# Model RRM and RTM Air Compressors

## Product Features

- Six riser mount tank-less options (RRM)
- Five tank mounted options (RTM)
- Quiet oil-less piston compressors
- UL Listed pressure switch
- Flexible connection kits

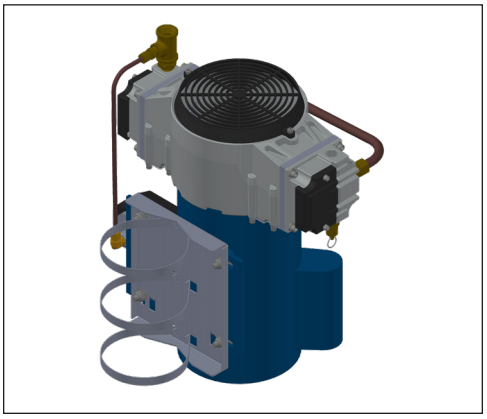
## Product Description

Reliable Model RRM (riser mount) and RTM (tank mount) Air Compressors provide a compact compressed air source for dry pipe and preaction fire protection systems. Model RRM compressors are provided with convenient means of mounting to 2" through 8" system piping, while Model RTM models are intended to be secured to the floor.

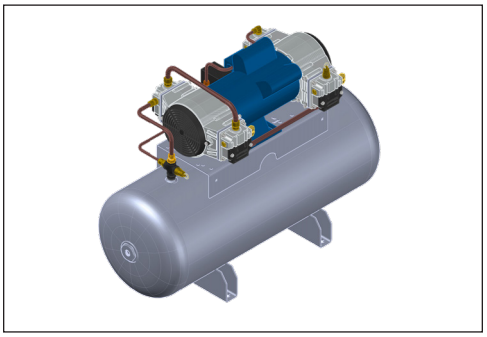
Model RRM compressors are available with two factory preset options. For low pressure systems such as the Reliable Model DDX-LP dry pipe system and Model DDX preaction systems, Model RRM-LP compressors are preset to cut-in at 20 psi (1.4 bar) and cut-out at 26 psi (1.8 bar), and are provided with a 75 psi (5.2 bar) safety relief valve. For differential dry pipe valves such as the Reliable Model FX and Model D, Model RRM-CP compressors are preset to cut-in at 40 psi (2.8 bar and cut-out at 50 psi (3.4 bar), and are provided with a 100 psi (6.9 bar) safety relief valve.

Model RTM compressors are factory preset to cut-in at 80 psi (5.5 bar) and cut-out at 100 psi (6.9 bar) and are provided with a 125 psi (8.6 bar) safety relief valve.

Connection kits for Models RRM and RTM compressors are available and include the required air pressure gauge along with a 1/2" x 30" stainless steel hose. The connection kit for the Model RTM compressor also includes a Reliable Model A Pressure Maintenance Device.*



Model RRM (Tank-less)



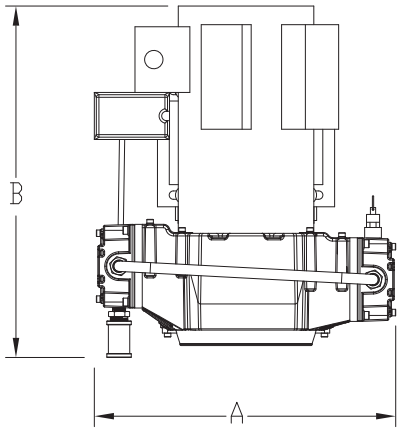
Model RTM (Tank-mounted)

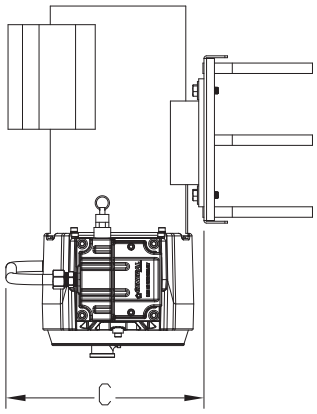
***Note:** NFPA 13 requires a tank-mounted compressor with an approved pressure maintenance device for units that produce more than 5.5 CFM (160 L/min)at 10 psi (0.7 bar). All Model RRM compressors are below this capacity; therefore, the tank and pressure maintenance device are not required when supplying a single system. When supplying more than one system from a single compressor, an approved pressure maintenance device is required for each system.

