



# CREATIVE ENGINEERS



1<sup>st</sup> Floor, Above Bhairavnath Post Office,  
Opp Pragati Society, Nr. Meera Cross Roads  
Maninagar, Ahmedabad - 380028

Tele Fax : + 91-079-25431453, 8140179903

Website :- [www.sspumpsindia.com](http://www.sspumpsindia.com), E-mail :- [info@sspumpsindia.com](mailto:info@sspumpsindia.com).

## **VERTICAL BOREWELL SUBMERSIBLE PUMP**

Creative engineers has been manufacturing & marketing “MALHAR” brand vertical borewell submersible pumps suitable for bore size of 3” , 4” , 6” , 8” 10 “ , 12 “ and 14”

### **PRINCIPAL OF OPERATION :-**

MALHAR submersible pumps are vertical , multi stage, centrifugal pumps with motor at the bottom & pump at the top. The water enters at the bottom of the pump and flows upwards through many stages.

The stainless steel bronze impellers rotate inside the diffusers with inherent guide vanes. The diffusers direct water leaving each impeller towards suction opening of the next impeller, Such a flow through each stage of impeller and diffuser combination adds pressure at each stage and finally water under high pressure is discharged through outlet at the top.

### **CONSTRUCTION DETAILS :-**

Motors are wet-type, water lubricated, water cooled rewindable squirrel cage induction asynchronous type capable of with standing wide voltage fluctuations. Specially designed tilting pad thrust bearings can with stand axial thrust loads with negligible wear. The stator is wound with water proof synthetic film insulated winding wires. Spring loaded seal rings , grommets & sand guard prevent ingress of water in to the motor. An elastic diaphragm compensates for variations in pressure of cooling water as it gets heated during functioning.

The supply cables are protected by special Stainless Steel guards along the full length of the pump.

MALHAR Submersible Pumps are manufactured as per IS 8034 : 1989 with strict quality control for years of efficiency and reliable peration. Special design of the winding ensures efficient operation even high head and low voltages. MALHAR pumps are available in both Radial & Mixed flow. The pump is multistage of superior hydraulic design for maximum performance and operating efficiency. The bowls are made of Close Grained Cast iron for greater abrasion resistance. The impellers are of high quality graded bronze , dynamically balanced for best results. The Stainless Steel Shaft is ground to close tolerances and guided by water lubricated gun metal bearings, provided in each bowl of impeller casing. Hydrostatic tests are conducted on each pump to ensure maximum discharge at selected heads variable voltage conditions. A Stainless Steel coupling is provided to couple the motor and pump.

### **APPLICATION :**

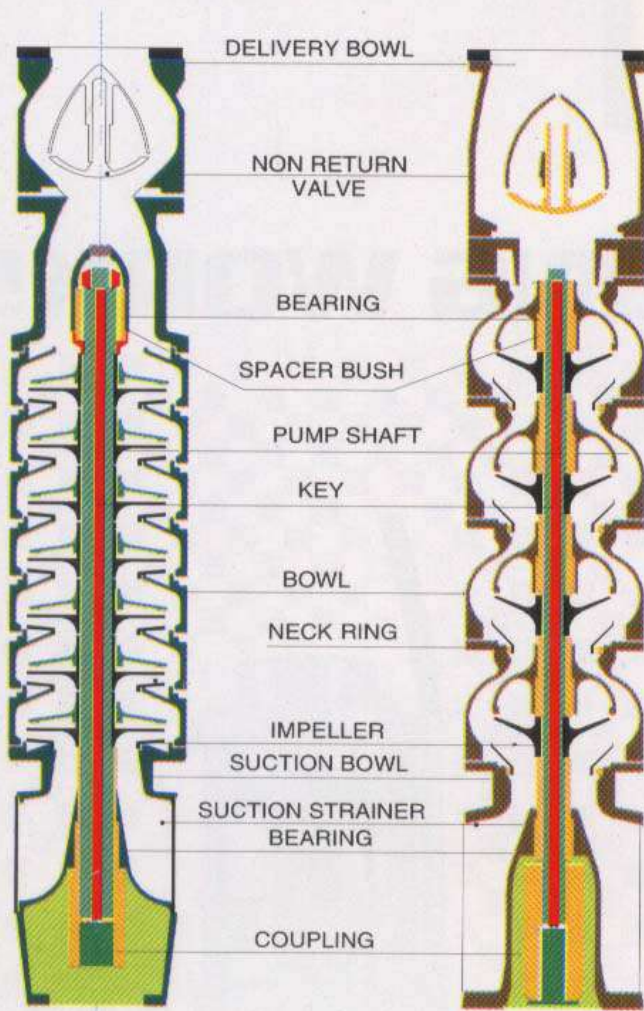
Agricultural, Industries, High rise Buildings, Fire Fighting, Sea water application. Etc..  
 The material of construction for the complete range of Submersible Pumps is as follows:-

