Submersible Pumps





VISION

To be a leading local manufacturer and reliable partner providing engineered products and solutions to our customers.

MISSION

Supporting the socio-economic development of the Kingdom.

- Enhance local content through technology transfer and human capital development.
- Contribute to the development of Oil & Gas, Water and upcoming industrial initiatives.

Manufacturer of engineered metal products and provider of solutions to our customers.

- Exceed customer expectations through partnerships, high quality and timely delivery.
- Focus on operational excellence in the manufacturing of engineered products.

Involved proactively with our key stakeholders.

- Care for our employees, community and the environment.
- Maximize shareholder value through innovation and effective resource utilization.

VALUES

Commitment

Be reliable and add value to our customers.

Empowerment

Trust our employees to make the right decisions.

Integrity

Show transparency in everything we do.

Excellence

Operate professionally, safely and effectively.

Collaboration

Deliver through cooperation and team work.





Saudi Mechanical Industries Company

SMI is a world-class precision manufacturing company, offering a comprehensive service with emphasis on total customer satisfaction. With a dedicated and experienced team of skilled personnel, we provide an efficient service to achieve the required specifications and quality set by our customers.

PRODUCT RANGE

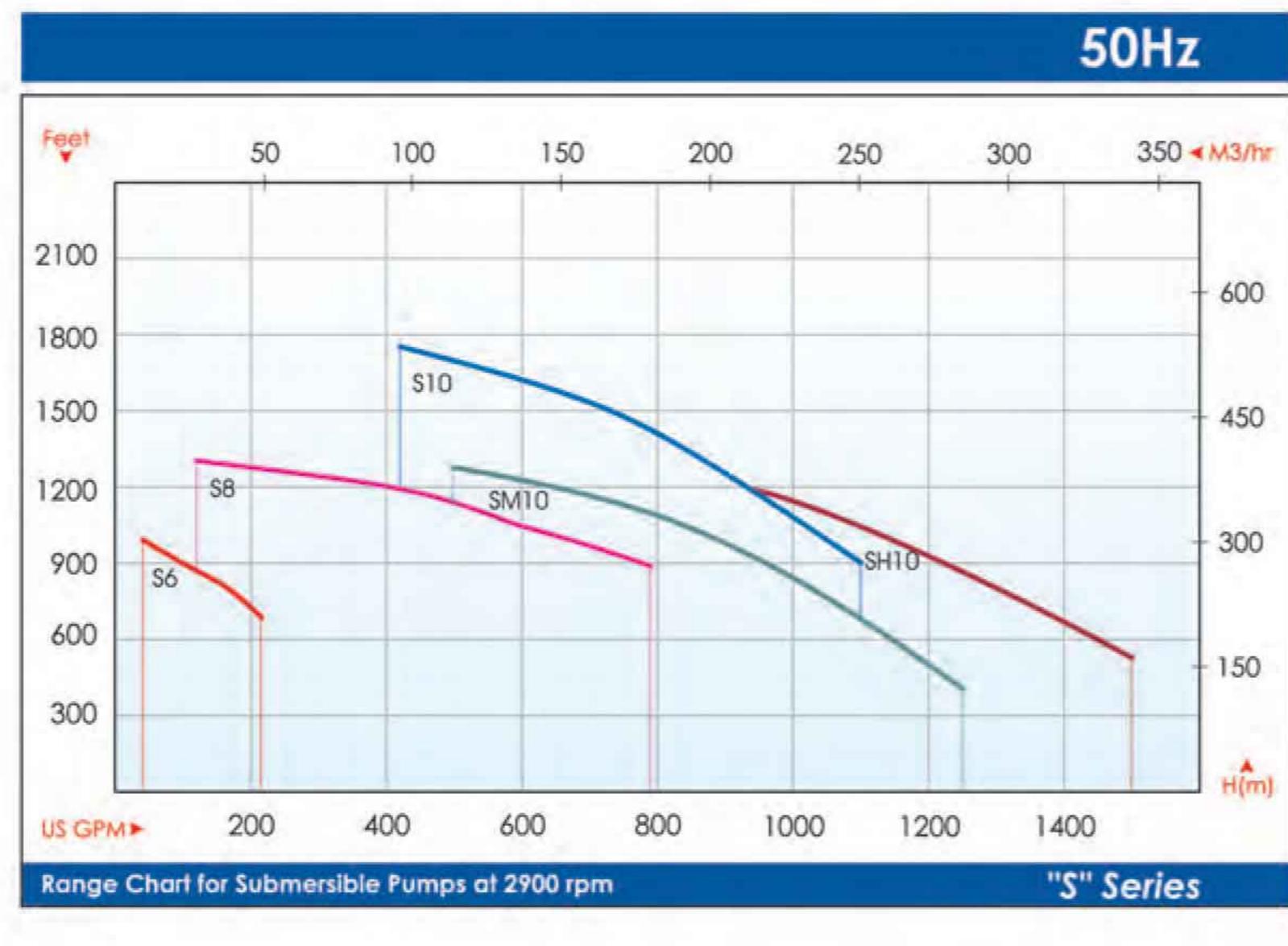
- "S" Series covers an output range of 90 to 2000 GPM in Standard Construction (Grey CI and Bronze) for 6, 8, 10 and 12 inch applications.
- Custom made pumps for special applications (In standard, bronze and stainless steel construction).



