CONTENTS

CSP Cast Iron
Submersible Drainage Pump

Submersible drainage pump with Vertical float switch

Submersible drainage pump with Wide angle float switch

Performance Range
- Flow rate up to 11300 l/h (11.3 m^3/h)
- Dynamic head up to 11 m.

Applications
- For clean water containing solids up to 10 mm grain size.
- As a sump pump for household applications.
- For draining flooded rooms or tanks.
- Extractions of water from ponds, flowing water or pits for collection of rain water.

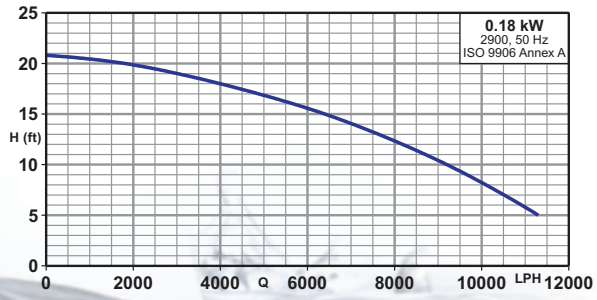
Features
- Rugged cast iron pump housing, impeller, and motor casing.
- 230V thermally protected energy efficient motor.
- Oil filled motor for better heat dissapation.
- Permanently lubricated ball bearings.
- Extra long 4.6 mtrs. (15 feet) grounded power cord.
- 1½" BSP Discharge pipe size.
- Stainless steel shaft
- Stainless steel fasteners.
- Provide with 1½" flexible hose connection and clamp.
- Available with Sic/Sic mechanical shaft seal for pumping sandy water (optional).

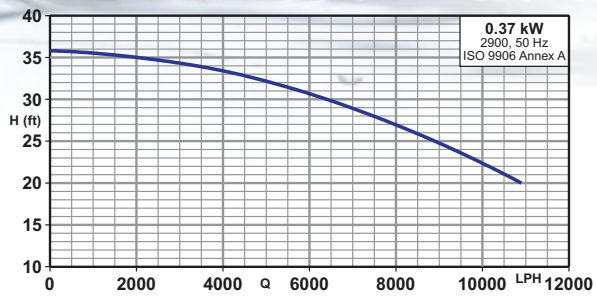
Operating Conditions
- Ambient temperature : Max. +50°C
- Liquid temperature : 0°C to +50°C
- Max. Starts per hour : 30 at regular intervals.
- Duty Rating :
  S1 - When pump is completely submerged.
  S3 - When pump is partially submerged.

Model Designation

Automatic submersible drainage pump with	Models available	
	0.18 kW	0.37 kW
* Wide Angle Float Switch	CSP521T	CSP551T
* Vertical Float Switch	CSP521	CSP551

Performance Curve





Minimum sump pit diameter

Model		Minimum Sump Pit Dia. (mm)
CSP521	CSP551	305
CSP521T	*	381
*	CSP551T	406

Motor Specifications
- 230 V, 50 Hz, 1 Phase, 2850 RPM
  Oil Filled ; Thermally Protected

Direction of Rotation
- Clockwise as seen from the motor rear end.

Performance Table

Model	kW	HP	Amp	m^3/h	1	2	4	6	8	10	11	Max. Lift (no flow) (mtrs)	Max. Solid Passage Size (mm)	Dimensions & Weight Data			
				l/h	1000	2000	4000	6000	8000	10000	11000			Major Width (mm)	Height (mm)	Gross Weight (kg.)	Volume (m^3)
CSP521 CSP521T	0.18	0.25	2.0	H (m)	6.2	6.1	5.5	4.7	3.7	2.5	1.7	6.4	10	229	241	13.5	0.023
CSP551 CSP551T	0.37	0.50	3.0		10.8	10.7	10.1	9.4	8.2	6.8	-	11	10	254	254	18.0	0.028

Note : The above shown performance is nominal performance and may vary from pump to pump.

MSP Corrosion Proof

Submersible Drainage Pump

Submersible drainage pump with Vertical float switch

Submersible drainage pump with Wide angle float switch

Performance Range

- Flow rate up to 20900 l/h (20.9 m^3/h)
- Dynamic head up to 13 m.

