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GENERAL INFORMATION

TRANSPORT AND STORAGE

CAUTI

PRODUCT DESCRIPTION

Receipt, Inspection, and Damage Reporting

Upon receipt of the pump, immediately check for shortages of parts and damages. Prompt reporting to the carrier's agent, with notations made on the freight bill, may expedite satisfactory adjustment by the carrier.

This should be done at once. Do not unpack any more than required to verify that the equipment is complete and undamaged unless installation is to be done immediately. Do not leave the pump unit or any accessories exposed to weather or construction hazards, which may cause damage to the equipment.

Unpacking

As stated above, do not unpack any more than required to verify that the equipment is complete and undamaged unless installation is to be done immediately. Check all packing material that is to be discarded to verify that no parts or instructions are being accidentally discarded as well.

It is recommended to leave sen-USave sen-USave sd15.1 (e s)-2 Tw 8-21.1 (g m)-23.1 2 (d t)0.6 (o l)-17.8 (e)-22.6 (a)-18.9 (v)-15.1 (e s)-20.5ang (en-US)/MCI11ave s ss rca

PUMP INSTALLATION

INSTALLATION

Installation Configuration

The pump has been designed to be installed in various configurations as shown in the images below.

NOTICE: The installation conditions shown in below images are for representation purpose only. The parts, accessories and supporting

PUMP MAINTENANCE AND SERVICE

MAINTENANCE AND SERVICE

Schedule

Preventive maintenance and routine check-ups may prevent the pump from major failures. An inspection & maintenance log should be kept and the inspector should immediately report any problems. Pump should be checked on regular basis for any unusual noise, vibrations and abnormal rise of temperature. Also, check the sight flow indicator, if so equipped, from time to time for fluid flow and if no flow is observed, replace the filter or check the separator. A suggested guide for preventive maintenance for normal application is given below in Table 2.

Table 2

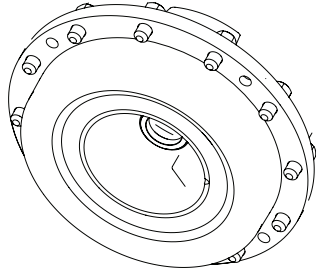
GUIDE FOR PREVENTIVE MAINTENANCE



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PUMP MAINTENANCE AND SERVICE

14. Unscrew cap screws (#5B) holding motor bracket (#35B) and seal plate (35A) if any repair is required or for ease of replacing mechanical seal.
15. The seal flexible cup and stationary seat should be pressed out of the seal plate and the cavity cleaned of all residues. Make sure that the 1/32 inch radius in the seal cavity is not damaged during disassembly since sharp edge can easily cut the flexible cup during reassembly.



TROUBLESHOOTING GUIDE

Symptoms	Possible causes	Possible remedies
Insufficient pressure or Insufficient/no flow	Speed too low	Check and ensure correct voltage at motor terminals Check if rotating elements freely rotate
	Wrong direction of rotation	Check motor rotation with direction arrow on casing Ensure correct motor wiring
	Entrained air in pump	Ensure all air is vented, and pump is adequately primed Ensure eccentric reducer, if correctly installed
	Air leaks into suction line	Tighten the suction piping flange bolts as required
	Leaking joints	Check for any external leakage and arrest
	Excessive leakage frETUeqnat	

TROUBLESHOOTING GUIDE

Motor fails to start	Incorrect wiring	Check motor wiring against motor wiring diagram (on motor)
	Wrong voltage	Check and ensure correct voltage at motor terminals
	Switches not set	Set switches ON
	Tripped thermal overload relay	Set relays ON
	Blown fuses	Replace fuses
	Loose or broken wiring	Check and tighten connections. Replace broken wiring
	Binding of rotating elements	Check if rotating elements freely rotate
	Defective motor	Check and replace motor
Motor runs hot	Speed too high	Check and ensure correct voltage at motor terminals
	Voltage lower than rated	Check and ensure correct voltage at motor terminals
	Rubbing or binding of rotating elements	Check if rotating elements are not rubbing against stationary components

Note: The pump delivered may not be fitted with all the components mentioned in the troubleshooting guide.

ASSEMBLY EXPLODED VIEW

PENTAIR FAIRBANKS NIJHUIS® MODEL 1590-CC

PART LIST

PENTAIR FAIRBANKS NIJHUIS® 1590-CC VERTICAL IN-LINE PUMPS

Reference: Figure 17 (Exploded View)

ITEM NO.	DESCRIPTION
1	COMPRESSION ELBOW
2	COMPRESSION CONNECTOR
3	TUBING
4	PIPE PLUG
4A	PIPE PLUG
5	CAP SCREW
5A	WASHER
5B	CAP SCREW
6	CASING
7	WEAR RING
8	GASKET
9	IMPELLER SCREW
9A	IMPELLER WASHER
9B	IMPELLER GASKET
9C	IMPELLER SEAL
10	O-RING GASKET
11	IMPELLER
12	IMPELLER KEY
25	SLEEVE
27	MECHANICAL SEAL
33	SCREW
34	NAME PLATE
35A	SEAL PLATE
35B	MOTOR BRACKET
39	CAP SCREW
61	PIN
73	SPOOL BASE

PUMP - IMPELLER SIZE RELATION

PUMP MODEL	MAX IMPELLER DIAMETER
1-1/2" 1591	
2" 1592A	
2-1/2" 1591A	
	7"

STANDARD LIMITED WARRANTY

WARRANTY

Seller warrants equipment (and its component parts) of its own manufacture against defects in materials and workmanship under normal use and service for one (1) year from the date of installation or start-up, or for eighteen (18) months after the date of shipment, whichever occurs first. Seller does not warrant accessories or components that are not manufactured by Seller; however, to the extent possible, Seller agrees to assign to Buyer its rights under the original manufacturer's warranty, without recourse to Seller. Buyer must give Seller notice in writing of any alleged defect covered by this warranty (together with all identifying details, including the serial number, the type of equipment, and the date of purchase) within thirty (30) days of the discovery of such defect during the warranty period. No claim made more than 30 days after the expiration of the warranty period shall be valid. Guarantees of performance and warranties are based on the use of original equipment manufactured (OEM) replacement parts. Seller assumes no responsibility or liability if alterations, non-authorized design modifications and/or non-OEM replacement parts are incorporated. If requested by Seller, any equipment (or its component parts) must be promptly returned to Seller prior to any attempted repair, or sent to an authorized service station designated by Seller, and Buyer shall prepay all shipping expenses. Seller shall not be liable for any loss or damage to goods in transit, nor will any warranty claim be valid unless the returned goods are received intact and undamaged as a result of shipment. Repaired or replaced material returned to customer will be shipped F.O.B., Seller's factory. Seller will not give Buyer credit for parts or equipment returned to Seller, and will not accept delivery of any such parts or equipment, unless Buyer has obtained Seller's approval in writing. The warranty extends to repaired or replaced parts of Seller's manufacture for ninety (90) days or for the remainder of the original warranty period applicable to the equipment or parts being

