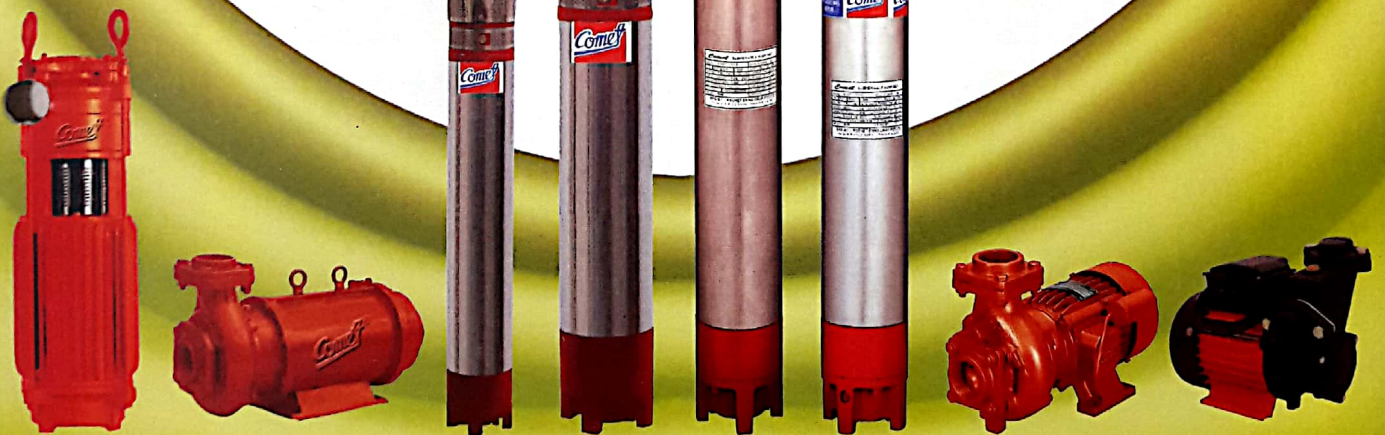




Agricultural farms & gardens
Agricultural farms & gardens

COMET SUBMERSIBLE PUMP SETS

Your search for
satisfactory quality
ends here...



An ISO 9001:2008 Company

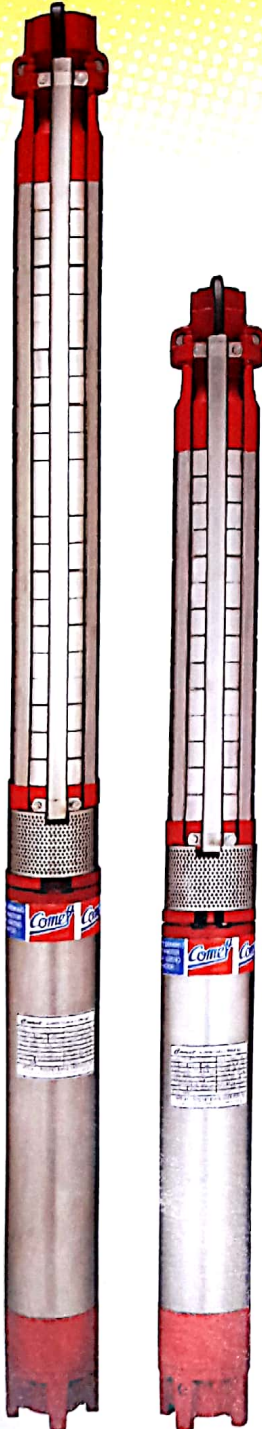
ROCKET ENGINEERING CORPORATION PVT. LTD.

Agricultural Farms

Drip Irrigation

Sprinklers

COMET SUBMERSIBLE PUMP SETS



BORE WELL SUBMERSIBLE PUMP SETS

COMET Brand V-4 SUBMERSIBLE pump sets are having high electrical and mechanical efficiency. Designed for low power consumption and suitable for wide voltage variation with better performance. These pumps are suitable for 4" bore wells. Impellers and diffusers are made up of virgin noryl material for best wear resistance and consistency in performance. Diffuser bowls are having stainless steel neck rings gives best wear resistance and longer life. Motor stamping are made up of standard M47 grade steel for best performance. Upper and Lower bearing housing, Thrust bearing housing, Discharge outlet, NRV Body and Pump adaptor are made up of graded cast iron, Motor body is made up of corrosion resistant high quality stainless steel pipe. Specially designed Carbon thrust bearings unit are used to withstand axial and down thrust loads with minimum wear and tear. Well balanced rotor gives vibration free and noise free operation for longer life. COMET submersible pump sets are ideally suitable for industrial, agriculture and residential use.

