INSTALLATION, OPERATION & MAINTENANCE MANUAL

XP-KZN SERIES
EXPLOSION PROOF SUBMERSIBLE
SLURRY PUMPS

(CLASS 1, DIVISION 1, GROUPS C&D):

Three Phase
230V, 460V & 575V

CAST IRON
THREE PHASE

XP-KZN37
XP-KZN55
XP-KZN55CH
XP-KZN75

Read this manual carefully before installing, operating or servicing these pump models. Observe all safety information. Failure to comply with instructions may result in personal injury and/or property damage. Please retain these instructions.

Version 7/01/17

BJMPumps

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INTRODUCTION

This Installation, Operation and Maintenance manual provides important information on safety and the proper inspection, disassembly, reassembly and testing of the BJM Pumps® XP-KZN Series submersible pump. This manual also contains information to optimize performance and longevity of your **BJM Pumps®** submersible pump.

The submersible XP-KZN Series pumps are designed to pump water and water based slurries between 0°F(0°C) and 104°F(40°C). The XP-KZN Series are designed to meet the FM and CSA Class 1, Division 1 Group C & D. Requirements for submersible pumps, and can be applied to areas classified for these locations.

Note: Consult chemical resistance chart for compatibility between pump materials and liquid before operating pump.

If you have any questions regarding the inspection, disassembly, assembly or testing please contact your **BJM Pumps®** distributor, or Industrial Flow Solutions Operating, LLC

Industrial Flow Solutions Operating, LLC
104 John W Murphy Drive
New Haven, CT 06513, USA

Fax: 860-399-7784
Phone: 860-399-5937

Information, including pump data sheets and performance curves, is also available on our web site: www.flowsolutions.com

For assistance with your electric power source, please contact a certified electrician.

Please pay attention to the following alert notifications. They are used to notify operators and maintenance personnel to pay special attention to procedures, to avoid causing damage to the equipment, and to avoid situations that could be dangerous to personnel.
NOTE: Instructions to aid in installation, operation, and maintenance or which clarify a procedure.

⚠ DANGER Immediate hazards that WILL result in severe personal injury or death. These instructions describe the procedure required and the injury which will result from failure to follow the procedure.

⚠WARNING Hazards or unsafe practices that COULD result in severe personal injury or death. These instructions describe the procedure required, and the injury which could result from failure to follow the procedure.

⚠ CAUTION Hazards or unsafe practices which COULD result in personal injury or product or property damage. These instructions describe the procedure required and the possible damage which could result from failure to follow the procedure.

SAFETY

Pump installations are seldom identical. Each installation and application can vary due to many different factors. It is the owner/service mechanics responsibility to repair, service, and test to ensure that the pump integrity is not compromised according to this manual.

⚠ WARNING Risk of electric shock – this pump has not been investigated for use in swimming pool areas.

⚠ WARNING Before attempting to open or service the pump:

1) Familiarize yourself with this manual.
2) Unplug or disconnect the pump power cable to ensure that the pump will remain inoperative.
3) Allow the pump to cool if overheated.

⚠ WARNING Do not operate the pump with a worn or damaged electric power cable. Death or serious injury could occur.

⚠ WARNING Never attempt to alter the length or repair any power cable with a splice. The pump motor and pump motor and cable must be completely waterproof. Damage to the pump or personal injury may result from alterations.

⚠ WARNING After the pump has been installed, make sure that the pump and all piping are secure before operation.

⚠ WARNING Do not lift the pump by the power cable piping or discharge hose. Attach proper lifting equipment to the lifting handle (or lifting rings) fitted to the pump. Do not suspend the pump by the power cable.

⚠ WARNING Obtain the services of a qualified electrician to troubleshoot, test and/or service the electrical components of this pump.

⚠ CAUTION Pumps and related equipment must be installed and operated according to all national, local and industry standards and codes.

INSPECTION

Review all safety information before servicing pump.

The following are recommended installation practices/procedures for the pump. If there are questions in regards to your specific application, contact your local **BJM Pumps®** distributor or Industrial Flow Solutions Operating, LLC.

PRE-INSTALLATION INSPECTION

1) Check the pump for damage that may have occurred during shipment.
2) Inspect the pump for any cracks, dents, damaged threads, etc.
3) Check power cable (and seal minder cable, if installed) for any cuts or damage.
4) Check for, and tighten any hardware that appears loose.
5) Carefully read all tags, decals and markings on the pump.
6) **Important**: Always verify that the pump nameplate, amps, voltage, phase, and HP ratings match your control panel and power supply.

Warranty does not cover damage caused by connecting pumps and controls to an incorrect power source (voltage/phase supply. Record the model numbers and serial numbers from the pumps and control panel on the front of this instruction manual for future reference. Give it to the owner or affix it to the control panel when finished with the installation.

If anything appears to be abnormal, contact your **BJM Pumps®** distributor or Industrial Flow Solutions Operating, LLC. If damaged, the pump may need to be repaired before use. Do not install or use the pump until appropriate action has been taken.

Lubrication:

No additional lubrication is necessary. The shaft seal and bearings are fully lubricated from the factory. Seal oil should be checked once per year. See table below.

OIL FILL QUANTITY/TYPE

	Qty. oil in seal chamber		
Models	**U.S. fl. oz.**	**C.C.**	**Type of oil**
XP-KZN37, 55, 55CH, 75	49	1450	ISO 32, NSF Approved, mineral based oil

PUMP INSTALLATION

XP-KZN Series pumps have been evaluated for use with water or water based solutions. Please contact the manufacturer for additional information.

⚠WARNING **Risk of electric shock.** XP-KZN Series pump models do not come with electric plug connectors. To reduce the risk of electric shock, be certain that it is connected only to a properly grounded, grounding-type receptacle.

Lifting:

Attach a lifting chain (not included) to the handle (or lifting rings) on the top of the pump.

⚠ CAUTION Do not lift the pump by the power cable or discharge hose/piping. Proper lifting equipment (chain must be used.

POSITIONING THE PUMP

BJM Pumps® XP-KZN Series pumps are designed to operate fully or partially submerged. Do not run pump dry. Refer to data sheet for minimum submersion depth for your particular model. Data sheets can be obtained online at www.flowsolutionscom

or by calling Industrial Flow Solutions Operating, LLC at 860-399-5937. As a general rule, XP-KZN Series top discharge pumps can pump down to a level above the suction screen. Pumping lower than screen will permit air to enter the pump and cavitate, lose prime or become air bound.

WIRING INSTRUCTIONS

Electrical wiring and protection must be in accordance with the National Electrical Code per NEC articles 500 through 503 for installation in Class I, Division 1, Group C & D Hazardous Locations, and any other applicable state and local electrical requirements.

Note: All service work on the FM approved motor by BJM Pumps® needs to be done by an FM Approved repair facility.

