TSURUMI PUMP

Construction Dewatering Pumps

Amenics
Amenities from Technology for People and the Earth

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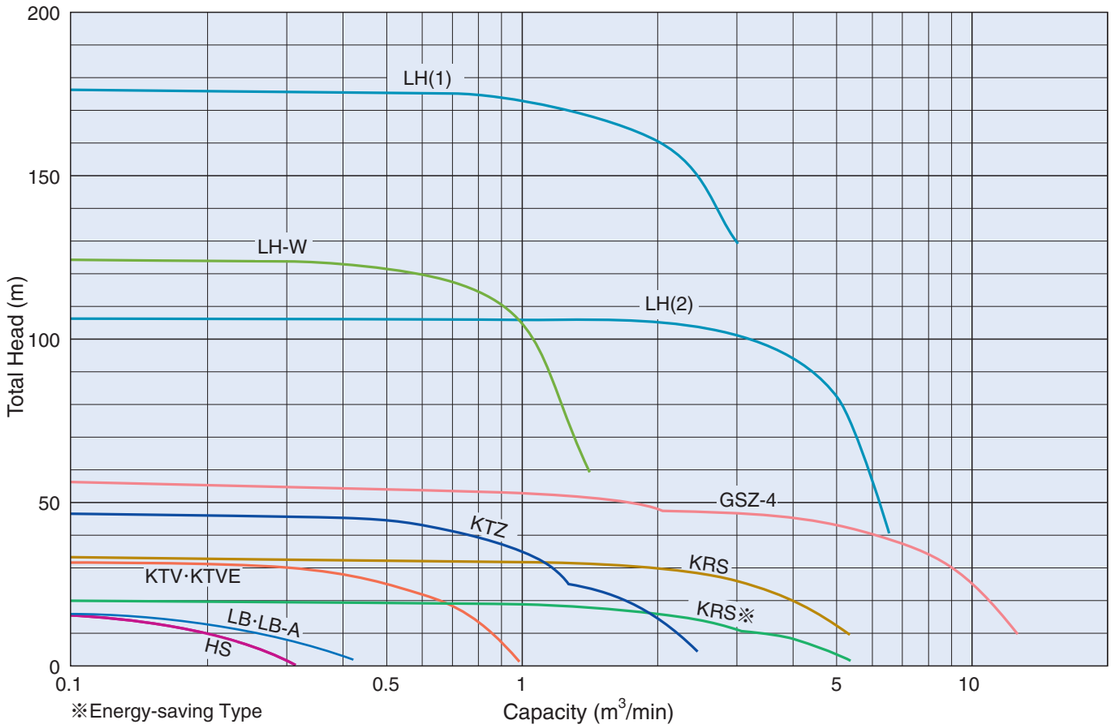
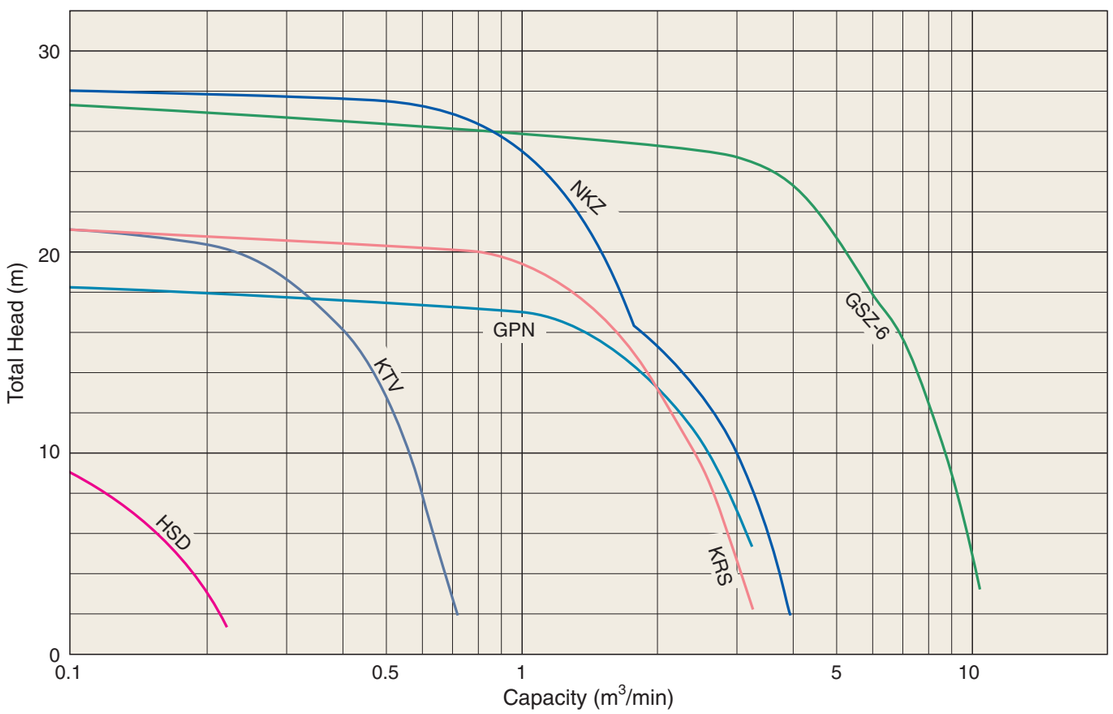
Evidence of our commitment to the environment

