



RELIABLE & ENERGY EFFICIENT THE WORLD-CLASS PUMPS



MOST SUSTAINABLE DEVELOPERS (MSD)

2024

QUALITY | AVAILABILITY | SERVICE | INNOVATION | COST



YOUR PARTNER FOR LIFE

ISO 9001:2015 Certified Manufacturer & Exporter of Submersible Pumps & Motors known for quality, reliability & energy efficiency

Innovative German design

MADE IN INDIA

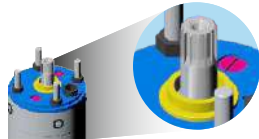
Integrated CNC machines & semi-automated assembly lines for excellence in smart manufacturing system

copper rotor available



International **NEMA**

Standard Coupling Flange for ensuring interchangeability & ease of coupling



30% GLASS FILLED

virgin NORYL hydraulic parts for longer life



LOW, WIDE and STANDARD VOLTAGE
Best Operating Efficiency



SS & CI construction

SAND FRIENDLY ('C' Type)

Specially designed models Upto 8"

Ensuring Protection & System Reliability



Heavy Duty High Discharge (6"-8")





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COMPANY PROFILE



An ISO World Class Pump & Motor Manufacturing Company.



Specialized Know-How with Pleuger Germany for Noryl Pumps Manufacturing



Pragmatic, Efficient & High-Quality Brand



High-performance & Legendary Submersible Motors & Pumps



Committed to Green, Clean & Sustainable energy.



Strong distribution network & wide after sales-service representation



Comprehensive solutions for Building Construction & Industry



ACCREDITATIONS AND APPROVALS

भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDARDS
मानक चिह्न के उपयोग के लिए अनुमति
Licence for the use of STANDARD MARK

लाइसेंस नं. सीएल/एल- 9700223670
Licence No. CML- 9700223670

यह लाइसेंस, भारतीय मानक ब्यूरो अधिनियम, 2016 (2016 का 11) द्वारा प्रस्तुत शर्तियों के अधीन प्रदान किया गया है।

एम एस डी सबमर्सिबल पंप्स
गाँव- डिरबा, खौरिन रोड
संगरूर- 148035
पंजाब

को) जिसे हमने अपने 'अनुमतिपत्रों' का हिस्सा है (इसकी प्रत्येक अनुमति के साथ में विनिर्दिष्ट मानकों के लिए अनुमति प्रदान करता है।) इस अनुमतिपत्र के माध्यम से मानक का उपयोग उक्त अनुमति के विहित भारतीय मानक) मानकों (के अनुसार/अनुक्रम विनिर्दिष्ट है।

By virtue of the power conferred on it by the BUREAU OF INDIAN STANDARDS, hereby grants to

M S D SUBMERSIBLE PUMPS
VILLAGE- DIRBA, KHOURAIN ROAD
SANGRUR-148035
PUNJAB

(hereinafter called the Licensee) this licence to use the Standard Mark set out in the third column of the said Schedule with respect to the varieties set out in the second column of the said Schedule which are referred to in the second column of the said Schedule.

2. इस अनुमति में अनुमति अनुमति की शर्तों के लिए अनुमतिपत्रारी प्रदान की है। यह अनुमति अनुमति में विनिर्दिष्ट मानकों और इसे स्वीकार-1 में विनिर्दिष्ट मानकों नवीकृत करारा जा सकता है।

2. This licence carries the obligations on the part of licensee as condition of herewith. The licence shall be valid for the name, factory address and period renewed as specified in the scheme-1

Certificate of Registration

This is to certify that

M S D SUBMERSIBLE PUMPS
LEHRA ROAD DIRBA SANGRUR-148035, INDIA

has been independently assessed by QRO
and is compliant with the requirement of:

ISO 9001:2015
Quality Management System

For the following scope of activities:

SUBMERSIBLE PUMPS, MONOBLOCK PUMPS AND WATER PUMPS AND OTHER ELECTRICAL GOODS

Date of Certification: 23rd April 2021 2nd Surveillance Audit Due: 22nd April 2023
1st Surveillance Audit Due: 22nd April 2022 Certificate Expiry: 22nd April 2024
Certificate Number: 2021042323

Validity of this certificate is subject to annual surveillance audits to be done successfully on or before 365 days from date of the audit. (In case if surveillance audit is not allowed to be conducted: this certificate shall be suspended / withdrawn).

The Validity of this certificate can be verified at www.qrocert.com

This certificate of registration remains the property of QRO Certification LLP, and shall be returned immediately upon request.
QRO Certification LLP is accredited by UK Accrediting Forum Limited, UK (www.ukas.org.uk)
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142, 1st Floor, Avtar Enclave, Near Fashim Vihar West Metro Station, Delhi-110063, (INDIA)
Website : www.qrocert.com, E-mail : info@qrocert.com

Approvals and Certifications





IMPORTANT ASPECTS

1. Please read carefully and follow the instructions in our installation manual.
2. Pump should never be operated dry. Pump should be operated for few minutes at least once in two to three days to prevent seizing.
3. Use appropriate size, good quality cable and pump controllers.
4. To reduce the risk of electric shock or injury, disconnect power before working on or around the pumping system.
5. Appropriate earthing is compulsory.
6. Performance data given in the tables are at rated RPM and only indicative. To get optimum performance the pump set should be operated between 60% to 80% of total head. Due to continuous improvements, specifications and designs are likely to change.
7. Select and install the pumpsets for the recommended head range. (Highlighted grey zone in selection tables)
8. Pipe and fitting friction losses need to be taken into account while calculating the total head before selecting suitable pumpset.
9. Pipe sizes mentioned in mm and are nominal sizes are the nearest conversion to inches. Pipe threads are provided as per BSP standard. Use ISI marked and low friction good quality pipes. Pipe size must never be smaller than pump outlet connection size.
10. Reduce number of bends, elbows, T-bends, as much as possible in the pipe line.
11. Fill submersible water filled motor of pumpsets with clear, fresh drinking water before commissioning.
12. Suitable overload relay for three phases and MCB/Relay for single phase products are to be provided as an electrical safety measure for the equipment.
13. Direction of rotation: Anticlockwise when viewed from NRV side of the pump.
14. Allow at least 5 minutes between subsequent starts to avoid shock or oscillation in the pump.
15. All pumpsets are suitable for pumping clear, fresh water with following characteristics :

Temperature	33°C (max.)
Chlorides	500 ppm (max.)
Total dissolved solids	3000 ppm (max.)
Hardness (drinking water)	300 (max.)
Turbidity	50 ppm silica scale (max.)
Viscosity	10 ⁶ m ² /sec
Specific gravity	1.004 (max.)
pH	6.5 to 8.5
Permissible amount of sand for clear water	25 gm /m ³ (max.)
Permissible amount of sand for sand friendly model	100-150 gm /m ³ (max.)



IMPORTANT ASPECTS

YOU ARE REQUESTED TO TAKE THE FOLLOWING ASPECTS UNDER CONSIDERATION DURING THE SELECTION PROCESS.

1. Voltage condition at site. If single phase then stability of the neutral.
2. Ensure proper pump controller condition with appropriate relay setting.
3. For calculating yield of water in bore well or open well, consider 80% of total yield.
4. Maximum lower water level in the bore well, including draw down.
5. Actual requirement of water as per customer need.
6. Whether there is sand in bore well / open well.
7. Quality and size of delivery pipe is proper.
8. Actual irrigation area of land.
9. Always consider the required head (suction head + max. draw down during summer+ground elevation + pipe frictional losses + fittings i.e elbow, bend, valves losses). Consider 10% more than the actual duty point head after deduction of all the losses i.e. pipe loss, voltage loss, frequency loss etc.

YOU ARE REQUESTED TO ENSURE THAT CUSTOMER / MECHANICS SHOULD TAKE PRECAUTIONS DURING INSTALLATION / OPERATION IN THE FIELD.

1. Never run the pump outside the water even for a second else it will damage the parts.
2. Check the power supply voltage, phase and neutral.
3. After coupling motor & pump never knock it down else alignment will run out.
4. Start capacitor is only for starting of the motor so never press button for more than 3 seconds.
5. Never direct electric line on the start capacitor in your pump controller panel board.
6. Never run the pump without earth connected. Check the service line from motor to electric pole for proper wire gauge and connections are not loose.
7. Safe guard panel board from water and moisturized atmosphere.
8. Always keep the panel in erect position and never allow dropping on it. Always earth it.
9. Check the bore well depth and install the pumpset 15 to 20 feet above the bottom.
10. Do not apply oil, grease and any chemical liquid to motor.
11. Ensure non-return valve in pipe fitting to prevent back flow.
12. Ensure fitting of strainer with bend for openwell submersible pumps.
13. Ensure protection from rain/ shower for mini monoblock, monoblock pumps and shallow well pumps.
14. Ensure good quality of cable and pump controller used.

	SINGLE PHASE		THREE PHASE	
MOTOR TYPE	RATED VOLTAGE	VOLTAGE RANGE	RATED VOLTAGE	VOLTAGE RANGE
Standard Voltage (SV)	230V	200 – 240V	415V	350 – 440V
Wide Voltage (WV)	230V	160 – 240V	380V	300 – 440V
Low Voltage (LV)	180V	120 – 200V	300V	200 – 380V



75MM (V3) SUBMERSIBLE PUMPSET



SALIENT FEATURES

- Light weight and compact
- Can be installed with HDPE/UPVC/GI Pipes
- Lip seals and bushes are well protected by sand guards
- Rotors are treated with special epoxy paint to ensure corrosion resistance
- Superior polymer coated winding wire to withstand wide voltage fluctuation
- All rotating components and assemblies are dynamically balanced to ensure long bearing life and vibration-free smooth operation
- Better efficiency and consistent performance
- Pumps are designed for sand-friendly operation
- Impeller and diffusers are high quality 30% glass-filled engineering polymer

APPLICATION

- Unshaped and crooked 4" borehole
- Domestic water supply
- Solar pumping stations
- Fountains, lawn, garden

MATERIAL OF CONSTRUCTION

PART NAME	MATERIAL	PART NAME	MATERIAL
Motor body	Stainless Steel	Pump housing	Stainless Steel
Bearing housing	CI FG 200	Impeller	Noryl-GFN3
Motor shaft	SS AISI 410	Diffuser	Noryl-GFN3
Bush bearing	Bronze LTB - 4	Pump shaft	SS AISI 410
Thrust bearing	AISI 420 / Carbon	Suction housing	CI FG 200

SELECTION CHART FOR 75mm (3") SUBMERSIBLE PUMPSETS

Performance at 2900 rpm , 230V , single phase , 50 Hz A.C. supply. Voltage range - 140 to 240 V
(min. bore dia-80mm , max. pump dia-69mm/78mm Dia)

40 LPM SERIES		OUTLET SIZE : 32 mm (1¼")							2900 RPM			
PUMP MODEL	STAGES	MOTOR RATING		DISCHARGE								
		HP	kW	M ³ /hr	0	0.6	1.2	1.8	2.4	3.0	3.6	4.2
				LPM	0	10	20	30	40	50	60	70
JES3-07	07	0.5	0.37	HEAD IN METERS	29	27	26	24	21	19	16	14
JES3-10	10	0.75	0.55		41	39	37	35	30	27	23	20
*JES3-12	12	1.0	0.75		49	47	44	41	36	32	28	24
JES3-15	15	1.25	0.93		62	69	55	52	45	41	35	30
JES3-20	20	1.5	1.1		82	77	73	69	60	54	46	40

*Available in 69mm dia also

PERFECT CHOICE FOR MORE

WATER



aramco
Engineered for the Depths



100MM (V4) SUBMERSIBLE PUMPSET



SALIENT FEATURES

- Better efficiency and consistent performance
- Superior polymer coated winding wire to withstand wide voltage fluctuation
- All rotating components are dynamically balanced to ensure long bearing life and vibration free smooth operation
- Rotors are treated with special epoxy paint to ensure corrosion resistance
- Impeller and diffusers are high quality 30% glass filled engineering polymer
- International NEMA standard spline coupling ensures smooth operation
- Lip seals and bushes are well protected by sand guards for sand friendly operation
- Polymer parts are well protected by metallic wear ring
- Heavy duty specially designed carbon thrust bearing
- Built-in NRV with minimum friction to prevent back flow
- Easy assembly and disassembly for servicing

APPLICATION

- Domestic water supply
- Housing complex, bungalows
- Dairies, cattle and poultry farms
- Fire fighting, pressure booster
- Solar pumping stations
- Fountains, lawn, garden

MATERIAL OF CONSTRUCTION

PART NAME	MATERIAL
Motor body	Stainless Steel
Bearing housing	CI FG 200
Motor shaft	SS AISI 410/420/431
Bush bearing	Bronze LTB - 4
Thrust bearing	AISI 420 / Carbon
Stamping	Silicon steel

PART NAME	MATERIAL
Impeller	Noryl-GFN3
Diffuser	Noryl-GFN3
Pump shaft	SS AISI 410
Suction housing	CI FG 200 / SS*
NRV	CI FG 200 / SS*
Bush bearing	Nitrile rubber

*Motors in full SS construction are also available on demand.

