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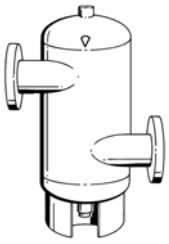
**SUBMITTAL**

**A-326.2H**



# ROLAIRTROL®

## Air Separator

Flanged Less 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
- Air Collector Tube: Stainless steel with 5/32" (4mm) diameter perforations and 63% open area
- Collector Tube Support Assembly: Carbon Steel

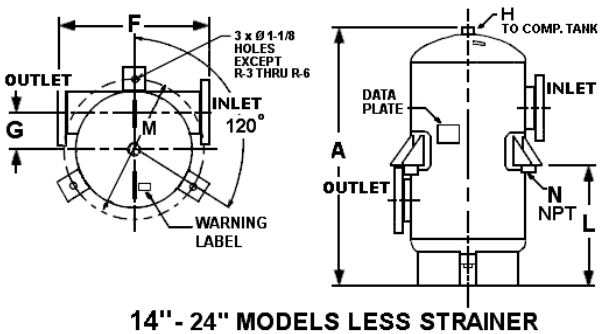
**SCHEDULE**

| PART NUMBER | MODEL NUMBER | Capacity GPM ($m^3$/hr) | Flanged Tangential Opening in. (mm) | TAGGING INFORMATION | QUANTITY |
|---|---|---|---|---|---|
| 5363-14F-12-001 | RL−14F | 6,100 (1385.3) | 14 (355.6) | | |
| 5363-16F-12-001 | RL−16F | 8,000 (1,816.8) | 16 (406.4) | | |
| 5363-18F-12-001 | RL−18F | 9,700 (2,202.9) | 18 (457.2) | | |
| 5363-20F-12-001 | RL−20F | 12,000 (2,725.2) | 20 (508.0) | | |
| 5363-22F-12-001 | RL−22F | 15,000 (3,406.5) | 22 (588.8) | | |
| 5363-24F-12-001 | RL−24F | 17,000 (3,860.7) | 24 (635.0) | | |
| Consult Factory | RL−14FB | 6,100 (1385.3) | 14 (355.6) | | |
| Consult Factory | RL−16FB | 8,000 (1,816.8) | 16 (406.4) | | |
| Consult Factory | RL−18FB | 9,700 (2,202.9) | 18 (457.2) | | |
| Consult Factory | RL−20FB | 12,000 (2,725.2) | 20 (508.0) | | |
| Consult Factory | RL−22FB | 15,000 (3,406.5) | 22 (588.8) | | |
| Consult Factory | RL−24FB | 17,000 (3,860.7) | 24 (635.0) | | |

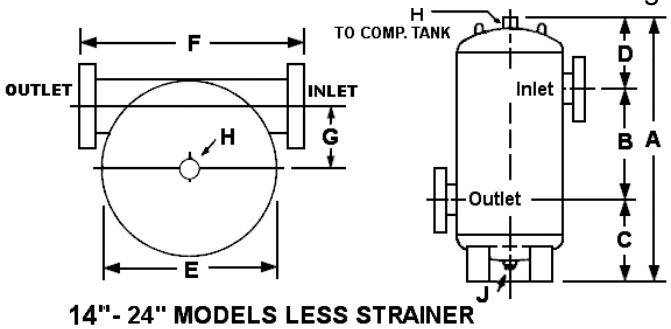
For 20"−36" sizes contact factory for performance characteristics.
Model numbers with a B suffix include bracket supports.



**Bell & Gossett**




**14"- 24" MODELS LESS STRAINER**
AND OPTIONAL BRACKET SUPPORTS




**14"- 24" MODELS LESS STRAINER**

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

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

| MODEL NUMBER | A | B | C | D | E | F | G | H | J | Cv | Approx. Volume in Gallons (Ltr.) | Approx. Shpg. Wt. in. Lbs. (Kg) | Flood Wt. Less Bracket in Lbs. (Kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RL−14F (B) | 92-3/8 (2,346) | 31-1/2 (800) | 35 (889) | 25-7/8 (657) | 42 (1,067) | 54-1/2 (1,384) | 14 (356) | 2 (51) | 1 (25) | 3,900 | 472 (1,787) | 1,780 (807) | 5,719 (2,594) |
| RL−16F (B) | 104-3/8 (2,651) | 36 (914) | 38-1/8 (968) | 30-1/4 (768) | 48 (1,219) | 62-1/2 (1,588) | 16 (406) | 2 (51) | 1 (25) | 5,100 | 723 (2,737) | 2,425 (1,100) | 8,458 (3,836) |
| RL−18F (B) | 123-1/4 (3,131) | 40-1/2 (1,029) | 44-3/4 (1,137) | 38 (965) | 54 (1,372) | 70-1/4 (1,784) | 18 (457) | 2 (51) | 1 (25) | 6,410 | 1,149 (4,349) | 3,410 (1,546) | 12,998 (5,895) |
| RL−20F (B) | 135-1/2 (3,442) | 45 (1,143) | 48-5/8 (1,235) | 41-7/8 (1,064) | 60 (1,524) | 78 (1,981) | 20(508) | 2 (51) | 1 (25) | 8,000 | 1,577 (5,969) | 5,310 (2,408) | 18,470 (8,376) |
| RL−22F (B) | 148-1/2 (3,772) | 49-5/8 (1,260) | 52-5/8 (1,337) | 46-1/4 (1,175) | 66 (1,676) | 85-7/8 (2,181) | 22 (559) | 2 (51) | 1 (25) | 10,000 | 1,958 (7,411) | 6,400 (2,902) | 22,740 (10,313) |
| RL−24F (B) | 159-1/2 (4,051) | 54 (1,372) | 56-1/8 (1,426) | 49-3/8 (1,254) | 72 (1,829) | 93-1/2 (2,375) | 24 (610) | 2 (51) | 1 (25) | 11,700 | 2,463 (9,322) | 7,500 (3,401) | 28,054 (12,723) |

