



AQUA GROUP



JRT + JTS

3" SUBMERSIBLE PUMPSET

INSTALLATION & OPERATION MANUAL

(SPARE PARTS LIST INCLUDED)

AQUASUB ENGINEERING UNIT-IV

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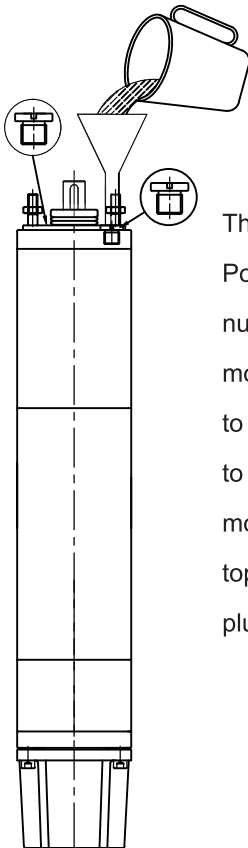
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WATER FILLING OF MOTOR

IMPORTANT

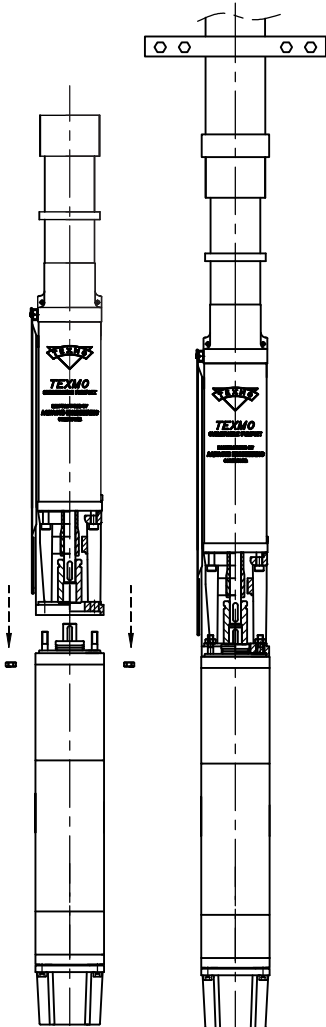
Only clear cold drinking water is to be used



The Motor is to be filled with clear cold water. Position the Motor vertically and unscrew the plug nuts provided over the top bearing housing. Fill the motor with water using the funnel. Allow the motor to stand for 30 minutes. Now gently rock the motor to and fro to allow any air bubbles trapped inside the motor to escape. After that the motor should be topped up with little more water. Now screw the two plug nuts tightly.



COUPLING OF MOTOR AND PUMP



To couple the motor and pump the following procedure can be adopted. The tripod is erected and the chain block is fixed in such a way that the hook and the centre of the bore-well are in alignment. The motor is stood vertically close to the borewell, the pump is taken out of the package and cable guard is removed.

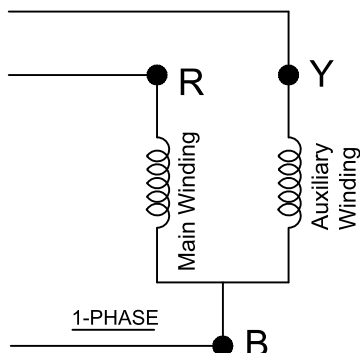
Threading Compound is applied to the threaded portion of the pump, and to the threaded portion of a short length of pipe. (approximately 1 metre or 3 feet long). This short length of pipe is then screwed to the pump. The supporting clamp is fitted to the delivery pipe and the pump is suspended using the chain block. The coupling is provided with the pump shaft. The pump is lifted and lowered carefully on the motor ensuring that the motor shaft is inserted into the coupling. The studs on the motor side should pass through holes in the bottom of the inlet bracket. Ensure that the face of the inlet bracket rests on the top of the motor seating face. Now check the play by lifting the pumpshaft which should be 1mm. The cable guard is now fitted.



