SEEREX PUMPS®

PRIVATE LIMITED

Fluid Handling Solutions

Product Catalogue

About the Company

The Company was set up way back in year 1982 by a team of dedicated electrical and mechanical engineers ,with years of experience behind them ,initially trading proceeding with manufacturing and market bore well submersible pumps of high quality backed with competitive prices .The idea resulted in introducing SEEREX brand pumps which have won wide acceptability and popularity in Government departments as well as private sector thereby acclaiming variety of pumping machinery & fulfilling the main objective of our organization .

SEEREX Pumps find wide applications in lifting water from depths to delivering at high elevations .It finds use in irrigation, rural and urban water supply systems ,multi-storied buildings, structures, fire fighting, mining, industries ,sewage scheme, construction zones, river bed irrigation, oil offshore platforms, oil rigs, chemical industries, power plants, dams sites etc .

Quality is the hallmark of our organization and ,our products meet all national and international standards .The company is accredited with ISO 9001:2008 QMS certificate .Company is awarded with Quality Appreciation Certificate by Department of Commerce and Industry and Bhartiya Udyog Rattan Award.

Seerex Pumps Pvt .Ltd has made steady progress averaging more than 20% per annum .The company Endeavour to continue increasing customer base & providing quality products at reasonable prices and the best of services to valued customers ,who have helped us in achieving our goals .

SEEREX

Submersible Pumps

Applications

- Tubewell Irrigation
- Water Supply Schemes
- Lift Irrigation Schemes
- Sprinklers
- Fire Fighters
- Booster Application
- Fountains Installation
- Cooling -Air conditioning
- Mine Dewatering
- Offshore Rigs & Platforms

Materials of Constructions

- Bowl Casing-CI/SS
- Impeller-Bronze/CI/SS
- Pump Shaft-SS
- Motor Body-MS/CI/SS
- Motor Shaft-EN-8/SS-410
- Winding Wire-PVC/XLPE Insulated Copper
- Motor Lead -PVC Insulated & PVC Sheathed Copper
- Nuts & Bolts - SS

General Range

- Well Dia -100 mm to 250 mm
- Capacity - 3m^3/hr. to 300m^3/hr
- Head upto 300 meters
- Motor Rating upto 150 HP
- Frequency - 50 Hz
- Motor Synchronous Speed - 3000 RPM
- Motor Type-Water Lubricated
- Power Supply- 380V- 415V /3 Phase 220 V- 240 V/1 Phase

SEEREX

Dewatering Pumps

Applications

- Mines & Collieries application
- Lift Irrigation Schemes
- Dam Sites
- Cooling water supply
- Pond Pumping
- Dewatering river bed, canal
- Flood preventions
- Pumping Stations
- Strom water pumping

Materials of Constructions

- Pump Bowl/Housing-CI
- Motor Housing- CI
- Pump / Motor Shaft- EN8
- Impeller - Bronze / SS
- Suction Casing - CI
- Discharge Casing - CI
- Suction Strainer - MS/ SS
- Mach. Seal - SS vs C or SIC vs SIC
- Bearing Type - Ball Bearing

General Range

- Outlet Size upto 200 mm
- Capacity upto 300^3/hr.
- Head upto 60 meters
- Motor Rating upto 75HP
- Frequency - 50 Hz
- Motor Synchronous Speed - 1500 / 3000 RMP
- Maximum Solid Size upto 25mm

SEEREX

Open Well Submersible Pump

(Horizontal)

Applications

- Well Irrigation
- Water Supply Schemes
- Lift Irrigation Schemes
- Drip - Sprinklers
- Fire Fighting
- Booster Application
- Fountains Installation
- Cooling -Air conditioning
- Resiviors
- Landscaping & Agriculture

Materials of Constructions

- Casing-CI/SS
- Impeller-Bronze / SS
- Shaft-SS / EN8
- Winding Wire-PVC/XLPE
- Insulated Corpper
- Lead -PVC Insulated & PVC Sheathed Copper
- Nuts & Bolts - SS / MS
- Hooks - Forged Steel

General Range

- Capacity - 1500 LPM
- Head upto 30 meters
- Motor Rating upto 20 HP
- Frequency - 50 Hz
- Synchronous Speed- 3000 RPM
- Motor Type-Water Lubricated
- Power Supply- 220 V- 240V/1 Phase
- Outlet Size upto 3 Inches

