



Bulletin B-302E

# Bell & Gossett



## Series 1522 Horizontal, Close-Coupled Pumps

For installation where quiet operation is important

- Hydronic heating and cooling systems
- Industrial process
- General pumping
- Service



# Series 1522 Pumps

## A versatile pump for many applications

### 1. Compact Design

The unique design of the Series 1522 pump minimizes space requirements while retaining the noise isolation features afforded by a specially designed flexible coupling.

### 2. Back Pullout

This standard feature of all B&G end suction pumps affords easy maintenance and serviceability. Pumps may be serviced without disturbing piping.

### 3. Quiet Operation

Pump and motor have large bronze sleeve bearings to provide smooth, quiet operation.

### 4. Stock Selections

Features a wide range of stock sizes to cover most pumping requirements. Provides easy selection, quick delivery at low cost.

### 5. Material Construction

Available in Bronze Fitted, All Bronze or All Iron. Materials of construction broadens the range of pumping applications.

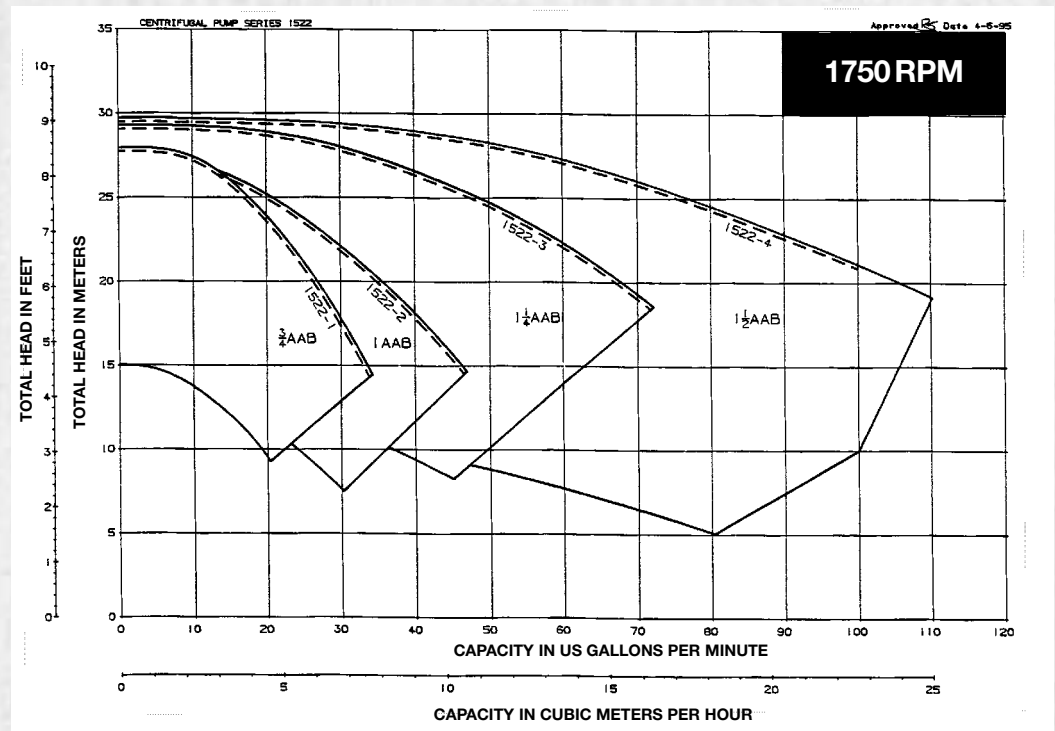
### 6. High Standards of Quality

Famous B&G quality combined with superior field backup results in total customer satisfaction.

## SELECTION CHART

NOTE: Dotted lines represent sizes available from stock.

Refer to page four for size and HP.



## TYPICAL SPECIFICATIONS

Furnish and install pumps with capacities as shown on plans. Pump shall be close coupled, single-stage, vertically-split case design, capable of being serviced without disturbing pipe connections.

Pump volute shall be Class 30 cast iron, and impeller shall be brass enclosed type, keyed to the shaft and secured by a lock washer and nut.

The liquid cavity shall be sealed off at the pump shaft by an internally-flushed mechanical seal with ceramic seal seat of at least 99% alumina oxide content, and carbon seal ring, suitable for continuous operation at 225°F. A replaceable shaft sleeve of copper alloy shall completely cover the wetted area under the seal.

