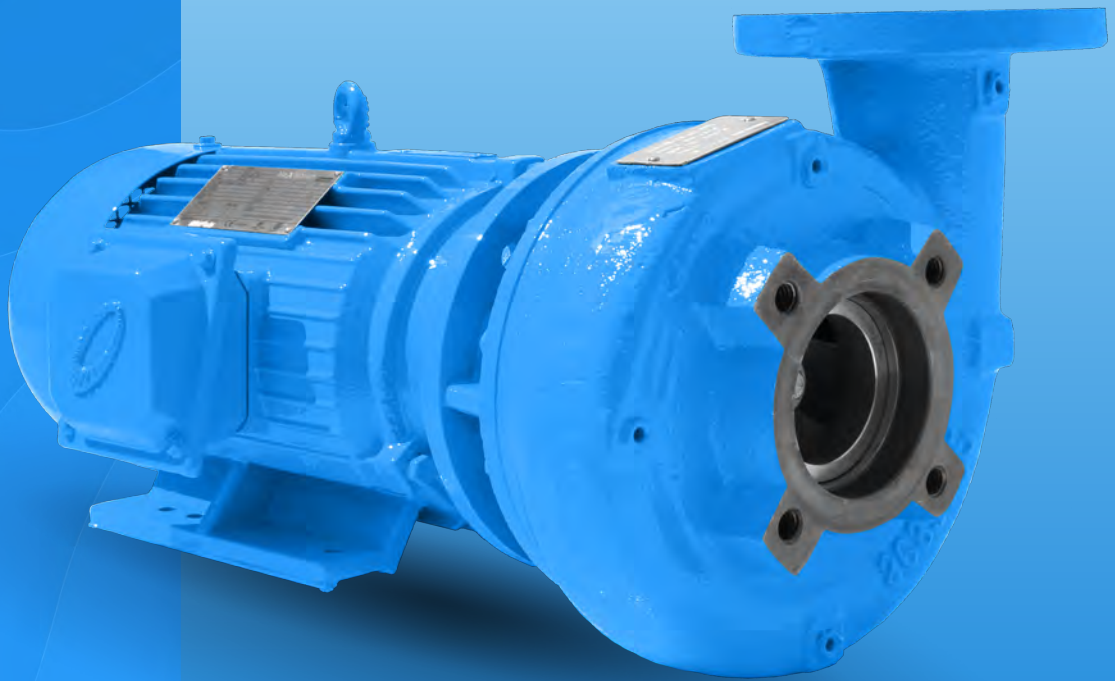


1000/1004

1/3 - 75 HP @ 1750 & 3500 RPM

Installation, Operation & Maintenance Manual

End Suction Centrifugal
Pumps



IMPORTANT! - READ ALL INSTRUCTIONS IN THIS MANUAL
BEFORE OPERATING OR SERVICING A PUMP.

○ GENERAL SAFETY INFORMATION

Before installation, read the following instructions carefully. Failure to follow instruction and safety information could cause serious bodily injury, death and/or property damage. Each Flo Fab product is carefully inspected to insure proper performance. Closely following these instructions will eliminate potential operating problems, assuring years of trouble-free service.

⚠ DANGER

“Danger” indicates an imminently hazardous situation which, if not avoided, WILL result in death or serious injury.

⚠ WARNING

“Warning” indicates an imminently hazardous situation which, if not avoided, MAY result in death or serious injury.

⚠ CAUTION

“Caution” indicates a potentially hazardous situation which, if not avoided, MAY result in minor or moderate injury.

IMPORTANT! – Flo Fab Pumps is not responsible for losses, injury or death resulting from failure to observe these safety precautions, misuse, abuse or misapplication of pumps or equipment.



ALL RETURNED PRODUCTS MUST BE CLEANED, SANITIZED, OR DECONTAMINATED PRIOR TO SHIPMENT, TO INSURE EMPLOYEES WILL NOT BE EXPOSED TO HEALTH HAZARDS IN HANDLING SAID MATERIAL. ALL APPLICABLE LAWS AND REGULATIONS SHALL APPLY.

⚠ WARNING

Installation, wiring, and junction connections must be in accordance with the National Electric Code and all applicable state and local codes. Requirements may vary depending on usage and location.

⚠ WARNING

Installation and servicing is to be conducted by qualified personnel only.



Keep clear of suction and discharge openings. Do not insert fingers in pump with power connected; the impeller can cause serious injury.



Always wear eye protection when working on pumps. Do not wear loose clothing that may become entangled in moving parts.

⚠ DANGER



Pumps build up heat and pressure during operation. Allow time for pumps to cool before handling or servicing the pump or any accessory items associated with or near the pump. Do not block or restrict the discharge pipe/hose.

⚠ WARNING

DO NOT pump hazardous materials (flammable, caustic, etc.) or use these pumps in water over 200 °F. **DO NOT** exceed manufacturers recommended maximum performance, as this could cause the motor to overheat.

⚠ DANGER



This pump is not intended for use in swimming pools or water installations where there is human contact with pumped fluid.

⚠ DANGER



Risk of electric shock. To reduce risk of electric shock, always disconnect pump from power source before handling any aspect of the pumping system. **LOCK OUT POWER AND TAG.**

⚠ DANGER



DO NOT lift, carry or hang pump by the electrical cables. Damage to the electrical cables can cause shock, burns or death. Never handle connected power cords with wet hands. Use appropriate lifting device.

⚠ DANGER



Failure to permanently ground the pump, motor and controls before connecting to power can cause shock, burns or death.

⚠ WARNING



If engine driven, never operate in an enclosed building or area where exhaust gases can accumulate, or near a building where gases can seep inside; always take provisions for adequate ventilation.

⚠ WARNING



DO NOT breathe exhaust fumes when working in the area of the engine. (Exhaust gases are odorless and deadly poison.)

⚠ WARNING



Never add fuel to the tank while the engine is running. Stop engine and allow to cool. **DO NOT** smoke while refueling the engine. **DO NOT** refuel near open flame.

⚠ WARNING



Carefully read instruction manuals supplied with motor or engine before operating or servicing.

IMPORTANT! – Prior to installation, record Model Number, Serial, Amps, Voltage, Phase and HP from pump name plate for the future reference. Also record the Voltage and Current Readings at Startup:

1 PHASE MODELS

AMPS:	VOLTS:
-------	--------

3 PHASE MODELS

AMPS L1-2:	VOLTS L1-2:
------------	-------------

AMPS L2-3:	VOLTS L2-3:
------------	-------------

AMPS L3-1:	VOLTS L3-1:
------------	-------------

MODEL NUMBER: _____

SERIAL: _____

PHASE: _____ **HP:** _____

○ SPECIFICATIONS & DIMENSIONS

SUCTION	1" - 5" NPT or flange horizontal.
DISCHARGE	2" - 6" NPT or flange vertical.
LIQUID TEMPERATURE	225 °F (107 °C) max.
VOLUTE	Cast iron ASTM A-48 class 30.
INTERMEDIATE COUPLING	Cast iron ASTM A-48 class 30.
IMPELLER	Cast iron ASTM A-48 class 30 or stainless steel 304. Investment casting, dynamically balanced.
SEAL	Mechanical, type 21. Ceramic stationary part, carbon ring seal and exclusion in the rotating part. Viton elastomer and stainless steel spring.
SHAFT SLEEVE	Stainless steel.
O-RINGS	Viton.
MOTOR	High quality premium efficiency TEFC or ODP electric motors, 1 & 3 phases, 60 Hz, NEMA Premium, with rated output from 1/3 up to 75 HP, 1750 & 3500 RPM and frame sizes from 143 JM to 365 JM.
HARDWARE	Carbon steel.
PAINT	Air dry enamel, water based.

→RECEIVING INSPECTION

Upon receiving the pump, it should be inspected for damage or shortages. If damage has occurred, file a claim immediately with the company that delivered the pump. If the manual is removed from the packaging, do not lose or misplace.

→STORAGE

Any product that is stored for a period longer than six (6) months from the date of purchase should be bench tested prior to installation. A bench test consists of, checking the impeller to assure it is free turning and a run test to assure the motor (and switch if provided) operate properly.

At any time exceeding six (6) months, but no more than twenty four (24), the equipment must be stored in a controlled area, keeping it away from contact with rain, dust, etc., and the temperature is maintained between 43-104 °F. If there is a possibility of high humidity (coastlines, etc.), the entire unit must be sprayed with antioxidant liquid.

→SERVICE STATIONS

To find the nearest Flo Fab Pumps authorized service shop, please directly contact your distributor or the factory.

→INSTALLATION

The pump should be as close as possible to the liquid to be pumped, with a minimum number of couplings, adapters, elbows, etc., in order to reduce friction on the suction side.

The suction and discharge piping must be perfectly aligned in the pump volute and supported independently using support or anchors, this to prevent any load on the volute.

The anchors of the motor are to be anchored, on a raised base, approximately 4", this to prevent accumulated water from entering the motor.

**See Friction Table in pipes and fittings to determine the dimensions of the suction and discharge.

→SUCTION

Use pipe or hose reinforced sufficiently robust to prevent collapsing by the difference in atmospheric pressure. Check for leaks at all joints.

A successful operation depends on the calculation of the friction loss in the suction, considering acceptable limits. The minimum suction pipe size to use can be determined by comparing the NPSH available at the pump suction against the NPSH required by the impeller, as shown in the performance curves.

Usually, we recommend using a pipe diameter of 1/2" to 1" greater as that of the suction volute or body.

A strainer or sieve should be installed in the suction to prevent the entry of objects. The strainer must have a free entry area at least three times the pipe diameter. Usually a suction valve is combined with a strainer Figure 1.

Figure 1 Proper installation

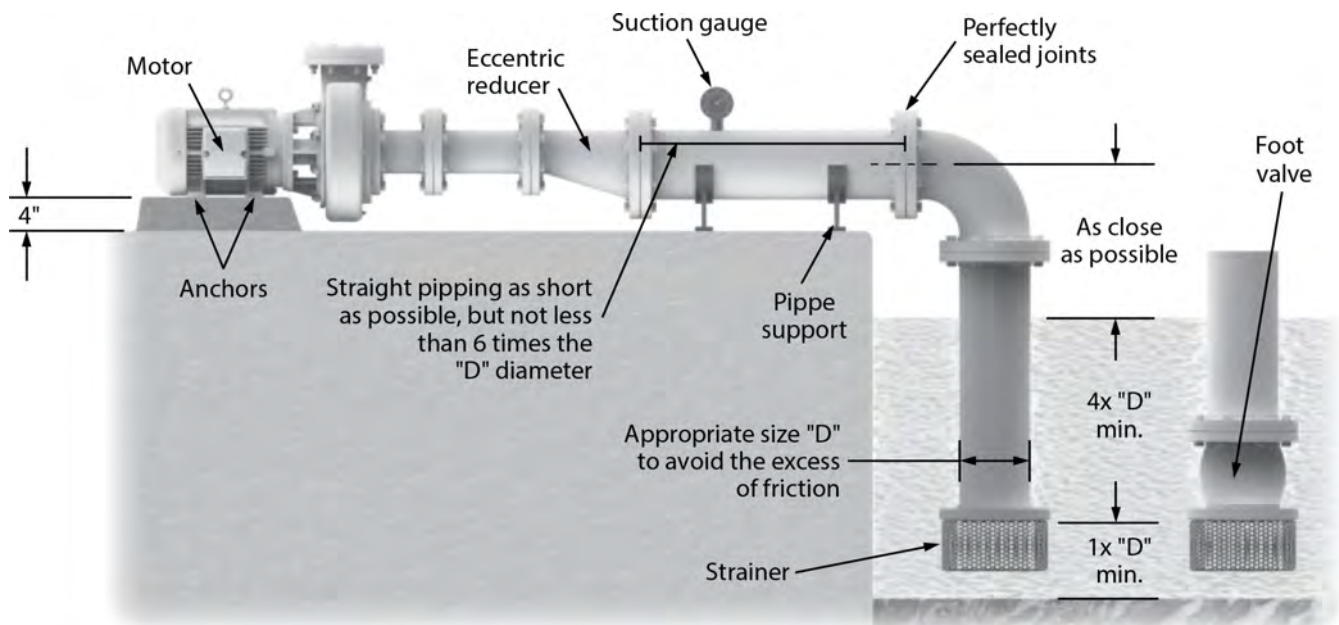


Table 1 Head Loss ft x 100 ft of piping.

