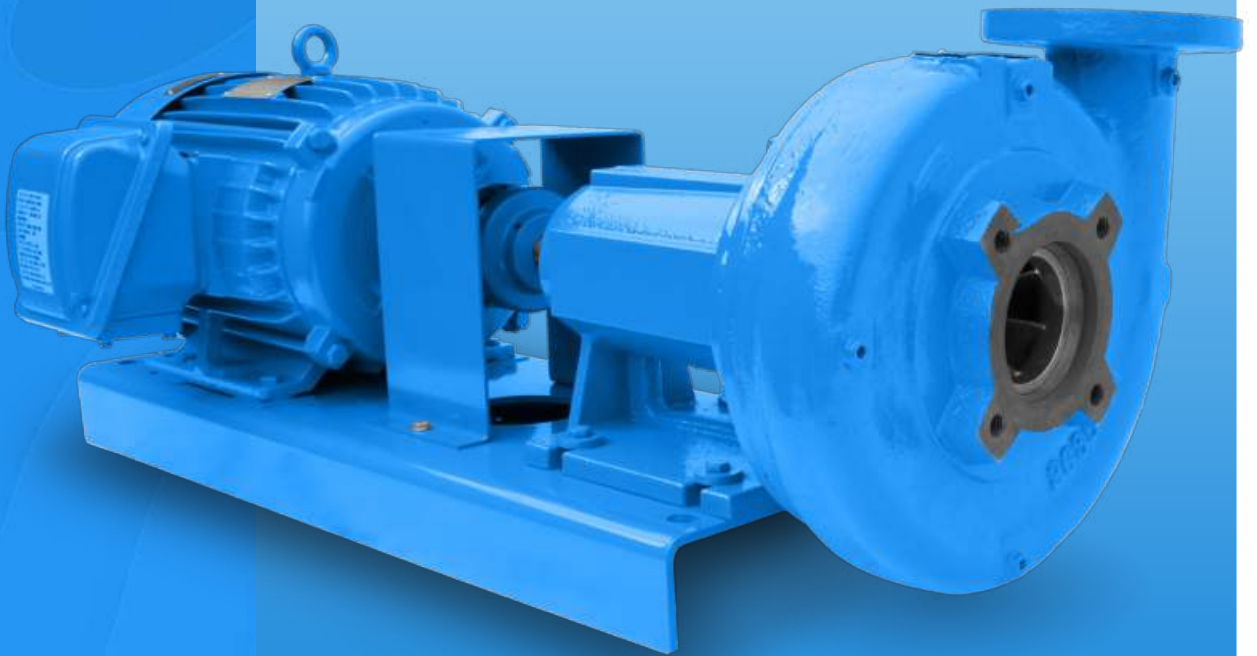


SERIES 2000

Installation, Operation & Maintenance Manual

Radially Split Bearing
Frame Pump Mounted



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



CAUTION!

Do not run pump dry, seal damage may occur, inspect pump seal regularly for leaks, replace as required.

For lubrication requirements, consult service instructions, failure to follow instructions could result in injury or property damage.

- Coupler alignment is required!
- Level & grout pump before use!
- Check alignment before grouting, after system is filled, after servicing pump, and as required.
- Consult the service instructions for details.

Failure to follow these instructions could result in injury or property damage. Failure to follow this instruction may void the warranty of the unit.

FLO FAB pumps, when properly installed and given reasonable care and maintenance, will provide many years of trouble-free operation.

Pumps are carefully tested and inspected for mechanical defects before shipment, but should be carefully inspected for possible damage during transit immediately upon receipt. Contact your FLO FAB representative or the transport company immediately if there is any evidence of mishandling.

Although FLO FAB pumps are correctly aligned before shipment, alignment must be checked again by installer and adjusted if necessary before and after all pipe joints are made and base is grouted.

CAUTION

A PUMP IS A PRECISION MACHINE AND BY FOLLOWING PROPER INSTALLATION PROCEDURE AND STUDYING INSTRUCTIONS, PROBLEMS CAN BE AVOIDED.

LOCATION OF UNIT

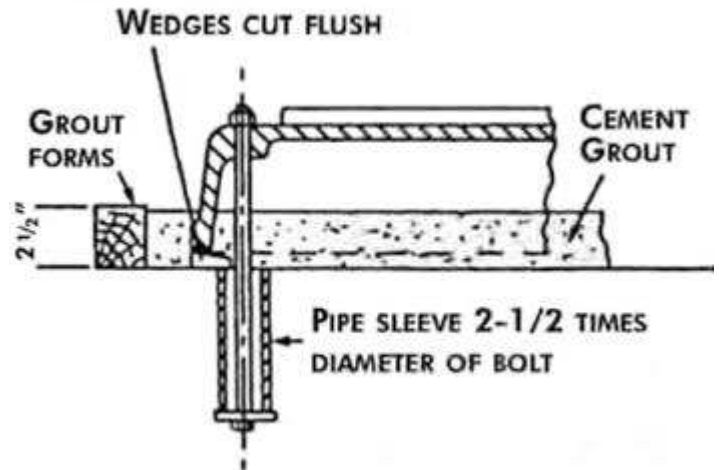
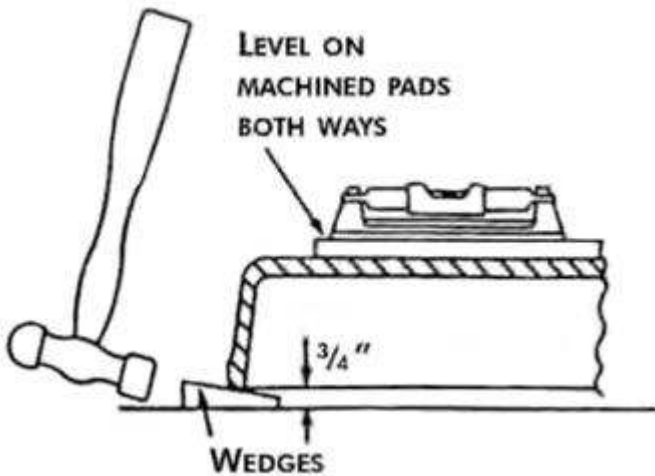
1. Locate the pump in a dry place as near the liquid source as practical with a short, direct suction pipe and a minimum number of elbows and fittings on the discharge line.
2. Place the unit so that it will be accessible for inspection during operation and maintenance.

FOUNDATION

1. Foundation should be sufficiently substantial to absorb any vibration and to form a permanent rigid support for the base plate. This is important in maintaining alignment of a direct connected unit.
2. Foundation bolts of suitable size should be embedded in the concrete, located by a drawing or template of the pump baseplate.
3. Pipe sleeves about two and one-half diameter larger than the bolts should be used to allow movement for final positioning of the bolts.

GROUTING

1. Place pumping unit on foundation with wedges under base plate, leaving approximately 3/4" space for grouting.
2. Carefully level the unit by adjusting the wedges (see FIGURE I) until shafts of pump and driver are levelled.
3. Check coupling faces as well as suction and discharge flanges of pump for horizontal or vertical position by means of a level. Slight misalignment at this point may be corrected by adjusting the wedges.
4. Build a dam around base plate at least 2-1/2" high (see FIGURE II).
5. Mix the grout, using 1 part pure Portland cement and 2 parts building sand to avoid excessive shrinkage. This mix should require no more than 6 gallons of water per bag of cement. Let the mixture stand for several hours, remixing thoroughly before use without adding water.
6. Before grouting, surface of the rough concrete must be well saturated with water.
7. Pour sufficient grout to fill entire space under base, using a rod through the grout hole to release any air pockets
8. To prevent cracking, protect grout against rapid drying by covering exposed surfaces with wet burlap for 2 days.
9. Let grout harden for several days
10. Tighten anchor bolts and recheck alignment. Any misalignment, now and after pipe joints are made, must be corrected by placing shims between base and driver or pump feet.



PIPING (GENERAL)

1. Never connect a pump to piping. Always start piping from pump (except In-Line Pumps).
2. Use as few bends as possible and preferably log radius ones.
3. Install good supports under suction and discharge piping with anchors near but independent of the pump. Make sure piping exerts no strain on pump as this would throw the unit out of alignment or distort the casing.
4. Increase the size of both suction and discharge pipes at pump nozzle to suit pump capacity and particular conditions of installation.
5. Layout the suction line with a continual rise towards the pump without high points, thus eliminating possibility of air pockets.
6. Test suction line for air leaks before starting. This becomes essential with long suction line or high static lift.
7. Install, at pump suction, a straight pipe of a length equivalent to 4 or 5 times its diameter. This becomes essential when handling hot liquids, 120°F and above.
8. Install gate valve close to pump in both suction and discharge lines on flooded suction application. This is used mainly to isolate the pump for inspection or repair.
9. Install a check valve in discharge line between pump and gate valve to protect pump from excessive pressure and to prevent water running back through the pump in case of driver failure.
10. Install a foot valve at bottom of the suction pipe to facilitate priming of pump for operation under suction lift. A small by-pass line around the discharge check valve will compensate for foot valve leaks.
11. Install a suction strainer to protect pump against foreign matter in initial start-up as well as in normal operation. Size liberally.
12. Install pressure gauges on both sides of strainer to indicate pressure drop through the strainer. Stop pump and clean the strainer when pressure drop starts to climb.
13. Install vent valve at high point of pump casing to vent casing and suction piping of air and vapor before start-up. This valve is also used during priming of pump or later if pump becomes air or vapor bound.
14. Connect a compound gauge to the pump suction and a pressure gauge to the discharge. This ensures close check on pump performance.
15. Connect drain pipe to drain pump base.

⚠ CAUTION

A. DISCHARGE VALVE MUST ONLY BE USED TO REDUCE THE FLOW OR SHUT-OFF THE PUMP.

B. CARE MUST BE TAKEN IN THE SUCTION LINE LAYOUT AND INSTALLATION, AS IT IS USUALLY THE MAJOR SOURCE OF TROUBLE ON CENTRIFUGAL PUMP OPERATION.

Purpose of the flexible coupling is to compensate for temperature changes and to permit end movement of shafts without interfering with each other. It will not compensate for misalignment. Alignment should be checked as follows:

1. Place a straight edge across the coupling as shown in FIGURE III. This must rest evenly on both rims at top, bottom and both sides.
2. With a pair of inside calipers or thickness goug, check distance between coupling halves at points where straight edge was used. Distance must be equal at all points.

CAUTION

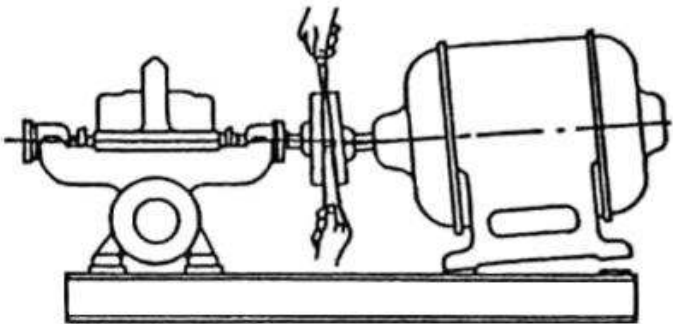
A. FOR PUMPS DRIVEN BY STEAM TURBINE OR HANDLING HOT LIQUIDS, ALIGNMENT SHOULD BE CHECKED AT OPERATING TEMPERATURE.

B. FLEXIBLE SHAFTS CAN ABSORB MOMENTARY ANGULAR MISALIGNMENT OF 15 TO 22 DEGREES DEPENDING UPON SIZE. PUMPS EQUIPPED WITH FLEXIBLE SHAFT DO NOT REQUIRE ANY SPECIAL ATTENTION AT TIME OF INSTALLATION. ALIGNMENT ON SITE IS NOT NECESSARY UNLESS BASE PLATE IS WARPED OUT OF PROPORTION.

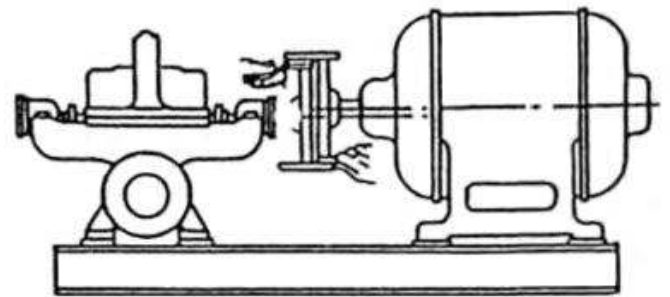
C. FAULTY ALIGNMENT WILL RESULT IN NOISY PUMP OPERATION, REDUCED BEARING LIFE, EXCESSIVE COUPLING WEAR AND WASTE OF POWER. IT IS THEREFORE ESSENTIAL:

1. TO CHECK THE ALIGNMENT CAREFULLY AFTER THE FOUNDATION BOLTS HAVE BEEN PROPERLY THIGHTENED.

2. TO CHECK AGAIN THE ALIGNMENT AFTER PIPING IS INSTALLED AND UNIT HAS OPERATED UNDER NORMAL CONDITIONS AT OPERATING TEMPERATURE.



Check for angular alignment by inserting taper gauge



Check for parallel alignment by straight gauge

1. STARTING OF ELECTRIC MOTOR DRIVEN PUMPS

1. Before connecting motor and starter to the line:
 - a. Check wiring information available inside the conduit box.
 - b. Check voltage and frequency of power supply with what s shown on motor nameplate.
 - c. Check current rating of overload relays and fuses against nameplate full load current value.
2. Check lubrication and packing (see MAINTENANCE).
3. Check if rotor is free to turn. It must be possible to revolve the rotor by hand. If the rotor drags even slightly, do not operate until the cause of trouble is located and corrected.
4. For unit with fluid drive, refer to the maintenance instructions of fluid drives.
5. If unit is for high temperature application, refer to operating instructions for high temperature pumps.
6. Prime the pump. A pump is primed when casing and suction line are filled with liquid and when all the air contained in the pump has been allowed to escape. If pump is to operate under suction lift without foot valve, priming is done by pumping air out by means of an ejector, an exhauster or a vacuum pump.
7. Check direction of driver rotation. Proper direction is indicated by arrow on pump casing.
8. Check electric motor current as soon as motor is started to verify whether or not the mechanical load applied corresponds to the motor rating. The continuous full load current value should be within the electric motor nameplate rating with service factor taken into account.

CAUTION

A. MAKE SURE THE GATE VALVE ON PUMP SUCTION IS FULLY OPEN AS THROTTLING ON SUCTION SIDE IS HARMFUL TO THE PUMP.

B. MAKE SURE PUMP WILL NOT RUN DRY. MOST CENTRIFUGAL PUMPS HAVE CLOSE CLEARANCES AND CANNOT RUN DRY WITHOUT SERIOUS DAMAGE RESULTING.

LONG TERM STORAGE

Here are some general suggestions for long term storage. The applicability of all, or some, of these suggestions depends on several factors such as type of equipment, length of storage, and condition of the environment.

GENERAL CARE

Drain the casing completely and dry it thoroughly, including its bearing housing and stuffing box, or seal chamber. Apply a coat of soluble rust preventive solution both internally and externally.

Cover all openings. Flanged openings (such as suction and discharge nozzles) should be covered with blind flanges with elastomer gasket. Threaded openings should be covered with steel plugs or caps.

Protect the bearing housing from moisture by placing bags of vapor phase inhibitor crystals around the housing.

Cover the equipment with industrial strength plastic, preferably transparent to allow its visual inspection, including its nameplate, without uncovering the unit.

Store the unit in its normal position in a dry place.

Inspect the unit periodically and turn the shaft a few times at least 1/4 turn. Turning the shaft prevents pitting of finished surfaces. The extra 1/4 turn is to displace the sag and prevent the shaft from developing a permanent bow.

This needs to be done at least once **a month**.

A systematic inspection made at regular intervals, giving special attention to the following, will ensure years of trouble-free operation.

GENERAL CARE

1. Keep unit clean.
2. Avoid excessive belt tension.
3. Provide the motor with adequate overload protection.
4. Keep flying chips or other loose particles away from the ventilating openings of the motor.
5. Avoid operating the unit in overheated surroundings.
6. Guard three phase motor against single phasing which is frequently accompanied by an unusual humming sound, a drop in speed, and by excessive heating which, if continued, may burn out the motor windings.
7. Use thermometers when checking temperatures.
8. If pump is standing idle in freezing weather, pump casing and piping should be drained.

BEARINGS

1. LIFE LUBRICATED BEARINGS are heavy duty permanently lubricated, sealed type and require no maintenance.
2. GREASE LUBRICATED BEARINGS require very little attention. More trouble can be caused by overcharging than by undercharging with grease. Approximately every month, depending on service, inject a small quantity of grease (Esso Andok No. 280 or equal) into bearing container after removing the grease outlet plug so that old grease is flushed out and bearing is not overfilled.

MECHANICAL SHAFT SEAL LIMITATIONS

Standard FloFab pumps are equipped with mechanical seals. Standard mechanical seals have Ni-resist seat, carbon washer and Viton below. Maximum recommended operating temperatures and pressures are shown below.

MOTOR HP & SPEED	SUCTION PRESSURE (PSIG)	MAX TEMPERATURE (°F)
Up to 10HP 1750 RPM	60	250
	85	225
	125	160
15-50HP 1750 RPM	50	250
	60	225
	100	160
Up to 15HP 3500 RPM	20	180
	125	120
20-60HP 3500 RPM	15	180
	115	120

⚠ CAUTION

A MECHANICAL SEAL IS A PRECISION PRODUCT. HANDLE IT WITH CARE. SPECIAL CARE MUST BE TAKEN WITH THE SEALING WASHER AND SEAT. DO NOT LET THEM DROP AND TAKE PARTICULAR CARE NOT TO SCRATCH THE LAPPED FACES.

NEVER RUN SEALS DRY.

FOLLOW SEAL MANUFACTURER'S INSTRUCTIONS.

PREVENTIVE MAINTENANCE

1. Protect pump with a suitable strainer.
2. Never pump a liquid for which the pump was not designed (check with your FLO FAB representative).
3. Keep the right amount of the right lubricant in bearings at all times, following lubrication instructions.
4. Check periodically pump and motor alignment.
5. Any down sloping towards the pump in suction piping should be corrected.

6. See that piping puts no strain on pump casing.
7. Never allow pump to run dry.
8. Examine wearing rings at regular intervals.
9. If shaft sleeves are badly scored, replace them immediately.
10. If the liquid being pumped contains grit, a separate source of sealing liquid should be used.
11. A routine maintenance schedule should be set-up to ensure on optimum inspection and service operation in order to get the best service out of your pumping equipment.

RENEWAL PARTS

The service for which centrifugal pump is used will determine, to a great extent, the minimum number of spare parts that should be carried in stock at the installation site (see details pages 15 to 26). The minimum for any centrifugal pump should include:

- One set of wearing rings
- One set of shaft sleeves (or a shaft if no sleeves are used)
- One set of bearings
- Sufficient stock of spare mechanical seal
- Material for gasket

When ordering spare or repair parts, always give pump serial number and full description of part(s) required.

