

NEW  
**HYDRA**  
 V4 OIL FILLED MOTOR

- ✓ MORE STURDY
- ✓ MORE POWER
- ✓ LONGER LIFE
- ✓ EASY TO REPAIR
- ✓ LESS ELECTRICITY BILL



Original VARUNA Control Panel is

**AVAILABLE  
 NOW!**



- ✓ Superior Performance
- ✓ Less Electric Consumption
- ✓ Longer Life
- ✓ Manages Voltage Fluctuations
- ✓ Low Maintenance

SINCE 1935  
**VARUNA**<sup>TM</sup>  
 ELECTRIC

AAPKE PAANI KA  
 PRESSURE  
 HUM LETE HAIN



**V3 & V4**  
 SUBMERSIBLE PUMP SETS



# 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
Seal	: High grade mechanical seal for zero leakage, minimal friction loss & offers protection against wearing of shaft, hence provides longer life.
Winding	: Dual coat EC Grade Copper wire with F Class insulation.
Cable Sealing	: Water protecting device to assure outside material does not enter into motor Arrangement
Pressure Diaphragm	: Sufficient size to contain expansion of oil inside the motor and avoid the defeat of cooling oil

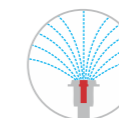
### PUMP DETAILS

Bowl	: Glass Filled Noryl
Impeller	: Glass Filled quality abrasion resistant Noryl
Shaft	: Stainless 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
Non Return Valve	: To reduce the thrust generated due to back pressure of the long pipe line when pump set is switched off hence leading to increase in the life of the pump

## Applications



DOMESTIC &  
MUNICIPAL  
WATER SUPPLY



SPRINKLER &  
PRESSURE BOOSTING  
SYSTEM IRRIGATION



FOUNTAINS  
& GARDENS



HIGH RISE  
BUILDINGS

## 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.
- Cl part of pump is coated with CED for better corrosion – resistance, durability, alignment and smoother running.

## Material of Construction

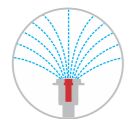
### MOTOR DETAILS

Stator	: Insulated varnish using vacuum impregnation method
Rotor	: COPPER
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
Non Return Valve	: To reduce the thrust generated due to back pressure of the long pipe line when pump set is switched 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

# BOREWELL SUBMERSIBLE PUMP SETS

# 4"



100 mm (4") Oil Filled Motor

100 mm (4") Water Filled Motor

## 100 mm (4") 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 operation.
- Pump sets are compact and weigh less for easy installation and transportation.
- 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 reduces chance of burning.
- Starts easily at low voltage.
- Products are available with NRV which reduces the thrust load of back pressure.
- Impeller and bowl are made from glass filled noryl that gives strong resistance against sand.
- All the hardware (including stud nut) is made of SS 304, protecting them from corrosion in hard or sandy water, and makes them easier to repair and reliable.
- Higher motor efficiency and lighter body weight compared to the earlier design for better performance.
- CI part of pump and motor are 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
Seal	: High grade mechanical seal for zero leakage, minimal friction loss & offers protection against wearing of shaft, hence provides longer life.
Winding	: Dual coat EC Grade Copper wire with F Class insulation
Cable Sealing	: Water protecting device to assure outside material does not enter into motor Arrangement
Pressure Diaphragm	: Sufficient size to contain expansion of oil inside the motor and avoid the defeat of cooling oil

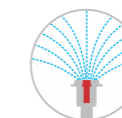
### PUMP DETAILS

Bowl	: Glass Filled Noryl / Cast Iron
Impeller	: Glass Filled quality abrasion resistant Noryl / Cast Iron
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. SS Strainer is also provided for protection against foreign particles
Non Return Valve	: To reduce the thrust generated due to back pressure of the long pipe line when pump set is switched off hence leading to increase in the life of the pump

## Applications



DOMESTIC &  
MUNICIPAL  
WATER SUPPLY



SPRINKLER &  
PRESSURE BOOSTING  
SYSTEM IRRIGATION



FOUNTAINS  
& GARDENS



HIGH RISE  
BUILDINGS

## 100 mm (4") with Water Filled Motor

### DESCRIPTION

Varuna brand makes reliable, efficient and durable Submersible pump sets of top quality as per IS:8034-2002. 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.
- Motor are designed using multi layer PVC insulated wire to get better reliability and easy repairing at remote location.
- 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.
- 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 that give strong resistance against sand.
- Cl 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	: Copper / Aluminium Pressure Die Cast
Motor Body	: Non magnetic Stainless Steel 304
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 / Cast Iron
Impeller	: Glass Filled quality abrasion resistant Noryl / Cast Iron
Shaft	: Stainless 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. SS Strainer is also provided for protection against foreign particles
Non Return Valve	: To reduce the thrust generated due to back pressure of the long pipe line when pump set is switched off hence leading to increase in the life of the pump