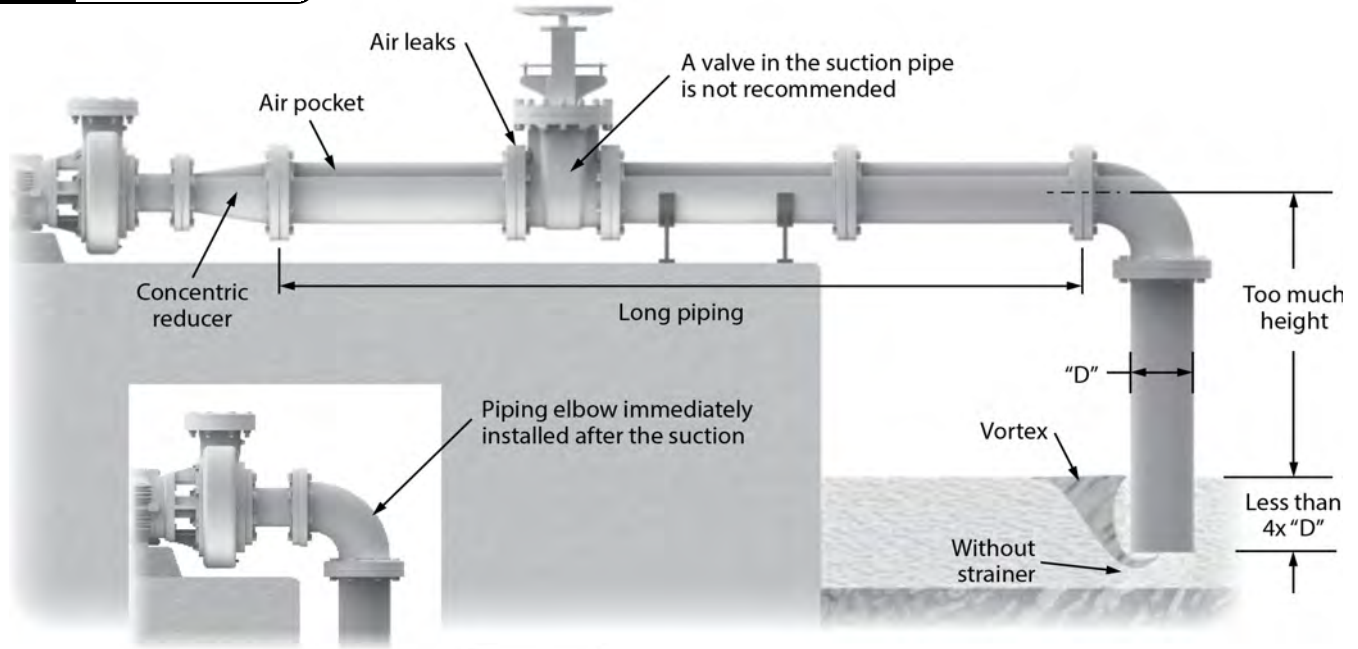
LITERS PER MINUTE	PIPING DIAMETER											GALLONS PER MINUTE
	1"	1¼"	1½"	2"	2½"	3"	4"	5"	6"	8"	10"	
30	4.54											8
37	6.86	1.77										10
45	9.62	2.48										12
57	16.2	4	1.53									15
68	20.6	5.22	2.42									18
76	25.1	6.34	2.94									20
95	38.7	9.6	4.48	1.2	0.54							25
113	54.6	13.6	6.26	1.82	0.75							30
151	95	23.5	10.79	3.1	1.28							40
170	119	29.4	13.45	3.85	1.6							45
189	146	36	16.4	4.67	1.94	0.66						50
208		43.2	19.7	5.51	2.33	0.79						55
227		51	23.2	6.59	2.72	0.92						60
246		59.6	27.1	7.7	3.17	1.07						65
265		68.8	31.3	8.86	3.63	1.22						70
284		78.7	35.8	10.15	4.14	1.39						75
303		89.2	40.5	11.4	4.66	1.57						80
322		100	45.6	12.6	5.27	1.77						85
360		125	56.5	15.8	6.49	2.18	0.57					95
378		138	62.2	17.4	7.11	2.39	0.62					100
416			75.25	21.05	8.55	2.88	0.75					110
454			88.3	24.7	10	3.37	0.88					120
530			119	33.2	13.5	4.51	1.17	0.38				140
568			137.5	38.1	15.45	5.16	1.33	0.43				150
605			156	43	17.4	5.81	1.49	0.48				160
643				48.55	19.65	6.54	1.67	0.54				170
681				54.1	21.9	7.28	1.86	0.6				180
757				66.3	26.7	8.9	2.27	0.73	0.3			200
833				80	32.2	10.07	2.72	0.87	0.35			220
908				95	38.1	12.6	3.21	1.03	0.41			240
984				111	44.5	14.7	3.74	1.2	0.48			260
1060				128	51.3	16.9	4.3	1.38	0.56			280
1135				146	58.5	19.2	4.89	1.58	0.63			300
1324					79.2	26.1	6.55	2.11	0.85			350
1514					103	33.9	8.47	2.72	1.09	0.27		400
1892						52.5	13	4.16	1.66	0.42		500
2082						63.2	15.7	4.94	2	0.5		550
2271						74.8	18.6	5.88	2.34	0.59	0.19	600
2649						101	25	7.93	3.13	0.79	0.25	700
2838							28.7	9.07	3.59	0.91	0.29	750
3028							32.4	10.22	4.04	1.02	0.32	800
3217							36.6	11.56	4.5	1.13	0.36	850
3406							40.8	12.9	5.05	1.27	0.41	900
3595							45.5	14.35	5.61	1.42	0.45	950
3785							50.2	15.8	6.17	1.56	0.5	1000
4163								19.15	7.41	1.87	0.6	1100
4542								22.5	8.76	2.2	0.7	1200
4920								26.45	10.2	2.56	0.81	1300

NOTE: The values in this table refer to frictions and clean water pipes and hoses smooth walls. As used pipe and/or hose rough walls increase the values about 50% to 100%.

Table 1 Equivalent length in ft of straight pipe and valve connections for calculating friction.

PART	DESCRIPTION	DIAMETER								
		1"	1¼"	1½"	2"	2½"	3"	4"	5"	6"
	STANDARD 90 ELBOW	0.84	1.07	1.22	1.68	1.98	2.44	3.35	4.12	4.88
	MEDIUM RADIUS ELBOW 90	0.69	0.92	1.07	1.37	1.68	2.14	2.75	3.51	4.27
	LONG RADIUS ELBOW 90	0.54	0.69	0.84	1.07	1.37	1.6	2.14	2.75	3.36
	STANDARD 45 ELBOW	0.38	0.54	0.61	0.77	0.92	1.15	1.53	1.83	2.29
	STANDARD TEE	1.68	2.29	2.75	3.36	4.28	5.19	6.71	8.23	10.1
	ANGLE GLOBE VALVE (OPEN)	3.97	5.49	6.71	8.23	10.7	12.2	16.8	21.3	25.9
	GLOBE VALVE (OPEN)	7.93	10.7	13	16.8	21.3	24.4	35.1	42.7	48.8
	GATE VALVE (OPEN)	0.19	0.25	0.29	0.38	0.43	0.54	0.69	0.84	1.07
	CONCENTRIC	1.21	1.52	1.82	2.74	3.35	4.26	6.09	7.92	10.1
	EXCENTRIC	0.3	0.3	0.3	0.61	0.61	0.9	1.21	1.21	2.13
	FOOT VALVE	0.91	1.21	1.52	2.13	2.74	3.35	4.87	6.4	7.92

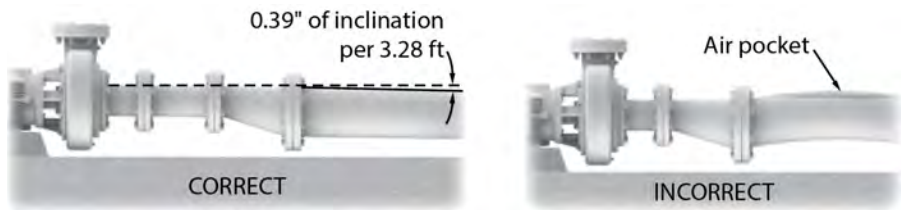
Figure 2 Wrong installation



→ SUCTION HEIGHT

Suction pipe should have a slope of 0.39" per 3.3 ft of suction. Never exceed 16.4 ft suction, considering friction. (Figure 3)

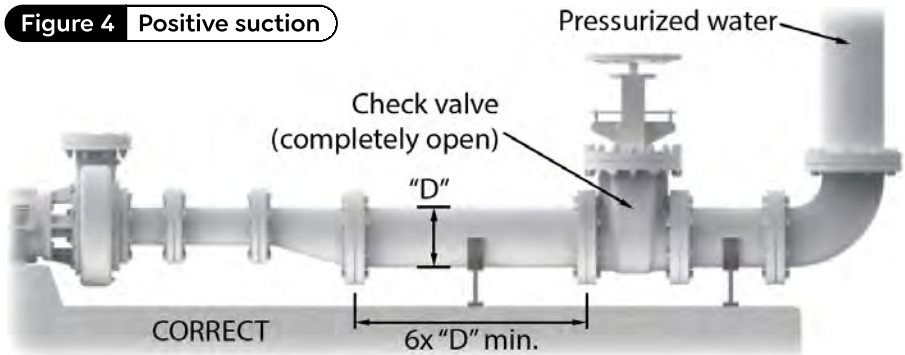
Figure 3 Inclination



→ POSITIVE/DROWNED SUCTION

A gate valve is installed in the suction pipe to service the pump (Figure 4). Volute or body have plugs, and these must be removed to allow trapped air to escape.

Figure 4 Positive suction



→ DISCHARGE PIPE

Use pipe or hose reinforced sufficiently robust to prevent destruction due to high pressure.

Due to the cost of energy or BHP necessary to overcome the friction generated by using a smaller diameter pipe, a larger diameter discharge pipe is commonly used than the required by the volute or body.

Figure 5 Positive suction

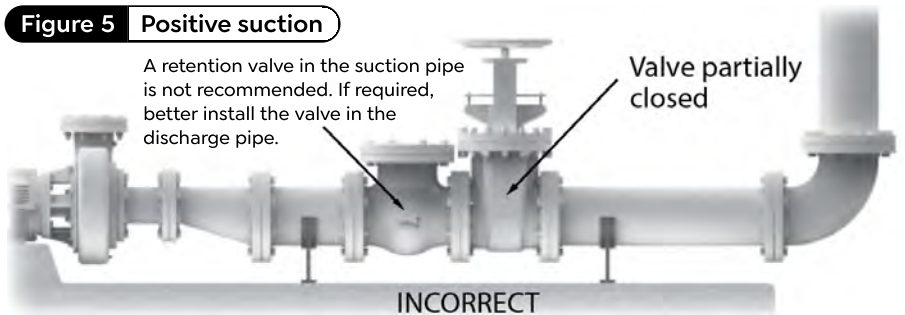
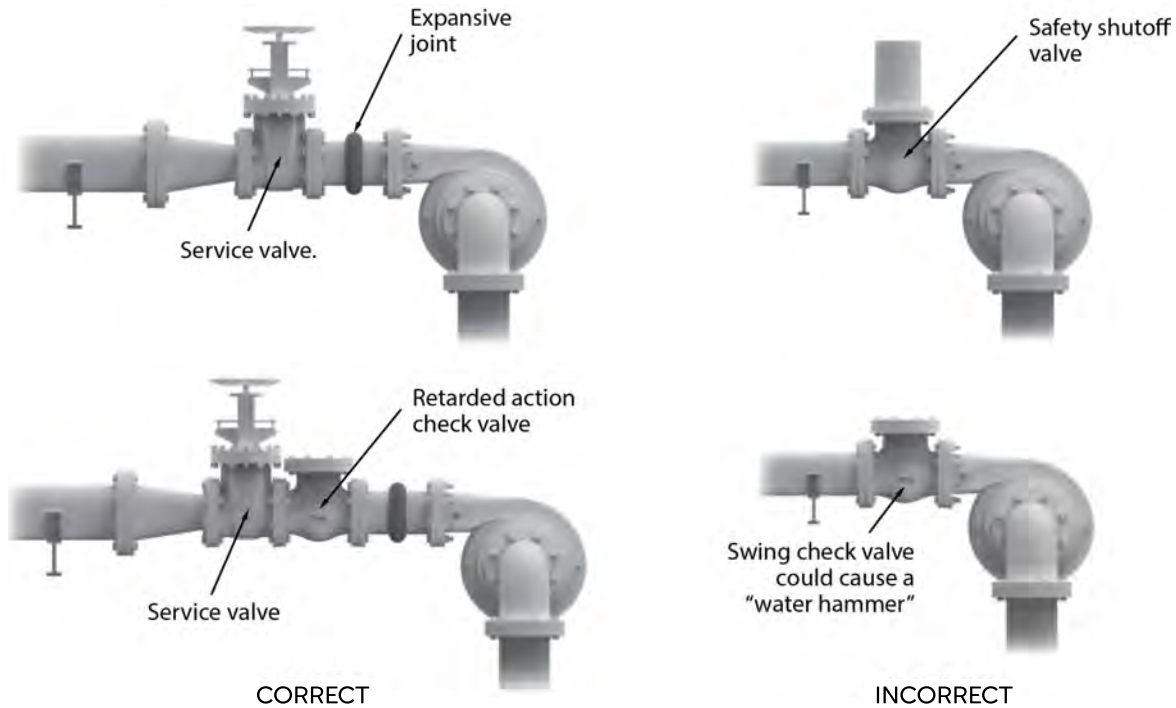


Figure 6 Discharge piping.



