

COMPASS R DESIGN ENVELOPE VARIABLE SPEED DRY ROTOR CIRCULATORS | 20-75 | SUBMITTAL

File No: 10.651
 Date: OCTOBER 21, 2019
 Supersedes: 10.651
 Date: OCTOBER 11, 2019

Job: _____ Representative: _____
 _____ Ordered by: _____ Date: _____
 Engineer: _____ Submitted by: _____ Date: _____
 Contractor: _____ Approved by: _____ Date: _____

PUMP DESIGN DATA

Pump model: _____ Flange size: _____
 No. of pumps: _____ Note: _____
 Capacity: _____ USgpm (L/s) Head: _____ ft (m)
 Temperature: _____ °F (°C) Liquid: _____

TECHNICAL DATA

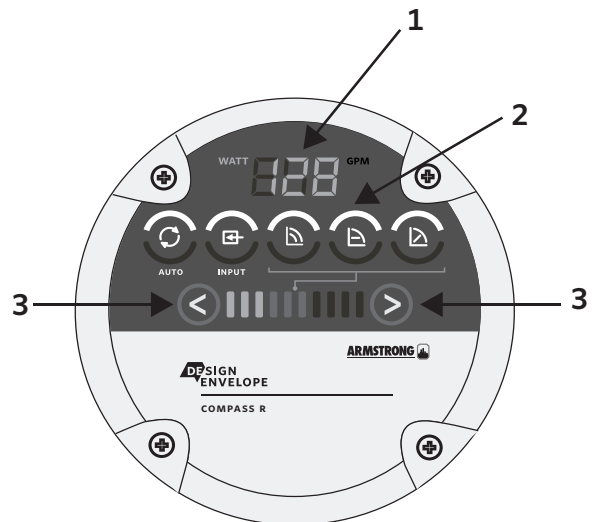
- Motor protection:** The pump requires no external motor protection.
- Maximum working temperature:** 230°F (110°C) maximum
- Maximum working pressure:** 175 psi (12 bar).
- Maximum relative air humidity (rh):** 95%.
- Enclosure class:** IP 42
- Insulation class:** F
- Certification:** ETL listed for US and Canada (conforms to UL78 certified to CSA STD. C22.2 NO.108)
 *NSF 372 & NSF-61 (for stainless steel models)
- Sound pressure level:** The sound pressure level of the pump is lower than 43 dB(A).
- Ambient temperature:** -4°F (-20°C) — 104°F (40°C)
- Pumped liquids:** Water or up to 50% water Ethylene/Propylene Glycol mix.
- Liquid temperature:** -4°F (-20°C) — 230°F (110°C)

MATERIALS OF CONSTRUCTION

- Pump body:** Ductile iron (closed systems)
 Stainless steel* (open systems)
- Impeller:** 30% glass-filled noryl GFN3
- Shaft:** s34c carbon steel, nickel plating
- O-ring material:** EPDM
- Mechanical Seal Material:** EPDM elastomeric with Silicon carbide seat

COMPASS R CONTROL PANEL

POSITION	DESCRIPTION
1	Display showing actual power consumption and flow rate
2	Five Light fields indicating the pump setting
3	Push-button for selection of pump setting



Lights on the display indicate the Control mode selected.

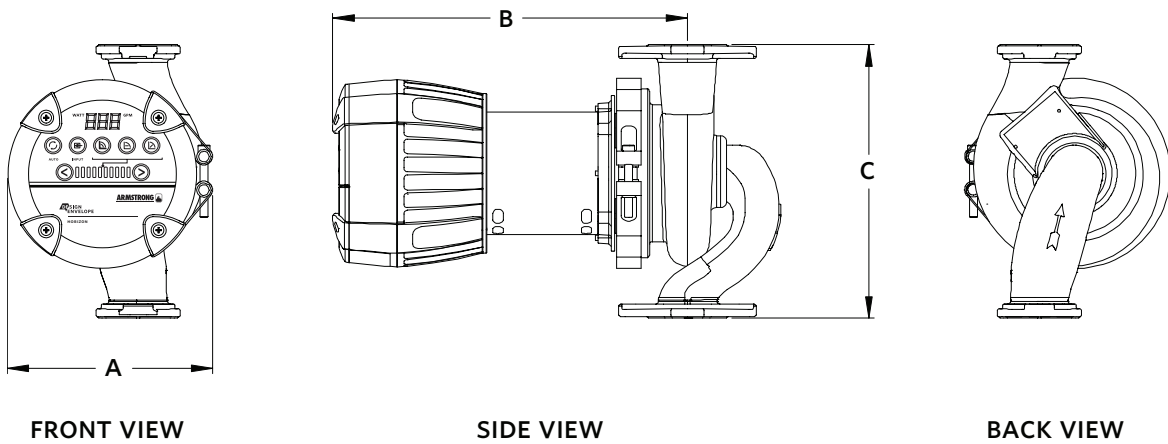
DIMENSIONS AND WEIGHTS

MODEL	FLANGE TO FLANGE DIMENSION inch (mm)	MOTOR		CONNECTION	FLANGE ORIENTATION	BOLT TO BOLT inch (mm)
		HP	PHASE AND VOLT			
Compass R 20-75	8.5 (215.9)	1/2	1 phase 115 v 60HZ OR 1 phase 208-240v 50/60HZ	2 bolt flange	X Orientation	3.16-3.44 (80.2-87.4)

