

EBARA Submersible Sewage Pumps

Operating, Installation, and Maintenance

(3) Mechanical Seal (lower)

- (a) Unplug "Drain hole" (shown in Fig. 14) and drain all internal liquid (coolant or oil).
When draining coolant, open "Air vent" (shown in Figs. 1 and 2)
- (b) If the drained liquid is muddy, it contains pumped liquid.
The mechanical seal (lower) is in satisfactory condition as long as the internal liquid does not contain much pumped liquid. Otherwise, it must be replaced.
- (c) After the internal liquid has been inspected, pour fresh internal liquid (coolant or oil) based on paragraph 3.1.1. The amount is shown in Table 1 or 2.
- (d) Replug "Supply hole" as carefully as the other ports.
- (e) Replacing the upper and lower mechanical seal, the pump must be disassembled. After the mechanical seal has been replaced with a new one, reassemble the pump and supply the specified internal liquid as well. At this point, turn the rotating body by hand to ensure that it turns smoothly. Also, check for coolant leaks.

 : \$ 5 1 , 1 * USE CAUTION WHEN TURNING THE IMPELLER TO AVOID INJURY.

(4) Rotor

- (a) After checking the coolant, put your hand through the pump discharge and turn the impeller. Use caution when turning the impeller to avoid injury. If it turns smoothly, the rotating components should be in satisfactory condition.
- (b) If the impeller resists or feels locked, the pump requires an overhaul.

6.4 Parts that will need to be replaced:

Flamepath are not intended to be repaired, contact manufacture.

Replace the appropriate part when the following conditions are apparent.

Replaceable Part	Mechanical Seal	Seal Washer	Internal Liquid (Coolant/Oil)	O-ring
Replacement guide	Whenever internal liquid is clouded	Whenever coolant is replaced or inspected	Whenever clouded or dirty	Whenever pump is overhauled
Frequency	Annually	Annually	Annually	Annually

Above replacement schedule is based on normal operating conditions.

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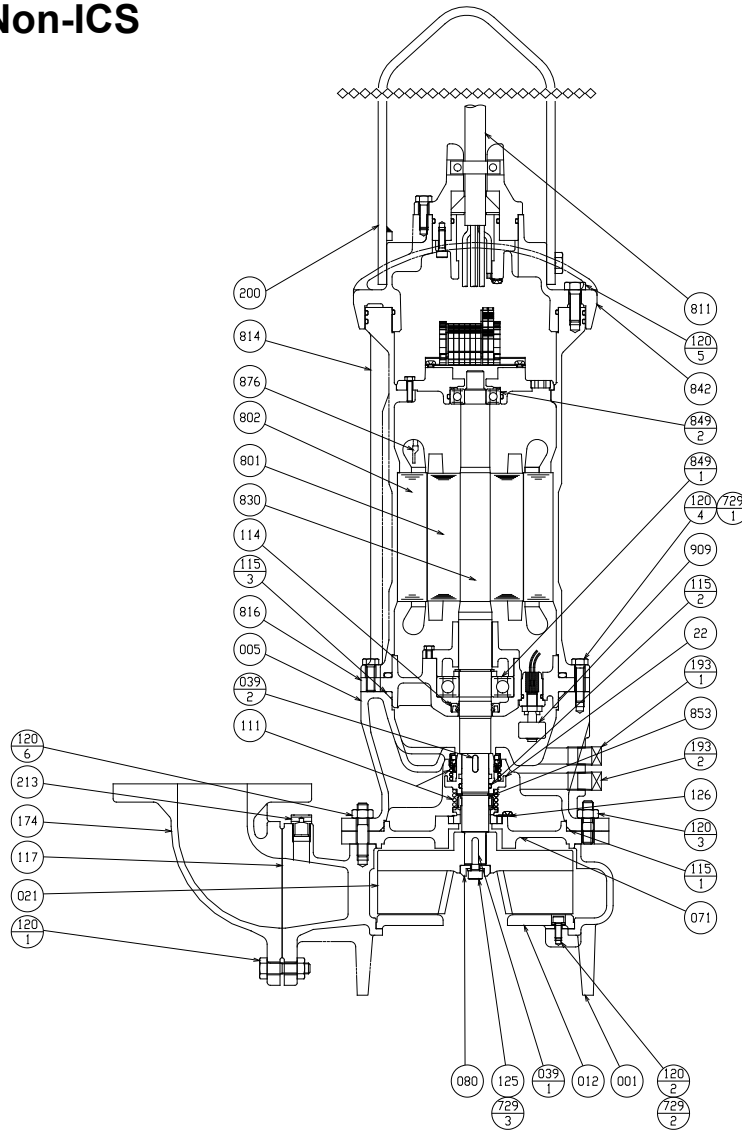
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EBARA Submersible Sewage Pumps

Operating, Installation, and Maintenance

2-5 HP Std. - Non-ICS (1.5-3.7 kW)