SPECIFICATION

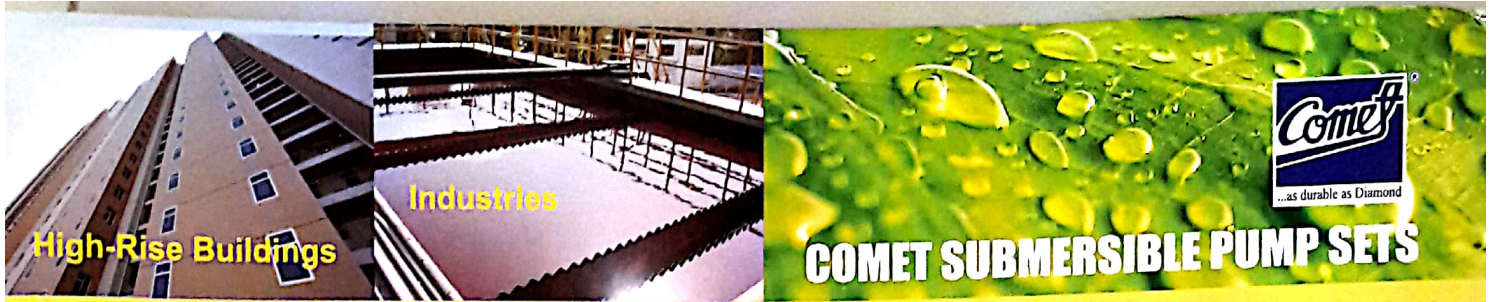
Power range H.P./ kW	Single phase 0.35 hp to 2.0 HP / 0.26 kW – 1.5kW Three Phase .0.5 HP to 5.0 HP / 0.37kW – 3.7 kW
Speed	2850 RPM
Version	Single Phase -180 – 240V, Three Phase -350 – 415V, 50 Hz, A.C. Supply
Maximum total head	250 meter (25.0 bar)
Maximum flow rate	160 LPM .
Maximum outer diameter in mm	DIA. 96 MM.
Nominal outlet size in inches	1, 1 ¼ & 1 ½ BSP.
Maximum starts per hour	12 times.
Type of duty	S1 (continuous)
Direction of rotation	Anti clock wise viewing from top.

SALIENT FEATURES

- Comet submersible pump sets are manufactured as per Indian standard IS 8034.
- Motor is designed for wide voltage fluctuations.
- Smooth and noiseless operation.
- Diffuser is made up of NORYL GFN2 with moulded 202 grade S.S. neck rings.
- Very low maintenance due to high carbon Thrust Bearings.
- Can be easily dismantled and repaired.
- Pump & motor shafts are manufactured from S.S. – 410 grades & S.S. – 431 grades.
- Extremely wear resistance water lubricated thrust bearings.
- Silver brazed, dynamically balanced copper rotor.
- Improved hydraulic design with increased efficiency and reduced power consumption.

APPLICATION

- Agricultural farms & gardens
- Drip irrigation, sprinklers.
- Housing- complexes, Hospitals, High-Rise Buildings
- Industrial water supply installations.



SINGLE & THREE PHASE SUBMERSIBLE PUMP SETS
"COMET" V-4 Submersible Pump Sets Suitable for 4" Borewell (ø 96 mm)

