

ARMSTRONG



In-Line Circulators

FILE NO:	10.10
DATE:	Oct. 12, 2007
SUPERSEDES:	10.10
DATE:	Feb. 9, 2004

Armstrong 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 these applications. Armstrong Series S & H circulators are durable and trusted products that have been used by HVAC professionals for decades.



► Design Features

Armstrong Series S & H in-line circulators are built using a standard three-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

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 working 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 feature of the Armstrong circulator. Made from long-lasting 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.

► Materials of Construction

Part Name	Iron Body Pump		Bronze Body Pump
	Bronze-Fitted Construction		
Volute	Cast Iron		Bronze
Impeller	S-25 to S-57	Non-Ferrous	Non-Ferrous
	H-32 to H-54	Non-Ferrous	Non-Ferrous
	S-69	Brass-Stamped	Brass-Stamped
	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		
Maximum Operating Temperature	225°F (107°C)		225°F (107°C)
Maximum Working Pressure	S-25 to S-69, H-32, H-41	125 psi (862 kPa)	125 psi (862 kPa)
	H-51 to H-54, H-63 to H-68	175 psi (1207 kPa)	175 psi (1207 kPa)

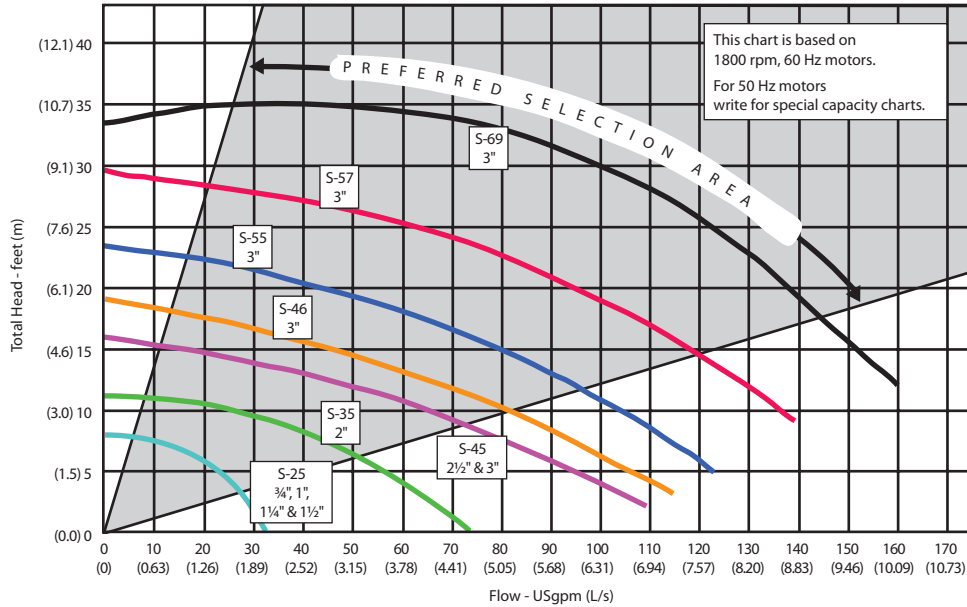
Notes:

- 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 Armstrong Representative.

