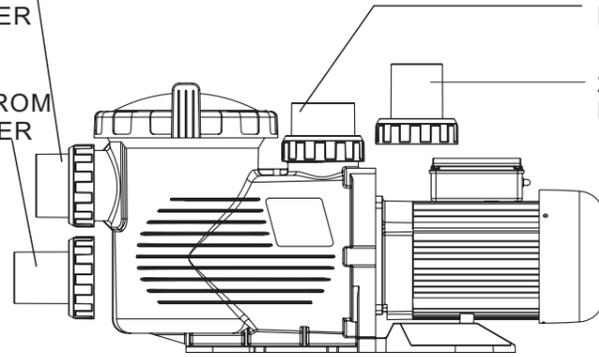


2.5" SUCTION PORT FROM POOL OR VACUUM FILTER

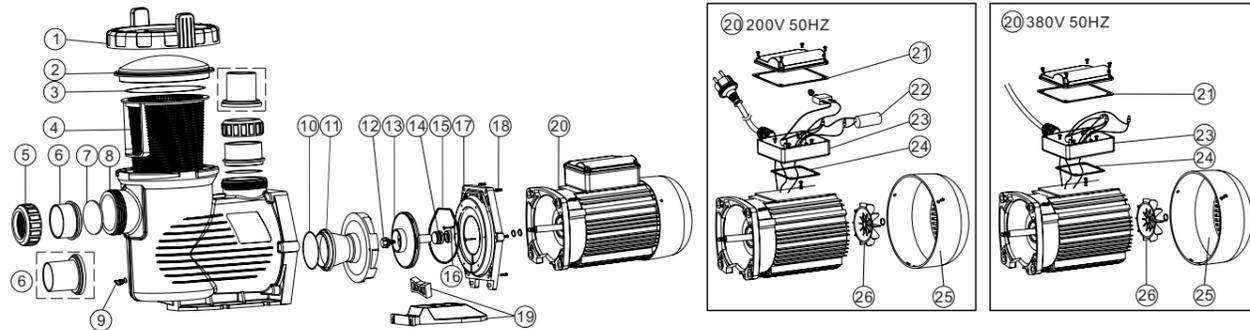
2.0" SUCTION PORT FROM POOL OR VACUUM FILTER

2.5" DISCHARGE PORT TO FILTER OR POOL

2.0" DISCHARGE PORT TO FILTER OR POOL

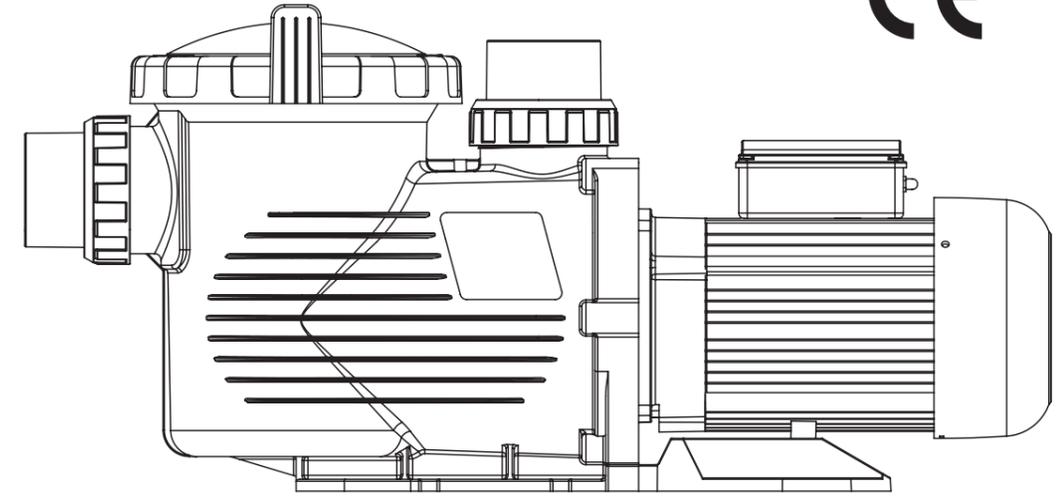


**PUMP PARTS FOR EPH**



Key No.	Part No.	Description	Qty
1	01020016	Nut for lid	1
2	01041049	Transparent Lid	1
3	02010042	O-Ring for Lid	1
4	01110024	Basket	1
5	01013147	2.5" Nut for Connector	2
6	01171160	2.0" Union Adaptor	2
6	01171158	2.5" Union Adaptor	2
7	02010043	O-Ring for Union Adaptor	2
8	01112087	Pump Body	1
9	89021307	Drain Plug with O-ring	2
10	02010213	O-Ring	1
11	01110025	Diffuser	1
12	89020719	Screw for impeller with O-Ring	1
13	01400100	Impeller for EPH200 (220V/50HZ) & (380V/50HZ) & SPH200 (50HZ)	1
13	01400101	Impeller for EPH300 (220V/50HZ) & (380V/50HZ) & SPH300 (50HZ)	1
13	01400102	Impeller for EPH400 (220V/50HZ) & (380V/50HZ)	1
14	04015046	3/4" Mechanical Seal	1
15	02010212	O-Ring for Flange	1
16	03011201	M3.5 x 35 Screw	2
17	01020017	Flange	1
18	89020720	M8 x 35 Screw with Washer for Motor	6
19	01110026	Base	1
19	02010211	Arch Cushion for Base	1
20	04020102	Motor for EPH200 (220V/50HZ)	1
20	04020103	Motor for EPH300 (220V/50HZ)	1
20	04020104	Motor for EPH400 (220V/50HZ)	1
20	04020105	Motor for EPH200 (380V/50HZ)	1
20	04020106	Motor for EPH300 (380V/50HZ)	1
20	04020107	Motor for EPH400 (380V/50HZ)	1
21	02011075	Arch Cushion for Cable Box	1
22	04016015	Capacitor for SB/SR20 & SC/EPH200 & SPH200 Pump	1
22	04016016	Capacitor for SB/SR30 EPH300, EPH400 & SPH300 Pump	1
23	89021505	Cable Box	1
24	02011109	Arch Cushion for Cable Box	1
25	01031001	Fan Cover	1
26	01031006	Cooling Fan	1

# EPH Series Centrifugal Pump Installation & Operation Instructions



**INSTALLATION**

Only qualified, licensed personnel should install pump and wiring.

