

### Fill In Pump Information Below

Today's Date \_\_\_\_\_

### Customer Info:

Company Name \_\_\_\_\_

First Name \_\_\_\_\_

Last Name \_\_\_\_\_

Email address \_\_\_\_\_

Phone Number \_\_\_\_\_

Physical Address of Pump Location \_\_\_\_\_

\_\_\_\_\_

Model # \_\_\_\_\_

Serial Number \_\_\_\_\_

Purchase from which vendor \_\_\_\_\_

Performance target \_\_\_\_\_

This pump has been factory tested. Please inspect the entire Pump & Motor Unit for any damage that could have occurred in shipping and transportation.

### MANUAL CONTENTS

1. PHYSICAL INSPECTION --> VOLUTE
2. PHYSICAL INSPECTION --> BRACKET
3. PHYSICAL INSPECTION --> IMPELLER
4. PHYSICAL INSPECTION --> MOTOR
5. PHYSICAL INSPECTION --> PLUMBING
6. PHYSICAL INSPECTION --> ELECTRICAL
7. PHYSICAL INSPECTION --> STATIC HYDRAULIC TEST OF A MECHANICAL SEAL
8. COMMISSIONING --> START UP
9. COMMISSIONING --> MOTOR OPERATION
- 10.COMMISSIONING --> SYSTEM PERFORMANCE VALIDATION



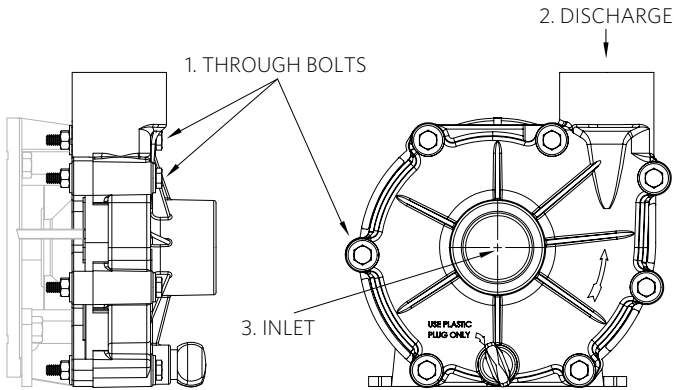


### 1. PHYSICAL INSPECTION ----> VOLUTE

**STEP 1:** Verify the Pump Casing Fasteners (THROUGH BOLTS) are securely tightened and the integrity of the plastic around them is not damaged.

**STEP 2-3:** Inspect the DISCHARGE and INLET to verify there is no shipping damage.

**STEP 4:** Inspect the entire VOLUTE to confirm the integrity of plastic is not compromised.



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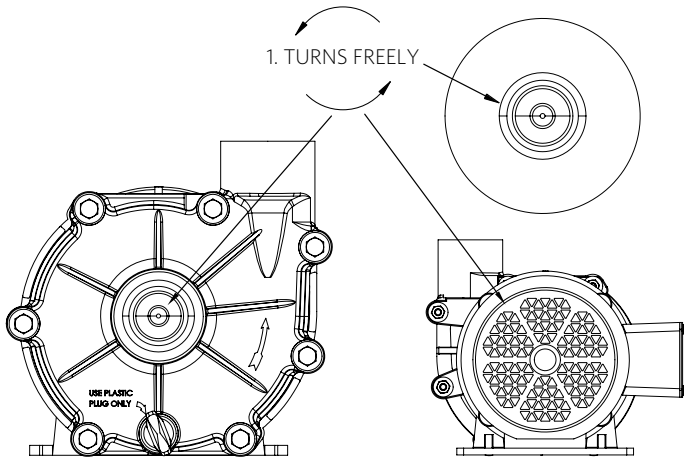
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### 3. PHYSICAL INSPECTION ----> IMPELLER

**STEP 1:** Verify the IMPELLER TURNS FREELY within the pump casing making sure nothing was damaged during transport.

**STEP 2:** Inspect IMPELLER VANES to make sure no shipping material or debris has made its way into the flow path.

**STEP 3:** Verify the MOTOR FAN turns freely while turning impeller.



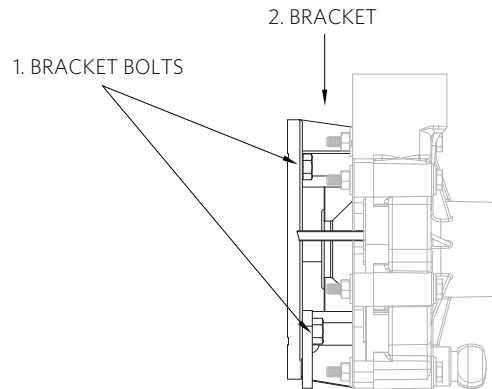
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### 2. PHYSICAL INSPECTION ----> BRACKET