V4-R1 Series

Performance Chart

Sr. No.	Model	H.P	Stages	kW	Outlet ø in Inch	Amps	Discharge in LPM					Overall Effic. in%
							10	20	30	40	50	
							Total Head In Meters					
1	V4-06R10.35SP	0.35	R1-06	0.26	1.00"	3.50	42	37	32	24	13	22
2	V4-08R10.50SP	0.50	R1-08	0.37		4.50	56	50	43	32	18	25
3	V4-10R10.75SP	0.75	R1-10	0.51		6.00	70	62	54	40	22	28
4	V4-10R10.75TP	0.75	R1-10	0.51		2.50	70	62	54	40	22	28
5	V4-12R10.85SP	0.85	R1-12	0.62		6.50	84	75	65	48	27	28
6	V4-12R10.85TP	0.85	R1-12	0.62		2.75	84	75	65	48	27	28
7	V4-14R11.00SP	1.00	R1-14	0.75		7.00	98	87	75	56	31	28
8	V4-14R11.00TP	1.00	R1-14	0.75		3.00	98	87	75	56	31	28
9	V4-17R11.25SP	1.25	R1-17	0.95	1.25"	8.00	119	106	92	68	38	30
10	V4-17R11.25TP	1.25	R1-17	0.95		3.50	119	106	92	68	38	30
11	V4-20R11.50SP	1.50	R1-20	1.10		9.00	140	125	108	80	45	30
12	V4-20R11.50TP	1.50	R1-20	1.10	1.5"	4.00	140	125	108	80	45	30
13	V4-24R12.00SP	2.00	R1-24	1.50		12.00	168	150	129	96	54	30
14	V4-24R12.00TP	2.00	R1-24	1.50		4.50	168	150	129	96	54	30
15	V4-26R12.00SP	2.00	R1-26	1.50		12.00	182	162	140	104	58	30
16	V4-26R12.00TP	2.00	R1-26	1.50		4.50	182	162	140	104	58	30
17	V4-28R13.00TP	3.00	R1-28	2.20		5.50	196	175	151	112	63	38
18	V4-30R13.00TP	3.00	R1-30	2.20	5.50	210	187	162	120	67	38	

V4-R4 Series

Sr. No.	Model	H.P	Stages	kW	Outlet ø in Inch	Amps	Discharge in LPM					Overall Effic. in%
							36	40	60	70	85	
							Total Head In Meters					
1	V4-07R40.75SP	0.75	R4-07	0.51	1.5"	6.00	34	32	28	22	16	25
2	V4-07R40.75TP	0.75	R4-07	0.51		2.50	34	32	28	22	16	25
3	V4-10R40.85SP	0.85	R4-12	0.62		6.50	48	46	40	32	25	28
4	V4-10R40.85TP	0.85	R4-12	0.62		2.75	48	46	40	32	25	28
5	V4-12R41.25SP	1.25	R4-12	0.95		8.00	58	56	49	38	30	30
6	V4-12R41.25TP	1.25	R4-12	0.95		3.50	58	56	49	38	30	30
7	V4-15R41.50SP	1.50	R4-15	1.10		9.00	72	70	60	50	38	32
8	V4-15R41.50TP	1.50	R4-15	1.10		4.00	72	70	60	50	38	32
9	V4-19R42.00SP	2.00	R4-19	1.50		12.00	94	92	77	67	50	32
10	V4-19R42.00TP	2.00	R4-19	1.50		4.50	94	92	77	67	50	32
11	V4-22R43.00TP	3.00	R4-22	2.20		5.50	106	102	89	77	56	38
12	V4-25R43.00TP	3.00	R4-25	2.20		5.50	122	118	100	87	66	38
13	V4-27R43.00TP	3.00	R4-27	2.20		6.00	135	130	110	90	68	38
14	V4-30R43.00TP	3.00	R4-30	2.20		6.00	144	140	120	100	75	38
15	V4-35R44.00TP	4.00	R4-35	3.00		7.50	168	163	140	116	87	38
16	V4-40R45.00TP	5.00	R4-40	3.70		9.50	192	186	160	133	100	38
17	V4-45R45.00TP	5.00	R4-45	3.70		9.50	216	209	180	150	112	38
18	V4-50R45.00TP	5.00	R4-50	3.70		9.50	240	232	200	167	124	38



V4-R5 Series

Sr. No.	Model	H.P	Stages	kW	Outlet ϕ in Inch	Amps	Discharge in LPM					Overall Effic. in%
							30	60	90	110	130	
							Total Head In Meters					
1	V4-10R51.50SP	1.50	R5-10	1.10	1.5"	9.00	55	50	40	35	25	30
2	V4-10R51.50TP	1.50	R5-10	1.10		4.00	55	50	40	35	25	30
3	V4-12R52.00SP	2.00	R5-12	1.50		12.00	66	60	48	42	30	32
4	V4-12R52.00TP	2.00	R5-12	1.50		4.50	66	60	48	42	30	32
5	V4-19R53.00TP	3.00	R5-19	2.20		6.00	104	95	76	66	47	38
6	V4-22R54.00TP	4.00	R5-22	3.00		7.50	121	110	88	77	55	38
7	V4-25R54.00TP	4.00	R5-25	3.00		9.50	137	125	100	87	62	38
8	V4-30R55.00TP	5.00	R5-30	3.70		9.50	165	150	120	105	75	38