NOTE:

1. Motors upto 5.0 HP are available in Wide Voltage both 1 Ph & 3 Ph.
2. HP rating 6, 7.5 & 10 are available in 3 Ph (WV) only and motors in 125mm (V5) dia.
3. Standard Voltage (SV) are available upto 1.5 HP/1 Ph only.



MOTOR TYPE	SINGLE PHASE		THREE PHASE	
	RATED VOLTAGE	VOLTAGE RANGE	RATED VOLTAGE	VOLTAGE RANGE
Standard Voltage (SV)	230V	200 – 240V	415V	350 – 440V
Wide Voltage (WV)	230V	160 – 240V	380V	300 – 440V
Low Voltage (LV)	180V	120 – 200V	300V	200 – 380V

SV, LV on request

SELECTION CHART FOR 100mm (4") SUBMERSIBLE PUMPSET

Performance at 2900 rpm, 230V single phase / 380V three phase, 50Hz A.C. supply.
(min. bore dia - 100mm , max. pump dia - 98mm)

RADIAL FLOW

25 LPM SERIES				OUTLET SIZE : 32 mm (1 1/4")								2900 RPM	
PUMP MODEL	STAGES	MOTOR RATING		DISCHARGE									
		HP	kW	M ³ /hr	0	0.6	0.9	1.2	1.5	1.8	2.1	2.4	
				LPM	0	10	15	20	25	30	35	40	
				HEAD IN METERS	53	47	43	39	34	27	21	14	
OXLN-07	07	0.5	0.37		90	80	74	67	59	47	36	23	
OXLN-12	12	0.75	0.55		120	107	98	90	78	62	48	31	
OXLN-16	16	1.0	0.75		150	134	123	112	98	78	60	39	
OXLN-20	20	1.25	0.93		188	168	154	140	123	98	75	49	
OXLN-25	25	1.5	1.1		240	214	197	179	157	125	96	62	
OXLN-32	32	2.0	1.5		345	308	283	258	225	179	138	90	
OXLN-46	46	2.5	1.85										

30 LPM SERIES				OUTLET SIZE : 32 mm (1 1/4")								2900 RPM	
PUMP MODEL	STAGES	MOTOR RATING		DISCHARGE									
		HP	kW	M ³ /hr	0	0.6	1.2	1.5	1.8	2.1	2.4	3.0	
				LPM	0	10	20	25	30	35	40	50	
				HEAD IN METERS	59	55	50	46	42	38	33	21	
CW1-07	07	0.5	0.37		92	87	78	73	66	59	52	33	
CW1-11	11	0.75	0.55		109	103	92	86	78	70	62	39	
CW1-13	13	1.0	0.75		143	134	121	112	102	92	81	51	
CW1-17	17	1.25	0.93		168	158	142	132	120	108	95	60	
CW1-20	20	1.5	1.1		214	205	185	172	156	140	124	78	
CW1-26	26	2.0	1.5		230	221	199	185	168	151	133	84	
CW1-28	28	2.5	1.85		247	237	213	198	180	162	143	90	
CW1-30	30	2.5	1.85		296	284	256	238	216	194	171	108	
CW1-36	36	3.0	2.2		379	363	327	304	276	248	219	138	
CW1-46	46	4.0	3.0										



SELECTION CHART FOR 100mm (4") SUBMERSIBLE PUMPSET

50 LPM SERIES OUTLET SIZE : 32 mm (1 1/4") 2900 RPM

PUMP MODEL	STAGES	MOTOR RATING		M ³ /hr LPM	DISCHARGE							
		HP	kW		0	1.2	1.8	2.4	3.0	3.6	4.2	4.8
					0	20	30	40	50	60	70	80
SPW5-05	05	0.5	0.37	HEAD IN METERS	38	34	32	30	26	23	19	15
SPW5-07	07	0.75	0.55		53	48	45	41	36	32	26	20
SPW5-09	09	1.0	0.75		68	61	58	53	47	41	33	26
SPW5-11	11	1.25	0.93		83	75	70	65	57	50	41	32
SPW5-14	14	1.5	1.1		105	95	90	83	73	63	52	41
SPW5-18	18	2.0	1.5		135	122	115	106	94	81	67	52
SPW5-22	22	2.5	1.85		165	150	141	130	114	99	81	64
SPW5-28	28	3.0	2.2		210	190	179	165	146	126	104	81

60 LPM SERIES OUTLET SIZE : 40 mm (1 1/2") 2900 RPM

PUMP MODEL	STAGES	MOTOR RATING		M ³ /hr LPM	DISCHARGE							
		HP	kW		0	1.8	2.4	3.0	3.6	4.2	4.8	5.4
					0	30	40	50	60	70	80	90
CD-07	07	0.5	0.37	HEAD IN METERS	32	29	28	26	22	18	13	08
CD-09	09	0.75	0.55		41	38	36	33	29	23	17	10
CD-12	12	1.0	0.75		55	50	48	44	38	31	23	13
CD-19	19	1.5	1.1		87	80	75	70	61	50	36	21
CD-26	26	2.0	1.5		120	110	104	95	84	68	50	29
CD-32	32	2.5	1.85		147	134	128	118	102	83	61	35
CD-36	36	3.0	2.2		166	152	144	132	116	95	68	40
CD-42	42	3.0	2.2		186	177	168	154	135	110	80	44
CD-46	46	4.0	3.0		212	194	184	168	149	122	87	51

60 LPM SERIES OUTLET SIZE : 32 mm (1 1/4") 2900 RPM

PUMP MODEL	STAGES	MOTOR RATING		M ³ /hr LPM	DISCHARGE							
		HP	kW		0	1.8	2.4	3.0	3.6	4.2	4.8	5.4
					0	30	40	50	60	70	80	90
SPWR-04	04	0.5	0.37	HEAD IN METERS	33	30	28	26	22	19	15	11
SPWR-06	06	0.75	0.55		50	44	42	38	34	28	23	16
SPWR-07	07	1.0	0.75		58	52	49	45	39	33	26	19
SPWR-08	08	1.25	0.93		66	59	56	51	45	38	30	21
SPWR-11	11	1.5	1.1		91	81	77	70	62	52	41	29
SPWR-15	15	2.0	1.5		125	111	105	96	84	71	56	40
SPWR-18	18	2.5	1.85		149	133	126	115	101	85	68	48
SPWR-22	22	3.0	2.2		183	163	154	141	123	103	83	58
SPWR-28	28	4.0	3.0		232	207	196	179	157	132	105	74
SPWR-36	36	5.0	3.7		293	266	252	230	202	169	135	95

Note:- Pump with (1 1/2") NRV also available with nomenclature SPWRR



SELECTION CHART FOR 100mm (4") SUBMERSIBLE PUMPSET

70 LPM SERIES				OUTLET SIZE : 40 mm (1 1/2")									2900 RPM	
PUMP MODEL	STAGES	MOTOR RATING		DISCHARGE										
		HP	kW	M ³ /hr	0	2.4	3.0	3.6	4.2	4.8	5.4	6.0		
				LPM	0	40	50	60	70	80	90	100		
PWR-06	06	0.5	0.37	HEAD IN METERS	37	30	28	23	21	18	13	10		
PWR-08	08	0.75	0.55		50	41	38	34	29	24	19	14		
PWR-10	10	1.0	0.75		62	51	47	42	36	30	24	18		
PWR-12	12	1.5	1.1		74	61	56	50	43	36	29	22		
PWR-15	15	1.5	1.1		93	77	71	63	54	45	36	27		
PWR-17	17	2.0	1.5		105	87	80	71	61	51	41	31		

Note:- Pump with (1 1/4") NRV also available with nomenclature PWRR

60 LPM SERIES				OUTLET SIZE : 40 mm (1 1/2")									2900 RPM	
PUMP MODEL	STAGES	MOTOR RATING		DISCHARGE										
		HP	kW	M ³ /hr	0	1.8	2.4	3.0	3.6	4.2	4.8	5.4		
				LPM	0	30	40	50	60	70	80	90		
PCXL-50	50	5.0	3.7	HEAD IN METERS	299	275	260	245	225	200	175	145		
PCXL-60	60	6.0	4.5		359	330	312	294	270	240	210	174		
PCXL-70	70	7.5	5.5		418	385	364	343	315	280	245	203		
PCXL-80	80	10.0	7.5		478	440	416	392	360	320	280	232		

70 LPM SERIES				OUTLET SIZE : 40 mm (1 1/2")									2900 RPM	
PUMP MODEL	STAGES	MOTOR RATING		DISCHARGE										
		HP	kW	M ³ /hr	0	2.4	3.0	3.6	4.2	4.8	5.4	6.0		
				LPM	0	40	50	60	70	80	90	100		
CXL-05	05	0.5	0.37	HEAD IN METERS	30	27	26	24	22	19	16	11		
CXL-09	09	1.0	0.75		54	49	47	44	39	34	28	20		
CXL-12	12	1.5	1.1		72	65	63	59	53	46	38	27		
CXL-15	15	1.5	1.1		90	82	78	73	66	57	47	34		
CXL-17	17	2.0	1.5		102	93	89	83	74	65	53	38		
CXL-21	21	2.5	1.85		126	114	110	102	92	80	66	47		
CXL-23	23	3.0	2.2		138	125	120	112	101	88	72	52		
CXL-26	26	3.0	2.2		156	142	136	127	114	99	81	59		
CXL-32	32	4.0	3.0		192	174	167	156	140	122	100	72		
CXL-36	36	5.0	3.7		216	196	188	176	158	138	113	81		
CXL-40	40	5.0	3.7		240	218	209	195	175	153	125	90		
CXL-46	46	6.0	4.5		276	251	240	224	201	176	144	104		
CXL-50	50	7.5	5.5		300	273	261	244	219	191	156	113		
CXL-54	54	7.5	5.5		324	294	282	263	236	207	169	122		
CXL-62	62	10.0	7.5		372	338	324	302	271	237	194	140		

Note:- Pump Model of 6/7.5/10 HP is with 5" (125mm) dia Motor.



