

SUBMERSIBLE PUMP AND MOTORS FOR USE IN AGGRESSIVE WATERS



PROTECTO ENGINEERING PRIVATE LIMITED

Atalanta Submersible Pumps are available with special features required for pumping seawater in offshore installations.

Depending upon the nature of application materials of construction for the pump and the motor components are selected either in bronze construction or in stainless steel / Super Duplex Stainless Steel. Constructions can also be made available as per specific requirement of a customer.

PUMPED LIQUIDS

Seawater which may be chlorinated and include impurities like brine, oil, sand is one of the toughest liquid to handle which needs either pumps in bronze construction or in special stainless steel.

GENERAL CONSTRUCTION OF THE PUMP AND THE MOTOR

PUMP

The submersible pumps are multistage centrifugal pumps with impellers of mixed flow/radial design, which are dynamically balanced. All bearings are water lubricated and protected from sand and other suspended particles.

The non-return valve is located at the top of the pump in discharge outlet. Flow is streamlined for minimum friction. Pumps can be supplied with screwed or flanged connections on special request.

The pump suction housing between the pump and motor is guarded by perforated strainer to prevent the entry of any suspended material in water. Cable guard/s is provided with the pump to prevent damage to the submersible cable coming out of the motor.

MOTOR

ATALANTA Submersible motors are 2 pole asynchronous wet squirrel cage induction motors water-cooled and lubricated. The motor body is made of Stainless Steel 304/316 and motor ends are either in Bronze/SS316L or S.D.S.S.Material. Electrical tolerances confirm to IS9283: 1979 Enclosure Class I.P.58

The Mitchell type thrust bearing is designed specially to withstand, high values of axial thrust loads with minimum wear and tear.

The stator windings are rewirable and water-cooled.

The bearings are made of carbon/ rubber.

The motor is provided with a reflux pressure-compensating device to guard against any rise in pressure.

The current is fed through special cables, which are laid out of the motor through watertight sealing glands and if required can be protected by means of metal sheet.

MATERIALS OF CONSTRUCTION

Pump Motor Components	Bronze	Stainless Steel	S.D.S.S.
Pump Bowl	Ni-Al-Bronze	SS316L	S.D.S.S. 25/5 - A890
Non Return Valve	Ni-Al-Bronze	SS316L	S.D.S.S. 25/5 - A890
Suction Inlet(Intermediate piece	Ni-Al-Bronze	SS316L	S.D.S.S. 25/5 - A890
Discharge Casing/ Outlet	Ni-Al-Bronze	SS316L	S.D.S.S. 25/5 - A890
Pump Shaft	Duplex S.S.	SS316L	Monel Metal K - 500
Key for Shaft	SS - 316	SS316L	SS316L
Pump Coupling / Shaft Driver	SS - 316	S410 - A276	S410 - A276
Sleeve for Shaft / Pump Sleeve	SS - 316	SS316L	Monel Metal K - 500
Sleeve for Seal	SS - 316	SS316L	Monel Metal K - 500
Casing Wear Ring	Zinc Free Bronze	SS316L	Ni.Al.Brz
Impeller Wearing Ring		SS316L	S.D.S.S A890
Stator Casing	SS - 316	SS316L	SS316L
Rotor Shaft	Duplex S.S.	SS410 with projections chrome plated	SS410-A276
Thrust Bearing	Carbon	Nickel Bronze	Nickel Bronze
Thrust Bearing Block(Collar)	SS - 316	SS316 lined with FA- LA/33 grade	SS316 lined with FA-LA/33 grade
Motor Bearings	Carbon	Carbon/Rubber	Carbon/Rubber
Mechanical Seal	T.C / T.C.	T.C./T.C. or T.C./Ceramic	T.C./T.C. or T.C./Ceramic

Presenting a range of **ATALANTA Submersible Pump sets** for larger dia tube wells and offshore applications. **Features** –

- Maximum outside dia ranging from 194 mm to 265 mm depending upon the size of the pump
- Pumping capacities upto 390 cubic meters per hour/6500 liters per minute/86000 gallons per hour
- Total heads upto 260 meter/853ft
- Suitable for operation on 3 phase 380V 50 Hz AC supply
- HP ratings normally upto 150 and tailor made upto 250 or more
- Conforms to IS:8034/1976 and 9283/1979

Rating Chart: Showing Total Head per Stage in Meters at Various Discharges.

Туре	StageHP (approx)		DISCI	HARGE	INLPM							
		300	400	500	600	700	800	900	1000	1100	1200	1500
A - 71	3.3	20.6	19.6	18	15.8	12.8						
J - 71	5			21.8	20.6	19.2	18	16.6				
J - 72	6.1			24.6		23		20.3		17.2	15.2	
J - 73	9				26		24.6		22.8		21	17.8

Туре	StageHP (approx)		DISC	CHAR	GEINI	_ P M									
		1100	1300	1400	1500	1600	1700	1800	2000	2200	2300	2400	2500	2600	2800
K - 71	8	18	17		15.6			13.6	12						
K - 72	9		18			16.5			14.6			12			
K - 73	7			14.2			12.8		11.5	10.6			19.5		
K - 81	14							22	20.8	19.7	19.2	18.3	18	17	14.4
K - 82	17.5							25	23.8	22.7	22.2	21.3	21	20	17.4
K - 83	20							28	27.3	26.2	25.5	24.8	24	23.2	21.7
K - 84	22.5							31	30	29	28.5	28	27	26	24.7

Туре	StageHP (approx)		DISCHARGE INLPM												
		2200	2400	2600	2800	3000	3200	3400	3500	4000	4500	5000	5500	6000	6500
K-101	15	19	18	16.7	15.2	13.8	12.6	11.2							
K-102	34			25.5		25			23	21.5	20	17.5			
K-103	50										29.5	27	24	20	

Note: Performance Details for 60Hz, 440/460V supply available on request. Please contact giving duty conditions.

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