V4-R7 Series

Sr. No.	Model	H.P	Stages	kW	Outlet ϕ in Inch	Amps	Discharge in LPM					Overall Effic. in%
							60	75	100	120	160	
							Total Head In Meters					
1	V4-07R71.50SP	1.50	R7-07	1.10	1.5"	9.00	38	37	33	29	17	30
2	V4-07R71.50TP	1.50	R7-07	1.10		4.00	38	37	33	29	17	30
3	V4-10R72.00SP	2.00	R7-10	1.50		12.00	57	55	47	42	25	32
4	V4-10R72.00TP	2.00	R7-10	1.50		4.50	57	55	47	42	25	32
5	V4-12R73.00TP	3.00	R7-12	2.20		5.50	68	66	56	50	30	38
6	V4-15R73.00TP	3.00	R7-15	2.20		6.00	83	81	71	63	39	38
7	V4-19R74.00TP	4.00	R7-19	3.00		8.00	104	100	85	76	48	38
8	V4-22R75.00TP	5.00	R7-22	3.70		9.50	120	116	98	87	54	38
9	V4-25R75.00TP	5.00	R7-25	3.70		9.50	138	133	112	103	65	38

Note : All the above performance are based on rated power supply 240 volts for single phase and 415 volts for three phase at 50 Hz

MATERIAL FOR CONSTRUCTION -PUMP

Part Name	Material
Discharge Outlet.	Cast Iron FG 220 Grade
NRV. Body.	Cast Iron FG 220 Grade
Impeller	GFN -2 NORYL
Diffuser	GFN -2 NORYL with 202 grade S.S. neck rings.
Pump Shaft	S. S. 410
Pump Adaptor	Cast Iron FG 220 Grade
Bearing sleeve	S.S.410
Pump Coupling	S.S.410

MATERIAL FOR CONSTRUCTION -MOTOR

Part Name	Material
Upper & Lower Housing.	Cast Iron FG 220 Grade
Thrust Bearing housing.	Cast Iron FG 220 Grade
Stator Body.	Stainless Steel 202 Pipe
Motor Shaft.	Stainless Steel 410/431
Rotor Assy.	Copper Rotor
Bearing Bush.	LTB-4
Carbon Thrust Assembly.	Carbon EK23 Grade
Stator stamping.	M 47 Grade
Winding Wire.	Copper 99.9 % & PVC double coated



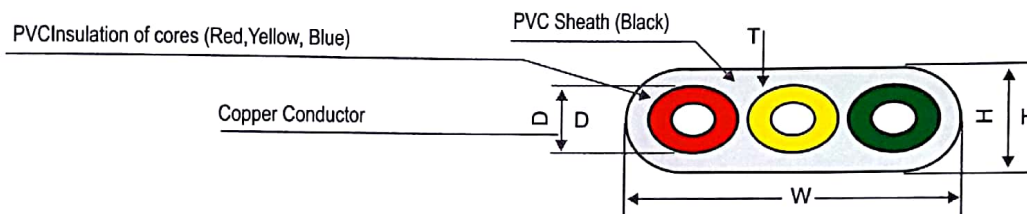


ESSENTIAL INFORMATION & SUGGESTION

Dealers / Distributors are suggested to select proper model in order to get best results at site. For that they must take into consideration the following points

- Position of voltage at site. If single phase then stability of neutral.
- Installation depth should not be more than duty point head of pump set
- Real yield of water in bore well.
- Maximum lower level of water in the bore well.
- Actual irrigation area of land.
- Delivery pipe should be smooth internally and sufficient size.
- Each joint of delivery pipe should be perfectly sealed to withstand high pressure of water.
- Select proper starter panel according to HP. Of pump set.
- Use of E.C. grade three core copper cable having sufficient size as per cable selection chart to minimize power loss.