60Hz < M3/hr \$10 SM10 \$8 SH10 US GPM>

Range Chart for Submersible Pumps at 3450 rpm

"S" Series

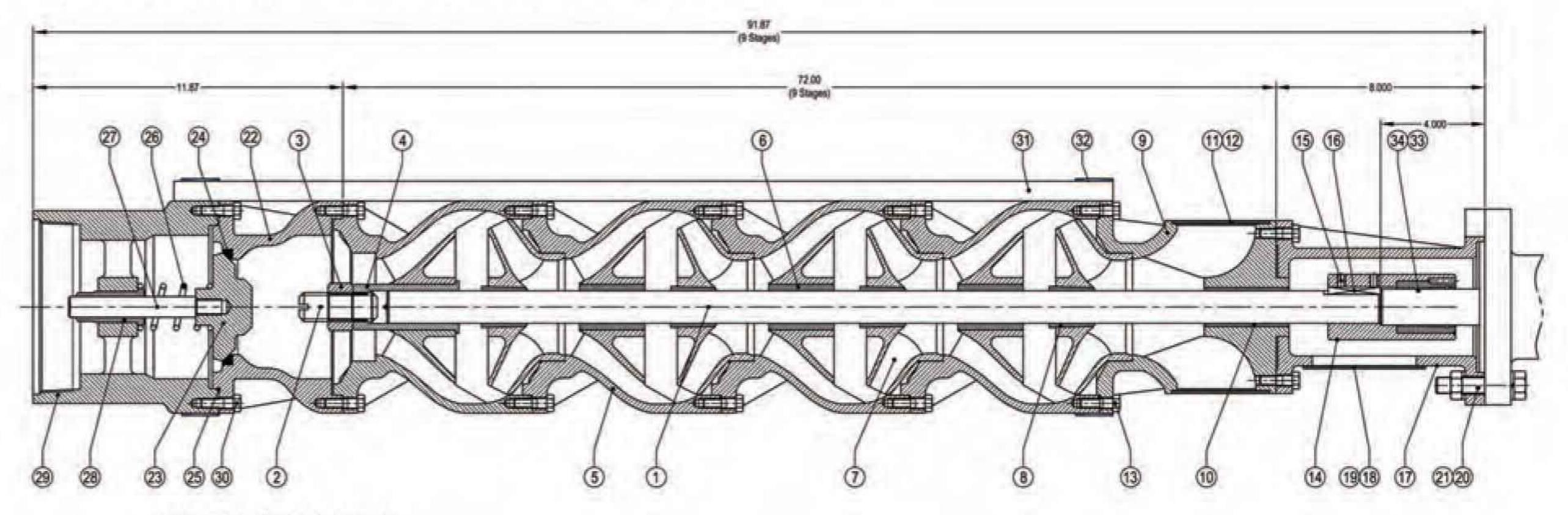




Standard Pump "S" Series

The "S" series provide an output capacity of 90 to 2000 GPM (450 m3/hr) with heads up to 1800 ft (550M). These pumps are offered in two types of construction; 6 inch pumps are threaded construction and 7-11 inch pumps are flanged construction.