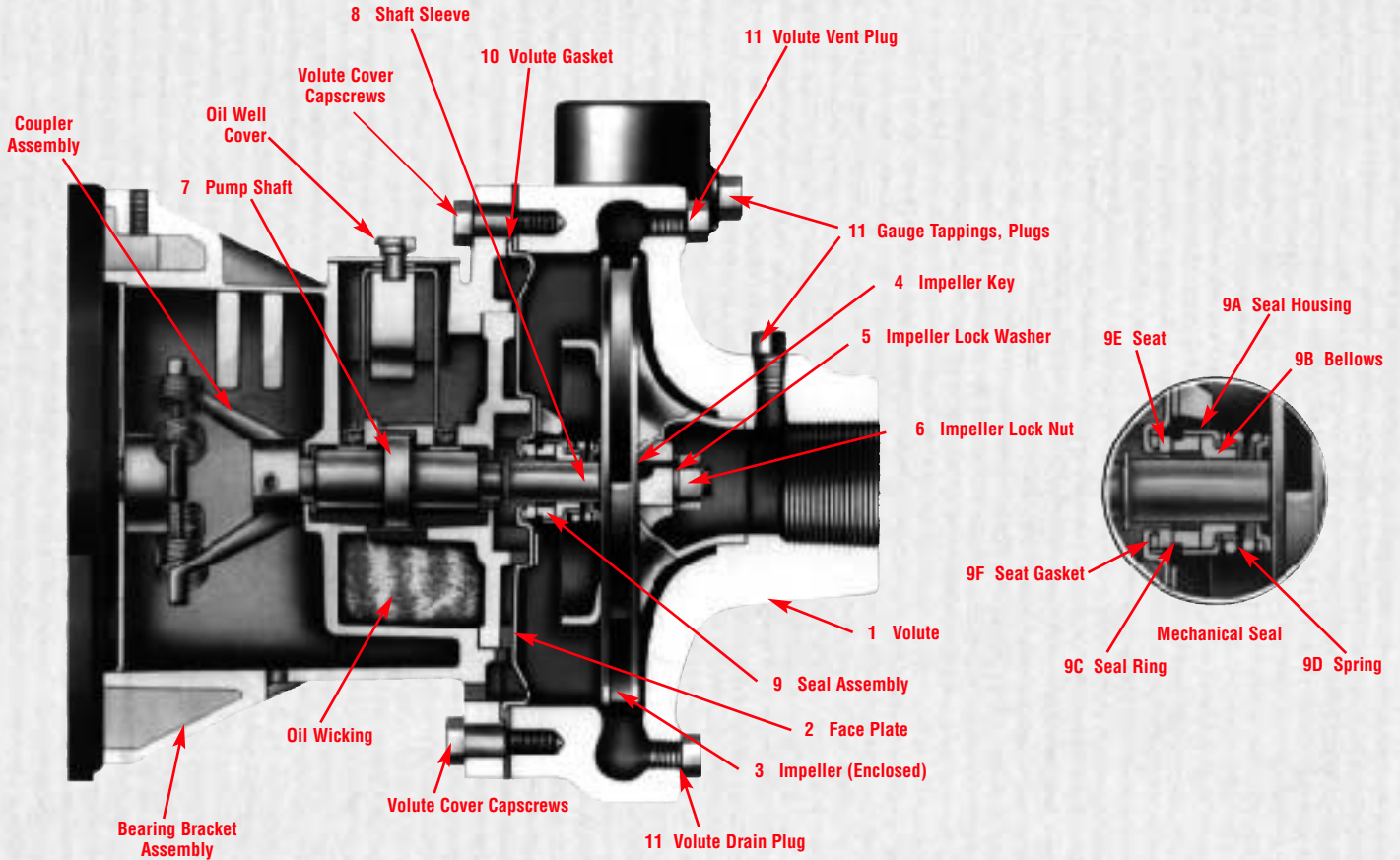
Pumps shall be rated for a 175 psi working pressure. Casing shall have gauge ports, and vent and drain ports at top and bottom of casing.

Motor shall meet NEMA specifications and shall be of the size, voltage and enclosure called for on the plans. It shall have heavy-duty bearings, completely adequate for the maximum load for which the motor is designed.

Each pump shall be factory tested. It shall then be thoroughly cleaned and painted with at least one coat of high-grade machinery enamel prior to shipment.

Pumps shall be Series 1522 as manufactured by ITT Bell & Gossett.