The XP-KZN Series motors have a separate sensor cable for the motor thermal sensors and Seal Minder®
See Seal Minder® - Thermal Motor Sensor Switch section in this manual for proper connection method

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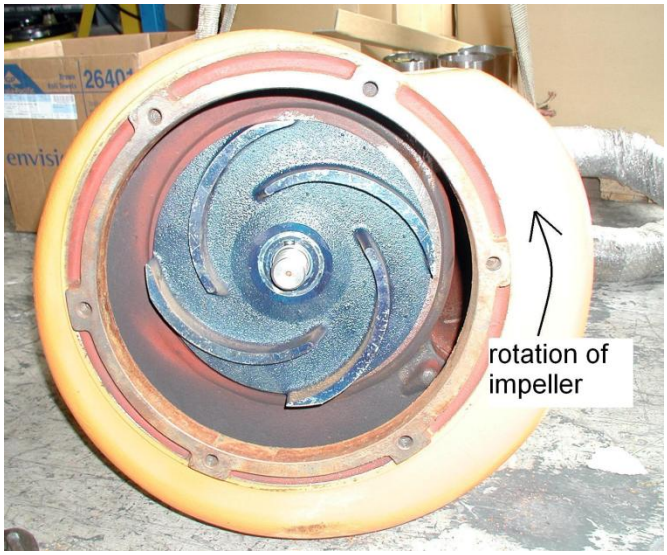
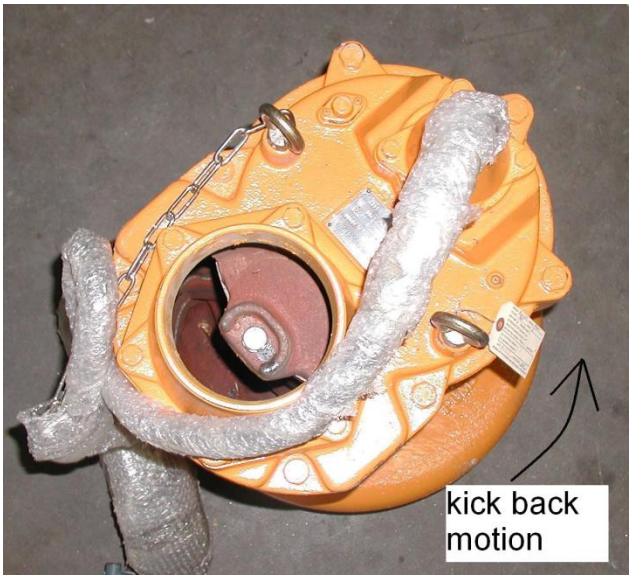
PUMP ROTATION

Two ways to check the correct pump rotation:

1. By looking at the impeller; the rotation of the impeller should be counter clockwise as shown in the picture below.



2. By looking from the top of the pump. Since the impeller cannot be seen, the best way to check the rotation is to check the kick back motion of the pump when the pump just starts. The kick back motion of the pump should be counter clockwise as shown in the picture below.



PUMP OPERATION

⚠ WARNING This pump is designed to handle dirty water and slurries that contains some solids. Do not attempt to pump any liquids which may damage the pump or endanger personnel as a result of pump failure.

⚠ DANGER **This pump is designed to operate in approved class 1, division 1, group C & D locations. Do not operate this pump in non approved locations. Death or Serious injury will result.**

TYPICAL MANUAL DEWATERING INSTALLATION

NOTE: Maximum recommended starts should not exceed 10 times per hour.

MANUAL OPERATION

All XP-KZN models are provided with a 50' (10m) power cord. NEVER splice the power cable due to safety and warranty considerations. Always keep the control connection end of cable dry.

Note: Three phase units do not have a plug and are to be wired into an approved control box/panel as specified by hazard zone.

⚠ WARNING Do not alter the length or repair any power cable with a splice. The pump motor and cable must be completely waterproof. Damage to the pump or personal injury may result from alterations.

For manual operation: Connect directly to an NEC approved control box. Check the direction of the rotation. Tilt the pump and start it. It should twist in the opposite direction of the arrow (on pump). It is recommended that a Ground Fault Interrupter (GFI) type circuit (or equivalent) be used.

STOPPING

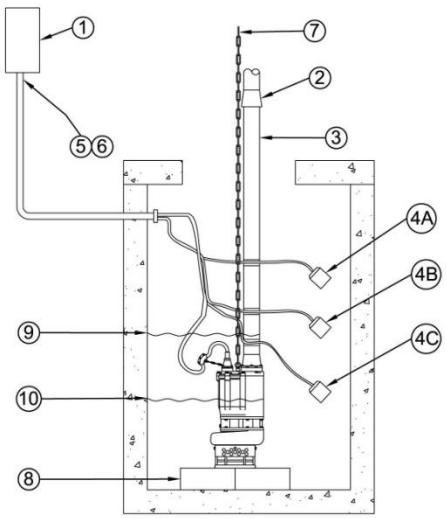
To stop the pump (manual and automatic model), turn off the breaker or the power disconnect.

TYPICAL AUTOMATIC DEWATERING INSTALLATION

NOTE: Maximum recommended starts should not exceed 10 times per hour.

The XP-KZN Series are three phase pumps and need a separate control box with float(s) for automatic operation.

TYPICAL XP-KZN PUMP INSTALLATION WITH AUTOMATIC CONTROL PANEL AND FLOATS



1) Electrical wiring and protection must be in accordance with National Electrical Code in U.S.A. or Canadian Electrical Code in Canada and state / provincial and local electrical codes.

2) Optional (approx. 50' / 15 meters) : If pumping in a small confined space at high head, it may be beneficial to install a check valve 3' (1 meter) above the discharge of the pump. This will help eliminate backflow and unnecessary running of the pump. For best results use a section of PVC.

3) PVC pipe or rigid hose recommended. Collapsible vinyl hose will work but not as efficiently.

4) Attach float to discharge pipe or sump wall. Never place the float lower than the top of the strainer inlet.

- **4A** - alarm float (Optional - Separate Control).
- **4B** - turn on.
- **4C** - turn off.

5) All electrical connections must be kept dry.

6) Wire pump and floats to control panel.

7) Always lower the pump by a separate chain. Never lift or lower the pump by the power cord, piggy-back cord or discharge hose.

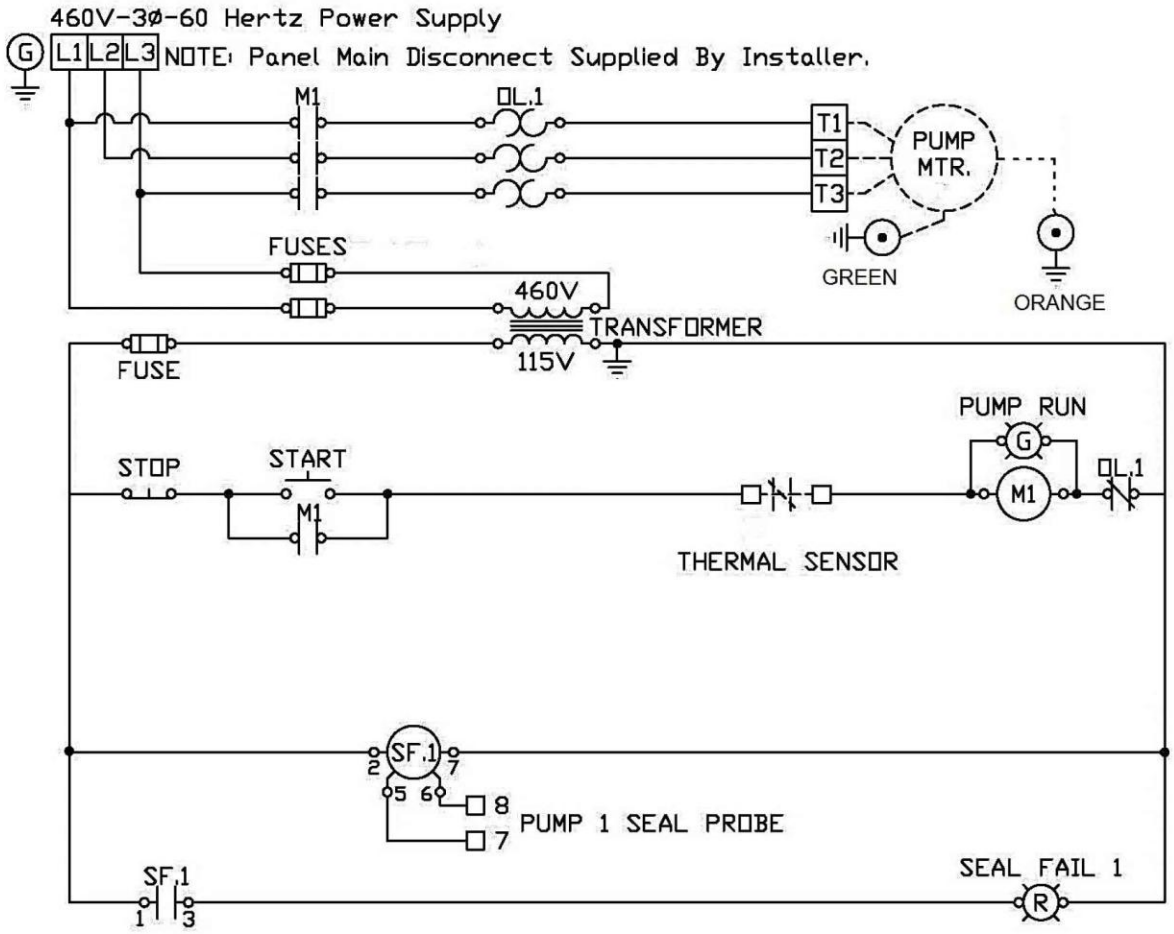
8) For best results, place the pump on a solid object. This will keep the pump from digging itself into silt, sand and mud.

