

JOB:

REPRESENTATIVE:

UNIT TAG:

ORDER NO.

DATE:

ENGINEER:

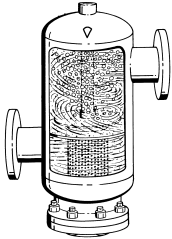
SUBMITTED BY:

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)

CONSTRUCTION MATERIALS

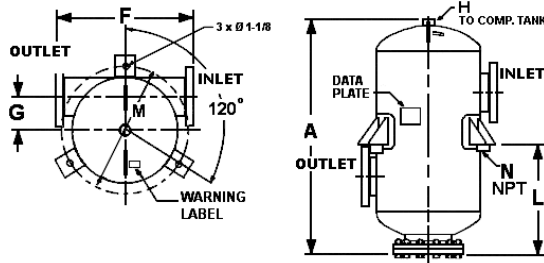
- Designed and constructed per ASME Section VIII, Division 1
- Shell: Carbon Steel
- System Strainer: 304 Stainless steel with 3/16" (4.8mm) diameter perforations and 51% open area
- Air Collector Tube: Stainless steel with 5/32" (4mm) diameter perforations and 63% open area
- Baffle/Collector Tube Support Assembly: Carbon Steel
- Bottom Reducing Flange Gasket: Armide fiber

Consult factory for higher working pressures and temperatures

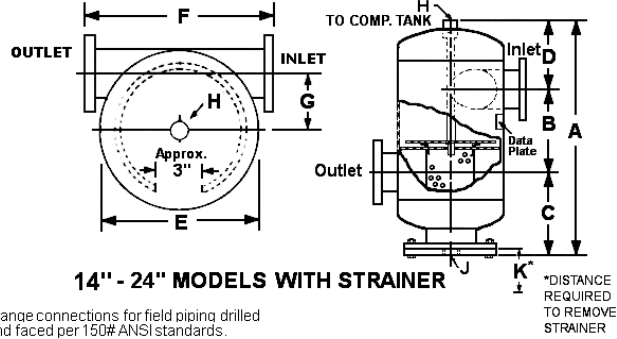
SCHEDULE

PART NUMBER	MODEL NUMBER	Capacity GPM (m ³ /hr)	Flanged Tangential Opening in. (mm)	TAGGING INFORMATION	QUANTITY
5360-18F-12-001	R-18F	5,200 (1,180.9)	18 (457.2)		
5360-20F-12-001	R-20F	6,300 (1,430.7)	20 (508.0)		
5360-22F-12-001	R-22F	7,400 (1,680.5)	22 (588.8)		
5360-24F-12-001	R-24F	8,500 (1,930.4)	24 (635.0)		
Consult Factory	R-18FB	5,200 (1,180.9)	18 (457.2)		
Consult Factory	R-20FB	6,300 (1,430.7)	20 (508.0)		
Consult Factory	R-22FB	7,400 (1,680.5)	22 (588.8)		
Consult Factory	R-24FB	8,500 (1,930.4)	24 (635.0)		

For 20"-36" sizes contact factory for performance characteristics.
Model numbers with a B suffix include bracket supports.



14" - 24" MODELS WITH STRAINER AND OPTIONAL BRACKET SUPPORTS



14" - 24" MODELS WITH STRAINER

Flange connections for field piping drilled and faced per 150# ANSI standards.

