

JOB:

REPRESENTATIVE:

UNIT TAG:

ORDER NO.

DATE:

ENGINEER:

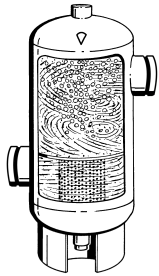
SUBMITTED BY:

DATE:

CONTRACTOR:

APPROVED BY:

DATE:



ROLAIRTROL[®]
Air Separator
Grooved 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)

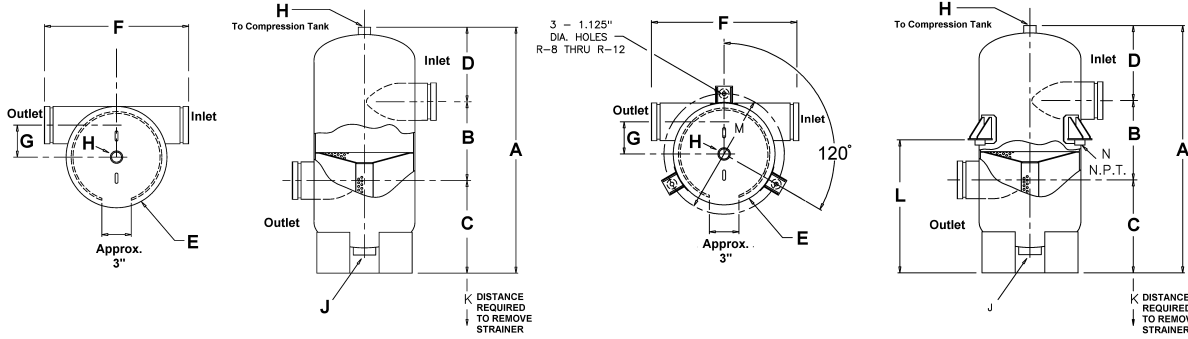
Consult factory for higher working pressures and temperatures

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) | Grooved Tangential Opening in. (mm) | TAGGING INFORMATION | QUANTITY |
|-----------------|--------------|-----------------------------------|-------------------------------------|---------------------|----------|
| 5360-03G-12-003 | R-3G | 190 (43) | 3 (76) | | |
| 5360-04G-12-003 | R-4G | 300 (68) | 4 (101) | | |
| 5360-05G-12-003 | R-5G | 500 (113) | 5 (127) | | |
| 5360-06G-12-003 | R-6G | 700 (159) | 6 (152) | | |
| 5360-08G-12-003 | R-8G | 1,300 (295) | 8 (203) | | |
| 5360-10G-12-003 | R-10G | 2,000 (454) | 10 (254) | | |
| 5360-12G-12-003 | R-12G | 2,750 (624) | 12 (305) | | |
| 5360-14G-12-010 | R-14G | 3840 (872) | 14 (355.6) | | |
| 5360-16G-12-010 | R-16G | 5015 (1,140) | 16 (406.4) | | |
| 5360-03G-12-004 | R-3GB | 190 (43) | 3 (76) | | |
| 5360-04G-12-004 | R-4GB | 300 (68) | 4 (101) | | |
| 5360-05G-12-004 | R-5GB | 500 (113) | 5 (127) | | |
| 5360-06G-12-004 | R-6GB | 700 (159) | 6 (150) | | |
| 5360-08G-12-004 | R-8GB | 1,300 (295) | 8 (203) | | |
| 5360-10G-12-004 | R-10GB | 2,000 (454) | 10 (254) | | |
| 5360-12G-12-004 | R-12GB | 2,750 (624) | 12 (305) | | |
| 5360-14G-12-011 | R-14GB | 3840 (872) | 14 (355.6) | | |
| 5360-16G-12-011 | R-16GB | 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 | 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-3G (B) | 26-7/8 (683) | 8 (203) | 10-13/16 (275) | 8-1/16 (205) | 10-3/4 (273) | 16-3/4 (425) | 3-5/8 (92) | 1-1/4 (32) | 3 (76) | 12 (305) | 119 | 90 (58,064) | 7 (26) | 112 (51) | 170 (77) |
| R-4G (B) | 31-7/16 (799) | 10 (254) | 11-15/16 (275) | 9-1/2 (241) | 12-3/4 (324) | 19-3/4 (502) | 4-1/8 (105) | 1-1/2 (38) | 3 (76) | 14 (356) | 257 | 120 (77,419) | 13 (49) | 144 (65) | 252 (115) |
| R-5G (B) | 37 (940) | 12 (305) | 14-1/16 (357) | 10-15/16 (278) | 16 (406) | 23 (584) | 5-1/4 (133) | 1-1/2 (38) | 3 (76) | 16 (406) | 398 | 165 (106,451) | 25 (95) | 190 (86) | 399 (181) |
| R-6G (B) | 44-1/16 (1,119) | 14 (356) | 16-13/16 (427) | 13-1/4 (337) | 18 (457) | 25 (635) | 5-11/16 (145) | 1-1/2 (38) | 3 (76) | 19 (483) | 632 | 205 (132,258) | 34 (129) | 261 (118) | 545 (247) |
| R-8G (B) | 54 (1,372) | 18 (457) | 19-7/16 (494) | 16-9/16 (421) | 24 (610) | 31 (787) | 7-11/16 (195) | 2 (51) | 3 (76) | 23 (584) | 1,020 | 325 (209,677) | 90 (341) | 404 (183) | 1,155 (524) |
| R-10G (B) | 64-11/16 (1,643) | 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) | 1,789 | 475 (306,451) | 150 (568) | 765 (347) | 2,017 (915) |
| R-12G (B) | 75-3/8 (1,915) | 27 (686) | 25-3/4 (654) | 22-5/8 (575) | 36 (914) | 46-3/4 (1,187) | 11-5/8 (295) | 2 (51) | 3 (76) | 31 (787) | 2,665 | 645 (416,128) | 291 (1,101) | 1,038 (471) | 3,466 (1,572) |
| R-14G (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) | 3,400 | 715 (461,286) | 470 (1,779) | 1,775 (805) | 5,715 (2,592) |
| R-16G (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) | 4,200 | 919 (592,902) | 723 (2,737) | 2,417 (1,096) | 8,450 (3,833) |

