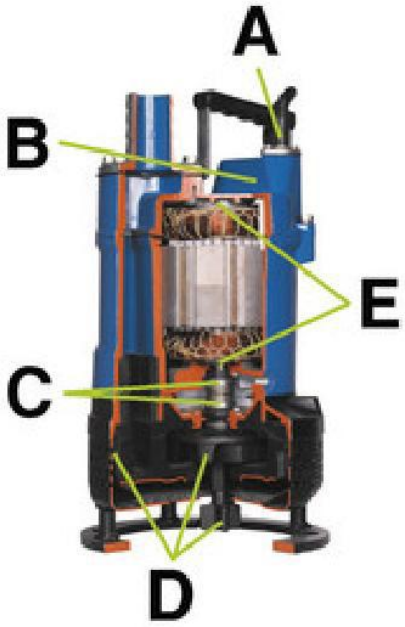
A - Tsurumi Stuffing Box - absolutely watertight

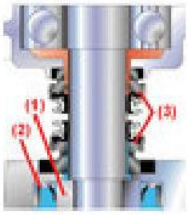
The stuffing box is located at the cable entry section and takes the part of sealing off water. As the cable conductors consist of twisted wires, water may penetrate into the motor by the capillary phenomenon when cable sheath or insulation is damaged or when the end of the cable is submerged. The construction is such that a certain part of the insulation of each conductor is peeled and filled with rubber or epoxy resin for the complete sealing.



B - Continuous use under dry-run

Located directly above the motor windings, a snap-action self-resetting bi-metal device cuts off voltage from all three phase windings simultaneously if the current is too large in one, two or all three windings, or if the windings get too hot.
Tsurumi enables measurement of winding resistance and insulation from the far end of the cable, without ever removing the cover from the motor in the field.

C - Double mechanical SiC seal in oil bath



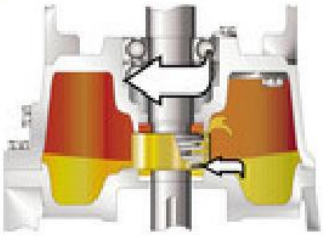
The interaction of a ring rotating with the shaft and a fixed ring, below and above an oil bath, assumes the critical role of withstanding pumping pressure and preventing water from seeping into the motor. The seals of all Tsurumi contractors ´ pumps, even in the 400W-class, have sealing rings of Silicon Carbide. No other material has greater hardness, selflubrication is slightly better than that of directly comparable materials. Resistance to temperature fluctuation and corrosion is also the best available.

D - Increased wear resistance of pump casing and impeller

As contractors ´ pumps are used in unpredictable circumstances, Tsurumi has gone a long way towards making the impeller capable of the impossible and towards providing spare motor power to match. Tsurumi contractors ´ pumps are used extensively for bentonite mud, often with earth in the case of the models fitted with an agitator.

E - Ball bearings of highest quality

Due to the high quality of the shaft and the bear rings all pumps can be run horizontally when entirely submerged.



Oil Lifter

A special patented guide vane is attached inside the oil chamber. With the motor rotation oil is pumped up. Therefore even at low oil level lubrication and cooling of the mechanical seal is secured.

Top Discharge
(water jacket)

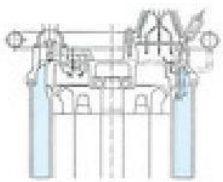
Pumped water flows between the outer cover and the motor, cooling the motor and discharging as illustrated (forced motor cooling arrangement). The pump can be run continuously in air.

Top Discharge
(side flow)

Pumped water cools the motor and discharges as illustrated. The motor can be cooled even when pumping a small amount of water. The top discharge arrangement allows access into areas with space limitations.

Side Discharge
(spiral type)

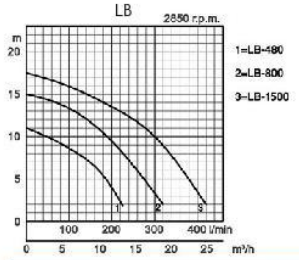
The spiral type pump features a large waterway area as illustrated and carries sand suspensions or slurry very effectively. Since a high performance motor is used, the pump can be run continuously in air.



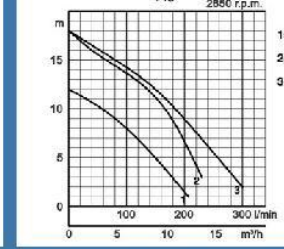
Water Jacket - Inner and outer motor casing - flow-through-design - perfect cooling under dry-runconditions.

Type	Model	⌀Discharge bore	Motor output kW	Poles	Impeller	Level sensor	Motor protector (built-in)	Flow arrangement: Top discharge	Flow arrangement: Top discharge (side flow)	Flow arrangement: Side discharge (spiral type)	
Portable 1ph/230V 1ph/110V	LB	50	0,48 - 1,5	2	Vortex	O	O	O			Page 4
	HS	50 • 80	0,4 • 0,75	2	Vortex		O			O	Page 5
	HSD	50	0,55	2	Vortex		O			O	Page 5
	LSC	25	0,48	2	Vortex		O	O			Page 6
	NK	50 • 80	2,2	2	Vortex		O		O		Page 6
General Purpose	KTV(E)	50 • 80	0,75 - 5,5	2	Vortex	O	O		O		Page 7/8
	KTZ(E)	50 - 150	1,5 - 11,0	2	Vortex	O	O		O		Page 9/10
	KRS	100 - 250	3,0 - 22,0	4	Vortex		O	O	O		Page 11
Slurry, Bentonite	KTV2	50 • 80	2,0 • 3,0	2	Vortex		O		O		Page 12
	KTD	50 • 80	2,0 • 3,0	2	Vortex		O		O		Page 13
	KRS2	80 - 150	4,0 - 9,0	4	Vortex		O		O		Page 14
Sand	GPN	80 • 100	5,5 - 22,0	4	Vortex		O			O	Page 15
	NKZ	80 • 100	2,2 - 11,0	4	Vortex		O			O	Page 16
High Head	LH-W	50 - 100	3,0 - 110,0	2	Vortex		O	O			Page 17
	LH	100 - 200	15,0 - 110,0	2	Vortex		O	O			Page 18
	GSZ	250	75,0	4	Vortex		O			O	Page 19