*DISTANCE REQUIRED TO REMOVE STRAINER

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

MODEL NUMBER	A	B	C	D	E	F	G	H	J	K	Cv	Strainer Free Area in in ² (mm ²)	Approx. Volume in Gallons (Ltr.)	Approx. Shpg. Wt. in Lbs. (Kg)	Flood Wt. Less Bracket in Lbs. (Kg)
R-18F (B)	125-7/8 (3,197)	40-1/2 (1,029)	47-5/8 (1,210)	37-3/4 (959)	54 (1,372)	70-1/4 (1,784)	18 (457)	2 (51)	2 (51)	52 (1,321)	2,340	1,521 (981,288)	1,149 (4,349)	3,410 (1,546)	12,998 (5,895)
R-20F (B)	135-7/8 (3,451)	45 (1,143)	49-1/8 (1,248)	41-3/4 (1,060)	60 (1,524)	78 (1,981)	20 (508)	2 (51)	2 (51)	56 (1,422)	2,945	1,989 (1,283,223)	1,577 (5,969)	5,310 (2,408)	18,470 (8,376)
R-22F (B)	148-1/8 (3,762)	49-5/8 (1,260)	52-3/4 (1,340)	45-3/4 (1,162)	66 (1,676)	85-7/8 (2,181)	22 (559)	2 (51)	2 (51)	60 (1,524)	3,725	2,322 (1,498,062)	1,958 (7,411)	6,400 (2,902)	22,740 (10,313)
R-24F (B)	159-3/8 (4,048)	54 (1,372)	56-1/8 (1,426)	49-1/4 (1,251)	72 (1,829)	93-1/2 (2,375)	24 (610)	2 (51)	2 (51)	64 (1,626)	4,325	2,841 (1,832,900)	2,463 (9,322)	7,500 (3,401)	28,054 (12,723)

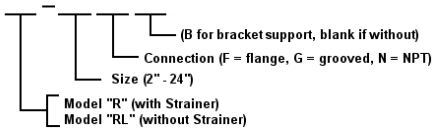
Important Note: Dimensions not to be used for construction.

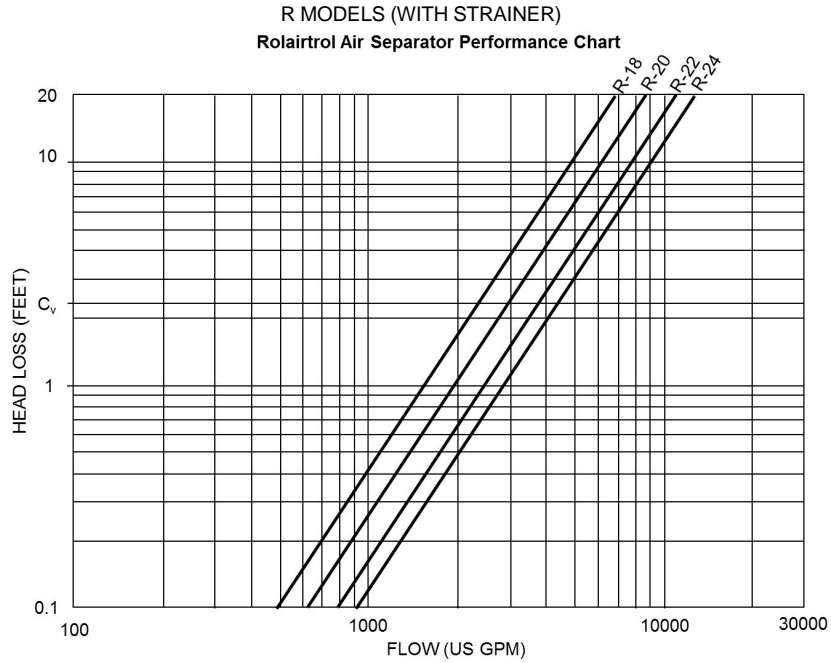
MODEL NUMBER	L	M	N	Weights of Brackets
R-18FB	61-5/8 (1,565)	60-5/8 (1,540)	3 (76)	63 (29)
R-20FB	68-5/8 (1,743)	66-3/4 (1,695)	4 (102)	78 (35)
R-22FB	74-1/8 (1,883)	72-3/4 (1,848)	4 (102)	78 (35)
R-24FB	80-3/8 (2,042)	79 (2,007)	4 (102)	98 (44)

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 RL skirt can support flooded vessel weight, but an R model bottom flange (strainer housing) cannot support the flooded weight of the vessel.
5. Welding to the pressure vessel boundary will void the ASME stamp.
6. Optional, factory welded, support brackets are strongly recommended for sizes 14" and above.

MODEL NUMBERING





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 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.

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

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.

The air separator must be designed, constructed and stamped for 125 psig @ 350°F (862 kPa @ 191°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

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



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