

# **AQUATEX**

**THREE PHASE MONOBLOCK**



## **INSTALLATION / SPARE PARTS MANUAL**

Manufactured by:

**AQUASUB ENGINEERING UNIT II**

VETHALAIKALI PALAYAM  
N.S.N. PALAYAM POST  
COIMBATORE - 641 031. INDIA

## **AQUATEX THREE PHASE**

### **MONOBLOCK**

#### **INSTALLATION:**

The Aquatex Three Phase Centrifugal Monoblock Pumps are extremely easy to install, ruggedly built and designed for many years of trouble-free operation. It should be installed in a place relatively free from dust, fumes and moisture. The vertical distance between the water level at the suction side and the pump should not exceed 26 feet (8 metres). The Monoblock should be connected to a balanced three phase 50 cycles AC supply with voltage ranging from 340 - 440 Volts.

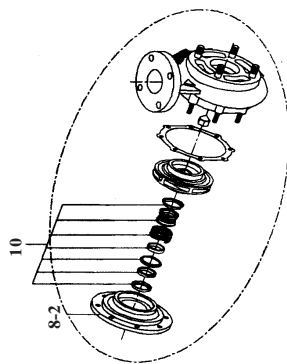
#### **PRECAUTIONS :**

1. A good quality foot valve should be used to avoid priming problems, since the pump is not self-priming.
2. The size of the power supply leads must be sufficient to avoid heavy voltage drop.
3. Only recommended pipe size should be used. Small pipe size, nipples, elbows, bends all give rise to head losses and should either be eliminated or used sparingly.
4. Do not wrap the motor with airtight materials such as polythene sheet. Good air circulation is required for the monoblock.
5. Do not cover the monoblock with poorly ventilated rain-cover. Use a rain-cover with sufficient ventilation holes whose total area is equal or more than that of the motor cooling cover.

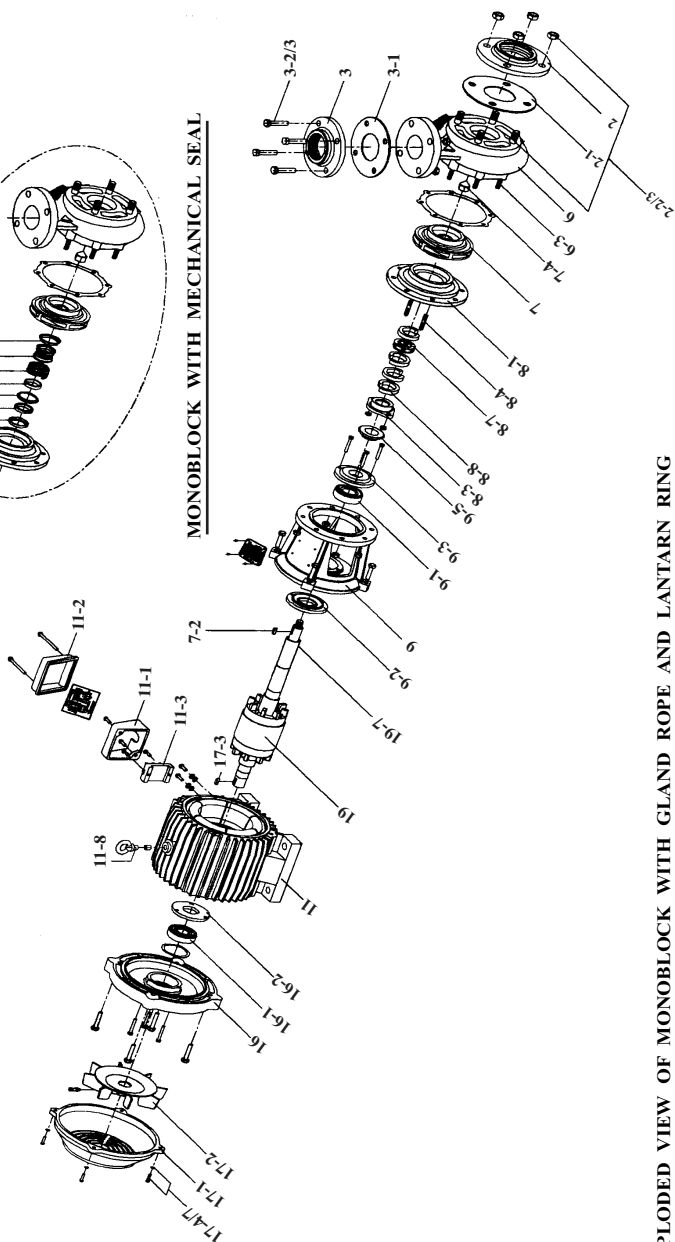
6. Bearings require no lubrication for 2 years under normal conditions. When regreasing, only half the space between bearing and cap should be filled with grease.
7. Discharge Regulation: Use throttle gate valve or orifice plate at discharge flange or trimmed impellers with reduced diameter to limit the current loading as per the name plate current value during post monsoon season when low suction lift water level and total head lower than the specified values exists.
8. Do not select mechanical seal type monoblock for pumping water with excessive sand or silt content and where there are chances of dry running.
9. Use mechanical seal type monoblock where high suction lift condition prevails (to eliminate air-locking problems) as well as where long delivery pressure lines are used.
10. Select suitable DOL / STAR DELTA Starter with correct range of over load relay and it should be suitable for low voltage operation also.
11. In case Star delta Starter, 0.58 of rated current should be set in the relay setting.
12. Operating Coil of Contactor in the Starter should be capable of operating with wide voltage variations.
13. Connect the Starter & supply leads as shown in the diagram affixed inside the Terminal Cover.
14. Check the direction of rotation. If found opposite, interchange any two of the supply leads.
15. Proper earthing should be provided to the motor to prevent electrical shock.

