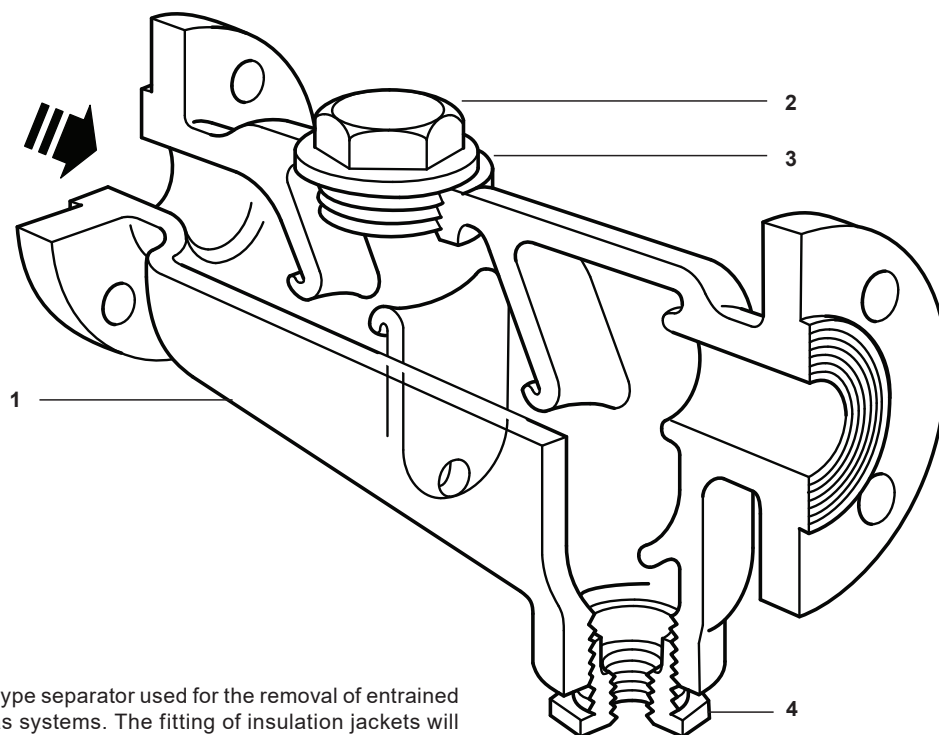




TI-P023-26
CMGT Issue 13

S13 SG Iron Separator (Flanged)



Description

The S13 separator is an SG iron baffle type separator used for the removal of entrained liquids in steam, compressed air or gas systems. The fitting of insulation jackets will increase the performance of the separator.

Standards

This product fully complies with the requirements of the EU Pressure Equipment Directive / UK Pressure Equipment (Safety) Regulations and is designed in accordance with ASME B31.3.

Certification

This product is available with a manufacturers' Typical Test Report.

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

Sizes and pipe connections

DN40, DN50, DN65, DN80, DN100, DN125, DN150 and DN200 (1½", 2", 2½", 3", 4", 5", 6", and 8").

Flanged EN 1092 PN16 and PN25 with screwed BSP drain.

Flanged JIS/KS 10K with screwed BSP drain.

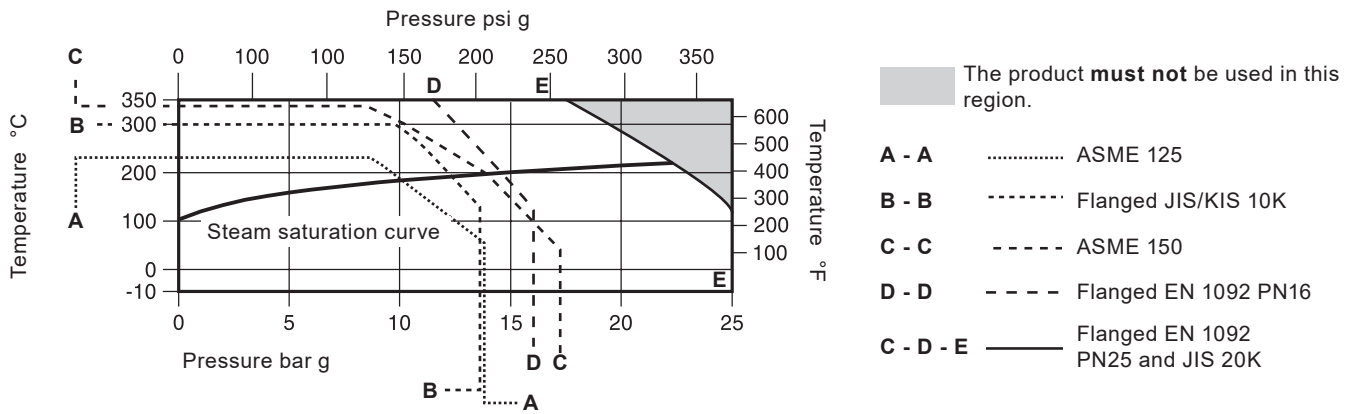
Flanged JIS/KS 20K with screwed BSP drain - DN40, DN50, DN65 and DN200 only.