WARRANTY

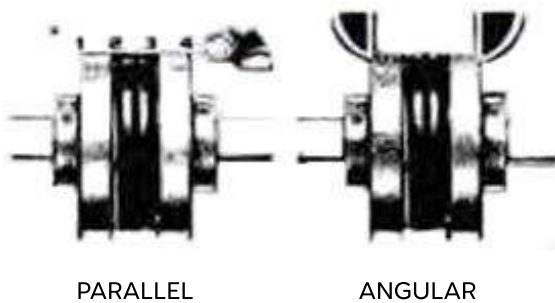
FLO FAB pumps are guaranteed against defective workmanship and material for a period of twelve months from date of shipment from Manufacturing Plant. Should the pump fail within this warranty period, our responsibility is limited to the repair or replacement of defective parts, provided such are returned to our Plant, transportation prepaid. We do not accept liability for damage or break-down from causes beyond our control, or the result of reasonable wear nor for repair made, or attempted to be made without prior sanction, nor for any consequential damage resulting from the failure of a pump. The customer will assume all labour charges incurred in making the replacement or adjustment of the parts.

PLEASE NOTE THAT THERE IS NO GUARANTEE ON MECHANICAL SHAFT SEALS.

TROUBLE CHART

SYMPTOMS	POSSIBLE CAUSES
Pump does not deliver water	1, 2, 3, 4, 6, 11, 14, 16, 17, 22, 23
Insufficient capacity delivered	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 14, 17, 20, 22, 23, 29, 30, 31
Insufficient pressure developed	5, 14, 16, 18, 19, 20, 23, 24, 26, 27, 29, 33, 34, 37
Pump loses prime after starting	2, 3, 5, 6, 7, 8, 11, 12, 13
Pump requires excessive power	15, 16, 18, 19, 20, 23, 24, 26, 27, 29, 33, 34, 37
Stuffing box leaks excessively	24, 26, 32, 33, 34, 35, 36, 38, 39, 40
Packing has short life	12, 13, 24, 26, 28, 32, 33, 34, 35, 36, 37, 38, 39, 40
Pump vibrates or is noisy	2, 3, 4, 9, 10, 11, 21, 23, 24, 25, 26, 27, 28, 30, 35, 36, 41, 42, 43, 44, 45, 46, 47
Bearings have short life	24, 26, 27, 28, 35, 36, 41, 42, 43, 44, 45, 46, 47
Pump overheats and seizes	1, 4, 21, 22, 24, 27, 28, 35, 36, 41

See Key in the next page.



FLANGES ASSEMBLY

With a two-piece sleeve, do not move the wire ring to its final position; allow it to hang loosely in the groove adjacent to the teeth.

1. Slide the loose Range on the shaft until the sleeve is completely seated in the teeth of each Range (the "Y" dimension is for reference and not critical). Secure the flange to the shaft. Different coupling sleeves require different degrees of alignment precision. Locate the alignment precision and check the value for your sleeve size and type in the table.
2. Check parallel alignment by placing a straight-edge across the two couplings Ranges and measuring the maximum offset at various points around the coupling. If the maximum offset exceeds the figure shown under Parallel in the table, realign the shaft.
3. Check angular alignment with a micrometer or caliper. Measure from the outside of one Range to the outside

3. of the other of intervals around the periphery of the coupling. Determine the maximum and minimum dimensions without rotating the coupling. The difference between the maximum and minimum must not exceed the figure shown under Angular in the table. If a correction is necessary, be sure to recheck the parallel alignment.
4. If the coupling employs the two-piece sleeve with the wire ring, Force the ring into its groove in the center of the sleeve. It may be necessary to pry the ring into position with a blunt screw-driver.
5. Install coupling guards per OSHA requirements.

MAXIMUM RPM AND ALLOWABLE MISALIGNMENT

SLEEVE SIZES	MAX. RPM	TYPES: JE, JN, JNS, E & N			TYPES: H R, HS		
		PARALLEL	ANGULAR	Y	PARALLEL	ANGULAR	Y
3	9200	0.010	0.035	1.188	—	—	—
4	7600	0.010	0.043	1.500	—	—	—
5	7600	0.015	0.056	1.938	—	—	—
6	6000	0.015	0.070	2.375	0.010	0.016	2.375
7	5250	0.020	0.081	2.563	0.012	0.020	2.563
8	4500	0.020	0.094	2.938	0.015	0.025	2.938
9	3750	0.025	0.109	3.500	0.017	0.028	3.500
10	3600	0.025	0.128	4.063	0.020	0.032	4.063
11	3600	0.032	0.151	4.875	0.022	0.037	4.875
12	2800	0.032	0.175	5.688	0.025	0.042	5.688
13	2400	0.040	0.195	6.688	0.030	0.050	6.625
14	2200	0.045	0.242	7.750	0.035	0.060	7.750
16	1500	0.062	0.330	10.250	—	—	—

SUCTION TROUBLES

- Pump not primed.
- Pump or suction pipe not completely filled with liquid.
- Suction lift too high.
- Insufficient margin between suction pressure and vapor pressure (available NPSH too low).
- Excessive amount of air or gas in liquid.
- Air pocket in suction line,
- Air leakage into suction line.
- Air leakage into pump through stuffing boxes.
- Foot valve too small.
- Foot valve partially clogged.
- Inlet of suction pipe insufficiently submerged,
- Water seal pipe plugged.
- Seal cage improperly located in stuffing box, preventing sealing fluid entering space to form the seal.

SYSTEM TROUBLES

- Speed too low.
- Speed too high.
- Wrong direction of rotation.
- Total head of system higher than pump design head.
- Total head of system lower than pump design head.
- Specific gravity of liquid different than design.
- Viscosity of liquid differs from that for which designed.
- Operation at very low capacity.
- Parallel operation of pumps unsuitable for such operation.

MECHANICAL TROUBLES

- Foreign matter in impeller.
- Misalignment.
- Foundation not rigid.
- Shaft bent.
- Rotating part rubbing on stationary part.
- Bearing worn.
- Wearing rings worn.
- Impeller damaged.
- Casing gasket defective, permitting internal leakage.
- Shaft or shaft sleeves worn or scored at the packing.
- Packing improperly installed.

- Incorrect type of packing for operation conditions.
- Shaft running off-center due to worn bearings or misalignment.
- Rotor out of balance resulting in vibration.
- Gland too tight, resulting in no Flow of liquid to packing.
- Failure to provide cooling liquid to water-cooled stuffing boxes.
- Excessive clearance at bottom of stuffing box between shaft and casing, causing packing to be forced into pump interior.
- Dirt or grit in sealing liquid, leading to scoring of shaft or shaft sleeve.
- Excessive thrust caused by a mechanical Failure inside the pump or by the failure of the hydraulic balancing device, if any.
- Excessive amount of grease or oil in the housing of on antifriction bearing or lack of cooling, causing excessive bearing temperature.
- Lack of lubrications.
- Improper installation of antifriction bearings (damage during assembly).
- Dirt getting into bearings.
- Rusting of bearings due to water getting into housing.
- Excessive cooling of water-cooled bearing resulting in condensation in the bearing housing of moisture from the atmosphere.

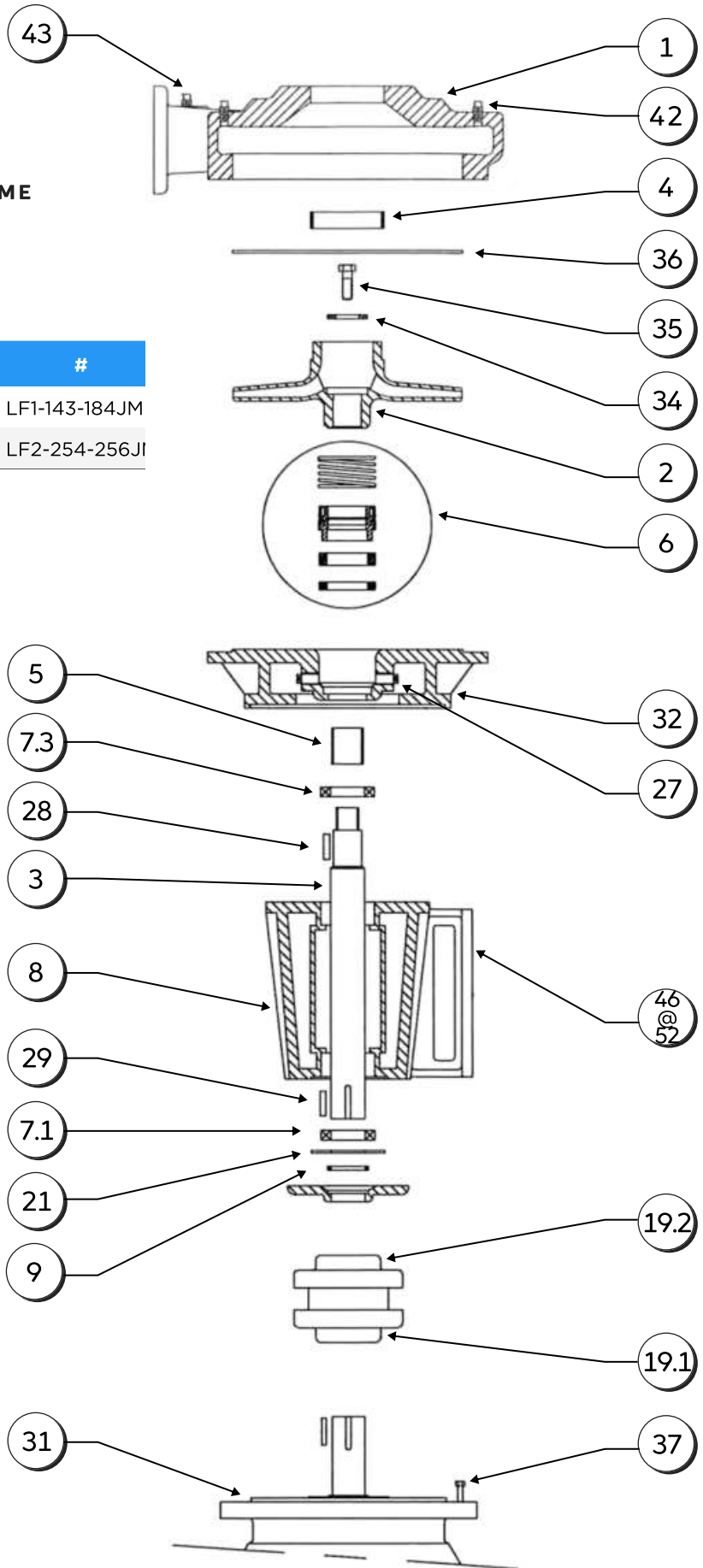
SERIES 2000

Exploded View

RADIALLY SPLIT BEARING FRAME
PUMP MOUNTED

PARTS LIST

ITEM	DESCRIPTION	#
44	COMPLETE POWER FRAME	LF1-143-184JM
45	COMPLETE POWER FRAME	LF2-254-256JI



RECOMMENDED SPARES PARTS SERIES 2000 MODEL 610A - 1/2

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
1	Volute Casing	2685521	Cast Iron ASTMA48CL 30	2687424-B	Bronze ASTMB584C87400
1.1	Volute Casing			2687424-SS	Stainless Steel 304
1.2	Volute Casing			2687424-D1	Ductile Iron 300 PSI GGG50
1.3	Volute Casing			2687424-CS	Cast Steel ASTMA216WCB
*2.1	Impeller 7/8	2683848-449	Bronze ASTMB584C87400	2684314-491	Cast Iron ASTMA48CL30
*2.2	Impeller 7/8			2684314-SS	Stainless Steel 304
3	Pump Shaft	SHAFTLF1	Stainless Steel 304		
*4	Casing Wearing	2655973	Bronze ASTMB584C87400	V1810-SS	Stainless Steel 18-8 Open Designation
*5	Shaft Sleeve 143-215	SLJM1.250B	Bronze ASTMB584C87400	SLJM1.250SS	Stainless Steel 18-8 Open Designation
*6.1	Mechanical Seal 143-215	011-S125-21-per	Viton/Ceramic vs Carbon w/Stainless Steel Spring	011-S125-dirt	Viton/Silicone Carbide w/Stainless Steel
*7.1	Ball Bearing Outboard F1	002-B62062RS			
*7.2	Ball Bearing Inboard F1	002-B62092Z-NR			
*7.3	Ball Bearing Outboard F2	002-B62072RS			
*7.4	Ball Bearing Inboard F2	002-B62082RS- NR			
8	Bearing Housing F1	01-BH01	Cast Iron ASTMA48CL 30		
8.1	Bearing Housing F2	02-BH02	Cast Iron ASTMA48CL 30		
*9	Radial Shaft Seal Ring	01-SR01	Buna N O' Ring		
11	Bearing Cover	01-BC01	Cast Iron ASTMA48CL 30		
*19.1	Half Coupling Motor Side		Depending on motor HP		
*19.2	Half Coupling Pump Side		Depending on Pump Shaft		
*19.3	Coupling Insert		Depending on Coupling Size		
*21	Gasket Bearing Housing Cover	01-GBC01	Fiber Gasket Vellumoid		
27	Air Vent Valve Plug				
28	Impeller Key		Carbon Steel ASTMA108G10800		
29	Pump Shaft Key		Carbon Steel ASTMA108G10800		

RECOMMENDED SPARES PARTS SERIES 2000 MODEL 610A - 2/2

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
31	Motor				
32.1	Bracket 143-215	2683877	Cast Iron ASTMA48CL 30	2683877-B	Bronze ASTMB584C87400
32.2	Bracket 143-215			2683877-SS	Stainless Steel 304
32.3	Bracket 143-215			2683877-DI	Ductile Iron 300 PSI GGG50
32.4	Bracket 143-215			2683877-CS	Cast Steel ASTMA216WCB
33	Motor Shaft Key		Carbon Steel - 1045		Stainless Steel 18-8 Open Designation
34	Impeller Washer	WF1-SS	Stainless Steel 18-8 Open Designation		
35	Impeller Bolt	LBF1-SS	Stainless Steel 18-8 Open Designation		
36	Casing Gasket	G-6P	Fiber Gasket Vellumoid		
37	Motor Bolts		Carbon Steel		
42	Drain Connection		Carbon Steel ASTMA108G10800		
43	Gauge Tappings		Cast Iron ASTMA48CL 30		
*44	Complete Power Frame	LF1-143-184JM	Steel Plugs		
*45	Complete Power Frame	LF2-254-256JM	Cast Iron ASTMA48CL 30		
46	Pump Frame Riser	LF1-STD	Cast Iron ASTMA48CL 30		
47	Pump Frame Riser	LF1-143-5	Cast Iron ASTMA48CL 30		
48	Pump Frame Riser	LF1-182-4	Cast Iron ASTMA48CL 30		
49	Pump Frame Riser	LF2-STD	Cast Iron ASTMA48CL 30		
50	Pump Frame Riser	LF2-254-6	Cast Iron ASTMA48CL 30		
51	Pump Frame Riser	LF2-284-6	Cast Iron ASTMA48CL 30		
52	Pump Frame Riser	LF2-324-6	Cast Iron ASTMA48CL 30		

RECOMMENDED SPARES PARTS SERIES 2000 MODEL 615A - 1/2

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
1	Volute Casing	2683851	Cast Iron ASTMA48CL 30	2683851-B	Bronze ASTMB584C87400
1.1	Volute Casing			2683851-SS	Stainless Steel 304
1.2	Volute Casing			2683851-DI	Ductile Iron 300 PSI GGG50
1.3	Volute Casing			2683851-CS	Cast Steel ASTMA216WCB
*2.1	Impeller 7/8	2683848-449	Bronze ASTMB584C87400	V1788B-491	Cast Iron ASTMA48CL30
*2.2	Impeller 7/8			V1788B-SS	Stainless Steel 304
3	Pump Shaft	SHAFTLF1	Stainless Steel 304		
*4	Casing Wearing	2655973	Bronze ASTMB584C87400	2655973-SS	Stainless Steel 18-8 Open Designation
*5	Shaft Sleeve 143-215	SLJM1.250B	Bronze ASTMB584C87400	SLJM1.250SS	Stainless Steel 18-8 Open Designation
*6.1	Mechanical Seal 143-215	011-S125-21-per	Viton/Ceramic vs Carbon w/Stainless Steel Spring	S011-S125-dirt	Viton/Silicone Carbide w/Stainless Steel
*7.1	Ball Bearing Outboard F1	002-B62062RS			
*7.2	Ball Bearing Inboard F1	002-B62092Z-NR			
*7.3	Ball Bearing Outboard F2	002-B62072RS			
*7.4	Ball Bearing Inboard F2	002-B62082RS- NR			
8	Bearing Housing F1	01-BH01	Cast Iron ASTMA48CL 30		
8.1	Bearing Housing F2	02-BH02	Cast Iron ASTMA48CL 30		
*9	Radial Shaft Seal Ring	01-SR01	Buna N O' Ring		
11	Bearing Cover	01-BC01	Cast Iron ASTMA48CL 30		
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32.3	Bracket 143-215			2683877-DI	Ductile Iron 300 PSI GGG50
32.4	Bracket 143-215			2683877-CS	Cast Steel ASTMA216WCB
33	Motor Shaft Key		Carbon Steel - 1045		Stainless Steel 18-8 Open Designation
34	Impeller Washer	WF1-SS	Stainless Steel 18-8 Open Designation		
35	Impeller Bolt	LBF1-SS	Stainless Steel 18-8 Open Designation		
36	Casing Gasket	G-6P	Fiber Gasket Vellumoid		
37	Motor Bolts		Carbon Steel		
42	Drain Connection		Carbon Steel ASTMA108G10800		
43	Gauge Tappings		Cast Iron ASTMA48CL 30		
*44	Complete Power Frame	LF1-143-184JM	Steel Plugs		
*45	Complete Power Frame	LF2-254-256JM	Cast Iron ASTMA48CL 30		
46	Pump Frame Riser	LF1-STD	Cast Iron ASTMA48CL 30		
47	Pump Frame Riser	LF1-143-5	Cast Iron ASTMA48CL 30		
48	Pump Frame Riser	LF1-182-4	Cast Iron ASTMA48CL 30		
49	Pump Frame Riser	LF2-STD	Cast Iron ASTMA48CL 30		
50	Pump Frame Riser	LF2-254-6	Cast Iron ASTMA48CL 30		
51	Pump Frame Riser	LF2-284-6	Cast Iron ASTMA48CL 30		
52	Pump Frame Riser	LF2-324-6	Cast Iron ASTMA48CL 30		

RECOMMENDED SPARES PARTS SERIES 2000 MODEL 615J - 1/2

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
1	Volute Casing	2683851	Cast Iron ASTMA48CL 30	2683851-B	Bronze ASTMB584C87400
1.1	Volute Casing			2683851-SS	Stainless Steel 304
1.2	Volute Casing			2683851-DI	Ductile Iron 300 PSI GGG50
1.3	Volute Casing			2683851-CS	Cast Steel ASTMA216WCB
*2.1	Impeller 7/8	2683848-449	Bronze ASTMB584C87400	2683848-491	Cast Iron ASTMA48CL30
*2.2	Impeller 7/8			2683848-SS	Stainless Steel 304
3	Pump Shaft	SHAFTLF1	Stainless Steel 304		
*4	Casing Wearing	2655973	Bronze ASTMB584C87400	2655973-SS	Stainless Steel 18-8 Open Designation
*5	Shaft Sleeve 143-215	SLJM1.250B	Bronze ASTMB584C87400	SLJM1.250SS	Stainless Steel 18-8 Open Designation
*6.1	Mechanical Seal 143-215	011-S125-21-per	Viton/Ceramic vs Carbon w/Stainless Steel Spring	S011-S125-dirt	Viton/Silicone Carbide w/Stainless Steel
*7.1	Ball Bearing Outboard F1	002-B62062RS			
*7.2	Ball Bearing Inboard F1	002-B62092Z-NR			
*7.3	Ball Bearing Outboard F2	002-B62072RS			
*7.4	Ball Bearing Inboard F2	002-B62082RS-NR			
8	Bearing Housing F1	01-BH01	Cast Iron ASTMA48CL 30		
8.1	Bearing Housing F2	02-BH02	Cast Iron ASTMA48CL 30		
*9	Radial Shaft Seal Ring	01-SR01	Buna N O' Ring		
11	Bearing Cover	01-BC01	Cast Iron ASTMA48CL 30		
*19.1	Half Coupling Motor Side		Depending on motor HP		
*19.2	Half Coupling Pump Side		Depending on Pump Shaft		
*19.3	Coupling Insert		Depending on Coupling Size		
*21	Gasket Bearing Housing Cover	01-GBC01	Fiber Gasket Vellumoid		
27	Air Vent Valve Plug				
28	Impeller Key		Carbon Steel ASTMA108G10800		
29	Pump Shaft Key		Carbon Steel ASTMA108G10800		