- High quality cast iron bowls combined with precision balanced bronze impellers give the highest efficiency and performance possible with built-in non return valve.
- Cast Iron Enameled bowls are available for higher efficiency and lower power consumption.
- Motor brackets are designed to accept all NEMA flanged motors.
- · Bowl shafts, screen bolts and motor couplings are of high quality stainless steel.
- Stainless steel cable guard is provided as a standard accessory.
- Special construction materials such as Ni-Al-Bronze, Epoxy coated and stainless steel (304, 316L, Duplex) are available upon request.



SUBMERSIBLE PUMP

S9MC - 9 STG, W/ BUILT-IN CHECK VALVE

6" DISCHARGE & 8" MOTOR

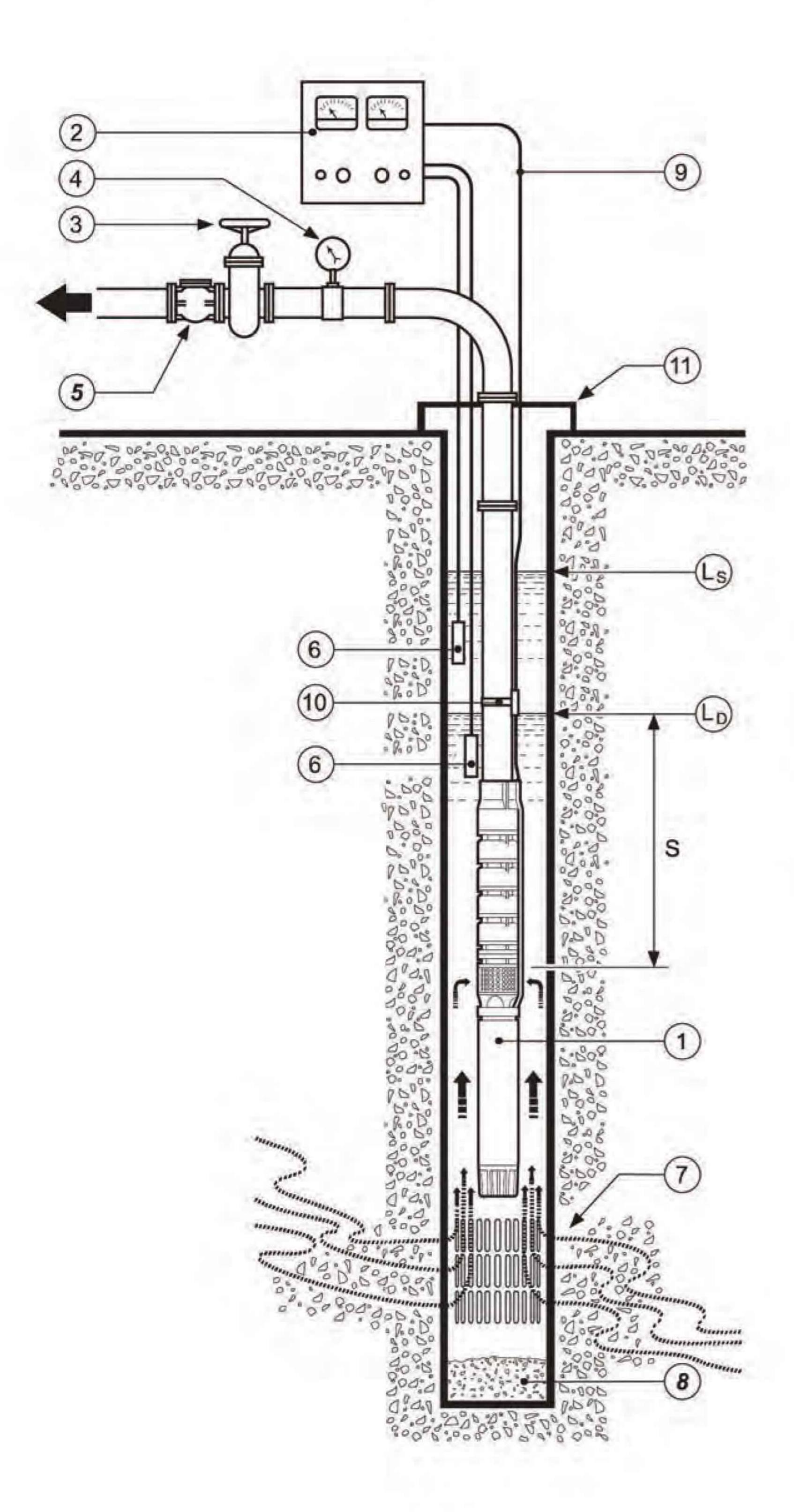
	6" DISCHA	RGE & 8" MOTOR
1	20-CESBSA1111-74.5	SUB. BOWL SHAFT 1-1/4" x 74.50" LG.
2	20-BP2017	UP THRUST SCREW 1-1/8" x 3.00
3	20-BP2000	JAM NUT 1-1/8"
4	20-BI7697C898-B	THRUST BEARING 1.25 x 1.75 x 4.06
5	20-CA7101E	INTERMEDIATE BOWL M8
6	20-BI7651-C898	BOWL BEARING 1.25 x 1.75 x 2.50
7	20-CD7109SI	IMPELLER S9MC (M8MC)
8	20-BJ7596SS	COLLET 1 1/4"
