



**PU** 1-phase  
3-phase  
50Hz

Multi-purpose pump with vortex impeller

PU multi-purpose pumps have adopted stainless steel where metal must be used, while other strategic components are molded in or armoured with high tech resins. Durable, stable in operation and compact, PU pumps are ideal for sewage disposal and many other demanding underwater pumping jobs.





## Vortex Impeller

This impeller is used mainly to avoid clogging or wear by large or stringy solids in the water. It accelerates part of the water to great speed, and this speed is used to smoothly move all the water from inlet to outlet.



### Optional Accessories:

- TOK4-P guide rail fitting for small pumps:
  - Guide support / Guide hook
  - Duck foot bend
  - Lifting chain

## Lightweight

The idea that pumps must be made through casting is already a thing of the past. PU pumps are the brain child of Tsurumi's efforts to get rid of full-cast pumps through material innovation. This has reduced the average weight of PU pumps to less than half of that of conventional equivalents. Also, installation and maintenance work for these new pumps have become far easier than ever before.



## Solid and durable

Resins used to make or house the major components of PU pumps were put through various harsh tests prior to adoption. Consisting of 20 items in all, such tests included those examining resistivity to solutions, continuous operability in high-temperature liquids, and strength to withstand low or freezing temperatures, weathering, and drop impact. In these tests, the resins have proved as strong as, or even stronger than, cast materials in both strength and abrasion resistance. Moreover, these resins are used in such a manner that each may best fit any particular component.

## Rust-free

PU pumps are immune to the insanitary rust. Made overall of stainless steel and high-quality resin, these pumps are completely free from the conventional rust troubles.



### Easy disassembly for maintenance convenience

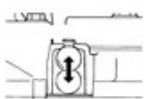
For maintenance services, just remove the bolts between the oil casing and the upper pump casing; the pump section with impeller and the motor section are now separated from each other. The pump section can be disassembled and reassembled easily.

## Automatic operations (Automatic type)

Plug the pump in and it is ready for automatic operation. PU pumps use a teardrop float for water level detection. This prevents operation errors caused by waves or muck and eliminates chattering.

## Various safeguards





A shaft seal, a limited load mechanism that prevents overloads and ensures stable and safe operation., cable conductors devised to prevent water from leaking in, and many other ideas and devices nurtured for years by Tsurumi's expertise ensure PU pumps the most reliable operations.



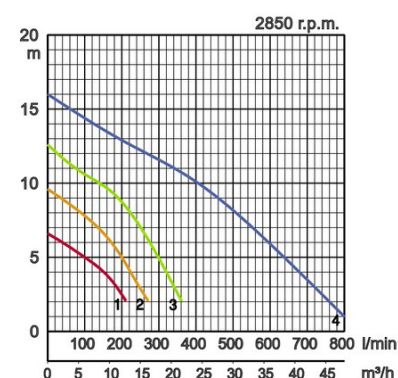
### Air vent valve

For air lock prevention, the ball valve and the pump casing are molded integrally - another PU innovation.

## Specifications:

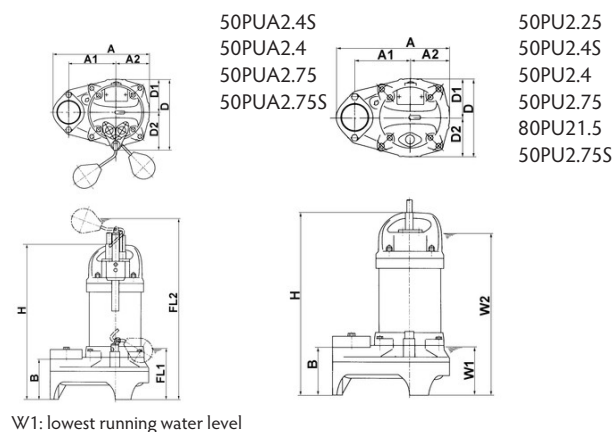
	Model		Colour code curve		Bore mm	Power output kW	Phases	r.p.m.	Head max. m	Capacity max. l/min	Starting method	Dry weight kg without cable		Impeller passage mm
	free standing	with guide rail fitting										free standing	with guide rail fitting	
manual	50PU2.25	optional		1	50	0,25	3	2850	6,6	210	direct	6,1	-	35
	50PU2.4	optional		2	50	0,4	3	2850	9,6	270	direct	7,0	-	35
	50PU2.4S	optional			50	0,4	1	2850	9,6	270	condensor	7,1	-	35
	50PU2.75	optional		3	50	0,75	3	2850	12,5	360	direct	8,3	-	35
	50PU2.75S	optional			50	0,75	1	2850	12,5	360	condensor	8,9	-	35
	80PU21.5	optional		4	80	1,5	3	2850	16,0	800	direct	15,8	-	46
autom.	50PUA2.4	optional			50	0,4	3	2850	9,6	270	direct	7,5	-	35
	50PUA2.4S	optional			50	0,4	1	2850	9,6	270	condensor	7,7	-	35
	50PUA2.75	optional			50	0,75	3	2850	12,5	360	direct	8,9	-	35
	50PUA2.75S	optional			50	0,75	1	2850	12,5	360	condensor	9,5	-	35

