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Pump selection Apps are available on
Android and iPhone: "Tsurumi Pump Selector"

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



Tsurumi Manufacturing Co., Ltd.

Tsurumi Manufacturing Company, Limited was founded in Osaka in 1924. Since the foundation, Tsurumi has consistently devoted its efforts to the creation and development of advanced water utilization technologies. Tsurumi has also innovated the pump manufacturing technologies in a constant pursuit of new opportunities and new fields that contribute to the advancement of our society and environment. This effort epitomizes its management policy "Dedicated to pursuing close communication between people and water through innovative creation and respect for harmony with nature."

Production Bases

Kyoto Plant production facility boasts industry-leading scale and equipment, including extensive testing and research facilities. Its integrated system encompasses all product stages from development to production and is capable of manufacturing small, large, and special-purpose pumps having the capacity of 1,000,000 unit a year.

Yonago Plant in Tottori Prefecture specializes in development and production of large pumps for pumping stations and liquid-ring vacuum pumps. Tsurumi also operates cutting-edge plants in Taiwan, China and Korea that are capable of mass-producing products with short lead times. All plants work together to form a highly efficient production system.

Global Operations

Tsurumi introduced its overseas strategy in the 1960s. Our technical capabilities gained recognition first Asia in the 1970s and then in the United States and Europe in the 1980s. Following these initial successes, we sought to accelerate the overseas strategy through our International Sales Division. Remarkable successes in fields including construction, civil engineering, mining, power plant, industrial wastewater, domestic wastewater, sewage treatment, flood control, facilities designed to bring people into closer contact with water, and scenery creation have proven Tsurumi's creativity and capability to the world.



Overseas Subsidiaries

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Tsurumi BELGIUM

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Tsurumi UK

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Tsurumi-Intec Pumps

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Tsurumi Pumps Africa

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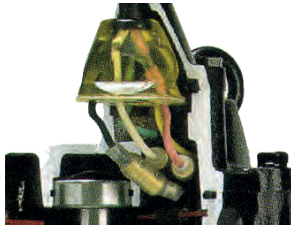
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A - Tsurumi Stuffing Box - absolutely watertight

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.



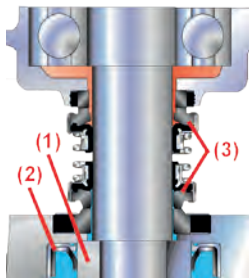
B - Continuous use under dry-run

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 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 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.

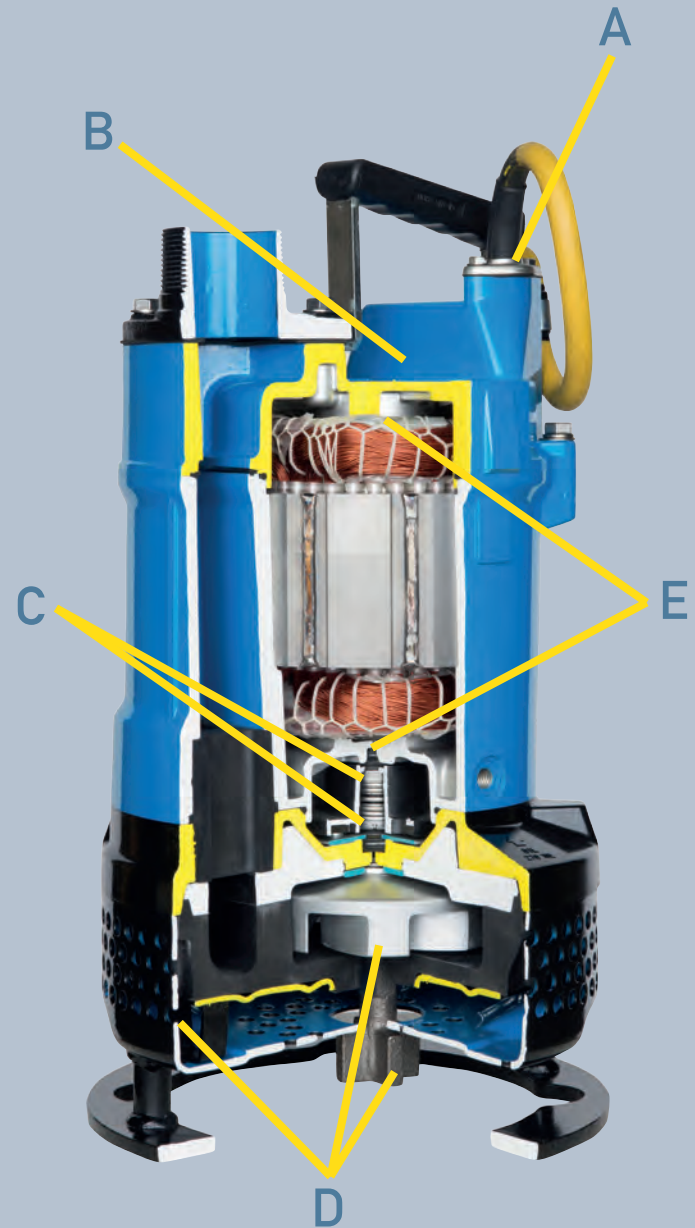


D - Increased wear resistance of pump casing and impeller

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.

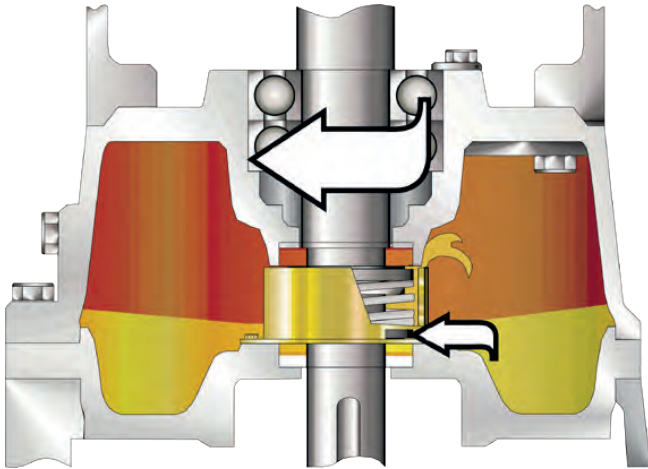


Oil Lifter (desinged by Tsurumi)

The "Oil Lifter" is a Tsurumi' s originally developed device that enhances lubrication and cooling effect to the mechanical seal. It extends both of the maintenace cycle and the life expectancy.

As the shaft and mechanical seal start to rotate, centrifugal force is imparted to the oil inside the oil lifter, forcing the oil up the lifting vanes. The oil is forced to the top of the oil lifter, exiting at and providing positive lubrication of the top seal faces. This action forces oil to be taken into the oil inlet ports, causing positivte lubrication to the bottom seal faces.

As the oil seeps out during running of the pump, the oil volume in the chamber will drop, though at a very little rate. By providing positive lubrication to both upper and lower seal faces, this amazingly simple device turns wasted energy into added protection and increases the life expectancy of the mechanical seal. By providing positive lubrication, the Oil Lifter keeps stable lubrication to the mechanical seal even if the oil volume drops.