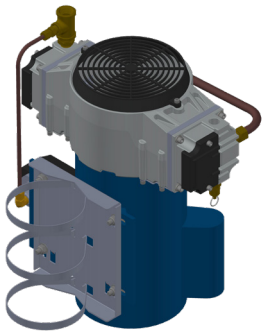
**Model RRM & RTM Performance (Based on 30 minute fill time)** **Table A**

| Model | | Motor HP | System Capacity at 10 psi (0.7 bar) gallons (liters) | System Capacity at 20 psi (1.4 bar) gallons (liters) | System Capacity at 40 psi (2.8 bar) gallons (liters) |
|---|---|---|---|---|---|
| RRM | RRM23016-2026 | 1/6 | 530 (2006) | 250 (946) | 110 (416) |
| | RRM40033-2026 | 1/3 | 955 (3615) | 455 (1722) | 200 (757) |
| | RRM70050-2026 | 1/2 | 1570 (5942) | 735 (2782) | 330 (1249) |
| RTM | RTM25033-80100 | 1/3 | 880 (3331) | 425 (1609) | 200 (757) |
| | RTM36575-80100 | 3/4 | 1520 (5753) | 720 (2725) | 325 (1230) |
| | RTM550100-80100 | 1 | 2195 (8308) | 1050 (3374) | 435 (1874) |
| | RTM915150-80100 | 1-1/2 | 3605 (13645) | 1740 (6586) | 815 (3085) |
| | RTM1100200-80100 | 2 | 3840 (14534) | 1865 (7059) | 880 (3331) |

## Dimension and Weights - RRM Tank-less Compressor — Figure 1

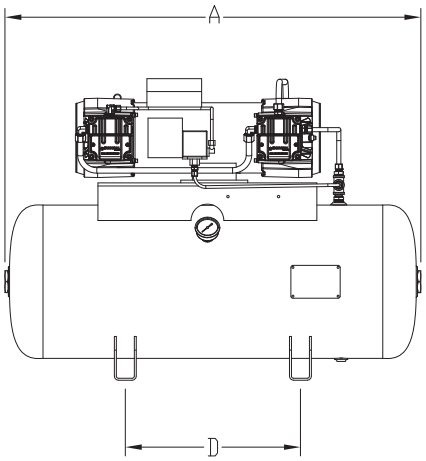


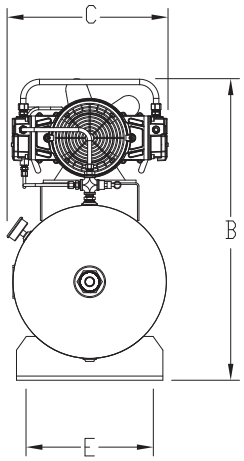



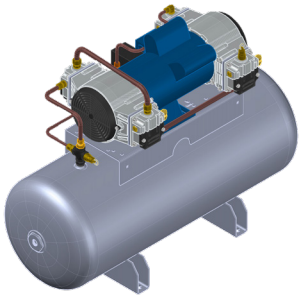



| Motor HP | A | B | C | Weight |
|---|---|---|---|---|
| 1/6 | 11-3/4" (297 mm) | 14-1/2" (366 mm) | 11-1/4" (286 mm) | 42 lbs (19 kg) |
| 1/3 | 11-3/4" (297 mm) | 14-1/2" (366 mm) | 11-1/4" (286 mm) | 44 lbs (20 kg) |
| 1/2 | 14-1/2" (366 mm) | 16-3/4" (427 mm) | 9-1/2" (241 mm) | 58 lbs (26.3 kg) |

