

JOB:

REPRESENTATIVE:

UNIT TAG:

ORDER NO.

DATE:

ENGINEER:

SUBMITTED BY:

DATE:

CONTRACTOR:

APPROVED BY:

DATE:



ROLAIRTROL[®]
Air Separator
Flanged with Strainer
Air Control and Elimination

DESCRIPTION

The Rolairtrol Air Separator is an ASME vessel designed with tangential openings to create a low velocity vortex where air is separated and removed from the circulating water.

MAXIMUM WORKING PRESSURE

125 PSIG (862 kPa)

MAXIMUM OPERATING TEMPERATURE

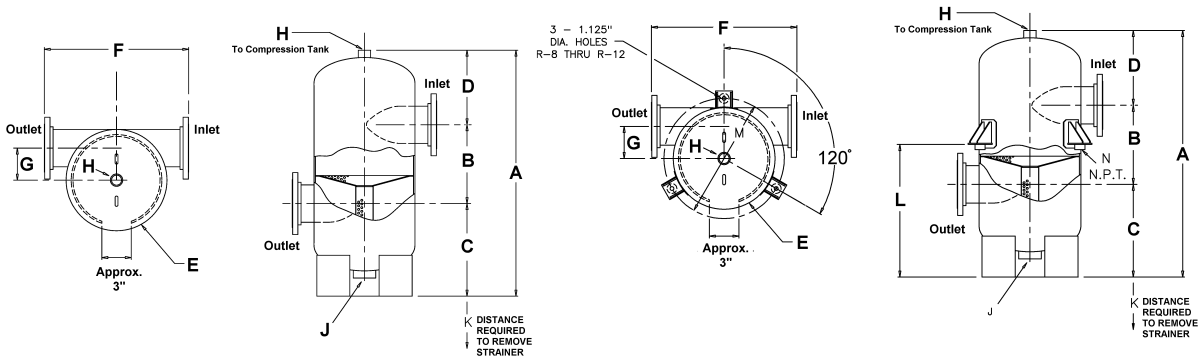
350°F (177°C) Consult factory for higher working pressures and temperatures

CONSTRUCTION MATERIALS

- Designed and constructed per ASME Section VIII, Division 1
- Shell: Carbon Steel
- System Strainer: Type 304 Stainless Steel with 3/16" (4.8mm) diameter perforations and 51% open area

PART NUMBER	MODEL NUMBER	Capacity GPM (m ³ /hr)	Flanged Tangential Opening in. (mm)	TAGGING INFORMATION	QUANTITY
5360-03F-12-003	R-3F	190 (43.2)	3 (76.2)		
5360-04F-12-003	R-4F	300 (68.1)	4 (101.6)		
5360-05F-12-003	R-5F	500 (113.6)	5 (127.0)		
5360-06F-12-003	R-6F	700 (159.0)	6 (150.0)		
5360-08F-12-003	R-8F	1,300 (295.2)	8 (203.2)		
5360-10F-12-003	R-10F	2,000 (454.2)	10 (254.0)		
5360-12F-12-003	R-12F	2,750 (624.5)	12 (300.0)		
5360-14F-12-010	R-14F	3840 (872)	14 (355.6)		
5360-16F-12-010	R-16F	5015 (1,140)	16 (406.4)		
5360-03F-12-004	R-3FB	190 (43.2)	3 (76.2)		
5360-04F-12-004	R-4FB	300 (68.1)	4 (101.6)		
5360-05F-12-004	R-5FB	500 (113.6)	5 (127.0)		
5360-06F-12-004	R-6FB	700 (159.0)	6 (150.0)		
5360-08F-12-004	R-8FB	1,300 (295.2)	8 (203.2)		
5360-10F-12-004	R-10FB	2,000 (454.2)	10 (254.0)		
5360-12F-12-004	R-12FB	2,750 (624.5)	12 (300.0)		
5360-14F-12-011	R-14FB	3840 (872)	14 (355.6)		
5360-16F-12-011	R-16FB	5015 (1,140)	16 (406.4)		

Model numbers with a B suffix include bracket supports.



DIMENSIONS in Inches (mm) AND WEIGHTS in Lbs (kg.)

