

**BOREWELL
SUBMERSIBLE
PUMP SETS**

3"



75 & 80 mm (3") Oil Filled Motor



75 & 80 mm (3") Water Filled Motor

75 & 80 mm (3") with Oil Filled Motor

DESCRIPTION

Varuna brand makes reliable, efficient and durable Submersible pump sets of best quality. Following are the salient features of Submersible pump sets with Oil filled Motor.

SALIENT FEATURES

- Dynamically balanced rotating parts to ensure minimum noise and vibration-free operations.
- Electrical design of motors has been done with Enamel winding which improves efficiency and reduces electricity consumption.
- Pump sets are compact and weigh less for easy installation and transportation.
- Accurately machined on CNC machine to get reliable performance and long life.
- Pump sets perform in wide voltage band.
- Motors are filled with food grade insulating oil which gives lubrication to bearing too. This improves thermal conductivity which further reduces the chance of burning.
- Starts easily at low voltage.
- Manufactured using a sophisticated process, hence ensuring more reliability in performance.
- Products are available with NRV which reduces the thrust load of back pressure.
- Impeller and bowl are made from glass filled noryl that provides strong resistance against sand.
- CI part of pump is coated with CED for better corrosion – resistance, durability, alignment and smoother running.

Material of Construction

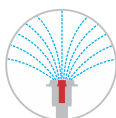
MOTOR DETAILS

Stator	: Insulated varnish using vacuum impregnation method
Rotor	: Aluminum pressure die-cast
Motor Body	: Non Magnetic Stainless Steel
Bearing	: Roller Ball bearing/Heavy duty angular contact bearing
Winding	: Dual Coat EC Grade Copper wire
Cable Sealing Arrangement	: Water protecting device to assure outside material does not enter into motor
Journal Bearings	: Gun Metal Bush with 2% nickel and additional centrifugal molding process to avoid chance of warm out
Pressure Diaphragm	: Sufficient size to contain expansion of oil inside the motor and avoid the defeat of cooling oil

PUMP DETAILS

Bowl	: Glass Filled Noryl
Impeller	: Glass Filled quality abrasion resistant Noryl
Shaft	: Chrome Steel
Wearing Rings	: High Quality Abrasion resistant Stainless Steel
Suction Casing	: Heavy Duty casting material to get proper grip on motor as well as provide path for suction of water. Also provided SS Strainer to protect against foreign particles
Seal	: Carbon Ceramic Seal
Non Return Valve	: FG 260 to reduce the thrust generated due to back pressure of the long pipe line at the time of switch off hence leading to increase in the life of the pump

Applications



SPRINKLER IRRIGATION



DRIP IRRIGATION SYSTEM



INDUSTRIAL APPLICATION



CIVIL & DOMESTIC WATER SUPPLY



FIRE FIGHTING SYSTEM

75 & 80 mm (3") with Water Filled Motor

DESCRIPTION

Varuna brand makes reliable, efficient and durable Submersible pump sets of best quality. Following are the salient features of Submersible pump sets with Water filled Motor.

SALIENT FEATURES

- Dynamically balanced Rotating parts to ensure minimum noise and vibration-free operation.
- Motors are designed using multi layer PVC insulated wire to get better reliability and easy repairing at remote location.
- Pump sets are compact and less in weight for easy installation and transportation.
- Accurately machined on CNC machine to get reliable performance and long life.
- Pump sets perform in wide voltage band.
- Motor to be filled with water to get better cooling, winding and bush.
- Starts easily at low voltage.
- Manufactured using a much sophisticated process and hence ensuring more reliability in performance.
- Heavy Duty Carbon thrust bearing with German Technology.
- Products are available with NRV which reduces the thrust load of back pressure.
- Impeller and bowl are made from glass filled noryl which gives strong resistance against sand.
- CI part of pump is coated with CED for better corrosion – resistance, durability, alignment and smoother running.