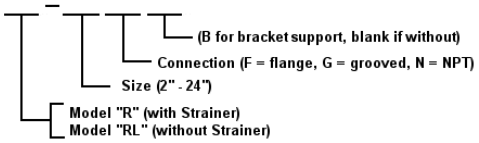
**Important Note: Dimensions not to be used for construction.**

| MODEL NUMBER | L | M | N | Weights of Brackets |
|---|---|---|---|---|
| RL−14FB | 46 (1,168) | 48-1/2 (1,232) | 3 (76) | 56 (25) |
| RL−16FB | 52 (1,321) | 54-1/2 (1,384) | 3 (76) | 56 (25) |
| RL−18FB | 61-5/8 (1,565) | 60-5/8 (1,540) | 3 (76) | 63 (29) |
| RL−20FB | 68 (1,727) | 66-3/4 (1,695) | 4 (102) | 78 (35) |
| RL−22FB | 73-5/8 (1,870) | 72-3/4 (1,848) | 4 (102) | 78 (35) |
| RL−24FB | 80 (2,032) | 79 (2,007) | 4 (102) | 98 (44) |

**IMPORTANT NOTES:**

1. Consult IOM A85524 for safety and service instructions.
2. 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.
3. The RL skirt can support flooded vessel weight, but an R model bottom flange (strainer housing) cannot support the flooded weight of the vessel.
4. Welding to the pressure vessel boundary will void the ASME stamp.
5. Optional, factory welded, support brackets are strongly recommended for sizes 14" and above. Brackets are optional at additional cost.

**MODEL NUMBERING**

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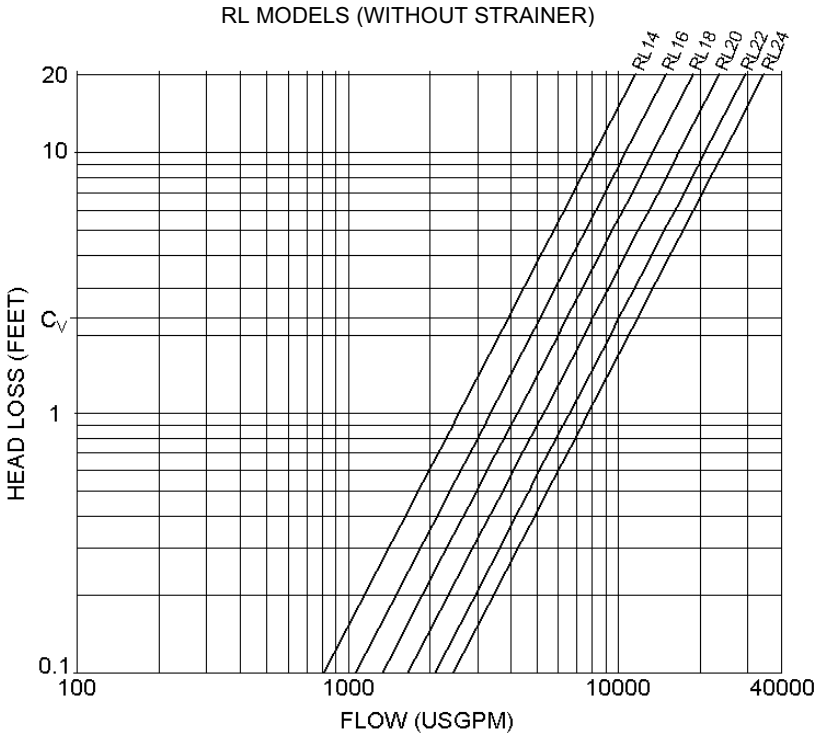


**Note:** Pressure drops for a range of flow are indicated on this chart. Users should select Rolairtrol using B&G published capacity guidance, and ASHRAE pipe sizing recommendations for optimal performance.

## 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 the capability to direct accumulated air to the compression tank (air control system) or 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.

The air separator must be designed, constructed and stamped for 125 psig @ 350ºF (862 kPa @ 177ºC) 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).

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

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