# Series 1522 Centrifugal Pumps

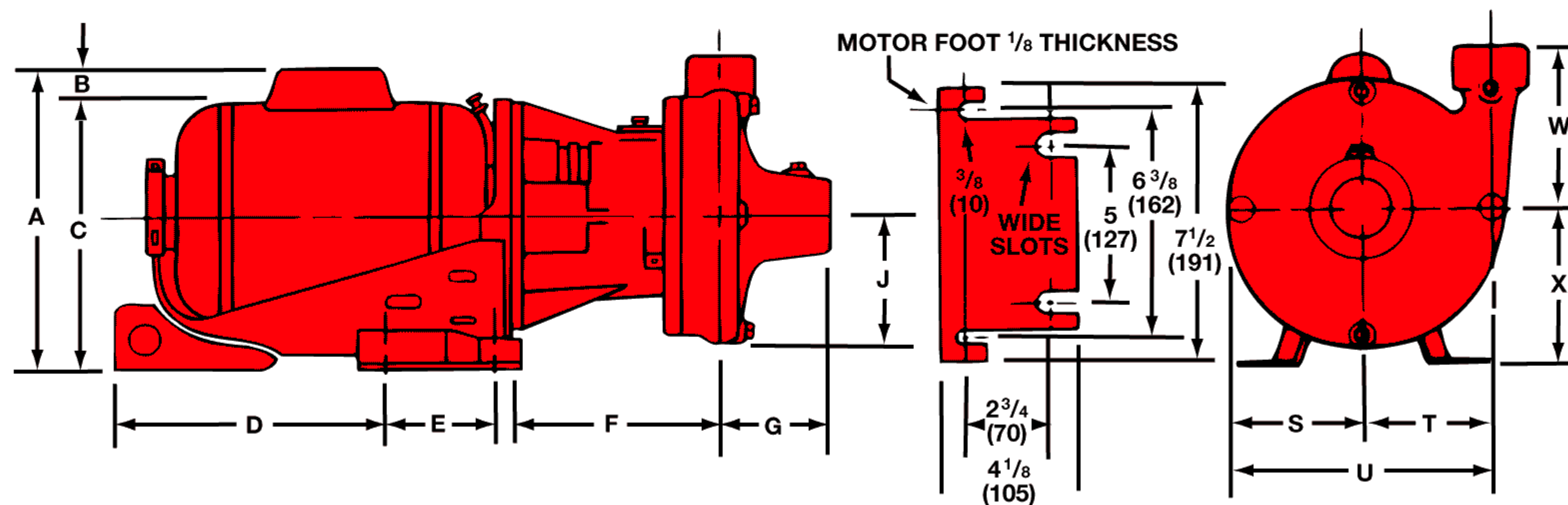


| ITEM NO. | DESCRIPTION          | BRONZE FITTED PUMP      | ALL IRON PUMP           | ALL BRONZE PUMP           |
|----------|----------------------|-------------------------|-------------------------|---------------------------|
| 1        | Volute               | Cast Iron<br>ASTM #A159 | Cast Iron<br>ASTM #159  | Cast Bronze<br>ASTM #B584 |
| 2        | Face Plate           | Stainless Steel         | Stainless Steel         | Stainless Steel           |
| 3        | Impeller             | Brass                   | Plated Steel            | Brass                     |
| 4        | Impeller Key         | Carbon Steel            | Carbon Steel            | Carbon Steel              |
| 5        | Impeller Lock Washer | Carbon Steel            | Carbon Steel            | Brass                     |
| 6        | Impeller Lock Nut    | Plated Steel            | Plated Steel            | Brass                     |
| 7        | Pump Shaft           | Steel SAE 1144          | Steel SAE 1144          | Steel SAE 1144            |
| 8        | Shaft Sleeve         | Copper Alloy 110        | #316 Stainless Steel    | Copper Alloy              |
| 9        | Seal Assembly        |                         |                         |                           |
|          | A. Housing           | Brass ASTM #B36         | Plated Steel            | Brass ASTM #B36           |
|          | B. Bellows           | Buna "N" (EPT Optional) | Buna "N" (EPT Optional) | Buna "N" (EPT Optional)   |
|          | C. (Rotating) Ring   | Carbon                  | Carbon                  | Carbon                    |
|          | D. Spring            | #304 Stainless Steel    | #304 Stainless Steel    | #304 Stainless Steel      |
|          | E. (Stationary) Seat | Ceramic                 | Ceramic                 | Ceramic                   |
|          | F. Seat Gasket       | Buna "N" (EPT Optional) | Buna "N" (EPT Optional) | Buna "N" (EPT Optional)   |
| 10       | Volute Gasket        | Cellulose Fiber         | Cellulose Fiber         | Cellulose Fiber           |
| 11       | Plugs                | Carbon Steel            | Carbon Steel            | Brass                     |

SEAL SPECIFICATIONS: Buna-PH Limitations 7-9; Temperature Range -40 to +225°F (-40 to 107°C).  
EPT-PH Limitations 7-11; Temperature Range -40 to +250°F (-40 to 121°C).