Item Number	Part Name	Material		Qty per unit
001	Pump Casing	ASTM A48 CL 30	Cast Iron	1
005	Intermediate Casing	ASTM A48 CL 30	Cast Iron	1
012	Suction Cover	ASTM A48 CL 30	Cast Iron	1
021	Impeller	ASTM A48 CL 30	Cast Iron	1
022	ICS sleeve	CF-8	Stainless Steel	1
039-1	Key	AISI 420	Stainless Steel	1
039-2	Key	AISI 316	Stainless Steel	1
071	Side Plate	ASTM A48 CL 30	Cast Iron	1
080	Bushing	Steel	Steel	1
111	Mechanical Seal			1 set
114	Oil Seal			1
115-1	O-ring	NBR		1
115-2	O-ring	NBR		1
115-3	O-ring	NBR		1
117	Gasket			1
120-1	Bolt	AISI 304	Stainless Steel	4
120-2	Bolt	AISI 304	Stainless Steel	3
120-3	Bolt	AISI 304	Stainless Steel	4
120-4	Bolt	AISI 304	Stainless Steel	4
120-5	Bolt	AISI 304	Stainless Steel	4
120-6	Bolt	AISI 304	Stainless Steel	4
125	Bolt	AISI 304	Stainless Steel	1

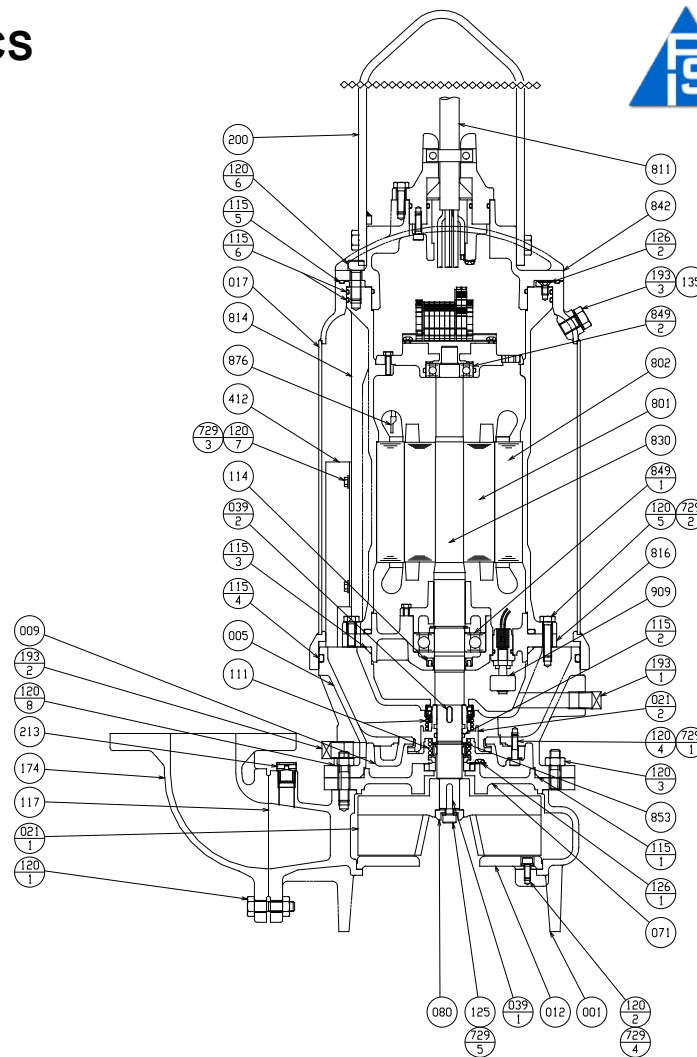
Item Number	Part Name	Material		Qty per unit
126	Screw	AISI 304	Stainless Steel	3
174	Discharge Elbow	ASTM A48 CL 30	Cast Iron	1
193-1	Plug	AISI 304	Stainless Steel	1
193-2	Plug	AISI 304	Stainless Steel	1
200	Lifting Hanger	AISI 304	Stainless Steel	1
213	Air Vent Valve	B36 No. 272	Brass	1
729-1	Spring Washer	AISI 304	Stainless Steel	4
729-2	Spring Washer	AISI 304	Stainless Steel	3
729-3	Spring Washer	AISI 304	Stainless Steel	1
801	Rotor			1
802	Stator			1
811	Submersible Cable			1
814	Motor Frame	ASTM A48 CL 30	Cast Iron	1
816	Power Side Bracket	ASTM A48 CL 30	Cast Iron	1
830	Shaft	AISI 403	Stainless Steel	1
842	Head Cover	ASTM A48 CL 30	Cast Iron	1
849-1	Ball Bearing			1
849-2	Ball Bearing			1
853	C-Type Snapp Ring			1
876	Thermal Protector			3
909	Leakage Detector			1



EBARA Submersible Sewage Pumps

Operating, Installation, and Maintenance

2-5 HP Opt. - ICS (1.5-3.7 kW)



