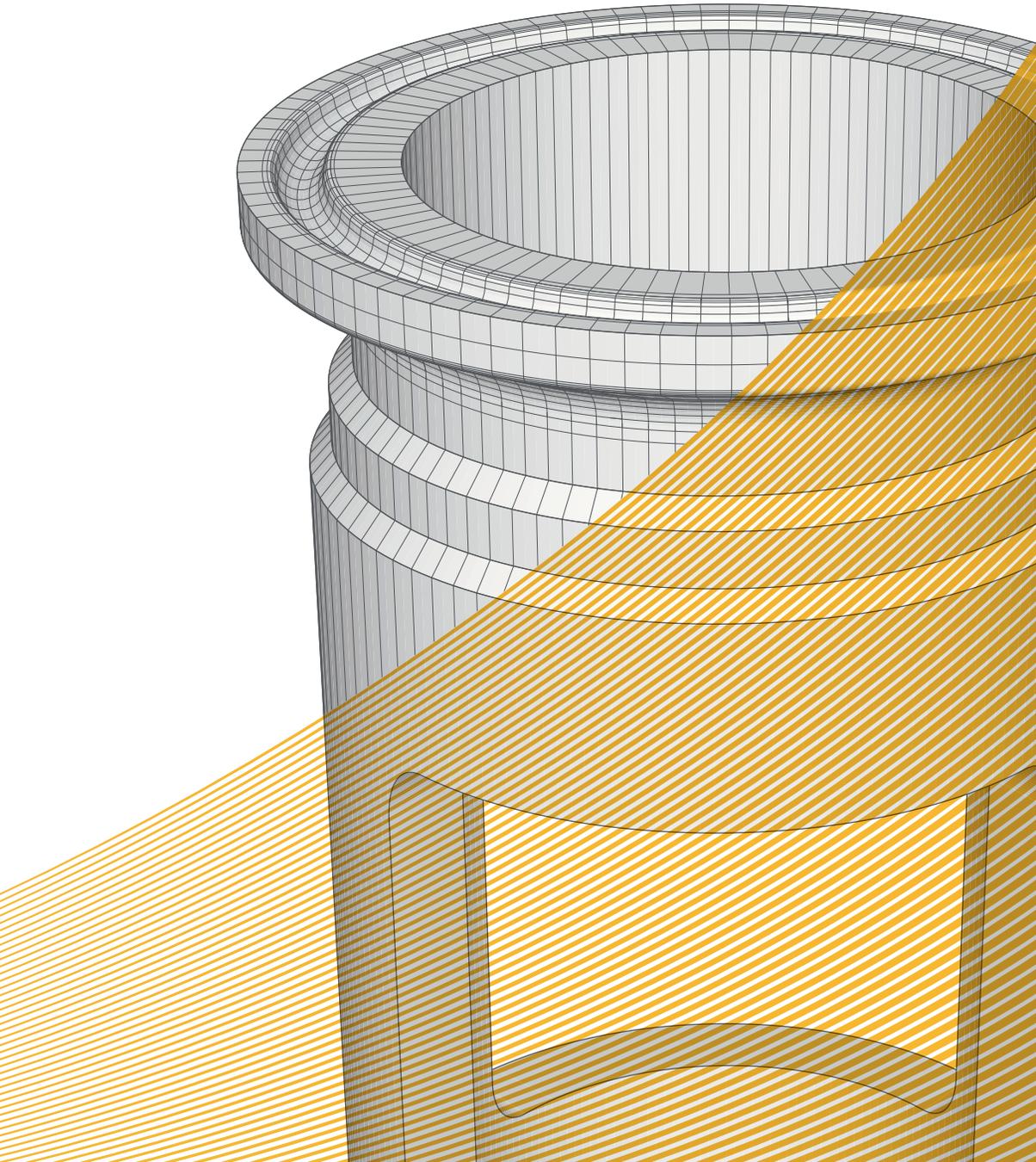


Staitech

HIGH PURITY SYSTEM COMPONENTS



Staitech

HIGH PURITY SYSTEM COMPONENTS

Staitech offer a comprehensive range of pipeline components for use in high purity process applications in the pharmaceutical and biotechnology industries. Our 2017 catalogue pulls together this range in one simple to use publication, with technical information, full part number break down and pricing. Staitech now stock even more of the listed parts for same day and next day dispatch.



Staitech website

A full overview of the Staitech product range can be viewed on our 2017 website at www.staitech.com. This website also includes a short presentation video outlining our design and manufacturing capability, together with a comprehensive download section.

What we manufacture

Products manufactured by Staitech at its UK production facility include Steam traps, Sample coolers, Non-return valves, Sight glasses, Sample valves and an extensive range of fittings. We also offer a machining service for parts in stainless steel and corrosive resistant materials such as C22 alloy. In addition to machining parts, a full fabrication service is also available.



What we distribute

Staitech also act as nominated distributors for a number of well known manufacturers of high purity valves and equipment. These manufacturers include:



Hygienic diaphragm valves



High purity ball valves



Hygienic mixers and valves



Hygienic miniature heat-exchangers



Control valves and pressure regulators



Hygienic pressure gauges and instrumentation



Tank blanketing valves

Product updates

Envizion diaphragm valves



Having achieved a successful first year being the exclusive UK distributor partner for ITT, 2017 sees Staitech expanding their range of diaphragm valves to include the revolutionary EnviZion valve. The unique mount and turn design of the EnviZion valve allows the removal of the bonnet in 3 quick steps without the need for tools. For more information please see page 121.



Mixers and valves **STERIDOSE**

Staitech have expanded its range to include sterile tank mixers and tank valves for 2017. Steridose are a Swedish company specialising in vessel and tank accessories. Through our newly formed distributor partnership with Steridose our customers will have a more comprehensive selection of products than ever before. For more information please see page 168.

Hoses



Starting in 2017, Staitech will be distributing Silicone hose and accessories from renowned Spanish company VenAir. In addition to standard hoses, VenAir also offer a custom design and manufacturing service to meet the ever more demanding requirements of the pharmaceutical industry. For more information see page 52.



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Contents



Gaskets

06



Clamps

22



Fittings

27



Silicone and PTFE lined hoses

52



Sample valves

54



Sample coolers

66



Heat exchangers

74



Instrumentation

78



Sight glasses

92



Isolation valves

104



Diaphragm valves

120



Check valves

132



Steam traps

144



Safety valves

152



Regulators and control valves

163



Steam separators

166



Tank mixers and valves

168



Steam filters

170



Flow meters

170



Control panels

170



Fabrication and machining services

171



Documentation and freight

172



Technical data

174

Gaskets

Staitech stock a wide range of gaskets in several FDA and USP class VI compliant materials in sizes up to 12". In addition to standard gaskets, orifice plate and mesh screen gaskets are also available. All gaskets are ADI/TSE free as standard.



Standard gaskets

8

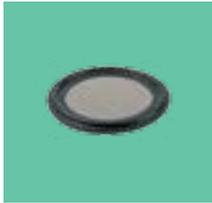
- 1/4" - 12" ASME BPE sizes
- EPDM, Viton, Silicone and PTFE materials
- FDA and USP compliant



High performance gaskets

10

- Ideal for steam and other arduous duties
- Sizes up to 6" available
- Choice of 3 FDA and USP compliant materials



Orifice plate gaskets

11

- Solid and removable plate options
- 1/2" - 4" ASME BPE sizes
- EPDM, Viton, Silicone and PTFE gasket options
- Machining service available



Mesh and perforated screen gaskets

14

- Wide range of mesh openings
- 1/2" - 4" ASME BPE sizes
- Perforated plate option
- FDA and USP compliant seals



Sock screen gaskets

17

- Short and long screen options
- Available with EPDM, Viton or Silicone seals
- 'Easy fit' spool pieces to suit



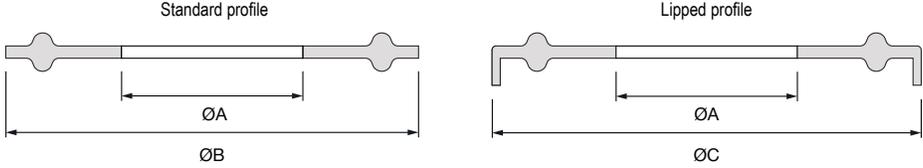
Ported gasket system

19

- 1 - 4 ports/gasket
- Thermocouple and sampling tube options
- 1/2" - 4" gasket sizes
- Clamp options to suit

Gaskets Overview

Design parameters					
	Tmin (°C)	Tmax (°C)	WFI	SIP	Steam
EPDM	-48	135	✓	✓	✓
Viton	-19	232	✓	✓	✓
Silicone	-62	232	✓	✓	×
PTFE	-79	232	✓	✓	✓
PTFE-Viton	-79	232	✓	✓	✓✓
PTFE-EPDM	-29	150	✓	✓	✓✓
Gylon	-268	260	✓	✓	✓✓✓
50/50 S/S/PTFE	-212	288	✓	✓	✓✓

Gasket dimensions			
			
Clamp size (ASME BPE)	ØA (mm)	ØB (mm)	ØC (mm)
1/4"	4.6	25.0	-
1/2"	9.4	25.0	-
3/4"	15.8	25.0	-
1"	22.1	50.5	52.5
1-1/2"	38.1	50.5	52.5
2"	50.8	64	66
2-1/2"	63.5	77.5	79.5
3"	76.2	91	93
4"	101.6	119	121
6"	152.4	176	178

Gaskets Flange and O-rings

For sanitary applications where flanges are used Staitech offer a range of cut gaskets and sheet gasket materials. Available materials include PTFE, Gylon, EPDM, Viton and Silicone. Staitech also stock a wide range of FDA CFR 21 and USP Class VI certified O-rings in EPDM, Viton, Silicone and FEP encapsulated materials. For non-standard sizes Staitech also offer a bespoke moulding service. For pricing and availability consult Staitech.



Gaskets Standard



Standard gaskets are available in a range of materials to suit 1/4" to 6" clamp fittings in accordance with ASME BPE dimensions. Gaskets can also be supplied in larger sizes up to 12" and in Schedule pipe and metric sizes. All gaskets are FDA CFR 21 compliant and meet USP Class VI criteria.

- Connections**
To suit 1/4" - 6" ASME BPE clamp fittings
- Materials**
EPDM, Viton, Silicone and PTFE
- Options**
Larger sizes up to 12"
DIN and ISO clamp sizes
Laser engraved identification
- Available certification**
Batch traceability

EPDM and Viton gaskets ordering detail

Clamp gaskets - EPDM and Viton				
Clamp size (ASME BPE)	EPDM Black	EPDM Lipped Type Black	Viton Black	Viton Lipped Type Black
1/4"	EBK-G-025 £1.80	-	-	-
1/2"	EBK-G-050 £1.60	-	VBK-G-050 £1.90	-
3/4"	EBK-G-075 £1.65	-	VBK-G-075 £2.00	-
1"	EBK-G-100 £2.00	EBK-GL-100 £2.20	VBK-G-100 £2.45	VBK-GL-100 £3.95
1-1/2"	EBK-G-150 £1.90	EBK-GL-150 £2.00	VBK-G-150 £2.30	VBK-GL-150 £3.65
2"	EBK-G-200 £2.45	EBK-GL-200 £2.65	VBK-G-200 £2.95	VBK-GL-200 £4.80
2-1/2"	EBK-G-250 £2.80	EBK-GL-250 £3.00	VBK-G-250 £3.40	VBK-GL-250 £5.45
3"	EBK-G-300 £3.40	EBK-GL-300 £3.80	VBK-G-300 £4.00	VBK-GL-300 £6.80
4"	EBK-G-400 £3.85	EBK-GL-400 £4.15	VBK-G-400 £4.65	VBK-GL-400 £7.50
6"	EBK-G-600 £7.25	EBK-GL-600 £7.70	VBK-G-600 £10.70	VBK-GL-600 £23.00

Silicone gaskets ordering detail

Clamp gaskets - Silicone			
Clamp size (ASME BPE)	Silicone Clear platinum cured	Silicone Clear peroxide cured	Silicone - Lipped type Clear platinum cured
1/4"	-	SPX-G-025 £1.90	-
1/2"	SPT-G-050 £2.15	SPX-G-050 £1.85	-
3/4"	SPT-G-075 £2.25	SPX-G-075 £1.90	-
1"	SPT-G-100 £2.60	SPX-G-100 £2.15	SPT-GL-100 £2.45
1-1/2"	SPT-G-150 £2.45	SPX-G-150 £2.00	SPT-GL-150 £2.25
2"	SPT-G-200 £2.80	SPX-GL-200 £2.40	SPT-GL-200 £2.65
2-1/2"	SPT-G-250 £3.00	SPX-G-250 £2.65	SPT-GL-250 £2.95
3"	SPT-G-300 £3.45	SPX-G-300 £2.90	SPT-GL-300 £3.25
4"	SPT-G-400 £3.85	SPX-G-400 £3.15	SPT-GL-400 £3.60
6"	SPT-G-600 £11.00	SPX-G-600 £16.45	SPT-GL-600 £10.70

PTFE gaskets ordering detail

Clamp gaskets - PTFE and PTFE envelope type			
Clamp size (ASME BPE)	PTFE White Solid moulded PTFE	PTFE-Viton envelope White PTFE outer with Viton inner core*	PTFE-Viton envelope - Lipped type White PTFE outer with Viton inner core*
1/4"	T-G-025 £2.25	-	-
1/2"	T-G-050 £1.35	TV-G-050 £4.30	-
3/4"	T-G-075 £1.45	TV-G-075 £4.40	-
1"	T-G-100 £1.60	TV-G-100 £4.25	TV-GL-100 £6.95
1-1/2"	T-G-150 £1.55	TV-G-150 £4.05	TV-GL-150 £6.70
2"	T-G-200 £1.65	TV-G-200 £4.35	TV-GL-200 £8.45
2-1/2"	T-G-250 £1.70	TV-G-250 £4.90	TV-GL-250 £11.25
3"	T-G-300 £1.80	TV-G-300 £5.70	TV-GL-300 £14.15
4"	T-G-400 £2.00	TV-G-400 £11.00	TV-GL-400 £16.80
6"	T-G-600 £22.10	TV-G-600 £18.65	TV-GL-600 £27.60

*For EPDM inner core substitute 'TV' with 'TE' in the ordering code

Gaskets High performance



Latest innovations in materials technology have resulted in a number of refined gasket designs which address the issues of creep, bore intrusion and ineffective sealing from thermal cycling. All three "High Performance" gaskets are FDA CFR 21 compliant and meet USP Class VI criteria.

- Connections**
To suit 1/4" - 6" ASME BPE clamp fittings
- Materials**
Gylon, PTFE and PTFE-EPDM
- Options**
DIN and ISO clamp sizes
Laser engraved identification
- Available certification**
Batch traceability

Ordering detail

Clamp gaskets - High performance			
Clamp size (ASME BPE)	Gylon Bio-Pro Blue Gylon 3504	Stainless steel infused PTFE 50/50 PTFE / 316 stainless steel composite brown in colour	Bonded PTFE-EPDM White PTFE outer with bonded EPDM inner core
1/2"	GY-G-050 £4.80	TS-G-050 £3.50	TF-G-050 £15.70
3/4"	GY-G-075 £4.55	TS-G-075 £3.80	TF-G-075 £15.70
1"	GY-G-100 £6.95	TS-G-100 £5.75	TF-G-100 £16.35
1-1/2"	GY-G-150 £7.15	TS-G-150 £4.75	TF-G-150 £17.15
2"	GY-G-200 £7.35	TS-G-200 £5.40	TF-G-200 £19.70
2-1/2"	GY-G-250 £8.00	TS-G-250 £7.60	TF-G-250 £26.25
3"	GY-G-300 £8.75	TS-G-300 £11.20	TF-G-300 £32.35
4"	GY-G-400 £11.45	TS-G-400 £18.00	TF-G-400 £37.55
6"	-	TS-G-600 £15.00	TF-G-600 £166.35

PRODUCT UPDATE

Now available

White and opaque Gylon gaskets - consult Staitech for further information.



Gaskets Plain orifice plate



Orifice plate gaskets are available in 316L stainless steel with a range of elastomer seals. Slit gaskets allow easy removal of a solid inner disc for drilling or routine gasket replacement. All gasket elastomers are FDA CFR 21 compliant and meet USP Class VI criteria. Where drainability is to be ensured a conical plate design is available.



Connections

To suit 1/2" - 4" ASME BPE clamp fittings



Materials

Gasket - EPDM, Viton and Silicone
Plate - 316L stainless steel



Options

Plate with PTFE seal
Plate with stainless steel infused PTFE seal
Fully bonded plate/seal combinations
Larger sizes
Orifice machining



Available certification

Gasket batch traceability
Plate material certificate

Ordering detail

Plain orifice plate gaskets						
Clamp size (ASME BPE)	EPDM gasket only Black	Viton gasket only Black	Silicone gasket only Clear platinum cured		Orifice Plate Blank (316 stainless steel)	Conical Orifice Plate Blank (316 stainless steel)
1/2"	EBK-GOP-050 £25.30	VBK-GOP-050 £27.50	SPT-GOP-050 £29.80	Orifice blanks to be used in conjunction with gaskets	OP3-050 £23.75	OP6-050 £38.00
3/4"	EBK-GOP-075 £25.30	VBK-GOP-075 £27.50	SPT-GOP-075 £29.80		OP3-075 £23.75	OP6-075 £38.00
1"	EBK-GOP-100 £24.30	VBK-GOP-100 £38.50	SPT-GOP-100 £27.95		OP3-100 £19.05	OP6-100 £46.50
1-1/2"	EBK-GOP-150 £20.65	VBK-GOP-150 £34.50	SPT-GOP-150 £35.15		OP3-150 £19.05	OP6-150 £46.50
2"	EBK-GOP-200 £27.20	VBK-GOP-200 £45.05	SPT-GOP-200 £45.75		OP3-200 £20.85	OP6-200 £55.00
2-1/2"	EBK-GOP-250 £30.55	VBK-GOP-250 £51.70	SPT-GOP-250 £53.05		OP3-250 £26.95	OP6-250 £112.10
3"	EBK-GOP-300 £36.90	VBK-GOP-300 £59.70	SPT-GOP-300 £62.35		OP3-300 £36.65	OP6-300 £126.40
4"	EBK-GOP-400 £41.15	VBK-GOP-400 £106.70	SPT-GOP-400 £73.00		OP3-400 £47.45	OP6-400 £180.85

Orifice spools

Two designs of orifice spool are also available from Staitech. The first is a square edge design whereby the face of the orifice is flat. The second conical design utilises a cone profile to reduce the bore to the orifice size. Both designs are supplied solid for drilling on site or by Staitech. See page 51 for more information.



Gaskets Tabbed orifice plate



Where identification is required that an orifice plate is fitted then tabbed units are available. A slit gasket once again allows easy removal of a solid inner disc for drilling or routine gasket replacement. All gaskets are FDA CFR 21 compliant and meet USP Class VI criteria.

- Connections**
To suit 1/2" - 4" ASME BPE clamp fittings
- Materials**
Gasket - EPDM, Viton and Silicone
Plate - 316 stainless steel
- Options**
Orifice machining
Engraving of orifice detail on tab
- Available certification**
Gasket batch traceability
Plate material certificate

Ordering detail

Tabbed orifice plate gaskets				
Clamp size (ASME BPE)	EPDM gasket only Black	Viton gasket only Black	Silicone gasket only Clear platinum cured	Orifice Plate Blank with tab (316 stainless steel)
*1/2"	EBK-GOPT-050 £54.80	VBK-GOPT-050 £58.15	SPT-GOPT-050 £61.80	OP4-050 £37.35
*3/4"	EBK-GOPT-075 £54.80	VBK-GOPT-075 £58.15	SPT-GOPT-075 £61.80	OP4-050 £37.35
1"	EBK-GOPT-100 £63.75	VBK-GOPT-100 £69.75	SPT-GOPT-100 £72.50	OP4-100 £45.80
1-1/2"	EBK-GOPT-150 £65.75	VBK-GOPT-150 £72.50	SPT-GOPT-150 £76.45	OP4-100 £45.80
2"	EBK-GOPT-200 £68.85	VBK-GOPT-200 £96.00	SPT-GOPT-200 £100.00	OP4-200 £59.60
2-1/2"	EBK-GOPT-250 £87.00	VBK-GOPT-250 £97.75	SPT-GOPT-250 £110.70	OP4-250 £72.20
3"	EBK-GOPT-300 £103.95	VBK-GOPT-300 £107.60	SPT-GOPT-300 £122.50	OP4-300 £82.60
4"	EBK-GOPT-400 £136.55	VBK-GOPT-400 £139.35	SPT-GOPT-400 £143.85	OP4-400 £95.00

*For 1/2" - 3/4" sizes clamp ferrules must be relieved to allow tabbed orifice plate to be installed



SH, SH-SAF and SSH styles of clamp are available for use with tabbed orifice plates. To order add the suffix 'OP' to the part number of the clamp required.

	Order ref suffix	Clamp adder price
Tabbed orifice plate gasket clamp	OP	£22.50

Ordering example: CLP-SH-150-W-OP

Gaskets One piece orifice



In addition to stainless steel, a range of solid orifice plates are also available in PTFE and stainless steel infused PTFE. Both plate types are FDA CFR 21 and USP Class VI compliant. As with all orifice types, plates can be drilled on site or prior to delivery.



Connections

To suit 1/2" - 4" ASME BPE clamp fittings



Materials

PTFE and stainless steel infused PTFE



Options

Orifice machining



Available certification

Gasket batch traceability

Ordering detail

One piece orifice plate gaskets			
Clamp size (ASME BPE)	PTFE	Stainless steel infused PTFE	
1/2"	OP5-T-050 £14.20	OP5-TS-050 £34.30	
3/4"	OP5-T-050 £14.20	OP5-TS-050 £34.30	
1"	OP5-T-100 £27.85	OP5-TS-100 £79.50	
1-1/2"	OP5-T-100 £27.85	OP5-TS-100 £79.50	
2"	OP5-T-200 £31.60	OP5-TS-200 £87.45	
2-1/2"	OP5-T-250 £44.85	OP5-TS-250 £111.70	
3"	OP5-T-300 £53.05	OP5-TS-300 £134.60	
4"	OP5-T-400 £88.15	OP5-TS-400 £157.90	

Orifice machining

All orifice plates are supplied 'blind' as standard. Staitech also offer a machining service to cover all orifice designs, with both concentric and eccentric hole machining available. To order add the suffix to the part number of the orifice required.

Concentric - Order ref suffix	Price	Eccentric - Order ref suffix	Price
-C-XX	£14.30	-E-XX	£24.00

Machining charge where 'XX' is the hole size in mm
Ordering example: OP4-100-C-10.0

Gaskets Mesh screen



Mesh screen gaskets are available to suit 1/2" to 4" clamp fittings in accordance with ASME BPE dimensions. Three standard stainless steel mesh sizes are offered, with alternative sizes also available. All gasket elastomer's are FDA CFR 21 compliant and meet USP Class VI criteria.



Connections

To suit 1/2" - 4" ASME BPE clamp fittings



Materials

Gasket - EPDM, Viton and Silicone and PTFE
Mesh - 316 stainless steel



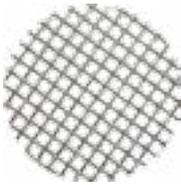
Options

Alternative mesh sizes -
20, 40, 80, 150, 200 and 325 mesh
Stainless steel infused PTFE gasket
Larger sizes up to 12"



Available certification

Batch traceability

Mesh chart					
	Mesh size (Openings/in ²)	Micron retention	Wire (mm)	Aperture (mm)	Open area (%)
	10	1905	0.56	2.0	60
	20	864	0.32	0.90	57
	30	516	0.25	0.50	51
	40	381	0.22	0.40	41
	60	233	0.16	0.24	38
	80	180	0.125	0.14	38
	100	140	0.10	0.14	38
	150	103	0.063	0.10	38
	200	74	0.05	0.08	38

Ordering detail

Mesh screen gaskets			
Clamp size (ASME BPE)	10 Mesh	60 Mesh	100 Mesh
EPDM - Black EPDM with 316 stainless steel mesh			
1/2"	EBK-G-050-20M* £32.50	EBK-G-050-60M £32.50	EBK-G-050-100M £36.00
3/4"	EBK-G-075-20M* £32.50	EBK-G-075-60M £32.50	EBK-G-075-100M £36.00
1"	EBK-G-100-10M £31.00	EBK-G-100-60M £34.40	EBK-G-100-100M £34.40
1-1/2"	EBK-G-150-10M £31.00	EBK-G-150-60M £34.40	EBK-G-150-100M £34.40
2"	EBK-G-200-10M £33.40	EBK-G-200-60M £36.85	EBK-G-200-100M £36.85
2-1/2"	EBK-G-250-10M £42.15	EBK-G-250-60M £44.90	EBK-G-250-100M £44.90
3"	EBK-G-300-10M £48.10	EBK-G-300-60M £51.45	EBK-G-300-100M £51.45
4"	EBK-G-400-10M £70.70	EBK-G-400-60M £77.20	EBK-G-400-100M** £77.20

*Most coarse mesh for 1/2" and 3/4" sizes is 20 mesh. **Larger 100 mesh screens available with 20 mesh support backing upon request

Mesh screen gaskets ordering detail

Mesh screen gaskets			
Clamp size (ASME BPE)	10 Mesh	60 Mesh	100 Mesh
Viton - Black Viton with 316 stainless steel mesh			
1/2"	VBK-G-050-20M* £34.00	VBK-G-050-60M £34.00	VBK-G-050-100M £38.50
3/4"	VBK-G-075-20M* £34.00	VBK-G-075-60M £34.00	VBK-G-075-100M £38.50
1"	VBK-G-100-10M £31.20	VBK-G-100-60M £34.40	VBK-G-100-100M £34.40
1-1/2"	VBK-G-150-10M £31.20	VBK-G-150-60M £34.40	VBK-G-150-100M £34.40
2"	VBK-G-200-10M £40.15	VBK-G-200-60M £36.90	VBK-G-200-100M £36.90
2-1/2"	VBK-G-250-10M £44.10	VBK-G-250-60M £44.90	VBK-G-250-100M £44.90
3"	VBK-G-300-10M £49.90	VBK-G-300-60M £53.00	VBK-G-300-100M £53.00
4"	VBK-G-400-10M £79.05	VBK-G-400-60M £82.70	VBK-G-400-100M** £82.70
Silicone - Clear platinum cured Silicone with 316 stainless steel mesh			
1/2"	SPT-G-050-20M* £35.00	SPT-G-050-60M £35.00	SPT-G-050-100M £38.50
3/4"	SPT-G-075-20M* £35.00	SPT-G-075-60M £35.00	SPT-G-075-100M £38.50
1"	SPT-G-100-10M £31.15	SPT-G-100-60M £34.40	SPT-G-100-100M £34.40
1-1/2"	SPT-G-150-10M £31.15	SPT-G-150-60M £34.40	SPT-G-150-100M £34.40
2"	SPT-G-200-10M £33.70	SPT-G-200-60M £36.90	SPT-G-200-100M £36.90
2-1/2"	SPT-G-250-10M £41.75	SPT-G-250-60M £44.90	SPT-G-250-100M £44.90
3"	SPT-G-300-10M £48.10	SPT-G-300-60M £51.45	SPT-G-300-100M £51.45
4"	SPT-G-400-10M £72.20	SPT-G-400-60M £75.60	SPT-G-400-100M** £75.60
PTFE - White PTFE with 316 stainless steel mesh			
1/2"	T-G-050-20M* £67.60	T-G-050-60M £67.60	T-G-050-100M £75.50
3/4"	T-G-075-20M* £67.60	T-G-075-60M £67.60	T-G-075-100M £75.50
1"	T-G-100-10M £71.50	T-G-100-60M £71.50	T-G-100-100M £72.25
1-1/2"	T-G-150-10M £71.50	T-G-150-60M £71.50	T-G-150-100M £72.25
2"	T-G-200-10M £76.25	T-G-200-60M £76.25	T-G-200-100M £78.50
2-1/2"	T-G-250-10M £83.65	T-G-250-60M £83.65	T-G-250-100M £83.00
3"	T-G-300-10M £91.20	T-G-300-60M £91.20	T-G-300-100M £89.00
4"	T-G-400-10M £112.00	T-G-400-60M £112.00	T-G-400-100M** £108.00

*Most coarse mesh for 1/2" and 3/4" sizes is 20 mesh. **Larger 100 mesh screens available with 20 mesh support backing upon request

Gaskets Perforated screen



As an alternative to a mesh screen, gaskets with a perforated plate are also available in sizes up to 4". A slit gasket allows easy removal of the perforated plate for routine gasket replacement. All gasket elastomers are FDA CFR 21 compliant and meet USP Class VI criteria. Perforated plates are available for use with the plain orifice plate slit gaskets listed on page 11.



Connections

To suit 1/2" - 4" ASME BPE clamp fittings



Materials

Gasket - EPDM, Viton and Silicone
Perforated plate - 316 stainless steel



Options

Larger sizes up to 12"
Moulded PTFE gasket



Available certification

Batch traceability

Ordering detail

Perforated plate only		
Clamp size (ASME BPE)	0.85mm perforations 316 stainless steel	3mm perforations 316 stainless steel
1"	PS-100-085 £16.95	PS-100-3 £27.00
1-1/2"	PS-100-085 £16.95	PS-100-3 £27.00
2"	PS-200-085 £18.55	PS-200-3 £28.35
2-1/2"	PS-250-085 £23.85	PS-250-3 £32.60
3"	PS-300-085 £32.60	PS-300-3 £35.50
4"	PS-400-085 £42.40	PS-400-3 £42.95

Gaskets Sock screen



Sock screen gaskets are available in sizes 1-1/2" to 4" with two lengths of 16 mesh stainless steel screen. Sock screen gaskets are intended for applications where a large debris holding capacity is required. To aid installation and removal Staitech also offer clamp ended spools matched to the two lengths of sock screen gaskets available. Sock screen gasket elastomers are FDA CFR 21 and USP Class VI compliant.



Connections

To suit 1-1/2" - 4" ASME BPE clamp fittings



Materials

Gasket - EPDM or Viton
Screen - 316 stainless steel



Options

Silicone or stainless steel infused PTFE gasket
Coarser meshes
Alternative lengths
Larger sizes



Available certification

Gasket batch traceability
Screen certificate of conformity

Ordering detail

Sock screen gaskets		
Clamp size (ASME BPE)	EPDM - Black EPDM with 38mm long 16 mesh 316 stainless steel screen	EPDM - Black EPDM with 150mm long 16 mesh 316 stainless steel screen
1-1/2"	EBK-SOCK-150-16M-38 £68.00	EBK-SOCK-150-16M-150 £68.00
2"	EBK-SOCK-200-16M-38 £72.00	EBK-SOCK-200-16M-150 £72.00
2-1/2"	EBK-SOCK-250-16M-38 £74.00	EBK-SOCK-250-16M-150 £74.00
3"	EBK-SOCK-300-16M-38 £76.00	EBK-SOCK-300-16M-150 £76.00
4"	-	EBK-SOCK-400-16M-150 £91.00
Clamp size (ASME BPE)	Viton - Black Viton with 38mm long 16 mesh 316 stainless steel screen	Viton - Black Viton with 150mm long 16 mesh 316 stainless steel screen
1-1/2"	VBK-SOCK-150-16M-38 £68.00	VBK-SOCK-150-16M-150 £68.00
2"	VBK-SOCK-200-16M-38 £72.00	VBK-SOCK-200-16M-150 £72.00
2-1/2"	VBK-SOCK-250-16M-38 £74.00	VBK-SOCK-250-16M-150 £74.00
3"	VBK-SOCK-300-16M-38 £76.00	VBK-SOCK-300-16M-150 £76.00
4"	-	VBK-SOCK-400-16M-150 £91.00

Ordering detail

Sock screen gaskets continued...

Clamp size (ASME BPE)	Silicone - Clear Platinum cured Silicone with 38mm long mesh, 316 stainless steel screen	Silicone - Clear platinum cured Silicone with 150mm long 16 mesh, 316 stainless steel screen
1-1/2"	SPT-SOCK-150-16M-38 £68.00	SPT-SOCK-150-16M-150 £68.00
2"	SPT-SOCK-200-16M-38 £72.00	SPT-SOCK-200-16M-150 £72.00
2-1/2"	SPT-SOCK-250-16M-38 £74.00	SPT-SOCK-250-16M-150 £74.00
3"	SPT-SOCK-300-16M-38 £76.00	SPT-SOCK-300-16M-150 £76.00
4"	-	SPT-SOCK-400-16M-150 £91.00

'Easy fit' Sock screen gasket spools

Where easy removal of a sock screen gasket is required, Staitech offer two lengths of clamp ended spools. All spools are machined from 316L stainless steel with wetted surfaces finished to 0.5 microns Ra.



Dimensions and ordering detail

Easy fit spools

Clamp size (ASME BPE)	To suit screen length (mm)	Spool length (mm)	Order detail	Price
1-1/2"	18	29	SOCKSPL-150C-29	£36.05
	150	150	SOCKSPL-150C-150	£84.80
2"	38	39	SOCKSPL-200C-39	£36.50
	150	150	SOCKSPL-200C-150	£91.85
2-1/2"	38	39	SOCKSPL-250C-39	£61.00
	150	150	SOCKSPL-250C-150	£110.25
3"	38	39	SOCKSPL-300C-39	£68.90
	150	150	SOCKSPL-300C-150	£119.80
4"	150	150	SOCKSPL-400C-150	£167.50

Gaskets Ported gasket system



A 'Ported gasket' takes the place of a standard gasket and allows insertion through it's side wall of thermocouple instruments, thermometers and sample devices. All gaskets are FDA CFR 21 and USP class VI compliant. Being 1mm thicker than a standard gasket, a ported clamp must be used when fitting a ported gasket.



Connections

To suit 1/2" - 4" ASME BPE clamp fittings



Materials

Gasket - EPDM, Viton and Silicone
Injection tube and plug - 316 stainless steel
Thermocouple tip - 316 stainless steel



Options

Clamps to accept ported gaskets
PT100 sensors



Available certification

Batch traceability

Ported gasket options

	Anti-crush ring for use with 1/2" and 3/4" gaskets	ACR	£20.35
	Sample injection tube Stop cock valve Hole plug	ACC-T-202 ACC-T-202B ACC-T-202A	£64.90 £159.50 £40.70
	Type T thermocouple wire - 3m Type T Kapton coated wire - 3m	ACC-T1V-10 ACC-KV-10	£220.00 £250.80
	Type K thermocouple sensor probe (short) Type K thermocouple sensor probe (long) Type T thermocouple sensor probe (short) Type T thermocouple sensor probe (long)	ACC-K-199A-S ACC-K-199A-L ACC-T-199-S ACC-T-199-L	£101.20 £111.10 £101.20 £111.10
	Hand held single input thermocouple indicator Hand held dual input thermocouple indicator	IND-1 IND-2	£157.30 £168.30
	Clamps to suit ported gaskets Being 1mm thicker than a standard gasket, a ported clamp must be used when fitting a ported gasket. In sizes up to 2", clamps have 4 ports as standard. Sizes above 2" are available with either 1, 2, 3, or 4 ports. 1/2" - 2" ported clamps are manufactured in 304 stainless steel and have an open wing nut to allow easy removal. 2-1/2" - 4" clamps are modified SH-Type 316L stainless steel clamps. See gasket ordering detail for pricing and part numbers.		

Ported gaskets ordering detail

Ported gaskets					
Clamp size (ASME BPE)	1 Port	2 Port	3 Port	4 Port	Ported clamp
EPDM gasket only - Black					
1/2"	EBK-GS-050-1 £23.35	EBK-GS-050-2 £24.20	EBK-GS-050-3 £28.10	EBK-GS-050-4 £30.25	CLP-TH-050-4M £69.20
3/4"	EBK-GS-075-1 £23.35	EBK-GS-075-2 £24.20	EBK-GS-075-3 £28.10	EBK-GS-075-4 £30.25	CLP-TH-050-4M £69.20
1"	EBK-GS-100-1 £28.10	EBK-GS-100-2 £29.90	EBK-GS-100-3 £35.10	EBK-GS-100-4 £38.70	CLP-TH-100-4M £76.35
1-1/2"	EBK-GS-150-1 £28.10	EBK-GS-150-2 £29.90	EBK-GS-150-3 £35.10	EBK-GS-150-4 £38.70	CLP-TH-100-4M £76.35
2"	EBK-GS-200-1 £35.55	EBK-GS-200-2 £39.60	EBK-GS-200-3 £45.15	EBK-GS-200-4 £47.20	CLP-TH-200-4M £78.70
2-1/2"	EBK-GS-250-1 £35.55	EBK-GS-250-2 £39.60	EBK-GS-250-3 £45.15	EBK-GS-250-4 £47.20	CLP-TH-250-4M* £110.10
3"	EBK-GS-300-1 £35.55	EBK-GS-300-2 £39.60	EBK-GS-300-3 £45.15	EBK-GS-300-4 £47.20	CLP-TH-300-4M* £123.00
4"	EBK-GS-400-1 £48.15	EBK-GS-400-2 £52.60	EBK-GS-400-3 £57.35	EBK-GS-400-4 £63.10	CLP-TH-400-4M* £139.55
Viton gasket only - Black					
1/2"	VBK-GS-050-1 £22.50	VBK-GS-050-2 £25.85	VBK-GS-050-3 £30.30	VBK-GS-050-4 £30.30	CLP-TH-050-4M £69.20
3/4"	VBK-GS-075-1 £22.50	VBK-GS-075-2 £25.85	VBK-GS-075-3 £30.30	VBK-GS-075-4 £30.30	CLP-TH-050-4M £69.20
1"	VBK-GS-100-1 £29.95	VBK-GS-100-2 £31.75	VBK-GS-100-3 £36.65	VBK-GS-100-4 £40.70	CLP-TH-100-4M £76.35
1-1/2"	VBK-GS-150-1 £29.95	VBK-GS-150-2 £31.75	VBK-GS-150-3 £36.65	VBK-GS-150-4 £40.70	CLP-TH-100-4M £76.35
2"	VBK-GS-200-1 £45.15	VBK-GS-200-2 £51.10	VBK-GS-200-3 £58.55	VBK-GS-200-4 £60.00	CLP-TH-200-4M £78.70
2-1/2"	VBK-GS-250-1 £45.15	VBK-GS-250-2 £51.10	VBK-GS-250-3 £58.55	VBK-GS-250-4 £60.00	CLP-TH-250-4M* £110.10
3"	VBK-GS-300-1 £45.15	VBK-GS-300-2 £51.10	VBK-GS-300-3 £58.55	VBK-GS-300-4 £60.00	CLP-TH-300-4M* £123.00
4"	VBK-GS-400-1 £49.60	VBK-GS-400-2 £52.60	VBK-GS-400-3 £68.90	VBK-GS-400-4 £74.90	CLP-TH-400-4M* £139.55
Silicone gasket only - Clear platinum cured silicone					
1/2"	SPT-GS-050-1 £22.10	SPT-GS-050-2 £25.30	SPT-GS-050-3 £29.15	SPT-GS-050-4 £31.35	CLP-TH-050-4M £69.20
3/4"	SPT-GS-075-1 £22.10	SPT-GS-075-2 £25.30	SPT-GS-075-3 £29.15	SPT-GS-075-4 £31.35	CLP-TH-050-4M £69.20
1"	SPT-GS-100-1 £29.20	SPT-GS-100-2 £30.85	SPT-GS-100-3 £35.90	SPT-GS-100-4 £40.00	CLP-TH-100-4M £76.35
1-1/2"	SPT-GS-150-1 £29.20	SPT-GS-150-2 £30.85	SPT-GS-150-3 £35.90	SPT-GS-150-4 £40.00	CLP-TH-100-4M £76.35
2"	SPT-GS-200-1 £35.55	SPT-GS-200-2 £39.60	SPT-GS-200-3 £45.15	SPT-GS-200-4 £47.05	CLP-TH-200-4M £78.70
2-1/2"	SPT-GS-250-1 £35.55	SPT-GS-250-2 £39.60	SPT-GS-250-3 £45.15	SPT-GS-250-4 £47.05	CLP-TH-250-4M* £110.10
3"	SPT-GS-300-1 £35.55	SPT-GS-300-2 £39.60	SPT-GS-300-3 £45.15	SPT-GS-300-4 £47.05	CLP-TH-300-4M* £123.00
4"	SPT-GS-400-1 £40.00	SPT-GS-400-2 £42.55	SPT-GS-400-3 £48.15	SPT-GS-400-4 £50.00	CLP-TH-400-4M* £139.55

*XM - substitute 'X' with number of ports required, ie: for a 3" clamp with 2 ports 'XM' = 2M making CLP-TH-300-2M

Gaskets Drilled

To accept 1/0.2mm thermocouple wire



Where thermocouple wires are to be used for temperature mapping, Staitech offer standard gaskets cross drilled to allow the insertion of a single 1/0.2mm welded tip thermocouple wire. All gaskets are FDA CFR 21 and USP Class VI compliant.



Connections

To suit 1/4" - 4" ASME BPE clamp fittings



Materials

Gasket - EPDM, Viton and Silicone



Options

Multi-drilled gaskets
Notched ferrules for 1/2" and 3/4" applications
Drilled clamps
Larger sizes up to 12"



Available certification

Batch traceability

Ordering detail

Gasket with single port				
Clamp size (ASME BPE)	EPDM Black	Viton Black	Silicone Clear platinum cured	Silicone Clear peroxide cured
1/4"	EBK-GTH1-025 £3.80	-	-	SPX-GTH1-025 £4.30
1/2"	EBK-GTH1-050 £3.60	VBK-GTH1-050 £3.90	SPT-GTH1-050 £4.15	SPX-GTH1-050 £3.85
3/4"	EBK-GTH1-075 £3.65	VBK-GTH1-075 £3.90	SPT-GTH1-075 £4.25	SPX-GTH1-075 £3.90
1"	EBK-GTH1-100 £4.00	VBK-GTH1-100 £4.45	SPT-GTH1-100 £4.60	SPX-GTH1-100 £4.15
1-1/2"	EBK-GTH1-150 £3.90	VBK-GTH1-150 £4.30	SPT-GTH1-150 £4.45	SPX-GTH1-150 £4.00
2"	EBK-GTH1-200 £5.10	VBK-GTH1-200 £5.65	SPT-GTH1-200 £5.45	SPX-GTH1-200 £4.95
2-1/2"	EBK-GTH1-250 £5.45	VBK-GTH1-250 £6.05	SPT-GTH1-250 £5.80	SPX-GTH1-250 £5.30
3"	EBK-GTH1-300 £6.70	VBK-GTH1-300 £7.40	SPT-GTH1-300 £6.75	SPX-GTH1-300 £6.20
4"	EBK-GTH1-400 £7.15	VBK-GTH1-400 £7.35	SPT-GTH1-400 £7.15	SPX-GTH1-400 £6.50

Thermocouples

Thermocouple wire - 1/0.2mm welded tip PTFE coated wires suitable for operating temperature range of -75°C to 250°C.

Type K - 2m with bare ends	TW-K-2M-B	£9.30
Type K - 5m with bare ends	TW-K-5M-B	£16.45
Type K - 2m with miniature plug	TW-K-2M-P	£16.05
Type K - 5m with miniature plug	TW-K-5M-P	£22.90
Type K wire only - 50m reel	TW-K-50M-R	£52.55
Type K miniature plug	PLG-K	£4.15
Type K miniature socket	SKT-K	£4.35

Alternative thermocouple types available

Clamps

Clamps are offered in a number of hinged and bolted designs with various closure options available. The clamps supplied by Staitech are manufactured in Europe for assured quality and continuity of supply.



S-Type

23

- Economic option for basic applications
- Single hinge pin design
- Various closure options



SH-Type

24

- Provides optimal clamping force
- Double hinge pin design
- 316 stainless steel material



SH-SAF-Type

25

- Safety pattern
- 316 stainless steel material
- Optional padlock feature



SSH-Type

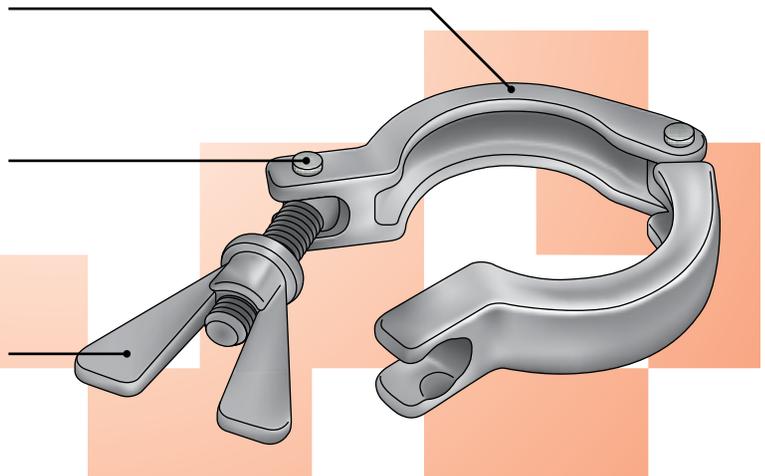
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- Double bolted high pressure design
- Brass or stainless steel nuts
- Ideal for steam service applications

Manufactured in Europe

Hinged and bolted designs

Safety style closures available

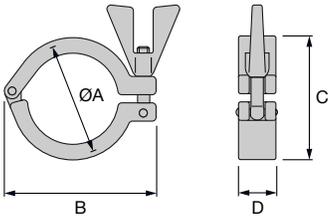


Clamps S-Type



The S-Type clamp is Staitech's basic model and is intended for low pressure applications where an economic clamp design is required.