Performance Range

General Dewatering Pumps



Sand and Slurry Pumps



Specification Table

Category		Series	Discharge Bore mm	Motor		Discharge Design			Center Flange	Impeller	Automatic Operation
				Output kW	No. of Poles	Top Discharge		Side Discharge			
						Flow-Thru	Side Flow				
General Dewatering	Small Size	LB·LB-A	50	0.48~1.5	2	○				Semi-vortex /Semi-open (LB-1500)	Electrode (LB-A)
		HS	50~80	0.4~0.75	2			○		Semi-vortex	——
	Medium Size	KTV•KTVE	50~80	0.75~5.5	2		○			Semi-vortex	Electrode (KTVE)
		KTZ	50~150	1.5~11	2		○			Semi-open	——
	High Volume	KRS	80~250	2.2~22	4	○ (KRS1022)	○ (except KRS1022)		○ (KRS1022)	Semi-open /Closed (KRS1022)	——
		KRS (Energy-saving Type)	100~200	3~9	4		○			Semi-open /Closed (KRS-63/85.5)	——
	High Volume & High Head	GSZ-4	150~250	37~75	4			○		Closed	——
	High Head	LH	100~200	15~110	2	○			○	Closed	——
Slurry		HSD	50	0.55	2			○		Semi-vortex	——
		KTV	50~80	2~3	2		○			Semi-vortex	——
		KRS	80~150	4~9	4		○			Semi-open	——
Sand		NKZ	80~150	2.2~11	4			○		Semi-open	——
		GPN	80~100	5.5~11	4			○		Semi-open	——
		GSZ-6	200	22~37	6			○		Semi-open	——
Deepwell		LH-W	50~100	3.0~30	2	○			○ (5.5kW or above)	Closed /Semi-open (3.0kW)	——
Residual Water Drainage		LSC	25	0.48	2	○				Semi-vortex	——
		LSP	25	0.48	2	○				Semi-vortex	——

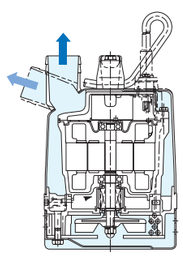
Discharge Design

■Top Discharge

• Flow-Thru Design

<LB・LB-A・KRS1022・LH・LH-W・LSC・LSP>

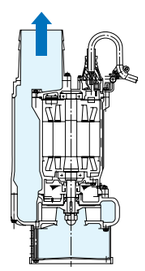
This structure is such that before sucked in water is discharged, it flows between the outer cover and the motor to forcibly cool the motor. This system can also be applied to continuous operation exposed to the air.



• Side Flow Design

<KTV・KTVE・KTZ・KRS (except KRS1022)>

This side flow mechanism is efficiently designed to feed sucked in water along the channel provided on one side of the motor, and discharge the water while forcibly cooling the motor. This pump discharges from the top so that it can be installed in confined locations.

