

# ASTRO 2 | THREE SPEED CIRCULATORS | SUBMITTAL

File No: 10.584  
 Date: JULY 01, 2021  
 Supersedes: 10.584  
 Date: DECEMBER 25, 2019

Job: \_\_\_\_\_ Representative: \_\_\_\_\_  
 \_\_\_\_\_ Ordered by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Engineer: \_\_\_\_\_ Submitted by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Contractor: \_\_\_\_\_ Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

## TECHNICAL DATA

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

**Flow range:** 0 - 64 USgpm / 0 - 4.04 l/s

**Head range:** 0 - 42.0 feet / 0 - 12.8 meters

**Maximum 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)

**Maximum working pressure:** 150 psi / 1034 kPa

## MATERIALS OF CONSTRUCTION

**Pump body:** Cast iron (closed systems)  
 Stainless steel\* (open systems)

**Impeller:** Noryl

**Shaft:** Ceramic

**Bearings:** Ceramic

**Gasket material:** EPDM

## DIMENSIONS AND WEIGHTS

STAINLESS STEEL*	A	B	C	D	E	F	CONNECTION TYPE & SIZE	WEIGHT
Astro 220ssu**	6.00 (152)	5.00 (127)	4.00 (102)	—	3.10 (79)	—	Union - 1¼" NPSM	6.5 (2.9)
Astro 225ssu**	6.00 (152)	5.00 (127)	4.00 (102)	—	3.10 (79)	—	Union - 1¼" NPSM	6.5 (2.9)
Astro 230ss**	6.38 (162)	6.00 (150)	4.00 (102)	4.00 (102)	3.10 (79)	3.25 (80)	Flange - (2) ½" dia. bolt holes	8.0 (3.6)
Astro 250ss**	6.38 (162)	6.00 (150)	4.00 (102)	4.00 (102)	3.10 (79)	3.25 (80)	Flange - (2) ½" dia. bolt holes	8.0 (3.6)
Astro 210ss**	6.50 (165)	7.25 (184)	4.87 (124)	4.00 (102)	3.60 (91)	3.13 (80)	Flange - (2) ½" dia. bolt holes	10.1 (4.6)
Astro 280ss (230V)**	6.50 (165)	6.75 (171)	4.87 (124)	4.00 (102)	3.60 (91)	3.13 (80)	Flange - (2) ½" dia. bolt holes	10.1 (4.6)
Astro 286ss**	6.50 (165)	6.38 (162)	4.87 (124)	4.00 (102)	3.60 (91)	3.13 (80)	Flange - (2) ½" dia. bolt holes	10.1 (4.6)
Astro 290ss**	8.50 (216)	6.65 (169)	5.20 (132)	4.00 (102)	3.60 (91)	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
Astro 230ci**	6.38 (162)	6.00 (150)	4.00 (102)	4.00 (102)	3.10 (79)	3.25 (80)	Flange - (2) ½" dia. bolt holes	8.0 (3.6)
Astro 230ci-R**	6.38 (162)	5.63 (137)	4.00 (102)	4.00 (102)	3.10 (79)	3.25 (80)	Flange - (2) ½" dia. bolt holes	8.0 (3.6)
Astro 250ci**	6.38 (162)	6.00 (150)	4.00 (102)	4.00 (102)	3.10 (79)	3.25 (80)	Flange - (2) ½" dia. bolt holes	8.0 (3.6)
Astro 250ci-R**	6.38 (162)	5.63 (137)	4.00 (102)	4.00 (102)	3.10 (79)	3.25 (80)	Flange - (2) ½" dia. bolt holes	8.0 (3.6)
Astro 210ci**	6.50 (165)	7.25 (184)	4.87 (124)	4.00 (102)	3.60 (91)	3.13 (80)	Flange - (2) ½" dia. bolt holes	10.1 (4.6)
Astro 280ci (230V)**	6.50 (165)	6.38 (162)	4.87 (124)	4.00 (102)	3.60 (91)	3.13 (80)	Flange - (2) ½" dia. bolt holes	10.1 (4.6)
Astro 286ci**	6.50 (165)	6.38 (162)	4.87 (124)	4.00 (102)	3.60 (91)	3.13 (80)	Flange - (2) ½" dia. bolt holes	10.1 (4.6)
Astro 290ci**	8.50 (216)	6.65 (169)	5.20 (132)	4.00 (102)	3.60 (91)	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).

