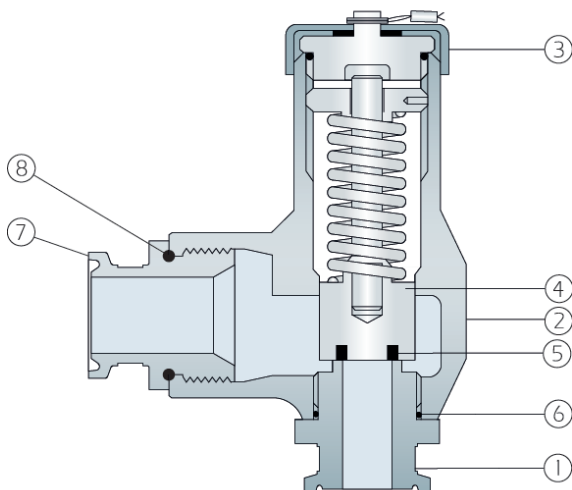




The 600 series safety valves are intended for low flow steam, gas and liquid applications. Wetted parts are 316L stainless steel with an FDA and USP Class VI compliant Isolast seat seal. The 646 series are designed for steam and gas while the 680 series is intended for liquid applications. The inlet fitting on all models is a BPE compliant clamp with a female threaded outlet. A clamp adaptor option is also available for the outlet. Wetted inlet surfaces are finished to 0.4 microns Ra, with outlet surfaces as cast/machined. 600 series valves are CE Category IV approved, with the Type 646 also satisfying ASME section VIII Division I criteria.



- P Pressure Rating**
Type 646 steam and gas valve - 55 barg
Type 680 liquid valve - 70 barg
- T Temperature Rating**
Up to 150°C or 190°C with Viton body seal
- Orifice Diameter**
9.5mm
- Connections**
1/2" or 3/4" ASME BPE clamp inlet
3/4" BSP female, 3/4" or 1" ASME BPE clamp outlet
- Seal Materials**
Seat seal - Isolast (Perfluoroelastomer)
Body seal - EPDM or Viton
- Set Pressure Range**
Steam service - 0.48 - 12 barg
Gas service - 0.48 - 55.2 barg
Liquid service - 0.76 - 30 barg

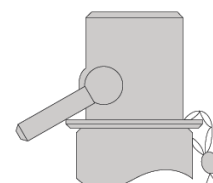
- Surface Finish**
Wetted inlet surfaces - 0.5 microns Ra
Wetted outlet surfaces - 1.5 - 3.2 microns Ra
External surfaces - 3.2 microns Ra

- Options**
Enhanced surface finish and electropolishing
Manual lifting device

Available Certification

- CofC** Certificate of Conformity
- MTR's** Material Certification
- FDA** FDA Elastomer compliance certificates
- USP** USP Elastomer compliance certificates
- ADI** Certified 'Animal Derived Ingredient' free

