

Astro 2 Series

Three-speed wet-rotor circulators

NSF 372



CAUTION:
FOR SUPPLY
CONNECTION, USE
WIRE SIZES FOR
AT LEAST 90°C
USE COPPER
CONDUCTORS ONLY.

WARNING: TO
REDUCE CHANCE OF
ELECTRICAL
SHOCK, SEE
INSTRUCTION
MANUAL FOR
PROPER
INSTALLATION

ARMSTRONG
ASTRO 290CI
PART # 110223-25S
DATE CODE 1000 25S
1 phase 115V - 60Hz
SPEED (KW) (A)
I 157 1.4
II 184 1.6
III 218 1.9
Thermally protected
Type 2 enclosure
Class II
Certified to CSA STD.
C22.2 NO. 108-01
Conforms to
US STD. 775
Intertek
312-2580
WATER CIRCULATING PUMP

Max. water temp:
100°C (212°F)
Max. working pressure:
150 PSI
WARNING
• For indoor use only
• Do not install with motor
above or below pump body
• Use copper conductors only
• Non-submersible
• Do not run dry pump

SOLUTION OUTLINE

FILE NO: 10.125
DATE: MAY 2013

SUPERSEDES: 10.125
DATE: FEBRUARY 2013

UNMATCHED PERFORMANCE

Armstrong Astro 2 three-speed circulators provide unmatched performance over a wide range of head and flow requirements.



The three-speed design allows users to match the requirements of an installation exactly. It also helps with:

- Increased number of zones due to a building addition
- Addition of system elements such as an indirect hot water tank or spa

With Astro 2 three-speed units installed you can easily adjust the operating speed to handle these changed performance requirements.

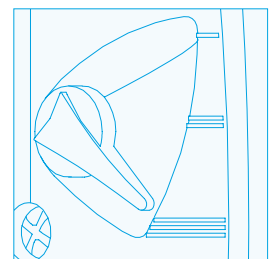
Astro 2 circulators (except sweat connection models) include a removable check valve that eliminates the need for additional check valves in the system. For replacement installations, the check valve can be removed as required.

Reduced Inventory The complete range of 12 Astro 2 three-speed circulators replaces 128 models of competitors' pumps.

Adaptability After a circulator is installed you might need to change the performance to accommodate:

- Over/under estimated system resistance in the original design

SPEEDS



THREE-SPEED SWITCH



REPLACE SEVERAL WITH ONE

Key features

COMPLIANCE WITH LEAD-FREE REGULATIONS

Lead-free bronze and stainless steel models of Astro 2 certified <0.25 weighted average percent lead (NSF 372) and complies with California Health and Safety Code Section 116875 (commonly known as AB1953).

INTERNATIONAL CODE COMPLIANCE

Astro 2 units are ETL listed for the US and Canada and conform to UL std. 778 and Canadian electrical safety standards CSA std. c22.2 No. 108-01.

THREE-SPEEDS

Reduce your inventory with a variety of performance curves. eighteen pumps replace 175 circulators. Correct design issues in the field by adjusting the circulator output.

REMOVABLE CHECK VALVE

Reduce costs by eliminating multiple system check valves. Helps prevent reverse flow and induced heat migration.

EASY CONNECTION

Models are available with union, sweat or flange connections. Models are also available with rotated flanges for installation in tight locations, where clearance is an issue.

TECHNICAL DATA

Flow range: 0 - 64 USgpm / 0 - 4.04 L/S

Head range: 0 - 42 FEET / 0 - 12.80 METERS

Motor: 60HZ single phase

Volts: 115V / 230V

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

*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)
• lead-free bronze (open system)**
• stainless steel (open system)**

Impeller: PA66

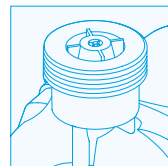
Shaft: ceramic

Bearings: ceramic

Gasket material: EPDM

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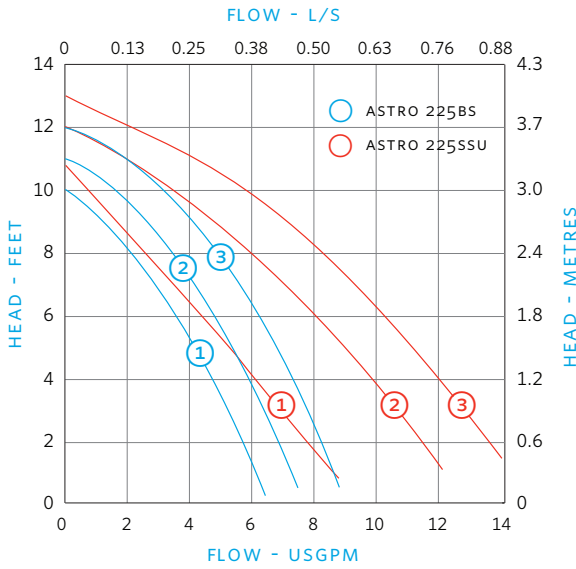
THE CHECK IS INSIDE