9) Recommended submergence level.

10) Minimum submergence level.

STOPPING

To stop the pump (manual and automatic mode), turn off the breaker or the power disconnect.



Typical three phase manual control with seal minder & thermal sensor connection.

Typical 3 phase manual control

INTENDED METHODS OF CONNECTION

⚠ CAUTION Use with approved electrical control specified for the hazard location and that motor control that matches motor input in full load amperes. “UTILLISER UN DÉMARREAR APPROUVÉ CONVENANT AU COURANT Á PLEINE CHARGE DU MOTEUR.”

BJM Pumps submersible pumps have been evaluated for use with water or water based solutions. Please contact the manufacturer for additional information.

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THREE PHASE WIRING INSTRUCTION

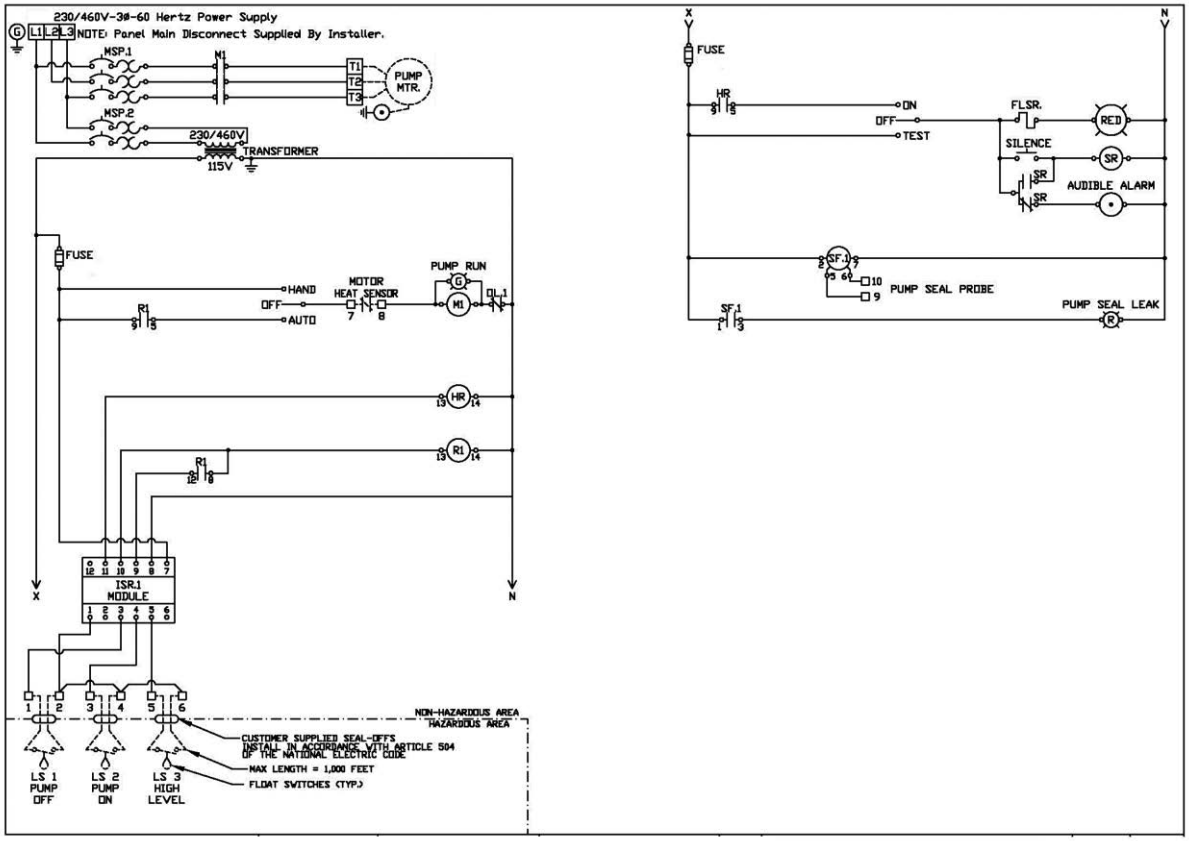
⚠WARNING **FOR YOUR PROTECTION, ALWAYS DISCONNECT PUMP FROM ITS POWER SOURCE BEFORE HANDLING.**

⚠WARNING **"Risk of electrical shock"** Do not remove power supply cord and strain relief or connect conduit directly to the pump.

⚠WARNING Installation and checking of electrical circuits and hardware should be performed by a qualified licensed electrician.

To operate a manual three phase pump, a properly approved electrical control specified for the hazard location is required.

For automatic three phase pumps a properly approved electrical control specified for the hazard location is required.



Typical three phase auto control with intrinsically safe relay(ISR) module and with seal minder & thermal sensor connection.

Typical 3 phase Auto Control

Before installing a pump, make sure both of the ground leads and the power leads have been connected properly per NEC hazard zone code requirements. Once the power connections have been confirmed, then check the pump rotation. Momentarily energize the pump, observing the directions of kick back due to starting torque. Rotation is correct if kick back is in the opposite direction of the arrow on the pump casing. If rotation is not correct, switching of any two power leads (other than ground) will provide the proper rotation.

Three phase pumps have integral motor motor winding thermal sensors that are wired with start control circuit. It is recommended that all three phase pumps using a motor starting device also incorporate motor overload protection. Pumps **must** be installed in accordance with the NEC hazard location code requirements and the National Electrical Code requirements as well as all applicable local codes and ordinances. The XP-KZN Series pumps are designed for hazardous applications in accordance with National Electrical Code, ANSI/NFPA 70.

Connect pump to control box/panel that is approved for the application. The provision for supply connection shall reduce the risk of water entry during temporary, limited submersion.

TROUBLE SHOOTING

⚠ WARNING **Disconnect the power source to the pump BEFORE attempting any type of trouble shooting, service or repair.**

PUMP WILL NOT RUN

1. Check power supply (fuses, breaker). Reset power.
2. Blocked impeller. Remove strainer, check and clean.
3. Defective cable or incorrect wiring.
4. Strainer clogged. Check and clean as necessary.
5. Float switch tangled/obstructed. Clean and free float switch from obstruction.
6. Float switch defective. Replace float switch.
7. Pump overheated or temperature of liquid exceeds pump operating temperature.

