



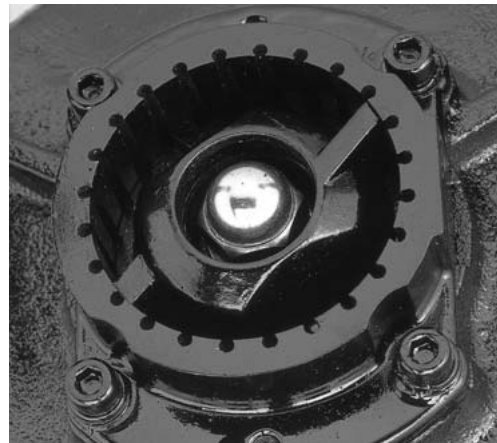
Submersible Sewage Pumps *Grinder* **MG**



Amenics
Amenities from Technology
for People and The Earth

Tsurumi Submersible Grinder Pumps Which Grind And Transfer Solids Powerfully Under Pressure

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



MAJOR STANDARD SPECIFICATIONS

Discharge Bore	mm	32	50
Pumping Liquid	Type of Liquid	Sewage and Wastewater	
	Liquid Temperature	0 to 40°C	
Pump	Part	Impeller	Vortex Impeller
		Shaft Seal	Double Mechanical Seal (with Oil Lifter)
		Bearing	Double-shielded Ball Bearing
	Material	Impeller	Gray Iron Casting
		Grinder	Chromium Iron Casting
Shaft Seal	SiC		
Motor	Type, pole	Dry-type Submersible Induction Motor, 2-pole	
	Class of Insulation	Class F	
	Phase	Three-phase	
	Motor Protector (built-in)	Circle Thermal Protector	
	Lubricant	Turbine Oil (ISO VG32)	
	Material	Frame	Gray Iron Casting
Shaft		Stainless Steel 420	
Cable		PVC Sheath	
Discharge Connection		Screwed Flange (1.0, 1.5kW)	
		JIS 10K Flange (2.2, 3.7kW)	

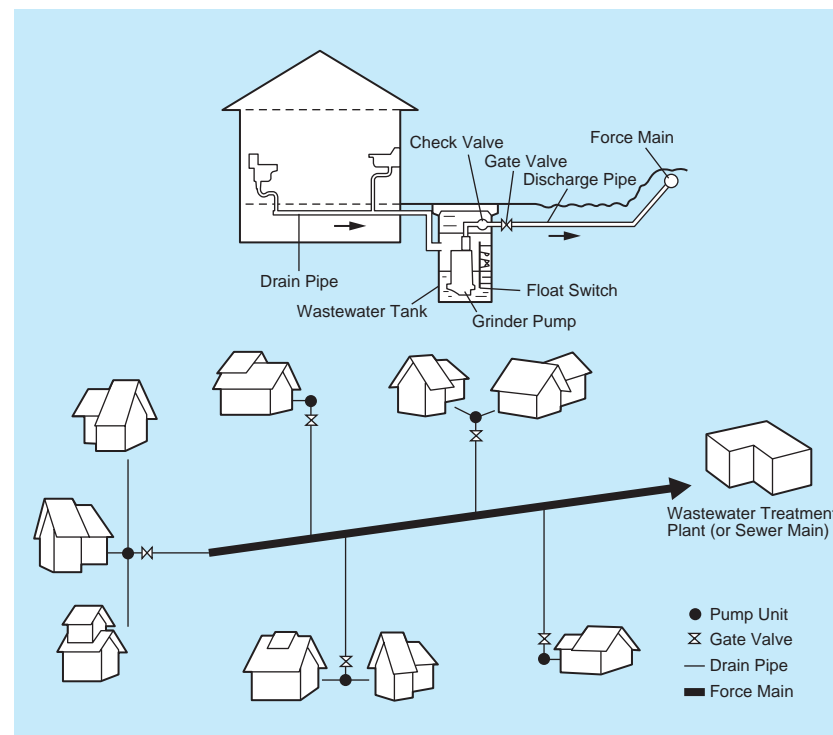
FEATURES

1. A vortex impeller is used. This enables the pump to reduce the clogging.
2. The grinder is made of chromium iron casting and is highly resistant to abrasion.
3. Tsurumi's unique Oil Lifter stabilizes the function of the mechanical seal and extends its sealing life.
4. The built-in circle thermal protector directly cuts the motor circuit if excessive heat builds up or an electrical or mechanical failure occurs.
5. The pump is designed for high head. It is capable of transferring liquid to a distant place.