-  **Connections**
To suit 1/2" - 6" ASME BPE clamp fittings
-  **Material**
304 stainless steel
-  **Surface finish**
All surfaces - bright polish
-  **Options**
Various closure types
Coloured wing nuts
-  **Available certification**
Certificate of conformity

S-Type		Clamp end (ASME BPE)	Max pressure (Bar at 150°C)	ØA (mm)	B (mm)	C (mm)	D (mm)
		1/2" / 3/4"	25	25	55	32	17
		1" / 1-1/2"	25	50.5	85	60	17
		2"	25	64	99	72	17
		2-1/2"	25	77.5	114	85	17
		3"	20	91	130	104	17
		4"	20	119	157	127	17
		6"	15	167	215	182	25

Ordering detail

Clamp size (ASME BPE)	S-Type with open wing nut 	S-Type with solid wing nut 	S-Type with hex nut 
1/2" / 3/4"	CLP-S-050-W £9.55	CLP-S-050-S £9.80	CLP-S-050-H £9.05
1" / 1-1/2"	CLP-S-100-W £10.25	CLP-S-100-S £10.90	CLP-S-100-H £10.25
2"	CLP-S-200-W £10.70	CLP-S-200-S £11.35	CLP-S-200-H £10.70
2-1/2"	CLP-S-250-W £12.90	CLP-S-250-S £13.55	CLP-S-250-H £12.90
3"	CLP-S-300-W £13.90	CLP-S-300-S £14.65	CLP-S-300-H £13.90
4"	CLP-S-400-W £14.95	CLP-S-400-S £29.70	CLP-S-400-H £14.95
6"	CLP-S-600-W £40.05	CLP-S-600-S £45.20	CLP-S-600-H £40.05

Coloured wing nuts

Available for SH and SH-SAF clamps

Coated wing nuts are available in various colours to allow easy identification of process media lines. Please consult Staitech for further information.

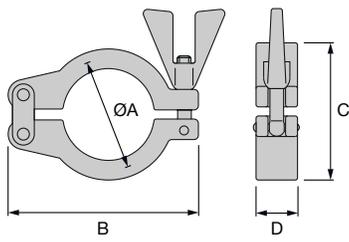


Clamps SH-Type



The SH-Type is a double hinge pin construction which provides a more uniform clamping pressure than single pin designs. The SH-Type is well suited to applications where harder gasket types are used.

-  **Connections**
To suit 1/2" - 6" ASME BPE clamp fittings
-  **Material**
316 stainless steel
-  **Surface finish**
All surfaces - bright polish
-  **Options**
Larger sizes
Various closure types
Coloured wing nuts
Double bolted design
-  **Available certification**
Certificate of conformity

SH-Type		Clamp end (ASME BPE)	Max pressure (Bar at 150°C)	ØA (mm)	B (mm)	C (mm)	D (mm)
		1/2" / 3/4"	50	25	62	35	17
		1" / 1-1/2"	50	50.5	92	60	17
		2"	50	64	105	76	17
		2-1/2"	50	77.5	125	88	17
		3"	40	91	140	104	17
		4"	35	119	168	132	17
		6"	30	167	247	180	17

Ordering detail

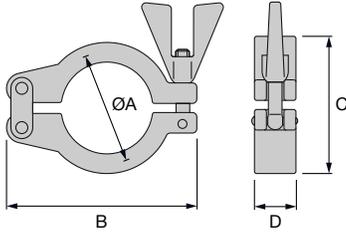
Clamp size (ASME BPE)	SH-Type with open wing nut 	SH-Type with solid wing nut 	SH-Type with hex nut 
1/2" / 3/4"	CLP-SH-050-W £14.70	CLP-SH-050-S £14.95	CLP-SH-050-H £14.70
1" / 1-1/2"	CLP-SH-100-W £14.90	CLP-SH-100-S £15.55	CLP-SH-100-H £14.90
2"	CLP-SH-200-W £21.45	CLP-SH-200-S £22.10	CLP-SH-200-H £21.45
2-1/2"	CLP-SH-250-W £24.20	CLP-SH-250-S £24.85	CLP-SH-250-H £24.20
3"	CLP-SH-300-W £25.30	CLP-SH-300-S £26.05	CLP-SH-300-H £25.30
4"	CLP-SH-400-W £28.95	CLP-SH-400-S £29.65	CLP-SH-400-H £27.30
6"	CLP-SH-600-W £74.75	CLP-SH-600-S £79.90	CLP-SH-600-H £74.75

Clamps SH-SAF-Type



In order to reduce the risk of accidental opening the SH-SAF clamping screw must be significantly loosened before it is possible to open the clamp. Where a tamper-proof solution is required, SH-SAF clamps can also be supplied with shrouded nut and padlock.

-  **Connections**
To suit 1/2" - 4" ASME BPE clamp fittings
-  **Material**
316 stainless steel
-  **Surface finish**
All surfaces - bright polish
-  **Options**
Various closure types
Coloured wing nuts
-  **Available certification**
Certificate of conformity

SH-SAF-Type						
	Clamp end (ASME BPE)	Max pressure (Bar at 150°C)	ØA (mm)	B (mm)	C (mm)	D (mm)
		1/2" / 3/4"	50	25	62	35
	1" / 1-1/2"	50	50.5	92	60	17
	2"	50	64	105	76	17
	2-1/2"	50	77.5	125	88	17
	3"	40	91	140	104	17
	4"	35	119	168	132	17
	6"	30	167	247	180	17

Ordering detail

Clamp size (ASME BPE)	SH SAF Type with open wing nut 	SH SAF Type with hex nut 	SH SAF Type with shrouded hex nut and padlock feature 
1/2" / 3/4"	CLP-SHSAF-050-W £16.05	CLP-SHSAF-050-H £16.05	CLP-SHSAF-050-SHP £21.75
1" / 1-1/2"	CLP-SHSAF-100-W £16.45	CLP-SHSAF-100-H £16.45	CLP-SHSAF-100-SHP £22.15
2"	CLP-SHSAF-200-W £23.55	CLP-SHSAF-200-H £23.55	CLP-SHSAF-200-SHP £29.20
2-1/2"	CLP-SHSAF-250-W £26.45	CLP-SHSAF-250-H £26.45	CLP-SHSAF-250-SHP £32.25
3"	CLP-SHSAF-300-W £27.85	CLP-SHSAF-300-H £27.85	CLP-SHSAF-300-SHP £33.55
4"	CLP-SHSAF-400-W £28.95	CLP-SHSAF-400-H £28.95	CLP-SHSAF-400-SHP £34.55

SH-SAF-Type padlock options

	Order ref	Price
Brass padlock with individual key	PL1	£9.10
Brass padlock with individual key and master key	PL2	£14.35
Brass padlock with matched key	PL3	£12.10
Master key	PL4	£2.35

Clamps SSH-Type



The SSH is a double bolted high pressure design that ensures optimum clamping force. Both stainless steel and brass nuts are available to suit individual customer preference.

- Connections**
To suit 1/2" - 6" ASME BPE clamp fittings
- Material**
304 stainless steel
- Surface finish**
All surfaces - bright polish
- Options**
Brass or stainless steel nuts
- Available certification**
Certificate of conformity

SSH-Type		Clamp end (ASME BPE)	Max pressure (Bar at 150°C)	ØA (mm)	B (mm)	C (mm)	D (mm)
		1/2" / 3/4"	75	25	65	35	16
		1" / 1-1/2"	75	50.5	103	66	26
		2"	75	64	113	77	26
		2-1/2"	75	77.5	131	95	26
		3"	60	91	137	110	26
		4"	53	119	173	137	26
		6"	45	167	240	185	26

Ordering detail

Clamp size (ASME BPE)	SSH 2-piece design with brass nuts	SSH 2-piece design with stainless steel nuts
1/2" / 3/4"	CLP-SSH-050-BH £15.90	CLP-SSH-050-SH £15.90
1" / 1-1/2"	CLP-SSH-100-BH £20.70	CLP-SSH-100-SH £20.70
2"	CLP-SSH-200-BH £26.95	CLP-SSH-200-SH £26.95
2-1/2"	CLP-SSH-250-BH £29.40	CLP-SSH-250-SH £29.40
3"	CLP-SSH-300-BH £33.60	CLP-SSH-300-SH £33.60
4"	CLP-SSH-400-BH £37.60	CLP-SSH-400-SH £37.60
6"	CLP-SSH-600-BH £73.85	CLP-SSH-600-SH £73.85

Fittings

Staitech offer a comprehensive range of threaded, clamp and weld end fittings in 316L grade stainless steel. Staitech have a dedicated UK manufacturing facility where their range of products and fittings are produced allowing delivery times to be kept to a minimum. You can see our machines in action at staitech.com/about-us/.

Large stock holding



Staitech hold an extensive stock of finished products in their UK facility ready for same day despatch.

Custom design service

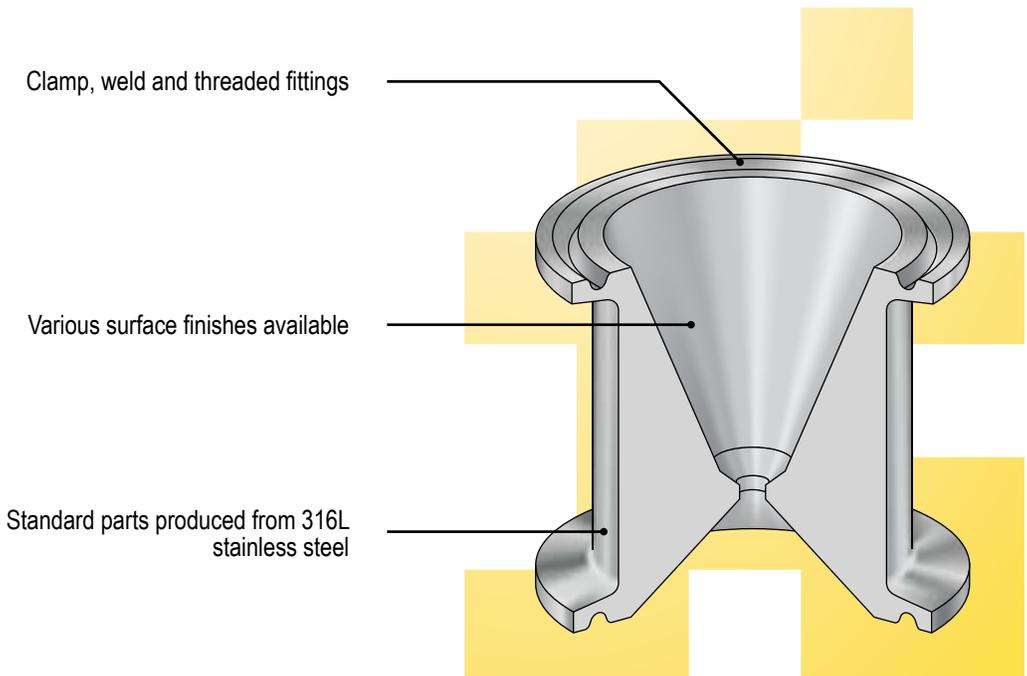


Our dedicated manufacturing facility is always ready to produce bespoke parts to suit individual customer's requirements.

Other materials available



Staitech machine parts in a range of materials to include all grades of stainless steel and corrosive resistant materials such as C22 alloy.





Tube-to-threaded adaptors 29



Threaded adaptors 30



Reducers 32



Caps 34



Hose adaptors 36



Ferrules 37



Pipe adaptor ferrules 39



Thick wall ferrules 41



Transfer panel adaptors 42



Tank weld flanges 43



Elbows 44



Instrument ferrules 46



Instrument tees 47



Tees 48



Crosses 50



Orifice spools 51

Fittings Tube-to-threaded adaptors



Tube-to-threaded adaptors are manufactured in 316L stainless steel and have a 28mm long weld shoulder. Female fittings use a parallel thread with internal Gylon face seal while male fittings use a taper thread. Standard fittings have an internal finish of 0.8 microns Ra.



Connections

Weld end to suit 1/2" - 2" ASME BPE tube
Male thread 1/8" - 2" BSP taper
Female thread 1/8" - 2" BSP parallel



Material

316L stainless steel



Surface finish

All surfaces - 0.8 microns Ra



Options

NPT threads
C22 alloy and other materials



Available certification

Material certificate

Dimensions and ordering detail

Tube-to-threaded adaptors						
	BSP Thread	Tube size (ASME BPE)	ØA (mm)	Male Thread	Female Thread	
<p>Male thread</p>	1/8"	1/2"	12.7	ADP-0125GM-050W £22.80	ADP-0125GF-050W £26.40	
	1/4"	1/2"	12.7	ADP-025GM-050W £24.20	ADP-025GF-050W £29.80	
	1/4"	3/4"	19.05	ADP-025GM-075W £25.90	ADP-025GF-075W £31.50	
	1/2"	1/2"	12.7	ADP-050GM-050W £28.70	ADP-050GF-050W £35.40	
	1/2"	3/4"	19.05	ADP-050GM-075W £41.05	ADP-050GF-075W £46.65	
	1/2"	1"	25.4	ADP-050GM-100W £51.70	ADP-050GF-100W £58.40	
	<p>Female thread</p>	3/4"	3/4"	19.05	ADP-075GM-075W £48.35	ADP-075GF-075W £55.10
		3/4"	1"	25.4	ADP-075GM-100W £51.70	ADP-075GF-100W £58.40
		1"	1"	25.4	ADP-100GM-100W £51.70	ADP-100GF-100W £58.40
		1-1/2"	1-1/2"	38.1	ADP-150GM-150W £55.10	ADP-150GF-150W £61.80
2"		2"	50.8	ADP-200GM-200W £87.70	ADP-200GF-200W £98.90	

Fittings Threaded adaptors



Where a threaded product is to be coupled with a clamp fitting Staitech offer a range of stainless steel BSP-to-Clamp adaptors. Female fittings use a parallel thread with internal Gylon face seal while male fittings use a taper thread. Standard fittings have an internal surface finish of 0.8 microns Ra.



Connections

Clamp end to suit 1/2" - 2" ASME BPE fittings
 Male thread 1/8" - 2" BSP taper
 Female thread 1/8" - 2" BSP parallel



Material

316L stainless steel



Surface finish

All surfaces - 0.8 microns Ra



Options

Larger sizes
 NPT threads
 Enhanced surface finishes and electropolishing
 C22 alloy and other materials



Available certification

Material certificate

Female threaded adaptors											
	Size	ØA (mm)	BSP parallel female end								Dimension B (mm)
			1/8"	1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	
ASME BPE clamp end	1/2"	25	20	25	30	30	33	-	-	-	-
	3/4"	25	20	25	30	30	33	-	-	-	-
	1"	50.5	23	25	25	25	25	35	35	41	45
	1-1/2"	50.5	23	25	25	25	25	35	35	41	45
	2"	64	-	25	25	25	25	30	38	41	45

The Gylon face seal material is FDA & USP class VI compliant. It can easily be removed from the fitting if required

Male threaded adaptors											
	Size	ØA (mm)	BSP taper male end								Dimension B (mm)
			1/8"	1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	
ASME BPE clamp end	1/2"	25	26	30	30	38	46	-	-	-	-
	3/4"	25	26	30	30	38	46	-	-	-	-
	1"	50.5	26	30	30	36	42	44	49	49	53
	1-1/2"	50.5	25	25	30	36	42	44	49	49	55
	2"	64	-	-	-	37	43	44	49	49	50

Ordering detail

Female BSP parallel thread x ASME BPE compatible clamp

BSP thread size	1/2" clamp	3/4" clamp	1" clamp	1-1/2" clamp	2" clamp
1/8"	ADP-0125GF-050C £37.30	ADP-0125GF-075C £39.05	ADP-0125GF-100C £56.50	ADP-0125GF-150C £58.30	-
1/4"	ADP-025GF-050C £37.30	ADP-025GF-075C £39.05	ADP-025GF-100C £56.50	ADP-025GF-150C £58.30	ADP-025GF-200C £72.90
3/8"	ADP-0375GF-050C £39.85	ADP-0375GF-075C 43.45	ADP-0375GF-100C £56.50	ADP-0375GF-150C £58.30	ADP-0375GF-200C £72.90
1/2"	ADP-050GF-050C £44.90	ADP-050GF-075C £46.45	ADP-050GF-100C £56.50	ADP-050GF-150C £58.30	ADP-050GF-200C £72.90
3/4"	ADP-075GF-050C £56.00	ADP-075GF-075C £57.75	ADP-075GF-100C £56.50	ADP-075GF-150C £58.30	ADP-075GF-200C £72.90
1"	-	-	ADP-100GF-100C £56.50	ADP-100GF-150C £58.30	ADP-100GF-200C £72.90
1-1/4"	-	-	ADP-125GF-100C £72.90	ADP-125GF-150C £72.90	ADP-125GF-200C £72.90
1-1/2"	-	-	ADP-150GF-100C £72.90	ADP-150GF-150C £72.90	ADP-150GF-200C £72.90
2"	-	-	ADP-200GF-100C £100.90	ADP-200GF-150C £100.90	ADP-200GF-200C £100.90

Male BSP taper thread x ASME BPE compatible clamp

BSP thread size	1/2" clamp	3/4" clamp	1" clamp	1-1/2" clamp	2" clamp
1/8"	ADP-0125GM-050C £35.55	ADP-0125GM-075C £35.55	ADP-0125GM-100C £53.65	ADP-0125GM-150C £57.15	-
1/4"	ADP-025GM-050C £35.55	ADP-025GM-075C £36.75	ADP-025GM-100C £53.65	ADP-025GM-150C £57.15	ADP-025GM-200C £68.80
3/8"	ADP-0375GM-050C £37.30	ADP-0375GM-075C £37.30	ADP-0375GM-100C £53.65	ADP-0375GM-150C £57.15	ADP-0375GM-200C £68.80
1/2"	ADP-050GM-050C £37.90	ADP-050GM-075C £37.30	ADP-050GM-100C £53.65	ADP-050GM-150C £57.15	ADP-050GM-200C £68.80
3/4"	ADP-075GM-050C £50.20	ADP-075GM-075C £50.20	ADP-075GM-100C £53.65	ADP-075GM-150C £57.15	ADP-075GM-200C £68.80
1"	-	-	ADP-100GM-100C £53.65	ADP-100GM-150C £57.15	ADP-100GM-200C £68.80
1-1/4"	-	-	ADP-125GM-100C £57.15	ADP-125GM-150C £57.15	ADP-125GM-200C £68.80
1-1/2"	-	-	ADP-150GM-100C £57.15	ADP-150GM-150C £57.15	ADP-150GM-200C £68.80
2"	-	-	ADP-200GM-100C £91.00	ADP-200GM-150C £91.00	ADP-200GM-200C £91.00



PRODUCT UPDATE

NPT threaded adaptors

Staitech now have large stocks of NPT male and female threaded adaptors. Please contact us for pricing.

Fittings Concentric and eccentric reducers



Concentric and eccentric reducers have a tapered bore to ensure a smooth transition between tube sizes. Reducers are manufactured in 316L stainless steel with wetted surfaces finished to 0.5 microns Ra. Whilst most sizes are machined from bar stock, larger sizes of eccentric reducer are fabricated in accordance with the ASME BPE standard.

Connections
To suit 1/2" - 3" ASME BPE clamp fittings

Material
316L stainless steel

Surface finish
Wetted surfaces - 0.5 microns Ra
External surfaces - 0.8 microns Ra

Options
Larger sizes - 4" and 6"
Enhanced surface finishes and electropolishing
Weld end reducers complying with ASME BPE C22 alloy and other materials

Available certification
Material certificate

Concentric reducers									
	Clamp size	ØA (mm)	End 2						Dimension B (mm)
			1/2"	3/4"	1"	1-1/2"	2"	2-1/2"	
			25	25	50.5	50.5	64	77.5	
	3/4"	25	40	-	-	-	-	-	Dimension B (mm)
	1"	50.5	40	40	-	-	-	-	
	1-1/2"	50.5	40	40	40	-	-	-	
	2"	64	60	60	45	45	-	-	
	2-1/2"	77.5	55	55	45	45	45	-	
	3"	91	-	-	60	60	60	60	

Eccentric reducers									
	Clamp size	ØA (mm)	End 2						Dimension B (mm)
			1/2"	3/4"	1"	1-1/2"	2"	2-1/2"	
			25	25	50.5	50.5	64	77.5	
	3/4"	25	40	-	-	-	-	-	Dimension B (mm)
	1"	50.5	40	40	-	-	-	-	
	1-1/2"	50.5	40	40	40	-	-	-	
	2"	64	140	127	50	50	-	-	
	2-1/2"	77.5	190	178	178	127	76	-	
	3"	91	-	-	229	178	127	76	

Ordering detail

Concentric reducers					
End 1	3/4"	1"	1"	1-1/2"	1-1/2"
End 2	1/2"	1/2"	3/4"	1/2"	3/4"
	CREDM-075C-050C £39.85	CREDM-100C-050C £64.05	CREDM-100C-075C £64.05	CREDM-150C-050C £67.45	CREDM-150C-075C £67.45
End 1	1-1/2"	2"	2"	2"	2"
End 2	1"	1/2"	3/4"	1"	1-1/2"
	CREDM-150C-100C £60.10	CREDM-200C-050C £118.60	CREDM-200C-075C £118.60	CREDM-200C-100C £107.35	CREDM-200C-150C £107.35
End 1	2-1/2"	2-1/2"	2-1/2"	2-1/2"	2-1/2"
End 2	1/2"	3/4"	1"	1-1/2"	2"
	CREDM-250C-050C £145.50	CREDM-250C-075C £145.50	CREDM-250C-100C £121.40	CREDM-250C-150C £121.40	CREDM-250C-200C £121.40
End 1	3"	3"	3"	3"	-
End 2	1"	1-1/2"	2"	2-1/2"	-
	CREDM-300C-100C £151.15	CREDM-300C-150C £151.15	CREDM-300C-200C £151.15	CREDM-300C-250C £151.15	-

4" reducers available upon request

Eccentric reducers					
End 1	3/4"	1"	1"	1-1/2"	1-1/2"
End 2	1/2"	1/2"	3/4"	1/2"	3/4"
	EREDM-075C-050C £68.00	EREDM-100C-050C £134.30	EREDM-100C-075C £123.60	EREDM-150C-050C £146.10	EREDM-150C-075C £134.30
End 1	1-1/2"	2"	2"	-	-
End 2	1"	1"	1-1/2"	-	-
	EREDM-150C-100C £118.60	EREDM-200C-100C £155.10	EREDM-200C-150C £148.30	-	-
Fabricated eccentric reducers					
End 1	2"	2"	2-1/2"	2-1/2"	2-1/2"
End 2	1/2"	3/4"	1/2"	3/4"	1"
	EREDF-200C-050C-BPE £160.70	EREDF-200C-075C-BPE £160.70	EREDF-250C-050C-BPE £241.60	EREDF-250C-075C-BPE £241.60	EREDF-250C-100C-BPE £189.35
End 1	2-1/2"	2-1/2"	3"	3"	3"
End 2	1-1/2"	2"	1"	1-1/2"	2"
	EREDF-250C-150C-BPE £189.35	EREDF-250C-200C-BPE £150.00	EREDF-300C-100C-BPE £174.15	EREDF-300C-150C-BPE £174.15	EREDF-300C-200C-BPE £224.75
End 1	3"	-	-	-	-
End 2	2-1/2"	-	-	-	-
	EREDF-300C-250C-BPE £151.05	-	-	-	-

Fittings Blank caps and threaded blank caps



Blank caps are manufactured in 316L stainless steel with the wetted face finished to 0.5 microns Ra.

Threaded blank caps - where blank caps are to be fitted with a thermocouple or other similar device they can be supplied with a BSP female threaded port.



Connections

To suit 1/2" - 6" ASME BPE clamp fittings



Material

316L stainless steel



Surface finish

Wetted surfaces - 0.5 microns Ra

External surfaces - 0.8 microns Ra



Options

Enhanced surface finishes and electropolishing

C22 alloy and other materials



Available certification

Material certificate

Dimensions and ordering detail

Blank caps				
	Clamp size (ASME BPE)	ØA (mm)	B (mm)	Ordering detail
	1/2" - 3/4"	25	5	CAP-050C £7.55
1" - 1-1/2"	50.5	6	CAP-100C £7.85	
2"	64	7	CAP-200C £11.80	
2-1/2"	77	7	CAP-250C £15.15	
3"	91	7	CAP-300C £19.25	
4"	119	9	CAP-400C £33.60	
6"	176	10	CAP-600C £60.70	

Threaded blank caps				
	Clamp size (ASME BPE)	Thread size (BSP parallel)		
		1/8"	1/4"	3/8"
1/2" - 3/4"	CAP-050C-0125GF £20.85	CAP-050C-025GF £20.85	-	
1" - 1-1/2"	CAP-100C-0125GF £21.40	CAP-100C-025GF £21.40	CAP-100C-0375GF £21.40	
2"	CAP-200C-0125GF £25.20	CAP-200C-025GF £25.20	CAP-200C-0375GF £25.20	
2-1/2"	CAP-250C-0125GF £29.60	CAP-250C-025GF £29.60	CAP-250C-0375GF £29.60	
3"	CAP-300C-0125GF £33.75	CAP-300C-025GF £33.75	CAP-300C-0375GF £33.75	
4"	CAP-400C-0125GF £46.65	CAP-400C-025GF £46.65	CAP-400C-0375GF £46.65	

Other thread sizes and parallel bores available upon request

Fittings Pull-tab blank caps



Pull-tab blank caps are also available which allow easy removal and holding. Larger sizes incorporate a lever port feature which allows caps to be prised without fear of damaging the sealing face or gasket.



Connections

To suit 1/2" - 4" ASME BPE clamp fittings



Material

316L stainless steel



Surface finish

Wetted surfaces - 0.5 microns Ra
External surfaces - 0.8 microns Ra



Options

Enhanced surface finishes and electropolishing
C22 alloy and other materials



Available certification

Material certificate

Dimensions and ordering detail

Pull-tab blank caps				
	Clamp size (ASME BPE)	ØA (mm)	B (mm)	Ordering detail
	1/2" - 3/4"	25	30	PTCAP-050C £18.55
	1" - 1-1/2"	50.5	36	PTCAP-100C £32.85
	2"	64	37	PTCAP-200C £45.60
	2-1/2"	77	37	PTCAP-250C £60.40
	3"	91	40	PTCAP-300C £78.95
	4"	119	40	PTCAP-400C £99.65

ASME BPE tube



Staitech can also supply ASME BPE tube cut to any length and in SF1 and SF4 finishes. Please contact Staitech for further details.

Pipe hangers



Staitech can also offer a comprehensive range of pipe hangers and supports. Please contact Staitech for further details.

Fittings Hose adaptors



Hose adaptors are available in a wide range of clamp and barb sizes. The clamping face on all sizes is tapered to match the barb bore ensuring complete drain-ability. Hose adaptors are manufactured in 316L stainless steel with wetted surfaces finished to 0.5 microns Ra.



Connections

Clamp end to suit 1/4" - 2" ASME BPE clamp
Barb end to suit 1/4" - 1" nominal bore hose



Material

316L stainless steel



Surface finish

Wetted surfaces - 0.5 microns Ra
External surfaces - 0.8 microns Ra



Options

Larger clamp sizes
Enhanced surface finishes and electropolishing
C22 alloy and other materials



Available certification

Material certificate

Hose adaptors		Size	ØA (mm)	To suit nominal bore hose / Barb O.D.					Dimension B (mm)
	ASME BPE clamp end	1/4"	25	1/4"/6.5mm	3/8"/9.6mm	1/2"/12.8mm	3/4"/19.2mm	1"/25.6mm	
		1/4"	25	30	-	-	-	-	-
		1/2"	25	30	30	40	-	-	-
		3/4"	25	30	30	40	40	-	-
		1"	50.5	30	30	40	40	40	40
		1-1/2"	50.5	30	30	40	40	40	40
		2"	64	30	30	40	45	50	-

Ordering detail

Clamp size (ASME BPE)	Hose size / Barb size				
	1/4" / 6.5mm	3/8" / 9.6mm	1/2" / 12.8mm	3/4" / 19.2mm	1" / 25.6mm
1/4"	HOSEB-025C-6.5B £37.10	-	-	-	-
1/2"	HOSEB-050C-6.5B £37.10	HOSEB-050C-9.6B £37.10	HOSEB-050C-12.8B £37.10	-	-
3/4"	HOSEB-075C-6.5B £38.80	HOSEB-075C-9.6B £38.80	HOSEB-075C-12.8B £38.80	HOSEB-075C-19.2B £38.80	-
1"	HOSEB-100C-6.5B £53.95	HOSEB-100C-9.6B £53.95	HOSEB-100C-12.8B £55.65	HOSEB-100C-19.2B £37.65	HOSEB-100C-25.6B £37.65
1-1/2"	HOSEB-150C-6.5B £58.40	HOSEB-150C-9.6B £58.40	HOSEB-150C-12.8B £58.80	HOSEB-150C-19.2B £50.05	HOSEB-150C-25.6B £50.05
2"	HOSEB-200C-6.5B £58.40	HOSEB-200C-9.6B £58.40	HOSEB-200C-12.8B £55.10	HOSEB-200C-19.2B £55.10	HOSEB-200C-25.6B £55.10

Fittings Standard ferrules



Staitech offer standard ferrules in both 316L material and low sulphur 316L material complying with ASME BPE criteria. All ferrules are finished to the SF1 BPE surface finish designation of 0.5 microns Ra. Standard ferrules are 28mm long, with BPE ferrules in accordance with the lengths stipulated in the ASME standard.



Connections

Clamp end to suit 1/4" - 4" ASME BPE fittings
Weld end to suit 1/4" - 4" ASME tube



Material

316L stainless steel



Surface finish

Wetted surfaces - 0.5 microns Ra
External surfaces - 0.8 microns Ra



Options

Enhanced surface finishes and electropolishing
C22 alloy and other materials



Available certification

Material certificate

Dimensions and ordering detail

Standard ferrules						
	Clamp size (ASME BPE)	ØA (mm)	ØB (mm)	Length C		
				28mm	44.5mm	57.2mm
	1/4"	25	6.4	FER-025C-28 £16.50	FER-025C-BPE £24.50	-
	3/8"	25	9.5	FER-0375C-28 £12.50	FER-0375C-BPE £18.50	-
	1/2"	25	12.7	FER-050C-28 £9.05	FER-050C-BPE £13.75	-
	3/4"	25	19.05	FER-075C-28 £9.05	FER-075C-BPE £13.25	-
	1"	50.5	25.4	FER-100C-28 £10.40	FER-100C-BPE £18.05	-
	1-1/2"	50.5	38.1	FER-150C-28 £10.95	FER-150C-BPE £18.45	-
	2"	64	50.8	FER-200C-28 £13.10	-	FER-200C-BPE £23.55
	2-1/2"	77	63.5	FER-250C-28 £18.60	-	FER-250C-BPE £35.95
	3"	91	76.2	FER-300C-28 £22.75	-	FER-300C-BPE £44.05
	4"	119	101.6	FER-400C-28 £30.95	-	FER-400C-BPE £68.10

Fittings Reducing ferrules



Where smaller components than the tubing size are to be used reducing ferrules are available with various tube/clamp size combinations offered.



Connections

Clamp end to suit 1/2" - 1-1/2" ASME BPE fittings

Weld end to suit 3/4" - 2" ASME BPE tube



Material

316L stainless steel - BPE compliant



Surface finish

Wetted surfaces - 0.5 microns Ra

External surfaces - 0.8 microns Ra



Options

Enhanced surface finishes and electropolishing
C22 alloy and other materials



Available certification

Material certificate

Reducing ferrules					
	Tube end (ASME BPE)	Clamp end (ASME BPE)	ØA (mm)	ØB (mm)	C (mm)
		3/4"	1/2"	19.05	25
	1"	1/2"	25.4	25	40
	1"	3/4"	25.4	25	40
	1-1/2"	1/2"	38.1	25	40
	1-1/2"	3/4"	38.1	25	45
	1-1/2"	1"	38.1	50.5	45
	2"	1"	50.8	50.5	50
	2"	1-1/2"	50.8	50.5	50

Ordering detail

Tube size (ASME BPE)	Clamp size (ASME BPE)			
	1/2"	3/4"	1"	1-1/2"
3/4"	RFER-075W-050C £25.65	-	-	-
1"	RFER-100W-050C £37.45	RFER-100W-075C £37.45	-	-
1-1/2"	RFER-150W-050C £38.90	RFER-150W-075C £38.90	RFER-150W-100C £38.90	-
2"	-	-	RFER-200W-100C £48.55	RFER-200W-150C £68.35

Fittings Pipe adaptor ferrules



Pipe adaptor ferrules allow standard clamped components to be used in piping systems. All sizes are manufactured in 316L stainless steel with wetted surfaces finished to 0.8 microns Ra.



Connections

Clamp end to suit 1/2" - 2" ASME BPE fittings
Weld end to suit 1/2" - 2" schedule pipe



Material

316L stainless steel



Surface finish

All surfaces - 0.8 microns Ra



Options

Enhanced surface finishes and electropolishing
Schedule 5 and 80 options



Available certification

Material certificate

Dimensions and ordering detail

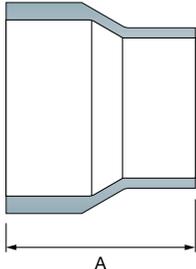
Pipe adaptor ferrules					
	Pipe size (ASTM A312)	Clamp size (ASME BPE)	A (mm)	Schedule 10 pipe	Schedule 40 pipe
	1/2"	1/2"	25	PFER-050S10-050C £26.85	PFER-050S40-050C £26.85
	1/2"	3/4"	25	PFER-050S10-075C £26.85	PFER-050S40-075C £26.85
	3/4"	1/2"	25	PFER-075S10-050C £30.40	PFER-075S40-050C £30.40
	3/4"	3/4"	25	PFER-075S10-075C £30.40	PFER-075S40-075C £30.40
	3/4"	1"	25	PFER-075S10-100C £26.85	PFER-075S40-100C £26.85
	1"	3/4"	25	PFER-100S10-075C £32.70	PFER-100S40-075C £32.70
	1"	1"	25	PFER-100S10-100C £26.85	PFER-100S40-100C £26.85
	1"	1-1/2"	25	PFER-100S10-150C £32.70	PFER-100S40-150C £32.70
	1-1/4"	1"	25	PFER-125S10-100C £30.40	PFER-125S40-100C £30.40
	1-1/4"	1-1/2"	28	PFER-125S10-150C £33.85	PFER-125S40-150C £33.85
	1-1/2"	1"	28	PFER-150S10-100C £30.40	PFER-150S40-100C £30.40
	1-1/2"	1-1/2"	28	PFER-150S10-150C £33.85	PFER-150S40-150C £33.85
	2"	2"	28	PFER-200S10-200C £46.65	PFER-200S40-200C £46.65

Fittings Pipe-to-tube adaptors



Pipe-to-Tube butt weld adaptors allow standard tubing components to be used in piping systems with a smooth transition between the pipe bore and tube ID. Machined from 316L stainless steel with wetted surfaces finished to 0.5 microns Ra.

Dimensions and ordering detail

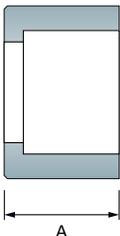
Pipe-to-tube adaptor					
	Pipe size (ASTM A312)	Tube size (ASME BPE)	A (mm)	Schedule 10 Pipe	Schedule 40 Pipe
	1/2"	1/2"	30	CRED-050S10-050W £24.30	CRED-050S40-050W £24.30
	1/2"	3/4"	30	CRED-050S10-075W £26.85	CRED-050S40-075W £26.85
	3/4"	1/2"	30	CRED-075S10-050W £26.85	CRED-075S40-050W £26.85
	3/4"	3/4"	30	CRED-075S10-075W £26.85	CRED-075S40-075W £26.85
	3/4"	1"	30	CRED-075S10-100W £37.10	CRED-075S40-100W £37.10
	1"	1"	30	CRED-100S10-100W £37.10	CRED-100S40-100W £37.10
	1-1/4"	1-1/2"	30	CRED-125S10-150W £50.20	CRED-125S40-150W £50.20
	1-1/2"	1-1/2"	30	CRED-150S10-150W £50.20	CRED-150S40-150W £50.20
	2"	2"	30	CRED-200S10-200W £60.00	CRED-200S40-200W £60.00

Fittings Pipe-to-tube socket weld adaptors



Where socket weld products are to be used in tubing systems Pipe-to-Tube socket weld adaptors are also available. Adaptors fit in to a socket weld fitting, with an inner counter bore matching the OD of the mating tube. Fittings are machined from 316L stainless steel.

Dimensions and ordering detail

Pipe-to-tube socket weld adaptor				
	Pipe size (ASTM A312)	Tube size (ASME BPE)	A (mm)	Ordering detail
	1/4"	1/2"	30	ADP-025SW-050W £12.25
	3/8"	1/2"	30	ADP-0375SW-050W £12.25
	1/2"	1/2"	30	ADP-050SW-050W £14.00
	1/2"	3/4"	30	ADP-050SW-075W £14.00
	3/4"	3/4"	30	ADP-075SW-075W £15.75
	1"	1"	30	ADP-100SW-100W £19.00

Fittings Thick wall ferrules



Thick wall ferrules are intended for use in tank and vessel fabrications. Manufactured in 316L stainless steel, all surfaces have a finish of 0.5 microns Ra. In addition to the standard ferrules listed, alternative lengths and materials are also available. These materials include low sulphur 316L in accordance with the BPE standard, WN1.4435 grade stainless steel and C22 alloy. Please consult Staitech for further information.



Connections

To suit 1/2" - 8" ASME BPE clamp fittings



Material

316L stainless steel



Surface finish

All surfaces - 0.5 microns Ra



Options

Alternative lengths

Enhanced surface finishes and electropolishing

Low sulphur BPE compliant 316L stainless steel

C22 alloy and other materials



Available certification

Material certificate

Dimensions and ordering detail

Thick wall ferrules							
	Clamp size (ASME BPE)	ØA (mm)	ØB (mm)	ØC (mm)	Length D (mm)		
					1/2" - 3/4" = 50mm 1" - 8" = 70mm	1/2" - 3/4" = 70mm 1" - 8" = 90mm	100mm
	1/2"	25	17	9.5	TWFER-050C-50LG £40.30	TWFER-050C-70LG £53.40	TWFER-050C-100LG £68.90
	3/4"	25	23	15.8	TWFER-075C-50LG £35.60	TWFER-075C-70LG £53.40	TWFER-075C-100LG £68.90
	1"	50.5	34	22.1	TWFER-100C-70LG £39.85	TWFER-100C-90LG £44.45	TWFER-100C-100LG £51.00
	1-1/2"	50.5	47.5	34.8	TWFER-150C-70LG £39.85	TWFER-150C-90LG £44.45	TWFER-150C-100LG £51.00
	2"	64	60.3	47.5	TWFER-200C-70LG £57.90	TWFER-200C-90LG £64.25	TWFER-200C-100LG £70.95
	2-1/2"	77.5	72	60.2	TWFER-250C-70LG £75.55	TWFER-250C-90LG £82.05	TWFER-250C-100LG £88.80
	3"	91	85.6	72.9	TWFER-300C-70LG £89.85	TWFER-300C-90LG £107.90	TWFER-300C-100LG £114.60
	4"	119	110	97.4	TWFER-400C-70LG £130.10	TWFER-400C-90LG £154.90	TWFER-400C-100LG £161.10
	6"	176	164.9	146.9	TWFER-600C-70LG £218.60	TWFER-600C-90LG £260.15	TWFER-600C-100LG £284.30
8"	217.4	218	200	TWFER-800C-70LG £353.95	TWFER-800C-90LG £407.90	TWFER-800C-100LG £451.70	

Fittings Transfer panel adaptors



Transfer panel adaptors offer a robust solution for installations where tubing must be passed between isolated areas or for general transfer panel applications. Fittings with weld ends are manufactured in low sulphur/low ferrite 316L stainless steel to aid fabrication. Wetted surfaces are finished to 0.5 microns Ra.



Connections

Clamp ends to suit 1/2" - 2" ASME BPE fittings
Tube ends to suit 1/2" - 2" ASME BPE tube



Material

Clamp end option - 316L stainless steel
Weld end option - Low sulphur/low ferrite 316L



Surface finish

Wetted surfaces - 0.5 microns Ra
External surfaces - 0.8 microns Ra



Options

Larger sizes
DIN and ISO sizes
Enhanced surface finishes and electropolishing
Concentric reduction option
C22 alloy and other materials



Available certification

Material certificate

Transfer panel adaptors						
	Clamp/tube size (ASME BPE)	A (mm)	B (mm)	C (mm)	ØD (mm)	ØE (mm)
		1/2"	20	25	25	29
	3/4"	24	28	28	35	35
	1"	24	28	28	41.5	51
	1-1/2"	24	28	28	54	54
	2"	24	28	28	67	67

Ordering detail

Clamp/tube size (ASME BPE)	Clamp x Clamp	Connections Weld x Weld	Clamp x Weld
1/2"	TPA-050CC £64.70	TPA-050WW £59.40	TPA-050CW £64.70
3/4"	TPA-075CC £61.50	TPA-075WW £55.15	TPA-075CW £61.50
1"	TPA-100CC £55.15	TPA-100WW £50.90	TPA-100CW £55.15
1-1/2"	TPA-150CC £63.60	TPA-150WW £59.40	TPA-150CW £63.60
2"	TPA-200CC £77.40	TPA-200WW £72.10	TPA-200CW £77.40

Fittings Tank weld flanges



Tank weld flanges allow the flush mounting of valves, sight glasses, gauges and other instrumentation on vessels and tanks. Fittings are available to mount clamp products from 1/2" to 4" in thicknesses to suit individual fabrication requirements. In addition to standard fittings a 'quick snap' system is also available with tank weld fittings. This design allows a connected item such as a hose to be decoupled without the need to loosen the four securing screws. Further information on this option is available upon request.



Connections

Flanges suitable for welding
ASME BPE clamp connection to suit 1/2" - 4" fittings



Material

316L stainless steel



Surface finish

Wetted surfaces - 0.8 microns Ra
External surfaces - 1.6 microns Ra



Options

Quick snap disconnect system
Enhanced surface finishes and electropolishing
C22 alloy and other materials
Welding Mandrels



Available certification

Material certificate

Tank weld flanges					
	Clamp size (ASME BPE)	ØA (mm)	ØB (mm)	C (mm)	D (mm)
	1/2"	55	9.7	12, 25, 38 & 51	5.0
	3/4"	55	15.0	12, 25, 38 & 51	5.0
	1"	85	22.6	12, 25, 38 & 51	5.0
	1-1/2"	85	35.6	12, 25, 38 & 51	5.0
	2"	100	48.6	12, 25, 38 & 51	6.0
	2-1/2"	112	60.2	12, 25, 38 & 51	9.5
	3"	131	72.9	12, 25, 38 & 51	10.0
	4"	170	97.6	12, 25, 38 & 51	12.0

Ordering detail

Weld pad thickness	Clamp size (ASME BPE)							
	1/2"	3/4"	1"	1-1/2"	2"	2-1/2"	3"	4"
12mm	TWF-050C-12 £146.25	TWF-075C-12 £147.60	TWF-100C-12 £162.65	TWF-150C-12 £162.65	TWF-200C-12 £169.45	TWF-250C-12 £189.85	TWF-300C-12 £427.70	TWF-400C-12 £542.40
25mm	TWF-050C-25 £150.30	TWF-075C-25 £151.70	TWF-100C-25 £168.15	TWF-150C-25 £168.15	TWF-200C-25 £180.45	TWF-250C-25 £195.45	TWF-300C-25 £438.65	TWF-400C-25 £584.80
38mm	TWF-050C-38 £157.15	TWF-075C-38 £154.50	TWF-100C-38 £172.20	TWF-150C-38 £172.45	TWF-200C-38 £188.60	TWF-250C-38 £109.10	TWF-300C-38 £486.45	TWF-400C-38 £644.05
51mm	TWF-050C-51 £165.30	TWF-075C-51 £169.45	TWF-100C-51 £191.60	TWF-150C-51 £191.60	TWF-200C-51 £222.70	TWF-250C-51 £241.90	TWF-300C-51 £550.70	TWF-400C-51 £718.75

Fittings Elbows



45° and 90° elbows are manufactured in 316L stainless steel in accordance with ASME BPE criteria. Standard elbows have clamp ends and are finished to the SF1 BPE surface finish designation of 0.5 microns Ra.



Connections

To suit 1/2" - 4" ASME BPE clamp fittings



Surface finish

Wetted surfaces - 0.5 microns Ra
External surfaces - 0.8 microns Ra



Options

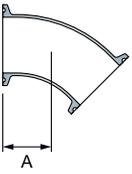
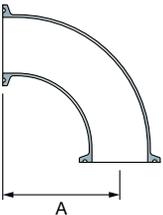
Weld end connections
Enhanced surface finishes and electropolishing



Available certification

Material certificate

Dimensions and ordering detail

Elbows					
	Clamp size (ASME BPE)	45°		90°	
			A (mm)		A (mm)
	1/2"	E45-050CC-BPE £51.70	25	E90-050CC-BPE £52.80	41
	3/4"	E45-075CC-BPE £51.70	25	E90-075CC-BPE £52.80	41
	1"	E45-100CC-BPE £48.90	29	E90-100CC-BPE £48.90	51
	1-1/2"	E45-150CC-BPE £58.25	36	E90-150CC-BPE £48.90	70
	2"	E45-200CC-BPE £74.55	45	E90-200CC-BPE £66.30	89
	2-1/2"	E45-250CC-BPE £90.20	52	E90-250CC-BPE £78.65	108
	3"	E45-300CC-BPE £115.20	60	E90-300CC-BPE £105.65	127
	4"	E45-400CC-BPE £186.50	79	E90-400CC-BPE £157.30	168

Fittings Low profile elbows



Designed primarily for steam trap installations, fittings are available with either weld or clamp branch connection. Manufactured in 316L stainless steel with wetted surfaces finished to 0.5 microns Ra.



