



Astro 2 Series

Three-speed wet-rotor circulators

NSF 372



SOLUTION OUTLINE

FILE NO: 10.125

DATE: SEPTEMBER 2013

SUPERSEDES: 10.125

DATE: JULY 2013

MORE VALUE BUILT IN

BENEFITS

With four new sizes, the Astro 2 circulator range allows you to service more customers and address a broader range of applications.

Astro 2 circulators offer contractor-friendly features for fast and convenient installation.

Astro 2 circulators will provide your customers years of trouble-free operation.

With new selection tools, finding the right Astro 2 model for your situation couldn't be easier.

BUILT TO WIN

Running a contracting business is challenging. You want solutions that make your work easier, and simplify your installations. Armstrong understands your requirements and has built in the functionality and reliability you need to be successful.

Compare and check the details. Armstrong has listened to contractors and added a host of new features to the Astro 2 circulator line. No other circulator line on the market is designed with such attention to detail, and offers as much value to your contracting business and customers.

Expanded line with four new models. Astro 280, 290, 210 and 286 models are now available in both cast iron and stainless steel, allowing you to serve an even wider range of applications. The full Astro 2 offering for hydronics applications covers 100% of common competing models.

KEY FEATURES

Cross-reference information is printed on the box, for convenient access.

e-Coating on the inside of cast-iron volutes provides enhanced corrosion protection for improved reliability.

Flange-to-flange and bolt-to-bolt compatibility offers quick and easy exchange of competing models.

Plug-in terminal strip saves time.

High-flow check valve, is pre-installed for convenience. Where the installation does not call for a check valve, it can be removed in seconds.

Motor data

MODEL	INPUT	SPEED	FULL LOAD AMP DRAW (A)	NOMINAL POWER (W)
ASTRO 210CI/SS	115V, 60HZ Single phase	3	1.06	200
		2	1.50	
		1	1.72	
ASTRO 220SSU		3	0.29	33
		2	0.27	
		1	0.20	
ASTRO 225BS		3	0.64	75
		2	0.49	
		1	0.38	
ASTRO 225SSU		3	0.69	83
		2	0.55	
		1	0.43	
ASTRO 230SS/ CI/CI-R		3	0.81	97
		2	0.58	
		1	0.45	
ASTRO 250SS/ CI/CI-R		3	0.98	117
		2	0.79	
		1	0.65	
ASTRO 280CI/SS		3	1.90	218
		2	1.80	
		1	1.50	
ASTRO 290CI/SS		3	1.90	218
		2	1.60	
		1	1.40	
ASTRO 280CI/SS 230V	230V,60HZ Single phase	3	0.90	210
		2	0.86	
		1	0.80	
ASTRO 286CI/SS		1	1.60	375

TECHNICAL DATA

Max. fluid temperature*: 185°F/85°C (Astro 286 up to 1.35A)
150°F/65°C (Astro 286 over 1.35A)
230°F/110°C (all others)

Max. working pressure: 150 PSI / 1034 kPa

Certification: ETL listed for US and Canada (conforms to UL STD.778 certified to CSA STD. C22.2 NO.108-01)
NSF 372 (for lead free bronze and stainless steel models)

Warranty: two years

*Since water conditions can vary with geographical location (i.e. amount and type of dissolved solids) it is recommended that the operating temperature of the fluid for open (potable) systems be kept as low as possible (i.e. below 150°F or 65°C) to avoid precipitation of calcium.

MATERIALS OF CONSTRUCTION

Pump body: • Cast iron (closed system)
• Stainless steel** (open system)
• Lead-free bronze** (open system)

Impeller: PA66

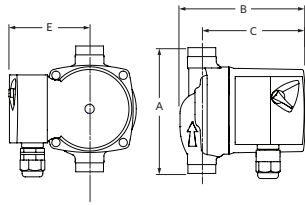
Shaft: ceramic

Bearings: ceramic

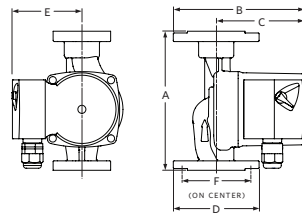
Gasket: EPDM

**Certified <0.25 weighted average percent lead (NSF 372) and complies with California Health and Safety code section 116875 (commonly known as AB1953).

