



TSURUMI PUMP

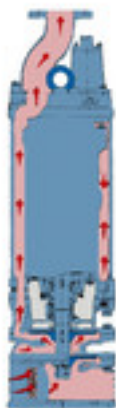
LH-W^{3-phase}
50Hz

Dual-stage high head pumps
- for professional use

The recent developments of civil engineering and architectural technologies are increasing the necessity of digging deeper into the earth. This requires a submersible pump with a rugged construction that can withstand the high pressure so deep in the water.



Water jacket



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. The pump can be run continuously in air.



Iron casting - superior to aluminium

Casing and motor frame made of grey iron casting, impeller made of high chromium iron casting

Seal pressure relief ports



Mechanical seal faces are only subjected to submergence pressure and are protected against water hammer.

Double inside mechanical Seal (SiC/SiC)

Double inside mechanical seals with silicon carbide faces run inside an oil lifter in an oil chamber. Additional protection by a lip seal combined with replaceable stainless steel shaft sleeve. This represents the most durable seal design available.



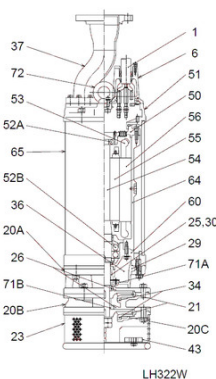
Dual impeller

(except for: LH33.0)

Two high chromium iron casting impellers increase the pumping power to realize high-head-specifications.

Components:

001 Cable	043 Cathodic protection plate
006 Cable entrance	050 Motor cover
020A Pump casing	051 Head cover
020B. Pump casing	052A Upper bearing
020C Pump casing	052B Lower bearing
021 Impeller	053 Motor protector
023 Strainer	054 Shaft
025 Mechanical seal	055 Rotor
026. Labyrinth ring	056 Stator
029 Oil casing	060 Bearing housing
030 Oil lifter	064 Motor casing
034 Wear ring	065 Jacket
035 Oil plug	071A Shaft sleeve
036 Lubricant	071B Shaft sleeve
037 Discharge bend	072 Eye bolt



Cast Iron used:

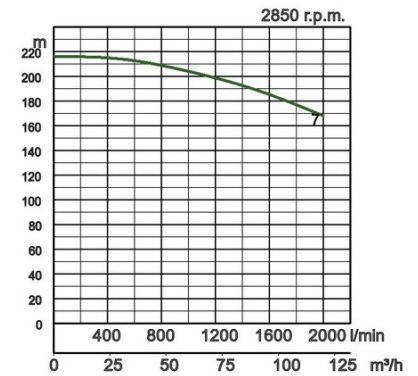
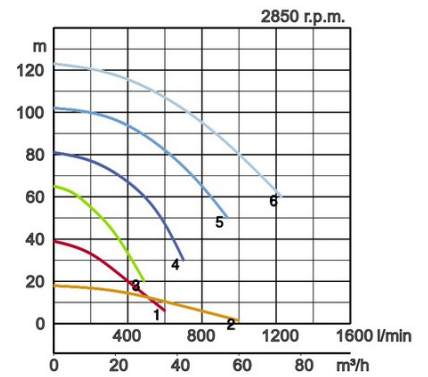
	Brinell hardness:
Chromium iron casting	415 - 425
Grey iron casting EN-GJL-200	150 - 230
Ductile iron casting EN-GJS-450-10	143 - 217

Specifications:

Model	Colour code curve	Bore mm	Motor output kW	Rated current A	Head max. m	Capacity max. l/min	Dry weight kg w/o cable	Max. solid handling ø mm	Max. water depth m	Cable length m
LH23.0W	1	50	3,0	6,5	39,0	600	46,0	6	25	20
LH33.0	2	80	3,0	6,5	18,0	1000	42,0	6	25	20
LH25.5W	3	50	5,5	11,0	65,0	490	80,0	6	30	20
LH311W	4	80	11,0	22,0	81,0	700	130,0	8,5	30	20
LH322W	5	80	22,0	39,0	102,0	940	304,0	8,5	30	20
LH430W	6	100	30,0	53,0	123,0	940	324,0	8,5	30	20
LH4110W	7	100	110,0	209,0	216,0	2000	1270,0	8,0	30	20

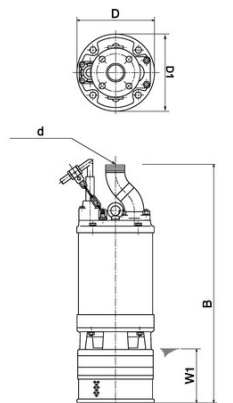


ø Discharge bore mm		50, 80, 100	
Pumping Fluid	Temperature	0-40°C	
	Type of Fluid	Spring water, Rain water, Ground water, Sand carrying water	
Pump	Components	Impeller	Closed type impeller
		Shaft Seal	Double mechanical seal
		Bearings	Shielded ball bearings
	Material	Impeller	Chromium iron casting
	Shaft Seal	Silicon carbide in oil bath	
	Casing	Grey iron casting EN-GJL-200, Ductile iron casting EN-GJS-450-10	
Motor	Type, Poles		Induction motor, 2 poles, IP68
	Lubrication		Turbine oil (ISO VG32)
	Motor Protector (built-in)		Circle thermal cut-out, Miniature protector
	Insulation		Insulation class F, Insulation class B
	Phase / Voltage		3-phase / 400V / 50Hz / d.o.l.
	Material	Casing	Grey iron casting EN-GJL-200
Shaft		Stainless steel EN-X30Cr13	
Cable		Rubber, H07RN-F, Rubber, NSSHÖU	
Discharge Connection		Threaded flange, JIS 20K Flange	



Dimensions in mm:

Model	d	B	D	D1	W1
LH23.0W	50	591	185	-	150
LH33.0	80	591	185	-	150
LH25.5W	50	750	240	-	170
LH311W	80	1030	270	-	200
LH322W	80	1234	330	-	300
LH430W	100	1375	330	-	300
LH4110W	100	1825	616	592	380



W1: lowest running water level



In the event of abrasive and corrosive utilization, stronger wear and tear will take place naturally in certain components. In this regard, please pay attention to our website www.tsurumi.eu/english/applications.htm.



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.

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.



con-LH-W-EN