PUMP RUNS BUT DOES NOT DELIVER RATED CAPACITY

1. Discharge line clogged, restricted or hose kinked. Check discharge hose/pipe.
2. Worn impeller and/or suction cover. Inspect and replace as necessary.
3. Pump overloaded due to liquid pumped being too thick.
4. Pumping air. Check liquid level and position of pump.
5. Excessive voltage drops due to long cables.

6. Three phase only; pump running backwards, check rotation.

SERVICING YOUR SUBMERSIBLE PUMP

Pump should be disconnected from the electric power supply before proceeding to do any service or maintenance**.**
To service or repair your pump, please contact your local **BJM Pumps®** distributor. Service should only be performed by a qualified electrician. Repair requiring disassembly of the pump motor must be done at BJM Pump or at an FM approved motor shop only.

MAINTAINING YOUR PUMP

- Pump should be disconnected from the electric power supply before proceeding to do any service or maintenance**.**
- Pump should be inspected at regular intervals.
- More frequent inspections are required if the pump is used in a harsh environment.
- Preventative maintenance should be performed to reduce the chance of premature failure.
- Worn impellers and lip seals should be replaced.
- Cut or cracked power cords must be replaced. **(Never operate a pump with a cut, cracked or damaged power cord.)**
- Seal oil should be checked once per year.
- Maintenance should always be done when taking a pump out of service before storage.

1) Clean pump of dirt and other build up.
2) Check condition of oil around the shaft seals.
3) Check hydraulic parts: check for wear.
4) Inspect power cable. Make sure that it is free of nicks or cuts.
5)

CHANGING SEAL OIL

Changing the seal oil in the XP-KZN Series pumps is very easy.

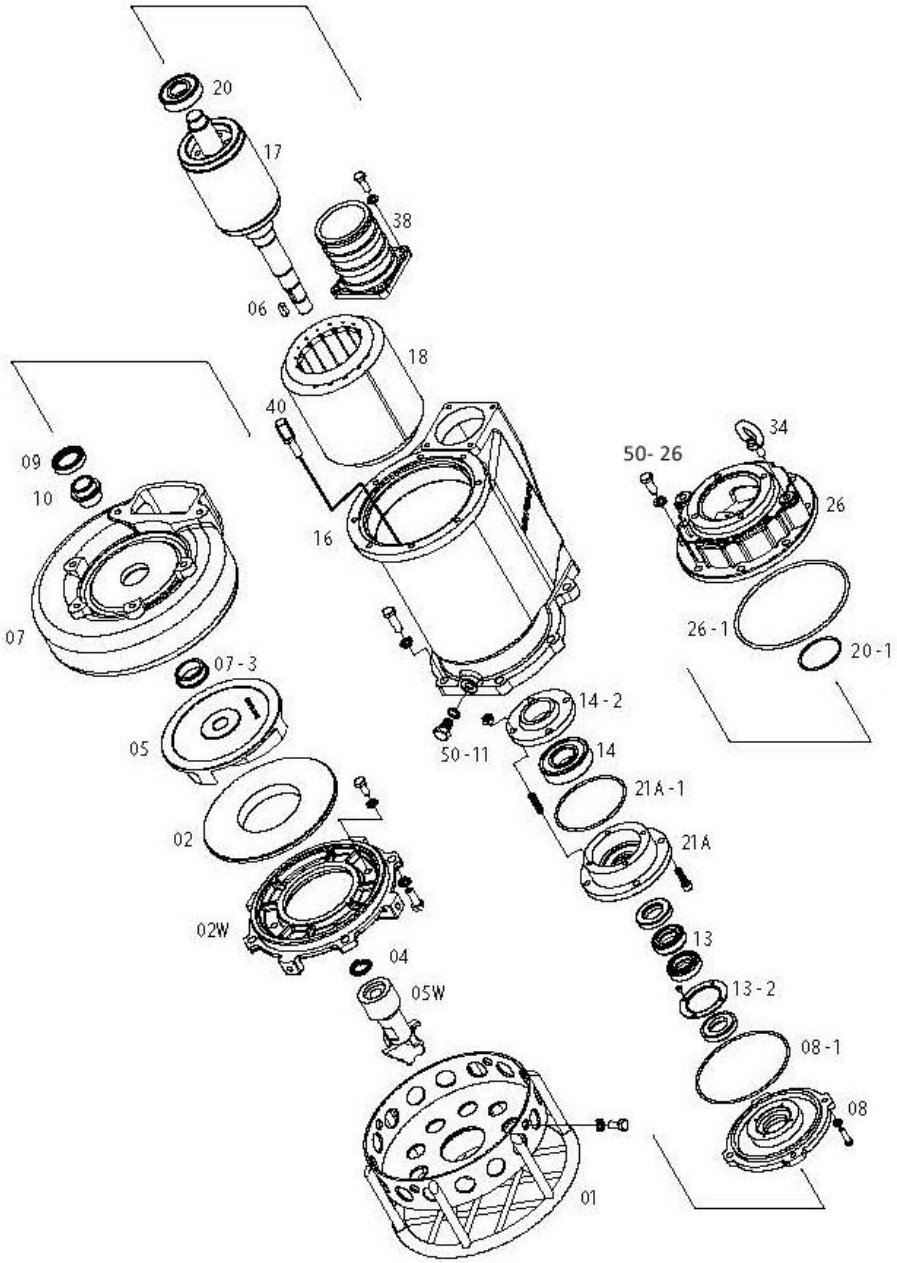
1) Make sure that the pump cable is disconnected from the power source.
2) Lay the pump down on its side.
3) Remove the screws that hold the bottom plate in place.
4) Remove bottom plate.
5) Remove screws holding the suction cover.
6) Remove the suction cover.
7) Remove the impeller.
8) Remove the inspection screw for the oil chamber (pos#50-08). Pour out a small sample of the oil. If it is milky white, or contains water, then the oil and possible, the mechanical seal, should be changed. If an oil change is needed:
9) Remove the screws that hold the oil chamber cover in place & remove the oil.
10) Replace the mechanical seal if necessary.
11) Replace the oil.
12) Assemble the pump.