**IMPORTANT ELECTRICAL**

Electrical Contractors Please Note: EMAUX pumps must be wired to the main power supply through an approved and correctly rated contactor.

**Pump Mount Must:**

- ❖ Be solid Level Rigid Vibration Free.
- ❖ Allow pump suction inlet height to be as close to water level as possible.
- ❖ Allow use of short, direct suction pipe (To reduce friction losses.)
- ❖ Allow for gate valves in suction and discharge piping.
- ❖ Have adequate floor drainage to prevent flooding.
- ❖ Be protected from excess moisture.
- ❖ All adequate access for servicing pump and piping.

**NOTICE:**

Pump suction and discharge connections have moulded in thread stops, **DO NOT** try to screw pipe in beyond these stops.

**OPERATION**

▲ **NEVER** run pump dry! Running pump dry may damage seals, causing leakage and flooding! Fill pump with water before starting motor.

▲ Before removing lid:  
STOP PUMP before proceeding.  
CLOSE GATE VALVES in suction and discharge pipes.  
RELEASE ALL PRESSURE from pump and piping system.  
NEVER tighten or loosen screws while pump is operation.

▲ Do not block pump suction! To do so with body may cause severe or fatal injury. Children using pool must **ALWAYS** have close adult Supervision!

**Priming Pump:**

- ❖ Release all air from filter and piping system: see filter owner manual.
- ❖ In a flooded suction system (water source higher than pump), pump will prime itself when suction and discharge valves are opened.
- ❖ If pump is not in a flooded suction system, unscrew and remove trap cover; fill trap and pump with water.
- ❖ Clean and inspect Ring; re-install on trap cover.
- ❖ Replace trap cover on trap; turn clockwise to tighten cover.

**NOTICE:** Tighten trap cover by hand only.  
Pump should prime now. Priming time will depend on vertical length of suction lift and horizontal length of suction piping.

**Routine Maintenance**

The only routine maintenance needed is inspection/cleaning of trap basket. Debris or trash that collects in basket, will choke off water flow through the pump. Follow instructions below to clean trap:

1. Stop pump, close gate valve in suction and discharge, and release all pressure from system before proceeding.
2. Unscrew trap lid (turn counterclockwise).
3. Remove strainer basket and clean. Be sure all holes in basket are clear, flush basket with water and replace in trap with large opening at pipe connection port (between ribs provided). If basket is replaced backwards cover will not fit on trap body.
4. Clean and inspect lid Ring; reinstall on trap cover.
5. Clean Ring groove on trap body and Replace lid. To help keep lid from sticking, tighten hand tight only.
6. Prime pump (see priming instructions above)



**SERVICE & REPAIR PARTS**

Refer all service to your local agent or dealer as his knowledge of your equipment makes him the best qualified source of information. Order all repair parts through your dealer. Give the following information when ordering repair parts:

1. Unit nameplate data or serial number on label.
2. Description of part.

**TROUBLE SHOOTING**

**MOTOR DOES NOT START**

1. Disconnect switch or circuit breaker in off position
2. Fuses blown or thermal overload open
3. Locked motor shaft
4. Motor windings burned out
5. Defective starting switch inside single phase motor
6. Disconnected or defective wiring
7. Low voltage

**PUMP DOES NOT REACH FULL SPEED**

1. Low voltage
2. Pump connected for wrong voltage

**MOTOR OVERHEATS** (protector trips)

1. Low voltage
2. Motor windings connected for wrong voltage on dual voltage model
3. Inadequate ventilation

**PUMP DELIVERS NO WATER**

1. Pump is not primed
2. Closed valve in suction or discharge line
3. Leakage or air into suction system
4. Impeller clogged

**LEAKAGE OF WATER AT SHAFT**

1. Shaft seal requires replacement

**LOW PUMP CAPACITY**

1. Valve in suction or discharge line partly closed
2. Suction or discharge line partly plugged
3. Suction or discharge line too small
4. Plugged basket in skimmer or hair and lint strainer
5. Dirty filter
6. Impeller clogged

**HIGH PUMP PRESSURE**

1. Discharge valve or inlet fittings closed too much
2. Return lines too small
3. Dirty filters

**NOISY PUMP AND MOTOR**

1. Plugged basket in skimmer or hair in lint strainer
2. Worn motor bearings
3. Valve in suction line partly closed
4. Suction line partly plugged
5. Vacuum hose plugged or too small
6. Pump not supported properly

**AIR BUBBLES AT INLET FITTINGS**

1. Leakage of air into suction line at connections or valve stem
2. Cover gasket of hair and lint strainer needs cleaning
3. Low water level in pool

**NOTE:** If the recommendations in the trouble shooting portion of this manual do not solve your particular problem(s), please contact your local dealer for service.