

SPECIFICATIONS	Model	50TM21.5							
		TM-series 1.5kW, 3-phase							
<p>Type of Pump Submersible semi-vortex pump made of titanium and resin suitable for pumping seawater</p> <p>Type of Fluid Seawater</p> <p>Temperature: 0 to 40°C</p> <p>Discharge Bore 50mm</p> <p>Motor Output 1.5kW</p> <p>Power Supply Three-phase</p> <p>Starting Method Direct on Line</p> <p>Motor Continuous-duty rated, dry-type induction motor</p> <p>Insulation Class: E Degree of Protection: IP68</p> <p>No. of Poles & Speed (Synchronous Speed) 2-pole, 3000/3600min⁻¹ (50/60Hz)</p> <p>Power Supply Voltages & Rated Currents</p> <table border="0"> <tr> <td>50Hz</td> <td>60Hz</td> </tr> <tr> <td>380V – 4.1A</td> <td>220V – 6.6A</td> </tr> <tr> <td>400V – 4.0A</td> <td>380V – 3.9A</td> </tr> <tr> <td>415V – 4.0A</td> <td>440V – 3.6A</td> </tr> </table> <p>Power Cable Sheath: PVC Standard Length: 6m 200 to 600V supply: 1 × 4 × 1.25mm², O.D. 11.1mm</p> <p>Dry Weight (excluding cable) Standard Model: 14.9kg Automatic Model: 15.6kg</p>	50Hz	60Hz	380V – 4.1A	220V – 6.6A	400V – 4.0A	380V – 3.9A	415V – 4.0A	440V – 3.6A	<p>Impeller Vortex impeller designed for “high-gap structure”, made of glass-fiber reinforced PPO</p> <p>Solids Passage 50Hz – ϕ20mm 60Hz – ϕ20mm</p> <p>Cable Entry with Anti-Wicking Block Watertight cable entry with strain-relief device. The anti-wicking block prevents water incursion due to capillary action should the power cable be damaged or the end submerged.</p> <p>Bearings Permanently lubricated, deep-groove, double-shielded C3 ball bearings</p> <p>Shaft Titanium</p> <p>Shaft Seal (Mechanical Seal) Furnished with a double-face mechanical seal located in oil chamber. Both upper and lower seal faces always run in a clean environment.</p> <p>Upper Seal Faces: Ceramic + Carbon Lower Seal Faces: SiC + SiC</p> <p>OIL LIFTER (Patented) Equipped in oil chamber. It forcibly supplies lubricating oil to the mechanical seal and continues to supply the oil to the upper seal faces even if lubricant falls below the rated volume.</p> <p>Type of Lubricating Oil & Volume Liquid Paraffin (ISO VG32), 500ml</p> <p>Motor Protection Device A circle thermal protector built in the motor housing. Directly cuts the motor circuit if excessive heat builds up or an overcurrent condition occurs in the motor.</p>
50Hz	60Hz								
380V – 4.1A	220V – 6.6A								
400V – 4.0A	380V – 3.9A								
415V – 4.0A	440V – 3.6A								
TSURUMI MANUFACTURING CO., LTD.									