Benefits of the Oil Lifter

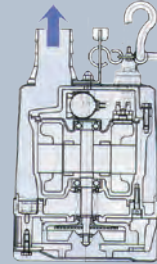
- Simple in construction
- No extra energy is required
- It creates proper lubrication with a reduced volume of oil, even with 1/3 of the rated volume
- It is possible to extend the intervals of inspection and replacement of oil twice as long as the current device. (example of the inspection cycle: from 3,000 hours to 6,000 hours*)
- Life expectancy of the mechanical seal is more than twice what it was.

Effect given by the Oil Lifter

	Without Oil Lifter	With Oil Lifter
Inspection of Oil	Every 3000 hours	Every 6000 hours
Replacement of Oil	Every 6000 hours	Every 9000 hours
Replacement of Mechanical Seal	Every 1 year	Every 2 years

*wastewater pump with a 4-pole motor

Discharge Types:

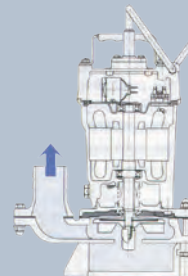


Top Discharge (water jacket): Pumped water flows between the outer cover and the motor, cooling the motor and discharging as illustrated (forced motor cooling arrangement).

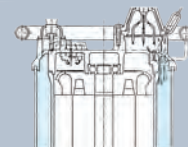
The Pump can be run continuously in air.



Top Discharge (side flow): Pumped water cools the motor and discharge 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-run conditions.

Single-phase

Portable

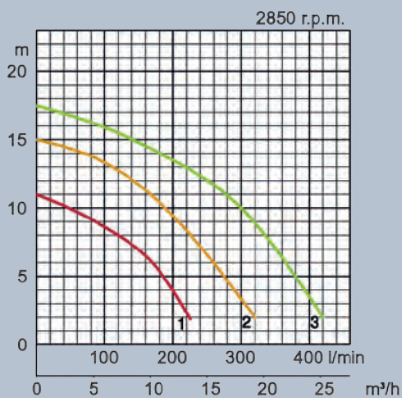
Flow-thru

Automatic*

LB/LB-A*

The LB-series is a submersible single-phase portable drainage pump. The top-discharge, flow-thru design provides maximum motor cooling efficiency allowing continuous operation at low water levels.

The LB-A is an automatic pump without cumbersome floats. An innovative electrode type relay unit built into the pump automatically starts and stops the pump to eliminate dry-running. This mechanism greatly reduces power consumption and extends operating life!



LB



LB-A

Single-phase

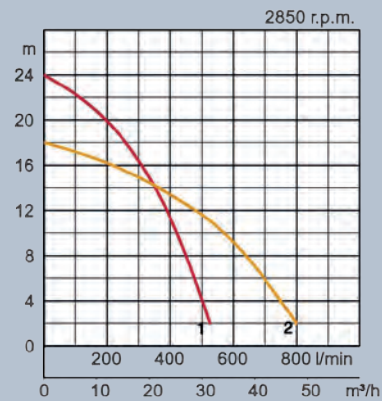
Portable

Flow-thru

NK

07-08

The NK-series is a submersible single-phase portable drainage pump having a larger output motor. Though it is a single-phase unit, the pump has the durability equivalent to three-phase drainage pumps, since the wear parts are made of abrasion-resistant materials. The top-discharge, side-flow design assures efficient motor cooling even when it operates with its motor exposed to air. The slim design allows the pump to be placed in a confined space.



TECHNICAL DATA	● LB-480 LB-480A	● LB-800 LB-800A	● LB-1500
Discharge Bore	mm 50		
Motor Output	kW 0.48	0.75	1.5
Phase	Single		
Starting Method	Capacitor Run		Capacitor Start
Motor Protection	Miniature Thermal	Circle Thermal	
Impeller	Semi-vortex made of Urethane Rubber		
Solid passage	mm 6		
Voltage	V 230		
Current	A 3	5	15
Weight	kg 10.4 11	13.1 13.7	33
Cable Length	m 10		
L x W x H	mm 189 x 187 x 286 223 x 187 x 286	186 x 187 x 341 223 x 187 x 341	187 x 187 x 593

TECHNICAL DATA	● NK4-22	● NK3-22L
Discharge Bore	mm 50	80
Motor Output	kW 2.2	
Phase	Single	
Starting Method	Capacitor Start + Capacitor Run	
Motor Protection	Circle Thermal	
Impeller	Semi-open made of High-chromium Iron	
Solid Passage	mm 6	
Voltage	V 230	
Current	A 14.6	14.5
Weight	kg 29	40
Cable Length	m 20	
L x W x H	mm 240 x 240 x 614	236 x 216 x 719

Single-phase

Portable

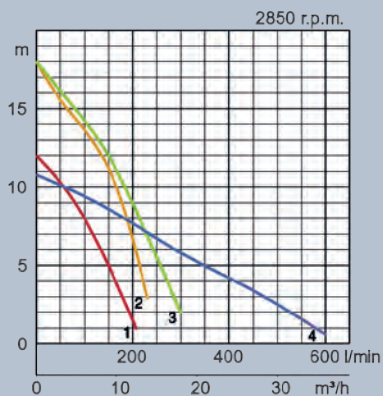
Spiral

Automatic*

HS/HSA

The HS-series is a submersible single-phase portable drainage pump. The side-discharge, spiral design allows smoother passage of the sucked solid matters. The shaft-mounted agitator prevents "Air Lock", and suspends solids to assist in pumping sediments.

A single float switch can be easily mounted on the HS (=HSA) for the automatic operation, reduces power consumption and extends operating life.



Single-phase

Portable

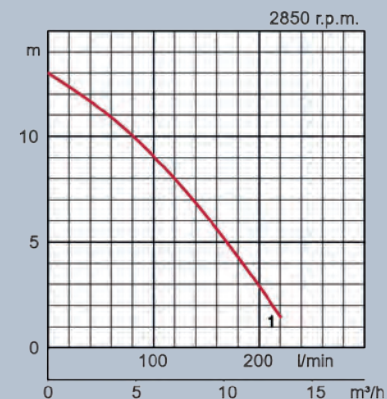
Spiral

Agitator

HSD

09-10

The HSD is suitable for sand and slurry use. An incorporated impeller and agitator are made of high-chromium cast iron. The agitator installed on the motor shaft forcibly agitates the fluid for easy and efficient transmission of sludge and slurry.