MODEL NUMBER	A	B	C	D	E	F	G	H	J	K	L*	M*	N*	Cv	Strainer Free Area in in ²²	Approx. Volume in Gallons (Ltr.)	Approx. Shpg. Wt. in Lbs. (Kg)	Flood Wt. Less Bracket in Lbs. (Kg)	Bracket Wt. in Lbs. (Kg)†
R-3F (B)	26-7/8 (683)	8 (203)	10-13/16 (275)	8-1/16 (205)	10-3/4 (273)	22-3/4 (578)	3-5/8 (92)	1-1/4 (32)	3 (76)	12 (305)	13-3/8 (340)	14 (356)	2 (51)	119	90 (58,064)	7 (26)	130 (59)	188 (85)	9 (4)
R-4F (B)	31-7/16 (799)	10 (254)	11-15/16 (303)	9-1/2 (241)	12-3/4 (324)	20-1/2 (521)	4-1/8 (105)	1-1/2 (38)	3 (76)	14 (356)	15-3/8 (391)	16 (406)	2 (51)	257	120 (77,419)	13 (49)	170 (77)	278 (126)	9 (4)
R-5F (B)	37 (940)	12 (305)	14-1/16 (357)	10-15/16 (278)	16 (406)	23-3/4 (603)	5-1/4 (133)	1-1/2 (38)	3 (76)	16 (406)	18-1/2 (470)	19-3/8 (492)	2 (51)	398	165 (106,451)	25 (95)	220 (100)	429 (194)	9 (4)
R-6F (B)	44-1/16 (1119)	14 (356)	16-13/16 (427)	13-1/4 (337)	18 (457)	25-3/4 (654)	5-11/16 (144)	1-1/2 (38)	3 (76)	19 (483)	22-1/8 (562)	21-1/4 (540)	2 (51)	632	205 (132,258)	34 (129)	295 (134)	579 (262)	9 (4)
R-8F (B)	54 (1372)	18 (457)	19-7/16 (494)	16-9/16 (421)	24 (610)	31-3/4 (806)	7-11/16 (195)	2 (51)	3 (76)	23 (584)	26 (660)	29-1/2 (749)	2 (51)	1,020	325 (209,677)	90 (341)	460 (209)	1,211 (549)	30 (14)
R-10F (B)	64-11/16 (1643)	22 (559)	22-5/8 (575)	20-1/16 (510)	30 (762)	37-3/4 (959)	9-5/8 (244)	2 (51)	3 (76)	28 (711)	31-5/8 (803)	35-1/2 (902)	2 (51)	1,789	475 (306,451)	150 (568)	845 (383)	2,097 (951)	30 (14)
R-12F (B)	75-3/8 (1915)	27 (686)	25-3/4 (654)	22-5/8 (575)	36 (914)	46-3/4 (1187)	11-5/8 (295)	2 (51)	3 (76)	31 (787)	37-5/8 (965)	41-1/2 (1054)	2 (51)	2,665	645 (416,128)	291 (1101)	1160 (526)	3,588 (1627)	30 (14)
R-14F (B)	92-1/8 (2,340)	31-1/2 (800)	34-3/4 (883)	25-7/8 (657)	42 (1067)	54-1/2 (1,384)	14 (356)	2 (51)	3 (76)	32-1/2 (826)	48 (1,219)	48-1/2 (1,232)	3 (76)	3,400	715 (461,286)	470 (1,779)	1,775 (805)	5,715 (2,592)	56 (25)
R-16F (B)	104 (3,642)	36 (914)	37-3/4 (959)	30-1/4 (768)	48 (1,219)	62-1/2 (1,588)	16 (406)	2 (51)	3 (76)	40 (1,016)	50 (1,270)	54-1/2 (1,384)	3 (76)	4,200	919 (592,902)	723 (2,737)	2,417 (1,096)	8,450 (3,833)	56 (25)