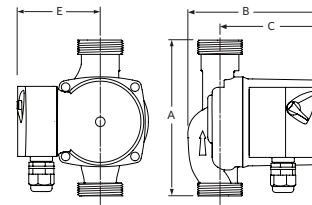
ASTRO 225BS



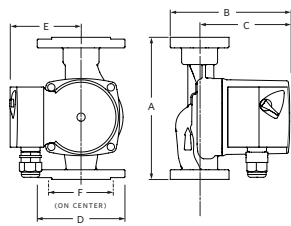
ASTRO 230SS/CI & 250SS/CI



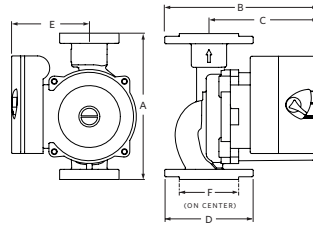
ASTRO 220SSU & 225SSU



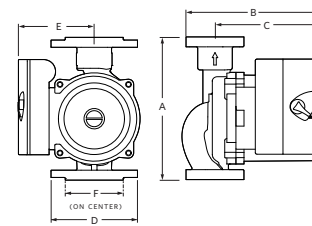
ASTRO 230CI-R & 250CI-R



ASTRO 210CI/SS & 280SS



ASTRO 280CI, 290CI/SS & 286CI/SS



Dimensions and weights

LEAD FREE BRONZE*		A	B	C	D	E	F	CONNECTION TYPE & SIZE	WEIGHT
110223-303	Astro 225BS ½" SWT	5.00 (127)	5.00 (127)	4.13 (105)	—	3.00 (76)	—	Sweat - ½"	6.0 (2.7)
110223-304	Astro 225BS ¾" SWT	5.00 (127)	5.00 (127)	4.13 (105)	—	3.00 (76)	—	Sweat - ¾"	6.0 (2.7)
STAINLESS STEEL*		A	B	C	D	E	F	CONNECTION TYPE & SIZE	WEIGHT
110223-309	Astro 220SSU**	6.00 (152)	5.00 (127)	4.00 (102)	—	3.00 (76)	—	Union - 1¼" NPSM	6.5 (2.9)
110223-310	Astro 225SSU**								
110223-306	Astro 230SS**	6.38 (162)	6.00 (150)	4.00 (102)	4.00 (102)	3.00 (76)	3.25 (80)	Flange - (2) ½" dia. bolt holes	8.0 (3.6)
110223-308	Astro 250SS**								
	Astro 210SS**	6.50 (165)	6.37 (162)	4.87 (124)	4.00 (102)	3.50 (90)	3.13 (80)	Flange - (2) ½" dia. bolt holes	10.1 (4.6)
110223-323	Astro 280SS (230V)**								
110223-329	Astro 286SS**								
110223-325	Astro 290SS**	8.50 (216)	6.65 (169)	5.20 (132)	4.00 (102)	3.50 (90)	3.45 (88)	Flange - (2) ½" dia. bolt holes	13.2 (6.0)
CAST IRON		A	B	C	D	E	F	CONNECTION TYPE & SIZE	WEIGHT
110223-305	Astro 230CI**	6.38 (162)	6.00 (150)	4.00 (102)	4.00 (102)	3.00 (76)	3.25 (80)	Flange - (2) ½" dia. bolt holes	8.0 (3.6)
110223-315	Astro 230CI-R**	6.38 (162)	5.63 (137)	4.00 (102)	4.00 (102)	3.00 (76)	3.25 (80)	Flange - (2) ½" dia. bolt holes	8.0 (3.6)
110223-307	Astro 250CI**	6.38 (162)	6.00 (150)	4.00 (102)	4.00 (102)	3.00 (76)	3.25 (80)	Flange - (2) ½" dia. bolt holes	8.0 (3.6)
110223-317	Astro 250CI-R**	6.38 (162)	5.63 (137)	4.00 (102)	4.00 (102)	3.00 (76)	3.25 (80)	Flange - (2) ½" dia. bolt holes	8.0 (3.6)
	Astro 210CI**	6.50 (165)	6.37 (162)	4.87 (124)	4.00 (102)	3.50 (90)	3.13 (80)	Flange - (2) ½" dia. bolt holes	10.1 (4.6)
110223-322	Astro 280CI (230V)**								
110223-324	Astro 286CI**								
110223-328	Astro 290CI**	8.50 (216)	6.65 (169)	5.20 (132)	4.00 (102)	3.50 (90)	3.45 (88)	Flange - (2) ½" dia. bolt holes	13.2 (6.0)