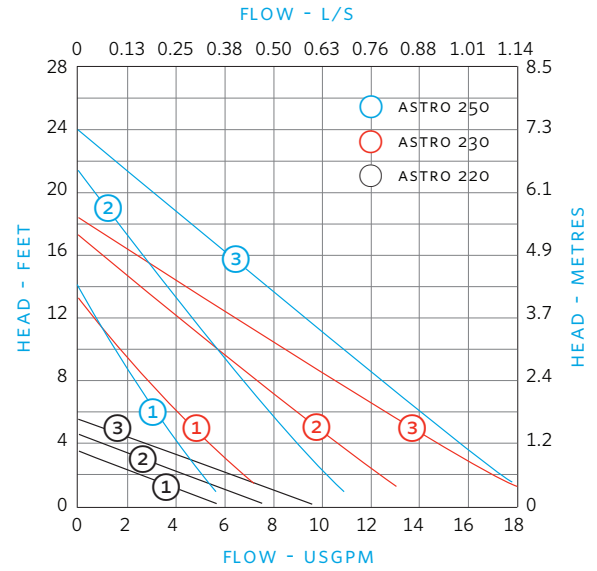
The integral check valve prevents reverse direction flow without the need to install a discrete check valve, saving capital cost and installation labour.

PERFORMANCE CURVES

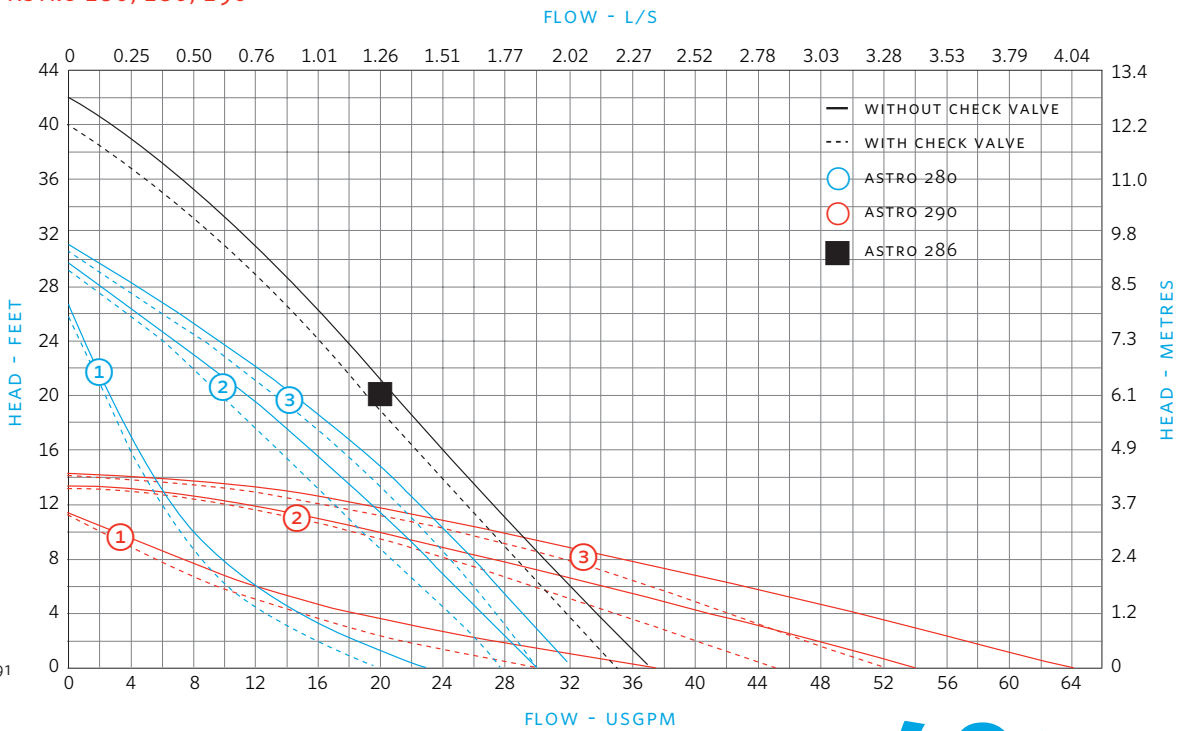
ASTRO 225BS, 225SSU



ASTRO 220, 230, 250



ASTRO 280, 286, 290



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