Bell & Gossett
a xylem brand

SUBMITTAL A-326.1J

JOB: **REPRESENTATIVE:**

UNIT TAG:	ORDER NUMBER:	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.

CONSTRUCTION

- 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
- **Baffle:** Carbon Steel

MAXIMUM WORKING PRESSURE

125 PSIG (862 kPa)

MAXIMUM OPERATING TEMPERATURE

350°F (177°C)

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-12-002	R-18FB	6,345 (1,441)	18 (457)		
5360-20F-12-002	R-20FB	7,835 (1,780)	20 (508)		
5360-22F-12-002	R-22FB	9,480 (2,153)	22 (589)		
5360-24F-12-002	R-24FB	11,280 (2,562)	24 (635)		
5360-30F-12-002	R-30FB	17,625 (4,005)	30 (762)		
5360-36F-12-002	R-36FB	25,380 (5,765)	36 (914)		

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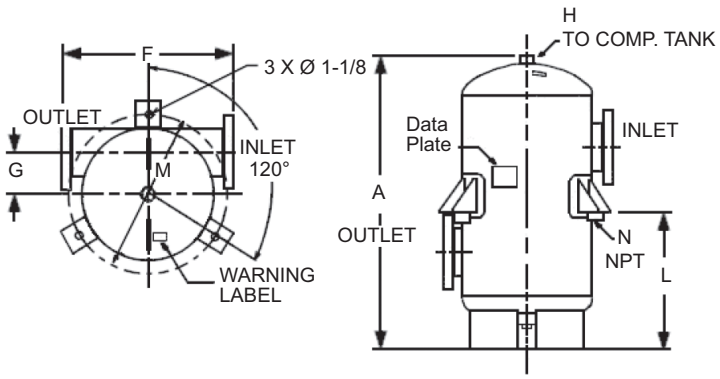


Dimensions in Inches (mm)

Model Number	A	B	C	D	E	F	G	H	J	K	Cv	Strainer Free Area in in² (mm²)	Approx. volume in Gallons (L)	Approx. Shpg. Wt. in Lbs. (Kg)	Approx. Flooded Wt. in Lbs. (Kg)
R-18FB	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)	3 (76)	52 (1,321)	5,125	1,521 (981,288)	1,149 (4,349)	3,200 (1,450)	12,100 (5,490)
R-20FB	135-1/2 (3,442)	45 (1,143)	48-5/8 (1,235)	41-7/8 (1,216)	60 (1,524)	78 (1,981)	20 (508)	2 (51)	3 (76)	47 (1,194)	6,400	1,989 (1,283,223)	1,577 (5,969)	4,950 (2,245)	16900 (7,665)
R-22FB	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)	3 (76)	52 (1,321)	8,000	2,322 (1,498,062)	1,958 (7,411)	6,000 (2,720)	21,950 (9,955)
R-24FB	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)	3 (76)	55 (1,397)	9,360	2,841 (1,832,900)	2,463 (9,322)	7,000 (3,175)	27,300 (12,385)
R-30FB	200-3/4 (5,100)	66 (1,676)	75-1/8 (1,908)	59-5/8 (1,514)	90 (2,286)	112 (2,845)	30 (762)	2 (51)	3 (76)	61 (1,550)	15,000	3,409 (2,199,350)	6,250 (23,658)	11,250 (5,100)	50,500 (22,905)
R-36FB	239-3/4 (6,090)	81 (2,057)	85-3/4 (2,178)	73 (1,854)	108 (2,743)	140 (3,556)	36 (914)	2 (51)	3 (76)	80 (2,032)	20,600	4,091 (2,639,350)	9,125 (34,542)	21,750 (9,865)	90,500 (41,050)

NOTE: DIMENSIONS NOT TO BE USED FOR CONSTRUCTION.

