

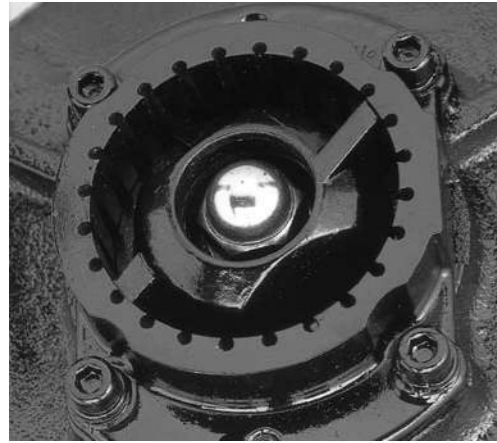


Submersible Sewage Pumps
Grinder
MG



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 COMPONENTS & SPECIFICATIONS

Discharge Bore		mm	32	50
Pumping Fluid	Type of Fluid	Sewage and Wastewater		
	Fluid Temperature	0 to 40°C		
Pump	Structure	Impeller	Vortex	
		Shaft Seal	Double Mechanical Seal (with Oil Lifter)	
		Bearing	Double-shielded Ball Bearing	
	Materials	Impeller	Gray Cast Iron	
		Casing	Gray Cast Iron	
		Grinder	High-chromium Cast Iron	
Shaft Seal	Silicon Carbide			
Motor	Type, pole	Dry-type Submersible Induction Motor, 2-pole		
	Insulation	Class E (1.0kW only) Class F		
	Phase	Three-phase		
	Motor Protector (built-in)	Circle Thermal Protector		
	Lubricant	Turbine Oil (ISO VG32)		
	Materials	Frame	Gray Cast Iron	
		Shaft	420 Stainless Steel	
Cable		PVC		
Discharge Connection		Screwed Flange	JIS 10kg/cm ² Flange	

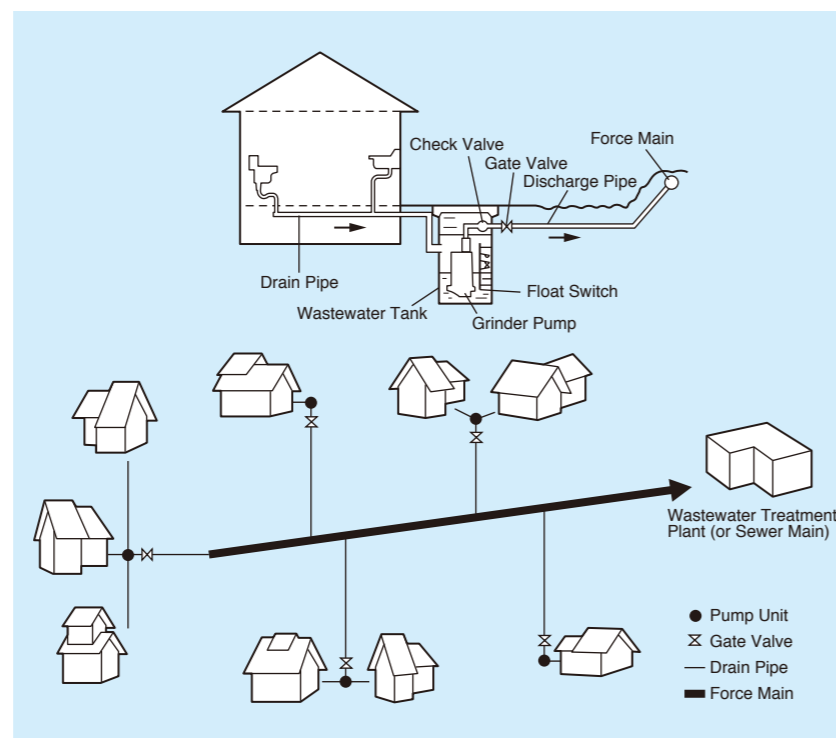
FEATURES

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.