### **SPARES :**

While ordering for spares, the complete name plate details of the monoblock with the required Part No. (As per the part list) are to be specified clearly.



# **MONOBLOCK WITH MECHANICAL SEAL**



# **EXPLODED VIEW OF MONOBLOCK WITH GLAND ROPE AND LANTERN RING**

## **Spare Parts List :**

### **AMH / AMS SERIES SPARE PARTS LIST**

<b>Part No.</b>	<b>Part Name</b>	<b>Quantity Required</b>	<b>Material</b>
2	Suction Flange	1	Cast Iron
2-1	Suction Flange Washer	1	Rubber
2-2/3	Suction Flange Stud with Nut	8/4	Mild Steel
3	Delivery Flange	1	Cast Iron
3-1	Delivery Flange Washer	1	Rubber
3-2/3	Delivery Flange Bolt with Nut	4	Mild Steel
6	Pump Casing	1	Cast Iron
6-3/4	Casing / Yoke Stud with Nut	6/8	Mild Steel
7	Impeller	1	Cast Iron
7-2	Impeller key	1	Alloy Steel
7-4	Impeller Lock Nut	1	Brass
8-1	Yoke	1	Cast Iron
8-2	Seal Yoke	1	Cast Iron
8-3	Gland	1	Gun Metal/ Stainless Steel
8-4/5	Gland / Yoke Stud with Nut	2	Stainless Steel
8-7	Lantarn Ring	1	Nylon
8-8	Gland Rope	1Set	Braided Rope
8-9/10	Yoke / Cover Dome Stud with Nut	6/8	Mild Steel
9	Cover Dome	1	Cast Iron
9-1	Front Bearing	1	Ball Bearing
9-2	Front Inner Cap	1	Cast Iron

Part No.	Part Name	Quantity Required	Material
9-3	Front Outer Cap	1	Cast Iron
9-5	Water Cutting Ring	1	Rubber
10.	Mechanical Seal Assembly	1 Set	-
11.	Motor Frame	1	Cast Iron
11-1	Terminal Box	1	Cast Iron
11-2	Terminal Box Cover	1	Cast Iron
11-3	Terminal Board	1	Bakelite
11-8.	Eye Bolt	1	Forged Steel
16	Back Cover	1	Cast Iron
16-1	Back Bearing	1	Ball Bearing
16-2	Back Inner Cap	1	Cast Iron
17-1	Cooling Cover	1	Cast Iron
17-2	Cooling Fan	1	Aluminium/Cast Iron
17-3	Cooling Fan Key	1	Alloy Steel
17-4/7	Cooling Cover / Back Cover		
	Screw with Spring washer	4	Stainless Steel
19.	Shaft With Rotor	1	Alloy Steel
19-7	Shaft Sleeve	1	Stainless Steel

## WARRANTY FOR MONOBLOCK:

Aquasub Engineering Unit-II warrants to the purchaser of this AQUATEX product, that for a period of 12 months commencing from the date of purchase of the product, Aquasub Engineering Unit-II will repair or replace free of charge any part or parts of the product, should Aquasub Engineering Unit-II be fully satisfied in its sole discretion, that the defect/s is / are due to faulty material or workmanship only. The warranty will be governed by the following clauses:

1. Aquasub Engineering Unit-II or their Authorised Service Agent / Dealer will repair / replace all parts that are failing due to faulty material or defective workmanship pertaining to the above product.
2. Only Aquasub Engineering Unit-II or its Authorised Service Agent / Dealer can service / repair or attend to install / reinstall the above product.
3. All expenses incurred in collecting the units or parts thereof from the Authorised Service Centre or the Dealer of Aquasub Engineering Unit-II as well as expenses incurred in connection with deputing of service personnel / technicians towards to and for travel conveyance and other incidentals etc., will be borne by the customer.
4. The warranty extended therein is in lieu of all implied conditions and warranties under the law and is confined to the repair or replacement of defective parts and does not cover any consequential or resulting liability, damage or loss arising from such defects. Further more, the warranty in no case, shall extend to the payment or any monetary consideration whatsoever, of the replacement or return of the product as a whole.
5. The warranty is issued subject to jurisdiction of Coimbatore Court of Law.
6. The warranty is covered by Force Majeure clause. In the event if the above product is struck by any natural calamity, this warranty stands null and void.

### **This Warranty is not valid in case of any of the following events.**

- a. This Pumpset is not used according to the instructions given in this Installation and Operation manual.
- b. If the electrical power supply voltage is not within the stipulated norms.
- c. Any repair work / installation carried out by a person other than Aquasub Engineering Unit-II Service Centre / Service Agent.
- d. The serial Number is deleted, defaced or altered.

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## WARRANTY CARD

(Please retain this for your personal record)

Product Name & Model No. .... Serial No. ....

Name and Address of Dealer .....

Bill No. .... Date of Purchase .....

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