RECOMMENDED SPARES PARTS SERIES 2000 MODEL 615J - 2/2

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
31	Motor				
32.1	Bracket 143-215	2683877	Cast Iron ASTMA48CL 30	2683877-B	Bronze ASTMB584C87400
32.2	Bracket 143-215			2683877-SS	Stainless Steel 304
32.3	Bracket 143-215			2683877-DI	Ductile Iron 300 PSI GGG50
32.4	Bracket 143-215			2683877-CS	Cast Steel ASTMA216WCB
33	Motor Shaft Key		Carbon Steel - 1045		Stainless Steel 18-8 Open Designation
34	Impeller Washer	WF1-SS	Stainless Steel 18-8 Open Designation		
35	Impeller Bolt	LBF1-SS	Stainless Steel 18-8 Open Designation		
36	Casing Gasket	G-6P	Fiber Gasket Vellumoid		
37	Motor Bolts		Carbon Steel		
42	Drain Connection		Carbon Steel ASTMA108G10800		
43	Gauge Tappings		Steel Plugs		
*44	Complete Power Frame	LF1-143-184JM	Cast Iron ASTMA48CL 30		
*45	Complete Power Frame	LF2-254-256JM	Cast Iron ASTMA48CL 30		
46	Pump Frame Riser	LF1-STD	Cast Iron ASTMA48CL 30		
47	Pump Frame Riser	LF1-143-5	Cast Iron ASTMA48CL 30		
48	Pump Frame Riser	LF1-182-4	Cast Iron ASTMA48CL 30		
49	Pump Frame Riser	LF2-STD	Cast Iron ASTMA48CL 30		
50	Pump Frame Riser	LF2-254-6	Cast Iron ASTMA48CL 30		
51	Pump Frame Riser	LF2-284-6	Cast Iron ASTMA48CL 30		
52	Pump Frame Riser	LF2-324-6	Cast Iron ASTMA48CL 30		

RECOMMENDED SPARES PARTS SERIES 2000 MODEL 620A - 1/2

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
1	Volute Casing	2685522	Cast Iron ASTMA48CL 30	2685522-B	Bronze ASTMB584C87400
1.1	Volute Casing			2685522-SS	Stainless Steel 304
1.2	Volute Casing			2685522-DI	Ductile Iron 300 PSI GGG50
1.3	Volute Casing			2685522-CS	Cast Steel ASTMA216WCB
*2.1	Impeller 7/8	2683848-449	Bronze ASTMB584C87400	2683846-491	Cast Iron ASTMA48CL30
*2.2	Impeller 7/8			2683846-SS	Stainless Steel 304
3	Pump Shaft	SHAFTLF1	Stainless Steel 304		
*4	Casing Wearing	2655973	Bronze ASTMB584C87400	2684006-SS	Stainless Steel 18-8 Open Designation
*5	Shaft Sleeve 143-215	SLJM1.250B	Bronze ASTMB584C87400	SLJM1.250SS	Stainless Steel 18-8 Open Designation
*6.1	Mechanical Seal 143-215	011-S125-21-per	Viton/Ceramic vs Carbon w/Stainless Steel Spring	011-S125-dirt	Viton/Silicone Carbide w/Stainless Steel
*7.1	Ball Bearing Outboard F1	002-B62062RS			
*7.2	Ball Bearing Inboard F1	002-B62092Z-NR			
*7.3	Ball Bearing Outboard F2	002-B62072RS			
*7.4	Ball Bearing Inboard F2	002-B62082RS- NR			
8	Bearing Housing F1	01-BH01	Cast Iron ASTMA48CL 30		
8.1	Bearing Housing F2	02-BH02	Cast Iron ASTMA48CL 30		
*9	Radial Shaft Seal Ring	01-SR01	Buna N O' Ring		
11	Bearing Cover	01-BC01	Cast Iron ASTMA48CL 30		
*19.1	Half Coupling Motor Side		Depending on motor HP		
*19.2	Half Coupling Pump Side		Depending on Pump Shaft		
*19.3	Coupling Insert		Depending on Coupling Size		
*21	Gasket Bearing Housing Cover	01-GBC01	Fiber Gasket Vellumoid		
27	Air Vent Valve Plug				
28	Impeller Key		Carbon Steel ASTMA108G10800		
29	Pump Shaft Key		Carbon Steel ASTMA108G10800		

RECOMMENDED SPARES PARTS SERIES 2000 MODEL 620A - 2/2

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
31	Motor				
32.1	Bracket 143-215	2683877	Cast Iron ASTMA48CL 30	2683877-B	Bronze ASTMB584C87400
32.2	Bracket 143-215			2683877-SS	Stainless Steel 304
32.3	Bracket 143-215			2683877-DI	Ductile Iron 300 PSI GGG50
32.4	Bracket 143-215			2683877-CS	Cast Steel ASTMA216WCB
33	Motor Shaft Key		Carbon Steel - 1045		Stainless Steel 18-8 Open Designation
34	Impeller Washer	WF1-SS	Stainless Steel 18-8 Open Designation		
35	Impeller Bolt	LBF1-SS	Stainless Steel 18-8 Open Designation		
36	Casing Gasket	G-6P	Fiber Gasket Vellumoid		
37	Motor Bolts		Carbon Steel		
42	Drain Connection		Carbon Steel ASTMA108G10800		
43	Gauge Tappings		Steel Plugs		
*44	Complete Power Frame	LF1-143-184JM	Cast Iron ASTMA48CL 30		
*45	Complete Power Frame	LF2-254-256JM	Cast Iron ASTMA48CL 30		
46	Pump Frame Riser	LF1-STD	Cast Iron ASTMA48CL 30		
47	Pump Frame Riser	LF1-143-5	Cast Iron ASTMA48CL 30		
48	Pump Frame Riser	LF1-182-4	Cast Iron ASTMA48CL 30		
49	Pump Frame Riser	LF2-STD	Cast Iron ASTMA48CL 30		
50	Pump Frame Riser	LF2-254-6	Cast Iron ASTMA48CL 30		
51	Pump Frame Riser	LF2-284-6	Cast Iron ASTMA48CL 30		
52	Pump Frame Riser	LF2-324-6	Cast Iron ASTMA48CL 30		

RECOMMENDED SPARES PARTS SERIES 2000 MODEL 810A - 1/2

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
1	Volute Casing	2685134	Cast Iron ASTMA48CL 30	2685134-B	Bronze ASTMB584C87400
1.1	Volute Casing			2685134-SS	Stainless Steel 304
1.2	Volute Casing			2685134-DI	Ductile Iron 300 PSI GGG50
1.3	Volute Casing			2685134CS	Cast Steel ASTMA216WCB
*2.1	Impeller 7/8	2684183-449	Bronze ASTMB584C87400	2684183-491	Cast Iron ASTMA48CL30
*2.2	Impeller 7/8			2684183-SS	Stainless Steel 304
*2.3	Impeller 7/8	2684184-449	Bronze ASTMB584C87400	2684184-491	Cast Iron ASTMA48CL30
*2.4	Impeller 7/8			2684184-SS	Stainless Steel 304
3	Pump Shaft	SHAFTLF1	Stainless Steel 304		
3.1	Pump Shaft	SHAFTLF2	Stainless Steel 304		
*4	Casing Wearing	2655973	Bronze ASTMB584C87400	2655973-SS	Stainless Steel 18-8 Open Designation
*5.1	Shaft Sleeve 143-215	SLJM1.250B	Bronze ASTMB584C87400	SLJM1.250SS	Stainless Steel 18-8 Open Designation
*5.2	Shaft Sleeve 143-215	SLJM1.500B	Bronze ASTMB584C87400	SLJM1.500SS	Stainless Steel 18-8 Open Designation
*6.1	Mechanical Seal 143-215	011-S125-21-per	Viton/Ceramic vs Carbon w/Stainless Steel Spring	011-S125-dirt	Viton/Silicone Carbide w/Stainless Steel
*6.2	Mechanical Seal 143-215	011-S150-21-per	Viton/Ceramic vs Carbon w/Stainless Steel Spring	011-S150-dirt	Viton/Silicone Carbide w/Stainless Steel
*7.1	Ball Bearing Outboard F1	002-B62062RS			
*7.2	Ball Bearing Inboard F1	002-B62092Z-NR			
*7.3	Ball Bearing Outboard F2	002-B62072RS			
*7.4	Ball Bearing Inboard F2	002-B62082RS-NR			
8	Bearing Housing F1	01-BH01	Cast Iron ASTMA48CL 30		
8.1	Bearing Housing F2	02-BH02	Cast Iron ASTMA48CL 30		
*9	Radial Shaft Seal Ring	01-SR01	Buna N O' Ring		
11	Bearing Cover	01-BC01	Cast Iron ASTMA48CL 30		
*19.1	Half Coupling Motor Side		Depending on motor HP		
*19.2	Half Coupling Pump Side		Depending on Pump Shaft		
*19.3	Coupling Insert		Depending on Coupling Size		
*21	Gasket Bearing Housing Cover	01-GBC01	Fiber Gasket Vellumoid		
27	Air Vent Valve Plug				
28	Impeller Key		Carbon Steel ASTMA108G10800		
29	Pump Shaft Key		Carbon Steel ASTMA108G10800		

RECOMMENDED SPARES PARTS SERIES 2000 MODEL 810A - 2/2

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
31	Motor				
32.1	Bracket 143-215	2683879	Cast Iron ASTMA48CL 30	2683879-B	Bronze ASTMB584C87400
32.2	Bracket 143-215			2683879-SS	Stainless Steel 304
32.3	Bracket 143-215			2683879-DI	Ductile Iron 300 PSI GGG50
32.4	Bracket 143-215			2683879-CS	Cast Steel ASTMA216WCB
32.5	Bracket 143-215	2683880	Cast Iron ASTMA48CL 30	2683880-B	Bronze ASTMB584C87400
32.6	Bracket 143-215			2683880-SS	Stainless Steel 304
32.7	Bracket 143-215			2683880-DI	Ductile Iron 300 PSI GGG50
32.8	Bracket 143-215			2683880-CS	Cast Steel ASTMA216WCB
32.9	Bracket 143-215	2683882	Cast Iron ASTMA48CL 30	2683882-B	Bronze ASTMB584C87400
32.10	Bracket 143-215			2683877-CS	Stainless Steel 304
32.11	Bracket 143-215			2683882-DI	Ductile Iron 300 PSI GGG50
32.12	Bracket 143-215			2683882-CS	Cast Steel ASTMA216WCB
33	Motor Shaft Key		Carbon Steel - 1045		Stainless Steel 18-8 Open Designation
34.1	Impeller Washer	WF1-SS	Stainless Steel 18-8 Open Designation		
34.2	Impeller Washer	WF2-SS	Stainless Steel 18-8 Open Designation		
35.1	Impeller Bolt	LBF1-SS	Stainless Steel 18-8 Open Designation		
35.2	Impeller Bolt	LBF2-SS	Stainless Steel 18-8 Open Designation		
36	Casing Gasket	G-8P	Fiber Gasket Vellumoid		
37	Motor Bolts		Carbon Steel		
42	Drain Connection		Carbon Steel ASTMA108G10800		
43	Gauge Tappings		Steel Plugs		
*44	Complete Power Frame	LF1-143-184JM	Cast Iron ASTMA48CL 30		
*45	Complete Power Frame	LF2-254-256JM	Cast Iron ASTMA48CL 30		
46	Pump Frame Riser	LF1-STD	Cast Iron ASTMA48CL 30		
47	Pump Frame Riser	LF1-143-5	Cast Iron ASTMA48CL 30		
48	Pump Frame Riser	LF1-182-4	Cast Iron ASTMA48CL 30		
49	Pump Frame Riser	LF2-STD	Cast Iron ASTMA48CL 30		
50	Pump Frame Riser	LF2-254-6	Cast Iron ASTMA48CL 30		
51	Pump Frame Riser	LF2-284-6	Cast Iron ASTMA48CL 30		
52	Pump Frame Riser	LF2-324-6	Cast Iron ASTMA48CL 30		

RECOMMENDED SPARES PARTS SERIES 2000 MODEL 810G - 1/2

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
1	Volute Casing	2685134	Cast Iron ASTMA48CL 30	2685134-B	Bronze ASTMB584C87400
1.1	Volute Casing			2685134-SS	Stainless Steel 304
1.2	Volute Casing			2685134-DI	Ductile Iron 300 PSI GGG50
1.3	Volute Casing			2685134CS	Cast Steel ASTMA216WCB
*2.1	Impeller 7/8	2693952-449	Bronze ASTMB584C87400	2693952-491	Cast Iron ASTMA48CL30
*2.2	Impeller 7/8			2693952-SS	Stainless Steel 304
*2.3	Impeller 7/8	2693953-449	Bronze ASTMB584C87400	2693953-491	Cast Iron ASTMA48CL30
*2.4	Impeller 7/8			2693953-SS	Stainless Steel GGG50
3	Pump Shaft	SHAFTLF1	Stainless Steel 304		
3.1	Pump Shaft	SHAFTLF2	Stainless Steel 304		
*4	Casing Wearing	2655973	Bronze ASTMB584C87400	2655973-SS	Stainless Steel 18-8 Open Designation
*5.1	Shaft Sleeve 143-215	SLJM1.250B	Bronze ASTMB584C87400	SLJM1.250SS	Stainless Steel 18-8 Open Designation
*5.2	Shaft Sleeve 143-215	SLJM1.500B	Bronze ASTMB584C87400	SLJM1.500SS	Stainless Steel 18-8 Open Designation
*6.1	Mechanical Seal 143-215	011-S125-21-per	Viton/Ceramic vs Carbon w/Stainless Steel Spring	011-S125-dirt	Viton/Silicone Carbide w/Stainless Steel
*6.2	Mechanical Seal 143-215	011-S150-21-per	Viton/Ceramic vs Carbon w/Stainless Steel Spring	011-S150-dirt	Viton/Silicone Carbide w/Stainless Steel
*7.1	Ball Bearing Outboard F1	002-B62062RS			
*7.2	Ball Bearing Inboard F1	002-B62092Z-NR			
*7.3	Ball Bearing Outboard F2	002-B62072RS			
*7.4	Ball Bearing Inboard F2	002-B62082RS-NR			
8	Bearing Housing F1	01-BH01	Cast Iron ASTMA48CL 30		
8.1	Bearing Housing F2	02-BH02	Cast Iron ASTMA48CL 30		
*9	Radial Shaft Seal Ring	01-SR01	Buna N O' Ring		
11	Bearing Cover	01-BC01	Cast Iron ASTMA48CL 30		
*19.1	Half Coupling Motor Side		Depending on motor HP		
*19.2	Half Coupling Pump Side		Depending on Pump Shaft		
*19.3	Coupling Insert		Depending on Coupling Size		
*21	Gasket Bearing Housing Cover	01-GBC01	Fiber Gasket Vellumoid		
27	Air Vent Valve Plug				
28	Impeller Key		Carbon Steel ASTMA108G10800		
29	Pump Shaft Key		Carbon Steel ASTMA108G10800		

RECOMMENDED SPARES PARTS SERIES 2000 MODEL 810G - 2/2

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
31	Motor				
32.1	Bracket 143-215	2683879	Cast Iron ASTMA48CL 30	2683879-B	Bronze ASTMB584C87400
32.2	Bracket 143-215			2683879-SS	Stainless Steel 304
32.3	Bracket 143-215			2683879-DI	Ductile Iron 300 PSI GGG50
32.4	Bracket 143-215			2683879-CS	Cast Steel ASTMA216WCB
32.5	Bracket 143-215	2683880	Cast Iron ASTMA48CL 30	2683880-B	Bronze ASTMB584C87400
32.6	Bracket 143-215			2683880-SS	Stainless Steel 304
32.7	Bracket 143-215			2683880-DI	Ductile Iron 300 PSI GGG50
32.8	Bracket 143-215			2683880-CS	Cast Steel ASTMA216WCB
32.9	Bracket 143-215	2683882	Cast Iron ASTMA48CL 30	2683882-B	Bronze ASTMB584C87400
32.10	Bracket 143-215			2683877-CS	Stainless Steel 304
32.11	Bracket 143-215			2683882-DI	Ductile Iron 300 PSI GGG50
32.12	Bracket 143-215			2683882-CS	Cast Steel ASTMA216WCB
33	Motor Shaft Key		Carbon Steel - 1045		Stainless Steel 18-8 Open Designation
34.1	Impeller Washer	WF1-SS	Stainless Steel 18-8 Open Designation		
34.2	Impeller Washer	WF2-SS	Stainless Steel 18-8 Open Designation		
35.1	Impeller Bolt	LBF1-SS	Stainless Steel 18-8 Open Designation		
35.2	Impeller Bolt	LBF2-SS	Stainless Steel 18-8 Open Designation		
36	Casing Gasket	G-8P	Fiber Gasket Vellumoid		
37	Motor Bolts		Carbon Steel		
42	Drain Connection		Carbon Steel ASTMA108G10800		
43	Gauge Tappings		Steel Plugs		
*44	Complete Power Frame	LF1-143-184JM	Cast Iron ASTMA48CL 30		
*45	Complete Power Frame	LF2-254-256JM	Cast Iron ASTMA48CL 30		
46	Pump Frame Riser	LF1-STD	Cast Iron ASTMA48CL 30		
47	Pump Frame Riser	LF1-143-5	Cast Iron ASTMA48CL 30		
48	Pump Frame Riser	LF1-182-4	Cast Iron ASTMA48CL 30		
49	Pump Frame Riser	LF2-STD	Cast Iron ASTMA48CL 30		
50	Pump Frame Riser	LF2-254-6	Cast Iron ASTMA48CL 30		
51	Pump Frame Riser	LF2-284-6	Cast Iron ASTMA48CL 30		
52	Pump Frame Riser	LF2-324-6	Cast Iron ASTMA48CL 30		