NO. A-17735-1

PUMP PERFORMANCE CURVES

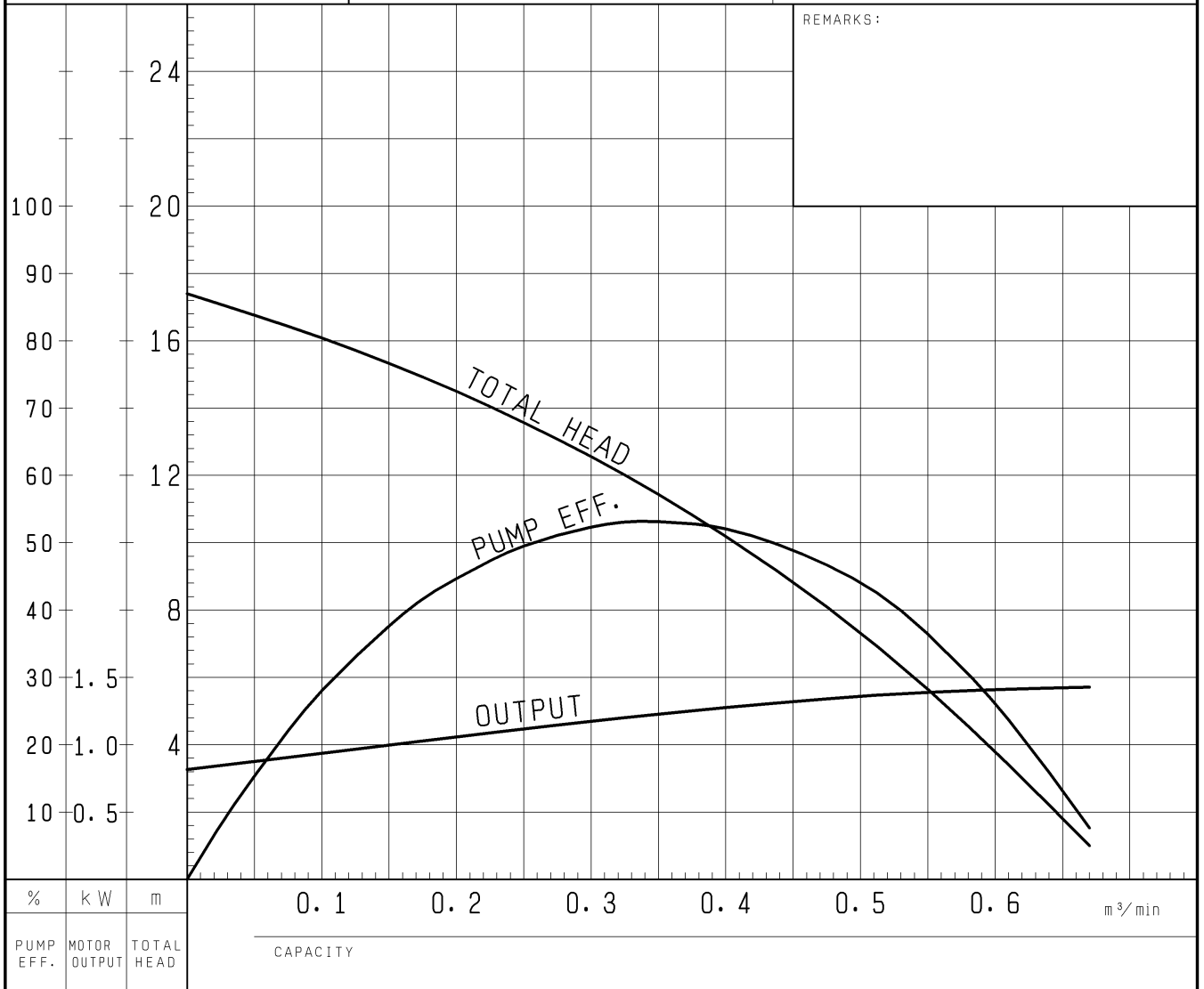
TYPE Sea Water Submersible Titanium Seawater Pump	MODEL 50TM21.5 -51 50TMA21.5 -51	FREQUENCY 50 Hz
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CUSTOMER'S NAME _____