# Dimensions

**BUILT TO ORDER PUMPS**



| PUMP DIMENSIONS (MM)              |                               |                                     |                                      |                                      |                                      |                                     |                                      |                                      |
|-----------------------------------|-------------------------------|-------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|-------------------------------------|--------------------------------------|--------------------------------------|
| DISCHARGE                         | SUCTION                       | F                                   | G                                    | J                                    | S                                    | T                                   | U                                    | W                                    |
| <sup>3</sup> / <sub>4</sub> AAB   | 1 <sup>1</sup> / <sub>4</sub> | 5 <sup>7</sup> / <sub>8</sub> (149) | 3 <sup>3</sup> / <sub>16</sub> (81)  | 3 <sup>13</sup> / <sub>32</sub> (87) | 3 <sup>7</sup> / <sub>16</sub> (87)  | 3 (76)                              | 6 <sup>7</sup> / <sub>16</sub> (164) | 3 <sup>1</sup> / <sub>2</sub> (89)   |
| 1AAB                              | 1 <sup>1</sup> / <sub>4</sub> | 5 <sup>7</sup> / <sub>8</sub> (149) | 2 <sup>15</sup> / <sub>16</sub> (75) | 3 <sup>3</sup> / <sub>4</sub> (95)   | 3 <sup>5</sup> / <sub>8</sub> (92)   | 3 <sup>3</sup> / <sub>8</sub> (86)  | 7 (178)                              | 4 <sup>1</sup> / <sub>2</sub> (114)  |
| 1 <sup>1</sup> / <sub>4</sub> AAB | 1 <sup>1</sup> / <sub>2</sub> | 6 (152)                             | 3 <sup>1</sup> / <sub>16</sub> (78)  | 3 <sup>7</sup> / <sub>8</sub> (98)   | 3 <sup>11</sup> / <sub>16</sub> (94) | 3 <sup>5</sup> / <sub>16</sub> (84) | 7 (178)                              | 4 <sup>3</sup> / <sub>8</sub> (111)  |
| 1 <sup>1</sup> / <sub>2</sub> AAB | 2                             | 6 <sup>1</sup> / <sub>8</sub> (156) | 2 <sup>15</sup> / <sub>16</sub> (75) | 4 (102)                              | 3 <sup>11</sup> / <sub>16</sub> (94) | 3 <sup>3</sup> / <sub>8</sub> (86)  | 7 <sup>1</sup> / <sub>16</sub> (179) | 5 <sup>3</sup> / <sub>16</sub> (132) |