Applications

- For clean water containing solids up to 10 mm grain size.
- As a sump pump for household applications.
- For draining flooded rooms or tanks.
- Extractions of water from ponds, flowing water or pits for collection of rain water.

Features

- Corrosion resistant composite construction.
- 230V thermally protected energy efficient motor.
- Oil filled motor for better heat dissapation.
- Permanently lubricated ball bearings.
- Extra long 4.6 mtrs. (15 feet) grounded power cord.
- 1½" Discharge pipe size.
- Stainless steel shaft
- Stainless steel fasteners.
- Provide with 1½" flexible hose connection and clamp.
- Available with Sic/Sic mechanical shaft seal for pumping sandy water (optional).

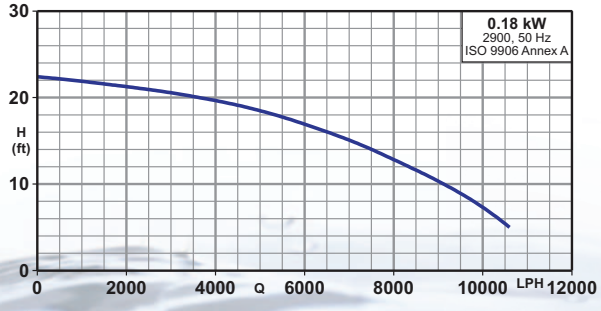
Operating Conditions

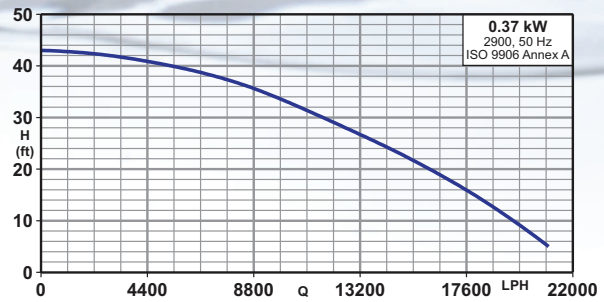
- Ambient temperature : Max. +45°C
- Liquid temperature : +5°C to +45°C
- Max. Starts per hour : 30 at regular intervals.
- Duty Rating :
  S1 - When pump is completely submerged.
  S3 - When pump is partially submerged.

Model Designation

Automatic submersible drainage pump with	Models available	
	0.18 kW	0.37 kW
* Wide Angle Float Switch	MSP521T	MSP551T
* Vertical Float Switch	MSP521	MSP551

Performance Curve





Minimum sump pit diameter

Model		Minimum Sump Pit Dia. (mm)
MSP521	MSP551	330
MSP521T	*	381
*	MSP551T	432

Motor Specifications

- 230 V, 50 Hz, 1 Phase, 2850 RPM (syn.)
  Oil Filled ; Thermally Protected

Direction of Rotation

- Clockwise as seen from the motor rear end.

Performance Table

Model	kW	HP	Amp	m^3/h	2	4	6	8	10	12	14	16	18	20	Max. Lift (no flow) (mtrs)	Max. Solid Passage Size (mm)	Dimensions & Weight Data			
				l/h	2000	4000	6000	8000	10000	12000	14000	16000	18000	20000			Major Width (mm)	Height (mm)	Gross Weight (kg.)	Volume (m^3)
MSP521 MSP521T	0.18	0.25	2.0	H (m)	6.5	5.9	5.2	3.9	2.2	-	-	-	-	-	6.8	10	241	241	8.0	0.022
MSP551 MSP551T	0.37	0.50	3.0		12.9	12.5	12	11.2	10.2	8.9	7.7	6.1	4.5	2.5	13	10	267	267	9.0	0.028

Note : The above shown performance is nominal performance and may vary from pump to pump.

LAP

Drainage Pumps (0.5 HP to 3.0 HP)

Performance Range

- Flow rate up to 1000 l/min. (60 m³/h)
- Dynamic head up to 29 m.

Applications

- Slushy water, waste water without solids, sump drainage.
- Drainage application, flood control.
- Dewatering for fish pond or basement.