*Indicates measurements for models that have optional support brackets

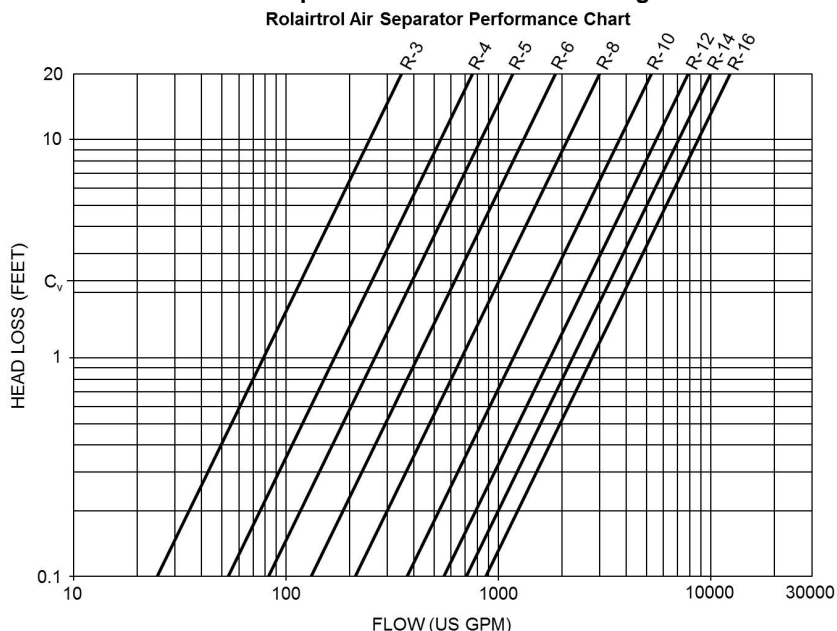
†Bracket weight should be added to flood weight and approximate shipping weight for models that are being supplied with optional support brackets.

Important Note: Dimensions not to be used for construction.

IMPORTANT NOTES:

1. Consult IOM A85524 for safety and service instructions.
2. Model "R" Rolairtrol Air Separators have strainers which must be removed and cleaned after 24 hours operation, 30 days operation and as required to maintain proper system air separation. Before installing the model "R" Rolairtrol, refer to (K) in the dimensions and weights table, which notes minimum distances to be maintained between the blowdown connection and the floor or other equipment for strainer removal.
3. Lifting lugs are for the transportation and installation of the empty vessel, and are not to be used for complete or partial support of the flood vessel.
4. The R model skirt can support the flooded weight of the vessel. Strainer Models require adequate floor clearance of skirt for removal of strainer.
5. Welding to the pressure vessel boundary will void the ASME stamp.
6. Standard Rolairtrol design up to 12" can be hung from the nozzles using hangers. Optional, factory welded, support brackets are available for an additional cost.

Rolairtrol Air Separator Performance Coverage Chart



Note: Pressure drops for a range of flow are indicated on this chart. Users should select Rolairtrol using B&G published capacity guidance, and ASHRAE pipe sizing recommendations for optimal performance.

TYPICAL ROLAIRTROL SPECIFICATIONS

Furnish and install, as shown on plans, a centrifugal type air separator. The unit shall have _____" inlet and outlet flanged connections tangential to the vessel shell. The unit shall have an internal type 304 stainless steel strainer and air separator with 3/16" (4.8mm) perforations and 51 percent open area designed to direct accumulated air to an air vent (air elimination system) via an NPT vent connection at top of unit.

The air separator must be designed, constructed and stamped for 125 psig @ 350°F (862 kPa @ 177°C) in accordance with Section VIII, Division I of the ASME Boiler and Pressure Vessel Code, and registered with the National Board of Boiler and Pressure Vessel Inspectors. The air separator(s) shall be painted with one shop coat of light gray air dry enamel

A blowdown connection shall be provided to facilitate routine cleaning. Specify B&G Model MBV-1 Rolairtrol accessory with appropriate fittings for manual blowdown.

Each air separator shall be Bell & Gossett Model No. _____ Rolairtrol Air Separator for _____ GPM (_____ m³), Shell Dia. _____" (_____ mm) and Min. Vessel Volume _____ Gal (_____ liters).

Vessel shell diameter to be three times the nominal inlet/outlet pipe diameter, with a minimum vessel volume for sufficient velocity reduction.

Refer to submittal A-329 for information on the MBV-1 manual blowdown valve.



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