| MOTOR DIMENSIONS – 1750 RPM (MM) |      |       |                                      |                                     |                                     |                                     |                                    |                                     |
|----------------------------------|------|-------|--------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|------------------------------------|-------------------------------------|
| H.P.                             | RPM  | PHASE | A                                    | B                                   | C                                   | D                                   | E                                  | X                                   |
| <sup>1</sup> / <sub>4</sub>      | 1750 | 1     | 7 <sup>1</sup> / <sub>2</sub> (191)  | —                                   | 7 <sup>1</sup> / <sub>2</sub> (191) | 6 <sup>3</sup> / <sub>8</sub> (162) | <sup>13</sup> / <sub>16</sub> (21) | 4 <sup>3</sup> / <sub>8</sub> (111) |
| <sup>1</sup> / <sub>4</sub>      | 1750 | 3     | 7 <sup>1</sup> / <sub>2</sub> (191)  | —                                   | 7 <sup>1</sup> / <sub>2</sub> (191) | 6 <sup>1</sup> / <sub>8</sub> (156) | <sup>13</sup> / <sub>16</sub> (21) | 4 <sup>3</sup> / <sub>8</sub> (111) |
| <sup>1</sup> / <sub>3</sub>      | 1750 | 1     | 9 <sup>9</sup> / <sub>16</sub> (243) | 2 <sup>1</sup> / <sub>16</sub> (52) | 7 <sup>1</sup> / <sub>2</sub> (191) | 6 <sup>3</sup> / <sub>8</sub> (162) | <sup>13</sup> / <sub>16</sub> (21) | 4 <sup>3</sup> / <sub>8</sub> (111) |
| <sup>1</sup> / <sub>3</sub>      | 1750 | 3     | 7 <sup>1</sup> / <sub>2</sub> (191)  | —                                   | 7 <sup>1</sup> / <sub>2</sub> (191) | 7 <sup>3</sup> / <sub>8</sub> (187) | <sup>13</sup> / <sub>16</sub> (21) | 4 <sup>3</sup> / <sub>8</sub> (111) |
| <sup>1</sup> / <sub>2</sub>      | 1750 | 1     | 9 <sup>9</sup> / <sub>16</sub> (243) | 2 <sup>1</sup> / <sub>16</sub> (52) | 7 <sup>1</sup> / <sub>2</sub> (191) | 7 <sup>3</sup> / <sub>8</sub> (187) | <sup>13</sup> / <sub>16</sub> (21) | 4 <sup>3</sup> / <sub>8</sub> (111) |
| <sup>1</sup> / <sub>2</sub>      | 1750 | 3     | 7 <sup>1</sup> / <sub>2</sub> (191)  | —                                   | 7 <sup>1</sup> / <sub>2</sub> (191) | 7 <sup>3</sup> / <sub>8</sub> (187) | <sup>13</sup> / <sub>16</sub> (21) | 4 <sup>3</sup> / <sub>8</sub> (111) |
| <sup>3</sup> / <sub>4</sub>      | 1750 | 1     | 9 <sup>9</sup> / <sub>16</sub> (243) | 2 <sup>1</sup> / <sub>16</sub> (52) | 7 <sup>1</sup> / <sub>2</sub> (191) | 7 <sup>3</sup> / <sub>8</sub> (187) | <sup>13</sup> / <sub>16</sub> (21) | 4 <sup>3</sup> / <sub>8</sub> (111) |
| <sup>3</sup> / <sub>4</sub>      | 1750 | 3     | 7 <sup>1</sup> / <sub>2</sub> (191)  | —                                   | 7 <sup>1</sup> / <sub>2</sub> (191) | 7 <sup>7</sup> / <sub>8</sub> (200) | <sup>13</sup> / <sub>16</sub> (21) | 4 <sup>3</sup> / <sub>8</sub> (111) |

Not to be used for construction purposes unless certified

## STOCK PUMPS

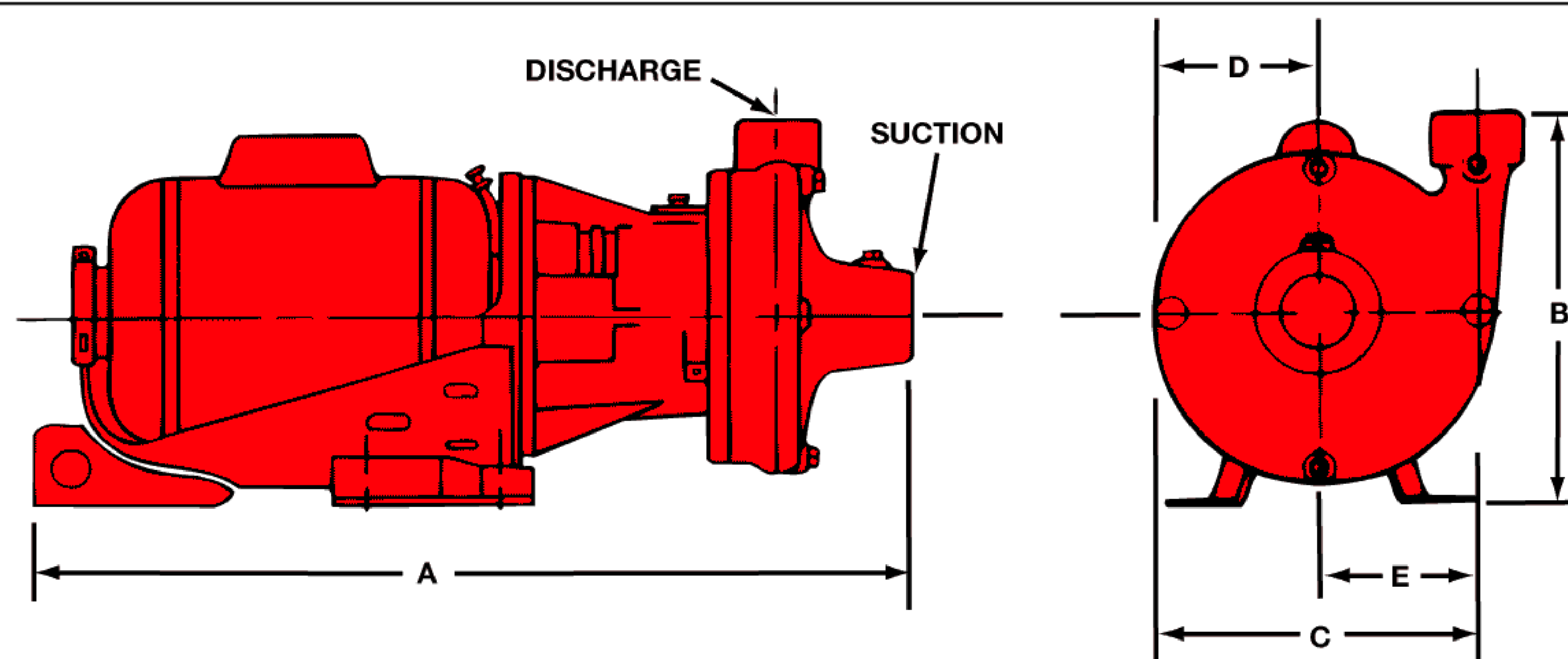
Bronze fitted construction—equipped with 60 cycle drip-proof type motors. Built-to-order units are available when conditions cannot be met by stock pump selections.