Features

- New design for light weight, elegant shape with best quality.
- Unfastening the bolts between the oil casing and the upper pump casing allows the body to be separated for easy maintenance.
- All pumps are furnished with double mechanical seal. All pumps up to 0.75 kW have carbon/ceramic sealing faces at both water end and motor end. All pumps starting with 1.5 kW and above have Sic sealing faces at the water end and carbon/ceramic sealing faces at the motor end.
- Available with Sic/Sic mechanical Shaft seal for pumping sandy water for 0.75 kW (optional).

Special Features on Request

- Other voltages.
- Available in 60Hz.

Direction of Rotation

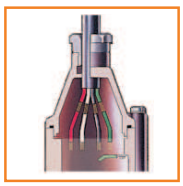
- Clockwise as seen from the motor rear end.

Thermal overload protector

- Equipped with Automatic reset motor protector, prevents motor from burning due to high temperature/phase failure/ voltage drop and lock impeller.

Cable base

- Epoxy resin seal cable base to prevent water intrusion into motor through the cable wire.

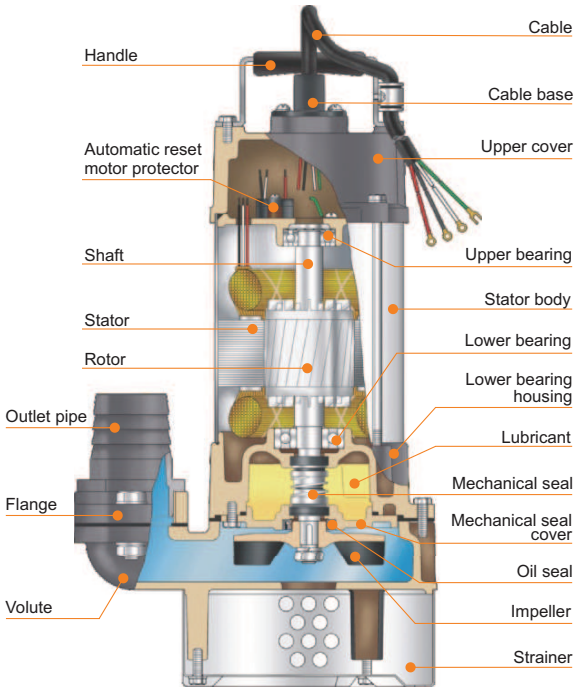


U Type Impeller

- This impeller can generate rapid rotating vortex to handle fluid mixed with long fiber, the majority of abrasive solids do not touch impeller to minimize impeller wear.

Float Switch

- Excellent quality float switch Provided with epoxy resin sealed connector.



Motor

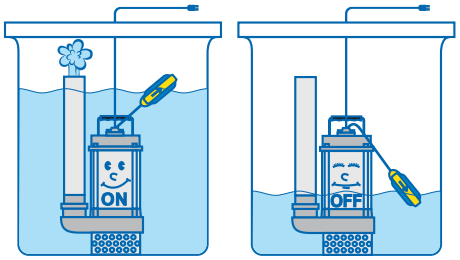
- 2 - pole dry submersible motor
- 50Hz (n = 2900 RPM)
- Single phase : 230V +5 - 15 %
- Three phase : 400V +5 -15 %
- Protection IP 68
- Insulation class : F

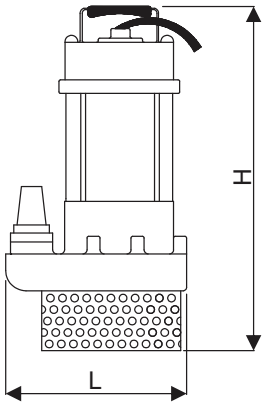
Operating Conditions

- Ambient temperature : Max. +50°C
- Liquid temperature : 0°C to +50°C
- Max. Starts per hour : 30 at regular intervals.
- Duty Rating :
  S1 - When pump is completely submerged.
  S3 - When pump is partially submerged.

Float Switch Pump

- The pumps are equipped with wide angle on/off level control float switch for easy and simple automatic operation.
- Applications : Slushy water, dewatering, drainage application.
- Type : 0.37 - 1.5 kW Single-phase pumps.
  0.37 - 0.75 kW Three-phase pumps.