RECOMMENDED SPARES PARTS SERIES 2000 MODEL 815A - 1/2

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
1	Volute Casing	2693987	Cast Iron ASTMA48CL 30	2693987-B	Bronze ASTMB584C87400
1.1	Volute Casing			2693987-SS	Stainless Steel 304
1.2	Volute Casing			2693987-DI	Ductile Iron 300 PSI GGG50
1.3	Volute Casing			2693987-CS	Cast Steel ASTMA216WCB
*2.1	Impeller 7/8	2693952-449	Bronze ASTMB584C87400	2684183-491	Cast Iron ASTMA48CL30
*2.2	Impeller 7/8			2684183-SS	Stainless Steel 304
*2.3	Impeller 1 1/4	2693953-449	Bronze ASTMB584C87400	2684184-491	Cast Iron ASTMA48CL30
*2.4	Impeller 1 1/4			2684184-SS	Stainless Steel GGG50
3	Pump Shaft 1 1/8	SHAFTLF1	Stainless Steel 304		
3.1	Pump Shaft 1 1/4	SHAFTLF2	Stainless Steel 304		
*4	Casing Wearing	2655973	Bronze ASTMB584C87400	2655973-SS	Stainless Steel 18-8 Open Designation
*5.1	Shaft Sleeve 143-215	SLJM1.250B	Bronze ASTMB584C87400	SLJM1.250SS	Stainless Steel 18-8 Open Designation
*5.2	Shaft Sleeve 354-326	SLJM1.500B	Bronze ASTMB584C87400	SLJM1.500SS	Stainless Steel 18-8 Open Designation
*6.1	Mechanical Seal 143-215	011-S125-21-per	Viton/Ceramic vs Carbon w/Stainless Steel Spring	011-S125-dirt	Viton/Silicone Carbide w/Stainless Steel
*6.2	Mechanical Seal 354-326	011-S150-21-per	Viton/Ceramic vs Carbon w/Stainless Steel Spring	011-S150-dirt	Viton/Silicone Carbide w/Stainless Steel
*7.1	Ball Bearing Outboard F1	002-B62062RS			
*7.2	Ball Bearing Inboard F1	002-B62092Z-NR			
*7.3	Ball Bearing Outboard F2	002-B62072RS			
*7.4	Ball Bearing Inboard F2	002-B62082RS-NR			
8	Bearing Housing F1	01-BH01	Cast Iron ASTMA48CL 30		
8.1	Bearing Housing F2	02-BH02	Cast Iron ASTMA48CL 30		
*9	Radial Shaft Seal Ring	01-SR01	Buna N O' Ring		
11	Bearing Cover	01-BC01	Cast Iron ASTMA48CL 30		
*19.1	Half Coupling Motor Side		Depending on motor HP		
*19.2	Half Coupling Pump Side		Depending on Pump Shaft		
*19.3	Coupling Insert		Depending on Coupling Size		
*21	Gasket Bearing Housing Cover	01-GBC01	Fiber Gasket Vellumoid		
27	Air Vent Valve Plug				
28	Impeller Key		Carbon Steel ASTMA108G10800		
29	Pump Shaft Key		Carbon Steel ASTMA108G10800		

RECOMMENDED SPARES PARTS SERIES 2000 MODEL 815A - 2/2

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
31	Motor				
32.1	Bracket 143-215	2683879	Cast Iron ASTMA48CL 30	2683879-B	Bronze ASTMB584C87400
32.2	Bracket 143-215			2683879-SS	Stainless Steel 304
32.3	Bracket 143-215			2683879-DI	Ductile Iron 300 PSI GGG50
32.4	Bracket 143-215			2683879-CS	Cast Steel ASTMA216WCB
32.5	Bracket 143-215	2683880	Cast Iron ASTMA48CL 30	2683880-B	Bronze ASTMB584C87400
32.6	Bracket 143-215			2683880-SS	Stainless Steel 304
32.7	Bracket 143-215			2683880-DI	Ductile Iron 300 PSI GGG50
32.8	Bracket 143-215			2683880-CS	Cast Steel ASTMA216WCB
32.9	Bracket 143-215	2683882	Cast Iron ASTMA48CL 30	2683882-B	Bronze ASTMB584C87400
32.10	Bracket 143-215			2683882-SS	Stainless Steel 304
32.11	Bracket 143-215			2683882-DI	Ductile Iron 300 PSI GGG50
32.12	Bracket 143-215			2683882-CS	Cast Steel ASTMA216WCB
33	Motor Shaft Key		Carbon Steel - 1045		Stainless Steel 18-8 Open Designation
34.1	Impeller Washer	WF1-SS	Stainless Steel 18-8 Open Designation		
34.2	Impeller Washer	WF2-SS	Stainless Steel 18-8 Open Designation		
35.1	Impeller Bolt	LBF1-SS	Stainless Steel 18-8 Open Designation		
35.2	Impeller Bolt	LBF2-SS	Stainless Steel 18-8 Open Designation		
36	Casing Gasket	G-8P	Fiber Gasket Vellumoid		
37	Motor Bolts		Carbon Steel		
42	Drain Connection		Carbon Steel ASTMA108G10800		
43	Gauge Tappings		Steel Plugs		
*44	Complete Power Frame	LF1-143-184JM	Cast Iron ASTMA48CL 30		
*45	Complete Power Frame	LF2-254-256JM	Cast Iron ASTMA48CL 30		
46	Pump Frame Riser	LF1-STD	Cast Iron ASTMA48CL 30		
47	Pump Frame Riser	LF1-143-5	Cast Iron ASTMA48CL 30		
48	Pump Frame Riser	LF1-182-4	Cast Iron ASTMA48CL 30		
49	Pump Frame Riser	LF2-STD	Cast Iron ASTMA48CL 30		
50	Pump Frame Riser	LF2-254-6	Cast Iron ASTMA48CL 30		
51	Pump Frame Riser	LF2-284-6	Cast Iron ASTMA48CL 30		
52	Pump Frame Riser	LF2-324-6	Cast Iron ASTMA48CL 30		

RECOMMENDED SPARES PARTS SERIES 2000 MODEL 815G - 1/2

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
1	Volute Casing	2693987	Cast Iron ASTMA48CL 30	2693987-B	Bronze ASTMB584C87400
1.1	Volute Casing			2693987-SS	Stainless Steel 304
1.2	Volute Casing			2693987-DI	Ductile Iron 300 PSI GGG50
1.3	Volute Casing			26	Cast Steel ASTMA216WCB
*2.1	Impeller 7/8	2693952-449	Bronze ASTMB584C87400	2693952-491	Cast Iron ASTMA48CL30
*2.2	Impeller 7/8			2693952-SS	Stainless Steel 304
*2.3	Impeller 1 1/4	2693953-449	Bronze ASTMB584C87400	2693953-491	Cast Iron ASTMA48CL30
*2.4	Impeller 1 1/4			2693953-SS	Stainless Steel 304
3	Pump Shaft 1 1/8	SHAFTLF1	Stainless Steel 304		
3.1	Pump Shaft 1 1/4	SHAFTLF2	Stainless Steel 304		
*4	Casing Wearing	2655973	Bronze ASTMB584C87400	2655973-SS	Stainless Steel 18-8 Open Designation
*5.1	Shaft Sleeve 143-215	SLJM1.250B	Bronze ASTMB584C87400	SLJM1.250SS	Stainless Steel 18-8 Open Designation
*5.2	Shaft Sleeve 354-326	SLJM1.500B	Bronze ASTMB584C87400	SLJM1.500SS	Stainless Steel 18-8 Open Designation
*6.1	Mechanical Seal 143-215	011-S125-21-per	Viton/Ceramic vs Carbon w/Stainless Steel Spring	011-S125-dirt	Viton/Silicone Carbide w/Stainless Steel
*6.2	Mechanical Seal 354-326	011-S150-21-per	Viton/Ceramic vs Carbon w/Stainless Steel Spring	011-S150-dirt	Viton/Silicone Carbide w/Stainless Steel
*7.1	Ball Bearing Outboard F1	002-B62062RS			
*7.2	Ball Bearing Inboard F1	002-B62092Z-NR			
*7.3	Ball Bearing Outboard F2	002-B62072RS			
*7.4	Ball Bearing Inboard F2	002-B62082RS-NR			
8	Bearing Housing F1	01-BH01	Cast Iron ASTMA48CL 30		
8.1	Bearing Housing F2	02-BH02	Cast Iron ASTMA48CL 30		
*9	Radial Shaft Seal Ring	01-SR01	Buna N O' Ring		
11	Bearing Cover	01-BC01	Cast Iron ASTMA48CL 30		
*19.1	Half Coupling Motor Side		Depending on motor HP		
*19.2	Half Coupling Pump Side		Depending on Pump Shaft		
*19.3	Coupling Insert		Depending on Coupling Size		
*21	Gasket Bearing Housing Cover	01-GBC01	Fiber Gasket Vellumoid		
27	Air Vent Valve Plug				
28	Impeller Key		Carbon Steel ASTMA108G10800		
29	Pump Shaft Key		Carbon Steel ASTMA108G10800		

RECOMMENDED SPARES PARTS SERIES 2000 MODEL 815G - 2/2

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
31	Motor				
32.1	Bracket 143-215	2683879	Cast Iron ASTMA48CL 30	2683879-B	Bronze ASTMB584C87400
32.2	Bracket 143-215			2683879-SS	Stainless Steel 304
32.3	Bracket 143-215			2683879-DI	Ductile Iron 300 PSI GGG50
32.4	Bracket 143-215			2683879-CS	Cast Steel ASTMA216WCB
32.5	Bracket 254-256	2683880	Cast Iron ASTMA48CL 30	2683880-B	Bronze ASTMB584C87400
32.6	Bracket 254-256			2683880-SS	Stainless Steel 304
32.7	Bracket 254-256			2683880-DI	Ductile Iron 300 PSI GGG50
32.8	Bracket 254-256			2683880-CS	Cast Steel ASTMA216WCB
32.9	Bracket 284-326	2683882	Cast Iron ASTMA48CL 30	2683882-B	Bronze ASTMB584C87400
32.10	Bracket 284-326			2683882-SS	Stainless Steel 304
32.11	Bracket 284-326			2683882-DI	Ductile Iron 300 PSI GGG50
32.12	Bracket 284-326			2683882-CS	Cast Steel ASTMA216WCB
33	Motor Shaft Key		Carbon Steel - 1045		Stainless Steel 18-8 Open Designation
34.1	Impeller Washer no 1	WF1-SS	Stainless Steel 18-8 Open Designation		
34.2	Impeller Washer no 2	WF2-SS	Stainless Steel 18-8 Open Designation		
35.1	Impeller Bolt no 1	LBF1-SS	Stainless Steel 18-8 Open Designation		
35.2	Impeller Bolt no 2	LBF2-SS	Stainless Steel 18-8 Open Designation		
36	Casing Gasket	G-8P	Fiber Gasket Vellumoid		
37	Motor Bolts		Carbon Steel		
42	Drain Connection		Carbon Steel ASTMA108G10800		
43	Gauge Tappings		Steel Plugs		
*44	Complete Power Frame	LF1-143-184JM	Cast Iron ASTMA48CL 30		
*45	Complete Power Frame	LF2-254-256JM	Cast Iron ASTMA48CL 30		
46	Pump Frame Riser	LF1-STD	Cast Iron ASTMA48CL 30		
47	Pump Frame Riser	LF1-143-5	Cast Iron ASTMA48CL 30		
48	Pump Frame Riser	LF1-182-4	Cast Iron ASTMA48CL 30		
49	Pump Frame Riser	LF2-STD	Cast Iron ASTMA48CL 30		
50	Pump Frame Riser	LF2-254-6	Cast Iron ASTMA48CL 30		
51	Pump Frame Riser	LF2-284-6	Cast Iron ASTMA48CL 30		
52	Pump Frame Riser	LF2-324-6	Cast Iron ASTMA48CL 30		

RECOMMENDED SPARES PARTS SERIES 2000 MODEL 820A - 1/2

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
1	Volute Casing	2685523	Cast Iron ASTMA48CL 30	2685523-B	Bronze ASTMB584C87400
1.1	Volute Casing			2685523-SS	Stainless Steel 304
1.2	Volute Casing			2685523-DI	Ductile Iron 300 PSI GGG50
1.3	Volute Casing			2685523-CS	Cast Steel ASTMA216WCB
*2.1	Impeller 7/8	V1735-449	Bronze ASTMB584C87400	V1735-491	Cast Iron ASTMA48CL30
*2.2	Impeller 7/8			V1735-SS	Stainless Steel 304
*2.3	Impeller 1 1/4	V3289-449	Bronze ASTMB584C87400	V3289-491	Cast Iron ASTMA48CL30
*2.4	Impeller 1 1/4			V3289-SS	Stainless Steel 304
3	Pump Shaft 1 1/8	SHAFTLF1	Stainless Steel 304		
3.1	Pump Shaft 1 1/4	SHAFTLF2	Stainless Steel 304		
*4	Casing Wearing	2684006	Bronze ASTMB584C87400	2684006-SS	Stainless Steel 18-8 Open Designation
*5.1	Shaft Sleeve 143-215	SLJM1.250B	Bronze ASTMB584C87400	SLJM1.250SS	Stainless Steel 18-8 Open Designation
*5.2	Shaft Sleeve 354-326	SLJM1.500B	Bronze ASTMB584C87400	SLJM1.500SS	Stainless Steel 18-8 Open Designation
*6.1	Mechanical Seal 143-215	011-S125-21-per	Viton/Ceramic vs Carbon w/Stainless Steel Spring	011-S125-dirt	Viton/Silicone Carbide w/Stainless Steel
*6.2	Mechanical Seal 354-326	011-S150-21-per	Viton/Ceramic vs Carbon w/Stainless Steel Spring	011-S150-dirt	Viton/Silicone Carbide w/Stainless Steel
*7.1	Ball Bearing Outboard F1	002-B62062RS			
*7.2	Ball Bearing Inboard F1	002-B62092Z-NR			
*7.3	Ball Bearing Outboard F2	002-B62072RS			
*7.4	Ball Bearing Inboard F2	002-B62082RS-NR			
8	Bearing Housing F1	01-BH01	Cast Iron ASTMA48CL 30		
8.1	Bearing Housing F2	02-BH02	Cast Iron ASTMA48CL 30		
*9	Radial Shaft Seal Ring	01-SR01	Buna N O' Ring		
11	Bearing Cover	01-BC01	Cast Iron ASTMA48CL 30		
*19.1	Half Coupling Motor Side		Depending on motor HP		
*19.2	Half Coupling Pump Side		Depending on Pump Shaft		
*19.3	Coupling Insert		Depending on Coupling Size		
*21	Gasket Bearing Housing Cover	01-GBC01	Fiber Gasket Vellumoid		
27	Air Vent Valve Plug				
28	Impeller Key		Carbon Steel ASTMA108G10800		
29	Pump Shaft Key		Carbon Steel ASTMA108G10800		

RECOMMENDED SPARES PARTS SERIES 2000 MODEL 820A - 2/2

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
31	Motor				
32.1	Bracket 143-215	2683879	Cast Iron ASTMA48CL 30	2683879-B	Bronze ASTMB584C87400
32.2	Bracket 143-215			2683879-SS	Stainless Steel 304
32.3	Bracket 143-215			2683879-DI	Ductile Iron 300 PSI GGG50
32.4	Bracket 143-215			2683879-CS	Cast Steel ASTMA216WCB
32.5	Bracket 254-256	2683880	Cast Iron ASTMA48CL 30	2683880-B	Bronze ASTMB584C87400
32.6	Bracket 254-256			2683880-SS	Stainless Steel 304
32.7	Bracket 254-256			2683880-DI	Ductile Iron 300 PSI GGG50
32.8	Bracket 254-256			2683880-CS	Cast Steel ASTMA216WCB
32.9	Bracket 284-326	2683882	Cast Iron ASTMA48CL 30	2683882-B	Bronze ASTMB584C87400
32.10	Bracket 284-326			2683882-SS	Stainless Steel 304
32.11	Bracket 284-326			2683882-DI	Ductile Iron 300 PSI GGG50
32.12	Bracket 284-326			2683882-CS	Cast Steel ASTMA216WCB
33	Motor Shaft Key		Carbon Steel - 1045		Stainless Steel 18-8 Open Designation
34.1	Impeller Washer no 1	WF1-SS	Stainless Steel 18-8 Open Designation		
34.2	Impeller Washer no 2	WF2-SS	Stainless Steel 18-8 Open Designation		
35.1	Impeller Bolt no 1	LBF1-SS	Stainless Steel 18-8 Open Designation		
35.2	Impeller Bolt no 2	LBF2-SS	Stainless Steel 18-8 Open Designation		
36	Casing Gasket	G-8P	Fiber Gasket Vellumoid		
37	Motor Bolts		Carbon Steel		
42	Drain Connection		Carbon Steel ASTMA108G10800		
43	Gauge Tappings		Steel Plugs		
*44	Complete Power Frame	LF1-143-184JM	Cast Iron ASTMA48CL 30		
*45	Complete Power Frame	LF2-254-256JM	Cast Iron ASTMA48CL 30		
46	Pump Frame Riser	LF1-STD	Cast Iron ASTMA48CL 30		
47	Pump Frame Riser	LF1-143-5	Cast Iron ASTMA48CL 30		
48	Pump Frame Riser	LF1-182-4	Cast Iron ASTMA48CL 30		
49	Pump Frame Riser	LF2-STD	Cast Iron ASTMA48CL 30		
50	Pump Frame Riser	LF2-254-6	Cast Iron ASTMA48CL 30		
51	Pump Frame Riser	LF2-284-6	Cast Iron ASTMA48CL 30		
52	Pump Frame Riser	LF2-324-6	Cast Iron ASTMA48CL 30		

RECOMMENDED SPARES PARTS SERIES 2000 MODEL 825A - 1/2

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
1	Volute Casing	2685525	Cast Iron ASTMA48CL 30	2685525-B	Bronze ASTMB584C87400
1.1	Volute Casing			2685525-SS	Stainless Steel 304
1.2	Volute Casing			2685525-DI	Ductile Iron 300 PSI GGG50
1.3	Volute Casing			2685525-CS	Cast Steel ASTMA216WCB
*2.1	Impeller 7/8	2683738-449	Bronze ASTMB584C87400	2683738-491	Cast Iron ASTMA48CL30
*2.2	Impeller 7/8			2683738-SS	Stainless Steel 304
*2.3	Impeller 1 1/4	2683748-449	Bronze ASTMB584C87400	2683748-491	Cast Iron ASTMA48CL30
*2.4	Impeller 1 1/4			2683748-SS	Stainless Steel 304
3	Pump Shaft 1 1/8	SHAFTLF1	Stainless Steel 304		
3.1	Pump Shaft 1 1/4	SHAFTLF2	Stainless Steel 304		
*4	Casing Wearing	V1810-brz	Bronze ASTMB584C87400	V1810	Stainless Steel 18-8 Open Designation
*5.1	Shaft Sleeve 143-215	SLJM1.250B	Bronze ASTMB584C87400	SLJM1.250SS	Stainless Steel 18-8 Open Designation
*5.2	Shaft Sleeve 354-326	SLJM1.500B	Bronze ASTMB584C87400	SLJM1.500SS	Stainless Steel 18-8 Open Designation
*6.1	Mechanical Seal 143-215	011-S125-21-per	Viton/Ceramic vs Carbon w/Stainless Steel Spring	011-S125-dirt	Viton/Silicone Carbide w/Stainless Steel
*6.2	Mechanical Seal 354-326	011-S150-21-per	Viton/Ceramic vs Carbon w/Stainless Steel Spring	011-S150-dirt	Viton/Silicone Carbide w/Stainless Steel
*7.1	Ball Bearing Outboard F1	002-B62062RS			
*7.2	Ball Bearing Inboard F1	002-B62092Z-NR			
*7.3	Ball Bearing Outboard F2	002-B62072RS			
*7.4	Ball Bearing Inboard F2	002-B62082RS-NR			
8	Bearing Housing F1	01-BH01	Cast Iron ASTMA48CL 30		
8.1	Bearing Housing F2	02-BH02	Cast Iron ASTMA48CL 30		
*9	Radial Shaft Seal Ring	01-SR01	Buna N O' Ring		
11	Bearing Cover	01-BC01	Cast Iron ASTMA48CL 30		
*19.1	Half Coupling Motor Side		Depending on motor HP		
*19.2	Half Coupling Pump Side		Depending on Pump Shaft		
*19.3	Coupling Insert		Depending on Coupling Size		
*21	Gasket Bearing Housing Cover	01-GBC01	Fiber Gasket Vellumoid		
27	Air Vent Valve Plug				
28	Impeller Key		Carbon Steel ASTMA108G10800		
29	Pump Shaft Key		Carbon Steel ASTMA108G10800		