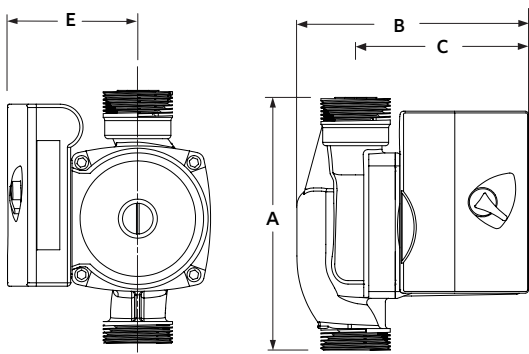
\*\* Removable check valve installed at pump outlet.

† For open systems, it is recommended that the fluid temperature be less than 150°F (66°C) to avoid precipitation of calcium.

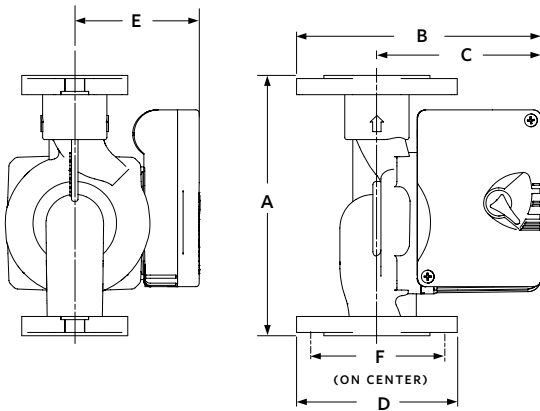
**MOTOR DATA**

MODEL	ELECTRICAL INPUT	SPEED	FULL LOAD AMP DRAW (A)	NOMINAL POWER (W)
ASTRO 210CI/SS	115V, 60HZ Single phase	3	1.72	200
		2	1.50	
		1	1.06	
ASTRO 220SSU		3	0.29	33
		2	0.27	
		1	0.20	
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	370

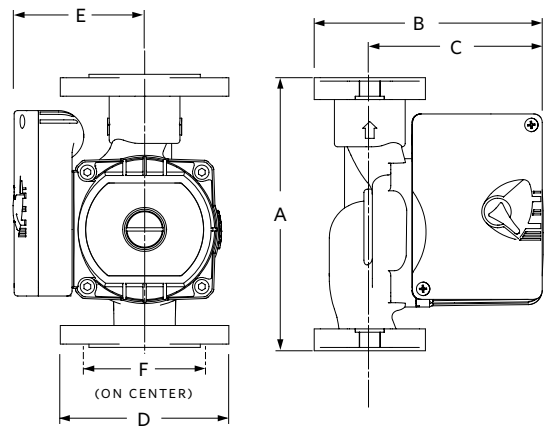
**ASTRO 220SSU & 225SSU**



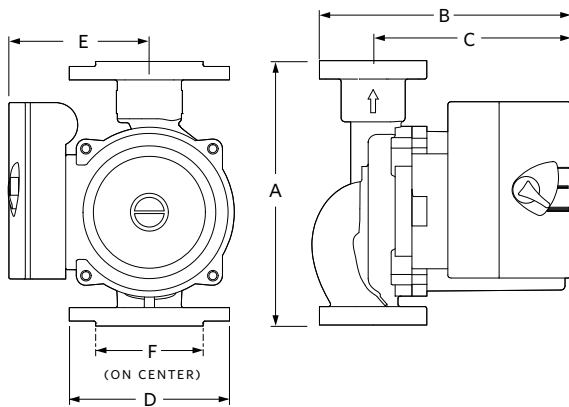
ASTRO 230SS/CI & 250SS/CI



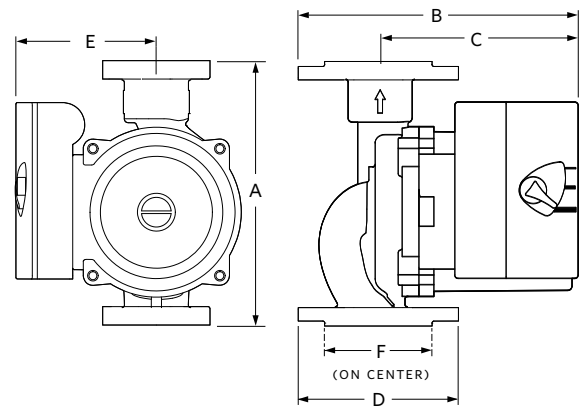
ASTRO 230CI-R & 250CI-R



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



ASTRO 210CI/SS & 280SS



**HARDWARE KIT**

Companion flange kit (contains two (2) flanges, hardware and gaskets)

**Cast iron:** 0.75", 1", 1.25", 1.5"

**Bronze:** 0.75", 1", 1.25", 1.5"

Union fitting (contains two (2) half unions and gaskets)