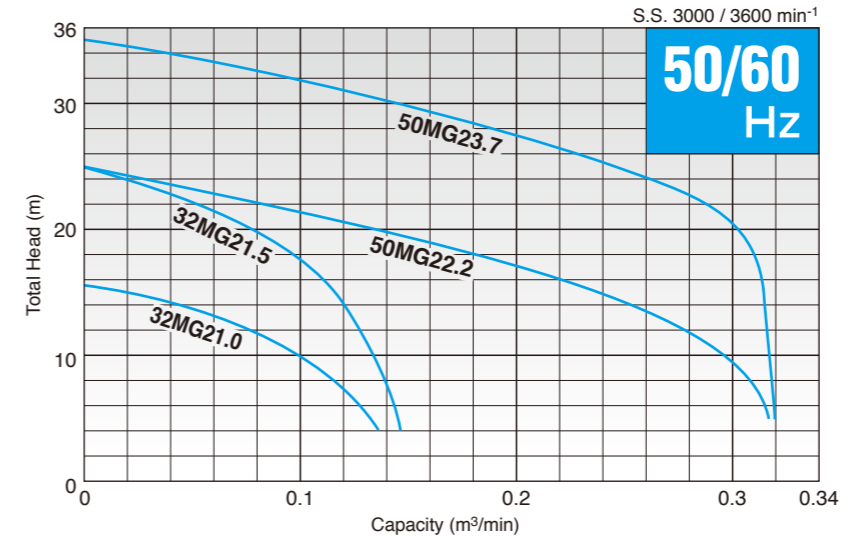
APPLICATIONS

- 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



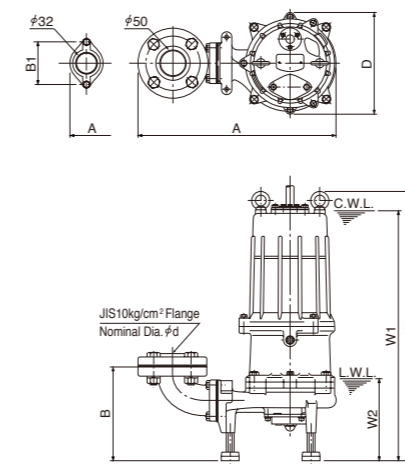
MODEL SELECTION 50/60Hz

Discharge Bore mm	Model		Motor Output kW	Total Head m	Capacity m³/min	Speed (S.S.) min ⁻¹	Starting Method	Dry Weight*1		Cabtyre Cable			
	Free Standing	Guide Rail Fitting						Free Standing kg	Guide Rail Fitting kg	Material	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.	36	35	PVC	4 x 1.25	11.1	6
50	50MG22.2	TOS50MG22.2	2.2	20	0.12	3000 / 3600	D.O.L.	77	73	PVC	4 x 2.0	11.8	6
	50MG23.7	TOS50MG23.7	3.7	30	0.12	3000 / 3600	D.O.L.	78	74	PVC	4 x 2.0*2	11.8*2	6

*1 All weights excluding cable
Weights of guide rail fitting model excluding duckfoot bend
*2 Supplied with a thicker cable for 200 to 240V

DIMENSIONS Unit : mm

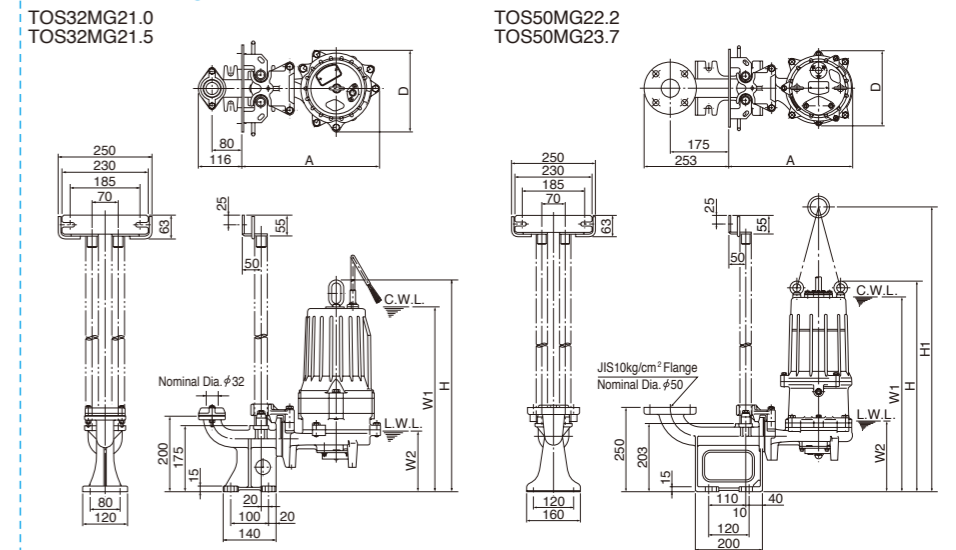
Free Standing



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



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	749
TOS50MG23.7	367	226	580	210	627	749

