



# AURORA<sup>®</sup> 1070 SERIES 3-PIECE CIRCULATORS

# AURORA® 1070 SERIES

## 3-Piece Circulators

### Product Offering.

Aurora® 1070 Series 3-piece circulators are suitable for applications such as hydronics heating and cooling, domestic water systems, multistage zoning and general industrial service. Both models are available in a wide range of sizes to match the performance requirements of any of these applications.

### Design Features.

Aurora 1070 Series 3-piece circulators are built using a standard 3-piece design that features a radially-split body, oversized shaft, centrifugal impeller, positive mechanical seal and modular construction.

### Body.

The radially-split body can be left in line while servicing the pump, eliminating cumbersome disconnecting of pipes.

### Oversized Shaft.

Aurora circulating pumps have oversized shafts made from special alloy steel, machined to exacting tolerances. Shafts have integral thrust collars, heat-treated to provide long life under severe working conditions.

### Centrifugal Impeller.

The balanced, centrifugal-design impeller ensures maximum water delivery in the HVAC system.

### Positive Mechanical Seal.

Made from long-lasting, hard-wearing materials, it ensures many years of noise-free, trouble-free service.

### Modular Construction.

Models 325–357 feature a unique Aurora shaft and bearing module which fits all of these models for ease of serviceability and reduced inventory costs.



### Materials of Construction

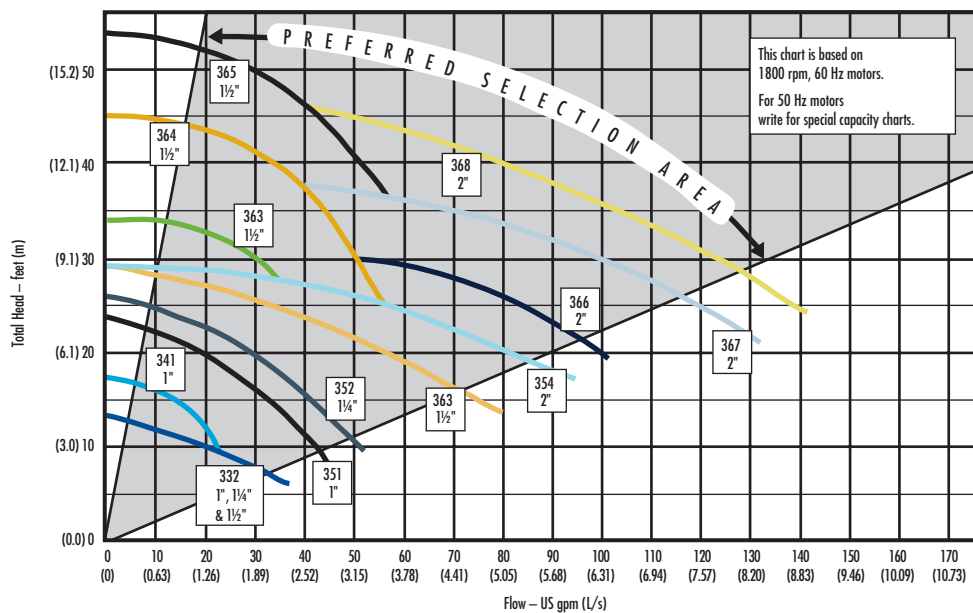
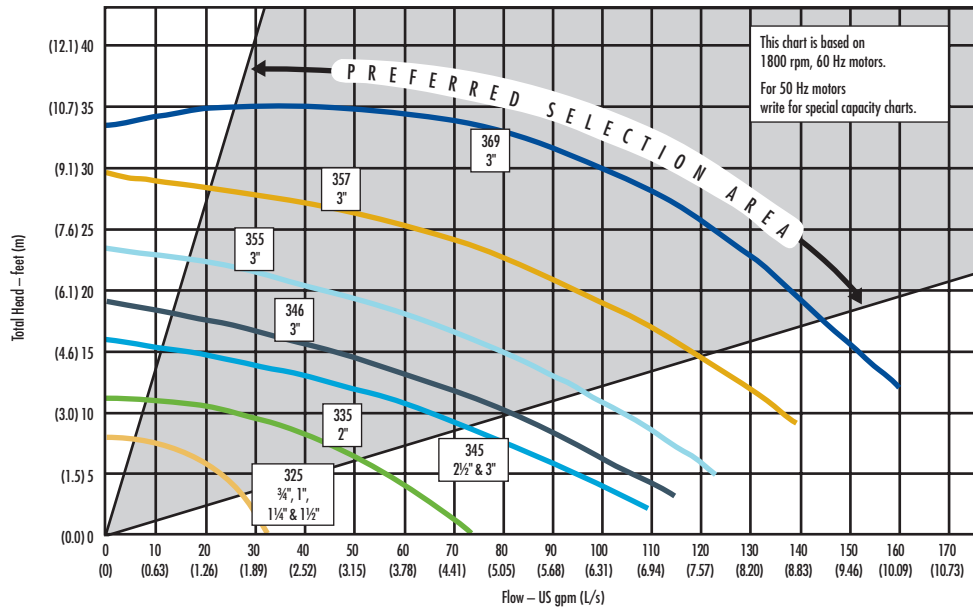
| Part Name  | Iron Body Pump                              |   |
|--|---|---|
|  | Bronze-Fitted Construction                  | Bronze Body Pump                            |
| Volute   | Cast Iron                                   | Bronze                                      |
| Impeller:<br>1070-APx325–357<br>1070-APx369<br>1070-APx363–368 | Non-Ferrous<br>Brass-Stamped<br>Cast Bronze | Non-Ferrous<br>Brass-Stamped<br>Cast Bronze |
| Shaft  | Alloy Steel<br>Copper Sleeve                | Alloy Steel<br>Copper Sleeve                |
| Mechanical Seal Assembly                                       | Carbon Brass Trim<br>Ceramic Seat           | Carbon Brass Trim<br>Ceramic Seat           |