CHANGING SEALS*

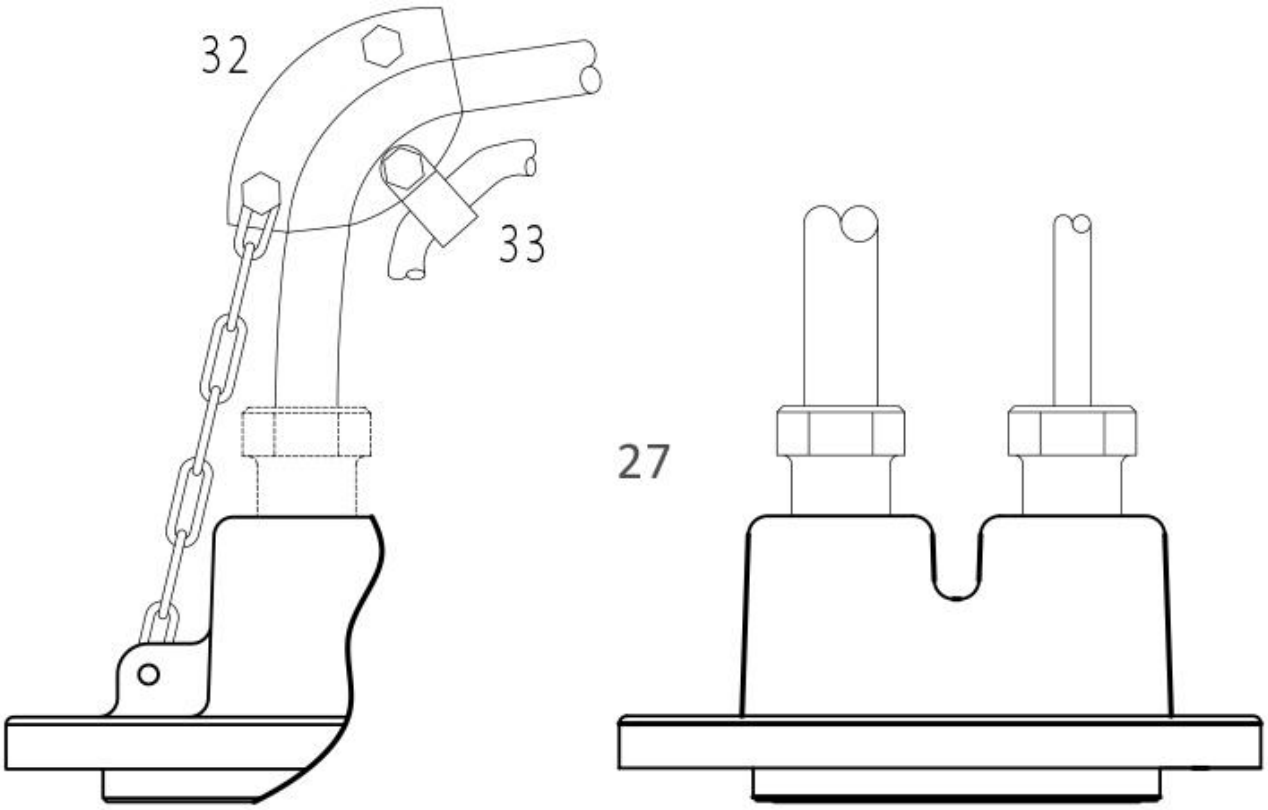
1) Make sure that the pump cable is disconnected from the power source.
2) Lay the pump down on its side.
3) Remove the oil inspection bolt (pos#50-11) from the oil seal chamber.
4) Drain out all the inside the oil seal chamber.
5) Remove the bolts holding the stand.
6) Remove the stand.
7) Remove the bolts holding the suction cover.
8) Remove the suction cover.
9) Remove the agitator.
10) Remove the impeller, impeller key and shims.
11) Remove the bolts holding the pump housing.
12) Remove the pump housing.
13) Remove the shaft sleeve. Note the shaft sleeve direction.
14) Remove the bots holding the oil cover.
15) Remove the oil cover.
16) Remove the screws holding the seal retainer.
17) Remove the seal retainer.
18) Remove the mechanical seal.
19) Replace the mechanical seal, lip seal and o-rings.
20) Assemble the pump.
21) Fill with recommended new oil.
22) Replace the oil inspection bolt o-ring.
23) Secure the oil inspection bolt.

*Note: If there is excessive liquid found in the oil or mechanical seal damaged, please contact **BJM Pumps®** authorized service centers.