In order to determine the optimal size of the piping, compare the total cost of the equipment's operation (cost of the pump, control equipment, piping and energy consumption). By increasing the discharge diameter reasonably, it reduces the required BHP due to the low friction. Perform different tests using several piping diameters until you find the more convenient.

The pipe, valves, etc. should be perfectly align with the volutes suction and discharge centerlines, this to avoid any loads on the pumps volute. If needed, install new expansive joints to protect the pump from excessive thermal or pressure forces.

→ PRE-OPERATION

1. CHECK VOLTAGE AND PHASE

Compare the voltage and phase information stamped on the motor name plate.

2. CHECK PUMP ROTATION

Improper motor rotation can result in poor pump performance and can damage the motor and/or pump. Check rotation on three phase units by momentarily applying power and observe the "kickback".

Kickback should always be in a counter-clockwise direction as viewed from motor end or opposite to impeller rotation. Impeller rotation is counter-clockwise as viewed from bottom of pump.



3. NAME PLATE

Record the information from the pump name plate to drawing in front of manual for future reference.

4. PRIMING

Every centrifugal pump must be primed (suction pipe and pump's body should have liquid), before operating.

Install the foot valve at the suction pipe Figure 1 and fill with liquid the superior part of the pump's body. Sometimes air is trapped inside the body, to remove it you should uncap the male plug until the liquids spills out. Re-install the male plug using a sealant.

⚠ IMPORTANT DO NOT OPERATE PUMP WITHOUT PRIMING FIRST. OPERATING DRY WILL DAMAGE SEAL.

→ STARTING

When starting for the first time your equipment check that the discharge valve is 90% closed. Gradually open the valve until the motor runs at full load (amperage plate). Never allow the amperage consumed by the pump exceeds the maximum permitted by the motor.

→ MECHANICAL SEAL

Mechanical seals installed in this pumps are lubricated by water, there for the pump should not be operated dry. You will find the appropriate seal for each use and liquid to be pumped, check with your Flo Fab Pumps agent for more information.

→ STUFFING BOX*

If the pump has graphite packing (stuffing box) consider the following:

- When the pump is placed into operation, the liquid will drip from the stung box; if this does not happen, loosen the nuts on the stung box until dripping occurs.
- After a few minutes of operation, gradually tighten the nuts until the drip decreases but does not stop.
- Once the pump has operated for a reasonable period and the dripping has not decreased to "a few drops per minute", it is necessary to tighten the nuts stung box. If tightening the nuts the required drip is not achieved, the graphite packing rings must be replaced.

→ FRAME*

All pumps come with factory sealed bearings. Optional grease and oil lube

It is important not to overfill the oil tank because it would cause an increase in pressure by heating, affecting the bearings and seals. In normal operation, the frame temperature increases 122 °F above ambient temperature.

→ FLEXIBLE COUPLING*

All pumps operated through flexible coupling or by pulleys and belts must be perfectly aligned to ensure smooth operation. In no case problems occur with flexible couplings if the pump-motor alignment is correct. All pumps are manufactured following this condition.

*For Flo Fab pumps with universal transmission.

IMPORTANT

Always unplug the pump before applying maintenance, service or repair to avoid electric shock.

→ MAINTENANCE

Body and Impeller

All pump parts are removable by removing nuts and bolts. For body maintenance, disconnect the suction and discharge, and remove the body of the intermediate coupling. For maintenance of the impeller is not necessary to remove the suction or discharge, simply remove the body nuts; this would uncover the impeller. Examine and replace if it shows wear or damage.

When the impeller requires replacement, remove the screw of the shaft, and using a puller, remove the impeller being careful not to abuse the keyway of the shaft.

Mechanical Seal

To inspect or replace the shaft seal, remove the body and impeller. If any part shows wear or damage, replace both parts (stationary seat and rotary part). The rotating seal parts may be stuck together with the shaft, this happens when the seal has been assembled for a long time.

If the mechanical seal does not leak and there is need to open the pump for inspection or cleaning, DO NOT remove the seal, remove the spring only if the impeller needs to be removed. Once a seal has been in operation is very dicult to remove and reassembly without creating a seal leak.

→ DISASSEMBLY

Mechanical Seal

Perform the steps above. Remove the rotating part. It may be necessary to remove the intermediate link to remove the stationary seat. To do this, remove the nuts and washers that attach the coupling to the motor. When removing the coupling, the steady part will move towards the front seat of the shaft and the sleeve. If the seat does not yield itself, push from the rear of the coupling.



**HANDLE SEAL PARTS WITH EXTREME CARE.
DO NOT DAMAGE LAPPED SURFACES.**

→ REASSEMBLY

Mechanical Seal

Identify all parts of Figures 7 and 8. The ring (6) and seat (1) are perfectly polished, so care must be taken not to scratch or smudge. The cleaning during the assembly process is very important.



IMPORTANT

All parts must be clean before reassembly.

STEP 1

Install the intermediate coupling if it was previously removed. Make sure the shaft and cavities, where will it seats, are clean. The shaft sleeve should not be sharp, but a radius of about 1/32". It is recommended that lightly polish the area of the shaft. If the shaft and it radius are perfectly polished, the seal can be relatively easily installed.

STEP 2

Install the seat assembly (1 and 2) on the inside of the intermediate coupling, slightly moistening with water on the rubber parts (do not use grease or oil). This assembly should be done only manually, meaning without the use of an instrument.

STEP 3

Install the rotating portion of the seal without the spring. Moisten the arrow and the inside of the seal with some water (do not use grease or oil). With clean, dry hands, insert the rotating portion to the shaft, sliding it abuts the stationary seat. Once the seal is in place, insert the spring (5).

STEP 4

Place the impeller and washers; tighten the hex screw.

Figure 7 Mechanical Seal - Sectional View.

- | | |
|---------------------|---------------------|
| 1 - Silicon Carbide | 5 - Inox. spring |
| 2 - Seal seat Viton | 6 - Carbon ring |
| 3 - Inox. retainer | 7 - Elastomer Viton |
| 4 - Inox. jacket | 8 - Inox. washer |

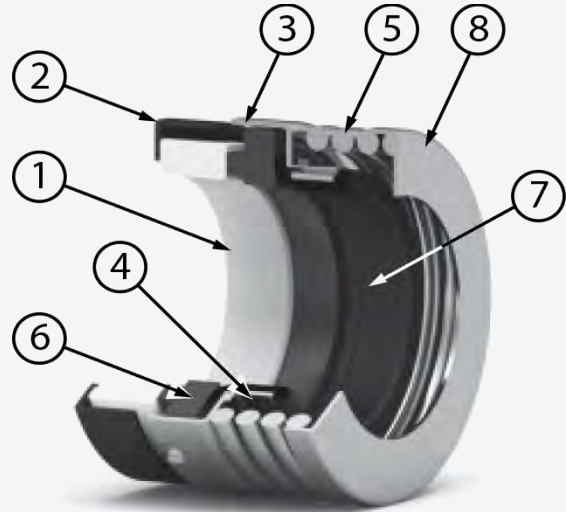
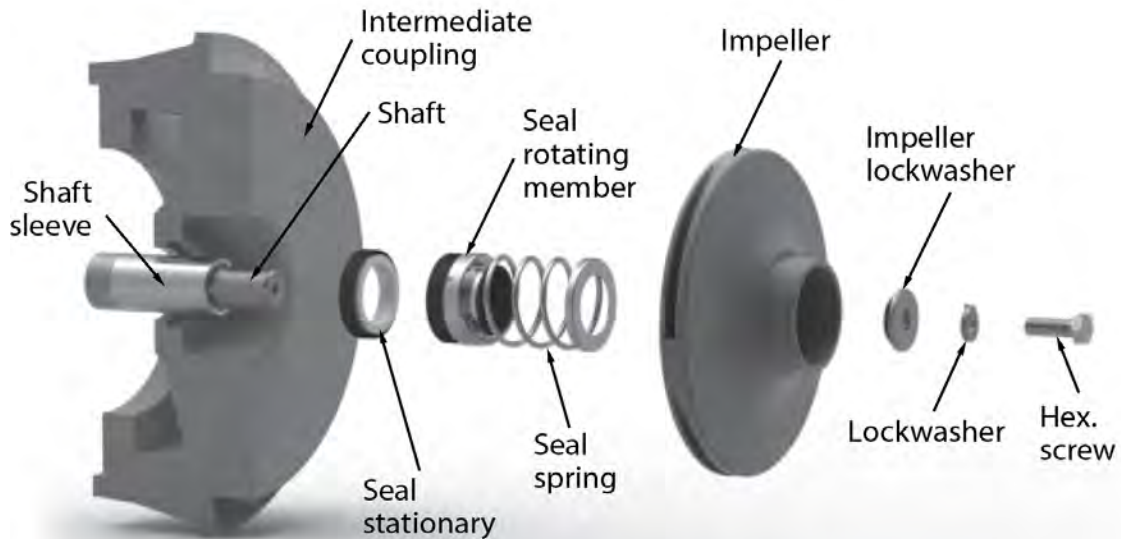


Figure 8 Mechanical Seal - Assembly.



○ TROUBLESHOOTING CHART



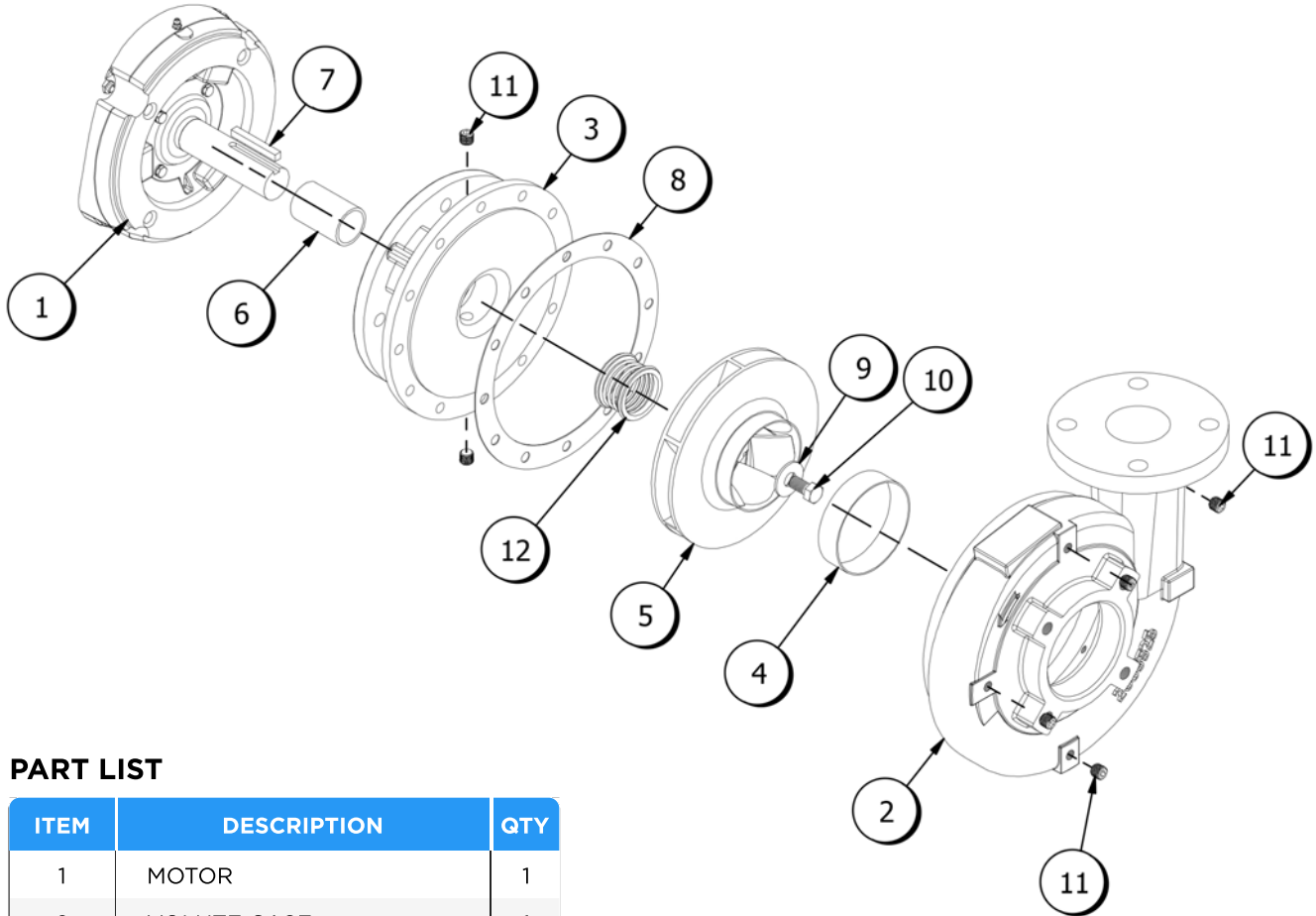
RISK OF ELECTRIC SHOCK. ALWAYS DISCONNECT THE PUMP FROM THE POWER SOURCE BEFORE HANDLING INSPECTIONS OR REPAIRS.