SELECTION CHART FOR 100mm (4") SUBMERSIBLE PUMPSET

90 LPM SERIES				OUTLET SIZE : 40 mm (1½")									2900 RPM
PUMP MODEL	STAGES	MOTOR RATING		DISCHARGE									
		HP	kW	M ³ /hr LPM	0	3.0	4.2	4.8	5.4	6.0	7.2	8.4	
EXL-06	06	1.0	0.75	HEAD IN METERS	0	50	70	80	90	100	120	140	
EXL-07	07	1.25	0.93		41	36	34	32	29	27	21	14	
EXL-09	09	1.5	1.1		48	42	39	37	34	31	25	17	
EXL-12	12	2.0	1.5		61	54	50	48	44	40	32	22	
EXL-15	15	2.5	1.85		82	72	67	64	58	53	42	29	
EXL-18	18	3.0	2.2		102	90	84	80	73	67	53	36	
EXL-24	24	4.0	3.0		122	108	101	95	87	80	63	43	
EXL-30	30	5.0	3.7		163	144	134	127	116	107	84	58	
EXL-35	35	6.0	4.5		204	180	168	159	146	134	105	72	
EXL-45	45	7.5	5.6		238	210	196	186	170	156	123	84	
					306	270	252	239	218	200	158	108	

120 LPM SERIES				OUTLET SIZE : 50 mm (2")									2900 RPM
PUMP MODEL	STAGES	MOTOR RATING		DISCHARGE									
		HP	kW	M ³ /hr LPM	0	3.6	4.8	6.0	7.2	8.4	9.6	10.8	
FXL-05	05	1.0	0.75	HEAD IN METERS	0	60	80	100	120	140	160	180	
FXL-06	06	1.25	0.93		33	30	29	27	24	19	14	08	
FXL-07	07	1.5	1.1		39	36	34	32	28	23	17	09	
FXL-10	10	2.0	1.5		46	42	40	37	33	27	20	11	
FXL-15	15	3.0	2.2		65	60	57	53	47	38	28	15	
FXL-19	19	4.0	3.0		98	90	86	80	71	57	42	23	
FXL-25	25	5.0	3.7		124	114	108	100	88	72	52	29	
FXL-30	30	6.0	4.5		163	150	143	131	116	95	69	38	
FXL-35	35	7.5	5.5		195	180	171	159	141	114	83	45	
FXL-50	50	10.0	7.5		228	210	200	184	163	133	96	53	
					325	300	285	262	232	190	138	75	

Note: - Pump Model of 6/7.5/10 HP is with 5" (125mm) dia Motor.



SELECTION CHART FOR 100mm (4") SUBMERSIBLE PUMPSET

MIXED FLOW

170 LPM SERIES OUTLET SIZE : 50 mm (2") 2900 RPM

PUMP MODEL	STAGES	MOTOR RATING		DISCHARGE								
		HP	kW	M ³ /hr	0	6.6	7.8	9.0	10.2	11.4	12.6	13.8
				LPM	0	110	130	150	170	190	210	230
MFN-06	06	1.5	1.1	HEAD IN METERS	38	29	27	24	21	18	15	11
MFN-08	08	2.0	1.5		50	39	36	32	28	24	20	15
MFN-10	10	2.5	1.85		63	48	44	40	35	31	25	19
MFN-12	12	3.0	2.2		76	58	53	48	43	37	30	23
MFN-16	16	4.0	3.0		101	78	71	64	57	49	40	30
MFN-20	20	5.0	3.7		126	97	89	80	71	61	50	38
MFN-25	25	6.0	4.5		158	120	110	100	88	78	63	48
MFN-30	30	7.5	5.5		189	144	132	120	105	93	75	57

300 LPM SERIES OUTLET SIZE : 65 mm (2½") 2900 RPM

PUMP MODEL	STAGES	MOTOR RATING		DISCHARGE								
		HP	kW	M ³ /hr	0	10.5	12.0	15.0	18.0	21.0	24.0	25.5
				LPM	0	175	200	250	300	350	400	425
HFN-06	06	2.0	1.5	HEAD IN METERS	33	26	24	20	16	12	07	05
HFN-07	07	2.5	1.85		39	30	28	23	19	14	08	06
HFN-08	08	2.5	1.85		44	34	32	27	22	16	10	06
HFN-09	09	3.0	2.2		50	38	36	30	25	18	11	07
HFN-11	11	4.0	3.0		61	47	44	37	30	23	14	09
HFN-14	14	5.0	3.7		77	60	56	47	38	29	18	12
HFN-16	16	6.0	4.5		88	68	64	54	43	32	19	13
HFN-20	20	7.5	5.5		110	85	80	67	54	40	24	16

Note:- 6/7.5/10 HP motor in 125mm (V5) dia.

MOTOR TYPE	SINGLE PHASE		THREE PHASE	
	RATED VOLTAGE	VOLTAGE RANGE	RATED VOLTAGE	VOLTAGE RANGE
Standard Voltage (SV)	230V	200 – 240V	415V	350 – 440V
Wide Voltage (WV)	230V	160 – 240V	380V	300 – 440V
Low Voltage (LV)	180V	120 – 200V	300V	200 – 380V

SV, LV on request



125MM (V5) SUBMERSIBLE PUMPSET



SALIENT FEATURES

- Better efficiency and consistent performance
- Superior polymer coated winding wire to withstand voltage fluctuation
- Rotors are treated with special epoxy paint to ensure corrosion resistance
- All rotating components are dynamically balanced to ensure long bearing life and vibration free smooth operation
- Heavy duty carbon thrust bearing
- Bearing sleeves are hard chrome plated for long life
- Built in NRV with minimum friction loss

APPLICATION

- Irrigation of farms / fields
- High rise buildings, housing complex, bungalows
- Community water supply
- Unshaped and crooked 6" borehole

MATERIAL OF CONSTRUCTION

PART NAME	MATERIAL
Motor body	Stainless Steel
Bearing housing	CI FG 200
Motor shaft	SS AISI 410
Bush bearing	Bronze LTB - 4
Thrust bearing	AISI 420 / Carbon

PART NAME	MATERIAL
Impeller	SS 410
Bowl	CI FG 200
Pump shaft	SS AISI 410
Suction housing	CI FG 200
NRV	CI FG 200

NOTE:

1. Motor rating : 3 to 15 HP 3 phase (380 V)
2. 3 & 5 HP models are available with single phase motor (230 V, 50Hz) also.

SELECTION CHART FOR 125mm (5") SUBMERSIBLE PUMPSET

Performance at 2900 rpm, 230V single phase/380V three phase,50Hz A.C. supply
(min. bore dia-125mm, max. pump dia-123mm)

MIXED FLOW

500 LPM SERIES OUTLET SIZE : 80 mm (3") 2900 RPM

PUMP MODEL	STAGES	MOTOR RATING		DISCHARGE								
		HP	KW	M ³ /hr	0	18	24	27	30	33	36	42
				LPM	0	300	400	450	500	550	600	700
OPM5/50/3	03	3.0	2.25	HEAD IN METERS	29	24	23	21	20	19	17	14
					38	32	30	29	27	25	23	18
					48	40	38	36	34	31	29	23
					57	48	45	43	41	38	35	27
					76	64	60	57	54	50	46	36

600 LPM SERIES OUTLET SIZE : 80 mm (3") 2900 RPM

PUMP MODEL	STAGES	MOTOR RATING		DISCHARGE									
		HP	KW	M ³ /hr	0	24	30	33	36	39	42	48	
				LPM	0	400	500	550	600	650	700	800	
OPM5/60/3	03	5.0	3.75	HEAD IN METERS	29	24	23	21	20	18	17	14	
					38	32	30	28	26	24	22	18	
					48	41	38	35	33	30	28	23	
					57	49	45	42	39	36	33	27	



150MM (V6) SUBMERSIBLE PUMPSET



SALIENT FEATURES

- Better efficiency and consistent performance
- Superior polymer coated winding wire to withstand voltage fluctuation
- Designed to start at low voltage with appropriate performance
- Rotors are treated with special epoxy paint to ensure corrosion resistance
- All rotating components are dynamically balanced to ensure long bearing life and vibration free smooth operation
- Heavy duty carbon thrust bearing
- Robust construction ensures durability
- Top and suction bushes are well protected by sand guard arrangement
- Bearing sleeves are hard chrome plated for long life
- Built in NRV with minimum friction loss

APPLICATION

- Irrigation of farms / fields
- Community water supply
- High rise buildings, housing complex, bungalows
- Hotels, dairies, cattle and poultry farms
- Sprinklers
- Solar pumping station
- Industrial water supply

MATERIAL OF CONSTRUCTION

PART NAME	MATERIAL
Motor body	Stainless Steel
Bearing housing	CI FG 200
Motor shaft	SS AISI 410/420
Bush bearing	Bronze LTB - 4
Thrust bearing	AISI 420 / Carbon

PART NAME	MATERIAL
Impeller	SS 410 / Noryl
Diffuser/Bowl	CI FG 200/CI with Noryl
Pump shaft	SS AISI 410
Suction housing	CI FG 200
NRV	CI FG 200

*Motors in full SS construction are available on demand.

NOTE :

1. Motor rating: 3 to 30 HP
2. Models upto 10 HP are available in single phase motor.
3. 15 HP and above motors are available with open-type winding.
4. For sandy water application, ask for **SFC** model. Refer, **SFC** models in Price List.
5. V5 Motor-V6 Pump combination are also available for select models.

MOTOR TYPE	SINGLE PHASE		THREE PHASE	
	RATED VOLTAGE	VOLTAGE RANGE	RATED VOLTAGE	VOLTAGE RANGE
Wide Voltage (WV)	230V	160 – 240V	380V	300 – 440V
Low Voltage (LV)	180V	120 – 200V	300V	200 – 380V



SELECTION CHART FOR 150mm (6") SUBMERSIBLE PUMPSET

Performance at 2900 rpm, 380V three phase, 50Hz A.C. supply.
(min. bore dia-150mm , max. pump dia-146mm)

RADIAL FLOW

110 LPM SERIES OUTLET SIZE : 50 mm (2") 2900 RPM

PUMP MODEL	STAGES	MOTOR RATING		DISCHARGE								
		HP	kW	M ³ /hr	0	3.6	4.8	5.4	6.0	6.6	7.2	7.8
				LPM	0	60	80	90	100	110	120	130
SPR/10/15	15	5.0	3.7	HEAD IN METERS	143	129	120	110	102	93	84	75
SPR/10/18	18	6.0	4.0		171	155	144	132	122	112	101	90
SPR/10/20	20	7.5	5.5		190	172	160	147	136	124	112	100
SPR/10/23	23	7.5	5.5		219	196	184	169	156	143	129	115
SPR/10/25	25	7.5	5.5		238	215	200	183	170	155	140	125
SPR/10/28	28	10.0	7.5		266	241	224	205	190	174	157	140
SPR/10/30	30	10.0	7.5		285	258	240	220	204	186	168	150
SPR/10/34	34	12.5	9.3		323	292	272	249	231	211	190	170
SPR/10/36	36	12.5	9.3		342	310	288	264	245	223	202	180

MATERIAL OF CONSTRUCTION: IMPELLER : NORYL, DIFFUSER:NORYL WITH CI CASING

170 LPM SERIES OUTLET SIZE : 50 mm (2") 2900 RPM

PUMP MODEL	STAGES	MOTOR RATING		DISCHARGE								
		HP	kW	M ³ /hr	0	6.0	7.8	9.0	10.2	11.4	12.6	13.8
				LPM	0	100	130	150	170	190	210	230
SPR/17/6	06	3.0	2.2	HEAD IN METERS	58	54	51	48	44	40	35	30
SPR/17/8	08	4.0	3.0		77	72	68	64	59	53	46	40
SPR/17/10	10	5.0	3.7		96	90	85	80	74	66	58	50
SPR/17/11	11	5.0	3.7		106	99	94	88	81	73	64	55
SPR/17/12	12	6.0	4.5		115	108	102	96	89	79	70	60
SPR/17/16	16	7.5	5.5		154	144	136	128	118	106	93	80
SPR/17/18	18	10.0	7.5		173	162	153	144	133	119	104	90
SPR/17/21	21	10.0	7.5		202	189	179	168	155	139	122	105
SPR/17/25	25	12.5	9.3		240	225	213	200	185	165	145	125
SPR/17/26	26	12.5	9.3		250	234	221	208	192	172	151	130
SPR/17/30	30	15.0	11		288	270	255	240	222	198	174	150
SPR/17/35	35	17.5	13		336	315	298	280	259	231	203	175