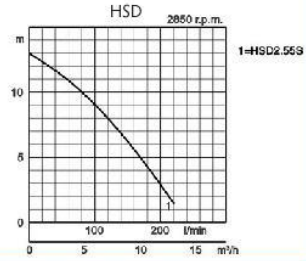
LB



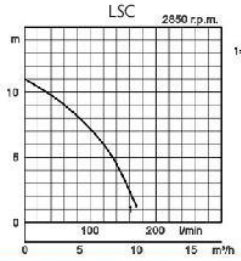
HS



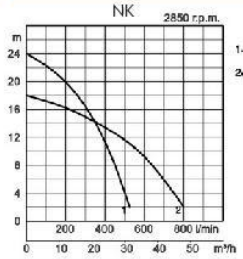
HSD



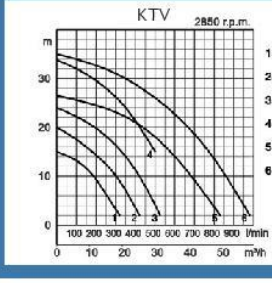
LSC



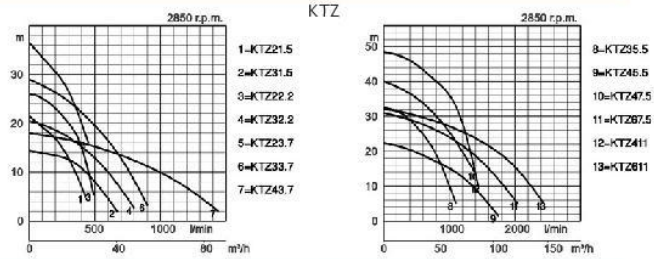
NK



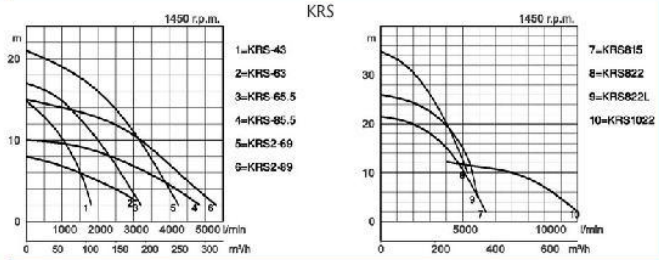
KTV



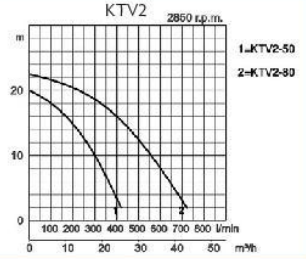
KTZ



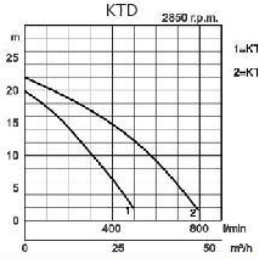
KRS



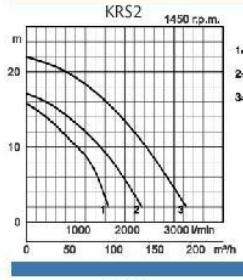
KTV2



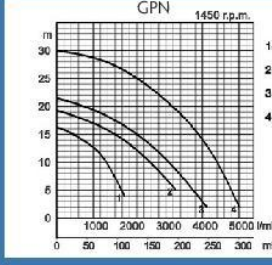
KTD



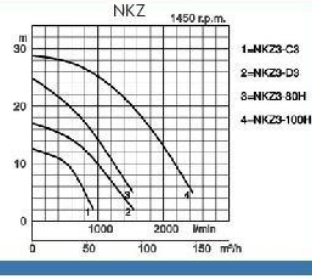
KRS2



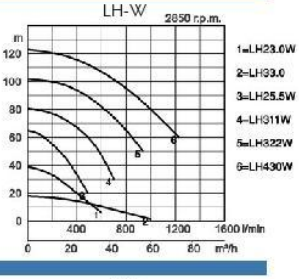
GPN



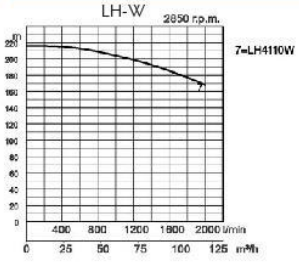
NKZ



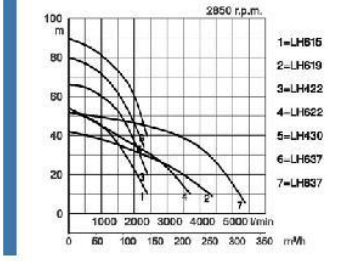
LH-W

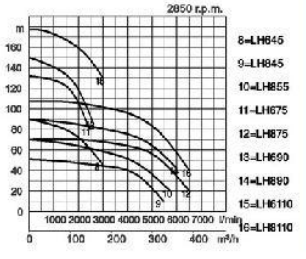


LH-W



LH





GSZ