TERMINAL CONNECTION

The terminal connection designation for Single phase motors are as follows:

- Main winding lead - R Red colour
- Auxiliary winding lead - Y Yellow colour
- Common lead - B Blue colour



Ratings of Components recommended for control panel of “JRT+JTS”

Single Phase Submersible Pumpset

Component Name	HP		
	0.5	0.75	1.1
Run Capacitor (440V, 50Hz) (Mfd)	25	25	36
Overload Relay Range (Amps)	6	6	10
Max.Current (Name Plate) (Amps)	4.3	5.2	6.5



PRECAUTIONS

Don't run the motor without filling it with clear cold water.

Don't run the motor without lowering it into the borewell.

If you want to test the motor in the ground level before lowering into the borewell, run the motor completely immersed in a tank and partially close the shut-off valve which should be provided at the outlet of the pumpset.

Ensure that the motor runs in the operating head given in the name plate by adjusting shut-off valve.

Ensure that the motor should not be run without any cooling water surrounding it.

CABLE SELECTION CHART

SUBMERSIBLE PUMPSET CABLE SELECTION CHART FOR 220V - SINGLE PHASE - 50HZ

LENGTH IN METRES																									
HP	10	20	30	40	50	60	70	80	90	100	120	140	160	180	200	250	300	350	400	450	500				
0.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	2.5	2.5	2.5	4	4	4	6	6	6	10	10				
1	1.5	1.5	1.5	1.5	1.5	1.5	2.5	2.5	2.5	2.5	4	4	4	6	6	6	10	10	10	16	16				
1.5	1.5	1.5	1.5	2.5	2.5	2.5	4	4	4	6	6	10	10	10	10	16	16	16	25	25	25				
2	1.5	1.5	2.5	2.5	4	4	4	6	6	6	10	10	10	16	16	16	25	25	25	35	35				
3	1.5	1.5	2.5	2.5	4	4	6	6	6	10	10	10	16	16	16	16	25	25	25	35	35				

Conversion Table :

1 m = 3.28ft.

1 ft = 0.305m

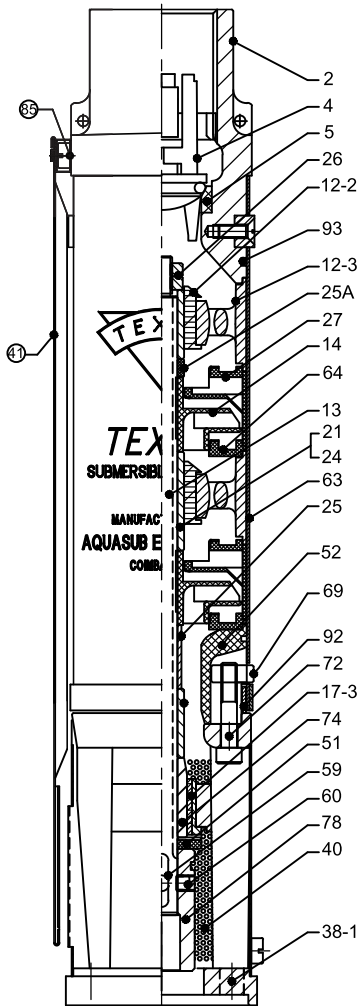
For other Voltages the cable size is to be selected as follows :

Calculated Length = (220÷Volt) x actual length.