9	20-SMM800SC	SUB. SUCTION CASE M8 / S9
10	20-BI7639-C898	SUB. SUC. CASE BRG. 1.25 x 1.50 x 3.25
11	20-SF205363	INLET SCREEN 20.5 x 3.63
12	10-BP2081	SELF TAP SCREW #6-32 x 3/8
13	10-BP7390S	HEX. BOLT 3/8 -16UNC x 1.25
14	10-SF008SMC	SUB MTR.COUPLING 1.25" x 1.50"
15	10-BP7812	SET SCREW 5/16-18UNC x 1/2
16	20-BOKS0202SS-2.00	PUMP SHAFT KEY 5/16 x 5/16 x 2.00 LG.
17	20-SMHM08MB	SUB. MOTOR BRACKET S8/S9 8"
18	20-SF200375	PROTECTION SCREEN 2.00 x 4.00
19	10-JG244-595	DRIVE SCREW 4 x 1/4 TYPE U
20	10-BP2050	HEX. BOLT 5/8-11UNC x 3.00
21	10-BP2040	SELF LOCK NUT 5/8-11UNC
22	20-CVB05S9	CHECK VALVE BODY S9 PUMP
23	20-CVP05S8S9	CHECK VALVE PLUNGER S8/S9 PUMP
24	10-MIS1620	SEALANT RING S8/S9
25	10-BQ7433	"O" - RING 158.0mm x 3.0mm
26	10-MIS1265	SPRING S8/S9 (COIL TYPE)
27	20-CVS05S8S9	CHECK VALVE SHAFT S8/S9 PUMP
28	20-BI8258	CHECK VALVE BEARING S8/S9
29	20-CVBS906CAT	CHECK VALVE COL. ADAPTOR S9 - 6" T
30	10-BP7390	HEX. BOLT 3/8 -16UNC x 1.25
31	20-SF1375CG-B	CABLE GUARD 2.125 x 0.75 x 72.23 LG.
32	10-SFSS7-1HC	HOSE CLAMP S8 8 TO 10
33	10-BR7736	NAME PLATE (BOWL ASSEMBLY)
24	10 10 044 505	DRIVE SCREW A = 4/A TYPE II