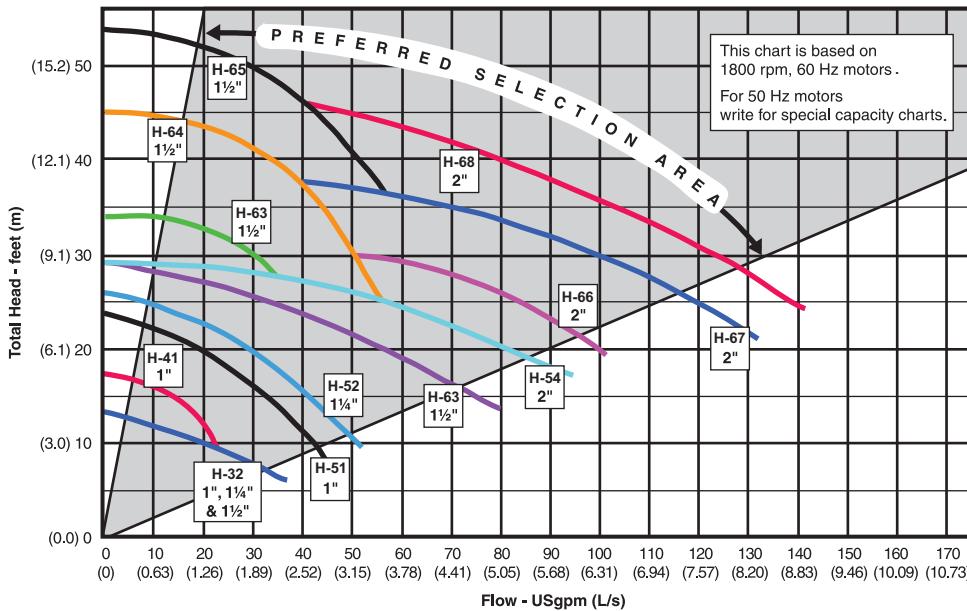
Series S & H In-Line Circulators

► Composite Performance Charts

► Series S



► Series H



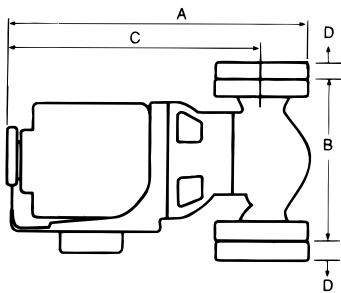
► Typical Specification

Furnish and install as shown on the plans, Armstrong 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 ____ USgpm (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, 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 water-tight, long-life **ARMseal** mechanical seal and be suitable for ____ psi (kPa) working pressure.

► Pump and Motor Data

Model	Flange Size (NPT)	Motor		Dimensions inches (mm)				Shipping Weight lbs (kg)
		hp	Volts & Phase	A	B	C	D	
S-25	3/4	1/2	115 Volt 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)
S-35	2	1/6	115/230 Volt 1 phase or 208-230/460 or 575 Volt 3 phase	15 (381)	8 1/2 (216)	12 1/2 (318)	7/8 (22)	35 (16)
S-45	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)
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 or 208-230/460 or 575 Volt 3 phase	19 1/2 (495)	12 (305)	16 (406)	1 (25)	82 (37)
S-57	3	3/4		20 (508)	12 (305)	16 1/2 (419)	1 (25)	85 (39)
S-69	3	1		25 (635)	14 1/4 (362)	20 1/4 (514)	1 (25)	135 (61)

Model	Flange Size (NPT)	Motor		Dimensions inches (mm)				Shipping Weight lbs (kg)
		hp	Volts & Phase	A	B	C	D	
H-32	1	1/6	115 Volt 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)
H-41	1	1/6	115/230 Volt 1 phase or 208-230/460 or 575 Volt 3 phase	15 1/4 (387)	8 1/2 (216)	12 1/2 (318)	3/4 (19)	33 (15)
H-51	1	1/4		17 1/4 (438)	11 1/2 (292)	13 1/2 (343)	3/4 (19)	54 (24)
H-52	1 1/4	1/3		17 1/4 (438)	11 1/2 (292)	13 1/2 (343)	7/8 (22)	54 (24)
H-53	1 1/2	1/2	115/230 Volt 1 phase or 208-230/460 or 575 Volt 3 phase	20 (508)	11 1/2 (292)	16 1/2 (419)	7/8 (22)	64 (29)
H-54	2	3/4		20 (508)	11 1/2 (292)	16 1/2 (419)	7/8 (22)	71 (32)
H-63	1 1/2	1/2		23 (584)	13 1/2 (343)	19 3/4 (502)	7/8 (22)	96 (44)
H-64	1 1/2	3/4	115/230 Volt 1 phase or 208-230/460 or 575 Volt 3 phase	23 (584)	13 1/2 (343)	19 3/4 (502)	7/8 (22)	100 (45)
H-65	1 1/2	1		23 (584)	13 1/2 (343)	19 3/4 (502)	7/8 (22)	102 (46)
H-66	2	3/4		23 1/4 (591)	14 (356)	19 3/4 (502)	7/8 (22)	120 (54)
H-67	2	1	208-230/460 or 575 Volt 3 phase	23 1/4 (591)	14 (356)	19 3/4 (502)	7/8 (22)	125 (57)
H-68	2	1 1/2		21 3/4 (552)	14 (356)	18 1/4 (464)	7/8 (22)	130 (59)



Notes:

- Dimensions given are for reference only. For exact dimensional data, contact factory.
- All single-phase motors are equipped with built-in thermal overload protection. Three-phase motors require external overload protection.
- Companion flanges not furnished as standard on S-25, S-45 and H-32.
- Conduit box not supplied on 1/2 hp or greater.
- For other design characteristics, consult your Armstrong Representative.

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