SEEREX

Open Well Submersible Pump

(Vertical)

Applications

- Well Irrigation
- Water Supply Schemes
- Lift Irrigation Schemes
- Drip - Sprinklers
- Fire Fighting
- Booster Application
- Fountains Installation
- Cooling -Air conditioning
- Resiviors
- Landscaping & Agriculture

Materials of Constructions

- Casing-CI/SS
- Impeller-Bronze / SS
- Pump/Motor Shaft-SS410
- Winding Wire-PVC/XLPE
- Insulated Corpper
- Lead -PVC Insulated & PVC Sheathed Copper
- Nuts & Bolts - SS / MS
- Hooks - Forged Steel
- Motor Casing - MS / CI

General Range

- Capacity - 1500 LPM
- Head upto 30 meters
- Motor Rating upto 20 HP
- Frequency - 50 Hz
- Synchronous Speed- 3000 RPM
- Motor Type-Water Lubricated
- Power Supply- 380V- 415V /3 Phase 220 V- 240 V/1 Phase

SEEREX

Submersible Pumps

Applications

- Sewage Handling System
- Steel Plant & Power Plant
- Pharmaceuticals & Bulk drugs
- Refineries
- Paints & Dyes
- Effluent Treatment
- Chemical Industries
- Construction
- Water Handling etc.

Materials of Constructions

- Casing - CI/SS
- Impeller -CI/SS
- Shaft - SS 410
- Motor Body CI
- Mech. Seal- TC/TC
- Hardware - Stainless Steel
- Rubber Part- Nitrile / Witon
- Rubber

General Range

- Capacity upto 500M^3/hr
- Head upto 70 meters
- Motor Rating upto 65 HP
- Frequency- 50 Hz
- Solid Size upto 100mm
- Synchronous-Speed- 1500/3000 RPM
- Power Supply - 380 V -415 V/ 1 Phase 220 V-240 V/1 Phase
- Outlet Size upto 5 Inches
- Control- Thermistor & Moisture

SEEREX

Centrifugal Monoblock Pump

Applications

- Domestic
- Household
- Multistoried Buildings
- Constructions
- Irrigation
- Booster
- Industries
- Circulation of Water - A.C.
- Gardening
- Sprinklers

Materials of Constructions

- Pump Casing - CI
- Impeller - Bronze / SS
- Pump Shaft - SS / EN8
- Motor Body - Aluminium
- Mech. Seal- C / SS
- Hardware - Stainless Steel
- Ruber Part - Nitrile / Witon Rubber
- Lead - PVC Insulated & Sheathed

General Range

- Capacity upto 300 LPM
- Head upto 30 meters
- Motor Rating upto 2 HP
- Frequency - 50 Hz
- Motor Type- TEFC Class "E"
- Synchrono Speed- 1500/3000 RPM
- Power Supply- 220 V - 240V/1 Phase
- Outlet Size upto 25mm

SEEREX

Vertical Turbine Pump

Applications

- Tubewell Irrigation
- Openwell Irrigation
- River / Canal Irrigation
- Power Plants
- Water Supply-Urban & Rural
- Sewage / Drainage
- General Industry
- Mine Dewatering
- On Line Boosting
- Oil/ Petroleum Transfer

Materials of Constructions

- Lubrication : Water/ Oil/ Grease
- Drive : Electric Motor/ Diesel Engine
- Bowl Casing-CI
- Above / Under Ground Discharge
- Impeller-Bronze/CI/SS
- Pump Shaft-SS / EN8
- Nuts & Bolts - SS

General Range

- Well Dia - 100 mm to 250 mm
- Capacity-3m^3/hr. to 300m^3/hr
- Head upto 300 meters
- Speed from 980 RPM - 3000 RPM
- Motor Type-Solid Shaft/Hollow Shaft
- Power Rating upto 150 HP

SEEREX

Centrifugal End-Suction Pump

Applications

- Clean or turbid liquid
- Non aggressive liquids
- Heating and circulation
- Fire fighting
- Brine and alkaline solutions
- Petrol and benzene
- Water pumping stations

Materials of Constructions

- Pump Casing - CI
- Impeller - CI/ LTB
- Pump Shaft - SS
- Shaft Seal - Gland
- Packing for water
- Application, Mech. Seal for other liquid
- Hardware - Stainless Steel
- Other option of material also available on customer requirement

