



IN-LINE Circulators

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In-Line Circulators



Armstrong Holden Brooke Pullen Series S & H in-line circulators are suitable for applications such as hydronics heating and cooling, domestic water systems, multi-stage zoning and general industrial service. Both models are available in a wide range of sizes to match the performance requirements of any of the above applications. Armstrong Series S & H circulators are durable and trusted products that have been used by HVAC professionals for decades.

Design Features

The Series S & H in-line circulators are built using a standard three-piece design that features a radially-split split body, oversized shaft, centrifugal impeller, positive mechanical seal and modular construction.

▶ Body

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

Oversized Shaft

Armstrong 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 duty conditions.

Centrifugal Impeller

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

▶ Positive Mechanical Seal

A proven method of preventing water leakage, the well known ARMseal construction is a frequently imitated featured of the Armstrong circulator. Made from longlasting hard-wearing materials, it ensures many years of noise-free, trouble-free service.

Modular Construction

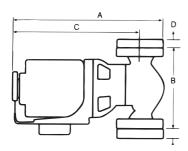
Models S-25 through S-57 and H-32 through H-54 feature a unique Armstrong shaft and bearing module which fits all of these models for ease of serviceability and reduced inventory costs

Standard three phase design

► Pump and Motor Details

| Model | Flange size (NPT) | Motor | | Dimensions inches (mm) | | | Shipping | |
|-------|-------------------------|-------|-------------------------|------------------------|-------------------------------------|--------------------------------------|-----------------|---------------------|
| | | hp | Volts & phase | A | В | С | D | Weight lbs. (kg) |
| S-25 | 3/4 | 1/12 | | 13 3/ 4 (349) | 6 ¹ / ₂ (165) | 11 1/2 (292) | 3/4 (19) | 20 (9) |
| S-25 | 1 | 1/12 | | 13 3/ 4 (349) | 6 ¹ / ₂ (165) | 11 1/2 (292) | 3/4 (19) | 20 (9) |
| S-25 |] 1/4 | 1/12 | | 13 3/ 4 (349) | 6 ¹ / ₂ (165) | 11 1/2 (292) | 7/8 (22) | 20 (9) |
| S-25 |] 1/2 | 1/12 | 115 Volt | 13 3/ 4 (349) | 6 ¹ / ₂ (165) | 11 1/2 (292) | 7/8 (22) | 20 (9) |
| S-35 | 2 | 1/6 | 1 phase | 15 (381) | 8 ¹ / ₂ (216) | 12 1/2 (318) | 7/8 (22) | 35 (16) |
| S-45 | 21/2 | 1/4 | | 15 3 /4 (400) | 10 (254) | 12 1/2 (318) | 1 (25) | 51 (23) |
| S-45 | 3 | 1/4 | | 15 3/ 4 (400) | 10 (254) | 12 1/2 (318) | 1 (25) | 51 (23) |
| S-46 | 3 | 1/3 | | 15 3/ 4 (400) | 10 (254) | 12 1/2 (318) | 1 (25) | 51 (23) |
| S-55 | 3 | 1/2 | 115/230 Volt 1 phase | 19 1/2 (495) | 12 (305) | 16 (406) | 1 (25) | 82 (37) |
| S-57 | 3 | 3/4 | or 208-230/460 | 20 (508) | 12 (305) | 16 ¹ / ₂ (419) | 1 (25) | 85 (39) |
| S-69 | 3 | 1 | or 575 Volt 3 phase | 25 (635) | 141/4 (362) | 201/4 (514) | 1 (25) | 135 (61) |