Model Number	L	M	N
R-18FB	61-5/8 (1,565)	60-5/8 (1,340)	3 (76)
R-20FB	68-5/8 (1,743)	67-3/4 (1,720)	4 (102)
R-22FB	74-1/8 (1,883)	73-3/4 (1,875)	4 (102)
R-24FB	80-3/8 (2,042)	79-3/4 (2,025)	4 (102)
R-30FB	103 (2,616)	98-3/4 (2,508)	4 (102)
R-36FB	122 (3,100)	116-3/4 (2,965)	4 (102)

MODEL NUMBERING

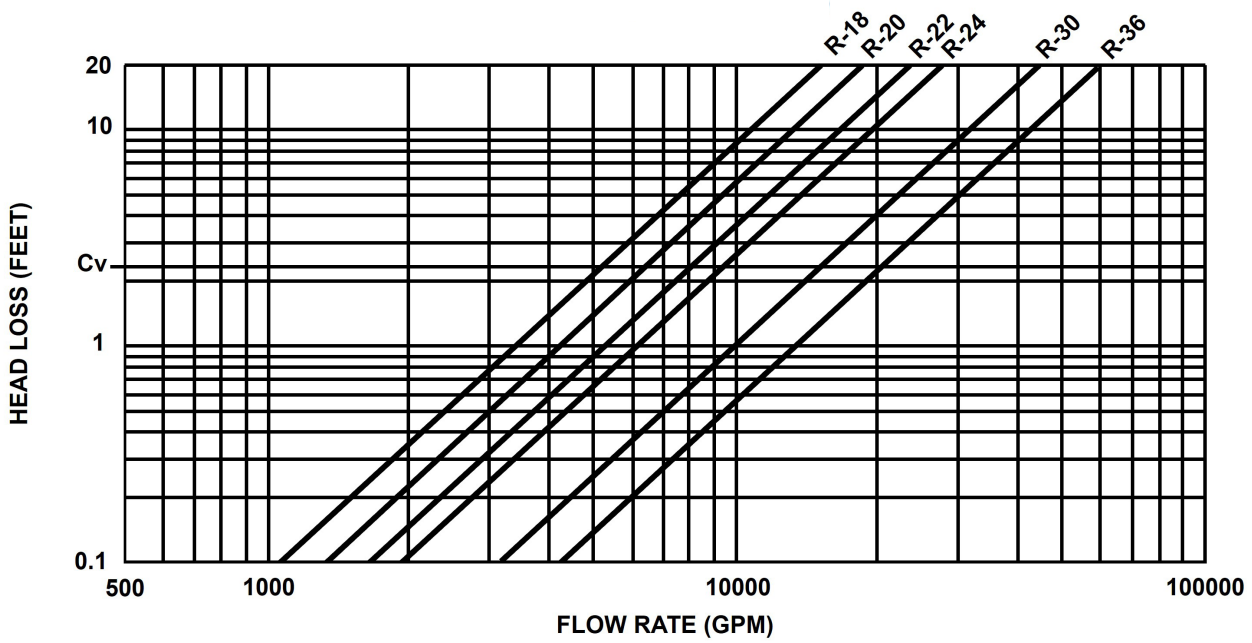
__ – __ __ __ __

- (B for bracket support, blank if without)
- Connection (F=flange, G=grooved, N=NPT)
- Size (2" - 24")
- Model "R" (with strainer)
- Model "RL" (without strainer)

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 skirt on the bottom of the unit cannot support the flooded weight of the the vessel. Please use the included support brackets to provide appropriate support.
5. Welding to the pressure vessel boundary will void the ASME stamp.
6. Flanged connections for field piping drilled and faced per 150# ANSI standards

R MODELS (WITH STRAINER)
Rolairtrol Air Separator Performance 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 304 stainless steel strainer and air separator with 3/16" (4.8 mm) 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 @ 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.

Each air separator shall be Bell & Gossett Model No. _____ Rolairtrol Air Separator for _____ GPM (_____ m^3), Shell Dia. _____" (_____ mm) and Min. Vessel Volume _____ Gal (_____ liters).

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