SECTIONAL VIEW OF XP-KZN37, 55, 55CH, 75



CABLE ASSEMBLY XP-KZN

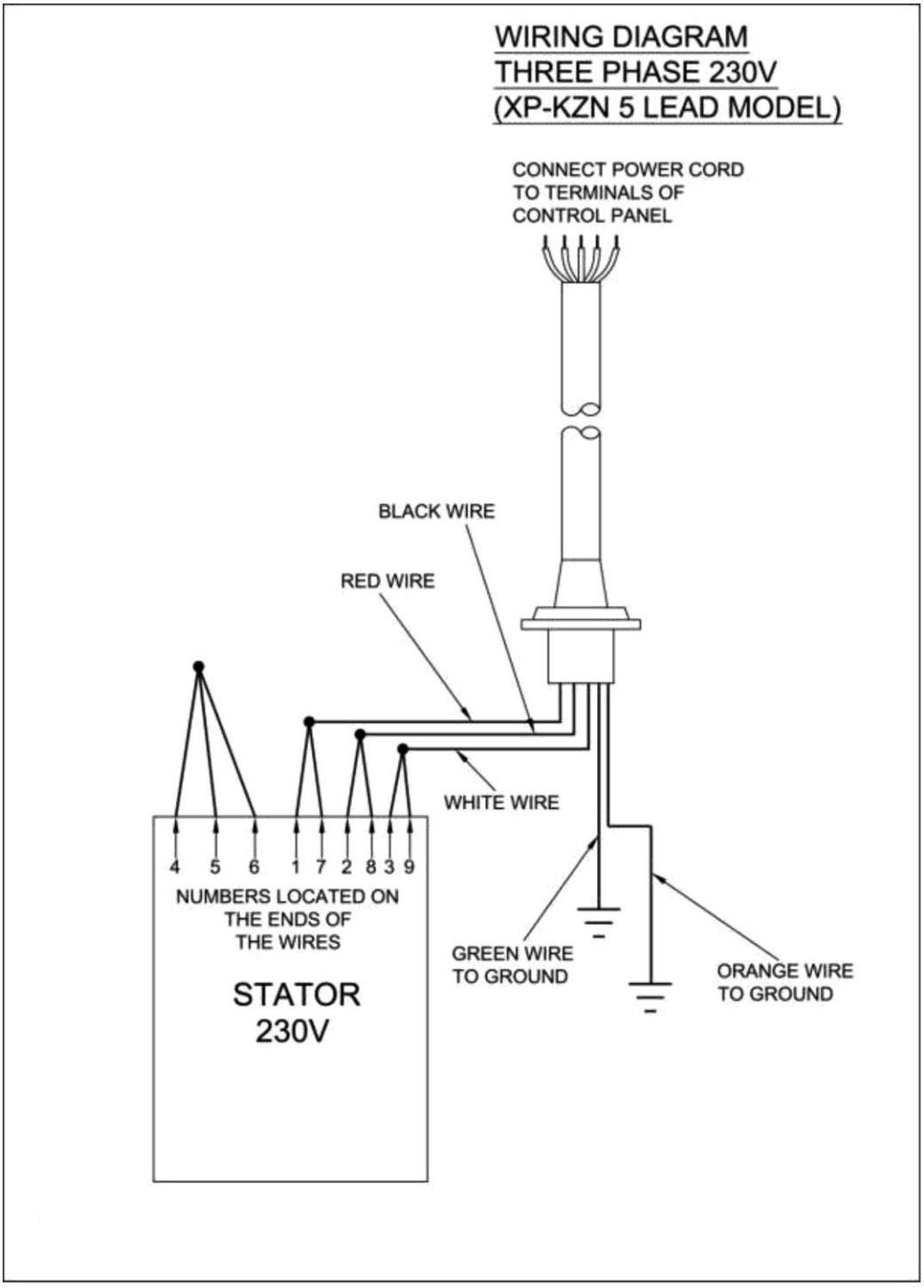


XP-KZN SERIES PARTS LIST

	Pump Model	XPKZN37	XPKZN55	XPKZN55CH	XPKZN75
POS. NO.	PART DESCRIPTON	ITEM #	ITEM #	ITEM #	ITEM #
01N-01	Stand w/Strainer Plate	201982	201982	201983	201982
02	Wear Plate	202018	202018	202019	202018
02W	Suction Cover	202869	202869	202870	202873
04	Lock Washer	202917	202917	202917	202917
05	Impeller	202976	202977	202979	202980
05W	Agitator	202983	202983	202983	202983
06	Impeller Key	202146	202146	202146	202146
07	Pump Housing	202191	202191	203026	202191
07-3	Pump Housing Sleeve	202182	202182	202182	202182
08	Oil Chamber Cover	202225	202225	202225	202225
08-1	O-Ring (Kit Only)	Kit	Kit	Kit	Kit
09	Lip Seal Buna N	202248	202248	202248	202248
10	Shaft Sleeve	203071	203071	203071	203071
13	Mech. Seal Set - FKM ***	200419	200419	200419	200419
14	Lower Ball Bearing	200963	200963	200963	200963
14-2	Lower Bearing Retainer	204252	204252	204252	204252
16	Motor Housing	203880	203880	203880	203882
17	Rotor w/Shaft, 3 Phase	203108	203109	203109	203110
18	Stator, 230/460V	203976	203978	203978	203980
18	Stator, 575V	203977	203979	203979	203981
20	Upper Ball Bearing	200968	200968	200968	200968
20-2	Spring Washer	202361	202361	202361	202361
21A	Lower Bearing Housing	203886	203886	203886	203886
21A-1	O-Ring (Kit Only)	Kit	Kit	Kit	Kit
26	Pump Top Cover	203884	203884	203884	203884
26-1	O-Ring (Kit Only)	Kit	Kit	Kit	Kit
27	Power & Sensor Cable Set (5 Lead)	201166	201166	201166	201166
32	Power Cable Strain Relief Holder	202501	202501	202501	202501
33	Sensor Cable Strain Relief Clamp	203161	203161	203161	203161
34	Lift Ring	203172	203172	203172	203172
38	3" NPT Male Coupling Flange	202583	202583	202583	-
38	4" NPT Male Coupling Flange	202585	202585	202585	202585
38B	3" Hose Barb Fitting	202584	202584	202584	-
38B	4" Hose Barb Fitting	202586	202586	202586	202586
40	Seal Minder Probe	203958	203958	203958	203958
50-01N	Bolt - Stand	203258	203258	203258	203258
50-02	Bolt - Wear Plate	203253	203253	203253	203253
50-02W	Bolt - Suction Cover	203236	203236	203236	203236
50-07	Bolt - Pump Housing	203271	203271	203271	203271
50-08	Bolt - Oil Chamber Cover	203229	203229	203229	203229
50-08-1	Lock Washer - Oil Chamber Cover	202902	202902	202902	202902
50-11	Bolt - Oil Inspection	203268	203268	203268	203268
50-14-2	Bolt - Bearing Retainer	204446	204446	204446	204446
50-14-2-1	Lock Washer, Bearing Retainer	202915	202915	202915	202915
50-21A	Bolt - Bearing Housing	201013	201013	201013	201013
50-21A-1	Lock Washer, Bearing Housing	202909	202909	202909	202909
50-26	Bolt - Top Cover	203260	203260	203260	203260
50-26-1	Lock Washer, Top cover	202905	202905	202905	202905
50-27	Bolt, Power Cable Housing	203262	203262	203262	203262
50-27-1	Lock Washer, Power Cable Housing	202909	202909	202909	202909
50-32-1	Bolt - Cable Strain Relief	203256	203256	203256	203256
50-32-2	Bolt - Cable Strain Relief	203246	203246	203246	203246
50-32-3	Nut, Cable Strain Relief	202889	202889	202889	202889
50-32-4	Flat Washer Cable Strain Relief	202049	202049	202049	202049
50-32-5	Chain, Cable Strain Relief	202502	202502	202502	202502
50-32-6	Pin, Cable Strain Relief	202503	202503	202503	202503
50-38	Bolt - Discharge Flange	203262	203262	203262	203262
	Oring-Kit - Buna	200434	200434	200434	200434
	Optional Oring-Kit - FKM	200450	200450	200450	200450

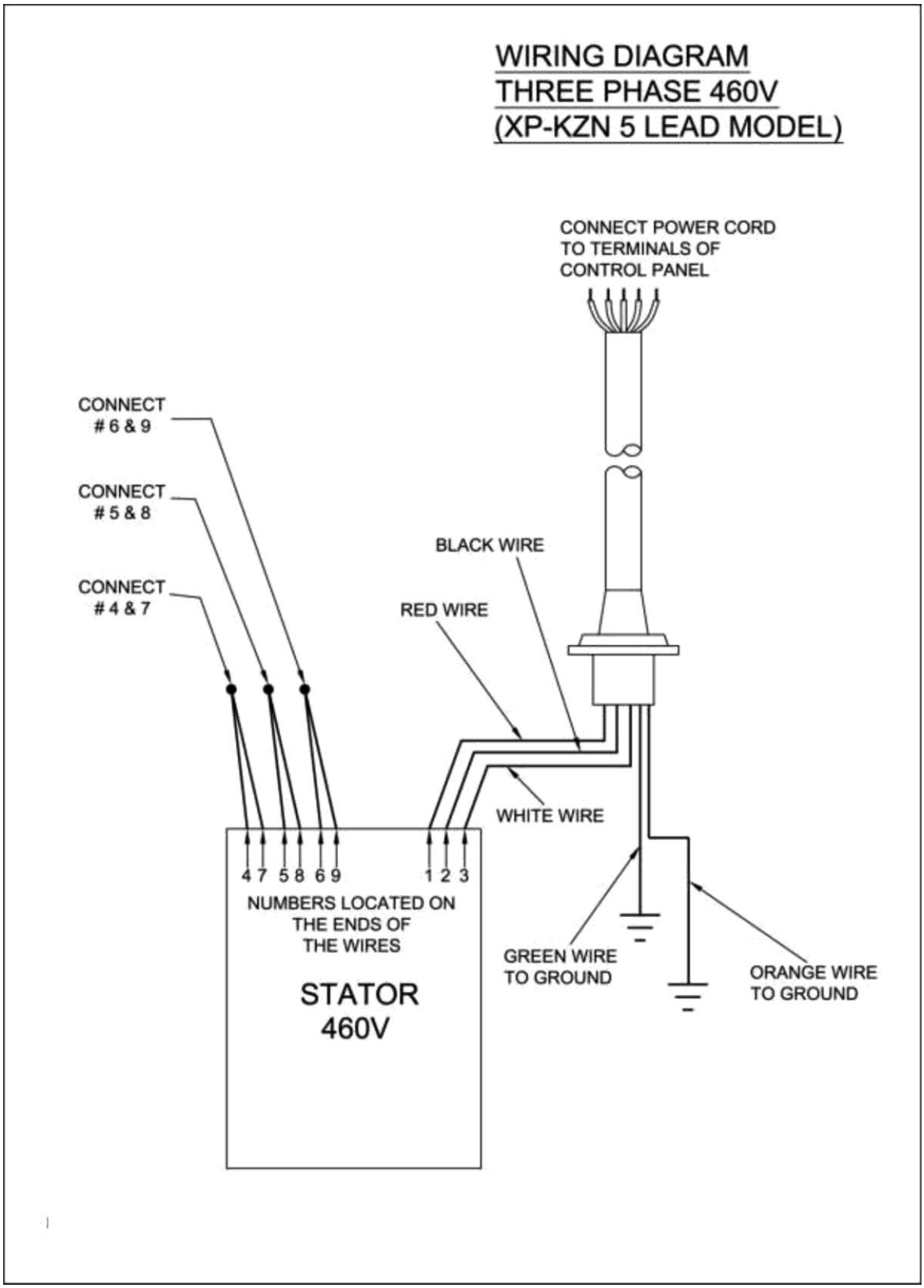
THREE PHASE WIRING DIAGRAMS

230V (5 LEAD)