EQUIPMENT TITLE _____

NO. _____

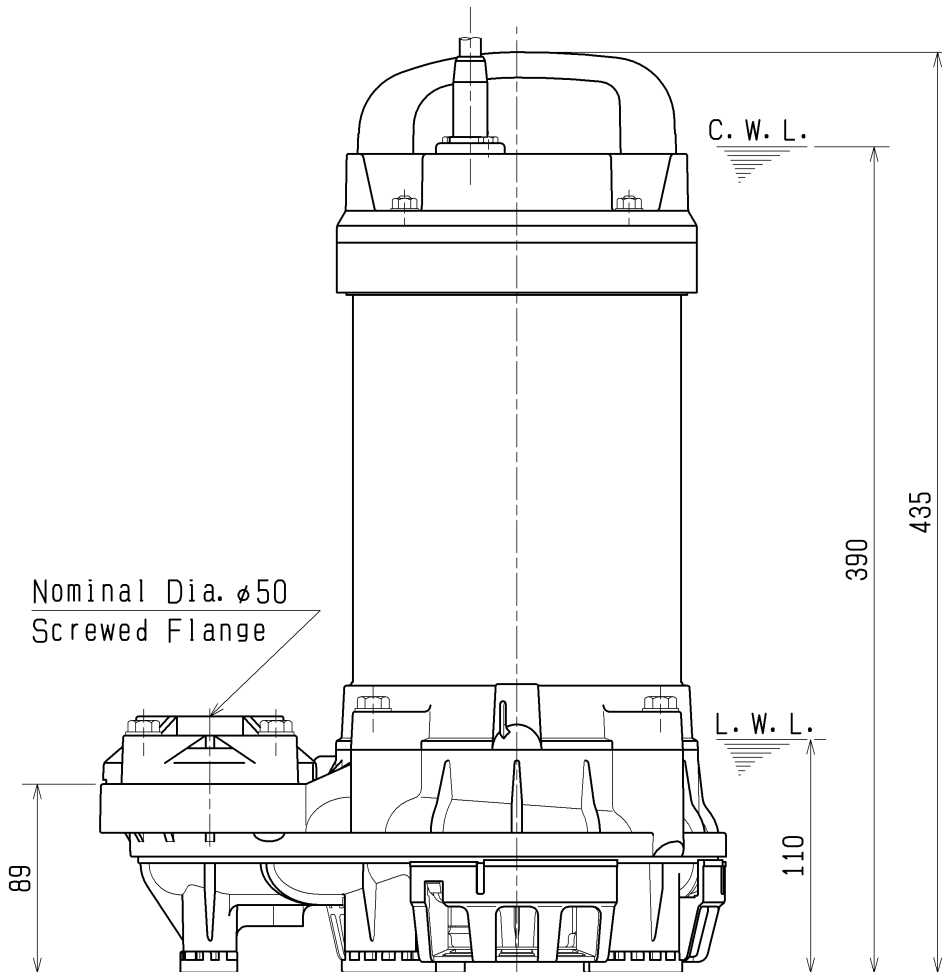
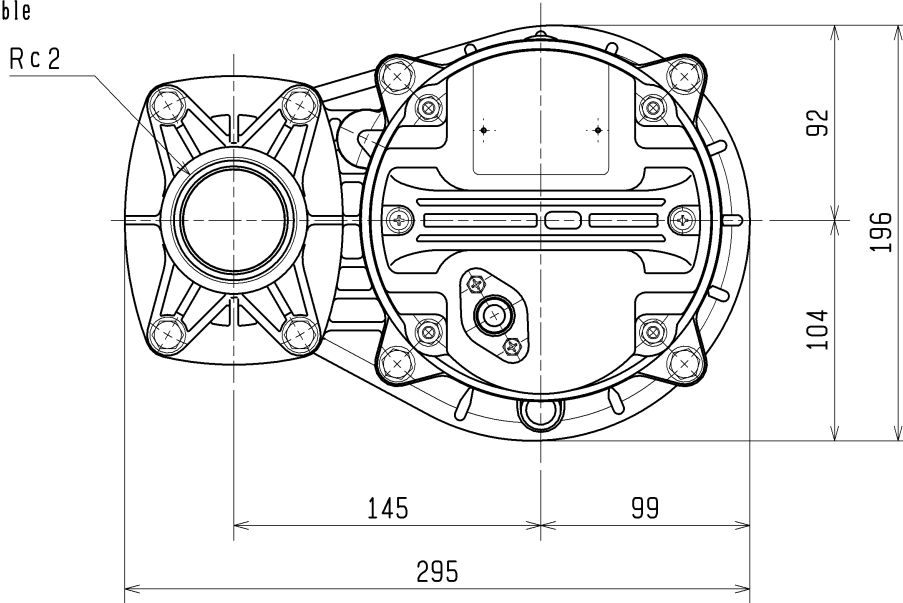
	STANDARD SPECIFICATIONS	REQUIRED SPECIFICATIONS
DISCHARGE BORE	50 mm	mm
TOTAL HEAD	14.5 m	m
CAPACITY	0.2 m ³ /min	m ³ /min
MOTOR OUTPUT	1.5 kW	kW
PHASE x VOLTAGE	3 ϕ x 200 V	ϕ x V
CURRENT	A	A
POLES / REVOLUTION	2 P / s. s. 3000 min ⁻¹	P / min ⁻¹
STARTING METHOD	DIRECT ON LINE	
INSULATION CLASS	E	



TSURUMI MFG. CO., LTD.

