



PNI 1-phase
50Hz

Multi-purpose pump with vortex impeller

PNI 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.





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.

Adjustable Float Switch

Start and stop level can be adjusted, built-in auto-Manual selector Switch.



Lightweight

The idea that pumps must be made through casting is already a thing of the past. PNI 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 PNI 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 PNI 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

PNI 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



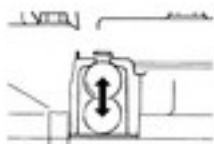
For maintenance services, just remove the bolts between the oil casing and the upper pump casing; the pump section with impeller and the motor section are now separated from each other. The pump section can be disassembled and reassembled easily.

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

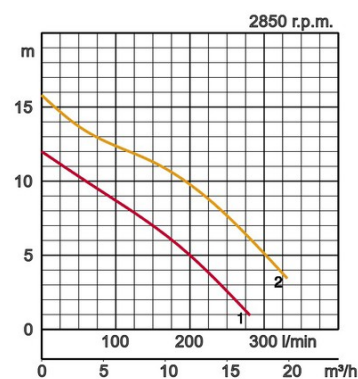
For air lock prevention, the ball valve and the pump casing are molded integrally - another PU innovation.



Specifications:

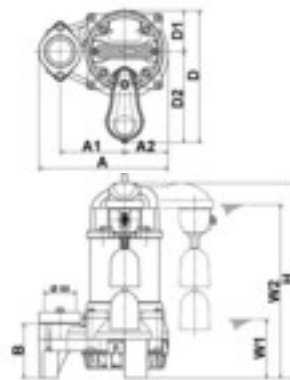
| Model | Colour code curve | Bore mm | Power output kW | Phases | r.p.m. | Head max. m | Capacity max. l/min | Starting method | Dry weight kg without cable | Impeller passage mm | |
|------------|---|---------|-----------------|--------|--------|-------------|---------------------|-----------------|-----------------------------|---------------------|----|
| 50PNI2.4S |  | 1 | 50 | 0,4 | 1 | 2850 | 12,0 | 280 | condensor | 7,4 | 10 |
| 50PNI2.75S |  | 2 | 50 | 0,75 | 1 | 2850 | 15,8 | 330 | condensor | 9,5 | 10 |

| | | | |
|----------------------|----------------------------|--|---|
| ø Discharge bore mm | | 50mm | |
| Pumping Fluid | Type of Fluid | Municipal sewage, water with solids | |
| | Temperature | 0-40°C | |
| Pump | Components | 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 |
| | Insulation | | Insulation class E |
| | Lubrication | | Turbine oil (ISO VG32) |
| | Phase / Voltage | | Single phase 230V / 50Hz |
| | Motor Protector (built-in) | | Miniature protector, Circle thermal cut-out |
| | Material | Casing | Stainless steel EN-X5CrNi18-10 |
| Shaft | | Stainless steel EN-X6Cr13 | |
| Cable | | Rubber, 10m H07RN-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 | H | W1 | W2 |
|------------|-----|-----|----|-----|-----|----|-----|-----|-----|-----|
| 50PNI2.4S | 241 | 120 | 81 | 102 | 246 | 76 | 170 | 360 | 110 | 325 |
| 50PNI2.75S | 241 | 120 | 81 | 102 | 246 | 76 | 170 | 380 | 110 | 345 |



W1: lowest running water level



Contributing to World-wide Prosperity and Understanding through Worker- and Environment-friendly Production.

Designed for increased productivity through fully integrated streamlined production systems, Tsurumi's factory in Kyoto (Japan) features a production capacity of a full 1 million pumps per year. Large-scale modern R&D facilities offer optimum conditions for experimenting and testing of even super-large pumps and for developing new products to expand the possibilities and applications of pumps. To provide optimum conditions for our main asset, our workers, as well as for the environment, special emphasis is placed on optimized working conditions with airconditioning, minimized dust and exhaust gas emission, comprehensive recycling and waste recovery.

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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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