**STEP 1:** Verify the four BRACKET BOLTS are securely fastening the bracket base to the motor face.

**STEP 2:** Inspect the entire BRACKET to confirm the integrity of plastic is not compromised.



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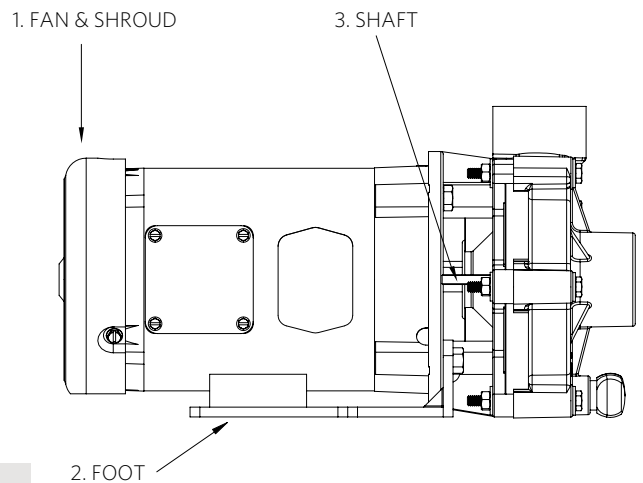
### 4. PHYSICAL INSPECTION ----> MOTOR

**STEP 1:** Inspect the motor FAN & SHROUD making sure they are free of damage and that the FAN spins freely.

**STEP 2:** Inspect the motor FOOT and verify it sits flush to finished floor or PMU base.

**STEP 3:** Inspect motor SHAFT for damage.

**STEP 4:** Inspect the entire MOTOR to verify unit is free of visible damage.



4

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### 5. PHYSICAL INSPECTION -----> PLUMBING

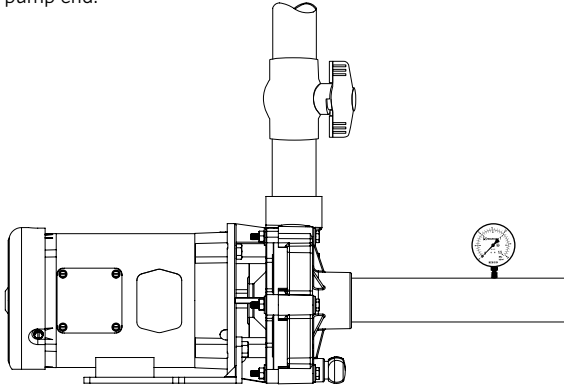
**STEP 1:** Make certain all inlet and discharge flange connections are positively sealed with gaskets and fasteners.

**STEP 2:** All plumbing connections in the system need to be positively sealed as well.

**STEP 3:** Inlet Pipe size  **STEP 4:** Flooded Suction

**STEP 5:** Suction lift  **STEP 6:** Discharge Pipe Size

**Step 7:** Pipe Load Supports - Make certain the pipe load is not transferring any stress to the pump end.



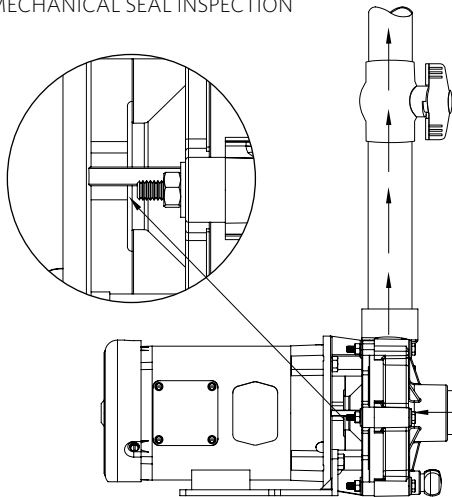
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### 7. PHYSICAL INSPECTION -----> STATIC HYDRAULIC TEST OF A MECHANICAL SEAL

**STEP 1: MECHANICAL SEAL INSPECTION** - Visually inspect where motor shaft extends through pump bracket. Make certain no fluid is leaking around the pump bracket seal bore and motor shaft. If mechanical seal holds static system pressure then mechanical seal is ready to be tested under hydraulic load.