Connections

Short leg -

Clamp end to suit 1/2" - 2" ASME BPE fittings

Branch leg -

Clamp end to suit 1/2" - 2" ASME BPE fittings

Weld end to suit 1/2" - 2" ASME BPE tube



Surface finish

Wetted surfaces - 0.5 microns Ra

External surfaces - 0.8 microns Ra



Options

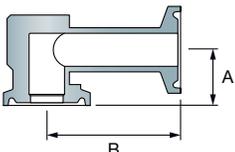
Enhanced surface finishes and electropolishing



Available certification

Material certificate

Dimensions and ordering detail

Low profile elbows						
	Clamp size (ASME BPE)	A (mm)	Branch fitting - Clamp	B (mm)	Branch fitting - Weld	B (mm)
	1/2"	16	LPE90-050C-050C £113.45	38	LPE90-050W-050C £107.80	42
3/4"	23	LPE90-075C-075C £123.50	40	LPE90-075W-075C £117.40	45	
1"	29	LPE90-100C-100C £135.45	50	LPE90-100W-100C £129.80	60	
1-1/2"	40	LPE90-150C-150C £196.10	56	LPE90-150W-150C £196.10	65	
2"	45	LPE90-200C-200C £209.90	62	LPE90-200W-200C £209.90	80	

Fittings Instrument ferrules



Instrument ferrules offer a simple alternative to instrument tees, allowing diaphragm seal instruments to be used in small bore piping systems. The face of the clamp fitting is tapered to meet the tube bore thus allowing the instrument diaphragm to move freely.



Connections

Clamp end to suit 3/4" - 2" ASME BPE fittings
Weld end to suit 1/2" - 2" ASME BPE tube



Material

316L stainless steel - BPE compliant



Surface finish

Wetted surfaces - 0.5 microns Ra
External surfaces - 0.8 microns Ra



Options

Enhanced surface finishes and electropolishing



Available certification

Material certificate

Instrument ferrules						
	Clamp end (ASME BPE)	Tube size (ASME BPE)	ØA (mm)	ØB (mm)	ØC (mm)	D (mm)
	3/4"	1/2"	25	12.7	15.8	44.5
	1"	1/2"	50.5	12.7	22.1	35
	1"	3/4"	50.5	19.05	22.1	35
	1-1/2"	1/2"	50.5	12.7	34.8	35
	1-1/2"	3/4"	50.5	19.05	34.8	35
	1-1/2"	1"	50.5	25.4	34.8	35
	2"	1/2"	64	12.7	47.5	35
	2"	3/4"	64	19.05	47.5	35
	2"	1"	64	25.4	47.5	35
	2"	1-1/2"	64	38.1	47.5	35

Ordering detail

Clamp size (ASME BPE)	Tube O.D			
	1/2"	3/4"	1"	1-1/2"
3/4"	IFER-050W-075C £16.85	-	-	-
1"	IFER-050W-100C £30.90	IFER-075W-100C £29.20	-	-
1-1/2"	IFER-050W-150C £34.30	IFER-075W-150C £31.50	IFER-100W-150C £25.90	-
2"	IFER-050W-200C £44.95	IFER-075W-200C £40.45	IFER-100W-200C £34.85	IFER-150W-200C £34.85

Fittings Instrument tees



Instrument tees are designed to allow the installation of pressure gauges and other similar instruments without introducing a dead-leg. Manufactured in 316L stainless steel, instrument tees are available with either clamp or weld ends. Wetted surfaces are finished to 0.5 microns Ra.



Connections

Branch extensions - 1/2" - 1-1/2" ASME BPE clamp or weld fittings
Instrument port - 1-1/2" and 2" ASME BPE clamp fittings



Surface finish

Wetted surfaces - 0.5 microns Ra
External surfaces - 0.8 microns Ra



Options

Enhanced surface finishes and electropolishing



Available certification

Material certificate

Instrument tees						
Leg size (ASME BPE)	1-1/2" Instrument port			2" Instrument port		
	A (mm)	B (mm)	C (mm)	A (mm)	B (mm)	C (mm)
1/2"	22	127	152	25	152	165
3/4"	25	127	152	29	152	165
1"	29	127	152	32	152	165
1-1/2"	146	35	121	38	152	165

Ordering detail

Leg size	Instrument port	Clamp ends	Weld ends
1/2"	1-1/2"	INST-050C-150C £157.30	INST-050W-150C £145.55
	2"	INST-050C-200C £174.15	INST-050W-200C £164.05
3/4"	1-1/2"	INST-075C-150C £157.30	INST-075W-150C £143.85
	2"	INST-075C-200C £176.40	INST-075W-200C £168.45
1"	1-1/2"	INST-100C-150C £153.95	INST-100W-150C £138.75
	2"	INST-100C-200C £181.50	INST-100W-200C £169.65
1-1/2"	1-1/2"	TS-150CCC-BPE* £92.15	TS-150WWC-BPE* £75.30
	2"	INST-150C-200C £206.75	INST-150W-200C £196.70

*1-1/2" is a short outlet Tee

Fittings Tees



Tees are available with either standard or reduced diameter branch line in short and long configurations. All tees have clamp connections, are manufactured in 316L stainless steel and have wetted surfaces finished to the ASME BPE SF1 surface finish designation of 0.5 microns Ra.



Connections

To suit 1/2" - 4" ASME BPE clamp fittings



Material

316L stainless steel



Surface finish

Wetted surfaces - 0.5 microns Ra

External surfaces - 0.8 microns Ra



Options

Weld end connections

Enhanced surface finishes and electropolishing



Available certification

Material certificate

Standard tees

	Clamp size (ASME BPE)	Equal tee		Short outlet equal tee	
		A (mm)	B (mm)	A (mm)	B (mm)
	1/2"	114	57	114	25
	3/4"	120	60	120	29
	1"	134	67	134	29
	1-1/2"	146	73	146	35
	2"	172	86	172	41
	2-1/2"	184	92	184	48
	3"	196	98	196	54
	4"	242	121	242	70

Reducing tees

	Main leg (ASME BPE)	Equal reducing tee		Short outlet reducing tee	
		A (mm)	B (mm)	A (mm)	B (mm)
	3/4"	127	64	127	25
	1"	134	67	134	29
	1-1/2"	146	73	146	35
	2"	172	79	172	41

Ordering detail

Standard tees		
Clamp size (ASME BPE)	Equal tees	Short outlet tees
1/2"	TE-050CCC-BPE £88.20	TS-050CCC-BPE £81.50
3/4"	TE-075CCC-BPE £84.30	TS-075CCC-BPE £78.65
1"	TE-100CCC-BPE £80.90	TS-100CCC-BPE £72.45
1-1/2"	TE-150CCC-BPE £83.70	TS-150CCC-BPE £75.30
2"	TE-200CCC-BPE £99.45	TS-200CCC-BPE £87.70
2-1/2"	TE-250CCC-BPE £125.05	TS-250CCC-BPE £105.65
3"	TE-300CCC-BPE £162.95	TS-300CCC-BPE £142.15
4"	TE-400CCC-BPE £243.80	TS-400CCC-BPE £210.70

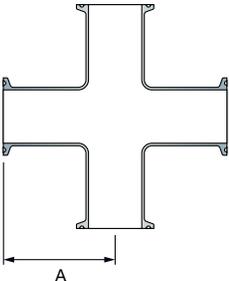
Reducing tees			
Leg size (ASME BPE clamp)	Branch size (ASME BPE clamp)	Equal reducing tee	Short outlet reducing tee
3/4"	1/2"	RTE-075C-050C-BPE £102.35	RTS-075C-050C-BPE £96.65
1"	1/2"	RTE-100C-050C-BPE £98.90	RTS-100C-050C-BPE £86.50
	3/4"	RTE-100C-075C-BPE £96.60	RTS-100C-075C-BPE £83.70
1-1/2"	1/2"	RTE-150C-050C-BPE £107.85	RTS-150C-050C-BPE £95.85
	3/4"	RTE-150C-075C-BPE £97.75	RTS-150C-075C-BPE £86.50
	1"	RTE-150C-100C-BPE £79.25	RTS-150C-100C-BPE £71.95
2"	1/2"	RTE-200C-050C-BPE £124.70	RTS-200C-050C-BPE £115.75
	3/4"	RTE-200C-075C-BPE £115.75	RTS-200C-075C-BPE £113.15
	1"	RTE-200C-100C-BPE £92.70	RTS-200C-100C-BPE £81.50
	1-1/2"	RTE-200C-150C-BPE £92.70	RTS-200C-150C-BPE £81.50

Fittings Crosses



Crosses are manufactured in accordance with the ASME BPE standard in 316L stainless steel material. Crosses have clamp ends and are finished internally to the SF1 BPE surface finish designation of 0.5 microns Ra.

-  **Connections**
To suit 1/2" - 4" ASME BPE clamp fittings
-  **Material**
316L stainless steel
-  **Surface finish**
Wetted surfaces - 0.5 microns Ra
External surfaces - 0.8 microns Ra
-  **Options**
Weld end connections
Enhanced surface finishes and electropolishing
-  **Available certification**
Material certificate

Crosses			
	Clamp size (ASME BPE)	A (mm)	Ordering detail
		1/2"	57
	3/4"	60	C-075CCCC-BPE £152.80
	1"	67	C-100CCCC-BPE £139.35
	1-1/2"	73	C-150CCCC-BPE £147.20
	2"	86	C-200CCCC-BPE £166.35
	2-1/2"	92	C-250CCCC-BPE £196.65
	3"	98	C-300CCCC-BPE £239.35
	4"	121	C-400CCCC-BPE £343.85

Fittings Orifice spools



Two designs of orifice spool are available from Staitech. The first is a square edge design (OP1) whereby the face of the orifice is flat. The second conical design (OP2) utilises a cone profile to reduce the bore to the orifice size. Both designs are supplied solid for drilling on site or by Staitech.



Connections

To suit 1/2" - 3" ASME BPE clamp fittings



Material

316L stainless steel



Surface finish

Wetted surfaces - 0.5 microns Ra
External surfaces - 0.8 microns Ra



Options

4" clamp size
Enhanced surface finishes and electropolishing



Available certification

Material certificate

Dimensions and ordering detail

Orifice spools					
OP1 Square edge design			OP2 Conical design		
Clamp size (ASME BPE)	ØA (mm)	B (mm)	OP1 Square edge design ordering details	OP2 Conical design ordering details	
1/2"	25	40	OP1-050C £83.40	OP2-050C £83.40	
3/4"	25	40	OP1-075C £68.65	OP2-075C £68.65	
1"	50.5	40	OP1-100C £71.20	OP2-100C £71.20	
1-1/2"	50.5	40	OP1-150C £94.60	OP2-150C £94.60	
2"	64	50	OP1-200C £107.10	OP2-200C £107.10	
2-1/2"	77.5	50	OP1-250C £123.50	OP2-250C £123.50	
3"	91	50	OP1-300C £148.00	OP2-300C £148.00	

Orifice machining

Orifice spools are supplied 'blind' as standard. Staitech also offer a machining service to cover all orifice designs, with both concentric and eccentric hole machining available.

Concentric - Order ref suffix	Price	Eccentric - Order ref suffix	Price
-C-XX	£13.50	-E-XX (except conical design)	£25.00

Machining charge where 'XX' is the hole size

Silicone hoses

Manufactured by **venair**

Venair specialise in the design and manufacture of Silicone hoses for pharmaceutical fluid transfer applications. In addition to standard hoses, Venair also offer a range of custom assemblies, sight flow indicators and heated hoses. All design and manufacture is carried out at Venair's European headquarters in Spain for assured quality and prompt delivery.

Silicone hoses Pharmaceutical hose



The VENASIL PHARMA range of Silicone hoses are designed and manufactured specifically to meet the demands of the Pharmaceutical and Biotech markets. Various models of VENASIL hose are available to suit differing pressure levels and flexibility requirements. All hoses are uniquely identified and are supplied with comprehensive validation documents and optional pressure test certificate. Hoses can be supplied in lengths of up to 20m, in coil form, or with ASME BPE compatible clamp connections sizes from 1/2" to 4".

Silicone hoses Sight flow indicators



Translucent pharmaceutical grade silicone hoses allow product flow to be monitored in any system or pipe line. For more information on this please contact Staitech.

Silicone hoses Heated hose



Platinum cured silicone hose is encased in a heating element to ensure a constant temperature of up to 150°C can be achieved. A typical application for this hose would be where viscous flow media needs to retain its fluidity at all times.

Silicone hoses Custom options



Venair can offer a wide range of custom silicone hoses and fittings to meet most customers' requirements.

 For more information on the Venair range of Silicone hoses visit our website at www.staitech.com

Hoses

PTFE lined hoses are the ideal choice for the majority of pharmaceutical fluid transfer applications. Available in a wide range of sizes, cover options and end fitting choices. The PTFE range of lined hoses provided by Staitech offer an unrivaled choice in the market today. Please contact Staitech for further information or application assistance.

Hoses PTFE lined hoses



Pharmaline PTFE hoses are suitable when the customer requires improved autoclave life cycle performance, higher standard chemical resistance or greater internal cleanability over a silicone hose. Whatever the conditions, Pharmaline hoses provide the solution.



Bioflex Ultra PTFE lined flexible hose is the premium product used to transfer process fluids in a wide variety of industries all over the world such as biopharm, food and drink and chemical. Its properties include being chemically inert, easy to clean, corrosion resistant and has an unrivaled reputation for reliability, performance and long service life.

Hoses Single-use components



Venair offer a comprehensive range of tubing and components for single-use type applications. Download the Venair Biotech brochure from the Staitech website.

Sample valves

Sample valves are available for use in water, process fluid and steam applications. All valves are manufactured by Staitech for assured quality and continuity of supply. All valves are typically held in stock.

Product features

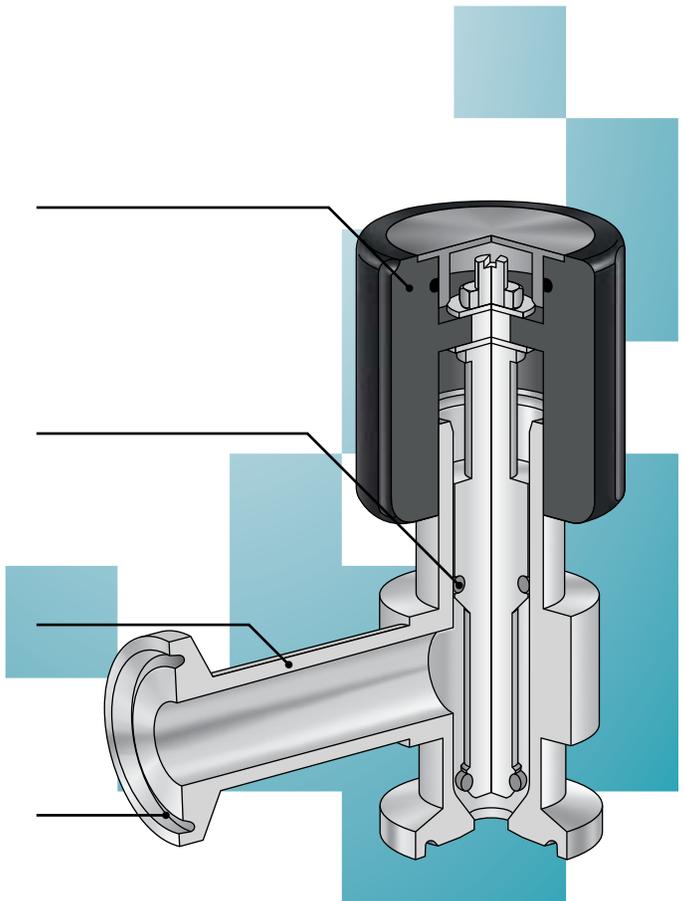
- 1/2" - 2" size range
- Clamp, weld and flange connections
- Wetted surfaces finished to 0.5 microns Ra
- Dedicated design for steam sampling

Fully autoclavable design available

FDA and USP compliant seals

Clamp and hose barb fitting options

Angled and straight-through designs





HSV20

56

- Designed for sampling water and process fluids
- Available with insertion sample tube
- 6% Luer or 6.5mm hose barb sample outlet fitting



HSV30

57

- Angled design
- Clamp connections from 1/2" - 2"
- Electropolished finish as standard



HSV40

59

- Utilises a membrane seal
- 1/2" and 3/4" sizes
- Various opening options



HSV50

61

- Large flow area
- 1" - 2" sizes
- Utilises a membrane seal



HSV90

63

- Suitable for autoclaving
- Offered with clamp or barb outlet connections
- Eccentric option available



HSV60

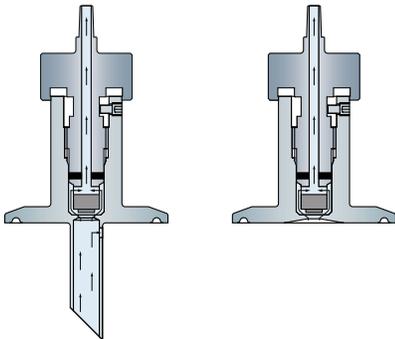
64

- Designed for steam sampling applications
- Perlast seals ensure optimum service life and bubble tight shut-off
- Various connection sizes available

Sample valves HSV20



The HSV20 valve is designed for sampling water and process fluids. Valves are offered with both flat face clamp system connection and with optional sample insertion tube. The HSV20 has either a 6% Luer or 6.5mm hose barb sample outlet fitting. A Silicone dust cap is provided to protect the sample outlet fitting when not in use.



- P Pressure rating**
Up to 10 barg
- T Temperature rating**
Up to 150°C
- C Connections**
Inlet - 1/2" / 3/4", 1" / 1-1/2" or 2" ASME BPE clamp
Outlet - 6.5mm hose barb or 6% Luer fitting
- O Orifice diameter**
5.0mm
- M Materials**
Wetted parts - 316L stainless steel
Seat seal - TFM
Stem seal - Viton or EPDM
Dust cap - Silicone
- S Surface finish**
Wetted surfaces - 0.5 microns Ra and electropolished
External surfaces - 0.8 microns Ra and electropolished
- O Options**
Threaded or welded system connection
- C Available certification**
Material certificate covering all wetted parts

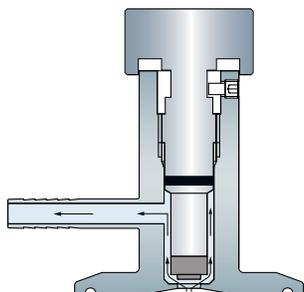
Ordering detail

HSV20			
Inlet Clamp size (ASME BPE)	Type	Outlet	
		6.5mm hose barb	6% Luer fitting
1/2" / 3/4"	Flat face	HSV20-050CF-H-TE £306.00	HSV20-050CF-L-TE £295.50
1/2" / 3/4"	With insertion tube	HSV20-050CI-H-TE £347.50	HSV20-050CI-L-TE £337.50
1" / 1-1/2"	Flat face	HSV20-100CF-H-TE £322.00	HSV20-100CF-L-TE £309.00
1" / 1-1/2"	With insertion tube	HSV20-100CI-H-TE £359.00	HSV20-100CI-L-TE £347.50
2"	Flat face	HSV20-200CF-H-TE £337.50	HSV20-200CF-L-TE £325.00
2"	With insertion tube	HSV20-200CI-H-TE £378.00	HSV20-200CI-L-TE £366.50

Sample valves HSV30



Where an angled configuration is required the HSV30 is available. The HSV30 has a flat face system connection and either a 6.5mm hose barb sample outlet connection or 25mm clamp outlet fitting. The HSV30 is also available with flushing port. Valves with hose barb outlet are fitted with a Silicone dust cap to protect the fitting when not in use.



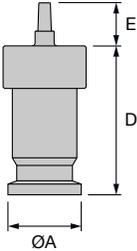
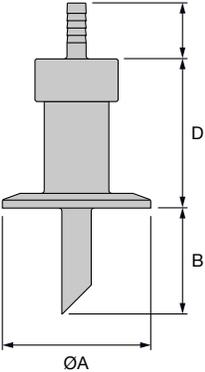
- P Pressure rating**
Up to 10 barg
- T Temperature rating**
Up to 150°C
- L Connections**
Inlet - 1/2" / 3/4", 1" / 1-1/2" or 2" ASME BPE clamp
Outlet - 6.5mm hose barb
25mm clamp with 4.5mm bore
- ⊗ Orifice diameter**
5.0mm
- ⊗ Materials**
Wetted parts - 316L stainless steel
Seat seal - TFM
Stem seal - Viton or EPDM
Dust cap - Silicone
- ⊗ Surface finish**
Wetted surfaces - 0.5 microns Ra and electropolished
External surfaces - 0.8 microns Ra and electropolished
- ✓ Options**
Flushing port
- C Available certification**
Material certificate covering all wetted parts

Ordering detail

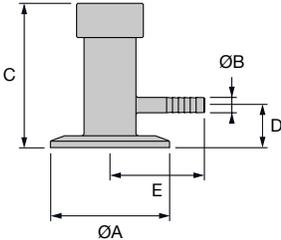
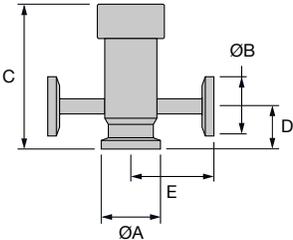
HSV30			
Inlet Clamp size (ASME BPE)	Clamp fitting	Outlet 6.5mm hose barb	Clamp fitting and flushing port
1/2" / 3/4"	HSV30-050C-050C-TE £322.50	HSV30-050C-TE £306.00	HSV30-050C-050C-050C-TE £362.00
1" / 1-1/2"	HSV30-100C-050C-TE £338.50	HSV30-100C-TE £322.00	HSV30-100C-050C-050C-TE £377.50
2"	HSV30-200C-050C-TE £353.00	HSV30-200C-TE £336.50	HSV30-200C-050C-050C-TE £392.50

When a Viton stem seal is preferred, substitute '-TE' in order ref with '-TV'

HSV20

	Clamp size (ASME BPE)	ØA (mm)	B (mm)	D (mm)	E (Barb) (mm)	E (Luer) (mm)
	With flat face					
	1/2" / 3/4"	25	-	51	19	15
	1" / 1-1/2"	50.5	-	51	19	15
	2"	64	-	51	19	15
	With insertion tube					
	1/2" / 3/4"	25	36	51	19	15
	1" / 1-1/2"	50.5	36	51	19	15
	2"	64	36	51	19	15

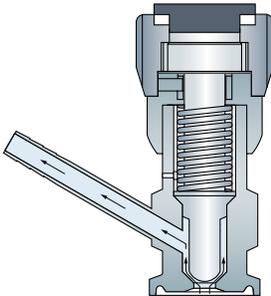
HSV30

	Clamp size (ASME BPE)	ØA (mm)	ØB (mm)	C (mm)	D (mm)	E (mm)
	With flat face					
	1/2" / 3/4"	25	6.5	64	18	40
	1" / 1-1/2"	50.5	6.5	64	18	40
	2"	64	6.5	64	18	40
	With insertion tube					
	1/2" / 3/4"	25	25	64	18	42
	1" / 1-1/2"	50.5	25	64	18	42
	2"	64	25	64	18	50

Sample valves HSV40



The HSV40 range are intended for liquid and product sampling in high purity applications. The valve utilises a unique one-piece stem seal membrane for optimised valve sterility and ease of cleaning. Valves are available with a wide range of connection options and outlet port configurations. The HSV40 sample valve is suitable for SIP, CIP and autoclaving.

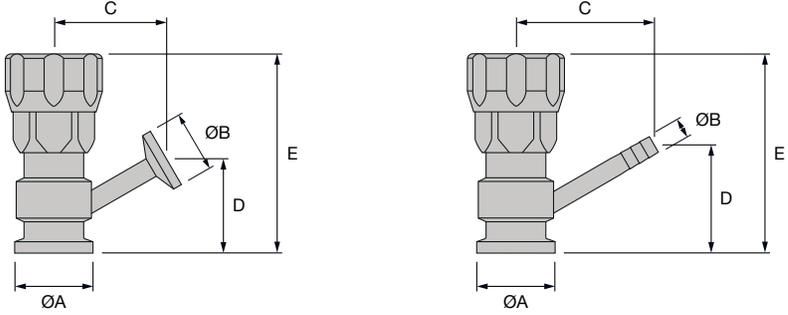


- P Pressure rating**
Up to 10 barg
- T Temperature rating**
Up to 150°C
- Connections**
HSV40 -
Inlet - 1/2" / 3/4" ASME BPE clamp
Outlet - 1/2" ASME BPE clamp or 6.5mm hose barb
- Orifice diameter**
5.0mm
- Materials**
Wetted parts - 316L stainless steel
Spring - Stainless steel
Handle - PTFE
Membrane - TFM-PTFE or Silicone
Dust cap (barb outlet only) - Silicone
- Surface finish**
Wetted surfaces - 0.5 microns Ra and electropolished
External surfaces - 0.8 microns Ra and electropolished
- Options**
Threaded or weld system connection
Flushing port
Spring return level
Pneumatic actuator
- C Available certification**
Material certificate covering all wetted parts

Ordering detail

HSV40		
Inlet Clamp size (ASME BPE)	Outlet	
	1/2" ASME BPE clamp	6.5mm hose barb
1/2" / 3/4"	HSV40-050C-050C-T £418.00	HSV40-050C-H-T £396.00

HSV40



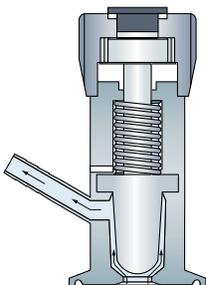
	Inlet - to suit ASME BPE size				Outlet / Flushing port		ØA (mm)	ØB (mm)	C (mm)	D (mm)	E (mm)
	1/2"	3/4"	1"	1-1/2"	6.0mm barb	1/2" BPE clamp*					
	✓	✓			✓		25	6.0	65	47	49
	✓	✓				✓	25	25	65	39.5	45
Available options											
			✓	✓	✓		50.5	6.0	65	47	49
			✓	✓		✓	50.5	25	65	39.5	45
	✓	✓			✓		25	6.0	65	47	49
	✓	✓				✓	25	25	65	39.5	45
			✓	✓	✓		50.5	6.0	65	47	49
			✓	✓		✓	50.5	25	65	39.5	45

*1/2" ASME BPE 25mm clamp fitting with 4mm bore

Sample valves HSV50



The HSV50 range are intended for liquid and product sampling in high purity applications. The valve utilises a unique one-piece stem seal membrane for optimised valve sterility and ease of cleaning. Valves are available with a wide range of connection options and outlet port configurations. The HSV50 sample valve is suitable for SIP, CIP and autoclaving.



P Pressure rating

Up to 10 barg

T Temperature rating

Up to 150°C

Connections

Inlet - 1" / 1-1/2" or 2" ASME BPE clamp

Outlet - 1/2" ASME BPE clamp or 12.7mm hose barb

Orifice diameter

9.5mm

Materials

Wetted parts - 316L stainless steel

Spring - stainless steel

Handle - PTFE

Membrane - FFM-PTFE or Silicone

Dust cap (barb outlet only) - Silicone

Surface finish

Wetted surfaces - 0.5 microns Ra and electropolished

External surfaces - 0.8 microns Ra and electropolished

Options

Threaded or weld system connection

Flushing port

Spring return level

Pneumatic actuator

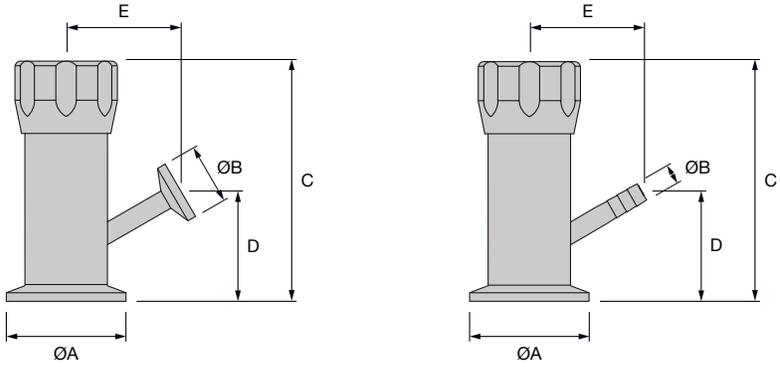
Available certification

Material certificate covering all wetted parts

Ordering detail

HSV50		
Inlet Clamp size (ASME BPE)	Outlet	
	1/2" ASME BPE clamp	12.7mm hose barb
1" / 1-1/2"	HSV50-100C-050C-T £375.50	HSV50-100C-H-T £385.00
2"	HSV50-200C-050C-T £399.50	HSV50-200C-H-T £438.00

HSV50

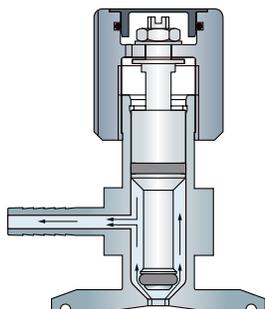


	Inlet - to suit ASME BPE size			Outlet / Flushing port		ØA	ØB	C	D	E
	1"	1-1/2"	2"	9.5mm barb	1/2" BPE clamp	(mm)	(mm)	(mm)	(mm)	(mm)
	✓	✓	✓	✓		50.5	12.7	101	47	48.5
	✓	✓	✓		✓	50.5	25	101	46.5	50
Available options										
	✓	✓	✓	✓		50.5	12.7	101	47	48.5
	✓	✓	✓		✓	50.5	25	101	46.5	50

Sample valves HSV90



The HSV90 is intended for liquid sampling applications in high purity systems. Wetted parts are manufactured in 316L stainless steel with a range of FDA and USP elastomer compliant seal materials available. The HSV90 is suitable for both in-line sterilising and autoclaving.



P **Pressure rating**

Up to 10 barg

T **Temperature rating**

Up to - 150°C with EPDM seals
200°C with Viton seals

L **Connections**

Inlet - 1/2" / 3/4", 1" / 1-1/2" or 2" ASME BPE clamp
Outlet - 1/2" ASME BPE clamp or 6.5mm hose barb

⊗ **Orifice diameter**

5.0mm

⊗ **Materials**

Wetted parts - 316L stainless steel
Seat seal - Viton or EPDM
Stem seal - Viton or EPDM
Handle - Polyetherimide

⊗ **Surface finish**

Wetted surfaces - 0.5 microns Ra and electropolished
External surfaces - 0.8 microns Ra and electropolished

✓ **Options**

Flushing port
Eccentric option
Silicone and Perlast seals
High capacity option

C **Available certification**

Material certificate covering all wetted parts

Ordering detail

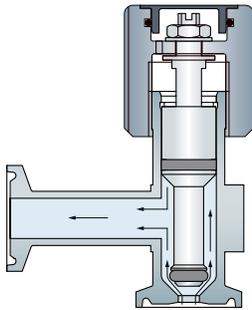
HSV90			
Inlet Clamp size (ASME BPE)	Outlet		
	1/2" ASME BPE clamp		6.5mm hose barb
1/2" / 3/4"	HSV90-050C-050C-V £410.50		HSV90-050C-H-V £383.50
1" / 1-1/2"	HSV90-100C-050C-V £430.50		HSV90-100C-H-V £402.50
2"	HSV90-200C-050C-V £453.50		HSV90-200C-H-V £425.50
1" Eccentric	HSV90E-100C-050C-V £481.50		HSV90E-100C-H-V £470.50

When an EPDM steam seal is preferred, substitute '-V' in order ref with '-E'

Sample valves HSV60 steam sample valve



Designed for use in high purity steam systems, the HSV60 utilises steam resilient Perlast seals to ensure optimum service life and bubble tight shut-off. The HSV60 is designed to connect directly on to Staitech's range of sample coolers and can also be used for any general steam sampling application where a throttling valve is required.

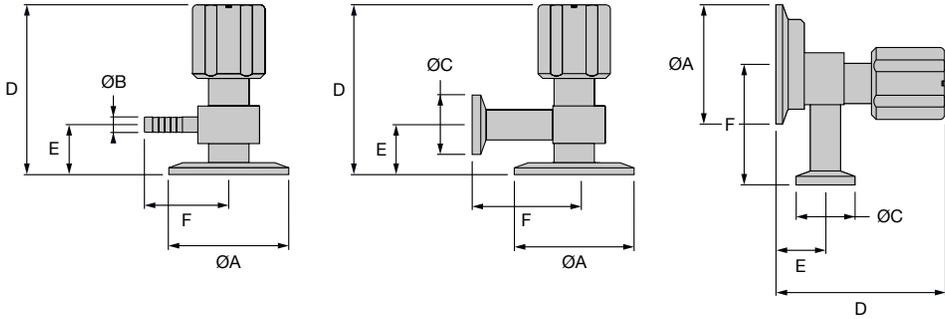


- P Pressure rating**
Up to 10 barg
- T Temperature rating**
Up to 200°C
- C Connections**
Inlet - 1/2" / 3/4", 1" / 1-1/2" or 2" ASME BPE clamp
Outlet - 1/2" ASME BPE clamp or 6.5mm hose barb
- Orifice diameter**
5.0mm
- Materials**
Wetted parts - 316L stainless steel
Seat seal - Perlast
Stem seal - Perlast
Handle - Polyetherimide
- Surface finish**
Wetted surfaces - 0.5 microns Ra and electropolished
External surfaces - 0.8 microns Ra and electropolished
- C Available certification**
Material certificate covering all wetted parts

Ordering detail

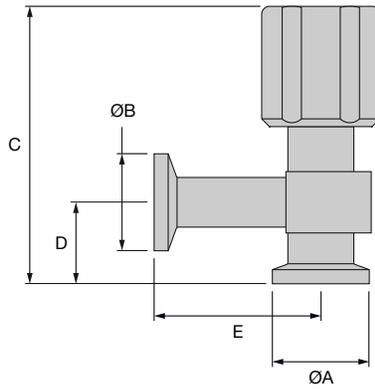
HSV60		
Inlet Clamp size (ASME BPE)	Outlet Clamp size (ASME BPE)	Ordering detail
1/2" / 3/4"	1/2"	HSV60-050C-050C £388.00
1" / 1-1/2"	1/2"	HSV60-100C-050C £407.50
2"	1/2"	HSV60-200C-050C £429.50

HSV90



Size (ASME BPE)	ØA (mm)	ØB (mm)	ØC (mm)	D (mm)	E (mm)	F (mm)
1/2" / 3/4"	25	6.5	25	72	21	43
1" / 1-1/2"	50.5	6.5	25	72	21	43
2"	64	6.5	25	72	21	43

HSV60



Size (ASME BPE)	ØA (mm)	ØB (mm)	C (mm)	D (mm)	E (mm)
1/2" / 3/4"	25	25	72	21	43
1" / 1-1/2"	50.5	25	72	21	43
2"	64	25	72	21	43

Sample coolers

Staitech's range of sample coolers allow clean steam and high purity water samples to be taken quickly and easily whilst maintaining a sterile testing environment. The HSC range of sample coolers offer a well engineered solution for steam and water sampling applications typically found in pharmaceutical facilities.



HSC30

67

- Portable unit
- High efficiency design
- Fully drainable



HSC50

69

- Removable chamber
- Counter flow design
- Fully electropolished



HSC60

71

- Designed for fixed installations
- Wide range of accessories
- Optional Inconel 600 coil available

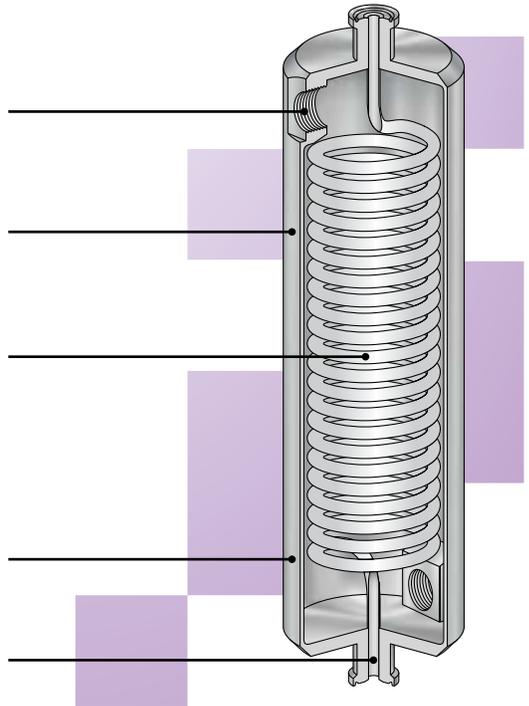
Counter flow design for optimum heat transfer

Models for fixed and portable applications

Free-draining coil design

316L stainless steel construction with electropolished coil

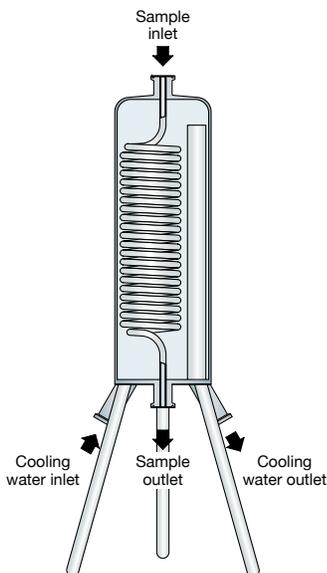
Suitable for high purity steam and water sampling



Sample coolers HSC30



The HSC30 is a portable unit designed to allow samples to be taken quickly and safely at any point within a steam system. Cooling water connections are 3/4" ASME BPE Clamp compatible which enables the unit to be connected easily to a local water supply. The HSC30 is suitable for autoclaving.



Pressure rating

Coil and shell - up to 10 barg



Temperature rating

Coil - 175°C

Shell - 100°C



Connections

Sample medium - 1/2" ASME BPE clamp

Cooling water - 3/4" ASME BPE clamp



Materials

All parts - 316L stainless steel



Performance

Heat transfer area - 0.08m²

Coil volume - 160ml

Typical performance - 10kg/h condensate at 30°C from steam at 3 barg with 0.1 l/s cooling water at 20°C rising to 40°C



Surface finish

Wetted surfaces - 0.5 microns Ra*

External surfaces - satin polish finish

*Coil formed from tube with an internal electropolished finish of 0.25 microns Ra



Options

Electropolishing finish - all wetted surfaces

Steam throttling valve (HSV60)

Sample outlet hose adaptor

Steam and cooling water hoses

Extended legs with floor pads

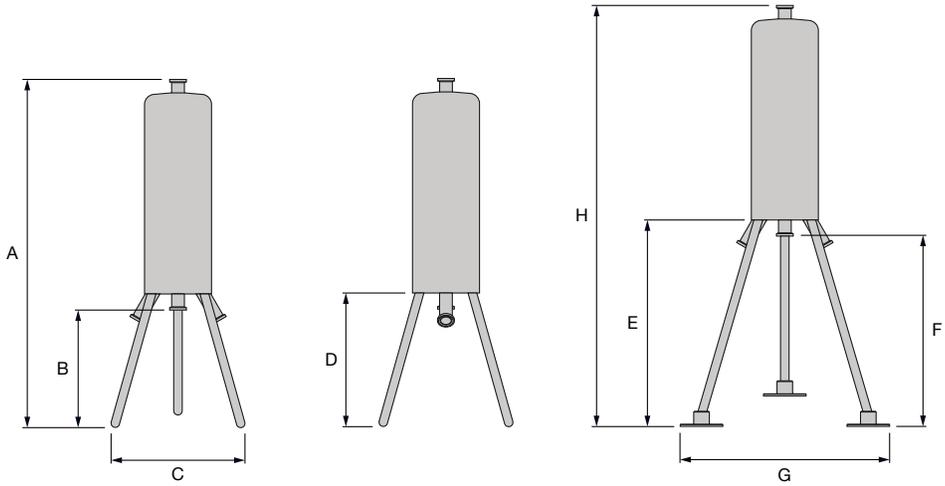
Storage case



Available certification

Material certificate covering wetted parts

HSC30



A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)
500	175	600	200	305	280	312	610

Ordering detail

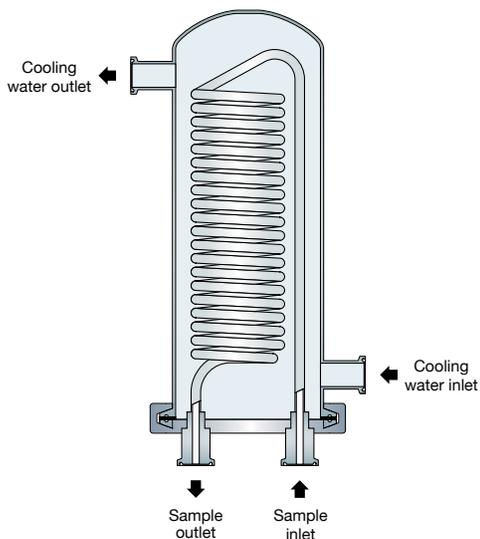
HSC30

Standard legs	HSC30-050C-075C-SL £1,968.00
Extended legs	HSC30-050C-075C-EL £2,067.00
Extended legs with floor pads	HSC30-050C-075C-EL-FP £2,334.00
Storage/carry case (standard legs)	HSC30-CASE-SL £385.50
Storage/carry case (extended legs)	HSC30-CASE-EL £385.50

Sample coolers HSC50



Designed for environments where the cooling water supply may lead to fouling of the coil, the HSC50 can be disassembled for cleaning. The orientation of the sample connections also makes the HSC50 suitable for continuous in-line cooling applications such as conductivity monitoring in high purity systems.



P Pressure rating
Coil and shell - up to 10 barg

T Temperature rating
Coil - 175°C
Shell - 100°C

L Connections
Sample medium - 1/2" ASME BPE clamp
Cooling water - 3/4" ASME BPE clamp

Materials
All parts - 316L stainless steel

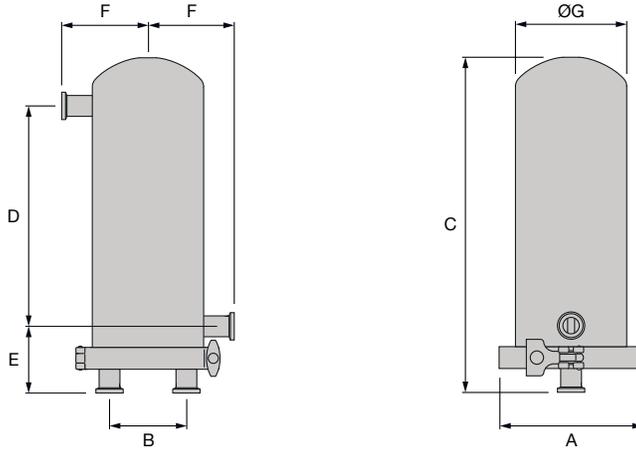
Performance
Heat transfer area - 0.08m²
Coil volume - 160ml
Typical performance - 10kg/h condensate at 30°C
from steam at 3 barg with 0.1 l/s cooling water at
20°C rising to 40°C

Surface finish
Wetted surfaces - 0.5 microns Ra*
External surfaces - satin polish finish
*Coil formed from tube with an internal electropolished finish of 0.25 microns Ra

Options
Electropolishing finish - all wetted surfaces
Steam throttling valve (HSV60)
Sample outlet hose adaptor
Steam and cooling water hoses

C Available certification
Material certificate covering wetted parts

HSC50



A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	ØG (mm)
135	70	305	200	63	75	102

Ordering detail

HSC50

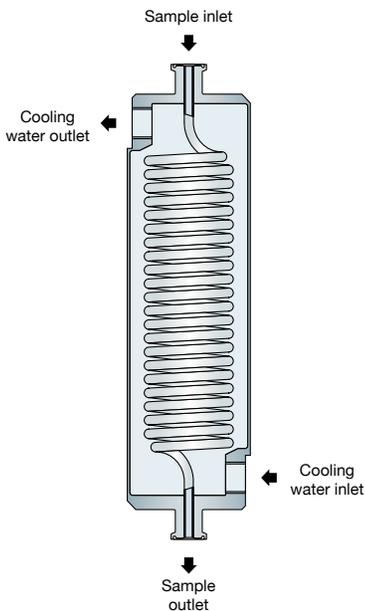
Standard unit	HSC50-050C-075C £1,582.50
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For accessories see page 73

Sample coolers HSC60



The HSC60 is intended for permanent mounting. Utilising the same basic coil design as the HSC30 and HSC50 units, the HSC60 is ideal for obtaining samples at both the point of generation and throughout a distribution system. The HSC60 can be sterilised in-situ, thus ensuring continuity of samples regardless of testing frequency.