JRT PUMP ASSEMBLY

Sectional View and Spare Part List

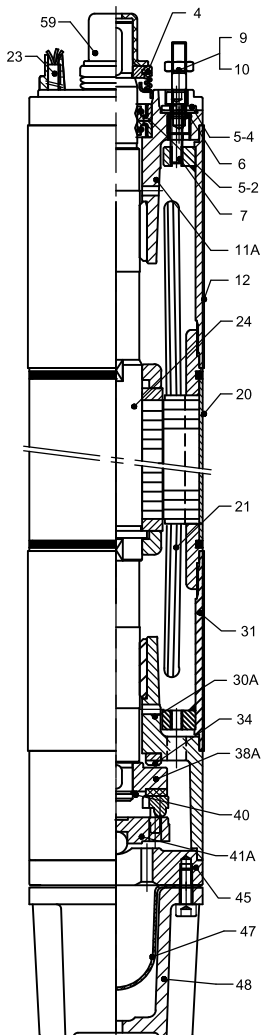


P.NO.	PART NAME
2	VALVE CASING ASSEMBLY
4	N R VASSEMBLY
5	VALVE SEAT
12-2	RUBBER BUSH
12-3	BUSH SUPPORT
13	PUMP SHAFT
14	IMPELLER
17-3	BUSH
21	KEY ROD
23	SLEEVE (TOP)
24	SLEEVE (INT)
25	SPACER
25A	SPACER (TOP)
26	LOCK NUT
27	DIFFUSER ASSEMBLY
38-1	INLET BRACKET
40	STRAINER
41	CABLE GUARD WITH CLIP
51	THRUST RING
52	INLET BRACKET TOP
59	KEY (COUPLING)
60	GRUB SCREW COUPLING
63	JACKET (PUMP)
64	DIFFUSER PLATE
69	NUT (16.0 x 13)
72	ALLEN BOLT
74	BOTTOM SLEEVE
78	COUPLING
85	CHEESE HEAD SCREW
92	SUPPORT RING
93	'O' RING



JTS MOTOR ASSEMBLY

Sectional View and Spare Part List



P.No.	PART NAME
4	SAND GUARD
5-2	LIP SEAL
5-4	DRAIN PLUG
6	"O" RING (D.PLUG)
7	HEX. SOC. HEAD CAP SCREW(TBH)
9	STUD (TBH)
10	NUR (TBH)
11A	TOP BEARING HOUSING ASSY.
12	TOP BEARING BODY ASSY.
20	STATOR ASSY.
21	WINDING WIRE
23	CABLE
24	ROTOR SHAFT ASSY.
30A	BOTTOM BEARING HOUSING ASSY.
31	BOTTOM BEARING BODY ASSY.
34	THRUST RING
38A	THRUST COUPLING ASSY.
40	CIRCLIP
41A	THRUST BEARING ASSY.
45	BASE PLATE
47	DIAPHRAGM
48	BASE (BOT.)
59	CAP

WARRANTY FOR SUBMERSIBLE PUMPSET :

Aquasub Engineering warrants to the purchaser of this TEXMO product, that for a period of 12 months commencing from the date of purchase of the product, Aquasub Engineering will repair or replace free of charge any part or parts of the product, should Aquasub Engineering 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 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 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 as well as expenses incurred in connection with deputing of service personnel / technicians towards to and fro 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 Service Centre / Service Agent.
- d. The serial Number is deleted, defaced or altered.

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



PUMPS YOU CAN RELY ON



4" 6" 6" 8" 10"
"TEXMO"
SUBMERSIBLE PUMPSETS



"TEXMO"
VERTICAL JET PUMPSET



"TEXMO"
SINGLE PHASE DOMESTIC PUMPSET



"TEXMO"
SUBMERSIBLE MONOBLOCK
PUMPSET



"TEXMO"
SINGLE PHASE SELF PRIMING
MINI MONOBLOCK



"TEXMO"
DOMESTIC PRESSURE
BOOSTING SYSTEM



"AQUATEX"
HYDRO PNEUMATIC SYSTEM



"AQUATEX"
HORIZONTAL MULTISTAGE
STAINLESS STEEL
CENTRIFUGAL MONOBLOCK



"AQUATEX"
OPEN-WELL SUBMERSIBLE
MONOBLOCK



"AQUATEX"
VERTICAL OPEN-WELL
SUBMERSIBLE PUMPSET



"AQUATEX"
AGRICULTURAL / ENDSUCTION
MONOBLOCK



"AQUATEX"
ELECTRIC MOTOR