Item Number	Part Name	Material	Qty per unit
001	Pump Casing	ASTM A48 CL 30 Cast Iron	1
005	Intermediate Casing	ASTM A48 CL 30 Cast Iron	1
009	Inner Casing	ASTM A48 CL 30 Cast Iron	1
012	Suction Cover	ASTM A48 CL 30 Cast Iron	1
017	Cooling Jacket	CF-8 / AISI 304 Stainless Steel	1
021-1	Impeller	ASTM A48 CL 30 Cast Iron	1
021-2	Impeller	CF-8 Stainless Steel	1
039-1	Key	AISI 420 Stainless Steel	1
039-2	Key	AISI 316 Stainless Steel	1
071	Side Plate	ASTM A48 CL 30 Cast Iron	1
080	Bushing	Steel Steel	1
111	Mechanical Seal		1 set
114	Oil seal		1
115-1	O-ring	NBR	1
115-2	O-ring	NBR	1
115-3	O-ring	NBR	1
115-4	O-ring	NBR	1
115-5	O-ring	NBR	1
115-6	O-ring	NBR	2
117	Gasket		1
120-1	Bolt	AISI 304 Stainless Steel	4
120-2	Bolt	AISI 304 Stainless Steel	3
120-3	Bolt	AISI 304 Stainless Steel	4
120-4	Bolt	AISI 304 Stainless Steel	4
120-5	Bolt	AISI 304 Stainless Steel	4
120-6	Bolt	AISI 304 Stainless Steel	4
120-7	Bolt	AISI 304 Stainless Steel	8
120-8	Bolt	AISI 304 Stainless Steel	4

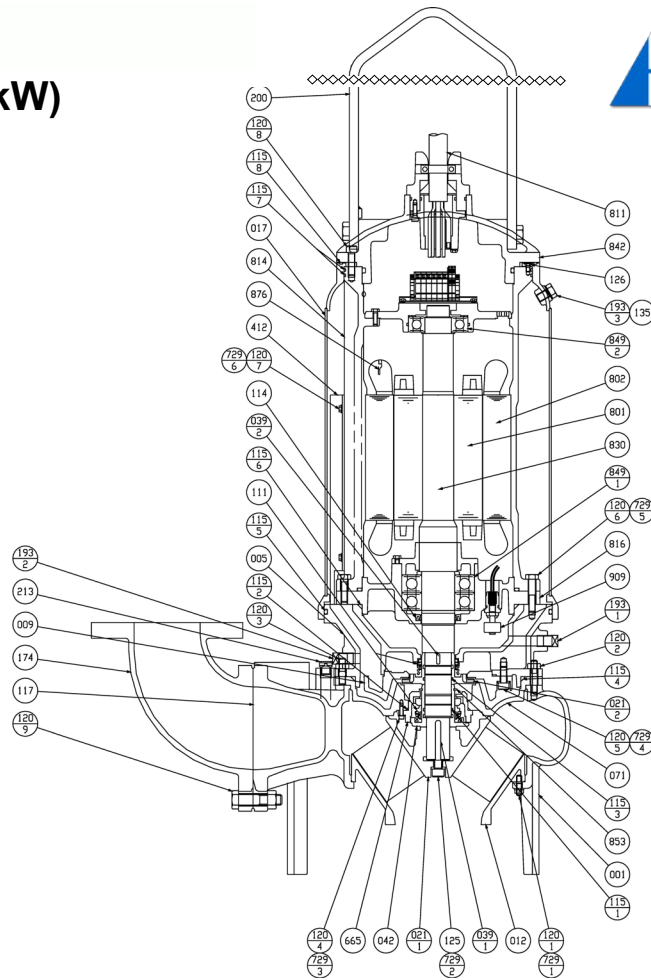
Item Number	Part Name	Material	Qty per unit
125	Bolt	AISI 304 Stainless Steel	1
126-1	Screw	AISI 304 Stainless Steel	3
126-2	Screw	AISI 304 Stainless Steel	4
135	Seal Washer		2
174	Discharge Elbow	ASTM A48 CL 30 Cast Iron	1
193-1	Plug	AISI 304 Stainless Steel	1
193-2	Plug	AISI 304 Stainless Steel	1
193-3	Plug	AISI 304 Stainless Steel	2
200	Lifting Hanger	AISI 304 Stainless Steel	1
213	Air Vent Valve	B36 No. 272 Brass	1
412	Guide Plate	AISI 304 Stainless Steel	4
729-1	Spring Washer	AISI 304 Stainless Steel	4
729-2	Spring Washer	AISI 304 Stainless Steel	4
729-3	Spring Washer	AISI 304 Stainless Steel	8
729-4	Spring Washer	AISI 304 Stainless Steel	3
729-5	Spring Washer	AISI 304 Stainless Steel	1
801	Rotor		1
802	Stator		1
811	Submersible Cable		1
814	Motor Frame	ASTM A48 CL 30 Cast Iron	1
816	Power Side Bracket	ASTM A48 CL 30 Cast Iron	1
830	Shaft	AISI 403 Stainless Steel	1
842	Head Cover	ASTM A48 CL 30 Cast Iron	1
849-1	Ball Bearing		1
849-2	Ball Bearing		1
853	C-Type Snapp Ring		1
876	Thermal Protector		3
909	Leakage Detector		1



