



**STEAM SEPARATOR**

### APPLICATION DATA

- Steam, compressed air, and gas systems
- Steam mains
- Before steam turbines
- Hot air batteries
- Heat exchangers
- Duplicators
- Boilers
- Kilns
- Radiators
- Sterilizers
- Drip stations before temperature control or pressure reducing valves
- Steam inlets to process equipment which require dry saturated steam
- Before filters and on the compressed air supply to sensitive instruments
- Laundry Processes

### ORDERING CODE

MODEL # (Must be 2 Digits)	CONNECTIONS	RATING (Must be 4 Digits)	—	SIZE
example: <u>E</u> <u>S</u>	<u>I</u>	<u>0150</u>	—	<u>C</u>
ES - Eliminator	T - NPT	0150 - 150#		C - 1/2
	W - Socketweld	0300 - 300#		D - 3/4
	F - Flanged	0600 - 600#		E - 1
				F - 1 1/4
				G - 1 1/2
				H - 2
				J - 2 1/2
				K - 3
				M - 4
				P - 6

*Installation Tip:* Always install a Steam Trap (i.e.: NFT, FTN, Max-Flo, Dura-Flo) after the Steam Separator  
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## ELIMINATOR SERIES STEAM & AIR SEPARATOR

Pressures to 990 PSIG (68.2 barg)  
Temperatures to 650°F (344°C)

**Removal of Entrained Contaminants** - Extracts nearly all moisture and solids above 10 microns

**Long Service Life** - No moving parts mean less wear and corrosion

**High Capacities** - Up to 35,000 lbs./hr steam

**Steel bodies and internals** - Withstand unfavorable conditions and water hammer

**Drain Outlet Below Condensate Level** - Prevents steam leakage

**Optimal Gravity Discharge** - Drain located directly below the line

**Maintenance Free** - Regular maintenance is not required

**Steam or Air Service**

### OPTIONS

- Optional Insulation Jacket

### MAXIMUM OPERATING CONDITIONS

1/2" - 2" NPT & SW

Class 400 - 990 psig (68.2 barg) @ 100°F (34°C)

2 1/2" - 6" ANSI 150 Flanged

Class 150 - 285 psig (19.6 barg) @ 100°F (34°C)

2 1/2" - 6" ANSI 300 Flanged

Class 300 - 740 psig (51.0 barg) @ 100°F (34°C)

2 1/2" - 6" ANSI 600 Flanged

Class 400 - 990 psig (68.2 barg) @ 100°F (34°C)

### MODELS

- ES-150 - 150 psig ANSI Flanged
- ES-300 - 300 psig ANSI Flanged
- ES-600 - 600 psig NPT, Socketweld, ANSI Flanged

*NOTE: This is a fabricated product. Custom designs are available. Please call factory for details.*

*Installation Tip:* Always install a Y Strainer between the Steam Separator and Trap.

### OPERATION

When the vapor enters the steam separator, a series of baffles change its flow direction several times. During this process, the baffles in the housing collect impinged water droplets that are carried in the system. Gravity allows the accumulated water droplets and

other foreign particles to fall to the drain and exit the system through a steam trap. The remaining steam in the system is clean and dry, allowing improved and maintained performance.

# ELIMINATOR SERIES STEAM SEPARATOR

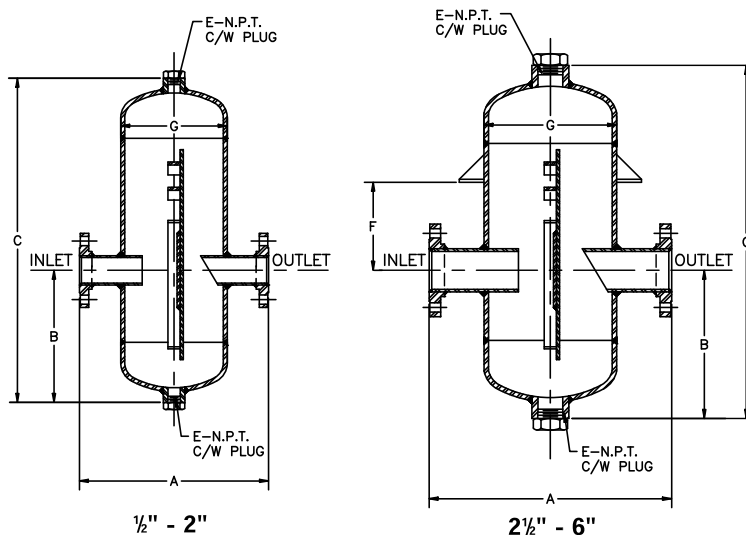
## SPECIFICATION

Steam Separator shall have an internal baffle that does not exceed an equivalent length of pipe. The Steam Separator shall be installed in a horizontal pipe configuration with the drain directly below the line. The Steam Separator shall have an NPT bottom drain on which a mechanical constant flow steam trap shall be installed.