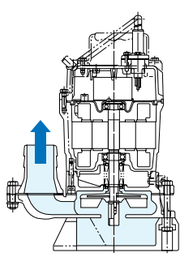


■Side Discharge

• Spiral Design

<HS・GSZ-4・HSD・NKZ・GPN・GSZ-6>

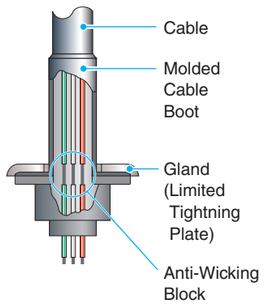
Spiral casing type pumps have large channels to efficiently process sand and silt laden water. Use of a high-performance motor allows continuous operation exposed to the air.



Common Features

Anti-Wicking Cable Entry

An anti-wicking block is provided at the cable entry section of the motor chamber. Even if the cable jacket becomes damaged or the tip of the cable is accidentally immersed in water, this device prevents water from traveling into the motor chamber through capillary action.



Dual Inside Mechanical Seal

A dual inside mechanical seal, located in the oil chamber together with the Oil Lifter, has two sealing faces made of quality materials, including silicon carbide (SiC). The advantages of this seal are two-fold; it eliminates spring failure caused by corrosion, abrasion or fouling, which can prevent the seal faces from closing properly, and prevents loss of cooling to the bottom seal faces during run-dry conditions, which causes the bottom seal to fail.

Automatic Motor Protection Device

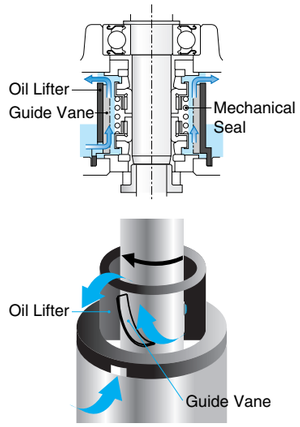
A built-in thermal motor protection device reacts to the heat caused by overcurrent or run-dry conditions. It not only cuts off the motor circuit automatically but also resets by itself. When the motor cools down to a safe operating temperature, the motor restarts.

Miniature Thermal Protector

Circle Thermal Protector

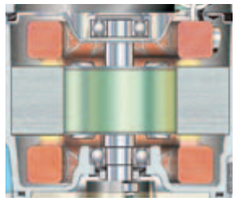
Oil Lifter (Patent Pending)

The Oil Lifter was developed as a lubricating device for the mechanical seal. Utilizing the centrifugal force of the shaft seal, the Oil Lifter forcibly supplies lubricating oil to the upper seal faces even if the lubricant falls below the specified volume. This amazingly simple device reliably lubricates and cools but also stabilizes the effect of the shaft seal and extends the length of the inspection period.



Bearings

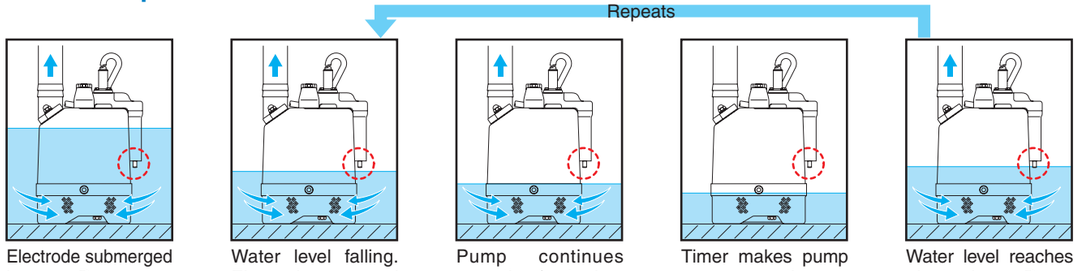
High-grade bearings for high-temperature operation are used. Also, as deep-groove, double-shield ball bearings are used, and as the bearings are permanently lubricated by grease, there is no need for injection of lubricating oil.



High-Performance Motor

A motor having stable high performance that meets Tsurumi's high standards of quality is used.

Automatic Operation <LB-A·KTVE>



Electrode submerged in water. Pump starts operation.

Water level falling. Electrode emerged from water and timer starts.

Pump continues operation for 1 min.

Timer makes pump to stop operation.

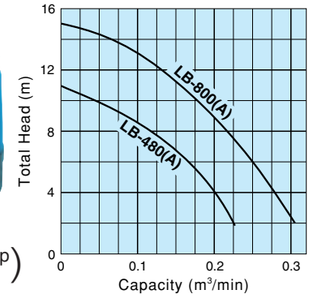
Water level reaches electrode. Pump restarts.

