

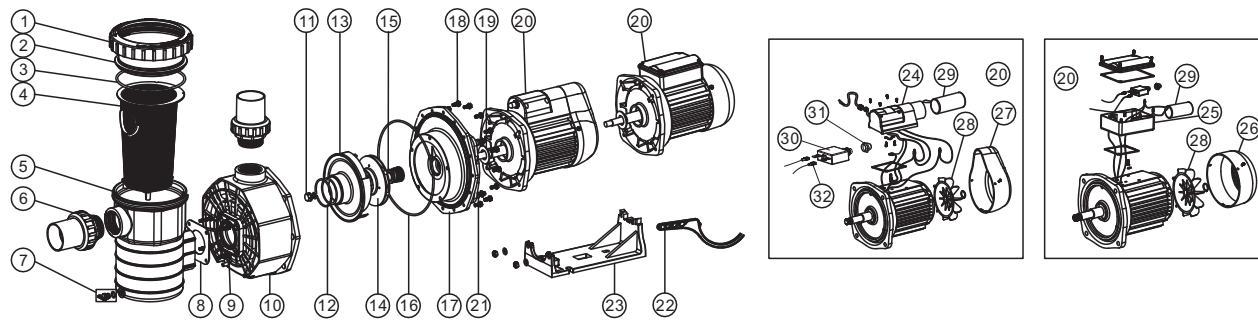
**PUMP PARTS FOR SB**

SUCTION PORT FROM POOL OR VACUUM FILTER

DISCHARGE PORT TO FILTER OR POOL

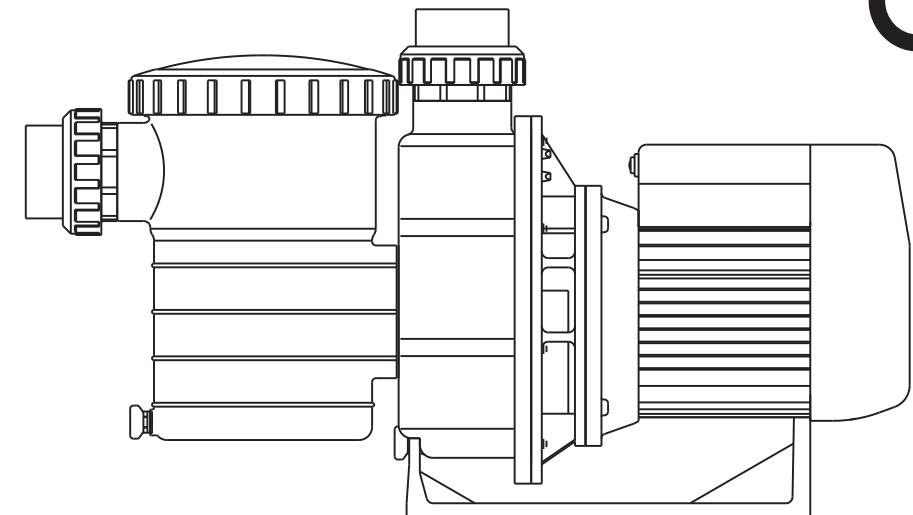
PUMP MAY BE BOLTED TO LEVER FOUNDATION OR MOUNTING BRACKET

SCREWS OF PUMP BODY



Key No.	Part No.	Description	Qty	Key No.	Part No.	Description	Qty
1	01021008	Nut for Lid	1	20	89021601	Motor SB10 (380V/50Hz)	1
2	01041022	Transparent Lid	1	20	89021602	Motor SB15 (380V/50Hz)	1
3	02010248	O-Ring for Lid	1	20	89021603	Motor SB20 (380V/50Hz)	1
4	01111030	Basket	1	20	89021604	Motor SB30 (380V/50Hz)	1
5	89021305	Pre-Filter Body	1	20	89021501	Motor SB10 (110V/60Hz)	1
6	89280103	2.0" Union	2	20	89021502	Motor SB15 (110V/60Hz)	1
7	89021307	Drain Plug with O-ring	1	20	89021503	Motor SB20 (110V/60Hz)	1
8	02011115	Square Gasket	1	20	89021504	Motor SB30 (110V/60Hz)	1
9	03011083	M6 x 30 Screw for Pump Body	4	21	89021310	Bolt for Motor with Washer	4
10	89021308	Pump Body	1	22	01021021	Opening key	1
11	89021309	Screw for Impeller with O-Ring	1	23	01111032	Base with Nut & Washer for SB10/ SB15	1
12	02011108	O-Ring for Diffuser	1	23	01111031	Base with Nut & Washer for SB20/ SB30	1
13	01111015	Diffuser	1	24	89021312	Cable Box for SB Pump 220V/50Hz; 220V/60Hz; 380V/50Hz.	1
14	01311001	Impeller SB10 (110V/60Hz) and (220V/60Hz)	1	25	89021505	Cable Box for SB Pump 110V/60Hz	1
14	01311002	Impeller SB20 (110V/60Hz) and (220V/60Hz)	1	26	01031001	Fan Cover for SB20/ SB30	1
14	01311003	Impeller SB20 (220V/50Hz) and (380V/50Hz)	1	26	01031002	Fan Cover for SB10/ SB15	1
14	01311004	Impeller SB10 (220V/50Hz) and (380V/50Hz) / SB15 (110V/60Hz) and (220V/60Hz)	1	27	01031008	Fan Cover for SB20/ SB30	1
14	01311005	Impeller SB15 (220V/50Hz) and (380V/50Hz) / SB30 (110V/60Hz) and (220V/60Hz)	1	27	01031009	Fan Cover for SB10/ SB15	1
14	01311006	Impeller SB30 (220V/50Hz) and (380V/50Hz)	1	28	01031007	Cooling Fan for SB10/ SB15	1
15	04015046	3/4" Mechanical seal	1	28	01031006	Cooling Fan for SB20/ SB30	1
16	02011093	O-Ring for Flange	1	29	04016014	Capacitor for SB10/ SB15 (220V/50Hz) (220V/60Hz)	1
17	01021013	Pump Flange	1	29	04016015	Capacitor for SB20 (220V/50Hz) (220V/60Hz)	1
18	03011080	M6x15 Hexagonal Bolt	16	29	04016016	Capacitor for SB30 (220V/50Hz) (220V/60Hz)	1
19	02011096	Motor Slinger	1	29	04016022	Capacitor for SB10/ SB15 (110V/60Hz)	1
20	89021301	Motor SB10 (220V/50Hz)	1	29	04016023	Capacitor for SB20/ SB30 (110V/60Hz)	1
20	89021302	Motor SB15 (220V/50Hz)	1	30	04015042	Overload Switch PE77-6A/250VAC for SB10	1
20	89021303	Motor SB20 (220V/50Hz)	1	30	04015015	Overload Switch PE77-8A/250VAC for SB15	1
20	89021304	Motor SB30 (220V/50Hz)	1	30	04015012	Overload Switch PE77-10A/250VAC for SB20	1
20	89021401	Motor SB10 (220V/60Hz)	1	30	04016037	Overload Switch PE77-13A/250VAC for SB30	1
20	89021402	Motor SB15 (220V/60Hz)	1	31	02021039	Cover for Overload Switch	1
20	89021403	Motor SB20 (220V/60Hz)	1	32	04014018	Insulation Fitting for Overload Switch	1
20	89021404	Motor SB30 (220V/60Hz)	1				

**SB Series Centrifugal Pump  
Installation & Operating 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 use of short, direct suction pipe. (To reduce friction losses & don't install the pump at more than 3M geometrical height from water level)
- ❖ 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.