

## Armstrong Pump In-Line Circulators (Maintenance free option available)

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. Besides the existing Sleeve bearing design, Armstrong now has introduced the 'Maintenance free' design which has permanently lubricated ball bearings and requires no maintenance at all.

### ► 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, sintered silicon carbide 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 an oversized shaft made from either special alloy steel, (sleeve bearing design) or stainless steel ('Maintenance free' design) machined to exacting tolerance. Both shaft designs provide longer 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 sintered silicon carbide 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.

### ► Design Information

MAX OPERATING CONDITIONS	S-25 TO S-69, H-32, H-41	H-51 TO H-54, H-63 TO H-68
	125 psi at 225°F (862 kPa at 107°C)	175 psi at 225°F (1207 kPa at 107°C)

#### 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 or lead free bronze body pumps.
- 3 For temperatures over 225°F (107°C) consult your Armstrong representative.
- 4 Maintenance free S&H circulators are identified by 'MF' in their item numbers.

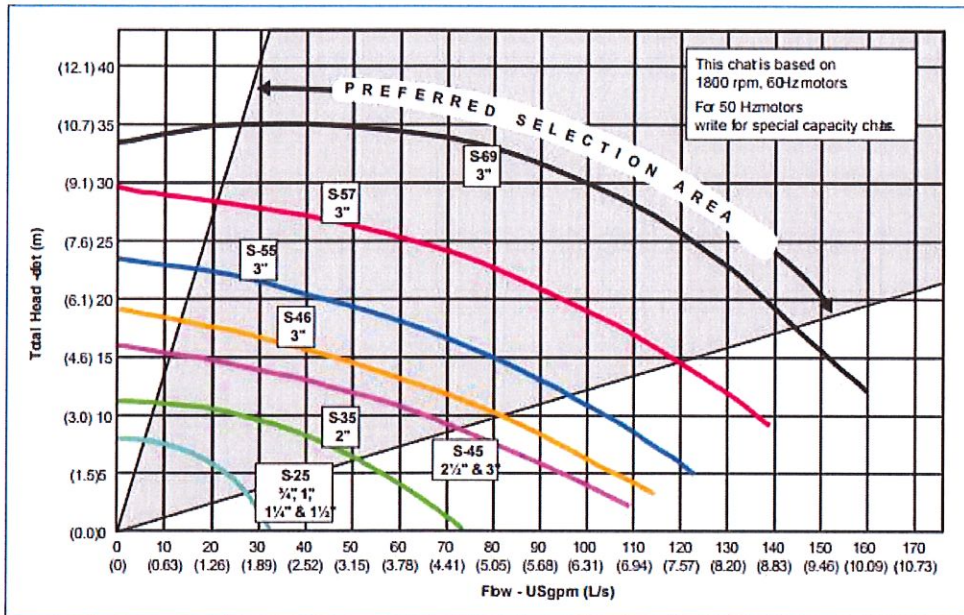
► Materials of Construction

PART NAME	IRON BODY PUMP	
	BRONZE-FITTED CONSTRUCTION	LF BRONZE BODY PUMP*
VOLUTE	Cast iron	Lead free bronze
IMPELLER	S-25 TO S-57	Non-ferrous
	H-32 TO H-54	Non-ferrous
	S-69	Brass-stamped
	H-63 TO H-68	Cast LF bronze
MECHANICAL SEAL ASSEMBLY	Sintered silicon carbide seal	
BEARING	Sleeve oil lubricated/permanently lubricated	
SHAFT	Alloy steel-copper sleeve/stainless steel	

\* Certified ≤0.25 weighted average percent lead and complies with California Health and Safety Code Section 116875 (commonly known as AB1953).