### Design Information

| Part Name   | Iron Body Pump                          |   |
|---|---|---|
|   | Bronze-Fitted Construction              | Bronze Body Pump                        |
| Maximum Operating Temperature   | 225°F (107°C)                           | 225°F (107°C)                           |
| Maximum Working Pressure:<br>325–346,<br>355–357, 369<br>351–354, 363–368 | 125 psi (862 kPa)<br>175 psi (1207 kPa) | 125 psi (862 kPa)<br>175 psi (1207 kPa) |

- Notes:
- 1) All circulators are to be mounted with pump and shaft in horizontal position.
  - 2) For domestic hot water or fresh water systems, always specify bronze body pumps.
  - 3) For temperatures over 225°F (107°C) consult your Aurora Representative.

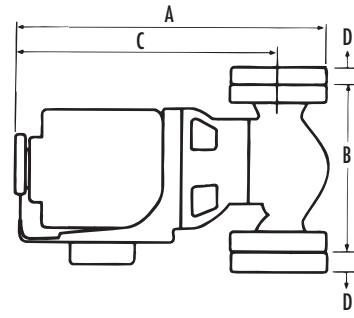
# Performance Data



## Typical Specification

Furnish and install as shown on the plans, Aurora 3-piece circulating pump, designed for quiet operation and guaranteed by the manufacturer for the intended application. The pump shall have a capacity of \_\_\_\_\_ US gpm (L/s), handling (state liquid and temperature) against a total head of \_\_\_\_\_ ft (m). Pump shall be equipped with a \_\_\_\_\_ hp (kW), \_\_\_\_\_ volt, \_\_\_\_\_ phase, \_\_\_\_\_ Hz, 1800 rpm drip-proof mounted motor. Pump shall be \_\_\_\_\_ construction, 3-piece design featuring the Aurora shaft and bearing module which shall fit all models 325–357. The shaft shall have an integral thrust collar and shall be supported by oil-lubricated bronze sleeve bearings. Pump to be equipped with a watertight, long-life mechanical seal and be suitable for \_\_\_\_\_ psi (kPa) working pressure.