MATERIAL OF CONSTRUCTION: IMPELLER : NORYL, DIFFUSER:NORYL WITH CI CASING



SELECTION CHART FOR 150mm (6") SUBMERSIBLE PUMPSET

200 LPM SERIES				OUTLET SIZE : 50 mm (2")									2900 RPM
PUMP MODEL	STAGES	MOTOR RATING		M ³ /hr LPM	DISCHARGE								
		HP	kW		0	7.8	9.0	10.2	12.0	13.8	15.0	16.2	
SPR/20/5	05	3.0	2.2	HEAD IN METERS	0	130	150	170	200	230	250	270	
SPR/20/7	07	4.0	3.0		53	47	46	44	41	37	33	29	
SPR/20/8	08	5.0	3.7		74	65	64	62	57	51	46	41	
SPR/20/10	10	6.0	4.5		85	75	73	70	66	58	53	46	
SPR/20/12	12	7.5	5.5		106	94	91	88	82	73	66	58	
SPR/20/17	17	10.0	7.5		127	112	109	106	98	88	79	70	
SPR/20/21	21	12.5	9.3		180	159	155	150	139	124	112	99	
SPR/20/25	25	15.0	11		223	196	191	185	172	153	139	122	
SPR/20/30	30	20.0	15		265	234	228	220	205	183	165	145	
					318	281	273	264	246	219	198	174	

MATERIAL OF CONSTRUCTION: IMPELLER : SS , DIFFUSER:NORYL WITH CI CASING

250 LPM SERIES				OUTLET SIZE : 50 mm (2")									2900 RPM
PUMP MODEL	STAGES	MOTOR RATING		M ³ /hr LPM	DISCHARGE								
		HP	kW		0	10.5	12.0	13.5	15.0	16.5	18.0	19.5	
SPR/25/4	04	3.0	2.2	HEAD IN METERS	0	175	200	225	250	275	300	325	
SPR/25/5	05	4.0	3.0		38	35	34	33	32	30	29	27	
SPR/25/6	06	5.0	3.7		48	44	43	41	40	38	36	34	
SPR/25/7	07	5.0	3.7		57	52	51	49	47	46	43	40	
SPR/25/8	08	6.0	4.5		67	61	60	57	55	53	50	47	
SPR/25/10	10	7.5	5.5		76	70	68	66	63	61	58	54	
SPR/25/12	12	10.0	7.5		95	87	85	82	79	76	72	67	
SPR/25/14	14	10.0	7.5		114	104	102	98	95	91	86	80	
SPR/25/16	16	12.5	9.3		133	122	119	115	111	106	101	94	
SPR/25/17	17	12.5	9.3		152	139	136	131	126	122	115	107	
SPR/25/20	20	15.0	11.0		162	148	145	139	134	129	122	114	
SPR/25/21	21	15.0	11.0		190	174	170	164	158	152	144	134	
SPR/25/23	23	17.5	13.0		200	183	179	172	166	160	151	141	
SPR/25/26	26	20.0	15.0		219	200	196	189	182	175	166	154	
SPR/25/30	30	25.0	18.5		247	226	221	213	205	198	187	174	
					304	278	272	262	253	243	230	214	

MATERIAL OF CONSTRUCTION: IMPELLER : SS , DIFFUSER:NORYL WITH CI CASING



SELECTION CHART FOR 150mm (6") SUBMERSIBLE PUMPSET

300 LPM SERIES

OUTLET SIZE : 50 mm (2")

2900 RPM

PUMP MODEL	STAGES	MOTOR RATING		DISCHARGE								
		HP	KW	M ³ /hr	0	9.0	13.8	15.9	18.0	20.1	22.2	24.3
				LPM	0	150	230	265	300	335	370	405
SPR/30/3	03	3.0	2.2	HEAD IN METERS	33	30	29	28	26	24	23	20
SPR/30/4	04	4.0	3.0		44	40	38	37	35	32	30	26
SPR/30/5	05	5.0	3.7		55	50	48	46	44	40	38	33
SPR/30/6	06	6.0	4.5		66	60	57	55	52	48	45	40
SPR/30/7	07	7.5	5.5		77	70	67	64	61	56	53	46
SPR/30/8	08	7.5	5.5		88	80	76	74	70	64	60	53
SPR/30/9	09	10.0	7.5		99	90	86	83	78	72	68	59
SPR/30/10	10	10.0	7.5		110	100	95	92	87	80	75	66
SPR/30/12	12	12.5	9.3		131	120	114	110	104	96	90	79
SPR/30/14	14	15.0	11.0		153	140	133	129	122	112	105	92
SPR/30/15	15	15.0	11.0		164	150	143	138	131	120	113	99
SPR/30/17	17	17.5	13.0		186	170	162	156	148	136	128	112
SPR/30/18	18	20.0	15.0		197	180	171	166	157	144	135	119
SPR/30/20	20	20.0	15.0		219	200	190	184	174	160	150	132
SPR/30/25	25	25.0	18.5		274	250	238	230	218	200	188	165

MATERIAL OF CONSTRUCTION: IMPELLER : SS/NORYL, DIFFUSER:NORYL WITH CI CASING

225 LPM SERIES

OUTLET SIZE : 50 mm (2")

2900 RPM

PUMP MODEL	STAGES	MOTOR RATING		DISCHARGE								
		HP	KW	M ³ /hr	0	7.5	9.0	12.0	13.5	15.0	18.0	19.5
				LPM	0	125	150	200	225	250	300	325
SPRH/225/4	04	3.0	2.2	HEAD IN METERS	45	43	42	40	38	36	30	27
SPRH/225/5	05	4.0	3.0		56	54	52	51	49	46	38	34
SPRH/225/7	07	5.0	3.7		78	76	74	71	68	64	53	48
SPRH/225/8	08	6.0	4.5		90	86	85	81	78	73	61	54
SPRH/225/10	10	7.5	5.5		112	108	106	101	97	91	76	68
SPRH/225/13	13	10.0	7.5		146	140	138	131	126	118	99	88
SPRH/225/14	14	10.0	7.5		157	151	148	141	136	127	106	95
SPRH/225/16	16	12.5	9.3		179	173	170	162	155	146	122	109
SPRH/225/17	17	12.5	9.3		190	184	180	172	165	155	129	116
SPRH/225/21	21	15.0	11.0		235	227	223	212	204	191	160	143
SPRH/225/23	23	17.5	13.0		258	244	239	228	219	205	170	152
SPRH/225/26	26	20.0	15.0		291	276	270	257	247	231	192	172
SPRH/225/28	28	20.0	15.0		314	297	291	277	266	249	207	185
SPRH/225/32	32	25.0	18.5		358	339	333	317	304	285	237	211
SPRH/225/36	36	30.0	22.0		403	382	374	356	342	320	266	238

MATERIAL OF CONSTRUCTION: IMPELLER : NORYL , DIFFUSER:NORYL WITH CI CASING



SELECTION CHART FOR 150mm (6") SUBMERSIBLE PUMPSET

250 LPM SERIES

OUTLET SIZE : 65 mm (2½")

2900 RPM

PUMP MODEL	STAGES	MOTOR RATING		DISCHARGE								
		HP	KW	M ³ /hr	0	6.0	9.0	12.0	15.0	18.0	21.0	24.0
				LPM	0	100	150	200	250	300	350	400
SPRH/25/3	03	3.0	2.2	HEAD IN METERS	42	41	39	38	35	31	26	21
SPRH/25/4	04	4.0	3.0		56	54	52	50	47	41	35	28
SPRH/25/5	05	5.0	3.7		70	68	65	63	59	51	44	35
SPRH/25/6	06	6.0	4.5		84	81	78	75	71	62	53	42
SPRH/25/8	08	7.5	5.5		112	108	104	100	94	82	70	56
SPRH/25/10	10	10.0	7.5		140	135	130	125	118	103	88	70
SPRH/25/12	12	12.5	9.3		168	162	156	150	141	123	105	84
SPRH/25/15	15	15.0	11.0		210	203	195	188	176	154	131	105
SPRH/25/18	18	17.5	13.0		252	243	234	225	212	185	158	126
SPRH/25/20	20	20.0	15.0		280	270	260	250	235	205	175	140
SPRH/25/25	25	25.0	18.5		350	338	325	313	294	256	219	175

MATERIAL OF CONSTRUCTION: IMPELLER : NORYL , DIFFUSER:NORYL WITH CI CASING

325 LPM SERIES

OUTLET SIZE : 65 mm (2½")

2900 RPM

PUMP MODEL	STAGES	MOTOR RATING		DISCHARGE								
		HP	KW	M ³ /hr	0	9.0	13.5	16.5	19.5	22.5	25.5	30.0
				LPM	0	150	225	275	325	375	425	500
SPRH/325/3	03	4.0	3.0	HEAD IN METERS	47	43	40	38	35	32	28	20
SPRH/325/4	04	5.0	3.7		63	57	53	51	47	43	37	26
SPRH/325/5	05	6.0	4.5		79	71	67	63	58	53	46	33
SPRH/325/6	06	7.5	5.5		95	85	80	76	70	64	55	39
SPRH/325/8	08	10.0	7.5		127	113	107	101	93	85	73	52
SPRH/325/10	10	12.5	9.3		158	142	133	127	117	107	92	65
SPRH/325/12	12	15.0	11.0		190	170	160	152	140	128	110	78
SPRH/325/14	14	17.5	13.0		222	198	187	177	163	149	128	91
SPRH/325/16	16	20.0	15.0		253	227	213	203	187	171	147	104
SPRH/325/20	20	25.0	18.5		317	283	267	253	233	213	183	130
SPRH/325/24	24	30.0	22.5		372	333	314	298	274	251	216	153

MATERIAL OF CONSTRUCTION: IMPELLER : NORYL , DIFFUSER:NORYL WITH CI CASING



SELECTION CHART FOR 150mm (6") SUBMERSIBLE PUMPSET

MIXED FLOW

350 LPM SERIES				OUTLET SIZE : 80 mm (3") upto 8 STG, 65 mm (2½) 10 STG ONWARDS									2900 RPM	
PUMP MODEL	STAGES	MOTOR RATING		DISCHARGE										
		HP	KW	M ³ /hr	0	6.0	12.0	18.0	21.0	24.0	30.0	36.0		
				LPM	0	100	200	300	350	400	500	600		
SPM/35/3	03	3.0	2.2	HEAD IN METERS	30	29	28	26	24	22	17	11		
SPM/35/4	04	4.0	3.0		39	38	37	34	32	29	23	15		
SPM/35/5	05	5.0	3.7		49	48	46	43	40	36	29	19		
SPM/35/6	06	6.0	4.5		59	57	55	51	48	44	34	23		
SPM/35/7	07	7.5	5.5		68	67	64	60	57	51	40	27		
SPM/35/8	08	7.5	5.5		78	76	74	68	65	58	46	30		
SPM/35/9	09	10.0	7.5		88	86	83	77	73	65	51	34		
SPM/35/10	10	10.0	7.5		98	95	92	86	81	73	57	38		
SPM/35/12	12	12.5	9.3		117	114	110	103	97	87	68	46		
SPM/35/13	13	12.5	9.3		127	124	120	111	105	94	74	49		
SPM/35/14	14	15.0	11.0		137	133	129	120	113	102	80	53		
SPM/35/15	15	15.0	11.0		147	143	138	128	121	109	86	57		
SPM/35/16	16	17.5	13.0		157	152	147	137	129	116	91	61		
SPM/35/17	17	17.5	13.0		166	162	156	145	137	123	97	65		
SPM/35/18	18	20.0	15.0		176	171	166	154	145	131	103	68		
SPM/35/19	19	20.0	15.0		186	181	175	162	153	138	108	72		
SPM/35/20	20	20.0	15.0		196	190	184	171	162	145	114	76		