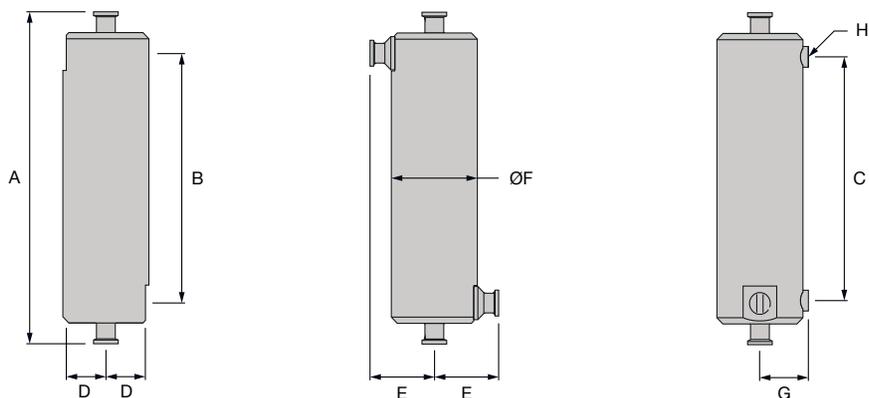
- P Pressure rating**
Coil and shell - up to 10 barg
- T Temperature rating**
Coil - 175°C
Shell - 100°C
- L Connections**
Sample medium - 1/2" ASME BPE clamp
Cooling water - 1/2" BSP
1/2", 3/4" or 1" ASME BPE clamp
- M Materials**
All parts - 316L stainless steel
- D Performance**
Heat transfer area - 0.08m²
Coil volume - 160ml
Typical performance - 10kg/h condensate at 30°C from steam at 3 barg with 0.1 l/s cooling water at 20°C rising to 40°C
- Surface finish**
Wetted surfaces - 0.5 microns Ra*
External surfaces - satin polish finish
*Coil formed from tube with an internal electropolished finish of 0.25 microns Ra
- Options**
Electropolishing finish - all wetted surfaces
Steam throttling valve (HSV60)
Sample outlet hose adaptor
Steam and cooling water hoses
Wall mounting kit**
**Not required for through wall mounting
- C Available certification**
Material certificate covering wetted parts

PRODUCT UPDATE

Now available with Inconel coil

High Chloride content of many cooling water supplies can lead to rapid corrosion of stainless steel. Staitech now offer the HSC60 with Inconel 600 inner coil to combat this issue. Consult staitech for further information.

HSC60



A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	ØF (mm)	G (mm)	H (mm)
320	240	235	40	65	88	49	M8

Ordering detail

HSC60	
Cooling water connections	Ordering detail
1/2" BSP	HSC60-050C-050GF £1,465.00
1/2" ASME BPE clamp	HSC60-050C-050C £1,633.00
3/4" ASME BPE clamp	HSC60-050C-075C £1,633.00
1" ASME BPE clamp	HSC60-050C-100C £1,661.50
Wall mounting kit	HSC60-WMKIT £131.50

For accessories see page 73

Inconel coil	£750.00
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Sample coolers Accessories

Staitech offer a comprehensive range of ancillary products for use with all models of sample cooler, including:

- HSV60 steam rated sample valve (see page 64 for full specifications)
- PTFE lined sample hose
- Cooling water adaptor kits
- Steam and water isolation valves (see page 106-119)
- Hose adaptor kits

HSC60			
	HSV60 sample valve	HSV60-050C-050C	£366.00
	HSV60 sample valve kit - HSV60, PTFE seal and 'S' type clamp	HSV60-KIT-050C-050C	£375.50
	Sample outlet hose adaptor - 1/2" clamp x 8.5mm hose tail	HSC-HOSE	£44.55
	Sample outlet hose adaptor kit - 1/2" clamp x 8.5mm hose tail, EPDM seal and 'S' type clamp	HSC-HOSE-KIT	£54.50
	2m long PTFE lined braided stainless steel steam rated hose with Silicone cover and 1/2" clamp end fittings	HOSE-PL-2M	£228.00
	Additional cost per metre where 'X' is the new length	HOSE-PL-XM	£36.50/m
	2m reinforced silicone cooling water hose with 3/4" clamp end fittings	HOSE-VTS-075NB-2M	£228.00
	Additional cost per metre where 'X' is the new length	HOSE-VTS-075NB-XM	£22.80/m
	3/4" nominal bore platinum cured silicone hose. 10m length suitable for use with hose barb HOSEB-075-19.2B (see page 36)	HOSE-VTS-075NB-10M	£323.50
	Cooling water isolation valve - 1/2" BSP female connections	BV2P-050GF	£30.25

Steam quality testing apparatus		
	<p>Steam quality testing kit</p> <p>POA</p> <p>Staitech offer a steam quality kit that enables non-condensable gas content, dryness fraction and superheat content to be established in a steam supply as defined in the HTM2010 and EN285 standards.</p> <p>Please contact Staitech for further information.</p>	
	<p>Test elbows</p> <p>POA</p> <p>To facilitate steam quality testing, HTM2010 test elbows are available for all sizes of steam pipeline.</p> <p>Please contact Staitech for further information.</p>	

Heat exchangers

Staitech's range of sanitary heat exchangers are designed to meet the high quality requirements and hygienic standards of the pharmaceutical industry. The tube-in-tube design is suitable for high temperature, high pressure and low flow applications where as the compact shell-in-tube model provide maximum performance in a minimum package and is ideal for space constrained configurations.



HSC20

75

- Tube-in-tube construction
- High efficiency design
- Fully drainable



Compact heat exchangers

77

- Optimised heat transfer area
- Maintenance free design
- Easy to install due to compact form



High capacity heat exchangers

77

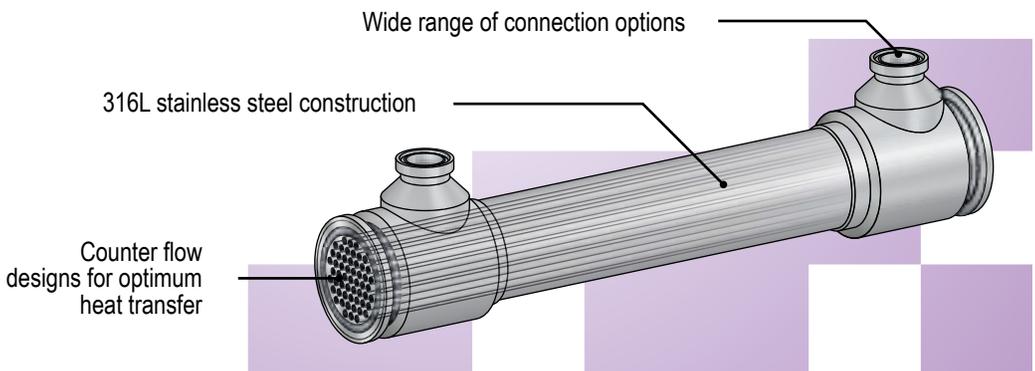
- Tailored to meet customer-specified duty
- Single and multi pass designs
- Range of surface finish options



Point-of-use system

77

- Designed for WFI cooling applications
- Wide flow range
- Tailored designs

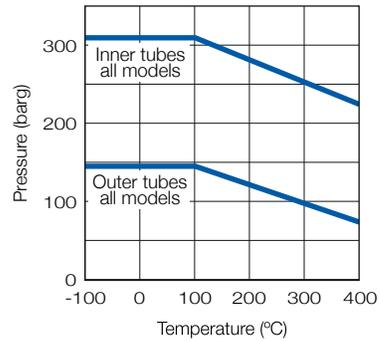


Heat exchangers HSC20



The HSC20 heat exchanger utilises a continuous length of seamless tube through which the process medium flows. The inner tube terminates in a mini ASME BPE clamp connection, with the heat transfer medium passing through the mounting boss fittings. The HSC20 is also suitable for applications where the heating medium is steam. Consult Staitech for help selecting a suitable unit. See page 76 for process criteria required to aid with product selection.

P Pressure and temperature rating



L Connections

Sample medium -

25mm clamp to suit ASME BPE fittings

Cooling/heating medium -

NPT female



S Materials

All parts - 316L stainless steel



D Performance

Suitable for duties up to 79kw



W Surface finish

Wetted surfaces - 0.8 microns Ra or 0.5 microns

Ra and electropolished

External surfaces - satin polished finish



V Options

Alternative materials

ASME BPE clamp cooling/heating medium

connections



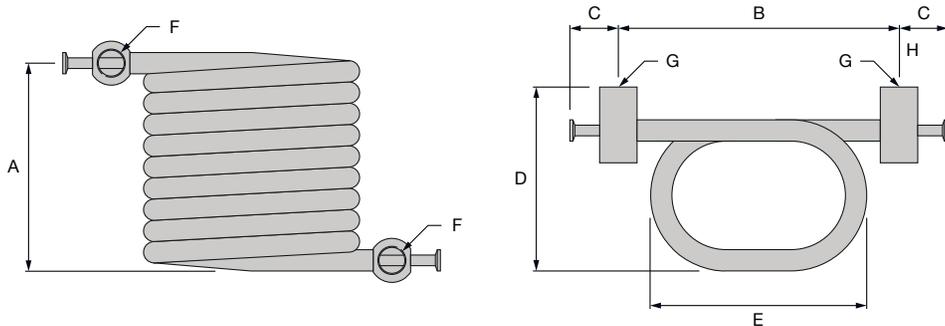
C Available certification

Material certificate covering wetted parts

Ordering detail

HSC20		
Model	Standard finish	Electropolished finish
HSC20-01	HSC20-01-025C-025NPTF £2,055.00	HSC20-01-025C-025-EP £2,520.00
HSC20-02	HSC20-02-0375C-075NPTF £2,325.00	HSC20-02-0375C-075C-EP £3,115.00
HSC20-03	HSC20-03-050C-100NPTF £2,855.00	HSC20-03-050C-100C-EP £3,618.00
HSC20-04	HSC20-04-075C-100NPTF £3,840.00	HSC20-04-075C-100C-EP £4,835.00

HSC20



Model	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F	G
HSC20-01	241	178	41	114	127	1/2" NPTF	5/16" x 18
HSC20-02	229	245	48	162	191	3/4" NPTF	3/8" x 16
HSC20-03	241	220	57	216	254	1" NPTF	1/2" x 13
HSC20-04	216	495	105	302	425	1" NPTF	1/2" x 13

Performance

HSC20			
Model	Inner tube - Ømm	Outer tube - Ømm	Heat transfer area - m ²
HSC20-01	6.4 x 0.9	12.7 x 0.9	0.11
HSC20-02	9.5 x 1.2	19 x 1.2	0.16
HSC20-03	12.7 x 1.65	25.4 x 1.65	0.24
HSC20-04	19.05 x 1.65	31.8 x 1.7	0.34

If you would like Staitech to select a suitable unit based on system data, then please provide the information identified below

Product selection - all heat exchanger models

The following information is required to enable the selection of a heat exchanger.

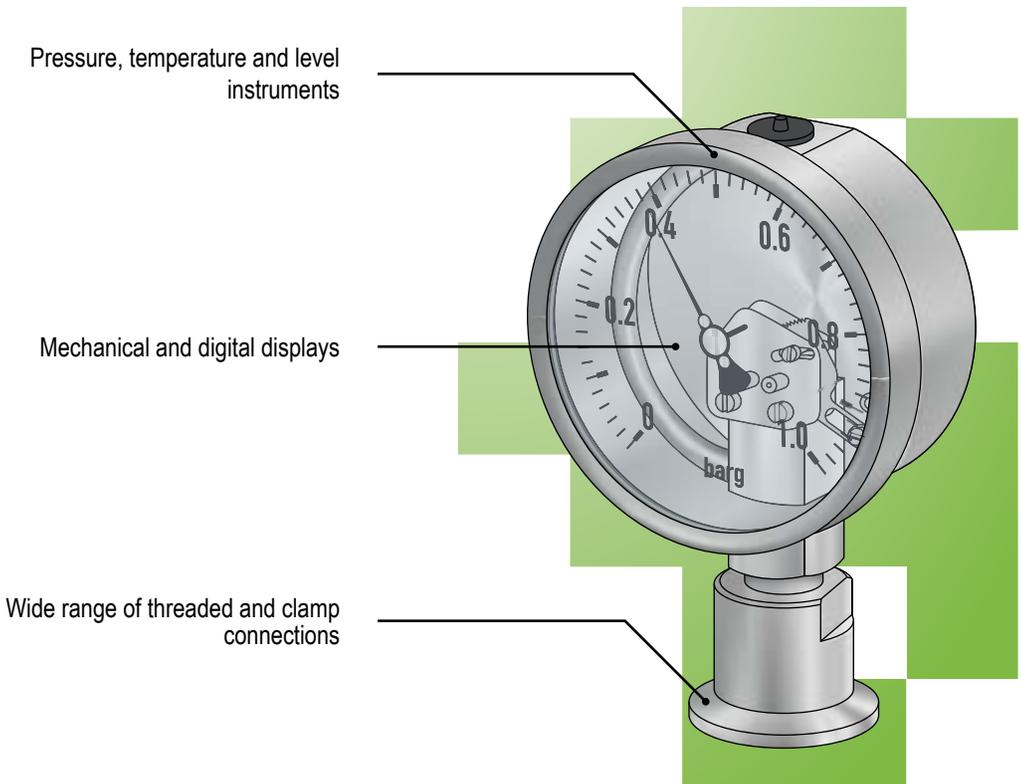
- Application (heating/cooling)
- Process medium type and properties
- Process medium inlet temperature
- Process medium outlet temperature
- Process medium flow rate
- Process medium pressure
- Heating/cooling medium type
- Heating/cooling inlet temperature
- Heating/cooling outlet temperature
- Heating/cooling medium pressure
- Connection type
- Surface finish
- Single or double tube sheet design

Instrumentation

Staitech's long association with its three principle suppliers - Wika, Tempres and Klay Instruments, continues to ensure a product range offering that satisfies the majority of requirements in today's ever demanding market.

Product features

- Partners to some of the industry's key manufacturers
- Instruments available for all process media
- Wide range of connection types
- Calibration certificates available on all instruments
- Bespoke thermowells and fittings manufactured to order





Threaded pressure gauges

80

- DN63 and DN100 dial sizes
- 1/4", 3/8" and 1/2" threaded connections
- Wide range of options



Diaphragm seal pressure gauges

82

- FDA compliant fill fluids
- Wide range of diaphragm seal sizes
- Numerous options available



Pressure and level transmitters

86

- Threaded and diaphragm seal options
- High temperature versions for steam applications
- Low pressure ranges for level measurements



Temperature sensors and thermometers

89

- PT100 sensors with optional 4-20.mA output
- DN63 and DN100 thermometers
- Thermowells manufactured to customer requirements



Gauge and transmitter accessories

90

- U-Siphon and ring siphons
- Isolation valves
- Threaded clamp adaptor

Instrumentation Threaded pressure gauges

Manufactured by **WIKAI**



Staitech offer a range of fully stainless steel pressure gauges in both DN63 and DN100 dial sizes. All gauges have a toughened glass lens and can be supplied with dry case or with liquid damping fill. Standard gauges are bottom entry with male thread. Case fill fluids are FDA compliant.

Threaded pressure gauges

Dial size	ØA (mm)	B (mm)
DN63	63	84.5
DN100	101	137.5

- P Pressure rating**
DN63
 Steady - 75% of indicated pressure range
 Fluctuating - 66% of indicated pressure range
 Short periods - full indicated pressure range
DN100
 Steady - 100% of indicated pressure range
 Fluctuating - 90% of indicated pressure range
 Short periods - 130% indicated pressure range
- T Temperature rating**
 Dry case - 200°C
 Glycerine filled case - 85°C
- C Connection**
 Bottom entry
 DN63 - 1/4" and 3/8" BSP parallel
 DN100 - 3/8" and 1/2" BSP parallel
- M Materials**
 Glass surround - 316L stainless steel
 Case - 304 stainless steel
 Lens - laminated safety glass
- S Surface finish**
 Case - satin finish
- D Design parameters**
 Accuracy class - DN63 - Class 1.6
 DN100 and DN160 - Class 1.0
 Thermal drift from 20°C: +0.4% of the indicated range for every 10°C increase in medium temperature
- S Standard pressure ranges - barg**
 -1-0-3, -1-0-5, -1-0-9, 0-1, 0-2.5, 0-4, 0-6, 0-10, 0-16, 0-25
- O Options**
 DN160 case size
 Alternative pressure ranges
 Back and side entry connections
 Panel mount and safety pattern cases
 Brass and Monel wetted parts
 Oxygen cleaning
 BSP taper and NPT threaded connections
 Electrical contact system
 ATEX compliant gauges
- C Available certification**
 Calibration certificate

Ordering detail

DN63 threaded pressure gauges			
Range (barg)		DN63 Dry case	DN63 Glycerine filled case
0-2.5	1/4" BSP parallel thread	DN63PG-025GM-B-R14-D £64.00	DN63PG-025GM-B-R14-G £70.00
0-4		DN63PG-025GM-B-R15-D £64.00	DN63PG-025GM-B-R15-G £70.00
0-6		DN63PG-025GM-B-R16-D £64.00	DN63PG-025GM-B-R16-G £70.00
0-10		DN63PG-025GM-B-R18-D £64.00	DN63PG-025GM-B-R18-G £70.00
0-16		DN63PG-025GM-B-R20-D £64.00	DN63PG-025GM-B-R20-G £70.00
0-20		DN63PG-025GM-B-R21-D £64.00	DN63PG-025GM-B-R21-G £70.00

DN100 threaded pressure gauges			
Range (barg)		DN100 Dry case	DN100 Glycerine filled case
0-2.5	3/8" BSP parallel thread	DN100PG-0375GM-B-R14-D £120.00	DN100PG-0375GM-B-R14-G £125.00
0-4		DN100PG-0375GM-B-R15-D £120.00	DN100PG-0375GM-B-R15-G £125.00
0-6		DN100PG-0375GM-B-R16-D £120.00	DN100PG-0375GM-B-R16-G £125.00
0-10		DN100PG-0375GM-B-R18-D £120.00	DN100PG-0375GM-B-R18-G £125.00
0-16		DN100PG-0375GM-B-R20-D £120.00	DN100PG-0375GM-B-R20-G £125.00
0-20		DN100PG-0375GM-B-R21-D £120.00	DN100PG-0375GM-B-R21-G £125.00
0-2.5	1/2" BSP parallel thread	DN100PG-050GM-B-R14-D £120.00	DN100PG-050GM-B-R14-G £125.00
0-4		DN100PG-050GM-B-R15-D £120.00	DN100PG-050GM-B-R15-G £125.00
0-6		DN100PG-050GM-B-R16-D £120.00	DN100PG-050GM-B-R16-G £125.00
0-10		DN100PG-050GM-B-R18-D £120.00	DN100PG-050GM-B-R18-G £125.00
0-16		DN100PG-050GM-B-R20-D £120.00	DN100PG-050GM-B-R20-G £125.00
0-20		DN100PG-050GM-B-R21-D £120.00	DN100PG-050GM-B-R21-G £125.00

Threaded clamp adaptor

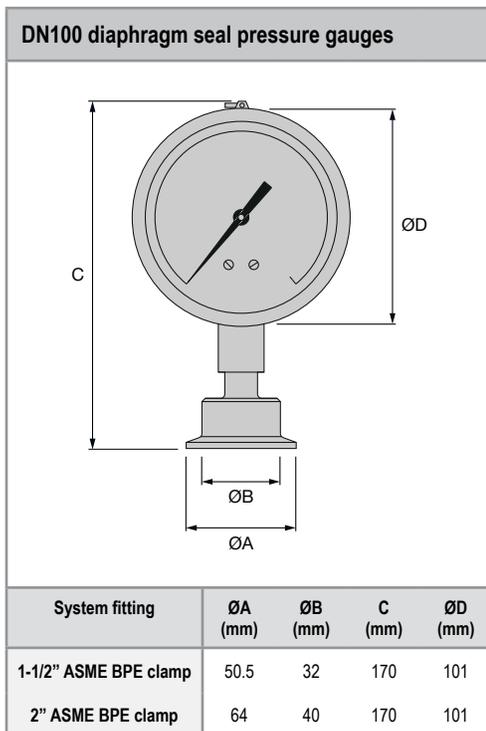
For applications where a clamp connection is required, but without a diaphragm seal, Staitech offer threaded clamp adaptors. These parts use a parallel thread with Gylon face seal which isolates the gauge thread from the process medium when assembled. See Page 90 for more information.



Instrumentation DN100 diaphragm seal pressure gauges



Where isolation of the gauge mechanism from the process medium is required Staitech offer a range of diaphragm seal gauges. Standard gauges have a 100mm diameter case with clamp fitting to suit either 1-1/2" or 2" ASME BPE connection. Wetted surfaces are finished to 0.5 microns Ra. Case and transmission fill fluids are FDA compliant.



ØB is diaphragm diameter

- P Pressure rating**
 - Steady - full indicated pressure range
 - Fluctuating - 90% of indicated pressure range
 - Short periods - 130% of indicated pressure range
- T Temperature rating**
 - Dry case - 130°C
 - Glycerine filled case - 85°C
 - (130°C for short periods during SIP)
 - High temperature option with dry case - 200°C
 - (Designed for steam systems and calibrated at 140°C)
- Connection**
 - Bottom entry with 1-1/2" or 2" ASME BPE clamp
- Materials**
 - Wetted parts - 316L stainless steel
 - Case - 304 stainless steel
 - Lens - laminated safety glass
 - Transmission fill - Neobee
 - Case fill (if applicable) - Glycerine
- Design parameters**
 - Accuracy class - 1.0
 - Standard gauges** - Thermal drift from 20°C: +0.4% of the indicated range for every 10°C increase in medium temperature
 - High temperature gauges** - Thermal drift from calibration temperature of 140°C: +0.4% of the indicated range for every 10°C increase in medium temperature and -0.4% of the indicated range for every 10°C decrease in medium temperature
- Standard pressure ranges - barg**
 - 1-0-3, -1-0-5, -1-0-9, 0-1, 0-2.5, 0-4, 0-6, 0-10, 0-16, 0-25
- Surface finish**
 - Wetted diaphragm surfaces - 0.5 microns Ra
 - Case - satin finish better than 1.2 microns Ra
- Options**
 - DN63mm diameter case
 - 1", 2-1/2" and 3" ASME BPE connection
 - Back and side entry connections
 - Alternative pressure ranges
 - Enhanced surface finishes and electropolishing
 - Panel mount case with capillary and remote sensor
 - Safety pattern case
 - Electrical contact system
 - ATEX compliant gauges
- Available certification**
 - Material certification covering diaphragm assembly
 - Calibration certificate

Ordering detail

DN100 standard gauges

Range (barg)	1-1/2" clamp (ASME BPE)	2" clamp (ASME BPE)
Glycerine damping filled - calibrated at ambient temperature		
-1-0-3	DN100PG-150C-B-R5-G £290.00	DN100PG-200C-B-R5-G £340.00
-1-0-5	DN100PG-150C-B-R6-G £290.00	DN100PG-200C-B-R6-G £340.00
0-1	DN100PG-150C-B-R12-G £290.00	DN100PG-200C-B-R12-G £340.00
0-2.5	DN100PG-150C-B-R14-G £290.00	DN100PG-200C-B-R14-G £340.00
0-4	DN100PG-150C-B-R15-G £290.00	DN100PG-200C-B-R15-G £340.00
0-6	DN100PG-150C-B-R16-G £290.00	DN100PG-200C-B-R16-G £340.00
0-10	DN100PG-150C-B-R18-G £290.00	DN100PG-200C-B-R18-G £340.00
0-16	DN100PG-150C-B-R20-G £290.00	DN100PG-200C-B-R20-G £340.00
Dry case - calibrated at ambient temperature		
-1-0-3	DN100PG-150C-B-R5-D £285.00	DN100PG-200C-B-R5-D £335.00
-1-0-5	DN100PG-150C-B-R6-D £285.00	DN100PG-200C-B-R6-D £335.00
0-1	DN100PG-150C-B-R12-D £285.00	DN100PG-200C-B-R12-D £335.00
0-2.5	DN100PG-150C-B-R14-D £285.00	DN100PG-200C-B-R14-D £335.00
0-4	DN100PG-150C-B-R15-D £285.00	DN100PG-200C-B-R15-D £335.00
0-6	DN100PG-150C-B-R16-D £285.00	DN100PG-200C-B-R16-D £335.00
0-10	DN100PG-150C-B-R18-D £285.00	DN100PG-200C-B-R18-D £335.00
0-16	DN100PG-150C-B-R20-D £285.00	DN100PG-200C-B-R20-D £335.00

DN100 steam rated gauges

Range (barg)	1-1/2" clamp (ASME BPE)	2" clamp (ASME BPE)
Steam system gauges - calibrated at 140°C		
-1-0-3	DN100PG-150C-B-R5-HT £315.00	DN100PG-200C-B-R5-HT £365.00
-1-0-5	DN100PG-150C-B-R6-HT £315.00	DN100PG-200C-B-R6-HT £365.00
0-1	DN100PG-150C-B-R12-HT £315.00	DN100PG-200C-B-R12-HT £365.00
0-2.5	DN100PG-150C-B-R14-HT £315.00	DN100PG-200C-B-R14-HT £365.00
0-4	DN100PG-150C-B-R15-HT £315.00	DN100PG-200C-B-R15-HT £365.00
0-6	DN100PG-150C-B-R16-HT £315.00	DN100PG-200C-B-R16-HT £365.00
0-10	DN100PG-150C-B-R18-HT £315.00	DN100PG-200C-B-R18-HT £365.00
0-16	DN100PG-150C-B-R20-HT £315.00	DN100PG-200C-B-R20-HT £365.00

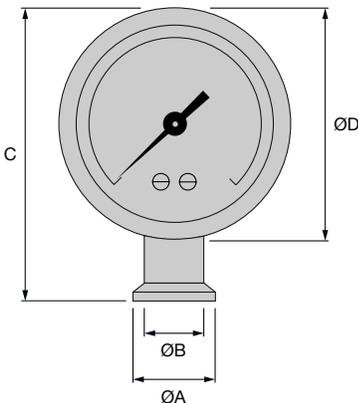
Instrumentation DN63 diaphragm seal pressure gauges

Manufactured by 



For smaller tube sizes, Staitech offer a DN63 pressure gauge with diaphragm seal to suit a 3/4" ASME BPE clamp fitting. This gauge is also suitable for autoclaving. Wetted surfaces are finished to 0.5 microns Ra. Case and transmission fill fluids are FDA compliant.

DN63 diaphragm and pressure gauges



System fitting	ØA (mm)	ØB (mm)	C (mm)	ØD (mm)
3/4" ASME BPE clamp	25	15.8	84.5	63

ØB is diaphragm diameter

- P Pressure rating**
Steady - full scale range
Fluctuating - 90% of full scale range
Short periods - 130% of full scale range

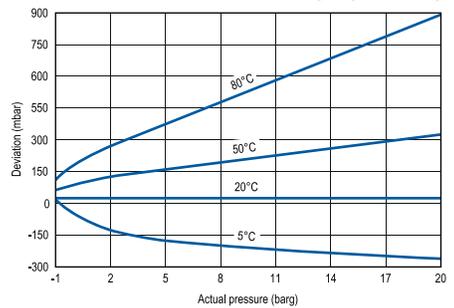
- T Temperature rating**
Medium temperature - 150°C
Autoclaving temperature - 125°C

- C Connection**
Bottom entry with 3/4" ASME BPE clamp

- M Materials**
Wetted parts and case - 316L stainless steel
Lens - toughened safety glass
Transmission fill - Glycerine
Case fill (if applicable) - Glycerine

- D Design parameters**
Accuracy class - 1.6

Affect of medium temperature on gauge reading



- S Standard pressure ranges - barg**
-1-0-3, -1-0-4, 0-4, 0-7, 0-11

- S Surface finish**
Wetted diaphragm surfaces - 0.5 microns Ra
Case - 0.8 microns Ra and electropolished

- ✓ Options**
Back entry connections

- C Available certification**
Material certification covering diaphragm assembly
Calibration certificate

Ordering detail

DN63 diaphragm and pressure gauges		
Range (barg)	Dry case	Glycerine filled case
-1-0-3	DN63PG-075C-B-R1-D £397.50	DN63PG-075C-B-R1-G £397.50
-1-0-4	DN63PG-075C-B-R2-D £397.50	DN63PG-075C-B-R2-G £397.50
0-4	DN63PG-075C-B-R3-D £397.50	DN63PG-075C-B-R3-G £397.50
0-7	DN63PG-075C-B-R4-D £397.50	DN63PG-075C-B-R4-G £397.50
0-11	DN63PG-075C-B-R5-D £397.50	DN63PG-075C-B-R5-G £397.50

Instrumentation Capillary pressure gauges

Where pressure is to be monitored remotely from the process, pressure gauges are available with a capillary and diaphragm seal. If a panel mounted gauge is required then a back entry connection can be specified together with a number of panel mount bezel options.

Capillary gauges		
	Dial size	DN63, DN100 and DN160
	Pressure ranges	As diaphragm seal gauges
	Connection sizes	As diaphragm seal gauges
	Capillary length	Specifiable between 0.5m and 6m

Instrumentation Mechanical diaphragm seal gauges

Where a filled capillary system is used, there is always a risk of contamination should the instrument diaphragm become damaged. The PG43 gauge overcomes this possibility, as the gauge mechanism is connected directly to the diaphragm by a mechanical linkage. The PG43 gauge is available with 1-1/2" ASME BPE clamp connection and has a dial size of 63mm. Gauges are suitable for SIP and autoclaving.

PG43 mechanical diaphragm seal gauges		
	Range (barg)	1-1/2" Clamp (ASME BPE)
	-1-0-3	DN63PGM-150C-BK-R1 £365.45
	-1-0-5	DN63PGM-150C-BK-R3 £365.45
	-1-0-9	DN63PGM-150C-BK-R10 £365.45
	0-3.5	DN63PGM-150C-BK-R12 £365.45
	0-6	DN63PGM-150C-BK-R16 £365.45
	0-10	DN63PGM-150C-BK-R18 £365.45

Instrumentation Threaded pressure transmitter

Manufactured by **WIKAI**



Standard threaded pressure transmitters are suitable for applications where the medium temperature does not exceed 100°C. For higher temperature applications units can be used in conjunction with a barrier siphon as outlined on page 90. In addition to the basic S-10 model, Staitech offer a range of programmable transmitters and ATEX compliant instruments.

- P Pressure rating**
Steady - full indicated pressure range
Allowable over pressure - see ordering details
- T Temperature rating**
Medium: 100°C
- C Connection**
1/4" or 1/2" BSP parallel male
- M Materials**
Wetted parts - stainless steel
Case - stainless steel
Electrical connector - plastic
- D Design parameters**
Accuracy - 0.5% of range. Rated IP65
- S Standard pressure ranges - barg**
0-2.5, 0-4, 0-6, 0-10, 0-16
- SF Surface finish**
Case - satin finish
- O Options**
Alternative pressure ranges
BSP taper and NPT threaded connections
High temperature version - 150°C
- C Available certification**
Calibration certificate

Ordering detail

Model S-10 threaded pressure transmitter			
Range (barg)	Allowable over pressure (barg)	1/4" BSP	1/2" BSP
0-2.5	10	PTRAN-025GM-100-R14-P £275.00	PTRAN-050GM-100-R14-P £275.00
0-4	17	PTRAN-025GM-100-R15-P £275.00	PTRAN-050GM-100-R15-P £275.00
0-6	35	PTRAN-025GM-100-R16-P £275.00	PTRAN-050GM-100-R16-P £275.00
0-10	35	PTRAN-025GM-100-R18-P £275.00	PTRAN-050GM-100-R18-P £275.00
0-16	80	PTRAN-025GM-100-R19-P £275.00	PTRAN-050GM-100-R19-P £275.00

Transmitter indicator head

An indicator head can be fitted to any of the threaded or diaphragm seal pressure transmitters as illustrated above. The loop powered IP65 rated unit provides a local read-out with simultaneous signal transmission.

Model A-AI-1
£220.00

Instrumentation Diaphragm seal pressure transmitter

Manufactured by **WIKAI**



For applications where a flush diaphragm between the process medium and instrument is required the SA-10 and SA-11 pressure transmitters are available. The SA-11 is suitable for use where the medium temperature is up to 150°C making it suitable for applications involving SIP. For higher temperature duties such as steam distribution lines, the SA-10 with 200°C medium temperature limit is available.

- P Pressure rating**
Steady - full indicated pressure range
Allowable over pressure - see ordering details
- T Temperature rating**
Medium: SA-11 - 150°C / SA-10 - 200°C
- L Connection**
1-1/2" or 2" ASME BPE clamp
- Materials**
Wetted parts - 316L stainless steel
Case - stainless steel
Electrical connector - plastic
- Design parameters**
Accuracy - 0.5% of range. Rated IP65
- Standard pressure ranges - barg**
0-2.5, 0-4, 0-6, 0-10, 0-16
- Surface finish**
Wetted diaphragm surfaces - 0.5 microns Ra
Case - satin finish
- Options**
Alternative pressure ranges
1", 2-1/2" and 3" ASME BPE connection
- C Available certification**
Material certification covering wetted assembly
Calibration certificate

Ordering detail

Diaphragm seal pressure transmitter				
	Range (barg)	Allowable over pressure (barg)	1-1/2" clamp (ASME BPE)	2" clamp (ASME BPE)
Model SA-11				
SA-11 (150°C)	0-2.5	10	PTRAN-150C-150-R14-P £456.00	PTRAN-200C-150-R14-P £498.00
	0-4	17	PTRAN-150C-150-R15-P £456.00	PTRAN-200C-150-R15-P £498.00
	0-6	35	PTRAN-150C-150-R16-P £456.00	PTRAN-200C-150-R16-P £498.00
	0-10	35	PTRAN-150C-150-R18-P £456.00	PTRAN-200C-150-R18-P £498.00
	0-16	80	PTRAN-150C-150-R19-P £456.00	PTRAN-200C-150-R19-P £498.00
Model SA-10				
SA-10 (200°C)	0-6	35	PTRAN-150C-200-R16-P £740.00	PTRAN-200C-200-R16-P £784.00
	0-10	35	PTRAN-150C-200-R18-P £740.00	PTRAN-200C-200-R18-P £784.00

Instrumentation Diaphragm seal level transmitter

Manufactured by 



The Series 2000 and 8000 instruments are suitable for both pressure and level measuring applications. The measuring span of both models is fully adjustable, with the Series 2000 having an in-head programmer with digital display. Units are available with 1-1/2" or 2" clamp connection, or with 62 or 85mm weld pad for inclusion in to vessel fabrications. Both models are suitable for applications where SIP is performed at up to 140°C for 45 minutes.

- P Pressure rating**
Measuring spans between 0-0.4 and 0-30 bar
- T Temperature rating**
- 20°C - 100°C (140°C for 45 minutes during SIP)
- Surface finish**
Wetted diaphragm surfaces - 0.38 microns Ra
- Options**
Vacuum rated instruments
High temperature versions
Remote electronics
Differential pressure measuring options
- C Available certification**
Material certificate
Calibration certificate

Ordering detail

Series 2000			
Range (barg)	1-1/2" clamp (ASME BPE)	2" clamp (ASME BPE)	62mm weld pad*
0-0.4	2000-150C-100-R1 £1,185.00	2000-200C-100-R1 £1,210.00	2000-62W-100-R1 £1,210.00
0-0.7	2000-150C-100-R2 £1,185.00	2000-200C-100-R2 £1,210.00	2000-62W-100-R2 £1,210.00
0-4	2000-150C-100-R3 £1,080.00	2000-200C-100-R3 £1,210.00	2000-62W-100-R3 £1,210.00
0-30	2000-150C-100-R4 £1,080.00	2000-200C-100-R4 £1,210.00	2000-62W-100-R4 £1,210.00

*For 85mm weld pad substitute 85W for 62W

Series 8000			
Range (barg)	1-1/2" clamp (ASME BPE)	2" clamp (ASME BPE)	62mm weld pad*
0-0.4	8000-150C-100-R1 £858.00	8000-200C-100-R1 £885.00	8000-62W-100-R1 £885.00
0-0.7	8000-150C-100-R2 £858.00	8000-200C-100-R2 £885.00	8000-62W-100-R2 £885.00
0-1.5	8000-150C-100-R3 £858.00	8000-200C-100-R3 £885.00	8000-62W-100-R3 £885.00
0-4	8000-150C-100-R4 £806.00	8000-200C-100-R4 £885.00	8000-62W-100-R4 £885.00
0-30	8000-150C-100-R5 £806.00	8000-200C-100-R5 £885.00	8000-62W-100-R5 £885.00

*For 85mm weld pad substitute 85W for 62W

Material certification covering wetted parts - £45.00

Calibration report - £45.00

Instrumentation Pressure switches



The PSD-30 pressure switch is programmable within its setting range using the in-head key pad and LED display. Switches have two set points with either PNP or NPN switching function and optional 4-20mA output. Process connections include 1/4" and 1/2" BSP male and 1-1/2" and 2" ASME BPE clamp fittings with flush diaphragm seal. Standard units are suitable for operating temperatures up to 85°C. When fitted with cooling element, diaphragm seal units can be used up to 200°C. Further details and pricing are available upon request.

Instrumentation Temperature sensors



Staitech offer a wide range of temperature sensors for both standard and high purity installations. Instruments are available with thermowells if required to facilitate calibration or replacement without compromising the integrity of a system. Where an electrical interface is required, sensors can be fitted with an in-head transmitter to give a 4-20mA or similar output.

Instrumentation Thermometers



Where local temperature indication is required, Staitech offer a range of bimetallic and gas filled thermometers. Gauges are available with dial sizes ranging from DN50 to DN160 with either bottom or back entry sensing probe connection. Probes can be supplied to any length as specified by the customer and are also available with thermowell if required.

Instrumentation Level switch



Staitech also offer the Klay range of vibrating level switches. Switches are available with threaded and clamp connection with various insertion lengths and switching functions.

Instrumentation Gauge and transmitter accessories

For applications where threaded gauges and transmitters are to be used on systems at elevated temperatures, ring and U-siphons are available together with simple one-piece isolation ball valves.

Ring and U-Siphons			
	Thread size (BSP)	316L stainless steel ring and U-Siphons	
		Ring siphon	U-Siphon
	1/4"	RSIP-316-025GM £47.20	USIP-316-025GM £34.30
	3/8"	RSIP-316-0375GM £57.90	USIP-316-0375GM £37.50
	1/2"	RSIP-316-050GM £74.20	USIP-316-050GM £57.90

Isolation valve		
	Thread size (BSP)	Two-piece 316 stainless steel ball valve
		1/4"
3/8"	BV2P-0375GF £26.10	
1/2"	BV2P-050GF £30.30	

For applications where a clamp connection is required, but without a diaphragm seal, Staitech offer threaded clamp adaptors. These parts use a parallel thread with Gylon face seal which isolates the gauge thread from the process medium when assembled.

Threaded clamp adaptor			
	Thread size (BSP)	Clamp size	
		1/2" (ASME BPE)	1" (ASME BPE)
	1/4"	PGADP-025GF-050C £35.95	PGADP-025GF-100C £54.50
	3/8"	PGADP-375GF-050C £39.85	PGADP-375GF-100C £54.50
	1/2"	PGADP-100GF-050C £43.25	PGADP-100GF-100C £54.50

Instrument tees	
	Instrument tees allow pressure and temperature instruments with 1-1/2" and 2" clamp connections to be used on systems where the tube diameter is smaller. Staitech's range of instrument tees are outlined on page 47.

Instrumentation Diaphragm guard gaskets



The diaphragm guard gasket combines a standard outer seal with offset micro-membrane. This membrane protects the gauge or instrument diaphragm from aggressive system mediums or cleaning solutions whilst having negligible effect on the instrument accuracy. Diaphragm guard gaskets are available in EPDM, Viton, Platinum cured Silicone and PTFE; all of which are FDA and USP class VI compliant.

Ordering detail

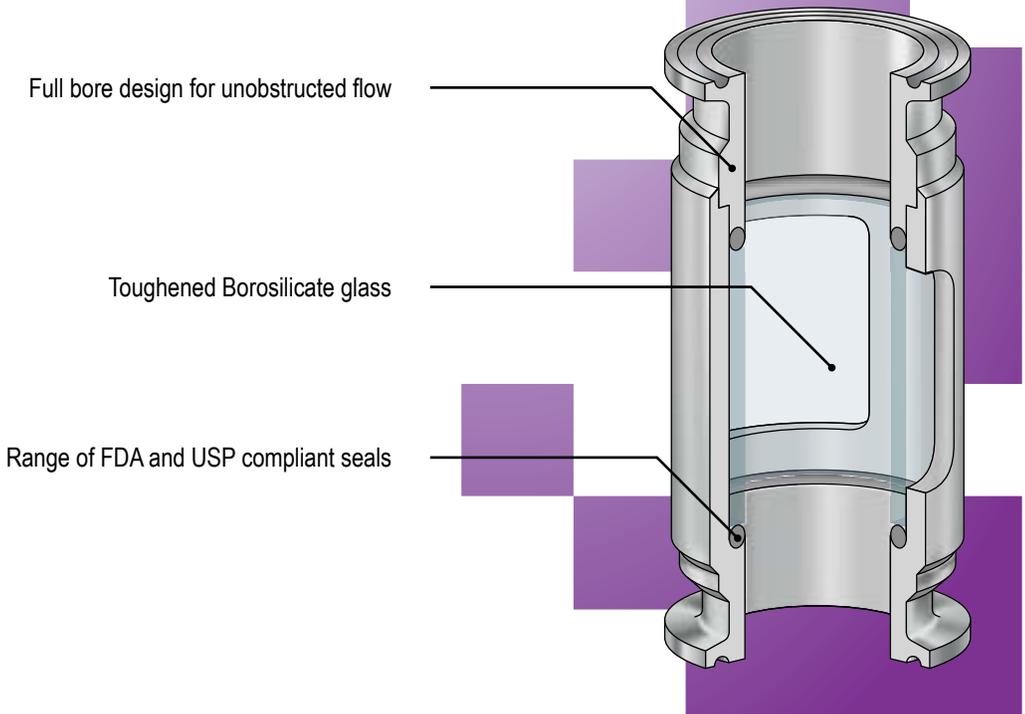
Diaphragm guard gaskets				
Clamp size (ASME BPE)	EPDM Black	Viton	Silicone Clear	PTFE
3/4"	EBK-DG-075 £22.00	VBK-DG-075 £26.10	SPT-DG-075 £22.90	T-DG-075 £38.50
1"	EBK-DG-100 £26.35	VBK-DG-100 £32.60	SPT-DG-100 £28.25	T-DG-100 £49.75
1-1/2"	EBK-DG-150 £26.35	VBK-DG-150 £32.60	SPT-DG-150 £28.25	T-DG-150 £49.75
2"	EBK-DG-200 £33.40	VBK-DG-200 £44.60	SPT-DG-200 £34.05	T-DG-200 £58.85

Sight glasses

Staitech offer a full range of stainless steel sight glasses with clamp, weld and flanged connections. Standard units use Borosilicate glass with various seal options available. Full traceability is offered on all sight glass components.

Product features

- 1/2" - 4" size range
- Clamp, weld and flange connections
- Wetted surfaces finished to 0.5 microns Ra
- Alternative materials available - C22, AL6XN
- Tailored designs to include alternate lengths





HSG01

94

- Disc design which fit directly onto ASME BPE clamp fittings
- Borosilicate and Soda Lime viewing glass options
- Back lit version available



HSG02

95

- Designed for applications where through vision is required
- Toughened Borosilicate glass lens as standard
- 1/2" - 4" clamp end connections



HSG03

97

- Bolted constructions resists twisting
- Available with clamp and weld connections
- Optional polycarbonate knock shield



HSG04

100

- Unobstructed viewing aperture allowing vision from any angle
- External rods for added glass protection
- Alternative lengths available



Flanged units

103

- Tubular and window styles available
- 316 stainless steel construction
- Wide range of DIN and ANSI sizes

Sight glasses HSG01



The HSG01 range is designed to fit directly onto ASME BPE clamp fittings using a conventional seal and clamp. The unique fused glass and stainless steel construction provides a strong and resilient solution for sight glass applications in a wide range of services. Where illumination is required, a version is available with back light.

- P Pressure rating**
1-1/2", 2" and 2-1/2" - 16 barg
3" and 4" - 10 barg
- T Temperature rating**
Up to - 232°C with Borosilicate glass
150°C with Soda Lime glass
- Connections**
Compatible with 1-1/2" - 4" ASME BPE clamp fittings
- Materials**
Glass surround - 316L stainless steel
Glass - Borosilicate
- Lamp**
Voltage - 24Vdc/20W for permanent illumination
24Vdc/50W with push button switch for intermittent use
- Surface finish**
Wetted surfaces - 0.5 microns Ra
- Options**
Soda Lime Glass
C22 glass surround
Tank weld flanges - see page 43
- C Available certification**
Material certificate covering all parts

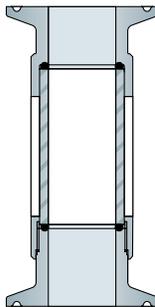
HSG01							
	Clamp size (ASME BPE)	ØA (mm)	ØB Borosilicate glass (mm)	ØB Soda Lime glass (mm)	C (mm)	D (mm)	E (mm)
		1-1/2"	50.5	25	30	7	120
	2"	64	30	38	7	120	56
	2-1/2"	77.5	35	45	10	120	56
	3"	91	40	55	10	120	56
	4"	119	55	75	12	120	56

Clamp size (ASME BPE)	HSG01 - 316L with Borosilicate glass	HSG01 with back light - 20 watts without push button	HSG01 with back light - 50 watts with push button
1-1/2"	HSG01-150C-BO £192.50	HSG01-150C-BO-USL33-20W £675.50	HSG01-150C-BO-USL33-50W £708.00
2"	HSG01-200C-BO £204.50	HSG01-200C-BO-USL33-20W £686.50	HSG01-200C-BO-USL33-50W £719.00
2-1/2"	HSG01-250C-BO £229.00	HSG01-250C-BO-USL33-20W £731.00	HSG01-250C-BO-USL33-50W £766.50
3"	HSG01-300C-BO £265.50	HSG01-300C-BO-USL33-20W £869.00	HSG01-300C-BO-USL33-50W £899.50
4"	HSG01-400C-BO £356.00	HSG01-400C-BO-USL33-20W £918.50	HSG01-400C-BO-USL33-50W £948.00

Sight glasses HSG02



Designed for applications where through vision is required, HSG02 sight glasses comprise of 316L stainless steel body with toughened Borosilicate glass lens and a range of FDA and USP class VI compliant seals. All units have clamp ends, are rated to 10 barg with wetted surfaces finished to 0.5 microns Ra.