#### 1. MECHANICAL SEAL INSPECTION



7

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### 6. PHYSICAL INSPECTION -----> ELECTRICAL

Proper electrical wiring is imperative in your pump / motor performance and longevity. Please verify that the supply electrical power matches the motor name plate before hard wiring motor.

#### Name Plate Data/Validation:

1. Supply Voltage \_\_\_\_\_ Phase \_\_\_\_\_
2. Motor Name Plate Voltage \_\_\_\_\_
3. Motor Name Plate FLA \_\_\_\_\_
4. Check Motor Rotation \_\_\_\_\_

See arrows on pump end for correct motor rotation.

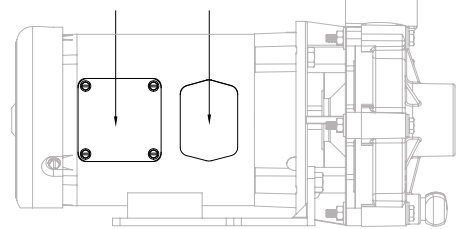
#### Electrical Hook-Up:

1. Check that supply voltages match the motor's requirements.
2. Check motor wiring and connect, according to wiring diagram on motor, to match supply voltage.
3. Verify motor rotation with rotation meter.
4. Power supply wires should be SO cord or enclosed in conduit according to local electrical codes.
5. Power should be drawn from a circuit breaker panel with disconnect switch' according to local electrical codes.

WARNING: ALWAYS SHUT OFF ELECTRICAL POWER BEFORE INSTALLATION AND / OR SERVICING THIS PUMP! ALL ELECTRICAL WIRING SHOULD MEET STATE AND LOCAL ORDINANCES. IMPROPER WIRING MAY NOT ONLY BE A SAFETY HAZARD BUT MAY PERMANENTLY DAMAGE THE MOTOR AND/OR PUMP! 50 HZ MOTORS AVAILABLE - CONTACT YOUR SUPPLIER FOR INFORMATION.