CABLE SELECTION CHART



CONDUCTOR		INSULATION		SHEATH			Resistan @20°C (max.) Ohm/km	Current Carrying Capacity @ 40°C Amps.
Area (Nom) Sq.m	Number/size of wire mm	Thickness (Nom.) m.m.(D)	Core-od (Nom.) m.m.(d)	Overall dimensions				
				Thickness (nom.) mm(T)	Width 'W' mm	Thickness H- m.m.		
1.5	22/3	0.8	3.25	1.15	12.8	6	13.3	14
2.5	36/3	0.9	3.9	1.15	14.6	6.4	7.3	18
4	56/3	1	4.65	1.15	17.2	7.4	4.95	26

NOTE :-

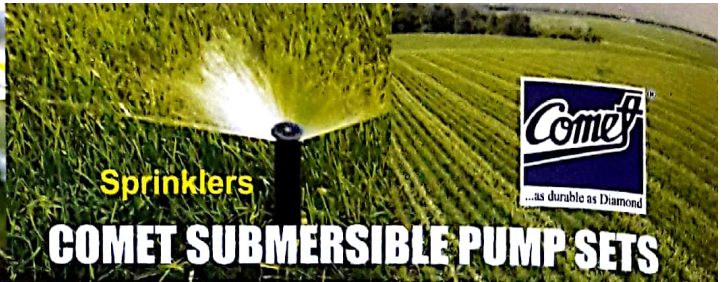
Insulation thickness, sheath thickness and overall dimensions given in this table are nominal values. The number of wires is approximate and strand diameter is nominal they shall be such as to satisfy the requirements of conductor resistance as per IS 1830 /1984.

**CABLE SELECTION CHART FOR
100MM (4") 415V, 3 φ SUBMERSIBLE PUMPS.**

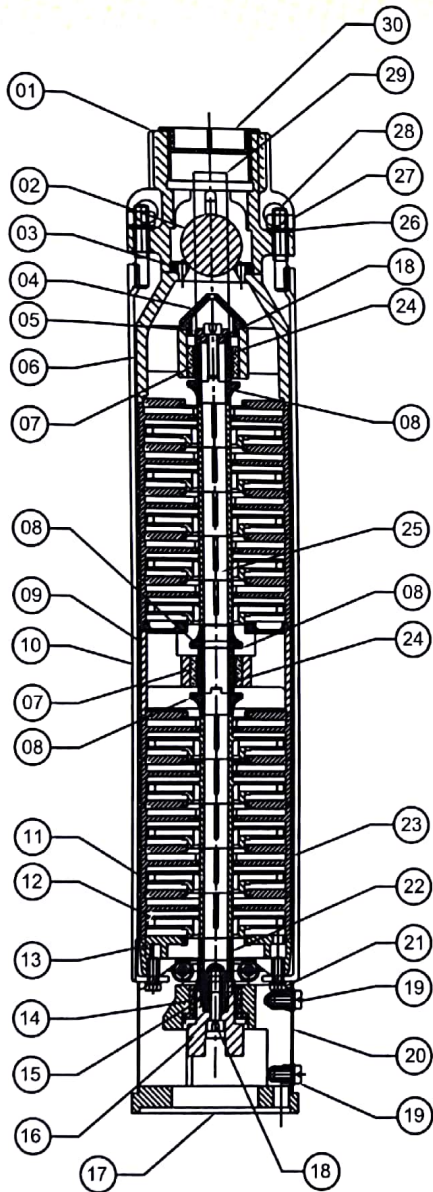
SR. NO.	H.P.	MAX CURRENT IN AMP	CABEL SIZE IN SQ.MM.	1.5	2.5	4	6
				TOTAL CABEL LENGTH IN METER			
1	0.50	2.00		375	625	1000	--
2	0.75	2.50		300	500	800	--
3	0.85	2.75		250	415	670	1000
4	1.00	3.00		250	400	650	900
5	1.25	3.50		215	355	575	860
6	1.50	4.00		185	310	500	750
7	2.00	4.50		165	275	440	660
8	3.00	5.50		165	275	440	660
9	4.00	7.50		165	275	440	660
10	5.00	9.50		165	275	440	660

**CABLE SELECTION CHART FOR
100MM (4") 220V, 1 φ SUBMERSIBLE PUMPSET.**

SR. NO.	H.P.	MAX CURRENT IN AMP	CABEL SIZE IN SQ.MM.	1.5	2.5	4	6
				TOTAL CABEL LENGTH IN METER			
1	0.35	4.50		100	180	230	350
2	0.50	4.50		90	140	230	350
3	0.75	6.00		60	105	175	260
4	0.85	6.50		60	105	175	260
5	1.00	7.00		50	90	150	225
6	1.25	8.00		45	80	135	200
7	1.50	9.00		40	60	105	255
8	2.00	12.00		30	55	85	230