## Dimension and Weights - RTM Tank-mounted Compressor — Figure 2



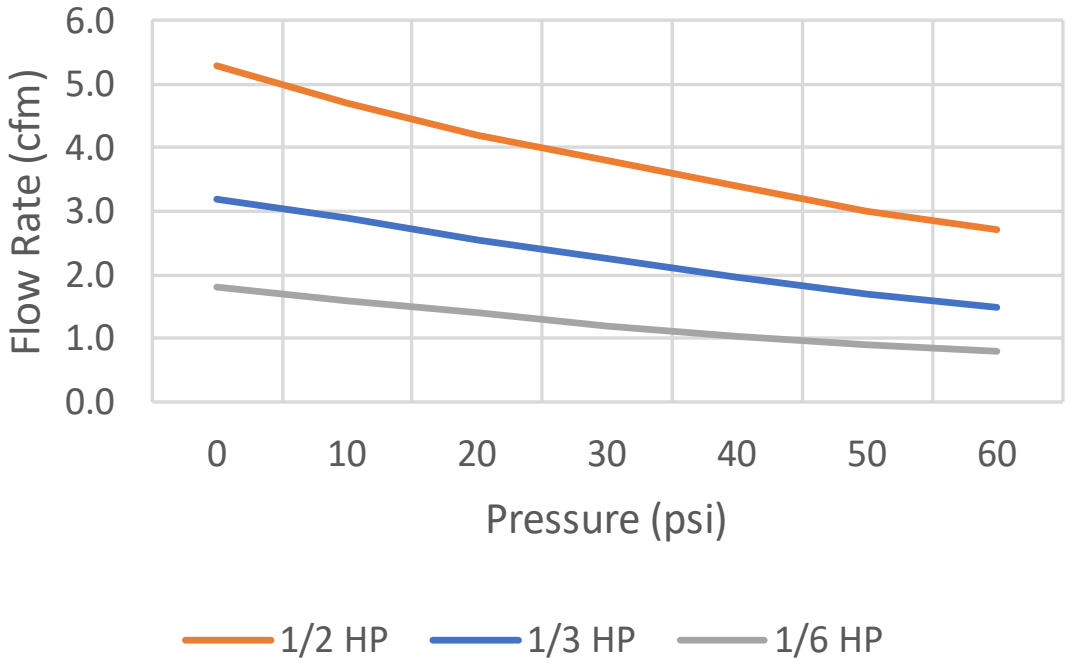



| Motor HP | A | B | C | D | E | Weight |
|---|---|---|---|---|---|---|
| 1/3 | 33-1/4" (845 mm) | 26" (660 mm) | 12-1/2" (317 mm) | 16" (406 mm) | 9" (229 mm) | 102 lbs (46.3 kg) |
| 3/4 | 33-1/4" (845 mm) | 24-1/4" (616 mm) | 14-1/4" (365 mm) | 16" (406 mm) | 9" (229 mm) | 122 lbs (55.3 kg) |
| 1 | 33-1/4" (845 mm) | 24-1/4" (616 mm) | 14-1/4" (365 mm) | 16" (406 mm) | 9" (229 mm) | 135 lbs (61.2 kg) |
| 1-1/2 | 38" (965 mm) | 27-1/2" (699 mm) | 14-3/4" (373 mm) | 16" (406 mm) | 11-5/8" (295 mm) | 184 lbs (83.5 kg) |
| 2 | 38" (965 mm) | 28-1/4" (718 mm) | 14-3/4" (373 mm) | 16" (406 mm) | 11-5/8" (295 mm) | 188 lbs (85.3 kg) |