RECOMMENDED SPARES PARTS SERIES 2000 MODEL 825A - 2/2

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
31	Motor				
32.1	Bracket 143-215	2683879	Cast Iron ASTMA48CL 30	2683879-B	Bronze ASTMB584C87400
32.2	Bracket 143-215			2683879-SS	Stainless Steel 304
32.3	Bracket 143-215			2683879-DI	Ductile Iron 300 PSI GGG50
32.4	Bracket 143-215			2683879-CS	Cast Steel ASTMA216WCB
32.5	Bracket 254-256	2683880	Cast Iron ASTMA48CL 30	2683880-B	Bronze ASTMB584C87400
32.6	Bracket 254-256			2683880-SS	Stainless Steel 304
32.7	Bracket 254-256			2683880-DI	Ductile Iron 300 PSI GGG50
32.8	Bracket 254-256			2683880-CS	Cast Steel ASTMA216WCB
32.9	Bracket 284-326	2683882	Cast Iron ASTMA48CL 30	2683882-B	Bronze STMB584C87400
32.10	Bracket 284-326			2683882-SS	Stainless Steel 304
32.11	Bracket 284-326			2683882-DI	Ductile Iron 300 PSI GGG50
32.12	Bracket 284-326			2683882-CS	Cast Steel ASTMA216WCB
33	Motor Shaft Key		Carbon Steel - 1045		Stainless Steel 18-8 Open Designation
34.1	Impeller Washer no 1	WF1-SS	Stainless Steel 18-8 Open Designation		
34.2	Impeller Washer no 2	WF2-SS	Stainless Steel 18-8 Open Designation		
35.1	Impeller Bolt no 1	LBF1-SS	Stainless Steel 18-8 Open Designation		
35.2	Impeller Bolt no 2	LBF2-SS	Stainless Steel 18-8 Open Designation		
36	Casing Gasket	G-8P	Fiber Gasket Vellumoid		
37	Motor Bolts		Carbon Steel		
42	Drain Connection		Carbon Steel ASTMA108G10800		
43	Gauge Tappings		Steel Plugs		
*44	Complete Power Frame	LF1-143-184JM	Cast Iron ASTMA48CL 30		
*45	Complete Power Frame	LF2-254-256JM	Cast Iron ASTMA48CL 30		
46	Pump Frame Riser	LF1-STD	Cast Iron ASTMA48CL 30		
47	Pump Frame Riser	LF1-143-5	Cast Iron ASTMA48CL 30		
48	Pump Frame Riser	LF1-182-4	Cast Iron ASTMA48CL 30		
49	Pump Frame Riser	LF2-STD	Cast Iron ASTMA48CL 30		
50	Pump Frame Riser	LF2-254-6	Cast Iron ASTMA48CL 30		
51	Pump Frame Riser	LF2-284-6	Cast Iron ASTMA48CL 30		
52	Pump Frame Riser	LF2-324-6	Cast Iron ASTMA48CL 30		

RECOMMENDED SPARES PARTS SERIES 2000 MODEL 830A - 1/2

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
1	Volute Casing	2685527	Cast Iron ASTMA48CL 30	2685527-B	Bronze ASTMB584C87400
1.1	Volute Casing			2685527-SS	Stainless Steel 304
1.2	Volute Casing			2685527-DI	Ductile Iron 300 PSI GGG50
1.3	Volute Casing			2685527-CS	Cast Steel ASTMA216WCB
*2.1	Impeller 7/8	2683739-449	Bronze ASTMB584C87400	2683739-491	Cast Iron ASTMA48CL30
*2.2	Impeller 7/8			2683739-SS	Stainless Steel 304
*2.3	Impeller 1 1/4	2683747-449	Bronze ASTMB584C87400	2683747-491	Cast Iron ASTMA48CL30
*2.4	Impeller 1 1/4			2683747-SS	Stainless Steel 304
3	Pump Shaft 1 1/8	SHAFTLF1	Stainless Steel 304		
3.1	Pump Shaft 1 1/4	SHAFTLF2	Stainless Steel 304		
*4	Casing Wearing	V1811	Bronze ASTMB584C87400	V1811-SS	Stainless Steel 18-8 Open Designation
*5.1	Shaft Sleeve 143-215	SLJM1.250B	Bronze ASTMB584C87400	SLJM1.250SS	Stainless Steel 18-8 Open Designation
*5.2	Shaft Sleeve 354-326	SLJM1.500B	Bronze ASTMB584C87400	SLJM1.500SS	Stainless Steel 18-8 Open Designation
*6.1	Mechanical Seal 143-215	011-S125-21-per	Viton/Ceramic vs Carbon w/Stainless Steel Spring	011-S125-dirt	Viton/Silicone Carbide w/Stainless Steel
*6.2	Mechanical Seal 354-326	011-S150-21-per	Viton/Ceramic vs Carbon w/Stainless Steel Spring	011-S150-dirt	Viton/Silicone Carbide w/Stainless Steel
*7.1	Ball Bearing Outboard F1	002-B62062RS			
*7.2	Ball Bearing Inboard F1	002-B62092Z-NR			
*7.3	Ball Bearing Outboard F2	002-B62072RS			
*7.4	Ball Bearing Inboard F2	002-B62082RS-NR			
8	Bearing Housing F1	01-BH01	Cast Iron ASTMA48CL 30		
8.1	Bearing Housing F2	02-BH02	Cast Iron ASTMA48CL 30		
*9	Radial Shaft Seal Ring	01-SR01	Buna N O' Ring		
11	Bearing Cover	01-BC01	Cast Iron ASTMA48CL 30		
*19.1	Half Coupling Motor Side		Depending on motor HP		
*19.2	Half Coupling Pump Side		Depending on Pump Shaft		
*19.3	Coupling Insert		Depending on Coupling Size		
*21	Gasket Bearing Housing Cover	01-GBC01	Fiber Gasket Vellumoid		
27	Air Vent Valve Plug				
28	Impeller Key		Carbon Steel ASTMA108G10800		
29	Pump Shaft Key		Carbon Steel ASTMA108G10800		

RECOMMENDED SPARES PARTS SERIES 2000 MODEL 830A - 2/2

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
31	Motor				
32.1	Bracket 143-215	2683879	Cast Iron ASTMA48CL 30	2683879-B	Bronze ASTMB584C87400
32.2	Bracket 143-215			2683879-SS	Stainless Steel 304
32.3	Bracket 143-215			2683879-DI	Ductile Iron 300 PSI GGG50
32.4	Bracket 143-215			2683879-CS	Cast Steel ASTMA216WCB
32.5	Bracket 254-256	2683880	Cast Iron ASTMA48CL 30	2683880-B	Bronze ASTMB584C87400
32.6	Bracket 254-256			2683880-SS	Stainless Steel 304
32.7	Bracket 254-256			2683880-DI	Ductile Iron 300 PSI GGG50
32.8	Bracket 254-256			2683880-CS	Cast Steel ASTMA216WCB
32.9	Bracket 284-326	2683882	Cast Iron ASTMA48CL 30	2683882-B	Bronze STMB584C87400
32.10	Bracket 284-326			2683882-SS	Stainless Steel 304
32.11	Bracket 284-326			2683882-DI	Ductile Iron 300 PSI GGG50
32.12	Bracket 284-326			2683882-CS	Cast Steel ASTMA216WCB
33	Motor Shaft Key		Carbon Steel - 1045		Stainless Steel 18-8 Open Designation
34.1	Impeller Washer no 1	WF1-SS	Stainless Steel 18-8 Open Designation		
34.2	Impeller Washer no 2	WF2-SS	Stainless Steel 18-8 Open Designation		
35.1	Impeller Bolt no 1	LBF1-SS	Stainless Steel 18-8 Open Designation		
35.2	Impeller Bolt no 2	LBF2-SS	Stainless Steel 18-8 Open Designation		
36	Casing Gasket	G-8P	Fiber Gasket Vellumoid		
37	Motor Bolts		Carbon Steel		
42	Drain Connection		Carbon Steel ASTMA108G10800		
43	Gauge Tappings		Steel Plugs		
*44	Complete Power Frame	LF1-143-184JM	Cast Iron ASTMA48CL 30		
*45	Complete Power Frame	LF2-254-256JM	Cast Iron ASTMA48CL 30		
46	Pump Frame Riser	LF1-STD	Cast Iron ASTMA48CL 30		
47	Pump Frame Riser	LF1-143-5	Cast Iron ASTMA48CL 30		
48	Pump Frame Riser	LF1-182-4	Cast Iron ASTMA48CL 30		
49	Pump Frame Riser	LF2-STD	Cast Iron ASTMA48CL 30		
50	Pump Frame Riser	LF2-254-6	Cast Iron ASTMA48CL 30		
51	Pump Frame Riser	LF2-284-6	Cast Iron ASTMA48CL 30		
52	Pump Frame Riser	LF2-324-6	Cast Iron ASTMA48CL 30		

RECOMMENDED SPARES PARTS SERIES 2000 MODEL 840A - 1/2

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
1	Volute Casing	2683863	Cast Iron ASTMA48CL 30	2683863-B	Bronze ASTMB584C87400
1.1	Volute Casing			2683863-SS	Stainless Steel 304
1.2	Volute Casing			2683863-DI	Ductile Iron 300 PSI GGG50
1.3	Volute Casing			2683863-CS	Cast Steel ASTMA216WCB
*2.1	Impeller 7/8	2680864-449	Bronze ASTMB584C87400	2680864-491	Cast Iron ASTMA48CL30
*2.2	Impeller 7/8			2680864-SS	Stainless Steel 304
*2.3	Impeller 1 1/4	2680863-449	Bronze ASTMB584C87400	2680863-491	Cast Iron ASTMA48CL30
*2.4	Impeller 1 1/4			2680863-SS	Stainless Steel 304
3	Pump Shaft 1 1/8	SHAFTLF1	Stainless Steel 304		
3.1	Pump Shaft 1 1/4	SHAFTLF2	Stainless Steel 304		
*4	Casing Wearing	2691670	Bronze ASTMB584C87400	2691670-SS	Stainless Steel 18-8 Open Designation
*5.1	Shaft Sleeve 143-215	SLJM1.250B	Bronze ASTMB584C87400	SLJM1.250SS	Stainless Steel 18-8 Open Designation
*5.2	Shaft Sleeve 354-326	SLJM1.500B	Bronze ASTMB584C87400	SLJM1.500SS	Stainless Steel 18-8 Open Designation
*6.1	Mechanical Seal 143-215	011-S125-21-per	Viton/Ceramic vs Carbon w/Stainless Steel Spring	011-S125-dirt	Viton/Silicone Carbide w/Stainless Steel
*6.2	Mechanical Seal 354-326	011-S150-21-per	Viton/Ceramic vs Carbon w/Stainless Steel Spring	011-S150-dirt	Viton/Silicone Carbide w/Stainless Steel
*7.1	Ball Bearing Outboard F1	002-B62062RS			
*7.2	Ball Bearing Inboard F1	002-B62092Z-NR			
*7.3	Ball Bearing Outboard F2	002-B62072RS			
*7.4	Ball Bearing Inboard F2	002-B62082RS-NR			
8	Bearing Housing F1	01-BH01	Cast Iron ASTMA48CL 30		
8.1	Bearing Housing F2	02-BH02	Cast Iron ASTMA48CL 30		
*9	Radial Shaft Seal Ring	01-SR01	Buna N O' Ring		
11	Bearing Cover	01-BC01	Cast Iron ASTMA48CL 30		
*19.1	Half Coupling Motor Side		Depending on motor HP		
*19.2	Half Coupling Pump Side		Depending on Pump Shaft		
*19.3	Coupling Insert		Depending on Coupling Size		
*21	Gasket Bearing Housing Cover	01-GBC01	Fiber Gasket Vellumoid		
27	Air Vent Valve Plug				
28	Impeller Key		Carbon Steel ASTMA108G10800		
29	Pump Shaft Key		Carbon Steel ASTMA108G10800		

RECOMMENDED SPARES PARTS SERIES 2000 MODEL 840A - 2/2

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
31	Motor				
32.1	Bracket 143-215	2683879	Cast Iron ASTMA48CL 30	2683879-B	Bronze ASTMB584C87400
32.2	Bracket 143-215			2683879-SS	Stainless Steel 304
32.3	Bracket 143-215			2683879-DI	Ductile Iron 300 PSI GGG50
32.4	Bracket 143-215			2683879-CS	Cast Steel ASTMA216WCB
32.5	Bracket 254-256	2683880	Cast Iron ASTMA48CL 30	2683880-B	Bronze ASTMB584C87400
32.6	Bracket 254-256			2683880-SS	Stainless Steel 304
32.7	Bracket 254-256			2683880-DI	Ductile Iron 300 PSI GGG50
32.8	Bracket 254-256			2683880-CS	Cast Steel ASTMA216WCB
32.9	Bracket 284-326	2683882	Cast Iron ASTMA48CL 30	2683882-B	Bronze STMB584C87400
32.10	Bracket 284-326			2683882-SS	Stainless Steel 304
32.11	Bracket 284-326			2683882-DI	Ductile Iron 300 PSI GGG50
32.12	Bracket 284-326			2683882-CS	Cast Steel ASTMA216WCB
33	Motor Shaft Key		Carbon Steel - 1045		Stainless Steel 18-8 Open Designation
34.1	Impeller Washer no 1	WF1-SS	Stainless Steel 18-8 Open Designation		
34.2	Impeller Washer no 2	WF2-SS	Stainless Steel 18-8 Open Designation		
35.1	Impeller Bolt no 1	LBF1-SS	Stainless Steel 18-8 Open Designation		
35.2	Impeller Bolt no 2	LBF2-SS	Stainless Steel 18-8 Open Designation		
36	Casing Gasket	G-8P	Fiber Gasket Vellumoid		
37	Motor Bolts		Carbon Steel		
42	Drain Connection		Carbon Steel ASTMA108G10800		
43	Gauge Tappings		Steel Plugs		
*44	Complete Power Frame	LF1-143-184JM	Cast Iron ASTMA48CL 30		
*45	Complete Power Frame	LF2-254-256JM	Cast Iron ASTMA48CL 30		
46	Pump Frame Riser	LF1-STD	Cast Iron ASTMA48CL 30		
47	Pump Frame Riser	LF1-143-5	Cast Iron ASTMA48CL 30		
48	Pump Frame Riser	LF1-182-4	Cast Iron ASTMA48CL 30		
49	Pump Frame Riser	LF2-STD	Cast Iron ASTMA48CL 30		
50	Pump Frame Riser	LF2-254-6	Cast Iron ASTMA48CL 30		
51	Pump Frame Riser	LF2-284-6	Cast Iron ASTMA48CL 30		
52	Pump Frame Riser	LF2-324-6	Cast Iron ASTMA48CL 30		

RECOMMENDED SPARES PARTS SERIES 2000 MODEL 1020A - 1/2

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
1	Volute Casing	2685529	Cast Iron ASTMA48CL 30	2685529-B	Bronze ASTMB584C87400
1.1	Volute Casing			2685529-SS	Stainless Steel 304
1.2	Volute Casing			2685529-DI	Ductile Iron 300 PSI GGG50
1.3	Volute Casing			2685529-CS	Cast Steel ASTMA216WCB
*2.1	Impeller 7/8	2680869-449	Bronze ASTMB584C87400	2680869-491	Cast Iron ASTMA48CL30
*2.2	Impeller 7/8			2680869-SS	Stainless Steel 304
*2.3	Impeller 1 1/4	2680870-449	Bronze ASTMB584C87400	2680870-491	Cast Iron ASTMA48CL30
*2.4	Impeller 1 1/4			2680870-SS	Stainless Steel 304
3	Pump Shaft 1 1/8	SHAFTLF1	Stainless Steel 304		
3.1	Pump Shaft 1 1/4	SHAFTLF2	Stainless Steel 304		
*4	Casing Wearing	2684006	Bronze ASTMB584C87400	2684006-SS	Stainless Steel 18-8 Open Designation
*5.1	Shaft Sleeve 143-215	SLJM1.250B	Bronze ASTMB584C87400	SLJM1.250SS	Stainless Steel 18-8 Open Designation
*5.2	Shaft Sleeve 354-326	SLJM1.500B	Bronze ASTMB584C87400	SLJM1.500SS	Stainless Steel 18-8 Open Designation
*6.1	Mechanical Seal 143-215	011-S125-21-per	Viton/Ceramic vs Carbon w/Stainless Steel Spring	011-S125-dirt	Viton/Silicone Carbide w/Stainless Steel
*6.2	Mechanical Seal 354-326	011-S150-21-per	Viton/Ceramic vs Carbon w/Stainless Steel Spring	011-S150-dirt	Viton/Silicone Carbide w/Stainless Steel
*7.1	Ball Bearing Outboard F1	002-B62062RS			
*7.2	Ball Bearing Inboard F1	002-B62092Z-NR			
*7.3	Ball Bearing Outboard F2	002-B62072RS			
*7.4	Ball Bearing Inboard F2	002-B62082RS-NR			
8	Bearing Housing F1	01-BH01	Cast Iron ASTMA48CL 30		
8.1	Bearing Housing F2	02-BH02	Cast Iron ASTMA48CL 30		
*9	Radial Shaft Seal Ring	01-SR01	Buna N O' Ring		
11	Bearing Cover	01-BC01	Cast Iron ASTMA48CL 30		
*19.1	Half Coupling Motor Side		Depending on motor HP		
*19.2	Half Coupling Pump Side		Depending on Pump Shaft		
*19.3	Coupling Insert		Depending on Coupling Size		
*21	Gasket Bearing Housing Cover	01-GBC01	Fiber Gasket Vellumoid		
27	Air Vent Valve Plug				
28	Impeller Key		Carbon Steel ASTMA108G10800		
29	Pump Shaft Key		Carbon Steel ASTMA108G10800		

