

Compass R
High-Efficiency
Dry-Rotor Circulators
Volute Replacement

Installation and
operating instructions

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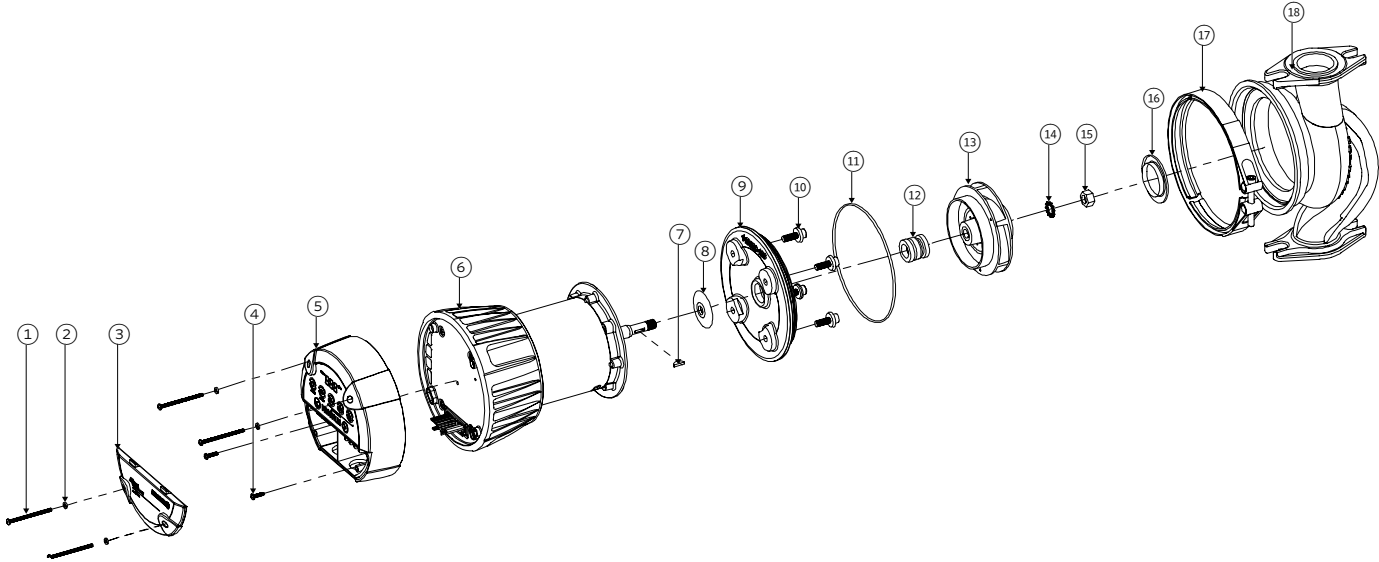
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1.0 EXPLODED ASSEMBLY VIEW



INDEX	DESCRIPTION
1	Screw for controller housing M3×0.5×50
2	Screw gasket
3	Controller plate cover
4	Screw from controller housing to driver housing M3×0.5×12
5	Controller
6	ECM motor
7	Shaft key
8	Water slinger
9	Motor plate
10	Plate bolts / washers
11	O-ring
12	Mechanical seal
13	Impeller
14	Impeller washer
15	Impeller nut
16	Casing insert
17	Motor casing clasp
18	Casing

Compass R Replacement Volute

SR. NO	PART NUMBER	DESCRIPTION
1	819110-113	Casing w/Insert 20-75 (DI)
2	819110-173	Casing w/Insert 20-75 (SS)

NOTE:

Repair part numbers can be found in the Circulator Parts List, **File# 6010.201** (not all parts shown here are available for sale, this is to show an entire breakdown of the Compass R)

2.0 REPLACEMENT OF VOLUTE

- 1 Turn off the pump leaving it installed in the line
- 2 Ensure electrical power is disconnected and locked out
- 3 Close the water supply at the points closest to the pump's inlet and outlet
- 4 For safety, allow water to cool to 100°F (40°C) before draining the system. It is best to leave the drain valve open while working on the system
- 5 Bleed the water pressure from the pump
- 6 Place a pan under the pump to collect the drain water
- 7 Loosen the V-Clamp
- 8 While holding the plumbing system, remove pump motor from volute
- 9 Remove the old volute and gasket
- 10 Install the new volute and casing insert
- 11 Install new flange gasket into companion flanges
- 12 Refasten flanges using new nuts and bolts
- 13 Torque the bolts to a maximum of 10 ft.lbs
- 14 Replace original O-Ring on motor adapter flanges with new O-Ring, apply O-Ring lubricant
- 15 Reinstall pump drive into volute and tighten the V-Clamp

3.0 START-UP

3.1 BEFORE START- UP

Fill the system with liquid and properly vent the system before starting the pump. The required minimum inlet pressure in relation to liquid temperature must be available at the pump inlet.

3.2 VENTING THE PUMP

Even with system vented, air may be still be present in the pump. The air in the pump may cause noise but the noise should cease after a few minutes running.

The venting process can be shortened by setting the pump to run at max speed for a short period of time (60 seconds).

Once the pump is vented (the noise has ceased), set the pump mode according to the recommendations.

CAUTION

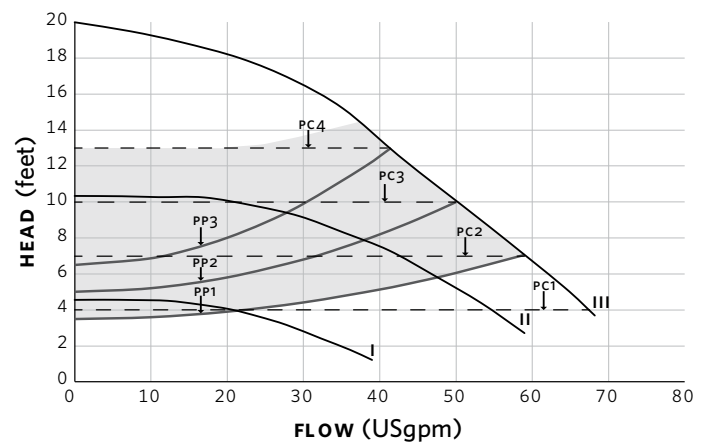


The pump must not run dry.

4.0 PUMP SETTINGS AND PUMP PERFORMANCE

4.1 PUMP PERFORMANCE CURVES

Compass R 20-75 performance curves-Auto, Fixed Head, Fixed Speed and Proportional Pressure Curves



Manual control options

Fixed head curve - I, II, III

Fixed speed curve - PC1, PC2, PC3, PC4

Proportional pressure curve - PP1, PP2, PP3

AUTO - ■

Auto mode
(Factory default)



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