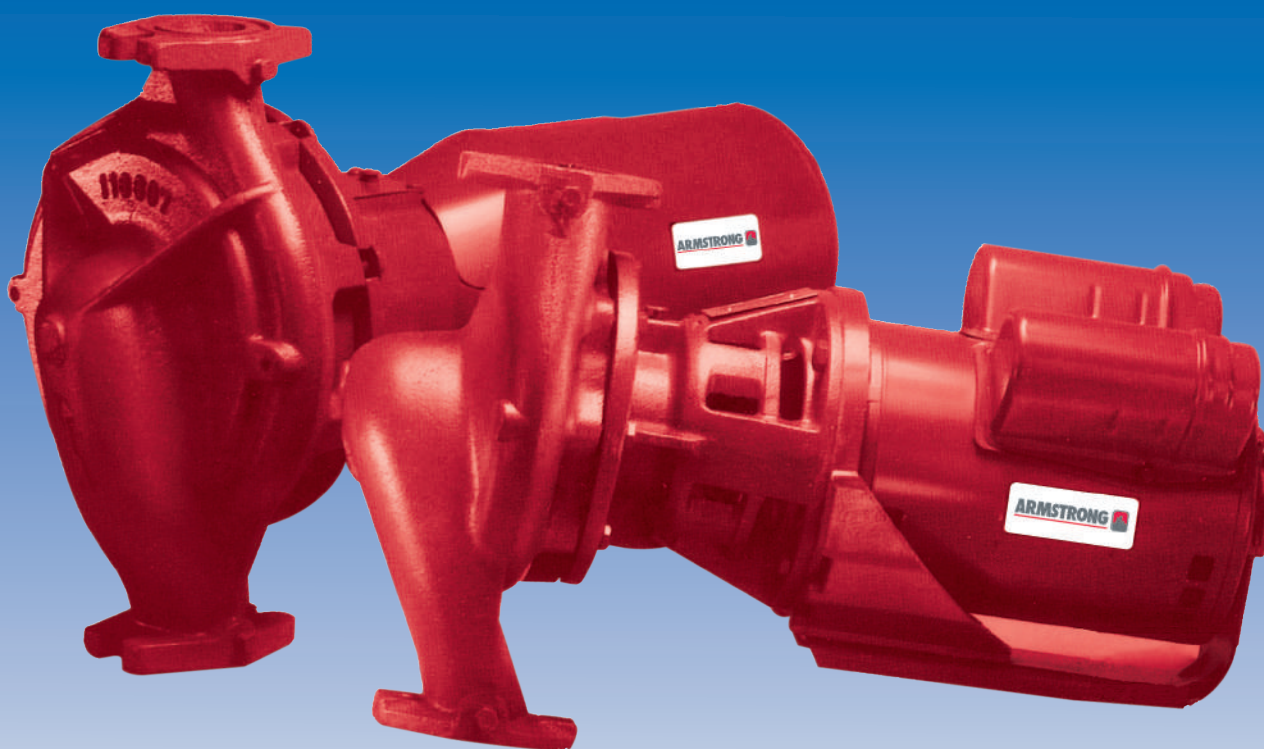


ARMSTRONG



NSF-372

Custom In-Line Circulators (*Maintenance free option available)

File no:	10.11
Date:	DECEMBER 12, 2013
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Classic Horizontal In-Line Design, Engineered for Durability.



Applications

- Hydronic heating and cooling
- Domestic water systems
- Multi-stage zoning
- General industrial service

Standard three-piece design

Body

Radially-split body can be left in the line while servicing the pump, eliminating needless disconnecting of pipes.

Oversized shaft

Armstrong inline circulating pumps have an oversized shaft of either special alloy steel (for sleeve design) or stainless steel (maintenance free design), machined to exacting tolerances. Both shaft design provide long life under severe working conditions.

Silicon carbide seal

A tried and proven method of preventing water leakage, the silicon carbide construction is an often imitated feature of the Armstrong circulator. Made of strong, long-lasting materials ensures many years of noise-free, trouble-free service.

Modular construction

Armstrong's shaft and bearing modules (both sleeve & maintenance free design) are unique for ease of serviceability and reduced inventory costs.

Materials of construction

PART NAME		IRON BODY PUMP	LEAD FREE BRONZE PUMP
		BRONZE-FITTED CONSTRUCTION	
PUMP BODY		Cast iron	Lead free bronze
IMPELLER	SERIES 1050	Non-ferrous	
	SERIES 1060	Bronze	Lead free bronze
BEARINGS		Sleeve-oil lubricated/Permanently lubricated	
SHAFT		Alloy steel-copper sleeve/Stainless steel	
MECHANICAL SEAL ASSEMBLY		Carbon/silicon carbide, stainless steel trim, viton seal	

Design information

		IRON BODY PUMP	BRONZE BODY PUMP
		BRONZE-FITTED CONSTRUCTION	
MAXIMUM OPERATING TEMPERATURE		225°F (107°C)	
MAXIMUM WORKING PRESSURE	SERIES 1050	175 psi (1207 kPa)	
	SERIES 1060	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.
- 4 Only 1050 series models are available with 'Maintenance free' option.

