

# CP-20-S Centrifugal Circulator Pump

## Installation, Operation, and Maintenance

**The Concept:** CP-20-S is a submersible centrifugal pump designed for use in fresh or salt water (hot or cold) circulating systems. Construction is of bronze, stainless steel, or is non-metallic, so the pump may be used to pump nearly any non flammable, non-explosive liquid.

**Installation:** Install the pump in a location that will provide generous air flow to aid in motor cooling.

CP-20-S is not self-priming, so a flooded inlet is required. You may lay CP-20-S on its side in the bilge, running inlet and discharge hoses to and from the pump.

Because of the weight of the pump, installation directly on top of a seacock is not recommended unless the pump is supported with straps or clamps.

**Bonding:** GROCO pumps must be connected to the vessel bonding system. Use 14-gauge (or larger) stranded copper wire and a ring terminal beneath one of the bolts that holds the pump castings together to make this connection.

**Warning:** Motorized equipment must have a separate connection to the vessel DC grounding bus in accordance with ABYC, E-11, Figure-18. DO NOT make pump bonding connection in series with non-motorized equipment such as strainers or seacocks.

**Plumbing:** Make plumbing connections with pipe, hose, or pipe-to-hose adaptors. Double clamp hose connections and use TFE thread tape on pipe connections.

The inlet is 3/4" NPT and the discharge is threaded internally 1/2" NPT, or 1" ID hose may be used. An adaptor is included for garden hose.

Avoid sharp bends and sags in plumbing lines, and use full-flow fittings and hose if possible.

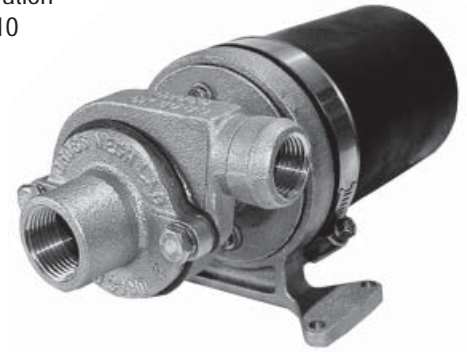
**Electrical:** Proper wire size is essential for proper motor and pump performance. Refer to the wire size selection chart enclosed.

The orange wire is positive (+). Make electrical connections with marine grade crimp terminals.

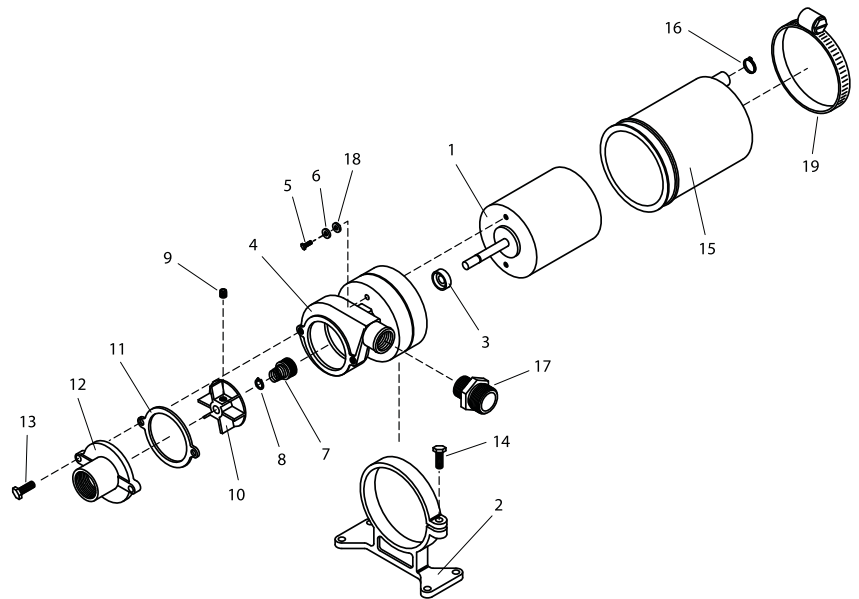
**Operation:** Consider controlling operation with GROCO Pump Cycle Timer PC-10 or FPC-10

**Maintenance:** No regular maintenance is required.

**Winterization:** Freezing water within will damage the pump. Close the inlet seacock and disconnect the connecting fittings or hose to drain water.



CP-20-S is fully submersible



| Item | Part Number | Part Name            | Qty | Service Kit |
|------|-------------|----------------------|-----|-------------|
| 1    | (voltage)-B | Motor (CP-20 Series) | 1   |             |
|      | (voltage)-M | Motor (CP-30 Series) | 1   |             |
| NS   | 24137901    | Brushes (M series)   | 1   |             |
| 2    | CP-21-S     | Bracket              | 1   |             |
| 3    | 031-075-8   | Seal                 | 1   | *           |
| 4    | CP-20-S     | Housing              | 1   |             |
| 5    | 1032X12HS   | Screw                | 2   |             |
| 6    | 10L         | Washer               | 2   |             |
| 7    | 69026       | Seal Assy            | 1   | *           |
| 8    | Snap Ring-1 | Snap Ring            | 1   | *           |
| 9    | 14X14SET    | Set Screw            | 1   |             |
| 10   | CP-55       | Impeller & Set Screw | 1   |             |
| 11   | CP-56       | Gasket               | 1   | *           |
| 12   | CP-58-H     | Cover                | 1   |             |
| 13   | 1420X34HS   | Screw                | 2   |             |
| 14   | 1420X1FB    | Screw                | 1   |             |
| 15   | SBP-204     | Boot                 | 1   |             |
| 16   | CLAMP-14    | Clamp                | 1   |             |
| 17   | GHM500M     | 1/2 NPT x GH Adaptor | 1   |             |
| 18   | PFW-K       | Washer               | 2   |             |
| 19   | CLAMP-7     | Clamp                | 1   |             |
|      | <b>P-2</b>  | <b>SERVICE KIT</b>   |     | *           |