



# 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 Pressure Equipment Directive (PED) 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 or NPT, butt weld, socket weld.

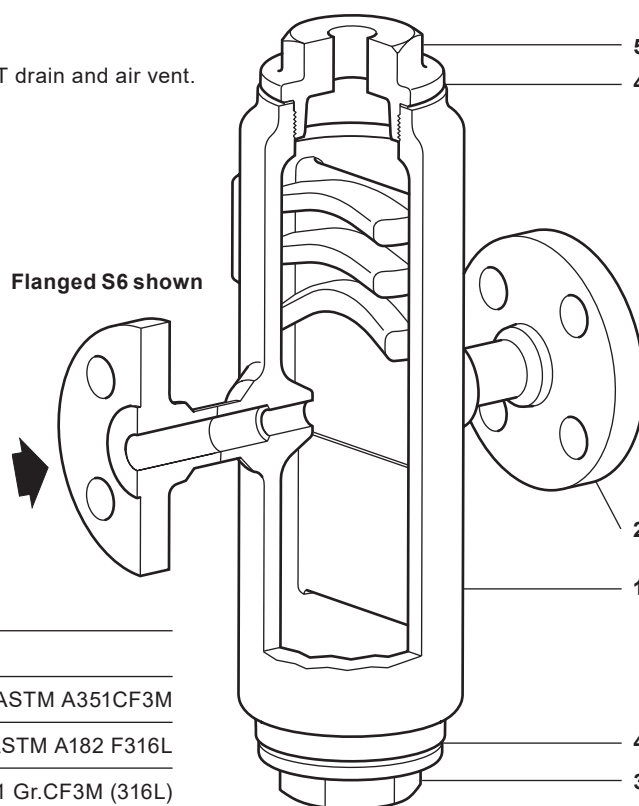
DN15, DN20, DN25, DN32, DN40 and DN50.

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.

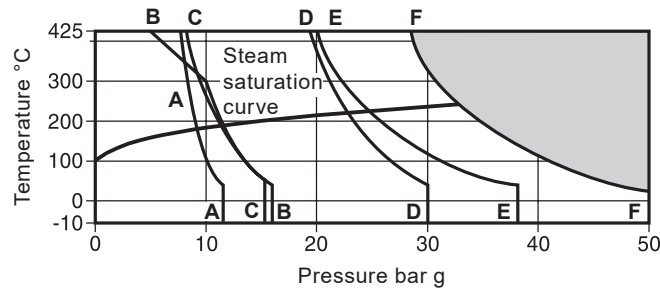
**Note:** For larger sizes use an S8 separator. See TI-P138-10.



## 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 | Reinforced exfoliated 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 150 screwed BSP, NPT, socket weld and butt weld.

|   |  |                       |
|---|--|-----------------------|
| Body design conditions  |  | PN50 or ASME 300      |
| PMA   | Maximum allowable pressure                             | 50 bar g @ 50 °C      |
| TMA   | Maximum allowable temperature                          | 425 °C @ 28 bar g     |
| Minimum allowable temperature                                       |  | -10 °C                |
|   | JIS/KS 10K   | 9.9 bar g             |
|   | PN16   | 11.4 bar g            |
|   | ASME 150   | 11.4 bar g            |
| PMO   | Maximum operating pressure for saturated steam service | JIS/KS 10K 23.5 bar g |
|   |  | PN40 25.8 bar g       |
|   |  | ASME 300 34.1 bar g   |
|   |  | Scrd/SW/BW 34.1 bar g |
| TMO   | Maximum operating temperature                          | 425 °C @ 28 bar g     |
| Minimum operating temperature                                       |  | -10 °C                |
| <b>Note:</b> For lower operating temperatures consult Spirax Sarco. |  |                       |
|   | JIS/KS 10K   | 20.6 bar g            |
|   | PN16   | 24.0 bar g            |
|   | ASME 150   | 30.0 bar g            |
| Designed for a maximum cold hydraulic test pressure of:             | JIS/KS 10K   | 50.0 bar g            |
|   | PN40   | 60.0 bar g            |
|   | ASME 300   | 76.6 bar g            |
|   | Scrd/SW/BW   | 76.6 bar 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