Custom In-Line Circulators

Pump and motor data

PUMP SIZE	HP	RESILIENT MOUNT INCHES (MM)			RIGID MOUNT INCHES (MM)			SHIPPING WEIGHT LBS. (KG)
		A	C	K	L	M	N	
1050 1B	¼	17.25 (438)	13.50 (343)	7.38 (187)	—	—	—	48 (22)
	½	17.25 (438)	13.50 (343)	7.38 (187)	—	—	—	48 (22)
1050 1¼B	¼	17.25 (438)	13.50 (343)	7.38 (187)	—	—	—	48 (22)
	½	17.25 (438)	13.50 (343)	7.38 (187)	—	—	—	48 (22)
	¾	19.75 (502)	16.00 (406)	9.88 (251)	—	—	—	58 (26)
1050 1½B	¼	17.25 (438)	13.50 (343)	7.38 (187)	—	—	—	48 (22)
	½	17.25 (438)	13.50 (343)	7.38 (187)	—	—	—	48 (22)
	¾	19.75 (502)	16.00 (406)	9.88 (251)	—	—	—	58 (26)
	1	20.00 (508)	16.50 (419)	10.38 (264)	—	—	—	75 (34)
1050 2B	½	17.25 (438)	13.50 (343)	7.38 (187)	—	—	—	55 (25)
	¾	19.75 (502)	16.00(406)	9.88 (251)	—	—	—	72 (33)
	1	20.00 (508)	16.50 (419)	10.38 (264)	—	—	—	75 (34)
	1½	20.75 (527)	17.00 (431)	10.88 (276)	—	—	—	80 (36)

1060 1½D	½	22.00 (559)	18.75 (476)	9.88 (251)	—	—	—	86 (39)
	¾	23.00 (584)	19.75 (502)	10.38 (264)	—	—	—	82 (37)
	1	23.50 (597)	20.25 (514)	10.88 (276)	—	—	—	92 (42)
	1½	—	—	—	21.50 (546)	18.25 (464)	8.88 (225)	115 (52)
1060 2D	½	22.75 (578)	19.25 (489)	9.88 (251)	—	—	—	90 (41)
	¾	23.75 (603)	19.75 (502)	10.38 (264)	—	—	—	96 (44)
	1	23.75 (603)	20.25 (514)	10.88 (276)	—	—	—	100 (45)
	1½	—	—	—	21.75 (552)	18.25 (464)	8.88 (225)	120 (54)
	2	—	—	—	22.75 (578)	19.25 (489)	9.88 (251)	124 (56)
1060 3D	1	—	—	—	23.50 (597)	18.50 (470)	8.88 (225)	135 (61)
	1½	—	—	—	24.00 (610)	19.00 (483)	8.88 (225)	138 (63)
	2	—	—	—	25.00 (635)	20.00 (508)	9.88 (251)	143 (65)
	3	—	—	—	27.75 (705)	22.75 (578)	9.88 (251)	150 (68)

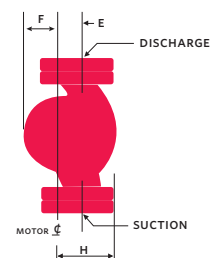
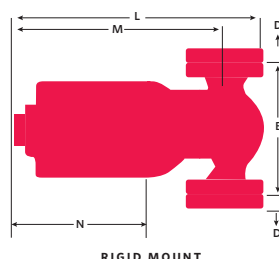
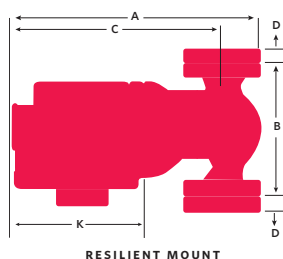
Voltages: ¼ and ½ hp are 115 volt 1 phase. ¾, 1 and 1½ hp are 115/230 volt 1 phase, or 208²³⁰/460 volt or 575 volt 3 phase.
2 and 3 hp available only in 3 phase.

PUMP SIZE	FLANGE SIZE (N.P.T)	DIMENSIONS INCHES (MM)				
		B	D	E	F	H
1050 1B	1	11.50 (292)	0.75(19)	1.38 (35)	3.75 (95)	4.12 (105)
1050 1¼B	1¼	11.50 (292)	0.88 (22)	1.38 (35)	3.75 (95)	4.12 (105)
1050 1½B	1½	11.50 (292)	0.88 (22)	1.38 (35)	3.75 (95)	4.12 (105)
1050 2B	2	11.50 (292)	0.88 (22)	1.38 (35)	3.75 (95)	4.12 (105)