EBARA Submersible Sewage Pumps

Operating, Installation, and Maintenance

**7.5-15, 25-30 HP
(5.5-11, 18.5-22 kW)**



Item Number	Part Name	Material		Qty per unit
001	Pump Casing	ASTM A48 CL 30	Cast Iron	1
005	Intermediate Casing	ASTM A48 CL 30	Cast Iron	1
009	Inner Casing	ASTM A48 CL 30	Cast Iron	1
012	Suction Cover	ASTM A48 CL 30	Cast Iron	1
017	Cooling Jacket	CF-8 / AISI 304	Stainless Steel	1
021-1	Impeller	ASTM A48 CL30*	Cast Iron or Ductile	1
021-2	Impeller	CF-8	Stainless Steel	1
039-1	Key	AISI 420	Stainless Steel	1
039-2	Key	AISI 316	Stainless Steel	1
042	ICS Sleeve	CF-8	Stainless Steel	1
071	Side Plate	ASTM A48 CL 30	Cast Iron	1
111	Mechanical Seal			1 set
114	Oil seal			1
115-1	O-ring	NBR		1
115-2	O-ring	NBR		1
115-3	O-ring	NBR		1
115-4	O-ring	NBR		1
115-5	O-ring	NBR		1
115-6	O-ring	NBR		1
115-7	O-ring	NBR		2
115-8	O-ring	NBR		1
117	Gasket			1
120-1	Bolt	AISI 304	Stainless Steel	4
120-2	Bolt	AISI 304	Stainless Steel	8
120-3	Bolt	AISI 304	Stainless Steel	4
120-4	Bolt	AISI 304	Stainless Steel	4
120-5	Bolt	AISI 304	Stainless Steel	4
120-6	Bolt	AISI 304	Stainless Steel	4
120-7	Bolt	AISI 304	Stainless Steel	8
120-8	Bolt	AISI 304	Stainless Steel	4

Item Number	Part Name	Material		Qty per unit
120-9	Bolt	AISI 304	Stainless Steel	4 or 6
125	Bolt	AISI 304	Stainless Steel	1
126	Screw	AISI 304	Stainless Steel	4
135	Seal Washer			2
174	Discharge Elbow	ASTM A48 CL 30	Cast Iron	1
193-1	Plug	AISI 304	Stainless Steel	1
193-2	Plug	AISI 304	Stainless Steel	1
193-3	Plug	AISI 304	Stainless Steel	2
200	Lifting Hanger	AISI 304	Stainless Steel	1
213	Air Vent Valve	B36 No. 272	Brass	1
412	Guide Plate	AISI 304	Stainless Steel	4
665	ICS Housing	ASTM A48 CL 30	Cast Iron	1
729-1	Spring Washer	AISI 304	Stainless Steel	4
729-2	Spring Washer	AISI 304	Stainless Steel	1
729-3	Spring Washer	AISI 304	Stainless Steel	4
729-4	Spring Washer	AISI 304	Stainless Steel	4
729-5	Spring Washer	AISI 304	Stainless Steel	4
729-6	Spring Washer	AISI 304	Stainless Steel	8
801	Rotor			1
802	Stator			1
811	Submersible Cable			1
814	Motor Frame	ASTM A48 CL 30	Cast Iron	1
816	Power Side Bracket	ASTM A48 CL 30	Cast Iron	1
830	Shaft	AISI 403	Stainless Steel	1
842	Head Cover	ASTM A48 CL 30	Cast Iron	1
849-1	Ball Bearing			1
849-2	Ball Bearing			1
853	C-Type Snapp Ring			1
876	Thermal Protector			3
909	Leakage Detector			1

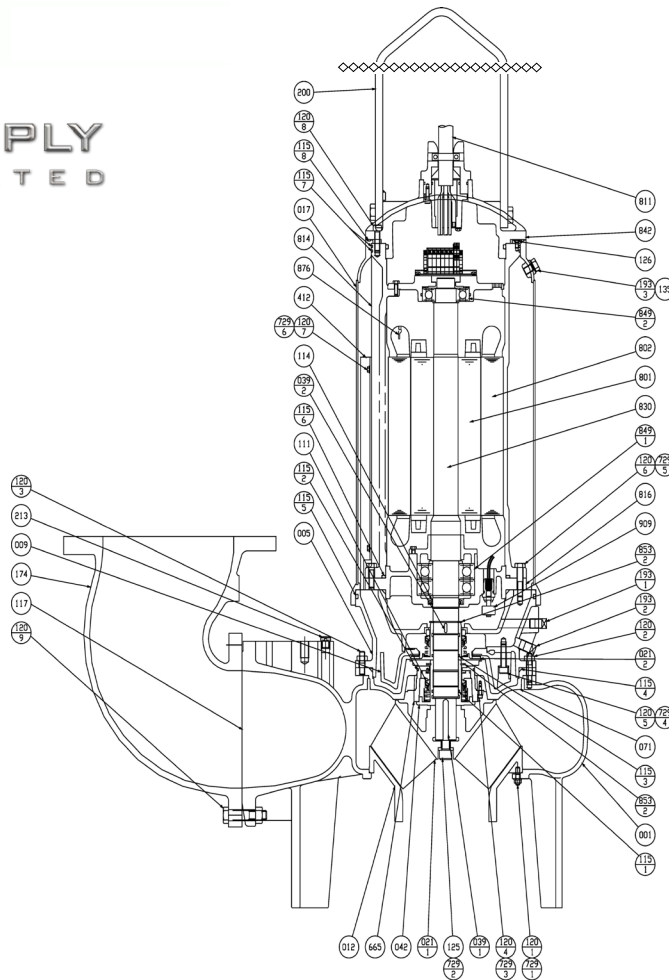
*Some models are constructed from: ASTM A48 CL 35 or ASTM A536 (Ductile)