PROBLEM	PROBABLE CAUSE	CHECK
A) The pump does not prime, the suction gauge indicates a lower reading than normal.	1. Air leak in the suction system.	<ul style="list-style-type: none"> Threaded joints in the suction tightness. Gaskets for no wear. The mechanical seal for leaks. The drain plug has leaks. The vacuum gauge may be leaking.
	2. Insufficient liquid in the pump casing.	<ul style="list-style-type: none"> That the pump's body is filled with water.
	3. Low operating speed.	<ul style="list-style-type: none"> The motor speed (RPM).
	4. Bound pump.	<ul style="list-style-type: none"> Impeller rotates freely. Internal parts are clean.
	5. Mechanical defect.	<ul style="list-style-type: none"> That the internal parts are not worn.
B) The pump does not prime, the suction gauge reading indicates higher than normal.	1. Bound pump.	<ul style="list-style-type: none"> Impeller rotates freely. Internal parts are clean.
C) The pump priming good suction gauge reading is normal, the manometer indicates a lower pressure than normal.	1. The pump speed is very low.	<ul style="list-style-type: none"> The voltage is correct.
	2. Mechanical defects.	<ul style="list-style-type: none"> The internal parts for wear.
D) The pump priming good suction gauge reading is almost normal, reading the manometer is greater.	1. Discharge obstructed.	<ul style="list-style-type: none"> The discharge is clear of obstructions. That the discharge valves operate correctly.
E) The pump loses its priming during operation, suction gauge reading drops to zero.	1. Suction dynamic level too high.	<ul style="list-style-type: none"> When the pump is operating, never lacks water in the suction.
	2. The pump is sucking air.	<ul style="list-style-type: none"> For leaks in suction piping, angles and A gaskets. That there is no vortex eect at the end of the suction, this lack of water.
F) The pump priming pumps well and satisfactorily but noisy.	1. Pump base is loose.	<ul style="list-style-type: none"> That screws are tight at the base. There are no cracks in the base.
	2. Cavitation.	<ul style="list-style-type: none"> The dynamic level is not too high That the pumping capacity is not too much. The pump is operating in the range of NPSHR If reducing flow makes the noise gone, then the problem is in the point above; partially close the discharge valve.
	3. Bearings.	<ul style="list-style-type: none"> The bearings for wear. That there is oil in the deposit.
	4. Vibration.	<ul style="list-style-type: none"> The impeller does not have any foreign material. The pump is operating in the range. That the alignment is correct.
G) Motor overload.	1. Low Voltage.	<ul style="list-style-type: none"> The voltage is correct.
	2. Overload.	<ul style="list-style-type: none"> The amperage of the plate is not exceeded. There is no foreign material that may force the impeller. That the motor is suitable for the pump.

SERIES 1000

Exploded View

END SUCTION PUMP MODEL 1000 SERIES



PART LIST

ITEM	DESCRIPTION	QTY
1	MOTOR	1
2	VOLUTE CASE	1
3	BRACKET	1
4	WEAR RINGS	1
5	IMPELLER	1
6	SHAFT SLEEVE	1
7	MOTOR SHAFT KEY	1
8	CASING GASKET	1
9	IMPELLER WASHER	1
10	IMPELLER BOLT	1
11	PIPE PLUG 1/4" NPT	6
12	MECHANICAL SEAL	1

RECOMMENDED SPARES PARTS SERIES 1000 MODEL C610A

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
1	Volute Casing	2685521	Cast Iron		
1.1	Volute Casing			2685521-B	Bronze
1.2	Volute Casing			2685521-SS	Stainless Steel
1.3	Volute Casing			2685521-DI	Ductile Iron
1.4	Volute Casing			2685521-CS	Cast Steel
2	Impeller 7/8	2683848-449	Bronze		
2.1	Impeller 7/8			2683848-491	Cast Iron
2.2	Impeller 7/8			2683848-SS	Stainless Steel
3	Motor Shaft	RTF			
4	Casing Wearing	2655973	Bronze		
4.1	Casing Wearing			2655973-SS	Stainless Steel
5	Shaft Sleeve 143-125	SLJM1.250B	Bronze		
5.1	Shaft Sleeve 143-125			SLJM1.250SS	Stainless Steel
6	Mechanical Seal 143-215	011-S125-21-PER	Viton/Sic vs Carbon/SS		
27	Plug	SP-025	Steel		
28	Impeller Key		Carbon Steel		
31	Motor	RTF			
32	Bracket 143-215	2683877	Cast Iron		
32.1	Bracket 143-215			2683877-B	Bronze
32.2	Bracket 143-215			2683877-SS	Stainless Steel
32.3	Bracket 143-215			2683877-DI	Ductile Iron
32.4	Bracket 143-215			2683877-CS	Cast Steel
33	Motor Shaft Key		Carbon Steel		
34	Impeller Washer	WF1-SS	Stainless Steel		
35	Impeller Bolt	LBF1-SS	Stainless Steel		
36	Casing Gasket	G-6P	Fiber		
37	Motor Bolts		Carbon Steel		

RECOMMENDED SPARES PARTS SERIES 1000 MODEL C615A

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
1	Volute Casing	2683851	Cast Iron		
1.1	Volute Casing			2683851-B	Bronze
1.2	Volute Casing			2683851-SS	Stainless Steel
1.3	Volute Casing			2683851-DI	Ductile Iron
1.4	Volute Casing			2683851-CS	Cast Steel
2	Impeller 7/8	V1788B-449	Bronze		
2.1	Impeller 7/8			V1788B-491	Cast Iron
2.2	Impeller 7/8			V1788B-SS	Stainless Steel
3	Motor Shaft	RTF			
4	Casing Wearing	2655973	Bronze		
4.1	Casing Wearing			2655973-SS	Stainless Steel
5	Shaft Sleeve 143-125	SLJM1.250B	Bronze		
5.1	Shaft Sleeve 143-125			SLJM1.250SS	Stainless Steel
6	Mechanical Seal 143-215	011-S125-21-PER	Viton/Sic vs Carbon/SS		
27	Plug	SP-025	Steel		
28	Impeller Key		Carbon Steel		
31	Motor	RTF			
32	Bracket 143-215	2683877	Cast Iron		
32.1	Bracket 143-215			2683877-B	Bronze
32.2	Bracket 143-215			2683877-SS	Stainless Steel
32.3	Bracket 143-215			2683877-DI	Ductile Iron
32.4	Bracket 143-215			2683877-CS	Cast Steel
33	Motor Shaft Key		Carbon Steel		
34	Impeller Washer	WF1-SS	Stainless Steel		
35	Impeller Bolt	LBF1-SS	Stainless Steel		
36	Casing Gasket	G-6P	Fiber		
37	Motor Bolts		Carbon Steel		

RECOMMENDED SPARES PARTS SERIES 1000 MODEL C615J

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
1	Volute Casing	2683851	Cast Iron		
1.1	Volute Casing			2683851-B	Bronze
1.2	Volute Casing			2683851-SS	Stainless Steel
1.3	Volute Casing			2683851-DI	Ductile Iron
1.4	Volute Casing			2683851-CS	Cast Steel
2	Impeller 7/8	2683848-449	Bronze		
2.1	Impeller 7/8			2683848-491	Cast Iron
2.2	Impeller 7/8			2683848-SS	Stainless Steel
3	Motor Shaft	RTF			
4	Casing Wearing	2655973	Bronze		
4.1	Casing Wearing			2655973-SS	Stainless Steel
5	Shaft Sleeve 143-125	SLJM1.250B	Bronze		
5.1	Shaft Sleeve 143-125			SLJM1.250SS	Stainless Steel
6	Mechanical Seal 143-215	011-S125-21-PER	Viton/Sic vs Carbon/SS		
27	Plug	SP-025	Steel		
28	Impeller Key		Carbon Steel		
31	Motor	RTF			
32	Bracket 143-215	2683877	Cast Iron		
32.1	Bracket 143-215			2683877-B	Bronze
32.2	Bracket 143-215			2683877-SS	Stainless Steel
32.3	Bracket 143-215			2683877-DI	Ductile Iron
32.4	Bracket 143-215			2683877-CS	Cast Steel
33	Motor Shaft Key		Carbon Steel		
34	Impeller Washer	WF1-SS	Stainless Steel		
35	Impeller Bolt	LBF1-SS	Stainless Steel		
36	Casing Gasket	G-6P	Fiber		
37	Motor Bolts		Carbon Steel		

RECOMMENDED SPARES PARTS SERIES 1000 MODEL C620A

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
1	Volute Casing	2685522	Cast Iron		
1.1	Volute Casing			2685522-B	Bronze
1.2	Volute Casing			2685522-SS	Stainless Steel
1.3	Volute Casing			2685522-DI	Ductile Iron
1.4	Volute Casing			2685522-CS	Cast Steel
2	Impeller 7/8	2683846-449	Bronze		
2.1	Impeller 7/8			2683846-491	Cast Iron
2.2	Impeller 7/8			2683846-SS	Stainless Steel
3	Motor Shaft	RTF			
4	Casing Wearing	2684006	Bronze		
4.1	Casing Wearing			2684006-SS	Stainless Steel
5	Shaft Sleeve 143-125	SLJM1.250B	Bronze		
5.1	Shaft Sleeve 143-125			SLJM1.250SS	Stainless Steel
6	Mechanical Seal 143-215	011-S125-21-PER	Viton/Sic vs Carbon/SS		
27	Plug	SP-025	Steel		
28	Impeller Key		Carbon Steel		
31	Motor	RTF			
32	Bracket 143-215	2683877	Cast Iron		
32.1	Bracket 143-215			2683877-B	Bronze
32.2	Bracket 143-215			2683877-SS	Stainless Steel
32.3	Bracket 143-215			2683877-DI	Ductile Iron
32.4	Bracket 143-215			2683877-CS	Cast Steel
33	Motor Shaft Key		Carbon Steel		
34	Impeller Washer	WF1-SS	Stainless Steel		
35	Impeller Bolt	LBF1-SS	Stainless Steel		
36	Casing Gasket	G-6P	Fiber		
37	Motor Bolts		Carbon Steel		

