



Submersible Sewage Pumps **Grinder** **MG**



MG

SUBMERSIBLE GRINDER PUMPS

Tsurumi's Submersible Grinder Pump Which Grinds Solids Powerfully and Transfers Powerfully Under Pressure

The Tsurumi's Submersible Grinder Pump has a grinding mechanism in the suction port to grind garbage, rubber goods, plastic bags, fabrics, etc. to very small pieces carried by sewage and transfer them under pressure. It eliminates a fear of clogging small diameter pipes.



MAJOR STANDARD SPECIFICATIONS

Items	Discharge (mm)	32	50
Pumping Liquid	Type of Liquid	Sewage and Wastewater	
	Liquid Temperature	0 to 40°C	
Pump	Part	Impeller	Vortex
		Shaft Seal	Double Mechanical Seal (with Oil Lifter)
		Bearing	Double Shielded Ball Bearing
	Material	Impeller	Gray Iron Casting
		Casing	Gray Iron Casting
		Grinder	Chromium Iron Casting
	Shaft Seal	SiC	
Motor	Type, pole	Dry-type Submersible Induction Motor, 2 poles	
	Class of Insulation	Class F	
	Phase	Three-Phase / 220V, 380V, 400V, 415V, 440V, 460V	
	Motor Protector (built in)	Circle Thermal Protector	
	Lubricant	Turbine Oil (ISO VG32)	
	Material	Frame	Gray Iron Casting
Shaft		SS 420	
Cable		PVC Sheath	
Connection to Piping		Screwed Flange (1.0, 1.5kW), JIS 10kg/cm ² Flange (2.2, 3.7kW)	

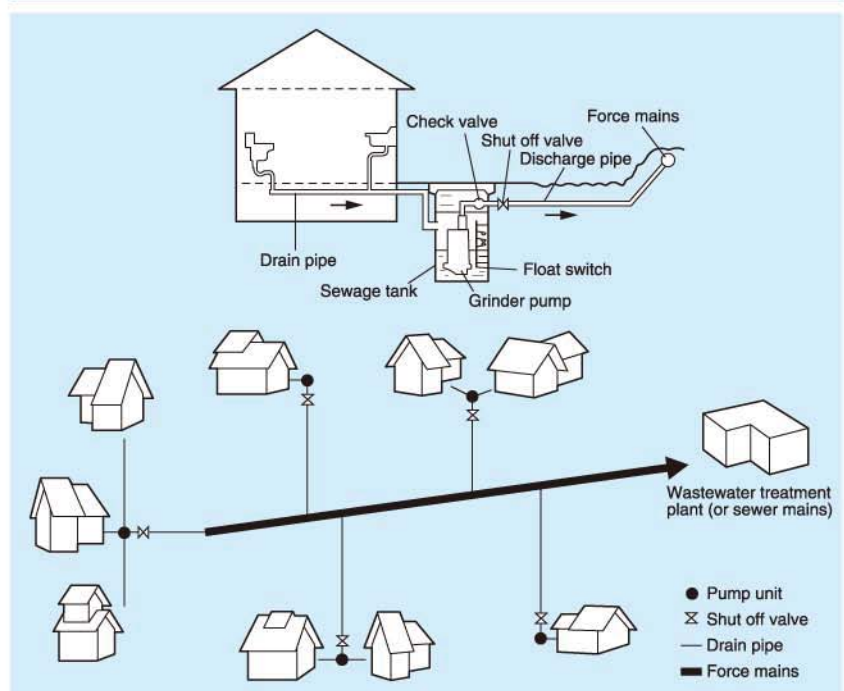
FEATURES

1. The pump is a vortex flow type and excellent in resistance to clogging and high durability.
2. The grinder is made of high chromium cast iron, and designed highly resistant to abrasion.
3. The Tsurumi's unique Oil Lifter stabilizes the function of the mechanical seal and extends its sealing life.
4. The motor is designed to high torque to provide a high grinding ability.
5. The pump is a high head type capable of carrying liquid under pressure to a distant place.