EBARA Submersible Sewage Pumps

Operating, Installation, and Maintenance

20HP (15 kW)



Item Number	Part Name	Material	Qty per unit
001	Pump Casing	ASTM A48 CL 30 Cast Iron	1
005	Intermediate Casing	ASTM A48 CL 30 Cast Iron	1
009	Inner Casing	ASTM A48 CL 30 Cast Iron	1
012	Suction Cover	ASTM A48 CL 30 Cast Iron	1
017	Cooling Jacket	CF-8 / AISI 304 Stainless Steel	1
021-1	Impeller	ASTM A536 60-40-15* Cast Iron or Ductile	1
021-2	Impeller	CF-8 Stainless Steel	1
039-1	Key	AISI 420 Stainless Steel	1
039-2	Key	AISI 316 Stainless Steel	1
042	ICS Sleeve	CF-8 Stainless Steel	1
071	Side Plate	ASTM A48 CL 30 Cast Iron	1
111	Mechanical Seal		1 set
114	Oil seal		1
115-1	O-ring	NBR	1
115-2	O-ring	NBR	1
115-3	O-ring	NBR	1
115-4	O-ring	NBR	1
115-5	O-ring	NBR	1
115-6	O-ring	NBR	1
115-7	O-ring	NBR	2
115-8	O-ring	NBR	1
117	Gasket		1
120-1	Bolt	AISI 304 Stainless Steel	4
120-2	Bolt	AISI 304 Stainless Steel	8
120-3	Bolt	AISI 304 Stainless Steel	4
120-4	Bolt	AISI 304 Stainless Steel	4
120-5	Bolt	AISI 304 Stainless Steel	4
120-6	Bolt	AISI 304 Stainless Steel	4
120-7	Bolt	AISI 304 Stainless Steel	8
120-8	Bolt	AISI 304 Stainless Steel	4
120-9	Bolt	AISI 304 Stainless Steel	4 or 6

Item Number	Part Name	Material	Qty per unit
125	Bolt	AISI 304 Stainless Steel	1
126	Screw	AISI 304 Stainless Steel	4
135	Seal Washer		2
174	Discharge Elbow	ASTM A48 CL 30 Cast Iron	1
193-1	Plug	AISI 304 Stainless Steel	1
193-2	Plug	AISI 304 Stainless Steel	1
193-3	Plug	AISI 304 Stainless Steel	2
200	Lifting Hanger	AISI 304 Stainless Steel	1
213	Air Vent Valve	B36 No. 272 Brass	1
412	Guide Plate	AISI 304 Stainless Steel	4
665	ICS Housing	ASTM A48 CL 30 Cast Iron	1
729-1	Spring Washer	AISI 304 Stainless Steel	4
729-2	Spring Washer	AISI 304 Stainless Steel	1
729-3	Spring Washer	AISI 304 Stainless Steel	4
729-4	Spring Washer	AISI 304 Stainless Steel	4
729-5	Spring Washer	AISI 304 Stainless Steel	4
729-6	Spring Washer	AISI 304 Stainless Steel	8
801	Rotor		1
802	Stator		1
811	Submersible Cable		1
814	Motor Frame	ASTM A48 CL 30 Cast Iron	1
816	Power Side Bracket	ASTM A48 CL 30 Cast Iron	1
830	Shaft	AISI 403 Stainless Steel	1
842	Head Cover	ASTM A48 CL 30 Cast Iron	1
849-1	Ball Bearing		1
849-2	Ball Bearing		1
853-1	C-Type Snapp Ring		1
853-2	C-Type Snapp Ring		1
876	Thermal Protector		3
910	Leakage Detector		2