RECOMMENDED SPARES PARTS SERIES 1000 MODEL C810A

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
1	Volute Casing	2685134	Cast Iron		
1.1	Volute Casing			2685134-B	Bronze
1.2	Volute Casing			2685134-SS	Stainless Steel
1.3	Volute Casing			2685134-DI	Ductile Iron
1.4	Volute Casing			2685134-CS	Cast Steel
2	Impeller 7/8	2684183-449	Bronze		
2.1	Impeller 7/8			2684183-491	Cast Iron
2.2	Impeller 7/8			2684183-SS	Stainless Steel
2.3	Impeller 1-1/4	2684184-449			
2.4	Impeller 1-1/4			2684184-491	Cast Iron
2.5	Impeller 1-1/4			2684184-SS	Stainless Steel
3	Motor Shaft	RTF			
4	Casing Wearing	2655973	Bronze		
4.1	Casing Wearing			2655973-SS	Stainless Steel
5	Shaft Sleeve 143-125	SLJM1.250B	Bronze		
5.1	Shaft Sleeve 143-125			SLJM1.250SS	Stainless Steel
5.2	Shaft Sleeve 254-326	SLJM1.500B	Bronze		
5.3	Shaft Sleeve 254-326			SLJM1.500SS	Stainless Steel
6	Mechanical Seal 143-215	O11-S125-21-PER	Viton/Sic vs Carbon/SS		
6.1	Mechanical Seal 254-326	O11-S150-21-PER	Viton/Sic vs Carbon/SS		
27	Plug	SP-025	Steel		
28	Impeller Key		Carbon Steel		
31	Motor	RTF			
32	Bracket 143-215	2683879	Cast Iron		
32.1	Bracket 143-215			2683879-B	Bronze
32.2	Bracket 143-215			2683879-SS	Stainless Steel
32.3	Bracket 143-215			2683879-DI	Ductile Iron
32.4	Bracket 143-215			2683879-CS	Stainless Steel
32.5	Bracket 254-256	2683880			
32.6	Bracket 254-256			2683880-B	Bronze
32.7	Bracket 254-256			2683880-SS	Stainless Steel
32.8	Bracket 254-256			2683880-DI	Ductile Iron
32.9	Bracket 254-256			2683880-CS	Cast Steel
32.10	Bracket 284-326	2683882			
32.11	Bracket 284-326			2683882-B	Bronze
32.12	Bracket 284-326			2683882-SS	Stainless Steel
32.13	Bracket 284-326			2683882-DI	Ductile Iron
32.14	Bracket 284-326			2683882-CS	Cast Steel
33	Motor Shaft Key		Carbon Steel		
34	Impeller Washer No 1	WF1-SS	Stainless Steel		
34.1	Impeller Washer No 2	WF2-SS	Stainless Steel		
35	Impeller Bolt No 1	LBF1-SS	Stainless Steel		
35.1	Impeller Bolt No 2	LBF2-SS	Stainless Steel		
36	Casing Gasket	G-8P	Fiber		
37	Motor Bolts		Carbon Steel		

RECOMMENDED SPARES PARTS SERIES 1000 MODEL C810G

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
1	Volute Casing	2685134	Cast Iron		
1.1	Volute Casing			2685134-B	Bronze
1.2	Volute Casing			2685134-SS	Stainless Steel
1.3	Volute Casing			2685134-DI	Ductile Iron
1.4	Volute Casing			2685134-CS	Cast Steel
2	Impeller 7/8	2693952-449	Bronze		
2.1	Impeller 7/8			2693952-491	Cast Iron
2.2	Impeller 7/8			2693952-SS	Stainless Steel
2.3	Impeller 1-1/4	2693953-449			
2.4	Impeller 1-1/4			2693953-491	Cast Iron
2.5	Impeller 1-1/4			2693953-SS	Stainless Steel
3	Motor Shaft	RTF			
4	Casing Wearing	2655973	Bronze		
4.1	Casing Wearing			2655973-SS	Stainless Steel
5	Shaft Sleeve 143-125	SLJM1.250B	Bronze		
5.1	Shaft Sleeve 143-125			SLJM1.250SS	Stainless Steel
5.2	Shaft Sleeve 254-326	SLJM1.500B	Bronze		
5.3	Shaft Sleeve 254-326			SLJM1.500SS	Stainless Steel
6	Mechanical Seal 143-215	011-S125-21-PER	Viton/Sic vs Carbon/SS		
6.1	Mechanical Seal 254-326	011-S150-21-PER	Viton/Sic vs Carbon/SS		
27	Plug	SP-025	Steel		
28	Impeller Key		Carbon Steel		
31	Motor	RTF			
32	Bracket 143-215	2683879	Cast Iron		
32.1	Bracket 143-215			2683879-B	Bronze
32.2	Bracket 143-215			2683879-SS	Stainless Steel
32.3	Bracket 143-215			2683879-DI	Ductile Iron
32.4	Bracket 143-215			2683879-CS	Stainless Steel
32.5	Bracket 254-256	2683880			
32.6	Bracket 254-256			2683880-B	Bronze
32.7	Bracket 254-256			2683880-SS	Stainless Steel
32.8	Bracket 254-256			2683880-DI	Ductile Iron
32.9	Bracket 254-256			2683880-CS	Cast Steel
32.10	Bracket 284-326	2683882			
32.11	Bracket 284-326			2683882-B	Bronze
32.12	Bracket 284-326			2683882-SS	Stainless Steel
32.13	Bracket 284-326			2683882-DI	Ductile Iron
32.14	Bracket 284-326			2683882-CS	Cast Steel
33	Motor Shaft Key		Carbon Steel		
34	Impeller Washer No 1	WF1-SS	Stainless Steel		
34.1	Impeller Washer No 2	WF2-SS	Stainless Steel		
35	Impeller Bolt No 1	LBF1-SS	Stainless Steel		
35.1	Impeller Bolt No 2	LBF2-SS	Stainless Steel		
36	Casing Gasket	G-8P	Fiber		
37	Motor Bolts		Carbon Steel		

RECOMMENDED SPARES PARTS SERIES 1000 MODEL C815A

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
1	Volute Casing	2693987	Cast Iron		
1.1	Volute Casing			2693987-B	Bronze
1.2	Volute Casing			2693987-SS	Stainless Steel
1.3	Volute Casing			2693987-DI	Ductile Iron
1.4	Volute Casing			2693987-CS	Cast Steel
2	Impeller 7/8	2684183-449	Bronze		
2.1	Impeller 7/8			2684183-491	Cast Iron
2.2	Impeller 7/8			2684183-SS	Stainless Steel
2.3	Impeller 1-1/4	2684184-449			
2.4	Impeller 1-1/4			2684184-491	Cast Iron
2.5	Impeller 1-1/4			2684184-SS	Stainless Steel
3	Motor Shaft	RTF			
4	Casing Wearing	2655973	Bronze		
4.1	Casing Wearing			2655973-SS	Stainless Steel
5	Shaft Sleeve 143-125	SLJM1.250B	Bronze		
5.1	Shaft Sleeve 143-125			SLJM1.250SS	Stainless Steel
5.2	Shaft Sleeve 254-326	SLJM1.500B	Bronze		
5.3	Shaft Sleeve 254-326			SLJM1.500SS	Stainless Steel
6	Mechanical Seal 143-215	O11-S125-21-PER	Viton/Sic vs Carbon/SS		
6.1	Mechanical Seal 254-326	O11-S150-21-PER	Viton/Sic vs Carbon/SS		
27	Plug	SP-025	Steel		
28	Impeller Key		Carbon Steel		
31	Motor	RTF			
32	Bracket 143-215	2683879	Cast Iron		
32.1	Bracket 143-215			2683879-B	Bronze
32.2	Bracket 143-215			2683879-SS	Stainless Steel
32.3	Bracket 143-215			2683879-DI	Ductile Iron
32.4	Bracket 143-215			2683879-CS	Stainless Steel
32.5	Bracket 254-256	2683880			
32.6	Bracket 254-256			2683880-B	Bronze
32.7	Bracket 254-256			2683880-SS	Stainless Steel
32.8	Bracket 254-256			2683880-DI	Ductile Iron
32.9	Bracket 254-256			2683880-CS	Cast Steel
32.10	Bracket 284-326	2683882			
32.11	Bracket 284-326			2683882-B	Bronze
32.12	Bracket 284-326			2683882-SS	Stainless Steel
32.13	Bracket 284-326			2683882-DI	Ductile Iron
32.14	Bracket 284-326			2683882-CS	Cast Steel
33	Motor Shaft Key		Carbon Steel		
34	Impeller Washer No 1	WF1-SS	Stainless Steel		
34.1	Impeller Washer No 2	WF2-SS	Stainless Steel		
35	Impeller Bolt No 1	LBF1-SS	Stainless Steel		
35.1	Impeller Bolt No 2	LBF2-SS	Stainless Steel		
36	Casing Gasket	G-8P	Fiber		
37	Motor Bolts		Carbon Steel		

RECOMMENDED SPARES PARTS SERIES 1000 MODEL C815G

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
1	Volute Casing	2693987	Cast Iron		
1.1	Volute Casing			2693987-B	Bronze
1.2	Volute Casing			2693987-SS	Stainless Steel
1.3	Volute Casing			2693987-DI	Ductile Iron
1.4	Volute Casing			2693987-CS	Cast Steel
2	Impeller 7/8	2693952-449	Bronze		
2.1	Impeller 7/8			2693952-491	Cast Iron
2.2	Impeller 7/8			2693952-SS	Stainless Steel
2.3	Impeller 1-1/4	2693953-449			
2.4	Impeller 1-1/4			2693953-491	Cast Iron
2.5	Impeller 1-1/4			2693953-SS	Stainless Steel
3	Motor Shaft	RTF			
4	Casing Wearing	2655973	Bronze		
4.1	Casing Wearing			2655973-SS	Stainless Steel
5	Shaft Sleeve 143-125	SLJM1.250B	Bronze		
5.1	Shaft Sleeve 143-125			SLJM1.250SS	Stainless Steel
5.2	Shaft Sleeve 254-326	SLJM1.500B	Bronze		
5.3	Shaft Sleeve 254-326			SLJM1.500SS	Stainless Steel
6	Mechanical Seal 143-215	011-S125-21-PER	Viton/Sic vs Carbon/SS		
6.1	Mechanical Seal 254-326	011-S150-21-PER	Viton/Sic vs Carbon/SS		
27	Plug	SP-025	Steel		
28	Impeller Key		Carbon Steel		
31	Motor	RTF			
32	Bracket 143-215	2683879	Cast Iron		
32.1	Bracket 143-215			2683879-B	Bronze
32.2	Bracket 143-215			2683879-SS	Stainless Steel
32.3	Bracket 143-215			2683879-DI	Ductile Iron
32.4	Bracket 143-215			2683879-CS	Stainless Steel
32.5	Bracket 254-256	2683880			
32.6	Bracket 254-256			2683880-B	Bronze
32.7	Bracket 254-256			2683880-SS	Stainless Steel
32.8	Bracket 254-256			2683880-DI	Ductile Iron
32.9	Bracket 254-256			2683880-CS	Cast Steel
32.10	Bracket 284-326	2683882			
32.11	Bracket 284-326			2683882-B	Bronze
32.12	Bracket 284-326			2683882-SS	Stainless Steel
32.13	Bracket 284-326			2683882-DI	Ductile Iron
32.14	Bracket 284-326			2683882-CS	Cast Steel
33	Motor Shaft Key		Carbon Steel		
34	Impeller Washer No 1	WF1-SS	Stainless Steel		
34.1	Impeller Washer No 2	WF2-SS	Stainless Steel		
35	Impeller Bolt No 1	LBF1-SS	Stainless Steel		
35.1	Impeller Bolt No 2	LBF2-SS	Stainless Steel		
36	Casing Gasket	G-8P	Fiber		
37	Motor Bolts		Carbon Steel		

RECOMMENDED SPARES PARTS SERIES 1000 MODEL C820A

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
1	Volute Casing	2685523	Cast Iron		
1.1	Volute Casing			2685523-B	Bronze
1.2	Volute Casing			2685523-SS	Stainless Steel
1.3	Volute Casing			2685523-DI	Ductile Iron
1.4	Volute Casing			2685523-CS	Cast Steel
2	Impeller 7/8	V1735-449	Bronze		
2.1	Impeller 7/8			V1735-491	Cast Iron
2.2	Impeller 7/8			V1735-SS	Stainless Steel
2.3	Impeller 1-1/4	V3289-449			
2.4	Impeller 1-1/4			V3289-491	Cast Iron
2.5	Impeller 1-1/4			V3289-SS	Stainless Steel
3	Motor Shaft	RTF			
4	Casing Wearing	2684006	Bronze		
4.1	Casing Wearing			2684006-SS	Stainless Steel
5	Shaft Sleeve 143-125	SLJM1.250B	Bronze		
5.1	Shaft Sleeve 143-125			SLJM1.250SS	Stainless Steel
5.2	Shaft Sleeve 254-326	SLJM1.500B	Bronze		
5.3	Shaft Sleeve 254-326			SLJM1.500SS	Stainless Steel
6	Mechanical Seal 143-215	O11-S125-21-PER	Viton/Sic vs Carbon/SS		
6.1	Mechanical Seal 254-326	O11-S150-21-PER	Viton/Sic vs Carbon/SS		
27	Plug	SP-025	Steel		
28	Impeller Key		Carbon Steel		
31	Motor	RTF			
32	Bracket 143-215	2683879	Cast Iron		
32.1	Bracket 143-215			2683879-B	Bronze
32.2	Bracket 143-215			2683879-SS	Stainless Steel
32.3	Bracket 143-215			2683879-DI	Ductile Iron
32.4	Bracket 143-215			2683879-CS	Stainless Steel
32.5	Bracket 254-256	2683880			
32.6	Bracket 254-256			2683880-B	Bronze
32.7	Bracket 254-256			2683880-SS	Stainless Steel
32.8	Bracket 254-256			2683880-DI	Ductile Iron
32.9	Bracket 254-256			2683880-CS	Cast Steel
32.10	Bracket 284-326	2683882			
32.11	Bracket 284-326			2683882-B	Bronze
32.12	Bracket 284-326			2683882-SS	Stainless Steel
32.13	Bracket 284-326			2683882-DI	Ductile Iron
32.14	Bracket 284-326			2683882-CS	Cast Steel
33	Motor Shaft Key		Carbon Steel		
34	Impeller Washer No 1	WF1-SS	Stainless Steel		
34.1	Impeller Washer No 2	WF2-SS	Stainless Steel		
35	Impeller Bolt No 1	LBF1-SS	Stainless Steel		
35.1	Impeller Bolt No 2	LBF2-SS	Stainless Steel		
36	Casing Gasket	G-8P	Fiber		
37	Motor Bolts		Carbon Steel		