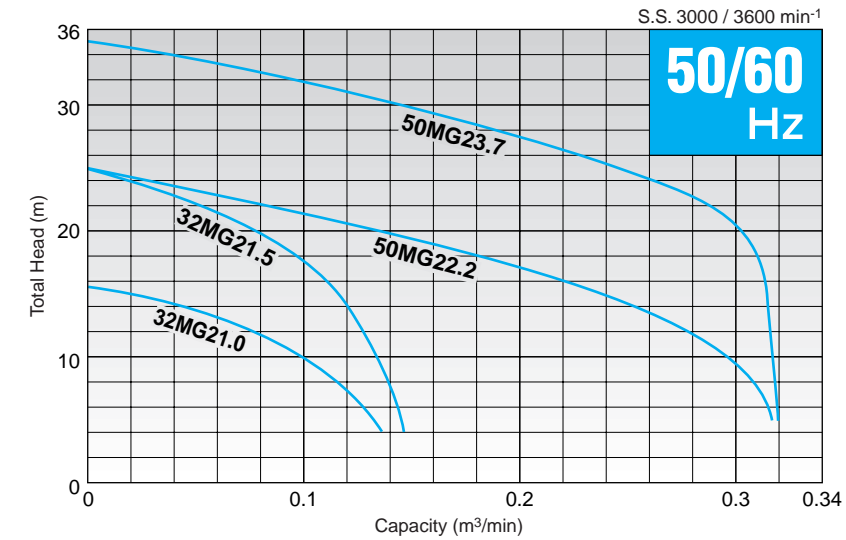
APPLICATIONS

- Pressurized sewerage system
- Community sewerage
- Domestic effluent
- Drainage at paper, spinning or food-processing factory
- Drainage at exhibition site or campsite, etc.

ILLUSTRATION OF PRESSURIZED SEWERAGE SYSTEM



PERFORMANCE CURVES



STANDARD ACCESSORIES

- Free Standing**
- Discharge Bend (with Bolts & Packing) ----- 1set
 - Screwed Flange (with Bolts & Packing) ----- 1set
 - JIS 10K Flange (with Bolts & Packing) ----- 1set
- Guide Rail Fitting**
- Lifting Chain (5m / with Shackles) ----- 1set
 - Guide Support (with Bolts & Nuts) ----- 1set
 - Guide Hook (with Bolts) ----- 1set
 - Duckfoot Bend ----- 1set
 - Guide Connector (with Bolts) ----- 1set
 - JIS 10K Flange (with Bolts & Packing) ----- 1set
 - Foundation Bolts (with Nuts) ----- 1set

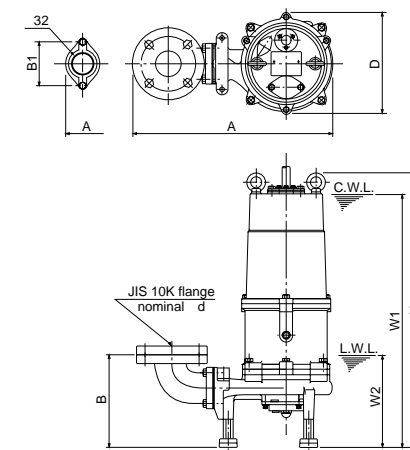
STANDARD SPECIFICATIONS 50/60Hz

Discharge Bore mm	Model		Motor Output kW	Total Head m	Capacity m³/min	Speed (S.S.) min⁻¹	Starting Method	Dry Weight *		Cabtyre Cable			
	Free Standing	Guide Rail Fitting						Free Standing kg	Guide Rail Fitting kg	Material	Cores x mm²	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

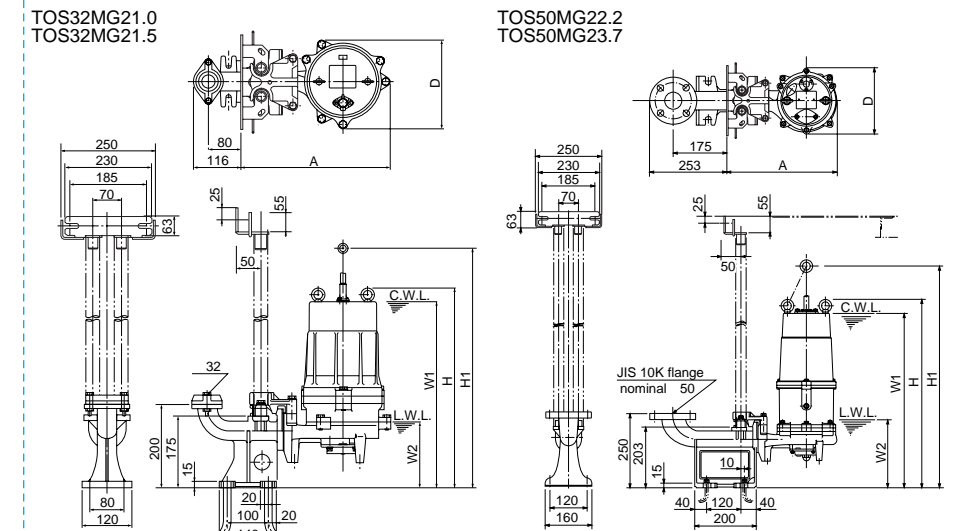
*Dry weight
All weights excluding cable
Weights of guide rail fitting excluding duckfoot bend

