

SPECIFICATIONS	Model	100C45.5	
		C-series 5.5kW, 3-phase	

Type of Pump

Submersible cast iron pump with a cutting device suitable for pumping sewage and wastewater

Type of Fluid

Sewage, wastewater, and water carrying solid matters

Temperature: 0 to 40°C

(High temperature model available on special request)

Discharge Bore

100mm

Motor Output

5.5kW

Power Supply

Three-phase

Starting Method

Direct on Line (Star-Delta available on special request)

Motor

Continuous-duty rated, dry-type induction motor

Insulation Class: F

Degree of Protection: IP68

No. of Poles & Speed (Synchronous Speed)

4-pole, 1500/1800min⁻¹ (50/60Hz)

Power Supply Voltages & Rated Currents

50Hz	60Hz
380V – 12.4A	220V – 21.2A
400V – 12.1A	380V – 11.8A
415V – 12.1A	440V – 10.5A

Power Cable

Sheath: Chloroprene rubber

Standard Length: 8m

200 to 600V supply:

1 × 4 × 3.5mm², O.D. 14.1mm

Dry Weight (excluding cable)

Free Standing Type: 140kg

Guide Rail Fitting Type: 133kg

Impeller

Semi-open single-channel impeller for solid-handling design, dynamically balanced. A sintered tungsten carbide alloy edge is blazed on the impeller vane.

Solids Passage

50Hz – 82 × 68mm

60Hz – 68 × 68mm

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.

Bearings

Permanently lubricated, deep-groove, double-shielded C3 ball bearings

Shaft

420 stainless steel

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.

Upper Seal Faces: Ceramic + Carbon

Lower Seal Faces: SiC + SiC

Oil Seal (Lip Seal)

Used as a "Dust Seal", it protects the mechanical seal from abrasive particles.

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.

Type of Lubricating Oil & Volume

Turbine Oil (ISO VG32), 4300ml

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.

Optional Accessories
Bend Set (Free Standing Type)

- Discharge Bend
- JIS 10kg/cm² Screwed Flange

Stand Set (Free Standing Type)

- Stand

TOS/TS Set (Guide Rail Fitting Type)

- Duckfoot Bend
- Guide Support
- Guide Hook
- Lifting Chain 5m (with Shackles)
- JIS 10kg/cm² Screwed Flange (TOS Set only)

External Leakage Sensor

NO. A-18743-1

PUMP PERFORMANCE CURVES

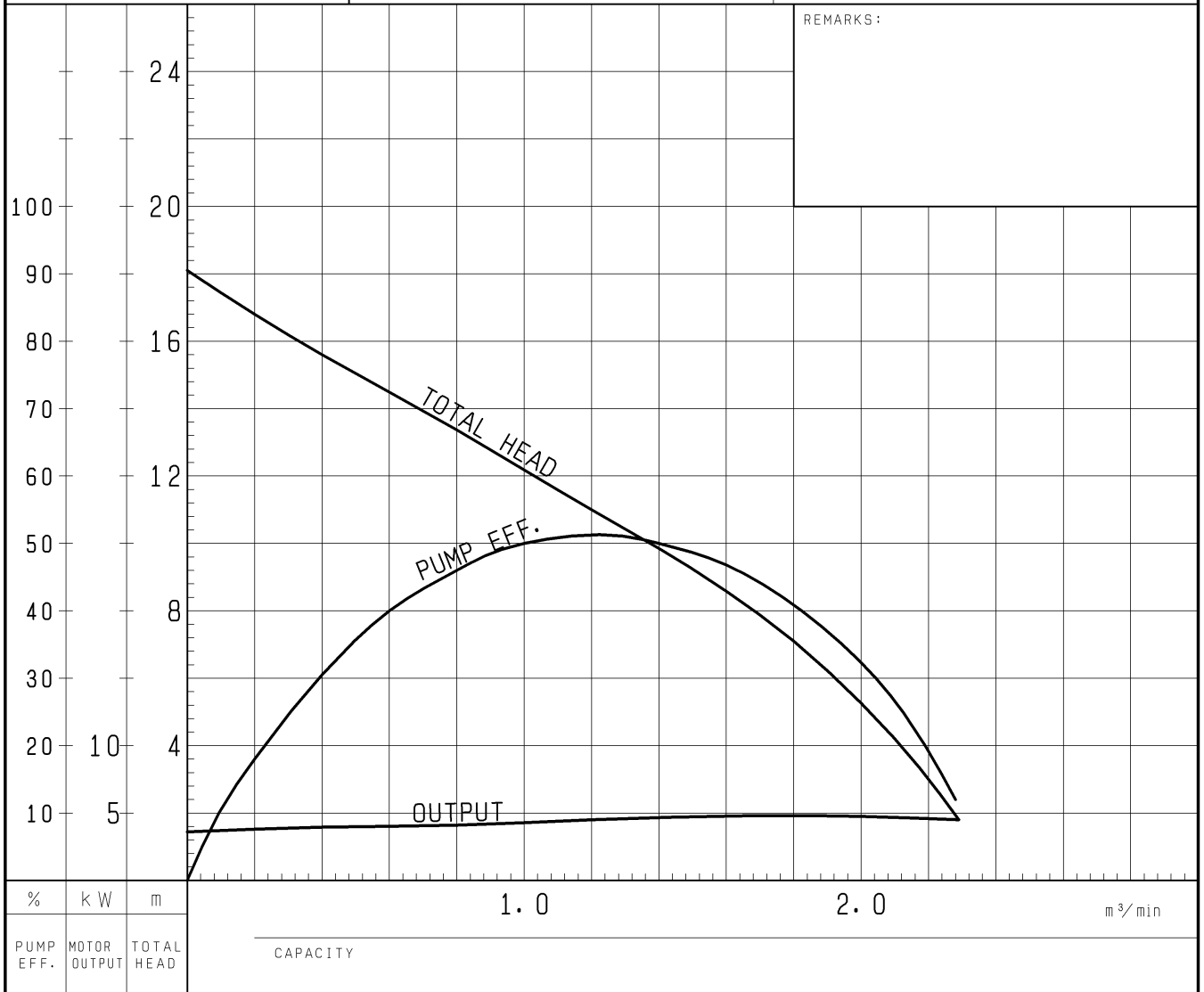
TYPE Sewage Submersible Cutter Pump	MODEL 100C45.5 -53 TOS100C45.5 -53	FREQUENCY 50 Hz
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CUSTOMER'S NAME _____

