

## ASME AIR SEPARATOR WITH STRAINER

- Tangential with strainer
- ASME design and label

Calefactio ESPA-S vortex type air separators eliminate air quickly and efficiently from opened and closed loop heating/cooling systems. Water enters and exits through unique "tangential" connections, which creates a low velocity swirling effect in the center of the unit.

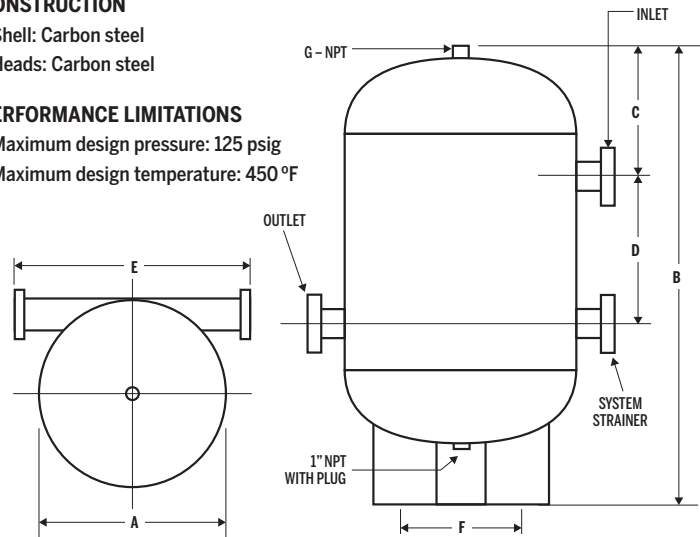
Natural centrifugal forces allow the heavier air-free water to move towards the outer edges while entrained air is captured within the "eye" of the vortex and released out the top of the separator. The water then exits near the bottom of the unit, bubble free, protecting the system against the noise, corrosion, and damage commonly caused by entrained air.

### CONSTRUCTION

- Shell: Carbon steel
- Heads: Carbon steel

### PERFORMANCE LIMITATIONS

- Maximum design pressure: 125 psig
- Maximum design temperature: 450 °F



Model	Max GPM	Connection		Type	Dimensions												Approx. weight			
		in	mm		A		B		C		D		E		F		G		lb	kg
					in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm		
ESPA-2S	56	2	51	NPT	12	305	22 1/2	572	5 1/2	140	8 1/2	216	16 5/8	422	9 1/2	241	1 1/4	32	55	25
ESPA-2 1/2S	90	2.5	64	NPT	12	305	22 1/2	572	5 1/2	140	8 1/2	216	16 5/8	422	9 1/2	241	1 1/4	32	61	28
ESPA-3S	190	3	76	FLANGED	12	305	22 1/2	572	5 3/4	146	8	203	19 3/4	502	9 1/2	241	1 1/4	32	66	30
ESPA-4S	300	4	102	FLANGED	14	356	32	813	9 1/4	232	10 3/4	273	21 3/4	552	11 1/2	292	1 1/2	38	99	45
ESPA-5S	530	5	127	FLANGED	14	356	32	813	9 1/8	232	10 3/4	273	21 3/4	552	11 1/2	292	1 1/2	38	163	74
ESPA-6S	850	6	152	FLANGED	20	508	44	1118	13 1/4	337	14 1/2	368	28	711	18	457	2	51	210	95
ESPA-8S	1900	8	203	FLANGED	20	508	44	1118	13 1/4	337	14 1/2	368	28	711	18	457	2	51	417	189
ESPA-10S	3600	10	254	FLANGED	30	762	60 1/2	1537	19	483	20	508	41	1041	24	610	2	51	658	298
ESPA-12S	4800	12	305	FLANGED	30	762	60 1/2	1537	19	483	20	508	41	1041	24	610	2	51	1042	473
ESPA-14S	6100	14	356	FLANGED	36	914	78	1981	22	559	31 1/2	800	46 5/8	1178	30	762	2	51	1848	838
ESPA-16S	8000	16	406	FLANGED	48	1219	108	2743	30	762	40	1016	60	1524	38	965	2	51	2530	1148
ESPA-18S	9700	18	457	FLANGED	54	1371	124	3150	33	838	50	1270	66	1676	44	1118	2	51	3559	1614
ESPA-20S	12000	20	508	FLANGED	60	1524	137	3480	35	889	60	1524	72	1829	50	1270	2	51	5610	2545
ESPA-22S	15000	22	559	FLANGED	66	1676	150	3810	38	965	66	1676	78	1981	56	1422	2	51	6765	3068
ESPA-24S	17000	24	610	FLANGED	72	1829	150	3810	38	965	66	1676	78	1981	56	1422	2	51	7931	3597

QUANTITY: \_\_\_\_\_ MODEL: ESPA-\_\_\_\_\_ S

Notes: \_\_\_\_\_

Project: \_\_\_\_\_ Representative: \_\_\_\_\_

Location: \_\_\_\_\_ Date submitted: \_\_\_\_\_

Engineer: \_\_\_\_\_ Approved by: \_\_\_\_\_

Contractor: \_\_\_\_\_ Date of approval: \_\_\_\_\_

**TYPICAL SPECIFICATIONS:** Furnish and install as shown on plans, a vortex type air separator model ESPA-\_\_\_\_\_S, with strainer, sized for \_\_\_\_\_ GPM, with \_\_\_\_\_ in/mm (NPT/Flanged) tangential connections, as manufactured by Calefactio. The air separator shall be designed in accordance with the latest revisions of the ASME Code for Boilers and Pressure vessels, Section VIII, Division I, and shall be constructed and stamped for 125 psi working pressure @ 450 °F. A blowdown connection shall be provided to facilitate routine cleaning of the unit. Each air separator shall be Calefactio ESPA-\_\_\_\_\_S or approved equal.