MATERIAL OF CONSTRUCTION : IMPELLER : SS , BOWL : CI

400 LPM SERIES				OUTLET SIZE : 65 mm (2½")									2900 RPM	
PUMP MODEL	STAGES	MOTOR RATING		DISCHARGE										
		HP	KW	M ³ /hr	0	12.0	18.0	21.0	24.0	27.0	30.0	36.0		
				LPM	0	200	300	350	400	450	500	600		
SPMH/40/3	03	4.0	3.0	HEAD IN METERS	39	35	32	30	29	26	24	17		
SPMH/40/4	04	5.0	3.7		52	46	42	40	38	35	32	22		
SPMH/40/5	05	6.0	4.5		65	58	53	51	48	44	40	28		
SPMH/40/6	06	7.5	5.5		77	69	64	61	57	53	47	33		
SPMH/40/8	08	10.0	7.5		103	92	85	81	76	70	63	44		
SPMH/40/10	10	12.5	9.3		129	115	106	101	95	88	79	55		
SPMH/40/11	11	15.0	11.0		142	127	117	111	105	97	87	61		
SPMH/40/12	12	15.0	11.0		155	138	127	121	114	106	95	66		
SPMH/40/13	13	17.5	13.0		168	150	138	131	124	114	103	72		
SPMH/40/14	14	17.5	13.0		181	161	148	141	133	123	111	77		
SPMH/40/15	15	20.0	15.0		194	173	159	152	143	132	119	83		
SPMH/40/16	16	20.0	15.0		206	184	170	162	152	141	126	88		
SPMH/40/17	17	25.0	18.5		219	196	180	172	162	150	134	94		
SPMH/40/18	18	25.0	18.5		232	207	191	182	171	158	142	99		

MATERIAL OF CONSTRUCTION : IMPELLER : SS , BOWL : CI



SELECTION CHART FOR 150mm (6") SUBMERSIBLE PUMPSET

600 LPM SERIES				OUTLET SIZE : 80 mm (3")								2900 RPM	
PUMP MODEL	STAGES	MOTOR RATING		M ³ /hr LPM	DISCHARGE								
		HP	KW		0	18.0	24.0	30.0	36.0	42.0	48.0	54.0	
SPM/55/3	03	5.0	3.7	HEAD IN METERS	0	300	400	500	600	700	800	900	
SPM/55/4H	04	5.0	3.7		35	31	30	28	26	23	20	14	
SPM/55/4	04	6.0	4.5		42	37	36	34	31	28	23	17	
SPM/55/5H	05	6.0	4.5		46	42	40	38	35	31	26	18	
SPM/55/5	05	7.5	5.5		51	46	44	41	38	34	29	20	
SPM/55/7	07	10.0	7.5		58	52	50	47	44	39	33	23	
SPM/55/8	08	12.5	9.3		81	73	69	66	61	55	46	32	
SPM/55/10	10	15.0	11.0		93	83	79	75	70	62	52	37	
SPM/55/12	12	20.0	15.0		116	104	99	94	87	78	65	46	
SPM/55/14	14	20.0	15.0		139	125	119	113	104	94	78	55	
SPM/55/16	16	25.0	18.5		162	146	139	132	122	109	91	64	
SPM/55/20	20	30.0	22.0		186	166	158	150	139	125	104	74	
					227	204	194	184	171	153	127	90	

MATERIAL OF CONSTRUCTION: IMPELLER : SS , BOWL : CI

500 LPM SERIES				OUTLET SIZE : 80 mm (3")								2900 RPM	
PUMP MODEL	STAGES	MOTOR RATING		M ³ /hr LPM	DISCHARGE								
		HP	KW		0	18.0	20	24.0	30.0	33.0	42.0	45.0	
SPM/75/4	04	5.0	3.7	HEAD IN METERS	0	300	325	400	500	550	700	750	
SPM/75/5	05	6.0	4.5		43	39	38	36	33	31	23	21	
SPM/75/6	06	7.5	5.5		54	49	48	45	41	39	29	26	
SPM/75/8	08	10.0	7.5		64	59	57	54	50	47	35	32	
SPM/75/10	10	13.0	9.3		86	78	76	72	66	62	46	42	
SPM/75/12	12	15.0	11.0		108	98	96	90	82	78	58	52	
						130	118	114	108	100	94	70	64

MATERIAL OF CONSTRUCTION: IMPELLER : SS , BOWL : CI



SELECTION CHART FOR 150mm (6") SUBMERSIBLE PUMPSET

900 LPM SERIES **OUTLET SIZE : 80 mm (3")** **2900 RPM**

PUMP MODEL	STAGES	MOTOR RATING		DISCHARGE								
		HP	KW	M ³ /hr	0	36.0	42.0	48.0	54.0	60.0	66.0	72.0
				LPM	0	600	700	800	900	1000	1100	1200
SPM/90/3	03	5.0	3.7	HEAD IN METERS	29	23	21	19	16	12	08	03
SPM/90/4	04	6.0	4.5		38	31	28	25	21	16	10	04
SPM/90/5	05	7.5	5.5		48	38	35	31	26	20	13	05
SPM/90/6	06	10.0	7.5		58	46	42	38	32	24	15	05
SPM/90/7	07	12.5	9.3		67	53	49	44	37	28	18	06
SPM/90/8	08	12.5	9.3		77	61	56	50	42	32	20	07
SPM/90/9	09	15.0	11.0		86	69	63	56	47	36	23	08
SPM/90/10	10	15.0	11.0		96	76	70	63	53	40	25	09
SPM/90/11	11	17.5	13.0		106	84	77	69	58	44	28	10
SPM/90/12	12	20.0	15.0		115	92	84	75	63	48	30	11
SPM/90/15	15	25.0	18.5		144	114	105	94	79	60	38	41

MATERIAL OF CONSTRUCTION: IMPELLER : SS , BOWL : CI

1000 LPM SERIES **OUTLET SIZE : 100 mm (4")** **2900 RPM**

PUMP MODEL	STAGES	MOTOR RATING		DISCHARGE								
		HP	KW	M ³ /hr	0	42.0	48.0	54.0	60.0	66.0	72.0	78.0
				LPM	0	700	800	900	1000	1100	1200	1300
SPM/100/2	02	5.0	3.7	HEAD IN METERS	26	19	17	16	13	10	07	03
SPM/100/3	03	6.0	4.5		39	28	26	23	20	15	10	04
SPM/100/4	04	7.5	5.5		52	37	34	31	27	20	13	05
SPM/100/5	05	10.0	7.5		65	46	43	39	33	25	16	06
SPM/100/6	06	12.5	9.3		78	56	51	47	40	30	20	08
SPM/100/7	07	15.0	11.0		91	65	60	54	46	35	23	09
SPM/100/8	08	15.0	11.0		104	74	68	62	53	40	26	10
SPM/100/9	09	20.0	15.0		117	83	77	70	60	45	29	11
SPM/100/10	10	20.0	15.0		130	93	85	78	66	50	33	13
SPM/100/11	11	25.0	18.5		143	102	94	85	73	55	36	14
SPM/100/12	12	25.0	18.5		156	111	102	93	80	60	39	15

MATERIAL OF CONSTRUCTION: IMPELLER : SS , BOWL : CI



SELECTION CHART FOR 150mm (6") SUBMERSIBLE PUMPSET

1200 LPM SERIES

OUTLET SIZE : 100 mm (4")

2900 RPM

PUMP MODEL	STAGES	MOTOR RATING		DISCHARGE								
		HP	kW	M ³ /hr	0	42.0	54.0	66.0	72.0	78.0	84.0	90.0
				LPM	0	700	900	1100	1200	1300	1400	1500
SPM/120/2	02	5.0	3.7	HEAD IN METERS	24	19	17	15	13	11	09	07
SPM/120/3	03	7.5	5.5		35	29	26	22	20	17	14	11
SPM/120/4H*	04	7.5	5.5		40	32	29	25	22	19	16	12
SPM/120/4	04	10.0	7.5		47	38	34	29	26	23	19	15
SPM/120/5	05	12.5	9.3		59	48	43	37	33	29	24	18
SPM/120/6	06	15.0	11.0		71	57	51	44	39	34	28	22
SPM/120/7	07	17.5	13.0		83	67	60	51	46	40	33	26
SPM/120/8	08	20.0	15.0		94	76	68	58	52	46	38	29
SPM/120/9	09	20.0	15.0		106	86	77	66	59	51	42	33
SPM/120/10	10	25.0	18.5		118	95	85	73	66	57	47	37

MATERIAL OF CONSTRUCTION: IMPELLER : SS , BOWL : CI

* Formerly known as SPM/115/4 - 7.5 hp

1300 LPM SERIES

OUTLET SIZE : 100 mm (4")

2900 RPM

PUMP MODEL	STAGES	MOTOR RATING		DISCHARGE								
		HP	kW	M ³ /hr	0	60.0	66.0	72.0	78.0	84.0	90.0	96.0
				LPM	0	1000	1100	1200	1300	1400	1500	1600
SPM/130/2	02	6.0	4.5	HEAD IN METERS	23	18	17	16	14	13	11	09
SPM/130/3	03	10.0	7.5		35	26	25	23	21	19	16	13
SPM/130/4	04	12.5	9.3		46	35	34	31	28	26	22	17
SPM/130/5	05	15.0	11.0		58	44	42	39	36	32	27	22
SPM/130/6	06	20.0	15.0		69	53	50	47	43	38	32	26
SPM/130/7	07	20.0	15.0		81	62	59	55	50	45	38	30
SPM/130/8	08	25.0	18.5		92	70	67	62	57	51	43	34

MATERIAL OF CONSTRUCTION: IMPELLER : SS , BOWL : CI

NEW

HIGH DISCHARGE HEAVY DUTY



HERCULES

aramco
Engineered for the Depths



200MM (V8) SUBMERSIBLE PUMPSET



SALIENT FEATURES

- High efficiency and consistent performance
- Superior polymer coated/ PVC winding wire to withstand voltage fluctuation
- Designed to start at low voltage with appropriate performance
- Rotors are treated with special epoxy paint to ensure corrosion resistance
- All rotating components are dynamically balanced to ensure long bearing life and vibration free smooth operation
- Heavy duty carbon thrust bearing
- Robust construction ensures durability
- Top & suction bushes are well protected by sand guard arrangement
- Bearing sleeves are hard chrome plated for long life
- Built in NRV with minimum friction loss

APPLICATION

- Irrigation of farms / fields
- Community water supply
- High rise buildings, housing complex, bungalows
- Hotels, dairies, cattle and poultry farms
- Sprinklers

MATERIAL OF CONSTRUCTION

PART NAME	MATERIAL
Motor body	Stainless Steel
Bearing housing	CI FG 200
Motor shaft	SS AISI 410/420/431
Bush bearing	Bronze LTB - 4

PART NAME	MATERIAL
Impeller	SS 410
Diffuser/Bowl	CI FG 200
Pump shaft	SS AISI 410
Suction housing	CI FG 200

NOTE :

1. Motor Rating: V8-V8 : 10 to 60HP & V8-V6 frame : 6 to 30 HP
2. For sandy water application, ask for **SFC** model. Refer, **SFC** models in Price List.