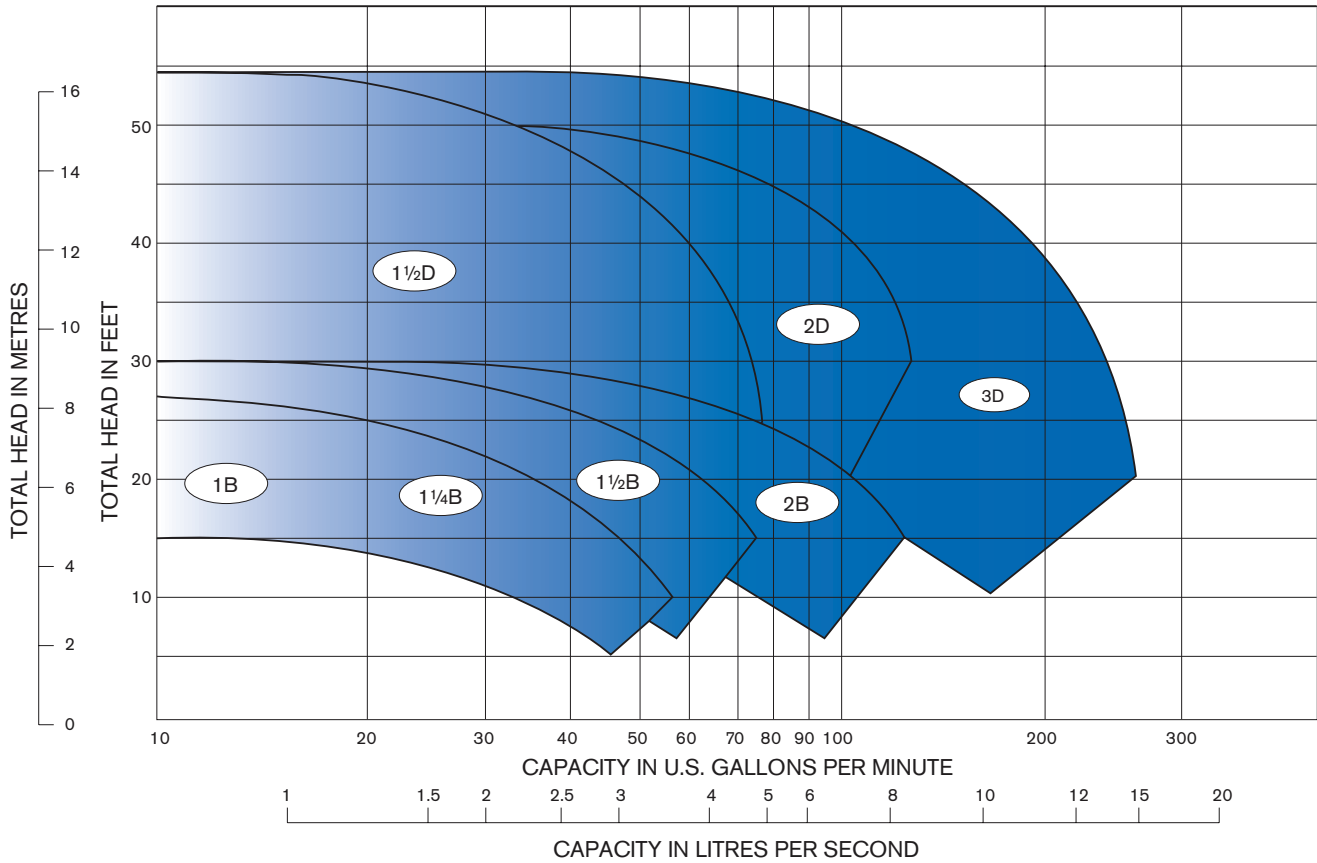
NOTES:

- 1 Dimensions given are for reference only For exact dimensional data, contact factory.
- 2 Pumps are shipped for up discharge.
- 3 Tapped openings are provided in body for venting and draining.
- 4 Companion flanges furnished with pump.

1060 1½D	1½	13.50 (343)	0.88 (22)	1.00 (25)	4.62 (117)	4.88 (124)
1060 2D	2	14.00 (356)	0.88 (22)	1.00 (25)	4.75 (121)	5.12 (130)
1060 3D	3	18.00 (457)	1.00 (25)	0 (0)	5.88 (149)	5.00 (127)



Composite performance chart



NOTE: For custom selections, refer to individual curves for impeller diameters and motor horsepowers.

Typical specifications

Furnish and install as shown on the plans and the specification, an Armstrong Series _____ In-Line Circulating Pump, designed and guaranteed by the manufacturer for the intended application. The pump shall have a capacity of _____ USgpm (l/s), total head _____ feet (metres), liquid _____, temperature

_____°F (°C), viscosity _____ ssu, pump size _____, 1800 rpm, _____ hp (kw), _____ volt, _____ phase, _____ hertz mounted motor. Pump shall be _____ construction, suitable for 175 psi (1207 kPa) working pressure. The pump to be equipped with a water-tight, long-life Sintered silicon carbide mechanical seal.

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