| Model | Flange size (NPT) | Motor | | Dimensions inches (mm) | | | Shipping | |
|-------|-------------------------|-------|---------------------------------------|------------------------|------------------------|---------------------|----------------------------------|---------------------|
| Model | | hp | Volts & phase | A | В | С | D | Weight lbs. (kg) |
| H-32 | 1 | 1/6 | | 15 (381) | 8 1/2 (216) | 12 1/2 (318) | 7/8 (22) | 33 (15) |
| H-32 | 11/4 | 1/6 | | 15 (381) | 8 1/2 (216) | 12 1/2 (318) | 7/8 (22) | 33 (15) |
| H-32 | 11/2 | 1/6 | 115 Volt | 15 (381) | 8 1/2 (216) | 12 1/2 (318) | 7/8 (22) | 33 (15) |
| H-41 | 1 | 1/6 | 1 phase | 15 1/4 (387) | 8 1/2 (216) | 12 1/2 (318) | ³ / ₄ (19) | 33 (15) |
| H-51 | 1 | 1/4 | | 171/4 (438) | 11 1/2 (292) | 13 1/2 (343) | ³ / ₄ (19) | 54 (24) |
| H-52 | 11/4 | 1/3 | | 171/4 (438) | 11 1/2 (292) | 13 1/2 (343) | 7/8 (22) | 54 (24) |
| H-53 | 11/2 | 1/2 | | 20 (508) | 11 1/2 (292) | 16 1/2 (419) | 7/8 (22) | 64 (29) |
| H-54 | 2 | 3/4 | 115/230 Volt | 20 (508) | 11 1/2 (292) | 16 1/2 (419) | 7/8 (22) | 71 (32) |
| H-63 | 11/2 | 1/2 | 1 phase | 23 (584) | 13 1/2 (343) | 19 3/4 (502) | 7/8 (22) | 96 (44) |
| H-64 | 11/2 | 3/4 | or 208-230/460 | 23 (584) | 13 1/2 (343) | 19 3/4 (502) | 7/8 (22) | 100 (45) |
| H-65 | 11/2 | 1 | or 575 V olt | 23 (584) | 13 1/2 (343) | 19 3/4 (502) | 7/8 (22) | 102 (46) |
| H-66 | 2 | 3/4 | 3 phase | 231/4 (591) | 14 (356) | 19 3/4 (502) | 7/8 (22) | 120 (54) |
| H-67 | 2 | 1 | о рназс | 23 1/4 (591) | 14 (356) | 19 3/4 (502) | 7/8 (22) | 125 (57) |
| H-68 | 2 | 1/2 | 208-230/460 or 575 Volt 3 phase | 21 3/ 4 (552) | 14 (356) | 181/4 (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 S-25, S-45 and H-32.
- 4. Conduit box not supplied on 1/2 hp or greater
- 5. For other design characteristics, consult your Amstrong Representative.

Materials of Construction

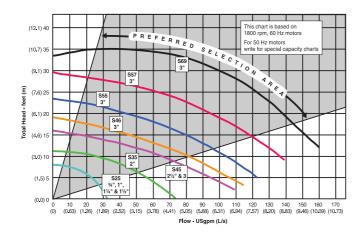
| Part Name | Iron Body Pump | Bronze Body Pump | |
|--------------------------|----------------------------|---------------------------|--|
| r art Hame | Bronze-Fitted Construction | | |
| Volute | Cast Iron | Bronze | |
| Impeller S-25 to S-57 | Non-Ferrous | Non-Ferrous | |
| Impeller H-32 to H-54 | Non-Ferrous | Non-Ferrous | |
| Impeller S-69 | Brass-Stamped | Brass-Stamped | |
| Impeller H-63 to H-68 | Cast Bronze | Cast Bronze | |
| Shaft | Alloy Steel-Copper Sleeve | Alloy Steel-Copper Sleeve | |
| Mechanical Seal Assembly | Carbon Brass Trim | - Ceramic Seat | |

▶ Design Information

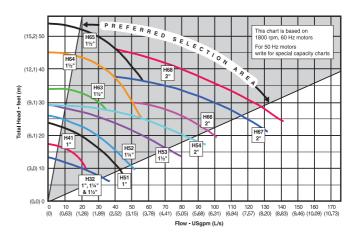
| | | Iron Body Pump | Bronze Body Pump | |
|----------|----------------------------|----------------------------|--------------------|--|
| | | Bronze-Fitted Construction | | |
| Maxim | ium Operating Temp. | 225°F (107°C) | 225°F (107°C) | |
| Maximum | S-25 to S-69, H-32, H-41 | 125 psi (862 kPa) | 125 psi (862 kPa) | |
| Working | | | | |
| Pressure | H-51 to H-54, H-63 to H-68 | 175 psi (1207 kPa) | 175 psi (1207 kPa) | |

Notes:

► Series S - Standard pumps



► Series H - High duty pumps



► Typical Specification

Furnish and install as shown on the plans, Armstrong Holden Brooke Pullen "S" or "H" Series Circulating Pump, designed for quiet operation and guaranteed by the manufacturer for the intended application. The pump shall have a capacity of _____ L/s, handling (state liquid and temperature) against a total head of ____ m. Pump shall be equipped with a ____ kW, ___ Volt, ___ phase, ___ Hz, 1425 rpm drip-proof mounted motor.

Pump shall be _____ construction, three-piece design featuring the Armstrong shaft and bearing module which shall fit all models S-25 through S-57 and H-32 through H-54. 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 **ARM**seal mechanical seal and be suitable for _____ kPa working pressure.

Our policy is one of continuous improvement and we reserve the right to alter our dimensions and specifications without notice

Experience Building...

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^{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 Armstrong Representative.