MODEL	DIMENSIONS inch (mm)			WEIGHT lbs (kg)
	A	B	C	
Compass R 20-75	6.38 (162)	11.04 (280)	8.50 (216)	17.82 (8.11)

PART # LIST

MODEL NO.	PART #
Compass R2075D1-8.5x2 (115V)	119181-113
Compass R2075D1-8.5x2 (230V)	119182-113
Compass R2075SS-8.5x2 (115V)	119181-173
Compass R2075SS-8.5x2 (230V)	119182-173



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).
** For open systems, it is recommended that the liquid temperature be less than 150°F (65°C) to avoid precipitation of calcium.

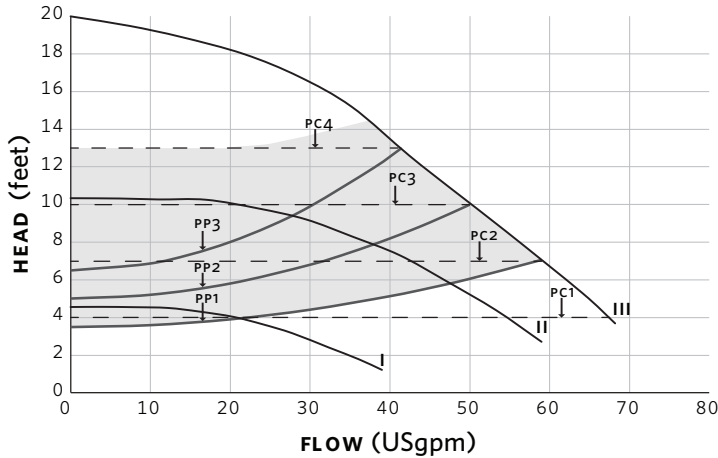
COMPANION FLANGE KITS (FLANGE, GASKET AND NUTS/ BOLTS)

CAST IRON		LEAD FREE BRONZE	
PART #	SIZE	PART #	SIZE
816013-212	0.75 "	816013-942	0.75 "
816012-212	1.00 "	816012-942	1.00 "
816011-212	1.25 "	816011-942	1.25 "
816009-212	1.50 "	816009-942	1.50 "

COMPASS R CIRCULATOR PREFERRED SELECTION AREA

COMPASS R20-75

AUTO, FIXED HEAD, FIXED SPEED AND PROPORTIONAL PRESSURE CURVES



Manual control options

Fixed head curve - PC1, PC2, PC3, PC4

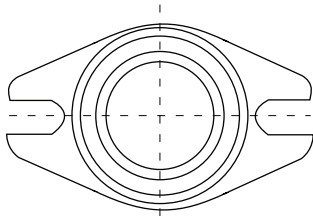
Fixed speed curve - I, II, III

Proportional pressure curve - PP1, PP2, PP3

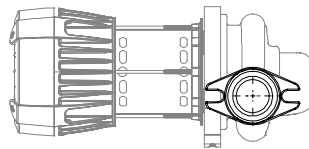
AUTO - ■

COMPASS R FLANGE AND ORIENTATION

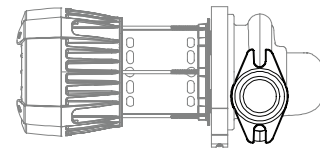
2-BOLT FLANGE



2-BOLT FLANGE ORIENTATION



FLANGE ORIENTATION X



FLANGE ORIENTATION Y

COMPASS R NAMING CONVENTION

COMPASS R 2075 DI 8.5x2-115/1

COMPASS R MODEL 20-75 ←

- Represents a maximum head pressure of 20ft and a maximum flow rate at 75USgpm

COLOUR OF CASING ←

- **DI** represents a red Ductile Iron casing
- **SS** represents a Stainless Steel casing

→ 115/1 REPRESENTS

115v/1ph/60Hz (115/1/60, 208-240/1/60 is available)

→ 8.5 REPRESENTS THE FLANGE TO FLANGE DIMENSION

- X represents the X orientation of the pump (X or Y will be available)
- 2 represents the 2-bolt flange

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