Flanged ASME125/150 with screwed NPT drain

Materials

No.	Part	Material	
1	Body	SG iron	BS EN 1563/EN-JS1030/A395
2	Plug	Carbon steel	1.0460 (C22.8)/A105N
3	Gasket	Reinforced exfoliated graphite	
4	Drain reducing bush	Forged carbon steel	ASTM A105

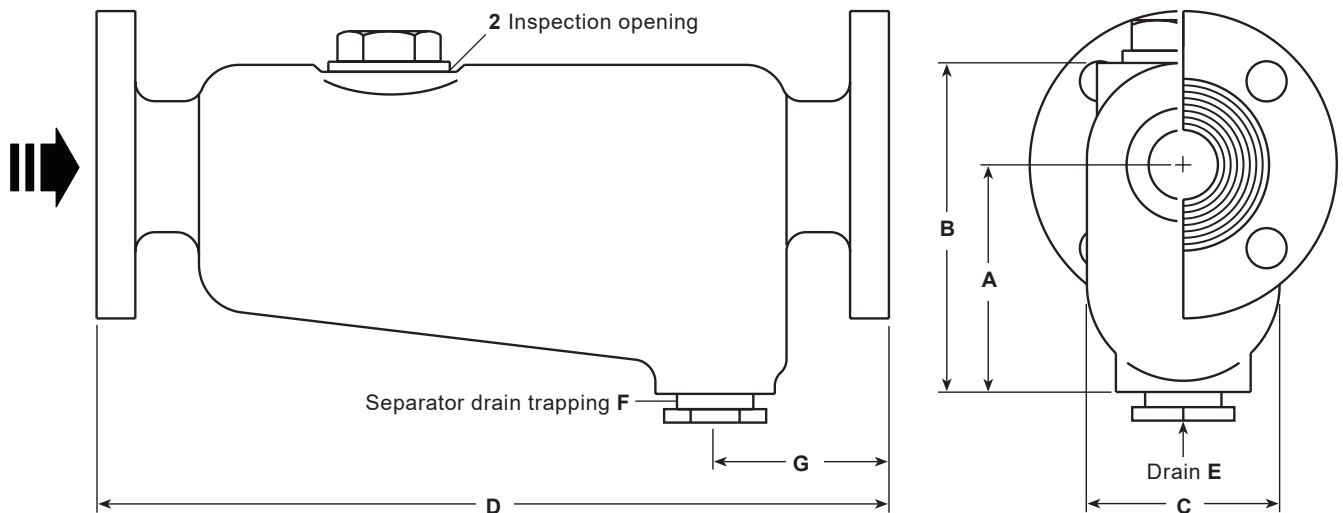
Pressure/temperature limits (ISO 6552)