TECHNICAL DATA	● HS(A)2.4S	● HS2.75S	● HS3.75S ● HS3.75SL
Discharge Bore	mm	50	80
Motor Output	kW	0.4	0.75
Phase		Single	
Starting Method		Capacitor Run	
Motor Protection		Miniature Thermal	Circle Thermal
Impeller		Semi-vortex made of Urethane Rubber	
Solid Passage	mm	7	
Voltage	V	230	
Current	A	3	5
Weight	kg	11.3	16.4
			16.8 19.6
Cable Length	m	10	
L x W x H	mm	241 x 183 x 328	285 x 184 x 394

TECHNICAL DATA	HSD2.55S	
Discharge Bore	mm	50
Motor Output	kW	0.55
Phase		Single
Starting Method		Capacitor Run
Motor Protection		Circle Thermal
Impeller		Semi-vortex made of High-chromium Iron
Solid Passage	mm	10
Voltage	V	230
Current	A	4
Weight	kg	14
Cable Length	m	10
L x W x H	mm	241 x 186 x 391

Single-phase

Portable

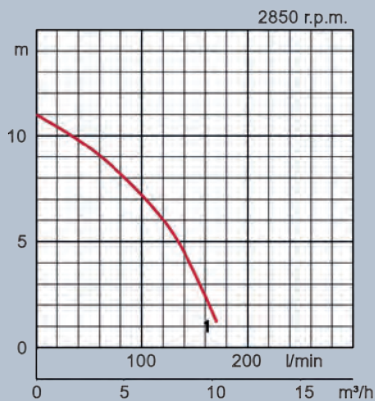
Residue

Automatic*

LSC(E)

The LSC is a submersible single-phase portable residue drainage pump. The pump can start pumping if there is water with its level of 1mm or more and can continue pumping. Due to the major components are made of aluminum alloy and synthetic rubber, it is lightweight and easy to carry. The LSC prevents reverse-flow of the sucked water when the pump stops its operation.

The LSCE is an automatic pump with an innovative electrode type relay unit built into the pump.



LSCE

LSC

Single-phase

Portable

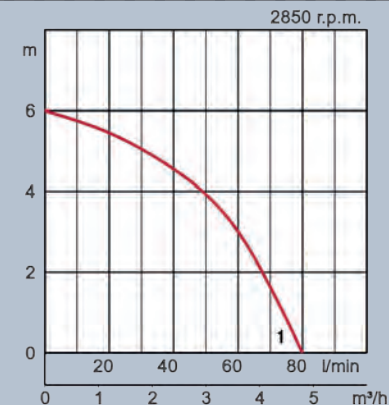
Residue

FAMILY

11-12

The FAMILY series are submersible single-phase portable drainage pumps. In addition to the 25mm hose coupling, it also comes with an easy-to-attach 15mm hose coupling as a standard accessory.

Moreover, it can be used as a residue pump and drain water to 1mm in depth by attaching the optional residue adapter to the pump casing.



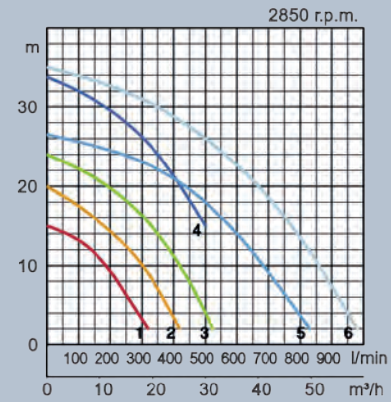
Residue Adapter



TECHNICAL DATA		LSC(E)1.4S
Discharge Bore	mm	25
Motor Output	kW	0.48
Phase		Single
Starting Method		Capacitor Run
Motor Protection		Miniature Thermal
Impeller		Semi-vortex made of Urethane Rubber
Solid Passage	mm	6
Voltage	V	230
Current	A	3
Weight	kg	12
Cable Length	m	10
L x W x H	mm	196 x 196 x 316

TECHNICAL DATA		FAMILY-12
Discharge Bore	mm	15, 25
Motor Output	kW	0.1
Phase		Single
Starting Method		Capacitor Run
Motor Protection		Miniature Thermal
Impeller		Semi-vortex made of Glass-fiber Reinforced Resin
Solid Passage	mm	6
Voltage	V	230
Current	A	1.3
Weight	kg	3.4
Cable Length	m	10
L x W x H	mm	157 x 157 x 256

The KTV-series is a submersible three-phase portable drainage pump. The pump body is made of die-casted aluminium alloy, which is extremely advantageous in terms of portability. The sleeves that protect the pump casing, oil casing and water passages are made of synthetic rubber as a consideration against wear. The top discharge, side flow design assures efficient motor cooling even when it operates with its motor exposed in air. The slim design allows the pump to be placed in a confined space.



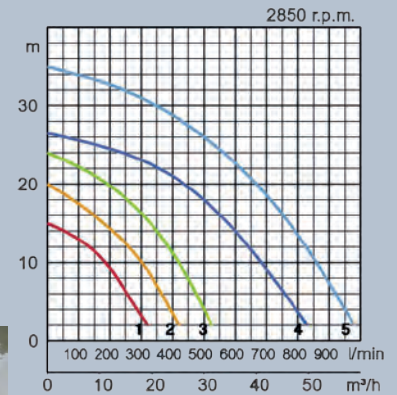
TECHNICAL DATA		● KTV2-8	● KTV2-15	● KTV2-22
Discharge Bore	mm	50		
Motor Output	kW	0.75	1.5	2.2
Phase		Three		
Starting Method		Direct on Line		
Motor Protection		Circle Thermal		
Impeller		Semi-vortex made of Urethane Rubber	Semi-vortex made of Ductile Iron	
Solid Passage	mm	6	8.5	
Voltage	V	400		
Current	A	1.8	3.3	4.3
Weight	kg	11.5	21	23
Cable Length	m	10	20	
L x W x H	mm	200 x 200 x 369	240 x 240 x 396	240 x 240 x 416

TECHNICAL DATA		● KTV2-37H	● KTV2-37	● KTV3-55
Discharge Bore	mm	50	80	
Motor Output	kW	3.7		5.5
Phase		Three		
Starting Method		Direct on Line		
Motor Protection		Circle Thermal		
Impeller		Semi-vortex made of Ductile Iron		
Solid Passage	mm	8.5		
Voltage	V	400		
Current	A	7.4	11	
Weight	kg	36	47	
Cable Length	m	20		
L x W x H	mm	285 x 285 x 510		300 x 300 x 545

The KTVE-series is a submersible three-phase automatic portable drainage pump. An innovative electrode type relay unit built into the pump automatically starts and stops the pump to eliminate dry-running. This mechanism greatly reduces power consumption and extends operating life. The pump body is made of die-casted aluminium alloy, which is extremely advantageous in terms of portability. The sleeves that protect the pump casing, oil casing and water passages are made of synthetic rubber as a consideration against wear. The top discharge, side flow design assures efficient motor cooling even when it operates with its motor exposed to air. The slim design allows the pump to be placed in a confined space.

Electrode Control Device

Consisting of an electric probe and relay unit, this enables automatic operation, reduces power consumption and extends operating life.