General Range

- Capacity upto 500m3/hr
- Head upto 80 meters
- Power Rating upto 75 HP
- Speed 1500/3000 RPM
- Size upto 150mm x 200mm
- Impeller Type Open/Closed

We also deal in :

1. **Pipes**
   - -MS PIPES
   - - GI PIPES
   - - PVC PIPES
   - - HDPE PIPES

2. **Fittings**

3. **Flanges**

4. **Valves**
   - -Sluice gate valves
   - -Butterfly valves
   - -Non-return valves
   - -Air Valves
   - -Anti-vacuum valves
   - -Diaphragm valve and many more...

5. **Gaskets**
   - EPDM gaskets
   - Metallic & semi-metallic gaskets
   - Ring joint gaskets
   - PTFE gaskets
   - Rubber gaskets

6. **Cables**
   - HT three core power cables (cable size in sq mm:35 to 800)
   - Lt power cables – Aluminum Conductor (cable size in sq mm : 6 to 1000)
   - LT power & control cables – Copper Conductor (cable size in sq mm : 4 to 1000)
   - HT single core power cables (cable size in sq mm : 35 to 1000)
   - Flat cables (cross-sectional area of conductor in sq. mm : 1 to 16)
   - Flat cables (cross-sectional area of conductor in sq. mm : 1.5 to 4)
   - XLPE cables : (cross-sectional area of conductor in sq. mm : 1.5 to 4)

7. **Nuts & Bolts**:

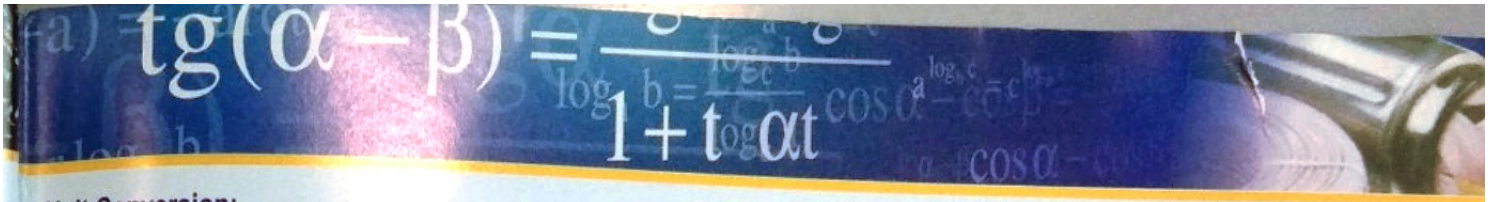
   Can supply to your specifications.

8. **Control Panels with starters**

   The range of starters is -
   - STAR DELTA
   - AT STARTER
   - SOFT STARTER
   - VFD

9. **Flow meter**
   - Electromagnetic
   - Insertion type
   - Ultrasonic
10. **Clamps**
11. **Engine mounted pump skids**
12. **SCADA systems**

➤ **These products can be supplied as per your specific requirements.**



Unit Conversion:

1 Meter = 3.2808 Feet
1 Feet = 0.3048 Meter
1 Inch = 25.400 mm
1 kg./cm^2 = 10 Meter
1 kg. = 1000 gm
1 kg. = 2.2046 lb
1 lb = 0.4536 kg.
1 HP = 0.746 kW

1kW = 1000 W
1 Liter per Hour (LPH) = 60 Liter per Minute = 3600 Liter per Second
1 Cusec = 1700 LPM
M^3/hr = 16.67 LPM
1 Gallon per Minute (GPM) = 4.543 LPM
1 Gallon per Hour (GPH) = 13.2 LPM
1 Cu. M. = 1000 Ltrs
1 Cu. Ft. = 28.32 Ltrs

For Input Power Consumption: 1 UNIT = 1000 watt per Hour (1kW/Hr)

Calculation of Suitable Pump set for Your required Site
H1 = Actual Lowering of Pump set in meter
H2 = Friction losses of Horizontal Pipe Line (Approx 1% of total length)
H3 = Vertical height of slope (If any slope)
H4 = required pressure in each sprinkler i.e. Avg. 1 meter per sprinkler 2.4 Mtr per Elbow, 1.5 Mtr per Bend, 6 Mtr per Valve (Approx) x no sprinklers

Total Head H = H1+H2+H3+H4

Disharge Calculation : 28 LPM X Nos. of Sprinkler

Example for head and discharge calculation :
28LPM X No. of sprinkler for 156 Meter lowering and requirement of sprinkler are 40 with 1000 ft (305 mtr) of length of horizontal pipe.