- P Pressure rating**
Up to 10 barg
- T Temperature rating**
Up to - 150°C with EPDM seals
200°C with Viton, Silicone or FEP-Silicone seals
135°C when knock shield is fitted
- L Connections**
1/2" - 4" ASME BPE clamp
- Materials**
Wetted parts - 316L stainless steel
Glass - Borosilicate
Seals - EPDM, Viton, Silicone or FEP-Silicone
- Surface finish**
Wetted surfaces - 0.5 microns Ra
External surfaces - 0.8 microns Ra
- Options**
Polycarbonate knock shield
Enhanced surface finish and electropolishing
Low sulphur stainless steel, C22 and other alloys
Bolted design - HSG03 and HSG04
- C Available certification**
Material certificate covering all parts

HSG02 (Illustration showing knock shield fitted)

	Clamp size (ASME BPE)	ØA (mm)	B (mm)	C (mm)	D (mm)	ØE (mm)
	1/2"	25	90	40	120°	34
	3/4"	25	90	40	120°	34
	1"	50.5	100	40	120°	64
	1-1/2"	50.5	100	40	120°	64
	2"	64	100	40	120°	84
	2-1/2"	77.5	100	40	120°	100
	3"	91	100	40	120°	109
	4"	119	100	40	120°	150

Ordering detail

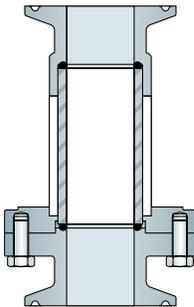
HSG02				
Clamp size (ASME BPE)	EPDM Black	Viton Black	Silicon White	FEP-Silicone Clear with red core
Without knock shield				
1/2"	HSG02-050C-EBKU £278.50	HSG02-050C-VBKU £285.00	HSG02-050C-SW £285.00	HSG02-050C-FEPS £288.00
3/4"	HSG02-075C-EBKU £311.00	HSG02-075C-VBKU £317.50	HSG02-075C-SW £317.50	HSG02-075C-FEPS £317.50
1"	HSG02-100C-EBKU £372.50	HSG02-100C-VBKU £381.50	HSG02-100C-SW £381.50	HSG02-100C-FEPS £381.50
1-1/2"	HSG02-150C-EBKU £437.50	HSG02-150C-VBKU £447.50	HSG02-150C-SW £445.00	HSG02-150C-FEPS £447.00
2"	HSG02-200C-EBKU £533.00	HSG02-200C-VBKU £544.00	HSG02-200C-SW £544.00	HSG02-200C-FEPS £544.00
2-1/2"	HSG02-250C-EBKU £571.00	HSG02-250C-VBKU £582.50	HSG02-250C-SW £585.00	HSG02-250C-FEPS £576.00
3"	HSG02-300C-EBKU £640.00	HSG02-300C-VBKU £652.00	HSG02-300C-SW £655.50	HSG02-300C-FEPS £644.00
4"	HSG02-400C-EBKU £854.50	HSG02-400C-VBKU £877.00	HSG02-400C-SW £877.00	HSG02-400C-FEPS £877.00
With knock shield				
1/2"	HSG02KS-050C-EBKU £343.50	HSG02KS-050C-VBKU £350.00	HSG02KS-050C-SW £350.00	HSG02KS-050C-FEPS £350.00
3/4"	HSG02KS-075C-EBKU £360.00	HSG02KS-075C-VBKU £367.50	HSG02KS-075C-SW £367.50	HSG02KS-075C-FEPS £367.50
1"	HSG02KS-100C-EBKU £455.30	HSG02KS-100C-VBKU £464.50	HSG02KS-100C-SW £464.50	HSG02KS-100C-FEPS £464.50
1-1/2"	HSG02KS-150C-EBKU £499.50	HSG02KS-150C-VBKU £509.50	HSG02KS-150C-SW £509.50	HSG02KS-150C-FEPS £509.50
2"	HSG02KS-200C-EBKU £608.00	HSG02KS-200C-VBKU £620.00	HSG02KS-200C-SW £620.00	HST20KS-200C-FEPS £620.00
2-1/2"	HSG02KS-250C-EBKU £655.50	HSG02KS-250C-VBKU £667.00	HSG02KS-250C-SW £667.00	HSG02KS-250C-FEPS £667.00
3"	HSG02KS-300C-EBKU £746.50	HSG02KS-300C-VBKU £758.50	HSG02KS-300C-SW £758.50	HSG02KS-300C-FEPS £758.50
4"	HSG02KS-400C-EBKU £995.00	HSG02KS-400C-VBKU £1,017.50	HSG02KS-400C-SW £1,017.50	HSG02KS-400C-FEPS £1,017.50

All seals are FDA and USP class VI (70°C) compliant. EPDM and FEP-Silicone are USP class VI (121°C) compliant

Sight glasses HSG03



Similar in design to the HSG02, the HSG03 is also intended for applications where through vision is required. Being of bolted construction the HSG03 can be used in applications where twisting within the piping system may be possible. The HSG03 is available with both clamp and weld end connections.



- P Pressure rating**
Up to 10 barg
- T Temperature rating**
Up to - 150°C with EPDM seals
200°C with Viton, Silicone or FEP-Silicone seals
135°C when knock shield is fitted
- L Connections**
1/2" - 4" ASME BPE clamp
1/2" - 4" ASME BPE weld end
- Materials**
Wetted parts - 316L stainless steel
Screws - stainless steel
Glass - Borosilicate
Seals - EPDM, Viton, Silicone or FEP-Silicone
- Surface finish**
Wetted surfaces - 0.5 microns Ra
External surfaces - 0.8 microns Ra
- Options**
Polycarbonate knock shield
Enhanced surface finish and electropolishing
Low sulphur stainless steel, C22 and other alloys
- C Available certification**
Material certificate covering all wetted parts

HSG03 (Illustration showing knock shield fitted)

	Clamp size (ASME BPE)	ØA (mm)	B (mm)	C (mm)	D (mm)	ØE (mm)
	1/2"	25	90	40	120°	44
	3/4"	25	90	40	120°	44
	1"	50.5	100	40	120°	64
	1-1/2"	50.5	100	40	120°	64
	2"	64	100	40	120°	84
	2-1/2"	77.5	100	40	120°	100
	3"	91	100	40	120°	109
	4"	119	100	40	120°	150

Ordering detail

HSG03 - Clamp connections				
Clamp size (ASME BPE)	EPDM Black	Viton Black	Silicon White	FEP-Silicone Clear with red core
Without knock shield				
1/2"	HSG03-050C-EBKU £309.00	HSG03-050C-VBKU £315.50	HSG03-050C-SW £315.50	HSG03-050C-FEPS £319.00
3/4"	HSG03-075C-EBKU £336.50	HSG03-075C-VBKU £343.50	HSG03-075C-SW £343.50	HSG03-075C-FEPS £343.50
1"	HSG03-100C-EBKU £404.00	HSG02-100C-VBKU £412.50	HSG03-100C-SW £412.50	HSG03-100C-FEPS £412.50
1-1/2"	HSG03-150C-EBKU £474.50	HSG03-150C-VBKU £485.50	HSG03-150C-SW £485.50	HSG03-150C-FEPS £485.50
2"	HSG03-200C-EBKU £578.00	HSG03-200C-VBKU £589.00	HSG03-200C-SW £589.00	HSG03-200C-FEPS £589.00
2-1/2"	HSG03-250C-EBKU £689.00	HSG03-250C-VBKU £700.50	HSG03-250C-SW £700.50	HSG03-250C-FEPS £700.50
3"	HSG03-300C-EBKU £741.00	HSG03-300C-VBKU £753.50	HSG03-300C-SW £753.50	HSG03-300C-FEPS £753.50
4"	HSG03-400C-EBKU £970.00	HSG03-400C-VBKU £992.50	HSG03-400C-SW £992.50	HSG03-400C-FEPS £992.50
With knock shield				
1/2"	HSG03KS-050C-EBKU £364.50	HSG03KS-050C-VBKU £370.00	HSG03KS-050C-SW £349.50	HSG03KS-050C-FEPS £374.00
1"	HSG03KS-100C-EBKU £466.00	HSG03KS-100C-VBKU £475.50	HSG03KS-100C-SW £475.50	HSG03KS-100C-FEPS £475.50
1-1/2"	HSG03KS-150C-EBKU £426.50	HSG03KS-150C-VBKU £537.50	HSG03KS-150C-SW £537.50	HSG03KS-150C-FEPS £537.50
2"	HSG03KS-200C-EBKU £649.00	HSG03KS-200C-VBKU £670.00	HSG03KS-200C-SW £670.00	HSG03KS-200C-FEPS £670.00
2-1/2"	HSG03KS-250C-EBKU £773.50	HSG03KS-250C-VBKU £784.50	HSG03KS-250C-SW £784.50	HSG03KS-250C-FEPS £784.50
3"	HSG03KS-300C-EBKU £842.00	HSG03KS-300C-VBKU £854.50	HSG03KS-300C-SW £854.50	HSG03KS-300C-FEPS £854.50
4"	HSG03KS-400C-EBKU £1,093.50	HSG03KS-400C-VBKU £1,093.50	HSG03KS-400C-SW £1,116.50	HSG03KS-400C-FEPS £1,116.50

All seals are FDA and USP class VI (70°C) compliant. EPDM and FEP-Silicone are USP class VI (121°C) compliant

Ordering detail

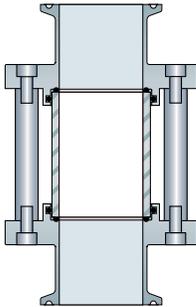
HSG03 - Weld connections				
Weld end (ASME BPE)	EPDM Black	Viton Black	Silicon White	FEP-Silicone Clear with red core
Without knock shield				
1/2"	HSG03-050W-EBKU £341.50	HSG03-050W-VBKU £348.00	HSG03-050W-SW £348.00	HSG03-050W-FEPS £351.00
3/4"	HSG03-075W-EBKU £372.50	HSG03-075W-VBKU £390.50	HSG03-075W-SW £390.50	HSG03-075W-FEPS £390.50
1"	HSG03-100W-EBKU £443.50	HSG02-100W-VBKU £452.50	HSG03-100W-SW £452.50	HSG03-100W-FEPS £452.50
1-1/2"	HSG03-150W-EBKU £523.00	HSG03-150W-VBKU £535.00	HSG03-150W-SW £535.00	HSG03-150W-FEPS £535.00
2"	HSG03-200W-EBKU £648.00	HSG03-200W-VBKU £659.00	HSG03-200W-SW £659.00	HSG03-200W-FEPS £659.00
2-1/2"	HSG03-250W-EBKU £758.50	HSG03-250W-VBKU £770.50	HSG03-250W-SW £770.50	HSG03-250W-FEPS £770.50
3"	HSG03-300W-EBKU £815.00	HSG03-300W-VBKU £827.50	HSG03-300W-SW £827.50	HSG03-300W-FEPS £827.50
4"	HSG03-400W-EBKU £1,067.00	HSG03-400W-VBKU £1,090.50	HSG03-400W-SW £1,090.50	HSG03-400W-FEPS £1,090.50
With knock shield				
1/2"	HSG03KS-050W-EBKU £396.50	HSG03KS-050W-VBKU £402.50	HSG03KS-050W-SW £402.50	HSG03KS-050W-FEPS £406.00
3/4"	HSG03KS-075W-EBKU £412.50	HSG03KS-075W-VBKU £420.00	HSG03KS-075W-SW £420.00	HSG03KS-075W-FEPS £420.00
1"	HSG03KS-100W-EBKU £506.00	HSG03KS-100W-VBKU £515.00	HSG03KS-100W-SW £515.00	HSG03KS-100W-FEPS £515.00
1-1/2"	HSG03KS-150W-EBKU £575.50	HSG03KS-150W-VBKU £585.50	HSG03KS-150W-SW £585.50	HSG03KS-150W-FEPS £585.50
2"	HSG03KS-200W-EBKU £718.50	HSG03KS-200W-VBKU £729.50	HSG03KS-200W-SW £729.50	HSG03KS-200W-FEPS £729.50
2-1/2"	HSG03KS-250W-EBKU £843.00	HSG03KS-250W-VBKU £854.50	HSG03KS-250W-SW £854.50	HSG03KS-250W-FEPS £854.00
3"	HSG03KS-300W-EBKU £916.00	HSG03KS-300W-VBKU £929.00	HSG03KS-300W-SW £929.00	HSG03KS-300W-FEPS £929.00
4"	HSG03KS-400W-EBKU £1,191.50	HSG03KS-400W-VBKU £1,1214.00	HSG03KS-400W-SW £1,1214.00	HSG03KS-400W-FEPS £1,1214.00

All seals are FDA and USP class VI (70°C) compliant. EPDM and FEP-Silicone are USP class VI (121°C) compliant

Sight glasses HSG04



The HSG04 has an unobstructed viewing aperture allowing through vision from any angle. Wetted parts are 316L stainless steel with a toughened Borosilicate glass viewing lens and a range of FDA and USP class VI compliant seals. Alternative lengths are also available with this design.



- P Pressure rating**
Up to 10 barg
- T Temperature rating**
Up to - 150°C with EPDM seals
200°C with Viton, Silicone or FEP-Silicone seals
135°C when knock shield is fitted
- C Connections**
1/2" - 4" ASME BPE clamp
1/2" - 4" ASME BPE weld end
- M Materials**
Wetted parts - 316L stainless steel
Tie rods - 316L stainless steel
Screws - stainless steel
Glass - Borosilicate
Seals - EPDM, Viton, Silicone or FEP-Silicone
- S Surface finish**
Wetted surfaces - 0.5 microns Ra
External surfaces - 0.8 microns Ra
- O Options**
Alternative lengths
Polycarbonate knock shield
Enhanced surface finish and electropolishing
Low sulphur stainless steel, C22 and other alloys
- C Available certification**
Material certificate covering all wetted parts

HSG04							
	Size (ASME BPE)	ØA (Clamp) (mm)	ØA (Weld) (mm)	B (Clamp) (mm)	B (Weld) (mm)	ØC (mm)	D (mm)
	1/2"	25	12.7	115	113	50	40
	3/4"	25	19.05	115	113	50	40
	1"	50.5	25.4	125	125	79	40
	1-1/2"	50.5	38.1	125	125	79	40
	2"	64	50.8	125	125	100	40
	2-1/2"	77.4	63.8	125	125	120	40
	3"	91	76.2	125	125	134	40
	4"	119	101.6	125	125	163	40

Ordering detail

HSG04 - Clamp connections				
Clamp size (ASME BPE)	EPDM Black	Viton Black	Silicon White	FEP-Silicone Clear with red core
Without knock shield				
1/2"	HSG04-050C-EBKU £331.00	HSG04-050C-VBKU £337.00	HSG04-050C-SW £337.00	HSG04-050C-FEPS £340.50
3/4"	HSG04-075C-EBKU £345.50	HSG04-075C-VBKU £355.00	HSG04-075C-SW £355.00	HSG04-075C-FEPS £355.00
1"	HSG04-100C-EBKU £426.50	HSG04-100C-VBKU £436.50	HSG04-100C-SW £436.50	HSG04-100C-FEPS £436.50
1-1/2"	HSG04-150C-EBKU £447.00	HSG04-150C-VBKU £457.00	HSG04-150C-SW £457.00	HSG04-150C-FEPS £457.00
2"	HSG04-200C-EBKU £544.50	HSG04-200C-VBKU £555.50	HSG04-200C-SW £555.50	HSG04-200C-FEPS £555.50
2-1/2"	HSG04-250C-EBKU £658.00	HSG04-250C-VBKU £674.50	HSG04-250C-SW £674.50	HSG04-250C-FEPS £674.00
3"	HSG04-300C-EBKU £730.50	HSG04-300C-VBKU £751.00	HSG04-300C-SW £751.00	HSG04-300C-FEPS £751.00
4"	HSG04-400C-EBKU £882.50	HSG04-400C-VBKU £905.00	HSG04-400C-SW £905.00	HSG04-400C-FEPS £905.00
With knock shield				
1/2"	HSG04KS-050C-EBKU £396.00	HSG04KS-050C-VBKU £289.50	HSG04KS-050C-SW £402.00	HSG04KS-050C-FEPS £405.50
3/4"	HSG04KS-075C-EBKU £410.50	HSG04KS-075C-VBKU £418.00	HSG04KS-075C-SW £415.00	HSG04KS-075C-FEPS £413.50
1"	HSG04KS-100C-EBKU £528.50	HSG04KS-100C-VBKU £446.50	HSG04KS-100C-SW £534.00	HSG04KS-100C-FEPS £532.00
1-1/2"	HSG04KS-150C-EBKU £548.00	HSG04KS-150C-VBKU £558.50	HSG04KS-150C-SW £558.00	HSG04KS-150C-FEPS £551.00
2"	HSG04KS-200C-EBKU £665.50	HSG04KS-200C-VBKU £677.00	HSG04KS-200C-SW £677.00	HSG04KS-200C-FEPS £677.00
2-1/2"	HSG04KS-250C-EBKU £803.50	HSG04KS-250C-VBKU £820.50	HSG04KS-250C-SW £820.50	HSG04KS-250C-FEPS £820.50
3"	HSG04KS-300C-EBKU £911.00	HSG04KS-300C-VBKU £931.00	HSG04KS-300C-SW £931.00	HSG04KS-300C-FEPS £931.00
4"	HSG04KS-400C-EBKU £1,090.50	HSG04KS-400C-VBKU £1,112.50	HSG04KS-400C-SW £1,112.50	HSG04KS-400C-FEPS £1,112.50

All seals are FDA and USP class VI (70°C) compliant. EPDM and FEP-Silicone are USP class VI (121°C) compliant

Ordering detail

HSG04 - Weld connections

Weld end (ASME BPE)	EPDM Black	Viton Black	Silicon White	FEP-Silicone Clear with red core
Without knock shield				
1/2"	HSG04-050W-EBKU £342.00	HSG04-050W-VBKU £348.00	HSG04-050W-SW £348.00	HSG04-050W-FEPS £351.50
3/4"	HSG04-075W-EBKU £356.50	HSG04-075W-VBKU £366.50	HSG04-075W-SW £366.50	HSG04-075W-FEPS £366.50
1"	HSG04-100W-EBKU £438.50	HSG04-100W-VBKU £447.50	HSG04-100W-SW £447.50	HSG04-100W-FEPS £447.50
1-1/2"	HSG04-150W-EBKU £457.50	HSG04-150W-VBKU £468.00	HSG04-150W-SW £468.00	HSG04-150W-FEPS £468.00
2"	HSG04-200W-EBKU £555.50	HSG04-200W-VBKU £567.00	HSG04-200W-SW £567.00	HSG04-200W-FEPS £567.00
2-1/2"	HSG04-250W-EBKU £669.00	HSG04-250W-VBKU £686.00	HSG04-250W-SW £686.00	HSG04-250W-FEPS £686.00
3"	HSG04-300W-EBKU £742.00	HSG04-300W-VBKU £762.50	HSG04-300W-SW £762.00	HSG04-300W-FEPS £762.50
4"	HSG04-400W-EBKU £894.00	HSG04-400W-VBKU £916.00	HSG04-400W-SW £916.00	HSG04-400W-FEPS £916.00
With knock shield				
1/2"	HSG04KS-050W-EBKU £407.50	HSG04KS-050W-VBKU £413.50	HSG04KS-050W-SW £413.50	HSG04KS-050W-FEPS £417.00
3/4"	HSG04KS-075W-EBKU £421.50	HSG04KS-075W-VBKU £429.00	HSG04KS-075W-SW £426.50	HSG04KS-075W-FEPS £425.00
1"	HSG04KS-100W-EBKU £540.00	HSG04KS-100W-VBKU £457.50	HSG04KS-100W-SW £545.50	HSG04KS-100W-FEPS £543.00
1-1/2"	HSG04KS-150W-EBKU £559.50	HSG04KS-150W-VBKU £569.50	HSG04KS-150W-SW £569.00	HSG04KS-150W-FEPS £562.00
2"	HSG04KS-200W-EBKU £683.50	HSG04KS-200W-VBKU £688.00	HSG04KS-200W-SW £688.00	HSG04KS-200W-FEPS £688.00
2-1/2"	HSG04KS-250W-EBKU £815.00	HSG04KS-250W-VBKU £832.00	HSG04KS-250W-SW £832.00	HSG04KS-250W-FEPS £832.00
3"	HSG04KS-300W-EBKU £922.00	HSG04KS-300W-VBKU £942.00	HSG04KS-300W-SW £942.00	HSG04KS-300W-FEPS £942.00
4"	HSG04KS-400W-EBKU £1,101.50	HSG04KS-400W-VBKU £1,124.00	HSG04KS-400W-SW £1,124.00	HSG04KS-400W-FEPS £1,124.00

All seals are FDA and USP class VI (70°C) compliant. EPDM and FEP-Silicone are USP class VI (121°C) compliant

Sight glasses HSG05



The HSG05 is a tubular design allowing through vision from any angle and is available with either DIN or ANSI flanged connections. Visit www.staitech.com for full product details.

HSG05	
Suitable for	Steam, liquids and gases
Sizes	1/2" - 4"
Pressure rating	Up to 10 barg
Connections	DIN or ANSI flanges
- Ends	316L stainless steel
- Glass	Borosilicate
- Seals	EPDM, Viton, Silicone or FEP-Silicone
Options	Protective shield

Sight glasses Single and double window types



A range of single and double window sight glasses for general purpose applications. Available in a wide range of sizes and pressure ratings. Further information available upon request.

Flanged units	
Suitable for	Steam, liquids and gases
Sizes	1/2" - 8"
Pressure rating	Up to 40 barg
Connections	Screwed BSP, DIN or ANSI flanges
- Ends	316L stainless steel
- Glass	Borosilicate or Soda Lime
- Seals	Graphite or PTFE
Options	Flow indicator (spinner)

Ball valves

Staitech offer a range of 2, 3 and 4 way high purity ball valves suitable for steam, gas and liquid applications. The LP, XP, RP and MP ranges are manufactured by Vinco Valve of Portugal, with all models complying with the current ASME BPE standard.

Product features

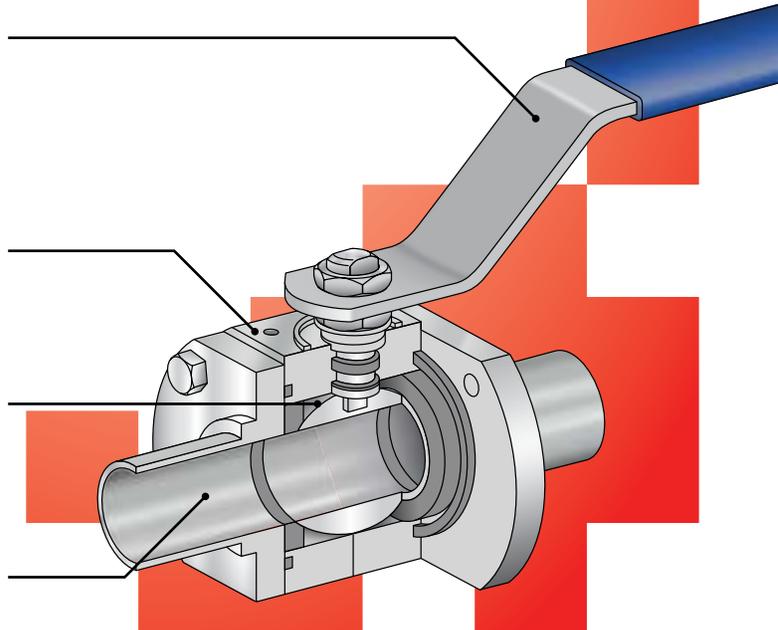
- Sizes from 1/2" - 6"
- Clamp and weld end connection options
- Full material traceability available for all valves
- All models with ISO actuation feature
- Wetted surfaces finished to 0.5 microns Ra as standard

Manual and actuated valves

All valves suitable for actuation

Open and cavity filled seats

Full bore design flow





Standard duty ball valves Models - 50SN and 77SN

106

- Suitable for basic liquid and gas applications
- Available with clamp and weld ends
- Direct mount model for simple actuation



High purity ball valves LP Series

108

- Cast construction
- PTFE seats
- Clamp and weld ends



High purity ball valves XP Series

110

- Fully ASME BPE compliant
- TFM seats
- Wide range of options - surface finish, seat materials



High purity ball valves RP Series

110

- Manufactured from wrought material
- Polished exterior finish
- TFM cavity filled seats as standard



Actuation packages

113

- Pneumatic and electric actuators for all valve models
- Actuator packages assembled and tested by Staitech
- Switch boxes and solenoids



3 and 4 way L and T port valves MP Series

116

- L and T port balls
- 3 and 4 way options
- 90° and 180° actuators available



Butterfly valves

118

- Clamp and weld end options
- Choice of handle types
- Readily available from stock

Ball valves 50SN and 77SN

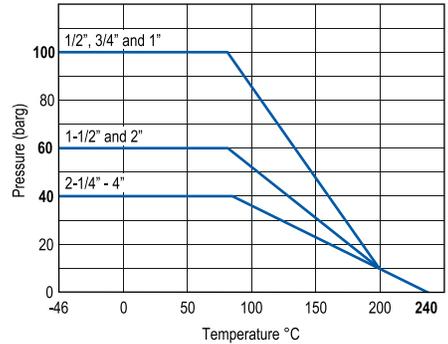


50SN



77SN

P Pressure and temperature rating



Connections

1/2" - 4" ASME BPE clamp or weld end



Materials

Body, ends, ball and stem - 316 stainless steel
 Seats - cavity filled PTFE
 Stem and body seals - PTFE



Surface finish

Wetted surfaces - 0.5 microns Ra
 External surfaces - as cast



Options

Alternative seat/seal materials - RPTFE and TFM



Available certification

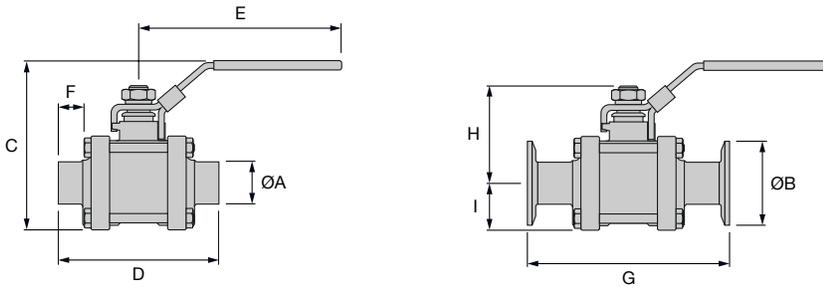
Material certificate covering body and ends

Ordering detail

50SN and 77SN				
Size (ASME BPE)	50SN Weld	50SN Clamp	77SN Weld	77SN Clamp
1/2"	50SNC-050W-050W £66.70	50SNC-050C-050C £69.00	77SNC-050W-050W £89.60	77SNC-050C-050C £93.20
3/4"	50SNC-075W-075W £76.20	50SNC-075C-075C £72.60	77SNC-075W-075W £93.20	77SNC-075C-075C £96.80
1"	50SNC-100W-100W £86.00	50SNC-100C-100C £87.50	77SNC-100W-100W £118.60	77SNC-100C-100C £125.90
1-1/2"	50SNC-150W-150W £158.50	50SNC-150C-150C £167.00	77SNC-150W-150W £240.80	77SNC-150C-150C £252.90
2"	50SNC-200W-200W £220.30	50SNC-200C-200C £230.00	77SNC-200W-200W £330.40	77SNC-200C-200C £342.50
2-1/2"	50SNC-250W-250W £426.00	50SNC-250C-250C £453.80	77SNC-250W-250W £631.70	77SNC-250C-250C £661.90
3"	50SNC-300W-300W £569.00	50SNC-300C-300C £601.40	77SNC-300W-300W £808.30	77SNC-300C-300C £896.60
4"	50SNC-400W-400W £1,030.30	50SNC-400C-400C £1,104.80	77SNC-400W-400W £1,345.60	77SNC-400C-400C £1,396.40

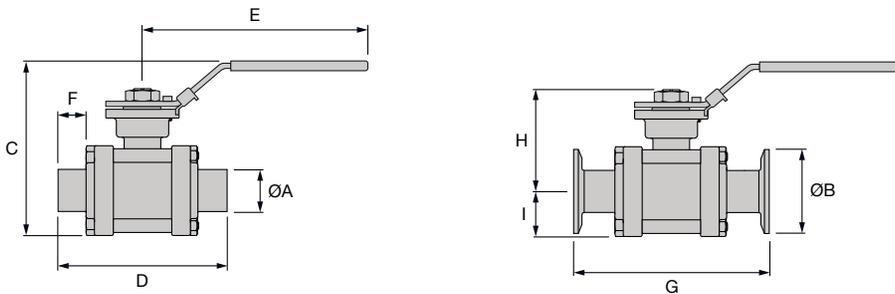
Mixed end connections are also available

50SN



Size (ASME BPE)	ØA (mm)	ØB (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	I (mm)
1/2"	12.7	25	87	66	132	12.5	89	43	23
3/4"	19.0	25	92	75	132	12.5	102	46	25
1"	25.4	50.5	103	94	167	19	115	57	28
1-1/2"	38.1	50.5	129	115	192	19	140	71	39
2"	50.8	64	146	128	192	19	159	78	48
2-1/2"	63.5	77.5	195	160	252	21	174	113	58
3"	76.2	91	215	176	252	23.5	193	117	68
4"	101.6	119	271	210	282	25.5	226	114	96

77SN



Size (ASME BPE)	ØA (mm)	ØB (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	I (mm)	Mount
1/2"	12.7	25	100	66	139	12.5	89	49	23	FO3/04
3/4"	19.0	25	108	75	139	12.5	102	55	25	FO3/04
1"	25.4	50.5	124	94	165	19	115	68	28	FO4/05
1-1/2"	38.1	50.5	166	115	215	19	140	92	39	FO5/07
2"	50.8	64	182	128	215	19	159	100	48	FO5/07
2-1/2"	63.5	77.5	225	160	300	21	174	126	58	FO7/10
3"	76.2	91	244	176	370	23.5	193	136	68	FO7/10
4"	101.6	119	288	210	370	23.5	226	150	96	FO7/10

Ball valves LP series

Manufactured by **VINCO**
VALVES

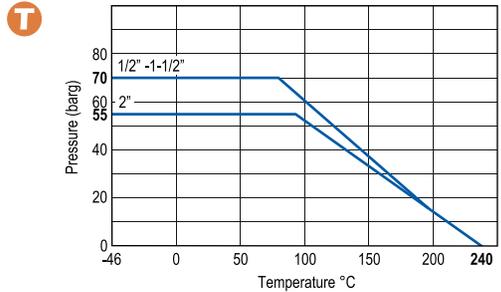


The LP range offers a cost effective solution for line isolation in non-critical pharmaceutical installations. Standard LP valves have open PTFE seats which are suitable for gas, liquid and low pressure steam applications. LP valves are suitable for use in environments requiring ATEX certification.



Where valves are to be used on tank outlet applications, Staitech offer tank weld pads to suit all sizes and models of Vinco Valve.

P Pressure and temperature rating



I Connections

1/2" - 2" ASME BPE clamp or weld end

S Materials

Body, ends, ball and stem - 316 stainless steel
Seats - PTFE
Body seals - PTFE
Stem seals - PTFE and PEEK

W Surface finish

Wetted surfaces - 0.5 microns Ra
External surfaces - as cast
(Where external polish required see RP series)

F ATEX

Rated to  II 2 GD c

C Options

Cavity filled seats
Enhanced surface finishes and electropolishing
Special cleaning for O2 service
Locking devices and stem extensions
Pneumatic and electric actuators
Tank outlet ports available

C Available certification

Material certificate covering wetted parts

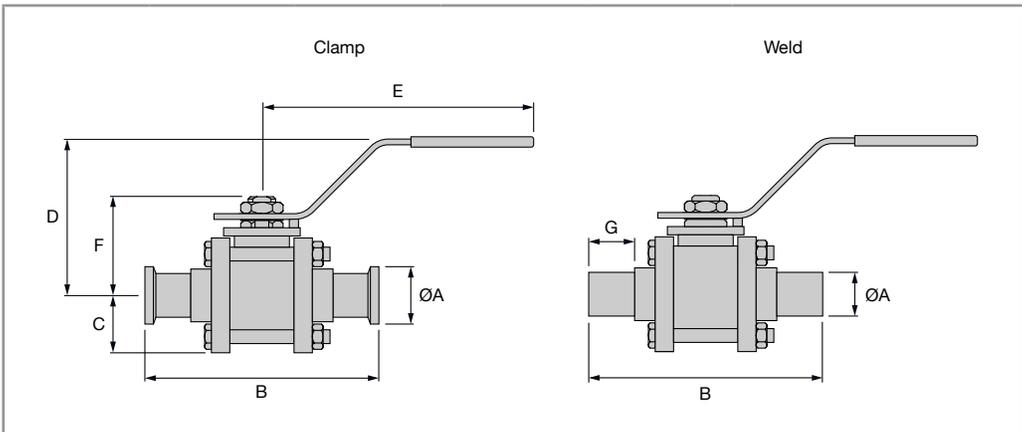
S Supplier Partner

Staitech are a nominated partner of Vinco valve of Portugal, stocking and distributing the company's extensive range of high purity ball valves. For further information on the Vinco range visit the Staitech website or www.vincovalves.com

Ordering detail

LP series

Size (ASME BPE)	Clamp	Connections Weld	Clamp x Weld
1/2"	LP-050C-050C £124.00	LP-050W-050W £124.00	LP-050C-050W £124.00
3/4"	LP-075C-075C £135.00	LP-075W-075W £135.00	LP-075C-075W £135.00
1"	LP-100C-100C £173.00	LP-100W-100W £173.00	LP-100C-100W £173.00
1-1/2"	LP-150C-150C £254.00	LP-150W-150W £254.00	LP-150C-150W £254.00
2"	LP-200C-200C £371.00	LP-200W-200W £371.00	LP-200C-200W £371.00



Clamp

Clamp size (ASME BPE)	ØA (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)
1/2"	25	89	21	62	130	38
3/4"	25	102	25	67	130	42
1"	50.5	114	31	87	170	54
1-1/2"	50.5	140	42	102	200	69
2"	64	165	53	116	250	84

Weld

Tube size (ASME BPE)	ØA (mm)	B (mm)	C (mm)	D (mm)	E (mm)	G (mm)
1/2"	12.7	102	21	62	130	25
3/4"	19.05	114	25	67	130	27
1"	25.4	127	31	87	170	27
1-1/2"	38.1	152	42	102	200	28
2"	50.5	178	53	116	250	48

Ball valves XP and RP series

Manufactured by **VINCO** VALVES



The XP series of cast valves meet all current ASME BPE requirements for material composition and surface finish. The XP range also have an ISO compliant mounting feature to allow the simple addition of an actuator. The typical ferrite content for stock valves is below 5%. Valves are also available to order with controlled ferrite levels if required.



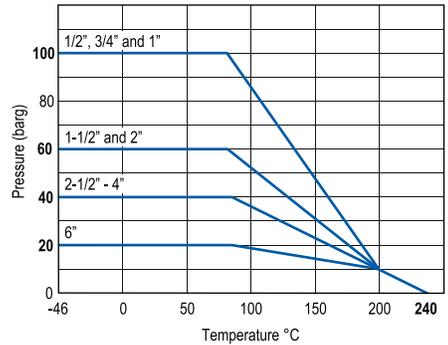
The RP range of valves are manufactured from bar and can be supplied in any grade of stainless steel, C22 alloy or duplex grade materials. The external body surfaces of the RP range are polished as standard making them an ideal choice for clean room applications. Both the XP and RP ranges of valves are ATEX compliant and can be actuated with the simple addition of a body mounted bracket.



All models of Vinco Valves are available with stem extension to allow pipeline insulation.

P Pressure and temperature rating

T



I Connections

XP 1/2" - 4" ASME BPE clamp or extended weld end
RP 1/2" - 6" ASME BPE clamp or extended weld end

S Materials

Body, ends, ball and stem - 316 stainless steel
Seats - TFM
Body seals - PTFE
Stem seals - PTFE and PEEK

W Surface finish

Wetted surfaces - 0.5 microns Ra
External surfaces - XP series - as cast
RP series - 0.5 microns Ra

A ATEX

Rated to Ex II 2 GD c

C Options

Alternative seat seals - PTFE and PEEK
Cavity filled seats in all materials
Enhanced surface finishes and electropolishing
Special cleaning for O2 service
Locking devices and stem extensions
Low ferrite stainless steel, C22 and other alloys
Pneumatic and electric actuators

C Available certification

Material certificate covering all wetted parts

S Supplier Partner

Staitech are a nominated partner of Vinco valve of Portugal, stocking and distributing the company's extensive range of high purity ball valves. For further information on the Vinco range visit the Staitech website or www.vincovalves.com

Ordering detail

XP series - open TFM seats

Size (ASME BPE)	Clamp	Connections Weld	Clamp x Weld
1/2"	XP-050C-050C £197.50	XP-050W-050W £197.50	XP-050C-050W £197.50
3/4"	XP-075C-075C £207.50	XP-075W-075W £207.50	XP-075C-075W £207.50
1"	XP-100C-100C £266.00	XP-100W-100W £266.00	XP-100C-100W £266.00
1-1/2"	XP-150C-150C £390.00	XP-150W-150W £390.00	XP-150C-150W £390.00
2"	XP-200C-200C £548.00	XP-200W-200W £548.00	XP-200C-200W £548.00
2-1/2"	XP-250C-250C £1,044.00	XP-250W-250W £1,044.00	XP-250C-250W £1,044.00
3"	XP-300C-300C £1,397.50	XP-300W-300W £1,397.50	XP-300C-300W £1,397.50
4"	XP-400C-400C £2,145.00	XP-400W-400W £2,145.00	XP-400C-400W £2,145.00

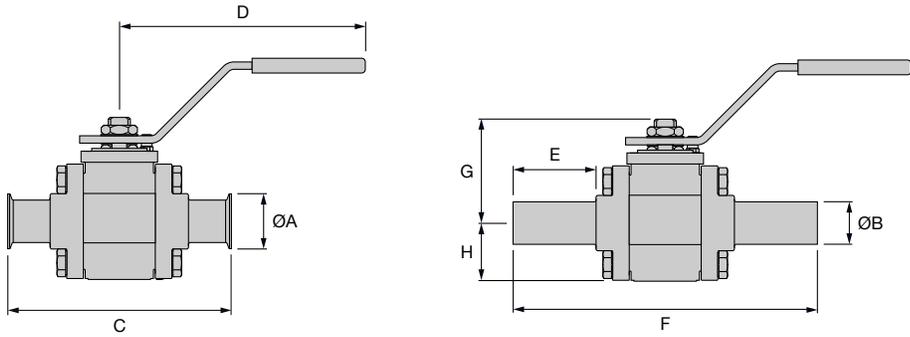
Contact Staitech for cavity filled seat prices

RP series - cavity filled TFM seats

Size (ASME BPE)	Clamp	Connections Weld	Clamp x Weld
1/2"	RPC-050C-050C £307.00	RPC-050W-050W £307.00	RPC-050C-050W £307.00
3/4"	RPC-075C-075C £340.00	RPC-075W-075W £340.00	RPC-075C-075W £340.00
1"	RPC-100C-100C £458.00	RPC-100W-100W £458.00	RPC-100C-100W £458.00
1-1/2"	RPC-150C-150C £788.50	RPC-150W-150W £788.50	RPC-150C-150W £788.50
2"	RPC-200C-200C £1,400.00	RPC-200W-200W £1,400.00	RPC-200C-200W £1,400.00
2-1/2"	RPC-250C-250C £2,294.00	RPC-250W-250W £2,294.00	RPC-250C-250W £2,294.00
3"	RPC-300C-300C £3,413.00	RPC-300W-300W £3,413.00	RPC-300C-300W £3,413.00
4"	RPC-400C-400C £5,392.50	RPC-400W-400W £5,392.50	RPC-400C-400W £5,392.50
6"	RPC-600C-600C POA	RPC-600W-600W POA	RPC-600C-600W POA

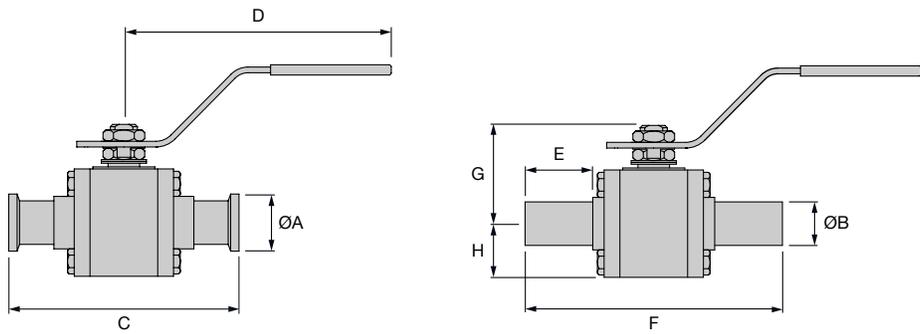
Contact Staitech for open seat prices

XP Series



Size (ASME BPE)	ØA (mm)	ØB (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)
1/2"	25	12.7	89	100	45	140	34	21
3/4"	25	19.05	102	130	45	152	43	25
1"	50.5	25.4	114	165	45	165	56	31
1-1/2"	50.5	38.1	140	200	45	191	71	42
2"	64	50.8	165	250	45	216	81	53
2-1/2"	77.5	63.5	191	370	53	241	117	82
3"	91	76.2	216	370	56	267	127	92
4"	119	101.6	254	450	60	305	146	112

RP Series



Size (ASME BPE)	ØA (mm)	ØB (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)
1/2"	25	12.7	89	100	30	102	34	19
3/4"	25	19.05	102	130	31	114	43	24
1"	50.5	25.4	114	165	31	127	56	31
1-1/2"	50.5	38.1	140	200	32	152	71	45
2"	64	50.8	165	250	34	178	81	54
2-1/2"	77.5	63.5	191	350	33	203	117	72
3"	91	76.2	216	350	36	228	127	83
4"	119	101.6	254	450	40	267	146	103
6"	167	152.4	350	500	50	350	256	150

Ball valves LP and XP actuation packages

Manufactured by **VINCO VALVES**



Staitech offer Quifer Aluminium rack and pinion actuators as standard. Both spring return and double acting models are available, as are switch boxes and solenoids. Two heights of stainless steel actuator mounting bracket are available for valve sizes 1/2" - 2". 2-1/2" - 4" valve sizes use a 60mm high bracket as standard.