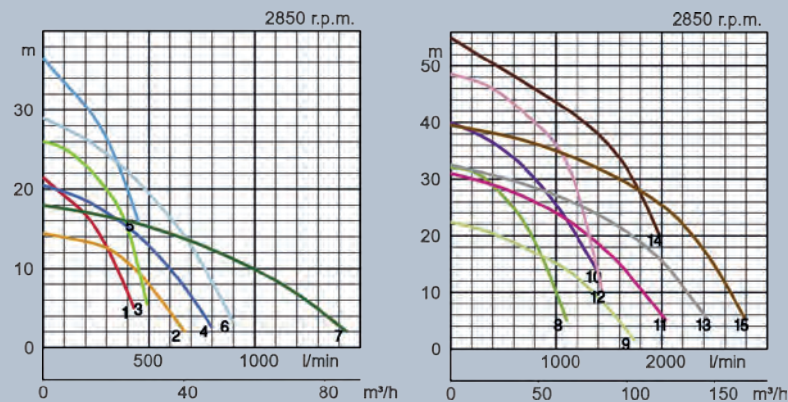
TECHNICAL DATA		● KTVE2.75	● KTVE21.5	● KTVE22.2
Discharge Bore	mm	50		
Motor Output	kW	0.75	1.5	2.2
Phase		Three		
Starting Method		Direct on Line		
Motor Protection		Circle Thermal		
Impeller		Semi-vortex made of Urethane Rubber	Semi-vortex made of Ductile Iron	
Solid Passage	mm	6	8.5	
Voltage	V	400		
Current	A	1.8	3.3	4.3
Weight	kg	12.7	21.5	24.5
Cable Length	m	10	20	
L x W x H	mm	200 x 200 x 417	240 x 240 x 426	

TECHNICAL DATA		● KTVE33.7	● KTVE35.5
Discharge Bore	mm	80	
Motor Output	kW	3.7	5.5
Phase		Three	
Starting Method		Direct on Line	
Motor Protection		Circle Thermal	
Impeller		Semi-vortex made of Ductile Iron	
Solid Passage	mm	8.5	
Voltage	V	400	
Current	A	7.4	11
Weight	kg	39.5	52
Cable Length	m	20	
L x W x H	mm	285 x 285 x 585	300 x 300 x 620

The KTZ-series is Tsurumi's flagship line of submersible pumps. Made with a cast iron body and high-chromium iron impeller, the pumps can withstand the most demanding conditions found in construction, aggregate and mining applications. Versatility is increased as each model has the capability of being easily converted between high head and high volume performance with a simple change of impeller, suction plate and hose coupling.

Registration of Design

Tsurumi has registered the design of the KTZ-series in major countries. Design rights are granted under the laws of each country.



TECHNICAL DATA		● KTZ21.5 ● KTZ31.5	● KTZ22.2 ● KTZ32.2	● KTZ23.7 ● KTZ33.7	● KTZ43.7
Discharge Bore	mm	----- 50 80 -----			100
Motor Output	kW	1.5	2.2	3.7	
Phase		Three			
Starting Method		Direct on Line			
Motor Protection		Circle Thermal			
Impeller		Semi-open made of High-chromium Iron			
Solid Passage	mm	8.5			
Voltage	V	400			
Current	A	3.5	5	7.7	
Weight	kg	----- 34 33 -----	----- 35 34 -----	60	
Cable Length	m	20			
L x W x H	mm	235 x 216 x 548	235 x 216 x 568	283 x 252 x 675	283 x 252 x 690

TECHNICAL DATA		● KTZ35.5	● KTZ45.5	● KTZ47.5 ● KTZ67.5	● KTZ411 ● KTZ611	● KTZ415 ● KTZ615
Discharge Bore	mm	80	100	----- 100 150 -----		
Motor Output	kW	5.5		7.5	11	15
Phase		Three				
Starting Method		Direct on Line				
Motor Protection		Circle Thermal				
Impeller		Semi-open made of High-chromium Iron				
Solid Passage	mm	8.5		----- 12 20 -----		
Voltage	V	400				
Current	A	11.4		15	22	28.3
Weight	kg	74		----- 101 100 -----	----- 133 133 -----	----- 146 147 -----
Cable Length	m	20				
L x W x H	mm	306 x 258 x 719	306 x 258 x 734	----- 330 x 314 x 812 361 x 314 x 874 -----	----- 374 x 350 x 864 374 x 350 x 884 -----	----- 374 x 350 x 934 374 x 350 x 954 -----

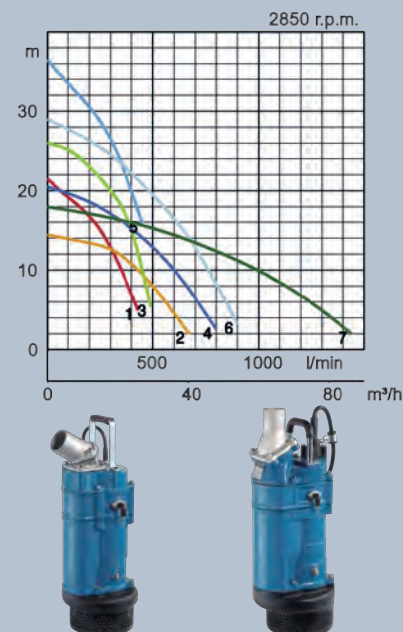
The KTZE-series is an automatic model of the KTZ-series. An innovative electrode type relay unit built into the pump automatically starts and stops the pump to eliminate dry-running. This mechanism greatly reduces power consumption and extends operating life!

Registration of Design

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Electrode Control Device

Consisting of an electric probe and relay unit, this enables automatic operation, reduces power consumption and extends operating life.

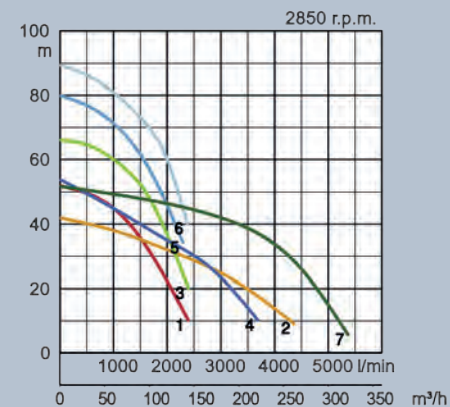


TECHNICAL DATA		● KTZE21.5	● KTZE31.5	● KTZE22.2
Discharge Bore	mm	50	80	50
Motor Output	kW	1.5		2.2
Phase		Three		
Starting Method		Direct on Line		
Motor Protection		Circle Thermal		
Impeller		Semi-open made of High-chromium Iron		
Solid Passage	mm	8.5		
Voltage	V	400		
Current	A	3.5		5
Weight	kg	39	38	41
Cable Length	m	20		
L x W x H	mm	235 x 216 x 628		235 x 216 x 648

TECHNICAL DATA		● KTZE32.2	● KTZE23.7	● KTZE33.7	● KTZE43.7
Discharge Bore	mm	80	50	80	100
Motor Output	kW	2.2	3.7		
Phase		Three			
Starting Method		Direct on Line			
Motor Protection		Circle Thermal			
Impeller		Semi-open made of High-chromium Iron			
Solid Passage	mm	8.5			
Voltage	V	400			
Current	A	5	7.7		
Weight	kg	40	69		
Cable Length	m	20			
L x W x H	mm	235 x 216 x 648	283 x 252 x 755		283 x 252 x 770

The LH-series is a submersible three-phase cast iron high head drainage pump. Being the pump cylindrical and slim, it can be installed in a well casing for deep well dewatering. The center flange construction assures a stable installation even if it is fixed by the discharge pipe. The top-discharge, flow-thru design provides maximum motor cooling efficiency allowing continuous operation at low water levels and extended dry-run capability. The pump incorporates seal pressure relief ports that prevent the pumping pressure from applying to the shaft seal.*