# Dimension Details



| Model        | Flange Size (NPT) | Motor |                                  | Dimensions in inches (mm)                                  |              |              |              | Shipping Weight lbs. (kg) |         |
|--------------|-------------------|-------|----------------------------------|--|--------------|--------------|--------------|---------------------------|---------|
|              |                   | HP    | Volts & Phase                    | A  | B            | C            | D            |                           |         |
| 1070-APBF325 | 3/4               | 1/2   | 115V<br>1 phase                  | 13 3/4 (349)   | 6 1/2 (165)  | 11 1/2 (292) | 3/4 (19)     | 20 (9)                    |         |
|              | 1                 | 1/2   |                                  | 13 3/4 (349)   | 6 1/2 (165)  | 11 1/2 (292) | 3/4 (19)     | 20 (9)                    |         |
|              | 1 1/4             | 1/2   |                                  | 13 3/4 (349)   | 6 1/2 (165)  | 11 1/2 (292) | 7/8 (22)     | 20 (9)                    |         |
|              | 1 1/2             | 1/2   |                                  | 13 3/4 (349)   | 6 1/2 (165)  | 11 1/2 (292) | 7/8 (22)     | 20 (9)                    |         |
| 1070-APBF335 | 2                 | 1/6   |                                  | 15 (381)   | 8 1/2 (216)  | 12 1/2 (318) | 7/8 (22)     | 35 (16)                   |         |
| 1070-APBF345 | 2 1/2             | 1/4   |                                  | 15 3/4 (400)   | 10 (254)     | 12 1/2 (318) | 1 (25)       | 51 (23)                   |         |
|              | 3                 | 1/4   |                                  | 15 3/4 (400)   | 10 (254)     | 12 1/2 (318) | 1 (25)       | 51 (23)                   |         |
| 1070-APBF346 | 3                 | 1/3   |                                  | 15 3/4 (400)   | 10 (254)     | 12 1/2 (318) | 1 (25)       | 51 (23)                   |         |
| 1070-APBF355 | 3                 | 1/2   |                                  | 115/230V<br>1 phase or 208 -<br>230/460 or 575V<br>3 phase | 19 1/2 (495) | 12 (305)     | 16 (406)     | 1 (25)                    | 82 (37) |
| 1070-APBF357 | 3                 | 3/4   |                                  | 20 (508)   | 12 (305)     | 16 1/2 (419) | 1 (25)       | 85 (39)                   |         |
| 1070-APBF369 | 3                 | 1     |                                  | 25 (635)   | 14 1/4 (362) | 20 1/4 (514) | 1 (25)       | 135 (61)                  |         |
| 1070-APAB332 | 1                 | 1/6   |                                  | 115V<br>1 phase  | 15 (381)     | 8 1/2 (216)  | 12 1/2 (318) | 7/8 (22)                  | 33 (15) |
|              | 1 1/4             | 1/6   | 15 (381)                         |  | 8 1/2 (216)  | 12 1/2 (318) | 7/8 (22)     | 33 (15)                   |         |
|              | 1 1/2             | 1/6   | 15 (381)                         |  | 8 1/2 (216)  | 12 1/2 (318) | 7/8 (22)     | 33 (15)                   |         |
| 1070-APAB341 | 1                 | 1/6   | 15 1/4 (387)                     |  | 8 1/2 (216)  | 12 1/2 (318) | 3/4 (19)     | 33 (15)                   |         |
| 1070-APBF351 | 1                 | 1/4   | 17 1/4 (438)                     |  | 11 1/2 (292) | 13 1/2 (343) | 3/4 (19)     | 54 (24)                   |         |
| 1070-APBF352 | 1 1/4             | 1/3   | 17 1/4 (438)                     |  | 11 1/2 (292) | 13 1/2 (343) | 7/8 (22)     | 54 (24)                   |         |
| 1070-APBF353 | 1 1/2             | 1/2   | 20 (508)                         |  | 11 1/2 (292) | 16 1/2 (419) | 7/8 (22)     | 64 (29)                   |         |
| 1070-APBF354 | 2                 | 3/4   | 20 (508)                         |  | 11 1/2 (292) | 16 1/2 (419) | 7/8 (22)     | 71 (32)                   |         |
| 1070-APBF363 | 1 1/2             | 1/2   | 23 (584)                         |  | 13 1/2 (343) | 19 3/4 (502) | 7/8 (22)     | 96 (44)                   |         |
| 1070-APBF364 | 1 1/2             | 3/4   | 23 (584)                         |  | 13 1/2 (343) | 19 3/4 (502) | 7/8 (22)     | 100 (45)                  |         |
| 1070-APBF365 | 1 1/2             | 1     | 23 (584)                         |  | 13 1/2 (343) | 19 3/4 (502) | 7/8 (22)     | 102 (46)                  |         |
| 1070-APBF366 | 2                 | 3/4   | 23 1/4 (591)                     |  | 14 (356)     | 19 3/4 (502) | 7/8 (22)     | 120 (54)                  |         |
| 1070-APBF367 | 2                 | 1     | 23 1/4 (591)                     | 14 (356)   | 19 3/4 (502) | 7/8 (22)     | 125 (57)     |                           |         |
| 1070-APBF368 | 2                 | 1 1/2 | 208 - 230/460<br>or 575V 3 phase | 21 3/4 (552)   | 14 (356)     | 18 1/4 (464) | 7/8 (22)     | 130 (59)                  |         |

**Notes:**

- 1) Dimensions given are for reference only. For exact dimensional data, contact factory.
- 2) All single-phase motors are equipped with built-in thermal overload protection. Three-phase motors require external overload protection.
- 3) Companion flanges not furnished as standard on 325, 345 and 332.
- 4) Conduit box not supplied on 1/2 hp or greater.
- 5) For other design characteristics, consult your Aurora Representative.



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Because we are continuously improving our products and services, Pentair reserves the right to change specifications without prior notice.  
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