



## S6

# Austenitic Stainless Steel Separator

### Description

The S6 is an austenitic stainless steel (316L) baffle type separator used for the removal of entrained liquids in steam, compressed air and gas systems.

### Optional extras

Insulation jackets are available which will increase the performance of the separator, (see TI-P138-01).

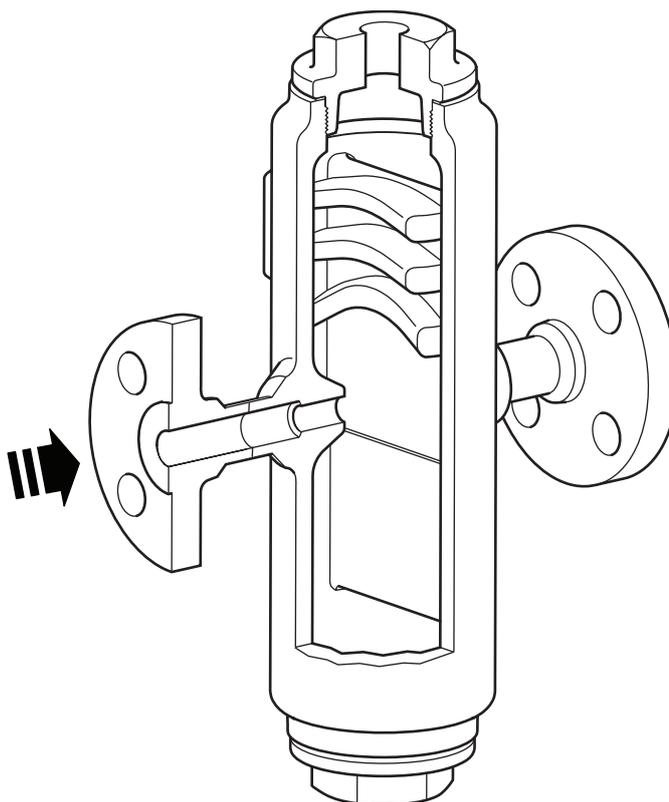
### Standards

This product fully complies with the requirements of the European Pressure Equipment Directive 2014/68/EU and carries the  mark when so required.

### Certification

This product is available with certification to EN 10204 3.1.

**Note:** All certification/inspection requirements must be stated at the time of order placement.



### Sizes and pipe connections

1/2", 3/4", 1", 1 1/4", 1 1/2" and 2"

Screwed BSP T Rp (ISO 7-1) or NPT, butt weld, socket weld.

DN15, DN20, DN25, DN32, DN40 and DN50.

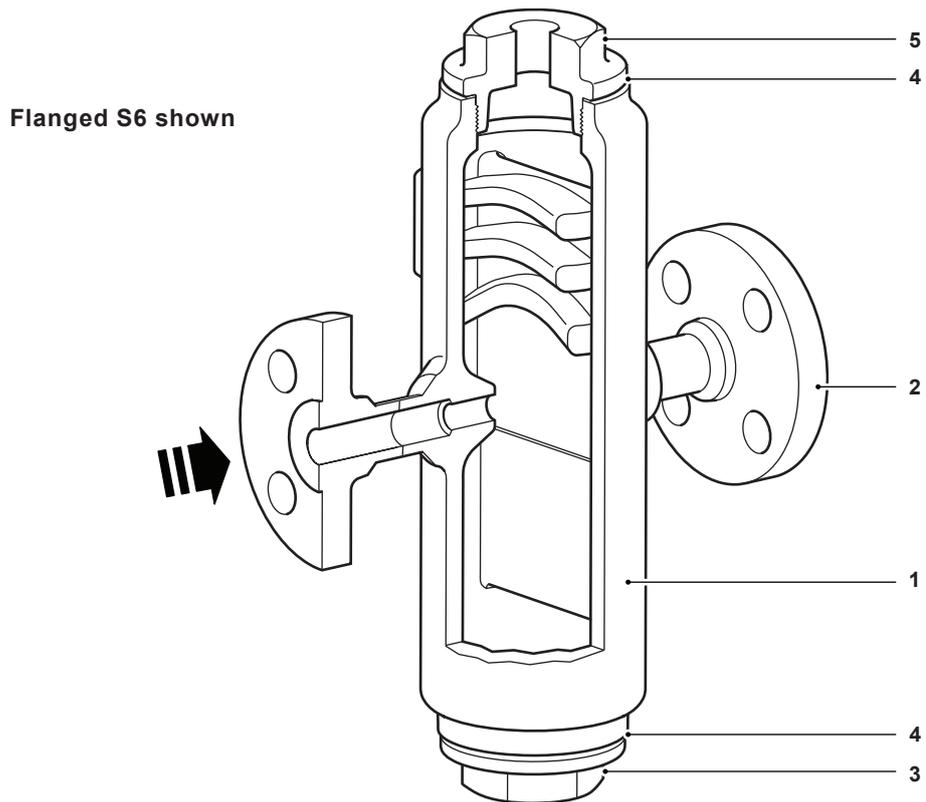
Flanged EN 1092 PN40 with screwed BSP drain and air vent.