DRIVE SCREW 4 x 1/4 TYPE U



Borehole Electric Pumps Series

Borehole Electric Pumps Series Well Installation Diagram



Borehole electric pump

- Electric control panel

3 - Gate valve

- Pressure gauge

Non return valve

- Level control detectors

7 - Well strainer

- Well bottom

9 - Power supply cable

10 - Cable clips

11 - Well cover

- Positive suction head

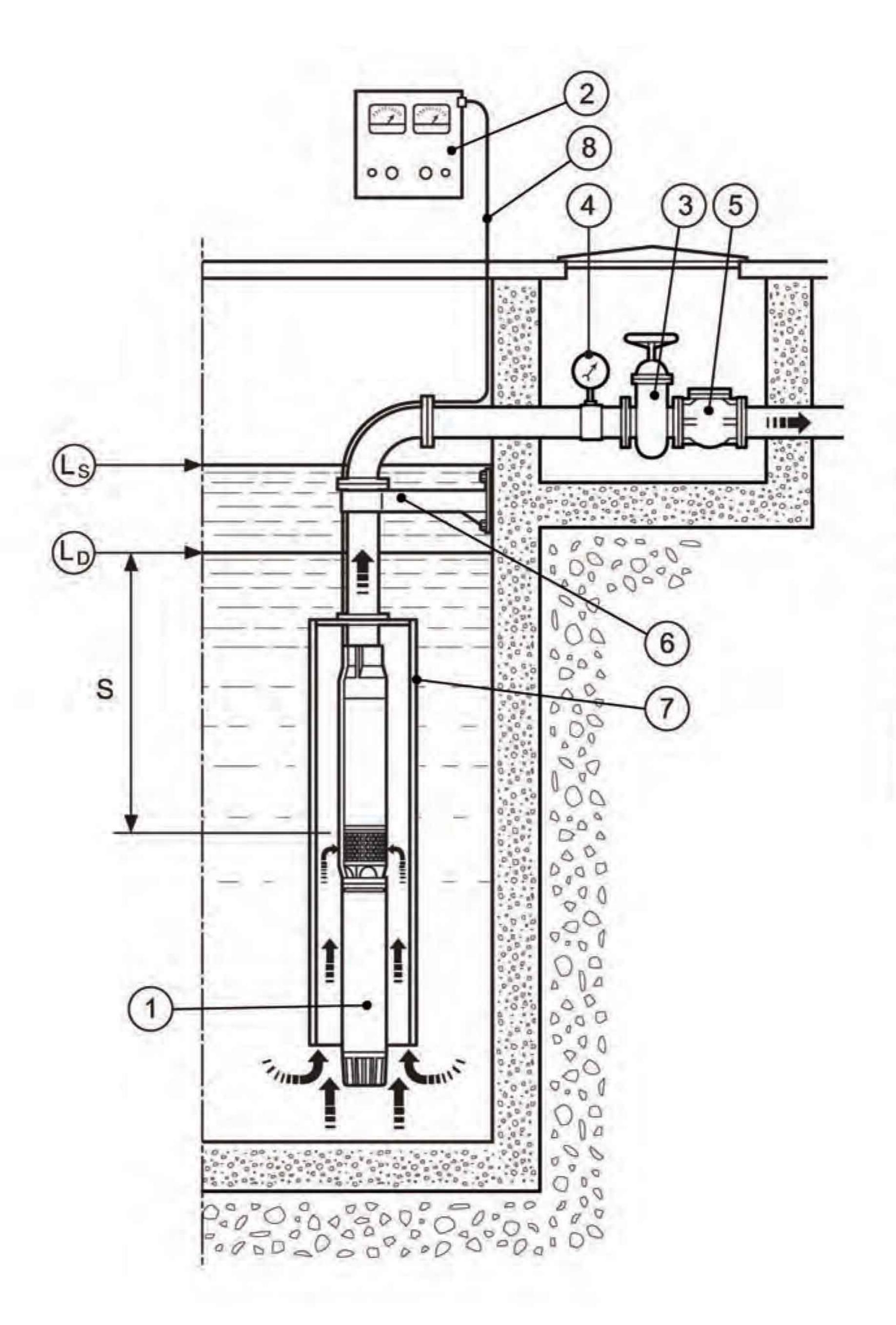
- Static level

- Dynamic level



Borehole Electric Pumps Series

Borehole Electric Pumps Series Tank Installation Diagram



- Borehole electric pump
- 2 Electric control panel
- 3 Gate valve
- 4 Pressure gauge
- Non return valve
- 6 Support
- Cooling casing
- Power supply cable
- Positive suction head
- L_s Static level
- L_p Dynamic level





Specialty Submersibles

Special applications are accommodated at SMI in the manufacturing of individual customer specification for submersible pumps. The high experience of manufacturing vertical turbine pumps assures customers of the engineering and performance premium that is made available for the manufacture of Special Submersible applications; designed to serve a long life in extreme conditions of hot and corrosive water. Pump Components are available in a variety of special materials such as stainless steel 304, 316 and Duplex or any bronze alloy to meet the required applications; equally, drop pipes are made of stainless steel with threaded ends or flanged ends to ensure their continuing trouble-free operation.