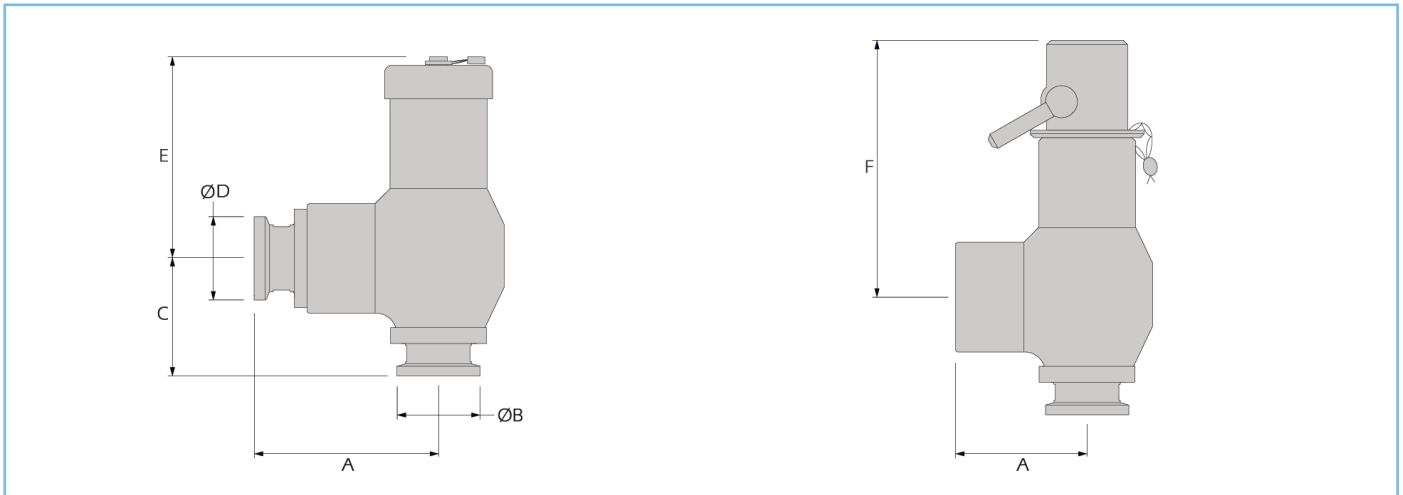
Part	Description	
1	Inlet fitting	316L stainless steel
2	Body	316L stainless steel
3	Cap	Stainless steel
4	Disc	316L stainless steel
5	Seat seal	Isolast
6	Body seal	EPDM or Viton
7	Outlet fitting	316L stainless steel
8	Outlet fitting seal	EPDM



With manual lifting device

600 Series

Safety relief valves



	ASME BPE Connections		Dimensions(mm)						Weight(kg)
	Inlet	Outlet	A	ØB	C	ØD	E	F	
	1/2" Clamp	3/4" BSP	40	25	37	-	83	107	1.4
	1/2" Clamp	3/4" Clamp	56	25	37	25	83	107	1.5
	3/4" Clamp	3/4" BSP	40	25	37	-	83	107	1.4
	3/4" Clamp	3/4" Clamp	56	25	37	25	83	107	1.5
	3/4" Clamp	1" Clamp	56	25	37	50.5	83	107	1.5



Discharge Capacities

Set pressure(barg)	Type 646	Type 646	Type 680
	Saturated steam(Kg/h)	Air@0°C(Nm³/h)	Water@20°C(Kg/h)
1.0	56	70	2379
2.0	93	118	3364
3.0	125	158	4120
4.0	157	198	4758
5.0	189	239	5319
6.0	221	279	5827
7.0	253	319	6294
8.0	285	360	6729
9.0	317	400	7137
10.0	349	440	7523
12.0	413	521	8241
14.0	476	601	8901
16.0	540	682	9516

Valve capacities according to AD 2000-Merkblatt A2 (TÜV Germany)

For 646 maximum capacity achieved at set pressure +10%. Re-seating pressure achieved at set pressure -10%

For 680 maximum capacity achieved at set pressure +25%. Re-seating pressure achieved at set pressure -20%

Discharge capacities according to ASME Section VIII, Division 1 available upon request - applicable to Type 646 only

Coefficients of discharge(Kdr): Steam and gasses (Type 646) - 0.78. Liquids (Type 680) - 0.59.



Packaging

Individually capped and bagged



Service Parts

Disc assembly with seat seal comprising parts 4, 5, 6 and outlet fitting seal part 8.



Specification

See product selector sheet for specification & ordering detail

Staitech

Staitech Ltd • PO Box 152 • Stroud

Glos • GL6 8YT • UK

Tel: +44 (0) 1453 882736 • Fax: +44 (0) 1453 882744

Email: sales@staitech.com • Web: www.staitech.com

Specifications subject to change without notice. TYPE600-TB - 07/14