### Series S & H In-Line Circulators

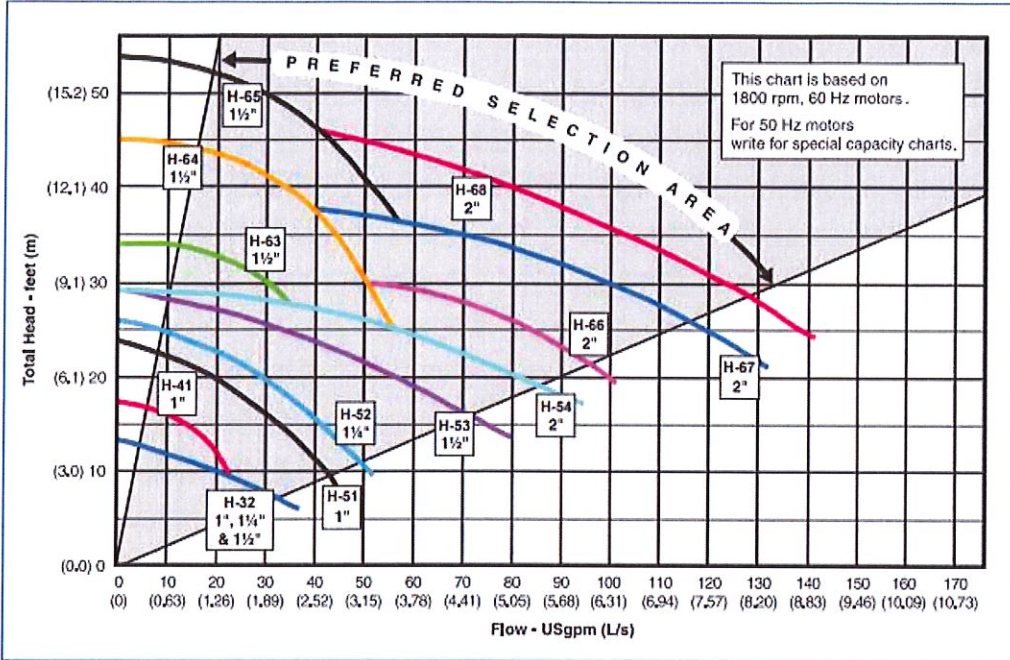
► Series S



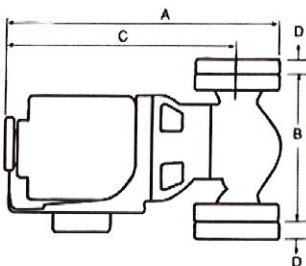
MODEL	FLANGE SIZE (NPT)	MOTOR		DIMENSIONS INCHES (MM)				SHIPPING WEIGHT LBS (KG)
		HP	VOLTS & PHASE	A	B	C	D	
S-25	¾	½	115 Volt 1 phase	13.75 (349)	6.50 (165)	11.50 (292)	0.75 (19)	20 (9)
	1	½		13.75 (349)	6.50 (165)	11.50 (292)	0.75 (19)	20 (9)
	1½	½		13.75 (349)	6.50 (165)	11.50 (292)	0.88 (22)	20 (9)
	1½	½		13.75 (349)	6.50 (165)	11.50 (292)	0.88 (22)	20 (9)
S-35	2	⅓	115/230 Volt 1 phase or 208-230/460 or 575 Volt 3 phase	15.00 (381)	8.50 (216)	12.50 (318)	0.88 (22)	35 (16)
S-45	2½	¼		15.75 (400)	10.00 (254)	12.50 (318)	1.00 (25)	51 (23)
	3	¼		15.75 (400)	10.00 (254)	12.50 (318)	1.00 (25)	51 (23)
S-46	3	⅓	15.75 (400)	10.00 (254)	12.50 (318)	1.00 (25)	51 (23)	
S-55	3	½	115/230 Volt 1 phase or 208-230/460 or 575 Volt 3 phase	19.50 (495)	12.00 (305)	16.00 (406)	1.00 (25)	82 (37)
S-57	3	¾		20.00 (508)	12.00 (305)	16.50 (419)	1.00 (25)	85 (39)
S-69	3	1		25.00 (635)	14.25 (362)	20.25 (514)	1.00 (25)	135 (61)



► Series H



MODEL	FLANGE SIZE (NPT)	MOTOR		DIMENSIONS INCHES (MM)				SHIPPING WEIGHT LBS (KG)	
		HP	VOLTS & PHASE	A	B	C	D		
H-32	1	1/8	115 Volt 1 phase	15.00 (381)	8.50 (216)	12.50 (318)	0.88 (22)	33 (15)	
	1 1/4	1/8		15.00 (381)	8.50 (216)	12.50 (318)	0.88 (22)	33 (15)	
	1 1/2	1/8		15.00 (381)	8.50 (216)	12.50 (318)	0.88 (22)	33 (15)	
H-41	1	1/8		15.25 (387)	8.50 (216)	12.50 (318)	0.75 (19)	33 (15)	
H-51	1	1/4		17.25 (438)	11.50 (292)	13.50 (343)	0.75 (19)	54 (24)	
H-52	1 1/4	1/2		17.25 (438)	11.50 (292)	13.50 (343)	0.88 (22)	54 (24)	
H-53	1 1/2	1/2		115/230 Volt 1 phase or 208-230/460 or 575 Volt 3 phase	20.00 (508)	11.50 (292)	16.50 (419)	0.88 (22)	64 (29)
H-54	2	3/4			20.00 (508)	11.50 (292)	16.50 (419)	0.88 (22)	71 (32)
H-63	1 1/2	1/2			23.00 (584)	13.50 (343)	19.75 (502)	0.88 (22)	96 (44)
H-64	1 1/2	3/4			23.00 (584)	13.50 (343)	19.75 (502)	0.88 (22)	100 (45)
H-65	1 1/2	1	23.00 (584)		13.50 (343)	19.75 (502)	0.88 (22)	102 (46)	
H-66	2	3/4	23.25 (591)		14.00 (356)	19.75 (502)	0.88 (22)	120 (54)	
H-67	2	1	23.25 (591)		14.00 (356)	19.75 (502)	0.88 (22)	125 (57)	
H-68	2	1 1/2	208-230/460 or 575 Volt 3 phase		21.75 (552)	14.00 (356)	18 1/4 (464)	0.88 (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 For other design characteristics, consult your Armstrong Representative.

For More Information [www.control-specialties.com](http://www.control-specialties.com)