

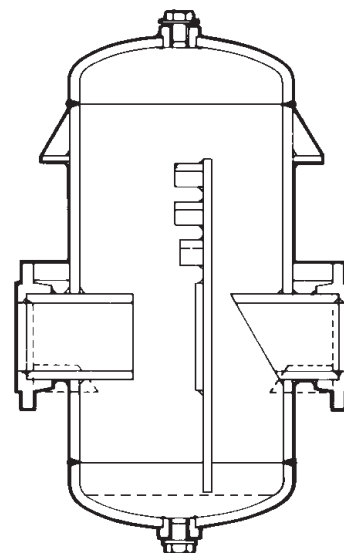
spirax sarco

Steel Separator 8" to 18" S4A

Description

Moisture Separators are used to improve the quality of steam or compressed air either within the distribution system or on the supply inlet to equipment. Removal of moisture is by a series of baffles on which the suspended water droplets impinge and fall out by gravity to the drain, which must be piped to a trap

Model	S4A		
PMO	150 psig	300 psig	600 psig
Sizes	8" to 18"		
Connections	ANSI 150	ANSI 300	ANSI 600
Construction	Fabricated steel body		
ASME code stamped	150 psig	300 psig	600 psig
Options	Gauge glass assembly		



Typical applications

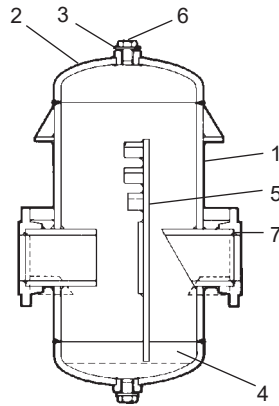
On steam mains, compressed air lines, steam turbines, heat transfer processes, meter protection, steam distribution systems, protection of equipment requiring dry saturated steam, removal of moisture from steam, air, or gas systems

Pressure shell design conditions

PMA	Maximum allowable pressure	ANSI 150	150 psi g/560 °F	10.4 bar g/293 °C
		ANSI 300	300 psi g/650 °F	20.7 bar g/344 °C
		ANSI 600	600 psi g/650 °F	41.4 bar g/344 °C
TMA	Maximum allowable temperature	ANSI 150	650 °F/125 psi g	344 °C/8.6 bar g
		ANSI 300	650 °F/300 psi g	344 °C/20.7 bar g
		ANSI 600	650 °F/600 psi g	344 °C/41.4 bar g
		Minimum allowable temperature	-20 °F	-28 °C

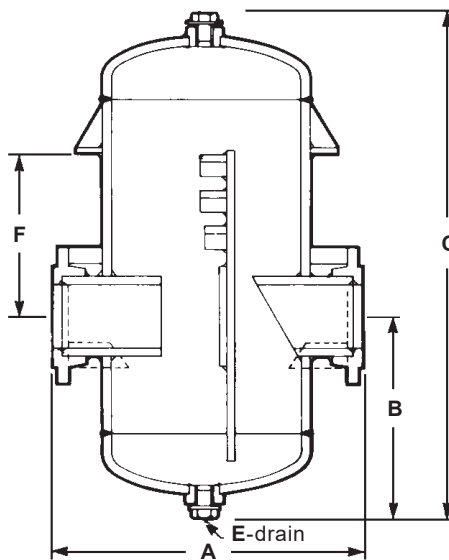
Construction materials

No.	Part	Material
1	Body	
2	End caps	
3	Coupling	
4	Screen	Steel
5	Baffle	
6	Plug	
7	End connections	



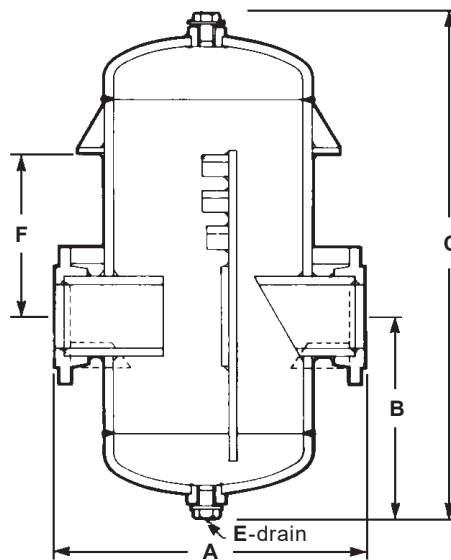
Dimensions/weight (nominal) in inches (millimeters) and lbs (kg)