## MATERIALS OF CONSTRUCTION

Body	.....( $\frac{1}{2}$ " to 2") Carbon Steel	ASTM SA53
	(2 $\frac{1}{2}$ " to 6") Carbon Steel	ASTM SA53
End Caps	.....Carbon Steel	ASTM A-234 WPB
Coupling	.....Carbon Steel	ASTM A-105
Baffle	.....Carbon Steel	ASTM SA53
	Stainless Steel	Optional
Plug	.....Carbon Steel	ASTM A105
End Connections:		
	( $\frac{1}{2}$ " to 2") Carbon Steel	ASTM A105
	(2 $\frac{1}{2}$ " to 6") Carbon Steel	ASTM A105

SIZING INFO  
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**Connections:**  
 $\frac{1}{2}$ " - 2" SW & NPT or 2 $\frac{1}{2}$ " - 6" Flanged

- Call factory for sizing information. Please provide the following:
1. Steam or Compressed Air System
  2. Flow Rate (lb/Hr) \_\_\_\_
  3. Separator Connection Size \_\_\_\_
  4. System Pressure \_\_\_\_

## DIMENSIONS inches (mm) AND WEIGHTS pounds (kg)

Pipe Size	Connection	A	B	C	E	F	G	Weight
1/2	NPT/SW	3 $\frac{3}{8}$ (218)	5 $\frac{1}{4}$ (132)	10 $\frac{5}{8}$ (269)	$\frac{3}{4}$ (20.3)	—	6 (152.4)	9 (4.1)
3/4	NPT/SW	8 $\frac{3}{4}$ (224)	5 $\frac{7}{8}$ (150)	12 $\frac{1}{2}$ (307)	$\frac{3}{4}$ (20.3)	—	6 (152.4)	10 (4.5)
1	NPT/SW	9 $\frac{1}{4}$ (236)	6 (152)	14 $\frac{1}{2}$ (358)	$\frac{3}{4}$ (20.3)	—	6 (152.4)	19 (8.6)
1-1/4	NPT/SW	9 $\frac{3}{4}$ (238)	7 $\frac{1}{8}$ (180)	16 $\frac{5}{8}$ (416)	$\frac{3}{4}$ (20.3)	—	6 (152.4)	30 (13.6)
1-1/2	NPT/SW	11 $\frac{1}{8}$ (287)	7 $\frac{3}{8}$ (193)	19 (483)	1 (25.4)	—	8 (203)	43 (19.5)
2	NPT/SW	11 $\frac{3}{8}$ (295)	11 $\frac{1}{8}$ (206)	20 $\frac{5}{8}$ (523)	1 (25.4)	—	8 (203)	50 (22.7)
2-1/2	Flanged ANSI 150	22 $\frac{1}{2}$ (572)	9 $\frac{3}{8}$ (239)	24 $\frac{1}{2}$ (622)	1 (25.4)	7 $\frac{1}{2}$ (180)	10 (254)	109 (49.4)
	Flanged ANSI 300	22 $\frac{1}{2}$ (572)	9 $\frac{3}{8}$ (239)	24 $\frac{1}{2}$ (622)	1 (25.4)	7 $\frac{1}{2}$ (180)	10 (254)	112 (50.8)
	Flanged ANSI 600	22 $\frac{1}{2}$ (572)	9 $\frac{3}{8}$ (251)	25 $\frac{5}{8}$ (650)	1 (25.4)	7 $\frac{1}{2}$ (180)	10 (254)	113 (51.3)
3	Flanged ANSI 150	25 $\frac{1}{4}$ (643)	12 (305)	28 $\frac{3}{8}$ (726)	2 (50.8)	8 (203)	10 (254)	163 (73.9)
	Flanged ANSI 300	25 $\frac{1}{4}$ (643)	12 (305)	28 $\frac{3}{8}$ (732)	2 (50.8)	8 (203)	10 (254)	169 (76.7)
	Flanged ANSI 600	25 $\frac{1}{4}$ (643)	12 $\frac{1}{4}$ (323)	29 $\frac{3}{8}$ (759)	2 (50.8)	8 (203)	10 (254)	189 (85.7)
4	Flanged ANSI 150	29 (737)	12 $\frac{3}{4}$ (320)	31 $\frac{1}{4}$ (792)	2 (50.8)	8 (203)	12 (305)	237 (108)
	Flanged ANSI 300	29 (737)	12 $\frac{3}{4}$ (320)	31 $\frac{1}{4}$ (792)	2 (50.8)	8 (203)	12 (305)	256 (116)
	Flanged ANSI 600	29 (737)	13 $\frac{3}{4}$ (335)	31 $\frac{1}{4}$ (792)	2 (50.8)	8 (203)	12 (305)	297 (135)
6	Flanged ANSI 150	35 $\frac{3}{4}$ (909)	12 $\frac{3}{4}$ (312)	36 $\frac{3}{4}$ (932)	2 (50.8)	11 $\frac{3}{8}$ (290)	16 (406)	365 (166)
	Flanged ANSI 300	35 $\frac{3}{4}$ (909)	12 $\frac{3}{4}$ (315)	36 $\frac{3}{8}$ (937)	2 (50.8)	11 $\frac{3}{8}$ (290)	16 (406)	401 (182)
	Flanged ANSI 600	35 $\frac{3}{4}$ (909)	13 (330)	37 $\frac{3}{4}$ (960)	2 (50.8)	11 $\frac{3}{8}$ (290)	16 (406)	551 (250)