P Pressure rating
Up to 8 barg supply air pressure

T Temperature rating
Valve/actuator combinations are suitable for use at the stated valve operating temperature. For steam duty a 60mm mount bracket should be used

Operation
Spring return - home position on loss of air to be stated at time of order

Options
Double acting actuators
Direct mount solenoids
Switch boxes and proximity sensors
High visibility position beacons
Stainless steel version
Electric actuation packages

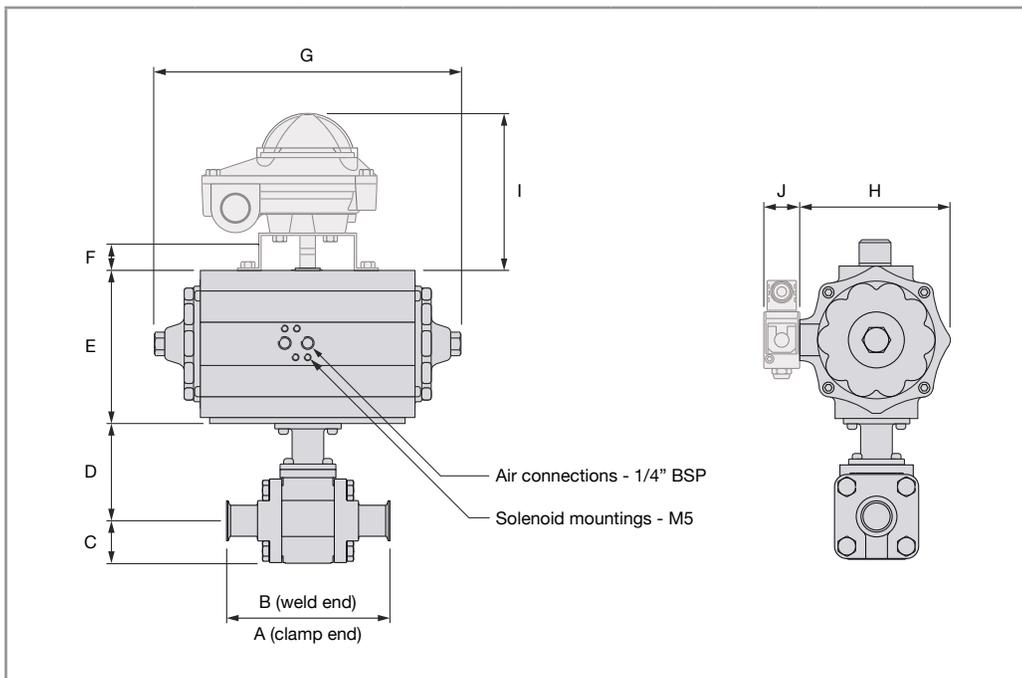
ATEX
All valve and actuator combinations are ATEX compliant to II 2 GD c

Supplier Partner
Staitech are a nominated partner of Quifer Actuators of Spain, offering the company's range of Aluminium pneumatic actuators. For further information on the Quifer range visit the Staitech website or www.quiferactuators.com

Media	Suggested safety factor
Oils and lubricants	1.0
Clean particle free liquid	1.0
Saturated steam and wet gasses	1.0
Dry gasses	1.4
Contaminated gasses	1.6
Contaminated liquids	1.8

Size (ASME BPE)	Valve torque LP & XP models (Nm)	Safety factor/Spring return actuator selection				
		1.0	1.2	1.4	1.6	1.8
1/2"	3.5	KPM3	KPM3	KPM3	KPM5	KPM5
3/4"	6	KPM5	KPM5	KPM5	KPM8	KPM8
1"	13	KPM8	KPM8	KPM8	KPM8	KPM8
1-1/2"	26	KPM12	KPM12	KPM20	KPM20	KPM20
2"	44	KPM20	KPM20	KPM30	KPM30	KPM30
2-1/2"	62	KPM30	KPM30	KPM40	KPM40	KPM60
3"	76	KPM40	KPM40	KPM60	KPM60	KPM60
4"	95	KPM60	KPM60	KPM60	KPM60	KPM60

Note: Actuator selection based on supply air pressure of 5.5 barg. Consult Staitech for actuator selections at lower air pressures.



	Valve size							
	1/2"	3/4"	1"	1-1/2"	2"	2-1/2"	3"	4"
A (LP & XP)	89	102	114	140	165	190	216	254
B (LP)	102	114	127	152	178	-	-	-
B (XP)	140	152	165	191	216	241	267	305
C	21	25	31	42	53	82	92	112
D	60/90	62/92	74/99	95/110	107/122	135	144	163
	Actuator size							
	KPM3	KPM5	KPM8	KPM12	KPM20	KPM30	KPM40	KPM60
E	91	111	131	131	169	169	200	216
F	20	20	20	20	20	30	30	30
G	180	214	239	285	277	340	374	425
H	89	112	133	133	169	169	195	210
I	110	110	110	110	110	110	110	110
J	35	35	35	35	35	35	35	35

Isolation valves Switch boxes and solenoids



Where feedback is required, switch boxes with either mechanical or proximity switches can be supplied. Solenoids are also available for direct mounting to all actuator models. Switch box and solenoid packages are available for both safe and hazardous area applications. For further information contact Staitech.

Ordering detail

LP series - open PTFE seats, spring return actuator				
Size (ASME BPE)	Bracket height (mm)	Connections		
		Clamp	Weld	Clamp x Weld
1/2"	30	LP-050CC-KPM3-30 £285.00	LP-050WW-KPM3-30 £285.00	LP-050CW-KPM3-30 £285.00
	60	LP-050CC-KPM3-60 £325.00	LP-050WW-KPM3-60 £325.00	LP-050CW-KPM3-60 £325.00
3/4"	30	LP-075CC-KPM5-30 £312.65	LP-075WW-KPM5-30 £312.65	LP-075CW-KPM5-30 £312.65
	60	LP-075CC-KPM5-60 £352.00	LP-075WW-KPM5-60 £352.00	LP-075CW-KPM5-60 £352.00
1"	35	LP-100CC-KPM8-35 £388.00	LP-100WW-KPM8-35 £388.00	LP-100CW-KPM8-35 £388.00
	60	LP-100CC-KPM8-60 £442.00	LP-100WW-KPM8-60 £442.00	LP-100CW-KPM8-60 £442.00
1-1/2"	45	LP-150CC-KPM12-45 £502.00	LP-150WW-KPM12-45 £502.00	LP-150CW-KPM12-45 £502.00
	60	LP-150CC-KPM12-60 £572.00	LP-150WW-KPM12-60 £572.00	LP-150CW-KPM12-60 £572.00
2"	45	LP-200CC-KPM20-45 £663.00	LP-200WW-KPM20-45 £663.00	LP-200CW-KPM20-45 £663.00
	60	LP-200CC-KPM20-60 £721.00	LP-200WW-KPM20-60 £721.00	LP-200CW-KPM20-60 £721.00

XP series - open TFM seats, spring return actuator				
Size (ASME BPE)	Bracket height (mm)	Connections		
		Clamp	Weld	Clamp x Weld
1/2"	30	XP-050CC-KPM3-30 £358.50	XP-050WW-KPM3-30 £358.50	XP-050CW-KPM3-30 £358.50
	60	XP-050CC-KPM3-60 £398.50	XP-050WW-KPM3-60 £398.50	XP-050CW-KPM3-60 £398.50
3/4"	30	XP-075CC-KPM5-30 £385.15	XP-075WW-KPM5-30 £385.15	XP-075CW-KPM5-30 £385.15
	60	XP-075CC-KPM5-60 £424.50	XP-075WW-KPM5-60 £424.50	XP-075CW-KPM5-60 £424.50
1"	35	XP-100CC-KPM8-35 £481.00	XP-100WW-KPM8-35 £481.00	XP-100CW-KPM8-35 £481.00
	60	XP-100CC-KPM8-60 £535.00	XP-100WW-KPM8-60 £535.00	XP-100CW-KPM8-60 £535.00
1-1/2"	45	XP-150CC-KPM12-45 £638.00	XP-150WW-KPM12-45 £638.00	XP-150CW-KPM12-45 £638.00
	60	XP-150CC-KPM12-60 £708.00	XP-150WW-KPM12-60 £708.00	XP-150CW-KPM12-60 £708.00
2"	45	XP-200CC-KPM20-45 £840.00	XP-200WW-KPM20-45 £840.00	XP-200CW-KPM20-45 £840.00
	60	XP-200CC-KPM20-60 £898.00	XP-200WW-KPM20-60 £898.00	XP-200CW-KPM20-60 £898.00
2-1/2"	60	XP-250CC-KPM30-60 £1,427.00	XP-250WW-KPM30-60 £1,427.00	XP-250CW-KPM30-60 £1,427.00
3"	60	XP-050CC-KPM40-60 £1,818.00	XP-050WW-KPM40-60 £1,818.00	XP-050CW-KPM40-60 £1,818.00
4"	60	XP-050CC-KPM60-60 £2,642.00	XP-050WW-KPM60-60 £2,642.00	XP-050CW-KPM60-60 £2,642.00

Consult Staitech for:

- Actuator packages when the chosen safety factor dictates the use of a larger actuator than listed
- When a double acting actuator is required
- Where an alternative height mount bracket is required

Ball valves MP Series - 3 and 4 Way Ball Valves

Manufactured by **VINCO** VALVES

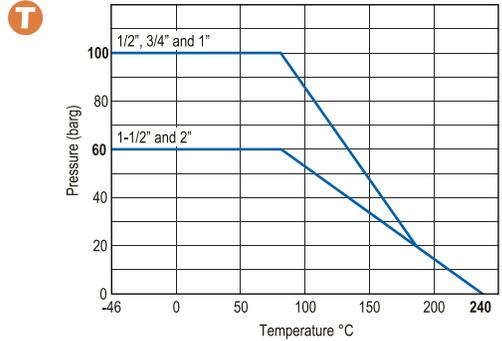


The MP range are available in 3 and 4 way configurations with either 'L' or 'T' port ball design. Valves are manufactured from wrought bar and can be supplied in any grade of stainless steel, C22 alloy or duplex grade material. The external body surfaces of the MP range are polished as standard making them an ideal choice for clean room applications.



All sizes of MP valve have an ISO top-works which allows mounting of pneumatic and electric actuators. Please consult Staitech for detail of available 90° and 180° actuators, switches and solenoids.

P Pressure and temperature rating



I Connections

1/2\" - 2\" ASME BPE clamp or extended weld end

S Materials

Body, ends, ball and stem - 316 stainless steel
Seats - TFM
Body seals - PTFE
O-ring seals - EPDM
Stem seals - PTFE and PEEK

W Surface finish

Wetted surfaces - 0.5 microns Ra
External surfaces - mirror polish - 0.5 microns Ra

ATEX

Rated to Ex II 2 GD c

C Options

4-way pattern
Alternative seat seals - PTFE and PEEK
Cavity filled seats in all materials
Enhanced surface finishes and electropolishing
Special cleaning
Locking devices and stem extensions
Low ferrite stainless steel, C22 and other alloys
Pneumatic and electric actuators

C Available certification

Material certificate covering all wetted parts

S Supplier Partner

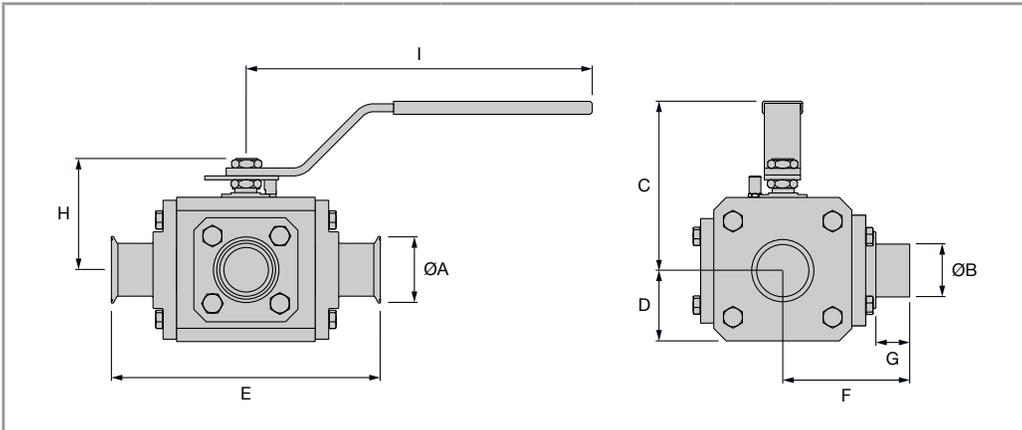
Staitech are a nominated partner of Vinco valve of Portugal, stocking and distributing the company's extensive range of high purity ball valves. For further information on the Vinco range visit the Staitech website or www.vincovalves.com

Ordering detail

MP Series - 3-way

Size (ASME BPE)	Connections	
	Clamp	Weld
1/2"	MP-050CCC-X £791.00	MP-050WWW-X £763.00
3/4"	MP-075CCC-X £939.00	MP-075WWW-X £902.00
1"	MP-100CCC-X £1,104.00	MP-100WWW-X £1,048.00
1-1/2"	MP-150CCC-X £1,824.00	MP-150WWW-X £1,750.00
2"	MP-200CCC-X £2,821.00	MP-200WWW-X £2,728.00

For L-port valves substitute 'X' in order ref with 'L' and for T-port valves 'T'
Consult Staitech for pricing on 4-way valves



Clamp

Clamp size (ASME BPE)	ØA (mm)	ØB (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	I (mm)
1/2"	25	12.7	85	30	127	69.5	25	54	170
3/4"	25	19.05	92	35	146	72.5	31	60	170
1"	50.5	25.4	100	41	159	79.5	31	68	200
1-1/2"	50.5	38.1	115	54	191	96.5	25	80	200
2"	64	50.8	167	73.5	241	127.5	38	117	370

Weld

Tube size (ASME BPE)	ØA (mm)	ØB (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	I (mm)
1/2"	25	12.7	85	30	130	65	25	54	170
3/4"	25	19.05	92	35	145	76	31	60	170
1"	50.5	25.4	100	41	160	84.5	31	68	200
1-1/2"	50.5	38.1	115	54	190	96.5	25	80	200
2"	64	50.8	167	73.5	240	132.5	38	117	370

Isolation valves Butterfly valves



Two styles of handle are available: 4-position stainless steel and lockable 6-position Nylon. Wetted surfaces are finished to 0.8 microns Ra.



Staitech also offer the butterfly valve with a range of spring return stainless steel actuators. Various switch and solenoid options are also available, as are double acting pneumatic and electric actuator models. Consult Staitech for further information.

- P Pressure rating**
Up to 10 barg
- T Temperature rating**
Up to 125°C with EPDM seal
Up to 200°C with Viton and Silicone seal
Up to 125°C with Nitrile seal
- ⏏ Connections**
1" - 6" ASME BPE clamp
- 🌀 Materials**
Body and disc - 316 stainless steel
Handle - 304 stainless steel or Nylon
Seal - EPDM
- 📊 Surface finish**
Wetted surfaces - 0.8 microns Ra
External surfaces - 1.0 microns Ra
- ✅ Options - valve**
Viton or Silicone seal
1" - 6" weld end connections
Enhanced surface finishes and electropolishing
- Options - actuator**
Aluminium or stainless steel models
Spring return and direct acting types
ATEX approval
Switches and solenoids for pneumatic types
Electric actuators
- C Available certification**
Material certificate covering wetted parts

Ordering detail

Butterfly valves

Clamp size (ASME BPE)	4 position, stainless steel handle EPDM seal, clamp connections	6 position, Nylon handle EPDM seals, clamp connections
1"	HBV03-100C-EBK-S £120.85	HBV03-100C-EBK-N £113.50
1-1/2"	HBV03-150C-EBK-S £128.00	HBV03-150C-EBK-N £121.00
2"	HBV03-200C-EBK-S £152.00	HBV03-200C-EBK-N £145.25
2-1/2"	HBV03-250C-EBK-S £168.00	HBV03-250C-EBK-N £160.85
3"	HBV03-300C-EBK-S £230.00	HBV03-300C-EBK-N £174.00
4"	HBV03-400C-EBK-S £252.50	-
6"	HBV03-600C-EBK-S POA	-

Consult Staltech for other seal material prices

Butterfly valves

Illustration showing 5 position stainless steel handle

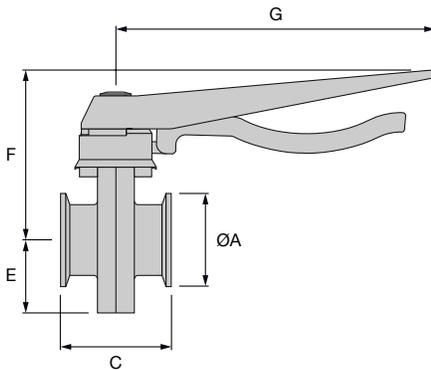
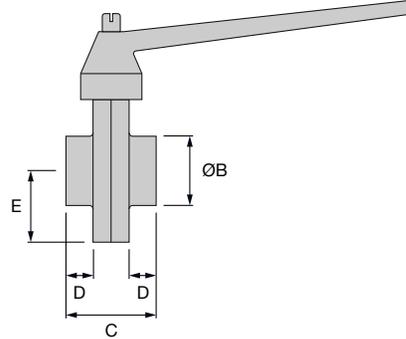


Illustration showing 2 position nylon handle



Clamp size (ASME BPE)	ØA (mm)	ØB (mm)	C (mm)	D* (mm)	E (mm)	F (mm)	G (mm)
1"	50.5	25.4	60	10	40	90	165
1-1/2"	50.5	38.1	60	10	44	94	165
2"	64	50.8	60	10	50	101	165
2-1/2"	77.5	63.5	60	10	57	107	165
3"	91	76.2	60	10	63	113	165
4"	119	101.6	100	10	79	129	165

*Extended weld ends are available for orbital welding

Diaphragm valves

Manufactured by  ITT

Staitech are the nominated UK supply partner for the ITT Pure-Flo range of hygienic diaphragm valve. ITT Pure-Flo is the sanitary diaphragm valve industry leader, offering a comprehensive range of 2-way forged and multi-port block body valves. Valves are available with either manual hand wheel or fitted with pneumatic actuator. In addition to manual and actuated valves, Staitech also stock a full range of replacement diaphragms in EPDM and TME materials.

Product features

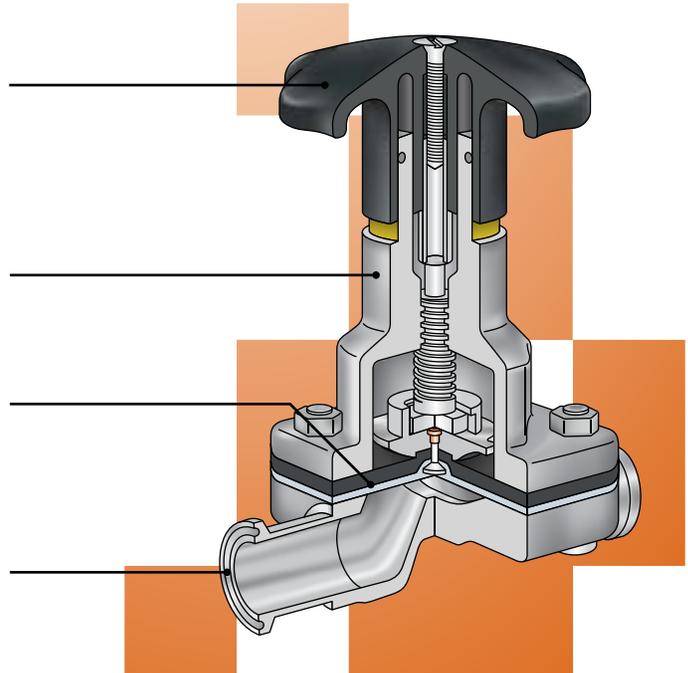
- Sizes from 1/4" - 2"
- Clamp and weld end connection options
- Simple diaphragm replacement and maintenance
- Wetted surfaces finished to 0.5 microns Ra as standard
- Full material traceability available for all valves

Manual and actuated valves

Stainless steel bonnet as standard

Choice of EPDM and TME diaphragms

Wide range of body designs



Product update

Staitech are proud to announce two new ITT product lines.



EnviZion diaphragm valve

The EnviZion valve is seen as a major break through in diaphragm design, eliminating all considerable variation in performance and assembly associated with traditional 4 bolt designs. Key differentiations are:

- Reliable, predictable and improved performance
- Unique mount and turn design
- Tool-less maintenance (no torque requirements)
- Diaphragm change out - less than 3 minutes
- 90% reduction in downtime
- Active sealing with integral thermal compensation
- Improved life and overall performance on SIP and thermal cycling applications

Stainless steel compact actuator

The Advantage Compact Stainless ACS actuator is the latest addition to the process proven Advantage Actuator product line. Designed as a maintenance-free actuator, it is engineered to handle the most demanding requirements of the bioprocessing and pharmaceutical industries. The stainless steel construction of the ACS is suited for severe duty applications, such as SIP and high cycle applications. It has been subjected to extensive life-cycle testing far exceeding industry requirements.

- Compact design
- 10 bar service pressure
- Fail open, fail closed and double acting operational modes
- 150°C max temperature
- 1/2" - 2" sizes available
- Resistant to chloride and caustic washdowns





Bio-Tek Series diaphragm valves

123

- Designed for low flow applications
- Simple diaphragm replacement
- 1/4", 3/8" and 1/2" sizes available



Bio-Tek Series actuated diaphragm valves

123

- Compact and lightweight design
- Stainless steel bonnet
- Switch boxes and solenoids available



Pure-Flo Series diaphragm valves

126

- All stainless steel construction
- 1/2" - 2" sizes in stock
- Fully autoclavable



Pure-Flo Series actuated diaphragm valves

126

- Fully assembled and tested
- Reverse and direct acting options
- Switch boxes and solenoids available



Replacement diaphragms

129

- EPDM and TME options
- Large stock holding
- Bonnet and actuator spares available



Zero static "T" valves

130

- Choice of orientations and size combinations available
- Completely drainable design

Divert valves

- 2 way to 6 way as standard options
- Choice of horizontal or vertical orientations

Fabricated assemblies

- Choice of orientations, porting and custom designs
- Minimised dead legs due to factory fabrication

Block body valves

- Further reduces dead legs and hold up volume
- Compact and custom designs

Diaphragm valves Bio-Tek Series

Manufactured by  **ITT**



Manual valves

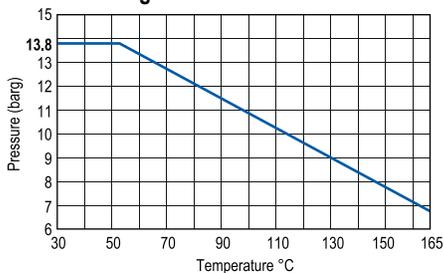
The Bio-Tek is a lightweight valve frequently used for sampling and low flow applications. Valves are available in 1/4", 3/8" and 1/2" sizes with ASME BPE clamp or weld end connections. Diaphragms are available in EPDM and PTFE materials, both of which are FDA and USP compliant.



Actuated valves

In addition to manual valves, the Bio-Tek range is also offered fitted with ITT's Advantage pneumatic actuator. Further options include stainless steel actuator, solenoids and switch boxes.

P Pressure rating



T Temperature rating

EPDM diaphragm
-20°C to 90°C for liquid applications
140°C for continuous steam
150°C for intermittent steam
TME diaphragm
-20°C to 165°C for all media

L Connections

1/4" - 1/2" ASME BPE clamp
1/4" - 1/2" ASME BPE weld ends

M Diaphragm materials

EPDM
TME PTFE with EPDM backing cushion

S Surface finish

Wetted surfaces - 0.5 microns Ra
External surfaces - as forged finish

✓ Options

Larger sizes - Pure-Flo series
Enhanced surface finishes and electropolishing
ATEX certified valves
Block body valve configurations

C Available certification

Material certificate covering all wetted parts

ST Supplier partner

Staitech are a nominated partner of ITT Pure-Flo, stocking and distributing the company's extensive range of high purity diaphragm valves. For further information on the ITT Pure-Flo range visit the Staitech website or www.engvalves.com

Ordering detail

Clamp and weld end manual and actuated valves with TME diaphragms are typically available from stock for same-day dispatch. Non-stock items are normally available within 2-3 weeks.

Bio-Tek valve with EPDM diaphragm

Size (ASME BPE)	Clamp	Connections Weld	Clamp x Weld
1/4"	BT-025C-025C-E-18 £220.00	BT-025W-025W-E-18 £210.00	BT-025C-025W-E-18 £220.00
3/8"	BT-0375C-0375C-E-18 £220.00	BT-0375W-0375W-E-18 £210.00	BT-0375C-0375W-E-18 £220.00
1/2"	BT-050C-050C-E-18 £220.00	BT-050W-050W-E-18 £210.00	BT-050C-050W-E-18 £220.00

Bio-Tek valve with TME diaphragm

Size (ASME BPE)	Clamp	Connections Weld	Clamp x Weld
1/4"	BT-025C-025C-T-18 £220.00	BT-025W-025W-T-18 £210.00	BT-025C-025W-T-18 £220.00
3/8"	BT-0375C-0375C-T-18 £220.00	BT-0375W-0375W-T-18 £210.00	BT-0375C-0375W-T-18 £220.00
1/2"	BT-050C-050C-T-18 £220.00	BT-050W-050W-T-18 £210.00	BT-050C-050W-T-18 £220.00

Bio-Tek valve with Advantage Actuator and EPDM diaphragm

Size (ASME BPE)	Clamp	Connections Weld	Clamp x Weld
1/4"	BT-025C-025C-E-B204-90FC £285.00	BT-025W-025W-E-B204-90FC £276.00	BT-025C-025W-E-B204-90FC £285.00
3/8"	BT-0375C-0375C-E-B204-90FC £285.00	BT-0375W-0375W-E-B204-90FC £276.00	BT-0375C-0375W-E-B204-90FC £285.00
1/2"	BT-050C-050C-E-B204-90FC £285.00	BT-050W-050W-E-B204-90FC £276.00	BT-050C-050W-E-B204-90FC £285.00

Bio-Tek valve with Advantage Actuator and TME diaphragm

Size (ASME BPE)	Clamp	Connections Weld	Clamp x Weld
1/4"	BT-025C-025C-T-B204-90FC £286.00	BT-025W-025W-T-B204-90FC £277.00	BT-025C-025W-T-B204-90FC £286.00
3/8"	BT-0375C-0375C-T-B204-90FC £286.00	BT-0375W-0375W-T-B204-90FC £277.00	BT-0375C-0375W-T-B204-90FC £286.00
1/2"	BT-050C-050C-T-B204-90FC £286.00	BT-050W-050W-T-B204-90FC £277.00	BT-050C-050W-T-B204-90FC £286.00

24Vdc solenoid with mounting adaptor

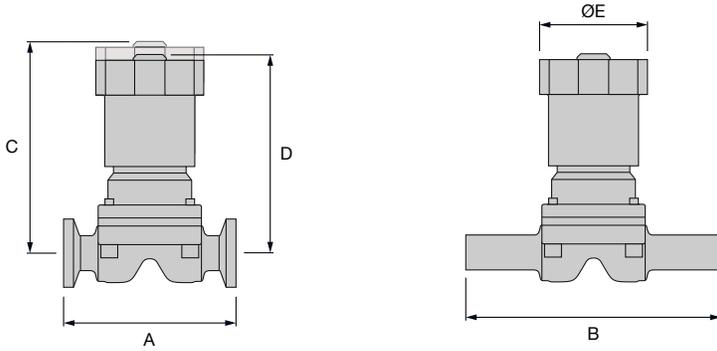
Suits all actuators	SOL8 £98.50
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Spare diaphragms

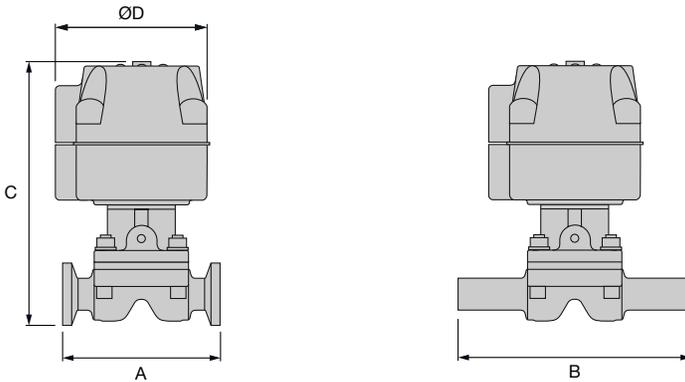
For replacement diaphragms see page 129

Bio-Tek valve



Size (ASME BPE)	A (mm)	B (mm)	C (mm)	D (mm)	ØE (mm)
1/4"	64	89	76.5	73.5	41
3/8"	64	89	76.5	73.5	41
1/2"	64	89	76.5	73.5	41

Bio-Tek valve with spring return (fail closed) Advantage Actuator



Size (ASME BPE)	Actuator model	A (mm)	B (mm)	C (mm)	ØD (mm)
1/4"	Advantage B204-90	64	89	115	74
3/8"	Advantage B204-90	64	89	115	74
1/2"	Advantage B204-90	64	89	115	74

Maximum line pressure with spring return B204-90 actuator fitted

	100% ΔP	0% ΔP
EPDM	10.3 bar	10.3 bar
TME	10.3 bar	8.6 bar

Where ΔP is the difference between the upstream and downstream pressures
 Air pressure for full stroke at 0 barg line pressure - 5.2 barg
 For fail open and double acting actuators contact Staitech

Diaphragm valves Pure-Flo Series

Manufactured by 

ITT



Manual valves

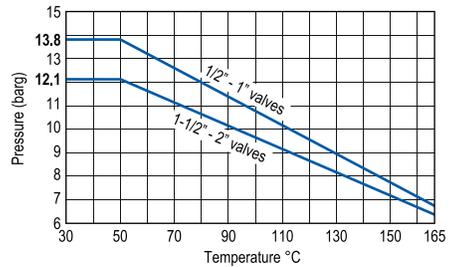
Utilising forged stainless steel bodies in combination with the latest generation diaphragm materials ensures that the Pure-Flo range surpasses all current industry standards for diaphragm valves. Staitech offer Pure-Flo valves fitted with a 970 series stainless steel bonnet and choice of FDA and USP compliant EPDM or PTFE diaphragms. Wetted surfaces are finished to the ASME BPE SF1 classification of 0.5 microns Ra.



Actuated valves

In addition to manual valves, the Pure-Flo range is also offered fitted with ITT's Advantage pneumatic actuator. Further options include stainless steel actuators, solenoids and switch boxes.

P Pressure rating



T Temperature rating

EPDM diaphragm

-20°C to 90°C for liquid applications

140°C for continuous steam

150°C for intermittent steam

TME diaphragm

-20°C to 165°C for all media



Connections

1/2" - 2" ASME BPE clamp

1/2" - 2" ASME BPE weld ends



Diaphragm materials

EPDM

TME PTFE with EPDM backing cushion



Surface finish

Wetted surfaces - 0.5 microns Ra

External surfaces - as forged finish



Options

2-1/2" - 6" sizes

Enhanced surface finishes and electropolishing

Adjustable opening stop with visual indicator

Feedback switches

Locking handwheel

ATEX certified valves

Block body valve configurations



Available certification

Material certificate covering all wetted parts



Supplier partner

Staitech are a nominated partner of ITT Pure-Flo, stocking and distributing the company's extensive range of high purity diaphragm valves. For further information on the ITT Pure-Flo range visit the Staitech website or www.ittpureflo.com

Ordering detail

Clamp and weld end manual and actuated valves with TME diaphragms are typically available from stock.

Pure-Flo valve with 970 bonnet and EPDM diaphragm			
Size (ASME BPE)	Clamp	Connections Weld	Clamp x Weld
1/2"	PF-050C-050C-E-970 £262.00	PF-050W-050W-E-970 £254.00	PF-050C-050W-E-970 £262.00
3/4"	PF-075C-075C-E-970 £278.00	PF-075W-075W-E-970 £271.00	PF-075C-075W-E-970 £278.00
1"	PF-100C-100C-E-970 £314.00	PF-100W-100W-E-970 £310.00	PF-100C-100W-E-970 £318.00
1-1/2"	PF-150C-150C-E-970 £465.00	PF-150W-150W-E-970 £445.00	PF-150C-150W-E-970 £452.00
2"	PF-200C-200C-E-970 £585.00	PF-200W-200W-E-970 £567.00	PF-200C-200W-E-970 £585.00

Pure-Flo valve with 970 bonnet and TME diaphragm			
Size (ASME BPE)	Clamp	Connections Weld	Clamp x Weld
1/2"	PF-050C-050C-T-970 £265.00	PF-050W-050W-T-970 £257.00	PF-050C-050W-T-970 £265.00
3/4"	PF-075C-075C-T-970 £282.00	PF-075W-075W-T-970 £275.00	PF-075C-075W-T-970 £282.00
1"	PF-100C-100C-T-970 £318.00	PF-100W-100W-T-970 £315.00	PF-100C-100W-T-970 £318.00
1-1/2"	PF-150C-150C-T-970 £436.00	PF-150W-150W-T-970 £458.00	PF-150C-150W-T-970 £436.00
2"	PF-200C-200C-T-970 £605.00	PF-200W-200W-T-970 £587.00	PF-200C-200W-T-970 £605.00

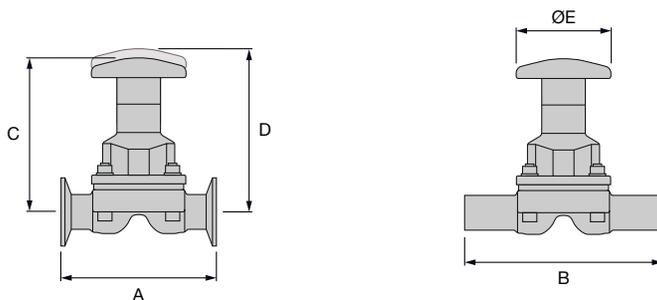
Pure-Flo valve with normally closed Advantage Actuator and EPDM diaphragm			
Size (ASME BPE)	Clamp	Connections Weld	Clamp x Weld
1/2"	PF-050C-050C-E-B206-90FC £322.00	PF-050W-050W-E-B206-90FC £313.00	PF-050C-050W-E-B206-90FC £322.00
3/4"	PF-075C-075C-E-B209-90FC £374.00	PF-075W-075W-E-B209-90FC £367.00	PF-075C-075W-E-B209-90FC £374.00
1"	PF-100C-100C-E-B209-90FC £428.00	PF-100W-100W-E-B209-90FC £424.00	PF-100C-100W-E-B209-90FC £428.00
1-1/2"	PF-150C-150C-E-B217-90FC £696.00	PF-150W-150W-E-B217-90FC £690.00	PF-150C-150W-E-B217-90FC £696.00
2"	PF-200C-200C-E-B217-90FC £863.00	PF-200W-200W-E-B217-90FC £845.00	PF-200C-200W-E-B217-90FC £863.00

Pure-Flo valve with normally closed Advantage Actuator and TME diaphragm			
Size (ASME BPE)	Clamp	Connections Weld	Clamp x Weld
1/2"	PF-050C-050C-T-B206-90FC £325.00	PF-050W-050W-T-B206-90FC £316.00	PF-050C-050W-T-B206-90FC £325.00
3/4"	PF-075C-075C-T-B209-90FC £378.00	PF-075W-075W-T-B209-90FC £370.00	PF-075C-075W-T-B209-90FC £378.00
1"	PF-100C-100C-T-B209-90FC £433.00	PF-100W-100W-T-B209-90FC £429.00	PF-100C-100W-T-B209-90FC £433.00
1-1/2"	PF-150C-150C-T-B217-90FC £710.00	PF-150W-150W-T-B217-90FC £703.00	PF-150C-150W-T-B217-90FC £710.00
2"	PF-200C-200C-T-B217-90FC £883.00	PF-200W-200W-T-B217-90FC £865.00	PF-200C-200W-T-B217-90FC £883.00

24Vdc solenoid with mounting adaptor - suits all actuators

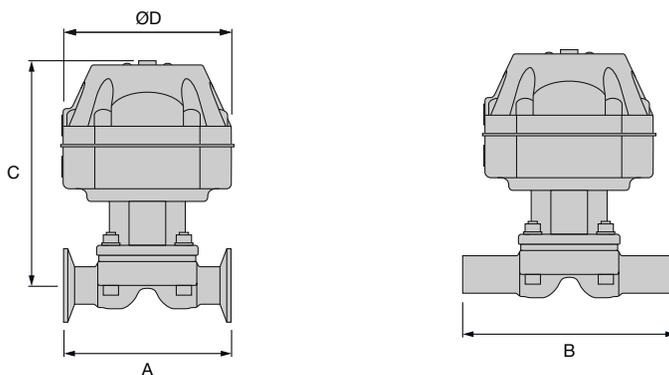
SOL8
£98.50

Pure-Flo valve with 970 bonnet



Size (ASME BPE)	A (mm)	B (mm)	C (mm)	D (mm)	ØE (mm)
1/2"	89	130	93	100	70
3/4"	102	140	99	108	70
1"	114	149	115	127	70
1-1/2"	140	178	149	170	133
2"	159	194	165	193	113

Pure-Flo valve with Advantage Actuator



Size (ASME BPE)	Actuator model	A (mm)	B (mm)	C (mm)	ØD (mm)
1/2"	Advantage B206	89	130	110	85
3/4"	Advantage B209	102	140	142	116
1"	Advantage B209	114	149	154	116
1-1/2"	Advantage B217	140	178	244	163
2"	Advantage B217	159	194	255	163

Maximum line pressure with spring return B204-90 actuator fitted

	100% ΔP	0% ΔP
EPDM	10.3 bar	10.3 bar
TME	10.3 bar	8.6 bar

Where ΔP is the difference between the upstream and downstream pressures
 Air pressure for full stroke at 0 barg line pressure - 5.2 barg

Diaphragm valves

Manufactured
by  **ITT**

Replacement diaphragms

In order to ensure ongoing regulatory compliance it is important that all system components are maintained on a regular basis. ITT recommends that diaphragms are replaced on a scheduled time interval based on system conditions and valve usage. To help support such programmes, Staitech carry large stocks of EPDM and TME diaphragms for all valve types and sizes.



Ordering detail

Bio-Tek valve replacement diaphragms

Size (ASME BPE)	Diaphragm material	
	EPDM	TME with EPDM backing cushion
1/4" - 1/2"	46602 £22.00	48069 £58.00

Pure-Flo valve replacement diaphragms

Size (ASME BPE)	Diaphragm material	
	EPDM	TME with EPDM backing cushion
1/2"	46603 £22.00	48071 £73.00
	46604 £23.00	48072 £81.00
3/4"	47256 £28.50	48073 £81.00
	46606 £34.50	48074 £114.00
1"	46607 £36.00	48075 £128.00
	47002 £63.50	48077 £226.00
1-1/2"	47002 £63.50	48077 £226.00
	47003 £96.50	48078 £451.00
2"	47002 £63.50	48077 £226.00
	47003 £96.50	48078 £451.00
2-1/2"	47002 £63.50	48077 £226.00
	47003 £96.50	48078 £451.00
3"	47002 £63.50	48077 £226.00
	47003 £96.50	48078 £451.00
4"	47002 £63.50	48077 £226.00
	47003 £96.50	48078 £451.00



General spares

Staitech also stock bonnets, actuators and bolt sets for all manual, actuated and block body valve designs.

Maintenance instructions

Download all ITT Pure-Flo maintenance instructions at www.staitech.com



Diaphragm valves

Manufactured by  ITT

Zero static "T" valves

Zero Static "T" Point-of-Use (POU) valves are some of the most critical valves utilised in the Biopharmaceutical industry today. Point-of-Use valves allow process fluids to be transferred, sampled, drained or diverted with minimal impact on critical systems such as Water for Injection (WFI) and Purified Water (PW).

- Choice of orientations and size combinations available
- Completely drainable design
- Body machined from block
- Standard material options - 316L and WN1.4435 stainless steels
- 3D models and drawings available



Divert valves

Multiport divert valves allow process medium to be diverted or mixed. Divert valves are instrumental in achieving cost effective and efficient piping design, coupled with reduced product "hold up" by minimising dead legs.

- Sizes 1/2" - 6"
- 2 way to 6 way as standard options
- Choice of horizontal or vertical orientations
- Standard material options - 316L and WN1.4435 stainless steels
- 3D models and drawings available



Fabricated assemblies

Custom assemblies can be fabricated to meet customer process requirements using a combination of standard 2-way valves and block valve combinations where necessary. The Sterile Access and GMP valve combination is typically used for sampling, purging, diverting and drain applications.

- Choice of orientations, porting and custom design
- Minimised dead legs due to factory fabrication
- Reduced installation time
- Standard material options - 316L and WN1.4435 stainless steels
- 3D models and drawings provided for approval process



Block body valves

The Integrated block body program was developed to meet the ever increasing requirement of compact valve designs to meet customer space and envelop constraints. The weir type diaphragm design enabled design engineers to start machining multiple valve weirs into a single block of stainless steel. The advantages are numerous.

- Further reduces dead legs and hold up volume
- Improved drainability
- Compact and custom design
- Increased product purity and yield
- Reduced installation time
- Standard material options - 316L and WN1.4435 stainless steels
- 3D modelling and drawings provided for approval process



Diaphragm valves

Manufactured by  **ITT**

3D drawings

ITT Pure-Flo provides a wide range of standard and application driven block valve designs to meet industry cGMP requirements. Being a market leading service provider ITT Pure-Flo offer engineering support throughout the design process.

- On site review meetings
- P&ID evaluation
- G.A. drawings for design approval
- 3D models
- Valve description and figure coding

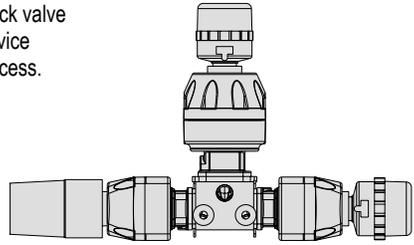


FIGURE NUMBERS		P&ID		LIST OF MAJOR COMPONENTS		
	VSPEC:DV3W ASSEMBLY-1-428-1-428-5-SVPP-419-R-5-TVPF-419-W-8-8-0-MET		ITEM	DESCRIPTION	PART N°	QTY
	M-1-N-TME-MET-B209-VSPP		1	ACTUATOR-ADVANTAGE 00.50 - FC1		
	2-5-N-TME-MET-B105		2	ACTUATOR-ADVANTAGE 01.00 - FC1		
	3-5-N-TME-MET-B206-VSPP		3	ADV SWITCH-PAK VSP		
			4	DV3W SPEC. 1"x12x0.5"x0.5"	UK09790	1
			5	FERRULE 00.50-18GA X 1.125 LONG		2
			6	TUBE 01.00-18GA X 1.50 LONG		2
			7	POSITIONER SVPR 1001		1
			8	ACTUATOR-ADVANTAGE 00.50 - FO1		
			TAG NUMBERS			
						
	VALVE ASSY	FIRST VALVE	SECOND VALVE	THIRD VALVE		
1	VB202-2	AVC453007	CV453008	AVC453028		
2	VB232-1	AVC451008	CV451009	AVC451010		
3	VB233-1	AVC452002	CV452001	AVC452001		

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PURE-FLO ORDER: _____	ITEM: _____	THIRD ANGLE PROJECTION	UNLESS OTHERWISE NOTED	DATE	BY	SPECIAL DV3W ASSEMBLY
CUSTOMER: _____			INCH	DWN	Aug-04-16	S.P.
CUSTOMER PO: _____			MM	CHKD	Aug-04-16	P.N.
OTHER INFO: _____			UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN _____	APVD	Aug-04-16	S.P.
						MASTER DWG-K22981
						ISSUED BY: _____
						CERT BY: _____

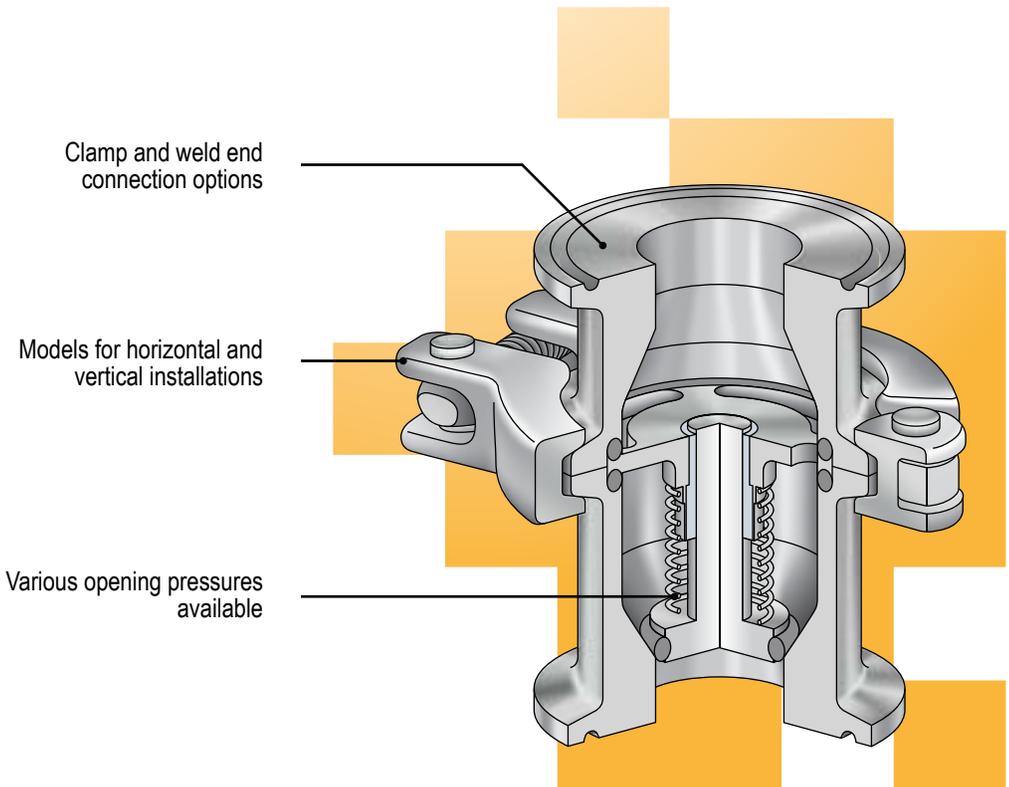
 Visit our website support page or contact Staitech directly to discuss any diaphragm valve applications in more detail.

Check valves

Staitech offer a comprehensive range of check valves for use in high purity applications. Valve models are available with soft seats for gas and water applications and metal-metal seating for steam and condensate duty.

Product features

- Valve designs for water, steam and gas duty
- Sizes from 1/4" - 4"
- Wide range of materials - 316L stainless, C22 alloy, Titanium
- Several FDA and USP seal options
- Standard and electropolished finishes





HCV01

134

- Designed to fit between BPE clamp ferrules
- Metal-metal or soft seating options
- EPDM seals



HCV02

136

- Soft seated valve for water and gas applications
- Wetted surfaces finished to 0.5 microns Ra
- Horizontal and vertical models available



HCV03

139

- Inserts between BPE clamp ferrules
- All PTFE construction
- Replaces standard clamp gasket



HCV04

141

- Ideally suited to steam, condensate and process fluid applications
- Metal-metal and soft seat options
- Standard and high capacity units available



HCV05

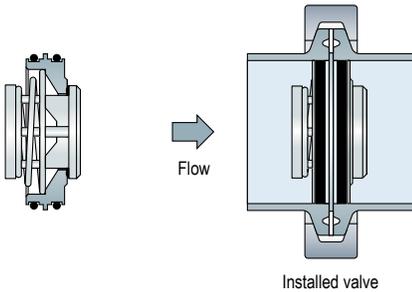
142

- Compact one-piece design
- Metal-metal and soft seat options
- Wetted surfaces finished to 0.5 microns Ra

Check valves HCV01



The HCV01 check valve is designed to fit between two ASME BPE compliant clamp fittings, sealing on the ID of the tube using FDA approved EPDM O-rings. The compact 316 stainless steel design is suitable for a wide range of duties in steam, liquid and gas service, including pressure relieving and anti-vacuum applications. Standard valves have metal-metal seating. A number of soft seat seal and spring options are also available.