Size	Connection	A	B	C	E	F	Weight
8" 200	ANSI 150	41.9	15.3	48.1	2"	15.0	445 lb
		1064	389	1222		381	202 kg
	ANSI 300	41.9	15.5	48.3	2"	15.0	601 lb
		1064	394	1227		381	273 kg
	ANSI 600	41.9	15.7	48.8	2"	15.0	972 lb
		1064	399	1240		381	441 kg
10" 250	ANSI 150	48.7	27.0	63.2	2"	16.4	805 lb
		1237	686	1605		417	365 kg
	ANSI 300	48.7	27.1	63.5	2"	16.4	969 lb
		1237	688	1613		417	440 kg
	ANSI 600	48.7	27.4	64.1	2"	16.4	1740 lb
		1237	696	1628		417	789 kg



Dimensions/weight (continued) (nominal) in inches (millimeters) and lbs (kg)

Size	Connection	A	B	C	E	F	Weight
12" 300	ANSI 150	49.5	29.8	68.0	2"	19.0	828 lb
		1257	757	1727		483	376 kg
	ANSI 300	49.5	29.9	68.3	2"	19.0	1145 lb
		1257	759	1735		483	519 kg
	ANSI 600	49.5	30.3	68.9	2"	19.0	2008 lb
		1257	770	1750		483	911 kg
14" 350	ANSI 150	54.8	30.8	72.1	2"	20.1	1282 lb
		1392	782	1831		511	582 kg
	ANSI 300	54.8	30.8	72.2	2"	20.1	1634 lb
		1392	782	1834		511	741 kg
	ANSI 600	54.8	31.1	72.8	2"	20.1	2851 lb
		1392	790	1849		511	1293 kg
16" 400	ANSI 150	59.0	32.8	77.6	2"	20.1	1509 lb
		1499	833	1971		511	684 kg
	ANSI 300	59.0	32.9	77.9	2"	20.1	1953 lb
		1499	836	2007		511	886 kg
	ANSI 600	59.0	33.5	79.0	2"	20.1	3578 lb
		1499	851	2007		511	1623 kg
18" 450	ANSI 150	67.2	35.2	83.9	2"	20.1	2186 lb
		1707	894	2131		511	992 kg
	ANSI 300	67.2	35.2	84.0	2"	20.1	2858 lb
		1707	894	2134		511	1296 kg
	ANSI 600	67.2	36.3	86.2	2"	20.1	5155 lb
		1707	922	2189		511	2338 kg



Recommended saturated steam capacities

(lb/h based on 90 ft/sec velocity)

Based on flows and velocity indicated, the pressure drop will be no more than equivalent length of pipe.

Operating pressure psi g	Separator size					
	8"	10"	12"	14"	16"	18"
5	5,754	8,871	12,576	15,153	19,812	25,190
10	7,020	10,822	15,342	18,487	24,171	30,733
25	10,933	16,855	23,894	28,791	37,643	47,862
50	17,262	26,613	37,728	45,460	59,437	75,573
100	29,576	45,597	64,640	77,888	101,836	129,481
150	42,005	64,759	91,805	110,620	144,631	183,894
200	53,744	82,856	117,460	141,533	185,049	235,283
250	65,713	101,308	143,618	173,052	226,259	287,681
300	78,257	120,647	171,034	206,087	269,451	342,597
325	84,587	130,405	184,868	222,756	291,245	370,307
350	89,881	138,566	196,438	236,697	309,472	393,483
375	96,671	149,034	211,277	254,578	332,851	423,208
400	102,770	158,438	224,608	270,641	353,853	449,911
450	115,084	177,422	251,521	303,069	396,252	503,819
500	129,355	199,422	282,709	340,650	445,387	566,293
550	140,403	216,455	306,855	369,744	483,427	614,640
600	153,062	239,971	334,523	403,082	527,015	670,080

Capacities for air and other gases available upon request.

Sample specification

Moisture Separator shall be of the high efficiency internal baffle type having a pressure drop that does not exceed an equivalent length of pipe. Separator shall be of steel construction in accordance with Section VIII, Division I of the ASME Boiler and Pressure Vessel Code. ASME Code Stamped for maximum working pressures of 150, 300, or 600 psig. A screwed bottom drain connection shall be provided for the installation of a trap to discharge accumulated liquid. A Spirax Sarco Float Operated Drain Trap and "Y" Type Strainer shall be installed on the drain connection.