Material of Construction

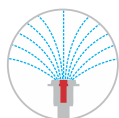
MOTOR DETAILS

Stator	: Insulated varnish using vacuum impregnation method
Rotor	: Aluminum pressure die-cast
Motor Body	: Non Magnetic Stainless Steel
Thrust Bearing	: Self aligned carbon Vs. Stainless steel thrust bearing which withstands high axial thrust load in water lubrication.
Winding	: Multi Layer PVC insulated wire
Cable Sealing Arrangement	: Nitrile Rubber bush locking to protect any foreign particles entering the motor
Journal Bearings	: Gun Metal Bush with 2% nickel and additional centrifugal molding process to avoid chance of warm out
Pressure Diaphragm	: Sufficient size to contain expansion of water inside the Diaphragm motor and avoid the defeat of cooling water

PUMP DETAILS

Bowl	: Glass Filled Noryl
Impeller	: Glass Filled quality abrasion resistant Noryl
Shaft	: Chrome Steel
Wearing Rings	: High Quality Abrasion resistant Stainless Steel
Suction Casing	: Heavy Duty casting material to get proper grip on motor as well as provide path for suction of water. Also provided SS Strainer to protect against foreign particles
Seal	: Carbon Ceramic Seal
Non Return Valve	: FG 260 to reduce the thrust generated due to back pressure of the long pipe line at the time of switch off hence leading to increase in the life of the pump

Applications



SPRINKLER IRRIGATION



DRIP IRRIGATION SYSTEM



AGRICULTURE WATER SUPPLY



INDUSTRIAL APPLICATION



CIVIL & DOMESTIC WATER SUPPLY



FIRE FIGHTING SYSTEM

V3 OF & WF

SUITABLE FOR 75 mm BOREWELL OR ABOVE (Min.Bore Dia. 75mm)

APPROXIMATE PERFORMANCE CHART AT 2880 RPM, 200-240 VOLTS SINGLE PHASE, 50Hz, A.C. SUPPLY
Maximum Motor OD :- 72mm & Pump OD :- 72mm

OUTLET SIZE :- 32mm

TYPE OF FLOW : RADIAL

MODEL		MOTOR RATING		STAGE	HEAD IN METERS	DISCHARGE IN LPM							
OF	WF	kW	H.P.			0	17	20	25	30	35	40	50
VSO 30	VS 30	0.55	0.75	14		40	33	32	30	26.5	22	17	10
VSO 30	VS 30	0.75	1.00	18		52	42	41	39	34	27	21	13
VSO 30	VS 30	0.75	1.00	20		58	47	46.5	42	38	30.5	24	15
VSO 30	VS 30	0.75	1.00	25		73	59	58.1	53	48	38	30	19
VSO 30	VS 30	0.94	1.25	36		104	85	82	76	68	53.5	41	24

V3 OF & WF

SUITABLE FOR 80 mm BOREWELL OR ABOVE (Min.Bore Dia. 80mm)

APPROXIMATE PERFORMANCE CHART AT 2880 RPM, 200-240 VOLTS SINGLE PHASE, 50Hz, A.C. SUPPLY
Maximum Motor OD :- 72mm & Pump OD :- 77mm

OUTLET SIZE :- 32mm

TYPE OF FLOW : RADIAL

MODEL		MOTOR RATING		STAGE	HEAD IN METERS	DISCHARGE IN LPM								
OF	WF	kW	H.P.			0	24	32	38	48	60	72	84	90
VSO 30H	VS 30H	0.75	1.00	10		50	44	42.5	40	37.5	32	26	17	12
VSO 30H	VS 30H	0.75	1.00	12		60	53	50	47.5	45	38	31	19	13
VSO 30H	VS 30H	0.94	1.25	15		75	66	63	60.5	56	48	39	24	17

OUTLET SIZE :- 32mm

TYPE OF FLOW : RADIAL

MODEL		MOTOR RATING		STAGE	HEAD IN METERS	DISCHARGE IN LPM							
OF	WF	kW	H.P.			0	10	20	30	40	50	60	66
VSO 30HH	VS 30HH	0.37	0.50	10		50	48	45	40	33	24	17	8
VSO 30HH	VS 30HH	0.55	0.75	15		75	72	67	60	50	36	25	12
VSO 30HH	VS 30HH	0.75	1.00	20		100	96	89	80	67	48	33	16