## Applications



AGRICULTURE  
WATER SUPPLY



CIVIL & INDUSTRIAL  
APPLICATION



DOMESTIC  
WATER SUPPLY



FIRE FIGHTING  
SYSTEM

## V4 OF & WF

SUITABLE FOR 100 mm BOREWELL OR ABOVE (Min.Bore Dia. 100mm)

APPROXIMATE PERFORMANCE CHART AT 2880 RPM, 200-240 VOLTS SINGLE PHASE / 380-415 VOLTS THREE PHASE, 50 Hz. A.C. SUPPLY. Maximum Motor OD :- 96.5mm & Pump OD :- 96.5mm

OUTLET SIZE :- 38mm (ON DEMAND CAN PROVIDE 50mm)

TYPE OF FLOW : RADIAL

MODEL		MOTOR RATING		STAGE	HEAD IN METERS	DISCHARGE IN LPM							
OF	WF	kW	H.P.			0	70	85	110	120	130	140	150
WO : 1L	WW : 1L	1.10	1.50	7		47	42	39	36	34	32	27	23
WO : 1L	WW : 1L	1.50	2.00	8	53	48	45	41	39	36	31	27	
WO : 1L	WW : 1L	1.50	2.00	10	67	60	56	52	48	45	38	33	
VSO:71	VSR:71	2.20	3.00	12	80	72	69	63	61	56	49	41	
	VSR:71	2.20	3.00	15	100	90	86	79	75	70	59	52	

OUTLET SIZE :- 38mm (ON DEMAND CAN PROVIDE 50mm)

TYPE OF FLOW : RADIAL

MODEL		MOTOR RATING		STAGE	HEAD IN METERS	DISCHARGE IN LPM							
WF	kW	H.P.		0		80	95	115	125	135	145	150	
VS:71H	3.00	4.00	18	122		109	103	94	88	82	71	63	
VS:71H	3.70	5.00	19	129	115	109	99	93	87	75	67		
VS:71H	3.70	5.00	22	149	133	126	115	108	101	87	78		
VS:71H	3.70	5.00	25	169	152	144	131	123	115	98	89		
VS:71H	4.00	6.00	31	210	188	178	162	152	142	122	110		

OUTLET SIZE :- 38mm

TYPE OF FLOW : RADIAL

MODEL		MOTOR RATING		STAGE	HEAD IN METERS	DISCHARGE IN LPM						
OF	WF	kW	H.P.			0	30	50	80	90	110	120
WO : 0L	WW : 0L	0.75	1.00	7		46	44	42	35	32	27	22
WO : 0L	WW : 0L	1.10	1.50	10	66	63	60	50	46	38	31	
WO : 0L	WW : 0L	1.50	2.00	12	79	76	72	60	55	46	37	

OUTLET SIZE :- 32mm

TYPE OF FLOW : RADIAL

MODEL		MOTOR RATING		STAGE	HEAD IN METERS	DISCHARGE IN LPM							
OF	WF	kW	H.P.			0	20	30	40	50	60	70	90
WO : 2L	WW : 2L	0.55	0.75	7		42	39	38	37	36	33	30	23
WO : 2L	WW : 2L	0.75	1.00	8	48	45	44	42	41	38	34	26	
WO : 2L	WW : 2L	0.75	1.00	10	60	56	54	53	51	47	43	33	
WO : 2L	WW : 2L	1.10	1.50	12	72	68	65	63	61	57	51	39	
WO : 2L	WW : 2L	1.10	1.50	14	84	79	76	74	71	66	60	46	
WO : 2L	WW : 2L	1.50	2.00	16	96	90	87	84	81	76	68	52	
WO : 2L	WW : 2L	1.50	2.00	18	108	102	98	95	92	85	77	59	

Note : OF - Single phase motors are available upto 3 H.P.

WF - Single phase motors are available up to 5 H.P.

OUTLET SIZE :- 32mm

TYPE OF FLOW : RADIAL

MODEL		MOTOR RATING		STAGE	HEAD IN METERS	DISCHARGE IN LPM							
OF	WF	kW	H.P.			0	22	26	37	42	45	55	68
WO : 3L	WW : 3L	0.37	0.50	6		35	32	31	29	28	26	23	8
WO : 3L	EWV : 3LE	0.75	1.00	8	46	43	41	39	37	35	30	10	
WO : 3L	WW : 3L	0.55	0.75	10	58	53	51	48	46	44	38	13	
WO : 3L	WW : 3L	0.75	1.00	12	69	64	61	58	55	53	45	15	
WO : 3L	WW : 3L	1.10	1.50	16	92	85	81	77	73	71	60	20	
WO : 3L	WW : 3L	1.10	1.50	21	121	112	107	102	97	92	79	27	
	WW : 3L	1.50	2.00	25	144	134	128	121	115	110	94	32	