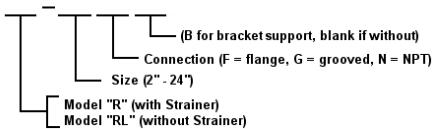
Important Note: Dimensions not to be used for construction.

| MODEL NUMBER | L | M | N | Weights of Brackets |
|--------------|--------------|----------------|--------|---------------------|
| R-3GB | 13-3/8 (340) | 14 (356) | 2 (51) | 9 (4) |
| R-4GB | 15-3/8 (391) | 16 (406) | 2 (51) | 9 (4) |
| R-5GB | 18-1/2 (470) | 19-3/8 (492) | 2 (51) | 9 (4) |
| R-6GB | 22-1/8 (562) | 21-1/4 (540) | 2 (51) | 9 (4) |
| R-8GB | 26 (660) | 29-1/2 (749) | 2 (51) | 30 (14) |
| R-10GB | 31-5/8 (803) | 35-1/2 (902) | 2 (51) | 30 (14) |
| R-12GB | 37-5/8 (956) | 41-1/2 (1,054) | 2 (51) | 30 (14) |
| R-14GB | 48 (1,219) | 48-1/2 (1,232) | 3 (76) | 56 (25) |
| R-16GB | 50 (1,270) | 54-1/2 (1,384) | 3 (76) | 56 (25) |

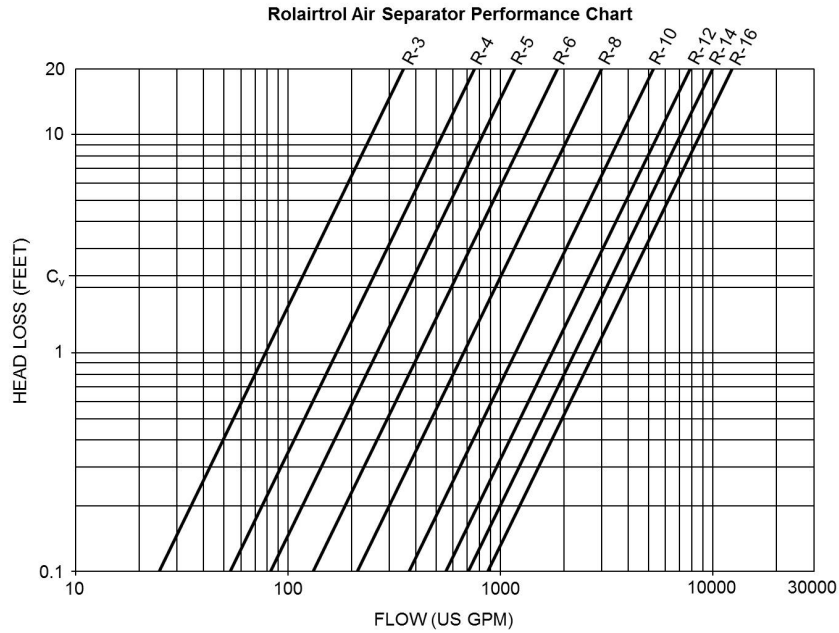
IMPORTANT NOTES:

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 skirt can support flooded vessel weight. 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.

MODEL NUMBERING



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 grooved 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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