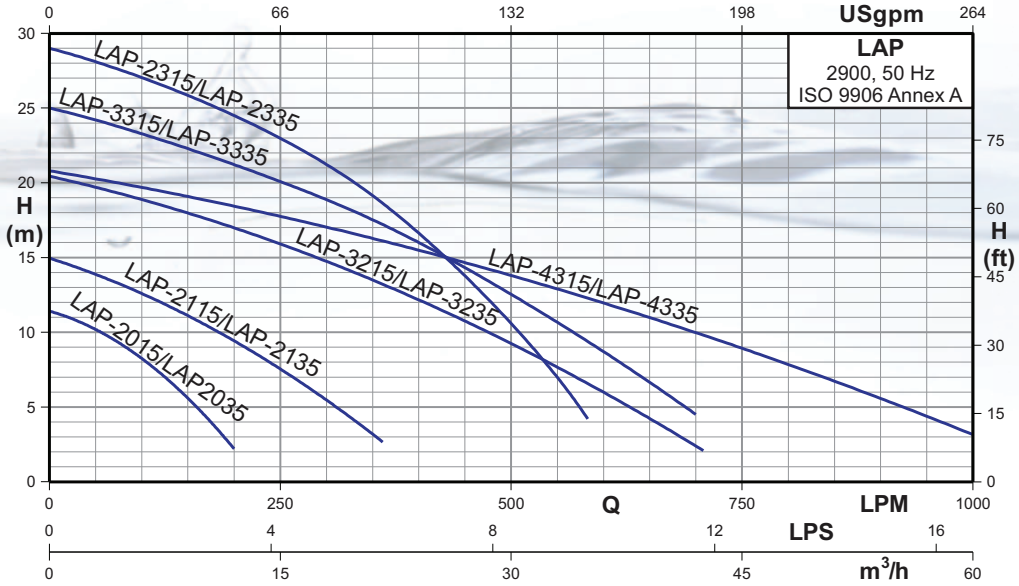




DIMENSIONS

Model		Disc.	Dimensions (mm)			Solid	Net	Gross	Volume
Single Phase	Three Phase	mm (inch)	Length	Width	Height	Passage (mm)	Weight(kg.)	Weight(kg.)	(m^3)
LAP-2015/2015F	-	50 (2")	230	161	365	8	15.0	17.0	0.032
-	LAP-2035/2035F		230	161	365		15.0	17.0	0.032
LAP-2115/2115F	-	50 (2")	277	178	440	10	19.0	21.0	0.045
-	LAP-2135/2135F		277	178	440		18.0	20.0	0.045
LAP-3215/3215F	-	80 (3")	412	208	569	11	44.0	69.0	0.146
-	LAP-3235/3235F		412	208	470		40.0	65.0	0.146
LAP-2315/2315F	-	50 (2")	280	216	572	11	46.0	70.0	0.146
-	LAP-2335/2335F		280	216	493		43.0	66.0	0.146
LAP-3315/3315F	-	80 (3")	385	216	575	11	47.0	71.0	0.146
-	LAP-3335/3335F		385	216	495		43.0	67.0	0.146
LAP-4315/4315F	-	100 (4")	390	208	584	11	47.0	72.0	0.146
-	LAP-4335/4335F		390	208	495		43.0	68.0	0.146

PERFORMANCE CHART AT n = 2900 RPM FOR DRAINAGE PUMPS



PERFORMANCE DATA AT n = 2900 RPM

Model		Power		Start	m³/h	6	9	12	18	24	30	36	45	54
Single Phase	Three Phase	kW	HP	Method	l/min.	100	150	200	300	400	500	600	750	900
LAP-2015/2015F	-	0.37	0.5	Capacitor	H (m)	8.3	5.5	2.2	-	-	-	-	-	-
-	LAP-2035/2035F			Direct										
LAP-2115/2115F	-	0.75	1.0	Capacitor		12.5	11	9.4	5.5	-	-	-	-	-
-	LAP-2135/2135F			Direct										
LAP-3215/3215F	-	1.50	2.0	Capacitor		19.9	18	17	14.8	12.2	9.2	6	-	-
-	LAP-3235/3235F			Direct										
LAP-2315/2315F	-	2.20	3.0	Capacitor		27	26	24.5	21.2	16.6	10.5	-	-	-
-	LAP-2335/2335F			Direct										
LAP-3315/3315F	-	2.20	3.0	Capacitor		23.3	22.3	21.2	18.9	16	12.5	9	-	-
-	LAP-3335/3335F			Direct										
LAP-4315/4315F	-	2.20	3.0	Capacitor		19.7	19	18.4	17	15.5	13.8	12	9	5.5
-	LAP-4335/4335F			Direct										

Note : Subscript "F" pumps will be provided with a float switch.