Single-phase Portable General Dewatering Pumps

LB·LB-A

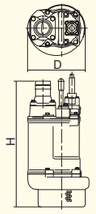
LB LB-A

(LB-A : Automatic pump with electrode)



Model	Discharge Bore mm	Motor Output kW	Dry Weight kgs	Dimensions mm	
				D	H
LB-480	50	0.48	10.4	187	286
LB-800	50(80)	0.75	13.2	187	337
Automatic					
LB-480A	50	0.48	11.0	223	286
LB-800A	50(80)	0.75	13.8	223	337

Indicated weight is the dry weight of the pump itself excluding cables. Approximate dimensions are given for indicated dimensions as shown in the figure.



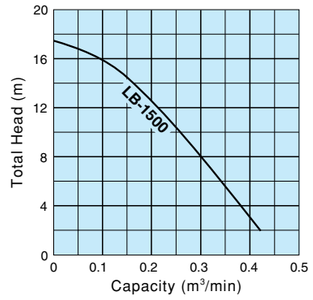
■ Features

A typical model easy-to-use high-tech model that is durable, compact and light

■ Applications

・Draining sand-carrying water in construction and civil engineering works

LB-1500



Model	Discharge Bore mm	Motor Output kW	Dry Weight kgs	Dimensions mm	
				D	H
LB-1500	50(80)	1.5	33	187	600

■ Features

Designed for operating 8inch casing, while providing maximum durability and performance

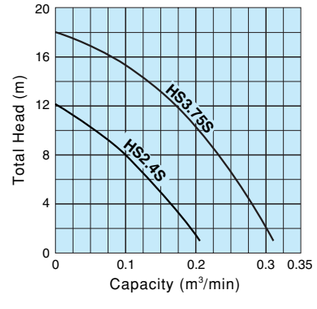
■ Applications

・Well-dewatering
・Draining and carrying water in construction and civil engineering works

✻Three-phase model available upon request

Single-phase Portable General Dewatering Pumps

HS



Model	Discharge Bore mm	Motor Output kW	Dry Weight kgs	Dimensions mm	
				D	H
HS2.4S	50	0.4	11.3	241	328
HS3.75S	80(50)*	0.75	17.5	285	388

*Note that smaller discharge may increase friction loss.

■ Features

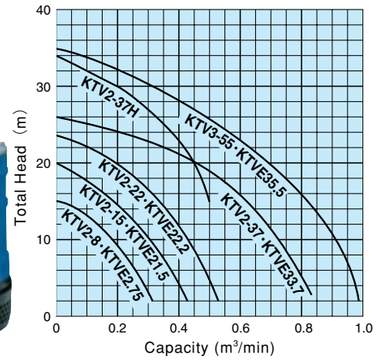
Performance of the highly reliable pump is not impaired even if worn.

■ Applications

・Draining sand-carrying water in construction and civil engineering works

Three-phase Portable General Dewatering Pumps

KTV·KTVE



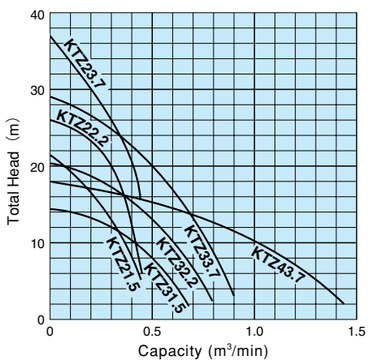
(KTVE : Automatic pump with electrode)

Model		Discharge Bore mm	Motor Output kW	Dry Weight kgs		Dimensions mm		
Manual	Automatic			Manual	Automatic	D	H Manual	H Automatic
KTV2-8	KTVE2.75	50	0.75	11.5	12.7	200	355	401
KTV2-15	KTVE21.5	50(80)	1.5	21.0	22.0	240	392	462
KTV2-22	KTVE22.2	50(80)	2.2	23.0	25.0	240	412	462
KTV2-37H	———	50	3.7	36.0	——	285	510	——
KTV2-37	KTVE33.7	80(100)	3.7	36.0	40.0	285	510	585
KTV3-55	KTVE35.5	80(100)	5.5	47.0	52.0	300	545	620

