

Testing of the Seetru relief valves

Position: on regulator panels outside R5.2.

One on the helium supply panel and one on the nitrogen supply panel.

Characteristics:

The letters and numbers on the relief valve body seem to be...

TUV SV 08 72895 D/G 0,78 13 bar

64610A2073 1-15/+200C 0038

SEETRU BRISTOL – UK ??? 1.4408 04/11

158319

The top line is almost as given in the specs sheet (attached) which is presumably 2013 version of the German pressure code, whereas our valve (made in 2011, it seems) complies with 2008 version.

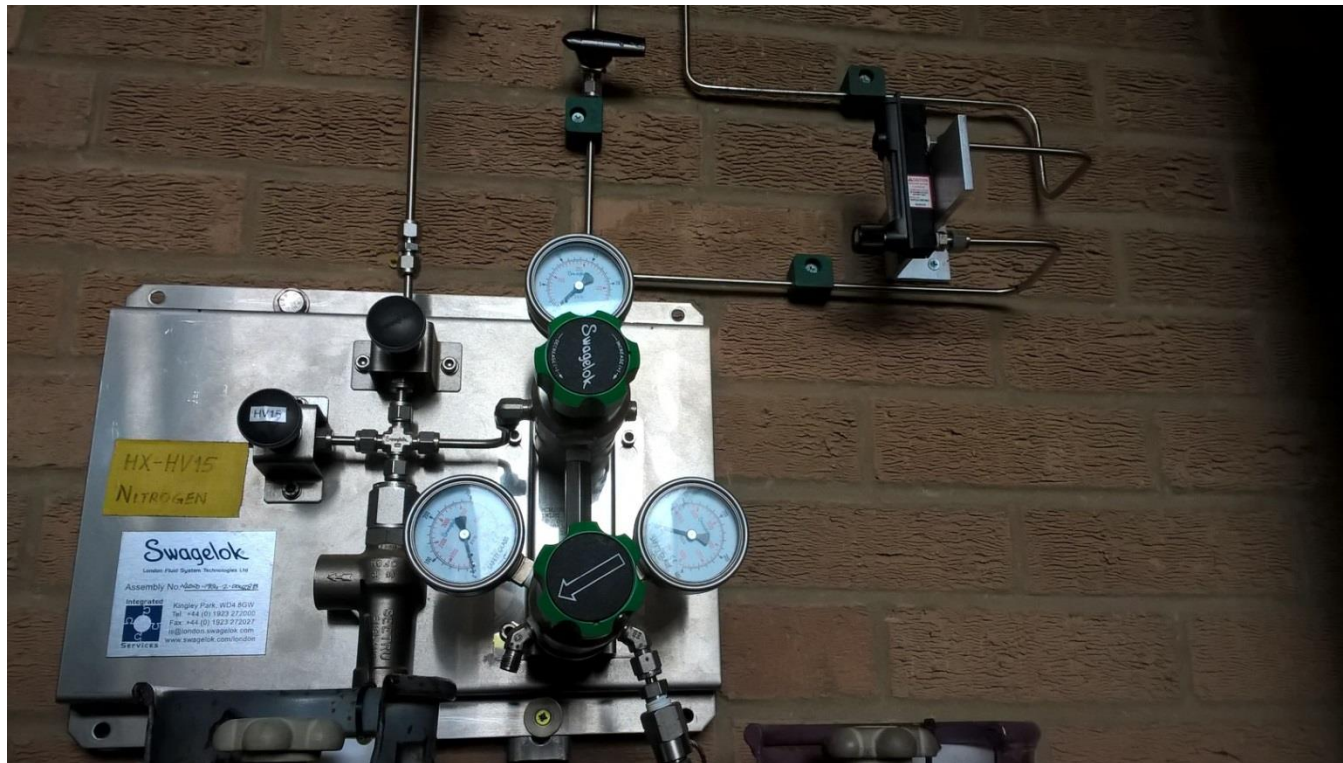
The second line gives the valve part number 64610 (however, the cap-type code 2073 is different), ratings, and I don't know what the 0038 refers to.

The third line includes the material spec (stainless steel) and probably the date of manufacture (either 01/11 or 04/11 - it's difficult to see).

The fourth line is unknown to me, also. Perhaps it is an identifier (serial number) for the valve.

Test:

Helium gas from a cylinder was fed into the input of the regulator. The photo shows the nitrogen panel (before test with input set away from test cylinder) as shown:

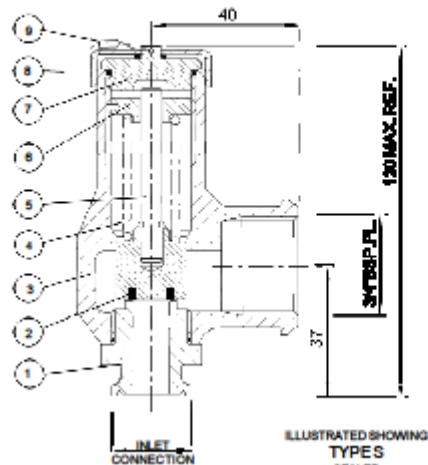


The pressure at the relief valve was increased using the regulator until the pressure was released through the Seetru valve. The pressure was removed and then the test was repeated a further three times.

Test Result:

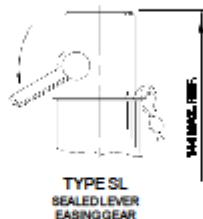
Both Seetru relief valves released pressure at between 12 bar G and 12.5 bar G (less than 13 bar G on first test), as displayed on the gauges.

Test performed by Mark Tucker, 17/Feb/2017.



