

Sl.No.	Material Code & Description	Quantity Required	Unit	Lot No.	Lot Qty	Quantity Required
1	TCXW00902870 75 HP Submersible Motor Pump Set. Submersible Pump must be multistage centrifugal type having mixed flow. Submersible motor is to be water filled, water lubricated squirrel cage type. The pump must be provided with radial bearing. Detail of specification as per Annexure-'A'	6	No.	1	3	30/10/2015
				2	3	30/11/2015
2	TCXW00902888 50 HP Submersible Motor Pump Set. The pump set must be multistage type having mixed flow. The motor is to be water filled, water lubricated, squirrel cage type. The pump is to be provided with radial bearing. The detail of specification is attached in Annexure-"B".	6	No.	1	3	30/10/2015
				2	3	30/11/2015

Purchase Executive

TECHNICAL SPECIFICATION OF SUBMERSIBLE MOTOR PUMPSET

Design of Submersible motor-Pump set for 50 &75HP:-

Submersible pump set must be a compact unit made up of a submersible pump & a submersible motor with shafts connected by a sleeve and operates beneath the surface of water. This pump set is should be suspended vertically from raising main when installed.

Submersible pump must be multistage centrifugal pumps with mixed flow impellers. The casings of impeller of pumps should be clamped together by studs.

Submersible motors should be water filled, water lubricated squirrel cage type. The axial thrust generated by the pump is to be absorbed by a thrust bearing fitted at the bottom of the motor. The diaphragm below the thrust bearing compensates the overpressure which arises as a result of the thermal expansion of the water filled, when the temperature of the winding rises.

Bearings The pump is to be provided with radial bearings .The motor has radial as well as axial thrust bearings. All the bearings are water lubricated and protected to a large degree against the ingress of sand of by suitable structural elements.

Shaft seal The motor should be sealed by radial seal rings to avoid mixing of well water & the fill water.

ANNEXURE – “A”

Capacity-190 m³/hr., Total Head-65-85 mtrs.

Motor: - Submersible Motor-Size-250mm, 75HP, Power factor-0.86 to 0.95, 3 phase, 415+_15%, 50Hz, 2900rpm.

Other main specification of motor:-

Description	Material
Thrust brg. housing	C.I.
Bearing body	C.I.
Thrust brg .plate	Bz/Ferro Asb.
Thrust brg. segments	Bronze
Counter thrust brg. plate	Bronze
Bearing segment carrier	C.I.
Bearing bush	Bronze
Stator	Steel
Rotor	Steel
Cover	C.I.
Adaptor	C.I.
Sand guard	Bronze
Coupling sleeve	Cr. St.

Pump:-Submersible Pump-Size-250mm, stage-3 to 4, Flow-Mixed

Other main specification of Pump:-

Description	Material
Suction Casing	C.I.
Stage Bowl	C.I.
Suction Strainer	M.S.Gal.
Pump Shaft	Cr. Steel
Impeller	Bronze
Valve body	C.I.
Valve seat	C.I.
Valve spring	Spr. Steel
Valve dish	C.I.

ANNEXURE – “B”

Capacity-190 m³/hr., Total Head-40-60 mtrs.

Motor: - Submersible Motor-Size-250mm, 50HP, Power factor-0.86 to 0.95, 3 phase, 415+_15%, 50Hz, 2900rpm.

Other main specification of motor:-

Description	Material
Thrust brg.housing	C.I.
Bearing body	C.I.
Thrust brg.plate	Bz/Ferro Asb.
Thrust brg.segments	Bronze
Counter thrust brg.plate	Bronze
Bearing segment carrier	C.I.
Oil seal	St./Rubber
Bearing bush	Bronze
Stator	Steel
Rotor	Steel
Cover	C.I.
Adaptor	C.I.
Sand guard	Bronze
Coupling sleeve	Cr. St.

Pump:-Submersible Pump-Size-250mm, stage-2 to 3, Flow-Mixed

Other main specification of Pump:-

Description	Material
Suction Casing	C.I.
Stage Bowl	C.I.
Suction Strainer	M.S.Gal.
Pump Shaft	Cr. Steel
Impeller	Bronze
Valve body	C.I.
Valve seat	C.I.
Valve spring	Spr. Steel
Valve dish	C.I.