1.25" NPSM to:

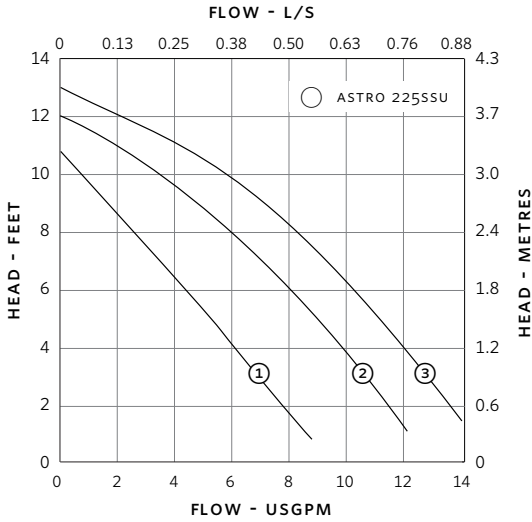
**Brass/Lead free bronze:** 0.5" sweat, 0.75" sweat, 0.75" FNPT

**CHECK VALVE SIZE**

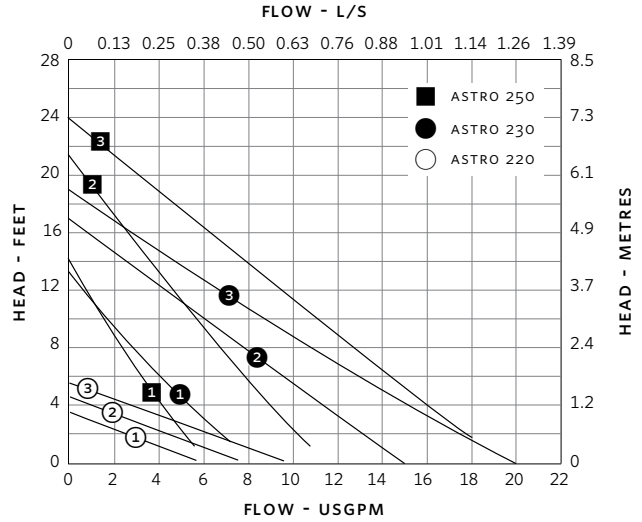
CHECK VALVE SIZE	MODEL
1" Diameter	ASTRO 220SSU, ASTRO 225SSU
1¼" Diameter	ASTRO 210, ASTRO 230, ASTRO 250, ASTRO 280, ASTRO 286
1½" Diameter	ASTRO 290

PERFORMANCE CURVES

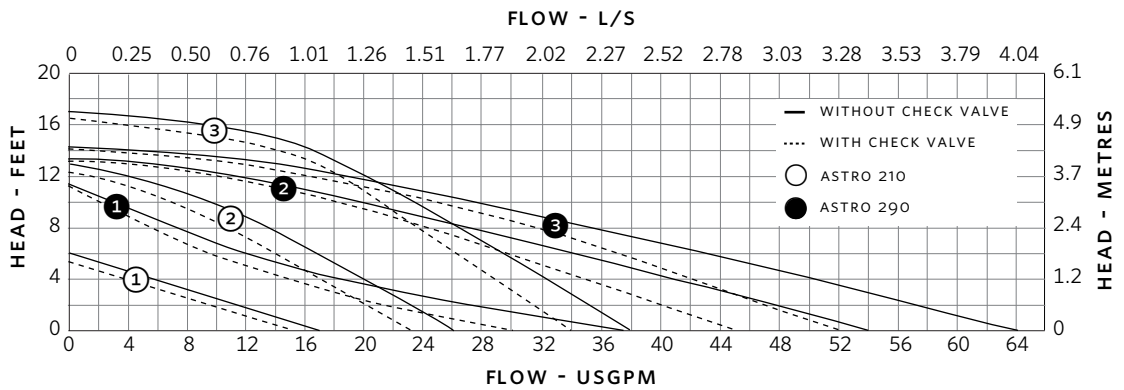
ASTRO 225SSU



ASTRO 220, 230, 250



ASTRO 210, 290



TORONTO  
+1 416 755 2291

BUFFALO  
+1 716 693 8813

DROITWICH SPA  
+44 8444 145 145

MANCHESTER  
+44 8444 145 145

BANGALORE  
+91 80 4906 3555

SHANGHAI  
+86 21 5237 0909

SÃO PAULO  
+55 11 4785 1330

LYON  
+33 4 26 83 78 74

DUBAI  
+971 4 887 6775

MANNHEIM  
+49 621 3999 9858

ASTRO 280, 286