LFP

Sewage Pumps (1.0 HP to 3.0 HP)

Performance Range

- Flow rate up to 1000 l/min. (60 m³/h)
- Dynamic head up to 20 m.

Applications

- Drainage of sewage from the building basements, hotel industry, waste water from factories.
- Drainage of sewage from industrial process factories.
- Emptying fo septic tanks, cesspits and sewage pump stations.
- Pumping surface and drainage water from garages and sprinkler systems.

Features

- A precision manufactured motor is achieved utilizing a laminated sheet steel production process combined with the highest standard of quality control. The stator and wiring is impregnated with varnish and then heat dried in an industrial oven. This ensures a 100% quality manufactured motor with stable characteristics and a high efficiency.
- Standard accessories include: VCT cable with an epoxy resin sealed stainless steel cable base, AC thermal motor protector, dual mechanical seal and lip seal.

Special Features on Request

- Other voltages, Available in 60Hz.

Direction of Rotation

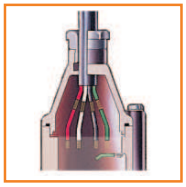
- Clockwise as seen from the motor rear end.

Thermal overload protector

- Equipped with Automatic reset motor protector, prevents motor from burning due to high temperature/phase failure/ voltage drop and lock impeller.

Cable base

- Epoxy resin seal cable base to prevent water intrusion into motor through the cable wire.

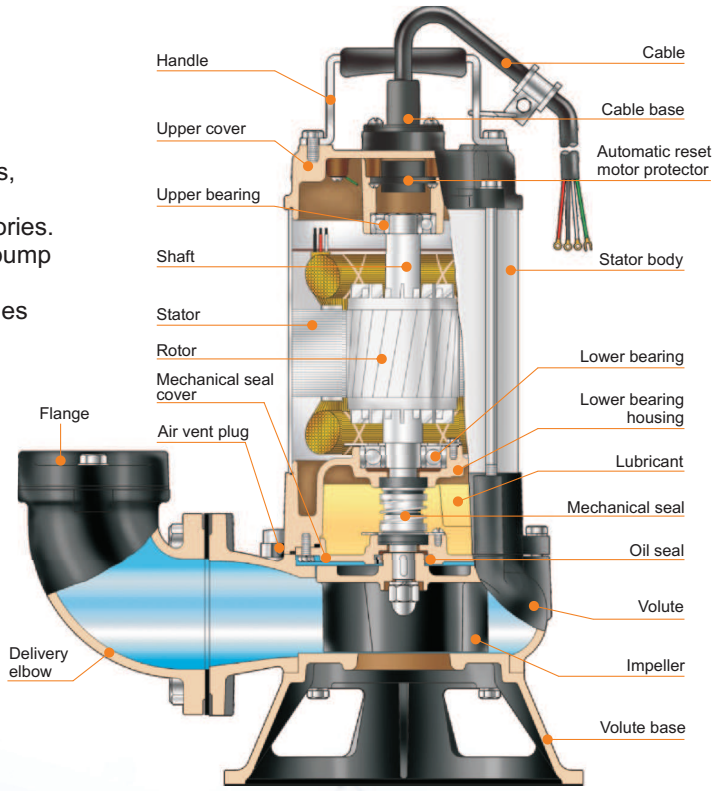


P Type Impeller

- Semi-open impeller cutting foreign particles, and preventing clog by solid media.

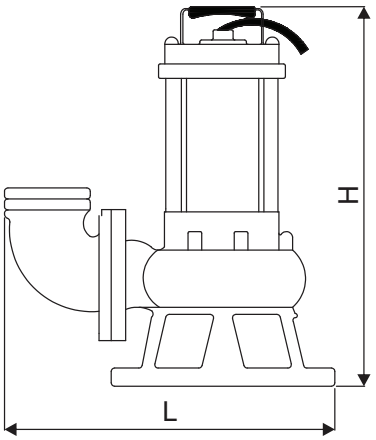
U Type Impeller

- This impeller can generate rapid rotating vortex to handle fluid mixed with long fiber, the majority of abrasive solids do not touch impeller to minimize impeller wear.



