

Enclosed Discharge Safety Relief Valves

Seetru Limited

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

Component	Material	Grade
Inlet	Stainless Steel	1.4404 (316)
Body	Stainless Steel	1.4408 (316)
Internal parts	Stainless Steel	1.4401 (316)
Spring	Stainless Steel	1.4310 (302)

SURFACE FINISH

Process Contact Surface

In accordance with ASME BPE-2005 Table SF-5.

Surface designation Ra Max 15 µinches, 0.4 µm, Electropolished.

Other Surfaces

Not greater than 60 µinches, 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



Seal Materials

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

Standard seal materials shown, others are available.

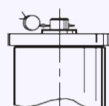
Elastomer soft sealing specifically developed for food & pharmaceutical industries.

Compliant to:

- FDA 21 CFR 177.2600
- United States Pharmacopoeia (USP) Class VI
- SP3A Sanitary Standards for Multiple Use Rubber Dairy Equipment No 18-03.

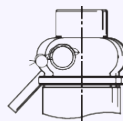
Easing Gear / Lifting Gear Options

- Standard option:**



Sealed Cap (gas tight cap)

- Other Options:**



Sealed lever (gas tight)

Technical information by bore size

Bore size	9.5mm (6G610/6G110)		13.7mm (6G613/6G113)	
Inlet Size	1/2"	3/4"	3/4"	1"
Outlet Size	3/4"		1"	
Flow Area	70.9mm²		147.7mm²	
H - Height (Sealed cap version)	160mm		180mm	
TÜV allotted outflow coefficient	0.77 above 1.55 bar		0.77	
NB Certified rated slope (ASME)	1.71 scfm/psia		3.47 scfm/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® compatible generally in accordance with ASME BPE 2005 & BS 4825-3.

Standard Outlet Connection Types

- BSP Female Pipe threads (G)

Valve Selection Guide

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

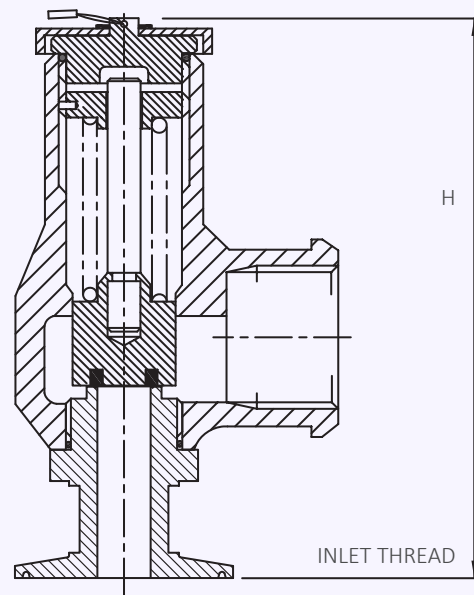
EAC marking available upon request

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

Example of Valve Selection Process

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

Valve drawing



Capacity Table - In accordance with TÜV, AIR at 0°C and 1013mbar. Normal m³/hour
Type 6G6: Flow rates at 10% above the set pressure

Set Pressure 		Bore Size (D0)	
		9.5mm (6G610)	13.7mm (6G613)
bar	psi	Nm³/Hour	Nm³/Hour
0.32	4.64		123.9
0.48	6.96	46.5	138.2
1	14.5	71.4	178.8
2	29	119.5	248.4
3	43.5	160.4	333.5
4	58	201.3	418.5
5	72.5	242.1	503.6
6	87	283.0	588.6
7	101.5	323.9	673.6
8	116	364.8	758.7
9	130.5	405.7	843.7
10	145	446.6	928.8
15	217.5	651.1	1354.0
20	290	855.5	1779.2
25	362.5	1060.0	2204.5
30	435	1264.5	2629.7
35	507.5	1468.9	3054.9
40	580	1673.4	3480.2
45	652.5	1877.9	3905.4
49	710.5	2041.5	4245.6
50	725	2082.4	
55.2	800.4	2295.0	

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

Set Pressure 		Bore Size (D0)	
		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	

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