Body design conditions			PN25
PMA	Maximum allowable pressure	JIS/KS10	14 bar g @ 120 °C (203 psi g @ 248 °F)
		PN16	16 bar g @ 120 °C (232 psi g @ 248 °F)
		PN25 and JIS/KS20	25 bar g @ 120 °C (363 psi g @ 248 °F)
		ASME125	13.8 bar g @ 65 °C (200 psi g @ 149 °F)
		ASME150	17.2 bar g @ 38 °C (250 psi g @ 100 °F)
TMA	Maximum allowable temperature	JIS/KS10	300 °C @ 10 bar g (572 °F @ 145 psi g)
		PN16	350 °C @ 11.2 bar g (662 °F @ 162 psi g)
		PN25 and JIS/KS20	350 °C @ 17.5 bar g (662 °F @ 254 psi g)
		ASME125	232 °C @ 8.6 bar g (450 °F @ 125 psi g)
		ASME150	343 °C @ 8.6 bar g (650 °F @ 125 psi g)
Minimum allowable temperature		-10 °C (14 °F)	
PMO	Maximum operating pressure for saturated steam service	JIS / KS 10K	12.3 bar g (178 psi g)
		PN16	13.7 bar g (198 psi g)
		PN25 and JIS/KS20	21.3 bar g (309 psi g)
		ASME125	10.1 bar g (146 psi g)
		ASME150	13.9 bar g (202 psi g)
TMO	Maximum operating temperature	JIS/KS10	300 °C @ 10 bar g (572 °F @ 145 psi g)
		PN16	350 °C @ 11.2 bar g (662 °F @ 162 psi g)
		PN25 and JIS/KS20	350 °C @ 17.5 bar g (662 °F @ 254 psi g)
		ASME125	232 °C @ 8.6 bar g (450 °F @ 125 psi g)
		ASME150	343 °C @ 8.6 bar g (650 °F @ 125 psi g)
Minimum operating temperature		-10 °C (14 °F)	
Note: For lower operating temperatures consult Spirax Sarco.			
Designed for a maximum cold hydraulic test pressure of:	JIS / KS 10K	20.4 bar g (296 psi g)	
	PN16	24.0 bar g (348 psi g)	
	PN25 and JIS/KS20	37.5 bar g (544 psi g)	
	ASME125	20.7 bar g (300 psi g)	
	ASME150	25.8 bar g (374 psi g)	

Note: Flanged separators (S13) 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, weight and volumes (approximate)



mm, kg and litres	Size		A	B	C	D	E	F	G	Weight	Volume
	DN40	1½"	111	156	89	365	12.7	25.4	94	14	1.6
	DN50	2"	146	205	117	456			98	25	3.2
	DN65	2½"	178	249	146	406	19.0	38.1		28	4.6
	DN80	3"		252	152	483	36		6.5		
	DN100	4"	223	315	197	692			25.4	118	60
	DN125	5"	226	397	381	706	121			128	38.5
	DN150	6"		130	42.5						
	DN200	8"	308	502	426	762	38.1	140	190	68.0	

inches, lbs and gallons	Size		A	B	C	D	E	F	G	Weight	Volume
	DN40	1½"	4.37	6.14	3.50	14.4	½"	1"	3.70	30.9	0.42
	DN50	2"	5.75	8.07	4.61	18.0				55.1	0.84
	DN65	2½"	7.00	9.80	5.75	16.0	¾"	1½"	3.86	61.7	1.21
	DN80	3"		9.92	5.98	19.0			79.4	1.72	
	DN100	4"	8.78	12.4	7.76	27.2	1"		4.64	132.3	3.57
	DN125	5"	8.90	15.6	15.0	27.8			4.76	282.2	10.2
	DN150	6"							286.6	11.2	
	DN200	8"	12.1	19.8	16.8	30.0	1½"	5.51	418.9	18.0	

Recommended tightening torques

Item	Size		 or 	mm	N m	(lbf ft)
2	DN40	1½"	46 A/F	M56	150 - 165	(110 - 121)
	DN50	2"	46 A/F	M56	150 - 165	(110 - 121)
	DN65	2½"	46 A/F	M56	150 - 165	(110 - 121)
	DN80	3"	60 A/F	M72	190 - 210	(140 - 155)
	DN100	4"	60 A/F	M72	190 - 210	(140 - 155)
	DN125	5"	60 A/F	M72	190 - 210	(140 - 155)
	DN150	6"	60 A/F	M72	190 - 210	(140 - 155)
	DN200	8"	60 A/F	M72	190 - 210	(140 - 155)

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.

Note: To ensure that any separated liquid is drained away quickly, a suitable liquid drainer or steam trap must be connected to the drain connection 'E' - consult Spirax Sarco for further details.

Disposal

This product is recyclable. No ecological hazard is anticipated with the disposal of this product, providing due care is taken.

How to order

Example: 1 off DN50 Spirax Sarco S13 separator with SG iron body having flanged EN 1092 PN16 connections.