Flanged BS 1560 (ASME B 16.5) Class 150 or 300 with screwed NPT drain and air vent.

Flanged JIS/KS 10K and 20K with screwed BSP drain and air vent.

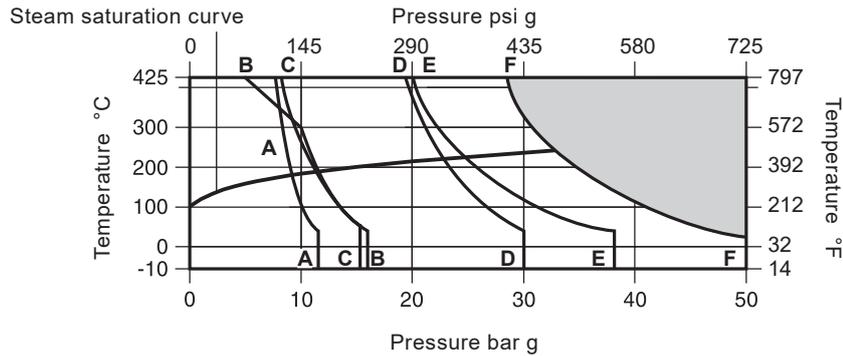
**Note:** For larger sizes use an S8 separator. See TI-P138-10.

## Materials



No.	Part	Material	
1	Body	Austenitic stainless steel 316L	1.4409/ASTM A351CF3M
2	Flange	Austenitic stainless steel	1.4404 ASTM A182 F316L
3	Cap	Austenitic stainless steel	ASTM A351 Gr.CF3M (316L)
4	Cap gasket	Tanged graphite	
5	Cap	Austenitic stainless steel	ASTM A351 Gr.CF3M (316L)

## Pressure/temperature limits (ISO 6552)



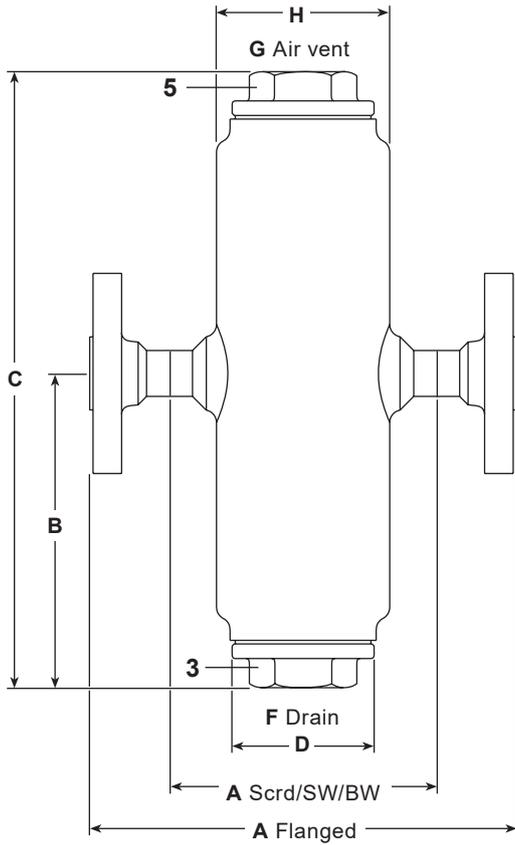
The product **must not** be used in this region.

- A - A** Flanged JIS/KS 10K.
- B - B** Flanged ASME Class 150.
- C - C** Flanged EN 1092 PN16.
- D - D** Flanged JIS/KS 20K.
- E - E** Flanged EN 1092 PN40.
- F - F** Flanged ASME Class 300 screwed BSP, NPT, socket weld and butt weld.