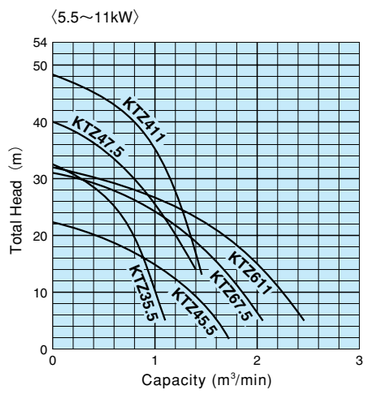
Three-phase General Dewatering Pumps

KTZ

〈1.5～3.7kW〉



〈5.5～11kW〉



■ Features

High-grade pump featuring excellent wear resistance, convenience and mobility

■ Applications

- Draining sand-carrying water in construction and civil engineering works
- Deepwell pre-dewatering

■ Features

Generally applicable high-grade pump that can be used efficiently in draining in general civil engineering through to deepwell applications

■ Applications

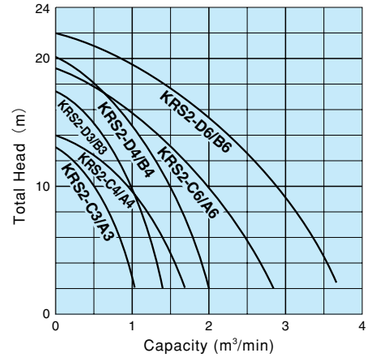
- Draining sand-carrying water in construction and civil engineering works
- Deepwell pre-dewatering

Model	Discharge Bore mm	Motor Output kW	Dry Weight kgs	Dimensions mm	
				D	H
KTZ21.5	50	1.5	30	235	509
KTZ22.2	50	2.2	34	235	529
KTZ23.7	50	3.7	63	283	627
KTZ31.5	80	1.5	30	235	509
KTZ32.2	80	2.2	34	235	529
KTZ33.7	80	3.7	63	283	627
KTZ35.5	80	5.5	82	306	671
KTZ43.7	100	3.7	63	283	642
KTZ45.5	100	5.5	82	306	686
KTZ47.5	100	7.5	105	330	764
KTZ411	100	11	133	373	806
KTZ67.5	150	7.5	107	330	799
KTZ611	150	11	136	373	826

High Volume General Dewatering Pumps

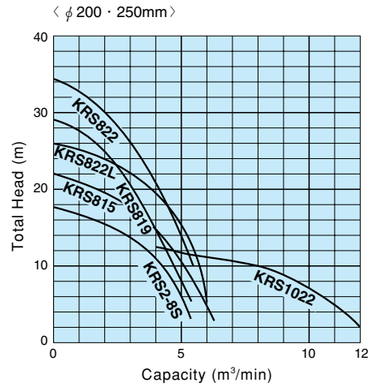
KRS

〈φ80~150mm〉

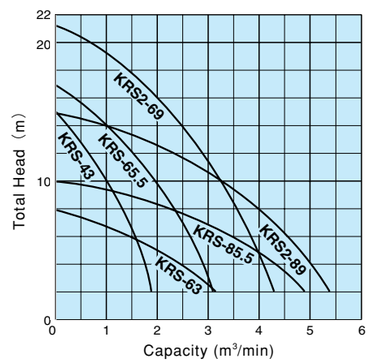


KRS1022

〈φ200・250mm〉



KRS (Energy-saving Type)



Model	Discharge Bore mm	Motor Output kW	Dry Weight kgs	Dimensions mm	
				D	H
KRS-43	100	3	95	378	723
KRS-63	150	3	97	384	866
KRS-65.5	150	5.5	118	425	790
KRS2-69	150	9	155	490	812
KRS-85.5	200	5.5	126	446	941
KRS2-89	200	9	175	473	933

■ Features

4-pole motor used. Typical model of generally applicable pump with a wide range of variations

■ Applications

- Draining sand-carrying water in foundation and civil engineering works such as, river, dam, tunnel, subway, bridge, harbor, etc.
- Water intake from river or lakes
- Draining storm water in a flood control facility