SELECTION CHART FOR 200mm (8") SUBMERSIBLE PUMPSETS

Performance Chart at 2900 rpm, 380 V three phase, 50 Hz A.C. supply
(min. bore dia-200mm, max. pump dia-196mm)

RADIAL FLOW

450 LPM SERIES OUTLET SIZE : 80 mm (3") 2900 RPM

PUMP MODEL	STAGES	MOTOR RATING			DISCHARGE								
		TYPE	HP	kW	M ³ /hr	0	12	18	24	27	30	36	42
					LPM	0	200	300	400	450	500	600	700
SPR8/45/4	04	V8	10.0	7.5	HEAD IN METERS	79	77	76	72	68	65	54	38
SPR8/45/5	05	V8	12.5	9.3		99	97	95	90	86	81	68	48
SPR8/45/6	06	V8	15.0	11.0		119	116	114	108	103	97	81	57
SPR8/45/7	07	V8	20.0	15.0		139	135	133	126	120	113	95	67
SPR8/45/8	08	V8	20.0	15.0		158	154	152	144	137	130	108	76
SPR8/45/10	10	V8	25.0	18.5		198	193	190	180	171	162	135	95
SPR8/45/12	12	V8	30.0	22.0		238	232	228	216	205	194	162	114
SPR8/45/14	14	V8	35.0	26.0		277	270	266	252	239	227	189	133
SPR8/45/16	16	V8	40.0	30.0		317	309	304	288	274	259	216	152

500 LPM SERIES OUTLET SIZE : 80 mm (3") 2900 RPM

PUMP MODEL	STAGES	MOTOR RATING			DISCHARGE								
		TYPE	HP	kW	M ³ /hr	0	12	18	24	30	36	42	48
					LPM	0	200	300	400	500	600	700	800
SPR8H/50/3	03	V8	10.0	7.5	HEAD IN METERS	59	56	55	54	53	52	47	41
SPR8H/50/4	04	V8	15.0	11.0		78	75	74	72	71	70	63	55
SPR8H/50/6	06	V8	20.0	15.0		117	113	110	109	107	104	94	83
SPR8H/50/7	07	V8	20.0	15.0		137	132	129	127	125	122	110	97
SPR8H/50/8	08	V8	25.0	18.5		156	150	147	145	142	139	126	110
SPR8H/50/9	09	V8	30.0	22.0		176	169	166	163	160	157	141	124
SPR8H/50/10	10	V8	30.0	22.0		195	188	184	181	178	174	157	138
SPR8H/50/11	11	V8	35.0	26.0		215	207	202	199	196	191	173	152
SPR8H/50/12	12	V8	40.0	30.0		234	226	221	217	214	209	188	166
SPR8H/50/16	16	V8	50.0	37.0		312	301	294	290	285	278	251	221



SELECTION CHART FOR 200mm (8") SUBMERSIBLE PUMPSETS

650 LPM SERIES **OUTLET SIZE : 80 mm (3")** **2900 RPM**

PUMP MODEL	STAGES	MOTOR RATING			DISCHARGE								
		TYPE	HP	kW	M ³ /hr	0	21	27	33	39	45	51	57
					LPM	0	350	450	550	650	750	850	950
SPR8/65/2	02	V8	10.0	7.5	HEAD IN METERS	43	41	40	40	38	36	32	28
SPR8/65/3	03	V8	15.0	11.0		65	62	61	59	57	53	48	42
SPR8/65/4	04	V8	20.0	15.0		86	82	81	79	76	71	64	56
SPR8/65/5	05	V8	25.0	18.5		108	103	101	99	95	89	80	70
SPR8/65/6	06	V8	30.0	22.0		129	124	121	119	114	107	96	84
SPR8/65/7	07	V8	35.0	26.0		151	144	141	139	133	125	112	98
SPR8/65/8	08	V8	40.0	30.0		172	165	162	158	152	142	128	112
SPR8/65/9	09	V8	45.0	33.8		194	185	182	178	171	160	144	126
SPR8/65/10	10	V8	50.0	37.5		215	206	202	198	190	178	160	140
SPR8/65/12	12	V8	60.0	45.0		258	247	242	238	228	214	192	168

MIXED FLOW

1300 LPM SERIES **OUTLET SIZE : 100 mm (4")** **2900 RPM**

PUMP MODEL	STAGES	MOTOR RATING			DISCHARGE								
		TYPE	HP	kW	M ³ /hr	0	42	54	66	78	84	90	96
					LPM	0	700	900	1100	1300	1400	1500	1600
SPM8/130/3	03	V8	10.0	7.5	HEAD IN METERS	53	42	38	33	28	25	22	18
SPM8/130/4	04	V8	12.5	9.3		70	56	50	44	38	33	29	24
SPM8/130/5	05	V8	15.0	11.0		88	71	63	55	47	42	37	30
SPM8/130/6	06	V8	20.0	15.0		105	85	76	66	56	50	44	36
SPM8/130/7	07	V8	25.0	18.5		123	99	88	77	66	58	51	42
SPM8/130/8	08	V8	25.0	18.5		140	113	101	88	75	66	58	48
SPM8/130/9	09	V8	30.0	22.0		158	127	113	99	85	75	66	54
SPM8/130/10	10	V8	30.0	22.0		175	141	126	110	94	83	73	60
SPM8/130/12	12	V8	40.0	30.0		210	169	151	132	113	100	88	72



SELECTION CHART FOR 200mm (8") SUBMERSIBLE PUMPSETS

1400 LPM SERIES OUTLET SIZE : 100 mm (4") 2900 RPM

PUMP MODEL	STAGES	MOTOR RATING			DISCHARGE								
		TYPE	HP	kW	M ³ /hr	0	48	60	72	84	90	96	102
					LPM	0	800	1000	1200	1400	1500	1600	1700
SPM8/140/3	03	V8	12.5	9.3	HEAD IN METERS	62	47	42	36	28	25	21	18
SPM8/140/4	04	V8	15.0	11.0		83	62	56	48	38	33	28	24
SPM8/140/5	05	V8	20.0	15.0		104	78	70	60	47	42	35	30
SPM8/140/6	06	V8	25.0	18.5		125	93	83	71	56	50	42	36
SPM8/140/7	07	V8	30.0	22.0		146	109	97	83	66	58	49	42
SPM8/140/8	08	V8	35.0	26.0		166	124	111	95	75	66	56	48
SPM8/140/9	09	V8	40.0	30.0		187	140	125	107	85	75	63	54
SPM8/140/10	10	V8	40.0	30.0		208	155	139	119	94	83	70	60

1500 LPM SERIES OUTLET SIZE : 100 mm (4") 2900 RPM

PUMP MODEL	STAGES	MOTOR RATING			DISCHARGE								
		TYPE	HP	kW	M ³ /hr	0	54	66	78	90	96	102	108
					LPM	0	900	1100	1300	1500	1600	1700	1800
SPM8/150/2	02	V8	10.0	7.5	HEAD IN METERS	41	33	30	27	23	21	19	16
SPM8/150/3	03	V8	15.0	11.0		61	49	45	41	35	32	28	24
SPM8/150/4	04	V8	20.0	15.0		81	65	60	55	47	43	37	32
SPM8/150/5	05	V8	25.0	18.5		102	82	75	68	58	53	47	40
SPM8/150/6	06	V8	30.0	22.0		122	98	90	82	70	64	56	48
SPM8/150/7	07	V8	35.0	26.0		161	119	105	92	78	69	59	49
SPM8/150/8	08	V8	40.0	30.0		184	136	120	105	90	78	67	56
SPM8/150/9	09	V8	45.0	33.8		207	153	135	119	101	88	76	63
SPM8/150/10	10	V8	50.0	37.5		230	170	150	132	112	98	84	70

1600 LPM SERIES OUTLET SIZE : 100 mm (4") 2900 RPM

PUMP MODEL	STAGES	MOTOR RATING			DISCHARGE								
		TYPE	HP	kW	M ³ /hr	0	60	72	84	96	102	108	114
					LPM	0	1000	1200	1400	1600	1700	1800	1900
SPM8/160/2	02	V8	12.5	9.3	HEAD IN METERS	41	34	32	30	27	26	24	22
SPM8/160/3	03	V8	20.0	15.0		61	52	49	45	41	38	35	32
SPM8/160/4	04	V8	25.0	18.5		81	69	65	60	55	51	47	43
SPM8/160/5	05	V8	30.0	22.0		102	86	81	76	69	64	59	54
SPM8/160/6	06	V8	35.0	26.0		122	103	97	91	82	77	71	65
SPM8/160/7	07	V8	45.0	33.8		142	120	113	106	96	90	83	76
SPM8/160/8	08	V8	50.0	37.5		162	138	130	121	110	102	94	86
SPM8/160/9	09	V8	60.0	45.0		183	155	146	136	123	115	106	97



SELECTION CHART FOR 200mm (8") SUBMERSIBLE PUMPSETS

1700 LPM SERIES OUTLET SIZE : 100 mm (4") 2900 RPM

PUMP MODEL	STAGES	MOTOR RATING			DISCHARGE								
		TYPE	HP	kW	M ³ /hr	0	66	78	90	102	108	114	120
					LPM	0	1100	1300	1500	1700	1800	1900	2000
SPM8/170/2	02	V8	15.0	11.0	HEAD IN METERS	43	36	34	32	28	26	22	18
SPM8/170/3	03	V8	20.0	15.0		65	55	52	48	43	39	34	27
SPM8/170/4	04	V8	30.0	22.0		86	73	69	64	57	52	45	36
SPM8/170/5	05	V8	35.0	26.0		108	91	86	80	71	65	56	46
SPM8/170/6	06	V8	45.0	33.8		129	109	103	96	85	77	67	55
SPM8/170/7	07	V8	50.0	37.5		151	127	120	112	99	90	78	64

* Also available with 125mm (5") NRV

1800 LPM SERIES OUTLET SIZE : 125 mm (5") 2900 RPM

PUMP MODEL	STAGES	MOTOR RATING			DISCHARGE								
		TYPE	HP	kW	M ³ /hr	0	72	84	96	108	114	120	126
					LPM	0	1200	1400	1600	1800	1900	2000	2100
SPM8/180/2	02	V8	17.5	13.0	HEAD IN METERS	48	39	37	34	30	27	24	20
SPM8/180/3	03	V8	25.0	18.5		72	59	56	51	45	41	36	30
SPM8/180/4	04	V8	35.0	26.0		96	78	74	68	60	55	48	40
SPM8/180/5	05	V8	40.0	30.0		120	98	93	85	75	69	61	50
SPM8/180/6	06	V8	50.0	37.5		144	117	111	102	90	82	73	60

1900 LPM SERIES OUTLET SIZE : 125 mm (5") 2900 RPM

PUMP MODEL	STAGES	MOTOR RATING			DISCHARGE								
		TYPE	HP	kW	M ³ /hr	0	78	90	102	114	120	126	132
					LPM	0	1300	1500	1700	1900	2000	2100	2200
SPM8/190/2	02	V8	20.0	15.0	HEAD IN METERS	53	42	39	36	31	28	24	20
SPM8/190/3	03	V8	30.0	22.0		80	63	59	54	47	42	36	30
SPM8/190/4	04	V8	40.0	30.0		106	84	79	72	62	56	48	40
SPM8/190/5	05	V8	50.0	37.5		133	105	99	90	78	70	60	50

2000 LPM SERIES OUTLET SIZE : 125 mm (5") 2900 RPM

PUMP MODEL	STAGES	MOTOR RATING			DISCHARGE								
		TYPE	HP	kW	M ³ /hr	0	66	84	102	120	138	156	174
					LPM	0	1100	1400	1700	2000	2300	2600	2900
SPM8/200/2	02	V8	25.0	18.5	HEAD IN METERS	55	43	39	36	34	32	30	27
SPM8/200/3	03	V8	40.0	30.0		83	65	59	54	51	48	45	41
SPM8/200/4	04	V8	50.0	37.5		110	86	78	72	68	64	60	54



SELECTION CHART FOR 200mm (8") SUBMERSIBLE PUMPSETS

1350 LPM SERIES OUTLET SIZE : 100 mm (4") 2900 RPM

PUMP MODEL	STAGES	MOTOR RATING			DISCHARGE								
		TYPE	HP	kW	M ³ /hr	0	45	57	69	81	87	93	99
					LPM	0	750	950	1150	1350	1450	1550	1650
SPM8J/135/2-SFC	02	V6	6.0	4.5	HEAD IN METERS	34	26	23	20	17	15	13	11
SPM8J/135/3-SFC	03	V6	10.0	7.5		50	39	35	31	26	23	19	16
SPM8J/135/4-SFC	04	V6	12.5	9.3		67	52	46	41	34	30	26	22
SPM8J/135/5-SFC	05	V6	15.0	11.0		84	65	58	51	43	38	32	27
SPM8J/135/6-SFC	06	V6	20.0	15.0		101	78	70	61	52	46	38	32
SPM8J/135/7-SFC	07	V6	25.0	18.5		118	91	81	71	60	53	45	38
SPM8J/135/8-SFC	08	V6	25.0	18.5		134	104	93	82	69	61	51	43