<b><u>MATERIAL OF CONSTRUCTION - PUMP</u></b>	
<b>PART NAME</b>	<b>MATERIAL</b>
IMPELLER	Noryl/Bronze/Stainless Steel
STAGE CASING	Cast iron / Stainless Steel
STAGE SLEEVE	Stainless Steel
BEARING BUSH	Leaded Bronze
PUMP SHAFT	Stainless Steel
STRAINER	Stainless Steel
CABLE GUARD	Stainless Steel
SUCTION CASING	Cast iron
DISCHARGE OUTLET CASING	Cast iron
PUMP COUPLING	Stainless Steel
T-ROD	Forged Steel
FASTENERS	Stainless Steel

<b><u>MATERIAL OF CONSTRUCTION - MOTOR</u></b>	
<b>PART NAME</b>	<b>MATERIAL</b>
END RING & END LAMINATIONS	Mild Steel
SHAFT	EN9
BEARING BUSH	Leaded Bronze
THRUST BEARING	Leaded Bronze & fibre (compos) Stainless Steel & carbon
LOWER & UPPER HOUSING	Cst iron
STRAINER	Stainless Steel
STATOR SHELL	Stainless Steel
SHAFT SLEEVE	Stainless Steel
MOTOR BASE	Cast iron
SAND GUARD	Leaded Bronze
ADAPTOR	Cast iron

**MOC Also available as per customer requirement**

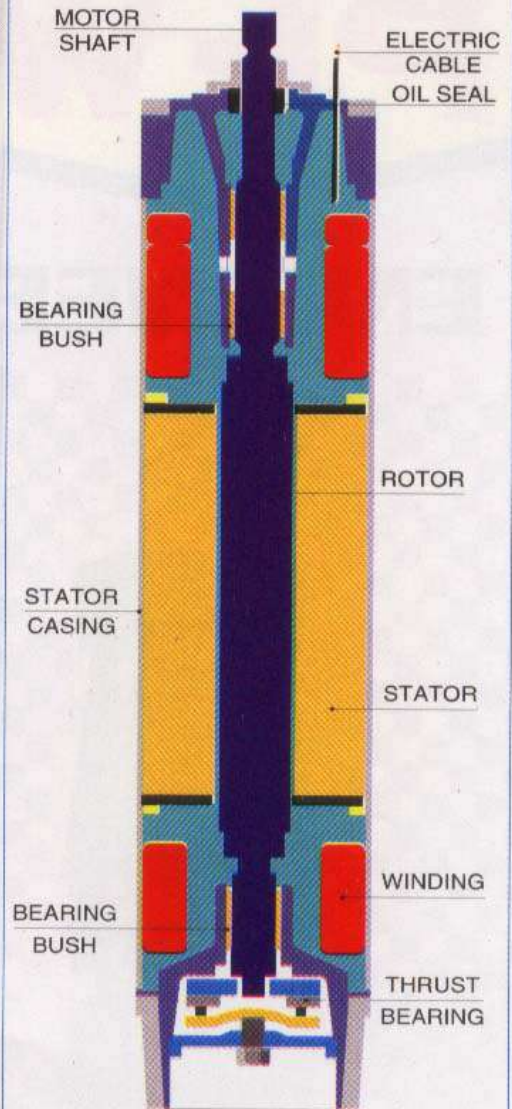




**RADIAL FLOW**

**MIXED FLOW**

**CROSS-SECTION OF PUMP**



**MOTOR**