RECOMMENDED SPARES PARTS SERIES 2000 MODEL 1020A - 2/2

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
31	Motor				
32.1	Bracket 143-215	2683883	Cast Iron ASTMA48CL 30 F1	2683883-B	Bronze ASTMB584C87400
32.2	Bracket 143-215			2683883-SS	Stainless Steel 304
32.3	Bracket 143-215			2683883-DI	Ductile Iron 300 PSI GGG50
32.4	Bracket 143-215			2683883-CS	Cast Steel ASTMA216WCB
32.5	Bracket 254-256	2683884	Cast Iron ASTMA48CL 30 F2	2683884-B	Bronze ASTMB584C87400
32.6	Bracket 254-256			2683884-SS	Stainless Steel 304
32.7	Bracket 254-256			2683884-DI	Ductile Iron 300 PSI GGG50
32.8	Bracket 254-256			2683884-CS	Cast Steel ASTMA216WCB
32.9	Bracket 284-326	2691995	Cast Iron ASTMA48CL 30 F2	2691995-B	Bronze STMB584C87400
32.10	Bracket 284-326			2691995-SS	Stainless Steel 304
32.11	Bracket 284-326			2691995-DI	Ductile Iron 300 PSI GGG50
32.12	Bracket 284-326			2691995-CS	Cast Steel ASTMA216WCB
33	Motor Shaft Key		Carbon Steel - 1045		Stainless Steel 18-8 Open Designation
34.1	Impeller Washer no 1	WF1-SS	Stainless Steel 18-8 Open Designation		
34.2	Impeller Washer no 2	WF2-SS	Stainless Steel 18-8 Open Designation		
35.1	Impeller Bolt no 1	LBF1-SS	Stainless Steel 18-8 Open Designation		
35.2	Impeller Bolt no 2	LBF2-SS	Stainless Steel 18-8 Open Designation		
36	Casing Gasket	G-10P	Fiber Gasket Vellumoid		
37	Motor Bolts		Carbon Steel		
42	Drain Connection		Carbon Steel ASTMA108G10800		
43	Gauge Tappings		Steel Plugs		
*44	Complete Power Frame	LF1-143-184JM	Cast Iron ASTMA48CL 30		
*45	Complete Power Frame	LF2-254-256JM	Cast Iron ASTMA48CL 30		
46	Pump Frame Riser	LF1-STD	Cast Iron ASTMA48CL 30		
47	Pump Frame Riser	LF1-143-5	Cast Iron ASTMA48CL 30		
48	Pump Frame Riser	LF1-182-4	Cast Iron ASTMA48CL 30		
49	Pump Frame Riser	LF2-STD	Cast Iron ASTMA48CL 30		
50	Pump Frame Riser	LF2-254-6	Cast Iron ASTMA48CL 30		
51	Pump Frame Riser	LF2-284-6	Cast Iron ASTMA48CL 30		
52	Pump Frame Riser	LF2-324-6	Cast Iron ASTMA48CL 30		

RECOMMENDED SPARES PARTS SERIES 2000 MODEL 1025A - 1/2

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
1	Volute Casing	2685531	Cast Iron ASTMA48CL 30	2685531-B	Bronze ASTMB584C87400
1.1	Volute Casing			2685531-SS	Stainless Steel 304
1.2	Volute Casing			2685531-DI	Ductile Iron 300 PSI GGG50
1.3	Volute Casing			2685531-CS	Cast Steel ASTMA216WCB
*2.1	Impeller 7/8	2684314-449	Bronze ASTMB584C87400	2684314-491	Cast Iron ASTMA48CL30
*2.2	Impeller 7/8			2684314-SS	Stainless Steel 304
*2.3	Impeller 1 1/4	2684354-449	Bronze ASTMB584C87400	2684354-491	Cast Iron ASTMA48CL30
*2.4	Impeller 1 1/4			2684354-SS	Stainless Steel 304
3	Pump Shaft 1 1/8	SHAFTLF1	Stainless Steel 304		
3.1	Pump Shaft 1 1/4	SHAFTLF2	Stainless Steel 304		
*4	Casing Wearing	V1810-brz	Bronze ASTMB584C87400	V1810-SS	Stainless Steel 18-8 Open Designation
*5.1	Shaft Sleeve 143-215	SLJM1.250B	Bronze ASTMB584C87400	SLJM1.250SS	Stainless Steel 18-8 Open Designation
*5.2	Shaft Sleeve 354-326	SLJM1.500B	Bronze ASTMB584C87400	SLJM1.500SS	Stainless Steel 18-8 Open Designation
*6.1	Mechanical Seal 143-215	011-S125-21-per	Viton/Ceramic vs Carbon w/Stainless Steel Spring	011-S125-dirt	Viton/Silicone Carbide w/Stainless Steel
*6.2	Mechanical Seal 354-326	011-S150-21-per	Viton/Ceramic vs Carbon w/Stainless Steel Spring	011-S150-dirt	Viton/Silicone Carbide w/Stainless Steel
*7.1	Ball Bearing Outboard F1	002-B62062RS			
*7.2	Ball Bearing Inboard F1	002-B62092Z-NR			
*7.3	Ball Bearing Outboard F2	002-B62072RS			
*7.4	Ball Bearing Inboard F2	002-B62082RS-NR			
8	Bearing Housing F1	01-BH01	Cast Iron ASTMA48CL 30		
8.1	Bearing Housing F2	02-BH02	Cast Iron ASTMA48CL 30		
*9	Radial Shaft Seal Ring	01-SR01	Buna N O' Ring		
11	Bearing Cover	01-BC01	Cast Iron ASTMA48CL 30		
*19.1	Half Coupling Motor Side		Depending on motor HP		
*19.2	Half Coupling Pump Side		Depending on Pump Shaft		
*19.3	Coupling Insert		Depending on Coupling Size		
*21	Gasket Bearing Housing Cover	01-GBC01	Fiber Gasket Vellumoid		
27	Air Vent Valve Plug				
28	Impeller Key		Carbon Steel ASTMA108G10800		
29	Pump Shaft Key		Carbon Steel ASTMA108G10800		

RECOMMENDED SPARES PARTS SERIES 2000 MODEL 1025A - 2/2

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
31	Motor				
32.1	Bracket 143-215	2683883	Cast Iron ASTMA48CL 30 F1	2683883-B	Bronze ASTMB584C87400
32.2	Bracket 143-215			2683883-SS	Stainless Steel 304
32.3	Bracket 143-215			2683883-DI	Ductile Iron 300 PSI GGG50
32.4	Bracket 143-215			2683883-CS	Cast Steel ASTMA216WCB
32.5	Bracket 254-256	2683884	Cast Iron ASTMA48CL 30 F2	2683884-B	Bronze ASTMB584C87400
32.6	Bracket 254-256			2683884-SS	Stainless Steel 304
32.7	Bracket 254-256			2683884-DI	Ductile Iron 300 PSI GGG50
32.8	Bracket 254-256			2683884-CS	Cast Steel ASTMA216WCB
32.9	Bracket 284-326	2691995	Cast Iron ASTMA48CL 30 F2	2691995-B	Bronze ASTMB584C87400
32.10	Bracket 284-326			2691995-SS	Stainless Steel 304
32.11	Bracket 284-326			2691995-DI	Ductile Iron 300 PSI GGG50
32.12	Bracket 284-326			2691995-CS	Cast Steel ASTMA216WCB
33	Motor Shaft Key		Carbon Steel - 1045		Stainless Steel 18-8 Open Designation
34.1	Impeller Washer no 1	WF1-SS	Stainless Steel 18-8 Open Designation		
34.2	Impeller Washer no 2	WF2-SS	Stainless Steel 18-8 Open Designation		
35.1	Impeller Bolt no 1	LBF1-SS	Stainless Steel 18-8 Open Designation		
35.2	Impeller Bolt no 2	LBF2-SS	Stainless Steel 18-8 Open Designation		
36	Casing Gasket	G-10P	Fiber Gasket Vellumoid		
37	Motor Bolts		Carbon Steel		
42	Drain Connection		Carbon Steel ASTMA108G10800		
43	Gauge Tappings		Steel Plugs		
*44	Complete Power Frame	LF1-143-184JM	Cast Iron ASTMA48CL 30		
*45	Complete Power Frame	LF2-254-256JM	Cast Iron ASTMA48CL 30		
46	Pump Frame Riser	LF1-STD	Cast Iron ASTMA48CL 30		
47	Pump Frame Riser	LF1-143-5	Cast Iron ASTMA48CL 30		
48	Pump Frame Riser	LF1-182-4	Cast Iron ASTMA48CL 30		
49	Pump Frame Riser	LF2-STD	Cast Iron ASTMA48CL 30		
50	Pump Frame Riser	LF2-254-6	Cast Iron ASTMA48CL 30		
51	Pump Frame Riser	LF2-284-6	Cast Iron ASTMA48CL 30		
52	Pump Frame Riser	LF2-324-6	Cast Iron ASTMA48CL 30		

RECOMMENDED SPARES PARTS SERIES 2000 MODEL 1030A - 1/2

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
1	Volute Casing	2685533	Cast Iron ASTMA48CL 30	2685533-B	Bronze ASTMB584C87400
1.1	Volute Casing			2685533-SS	Stainless Steel 304
1.2	Volute Casing			2685533-DI	Ductile Iron 300 PSI GGG50
1.3	Volute Casing			2685533-CS	Cast Steel ASTMA216WCB
*2.1	Impeller 7/8	2684315-449	Bronze ASTMB584C87400	2684315-491	Cast Iron ASTMA48CL30
*2.2	Impeller 7/8			2684315-SS	Stainless Steel 304
*2.3	Impeller 1 1/4	2684353-449	Bronze ASTMB584C87400	2684353-491	Cast Iron ASTMA48CL30
*2.4	Impeller 1 1/4			2684353-SS	Stainless Steel 304
3	Pump Shaft 1 1/8	SHAFTLF1	Stainless Steel 304		
3.1	Pump Shaft 1 1/4	SHAFTLF2	Stainless Steel 304		
*4	Casing Wearing	V1811	Bronze ASTMB584C87400	V1811-SS	Stainless Steel 18-8 Open Designation
*5.1	Shaft Sleeve 143-215	SLJM1.250B	Bronze ASTMB584C87400	SLJM1.250SS	Stainless Steel 18-8 Open Designation
*5.2	Shaft Sleeve 354-326	SLJM1.500B	Bronze ASTMB584C87400	SLJM1.500SS	Stainless Steel 18-8 Open Designation
*6.1	Mechanical Seal 143-215	011-S125-21-per	Viton/Ceramic vs Carbon w/Stainless Steel Spring	011-S125-dirt	Viton/Silicone Carbide w/Stainless Steel
*6.2	Mechanical Seal 354-326	011-S150-21-per	Viton/Ceramic vs Carbon w/Stainless Steel Spring	011-S150-dirt	Viton/Silicone Carbide w/Stainless Steel
*7.1	Ball Bearing Outboard F1	002-B62062RS			
*7.2	Ball Bearing Inboard F1	002-B62092Z-NR			
*7.3	Ball Bearing Outboard F2	002-B62072RS			
*7.4	Ball Bearing Inboard F2	002-B62082RS-NR			
8	Bearing Housing F1	01-BH01	Cast Iron ASTMA48CL 30		
8.1	Bearing Housing F2	02-BH02	Cast Iron ASTMA48CL 30		
*9	Radial Shaft Seal Ring	01-SR01	Buna N O' Ring		
11	Bearing Cover	01-BC01	Cast Iron ASTMA48CL 30		
*19.1	Half Coupling Motor Side		Depending on motor HP		
*19.2	Half Coupling Pump Side		Depending on Pump Shaft		
*19.3	Coupling Insert		Depending on Coupling Size		
*21	Gasket Bearing Housing Cover	01-GBC01	Fiber Gasket Vellumoid		
27	Air Vent Valve Plug				
28	Impeller Key		Carbon Steel ASTMA108G10800		
29	Pump Shaft Key		Carbon Steel ASTMA108G10800		

RECOMMENDED SPARES PARTS SERIES 2000 MODEL 1030A - 2/2

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
31	Motor				
32.1	Bracket 143-215	2683883	Cast Iron ASTMA48CL 30 F1	2683883-B	Bronze ASTMB584C87400
32.2	Bracket 143-215			2683883-SS	Stainless Steel 304
32.3	Bracket 143-215			2683883-DI	Ductile Iron 300 PSI GGG50
32.4	Bracket 143-215			2683883-CS	Cast Steel ASTMA216WCB
32.5	Bracket 254-256	2683884	Cast Iron ASTMA48CL 30 F2	2683884-B	Bronze ASTMB584C87400
32.6	Bracket 254-256			2683884-SS	Stainless Steel 304
32.7	Bracket 254-256			2683884-DI	Ductile Iron 300 PSI GGG50
32.8	Bracket 254-256			2683884-CS	Cast Steel ASTMA216WCB
32.9	Bracket 284-326	2691995	Cast Iron ASTMA48CL 30 F2	2691995-B	Bronze ASTMB584C87400
32.10	Bracket 284-326			2691995-SS	Stainless Steel 304
32.11	Bracket 284-326			2691995-DI	Ductile Iron 300 PSI GGG50
32.12	Bracket 284-326			2691995-CS	Cast Steel ASTMA216WCB
33	Motor Shaft Key		Carbon Steel - 1045		Stainless Steel 18-8 Open Designation
34.1	Impeller Washer no 1	WF1-SS	Stainless Steel 18-8 Open Designation		
34.2	Impeller Washer no 2	WF2-SS	Stainless Steel 18-8 Open Designation		
35.1	Impeller Bolt no 1	LBF1-SS	Stainless Steel 18-8 Open Designation		
35.2	Impeller Bolt no 2	LBF2-SS	Stainless Steel 18-8 Open Designation		
36	Casing Gasket	G-10P	Fiber Gasket Vellumoid		
37	Motor Bolts		Carbon Steel		
42	Drain Connection		Carbon Steel ASTMA108G10800		
43	Gauge Tappings		Steel Plugs		
*44	Complete Power Frame	LF1-143-184JM	Cast Iron ASTMA48CL 30		
*45	Complete Power Frame	LF2-254-256JM	Cast Iron ASTMA48CL 30		
46	Pump Frame Riser	LF1-STD	Cast Iron ASTMA48CL 30		
47	Pump Frame Riser	LF1-143-5	Cast Iron ASTMA48CL 30		
48	Pump Frame Riser	LF1-182-4	Cast Iron ASTMA48CL 30		
49	Pump Frame Riser	LF2-STD	Cast Iron ASTMA48CL 30		
50	Pump Frame Riser	LF2-254-6	Cast Iron ASTMA48CL 30		
51	Pump Frame Riser	LF2-284-6	Cast Iron ASTMA48CL 30		
52	Pump Frame Riser	LF2-324-6	Cast Iron ASTMA48CL 30		

RECOMMENDED SPARES PARTS SERIES 2000 MODEL 1040A - 1/2

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
1	Volute Casing	2685535	Cast Iron ASTMA48CL 30	2685535-B	Bronze ASTMB584C87400
1.1	Volute Casing			2685535-SS	Stainless Steel 304
1.2	Volute Casing			2685535-D1	Ductile Iron 300 PSI GGG50
1.3	Volute Casing			2685535-CS	Cast Steel ASTMA216WCB
*2.1	Impeller 7/8	2685919-449	Bronze ASTMB584C87400	2685919-491	Cast Iron ASTMA48CL30
*2.2	Impeller 7/8			2685919-SS	Stainless Steel 304
*2.3	Impeller 1 1/4	2685918-449	Bronze ASTMB584C87400	2685918-491	Cast Iron ASTMA48CL30
*2.4	Impeller 1 1/4			2685918-SS	Stainless Steel 304
3	Pump Shaft 1 1/8	SHAFTLF1	Stainless Steel 304		
3.1	Pump Shaft 1 1/4	SHAFTLF2	Stainless Steel 304		
*4	Casing Wearing	2691670	Bronze ASTMB584C87400		Stainless Steel 18-8 Open Designation
*5.1	Shaft Sleeve 143-215	SLJM1.250B	Bronze ASTMB584C87400	SLJM1.250SS	Stainless Steel 18-8 Open Designation
*5.2	Shaft Sleeve 354-326	SLJM1.500B	Bronze ASTMB584C87400	SLJM1.500SS	Stainless Steel 18-8 Open Designation
*6.1	Mechanical Seal 143-215	011-S125-21-per	Viton/Ceramic vs Carbon w/Stainless Steel Spring	011-S125-dirt	Viton/Silicone Carbide w/Stainless Steel
*6.2	Mechanical Seal 354-326	011-S150-21-per	Viton/Ceramic vs Carbon w/Stainless Steel Spring	011-S150-dirt	Viton/Silicone Carbide w/Stainless Steel
*7.1	Ball Bearing Outboard F1	002-B62062RS			
*7.2	Ball Bearing Inboard F1	002-B62092Z-NR			
*7.3	Ball Bearing Outboard F2	002-B62072RS			
*7.4	Ball Bearing Inboard F2	002-B62082RS- NR			
8	Bearing Housing F1	01-BH01	Cast Iron ASTMA48CL 30		
8.1	Bearing Housing F2	02-BH02	Cast Iron ASTMA48CL 30		
*9	Radial Shaft Seal Ring	01-SR01	Buna N O' Ring		
11	Bearing Cover	01-BC01	Cast Iron ASTMA48CL 30		
*19.1	Half Coupling Motor Side		Depending on motor HP		
*19.2	Half Coupling Pump Side		Depending on Pump Shaft		
*19.3	Coupling Insert		Depending on Coupling Size		
*21	Gasket Bearing Housing Cover	01-GBC01	Fiber Gasket Vellumoid		
27	Air Vent Valve Plug				
28	Impeller Key		Carbon Steel ASTMA108G10800		
29	Pump Shaft Key		Carbon Steel ASTMA108G10800		

RECOMMENDED SPARES PARTS SERIES 2000 MODEL 1040A - 2/2

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
31	Motor				
32.1	Bracket 143-215	2683883	Cast Iron ASTMA48CL 30 F1	2683883-B	Bronze ASTMB584C87400
32.2	Bracket 143-215			2683883-SS	Stainless Steel 304
32.3	Bracket 143-215			2683883-DI	Ductile Iron 300 PSI GGG50
32.4	Bracket 143-215			2683883-CS	Cast Steel ASTMA216WCB
32.5	Bracket 254-256	2683884	Cast Iron ASTMA48CL 30 F2	2683884-B	Bronze ASTMB584C87400
32.6	Bracket 254-256			2683884-SS	Stainless Steel 304
32.7	Bracket 254-256			2683884-DI	Ductile Iron 300 PSI GGG50
32.8	Bracket 254-256			2683884-CS	Cast Steel ASTMA216WCB
32.9	Bracket 284-326	2691995	Cast Iron ASTMA48CL 30 F2	2691995-B	Bronze ASTMB584C87400
32.10	Bracket 284-326			2691995-SS	Stainless Steel 304
32.11	Bracket 284-326			2691995-DI	Ductile Iron 300 PSI GGG50
32.12	Bracket 284-326			2691995-CS	Cast Steel ASTMA216WCB
33	Motor Shaft Key		Carbon Steel - 1045		Stainless Steel 18-8 Open Designation
34.1	Impeller Washer no 1	WF1-SS	Stainless Steel 18-8 Open Designation		
34.2	Impeller Washer no 2	WF2-SS	Stainless Steel 18-8 Open Designation		
35.1	Impeller Bolt no 1	LBF1-SS	Stainless Steel 18-8 Open Designation		
35.2	Impeller Bolt no 2	LBF2-SS	Stainless Steel 18-8 Open Designation		
36	Casing Gasket	G-10P	Fiber Gasket Vellumoid		
37	Motor Bolts		Carbon Steel		
42	Drain Connection		Carbon Steel ASTMA108G10800		
43	Gauge Tappings		Steel Plugs		
*44	Complete Power Frame	LF1-143-184JM	Cast Iron ASTMA48CL 30		
*45	Complete Power Frame	LF2-254-256JM	Cast Iron ASTMA48CL 30		
46	Pump Frame Riser	LF1-STD	Cast Iron ASTMA48CL 30		
47	Pump Frame Riser	LF1-143-5	Cast Iron ASTMA48CL 30		
48	Pump Frame Riser	LF1-182-4	Cast Iron ASTMA48CL 30		
49	Pump Frame Riser	LF2-STD	Cast Iron ASTMA48CL 30		
50	Pump Frame Riser	LF2-254-6	Cast Iron ASTMA48CL 30		
51	Pump Frame Riser	LF2-284-6	Cast Iron ASTMA48CL 30		
52	Pump Frame Riser	LF2-324-6	Cast Iron ASTMA48CL 30		