RECOMMENDED SPARES PARTS SERIES 1000 MODEL C825A

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
1	Volute Casing	2685525	Cast Iron		
1.1	Volute Casing			2685525-B	Bronze
1.2	Volute Casing			2685525-SS	Stainless Steel
1.3	Volute Casing			2685525-DI	Ductile Iron
1.4	Volute Casing			2685525-CS	Cast Steel
2	Impeller 7/8	2683738-449	Bronze		
2.1	Impeller 7/8			2683738-491	Cast Iron
2.2	Impeller 7/8			2683738-SS	Stainless Steel
2.3	Impeller 1-1/4	2683748-449			
2.4	Impeller 1-1/4			2683748-491	Cast Iron
2.5	Impeller 1-1/4			2683748-SS	Stainless Steel
3	Motor Shaft	RTF			
4	Casing Wearing	V1810	Bronze		
4.1	Casing Wearing			V1810-SS	Stainless Steel
5	Shaft Sleeve 143-125	SLJM1.250B	Bronze		
5.1	Shaft Sleeve 143-125			SLJM1.250SS	Stainless Steel
5.2	Shaft Sleeve 254-326	SLJM1.500B	Bronze		
5.3	Shaft Sleeve 254-326			SLJM1.500SS	Stainless Steel
6	Mechanical Seal 143-215	011-S125-21-PER	Viton/Sic vs Carbon/SS		
6.1	Mechanical Seal 254-326	011-S150-21-PER	Viton/Sic vs Carbon/SS		
27	Plug	SP-025	Steel		
28	Impeller Key		Carbon Steel		
31	Motor	RTF			
32	Bracket 143-215	2683879	Cast Iron		
32.1	Bracket 143-215			2683879-B	Bronze
32.2	Bracket 143-215			2683879-SS	Stainless Steel
32.3	Bracket 143-215			2683879-DI	Ductile Iron
32.4	Bracket 143-215			2683879-CS	Stainless Steel
32.5	Bracket 254-256	2683880			
32.6	Bracket 254-256			2683880-B	Bronze
32.7	Bracket 254-256			2683880-SS	Stainless Steel
32.8	Bracket 254-256			2683880-DI	Ductile Iron
32.9	Bracket 254-256			2683880-CS	Cast Steel
32.10	Bracket 284-326	2683882			
32.11	Bracket 284-326			2683882-B	Bronze
32.12	Bracket 284-326			2683882-SS	Stainless Steel
32.13	Bracket 284-326			2683882-DI	Ductile Iron
32.14	Bracket 284-326			2683882-CS	Cast Steel
33	Motor Shaft Key		Carbon Steel		
34	Impeller Washer No 1	WF1-SS	Stainless Steel		
34.1	Impeller Washer No 2	WF2-SS	Stainless Steel		
35	Impeller Bolt No 1	LBF1-SS	Stainless Steel		
35.1	Impeller Bolt No 2	LBF2-SS	Stainless Steel		
36	Casing Gasket	G-8P	Fiber		
37	Motor Bolts		Carbon Steel		

RECOMMENDED SPARES PARTS SERIES 1000 MODEL C830A

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
1	Volute Casing	2685527	Cast Iron		
1.1	Volute Casing			2685527-B	Bronze
1.2	Volute Casing			2685527-SS	Stainless Steel
1.3	Volute Casing			2685527-DI	Ductile Iron
1.4	Volute Casing			2685527-CS	Cast Steel
2	Impeller 7/8	2683739-449	Bronze		
2.1	Impeller 7/8			2683739-491	Cast Iron
2.2	Impeller 7/8			2683739-SS	Stainless Steel
2.3	Impeller 1-1/4	2683747-449			
2.4	Impeller 1-1/4			2683747-491	Cast Iron
2.5	Impeller 1-1/4			2683747-SS	Stainless Steel
3	Motor Shaft	RTF			
4	Casing Wearing	V1811	Bronze		
4.1	Casing Wearing			V1811-SS	Stainless Steel
5	Shaft Sleeve 143-125	SLJM1.250B	Bronze		
5.1	Shaft Sleeve 143-125			SLJM1.250SS	Stainless Steel
5.2	Shaft Sleeve 254-326	SLJM1.500B	Bronze		
5.3	Shaft Sleeve 254-326			SLJM1.500SS	Stainless Steel
6	Mechanical Seal 143-215	O11-S125-21-PER	Viton/Sic vs Carbon/SS		
6.1	Mechanical Seal 254-326	O11-S150-21-PER	Viton/Sic vs Carbon/SS		
27	Plug	SP-025	Steel		
28	Impeller Key		Carbon Steel		
31	Motor	RTF			
32	Bracket 143-215	2683879	Cast Iron		
32.1	Bracket 143-215			2683879-B	Bronze
32.2	Bracket 143-215			2683879-SS	Stainless Steel
32.3	Bracket 143-215			2683879-DI	Ductile Iron
32.4	Bracket 143-215			2683879-CS	Stainless Steel
32.5	Bracket 254-256	2683880			
32.6	Bracket 254-256			2683880-B	Bronze
32.7	Bracket 254-256			2683880-SS	Stainless Steel
32.8	Bracket 254-256			2683880-DI	Ductile Iron
32.9	Bracket 254-256			2683880-CS	Cast Steel
32.10	Bracket 284-326	2683882			
32.11	Bracket 284-326			2683882-B	Bronze
32.12	Bracket 284-326			2683882-SS	Stainless Steel
32.13	Bracket 284-326			2683882-DI	Ductile Iron
32.14	Bracket 284-326			2683882-CS	Cast Steel
33	Motor Shaft Key		Carbon Steel		
34	Impeller Washer No 1	WF1-SS	Stainless Steel		
34.1	Impeller Washer No 2	WF2-SS	Stainless Steel		
35	Impeller Bolt No 1	LBF1-SS	Stainless Steel		
35.1	Impeller Bolt No 2	LBF2-SS	Stainless Steel		
36	Casing Gasket	G-8 P	Fiber		
37	Motor Bolts		Carbon Steel		

RECOMMENDED SPARES PARTS SERIES 1000 MODEL C840A

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
1	Volute Casing	2683863	Cast Iron		
1.1	Volute Casing			2683863-B	Bronze
1.2	Volute Casing			2683863-SS	Stainless Steel
1.3	Volute Casing			2683863-DI	Ductile Iron
1.4	Volute Casing			2683863-CS	Cast Steel
2	Impeller 7/8	2680864-449	Bronze		
2.1	Impeller 7/8			2680864-491	Cast Iron
2.2	Impeller 7/8			2680864-SS	Stainless Steel
2.3	Impeller 1-1/4	2680863-449			
2.4	Impeller 1-1/4			2680863-491	Cast Iron
2.5	Impeller 1-1/4			2680863-SS	Stainless Steel
3	Motor Shaft	RTF			
4	Casing Wearing	2691670	Bronze		
4.1	Casing Wearing			2691670-SS	Stainless Steel
5	Shaft Sleeve 143-125	SLJM1.250B	Bronze		
5.1	Shaft Sleeve 143-125			SLJM1.250SS	Stainless Steel
5.2	Shaft Sleeve 254-326	SLJM1.500B	Bronze		
5.3	Shaft Sleeve 254-326			SLJM1.500SS	Stainless Steel
6	Mechanical Seal 143-215	011-S125-21-PER	Viton/Sic vs Carbon/SS		
6.1	Mechanical Seal 254-326	011-S150-21-PER	Viton/Sic vs Carbon/SS		
27	Plug	SP-025	Steel		
28	Impeller Key		Carbon Steel		
31	Motor	RTF			
32	Bracket 143-215	2683879	Cast Iron		
32.1	Bracket 143-215			2683879-B	Bronze
32.2	Bracket 143-215			2683879-SS	Stainless Steel
32.3	Bracket 143-215			2683879-DI	Ductile Iron
32.4	Bracket 143-215			2683879-CS	Stainless Steel
32.5	Bracket 254-256	2683880			
32.6	Bracket 254-256			2683880-B	Bronze
32.7	Bracket 254-256			2683880-SS	Stainless Steel
32.8	Bracket 254-256			2683880-DI	Ductile Iron
32.9	Bracket 254-256			2683880-CS	Cast Steel
32.10	Bracket 284-326	2683882			
32.11	Bracket 284-326			2683882-B	Bronze
32.12	Bracket 284-326			2683882-SS	Stainless Steel
32.13	Bracket 284-326			2683882-DI	Ductile Iron
32.14	Bracket 284-326			2683882-CS	Cast Steel
33	Motor Shaft Key		Carbon Steel		
34	Impeller Washer No 1	WF1-SS	Stainless Steel		
34.1	Impeller Washer No 2	WF2-SS	Stainless Steel		
35	Impeller Bolt No 1	LBF1-SS	Stainless Steel		
35.1	Impeller Bolt No 2	LBF2-SS	Stainless Steel		
36	Casing Gasket	G-8P	Fiber		
37	Motor Bolts		Carbon Steel		

RECOMMENDED SPARES PARTS SERIES 1000 MODEL C1020A

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
1	Volute Casing	2685529	Cast Iron		
1.1	Volute Casing			2685529-B	Bronze
1.2	Volute Casing			2685529-SS	Stainless Steel
1.3	Volute Casing			2685529-DI	Ductile Iron
1.4	Volute Casing			2685529-CS	Cast Steel
2	Impeller 7/8	2680869-449	Bronze		
2.1	Impeller 7/8			2680869-491	Cast Iron
2.2	Impeller 7/8			2680869-SS	Stainless Steel
2.3	Impeller 1-1/4	2680870-449			
2.4	Impeller 1-1/4			2680870-491	Cast Iron
2.5	Impeller 1-1/4			2680870-SS	Stainless Steel
3	Motor Shaft	RTF			
4	Casing Wearing	2684006	Bronze		
4.1	Casing Wearing			2684006-SS	Stainless Steel
5	Shaft Sleeve 143-125	SLJM1.250B	Bronze		
5.1	Shaft Sleeve 143-125			SLJM1.250SS	Stainless Steel
5.2	Shaft Sleeve 254-326	SLJM1.500B	Bronze		
5.3	Shaft Sleeve 254-326			SLJM1.500SS	Stainless Steel
6	Mechanical Seal 143-215	011-S125-21-PER	Viton/Sic vs Carbon/SS		
6.1	Mechanical Seal 254-326	011-S150-21-PER	Viton/Sic vs Carbon/SS		
27	Plug	SP-025	Steel		
28	Impeller Key		Carbon Steel		
31	Motor	RTF			
32	Bracket 143-215	2683883	Cast Iron		
32.1	Bracket 143-215			2683883-B	Bronze
32.2	Bracket 143-215			2683883-SS	Stainless Steel
32.3	Bracket 143-215			2683883-DI	Ductile Iron
32.4	Bracket 143-215			2683883-CS	Stainless Steel
32.5	Bracket 254-256	2683884			
32.6	Bracket 254-256			2683884-B	Bronze
32.7	Bracket 254-256			2683884-SS	Stainless Steel
32.8	Bracket 254-256			2683884-DI	Ductile Iron
32.9	Bracket 254-256			2683884-CS	Cast Steel
32.10	Bracket 284-326	2691995			
32.11	Bracket 284-326			2691995-B	Bronze
32.12	Bracket 284-326			2691995-SS	Stainless Steel
32.13	Bracket 284-326			2691995-DI	Ductile Iron
32.14	Bracket 284-326			2691995-CS	Cast Steel
33	Motor Shaft Key		Carbon Steel		
34	Impeller Washer No 1	WF1-SS	Stainless Steel		
34.1	Impeller Washer No 2	WF2-SS	Stainless Steel		
35	Impeller Bolt No 1	LBF1-SS	Stainless Steel		
35.1	Impeller Bolt No 2	LBF2-SS	Stainless Steel		
36	Casing Gasket	G-10P	Fiber		
37	Motor Bolts		Carbon Steel		