STANDARD ACCESSORIES

Free Standing

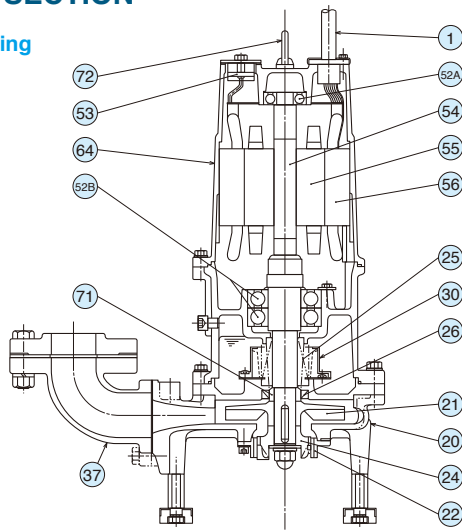
- Discharge Bend (with Bolts & Packing) ----- 1set
- Screwed Flange (with Bolts & Packing) ----- 1set
1.5kW and below
- JIS 10kg/cm² Flange (with Bolts & Packing) --- 1set
2.2kW and above

Guide Rail Fitting

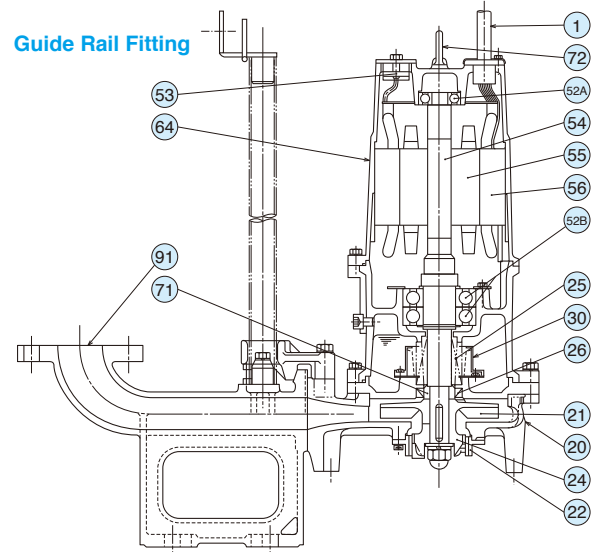
- Lifting Chain (5m / with Shackles) ----- 1set
- Guide Support (with Bolts & Nuts) ----- 1set
- Guide Hook (with Bolts) ----- 1set
- Duckfoot Bend ----- 1set
- JIS 10kg/cm² Flange (with Bolts & Packing) --- 1set

CROSS-SECTION

Free Standing



Guide Rail Fitting



Item No.	Part	Material
1	Cable	PVC
20	Pump Casing	Gray Cast Iron
21	Impeller	Gray Cast Iron
22	Stationary Blade	High-chromium Cast Iron
24	Rotational Blade	High-chromium Cast Iron
25	Mechanical Seal	Silicon Carbide
26	Oil Seal	Rubber

Item No.	Part	Material
30	Oil Lifter	Resin
37	Discharge Bend	Gray Cast Iron
52A	Upper Bearing	—
52B	Lower Bearing	—
53	Motor Protector	—
54	Shaft	420 Stainless Steel
55	Rotor	—

Item No.	Part	Material
56	Stator	—
64	Motor Flame	Gray Cast Iron
71	Shaft Sleeve	403 Stainless Steel
72	Eye Bolt	304 Stainless Steel
91	Duckfoot Bend	Gray Cast Iron

GRINDING CAPACITY OF MG PUMPS

Plastic Bag



Fabric



Pantyhose



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

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