ILLUSTRATED SHOWING
TYPES
SEALED
NO EASING GEAR

ALTERNATIVE TOP FITTING



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PARTS LIST AND MATERIAL SPECIFICATION

	64610, 64710, 64110
1 INLET SEAT	STSTL BS EN 10088-3 1.4404 (316L)
2 PLUNGER/SEAL	STSTL BS EN 10088-3 1.4404 (316L) / TO SUIT APPLICATION
3 BODY	STSTL BS EN 10283 1.4406 (316) SA-351 CF8M
4 SPRING	STSTL BS EN 10270-3 1.4310 (302)
5 SPINDLE	STSTL BS EN 10088-3 1.4057 (431)
6 ADJUSTER	STSTL BS EN 10088-3 1.4401 (316)
7 CAP	STSTL BS EN 10088-3 1.4401 (316)
8 COVER	STSTL
9 WIRE & SEAL	STSTL & LEAD

APPROVALS

AD 2000-Merkblatt A2: (TÜV Germany), Ref- TÜV.SV.13-728.9.5.D/G.0.78.p.
P.E.D.97/23/EC.

Type examination module B, Cert. No. 01 202 111-B-100016
Quality management system, module D, Cert. No. EDS 0002011/01
Designed in accordance with BS EN ISO 4126-1

Meeting the requirements of the A.S.M.E. Boiler & Pressure Vessel Code section VIII for air/gas.
UV Cert. of Authorisation: 35757

Capacities certified by the National Board of Boiler & Pressure Vessel Inspectors.

TECHNICAL DATA

Relieving pressure	- Set pressure +10% (0.1 Bar.g. below 1.0 Bar.g)
Reseating pressure	- Set pressure -10% (0.3 Bar.g minimum)
Maximum set pressure	- 55.2 Bar.g (12 Bar.g Steam)
	SUBJECT TO CLAMP PRESSURE RATING
Minimum set pressure	- 0.48 Bar.g (A.S.M.E. 1.55 Bar.g)
Flow area	- 70.9 mm ²
Inlet bore diameter	- 9.5 mm
BS Derated coefficient of discharge K_{d1}	- 0.78
TÜV Derated coefficient of discharge α_1	- 0.78
NB Certified rated slope	- 1.71 scfm/psia
BS Minimum lift at 10% overpressure	- 3.5 mm
Temperature Range	- Subject to seal material.
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.	
FOR FURTHER INFORMATION, INSTALLATION AND OPERATION INSTRUCTIONS, CONVERSION FACTORS ETC. SEE TECHNICAL INFORMATION SECTION.	

SHEET 1 OF 3 SHEETS

CLEAN SERVICE 10mm Nominal Bore
DIRECT SPRING LOADED ENCLOSED
DISCHARGE SAFETY VALVE
FOR COMPRESSED AIR, GASES & STEAM

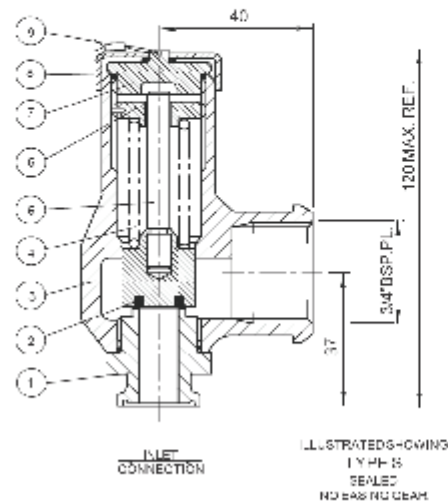
ENCLOSED DISCHARGE
10mm NOMINAL BORE SERIES M/2
TYPE 64610, 64710, 64110 ST/SL



GP 64610, 64710, 64110

10 mm Nominal Bore Piped Discharge Safety Relief Valve
For Compressed Air & Gases
PED, TÜV, ASME Approved

CLEAN SERVICE



Pressure Range

From: 0.48 bar g. (6.96 psi g.)
To: 55.20 bar g. (800.40 psi g.)



Temperature Range

-40 °C to 190 °C (subject to seal material)



Flow Area

70.88 mm² (9.50 mm inlet bore diameter)



Connections

Inlet: 1/2" to 1" TRI-CLAMP
Outlet: 3/4" BSP

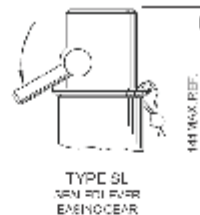


Seal Materials

Ethylene Propylene
Perfluoroelastomer

	ASME	GP 64710
	PED / TÜV / ASME	GP 64110
	PED / TÜV	GP 64610
1	INLET SEAT	ST. STEEL 1.4404 (316L)
2	PLUNGER	ST. STEEL 1.4404 (316L)
3	BODY	ST. STEEL 1.4408 (316)
4	SPRING	ST. STEEL 1.4310 (302)
5	SPINDLE	ST. STEEL 1.4057 (431)
6	ADJUSTER	ST. STEEL 1.4408 (316)
7	CAP	ST. STEEL 1.4408 (316)
8	COVER	ST. STEEL
9	WIRE & SEAL	ST. STEEL & LEAD

Alternate Top Fitting



Notes

- Maximum permissible built up back pressure is 10% of set pressure
- Stable operation on flows down to 50% of valve rated capacity
- Relieving pressure is set pressure +10% (0.3 bar g. below 1.55 bar g.)
- Reseating pressure is set pressure -10% (0.3 bar g. minimum)
- Below 1.55 bar g., PED certified only

Approvals

- TÜV Germany (AD-Merkblatt A2)
- BS EN ISO 4126-1
- ASME Section VIII Division 1
- PED 97/23/EC