### STANDARD VOLTAGES

<sup>1</sup>/<sub>4</sub> HP, 1 PH, 115 Volts.

<sup>1</sup>/<sub>3</sub> to <sup>3</sup>/<sub>4</sub> HP, 1 PH, 115/230 Volts.

<sup>1</sup>/<sub>4</sub> to <sup>3</sup>/<sub>4</sub> HP, 3 PH, 1750 RPM, 208-230/460 Volts.



| UNIT NO. | SUCTION SIZE INCHES NPT       | DISCHARGE SIZE INCHES NPT         | MOTOR SIZE                  |           | APPROXIMATE DIMENSIONS IN INCHES (MM)<br>NOT TO BE USED FOR INSTALLATION |                                      |                                      |                                      |                                       |
|----------|-------------------------------|-----------------------------------|-----------------------------|-----------|--|--------------------------------------|--------------------------------------|--------------------------------------|---------------------------------------|
|          |                               |                                   | H.P.                        | SPEED RPM | A  | B                                    | C                                    | D                                    | E                                     |
| 1        | 1 <sup>1</sup> / <sub>4</sub> | <sup>3</sup> / <sub>4</sub> AAB   | <sup>1</sup> / <sub>4</sub> | 1750      | 19 (483)   | 7 <sup>7</sup> / <sub>8</sub> (200)  | 7 <sup>1</sup> / <sub>4</sub> (184)  | 3 <sup>7</sup> / <sub>16</sub> (87)  | 3 <sup>13</sup> / <sub>16</sub> (91)  |
| 2        | 1 <sup>1</sup> / <sub>4</sub> | 1AAB                              | <sup>1</sup> / <sub>3</sub> | 1750      | 19 <sup>3</sup> / <sub>4</sub> (502)                                     | 8 <sup>7</sup> / <sub>8</sub> (225)  | 8 (203)                              | 3 <sup>5</sup> / <sub>8</sub> (92)   | 4 <sup>3</sup> / <sub>8</sub> (111)   |
| 3        | 1 <sup>1</sup> / <sub>2</sub> | 1 <sup>1</sup> / <sub>4</sub> AAB | <sup>1</sup> / <sub>2</sub> | 1750      | 20 (508)   | 8 <sup>3</sup> / <sub>4</sub> (222)  | 8 <sup>3</sup> / <sub>16</sub> (208) | 3 <sup>11</sup> / <sub>16</sub> (94) | 4 <sup>1</sup> / <sub>2</sub> (114)   |
| 4        | 2                             | 1 <sup>1</sup> / <sub>2</sub> AAB | <sup>3</sup> / <sub>4</sub> | 1750      | 20 <sup>1</sup> / <sub>2</sub> (521)                                     | 9 <sup>9</sup> / <sub>16</sub> (243) | 8 <sup>3</sup> / <sub>8</sub> (213)  | 3 <sup>11</sup> / <sub>16</sub> (94) | 4 <sup>11</sup> / <sub>16</sub> (119) |



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