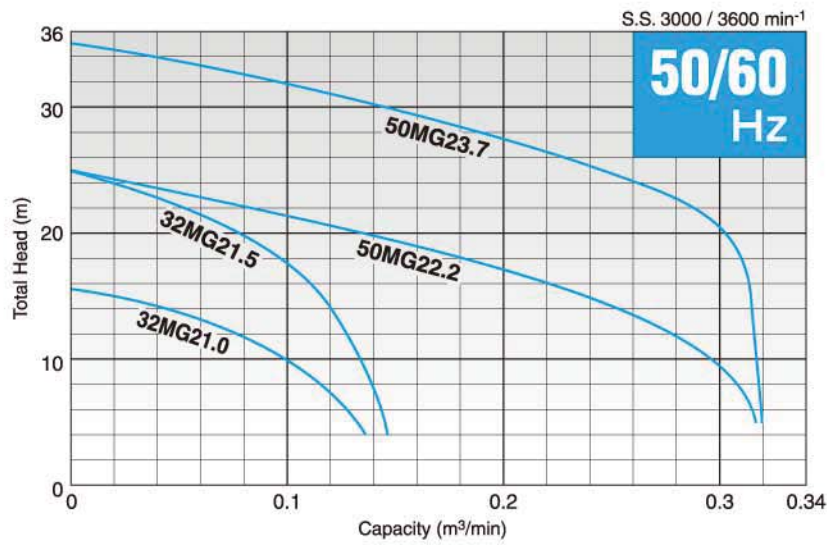
APPLICATIONS

1. Transfer of sewage under high pressure in small scale sewer systems.
2. Transfer of domestic and building sewage.
3. Collection and transfer of wastewater in factories.
4. Transfer of wastewater from the wastewater tanks of hospitals, hotels, department stores, etc.
5. Pumps of disposal units requiring grinding.

ILLUSTRATION OF PRESSURE SEWER SYSTEM



PERFORMANCE CURVES



STANDARD ACCESSORIES OF TOS MODEL

- Guide supports (with bolts and nuts) 1 set
- Duckfoot bend 1 set
- Lifting chain (5m) 1 pc.



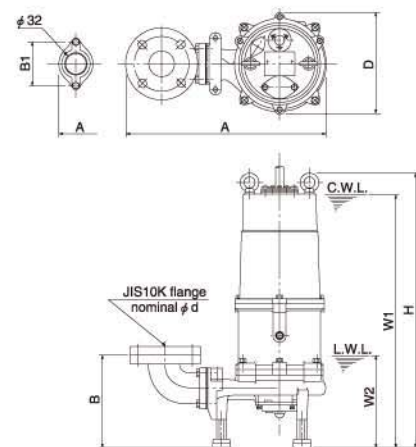
STANDARD SPECIFICATIONS 50/60Hz

Discharge Bore mm	Model		Motor Output kW	Total Head m	Capacity m ³ /min	Speed (S.S.) min ⁻¹	Starting Method	Weight		Material	Cabletyre Cable		
	Free Standing	Guide Rail Fitting						Free Standing kg	Guide Rail Fitting kg		Cores x mm ²	Outer Dia. mm	Length m
32	32MG21.0	TOS32MG21.0	1.0	10	0.10	3000 / 3600	D.O.L.	36	35	PVC	4 x 1.25	11.1	6
	32MG21.5	TOS32MG21.5	1.5	21	0.06	3000 / 3600	D.O.L.	34	33	PVC	4 x 1.25	11.1	6
50	50MG22.2	TOS50MG22.2	2.2	20	0.12	3000 / 3600	D.O.L.	54	52	PVC	4 x 2.0	11.8	6
	50MG23.7	TOS50MG23.7	3.7	30	0.12	3000 / 3600	D.O.L.	55	53	PVC	4 x 3.5	13.9	6

- Weights without duckfoot bend.
- Dry weight of the pump excluding cable.
- The cable designated in the specifications is that for 380 volts and higher use. A thicker cable may be used for 220 volts use.