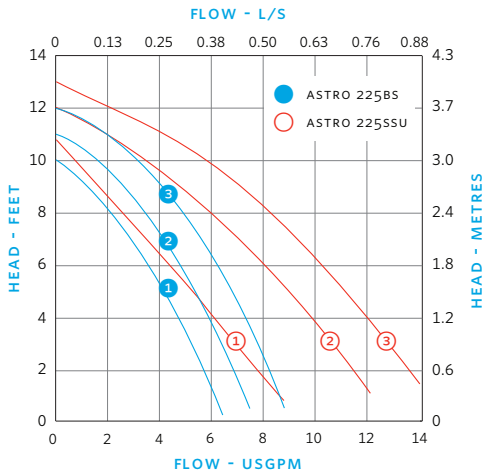
NOTE: All dimensions are in inches (mm) and weights in lbs (kg).

* Certified <0.25 weighted average percent lead and complies with California Health and Safety Code Section 116875 (commonly known as AB 1953).

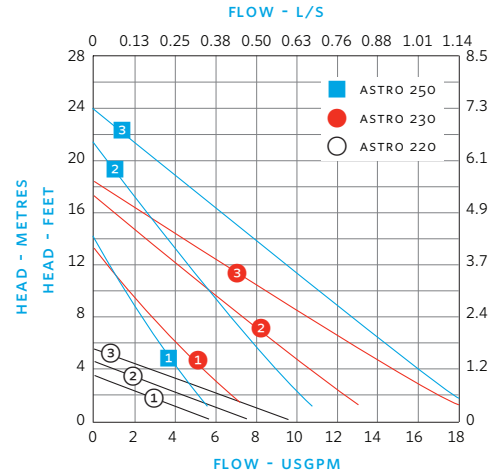
** Removable check valve installed at pump outlet.

Performance curves

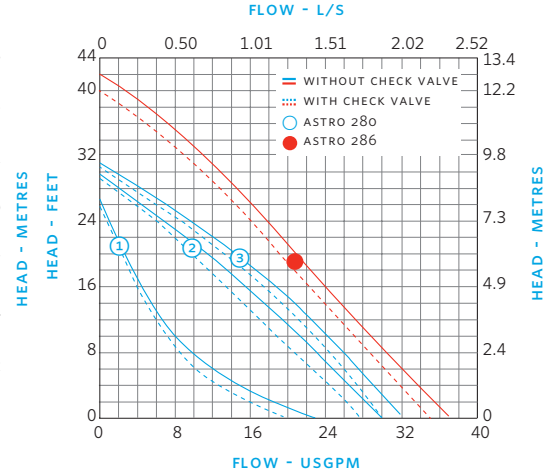
ASTRO 225BS, 225SSU



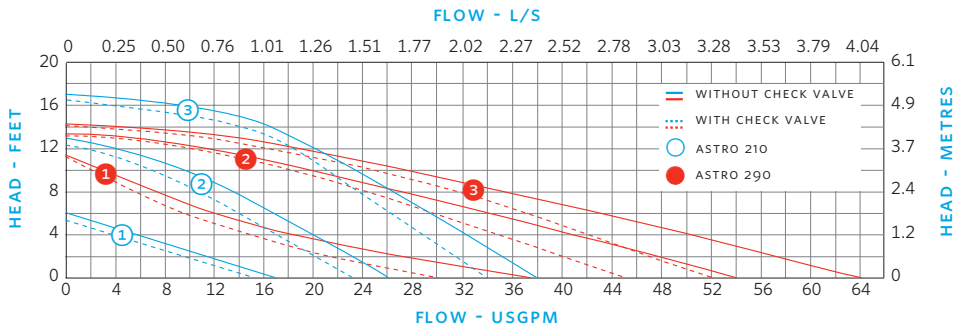
ASTRO 220, 230, 250



ASTRO 280, 286



ASTRO 210, 290



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