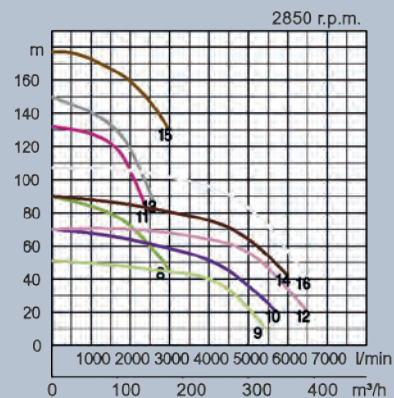
* excluding LH33.0



TECHNICAL DATA		● LH615	● LH619	● LH422
Discharge Bore	mm	150		100
Motor Output	kW	15	19	22
Phase		Three		
Starting Method		Direct on Line		
Motor Protection		Circle Thermal		
Impeller		Closed made of High-chromium Iron		
Solid Passage	mm	8.5	12	6
Voltage	V	400		
Current	A	27.5	36	40.5
Weight	kg	213	350	
Cable Length	m	20		
L x W x H	mm	330 x 330 x 1014	420 x 420 x 1423	420 x 420 x 1352

TECHNICAL DATA		● LH622	● LH430	● LH637	● LH837
Discharge Bore	mm	150	100	150	200
Motor Output	kW	22	30	37	
Phase		Three			
Starting Method		Direct on Line	Star-Delta		
Motor Protection		Circle Thermal	Miniature Thermal		
Impeller		Closed made of High-chromium Iron			
Solid Passage	mm	12	6	20	
Voltage	V	400			
Current	A	40.5	55	67	
Weight	kg	360	355	495	
Cable Length	m	20			
L x W x H	mm	420 x 420 x 1423	420 x 420 x 1352	530 x 530 x 1448	

The LH-series is a submersible three-phase cast iron high head drainage pump. Being the pump cylindrical and slim, it can be installed in a well casing for deep well dewatering. The center flange construction assures a stable installation even if it is fixed by the discharge pipe. The top-discharge, flow-thru design provides maximum motor cooling efficiency allowing continuous operation at low water levels and extended dry-run capability. The pump incorporates seal pressure relief ports that prevent the pumping pressure from applying to the shaft seal.



TECHNICAL DATA		● LH645	● LH845	● LH855	● LH675
Discharge Bore	mm	150	200		150
Motor Output	kW	45		55	75
Phase		Three			
Starting Method		Star-Delta			
Motor Protection		Miniature Thermal			
Impeller		Closed made of High-chromium Iron			
Solid Passage	mm	6	20		6
Voltage	V	400			
Current	A	81	100		130
Weight	kg	510	810		865
Cable Length	m	20			
L x W x H	mm	530 x 530 x 1448		563 x 563 x 1716	

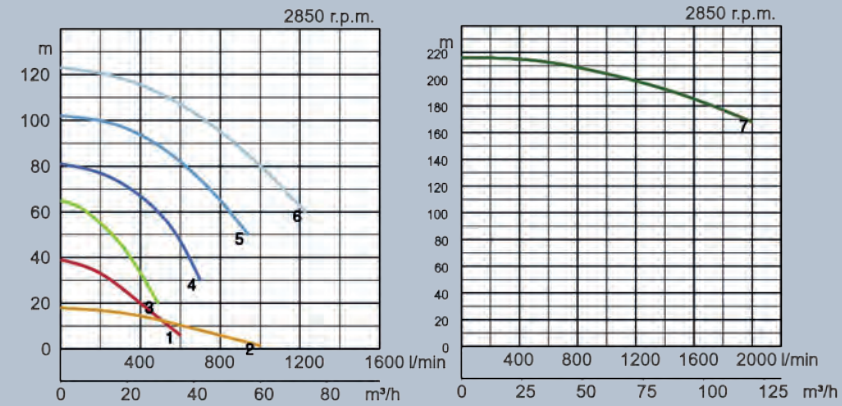
TECHNICAL DATA		● LH875	● LH690	● LH890	● LH6110	LH8110
Discharge Bore	mm	200	150	200	150	200
Motor Output	kW	75	90		110	
Phase		Three				
Starting Method		Star-Delta				
Motor Protection		Miniature Thermal				
Impeller		Closed made of High-chromium Iron				
Solid Passage	mm	20	6	20	6	20
Voltage	V	400				
Current	A	130	166		205	
Weight	kg	865	1110	1150	1200	1250
Cable Length	m	20				
L x W x H	mm	563 x 563 x 1716		592 x 592 x 1787		

LH-W

25-26

The LH-W-series is a submersible three-phase cast iron extra high head drainage pump having dual impellers. Being the pump cylindrical and slim, it can be installed in a well casing for deep well dewatering. The center flange construction assures a stable installation even if it is fixed by the discharge pipe. The pump incorporates seal pressure relief ports that prevent the pumping pressure from applying to the shaft seal.*

* excluding LH23.0W



TECHNICAL DATA	● LH23.0W	● LH33.0	● LH25.5W	● LH311W	
Discharge Bore	mm	50	80	50	80
Motor Output	kW	3		5.5	11
Phase	Three				
Starting Method	Direct on Line				
Motor Protection	Circle Thermal				
Impeller	Dual semi-open made of High-chromium Iron	Semi-open made of High-chromium Iron	Dual Closed made of High-chromium Iron		
Solid Passage	mm	6		8.5	
Voltage	V	400			
Current	A	6.5		11	22
Weight	kg	46	42	80	130
Cable Length	m	20			
L x W x H	mm	185 x 185 x 630	185 x 185 x 645	254 x 254 x 750	270 x 270 x 1024

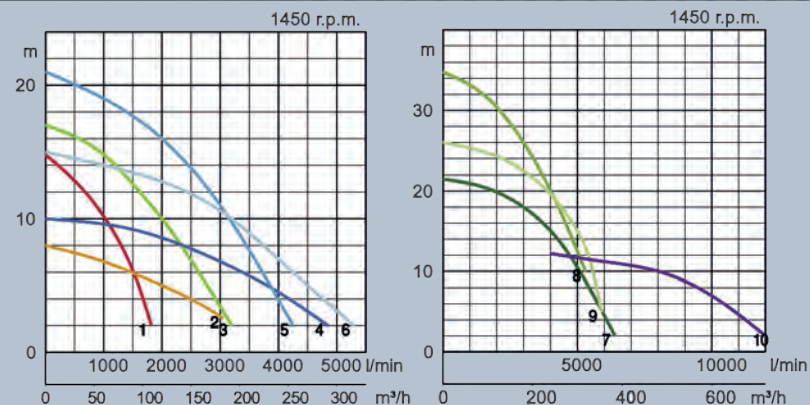
TECHNICAL DATA	● LH322W	● LH430W	● LH4110W	
Discharge Bore	mm	80	100	
Motor Output	kW	22	30	110
Phase	Three			
Starting Method	Direct on Line	Star-Delta		
Motor Protection	Circle Thermal	Miniature Thermal		
Impeller	Dual Closed made of High-chromium Iron		Dual Back-to back Closed made of High-chromium Iron	
Solid Passage	mm	8.5		8.0
Voltage	V	400		
Current	A	39	53	209
Weight	kg	304	324	1270
Cable Length	m	20		
L x W x H	mm	330 x 330 x 1235	365 x 365 x 1375	616 x 616 x 1825

The KRS-series is a submersible three-phase cast iron drainage pump driven by a 4-pole motor. The cast iron body, combined with the low speed motor, presents high durability for use in the most demanding conditions. The top-discharge, side-flow design assures efficient motor cooling even if the pump runs with its motor exposed to air.*

* Model KRS1022 is a top-discharge, flow-thru design. It provides maximum motor cooling efficiency allowing continuous operation at low water levels and extended dry-run capability.