The technically advanced manufacturing capability of Saudi Mechanical Industries has enabled the company to produce high quality, mechanically engineered submersible pumps. With Computer Numerically Controlled machines (CNC), and together with a strong team of highly qualified designers, engineers and technical support, the emphasis is on quality at every stage of production.



Franklin Electric Motors

Saudi Mechanical Industries Co. is an authorized "OEM" for Franklin Electric Motors. Franklin Electric is the world's largest manufacturer of submersible motors, offering a wide range to meet all light and medium duty applications. The 4, 6, 8 and 10 inch type provide power sizes for 1/3 HP up to 250 HP with various voltage and ambient temperatures. SMI offers the full range of Franklin Motors to suit all requirements.







Cable Selection Chart

maximum lengths in meters for 400V / 50Hz and 5% voltage drop at 30°C ambient Jacketed Cable Ampacity, IEC Publication 364-5-523 (1983 edition), Table 52-B1, Installation Methods C & G

Direct start

rat	ing					cabl	e size n	nm², co	pper w	re - 70°	°C rate	d insula	tion				
KW	HP	2,5	4	6	10	16	25	35	50	70	95	120	150	185	240	300	400
4	5,5	180	290	430	710												
5,5	7,5	130	210	320	530	830											
7,5	10	90	150	230	390	610	940										
9,3	12,5	80	130	190	320	510	770										
11	15	60	100	160	270	430	650	890									
13	17,5		90	140	230	370	560	770									
15	20		80	120	200	320	490	680	920								
18,5	25			100	160	260	400	540	740	980							
22	30				140	220	340	470	630	840							
26	35				120	190	290	390	540	720	920						
30	40					160	250	340	470	620	790	940					
37	50					130*	200	280	380	500	640	760	890	1020			
45	60						170	240	330	440	570	690	810	940			
52	70						150*	210	290	390	500	600	710	820	980		
55	75						140*	190	270	360	470	560	660	770	910		
60	80							180	250	340	440	530	630	730	870	1010	
67	90							160*	220	300	390	460	550	630	750	860	1000
75	100								200*	270	350	420	490	570	680	780	910
83	111								180*	250	320	390	450	530	630	730	850
85	114									230	290	350	410	480	570	650	750
93	125									220*	280	340	390	460	550	620	720
110	150										220	270	310	360	420	480	550
130	175										200*	240	280	330	390	440	520
150	200											200*	240	280	330	380	440
185	250													210*	250	280	330

Wye - Delta start

rating		cable size mm ² , copper wire - 70°C rated insulation															
KW	HP	2,5	4	6	10	16	25	35	50	70	95	120	150	185	240	300	400
4	5,5	270	430	640													
5,5	7,5	190	310	480	790												
7,5	10	130	220	340	580	910											
9,3	12,5	120	190	280	480	760											
11	15	90	150	240	400	640	970										
13	17,5	70	130	210	340	550	840										
15	20	70	120	180	300	480	730	1020						6			
18,5	25	60	90	150	240	390	600	810									
22	30		70	120	210	330	510	700	940								
26	35		60*	100	180	280	430	580	810								
30	40			90	150	240	370	510	700	930							
37	50				120	190	300	420	570	750	960						
45	60				100	160	250	360	490	660	850						
52	70				90*	150	220	310	430	580	750	900					
55	75					130	210	280	400	540	700	840	990				
60	80					120	190	270	370	510	660	790	940				
67	90					100	180	240	330	450	580	690	820	940			
75	100					90*	150	210	300	400	520	630	730	850	1020		
83	111				1		130	190	270	370	480	580	670	790	940		
85	114						130*	180	250	340	430	520	610	720	850	970	
93	125						120*	160	240	330	420	510	580	690	820	930	
110	150							130*	190	250	330	400	460	540	630	720	820
130	175								160*	220	300	360	420	490	580	660	780
150	200								150*	190	250	300	360	420	490	570	660
185	250								part I		190*	240	270	310	370	420	490







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