Actual lowing of pump set H1 = **512 feet (156 mtr)**
Total length of the pipe line from the last sprinkler is 1000 ft (305 mtr.)
So that 1% Friction loss (H2) = **3 MTR.**
Horizontal height of the slope H3 = **0.**
Required Sprinklers (40 nos) H4 = **40 mtr**
(Without elbow, valve, bend calculation)

H=156 mtr + 3 mtr + 0 + 40 mtr = 199 mrt
Fro 40 Sprinkler required discharge **Q = 28 LPM x 40 = 1120 LPM**

$$\text{Required HP} = \frac{\text{Head in mtrs } X \text{ Discharge in LPM}}{4500 \ X \ \text{Pump Eff.}}$$

$$\text{kW} = \frac{\text{Head in mtrs } X \text{ Discharge in LPM}}{6120 \ X \ \text{Pump Eff.}}$$

$$\text{Input Power kW} = \frac{\sqrt{3} \text{ X V X I X Cos } \theta}{1000}$$

$$\text{Power Factor (PF)} = \frac{\text{Input Power}}{\sqrt{3} \ X \ V \ X \ I}$$

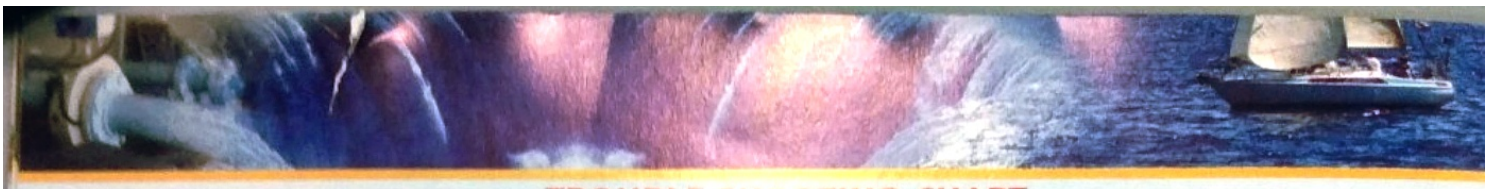
Where v= Voltage, *I* = Current, cos θ = Power Factor

$$\text{Water Horse Power (WHP)} = \frac{\text{Head in mtrs X Discharge in LPM}}{4500}$$
(Pump out put HP)

$$\text{Shaft Horse Power (SHP)} = \frac{\text{Motor input in kW x Motor efficiency in \%}}{73.6}$$
(Motor out put HP)

$$\textbf{Pump Efficiency (\%)} = \frac{\textbf{Water Horse Power}}{\textbf{Shaft Horse Power}} \times 100$$

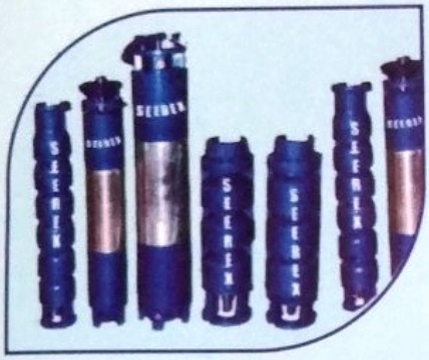
$$\textbf{Overall Efficiency (\%)} = \frac{\textbf{Head in mtrs x Discharge in LPM}}{\textbf{6120 x Input Power}} \times 100$$