KRS1022



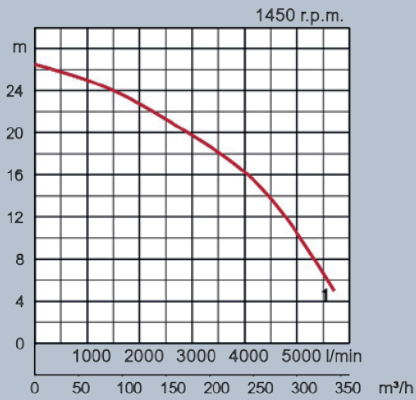
TECHNICAL DATA	●KRS-43	●KRS-63	●KRS-65.5	●KRS-85.5	●KRS2-69	
Discharge Bore	mm	100	150		200	
Motor Output	kW	3		5.5	9	
Phase		Three				
Starting Method		Direct on Line				
Motor Protection		Circle Thermal				
Impeller		Semi-open made of Ductile Iron				
Solid Passage	mm	12	15	20		
Voltage	V	400				
Current	A	6.5		12.1	19	
Weight	kg	95	97	118	126	
Cable Length	m	20				
L x W x H	mm	378 x 347 x 723	384 x 365 x 866	425 x 370 x 790	446 x 413 x 941	490 x 424 x 812

TECHNICAL DATA	●KRS2-89	●KRS815	●KRS822	●KRS822L	●KRS1022	
Discharge Bore	mm	200			250	
Motor Output	kW	9	15	22		
Phase		Three				
Starting Method		Direct on Line				
Motor Protection		Circle Thermal				
Impeller		Semi-open made of Ductile Iron			Closed made of Ductile Iron	
Solid Passage	mm	30	25			
Voltage	V	400				
Current	A	19	31.9	44.6	45.7	
Weight	kg	175	240	380	390	
Cable Length	m	20				
L x W x H	mm	473 x 408 x 933	481 x 440 x 1069	576 x 530 x 1241		525 x 525 x 1419

KRSU

The KRSU822 pump of submersible three-phase cast iron heavy-duty pump is designed and built specifically for temporarily bypassing drainage in sewer construction work. With a maximum head of 26.5 m, maximum capacity of 5.7 m³/min, and space-saving design of 546 mm in diameter, this pump plays an active role in drainage in the deep confined space of a manhole.

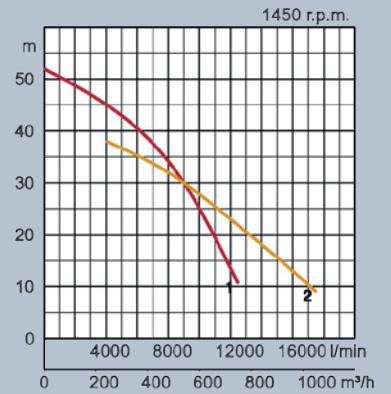
Also, with its semi-vortex structure, this pump provides a large solids passage of 56 mm in diameter, which prevents any clogging of foreign matter. The top discharge, side flow design assures efficient motor cooling even when operating with the motor exposed to air.



GSZ

29-30

The GSZ series is a submersible three-phase cast iron high volume drainage pump driven by a 4-pole motor. The side-discharge, spiral design allows smoother passage of the sucked solid matters. The motor is cooled by a water jacket allows the pump to operate at low water levels for extended period of time without the fear of overheating. The pump incorporates seal pressure relief ports that prevent the pumping pressure from applying to the shaft seal.

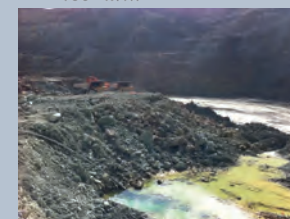
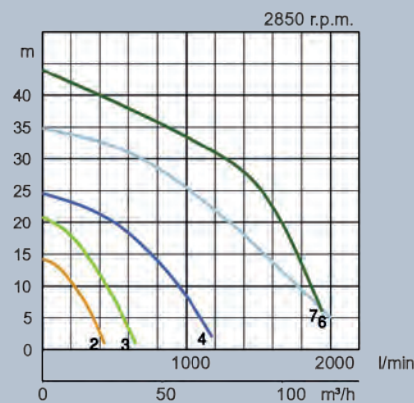


TECHNICAL DATA		KRSU822
Discharge Bore	mm	200
Motor Output	kW	22
Phase		Three
Starting Method		Direct on Line
Motor Protection		Circle Thermal
Impeller		Semi-vortex made of Gray Iron
Solid Passage	mm	56
Voltage	V	400
Current	A	44.6
Weight	kg	430
Cable Length	m	20
L x W x H	mm	546 x 500 x 1486

TECHNICAL DATA		● GSZ2-75-4	● GSZ2-75-4L
Discharge Bore	mm	250	
Motor Output	kW	75	
Phase		Three	
Starting Method		Star-Delta	
Motor Protection		Minuature Thermal	
Impeller		Closed made of 304 Stainless Steel Casting	
Solid Passage	mm	25	
Voltage	V	400	
Current	A	152	
Weight	kg	1141	1200
Cable Length	m	20	
L x W x H	mm	1050 x 708 x 1927	1050 x 739 x 1972

SFQ

The SFQ-series is a submersible cast stainless steel high head corrosion-resistant pump designed for handling aggressive and corrosive liquid. The all wetted parts are made of 316 stainless steel, the pumps can withstand the most demanding conditions found in construction, aggregate and mining applications. The side-discharge, spiral design allows smoother passage of the sucked solid matters. The pump with 5.5kW and above motor incorporates seal pressure relief ports that prevent the pumping pressure from applying to the shaft seal.

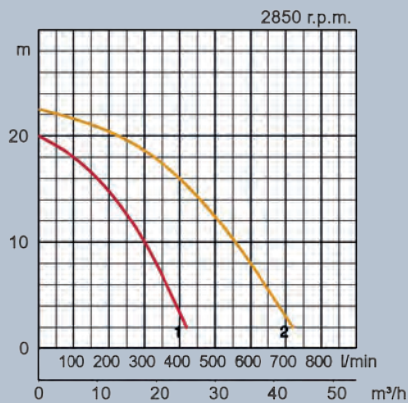


TECHNICAL DATA	● 50SFQ2.75	● 80SFQ21.5	● 80SFQ23.7	
Discharge Bore	mm	50	80	
Motor Output	kW	0.75	1.5	3.7
Phase		Three		
Starting Method		Direct on Line		
Motor Protection		Circle Thermal		
Impeller		Semi-open made of 316 Stainless Steel Casting		
Solid Passage	mm	6	15	
Voltage	V	400		
Current	A	2	3.8	7.3
Weight	kg	22	36	52
Cable Length	m	10		
L x W x H	mm	252 x 196 x 398	329 x 221 x 484	359 x 257 x 542