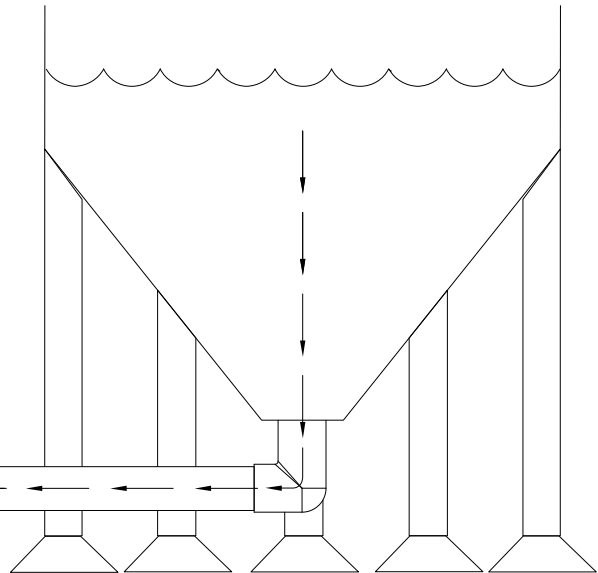


#### 1. JUNCTION BOX 2. NAME PLATE



6

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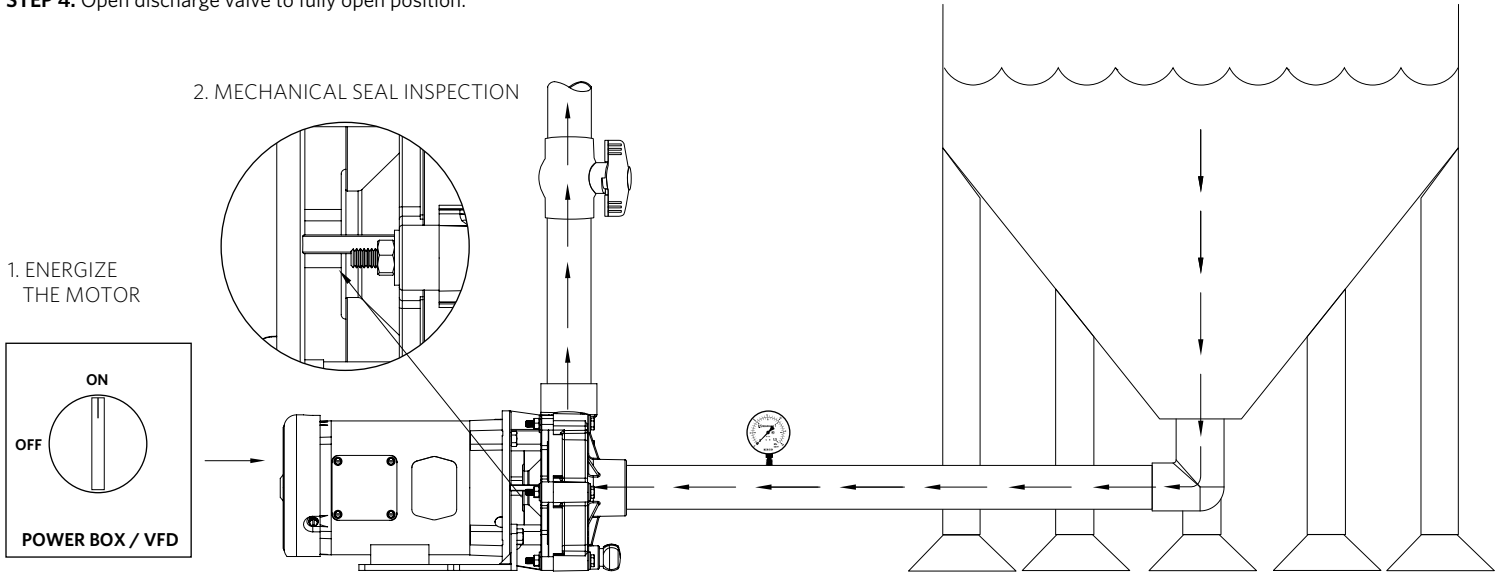
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### 8. COMMISSIONING ----> START UP

**STEP 1:** Energize the motor. **STEP 2:** Visually inspect the Mechanical Seal under hydraulic load. Confirm proper seat seating by verifying no sign of leaks around the motor shaft or seal bore on the pump bracket. **STEP 3:** Proceed to the "dead head" test. **A.** Slowly turn valve on discharge until completely closed. **B.** Visually inspect mechanical seal for leakage around the motor and seal bore on the pump bracket. **C.** If no dripping or leaking is present after 2 minutes of dead-head operation, seal has passed. **STEP 4:** Open discharge valve to fully open position.



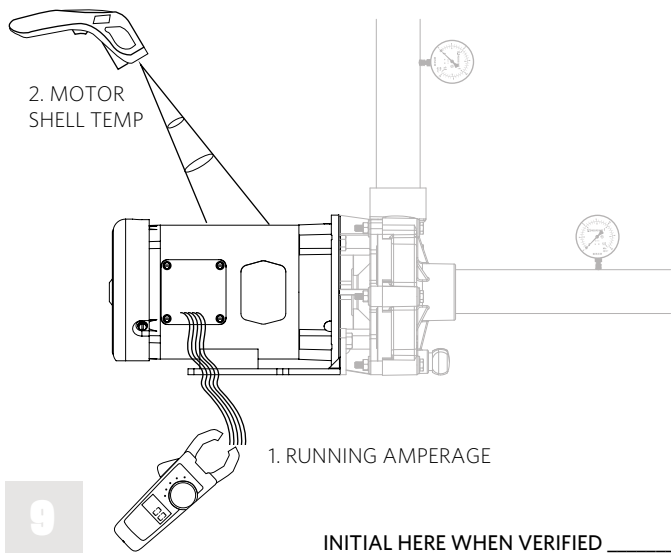
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### 9. COMMISSIONING ----> MOTOR OPERATION

Using an amp meter, immediately measure running amperage on the appropriate motor leads. Make certain the running amperage is not exceeding the rated full load amperage on the motor name plate.

Running amperage  Motor Shell Temp



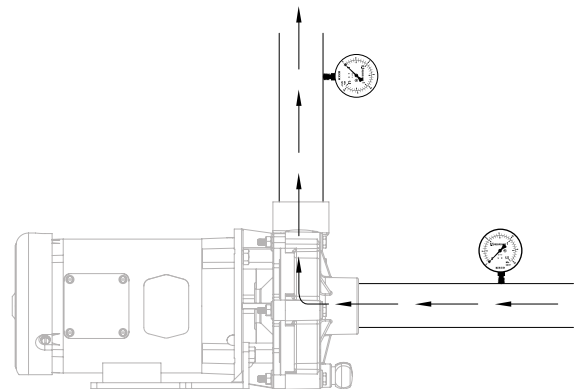
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### 10. COMMISSIONING ----> SYSTEM PERFORMANCE VALIDATION

Validate actual pump performance to the original performance target. This step is essential in assuring that the installation will perform to design.

Inlet pressure reading \_\_\_\_\_ Discharge pressure reading \_\_\_\_\_



10

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