Model	Discharge Bore mm	Motor Output kW	Dry Weight kgs	Dimensions mm	
				D	H
KRS2-C3/A3	80	2.2	72	340	619
KRS2-D3/B3	80	3.7	91/89	362/349	704
KRS2-C4/A4	100	3.7	88	349	719
KRS2-D4/B4	100	5.5	98/95	362/349	709
KRS2-C6/A6	150	7.5	130	415	767
KRS2-D6/B6	150	11	158/150	434/415	813/812
KRS2-8S	200	11	174	472	933
KRS815	200	15	235	481	1069
KRS819	200	18.5	385	572	1238
KRS822	200	22	390	572	1238
KRS822L	200	22	390	572	1238
KRS1022	250	22	450	520	1439

■ Features

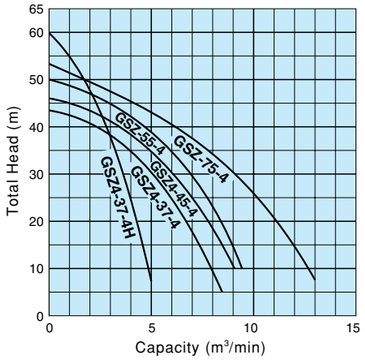
Energy-saving and space-saving type exclusively for low heads

■ Applications

- Draining sand-carrying water in foundation and civil engineering works such as, river, dam, tunnel, subway, bridge, harbor, etc.
- Water intake from river or lakes
- Draining storm water in a flood control facility

High Volume &
High Head General Dewatering Pumps

GSZ-4



Model	Discharge Bore mm	Motor Output kW	Dry Weight kgs	Dimensions mm	
				D	H
GSZ4-37-4H	150	37	730	900	1400
GSZ4-37-4	200	37	710	915	1403
GSZ4-45-4	200	45	620	915	1403
GSZ-55-4	250	55	1150	1050	1500
GSZ-75-4	250	75	1200	1050	1500

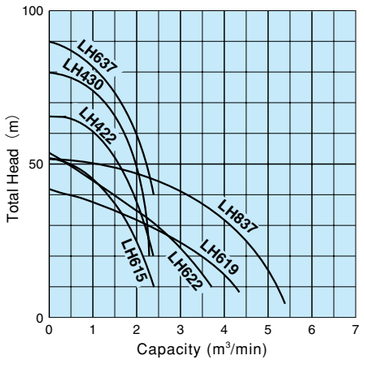
■ Features
Equipped with a 4-pole motor, the pumps in this series display their true virtues where a massive amount of water must be drained in a very short period of time.

■ Applications
- Draining sand-carrying water in foundation and civil engineering works such as, river, dam, tunnel, subway, bridge, harbor, etc.
- Water intake from river or lakes
- Draining storm water in a flood control facility

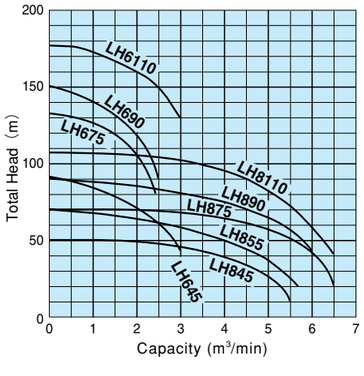
High Head General Dewatering Pumps

LH

〈15～37kW〉



〈45～110kW〉



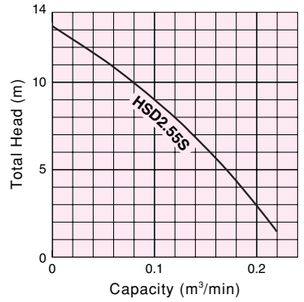
■ Features
High water pressure resistance makes it adaptable in deepwells.