RECOMMENDED SPARES PARTS SERIES 2000 MODEL 1050A - 1/2

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
1	Volute Casing	2691991	Cast Iron ASTMA48CL 30	2691991-B	Bronze ASTMB584C87400
1.1	Volute Casing			2691991-BB	Stainless Steel 304
1.2	Volute Casing			2691991-DI	Ductile Iron 300 PSI GGG50
1.3	Volute Casing			2691991-CS	Cast Steel ASTMA216WCB
*2.1	Impeller 7/8	2691939-449	Bronze ASTMB584C87400	2691939-491	Cast Iron ASTMA48CL30
*2.2	Impeller 7/8			2691939-SS	Stainless Steel 304
*2.3	Impeller 1 1/4	2689502-449	Bronze ASTMB584C87400	2689502-491	Cast Iron ASTMA48CL30
*2.4	Impeller 1 1/4			2689502-SS	Stainless Steel 304
3	Pump Shaft 1 1/8	SHAFTLF1	Stainless Steel 304		
3.1	Pump Shaft 1 1/4	SHAFTLF2	Stainless Steel 304		
*4	Casing Wearing	2691672	Bronze ASTMB584C87400	2691672-SS	Stainless Steel 18-8 Open Designation
*5.1	Shaft Sleeve 143-215	SLJM1.250B	Bronze ASTMB584C87400	SLJM1.250SS	Stainless Steel 18-8 Open Designation
*5.2	Shaft Sleeve 354-326	SLJM1.500B	Bronze ASTMB584C87400	SLJM1.500SS	Stainless Steel 18-8 Open Designation
*6.1	Mechanical Seal 143-215	011-S125-21-per	Viton/Ceramic vs Carbon w/Stainless Steel Spring	011-S125-dirt	Viton/Silicone Carbide w/Stainless Steel
*6.2	Mechanical Seal 354-326	011-S150-21-per	Viton/Ceramic vs Carbon w/Stainless Steel Spring	011-S150-dirt	Viton/Silicone Carbide w/Stainless Steel
*7.1	Ball Bearing Outboard F1	002-B62062RS			
*7.2	Ball Bearing Inboard F1	002-B62092Z-NR			
*7.3	Ball Bearing Outboard F2	002-B62072RS			
*7.4	Ball Bearing Inboard F2	002-B62082RS- NR			
8	Bearing Housing F1	01-BH01	Cast Iron ASTMA48CL 30		
8.1	Bearing Housing F2	02-BH02	Cast Iron ASTMA48CL 30		
*9	Radial Shaft Seal Ring	01-SR01	Buna N O' Ring		
11	Bearing Cover	01-BC01	Cast Iron ASTMA48CL 30		
*19.1	Half Coupling Motor Side		Depending on motor HP		
*19.2	Half Coupling Pump Side		Depending on Pump Shaft		
*19.3	Coupling Insert		Depending on Coupling Size		
*21	Gasket Bearing Housing Cover	01-GBC01	Fiber Gasket Vellumoid		
27	Air Vent Valve Plug				
28	Impeller Key		Carbon Steel ASTMA108G10800		
29	Pump Shaft Key		Carbon Steel ASTMA108G10800		

RECOMMENDED SPARES PARTS SERIES 2000 MODEL 1050A - 2/2

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
31	Motor				
32.1	Bracket 143-215	2683883	Cast Iron ASTMA48CL 30 F1	2683883-B	Bronze ASTMB584C87400
32.2	Bracket 143-215			2683883-SS	Stainless Steel 304
32.3	Bracket 143-215			2683883-DI	Ductile Iron 300 PSI GGG50
32.4	Bracket 143-215			2683883-CS	Cast Steel ASTMA216WCB
32.5	Bracket 254-256	2683884	Cast Iron ASTMA48CL 30 F2	2683884-B	Bronze ASTMB584C87400
32.6	Bracket 254-256			2683884-SS	Stainless Steel 304
32.7	Bracket 254-256			2683884-DI	Ductile Iron 300 PSI GGG50
32.8	Bracket 254-256			2683884-CS	Cast Steel ASTMA216WCB
32.9	Bracket 284-326	2691995	Cast Iron ASTMA48CL 30 F2	2691995-B	Bronze ASTMB584C87400
32.10	Bracket 284-326			2691995-SS	Stainless Steel 304
32.11	Bracket 284-326			2691995-DI	Ductile Iron 300 PSI GGG50
32.12	Bracket 284-326			2691995-CS	Cast Steel ASTMA216WCB
33	Motor Shaft Key		Carbon Steel - 1045		Stainless Steel 18-8 Open Designation
34.1	Impeller Washer no 1	WF1-SS	Stainless Steel 18-8 Open Designation		
34.2	Impeller Washer no 2	WF2-SS	Stainless Steel 18-8 Open Designation		
35.1	Impeller Bolt no 1	LBF1-SS	Stainless Steel 18-8 Open Designation		
35.2	Impeller Bolt no 2	LBF2-SS	Stainless Steel 18-8 Open Designation		
36	Casing Gasket	G-10P	Fiber Gasket Vellumoid		
37	Motor Bolts		Carbon Steel		
42	Drain Connection		Carbon Steel ASTMA108G10800		
43	Gauge Tappings		Steel Plugs		
*44	Complete Power Frame	LF1-143-184JM	Cast Iron ASTMA48CL 30		
*45	Complete Power Frame	LF2-254-256JM	Cast Iron ASTMA48CL 30		
46	Pump Frame Riser	LF1-STD	Cast Iron ASTMA48CL 30		
47	Pump Frame Riser	LF1-143-5	Cast Iron ASTMA48CL 30		
48	Pump Frame Riser	LF1-182-4	Cast Iron ASTMA48CL 30		
49	Pump Frame Riser	LF2-STD	Cast Iron ASTMA48CL 30		
50	Pump Frame Riser	LF2-254-6	Cast Iron ASTMA48CL 30		
51	Pump Frame Riser	LF2-284-6	Cast Iron ASTMA48CL 30		
52	Pump Frame Riser	LF2-324-6	Cast Iron ASTMA48CL 30		

RECOMMENDED SPARES PARTS SERIES 2000 MODEL 1215A - 1/2

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
1	Volute Casing	2687801	Cast Iron ASTMA48CL 30	2687801-B	Bronze ASTMB584C87400
1.1	Volute Casing			2687801-SS	Stainless Steel 304
1.2	Volute Casing			2687801-DI	Ductile Iron 300 PSI
1.3	Volute Casing			2687801-CS	Cast Steel ASTMA216WCB
*2.1	Impeller 7/8	2685582-449	Bronze ASTMB584C87400	2685582-491	Cast Iron ASTMA48CL30
*2.2	Impeller 7/8			2685582-SS	Stainless Steel 304
*2.3	Impeller 1 1/4	2685583-449	Bronze ASTMB584C87400	2685583-491	Cast Iron ASTMA48CL30
*2.4	Impeller 1 1/4			2685583-SS	Stainless Steel 304
3	Pump Shaft 1 1/8	SHAFTLF1	Stainless Steel 304		
3.1	Pump Shaft 1 1/4	SHAFTLF2	Stainless Steel 304		
*4	Casing Wearing	2655973	Bronze ASTMB584C87400	2655973-SS	Stainless Steel 18-8 Open Designation
*5.1	Shaft Sleeve 143-215	SLJM1.250B	Bronze ASTMB584C87400	SLJM1.250SS	Stainless Steel 18-8 Open Designation
*5.2	Shaft Sleeve 354-326	SLJM1.500B	Bronze ASTMB584C87400	SLJM1.500SS	Stainless Steel 18-8 Open Designation
*6.1	Mechanical Seal 143-215	011-S125-21-per	Viton/Ceramic vs Carbon w/Stainless Steel Spring	011-S125-dirt	Viton/Silicone Carbide w/Stainless Steel
*6.2	Mechanical Seal 354-326	011-S150-21-per	Viton/Ceramic vs Carbon w/Stainless Steel Spring	011-S150-dirt	Viton/Silicone Carbide w/Stainless Steel
*7.1	Ball Bearing Outboard F1	002-B62062RS			
*7.2	Ball Bearing Inboard F1	002-B62092Z-NR			
*7.3	Ball Bearing Outboard F2	002-B62072RS			
*7.4	Ball Bearing Inboard F2	002-B62082RS- NR			
8	Bearing Housing F1	01-BH01	Cast Iron ASTMA48CL 30		
8.1	Bearing Housing F2	02-BH02	Cast Iron ASTMA48CL 30		
*9	Radial Shaft Seal Ring	01-SR01	Buna N O' Ring		
11	Bearing Cover	01-BC01	Cast Iron ASTMA48CL 30		
*19.1	Half Coupling Motor Side		Depending on motor HP		
*19.2	Half Coupling Pump Side		Depending on Pump Shaft		
*19.3	Coupling Insert		Depending on Coupling Size		
*21	Gasket Bearing Housing Cover	01-GBC01	Fiber Gasket Vellumoid		
27	Air Vent Valve Plug				
28	Impeller Key		Carbon Steel ASTMA108G10800		
29	Pump Shaft Key		Carbon Steel ASTMA108G10800		

RECOMMENDED SPARES PARTS SERIES 2000 MODEL 1215A - 2/2

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
31	Motor				
32.1	Bracket 143-215	2687811	Cast Iron ASTMA48CL 30 F1	2687811-B	Bronze ASTMB584C87400
32.2	Bracket 143-215			2687811-SS	Stainless Steel 304
32.3	Bracket 143-215			2687811-DI	Ductile Iron 300 PSI GGG50
32.4	Bracket 143-215			2687811-CS	Cast Steel ASTMA216WCB
32.5	Bracket 254-256	2687812	Cast Iron ASTMA48CL 30 F2	2687812-B	Bronze ASTMB584C87400
32.6	Bracket 254-256			2687812-SS	Stainless Steel 304
32.7	Bracket 254-256			2687812-DI	Ductile Iron 300 PSI GGG50
32.8	Bracket 254-256			2687812-CS	Cast Steel ASTMA216WCB
32.9	Bracket 284-326	2687813	Cast Iron ASTMA48CL 30 F2	2687813-B	Bronze ASTMB584C87400
32.10	Bracket 284-326			2687813-SS	Stainless Steel 304
32.11	Bracket 284-326			2687813-DI	Ductile Iron 300 PSI GGG50
32.12	Bracket 284-326			2687813-CS	Cast Steel ASTMA216WCB
33	Motor Shaft Key		Carbon Steel - 1045		Stainless Steel 18-8 Open Designation
34.1	Impeller Washer no 1	WF1-SS	Stainless Steel 18-8 Open Designation		
34.2	Impeller Washer no 2	WF2-SS	Stainless Steel 18-8 Open Designation		
35.1	Impeller Bolt no 1	LBF1-SS	Stainless Steel 18-8 Open Designation		
35.2	Impeller Bolt no 2	LBF2-SS	Stainless Steel 18-8 Open Designation		
36	Casing Gasket	G-12P	Fiber Gasket Vellumoid		
37	Motor Bolts		Carbon Steel		
42	Drain Connection		Carbon Steel ASTMA108G10800		
43	Gauge Tappings		Steel Plugs		
*44	Complete Power Frame	LF1-143-184JM	Cast Iron ASTMA48CL 30		
*45	Complete Power Frame	LF2-254-256JM	Cast Iron ASTMA48CL 30		
46	Pump Frame Riser	LF1-STD	Cast Iron ASTMA48CL 30		
47	Pump Frame Riser	LF1-143-5	Cast Iron ASTMA48CL 30		
48	Pump Frame Riser	LF1-182-4	Cast Iron ASTMA48CL 30		
49	Pump Frame Riser	LF2-STD	Cast Iron ASTMA48CL 30		
50	Pump Frame Riser	LF2-254-6	Cast Iron ASTMA48CL 30		
51	Pump Frame Riser	LF2-284-6	Cast Iron ASTMA48CL 30		
52	Pump Frame Riser	LF2-324-6	Cast Iron ASTMA48CL 30		

RECOMMENDED SPARES PARTS SERIES 2000 MODEL 1220A - 1/2

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
1	Volute Casing	2687803	Cast Iron ASTMA48CL 30	2687803-B	Bronze ASTMB584C87400
1.1	Volute Casing			2687803-SS	Stainless Steel 304
1.2	Volute Casing			2687803-DI	Ductile Iron 300 PSI GGG
1.3	Volute Casing			2687803-CS	Cast Steel ASTMA216WCB
*2.1	Impeller 7/8	2685584-449	Bronze ASTMB584C87400	2685584-491	Cast Iron ASTMA48CL30
*2.2	Impeller 7/8			2685584-SS	Stainless Steel 304
*2.3	Impeller 1 1/4	2685585-449	Bronze ASTMB584C87400	2685585-491	Cast Iron ASTMA48CL30
*2.4	Impeller 1 1/4			2685585-SS	Stainless Steel 304
3	Pump Shaft 1 1/8	SHAFTLF1	Stainless Steel 304		
3.1	Pump Shaft 1 1/4	SHAFTLF2	Stainless Steel 304		
*4	Casing Wearing	2684006	Bronze ASTMB584C87400	2684006-SS	Stainless Steel 18-8 Open Designation
*5.1	Shaft Sleeve 143-215	SLJM1.250B	Bronze ASTMB584C87400	SLJM1.250SS	Stainless Steel 18-8 Open Designation
*5.2	Shaft Sleeve 354-326	SLJM1.500B	Bronze ASTMB584C87400	SLJM1.500SS	Stainless Steel 18-8 Open Designation
*6.1	Mechanical Seal 143-215	011-S125-21-per	Viton/Ceramic vs Carbon w/Stainless Steel Spring	011-S125-dirt	Viton/Silicone Carbide w/Stainless Steel
*6.2	Mechanical Seal 354-326	011-S150-21-per	Viton/Ceramic vs Carbon w/Stainless Steel Spring	011-S150-dirt	Viton/Silicone Carbide w/Stainless Steel
*7.1	Ball Bearing Outboard F1	002-B62062RS			
*7.2	Ball Bearing Inboard F1	002-B62092Z-NR			
*7.3	Ball Bearing Outboard F2	002-B62072RS			
*7.4	Ball Bearing Inboard F2	002-B62082RS-NR			
8	Bearing Housing F1	01-BH01	Cast Iron ASTMA48CL 30		
8.1	Bearing Housing F2	02-BH02	Cast Iron ASTMA48CL 30		
*9	Radial Shaft Seal Ring	01-SR01	Buna N O' Ring		
11	Bearing Cover	01-BC01	Cast Iron ASTMA48CL 30		
*19.1	Half Coupling Motor Side		Depending on motor HP		
*19.2	Half Coupling Pump Side		Depending on Pump Shaft		
*19.3	Coupling Insert		Depending on Coupling Size		
*21	Gasket Bearing Housing Cover	01-GBC01	Fiber Gasket Vellumoid		
27	Air Vent Valve Plug				
28	Impeller Key		Carbon Steel ASTMA108G10800		
29	Pump Shaft Key		Carbon Steel ASTMA108G10800		

RECOMMENDED SPARES PARTS SERIES 2000 MODEL 1220A - 2/2

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
31	Motor				
32.1	Bracket 143-215	2687811	Cast Iron ASTMA48CL 30 F1	2687811-B	Bronze ASTMB584C87400
32.2	Bracket 143-215			2687811-SS	Stainless Steel 304
32.3	Bracket 143-215			2687811-DI	Ductile Iron 300 PSI GGG50
32.4	Bracket 143-215			2687811-CS	Cast Steel ASTMA216WCB
32.5	Bracket 254-256	2687812	Cast Iron ASTMA48CL 30 F2	2687812-B	Bronze ASTMB584C87400
32.6	Bracket 254-256			2687812-SS	Stainless Steel 304
32.7	Bracket 254-256			2687812-DI	Ductile Iron 300 PSI GGG50
32.8	Bracket 254-256			2687812-CS	Cast Steel ASTMA216WCB
32.9	Bracket 284-326	2687813	Cast Iron ASTMA48CL 30 F2	2687813-B	Bronze ASTMB584C87400
32.10	Bracket 284-326			2687813-SS	Stainless Steel 304
32.11	Bracket 284-326			2687813-DI	Ductile Iron 300 PSI GGG50
32.12	Bracket 284-326			2687813-CS	Cast Steel ASTMA216WCB
33	Motor Shaft Key		Carbon Steel - 1045		Stainless Steel 18-8 Open Designation
34.1	Impeller Washer no 1	WF1-SS	Stainless Steel 18-8 Open Designation		
34.2	Impeller Washer no 2	WF2-SS	Stainless Steel 18-8 Open Designation		
35.1	Impeller Bolt no 1	LBF1-SS	Stainless Steel 18-8 Open Designation		
35.2	Impeller Bolt no 2	LBF2-SS	Stainless Steel 18-8 Open Designation		
36	Casing Gasket	G-12P	Fiber Gasket Vellumoid		
37	Motor Bolts		Carbon Steel		
42	Drain Connection		Carbon Steel ASTMA108G10800		
43	Gauge Tappings		Steel Plugs		
*44	Complete Power Frame	LF1-143-184JM	Cast Iron ASTMA48CL 30		
*45	Complete Power Frame	LF2-254-256JM	Cast Iron ASTMA48CL 30		
46	Pump Frame Riser	LF1-STD	Cast Iron ASTMA48CL 30		
47	Pump Frame Riser	LF1-143-5	Cast Iron ASTMA48CL 30		
48	Pump Frame Riser	LF1-182-4	Cast Iron ASTMA48CL 30		
49	Pump Frame Riser	LF2-STD	Cast Iron ASTMA48CL 30		
50	Pump Frame Riser	LF2-254-6	Cast Iron ASTMA48CL 30		
51	Pump Frame Riser	LF2-284-6	Cast Iron ASTMA48CL 30		
52	Pump Frame Riser	LF2-324-6	Cast Iron ASTMA48CL 30		

RECOMMENDED SPARES PARTS SERIES 2000 MODEL 1230A - 1/2

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
1	Volute Casing	2687805	Cast Iron ASTMA48CL 30	2687805-B	Bronze ASTMB584C87400
1.1	Volute Casing			2687805-SS	Stainless Steel 304
1.2	Volute Casing			2687805-DI	Ductile Iron 300 PSI GGG
1.3	Volute Casing			2687805-CS	Cast Steel ASTMA216WCB
*2.1	Impeller 7/8	2685580-449	Bronze ASTMB584C87400	2685580-491	Cast Iron ASTMA48CL30
*2.2	Impeller 7/8			2685580-SS	Stainless Steel 304
3	Pump Shaft 1 1/8	SHAFTLF1	Stainless Steel 304		
3.1	Pump Shaft 1 1/4	SHAFTLF2	Stainless Steel 304		
*4	Casing Wearing	2691669	Bronze ASTMB584C87400	2691669-SS	Stainless Steel 18-8 Open Designation
*5.1	Shaft Sleeve 354-326	SLJM1.500B	Bronze ASTMB584C87400	SLJM1.500SS	Stainless Steel 18-8 Open Designation
*6.1	Mechanical Seal 354-326	011-S150-21-per	Viton/Ceramic vs Carbon w/Stainless Steel Spring	011-S150-dirt	Viton/Silicone Carbide w/Stainless Steel
*7.1	Ball Bearing Outboard F1	002-B62062RS			
*7.2	Ball Bearing Inboard F1	002-B62092Z-NR			
*7.3	Ball Bearing Outboard F2	002-B62072RS			
*7.4	Ball Bearing Inboard F2	002-B62082RS-NR			
8	Bearing Housing F1	01-BH01	Cast Iron ASTMA48CL 30		
8.1	Bearing Housing F2	02-BH02	Cast Iron ASTMA48CL 30		
*9	Radial Shaft Seal Ring	01-SR01	Buna N O' Ring		
11	Bearing Cover	01-BC01	Cast Iron ASTMA48CL 30		
*19.1	Half Coupling Motor Side		Depending on motor HP		
*19.2	Half Coupling Pump Side		Depending on Pump Shaft		
*19.3	Coupling Insert		Depending on Coupling Size		
*21	Gasket Bearing Housing Cover	01-GBC01	Fiber Gasket Vellumoid		
27	Air Vent Valve Plug				
28	Impeller Key		Carbon Steel ASTMA108G10800		
29	Pump Shaft Key		Carbon Steel ASTMA108G10800		