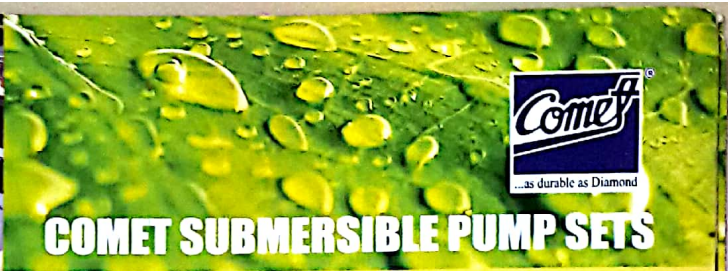
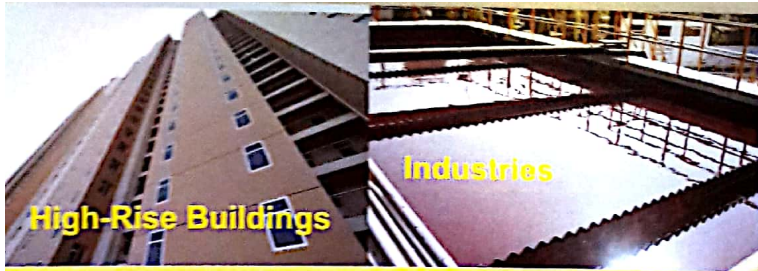
COMET SUBMERSIBLE PUMP SETS



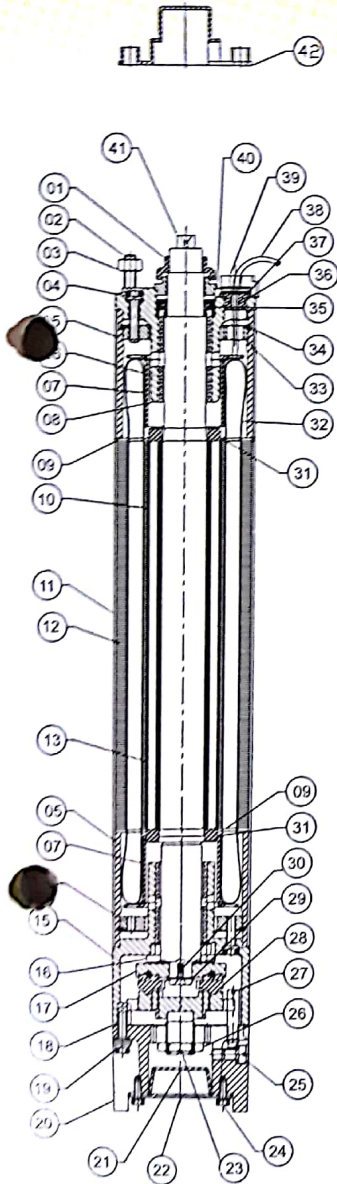
100 mm SUBMERSIBLE PUMP

NO.	PART NAME	QTY.	MATL.
01	NRV. BODY	1	C.I.F.G.220
02	VALVE BALL	1	RUBBER
03	OUTLET PIECE RING	1	POLYC.
04	D.O. CAP	1	POLYC.
05	SLEEVE WASHER	1	S.S.410
06	DISCHARGE OUTLET	1	C.I.F.G.220
07	BEARING BUSH	2	L.T.B.4
08	SAND GUARD	3	POLYC.
09	INTER STAGE	1	POLYCARBONATE
10	LOCKING STRIP	4	S.S.304
11	DIFFUSER	Asp ar stage	NORYL.
12	IMPELLER	Asp ar stage	NORYL.
13	ADAPTOR PLATE	1	POLYC.
14	COUNTER BRG. BUSH	1	L.T.B-4
15	PUMP COUPLING KEY	1	S.S.410
16	PUMP COUPLING	1	S.S.410
17	PUMP ADAPTOR	1	C.I.F.G.220
18	ALLEN SCREW M6X25	2	S.S.304
19	SCREW M5X8	6	S.S.304
20	STRAINER	1	S.S.202
21	BOLT M6	4	S.S.304
22	DISTANCER	1	POLYC.
23	S.S. RING	Asp ar stage	S.S.202
24	BEARING SLEEVE	2	S.S.410
25	PUMP SHAFT.	1	S.S.410
26	SPRING WASHER M6	4	STD.
27	NUT M8	4	S.S.304
28	STUD M8	4	S.S.304
29	CABLE GUARD	1	S.S.202
30	CAP	1	PLASTIC