■ Applications
- Draining sand-carrying water in foundation and civil engineering works such as, river, dam, tunnel, subway, bridge, harbor, etc.
- Deepwell pre-dewatering
- Draining or supplying water in quarries and mining

Model	Discharge Bore mm	Motor Output kW	Dry Weight kgs	Dimensions mm	
				D	H
LH422	100	22	350	420	1352
LH430	100	30	355	420	1352
LH615	150	15	213	330	1014
LH619	150	19	350	420	1423
LH622	150	22	360	420	1423
LH637	150	37	495	530	1448
LH645	150	45	510	530	1448
LH675	150	75	850	550	1676
LH690	150	90	1100	592	1787
LH6110	150	110	1200	592	1787
LH837	200	37	495	530	1488
LH845	200	45	510	530	1488
LH855	200	55	810	550	1716
LH875	200	75	850	550	1716
LH890	200	90	1150	592	1787
LH8110	200	110	1250	592	1787

Single-phase Portable Slurry Pump

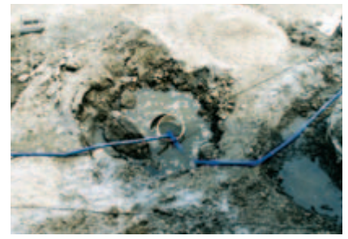
HSD



Model	Discharge Bore mm	Motor Output kW	Dry Weight kgs	Dimensions mm	
				D	H
HSD2.55S	50	0.55	15	234	391

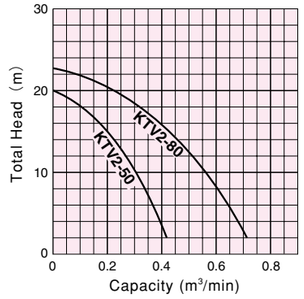
■ Features
Single-phase, 550W pump equipped with agitator for transferring slurry

■ Applications
- Draining slurry mixed water in civil engineering works or foundation works



Three-phase Portable Slurry Pumps

KTV



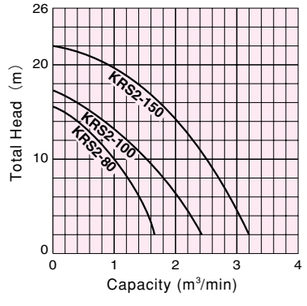
Model	Discharge Bore mm	Motor Output kW	Dry Weight kgs	Dimensions mm	
				D	H
KTV2-50	50(80)	2	25	250	450
KTV2-80	80(100)	3	38	295	550

■ Features
Compact, lightweight type equipped with agitator for transferring slurry

■ Applications
- Transferring or draining bentonite slurry used for slurry drilling
- Draining slurry mixed water in civil engineering works or foundation works

Three-phase Slurry Pumps

KRS



Model	Discharge Bore mm	Motor Output kW	Dry Weight kgs	Dimensions mm	
				D	H
KRS2-80	80	4	105	350	786
KRS2-100	100	6	143	415	815
KRS2-150	150	9	170	434	879

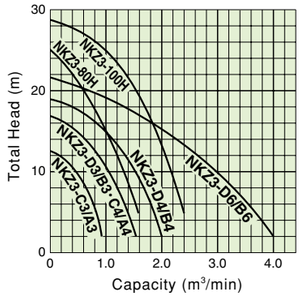
■ Features
Typical model of slurry pump equipped with agitator for transferring slurry

■ Applications
- Transferring or draining bentonite slurry used for slurry drilling
- Draining slurry mixed water in civil engineering works or foundation works

Sand

Sand Pumps

NKZ



Model	Discharge Bore mm	Motor Output kW	Dry Weight kgs	Dimensions mm	
				D	H
NKZ3-C3/A3	80	2.2	91	467	664
NKZ3-D3/B3	80	3.7	100	467	709
NKZ3-80H	80	5.5	132	491	754
NKZ3-C4/A4	100	3.7	97	467	709
NKZ3-D4/B4	100	5.5	115	485	715
NKZ3-100H	100	11	196	547	841
NKZ3-D6/B6	150	11	192	620	798

■ Features

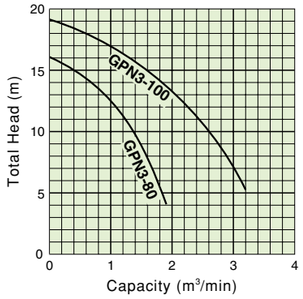
All pumps in this series provide very smooth passage of sandy earth and slime. A forcibly cooled motor ensures long and continuous pump operation exposed to the air.

■ Applications

- Draining sandy and muddy water in civil engineering works such as harbor construction and river-development construction works
- As a drainage facility in batcher plants, ready-mixed concrete plants, ceramics factories,etc.

