sense, Measure & Control Depuis 1953, Produits De Qualités Pour Détecter, Mesurer & Contrôler



Seetru's range of safety relief valves with ASME BPVC VIII.1 & XIII (UV) and CRN approval

Last updated January 2024 – subject to change as more valve types get approved