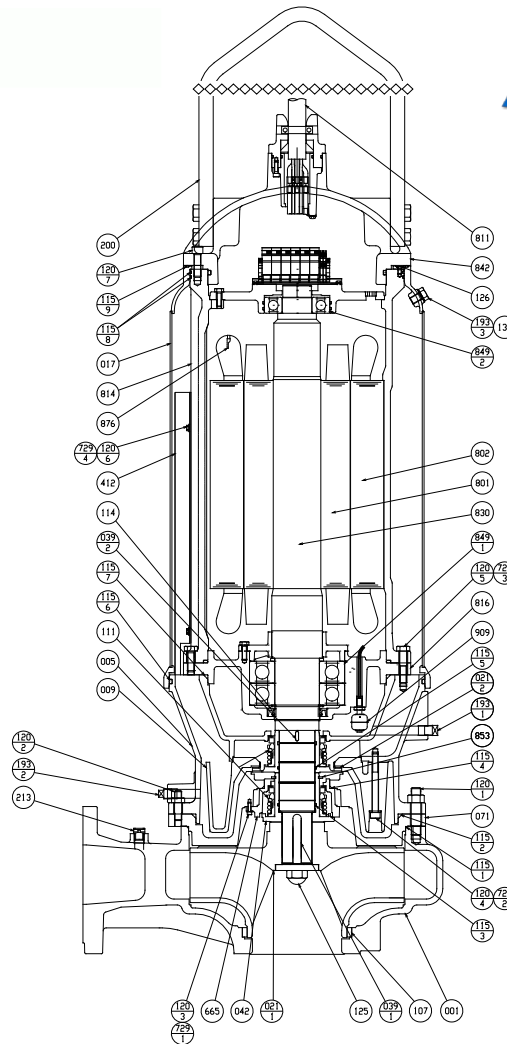
*Model 250DL3BFU615: ASTM A48 CL 35



EBARA Submersible Sewage Pumps

Operating, Installation, and Maintenance

**40-60 HP (30-45 kW)
100DL3FU ONLY**



Item Number	Part Name	Material	Qty per unit
001	Pump Casing	ASTM A48 CL 30 Cast Iron	1
005	Intermediate Casing	ASTM A48 CL 30 Cast Iron	1
009	Inner Casing	ASTM A48 CL 30 Cast Iron	1
017	Cooling Jacket	CF-8 / AISI 304 Stainless Steel	1
021-1	Impeller	ASTM A536 70-50-05 Ductile Cast Iron	1
021-2	Impeller	CF-8 Stainless Steel	1
039-1	Key	AISI 420 Stainless Steel	1
039-2	Key	AISI 316 Stainless Steel	1
042	ICS Sleeve	CF-8 Stainless Steel	1
071	Side Plate	ASTM A48 CL 30 Cast Iron	1
107	Wearing Ring	CAC406 Bronze	1
111	Mechanical Seal		1 set
114	Oil seal		1
115-1	O-ring	NBR	1
115-2	O-ring	NBR	1
115-3	O-ring	NBR	1
115-4	O-ring	NBR	1
115-5	O-ring	NBR	1
115-6	O-ring	NBR	1
115-7	O-ring	NBR	1
115-8	O-ring	NBR	2
115-9	O-ring	NBR	1
120-1	Bolt	AISI 304 Stainless Steel	8
120-2	Bolt	AISI 304 Stainless Steel	4
120-3	Bolt	AISI 304 Stainless Steel	4
120-4	Bolt	AISI 304 Stainless Steel	4
120-5	Bolt	AISI 304 Stainless Steel	4
120-6	Bolt	AISI 304 Stainless Steel	8

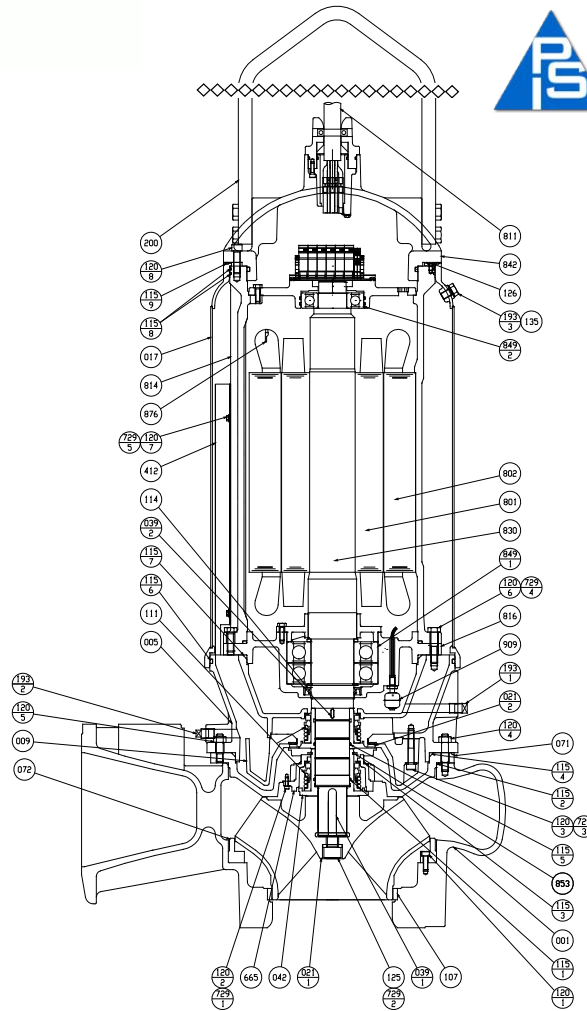
Item Number	Part Name	Material	Qty per unit
120-7	Bolt	AISI 304 Stainless Steel	4
125	Bolt	AISI 304 Stainless Steel	1
126	Screw	AISI 304 Stainless Steel	4
135	Seal Washer		2
193-1	Plug	AISI 304 Stainless Steel	1
193-2	Plug	AISI 304 Stainless Steel	1
193-3	Plug	AISI 304 Stainless Steel	2
200	Lifting Hanger	AISI 304 Stainless Steel	1
213	Air Vent Valve	B36 No. 272 Brass	1
412	Guide Plate	AISI 304 Stainless Steel	4
665	ICS Housing	ASTM A48 CL 30 Cast Iron	1
729-1	Spring Washer	AISI 304 Stainless Steel	4
729-2	Spring Washer	AISI 304 Stainless Steel	4
729-3	Spring Washer	AISI 304 Stainless Steel	4
729-4	Spring Washer	AISI 304 Stainless Steel	8
801	Rotor		1
802	Stator		1
811	Submersible Cable		1
814	Motor Frame	ASTM A48 CL 30 Cast Iron	1
816	Power Side Bracket	ASTM A48 CL 30 Cast Iron	1
830	Shaft	AISI 403 Stainless Steel	1
842	Head Cover	ASTM A48 CL 30 Cast Iron	1
849-1	Ball Bearing		1
849-2	Ball Bearing		1
853	C-Type Snapp Ring		1
876	Thermal Protector		3
909	Leakage Detector		1