DIMENSIONS Unit : mm

FREE STANDING TYPE

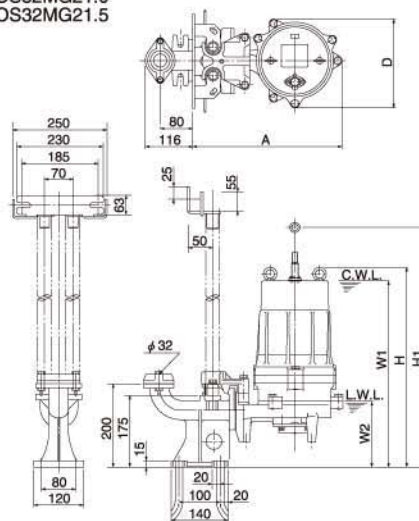


C.W.L. : Continuous running water level
L.W.L. : Lowest running water level

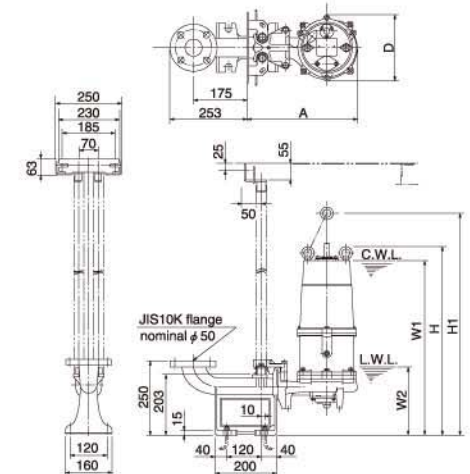
Model	d	A	B	B1	D	W1	W2	H
32MG21.0	32	362	201	90	217	485	159	557
32MG21.5	32	360	201	90	217	485	160	558
50MG22.2	50	438	206	—	226	550	180	594
50MG23.7	50	438	206	—	226	550	180	594

GUIDE RAIL FITTING TYPE

TOS32MG21.0
TOS32MG21.5



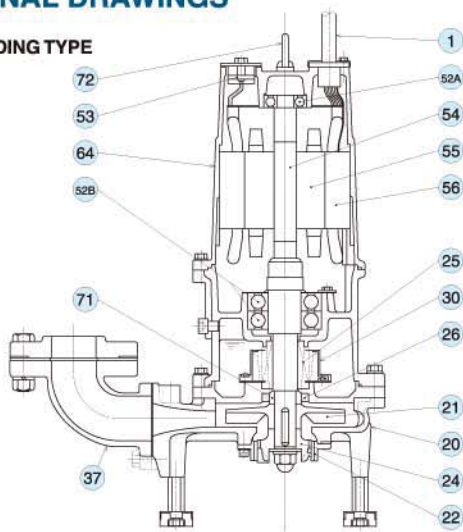
TOS50MG22.2
TOS50MG23.7



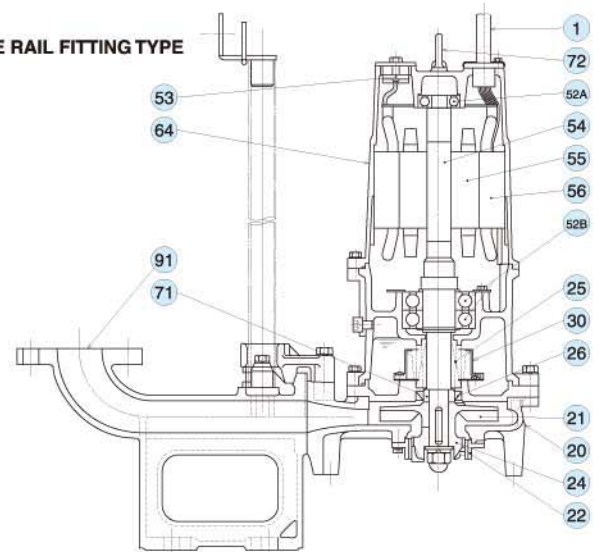
Model	A	D	W1	W2	H	H1
TOS32MG21.0	367	217	490	162	560	—
TOS32MG21.5	367	217	490	160	562	—
TOS50MG22.2	367	226	580	210	627	847
TOS50MG23.7	367	226	580	210	627	847

SECTIONAL DRAWINGS

FREE STANDING TYPE



GUIDE RAIL FITTING TYPE



Item No.	Part	Material
1	Cabtyre Cable	PVC Sheath
20	Pump casing	Gray Iron Casting
21	Impeller	Gray Iron Casting
22	Stationary Blade	Chromium Iron Casting
24	Rotational Blade	Chromium Iron Casting
25	Mechanical Seal	SiC
26	Oil Seal	Rubber

Item No.	Part	Material
30	Oil Lifter	Plastic
37	Discharge Bend	Gray Iron Casting
52A	Upper Bearing	
52B	Lower Bearing	
53	Motor Protector	
54	Shaft	SS 420
55	Rotor	

Item No.	Part	Material
56	Stator	
64	Motor Flame	Gray Iron Casting
71	Shaft Sleeve	SS 403
72	Lifting Eye Bolt	SS 304
91	Duck Foot Bend	Gray Iron Casting

GRINDING CAPACITY OF MG PUMPS

Plastic bag



Fabric



Panty-hose



We reserve the right to change specifications and designs herein for improvement without prior notice.