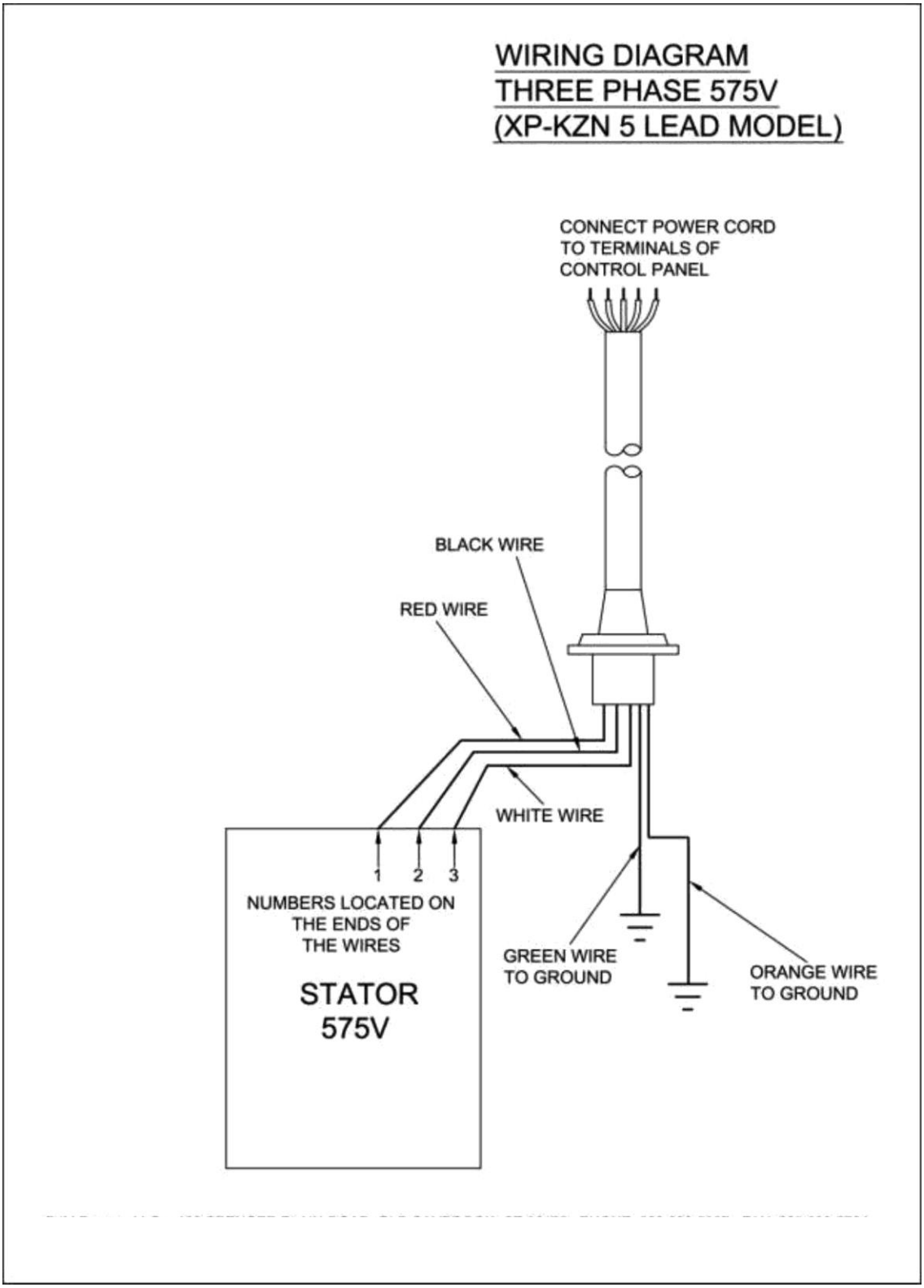


MODELS XP-KZN37, 55, 55CH

460V (5 LEAD)



MODELS XP-KZN37, 55, 55CH, 75



MODELS XP-KZN37, 55, 55CH, 75

SEAL MINDER® - THERMAL MOTOR SENSOR SWITCH

Seal Minder®:

Also known as a seal failure circuit (or moisture detection circuit) is designed to inform the pump operator that there is moisture within the oil chamber. This early warning can allow the operator to schedule repair & inspection on the pump. The **Seal Minder®** sensor probe is inside the oil chamber. (The oil chamber houses the mechanical seals that are cooled & lubricated by oil). The **Seal Minder,** when properly connected to a control panel, can help indicate seal failure. The **Seal Minder** cord requires a seal fail circuit in control panel for warning signal.

Along, with the **Seal Minder**, the XP-KZN Series pumps also feature thermal temperature sensor switches that are embedded into the motor stator windings. Two switches are embedded into the stator windings and wired in series. The leads are connected to the pump control panel through the sensor cable. If the windings would see a temperature above 300 degrees F, then the switch(s) would open and cut power to the pump. Once the temperature dropped below 300 degrees F, the switch(s) would reset, and the pump would be returned to a state of operation manually restarting is required. This feature is designed to prevent damage to the stator winding and allow for longer pump life.

The sensor cable consists of four leads, two are connected to the **Seal Minder**, and two are connected to the thermal sensor switches located in the stator windings. These four leads run to the pump control panel and connect to the proper connections points for seal alarm and thermal cut off. The (Green) and (Red) wires are for the **Seal Minder** connections and the thermal sensors will be connected to the (White) and (Black) wires. The three phase automatic wiring diagram shown earlier in the manual will give a guide to the connections in the control panel. The manual for the control panel should be consulted for the exact connections.

The sensor cable with Seal Minder and thermal sensor switch connections is standard on all XP-KZN Series pumps. The proper replacement part can be found parts list found in this manual. BJM Pumps® can supply a control with the Seal Minder and Thermal sensor switch option. Separate stand alone Seal Minder alarm panels are also available. Consult your BJM Pumps representative for part numbers and ordering details. FM and CSA require the use of the seal minder and thermal heat sensor circuits.

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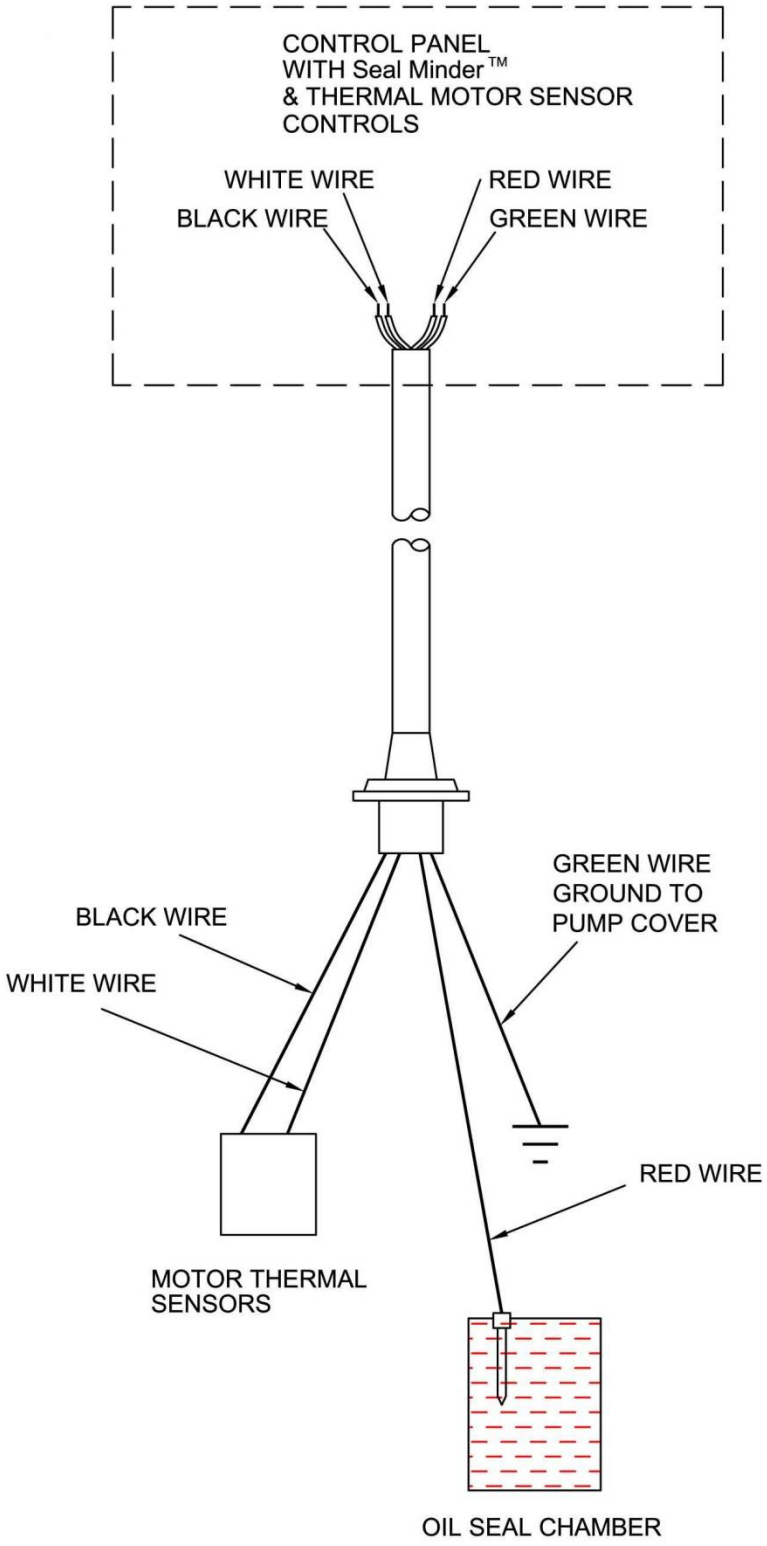
BJMPumps



SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

Industrial Flow Solutions Operating, LLC
104 John W Murphy Drive
New Haven, CT 06513, USA

WARRANTY AND LIMITATION OF LIABILITY

Unless otherwise expressly authorized in writing, specifying a longer or shorter period, BJM Pumps,LLC warrants for a period of eighteen (18) months from the date of shipment from the Point of Shipment, or one (1) year from the date of installation, whichever occurs first, that all products or parts thereof furnished by BJM Pumps,LLC under the brand name BJM Pumps, hereinafter referred to as the "Product" are free from defects in materials and workmanship and conform to the applicable specification.

BJM Pumps,LLC's liability for any breach of this warranty shall be limited solely to replacement or repair, at the sole option of BJM Pumps,LLC, of any part or parts of the Product found to be defective during the warranty period, provided the Product is properly installed and is being used as originally intended. Any breach of this warranty must be reported to BJM Pumps,LLC or BJM Pumps,LLC's authorized service representative within the aforementioned warranty period, and defective Product or parts thereof must be shipped to BJM Pumps,LLC or BJM Pumps,LLC's authorized representative, transportation charges prepaid. Any cost associated with removal or installation of a defective Product or part is excluded.

IT IS EXPRESSLY AGREED THAT THIS SHALL BE THE SOLE AND EXCLUSIVE REMEDY OF BJM PUMPS, LLC'S DISTRIBUTORS AND CUSTOMERS. UNDER NO CIRCUMSTANCES SHALL BJM PUMPS, LLC BE LIABLE FOR ANY COSTS, LOSS, EXPENSE, DAMAGES, SPECIAL DAMAGES, INCIDENTAL DAMAGES OR CONSEQUENTIAL DAMAGES ARISING DIRECTLY OR INDIRECTLY FROM THE DESIGN, MANUFACTURE, SALE, USE OR REPAIR OF THE PRODUCT, WHETHER BASED ON WARRANTY, CONTRACT, NEGLIGENCE, OR STRICT LIABILITY. IN NO EVENT WILL LIABILITY EXCEED THE PURCHASE PRICE OF THE PRODUCT.

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BJM Pumps,LLC neither assumes, nor authorizes any person to assume for it, any other warranty obligation in connection with the sale of the Product. This warranty shall not apply to any Product or parts of Product which have (a) been repaired or altered outside of BJM Pumps,LLC's facilities unless such repair was authorized in advance by BJM Pumps,LLC or by its authorized representative; or (b) have been subject to misuse, negligence or accident; or (c) have been used in a manner contrary to BJM Pumps,LLC's instruction.

In any case of products not manufactured and sold under the BJM Pumps,LLC brand name, there is no warranty from BJM Pumps,LLC; however BJM Pumps,LLC will extend any warranty received from BJM Pumps,LLC's supplier of such products.

START-UP REPORT FORM

This form is designed to record the initial installation, and to serve as a guide for troubleshooting at a later date (if needed).

Industrial Flow Solutions Operating, LLC
104 John W Murphy Drive
New Haven, CT 06513, USA

Pump Owner's Name	
Location of Installation	Date of Installation:
Dealer	Dealer Phone ( )
Date of Purchase	
Model	Serial No
Voltage Phase	Hertz HP
Does impeller turn freely by hand?	☐ Yes ☐ No
Condition of Equipment	☐ New ☐ Good ☐ Fair ☐ Poor
Condition of Cable Jacket	☐ New ☐ Good ☐ Fair ☐ Poor
Rotation: Direction of Impeller Rotation (viewed from bottom) (Use C/W for clockwise, CC/W for counterclockwise): _____	
Resistance of cable and Pump Motor (measured at pump control)	
Red-Black_____ohms Red-White_____ohms White-Black____ohms	
Resistance of ground circuit between control panel and outside of pumps _____ Ohms	
MEG OHM CHECK OF INSULATION Red to ground_____ White to ground_____ Black to ground_____	
Condition of location at start-up	☐ Dry ☐ Wet ☐ Muddy
Was equipment stored If YES, length of storage:	☐ Yes ☐ No.
Liquid being pump	
Debris in bottom of station?	☐ Yes ☐ No

START-UP REPORT FORM

Are guide rails vertical?	☐ Yes	☐ No
Is base elbow installed level?	☐ Yes	☐ No
Liquid level controls: Model_____		
Is control installed away from turbulence?	☐ Yes	☐ No

Float Operation Check

Tip lowest float (stop float), all pumps should remain off.
Tip second float (and stop float), one pump comes on.
Tip third float (and stop float), both pumps on (alarm on simplex).
Tip fourth float (and stop float), high level alarm on (omit on simplex).

☐ Check here if using manual on/off only.

Does liquid level ever drop below volute top?	☐ Yes	☐ No
Control Panel MFG & model no.		
Number of pumps operated by control panel		

NOTE: At no time should hole be made in top of control panel, unless proper sealing devices are utilized.

Short Circuit protection:	Type:	
Number and size of short circuit device(s)	Amp rating:	
Overload type:	Size:	Amp rating:
Do protective devices comply with pump motor amp rating?	☐ Yes	☐ No
Are all pump connections tight?	☐ Yes	☐ No
Is the interior of the panel dry?	☐ Yes ☐ No If No, correct moisture problem.	

Electrical readings

SINGLE PHASE

Voltage supply at panel line connection, pump off	L1	L2
Voltage supply at panel line connection, pump on	L1	L2
Amperage load connection, pump on	L1	L2

THREE PHASE

Voltage supply at panel line connection, pump off

L1-L2	L2-L3	L3-L1

Voltage supply at panel line connection, pump on

START-UP REPORT FORM

L1-L2	L2-L3	L3-L1
Amperage load connection, pump on		
L1	L2	L3

FINAL CHECK		
Is pump secured properly?	☐ Yes	☐ No
Was pump checked for leaks?	☐ Yes	☐ No
Do check valves operate properly?	☐ Yes	☐ No
Flow: Do pumps appear to operate at proper rate?	☐ Yes	☐ No
Noise level:	Acceptable ☐	Unacceptable ☐

Comments:

Installed by:

Company:

Person:

Date:

NOTES:

Note: This manual requires factory mutual approval prior to issuing changes.

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