RECOMMENDED SPARES PARTS SERIES 1000 MODEL C1025A

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
1	Volute Casing	2685531	Cast Iron		
1.1	Volute Casing			2685531-B	Bronze
1.2	Volute Casing			2685531-SS	Stainless Steel
1.3	Volute Casing			2685531-DI	Ductile Iron
1.4	Volute Casing			2685531-CS	Cast Steel
2	Impeller 7/8	2684314-449	Bronze		
2.1	Impeller 7/8			2684314-491	Cast Iron
2.2	Impeller 7/8			2684314-SS	Stainless Steel
2	Impeller 1-1/4	2683884-449			
2.1	Impeller 1-1/4			2683884-491	Cast Iron
2.2	Impeller 1-1/4			2683884-SS	Stainless Steel
3	Motor Shaft	RTF			
4	Casing Wearing	V1810	Bronze		
4.1	Casing Wearing			V1810-SS	Stainless Steel
5	Shaft Sleeve 143-215	SLJM1.250B	Bronze		
5.1	Shaft Sleeve 143-215			SLJM1.250SS	Stainless Steel
5.2	Shaft Sleeve 254-326	SLJM1.500B	Bronze		
5.3	Shaft Sleeve 254-326			SLJM1.500SS	Stainless Steel
6	Mechanical Seal 143-215	011-S125-21-PER	Viton/Sic vs Carbon/SS		
6.1	Mechanical Seal 254-326	011-S150-21-PER	Viton/Sic vs Carbon/SS		
27	Plug	SP-025	Steel		
28	Impeller Key		Carbon Steel		
31	Motor	RTF			
32	Bracket 143-215	2683883	Cast Iron		
32.1	Bracket 143-215			2683883-B	Bronze
32.2	Bracket 143-215			2683883SS	Stainless Steel
32.3	Bracket 143-215			2683883-DI	Ductile Iron
32.4	Bracket 143-215			2683883-CS	Stainless Steel
32.5	Bracket 254-256	2683884			
32.6	Bracket 254-256			2683884-B	Bronze
32.7	Bracket 254-256			2683884-SS	Stainless Steel
32.8	Bracket 254-256			2683884-DI	Ductile Iron
32.9	Bracket 254-256			2683884-CS	Cast Steel
32.10	Bracket 284-326	2691995			
32.11	Bracket 284-326			2691995-B	Bronze
32.12	Bracket 284-326			2691995-SS	Stainless Steel
32.13	Bracket 284-326			2691995-DI	Ductile Iron
32.14	Bracket 284-326			2691995-CS	Cast Steel
33	Motor Shaft Key		Carbon Steel		
34	Impeller Washer No 1	WF1-SS	Stainless Steel		
34.1	Impeller Washer No 2	WF2-SS	Stainless Steel		
35	Impeller Bolt No 1	LBF1-SS	Stainless Steel		
35.1	Impeller Bolt No 2	LBF2-SS	Stainless Steel		
36	Casing Gasket	G-10P	Fiber		
37	Motor Bolts		Carbon Steel		

RECOMMENDED SPARES PARTS SERIES 1000 MODEL C1030A

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
1	Volute Casing	2685533	Cast Iron		
1.1	Volute Casing			2685533-B	Bronze
1.2	Volute Casing			2685533-SS	Stainless Steel
1.3	Volute Casing			2685533-DI	Ductile Iron
1.4	Volute Casing			2685533-CS	Cast Steel
2	Impeller 7/8	2684315-449	Bronze		
2.1	Impeller 7/8			2684315-491	Cast Iron
2.2	Impeller 7/8			2684315-SS	Stainless Steel
2	Impeller 1-1/4	2684353-449			
2.1	Impeller 1-1/4			2684353-491	Cast Iron
2.2	Impeller 1-1/4			2684353-SS	Stainless Steel
3	Motor Shaft	RTF			
4	Casing Wearing	V1811	Bronze		
4.1	Casing Wearing			V1811-SS	Stainless Steel
5	Shaft Sleeve 143-215	SLJM1.250B	Bronze		
5.1	Shaft Sleeve 143-215			SLJM1.250SS	Stainless Steel
5.2	Shaft Sleeve 254-326	SLJM1.500B	Bronze		
5.3	Shaft Sleeve 254-326			SLJM1.500SS	Stainless Steel
6	Mechanical Seal 143-215	O11-S125-21-PER	Viton/Sic vs Carbon/SS		
6.1	Mechanical Seal 254-326	O11-S150-21-PER	Viton/Sic vs Carbon/SS		
27	Plug	SP-025	Steel		
28	Impeller Key		Carbon Steel		
31	Motor	RTF			
32	Bracket 143-215	2683883	Cast Iron		
32.1	Bracket 143-215			2683883-B	Bronze
32.2	Bracket 143-215			2683883SS	Stainless Steel
32.3	Bracket 143-215			2683883-DI	Ductile Iron
32.4	Bracket 143-215			2683883-CS	Stainless Steel
32.5	Bracket 254-256	2683884			
32.6	Bracket 254-256			2683884-B	Bronze
32.7	Bracket 254-256			2683884-SS	Stainless Steel
32.8	Bracket 254-256			2683884-DI	Ductile Iron
32.9	Bracket 254-256			2683884-CS	Cast Steel
32.10	Bracket 284-326	2691995			
32.11	Bracket 284-326			2691995-B	Bronze
32.12	Bracket 284-326			2691995-SS	Stainless Steel
32.13	Bracket 284-326			2691995-DI	Ductile Iron
32.14	Bracket 284-326			2691995-CS	Cast Steel
33	Motor Shaft Key		Carbon Steel		
34	Impeller Washer No 1	WF1-SS	Stainless Steel		
34.1	Impeller Washer No 2	WF2-SS	Stainless Steel		
35	Impeller Bolt No 1	LBF1-SS	Stainless Steel		
35.1	Impeller Bolt No 2	LBF2-SS	Stainless Steel		
36	Casing Gasket	G-10P	Fiber		
37	Motor Bolts		Carbon Steel		

RECOMMENDED SPARES PARTS SERIES 1000 MODEL C1040A

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
1	Volute Casing	2685535	Cast Iron		
1.1	Volute Casing			2685535-B	Bronze
1.2	Volute Casing			2685535-SS	Stainless Steel
1.3	Volute Casing			2685535-DI	Ductile Iron
1.4	Volute Casing			2685535-CS	Cast Steel
2	Impeller 7/8	2685919-449	Bronze		
2.1	Impeller 7/8			2685919-491	Cast Iron
2.2	Impeller 7/8			2685919-SS	Stainless Steel
2.3	Impeller 1-1/4	2685918-449			
2.4	Impeller 1-1/4			2685918-491	Cast Iron
2.5	Impeller 1-1/4			2685918-SS	Stainless Steel
3	Motor Shaft	RTF			
4	Casing Wearing	2691670	Bronze		
4.1	Casing Wearing			2691670-SS	Stainless Steel
5	Shaft Sleeve 143-215	SLJM1.250B	Bronze		
5.1	Shaft Sleeve 143-215			SLJM1.250SS	Stainless Steel
5.2	Shaft Sleeve 254-326	SLJM1.500B	Bronze		
5.3	Shaft Sleeve 254-326			SLJM1.500SS	Stainless Steel
6	Mechanical Seal 143-215	011-S125-21-PER	Viton/Sic vs Carbon/SS		
6.1	Mechanical Seal 254-326	011-S150-21-PER	Viton/Sic vs Carbon/SS		
27	Plug	SP-025	Steel		
28	Impeller Key		Carbon Steel		
31	Motor	RTF			
32	Bracket 143-215	2683883	Cast Iron		
32.1	Bracket 143-215			2683883-B	Bronze
32.2	Bracket 143-215			2683883-SS	Stainless Steel
32.3	Bracket 143-215			2683883-DI	Ductile Iron
32.4	Bracket 143-215			2683883-CS	Stainless Steel
32.5	Bracket 254-256	2683884			
32.6	Bracket 254-256			2683884-B	Bronze
32.7	Bracket 254-256			2683884-SS	Stainless Steel
32.8	Bracket 254-256			2683884-DI	Ductile Iron
32.9	Bracket 254-256			2683884-CS	Cast Steel
32.10	Bracket 284-326	2691995			
32.11	Bracket 284-326			2691995-B	Bronze
32.12	Bracket 284-326			2691995-SS	Stainless Steel
32.13	Bracket 284-326			2691995-DI	Ductile Iron
32.14	Bracket 284-326			2691995-CS	Cast Steel
33	Motor Shaft Key		Carbon Steel		
34	Impeller Washer No 1	WF1-SS	Stainless Steel		
34.1	Impeller Washer No 2	WF2-SS	Stainless Steel		
35	Impeller Washer No 1	LBF1-SS	Stainless Steel		
35.1	Impeller Washer No 2	LBF2-SS	Stainless Steel		
36	Casing Gasket	G-10P	Fiber		
37	Motor Bolts		Carbon Steel		

RECOMMENDED SPARES PARTS SERIES 1000 MODEL C1050A

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
1	Volute Casing	2691991	Cast Iron		
1.1	Volute Casing			2691991-B	Bronze
1.2	Volute Casing			2691991-SS	Stainless Steel
1.3	Volute Casing			2691991-DI	Ductile Iron
1.4	Volute Casing			2691991-CS	Cast Steel
2	Impeller 7/8	2691939-449	Bronze		
2.1	Impeller 7/8			2691939-491	Cast Iron
2.2	Impeller 7/8			2691939-SS	Stainless Steel
2.3	Impeller 1-1/4	2689502-449			
2.4	Impeller 1-1/4			2689502-491	Cast Iron
2.5	Impeller 1-1/4			2689502-SS	Stainless Steel
3	Motor Shaft	RTF			
4	Casing Wearing	2691672	Bronze		
4.1	Casing Wearing			2691672-SS	Stainless Steel
5	Shaft Sleeve 143-215	SLJM1.250B	Bronze		
5.1	Shaft Sleeve 143-215			SLJM1.250SS	Stainless Steel
5.2	Shaft Sleeve 254-326	SLJM1.500B	Bronze		
5.3	Shaft Sleeve 254-326			SLJM1.500SS	Stainless Steel
6	Mechanical Seal 143-215	O11-S125-21-PER	Viton/Sic vs Carbon/SS		
6.1	Mechanical Seal 254-326	O11-S150-21-PER	Viton/Sic vs Carbon/SS		
27	Plug	SP-025	Steel		
28	Impeller Key		Carbon Steel		
31	Motor	RTF			
32	Bracket 143-215	2683883	Cast Iron		
32.1	Bracket 143-215			2683883-B	Bronze
32.2	Bracket 143-215			2683883-SS	Stainless Steel
32.3	Bracket 143-215			2683883-DI	Ductile Iron
32.4	Bracket 143-215			2683883-CS	Stainless Steel
32.5	Bracket 254-256	2683884			
32.6	Bracket 254-256			2683884-B	Bronze
32.7	Bracket 254-256			2683884-SS	Stainless Steel
32.8	Bracket 254-256			2683884-DI	Ductile Iron
32.9	Bracket 254-256			2683884-CS	Cast Steel
32.10	Bracket 284-326	2691995			
32.11	Bracket 284-326			2691995-B	Bronze
32.12	Bracket 284-326			2691995-SS	Stainless Steel
32.13	Bracket 284-326			2691995-DI	Ductile Iron
32.14	Bracket 284-326			2691995-CS	Cast Steel
33	Motor Shaft Key		Carbon Steel		
34	Impeller Washer No 1	WF1-SS	Stainless Steel		
34.1	Impeller Washer No 2	WF2-SS	Stainless Steel		
35	Impeller Bolt No 1	LBF1-SS	Stainless Steel		
35.1	Impeller Bolt No 2	LBF2-SS	Stainless Steel		
36	Casing Gasket	G-10P	Fiber		
37	Motor Bolts		Carbon Steel		