- P Pressure rating**
Up to 50 barg
- T Temperature rating**
Up to 135°C or 205°C with alternative seals
- C Connections**
To suit 3/4" - 4" ASME BPE clamp fittings
- M Materials**
Wetted parts - 316L stainless steel
Spring - 316 stainless steel
Body seals - EPDM
Seat seal - metal-metal or EPDM
- Opening pressure**
8, 35, 100 or 240 mbar
- Surface finish**
Body and valve head - 0.5 microns Ra
Piston surfaces - 1.2 microns Ra
- Options**
Alternative spring ranges
Viton, Aflas or Kalrez body and seat seals
USP class VI compliant seals
- C Available certification**
Material certificate covering all wetted parts

HCV01								
	Clamp size (ASME BPE)	ØA (mm)	ØB (mm)	C (mm)	D (Closed) (mm)	D (Open) (mm)	E (mm)	Kv (m ³ /h)
	3/4"	19.0	15.8	1.6	11.2	19.8	7.1	2
	1"	25.4	22.1	1.6	13.5	22.6	7.6	4
	1-1/2"	38.1	34.8	1.6	13.5	26.9	16.0	8
	2"	50.8	47.5	1.6	16.8	35.3	16.7	18
	2-1/2"	63.5	60.2	1.6	17.5	39.6	22.4	32
	3"	76.2	72.9	1.6	19.0	50.0	31.8	60
	4"	101.6	97.4	1.6	22.4	61.2	41.4	109

Ordering detail

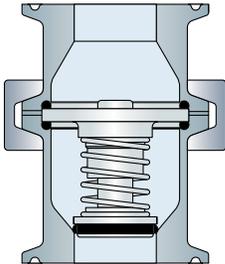
HCV01				
Clamp size (ASME BPE)	8 mbar spring	35 mbar spring	100 mbar spring	240 mbar spring
Metal-metal seat seal				
3/4"	HCV01-075C-M-08 £176.50	HCV01-075C-M-35 £176.50	HCV01-075C-M-100 £194.50	HCV01-075C-M-240 £194.50
1"	HCV01-100C-M-08 £188.00	HCV01-100C-M-35 £188.00	HCV01-100C-M-100 £207.50	HCV01-100C-M-240 £207.50
1-1/2"	HCV01-150C-M-08 £231.00	HCV01-150C-M-35 £231.00	HCV01-150C-M-100 £253.00	HCV01-150C-M-240 £253.00
2"	HCV01-200C-M-08 £313.00	HCV01-200C-M-35 £313.00	HCV01-200C-M-100 £344.00	HCV01-200C-M-240 £344.00
2-1/2"	HCV01-250C-M-08 £436.00	HCV01-250C-M-35 £436.00	HCV01-250C-M-100 £436.00	HCV01-250C-M-240 £436.00
3"	HCV01-300C-M-08 £669.00	HCV01-300C-M-35 £669.00	HCV01-300C-M-100 £669.00	HCV01-300C-M-240 £669.00
4"	HCV01-400C-M-08 £1,326.00	HCV01-400C-M-35 £1,326.00	HCV01-400C-M-100 £1,326.00	HCV01-400C-M-240 £1,326.00
EPDM seat seal				
3/4"	HCV01-075C-EBK-08 £192.50	HCV01-075C-EBK-35 £192.50	HCV01-075C-EBK-100 £211.50	HCV01-075C-EBK-240 £211.50
1"	HCV01-100C-EBK-08 £203.50	HCV01-100C-EBK-35 £203.50	HCV01-100C-EBK-100 £224.00	HCV01-100C-EBK-240 £224.00
1-1/2"	HCV01-150C-EBK-08 £246.50	HCV01-150C-EBK-35 £246.50	HCV01-150C-EBK-100 £271.00	HCV01-150C-EBK-240 £271.00
2"	HCV01-200C-EBK-08 £328.50	HCV01-200C-EBK-35 £328.50	HCV01-200C-EBK-100 £361.50	HCV01-200C-EBK-240 £361.50
2-1/2"	HCV01-250C-EBK-08 £458.00	HCV01-250C-EBK-35 £458.00	HCV01-250C-EBK-100 £458.00	HCV01-250C-EBK-240 £458.00
3"	HCV01-300C-EBK-08 £702.50	HCV01-300C-EBK-35 £702.50	HCV01-300C-EBK-100 £702.50	HCV01-300C-EBK-240 £702.50
4"	HCV01-400C-EBK-08 £1,371.50	HCV01-400C-EBK-35 £1,371.50	HCV01-400C-EBK-100 £1,371.50	HCV01-400C-EBK-240 £1,371.50

Body seals are FDA compliant only. USP compliant seals available to special order

Check valves HCV02



The HCV02 range is intended for use in high purity applications such as WFI systems. Valves are manufactured in 316L stainless steel with a range of seal options. Wetted surfaces are finished to 0.5 microns Ra. The standard opening pressure for the HCV02 range is 35 mbar. Where a valve is to be installed in a horizontal line and drain-ability maintained, then the HCV02 eccentric version is available.



- P Pressure rating**
Up to 10 barg
- T Temperature rating**
Up to 150°C with USP grade EPDM seals
Up to 200°C with Viton, Silicone or FEP-Silicone seals
- ⏏ Connections**
1/2" - 4" ASME BPE clamp or weld end
Concentric and eccentric connections available
- 🌀 Materials**
Wetted parts - 316L stainless steel
Spring - 316 stainless steel
Guide plate brush - TFM (PTFE)
Body and seat seals - EPDM, Viton, Silicone or FEP-Silicone
- 📏 Opening pressure**
8 or 35 mbar
- 📉 Surface finish**
Wetted surfaces - 0.5 microns Ra
External surfaces - 0.8 microns Ra
- ✅ Options**
Perlast seals
Enhanced surface finishes and electropolishing
Low sulphur stainless steel, C22 and other alloys
- C Available certification**
Material certificate covering all wetted parts

HCV02							
	Clamp size (ASME BPE)	ØA (Clamp) (mm)	ØA (Weld) (mm)	B (Clamp) (mm)	B (Weld) (mm)	C (mm)	Kv (m³/h)
	1/2"	25	12.7	80	118	60	8
	3/4"	25	19.5	80	111	60	8
	1"	50.5	25.4	70	113	60	17
	1-1/2"	50.5	38.1	80	110	78	17
	2"	64	50.8	80	120	90	40
	2-1/2"	77.5	63.5	95	122	120	*
	3"	91	76.2	125	145	135	*
	4"	119	101.6	125	160	180	*

*Please consult Staitech for flow information

Ordering detail

HCV02 - Clamp connections				
Clamp size (ASME BPE)	EPDM Black	Viton Black	Silicone White	FEP-Silicone Clear with red core
Vertical connections				
1/2"	HCV02-050C-EBKU-35 £326.00	HCV02-050C-VBKU-35 £337.50	HCV02-050C-SW-35 £337.50	HCV02-050C-FEPS-35 £326.00
3/4"	HCV02-075C-EBKU-35 £326.00	HCV02-075C-VBKU-35 £337.50	HCV02-075C-SW-35 £337.50	HCV02-075C-FEPS-35 £326.00
1"	HCV02-100C-EBKU-35 £302.00	HCV02-100C-VBKU-35 £313.00	HCV02-100C-SW-35 £313.00	HCV02-100C-FEPS-35 £302.00
1-1/2"	HCV02-150C-EBKU-35 £346.50	HCV02-150C-VBKU-35 £363.50	HCV02-150C-SW-35 £363.50	HCV02-150C-FEPS-35 £346.50
2"	HCV02-200C-EBKU-35 £428.50	HCV02-200C-VBKU-35 £445.50	HCV02-200C-SW-35 £445.50	HCV02-200C-FEPS-35 £428.50
2-1/2"	HCV02-250C-EBKU-35 £503.50	HCV02-250C-VBKU-35 £526.50	HCV02-250C-SW-35 £526.50	HCV02-250C-FEPS-35 £503.50
3"	HCV02-300C-EBKU-35 £795.50	HCV02-300C-VBKU-35 £818.50	HCV02-300C-SW-35 £818.50	HCV02-300C-FEPS-35 £795.50
4"	HCV02-400C-EBKU-35 £1,591.00	HCV02-400C-VBKU-35 £1,625.00	HCV02-400C-SW-35 £1,625.00	HCV02-400C-FEPS-35 £1,591.00
Horizontal connections				
1/2"	HCV02E-050C-EBKU-35 £387.00	HCV02E-050C-VBKU-35 £398.00	HCV02E-050C-SW-35 £398.00	HCV02E-050C-FEPS-35 £387.00
3/4"	HCV02E-075C-EBKU-35 £387.00	HCV02E-075C-VBKU-35 £398.00	HCV02E-075C-SW-35 £398.00	HCV02E-075C-FEPS-35 £387.00
1"	HCV02E-100C-EBKU-35 £339.00	HCV02E-100C-VBKU-35 £350.00	HCV02E-100C-SW-35 £350.00	HCV02E-100C-FEPS-35 £339.00
1-1/2"	HCV02E-150C-EBKU-35 £396.00	HCV02E-150C-VBKU-35 £412.50	HCV02E-150C-SW-35 £412.50	HCV02E-150C-FEPS-35 £396.00
2"	HCV02E-200C-EBKU-35 £496.00	HCV02E-200C-VBKU-35 £512.50	HCV02E-200C-SW-35 £512.50	HCV02E-200C-FEPS-35 £496.00
2-1/2"	HCV02E-250C-EBKU-35 POA	HCV02E-250C-VBKU-35 POA	HCV02E-250C-SW-35 POA	HCV02E-250C-FEPS-35 POA
3"	HCV02E-300C-EBKU-35 POA	HCV02E-300C-VBKU-35 POA	HCV02E-300C-SW-35 POA	HCV02E-300C-FEPS-35 POA
4"	HCV02E-400C-EBKU-35 POA	HCV02E-400C-VBKU-35 POA	HCV02E-400X-SW-35 POA	HCV02E-400C-FEPS-35 POA

All seals are FDA and USP class VI (70°C) compliant. 121°C tested seals are available to special order

Ordering detail

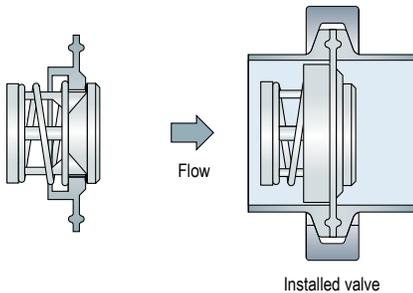
HCV02 - Weld connections				
Weld size (ASME BPE)	EPDM Black	Viton Black	Silicone White	FEP-Silicone Clear with red core
Vertical connections				
1/2"	HCV02-050W-EBKU-35 £359.90	HCV02-050W-VBKU-35 £359.90	HCV02-050W-SW-35 £359.90	HCV02-050W-FEPS-35 £359.90
3/4"	HCV02-075W-EBKU-35 £359.90	HCV02-075W-VBKU-35 £359.90	HCV02-075W-SW-35 £359.90	HCV02-075W-FEPS-35 £359.90
1"	HCV02-100W-EBKU-35 £333.00	HCV02-100W-VBKU-35 £344.00	HCV02-100W-SW-35 £344.00	HCV02-100W-FEPS-35 £333.00
1-1/2"	HCV02-150W-EBKU-35 £381.50	HCV02-150W-VBKU-35 £398.00	HCV02-150W-SW-35 £398.00	HCV02-150W-FEPS-35 £381.50
2"	HCV02-200W-EBKU-35 £471.50	HCV02-200W-VBKU-35 £488.50	HCV02-200W-SW-35 £488.50	HCV02-200W-FEPS-35 £471.50
2-1/2"	HCV02-250W-EBKU-35 POA	HCV02-250W-VBKU-35 POA	HCV02-250W-SW-35 POA	HCV02-250W-FEPS-35 POA
3"	HCV02-300W-EBKU-35 POA	HCV02-300W-VBKU-35 POA	HCV02-300W-SW-35 POA	HCV02-300W-FEPS-35 POA
4"	HCV02-400W-EBKU-35 POA	HCV02-400W-VBKU-35 POA	HCV02-400W-SW-35 POA	HCV02-400W-FEPS-35 POA
Horizontal connections				
1/2"	HCV02E-050W-EBKU-35 £420.50	HCV02E-050W-VBKU-35 £432.00	HCV02E-050W-SW-35 £432.00	HCV02E-050W-FEPS-35 £420.50
3/4"	HCV02E-075W-EBKU-35 £420.50	HCV02E-075W-VBKU-35 £432.00	HCV02E-075W-SW-35 £432.00	HCV02E-075W-FEPS-35 £420.50
1"	HCV02E-100W-EBKU-35 £370.00	HCV02E-100W-VBKU-35 £392.00	HCV02E-100W-SW-35 £392.00	HCV02E-100W-FEPS-35 £370.00
1-1/2"	HCV02E-150W-EBKU-35 £430.50	HCV02E-150W-VBKU-35 £448.00	HCV02E-150W-SW-35 £448.00	HCV02E-150W-FEPS-35 £430.50
2"	HCV02E-200W-EBKU-35 £538.50	HCV02E-200W-VBKU-35 £555.50	HCV02E-200W-SW-35 £555.50	HCV02E-200W-FEPS-35 £538.50
2-1/2"	HCV02E-250W-EBKU-35 POA	HCV02E-250W-VBKU-35 POA	HCV02E-250W-SW-35 POA	HCV02E-250W-FEPS-35 POA
3"	HCV02E-300W-EBKU-35 POA	HCV02E-300W-VBKU-35 POA	HCV02E-300W-SW-35 POA	HCV02E-300W-FEPS-35 POA
4"	HCV02E-400W-EBKU-35 POA	HCV02E-400W-VBKU-35 POA	HCV02E-400W-SW-35 POA	HCV02E-400W-FEPS-35 POA

All seals are FDA and USP class VI (70°C) compliant. 121°C tested seals are available to special order

Check valves HCV03



The HCV03 check valve is designed to fit between two ASME BPE compliant clamp fittings, with a moulded seal profile replacing the standard joint gasket. The valve is suitable for a wide range of duties in liquid and gas service, including pressure relieving and anti-vacuum applications. A number of soft seat seal and spring options are also available.



P Pressure and temperature rating

T Max pressure (bar)

3/4" - 2"	3.8	3.8	2.3	1.7	1.4	1.2	1.2
2-1/2" - 4"	1.4	1.4	0.9	0.6	0.5	0.4	0.35
Max temp (°C)	0	38	65	90	121	150	205

L Connections

To suit 3/4" - 4" ASME BPE clamp fittings

S Materials

Wetted parts - PTFE

Spring - 316 stainless steel

Body seals - PTFE (integral with valve body)

Seat seal - PTFE or EPDM

M Opening pressure

8, 35, 100 or 240 mbar

W Surface finish

Body, piston and valve head - 1.0 micron Ra

C Options

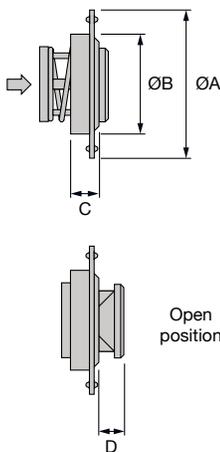
Alternative spring ranges and seat seals

PTFE coated spring

C Available certification

Certificate of conformity

HCV03



Clamp size
(ASME BPE)

ØA
(mm)

ØB
(mm)

C
(mm)

D
(mm)

Kv
(m³/h)

3/4"

19.0

15.8

1.6

7.1

2

1"

25.4

22.1

1.6

7.6

4

1-1/2"

38.1

34.8

1.6

16.0

8

2"

50.8

47.5

1.6

16.7

18

2-1/2"

63.5

60.2

1.6

22.4

32

3"

76.2

72.9

1.6

31.8

60

4"

101.6

97.4

1.6

41.4

109

Open
position

Ordering detail

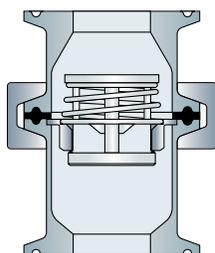
HCV03				
Clamp size (ASME BPE)	8 mbar spring	35 mbar spring	100 mbar spring	240 mbar spring
Standard seat seal (PTFE-PTFE)				
3/4"	HCV03-075C-T-08 £157.00	HCV03-075C-T-35 £157.00	HCV03-075C-T-100 £173.00	HCV03-075C-T-240 £173.00
1"	HCV03-100C-T-08 £191.50	HCV03-100C-T-35 £191.50	HCV03-100C-T-100 £210.50	HCV03-100C-T-240 £210.50
1-1/2"	HCV03-150C-T-08 £201.50	HCV03-150C-T-35 £201.50	HCV03-150C-T-100 £223.00	HCV03-150C-T-240 £223.00
2"	HCV03-200C-T-08 £232.50	HCV03-200C-T-35 £232.50	HCV03-200C-T-100 £255.50	HCV03-200C-T-240 £255.50
2-1/2"	HCV03-250C-T-08 £397.50	HCV03-250C-T-35 £397.50	HCV03-250C-T-100 £421.00	HCV03-250C-T-240 £421.00
3"	HCV03-300C-T-08 POA	HCV03-300C-T-35 POA	HCV03-300C-T-100 POA	HCV03-300C-T-240 POA
4"	HCV03-400C-T-08 POA	HCV03-400C-T-35 POA	HCV03-400C-T-100 POA	HCV03-400C-T-240 POA
EPDM seat seal				
3/4"	HCV03-075C-EBK-08 £172.00	HCV03-075C-EBK-35 £172.00	HCV03-075C-EBK-100 £188.00	HCV03-075C-EBK-240 £188.00
1"	HCV03-100C-EBK-08 £206.50	HCV03-100C-EBK-35 £206.50	HCV03-100C-EBK-100 £225.50	HCV03-100C-EBK-240 £225.50
1-1/2"	HCV03-150C-EBK-08 £216.50	HCV03-150C-EBK-35 £216.50	HCV03-150C-EBK-100 £237.50	HCV03-150C-EBK-240 £237.50
2"	HCV03-200C-EBK-08 £247.00	HCV03-200C-EBK-35 £247.00	HCV03-200C-EBK-100 £270.50	HCV03-200C-EBK-240 £270.50
2-1/2"	HCV03-250C-EBK-08 £429.50	HCV03-250C-EBK-35 £429.50	HCV03-250C-EBK-100 £429.50	HCV03-250C-EBK-240 £429.50
3"	HCV03-300C-EBK-08 POA	HCV03-300C-EBK-35 POA	HCV03-300C-EBK-100 POA	HCV03-300C-EBK-240 POA
4"	HCV03-400C-EBK-08 POA	HCV03-400C-EBK-35 POA	HCV03-400C-EBK-100 POA	HCV03-400C-EBK-240 POA

Due to a bonding process used during manufacture only 3/4" and 1-1/2" can be certified as FDA compliant

Check valves HCV04



The HCV04 range is ideally suited to steam, condensate and process fluid applications. Standard valves have metal-metal seating and a choice of 8 or 35 mbar opening pressure. A range of soft seat options are also available. Wetted surfaces on all valves are finished to 0.5 microns Ra. 1/2" to 1" valves are available in either standard or high capacity configuration. The HCV04 is also suitable for use as an anti-vacuum valve or pressure relief valve device.



- P Pressure rating**
Up to 10 barg
- T Temperature rating**
Up to 200°C with metal-metal seating
Up to 200°C with Viton, Silicone or Perlast seat seal
Up to 150°C with EPDM seat seal
- L Connections**
1/2" - 2" ASME BPE clamp fittings
- M Materials**
Wetted parts - 316L stainless steel
Spring - 316 stainless steel
Body seal - PTFE-Viton envelope
Standard valves have metal-metal seating
Optional body and seat seals - EPDM, Viton, Silicone or Perlast
- M Opening pressure**
8 or 35 mbar
- Surface finish**
Wetted surfaces - 0.5 microns Ra
External surfaces - 0.8 microns Ra
- Options**
2-1/2" - 4" sizes
Weld end connections
Electropolishing
- C Available certification**
Material certificate covering all wetted parts

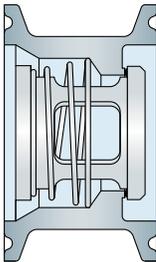
HCV04					
	Clamp size (ASME BPE)	ØA (mm)	B (mm)	ØC (mm)	Kv (m ³ /h)
	1/2" SC	25	50	44	2
	1/2" HC	25	80	60	4
	3/4" SC	25	50	44	2
	3/4" HC	25	80	60	4
	1" SC	50.5	70	60	4
	1" HC	50.5	70	60	8
	1-1/2"	50.5	80	60	8
	2"	64	80	78	18

For ordering details see page 143

Check valves HCV05



The HCV05 is a one-piece non-maintainable valve intended for steam, condensate and process fluid applications. Standard valves have metal-metal seating and a choice of 8 or 35 mbar opening pressure. A number of soft seat seal options are also available. The HCV05 is also suitable for use as an anti-vacuum valve or pressure relief valve device.



- P Pressure rating**
Up to 10 barg
- T Temperature rating**
Up to 200°C with metal-metal seating
Up to 200°C with Viton, Silicone or Perlast seat seal
Up to 150°C with EPDM seat seal
- L Connections**
1/2" - 4" ASME BPE clamp fittings
- S Materials**
Wetted parts - 316L stainless steel
Spring - 316 stainless steel
Standard valves have metal-metal seating
Optional seat seal - EPDM, Viton, Silicone or Perlast
- M Opening pressure**
8 or 35 mbar
- Surface finish**
Wetted surfaces - 0.5 microns Ra
External surfaces - 0.8 microns Ra
- Options**
Enhanced surface finishes and electropolishing
Low sulphur stainless steel, C22 and other alloys
- C Available certification**
Material certificate covering all wetted parts

HCV05					
	Clamp size (ASME BPE)	ØA (mm)	B (mm)	C (When open) (mm)	Kv (m³/h)
	1/2"	25	40	-	2
	3/4"	25	40	-	2
	1"	50.5	25	3	4
	1-1/2"	50.5	30	10	8
	2"	64	35	9	18
	2-1/2"	77.5	55	12	32
	3"	91	60	12	60
	4"	119	80	15	109

For ordering details see page 143

Ordering detail

HCV04		
Clamp size (ASME BPE)	8 mbar spring	35 mbar spring
1/2" SC	HCV04SC-050C-M-08 £268.50	HCV04SC-050C-M-35 £268.50
1/2" HC	HCV04HC-050C-M-08 £293.00	HCV04HC-050C-M-35 £293.00
3/4" SC	HCV04SC-075C-M-08 £268.50	HCV04SC-075C-M-35 £268.50
3/4" HC	HCV04HC-075C-M-08 £293.00	HCV04HC-075C-M-35 £293.00
1" SC	HCV04SC-100C-M-08 £284.50	HCV04SC-100C-M-35 £284.50
1" HC	HCV04HC-100C-M-08 £347.00	HCV04HC-100C-M-35 £347.00
1-1/2"	HCV04-150C-M-08 £337.50	HCV04-150C-M-35 £337.50
2"	-	HCV04-200C-M-35 £435.00

All seals are FDA and USP class VI (70°C) compliant. 121°C tested seals are available to special order

HCV05		
Clamp size (ASME BPE)	8 mbar spring	35 mbar spring
1/2"	HCV05-050C-M-08 £242.00	HCV05-050C-M-35 £242.00
3/4"	HCV05-075C-M-08 £223.00	HCV05-075C-M-35 £223.00
1"	HCV05-100C-M-08 £245.00	HCV05-100C-M-35 £245.00
1-1/2"	HCV05-150C-M-08 £282.00	HCV05-150C-M-35 £282.00
2"	HCV05-200C-M-08 £322.50	HCV05-200C-M-35 £322.50
2-1/2"	-	HCV05-250C-M-35 £435.00
3"	-	HCV05-300C-M-35 £488.00
4"	-	HCV05-400C-M-35 £540.00

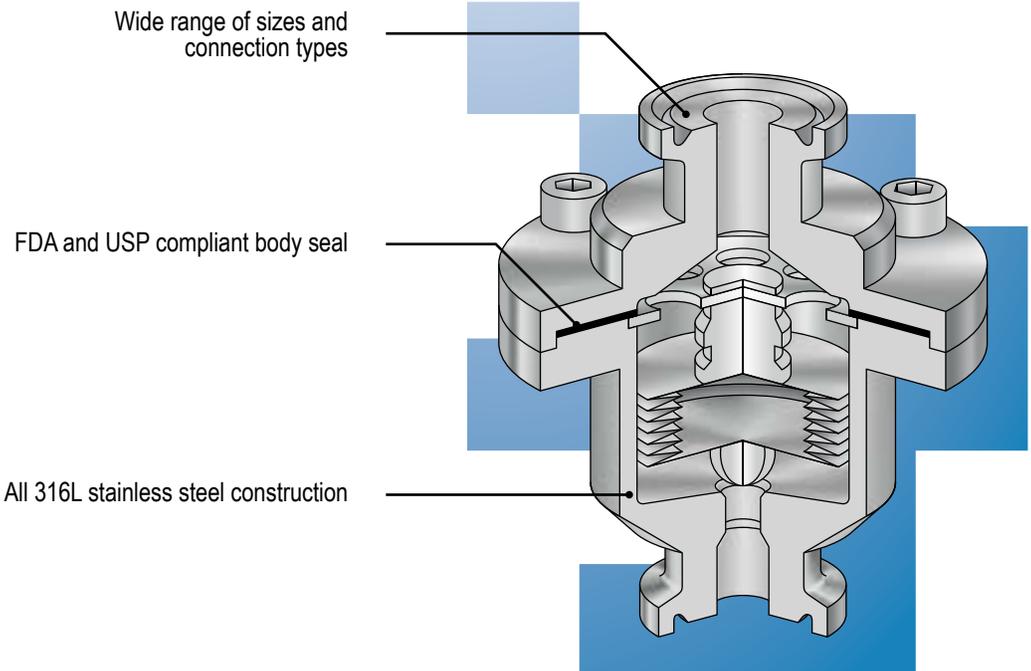
Please contact Staitech for soft seat options

Steam traps

Staittech manufacture an extensive range of steam traps for high purity applications. The HST20 and HST30 models utilise a near-to-steam thermostatic element for optimum performance. The HST50 thermodynamic model is available for higher pressure applications.

Product features

- Near-to-steam operating characteristics
- Clamp and weld connections available
- Choice of body joint styles
- Horizontal inlet option
- Material traceability supplied for all models





HST20

146

- Basic design which suits most applications
- Only 49mm face-face dimension
- Various connection types and sizes



HST20SC

146

- Compact version of HST20
- Fully maintainable design
- Material certification available



HST30

148

- Near-to-steam operation
- Bolted body design
- 0.5 microns Ra on wetted surfaces



HST30TC

149

- As HST30 with clamped body joint
- Crevice free design suitable for CIP
- Wide range of sizes



HST50

151

- Thermodynamic design for arduous applications
- High operating pressure
- Suitable for horizontal installations



Low profile elbows

45

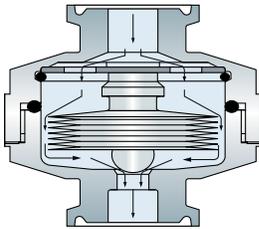
- For use where vertical fall is restricted
- Clamp and weld branch leg connection
- See page 45 for further information

Steam traps HST20 and HST20SC



HST20

The HST20 is a low cost thermostatic trap designed for high purity steam applications. Wetted parts are manufactured from 316L stainless steel with a maximum surface finish of 1.0 micron Ra. The HST20 is available with either clamped (HST20) or screwed body joint (HST20SC).



HST20SC

- P Pressure rating**
Maximum operating pressure (PMO) - 6 barg
Maximum allowable pressure (PMA) - 8 barg
- T Temperature rating**
Maximum allowable temperature (TMA) - 170°C
- Connections**
1/2", 3/4" or 1" ASME BPE clamp or weld end
1/2" or 3/4" compression fittings to suit ASME BPE tube
- Materials**
Wetted parts - 316L stainless steel
Body gasket - PTFE-Viton
- Flow capacity**

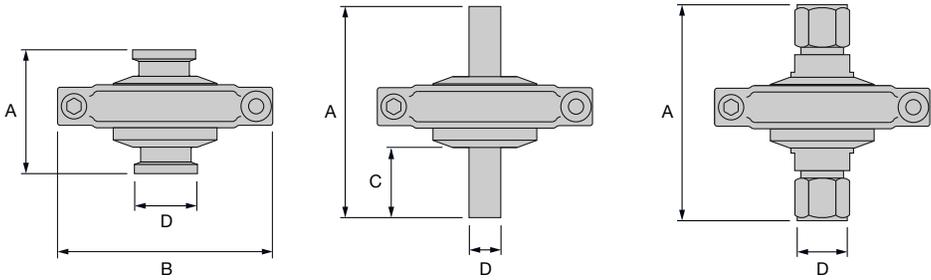
Pressure (bar)	1.0	2.0	3.0	4.0	5.0	6.0
Flow (kg/h)	200	350	400	650	800	950
Cold flow (kg/h)	700	900	1000	1200	1500	1600
- Surface finish**
Wetted surfaces - 1.0 microns Ra
External surfaces - 1.0 microns Ra
- Options**
Screwed connections
- Available certification**
Material certificate covering all wetted parts

Ordering detail

HST20			
Size (ASME BPE)	Clamp	Connections Weld	Twin-Lock compression fittings
1/2"	HST20-050C £322.00	HST20-050W £355.50	HST20-050CF £365.50
3/4"	HST20-075C £336.50	HST20-075W £370.00	HST20-075CF £377.00
1"	HST20-100C £354.50	HST20-100W £384.50	-

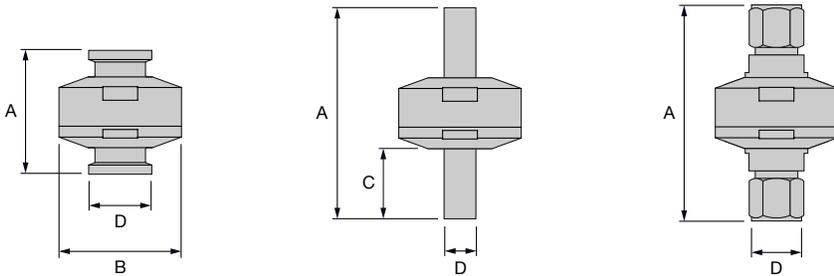
HST20SC			
Size (ASME BPE)	Clamp	Connections Weld	Twin-Lock compression fittings
1/2"	HST20SC-050C £322.00	HST20SC-050W £355.50	HST20SC-050CF £365.50
3/4"	HST20SC-075C £336.50	HST20SC-075W £370.00	HST20SC-075CF £377.00
1"	HST20SC-100C £354.50	HST20SC-100W £384.50	-

HST20



Size (ASME BPE)	A (mm)	B (mm)	C (mm)	D (mm)		
				1/2"	3/4"	1"
1/2" - 1" Clamp	49	85	-	25	25	50.5
1/2" - 1" Weld	82	85	28	12.7	19.05	25.4
1/2" - 3/4" Twin-Lock	82	85	-	12.7	19.05	-

HST20SC

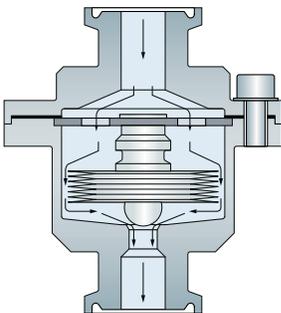


Size (ASME BPE)	A (mm)	B (mm)	C (mm)	D (mm)		
				1/2"	3/4"	1"
1/2" - 1" Clamp	49	48.5	-	25	25	50.5
1/2" - 1" Weld	82	48.5	28	12.7	19.05	25.4
1/2" - 3/4" Twin-Lock	82	48.5	-	12.7	19.05	-

Steam traps HST30



The HST30 range of steam traps is designed to remove condensate from high purity steam systems. A thermostatic element is used to detect the difference between the temperature of the cooling condensate and the system operating temperature. When this temperature differential exceeds 3-5°C the element contracts to allow the cooling condensate to exhaust.



- P Pressure rating**
Maximum operating pressure (PMO) - 6 barg
Maximum allowable pressure (PMA) - 8 barg
- T Temperature rating**
Maximum allowable temperature (TMA) - 170°C
- Connections**
1/2", 3/4", 1" or 1-1/2" ASME BPE clamp or weld end
- Materials**
Wetted parts - 316L stainless steel
Body gasket - PTFE
- Flow capacity**

Pressure (bar)	1.0	2.0	3.0	4.0	5.0	6.0
Flow (kg/h)	200	350	400	650	800	950
Cold flow (kg/h)	700	900	1000	1200	1500	1600
- Surface finish**
Wetted surfaces - 0.5 microns Ra
External surfaces - 0.8 microns Ra
- Options**
Horizontal inlet connection
Clamped body joint - HST30TC
Electropolished finish
- C Available certification**
Material certificate covering all body parts

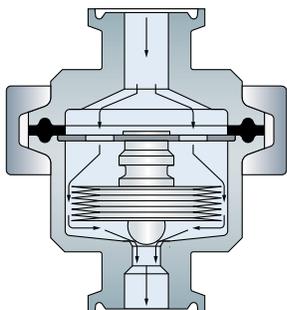
Ordering detail

HST30			
Size (ASME BPE)	Connections		
	Clamp	Clamp with horizontal inlet	Weld
1/2"	HST30-050C £503.50	HST30H-050C £646.50	HST30-050W £428.50
3/4"	HST30-075C £520.50	HST30H-075C £663.50	HST30-075W £546.50
1"	HST30-100C £524.00	HST30H-100C £689.00	HST30-100W £581.00
1-1/2"	HST30-150C £552.50	-	-

Steam traps HST30TC



Whilst the HST30TC shares the same near-to-steam operating characteristic as the HST20, it has a higher internal surface finish specification of 0.5 microns Ra. The HST30TC is available with clamp connections in sizes 1/2" to 1-1/2". Where space is restricted the HST30TC with horizontal inlet is available.



P Pressure rating
 Maximum operating pressure (PMO) - 6 barg
 Maximum allowable pressure (PMA) - 8 barg

T Temperature rating
 Maximum allowable temperature (TMA) - 170°C

L Connections
 1/2", 3/4", 1" or 1-1/2" ASME BPE clamp or weld end

S Materials
 Wetted parts - 316L stainless steel
 Body gasket - PTFE-Viton

Flow capacity

Pressure (bar)	1.0	2.0	3.0	4.0	5.0	6.0
Flow (kg/h)	200	350	400	650	800	950
Cold flow (kg/h)	700	900	1000	1200	1500	1600

Surface finish
 Wetted surfaces - 0.5 microns Ra
 External surfaces - 0.8 microns Ra

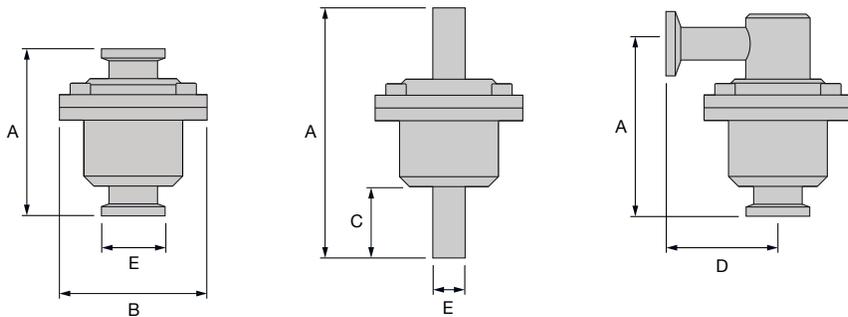
Options
 Hexagon nut or wing nut clamp
 Horizontal inlet connection
 Bolted body joint - HST30
 Electropolished finish

C Available certification
 Material certificate covering all body parts

Ordering detail

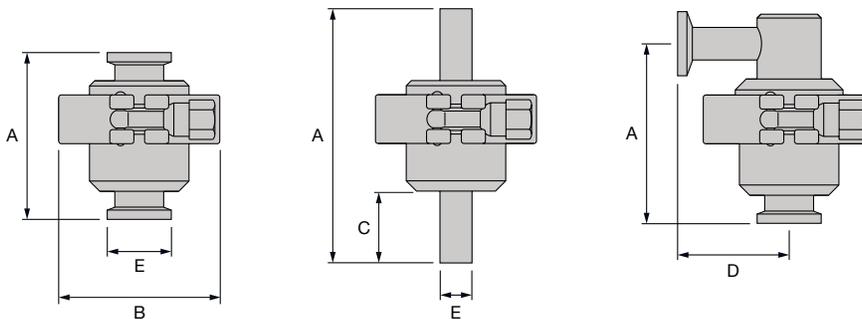
HST30TC			
Size (ASME BPE)	Clamp	Connections	
		Clamp with horizontal inlet	Weld
1/2"	HST30TC-050C £480.50	HST30TCH-050C £616.00	HST30TC-050W £503.50
3/4"	HST30TC-075C £496.00	HST30TCH-075C £631.00	HST30TC-075W £520.50
1"	HST30TC-100C £499.50	HST30TCH-100C £657.00	HST30TC-100W £553.00
1-1/2"	HST30TC-150C £527.50	-	-

HST30



Size (ASME BPE)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)		
					1/2"	3/4"	1"
1/2" - 1" Clamp	65	60	-	-	25	25	50.5
1/2 - 1" Weld	98	60	28	-	12.7	19.05	25.4
1/2" - 3/4" Angled clamp	70	60	-	43	25	25	-
1" Angled clamp	77	60	-	50	-	-	50.5

HST30TC

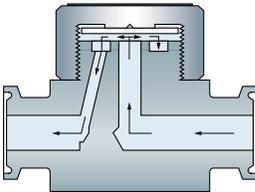


Size (ASME BPE)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)		
					1/2"	3/4"	1"
1/2" - 1" Clamp	65	60	-	-	25	25	50.5
1/2 - 1" Weld	98	60	28	-	12.7	19.05	25.4
1/2" - 3/4" Angled clamp	70	60	-	43	25	25	-
1" Angled clamp	77	60	-	50	-	-	50.5

Steam traps HST50



The HST50 Thermodynamic steam trap is intended for use in constant pressure applications such as mains drainage where space is restricted. The HST50 can be installed in any orientation.



Pressure rating

Maximum operating pressure (PMO) - 10 barg
Maximum allowable pressure (PMA) - 16 barg



Temperature rating

Maximum allowable temperature (TMA) - 450°C



Connections

1/2", 3/4" or 1" ASME BPE clamp
1/2" or 3/4" ASME BPE tube weld



Materials

Wetted parts - 316L stainless steel



Flow capacity

Pressure (bar)	1.0	2.0	3.0	4.0	5.0	6.0
Flow (kg/h)	45	58	65	70	76	80



Surface finish

Wetted surfaces - 0.8 microns Ra
External surfaces - as cast



Options

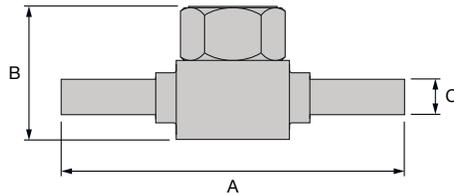
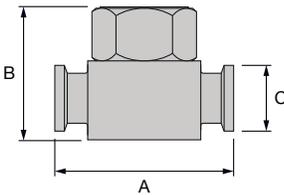
Enhanced surface finishes and electropolishing



Available certification

Material certificate covering body and cap

HST50



Size (ASME BPE)	A (mm)	B (mm)	C (mm)		
			1/2"	3/4"	1"
1/2" - 1" clamp	65	35	25	25	50.5
1/2" and 3/4" weld	123	35	12.7	19.05	-

Ordering detail

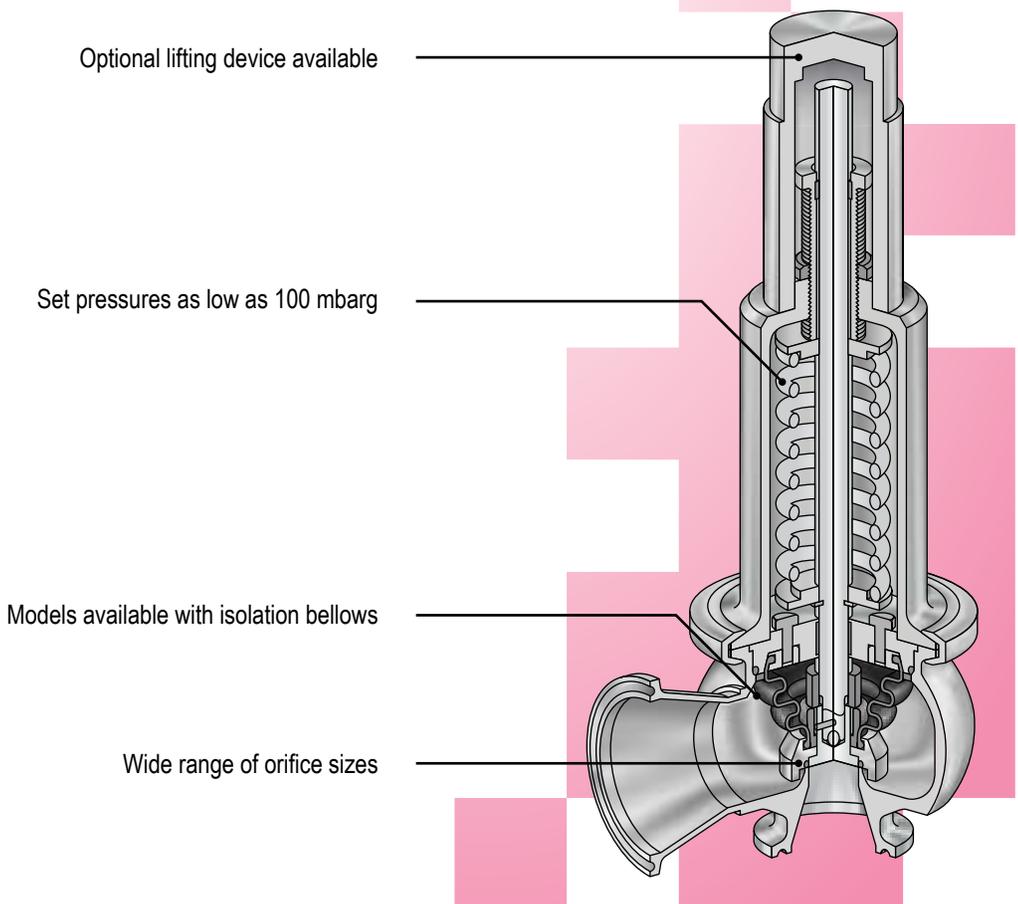
Size (ASME BPE)	Clamp	Connections	Weld
1/2"	HST50-050C £400.50		HST50-050W £476.00
3/4"	HST50-075C £407.00		HST50-075W £483.00
1"	HST50-100C £525.00		-

Safety valves

Staitech offer a comprehensive range of safety valves for all service media applications. Valves are available with clamped, screwed and flanged connections. All valve types meet current regulatory requirements and are CE compliant.

Product features

- Valves suitable for steam, liquid and gases
- Hygienic and non-hygienic designs
- Clamp, screwed and flanged connections
- Set pressures as low as 100 mbar
- CE, TUV and ASME compliant





600 Series

154

- Compact design with clamp connections
- Suitable for steam, liquid and gas
- FDA and USP compliant seat seal



481 Series

156

- 3/4" and 1" clamp connections
- Suitable for high pressure applications
- Various lifting devices available



483 Series

158

- Two orifice sizes available
- Suitable for aseptic applications
- Choice of seat seals and lifting devices



488 Series

160

- High capacity valve design
- Designed for high purity installations
- ASME and CE compliant



Threaded and flanged safety valves

162

- Wide range of size options
- Screwed and flanged connections available
- Stainless steel, carbon steel and C22 materials

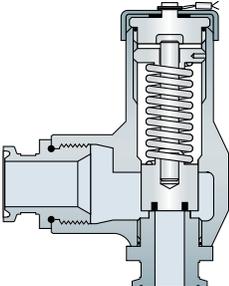
Safety valves 600 Series



The 600 series safety valves are intended for low flow steam, gas and liquid applications. Wetted parts are manufactured in 316L stainless steel material with an FDA and USP class VI compliant Isolast seat seal. The 646 series are designed for steam and gas service while the 680 series is intended for liquid applications. All models are CE compliant.