High Power Sand Pumps

GPN



Model	Discharge Bore mm	Motor Output kW	Dry Weight kgs	Dimensions mm	
				D	H
GPN3-80	80	5.5	145	487	777
GPN3-100	100	11	217	617	860

■ Features

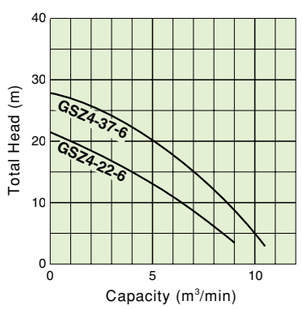
A powerful sand pump with an agitator and a forced cooling motor. Special-steel wearing parts have increased the pump's life.

■ Applications

- Draining sandy and muddy water in civil engineering works such as harbor construction and river-development construction works
- As a drainage facility in batcher plants, ready-mixed concrete plants, ceramics factories, etc.
- Draining water containing iron scale in steel factories

High Volume Sand Pumps

GSZ-6



Model	Discharge Bore mm	Motor Output kW	Dry Weight kgs	Dimensions mm	
				D	H
GSZ4-22-6	200	22	750	965	1393
GSZ4-37-6	200	37	850	1047	1416

■ Features

Equipped with a 6-pole, forced cooling motor. Special-steel wearing parts have increased the pump's life.

■ Applications

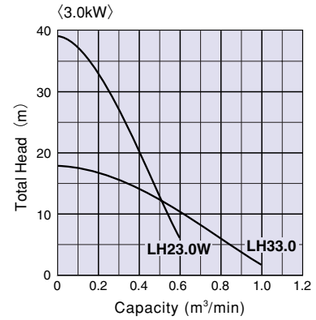
- Collecting sand or gravel or draining water containing gravel, sand, or iron scale
- As a drainage facility in batcher plants, ready-mixed concrete plants, ceramics factories, etc.
- Draining water containing iron scale in steel factories

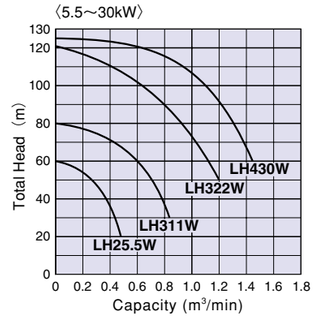
Deepwell (Pre-dewatering)

Deepwell Pumps

LH-W


3.0kW





■ Features

Higher head type of LH series

■ Applications

- Deepwell pre-dewatering
- Extra high-head pumping applications

Model	Discharge Bore mm	Motor Output kW	Dry Weight kgs	Dimensions mm	
				D	H
LH23.0W	50	3.0	46	185	630
LH25.5W	50	5.5	80	244	750
LH33.0	80	3.0	42	185	645
LH311W	80	11	130	270	1024
LH322W	80	22	304	330	1235
LH430W	100	30	324	365	1375

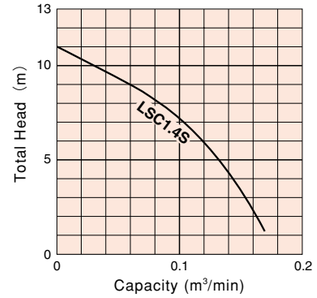
Note : LH33.0 is a single-stage pump.

Residual Water Drainage

Single-phase

Submersible Single-phase Portable Residue Dewatering Pump

LSC



Model	Discharge Bore mm	Motor Output kW	Dry Weight kgs	Dimensions mm	
				D	H
LSC1.4S	25	0.48	12	196	316

■ Features

Original residual dewatering pump capable of pumping water down to a minimum level of 1mm

■ Applications

- Draining storm water on the ground sumps in construction and civil engineering works
- Draining residual water at utility intercept sumps or water storage tanks
- Draining wash water in water storage tanks

Single-phase Portable Self-priming Residue Dewatering Pump

LSP

Model	Suction & Discharge mm	Motor Output kW	Dry Weight kgs	Dimensions mm	
				D	H
LSP1.4S	25	0.48	12.5	276	307

■ Features

Novel mechanism design pump equipped with a reverse flow prevention device, capable of carrying by one hand

■ Applications

- Draining storm water on the ground sumps in construction and civil engineering works
- Draining residual water at utility intercept sumps or water storage tanks
- Draining wash water in water storage tanks

Transcending Language and Borders

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