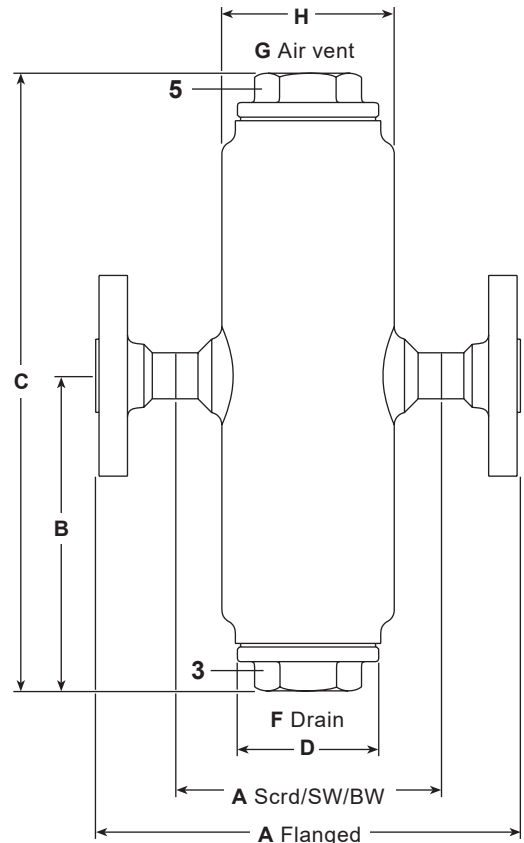
| Size       | Screwed     | PN16<br>A | PN40<br>A | ASME     | ASME     | JIS/KS 10K | B     | C   | D  | F    | G    | H   |
|------------|-------------|-----------|-----------|----------|----------|------------|-------|-----|----|------|------|-----|
|            | SW, BW<br>A |           |           | 150<br>A | 300<br>A | & 20K<br>A |       |     |    |      |      |     |
| DN15 - ½"  | 130         | -         | 204       | 204      | 204      | 204        | 150   | 294 | 68 | 25.4 | 12.7 | 83  |
| DN20 - ¾"  | 130         | -         | 212       | 212      | 212      | 212        | 146   | 347 | 68 | 25.4 | 12.7 | 83  |
| DN25 - 1"  | 178         | -         | 260       | 260      | 260      | 260        | 170.5 | 386 | 68 | 25.4 | 12.7 | 130 |
| DN32 - 1¼" | 190         | -         | 277       | 277      | 277      | 277        | 195   | 440 | 68 | 25.4 | 12.7 | 144 |
| DN40 - 1½" | 220         | -         | 314       | 314      | 314      | 314        | 208   | 508 | 68 | 25.4 | 25.4 | 168 |
| DN50 - 2"  | 214         | -         | 314       | 314      | 314      | 314        | 208   | 558 | 68 | 25.4 | 25.4 | 168 |

## Weights/volume (approximate) kg and litres

| Size       | Weight     |         | Volume     |         |
|------------|------------|---------|------------|---------|
|            | Scrd/SW/BW | Flanged | Scrd/SW/BW | Flanged |
| DN15 - ½"  | 6.0        | 7.5     | 0.71       | 0.72    |
| DN20 - ¾"  | 6.9        | 9.2     | 0.90       | 0.92    |
| DN25 - 1"  | 12.2       | 15.1    | 2.83       | 2.86    |
| DN32 - 1¼" | 16.2       | 20.4    | 4.15       | 4.19    |
| DN40 - 1½" | 22.5       | 27.3    | 6.93       | 7.00    |
| DN50 - 2"  | 24.4       | 30.8    | 7.74       | 7.88    |

## Recommended tightening torques

| Item    | Size        |  | N m       |
|---------|-------------|---|-----------|
| 3 and 5 | DN15 - DN50 | 46 A/F  | 180 - 200 |



## 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.