**Note:** Dimensions D and E are to center of 7/16" x 1" mounting slots in tank saddle.

**Model RRM Tank-less Compressor Performance Curves** **Figure 3**



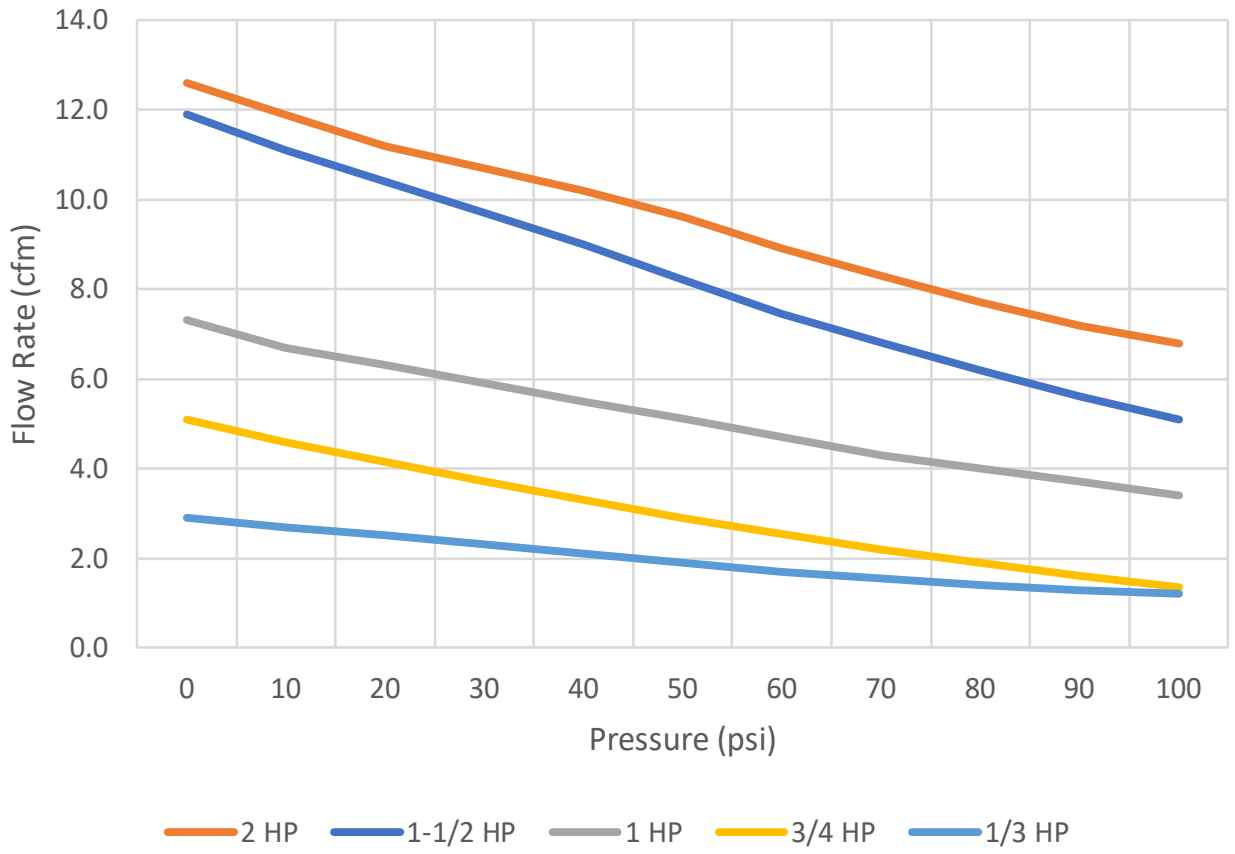

**Tank-less Compressor Electrical Characteristics** **Table B**

| Motor HP | Voltage/Hz | Full Load Amperage | Start Up Amperage |
|---|---|---|---|
| 1/6 | 115/60 | 5.0 | 30.0 |
| | 220/60 | 2.5 | 15.0 |
| 1/3 | 115/60 | 7.4 | 44.0 |
| | 220/60 | 3.7 | 16.0 |
| 1/2 | 115/60 | 8.2 | 49.0 |
| | 220/60 | 4.1 | 24.5 |

**Notes:**

1. All tank-less mounted compressors are pre-wired for 115 VAC. Instructions for use with 230 VAC power are provided under the pressure switch cover
2. Wiring and wire size to be in strict accordance with the National Electrical Code. In no case shall wiring be less than 12 gauge.