DIMENSIONS Unit : mm

Free Standing



Guide Rail Fitting



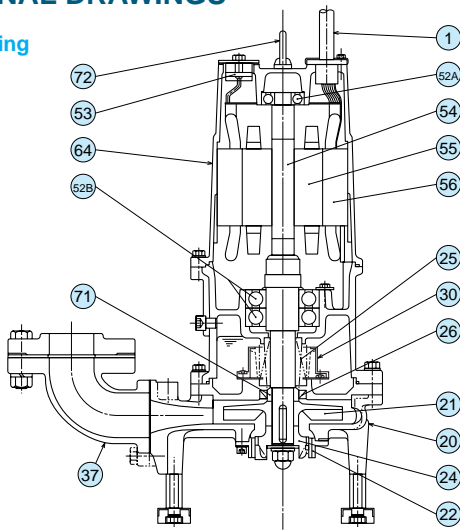
C.W.L. : Continuous running water level
L.W.L. : Lowest running water level

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

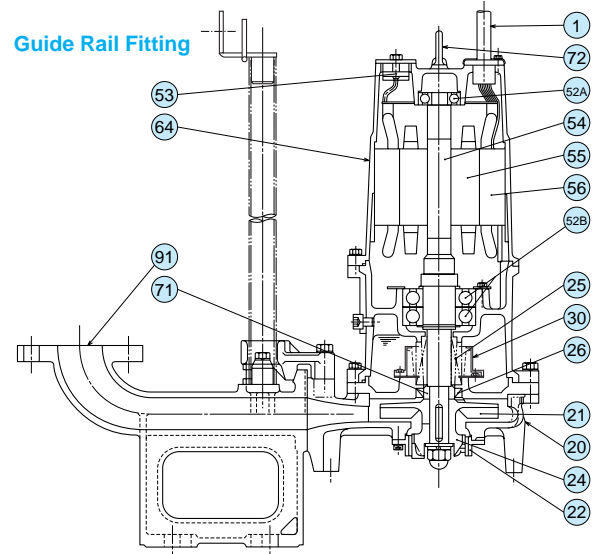
Model	A	D	W1	W2	H	H1
TOS32MG21.0	367	217	490	162	560	—
TOS32MG21.5	367	217	490	160	562	—
TOS50MG22.2	367	226	580	210	627	847
TOS50MG23.7	367	226	580	210	627	847

SECTIONAL DRAWINGS

Free Standing



Guide Rail Fitting



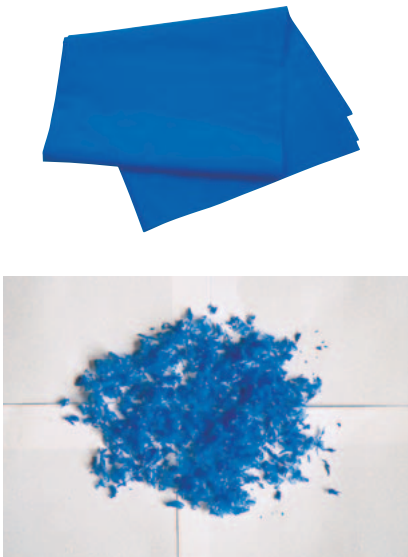
Item No.	Part	Material
1	Cable Cable	PVC Sheath
20	Pump Casing	Gray Iron Casting
21	Impeller	Gray Iron Casting
22	Stationary Blade	Chromium Iron Casting
24	Rotational Blade	Chromium Iron Casting
25	Mechanical Seal	SiC
26	Oil Seal	Rubber

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	Stainless Steel 420
55	Rotor	

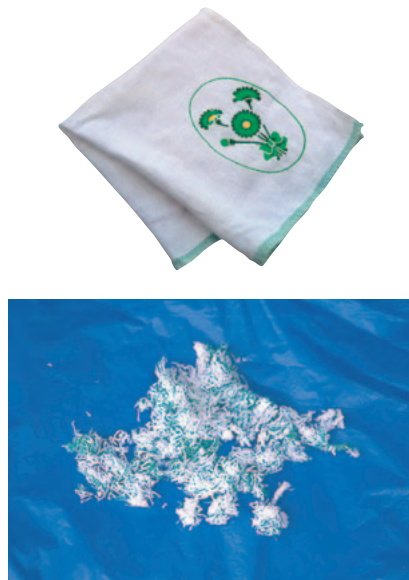
Item No.	Part	Material
56	Stator	
64	Motor Flame	Gray Iron Casting
71	Shaft Sleeve	Stainless Steel 303
72	Lifting Eye Bolt	Stainless Steel 304
91	Duckfoot Bend	Gray Iron Casting

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.

**TSURUMI
MANUFACTURING CO.,LTD.**

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