Body design conditions		PN50 or ASME 300	
PMA	Maximum allowable pressure	50 bar g @ 50 °C	725 psi g @ 122 °F
TMA	Maximum allowable temperature	425 °C @ 28 bar g	797 °F @ 406 psi g
Minimum allowable temperature		-10 °C	14 °F
PMO	Maximum operating pressure for saturated steam service	JIS/KS 10K	9.9 bar g 144 psi g
		PN16	11.4 bar g 165 psi g
		ASME 150	11.4 bar g 165 psi g
		JIS/KS 10K	23.5 bar g 341 psi g
		PN40	25.8 bar g 374 psi g
		ASME 300	34.1 bar g 495 psi g
		Scrd/SW/BW	34.1 bar g 495 psi g
TMO	Maximum operating temperature	425 °C @ 28 bar g	797 °F @ 406 psi g
Minimum operating temperature		-10 °C	14 °F
<b>Note:</b> For lower operating temperatures consult Spirax Sarco.			
Designed for a maximum cold hydraulic test pressure of:	JIS/KS 10K	20.6 bar g	299 psi g
	PN16	24.0 bar g	348 psi g
	ASME 150	30.0 bar g	435 psi g
	JIS/KS 10K	50.0 bar g	725 psi g
	PN40	60.0 bar g	870 psi g
	ASME 300	76.6 bar g	1111 psi g
		Scrd/SW/BW	76.6 bar g 1111 psi g

**Note:** Flanged separators (S6) may be supplied with a lower pressure rating than that cast into the body. Reference should be made to the appropriate operating chart to determine the actual product limitations.

**Dimensions (approximate) in mm (inches)**



**Recommended tightening torques**

Item	Size		N m (ft lbf)
3 and 5	DN15 - DN50	46 A/F	300 (221)

Size	Screwed SW, BW A	PN16 A	PN40 A	ASME 150 A	ASME 300 A	JIS/KS 10K & 20K A	B	C	D	F	G	H
DN15 - 1/2"	130 (5.12)	-	204 (8.03)	204 (8.03)	204 (8.03)	204 (8.03)	150 (5.91)	294 (11.6)	68 (2.68)	1" (25.4)	1/2" (12.7)	83 (3.27)
DN20 - 3/4"		-	212 (8.35)	212 (8.35)	212 (8.35)	212 (8.35)	146 (5.75)	347 (13.7)				
DN25 - 1"	178 (7.01)	-	260 (10.2)	260 (10.2)	260 (10.2)	260 (10.2)	170.5 (6.71)	386 (15.2)				130 (5.12)
DN32 - 1 1/4"	190 (7.48)	-	277 (10.9)	277 (10.9)	277 (10.9)	277 (10.9)	195	440			144 (5.67)	
DN40 - 1 1/2"	220 (8.66)	-	314 (12.4)	314 (12.4)	314 (12.4)	314 (12.4)	208 (8.19)	508 (20.0)			1" (25.4)	168 (6.61)
DN50 - 2"	214 (8.43)	-						558 (22.0)				

## Weights/volume (approximate) kg (lbs) and litres (gallons)

Size	Weight		Volume	
	Screwed Socket weld Butt weld	Flanged	Screwed Socket weld Butt weld	Flanged
DN15 - ½"	6.0 (13.2)	7.5 (16.5)	0.71 (0.188)	0.72 (0.19)
DN20 - ¾"	6.9 (15.2)	9.2 (20.3)	0.90 (0.24)	0.92 (0.24)
DN25 - 1"	12.2 (26.9)	15.1 (33.3)	2.83 (0.75)	2.86 (0.76)
DN32 - 1¼"	16.2 (35.7)	20.4 (45.0)	4.15 (1.10)	4.19 (1.11)
DN40 - 1½"	22.5 (49.6)	27.3 (60.2)	6.93 (1.83)	7.00 (1.85)
DN50 - 2"	24.4 (53.8)	30.8 (37.9)	7.74 (2.04)	7.88 (2.08)

## Safety information, installation and maintenance

For full details see the Installation and Maintenance Instructions (IM-P023-55) supplied with the product.

### Installation note

Install in a horizontal pipeline with the drain directly below.

To ensure that any separated liquid is drained quickly, a suitable steam trap/liquid drainer must be connected to the drain connection. For those steam systems where air can be present, air can collect in the upper portion of the separator. In this situation a suitable air vent should be connected to the air vent connection.

If an air vent is not being fitted then the connection must have the plastic transit protection plug removed and must have a stainless steel class 3000 lb plug fitted.

### Disposal

The product is recyclable. No ecological hazard is anticipated with disposal providing due care is taken.

### How to order

**Example:** 1 off Spirax Sarco DN20 S6 separator with an austenitic stainless steel body flanged to EN 1092 PN40.