RECOMMENDED SPARES PARTS SERIES 1000 MODEL C1215A

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
1	Volute Casing	2687801	Cast Iron		
1.1	Volute Casing			2687801-B	Bronze
1.2	Volute Casing			2687801-SS	Stainless Steel
1.3	Volute Casing			2687801-DI	Ductile Iron
1.4	Volute Casing			2687801-CS	Cast Steel
2	Impeller 7/8	2685582-449	Bronze		
2.1	Impeller 7/8			2685582-491	Cast Iron
2.2	Impeller 7/8			2685582-SS	Stainless Steel
2.3	Impeller 1-1/4	2685583-449			
2.4	Impeller 1-1/4			2685583-491	Cast Iron
2.5	Impeller 1-1/4			2685583-SS	Stainless Steel
3	Motor Shaft	RTF			
4	Casing Wearing	2655973	Bronze		
4.1	Casing Wearing			2655973-SS	Stainless Steel
5	Shaft Sleeve 143-215	SLJM1.250B	Bronze		
5.1	Shaft Sleeve 143-215			SLJM1.250SS	Stainless Steel
5.2	Shaft Sleeve 254-326	SLJM1.500B	Bronze		
5.3	Shaft Sleeve 254-326			SLJM1.500SS	Stainless Steel
6	Mechanical Seal 143-215	011-S125-21-PER	Viton/Sic vs Carbon/SS		
6.1	Mechanical Seal 254-326	011-S150-21-PER	Viton/Sic vs Carbon/SS		
27	Plug	SP-025	Steel		
28	Impeller Key		Carbon Steel		
31	Motor	RTF			
32	Bracket 143-215	2687811	Cast Iron		
32.1	Bracket 143-215			2687811-B	Bronze
32.2	Bracket 143-215			2687811-SS	Stainless Steel
32.3	Bracket 143-215			2687811-DI	Ductile Iron
32.4	Bracket 143-215			2687811-CS	Stainless Steel
32.5	Bracket 254-256	2687812			
32.6	Bracket 254-256			2687812-B	Bronze
32.7	Bracket 254-256			2687812-SS	Stainless Steel
32.8	Bracket 254-256			2687812-DI	Ductile Iron
32.9	Bracket 254-256			2687812-CS	Cast Steel
32.10	Bracket 284-326	2687813			
32.11	Bracket 284-326			2687813-B	Bronze
32.12	Bracket 284-326			2687813-SS	Stainless Steel
32.13	Bracket 284-326			2687813-DI	Ductile Iron
32.14	Bracket 284-326			2687813-CS	Cast Steel
33	Motor Shaft Key		Carbon Steel		
34	Impeller Washer No 1	WF1-SS	Stainless Steel		
34.1	Impeller Washer No 2	WF2-SS	Stainless Steel		
35	Impeller Bolt No 1	LBF1-SS	Stainless Steel		
35.1	Impeller Bolt No 2	LBF2-SS	Stainless Steel		
36	Casing Gasket	G-12P	Fiber		
37	Motor Bolts		Carbon Steel		

RECOMMENDED SPARES PARTS SERIES 1000 MODEL C1220A

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
1	Volute Casing	2687803	Cast Iron		
1.1	Volute Casing			2687803-B	Bronze
1.2	Volute Casing			2687803-SS	Stainless Steel
1.3	Volute Casing			2687803-DI	Ductile Iron
1.4	Volute Casing			2687803-CS	Cast Steel
2	Impeller 7/8	2685584-449	Bronze		
2.1	Impeller 7/8			2685584-491	Cast Iron
2.2	Impeller 7/8			2685584-SS	Stainless Steel
2.3	Impeller 1-1/4	2685585-449			
2.4	Impeller 1-1/4			2685585-491	Cast Iron
2.5	Impeller 1-1/4			2685585-SS	Stainless Steel
3	Motor Shaft	RTF			
4	Casing Wearing	2684006	Bronze		
4.1	Casing Wearing			2684006-SS	Stainless Steel
5	Shaft Sleeve 143-215	SLJM1.250B	Bronze		
5.1	Shaft Sleeve 143-215			SLJM1.250SS	Stainless Steel
5.2	Shaft Sleeve 254-326	SLJM1.500B	Bronze		
5.3	Shaft Sleeve 254-326			SLJM1.500SS	Stainless Steel
6	Mechanical Seal 143-215	011-S125-21-PER	Viton/Sic vs Carbon/SS		
6.1	Mechanical Seal 254-326	011-S150-21-PER	Viton/Sic vs Carbon/SS		
27	Plug	SP-025	Steel		
28	Impeller Key		Carbon Steel		
31	Motor	RTF			
32	Bracket 143-215	2687811	Cast Iron		
32.1	Bracket 143-215			2687811-B	Bronze
32.2	Bracket 143-215			2687811-SS	Stainless Steel
32.3	Bracket 143-215			2687811-DI	Ductile Iron
32.4	Bracket 143-215			2687811-CS	Stainless Steel
32.5	Bracket 254-256	2687812			
32.6	Bracket 254-256			2687812-B	Bronze
32.7	Bracket 254-256			2687812-SS	Stainless Steel
32.8	Bracket 254-256			2687812-DI	Ductile Iron
32.9	Bracket 254-256			2687812-CS	Cast Steel
32.10	Bracket 284-326	2687813			
32.11	Bracket 284-326			2687813-B	Bronze
32.12	Bracket 284-326			2687813-SS	Stainless Steel
32.13	Bracket 284-326			2687813-DI	Ductile Iron
32.14	Bracket 284-326			2687813-CS	Cast Steel
33	Motor Shaft Key		Carbon Steel		
34	Impeller Washer No 1	WF1-SS	Stainless Steel		
34.1	Impeller Washer No 2	WF2-SS	Stainless Steel		
35	Impeller Bolt No 1	LBF1-SS	Stainless Steel		
35.1	Impeller Bolt No 2	LBF2-SS	Stainless Steel		
36	Casing Gasket	G-12P	Fiber		
37	Motor Bolts		Carbon Steel		

RECOMMENDED SPARES PARTS SERIES 1000 MODEL C1230A

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
1	Volute Casing	2687805	Cast Iron		
1.1	Volute Casing			2687805-B	Bronze
1.2	Volute Casing			2687805-SS	Stainless Steel
1.3	Volute Casing			2687805-DI	Ductile Iron
1.4	Volute Casing			2687805-CS	Cast Steel
2	Impeller 1-1/4	2685580-449			
2.1	Impeller 1-1/4			2685580-491	Cast Iron
2.2	Impeller 1-1/4			2685580-SS	Stainless Steel
3	Motor Shaft	RTF			
4	Casing Wearing	2691669	Bronze		
4.1	Casing Wearing			2691669-SS	Stainless Steel
5	Shaft Sleeve 254-326	SLJM1.500B	Bronze		
5.1	Shaft Sleeve 254-326			SLJM1.500SS	Stainless Steel
6	Mechanical Seal 254-326	011-S150-21-PER	Viton/Sic vs Carbon/SS		
27	Plug	SP-025	Steel		
28	Impeller Key		Carbon Steel		
31	Motor	RTF			
32	Bracket 143-215	2687811	Cast Iron		
32.1	Bracket 143-215			2687811-B	Bronze
32.2	Bracket 143-215			2687811-SS	Stainless Steel
32.3	Bracket 143-215			2687811-DI	Ductile Iron
32.4	Bracket 143-215			2687811-CS	Stainless Steel
32.5	Bracket 254-256	2687812			
32.6	Bracket 254-256			2687812-B	Bronze
32.7	Bracket 254-256			2687812-SS	Stainless Steel
32.8	Bracket 254-256			2687812-DI	Ductile Iron
32.9	Bracket 254-256			2687812-CS	Cast Steel
32.10	Bracket 284-326	2687813			
32.11	Bracket 284-326			2687813-B	Bronze
32.12	Bracket 284-326			2687813-SS	Stainless Steel
32.13	Bracket 284-326			2687813-DI	Ductile Iron
32.14	Bracket 284-326			2687813-CS	Cast Steel
33	Motor Shaft Key		Carbon Steel		
34	Impeller Washer No 1	WF1-SS	Stainless Steel		
34.1	Impeller Washer No 2	WF2-SS	Stainless Steel		
35	Impeller Washer No 1	LBF1-SS	Stainless Steel		
35.1	Impeller Washer No 2	LBF2-SS	Stainless Steel		
36	Casing Gasket	G-12P	Fiber		
37	Motor Bolts		Carbon Steel		

RECOMMENDED SPARES PARTS SERIES 1000 MODEL C1240A

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
1	Volute Casing	2687806	Cast Iron		
1.1	Volute Casing			2687806-B	Bronze
1.2	Volute Casing			2687806-SS	Stainless Steel
1.3	Volute Casing			2687806-DI	Ductile Iron
1.4	Volute Casing			2687806-CS	Cast Steel
2	Impeller 1-1/4	2685586-449			
2.1	Impeller 1-1/4			2685586-491	Cast Iron
2.2	Impeller 1-1/4			2685586-SS	Stainless Steel
3	Motor Shaft	RTF			
4	Casing Wearing	2691670	Bronze		
4.1	Casing Wearing			2691670-SS	Stainless Steel
5	Shaft Sleeve 254-326	SLJM1.500B	Bronze		
5.1	Shaft Sleeve 254-326			SLJM1.500SS	Stainless Steel
6	Mechanical Seal 254-326	011-S150-21-PER	Viton/Sic vs Carbon/SS		
27	Plug	SP-025	Steel		
28	Impeller Key		Carbon Steel		
31	Motor	RTF			
32	Bracket 143-215	2687811	Cast Iron		
32.1	Bracket 143-215			2687811-B	Bronze
32.2	Bracket 143-215			2687811-SS	Stainless Steel
32.3	Bracket 143-215			2687811-DI	Ductile Iron
32.4	Bracket 143-215			2687811-CS	Stainless Steel
32.5	Bracket 254-256	2687812			
32.6	Bracket 254-256			2687812-B	Bronze
32.7	Bracket 254-256			2687812-SS	Stainless Steel
32.8	Bracket 254-256			2687812-DI	Ductile Iron
32.9	Bracket 254-256			2687812-CS	Cast Steel
32.10	Bracket 284-326	2687813			
32.11	Bracket 284-326			2687813-B	Bronze
32.12	Bracket 284-326			2687813-SS	Stainless Steel
32.13	Bracket 284-326			2687813-DI	Ductile Iron
32.14	Bracket 284-326			2687813-CS	Cast Steel
33	Motor Shaft Key		Carbon Steel		
34	Impeller Washer No 1	WF1-SS	Stainless Steel		
34.1	Impeller Washer No 2	WF2-SS	Stainless Steel		
35	Impeller Bolt No 1	LBF1-SS	Stainless Steel		
35.1	Impeller Bolt No 2	LBF2-SS	Stainless Steel		
36	Casing Gasket	G-12P	Fiber		
37	Motor Bolts		Carbon Steel		

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NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
1	Volute Casing	2687807	Cast Iron		
1.1	Volute Casing			2687807-B	Bronze
1.2	Volute Casing			2687807-SS	Stainless Steel
1.3	Volute Casing			2687807-DI	Ductile Iron
1.4	Volute Casing			2687807-CS	Cast Steel
2	Impeller 1-1/4	2685593-449			
2.1	Impeller 1-1/4			2685593-491	Cast Iron
2.2	Impeller 1-1/4			2685593-SS	Stainless Steel
3	Motor Shaft	RTF			
4	Casing Wearing	2691671-1	Bronze		
4.1	Casing Wearing			2691671-SS	Stainless Steel
5	Shaft Sleeve 254-326	SLJM1.500B	Bronze		
5.1	Shaft Sleeve 254-326			SLJM1.500SS	Stainless Steel
6	Mechanical Seal 254-326	011-S150-21-PER	Viton/Sic vs Carbon/SS		
27	Plug	SP-025	Steel		
28	Impeller Key		Carbon Steel		
31	Motor	RTF			
32	Bracket 143-215	2687811	Cast Iron		
32.1	Bracket 143-215			2687811-B	Bronze
32.2	Bracket 143-215			2687811-SS	Stainless Steel
32.3	Bracket 143-215			2687811-DI	Ductile Iron
32.4	Bracket 143-215			2687811-CS	Stainless Steel
32.5	Bracket 254-256	2687812			
32.6	Bracket 254-256			2687812-B	Bronze
32.7	Bracket 254-256			2687812-SS	Stainless Steel
32.8	Bracket 254-256			2687812-DI	Ductile Iron
32.9	Bracket 254-256			2687812-CS	Cast Steel
32.10	Bracket 284-326	2687813			
32.11	Bracket 284-326			2687813-B	Bronze
32.12	Bracket 284-326			2687813-SS	Stainless Steel
32.13	Bracket 284-326			2687813-DI	Ductile Iron
32.14	Bracket 284-326			2687813-CS	Cast Steel
33	Motor Shaft Key		Carbon Steel		
34	Impeller Washer No 1	WF1-SS	Stainless Steel		
34.1	Impeller Washer No 2	WF2-SS	Stainless Steel		
35	Impeller Bolt No 1	LBF1-SS	Stainless Steel		
35.1	Impeller Bolt No 2	LBF2-SS	Stainless Steel		
36	Casing Gasket	G-12P	Fiber		
37	Motor Bolts		Carbon Steel		