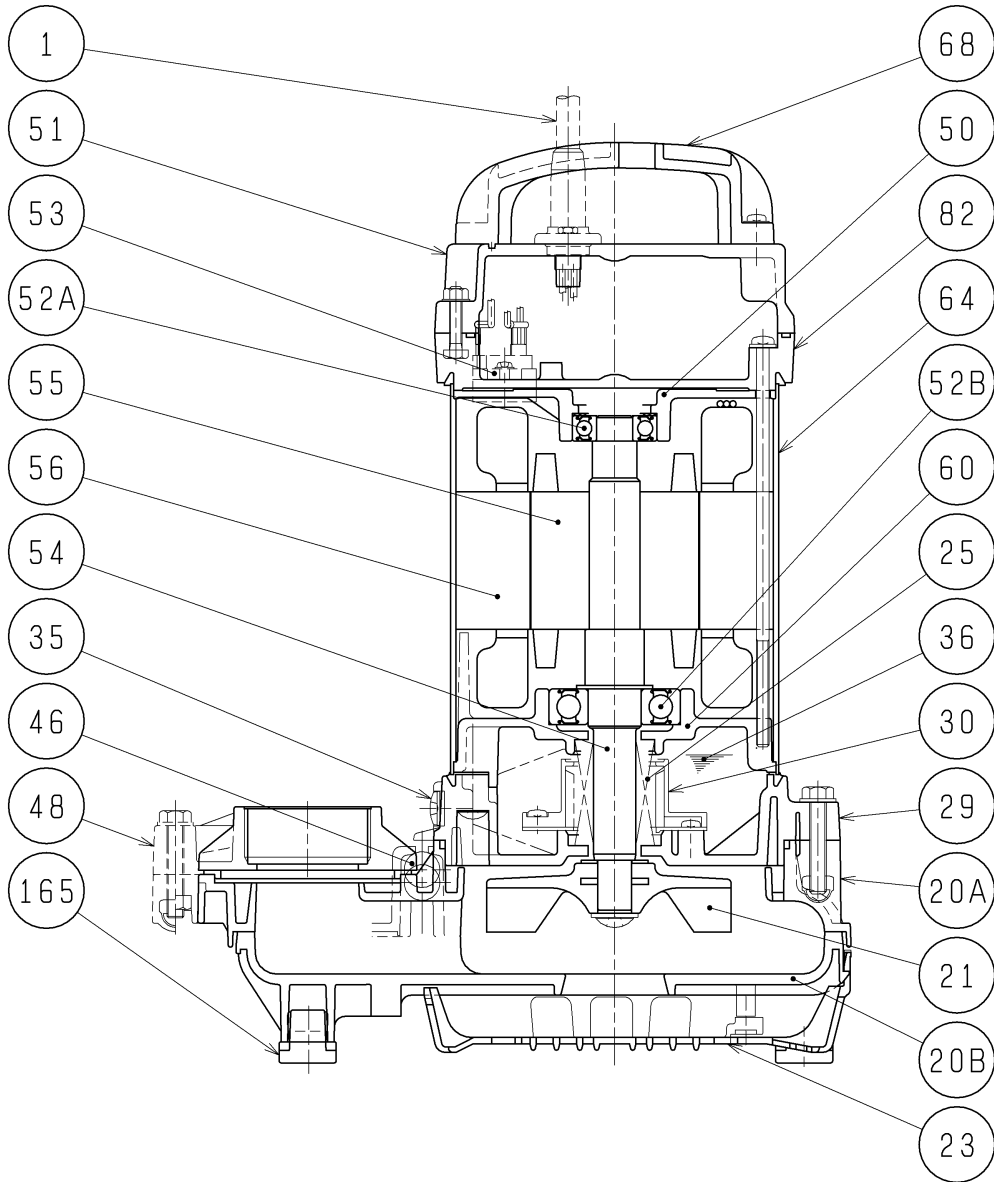
DIMENSION DRAWING		No.	No. A-17737-1
TYPE	Sea Water Submersible Titanium Seawater Pump	MODEL	50TM21.5 -51/61

Approximate
Weight (※)
14.9kg
※excluding cable



C.W.L. :Continuous running Water Level
L.W.L. :Lowest running Water Level

SECTIONAL DRAWING		No.	No. A-17739-2
TYPE	Sea Water Submersible Titanium Seawater Pump	MODEL	50TM21.5 -51/61



* All metal parts (including cable gland, bolts, nuts, washers, etc.) contacting with liquid are made of TITANIUM.

※1 Upper and lower blocks form a one-piece casing.

※2 the wetted part

REQ. SPECIFICATION	

No.	DESCRIPTION	Q'TY	MATERIAL / NOTE	No.	DESCRIPTION	Q'TY	MATERIAL / NOTE
1	Cabtyre Cable	1	PVC Sheath	52A	Upper Bearing	1	6203ZZC3
20A	Upper Pump Casing	※1	Plastic W/GF	52B	Lower Bearing	1	6305ZZC3
20B	Lower Pump Casing	1	Plastic W/GF	53	Motor Protector	1	
21	Impeller	1	Plastic W/GF	54	Shaft	1	Titanium(※2)
23	Strainer	1	Plastic	55	Rotor	1	
25	Mechanical Seal	1	H-20A	56	Stator	1	
29	Oil Casing	1	Plastic W/GF	60	Bearing Housing	1	Aluminium Alloy Casting
30	Oil Lifter	1	Plastic	64	Motor Frame	1	Titanium
35	Oil Plug	1	Titanium	68	Handle	1	Plastic
36	Lubricant		Liquid Paraffin (ISO VG32)	82	Head Cover Spacer	1	Plastic W/GF
46	Air Release Valve	1	Glass Ball	165	Rubber Foot	5	Nitrile Butadien Rubber
48	Screwed Flange	1	Plastic W/GF				
50	Motor Bracket	1	Aluminium Alloy Casting				
51	Head Cover	1	Plastic W/GF				