

## Decanting Pump

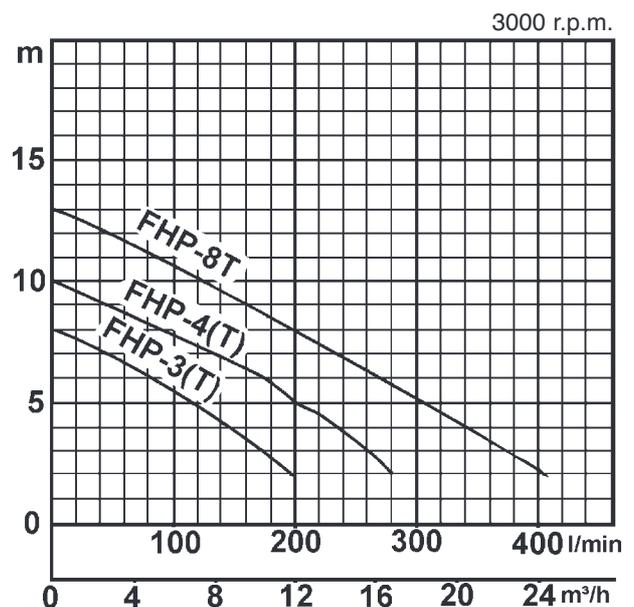


The sludge surface monitoring mechanism used in the FHP pump ensures that only supernatant water is discharged without any entrapment of sediments.

Applications are numerous in sewage treatment, industrial waste water treatment and agriculture. The FHP pump could even be used to draw decanted river water from a settling pond.

### Standard Accessories:

- Cable
- Cable for anti-sludge sensor (6m)
- Hose coupling
- Pump lift chain (with shackle, stainless steel EN-X5CrNi18-10, 3m)



## Virtues

- Installed in a decanting pit, the FHP pump goes up and down with the liquid, It can **suck clear water from between the sludge at the bottom and foam or floating debris at the surface**. Once switched on, it will start pumping if its inlet is in clear water. It will continue emptying the pit (and going down) until a photosensor warns of the water near the pump inlet becoming cloudy.
- The two lenses of the photosensor are flushed with clean water at a regular interval to keep them clean.
- The installation is sturdy enough for pits in which incoming flow can be violent.
- There are no non-ferrous materials in contact with water.

		Discharge bore mm		40	50	<b>FHP</b>
<b>Pumping Fluid</b>	Type of Fluid	Treated Water				
	Liquid Temperature	0 - 40°C				
<b>Pump</b>	Components	Impeller	non-clogging			
		Shaft Seal	Double mechanical seal			
		Bearing	Shielded ball bearings			
	Material	Impeller	Grey iron casting			
		Casing	Grey iron casting			
		Float	Fibre reinforced plastic			
	Shaft Seal (mechanical Seal)	Silicon carbide in oil bath				
<b>Motor</b>	Type, Poles	Dry-type submersible induction motor, 2 poles, IP68				
	Insulation	Insulation class E				
	Phase / Voltage	Single-phase / 230V Three-phase / 400V				
	Motor Protector (built-in)	Circle thermal protector				
	Lubricant	Turbine oil (ISO VG32)				
	Material	Frame	Grey iron casting			
Shaft		Stainless Steel ENX6Cr13				
Cable		Rubber, H07RN-F				
<b>Discharge Connection</b>					Hose coupling	

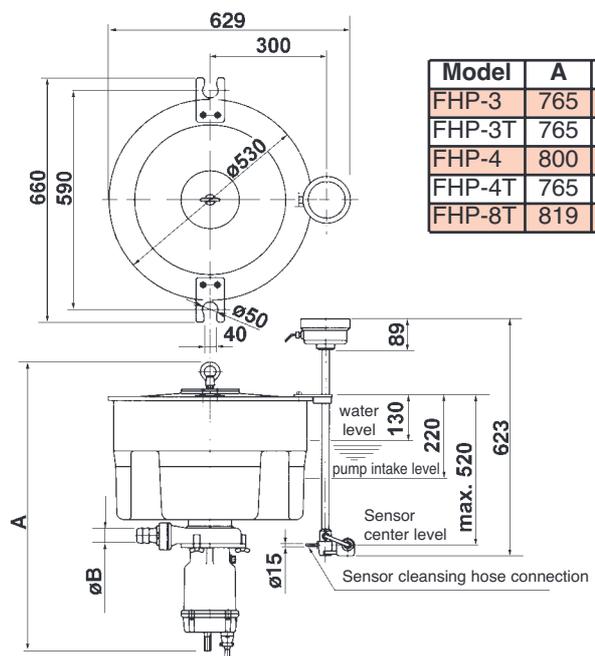
## Specifications:

Bore mm	Model	Output kW	Phase	Total Head max.m	Capacity max. l/min	Starting method	Dry Weight kg	Cable m
40	FHP-3	0,25	Single	8,0	200	Split phase	29,5	10
40	FHP-3T	0,25	Three	8,0	200	D.O.L.	27,5	10
50	FHP-4	0,4	Single	10,0	280	Condensor	29,5	10
50	FHP-4T	0,4	Three	10,0	280	D.O.L.	27,5	10
50	FHP-8T	0,75	Three	13,0	420	D.O.L.	27,5	10

dry weight of the pump excluding cable



## Dimensions: Unit mm



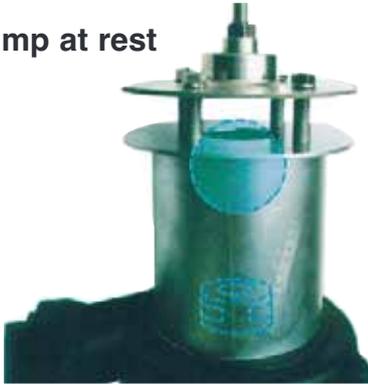
## Float

The float holds a submersible pump at a preset depth under the liquid's surface. Made of fibreglass reinforced plastic (FRP), the float is filled with polystyrene foam which prevents the loss of buoyancy in case the float's skin is fractured.

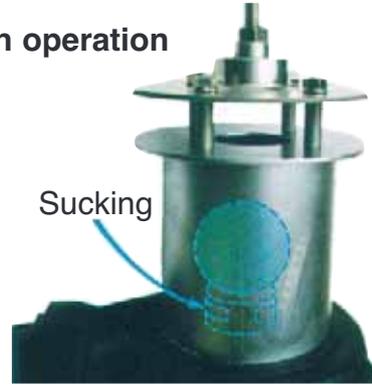
## Intake check ball

A check ball incorporated in the intake closes the suction opening by buoyancy when the pump stops operating thus preventing the inflow of floating sludge. During operation, the ball is sucked in by the pump's suction power to take in supernatant liquid only.

Pump at rest

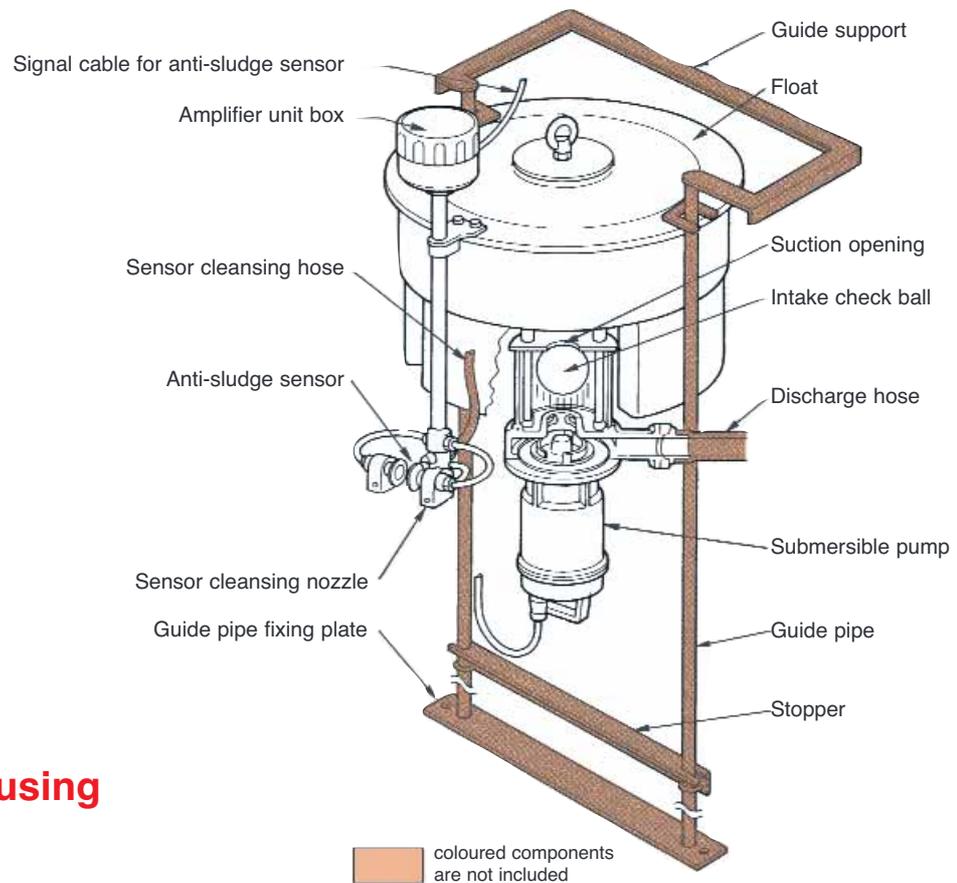


In operation



## Pumping section

Each component, such as shaft seal, motor protection, and watertight cable, represents Tsurumi's outstanding expertise.



## Amplifier unit housing



## Anti-sludge sensor

The amount of light transmitted from an emitter via glass fibers is reduced by a certain density of sludge existing in the liquid, while it is not much reduced by supernatant liquid. The sensor identifies the amount of light and signals the control panel to start or stop the pump so as to suck only clear liquid.



## Sensor cleaner

The sensor cleaner spouts a jet of clean water from its nozzle to wash the sensor's light emitter and receiver at fixed intervals. The pressurized water is treated water coming from a submersible pump installed in the spray pump tank. The flushing is performed for 5 minutes every 1,5 hours during the aeration process. The amount of washing water is regulated with a valve over a range of 10 to 20 litres per minute and of 0,5 to 1 bar.



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 end-user 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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