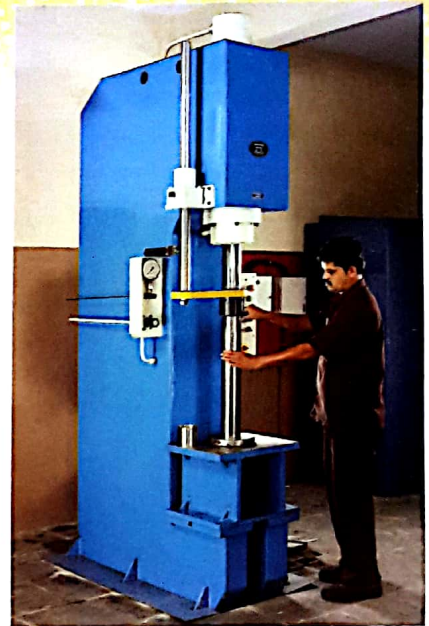




100 mm SUBMERSIBLE MOTOR

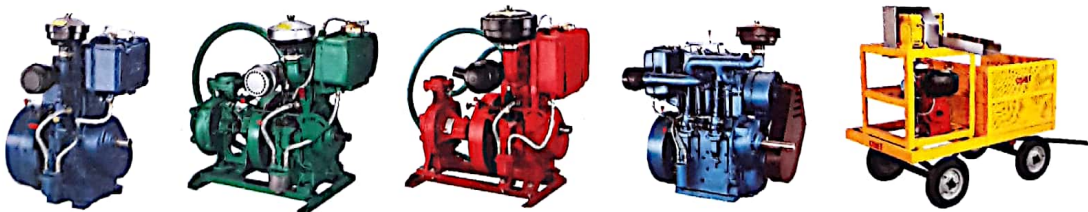


NO.	PART NAME	QTY.	MATL.
01	SAND SLINGER	1	RUBBER
02	STUD M8x35	4	S.S.304
03	NUT M8	4	SS.304
04	ALLAN SCREW M6X30	4	SS.304
05	STATOR SLEEVE	2	M.S.
06	UPPER HOUSING	1	C.I.F.G.220
07	WINDING CAP	2	PLASTIC
08	BEARING BUSH.	2/4	L.T.B.4
09	END LAMINATION	2	M.S.
10	COPPER BAR	22	COPPER
11	STATOR PIPE	1	S.S.202
12	STATOR STAMPING.	-	SILICON SHEET
13	ROTOR STAMPING.	-	M47 Grade
14	LOWER STUD RING.	1	M.S.
15	LOWER HOUSING	1	C.I.F.G.220
16	COUNTER THRUST RING	1	HYLAM
17	THRUST BEARING SHOE	1	C.I.F.G.260
18	PAPER GASKET	1	Hytitle 60
19	ALLEN SCREW M6X20	8	S.S.304
20	BELLOW HOUSING	1	C.I.F.G.220
21	RUBBER BELLOW	1	RUBBER
22	B.HOUSING PLATE	1	M.S.
23	THREADED PIN	1	S.S.416
24	ALLAN SCREW M5X10	4	S.S.304
25	DRAIN PLUG	3	BRASS
26	LOCK NUT	1	S.S.304
27	LOCKING PIN	2	EN-8
28	THRUST BEARING ASSLY.	1	CARBON,CI.
29	CIRCLIP (A TYPE)	1	En31
30	KEY 4x4x8	1	S.S.410
31	COPPER PLATES	-	COPPER
32	WINDING COILS	-	COPPER
33	UPPER STUD RING	1	M.S.
34	SNAP RING (B TYPE)	2	En31
35	OIL SEAL	1	STD.
36	CABLE GROMMET	1	RUBBER
37	GROUMET CAP	1	S.S.304
38	CABLE	3 Mtr	STD.
39	CABLE CAP	1	PLASTIC
40	OIL SEAL GUARD	1	POLYCROB.
41	ROTOR ASSY	1	---
42	MOTOR LOCKETER	1	PLASTIC





OUR OTHER PRODUCTS



An ISO 9001:2008 Company



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