ø Discharge bore mm			50mm, 80mm
Pumping Fluid	Temperature		0-40°C
	Type of Fluid		Municipal sewage, water with solids
Pump	Compo- nents	Impeller	Vortex impeller
		Shaft Seal	Double mechanical seal
		Bearings	Shielded ball bearings
	Material	Impeller	Glass fibre reinforced plastic
		Upper casing	Glass fibre reinforced plastic
		Lower casing	Plastic
		Shaft Seal	Silicon carbide in oil bath
Motor	Type, Poles		Induction motor, 2 poles, IP68
	Lubrication		Turbine oil (ISO VG32)
	Phase / Voltage		3-phase / 400V / 50Hz / d.o.l., Single phase 230V / 50Hz
	Insulation		Insulation class E
	Motor Protector (built-in)		Circle thermal cut-out
	Material	Casing	Stainless steel EN-X5CrNi18-10
		Shaft	Stainless steel EN-X5CrNi18-10
		Cable	Rubber, NSSHÖU, 10m H07RN8-F
Discharge Connection			Inside thread, flange
Optional Accessories			Guide rail fitting "TOK" for small pumps



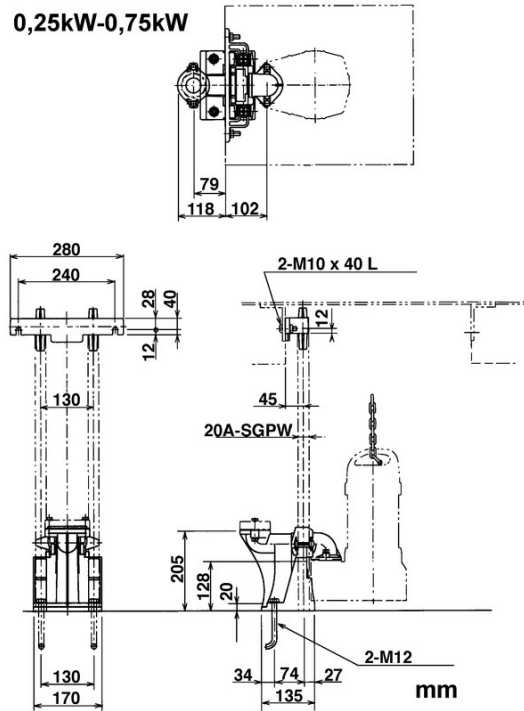
## Dimensions in mm:

Model	A	A1	A2	B	D	D1	D2	FL1	FL2	H	W1	W2
50PU2.25	236	115	81	102	162	76	86	-	-	349	110	310
50PU2.4	236	115	81	102	162	76	86	-	-	360	110	325
50PU2.4S	236	115	81	102	162	76	86	-	-	360	110	325
50PU2.75	236	115	81	102	162	76	86	-	-	374	110	335
50PU2.75S	236	115	81	102	162	76	86	-	-	374	110	335
80PU21.5	295	145	99	130	196	92	104	-	-	475	150	427
50PUA2.4	236	115	81	102	173	76	97	115	607	374	-	-
50PUA2.4S	236	115	81	102	173	76	97	115	607	374	-	-
50PUA2.75	236	115	81	102	173	76	97	115	621	388	-	-
50PUA2.75S	236	115	81	102	173	76	97	115	621	388	-	-

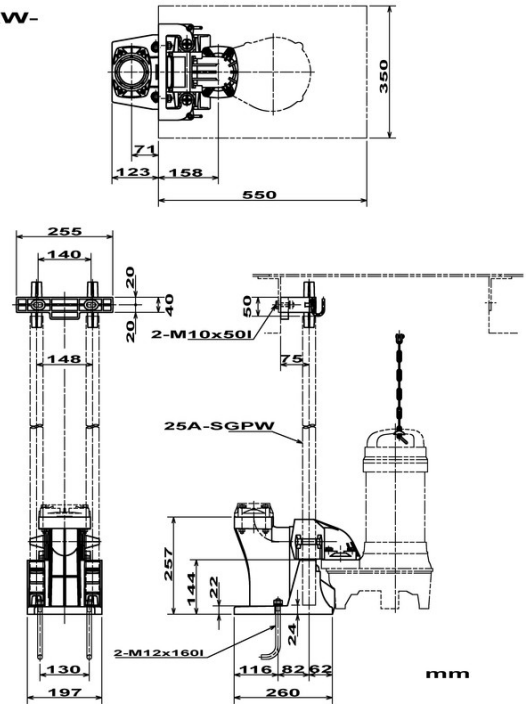


## Dimensions - guide rail fitting type in mm:

0,25kW-0,75kW



1,5kW-



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We reserve the right to change specifications and designs herein for improvement without prior notice. Our pumps are for professional use only. In the event that Tsurumi (Europe) GmbH have, in exceptional cases taken over, a manufacturer's warranty, this entitles the enduser to assert remedy free of charge against Tsurumi (Europe) GmbH due to any defect to the product occurring during the guarantee period (see below), also then when the warranty claims against the seller do not or no longer exist. In the event of malfunction, which is attributable to the improper handling by the enduser, no guarantee claim shall arise. Further claims shall not result from the warranty, unless if something to the contrary has explicitly been determined. The decision as to whether remedy is effected by way of replacement or repair shall be at the choice of Tsurumi (Europe) GmbH. The claims shall be time barred after a period of three months after expiry of the guarantee period, however, not before expiry of the warranty period which is valid towards the seller. In the event of doubt, the warranty period shall correspond with the warranty period which is valid between the end-user and his seller.

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