**Model RTM Tank-mounted Compressor Performance Curves** **Figure 4**



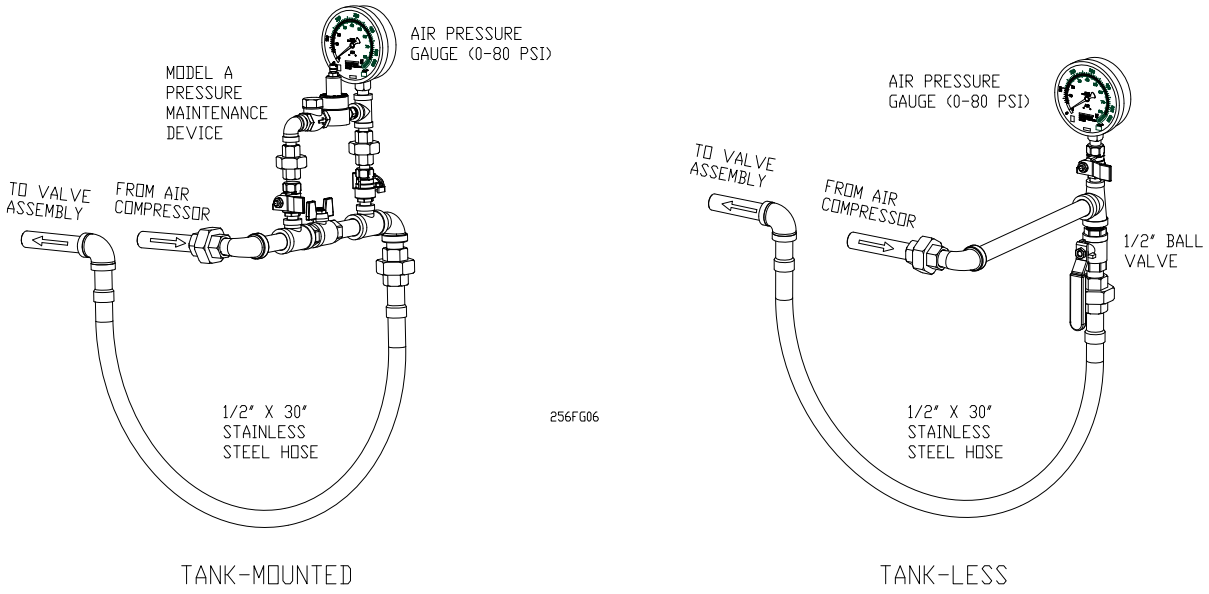

**Tank-mounted Compressor Electrical Characteristics** **Table C**

| Motor HP | Voltage/Hz | Full Load Amperage | Start Up Amperage |
|---|---|---|---|
| 1/3 | 115/60 | 7.4 | 44.0 |
| | 220/60 | 3.7 | 16.0 |
| 3/4 | 115/60 | 11.6 | 49.0 |
| | 220/60 | 5.8 | 24.5 |
| 1 | 115/60 | 13.3 | 80.0 |
| | 220/60 | 6.5 | 39.5 |
| 1-1/2 | 115/60 | 16.6 | 96.0 |
| | 220/60 | 8.3 | 49.0 |
| 2 | 115/60 | NA | NA |
| | 220/60 | 11.6 | 16.6 |

**Notes:**

1. All tank-mounted compressors are pre-wired for 230 VAC. Instructions for use with 115 VAC power are provided under the pressure switch cover
2. Wiring and wire size to be in strict accordance with the National Electrical Code. In no case shall wiring be less than 12 gauge.

**Connection Kits** **Figure 5**




**Notes:**
1. See Reliable Bulletin #251 for additional information on Model A Pressure Maintenance Device.
2. 1/2" x 30" stainless steel hose may be purchased separately (P/N 6872000000).

## Installation and Adjustment

Locate the compressor in a clean, well ventilated area where the minimum temperature is maintained between 40° F (4° C) and 104° F (40° C). Provide at least 12" of clearance on all sides from walls or other obstructions that may interfere with airflow over and through the compressor. The compressor must be wired in accordance with the National Electric Code to a properly grounded circuit using minimum 12-guage wire. When necessary, pressure adjustment can be made by turning the Main Calibration Screw under the cover of the pressure switch. This will increase both the cut-in and cut-out pressures without affecting the differential. *Adjustment of the Differential Pressure Screw is not recommended.*

Please refer to Reliable "RRM/RTM Series Installation, Operation, and Maintenance Manual" located on Reliable's website (www.reliablesprinkler.com) for additional information.

## Maintenance

The owner is responsible for maintaining all parts of the fire protection system in proper operating condition. Any system maintenance or testing that involved placing a system component out of service may eliminate the fire protection that is provided by the fire protection system.

The Reliable Model RRM/RTM Air Compressor shall periodically be given a thorough inspection and test. NFPA 25, "Inspection, Testing, and Maintenance of Water Based Fire Protection Systems," provides minimum maintenance requirements. System components shall be tested, operated, cleaned, and inspected at least annually and parts replaced as required.

## Guarantee

For the Reliable Automatic Sprinkler Co., Inc. guarantee, terms, and conditions, visit www.reliablesprinkler.com.

## Ordering Information

Specify the following when ordering.

**Model**
- RRM (Riser Mount)
  - 1/6 HP Low Pressure, 20 - 26 psi
  - 1/6 HP Conventional Pressure, 40 - 50 psi
  - 1/3 HP Low Pressure, 20 - 26 psi
  - 1/3 HP Conventional Pressure, 40 - 50 psi
  - 1/2 HP Low Pressure, 20 - 26 psi
  - 1/2 HP Conventional Pressure, 40 - 50 psi
- RTM (Tank Mounted)
  - 1/3 HP
  - 3/4 HP
  - 1 HP
  - 1-1/2 HP
  - 2 HP

**Note:** RRM compressors are factory wired for 115 VAC RTM compressors are factory wired for 230 VAC

**Optional Connection Kit**
- Tank-mounted
- Tank-less
- 1/2" x 30" Stainless Steel Hose Only

**Caution:** Use of the tank-mounted connection kit with a tank-less compressor will result in short cycling of the compressor.

P/N 9999970558