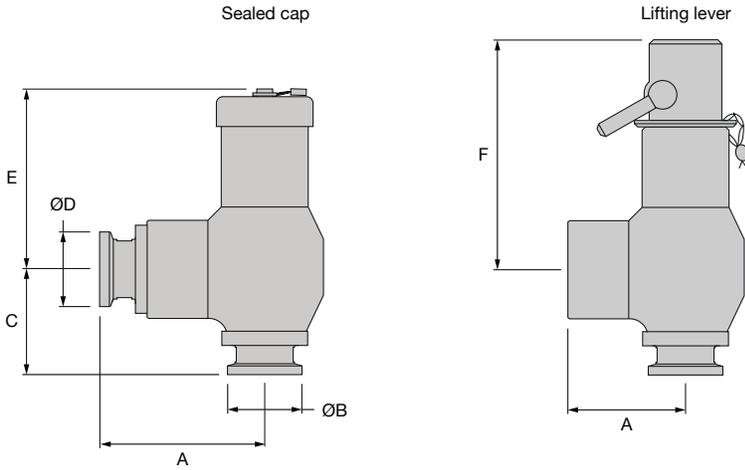
- P Pressure rating**
Type 646 steam and gas valve - 55 barg
Type 680 liquid valve - 70 barg
- T Temperature rating**
Up to 150°C or 190°C with Viton body seal
- Orifice diameter**
9.5mm
- Connections**
1/2" or 3/4" ASME BPE clamp inlet
3/4" BSP female, 3/4" or 1" ASME BPE clamp outlet
- Materials**
Wetted parts - 316L stainless steel
Seat seal - Isolast (Perfluoroelastomer)
Body seals - 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 finishes and electropolishing
Manual lifting device
- Available certification**
Material certificate covering inlet, body and disc

Ordering detail

600 Series					
	Inlet clamp	Outlet BSP female	Orifice size (mm)	646 steam and gas valve	680 liquid valve
	1/2"	3/4"	9.5	646-050C-075GF-I-S £473.00	680-050C-075GF-I-S £473.00
	3/4"	3/4"	9.5	646-075C-075GF-I-S £473.00	680-075C-075GF-I-S £473.00
	Inlet clamp	Outlet clamp	Orifice size (mm)	646 steam and gas valve	680 liquid valve
	1/2"	3/4"	9.5	646-050C-075C-I-S £525.00	680-050C-075C-I-S £525.00
	3/4"	3/4"	9.5	646-075C-075C-I-S £525.00	680-075C-075C-I-S £525.00
3/4"	1"	9.5	646-075C-100C-I-S £538.50	680-075C-100C-I-S £538.50	

Consult Staitech for ordering detail where lifting device is required

600 Series



Connections		A (mm)	ØB (mm)	C (mm)	ØD (mm)	E (mm)	F (mm)
Inlet	Outlet						
1/2" clamp	3/4" BSP	40	25	37	-	83	107
1/2" clamp	3/4" clamp	56	25	37	25	83	107
3/4" clamp	3/4" BSP	40	25	37	-	83	107
3/4" clamp	3/4" clamp	56	25	37	25	83	107
3/4" clamp	1" clamp	56	25	37	50.5	83	107

Flow capacities

Set pressure (barg)	600 Series		
	Type 646 Saturated steam (Kg/h)	Type 646 Air @ 0°C (Nm³/h)	Type 680 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

Safety valves 481 Series



The 481 series valves are intended for steam, liquid and gas applications up to 16 barg, or when fitted with a high pressure disc, 68 barg. Standard valves have an FDA and USP class VI EPDM seat seal, clamp inlet and threaded outlet. Valves can also be supplied fitted with a threaded clamp outlet adaptor. The 481 is both ASME section VIII Division 1 and CE category IV approved.

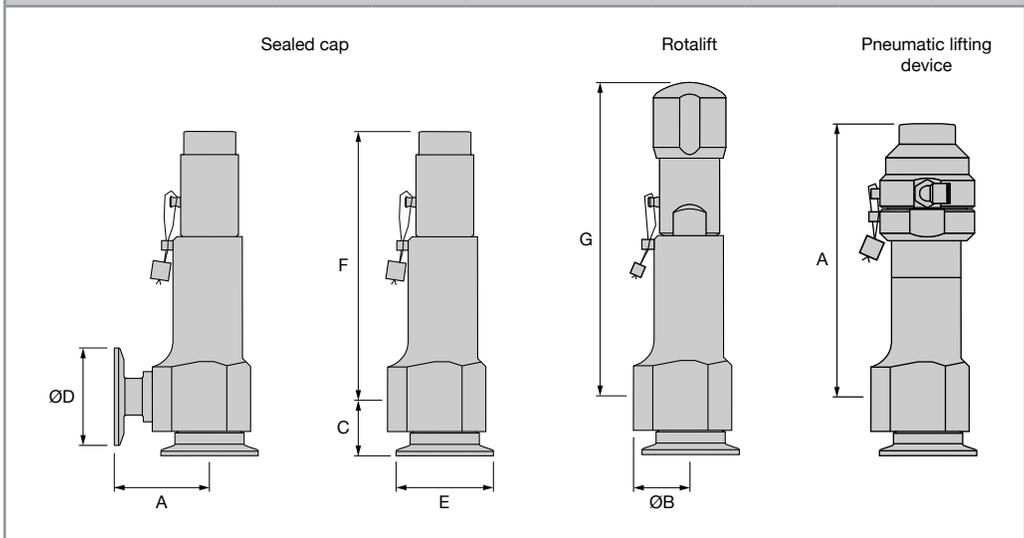
- P Pressure rating**
Up to 16 barg or 68 barg for high pressure option
- T Temperature rating**
Up to 150°C or 250°C with Kalrez seat seal
- Orifice diameter**
10mm
- Connections**
3/4" or 1" ASME BPE clamp inlet
3/4" or 1" ASME BPE clamp, 1/2" BSP female outlet
- Materials**
Wetted parts - 316L stainless steel
Seat seal - EPDM or Kalrez
- Set pressure range**
Standard valves - 0.3 - 16 barg
High pressure valves - 16.1 - 68 barg
- Surface finish**
Wetted inlet surfaces - 0.5 microns Ra
Wetted outlet surfaces - 1.5 - 3.2 microns Ra
External surfaces - Satin finish (1.5 microns Ra)
- Options**
Viton seat seal
Enhanced surface finishes and electropolishing
Manual and pneumatic lifting devices
Lift indicator switch
- C Available certification**
Material certificate covering inlet, body and disc

Ordering detail

481 Series							
		Inlet	Outlet	Orifice	Sealed cap	Lifting device	
						Rotalift	Pneumatic
	EPDM seat seal	3/4" clamp	1/2" BSP	10mm	481-075C-050GF-E-H2 £532.00	481-075C-050GF-E-H4 £589.00	481-075C-050GF-E-H8 £1,251.00
		3/4" clamp	3/4" clamp*	10mm	481-075C-075C-E-H2 £619.00	481-075C-075C-E-H4 £675.00	481-075C-075C-E-H8 £1,337.50
		1" clamp	1/2" BSP	10mm	481-100C-050GF-E-H2 £532.50	481-100C-050GF-E-H4 £589.00	481-100C-050GF-E-H8 £1,251.00
		1" clamp	1" clamp	10mm	481-100C-100C-E-H2 £619.00	481-100C-100C-E-H4 £675.00	481-100C-100C-E-H8 £1,337.50
	Kalrez seat seal	3/4" clamp	1/2" BSP	10mm	481-075C-050GF-K-H2 £761.50	481-075C-050GF-K-H4 £817.50	481-075C-050GF-K-H8 £1,480.00
		3/4" clamp	3/4" clamp*	10mm	481-075C-075C-K-H2 £848.00	481-075C-075C-K-H4 £904.00	481-075C-075C-K-H8 £1,566.00
		1" clamp	1/2" BSP	10mm	481-100C-050GF-K-H2 £761.50	481-100C-050GF-K-H4 £817.50	481-100C-050GF-K-H8 £1,480.00
		1" clamp	1" clamp	10mm	481-100C-100C-K-H2 £848.00	481-100C-100C-K-H4 £904.00	481-100C-100C-K-H8 £1,566.00

*For 1" outlet clamp substitute -075C for -100C in ordering code

481 Series



ASME BPE connections		A	ØB	C	ØD	E	F	G	H
Inlet	Outlet	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
3/4" clamp	1/2" BSP	-	25	30	-	30	163	189	170
3/4" clamp	3/4" or 1" clamp	50	25	30	25 or 50.5	-	163	189	170
1" clamp	1/2" BSP	-	50.5	30	-	30	163	189	170
1" clamp	1" clamp	50	50.5	30	50.5	-	163	189	170

Flow capacities

481 Series			
Set pressure (barg)	Saturated steam (Kg/h)	Air @ 0°C (Nm³/h)	Water @ 20°C (Kg/h)
1.0	41	49	1550
2.0	63	77	2190
3.0	85	105	2690
4.0	106	132	3100
5.0	127	159	3470
6.0	147	186	3790
7.0	168	213	4100
8.0	209	240	4384
9.0	189	267	4650
10.0	230	294	4900
12.0	271	384	5370
14.0	311	402	5800
16.0	352	456	6200
16.1 - 60.0	Contact Staitech	Contact Staitech	Contact Staitech

Safety valves 483 Series



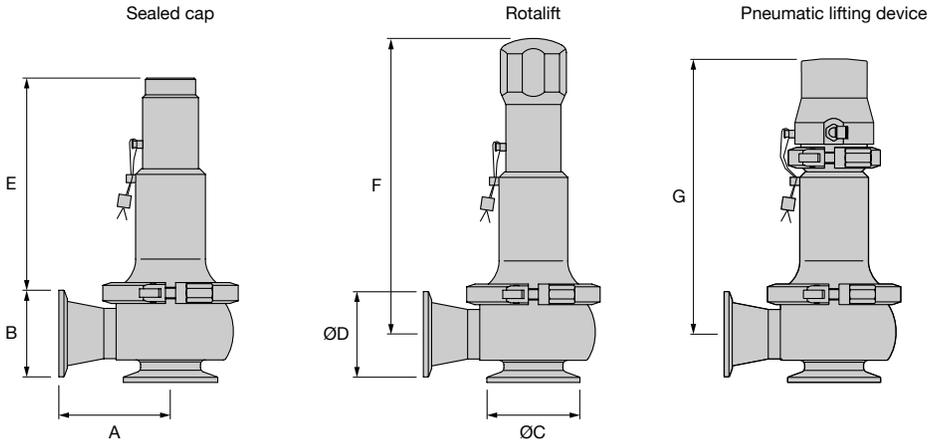
The 483 series valves are intended for liquid and gas applications up to 16 barg. When fitted with a Kalrez seat seal, valves are also suitable for steam duty. All valves are fitted with EPDM bellows which prevents media from entering the spring chamber during discharge. Available with two orifice sizes, the Type 483 is both ASME Section VIII Division 1 and CE Category IV approved.

- P Pressure rating**
Up to 16 barg
- T Temperature rating**
Up to 150°C or 205°C with Kalrez seat seal
- Orifice diameter**
13 or 25mm
- Connections**
1", 1-1/2" or 2" ASME BPE clamp inlet
1-1/2" or 2" ASME BPE clamp outlet
- Materials**
Wetted parts - 316L stainless steel
Seat seal - EPDM or Kalrez
Body seal and bellows - EPDM
- Set pressure range**
13mm orifice - 0.3 - 16 barg
25mm orifice - 0.1 - 16 barg
- Surface finish**
Wetted inlet surfaces - 0.5 microns Ra
Wetted outlet surfaces - 1.5 - 3.2 microns Ra
External surfaces - Satin finish (1.5 microns Ra)
- Options**
Enhanced surface finishes and electropolishing
Manual and pneumatic lifting devices
Lift indicator switch
- Available certification**
Material certificate covering lower body and disc

Ordering detail

483 Series							
		Inlet	Outlet	Orifice	Sealed cap	Lifting device	
						Rotalift	Pneumatic
	EPDM seat seal	1"	1-1/2"	13mm	483-100C-150C-E-H2 £859.00	483-100C-150C-E-H4 £913.00	483-100C-150C-E-H8 £1,609.50
		1-1/2"	1-1/2"	13mm	483-150C-150C-E-H2 £909.50	483-150C-150C-E-H4 £963.50	483-150C-150C-E-H8 £1,660.00
		1-1/2"	2"	25mm	483-150C-200C-E-H2 £1,208.50	483-150C-200C-E-H4 £1,294.00	483-150C-200C-E-H8 £2,387.00
		2"	2"	25mm	483-200C-200C-E-H2 £1,273.50	483-200C-200C-E-H4 £1,359.00	483-200C-200C-E-H8 £2,452.00
	Kalrez seat seal	1"	1-1/2"	13mm	483-100C-150C-K-H2 £1,122.00	483-100C-150C-K-H4 £1,176.50	483-100C-150C-K-H8 £1,873.00
		1-1/2"	1-1/2"	13mm	483-150C-150C-K-H2 £1,173.00	483-150C-150C-K-H4 £1,227.00	483-150C-150C-K-H8 £1,923.50
		1-1/2"	2"	25mm	483-150C-200C-K-H2 £1,472.00	483-150C-200C-K-H4 £1,557.50	483-150C-200C-K-H8 £2,650.50
		2"	2"	25mm	483-200C-200C-K-H2 £1,573.00	483-200C-200C-K-H4 £1,622.50	483-200C-200C-K-H8 £2,715.00

483 Series



ASME BPE connections			A	ØB	ØC	ØD	E	F	G
Inlet	Outlet	Orifice	(mm)						
1"	1-1/2"	13mm	52	29	50.5	50.5	151	117	158
1-1/2"	1-1/2"	13mm	52	29	50.5	50.5	151	117	158
1-1/2"	2"	25mm	60	44	50.5	64	217	259	228
2"	2"	25mm	60	44	64	64	217	259	228

Flow capacities

483 Series						
Set Pressure (barg)	Saturated steam (Kg/h)		Air @ 0°C (Nm³/h)		Water @ 20°C (Kg/h)	
	13mm	25mm	13mm	25mm	13mm	25mm
1.0	84	230	105	234	2380	6810
2.0	142	320	171	395	4010	9630
3.0	191	448	234	547	4910	11800
4.0	239	559	293	687	5660	13600
5.0	286	669	353	827	6330	15200
6.0	332	779	413	966	6940	16700
7.0	378	886	472	1106	7490	180000
8.0	425	995	532	1245	8010	19300
9.0	471	1104	592	1385	8500	20400
10.0	518	1213	651	1525	8960	21500
12.0	611	1430	771	1804	9810	23600
14.0	701	1643	890	2083	106000	25500
16.0	794	1860	1009	2362	11300	27200

Safety valves 488 Series

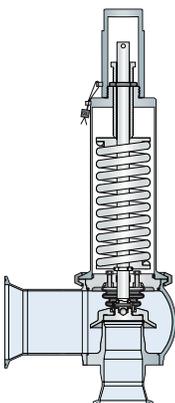


The 488 series valves are intended for liquid and gas applications up to 16 barg where a high capacity valve design is required. When fitted with a Kalrez seat seal, valves are also suitable for steam duty. All valves are fitted with EPDM bellows which prevents media from entering the spring chamber during discharge. Three orifice sizes and three connection options are available for the 488 valve based on capacity requirements. ASME section VIII Division 1 and CE category IV approved.

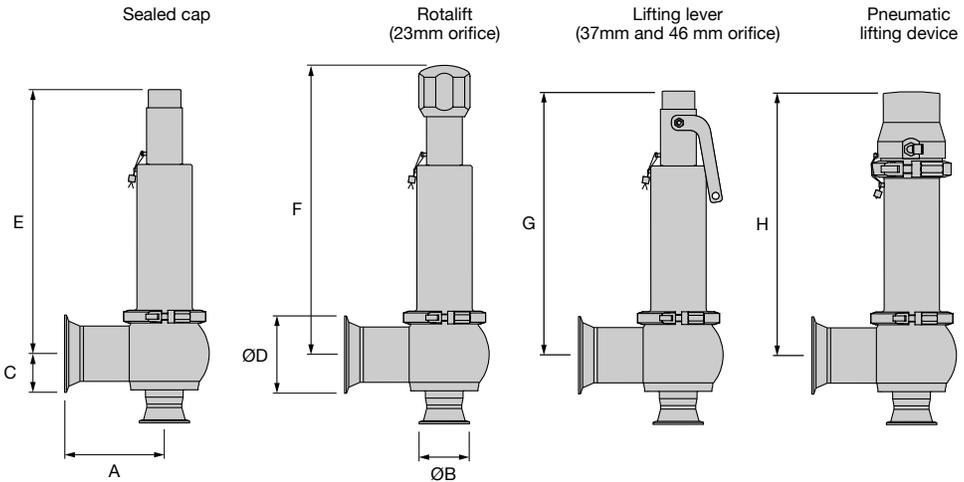
- P Pressure rating**
Up to 16 barg
- T Temperature rating**
Up to 150°C or 205°C with Kalrez seat seal
- Orifice diameter**
23, 37 or 46mm
- Connections**
1-1/2", 2" or 2-1/2" ASME BPE clamp inlet
2", 3" or 4" ASME BPE clamp outlet
- Materials**
Wetted parts - 316L stainless steel
Seat seal - EPDM or Kalrez
Body seal and bellows - EPDM
- Set pressure range**
23 and 37mm orifice - 0.1 - 16 barg
46mm orifice - 0.2 - 16 barg
- Surface finish**
Wetted inlet surfaces - 0.5 microns Ra
Wetted outlet surfaces - 1.5 - 3.2 microns Ra
External surfaces - Satin finish (1.5 microns Ra)
- Options**
Larger sizes, manual and pneumatic lifting devices
Enhanced surface finishes and electropolishing
Lift indicator switches
- C Available certification**
Material certificate covering body fabrication and disc

Ordering detail

488 Series							
		Inlet	Outlet	Orifice	Sealed cap	Lifting device	
						Manual	Pneumatic
EPDM seat seal	1-1/2"	2"	23mm	488-150C-200C-E-H2 £2,165.00	488-150C-200C-E-H4 £2,198.00	488-150C-200C-E-H8 £3,353.50	
	2"	3"	37mm	488-200C-300C-E-H2 £2,916.00	488-200C-300C-E-H4 £2,975.50	488-200C-300C-E-H8 £4,314.50	
	2-1/2"	4"	46mm	488-250C-400C-E-H2 £3,402.00	488-250C-400C-E-H4 £3,452.00	488-250C-400C-E-H8 £4,790.00	
Kalrez seat seal	1-1/2"	2"	23mm	488-150C-200C-K-H2 £2,413.50	488-150C-200C-K-H4 £2,446.50	488-150C-200C-K-H8 £3,602.00	
	2"	3"	37mm	488-200C-300C-K-H2 £3,422.50	488-200C-300C-K-H4 £3,475.50	488-200C-300C-K-H8 £4,814.50	
	2-1/2"	4"	46mm	488-250C-400C-K-H2 £4,145.00	488-250C-400C-K-H4 £4,188.50	488-250C-400C-K-H8 £5,526.50	



488 Series



ASME BPE connections			A	ØB	C	ØD	E	F	G	H
Inlet	Outlet	Orifice	(mm)							
1-1/2"	2"	23mm	112	50.5	75	64	264	305	305	274
2"	3"	37mm	147	64	92	91	398	426	426	399
2-1/2"	4"	47mm	147	77.5	99	119	406	432	432	407

Flow capacities

488 Series									
Set Pressure (barg)	Saturated steam (Kg/h)			Air @ 0°C (Nm ³ /h)			Water @ 20°C (Kg/h)		
	23mm	37mm	46mm	23mm	37mm	46mm	23mm	37mm	46mm
1.0	326	843	1302	326	843	1302	9970	25800	39900
2.0	519	1343	2075	519	1343	2075	14100	36500	56400
3.0	699	1808	2794	699	1808	2794	17300	44700	69100
4.0	871	2254	3485	871	2254	3485	19900	51600	79800
5.0	1043	2699	4172	1043	2699	4172	22300	57700	89200
6.0	1214	3142	4856	1214	3142	4856	24400	63200	97700
7.0	1381	3574	5525	1381	3574	5525	26400	68300	106000
8.0	1551	4014	6205	1551	4014	6205	28200	73000	113000
9.0	1721	4454	6884	1721	4454	6884	29900	77400	120000
10.0	1891	4893	7562	1891	4893	7562	31500	81600	126000
12.0	2230	5770	8919	2230	5770	8919	34600	89400	138000
14.0	2562	6629	10247	2562	6629	10247	37300	96600	149000
16.0	2900	7505	11600	2900	7505	11600	39900	103000	160000

Safety valves Threaded



In addition to the clamp ended range of safety valves, Staitech also offer threaded high performance stainless steel safety valves in a range of sizes. All valves are CE compliant and satisfy TUV and ASME pressure codes.

Threaded safety valves

Suitable for	Steam, liquids and gases
Sizes	1/2", 3/4" and 1"
Materials	Stainless steel, C22 and other alloys
Connections	BSP male and female
Setting range	0.2 - 40 bar
Seating	Metal-metal, Viton, EPDM and Kalrez
Options	Lifting devices, lift indicators and balancing bellows

Safety valves flanged



Where a flanged valve is required Staitech offers both cast and bar-stock valves in sizes up to 4". As with the threaded safety valve range, all valves are CE compliant and meet TUV and ASME pressure code requirements.

Flanged safety valves

Suitable for	Steam, liquids and gases
Sizes	1/2" - 4"
Materials	Stainless steel, Carbon steel, C22 and other alloys
Connections	DIN and ANSI Flanges
Setting range	0.2 - 40 bar
Seating	Metal-metal, Viton, EPDM and Kalrez
Options	Lifting devices, lift indicators and balancing bellows

Regulators and control valves

Control valves Mark 978 - Control valve



The Mark 978 series of valves are suitable for use in steam, fluid and gas applications. All wetted parts are 316L stainless steel and finished to 0.5 microns Ra and electropolished. The availability of a diaphragm seal version makes the valve suitable for Aseptic applications. Valves can be used with a direct air signal, or when fitted with a positioner, a 4-20mA or pneumatic control signal.

Mark 978 Control valve

Suitable for	Steam, liquids and gases
Sizes	1/2", 3/4", 1", 1-1/2", 2" and 3"
Connections	ASME BPE clamp, DIN or ISO clamp
Kv range	0.2 - 60 m ³ /h
Seating	Metal-metal or PTFE
Control signal inputs	Air or 4-20mA

Regulators Mark 96 - Pressure regulator



The Mark 96 is intended for applications requiring a sanitary self acting valve design. Suitable for steam, liquid and gas applications, valves are manufactured in 316L stainless steel with wetted surfaces finished to 0.5 microns Ra and electropolished. A locking pin allows valves to be held in the open position during CIP and SIP operations.

Mark 96 Pressure regulator

Suitable for	Steam, liquids and gases
Sizes	1/2", 3/4", 1", 1-1/2", 2" and 3"
Connections	ASME BPE clamp, DIN or ISO clamp
Kv range	0.3 - 24 m ³ /h
Setting range	0.1 - 9 barg
Seating	Metal-metal, PTFE or Gylon
Control signal inputs	Air loaded actuator

Regulators High purity gas regulators



Staitech offer a range of pressure regulators suitable for compressed air and high purity gas applications. Several valve models are available, with a Kv span ranging from 0.02 to 1.8 m³/h. Valves are manufactured in 316L stainless steel with wetted surfaces finished to 0.5 microns Ra or better. All valve models can be fitted with both inlet and outlet pressure gauges as required.

High purity gas regulators

Suitable for	Compressed air and gases
Sizes	1/2", 3/4", 1" and 1-1/2"
Connections	ASME BPE clamp or weld end
Kv range	0.02 - 8.5 m ³ /h
Setting range	0.1 - 8.5 barg
Seating	PTFE, Gylon or EPDM
Options	Inlet and outlet gauges

Regulators Mark 95 - Back pressure regulator



The Mark 95 is intended for applications where a sanitary back pressure valve is required. The Mark 95 is manufactured in 316L stainless steel with wetted surfaces finished to 0.5 microns Ra and electropolished. All valves incorporate a CIP/SIP feature which allows cleaning to be carried out with the valve in line. As with the Mark 96, an air loaded version is also available to allow remote setting and adjustment of the valve.

Mark 95 Back pressure regulator

Suitable for	Steam, liquids and gases
Sizes	1/2", 3/4", 1", 1-1/2", 2" and 3"
Connections	ASME BPE, DIN or ISO clamp
Kv range	0.3 - 19.8 m ³ /h
Setting range	0.1 - 6 barg
Seating	Metal-metal, PTFE or Gylon
Control signal inputs	Air loaded actuator

Control valves Tank blanketing valves



Blanketing valves are available to control both the inlet pressure and holding pressure within storage vessels and tanks. Staitech offer a range of valves with clamp and flanged connections to control pressures as low as 10mbar.

Tank blanketing valve

Suitable for	Gases
Sizes	1/2", 3/4", 1", 1-1/2", 2" and 3"
Connections	ASME BPE clamp or flanged
Kv range	0.6 - 180 m ³ /h
Seating	PTFE, Viton or EPDM
Options	In-line and angles designs, ATEX certified

Control valves General purpose pressure control valves



Staitech offer a range of general purpose stainless steel pressure reducing valves for steam, liquid and gas applications. Valves are available with either clamped, screwed or flanged connections in a range of sizes up to 4". In addition to self-acting types, valves are also available to accept an external 4-20mA or pneumatic control signal.

General purpose pressure control valve

Suitable for	Steam, liquids and gases
Sizes	1/2" - 4"
Connections	ASME BPE clamp, screwed or flanged
Kv range	0.1 - 170 m ³ /h
Setting range	0.15 - 50 barg
Seating	Metal-metal or PTFE
Actuator options	Self-acting, pneumatic or electric
Control signal options	Manual, air or 4-20mA

Steam separators

Steam separators CSS20RB



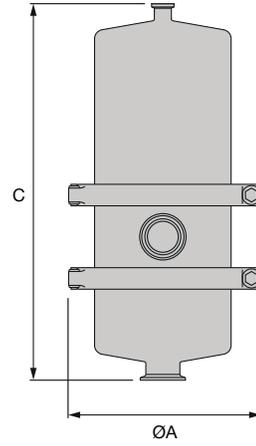
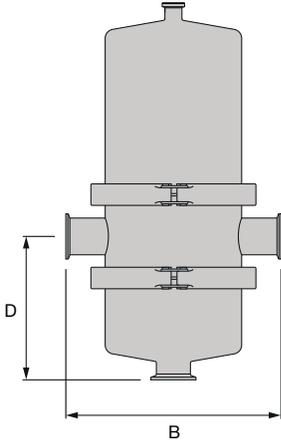
The CSS20RB separator uses a series of internal baffles to remove entrained moisture from the steam flow, offering a simple and efficient means to conditioning steam over a wide range of pressure and flow conditions. Manufactured in 316L stainless steel, the CSS20RB is designed to allow the internal baffle plate to be removed. Available in sizes 1/2"-3", the CSS20RB is supplied with ASME BPE compliant clamp connections as standard. A vent connection is provided on all sizes.

- P Pressure rating**
Up to 8 barg
- T Temperature rating**
Up to 175°C
- I Connections**
1/2", 3/4", 1", 1-1/2", 2", 2-1/2", 3"
- M Materials**
Wetted parts - 316L stainless steel
Clamps - 316L stainless steel
Gaskets - PTFE-Viton
- S Surface finish**
Wetted surfaces - 0.5 microns Ra
External surfaces - Satin finish
- o Technical specification**
The CSS20RB range is designed and manufactured in compliance with the European Pressure Equipment Directive and where relevant, ASME BPE guidelines.
- ✓ Options**
Weld end connections
Enhanced surface finishes and electropolishing
- C Available certification**
Material certificate covering all wetted parts

Ordering detail

CSS20RB			
	Line size (ASME BPE)	Drain size (ASME BPE)	Ordering detail
	1/2"	1/2"	CSS20RB-050C £1,650.00
	3/4"	3/4"	CSS20RB-075C £1,650.00
	1"	3/4"	CSS20RB-100C £1,650.00
	1-1/2"	1"	CSS20RB-150C £2,695.00
	2"	1"	CSS20RB-200C £2,950.00
	2-1/2"	1"	CSS20RB-250C £3,850.00
	3"	1"	CSS20RB-300C £3,850.00

CSS20RB



Line size (ASME BPE)	Drain size (ASME BPE)	ØA (mm)	B (mm)	C (mm)	D (mm)
1/2"	1/2"	102	147	296	126
3/4"	3/4"	102	147	296	126
1"	3/4"	102	147	296	126
1-1/2"	1"	152	240	420	160
2"	1"	152	240	525	200
2-1/2"	1"	152	240	565	220
3"	1"	152	240	650	250

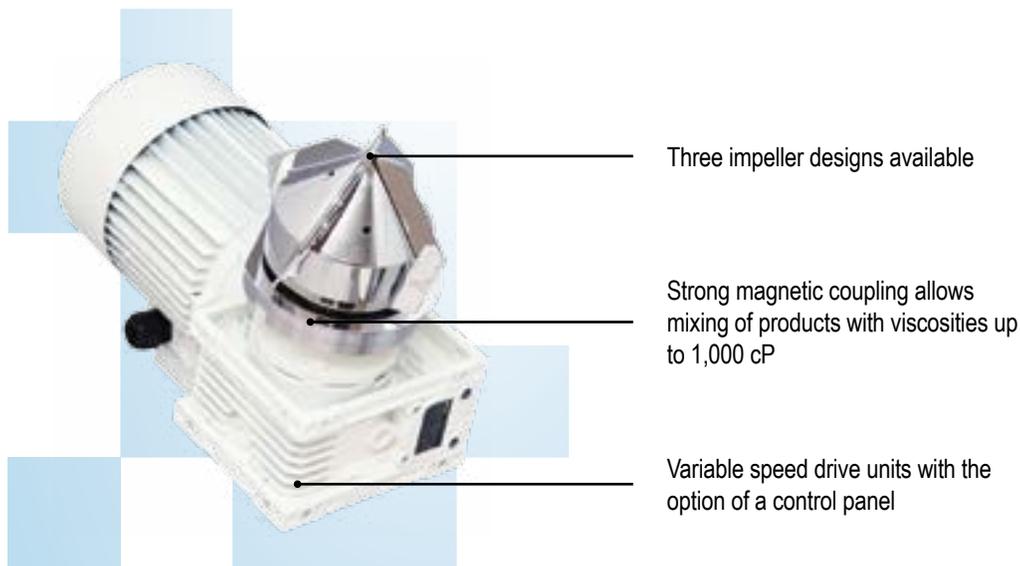
Mixers

Manufactured by  **STERIDOSE**

Steridose is a Swedish company highly specialized in design, development and manufacturing of Mag-Drive mixers and Radial diaphragm valves.

Sterimixer

The magnetically coupled Sterimixer is the mixer of choice for the biopharm industry. It consists of the following major components within the process vessel, impeller, bearing and weld-plate. This is then magnetically coupled to a drive unit without any requirement for a mechanical seal or vessel penetration.



Mixing principle



1. Soluble powder or liquid is added into the vortex. It is then rapidly transported downwards to the impeller.
2. After reaching the impeller, the fluid flows in a radial direction towards the vessel wall.
3. After reaching the vessel wall, the fluid travels upwards and then circulates down to the impeller again. The overall bulk movement and the mixing action around the agitator ensure that a homogeneous concentration distribution is achieved.



The Sterivalve range provides high performance flow control for pharmaceutical and biopharmaceutical liquid processes. The Sterivalve combines the best features of a seat valve with the inherent cleanability of a flat diaphragm valve. This combination of features ensures that the Sterivalve offers the unique combination of low flow resistance together with a proven hygienic design.

Hygienic design for biopharmaceutical applications

The Sterivalve has a unique patented design using a configuration in which the valve diaphragm is clamped between the valve body and the actuator. All moving parts in the actuator are completely isolated from contact with the process fluid. All materials of construction conform to FDA and GMP guidelines.



Contact Staitech for:

- New mixer and valve inquiries
- Spare parts
- Technical support

General specifications

Valve housing	316L - other material on request	Standards	ASTM - other standards on request
Surface finish	0.4 microns Ra with electropolishing option	Actuator	Manual or pneumatic, stainless steel or plastic, inductive or microswitch actuator. Optional Atex switches
Valve sizes	1/2" - 3"	Diaphragms	Silicone, EPDM or PTFE
Outlet connections	Butt weld or clamp ends		

Body designs



Visit www.staitech.com or www.steridose.com to learn more about the Steridose range.

Other products

Other products Steam filters



For applications requiring a filtered steam supply, Staitech offer a range of stainless steel housings together with sintered and pleated filter cartridge elements. Housings are available from 1/2" - 4" with threaded, flanged or clamp connections. Filter elements are rated at either 1, 5 or 25 microns.

Other products Flow meters



Where an indication of flow is required Staitech offer two types of flow meter - variable area and rotary turbine types. Units are available with clamp, screwed or flanged connections in sizes up to 3". Where remote monitoring is required, units with 4-20mA output signal can be supplied.

Other products Control and indicator panels



Control panel

The control panel manufactured by Staitech can be supplied with either an 1/8 DIN or 1/16 DIN instrument. Whilst Staitech use Eurotherm 2208e and 2216e PID controllers as standard, alternative manufacturers units can be fitted if required. The control panel is designed for use with pneumatic and electrically actuated valves. The panel enclosure is available in either painted steel or stainless steel. Each panel is designed to meet individual customer requirements, and would typically include a controller, transmitter power supply, circuit breakers, door isolator and all internal wiring and terminal strips. A pressure transmitter power supply module can also be incorporated if required. Typical applications include steam supply pressure control for autoclaves and freeze driers.

Indicator panel

For process monitoring applications, a panel can be supplied fitted with a universal indicator. The standard instrument used by Staitech is Eurotherm's 2408i. A typical application for an indicator panel would be tank level monitoring.

Fabrication and machining services

Whether a one-off or large batch, Staitech offer a machining service for parts in stainless steel and corrosive resistant materials such as C22 alloy.

Serving the pharmaceutical market exclusively, Staitech are well versed with the demands of the industry to include surface finish requirements, cleanliness and material traceability.

In addition to machining parts, we offer full fabrication service. All fabrications are fully certified and can be finished to any of the ASME BPE specified standards

Electropolishing - in-house electropolishing facilities.

CNC machining - one-off or batch production using modern CNC machinery.

Fabrication - fabrication of any assembly undertaken. Full design service available.

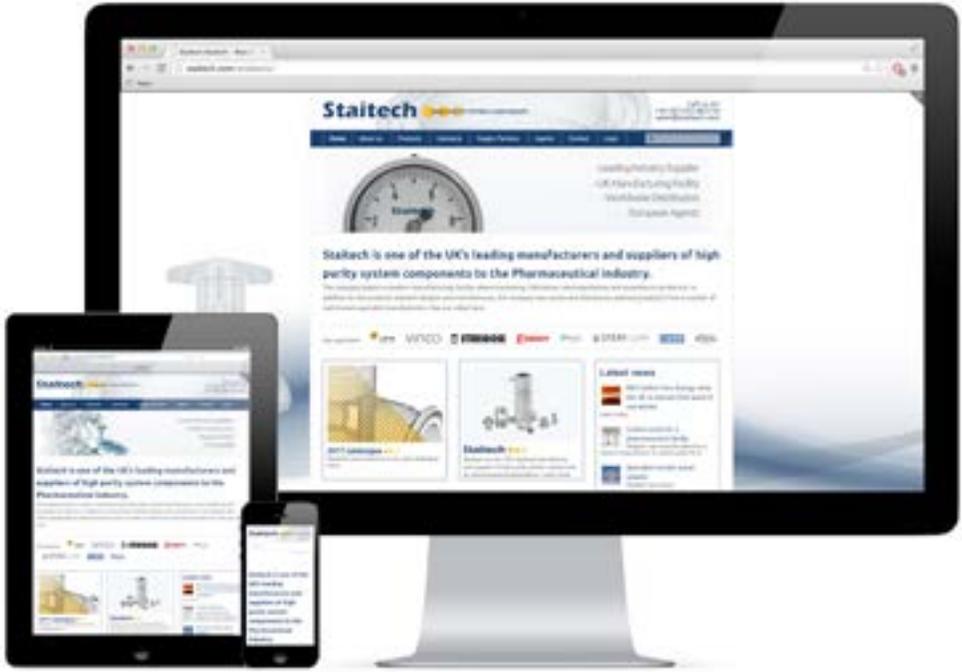
Corrosion resistant materials - C22 alloy, super duplex and other materials supplied and machined.



Online video

To watch a short video of our production facility in action visit staitech.com/about-us/





Ordering details and freight

To order, contact us on the details below:



01453 882736



01453 882744



sales@staitech.com



Unit 6, Canal Iron Works, Hope Mill Lane, Brimscombe, Stroud, GL5 2SH

- Staitech accept all major credit cards, company or personal cheques.
- For qualifying customers, Staitech also offer a net 30 day payment account.
- Orders placed on account must be accompanied by a valid order number.
- Orders are accepted in accordance with our standard terms and conditions; available upon request.

Staitech use UK Mail next day couriers for deliveries within the UK.

Next day - Up to 1Kg:	£15.00
Next day - Up to 10Kg:	£18.50
Before 10.30am:	£26.50

Please request prices for international deliveries.

Documentation

Documentation charges

- CofC** **Certificate of Conformity** - This is available at no charge for all products. The surface finish for a given product will be listed on the certificate of conformity.
- MTR's** **Material certificate** - This certification covers the actual materials used in the manufacture of a component or product. This typically covers all wetted parts.
- FDA** **FDA Elastomer compliance certificate** - This certificate identifies to which section of the FDA standard a gasket or seal complies.
- USP** **USP Elastomer compliance certificate** - This certificate identifies to which section of the USP standard a gasket or seal complies.
- ADI** **Certified 'Animal Derived Ingredient' free** - All products in the Staitech range are ADI free. However, if certification to validate this is required it must be requested at the time of ordering.
- CAL** **Calibration** - All instrumentation is available with a certificate showing its indicated reading against a reference instrument calibrated in accordance with recognised European standards.

Product	Available certification and charge per line item
Gaskets	CofC FDA USP £3.50
Clamps	CofC
Fittings	CofC MTR's £3.50
Sample valves	CofC MTR's FDA USP £15.00
Sample coolers	CofC MTR's £25.00
Instrumentation	CofC MTR's £12.50 CAL £13.50 per instrumentation
Sight glasses	CofC MTR's FDA USP £15.00
Isolation valves	CofC MTR's FDA USP £15.00
Check valves	CofC MTR's FDA USP £15.00
Steam traps	CofC MTR's FDA USP £15.00
Safety valves	CofC MTR's FDA USP CAL £25.00

Other documentation - where additional documentation is required, please consult Staitech for availability and associated cost.

Technical data

Tube and clamp sizes

ASME BPE											
	1/4"	3/8"	1/2"	3/4"	1"	1-1/2"	2"	2-1/2"	3"	4"	6"
Tube O.D	6.4	9.5	12.7	19.05	25.4	38.1	50.8	63.5	76.2	101.6	152.4
Wall thickness	0.89	0.89	1.65	1.65	1.65	1.65	1.65	1.65	1.65	2.11	2.77
Tube/Clamp I.D	4.6	7.8	9.4	15.8	22.1	34.8	47.5	60.2	72.9	97.4	146.9
Clamp O.D	25.0	25.0	25.0	25.0	50.5	50.5	64.0	77.5	91.0	119.0	167.0
Tube weight Kg/m	0.124	0.197	0.457	0.720	0.980	1.510	2.030	2.560	3.080	5.260	10.400

ISO											
	DN8	DN10	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100
Tube O.D	13.5	17.2	21.3	26.9	33.7	42.4	48.3	60.3	76.1	88.9	114.3
Wall thickness	1.60	1.60	1.60	1.60	2.00	2.00	2.00	2.00	2.00	2.30	2.30
Tube/Clamp I.D	10.3	14.0	18.1	23.7	29.7	38.4	44.3	56.3	72.1	84.9	110.3
Clamp O.D	25.0	25.0	34/50.5	50.5	50.5	64.0	64.0	77.5	91.0	119.0	176.0
Tube weight Kg/m	0.478	0.626	0.790	1.015	1.589	2.026	2.322	2.923	3.716	4.993	6.458

DIN											
	DN8	DN10	DN10	DN15	DN15	DN20	DN25	DN25	DN32	DN40	DN50
Tube O.D	10.0	12.0	13.0	18.0	19.0	23.0	28.0	29.0	35.0	41.0	53.0
Wall thickness	1.00	1.00	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
Tube/Clamp I.D	8.0	10.0	10.0	15.0	16.0	20.0	25.0	26.0	32.0	38.0	50.0
Clamp O.D	34.0	34.0	34.0	34.0	34.0	34.0	50.5	50.5	50.5	50.5	64.0
Tube weight Kg/m	0.226	0.276	0.433	0.621	0.658	0.809	0.997	1.034	1.260	1.488	1.937

Pipe sizes

	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"
Pipe O.D	10.3	13.7	17.2	21.3	26.7	33.4	42.2	48.3	60.3	73.0	88.9
SCH10 wall thickness	1.24	1.65	1.65	2.11	2.11	2.11	2.77	2.77	2.77	3.05	3.05
Pipe I.D	7.8	10.4	13.9	17.1	22.5	27.9	36.6	42.7	54.8	66.9	82.8
Tube weight Kg/m	0.281	0.498	0.640	1.010	1.300	2.120	2.730	3.105	3.990	5.340	6.560
SCH40 wall thickness	1.73	2.24	2.31	2.77	2.87	3.38	3.56	3.68	3.91	5.16	5.49
Pipe I.D	6.8	9.2	12.5	15.8	20.9	26.6	35.0	40.9	52.5	62.7	77.9
Tube weight Kg/m	0.371	0.643	0.858	1.290	1.710	2.540	3.440	4.110	5.520	8.770	11.500

Surface finish

BPE Surface designation - microns Ra			
Mechanical polish only		Mechanical polish and electropolish	
SF0	No finish required		
SF1	0.51		SF4 0.38
SF2	0.64		SF5 0.51
SF3	0.76		SF6 0.64

Surface finish comparison			
UK grit reference	Ra	Ra	US grit reference
120	3	125	-
180	2	85	-
240	1.5	60	80
320	0.75	30	180
500	0.40	16	240
-	0.25	10	320

Valve capacity comparison	
Valve capacity	$C_v = K_v \times 1.17$

Steam capacities for ASME BPE tube

ASME BPE tube - steam capacities (Kg/h saturated steam)										
Pressure (barg)	Temp (°C)	v(m³/Kg)	1/2"	3/4"	1"	1-1-2"	2"	2-1-2"	3"	4"
0.5	111.6	1.149	4	12	24	60	111	178	262	467
1.0	120.4	0.881	6	16	32	78	145	233	341	609
1.5	127.6	0.714	7	20	39	96	179	287	421	751
2.0	133.7	0.603	8	23	46	114	212	340	498	890
2.5	139.0	0.552	10	27	53	131	244	393	576	1028
3.0	143.8	0.461	11	30	60	149	277	444	652	1164
3.5	148.0	0.413	12	34	67	166	309	496	728	1299
4.0	152.0	0.374	14	38	75	183	341	548	803	1434
4.5	155.6	0.342	15	41	81	200	373	599	879	1568
5.0	158.9	0.315	16	45	88	217	405	650	954	1703
5.5	162.0	0.292	17	48	95	234	437	702	1029	1837
6.0	165.0	0.272	18	52	102	252	469	753	1105	1972

Capacity calculations based on steam velocity of 20 m/s. For alternative velocities use the formula below			
$w(\text{Kg/h}) = \frac{0.002827 D^3 v}{v}$			
D = Tube ID (mm)	V = Velocity (m/s)	v = Specific volume (m³/kg)	w = Steam flow (Kg/h)

Steam load calculations

Steam data			
Pressure (barg)	Steam temp (°C)	Latent heat (hfg)	Specific volume (V)
1.0	120.4	2201	0.881
1.1	122.4	2197	0.841
1.2	123.5	2192	0.806
1.3	124.9	2189	0.773
1.4	126.3	2185	0.743
1.5	127.6	2181	0.714
1.6	128.9	2177	0.689
1.7	130.1	2174	0.665
1.8	131.4	2170	0.643
1.9	132.5	2167	0.622
2.0	133.7	2163	0.603
2.5	139.0	2148	0.522
3.0	143.8	2133	0.461
4.0	152.0	2108	0.374
5.0	158.9	2086	0.315
6.0	165.0	2066	0.272

To calculate the maximum steam load to bring a mass of stainless steel up to sterilisation temperature			
$w(\text{Kg/h}) = \frac{m \times T \times 0.49 \times 60}{hfg \times t}$			
m = Total weight of steel to be heated - Kg		t = Time to heat up - minutes	
T = Temperature difference between ambient & steam temperatures - °C		hfg = Steam latent heat - KJ/Kg	
0.49 = Specific heat of steel - KJ/Kg°C		w = Steam flow (Kg/h)	

Weight	Pressure
Weight	1 Kg = 2.2lb
Volume water @ 20°C	1 m3 = 1000 litres = 1000 Kg
	1 bar = 14.5 psi = 100 KPa = 1000 mbar
	12" water = 0.433 psi = 30 mbar, 1m water = 1.42 psi = 100 mbar



Catalogue 2017

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Blank caps
Hose adaptors
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Elbows
Tees and crosses
Instrument tees
Sample valves
Sample coolers
Pressure gauges
Pressure transmitters
Temperature sensors
Sight glasses
Diaphragm valves
Ball valves
Butterfly valves
Check valves
Steam traps
Safety valves
Control valves
Steam separators
Heat exchangers
Flow meters
PTFE lined hoses
Plastic fittings
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