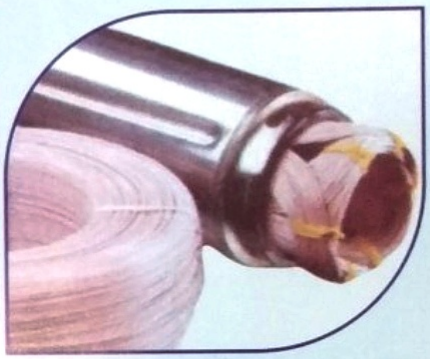


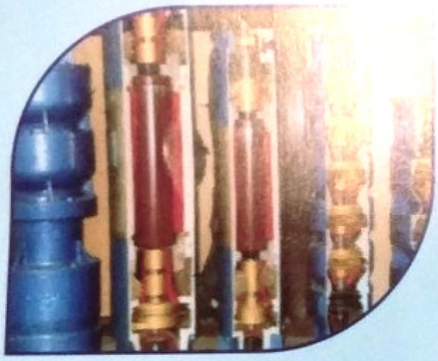
TROUBLE SHOOTING CHART

Sr No.	Problem	Cause	Suggested Remedy
1.	Pumps does not starts.	Starting panel defective	Replace by new starter and check for continuity.
		Overload protection out	Set relay properly.
		Fuse blown off.	Replace with correct rating.
		Low line voltage	Use adequate size cable. Wait till voltage recovers or contact electricity supplier.
2.	Fuse blows when motor is running	Incorrect voltage or inadequate power supply.	Stabilize the voltage to rated and wait for adequate power supply.
		Overheated overload protection box.	Overload relay to be replaced or adjusted to higher value. Replace starter if trips repetitively.
		Defective control panel components	Defective electrical components to be replaced.
		Damaged motor cable or winding.	Check continuity in cable and wiring. Replace the cable. Rewind the motor if required.
		Pump becomes sand locked	Dismantle and clean water passages inside the pump
3.	Pumps operates but delivers little water.	Motor running lower than rated speed.	Check voltage / frequency. Replace cable with higher size if necessary.
		Strainer / impeller / stage casing may be clogged.	Dismantles and clean water passage inside the pump water passage of impeller and stage casing if necessary replace them.
		Defective rising main (leakage)	Check the piping joints for leakage / choking.
		System resistance of the pumpset is higher than estimated.	Replace pipes with higher size. Replace the pump set with higher size.
		Yield of the bore is not sufficient.	Lower the unit further if possible or throttle the sluice valve adjusting to flow rated.
		Damaged pump parts.	Replace correct components e.g. Impeller / Diffuser / Bushes / Sleeves / Necking etc. Check slit / sand content of water to avoid premature wear.
4.	Pump does not deliver any water.	Water level in borewell may have gone below level of pump.	If possible lower the unit further Stop the unit until water level rises sufficiently. Operate the pumpset with throttle valve.
		Total head of the system is higher than designed head of pumpset.	Replace with suitable pumpset for higher head. Ensure that flow is not obstructed due to foreign bodies in valve or inferior quality of valve.
		NRV sand blocked / Wrongly connected NRV on delivery pipe.	Check the flow direction arrow on the NRV body connect correctly. Check for sand blockage clean and replace.
		Motor does not start.	Check cable connection. Check for correctness of incoming power supply. Check for backup protection.
		Motor starts but doesn't pickup the rated speed.	Check voltage / frequency. Replace cable with higher size if necessary.
5.	Fuse blow off or circuit breaker trips when motor is started	Defective control panel a) Defective wiring. b) Incorrect fuse component.	Repair / replace as per instruction of control panel.
		Defective relay.	Replace and reset the starter only for checking the current drawn. Make sure that abnormal current is not drawn.
		Damaged motor winding or cable.	Rewind motor / replace cable.
		Pump is sand locked.	Remove, dismantle and clean water passages inside the pump and ressemble.
		Pumpset might have blocked in crossed well.	Move the unit and put straight and then strat otherwise shaft would have bend.
		Pump and motor not coupled properly	Check and realign coupling and see freeness
6.	Fluctuating Motor Current.	Check water level or system leakage.	Replace damaged pipe or repair leaks. Lower down the pump to get water
		Foreign object between casing ring and impeller or bearing parts inside pump.	Take out the pump and repair
		Abrasion of thrust and bush bearing inside motor.	Take out and replace the worn out components.

Quality is our motto







Note : All information printed is subject to change for better performance and site conditions. Please refer to us for suggestions.

SEEREX PUMPS®
PRIVATE LIMITED

SEEREX PUMPS®

PRIVATE LIMITED

(AN ISO 9001-2008 QMS COMPANY)

Office : D-154 (FF), Industrial Estate, Phase-7, Mohali, Punjab-160055, INDIA
Phone: (0) +91-172-4651154, 2236416 Fax: +91-172-5097154
Email: seerex_pumps@yahoo.co.in, info@seerexpumps.com

AUTHORISED DISTRIBUTOR

WWW.SEEREXPUMPS.COM