EBARA Submersible Sewage Pumps

Operating, Installation, and Maintenance

**40-60 HP (30-45 kW)
150-300DL3FU**



Item Number	Part Name	Material	Qty per unit
001	Pump Casing	ASTM A48 CL 30 Cast Iron	1
005	Intermediate Casing	ASTM A48 CL 30 Cast Iron	1
009	Inner Casing	ASTM A48 CL 30 Cast Iron	1
017	Cooling Jacket	CF-8 / AISI 304 Stainless Steel	1
021-1	Impeller	ASTM A536 70-50-05 Ductile Cast Iron	1
021-2	Impeller	CF-8 Stainless Steel	1
039-1	Key	AISI 420 Stainless Steel	1
039-2	Key	AISI 316 Stainless Steel	1
042	ICS Sleeve	CF-8 Stainless Steel	1
071	Side Plate	ASTM A48 CL 30 Cast Iron	1
072	Side Ring	ASTM A48 CL 25 Cast Iron	1
107	Wearing Ring	CAC406 Bronze	1
111	Mechanical Seal		1 set
114	Oil seal		1
115-1	O-ring	NBR	1
115-2	O-ring	NBR	1
115-3	O-ring	NBR	1
115-4	O-ring	NBR	1
115-5	O-ring	NBR	1
115-6	O-ring	NBR	1
115-7	O-ring	NBR	1
115-8	O-ring	NBR	2
115-9	O-ring	NBR	1
120-1	Bolt	AISI 304 Stainless Steel	4
120-2	Bolt	AISI 304 Stainless Steel	4
120-3	Bolt	AISI 304 Stainless Steel	4
120-4	Bolt	AISI 304 Stainless Steel	8
120-5	Bolt	AISI 304 Stainless Steel	4
120-6	Bolt	AISI 304 Stainless Steel	4

Item Number	Part Name	Material	Qty per unit
120-7	Bolt	AISI 304 Stainless Steel	8
120-8	Bolt	AISI 304 Stainless Steel	4
125	Bolt	AISI 304 Stainless Steel	1
126	Screw	AISI 304 Stainless Steel	4
135	Seal Washer		2
193-1	Plug	AISI 304 Stainless Steel	1
193-2	Plug	AISI 304 Stainless Steel	1
193-3	Plug	AISI 304 Stainless Steel	2
200	Lifting Hanger	AISI 304 Stainless Steel	1
412	Guide Plate	AISI 304 Stainless Steel	4
665	ICS Housing	ASTM A48 CL 30 Cast Iron	1
729-1	Spring Washer	AISI 304 Stainless Steel	4
729-2	Spring Washer	AISI 304 Stainless Steel	1
729-3	Spring Washer	AISI 304 Stainless Steel	4
729-4	Spring Washer	AISI 304 Stainless Steel	4
729-5	Spring Washer	AISI 304 Stainless Steel	8
801	Rotor		1
802	Stator		1
811	Submersible Cable		1
814	Motor Frame	ASTM A48 CL 30 Cast Iron	1
816	Power Side Bracket	ASTM A48 CL 30 Cast Iron	1
830	Shaft	AISI 403 Stainless Steel	1
842	Head Cover	ASTM A48 CL 30 Cast Iron	1
849-1	Ball Bearing		1
849-2	Ball Bearing		1
853	C-Type Snapp Ring		1
876	Thermal Protector		3
909	Leakage Detector		1