EQUIPMENT TITLE _____

NO. _____

	STANDARD SPECIFICATIONS	REQUIRED SPECIFICATIONS
DISCHARGE BORE	100 mm	mm
TOTAL HEAD	13 m	m
CAPACITY	0.8 m ³ /min	m ³ /min
MOTOR OUTPUT	5.5 kW	kW
PHASE x VOLTAGE	3 ϕ x V	ϕ x V
CURRENT	A	A
POLES / REVOLUTION	4 P / s. s. 1500 min ⁻¹	P / min ⁻¹
STARTING METHOD	DIRECT ON LINE	
INSULATION CLASS	F	

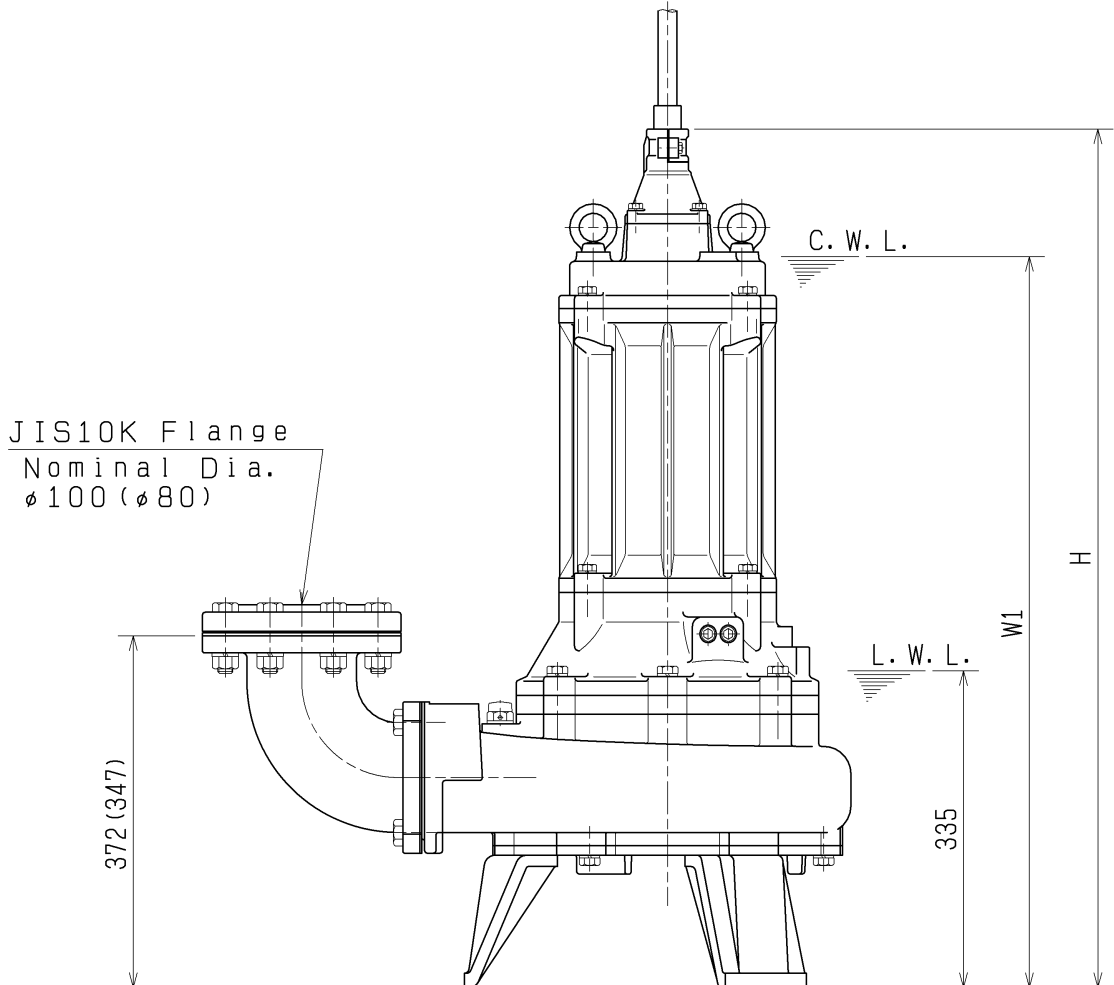
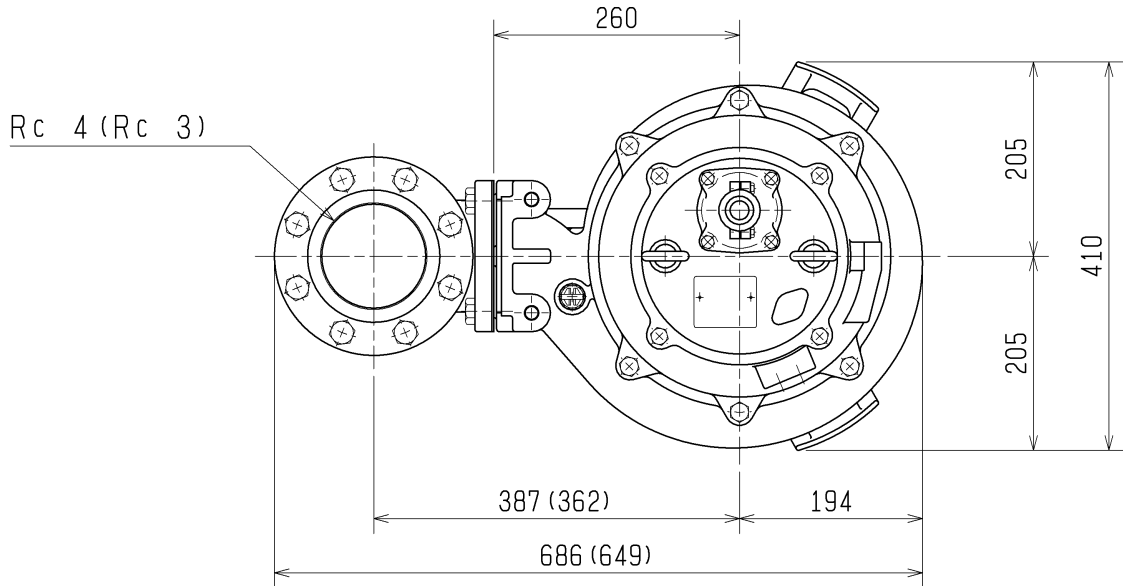


TSURUMI MFG. CO., LTD.

DIMENSION DRAWING		No.	No. A-18781-1
TYPE	Sewage Submersible Cutter Pump	MODEL	100C45.5 -53/63 100C47.5 -53/63

MODEL	W1	H	Approximate Weight (※)
100C45.5-53/63	775	908	140kg
100C47.5-53/63	800	929	159kg

