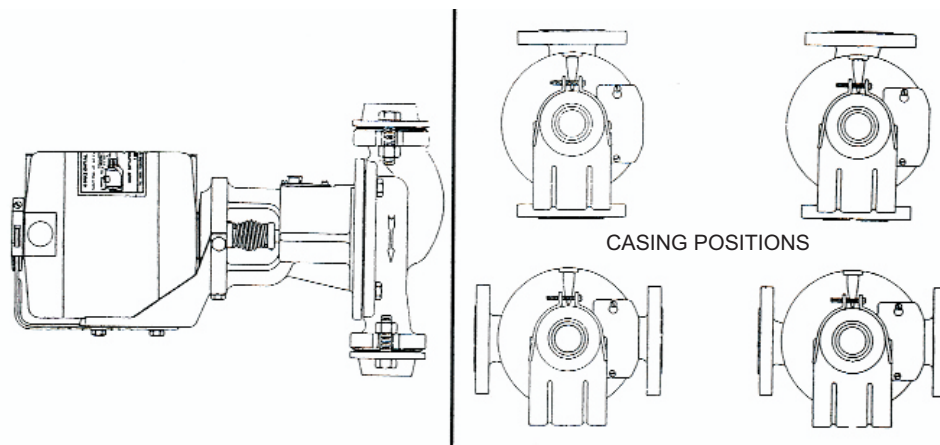




INSTALLATION & OPERATING INFORMATION HORIZONTAL WATER CIRCULATOR



Installing Circulator

This circulator is shipped from the factory with the casing set for mounting in a vertical pipe as shown above. When the circulator is to be installed in a horizontal pipe, turn casing 1/4 turn to right or left according to direction of the flow. **MOTOR MUST ALWAYS REMAIN IN THE SAME POSITION WITH OIL CUPS UP.** Install flanges on pipe before connecting flanges to circulator casings. Be sure ring gaskets are in place on casing before drawing up flange bolts. The circulator should be supported only by the piping in which it is installed. **DO NOT ADD SUPPORT TO THE MOTOR.**

Lubrication

Oil all three cups before starting and every three months thereafter. Fill motor oil cups with S.A.E. #20 non-detergent oil. Use S.A.E. #30 non-detergent oil for the bracket or the zoom spout oiler that comes with the circulator or bracket assembly. For high temperature or continuous operation, more frequent oiling will be necessary.

Wiring

Circulator motors have openings for BX connector and two wiring posts under terminal cover. Be sure two lead wires are securely fastened under terminal nuts. **DO NOT CONNECT SOLID CONDUIT TO CIRCULATOR MOTOR.** Use 18" of flexible conduit between end of solid conduit and the motor.

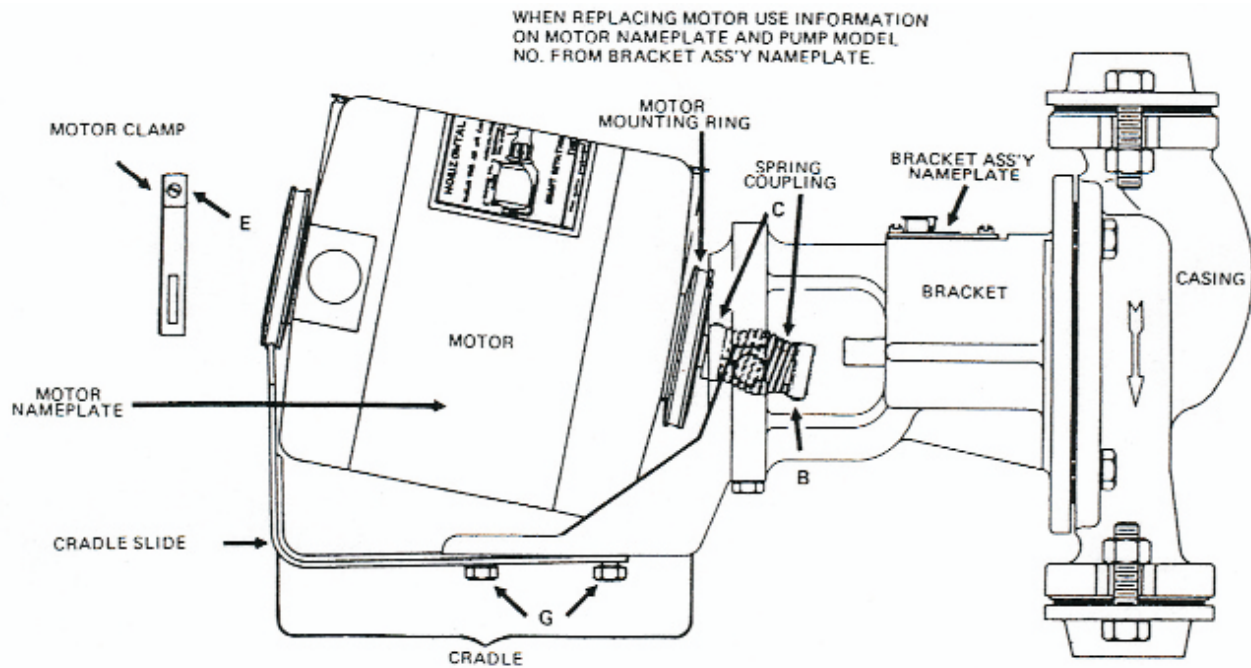
Motor Rotation

All motors on Thrush circulators have counter-clockwise rotation looking at shaft end. When looking at motor end, rotation will be clockwise.

Caution

Mechanical seal life is affected adversely by the presence of abrasive impurities in the system. One of the most common abrasive is black iron oxide (FE3O4). Another important factor in seal life is water treatment. It is recommended that the chromate content of the system does not exceed 250 P.P.M.

To Remove and Reinstall Motor HORIZONTAL WATER CURCULATOR



1. Turn off the electrical current and disconnect wiring to motor.
2. Loosen set screw "B".
3. Loosen machine screw "E" and remove motor clamp.
4. Loosen four bolts "G" and pull cradle slide back far enough to disengage motor mounting ring from bracket.
5. Lift motor out of cradle.
6. When replacing motor, loosen set screw "C" and slide coupling off the old motor shaft. Fasten the spring coupling to the new motor shaft by tightening set screw "C" on flat of motor shaft. Coupling should be within 1/8" of motor face.
7. Set new motor in cradle, push motor forward guiding motor mounting ring into register in the bracket and impeller shaft into the spring coupling. Motor must be to bottom of register for proper alignment. Tighten four bolts "G", reinstall motor clamp and tighten machine screw "E".
8. Stretch spring coupling approximately 1/8" toward casing. CAUTION: Spring coils should not touch, as this will result in excessive noise. Tighten set screw "B" on flat of impeller shaft.
9. Rewire motor and turn on the electrical current. If installing new motor, fill motor oil cups with S.A.E. #20 non-detergent oil.