EBARA Submersible Sewage Pumps

Operating, Installation, and Maintenance

7. Troubleshooting

Symptoms	Probable Causes	Remedies
Pump fails to start	<ul style="list-style-type: none"> ○ Defective cable or motor. ○ Malfunction inside control panel. ○ Power source trouble. ○ Pump is mechanically locked. ○ Defective motor protector. 	<ul style="list-style-type: none"> ○ Lift pump and replace cable or motor. ○ Inspection made by competent electrician. ○ Inspection made by competent electrician. ○ Lift pump and inspect and/or overhaul. ○ Replace protector.
Pump fails to function despite motor operation	<ul style="list-style-type: none"> ○ System head too high. ○ Clogged discharge pipe (Pressure too high). ○ Clogged pump or strainer (Pressure too low). ○ Wrong direction rotation. ○ Internal pump wear. ○ Discharge valve is closed. 	<ul style="list-style-type: none"> ○ Recheck requirements. ○ Clean discharge pipe. ○ Clean strainer or impeller and casing. ○ Check and change rotation. Transpose two of three phase leads at panel. ○ Repair and/or replace. ○ Check valve operation.
Insufficient capacity	<ul style="list-style-type: none"> ○ Air suction. ○ System head too high. ○ Clogged discharge pipe. (Pressure too high) ○ Clogged pump or strainer. (Pressure too low) ○ Air accumulation in pipe. ○ Internal pump wear. ○ Wrong direction rotation. ○ Liquid viscosity different from design value. ○ Damaged impeller. 	<ul style="list-style-type: none"> ○ Raise water level in pump pit. ○ Recheck requirements. ○ Clean discharge pipe. ○ Clean strainer, impeller and casing. ○ Install air vent valve. ○ Repair and/or replace. ○ Check and change rotation. Transpose two of three phase leads at panel. ○ Recheck requirements. ○ Repair and/or replace.
Excessive current	<ul style="list-style-type: none"> ○ Gravity of pumped liquid greater than that specified. ○ Sand mixed with water. ○ Foreign matter clogging the pump ○ Refer to "Pump fails to start" 	<ul style="list-style-type: none"> ○ Change pump unit. ○ Lift pump and overhaul. Remove sand in tank. ○ Remove foreign matter.
Vibration and/or noise	<ul style="list-style-type: none"> ○ Internal pump wear. ○ Clogged pump. ○ Cavitation or vortex. ○ Resonance in pipeline or foundation. ○ Rotating component in contact with fixed component. ○ Damaged impeller. 	<ul style="list-style-type: none"> ○ Repair and/or replace. ○ Clean pump. ○ Raise suction water level. Operate at proper flow rate. ○ Repair to change characteristic vibration. ○ Internal pump check. Repair and/or replace. ○ Repair and/or replace.

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EBARA Pumps Americas Corporation

PUMP START-UP REPORT

**WARRANTY VOID IF NOT COMPLETED AND MAILED TO
EBARA INTERNATIONAL CORPORATION WITHIN 30 DAYS OF START-UP**

Date: _____ Job Name: _____

Contractor: _____ Signature: _____

Design Conditions: _____ GPM @: _____ TDH

Pump Model: _____ HP: _____ Voltage: please select voltage below: AB AC BC
 208/230 460

Pump Serial No.: #1 _____ #2 _____ #3 _____

Control Manufacture: _____ Heater Size: _____

GRD Connected: _____ Alternator Tested _____

Megger Check: #1 _____ Red _____ White _____ Black _____
#2 _____ Red _____ White _____ Black _____ { To Ground
#3 _____ Red _____ White _____ Black _____

Resistance Check: #1 _____ RW _____ RB _____ WB _____
#2 _____ RW _____ RB _____ WB _____ { Rated _____
#3 _____ RW _____ RB _____ WB _____

Amperage Check: #1 _____ A _____ B _____ C _____
#2 _____ A _____ B _____ C _____ {FL Amps _____
#3 _____ A _____ B _____ C _____

Performance Test: #1 _____ GPM@ _____ TDH _____
#2 _____ GPM@ _____ TDH _____ Water Level _____
#3 _____ GPM@ _____ TDH _____

- 1. Check oil
 - 2. Sensor cable connected yes no
 - 3. Check moisture sensor closed open
 - 4. Check thermal sensor closed open
 - 5. Check rotation
 - 6. Guide Rails Plumb Secured
 - 7. Station clean of debris
 - 8. Check valves for proper operation
 - 9. Pump seated properly
 - 10. Check for leaks in piping
 - 11. Flow meter
 - 12. Pressure gauge
 - 13. Ebara Capacitor pack or equivalent (1ø only)
- Relay # _____
Start Cap MFD _____
Run Cap MFD _____

Comments _____

I certify this report to be accurate (please sign): _____

Official Start Date: _____ Report Date: _____



EBARA Pumps Americas Corporation
Corporate Headquarters

Industrial/Standard Warranty

Industrial/Standard warranty is 12 months from startup or 18 months from purchase, which ever shall occur first.

All pumps returned for evaluation found to be NON-Warranty will be assessed a labor charge of \$55.00.

NOTICE- REQUIREMENTS HAVE CHANGED

- This form must be filled out in detail and returned to EBARA Pumps Americas Corporation before an RMA can be issued.
- All Industrial Service Pump Evaluation Forms must have an MSDS Sheet provided with this completed form before an RMA can be issued.
- All pumps used in **“Industrial Service Applications”** that are returned for evaluation must have an M.S.D.S Sheet securely attached to the exterior of the package, **NO EXCEPTIONS.**
- All pumps used in “Sewage Applications” are excluded from the above requirement regarding MSDS sheets.
- ******* NOTE ******* When returning product(s) to EBARA that have been used in **sewage applications**, be sure to clean and disinfect pumps or parts thoroughly with a solution of 25% Bleach and repackage securely so no further damage will occur.
- **On the exterior of packaging, please note: “Pump Has Been Disinfected”.**
- All returns shall have an RMA number clearly written on exterior of packaging with a copy of the RMA paperwork inside the package.
- **Failure to follow the above instructions will result in your shipment being refused and returned to Distributor, at the Distributor’s expense.**

Today’s Date: _____
 Date of Start Up: _____
 Date of Failure: _____
 Pump Model: _____
 Serial No. _____
 HP: _____ Voltage: _____ Operating Conditions: Head _____
 Flow _____
 Application: _____
 Distributor Name (who was the pump purchased from?): _____
 Dist. original P.O.# _____
 Distributor Contact Name: _____ Phone: _____
 Email: _____

Detailed Description of Failure:

