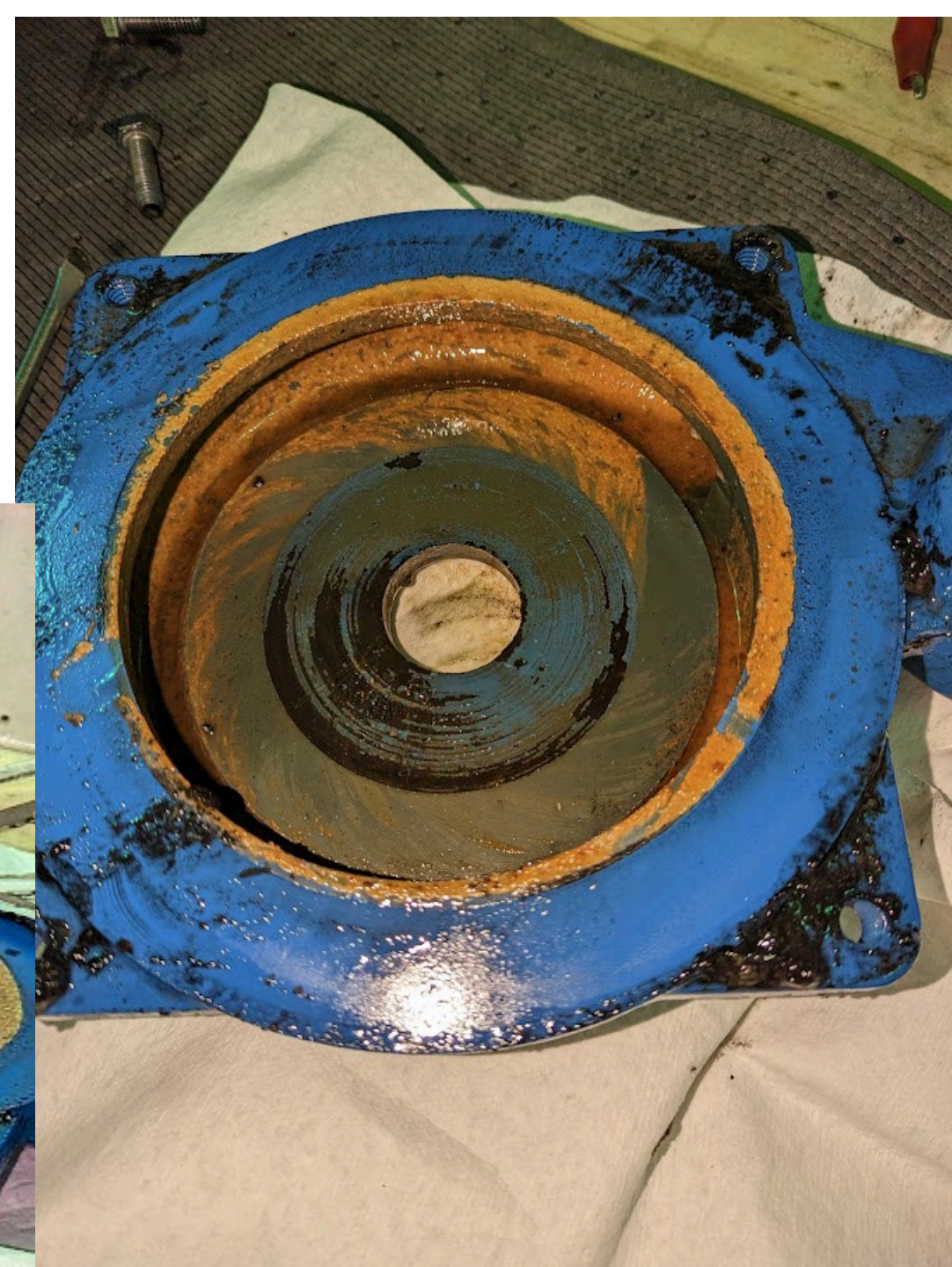


Rub marks on impeller and damage on the trailing tip. Would it be the leading tip during reverse flow from backwash?



Impeller and bottom cp.



Manual sent with the new pump suggests backflow can cause premature seal or bearing wear.

opening preventing stagnate areas where solids can settle. The basin or pit must be capable of supporting the weight of the pump and guide rail. The pit floor must be flat.

**NOTICE: FOLLOW THE INSTRUCTIONS THAT ARE PROVIDED WITH THE GUIDE RAIL ASSEMBLY.**

### **PIPING**

Discharge piping should be no smaller than the pump discharge diameter and kept as short as possible, avoiding unnecessary fittings to minimize friction losses.

Install an adequately sized check valve matched to the solids handling capability of the pump to prevent fluid backflow. Backflow can allow the pump to “turbine” backwards and may cause premature seal and/or bearing wear. If the pump is turning backwards when it is called on to start the increased torque may cause damage to the pump motor and/or motor shaft and some single-phase pumps may actually run backwards.

Install an adequately sized gate valve **AFTER** the check valve for pump, plumbing and check valve maintenance.

**Important – Before pump installation.** Drill a  $\frac{3}{16}$ ” (4.8mm) relief hole in the discharge pipe. It should be located within the wetwell, 2” (51mm) above the pump discharge but below the check valve. The relief hole allows any air to escape from the casing. Allowing liquid into the casing will insure that the pump can start when the liquid level rises. Unless a relief hole is provided, a bottom intake pump could “air lock” and will not pump water even though the impeller turns.