RECOMMENDED SPARES PARTS SERIES 2000 MODEL 1230A - 2/2

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
31	Motor				
32.1	Bracket 143-215	2687811	Cast Iron ASTMA48CL 30 F1	2687811-B	Bronze ASTMB584C87400
32.2	Bracket 143-215			2687811-SS	Stainless Steel 304
32.3	Bracket 143-215			2687811-DI	Ductile Iron 300 PSI GGG50
32.4	Bracket 143-215			2687811-CS	Cast Steel ASTMA216WCB
32.5	Bracket 254-256	2687812	Cast Iron ASTMA48CL 30 F2	2687812-B	Bronze ASTMB584C87400
32.6	Bracket 254-256			2687812-SS	Stainless Steel 304
32.7	Bracket 254-256			2687812-DI	Ductile Iron 300 PSI GGG50
32.8	Bracket 254-256			2687812-CS	Cast Steel ASTMA216WCB
32.9	Bracket 284-326	2687813	Cast Iron ASTMA48CL 30 F2	2687813-B	Bronze ASTMB584C87400
32.10	Bracket 284-326			2687813-SS	Stainless Steel 304
32.11	Bracket 284-326			2687813-DI	Ductile Iron 300 PSI GGG50
32.12	Bracket 284-326			2687813-CS	Cast Steel ASTMA216WCB
33	Motor Shaft Key		Carbon Steel - 1045		Stainless Steel 18-8 Open Designation
34.1	Impeller Washer no 1	WF1-SS	Stainless Steel 18-8 Open Designation		
34.2	Impeller Washer no 2	WF2-SS	Stainless Steel 18-8 Open Designation		
35.1	Impeller Bolt no 1	LBF1-SS	Stainless Steel 18-8 Open Designation		
35.2	Impeller Bolt no 2	LBF2-SS	Stainless Steel 18-8 Open Designation		
36	Casing Gasket	G-12P	Fiber Gasket Vellumoid		
37	Motor Bolts		Carbon Steel		
42	Drain Connection		Carbon Steel ASTMA108G10800		
43	Gauge Tappings		Steel Plugs		
*44	Complete Power Frame	LF1-143-184JM	Cast Iron ASTMA48CL 30		
*45	Complete Power Frame	LF2-254-256JM	Cast Iron ASTMA48CL 30		
46	Pump Frame Riser	LF1-STD	Cast Iron ASTMA48CL 30		
47	Pump Frame Riser	LF1-143-5	Cast Iron ASTMA48CL 30		
48	Pump Frame Riser	LF1-182-4	Cast Iron ASTMA48CL 30		
49	Pump Frame Riser	LF2-STD	Cast Iron ASTMA48CL 30		
50	Pump Frame Riser	LF2-254-6	Cast Iron ASTMA48CL 30		
51	Pump Frame Riser	LF2-284-6	Cast Iron ASTMA48CL 30		
52	Pump Frame Riser	LF2-324-6	Cast Iron ASTMA48CL 30		

RECOMMENDED SPARES PARTS SERIES 2000 MODEL 1240A - 1/2

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
1	Volute Casing	2687806	Cast Iron ASTMA48CL 30	2687806-B	Bronze ASTMB584C87400
1.1	Volute Casing			2687806-SS	Stainless Steel 304
1.2	Volute Casing			2687806-01	Ductile Iron 300 PSI GGG
1.3	Volute Casing			2687806-CS	Cast Steel ASTMA216WCB
*2.1	Impeller 7/8	2685586-449	Bronze ASTMB584C87400	2685586-491	Cast Iron ASTMA48CL30
*2.2	Impeller 7/8			2685586-SS	Stainless Steel 304
3	Pump Shaft 1 1/8	SHAFTLF1	Stainless Steel 304		
3.1	Pump Shaft 1 1/4	SHAFTLF2	Stainless Steel 304		
*4	Casing Wearing	2691670	Bronze ASTMB584C87400	2691670-SS	Stainless Steel 18-8 Open Designation
*5.1	Shaft Sleeve 354-326	SLJM1.500B	Bronze ASTMB584C87400	SLJM1.500SS	Stainless Steel 18-8 Open Designation
*6.1	Mechanical Seal 354-326	011-S150-21-per	Viton/Ceramic vs Carbon w/Stainless Steel Spring	011-S150-dirt	Viton/Silicone Carbide w/Stainless Steel
*7.1	Ball Bearing Outboard F1	002-B62062RS			
*7.2	Ball Bearing Inboard F1	002-B62092Z-NR			
*7.3	Ball Bearing Outboard F2	002-B62072RS			
*7.4	Ball Bearing Inboard F2	002-B62082RS-NR			
8	Bearing Housing F1	01-BH01	Cast Iron ASTMA48CL 30		
8.1	Bearing Housing F2	02-BH02	Cast Iron ASTMA48CL 30		
*9	Radial Shaft Seal Ring	01-SR01	Buna N O' Ring		
11	Bearing Cover	01-BC01	Cast Iron ASTMA48CL 30		
*19.1	Half Coupling Motor Side		Depending on motor HP		
*19.2	Half Coupling Pump Side		Depending on Pump Shaft		
*19.3	Coupling Insert		Depending on Coupling Size		
*21	Gasket Bearing Housing Cover	01-GBC01	Fiber Gasket Vellumoid		
27	Air Vent Valve Plug				
28	Impeller Key		Carbon Steel ASTMA108G10800		
29	Pump Shaft Key		Carbon Steel ASTMA108G10800		

RECOMMENDED SPARES PARTS SERIES 2000 MODEL 1240A - 2/2

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
31	Motor				
32.1	Bracket 143-215	2687811	Cast Iron ASTMA48CL 30 F1	2687811-B	Bronze ASTMB584C87400
32.2	Bracket 143-215			2687811-SS	Stainless Steel 304
32.3	Bracket 143-215			2687811-DI	Ductile Iron 300 PSI GGG50
32.4	Bracket 143-215			2687811-CS	Cast Steel ASTMA216WCB
32.5	Bracket 254-256	2687812	Cast Iron ASTMA48CL 30 F2	2687812-B	Bronze ASTMB584C87400
32.6	Bracket 254-256			2687812-SS	Stainless Steel 304
32.7	Bracket 254-256			2687812-DI	Ductile Iron 300 PSI GGG50
32.8	Bracket 254-256			2687812-CS	Cast Steel ASTMA216WCB
32.9	Bracket 284-326	2687813	Cast Iron ASTMA48CL 30 F2	2687813-B	Bronze ASTMB584C87400
32.10	Bracket 284-326			2687813-SS	Stainless Steel 304
32.11	Bracket 284-326			2687813-DI	Ductile Iron 300 PSI GGG50
32.12	Bracket 284-326			2687813-CS	Cast Steel ASTMA216WCB
33	Motor Shaft Key		Carbon Steel - 1045		Stainless Steel 18-8 Open Designation
34.1	Impeller Washer no 1	WF1-SS	Stainless Steel 18-8 Open Designation		
34.2	Impeller Washer no 2	WF2-SS	Stainless Steel 18-8 Open Designation		
35.1	Impeller Bolt no 1	LBF1-SS	Stainless Steel 18-8 Open Designation		
35.2	Impeller Bolt no 2	LBF2-SS	Stainless Steel 18-8 Open Designation		
36	Casing Gasket	G-12P	Fiber Gasket Vellumoid		
37	Motor Bolts		Carbon Steel		
42	Drain Connection		Carbon Steel ASTMA108G10800		
43	Gauge Tappings		Steel Plugs		
*44	Complete Power Frame	LF1-143-184JM	Cast Iron ASTMA48CL 30		
*45	Complete Power Frame	LF2-254-256JM	Cast Iron ASTMA48CL 30		
46	Pump Frame Riser	LF1-STD	Cast Iron ASTMA48CL 30		
47	Pump Frame Riser	LF1-143-5	Cast Iron ASTMA48CL 30		
48	Pump Frame Riser	LF1-182-4	Cast Iron ASTMA48CL 30		
49	Pump Frame Riser	LF2-STD	Cast Iron ASTMA48CL 30		
50	Pump Frame Riser	LF2-254-6	Cast Iron ASTMA48CL 30		
51	Pump Frame Riser	LF2-284-6	Cast Iron ASTMA48CL 30		
52	Pump Frame Riser	LF2-324-6	Cast Iron ASTMA48CL 30		

RECOMMENDED SPARES PARTS SERIES 2000 MODEL 1250A - 1/2

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
1	Volute Casing	2687807	Cast Iron ASTMA48CL 30	2687807-B	Bronze ASTMB584C87400
1.1	Volute Casing			2687807-SS	Stainless Steel 304
1.2	Volute Casing			2687807-DI	Ductile Iron 300 PSI GGG
1.3	Volute Casing			2687807-CS	Cast Steel ASTMA216WCB
*2.1	Impeller 7/8	2685593-449	Bronze ASTMB584C87400	2685593-491	Cast Iron ASTMA48CL30
*2.2	Impeller 7/8			2685593-SS	Stainless Steel 304
3	Pump Shaft 1 1/8	SHAFTLF1	Stainless Steel 304		
3.1	Pump Shaft 1 1/4	SHAFTLF2	Stainless Steel 304		
*4	Casing Wearing	2691671-1	Bronze ASTMB584C87400	2691671-SS	Stainless Steel 18-8 Open Designation
*5.1	Shaft Sleeve 354-326	SLJM1.500B	Bronze ASTMB584C87400	SLJM1.500SS	Stainless Steel 18-8 Open Designation
*6.1	Mechanical Seal 354-326	011-S150-21-per	Viton/Ceramic vs Carbon w/Stainless Steel Spring	011-S150-dirt	Viton/Silicone Carbide w/Stainless Steel
*7.1	Ball Bearing Outboard F1	002-B62062RS			
*7.2	Ball Bearing Inboard F1	002-B62092Z-NR			
*7.3	Ball Bearing Outboard F2	002-B62072RS			
*7.4	Ball Bearing Inboard F2	002-B62082RS-NR			
8	Bearing Housing F1	01-BH01	Cast Iron ASTMA48CL 30		
8.1	Bearing Housing F2	02-BH02	Cast Iron ASTMA48CL 30		
*9	Radial Shaft Seal Ring	01-SR01	Buna N O' Ring		
11	Bearing Cover	01-BC01	Cast Iron ASTMA48CL 30		
*19.1	Half Coupling Motor Side		Depending on motor HP		
*19.2	Half Coupling Pump Side		Depending on Pump Shaft		
*19.3	Coupling Insert		Depending on Coupling Size		
*21	Gasket Bearing Housing Cover	01-GBC01	Fiber Gasket Vellumoid		
27	Air Vent Valve Plug				
28	Impeller Key		Carbon Steel ASTMA108G10800		
29	Pump Shaft Key		Carbon Steel ASTMA108G10800		

RECOMMENDED SPARES PARTS SERIES 2000 MODEL 1250A - 2/2

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
31	Motor				
32.1	Bracket 143-215	2687811	Cast Iron ASTMA48CL 30 F1	2687811-B	Bronze ASTMB584C87400
32.2	Bracket 143-215			2687811-SS	Stainless Steel 304
32.3	Bracket 143-215			2687811-DI	Ductile Iron 300 PSI GGG50
32.4	Bracket 143-215			2687811-CS	Cast Steel ASTMA216WCB
32.5	Bracket 254-256	2687812	Cast Iron ASTMA48CL 30 F2	2687812-B	Bronze ASTMB584C87400
32.6	Bracket 254-256			2687812-SS	Stainless Steel 304
32.7	Bracket 254-256			2687812-DI	Ductile Iron 300 PSI GGG50
32.8	Bracket 254-256			2687812-CS	Cast Steel ASTMA216WCB
32.9	Bracket 284-326	2687813	Cast Iron ASTMA48CL 30 F2	2687813-B	Bronze ASTMB584C87400
32.10	Bracket 284-326			2687813-SS	Stainless Steel 304
32.11	Bracket 284-326			2687813-DI	Ductile Iron 300 PSI GGG50
32.12	Bracket 284-326			2687813-CS	Cast Steel ASTMA216WCB
33	Motor Shaft Key		Carbon Steel - 1045		Stainless Steel 18-8 Open Designation
34.1	Impeller Washer no 1	WF1-SS	Stainless Steel 18-8 Open Designation		
34.2	Impeller Washer no 2	WF2-SS	Stainless Steel 18-8 Open Designation		
35.1	Impeller Bolt no 1	LBF1-SS	Stainless Steel 18-8 Open Designation		
35.2	Impeller Bolt no 2	LBF2-SS	Stainless Steel 18-8 Open Designation		
36	Casing Gasket	G-12P	Fiber Gasket Vellumoid		
37	Motor Bolts		Carbon Steel		
42	Drain Connection		Carbon Steel ASTMA108G10800		
43	Gauge Tappings		Steel Plugs		
*44	Complete Power Frame	LF1-143-184JM	Cast Iron ASTMA48CL 30		
*45	Complete Power Frame	LF2-254-256JM	Cast Iron ASTMA48CL 30		
46	Pump Frame Riser	LF1-STD	Cast Iron ASTMA48CL 30		
47	Pump Frame Riser	LF1-143-5	Cast Iron ASTMA48CL 30		
48	Pump Frame Riser	LF1-182-4	Cast Iron ASTMA48CL 30		
49	Pump Frame Riser	LF2-STD	Cast Iron ASTMA48CL 30		
50	Pump Frame Riser	LF2-254-6	Cast Iron ASTMA48CL 30		
51	Pump Frame Riser	LF2-284-6	Cast Iron ASTMA48CL 30		
52	Pump Frame Riser	LF2-324-6	Cast Iron ASTMA48CL 30		

RECOMMENDED SPARES PARTS SERIES 2000 MODEL 1260A - 1/2

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
1	Volute Casing		Cast Iron ASTMA48CL 30		Bronze ASTMB584C87400
1.1	Volute Casing				Stainless Steel 304
1.2	Volute Casing				Ductile Iron 300 PSI GGG
1.3	Volute Casing				Cast Steel ASTMA216WCB
*2.1	Impeller 7/8	2685593-449	Bronze ASTMB584C87400		Cast Iron ASTMA48CL30
*2.2	Impeller 7/8				Stainless Steel 304
3	Pump Shaft 1 1/8	SHAFTLF1	Stainless Steel 304		
3.1	Pump Shaft 1 1/4	SHAFTLF2	Stainless Steel 304		
*4	Casing Wearing	2691670	Bronze ASTMB584C87400	2691670-SS	Stainless Steel 18-8 Open Designation
*5.1	Shaft Sleeve 354-326	SLJM1.500B	Bronze ASTMB584C87400	SLJM1.500SS	Stainless Steel 18-8 Open Designation
*6.1	Mechanical Seal 354-326	011-S150-21-per	Viton/Ceramic vs Carbon w/Stainless Steel Spring	011-S150-dirt	Viton/Silicone Carbide w/Stainless Steel
*7.1	Ball Bearing Outboard F1	002-B62062RS			
*7.2	Ball Bearing Inboard F1	002-B62092Z-NR			
*7.3	Ball Bearing Outboard F2	002-B62072RS			
*7.4	Ball Bearing Inboard F2	002-B62082RS-NR			
8	Bearing Housing F1	01-BH01	Cast Iron ASTMA48CL 30		
8.1	Bearing Housing F2	02-BH02	Cast Iron ASTMA48CL 30		
*9	Radial Shaft Seal Ring	01-SR01	Buna N O' Ring		
11	Bearing Cover	01-BC01	Cast Iron ASTMA48CL 30		
*19.1	Half Coupling Motor Side		Depending on motor HP		
*19.2	Half Coupling Pump Side		Depending on Pump Shaft		
*19.3	Coupling Insert		Depending on Coupling Size		
*21	Gasket Bearing Housing Cover	01-GBC01	Fiber Gasket Vellumoid		
27	Air Vent Valve Plug				
28	Impeller Key		Carbon Steel ASTMA108G10800		
29	Pump Shaft Key		Carbon Steel ASTMA108G10800		

RECOMMENDED SPARES PARTS SERIES 2000 MODEL 1260A - 2/2

NO	PART NAME	PART NUMBER	STANDARD MATERIAL	PART NUMBER	OPTIONAL MATERIAL
31	Motor				
32.1	Bracket 143-215	2687811	Cast Iron ASTMA48CL 30 F1	2687811-B	Bronze ASTMB584C87400
32.2	Bracket 143-215			2687811-SS	Stainless Steel 304
32.3	Bracket 143-215			2687811-DI	Ductile Iron 300 PSI GGG50
32.4	Bracket 143-215			2687811-CS	Cast Steel ASTMA216WCB
32.5	Bracket 254-256	2687812	Cast Iron ASTMA48CL 30 F2	2687812-B	Bronze ASTMB584C87400
32.6	Bracket 254-256			2687812-SS	Stainless Steel 304
32.7	Bracket 254-256			2687812-DI	Ductile Iron 300 PSI GGG50
32.8	Bracket 254-256			2687812-CS	Cast Steel ASTMA216WCB
32.9	Bracket 284-326	2687813	Cast Iron ASTMA48CL 30 F2	2687813-B	Bronze ASTMB584C87400
32.10	Bracket 284-326			2687813-SS	Stainless Steel 304
32.11	Bracket 284-326			2687813-DI	Ductile Iron 300 PSI GGG50
32.12	Bracket 284-326			2687813-CS	Cast Steel ASTMA216WCB
33	Motor Shaft Key		Carbon Steel - 1045		Stainless Steel 18-8 Open Designation
34.1	Impeller Washer no 1	WF1-SS	Stainless Steel 18-8 Open Designation		
34.2	Impeller Washer no 2	WF2-SS	Stainless Steel 18-8 Open Designation		
35.1	Impeller Bolt no 1	LBF1-SS	Stainless Steel 18-8 Open Designation		
35.2	Impeller Bolt no 2	LBF2-SS	Stainless Steel 18-8 Open Designation		
36	Casing Gasket	G-12P	Fiber Gasket Vellumoid		
37	Motor Bolts		Carbon Steel		
42	Drain Connection		Carbon Steel ASTMA108G10800		
43	Gauge Tappings		Steel Plugs		
*44	Complete Power Frame	LF1-143-184JM	Cast Iron ASTMA48CL 30		
*45	Complete Power Frame	LF2-254-256JM	Cast Iron ASTMA48CL 30		
46	Pump Frame Riser	LF1-STD	Cast Iron ASTMA48CL 30		
47	Pump Frame Riser	LF1-143-5	Cast Iron ASTMA48CL 30		
48	Pump Frame Riser	LF1-182-4	Cast Iron ASTMA48CL 30		
49	Pump Frame Riser	LF2-STD	Cast Iron ASTMA48CL 30		
50	Pump Frame Riser	LF2-254-6	Cast Iron ASTMA48CL 30		
51	Pump Frame Riser	LF2-284-6	Cast Iron ASTMA48CL 30		
52	Pump Frame Riser	LF2-324-6	Cast Iron ASTMA48CL 30		