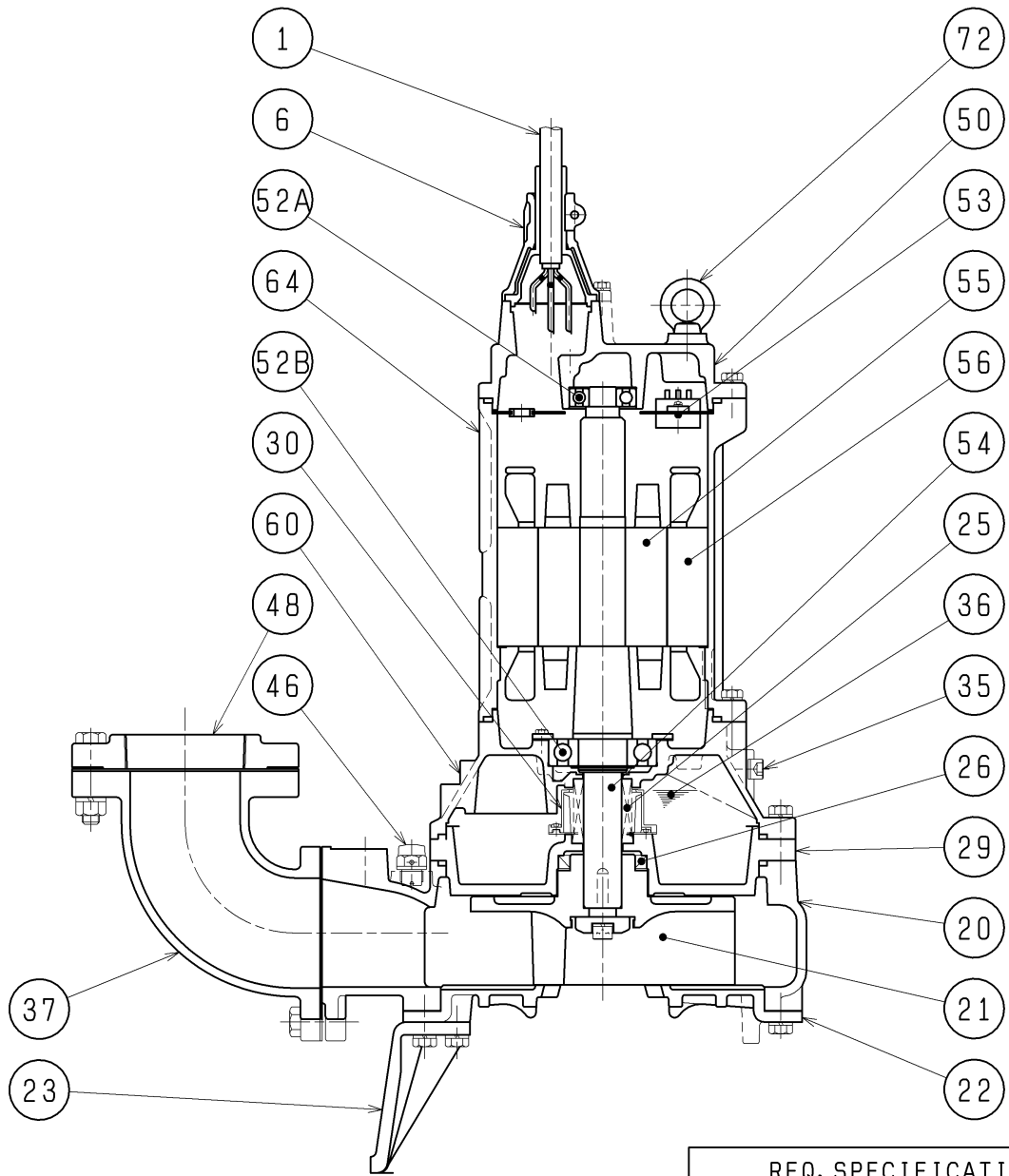
※excluding cable



The Figure in () shows the dimensions of discharge Bore at Nominal ø80.

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

SECTIONAL DRAWING		No.	No. A-18798-1
TYPE	Sewage Submersible Cutter Pump	MODEL	100C45.5 -53/63 100C47.5 -53/63



REQ. SPECIFICATION	

	※1
5.5kW	6305ZZC3
7.5kW	6306ZZC3

No.	DESCRIPTION	Q'TY	MATERIAL / NOTE	No.	DESCRIPTION	Q'TY	MATERIAL / NOTE
1	Cable	1	Chloroprene Sheath	48	Screwed Flange	1	Gray Iron Casting
6	Stuffing Box	1	Gray Iron Casting	50	Motor Bracket	1	Gray Iron Casting
20	Pump Casing	1	Gray Iron Casting	52A	Upper Bearing	1	※1
21	Impeller	1	Gray Iron Casting(WC Edge)	52B	Lower Bearing	1	6309ZZC3
22	Suction Cover	1	Ductile Iron Casting	53	Motor Protector	1	
23	Stand	3	Gray Iron Casting	54	Shaft	1	Stainless Steel 420J2
25	Mechanical Seal	1	H-35A	55	Rotor	1	
26	Oil Seal	1	TC608212	56	Stator	1	
29	Oil Casing	1	Gray Iron Casting	60	Bearing Housing	1	Gray Iron Casting
30	Oil Lifter	1	Plastic	64	Motor Frame	1	Gray Iron Casting
35	Oil Plug	2	Stainless Steel 304	72	Eye Bolt	2	Structure Steel
36	Lubricant		Turbine Oil (ISO VG32)				
37	Discharge Bend	1	Gray Iron Casting				
46	Air Release Valve	1	Nylon				