1450 LPM SERIES OUTLET SIZE : 100 mm (4") 2900 RPM

PUMP MODEL	STAGES	MOTOR RATING			DISCHARGE								
		TYPE	HP	kW	M ³ /hr	0	51	63	75	87	93	99	105
					LPM	0	850	1050	1250	1450	1550	1650	1750
SPM8J/145/2-SFC	02	V6	7.5	5.5	HEAD IN METERS	37	30	28	25	21	19	17	15
SPM8J/145/3-SFC	03	V6	12.5	9.3		55	44	41	37	32	29	26	23
SPM8J/145/4-SFC	04	V6	15.0	11.0		73	59	55	50	42	38	34	30
SPM8J/145/5-SFC	05	V6	20.0	15.0		91	74	69	62	53	48	43	38

1550 LPM SERIES OUTLET SIZE : 100 mm (4") 2900 RPM

PUMP MODEL	STAGES	MOTOR RATING			DISCHARGE								
		TYPE	HP	kW	M ³ /hr	0	57	69	81	93	99	105	111
					LPM	0	950	1150	1350	1550	1650	1750	1850
SPM8J/155/2-SFC	02	V6	10.0	7.5	HEAD IN METERS	39	32	30	27	24	22	20	17
SPM8J/155/3-SFC	03	V6	15.0	11.0		59	47	44	41	35	32	29	26
SPM8J/155/4-SFC	04	V6	20.0	15.0		78	63	59	54	47	43	39	34
SPM8J/155/5-SFC	05	V6	25.0	18.5		98	79	74	68	59	54	49	43

"SPM8J" - V8 Pump coupled with V6 Motor



SELECTION CHART FOR 200mm (8") SUBMERSIBLE PUMPSETS

1650 LPM SERIES OUTLET SIZE : 100 mm (4") 2900 RPM

PUMP MODEL	STAGES	MOTOR RATING			DISCHARGE								
		TYPE	HP	kW	M ³ /hr	0	63	75	87	99	105	111	117
					LPM	0	1050	1250	1450	1650	1750	1850	1950
SPM8J/165/2-SFC	02	V6	15.0	11.0	HEAD IN METERS	40	33	31	29	26	25	23	21
SPM8J/165/3-SFC	03	V6	20.0	15.0		60	50	47	44	39	38	35	32
SPM8J/165/4-SFC	04	V6	25.0	18.5		80	66	62	58	52	50	46	42

1750 LPM SERIES OUTLET SIZE : 100 mm (4") 2900 RPM

PUMP MODEL	STAGES	MOTOR RATING			DISCHARGE								
		TYPE	HP	kW	M ³ /hr	0	69	81	93	105	111	117	123
					LPM	0	1150	1350	1550	1750	1850	1950	2050
SPM8J/175/2-SFC	02	V6	15.0	11.0	HEAD IN METERS	43	35	33	31	27	24	21	17
SPM8J/175/3-SFC	03	V6	20.0	15.0		65	54	51	47	42	38	33	26

1850 LPM SERIES OUTLET SIZE : 100 mm (4") 2900 RPM

PUMP MODEL	STAGES	MOTOR RATING			DISCHARGE								
		TYPE	HP	kW	M ³ /hr	0	75	87	99	111	117	123	129
					LPM	0	1250	1450	1650	1850	1950	2050	2150
SPM8J/185/2-SFC	02	V6	17.5	13.0	HEAD IN METERS	48	40	38	35	32	30	27	25
SPM8J/185/3-SFC	03	V6	25.0	18.5		73	60	57	53	47	44	41	37

1950 LPM SERIES OUTLET SIZE : 100 mm (4") 2900 RPM

PUMP MODEL	STAGES	MOTOR RATING			DISCHARGE								
		TYPE	HP	kW	M ³ /hr	0	81	93	105	117	123	129	135
					LPM	0	1350	1550	1750	1950	2050	2150	2250
SPM8J/195/2-SFC	02	V6	20.0	15.0	HEAD IN METERS	50	40	38	36	33	30	26	22

2050 LPM SERIES OUTLET SIZE : 100 mm (4") 2900 RPM

PUMP MODEL	STAGES	MOTOR RATING			DISCHARGE								
		TYPE	HP	kW	M ³ /hr	0	99	108	120	132	141	147	159
					LPM	0	1650	1800	2000	2200	2350	2450	2650
SPM8J/205/2-SFC	02	V6	25.0	18.5	HEAD IN METERS	42	37	36	34	31	29	28	24



Reliability, Durability & Innovation for you

aramco

OPEN WELL SUBMERSIBLE PUMPS



**CED
COATING**

- Gardening, Sprinklers, Sumps
- Domestic & Community Water Supply
- Multi-Storey Buildings
- Horticulture & Nursery



aramco

OPEN WELL SUBMERSIBLE PUMPS

Salient Feature

- Compact & energy efficient
- Designed to start at low voltage and to work under wide voltage
- Built in sufficient cable for connection outside water tank for minimizing electrical hazard
- Pump controller for enhancing protection and system reliability

Material of Construction

Part Name	Material
Motor Body	Stainless Steel
Motor Shaft	SS 410
Rotor	Aluminum
Impeller	Noryl
Delivery Casing	Cast Iron
Bush bearing	Bronze LTB-4



Gardening & Sprinklers



Domestic Water Supply



Multi-Storey Buildings



Horticulture & Nursery

Performance Chart at 2900RPM, 230V, 1Ph, 50Hz AC supply(160V-240V)

PUMP MODEL	HP	kW	In mm SUCXDEL	HEAD IN METERS									
				3	6	9	12	15	18	21	24	27	
WEL 0520	0.5	0.37	25X25	185	165	150	120	90	40				
WEL 1030	1.0	0.75	25X25	205	195	175	160	141	121	100	75	28	
JEL 0518	0.5	0.37	25X25	175	150	120	100	75	25				
JEL 1027	1.0	0.75	25X25	220	215	200	185	765	145	120	95	45	



OPEN WELL SUBMERSIBLE PUMPSETS

SALIENT FEATURES

- SS / CI Motor body with flanged design ensure robustness and reliability.
- Better efficiency due to copper rotor which enables high performance at low voltage.
- Heavy duty carbon thrust bearing takes care of thrust loads.
- Designed to start at low voltage and to work under wide voltage fluctuation.
- Corrosion free stainless steel shaft.
- Superior polymer coated winding wire to withstand wide voltage fluctuation.
- All rotating components are dynamically balanced to ensure long bearing life and vibration free smooth operation.
- Oil seal is well protected from foreign particles.
- Rotors are treated with special epoxy paint to ensure corrosion resistance.
- Provided with strainer of stainless steel.
- SS fasteners for ease in maintenance and durability.

APPLICATION

- Irrigation from open wells / ponds / canals / river.
- Water supply to high rise buildings / community.
- Fountains / drip Irrigation / nurseries.
- Pressure boosting.





MATERIAL OF CONSTRUCTION

PART NAME	MATERIAL	PART NAME	MATERIAL
Motor body	Stainless Steel / Cast Iron	Impeller	CI FG 200
Bearing housing	CI FG 200	Diffuser	CI FG 200
Motor shaft	SS AISI 410 / 420	Delivery casing	CI FG 200
Rotor	Copper (99.99%)*	Front and rear housing	CI FG 200
Bush bearing	Bronze LTB-4	Bush bearing	Bronze LTB-4
Thrust bearing	AISI 420 / Carbon	Strainer	Stainless steel

NOTE - * Upto 10 hp horizontal type pumps are also available with aluminium die cast rotor on demand.

NEW

D_{elite}

SALIENT FEATURES

Withstand wide Voltage fluctuation.

Self priming upto 7.0 meter.(At mean sea level).

Designed for higher efficiency with wide operating voltage range

TEFC design with class 'B' insulation & rated for continuous duty.

No jamming specially designed impeller with adequate clearance.

**CED coating
In-Built T.O.P**





PERFORMANCE CHART OF MONOBLOC (SINGLE PHASE)

Performance Chart at 50Hz, 1Ph, AC Supply

PUMP MODEL	HP	kW	HEAD IN METERS														
			In mm	3	6	9	12	15	18	21	24	27	30	33	36	39	42
			SUCXDEL	DISCHARGE IN (LPH) Litres per hour													
ERO-I	1.0	0.75	25X25	2760	2520	2340	2160	1950	1770	1620	1440	1260	1110	960	810	660	300
ERO-II	0.5	0.37	25X25	2220	1920	1560	1260	990	750	360							



PUMP CONTROLLERS & CABLES

INTRODUCING

Wide range of pump controllers and PVC insulated flat cable for submersible pumping applications.



PRODUCT RANGE

Sr. No.	HP Rating	Display (VA)	Voltage	Type of Controllers
1	Up to 5hp	Digital	160V - 240V	Thermal Overload Relay based
2	Up to 2hp	Digital	160V - 240V	MCB based

CONTROLLER SALIENT FEATURES

- Single phase panel in MCB & Thermal Relay based operation
- Easy to read display for Voltage and current in same meter
- Rugged powder coated sheet metal enclosure
- Pump supply ON/OFF indicator
- Suitable for low voltage also
- Can be used for domestic & agriculture application
- Easy to switch ON/Off during maintenance

PROTECTIONS

- Heavy Duty Start-run condensers
- Effective short circuit protection
- Over/Under Voltage faults
- Overload faults

SUBMERSIBLE FLAT CABLES (3 CORE)

- **Item:** PVC Insulated and PVC Sheathed Submersible pump Flat Cable
- **Conductor:** Flexible bare copper Class -2 and Class -5 Conductor as per IS:8130 -1984
- **Insulation:** PVC Type-A as per IS:5831-1984
- **Sheath:** PVC ST-1 as per IS:5831-1984
- **Outer Color:** Black or Blue
- **Core color:** Red, yellow, Blue
- **Standard:** IS:694-2010
- **Rated voltage:** 1100V
- **Working Temp.:** 70°C

Size	3C x 1.0 mm ²	3C x 1.5 mm ²	3C x 2.5 mm ²	3C x 4.0 mm ²	3C x 6.0 mm ²	3C x 10.0 mm ²
Conductor construction (No./mm)	14/0.300 (±5%)	22/0.300 (±5%)	36/0.300 (±5%)	56/0.300 (±5%)	84/0.300 (±5%)	140/0.300 (±5%)
Cond. Resistance at 20°C temp. (ohm/km.)	19.5 (Max.)	13.30 (Max.)	7.98 (Max.)	4.95 (Max.)	3.30 (Max.)	1.91 (Max.)
Insulation thickness (mm)	0.60 (Nominal)	0.60 (Nominal)	0.70 (Nominal)	0.80 (Nominal)	0.80 (Nominal)	1.0 (Nominal)
Core diameter (mm)	2.60	2.80	3.35	4.0	5.0	6.50
Sheath thickness (mm)	0.90 (Nominal)	0.90 (Nominal)	1.0 (Nominal)	1.0 (Nominal)	1.10 (Nominal)	1.40 (Nominal)
Outer diameter (mm)	9.90 x 4.80	10.50 x 4.90	12.65 x 5.90	14.60 x 6.70	17.50 x 7.50	23.0 x 9.90
Amp. Capacity (A)	11	13	18	24	31	52

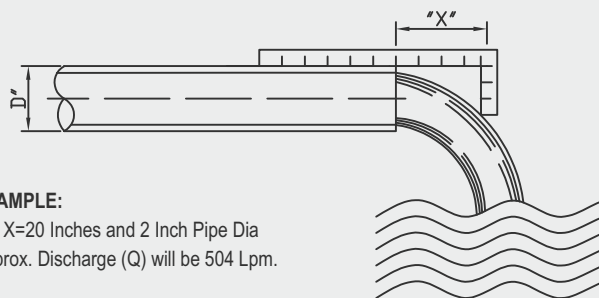
- For low voltage site conditions, it is advised to go for the next higher size of cable to keep minimum voltage loss in cable.
- 4 Core Submersible flat cable available on request.