TECHNICAL DATA	● 80SFQ27.5	● 80SFQ211	
Discharge Bore	mm	80	
Motor Output	kW	7.5	11
Phase		Three	
Starting Method		Direct on Line	Star-Delta
Motor Protection		Circle Thermal	Miniature Thermal
Impeller		Semi-open made of 316 Stainless Steel Casting	
Solid Passage	mm	30	
Voltage	V	400	
Current	A	14.3	21
Weight	kg	123	143
Cable Length	m	10	
L x W x H	mm	635 x 360 x 844	635 x 360 x 892

KTV2

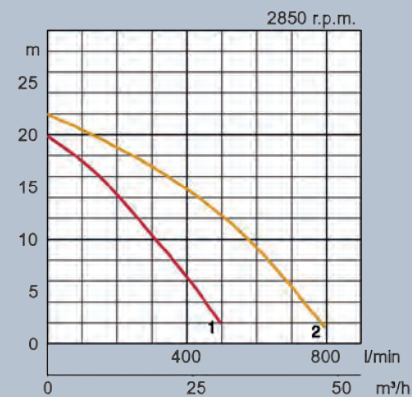
The KTV2-series of slurry-handling type is a submersible three-phase portable slurry pump. Though the pump is a three-phase unit, it is designed to weigh lighter for portability, yet it can be used for pumping slurry. The top-discharge, side-flow design assures efficient motor cooling even if the pump runs with its motor exposed to air.



KTD

33-34

The KTD-series is a submersible three-phase cast iron heavy-duty slurry pump. It is equipped with an agitator that suspends solids to assist in pumping sediments. The pump parts such as the impeller and the suction cover are made of wear-resistant materials.

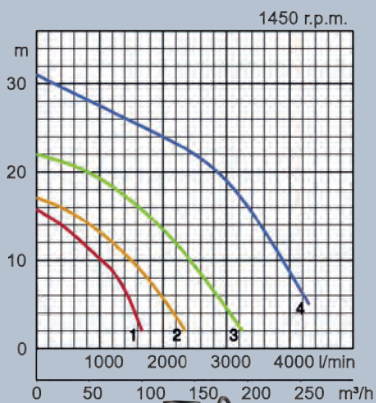


TECHNICAL DATA		●KTV2-50	●KTV2-80
Discharge Bore	mm	50	80
Motor Output	kW	2	3
Phase		Three	
Starting Method		Direct on Line	
Motor Protection		Circle Thermal	
Impeller		Semi-vortex made of High-chromium Iron	
Solid Passage	mm	10	
Voltage	V	400	
Current	A	3.8	6.1
Weight	kg	25	38
Cable Length	m	20	
L x W x H	mm	250 x 250 x 450	295 x 295 x 550

TECHNICAL DATA		●KTD22.0	●KTD33.0
Discharge Bore	mm	50	80
Motor Output	kW	2	3
Phase		Three	
Starting Method		Direct on Line	
Motor Protection		Circle Thermal	
Impeller		Semi-open made of High-chromium Iron	
Solid Passage	mm	10	
Voltage	V	400	
Current	A	4.5	6.5
Weight	kg	38	65
Cable Length	m	20	
L x W x H	mm	235 x 221 x 550	297 x 266 x 644

KRS2

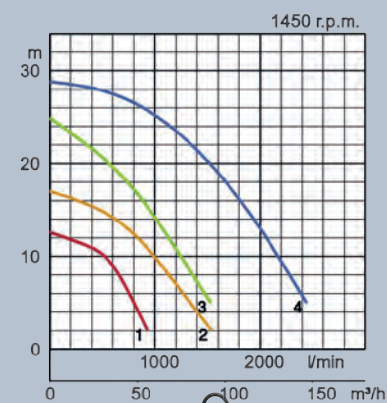
The KRS-series of slurry-handling type is a submersible three-phase cast iron heavy-duty slurry pump driven by a 4-pole motor. It is equipped with a high-chromium iron agitator that suspends solids to assist in pumping sediments. The other wear parts such as the impeller and the suction plate are also made of high-chromium cast iron for extra durability. The top-discharge, side-flow design assures efficient motor cooling even if the pump runs with its motor exposed to air.



NKZ

35-36

The NKZ-series is a submersible three-phase cast iron slurry pump driven by a 4-pole motor. It is equipped with an agitator that assists smooth suction of settled matters. The side-discharge, spiral design allows smoother passage of the sucked solid matters. The motor is cooled by a water jacket that assures efficient motor cooling even when it operates with its motor exposed to air.



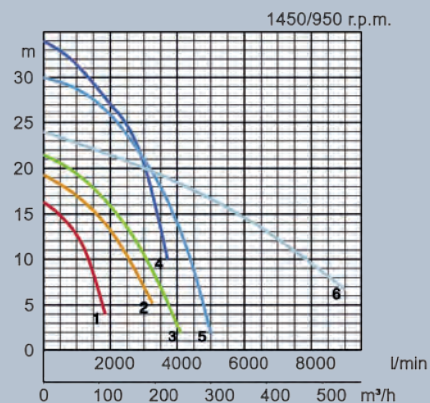
TECHNICAL DATA	● KRS2-80	● KRS2-100	● KRS2-150	● KRS-200	
Discharge Bore	mm	80	100	150	200
Motor Output	kW	4	6	9	18
Phase		Three			
Starting Method		Direct on Line			
Motor Protection		Circle Thermal			
Impeller		Semi-open made of High-chromium Iron			
Solid Passage	mm	30			
Voltage	V	400			
Current	A	9.5	13	18.5	35
Weight	kg	105	143	170	380
Cable Length	m	20			
L x W x H	mm	349 x 326 x 800	415 x 374 x 835	433 x 407 x 898	576 x 530 x 1181

TECHNICAL DATA	● NKZ3-C3	● NKZ3-D3	● NKZ3-80H	● NKZ3-100H	
Discharge Bore	mm	80			100
Motor Output	kW	2.2	3.7	5.5	11
Phase		Three			
Starting Method		Direct on Line			
Motor Protection		Circle Thermal			
Impeller		Semi-open made of Ductile Iron		Semi-open made of High-chromium Iron	
Solid Passage	mm	30		20	
Voltage	V	400			
Current	A	5.1	8	12.1	22
Weight	kg	91	100	132	196
Cable Length	m	20			
L x W x H	mm	466 x 368 x 664	466 x 368 x 709	491 x 400 x 753	546 x 413 x 840

GPN

37-38

The GPN-series is a submersible three-phase, heavy-duty slurry pump incorporating an agitator to suspend solids enabling the pump to handle high concentration slurries. Being equipped with high-chromium cast iron wear parts, the pump delivers outstanding durability. The side-discharge, spiral design allows smoother passage of the sucked solid matters. The motor is cooled by a water jacket allows the pump to operate at low water levels for extended period of time without the fear of overheating.