DISCHARGE RATE

HORIZONTAL DISTANCE "X" IN INCHES	NOMINAL PIPE DIAMETER								
	1"	1.25"	1.5"	2"	2.5"	3"	4"	5"	6"
	DISCHARGE RATE (Q) (LPM)								
4	26	44	60	100	141	222	377	590	863
5	32	55	75	127	177	277	472	749	1090
6	39	67	91	150	213	331	567	885	1294
7	46	78	105	177	250	386	663	1044	1521
8	51	89	120	200	281	445	754	1180	1725
9	58	100	135	227	318	499	849	1339	1952
10	64	111	151	250	354	554	944	1475	2156
11	71	118	166	277	390	608	1040	1634	2383
12	77	132	177	300	427	667	1135	1771	2588
13	84	143	195	327	459	722	1226	1930	2815
14	91	154	211	350	495	776	1321	2043	3019
15	97	165	225	377	531	831	1416	2225	3223
16	104	177	240	400	567	890	1512	2361	3450
17	109	188	256	427	604	944	1603	2520	3677
18	116	198	271	450	636	999	1698	2679	3882
19	123	210	286	477	672	1053	1793	2815	4109
20	129	221	301	500	708	1108	1889	2951	4313
21	137	232	316	527	745	1162	1984	3110	4540
22	142	243	331	554	781	1221	2075	3269	4767
23	148	254	345	577	813	1276	2170	3405	4971
24	155	265	360	604	849	1330	2265	3541	5175
25	161	276	375	627	885	1389	2361	3700	5402
26	167	287	390	654	922	1444	2456	3836	5607
27	174	298	405	676	958	1498	2547	3995	5834
28	181	308	421	704	990	1553	2642		
29	187	320	436	726	1026	1607	2738		
30	193	331	451	754	1062	1666	2833		
31			468	776	1099	1721			
32			481	804	1135	1775			
33			495	826	1167	1830			
34			513	854	1203	1884			
35			527	881	1239	1943			
36			540	903	1276	1998			



NOTE:
 "X": Horizontal Distance in Inches
 "D": Normal Pipe Diameter in Inches
 "Q": Discharge in LPM.

EXAMPLE:
 For X=20 Inches and 2 Inch Pipe Dia
 Approx. Discharge (Q) will be 504 Lpm.



FRICION LOSS

FRICION LOSS IN METER FOR 10M LONG NEW STEEL GALVANIZED PIPE

GALVANIZED STEEL PIPE

VOLUME RATE OF FLOW (LPM)	NOMINAL PIPE DIA IN mm								
	25	32	40	50	65	80	100	125	150
	FRICION LOSS IN meter								
30	0.364								
60	1.315	0.341							
75	1.998	0.516	0.246						
96	3.14	0.814	0.388						
120		1.231	0.587	0.187	0.053				
150		1.861	0.888	0.282	0.08				
192		2.94	1.402	0.446	0.126				
240			2.12	0.674	0.19				
300			3.205	1.019	0.288				
480				2.433	0.887	0.313			
600				3.678	1.038	0.474	0.131		
750					1.57	0.716	0.198		
960					2.479	1.131	0.312	0.11	
1200					3.747	1.71	0.472	0.167	
1500						2.585	0.713	0.253	0.106
1920						4.033	1.127	0.4	0.157
2400							1.704	0.605	0.252
3000							2.576	0.914	0.351

RIGID PIPE PVC

VOLUME RATE OF FLOW (LPM)	NOMINAL PIPE DIA IN mm								
	25	32	40	50	65	80	100	125	150
	FRICION LOSS IN meter								
30	0.074								
60	0.268								
75	0.405	0.131							
96	0.640	0.211							
120	0.967	0.310	0.150						
150	1.462	0.483	0.250						
192	2.309	0.762	0.337	0.106					
240	3.491	1.153	0.571	0.160					
300		1.742	1.363	0.242					
480		4.161	2.060	0.577	0.237				
600			3.114	0.873	0.358	0.133			
750			4.919	1.319	0.542	0.201			
960				2.084	0.856	0.317	0.172		
1200				3.151	1.293	0.479	0.260		
1500					1.955	1.715	0.392	0.225	0.117
1920					3.089	1.145		0.355	0.184
2400						1.731	0.937	0.537	0.279
3000						2.617	1.416	0.812	0.421

NOTE :

1. Friction loss in meters for 10 meters long pipe.
2. C=150 for galvanized steel pipe. C=140 for rigid PVC pipe.



LENGTH OF STRAIGHT PIPE IN METER GIVING EQUIVALENT 'HEAD LOSS' IN PIPE FITTINGS, VALVES ETC

SIZE OF PIPE IN mm	STANDARD ELBOW	MEDIUM ELBOW	LONG RADIUS ELBOW	45 ELBOW	TEE	SLIUCE VALVE FULL OPEN	GLOBE VALVE FULL OPEN	ANGLE VALVE OPEN	FOOT VALVE OR REFLUX VALVE
25	0.82	0.7	0.52	0.4	1.77	0.18	8.24	4.57	2.04
40	1.31	1.1	0.85	0.61	2.74	0.29	13.4	6.71	3.05
50	1.67	1.4	1.07	0.76	3.35	0.37	17.4	8.54	3.96
65	1.98	1.65	1.28	0.92	4.26	0.42	20.1	10	5.18
80	2.47	2	1.55	1.15	5.18	0.52	25.9	12.8	6.1
100	3.35	2.77	2.13	1.53	6.71	0.7	33.5	17.7	8.23
125	4.26	3.66	2.78	1.86	8.24	0.88	42.6	21.2	10
150	4.87	4.26	3.35	2.35	10	1.07	48.7	25.3	12.2
200	6.4	5.48	4.26	3.05	13.1	1.37	67.1	33.5	16.2
250	7.62	6.71	5.18	3.86	17.1	1.74	88.5	42.6	20.4
300	9.75	7.92	6.1	4.57	20.1	2.04	100.5	51.8	24.4

PERMISSIBLE FLOW RATE

CAPACITY / GRADE	NOMINAL PIPE OUTER DIA IN mm								
	40	50	63	75	90	110	125	140	160
	RATE OF FLOW IN LPM								
2.5 kg/sq. cm	-	-	-	-	690-1174	1174-1995	1995-2798	2660-3775	3775-5357
4.0 kg/sq. cm	-	-	228-434	434-688	688-1110	1110-1902	1902-2660	2660-3587	3587-5097
6.0 kg/sq. cm	upto 122	122-222	222-406	406-645	645-1044	1044-1785	1785-2486	2486-3358	3358-4785

NOTE: 1. Permissible range of volumes of flow (LPM) to limit friction losses to 10% of the pipe length.

CHANGE IN RESULTS DUE TO CHANGE IN SUPPLY VOLTAGE

VOLTAGE AFTER PUMP SET GET STARTED		Three Phase		Single Phase	
Three Phase	Single Phase	Reduction in head (%)	Reduction in Disch. (%)	Reduction in head (%)	Reduction in Disch. (%)
415	230	Nil	Nil	Nil	Nil
350	200	5	5	5	3
310	180	10	8	8	6
275	160	15	12	12	9
240	140	20	15	16	12

CHANGE IN RESULTS DUE TO CHANGE IN SUPPLY FREQUENCY

FREQUENCY (HZ)	CHANGE IN OUTPUT		CHANGE IN TOTAL OUT PUT (%)
	Head (%)	Discharge (%)	
51	+4	+2	+6
std-50	Nil	Nil	Nil
49.5	-2	-1	-3
49	-4	-2	-6
48.5	-6	-3	-9
48	-8	-4	-12
47.6	-10	-5	-15

NOTE: Refer this specification to understand the effect of supply voltage and frequency on pump performance at installation site.



RATED CURRENT FOR ARAMCO V3, V4, V5, V6 & V8 FRAME SIZE SUBMERSIBLE MOTORS.

MOTOR RATING		F.L. CURRENTS IN AMPS	
HP	kW	230 V	415 V
0.5	0.37	5	1.2
0.8	0.55	6.5	1.7
1.0	0.75	7.5	2.75
1.5	1.1	10.5	3.5
2.0	1.5	13.8	4.5
3.0	2.2	19.8	6.5
4.0	3.0	22	8.5
5.0	3.7	26	10
6.0	4.5	32	12
7.5	5.5	37.5	14.5
10.0	7.5	-	19
12.5	9.3	-	25
15.0	11.0	-	29
17.5	13.0	-	34
20.0	15.0	-	39
25.0	18.5	-	44
30.0	22.0	-	52.5
35.0	26.0	-	61
40.0	30.0	-	66
45.0	33.0	-	71
50.0	37.0	-	76

SUBMERSIBLE CABLE SELECTION CHART

(For 220 V, 50 Hz AC Power Supply)

SR. NO.	MOTOR RATING		FL CURRENT (AMPS)	CABLE SIZE IN SQ. mm									
	HP	kW		1	1.5	2.5	4.0	6.0	10.0	16.0	25.0	35.0	50.0
	MAXIMUM LENGTH OF CABLE IN METRES												
1	0.5	0.37	5	103	160	267	430	646					
2	0.75	0.55	6.5	86	133	222	359	538					
3	1	0.75	7.5		120	200	323	484	837				
4	1.5	1.1	10.5		75	126	204	306	529	835			
5	2	1.5	13.8		55	92	149	223	386	610	946		
6	3	2.2	19.8			60	96	145	251	396	615	866	
7	5	3.7	26				69	103	179	283	439	618	888
8	6	4.5	32				60	84	152	240	382	514	770
9	7.5	5.5	37.5				52	65	125	200	325	410	650

NOTE :

1. Table shows maximum allowable length of submersible cable for the given full load current where site voltage is normal ie 220V
2. For other voltages, the cable size is to be selected for the length which is calculated as follows
calculated length = (220 / Actual voltage) x Actual length



SUBMERSIBLE CABLE SELECTION CHART

(For 415 V, 50 Hz AC Power Supply)

SR. NO.	MOTOR RATING		FL CURRENT (AMPS)	CABLE SIZE IN SQ. mm																
				1.0	1.5	2.5	4.0	6.0	10.0	16.0	25.0	35.0	50.0							
	HP	kW		MAXIMUM LENGTH OF CABLE IN METRES																
1	0.5	0.35	1.2	300																
2	0.75	0.55	1.7	225																
3	1	0.75	2.75	150	262	437	705													
4	1.5	1.1	3.5		222	370	596	895												
5	2	1.5	4.5		160	267	430	646												
6	3	2.2	6.5		111	185	298	447	773											
7	4	3	8.5		84	141	228	342	590	933										
8	5	3.7	10		72	120	193	290	502	793										
9	6	4.5	12		60	100	161	242	462	661										
10	7.5 DOL	5.5	14.5			82	133	200	346	547										
11	7.5 SD	5.5	14.5		86	143	231	347	600	947										
12	10	7.5	19.5		64	106	172	258	446	704										
13	12.5	9.3	25			83	134	201	348	549	852									
14	15	11	29			71	115	173	300	473	735									
15	17.5	13	34				98	148	256	404	626	882								
16	20	15	39				86	129	223	352	546	769								
17	25	18.5	44				78	117	202	319	495	697								
18	30	22.5	52.5					96	167	254	409	577	828							
19	35	26	61						145	229	355	500	717							
20	40	30	66						133	211	327	461	662							
21	50	37	85							102	162	220	330							
22	60	45	100							85	140	180	280							

NOTE :

1. Table shows, maximum allowable length of submersible cable for the given full load current where site voltage is normal ie 415V
2. For other voltages, cable size has to be selected for the length which is calculated as follows
Calculated length = (415 / Actual Voltage) x Actual Length
3. 7.5 HP and above are SD motors. For these motors, actual current is 1.03 times F.L current
4. Cable size and maximum allowable length are calculated accordingly

CABLE SELECTION CHART WITH VOLTAGE DROP

Current	Voltage at panel	Head	% of voltage drop	Voltage at motor terminal	Voltage difference	Considering 7% voltage drop maximum length of cable	Recommended cable size
6.75	230	64	6.24	215.65	14.35	65	1mm ²
6.69	180	64	7.9	165.78	14.22	48	1mm ²
8.2	160	64	10.89	142.57	17.43	41	1mm ²



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- * 20% Brass Filled together
- * High Efficiency Design Pump Set
- * Coated Casting @ 220 for Better Life
- * Better Head & Better Discharge

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