TECHNICAL DATA		● GPN35.5	● GPN411	● GPN415
Discharge Bore	mm	100		
Motor Output	kW	5.5	11	15
Phase		Three		
Starting Method		Direct on Line		
Motor Protection		Circle Thermal		
Impeller		Semi-open made of High-chromium Iron		
Solid Passage	mm	30		
Voltage	V	400		
Current	A	12.1	22	28.5
Weight	kg	145	217	220
Cable Length	m	20		
L x W x H	mm	487 x 390 x 796	617 x 452 x 879	

TECHNICAL DATA		● GPN422	● GPN622	● GPN837
Discharge Bore	mm	100	150	200
Motor Output	kW	22		37
Phase		Three		
Starting Method		Direct on Line		Star-Delta
Motor Protection		Miniature Thermal		
Impeller		Semi-open made of High-chromium Iron		
Solid Passage	mm	30		46
Voltage	V	400		
Current	A	42.5		74.0
Weight	kg	415		815
Cable Length	m	20		
L x W x H	mm	725 x 572 x 1102		1015 x 749 x 1606

Slurry

Three-phase

Spiral

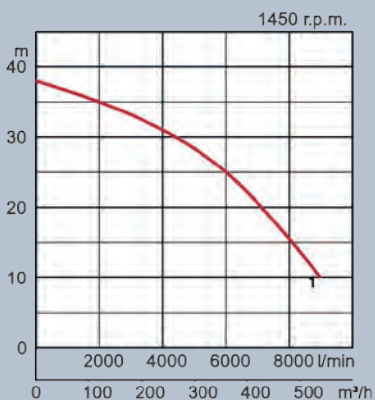
Water Jacket

Agitator

Heavy-duty

GSD

The GSD-series is a high-powered heavy-duty slurry pump that delivers high head and high volume discharge. It is designed and built for continuous operation under the toughest conditions. It is equipped with a high-chromium cast iron agitator to ensure smooth sediment intake and employs a mouth ring and impeller of same material to provide extra durability. The motor is cooled by a water jacket that keeps the motor cool during extended operation at low water level.



TECHNICAL DATA		● GSD-55-4
Discharge Bore	mm	250
Motor Output	kW	55
Phase		Three
Starting Method		Star-Delta
Motor Protection		Miniature Thermal
Impeller		Closed made of High-chromium Iron
Solid Passage	mm	25
Voltage	V	400
Current	A	123.0
Weight	kg	1215
Cable Length	m	20
L x W x H	mm	1050 x 708 x 1927

Recommended Generator Sizes

Single-phase					
Model	Motor Output (kW)	50Hz	Model	Motor Output (kW)	50Hz
		230V			230V
		AC Max. Output at starting (kVA)			AC Max. Output at starting (kVA)
LB-480(A)	0.48	1.6	HS2.4S	0.4	1.6
LB-800(A)	0.75	2.4	HS2.75S / 3.75S(L)	0.75	3.4
LB-1500	1.5	12	HSD2.55S	0.55	2.5
NK4-22	2.2	12	LSC(E)1.4S	0.48	1.6
NK3-22L	2.2	12	FAMILY-12	0.1	0.53

Three-phase					
Model	Motor Output (kW)	50Hz	Model	Motor Output (kW)	50Hz
		400V			400V
		AC Max. Output at starting (kVA)			AC Max. Output at starting (kVA)
KTZ(E)21.5 / 31.5	1.5	7.6	KRS-43 / 63	3	15
KTZ(E)22.2 / 32.2	2.2	12	KRS-65.5 / 85.5	5.5	29
KTZ(E)23.7 / 33.7 / 43.7	3.7	20	KRS2-69 / 89	9	45
KTZ35.5 / 45.5	5.5	29	KRSU822	22	109
KTZ47.5 / 67.5	7.5	41	GSZ2-75-4(L)	75	*381
KTZ411 / 611	11	53	50SFQ2.75	0.75	4.0
KTZ415 / 615	15	59	50SFQ21.5	1.5	12
KTV2-8, KTVE2.75	0.75	3.7	80SFQ23.7	3.7	20
KTV2-15, KTVE21.5	1.5	6.6	80SFQ27.5	7.5	41
KTV2-22, KTVE22.2	2.2	10	80SFQ211	11	*55
KTV2.37(H), KTVE33.7	3.7	17	KTV2-50	2	10
KTV3-55, KTVE3.55	5.5	23	KTV2-80	3	17
LH615	15	59	KTD22.0	2	12
LH619	19	87	KTD33.0	3	20
LH422 / 622	22	100	KRS2-80	4	30
LH430	30	135	KRS2-100	6	32
LH637 / 837	37	*159	KRS2-150	9	54
LH645 / 845	45	*208	KRS-200	18	109
LH855	5	*272	NKZ3-C3	2.2	11
LH675 / 875	75	*350	NKZ3-D3	3.7	17
LH690 / 890	90	*381	NKZ3-80H	5.5	30
LH6110 / 8110	110	*473	NKZ3-100H	11	54
LH23.0W	3	16	GPN35.5	5.5	30
LH33.0	3	16	GPN411	11	54
LH25.5W	5.5	23	GPN415	15	54
LH311W	11	47	GPN422 / 622	22	100
LH322W	22	100	GPN837	37	*170
LH430W	30	135	GSD-55-4	55	*381
LH4110W	110	*473			
KRS815	15	72			
KRS819	18.5	86			
KRS822(L)	22	109			
KRS1022	22	89			

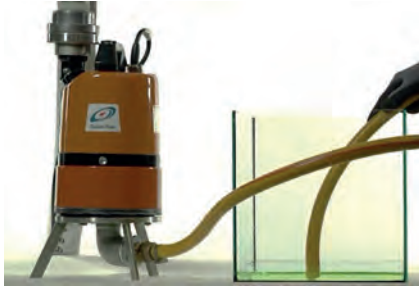
*In the case of Star-Delta starting, divide them by 1.5.

Optional Accessories

41-42

Suction adaptor for LSC1.4S

When the water in areas are inaccessible, the LSC pump with suction extension pipe might be the solution as the hose connected to the suction adaptor may reach to the water.



Electrode extensions

Electrode extension is available for LB-480A / LB-800A, LSCE1.4S, KTVE / KTZE series. By attaching the electrode extension springs to the electrode sensors, the lowest operation level (= pump starting water level) can be adjusted freely. Furthermore, with the extension rod (only available for LSCE1.4S), the lower operation level can be adjusted down to the minimum level of 1mm.



HS2.4S residual conversion kit

HS residual conversion kit consists of residual bottom plate and necessary bolts. By replacing the strainer stand of HS2.4S, the pump can be converted to the residual pump which enable to pump the water level down to 5mm.



KTV wear parts for highly abrasive applications

For tough applications e.g. tunneling, the medium is highly abrasive that standard wear parts can be worn out quickly and needs to be replaced frequently. As an option, Tsurumi offers KTV wear parts such as pump casing and wear plates, made of polyurethan and hardened fixing plate. Compared to the standard material of nitrile rubber, the polyurethan wear parts lasts at least three times longer.



Left: Filed test of KTV in highly abrasive application e.g. tunnel construction. Parts are worn out and needs replacement.

Right: Field test of polyurethan pump casing after 5 months operation. Almost no wear signs on the parts = longer lifetime!



Motor protection plugs

Motor protection plugs for 1ph/3ph are available in IP44 grade. The plugs can be adjusted on the rated current of the pump and thus offer the easiest way of an external over-amperage protection.