Specification

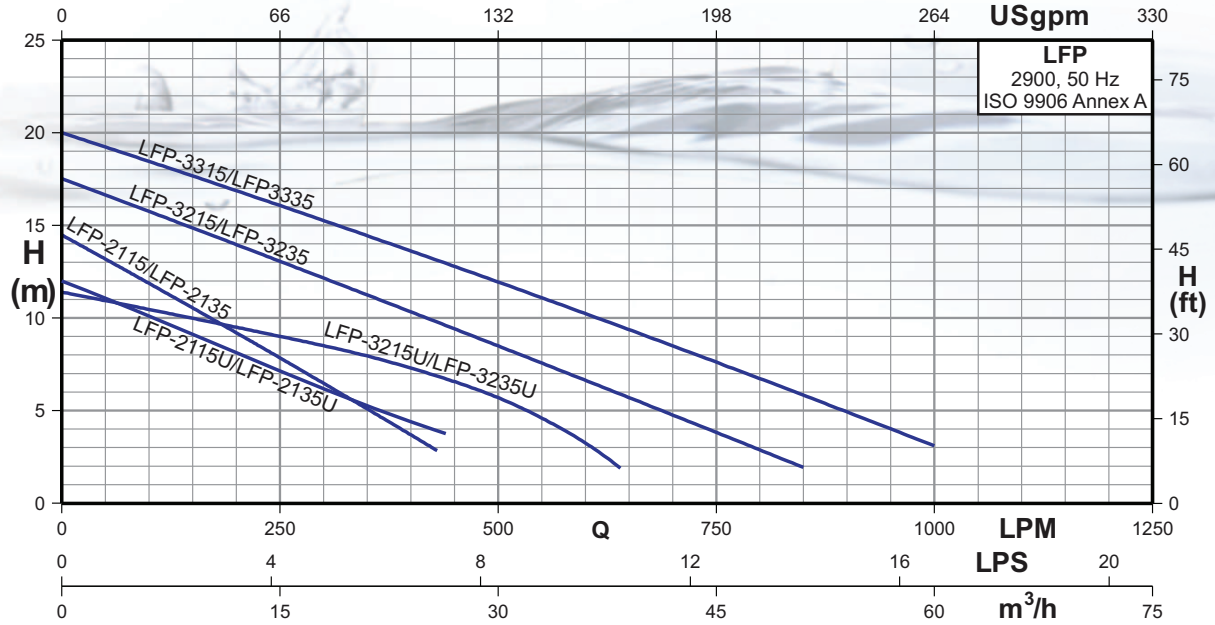
Diameter(mm)			50 - 80
Pumping liquid	Ambient temp		Max. +50°C
	Liquid temp		0°C to +50°C
	Liquid nature		Suitable for sewage waste water (with or without solids) from septic tanks, building basements and waste water form factories.
	Max. depth		18.5M
Pump	Structure	Impeller	Semi - open
		M.seal	Double Mechanical seal
		Bearing	Ball type bearing
	Material	Impeller	Grey Iron
		Volute	Grey Iron
		Upper cover	Grey Iron
		Volute base	Grey Iron
	M.seal	Motor side	Carbon v/s Ceramic (0.75 - 2.2 kW)
		Pump side	Carbon v/s Ceramic (0.75 kW) Silicon Carbide v/s Silicon Carbide (1.5 - 2.2 kW)
Motor	Insulation		F Class
	Frequency		50 Hz
	Thermal Protector		Automatic reset motor protector
	Material	Stator body	S.S. AISI 304
		Shaft	S.S. AISI 410
		Cable	Thermoplastic Rubber
Protection			IP 68
Duty			S1 - When pump is completely submerged. S3 - When pump is partially submerged.
Voltage			1 Ph. 230 V +5%/-15%, 3 Ph. 400 V +5%/-15%



DIMENSIONS

Model		Disc. mm (Inch)	Impeller Type	Dimensions (mm)			Solid Passage (mm)	Net Weight (kg.)	Gross Weight (kg.)	Volume (m^3)
Single Phase	Three Phase			Length	Width	Height				
LFP-2115/2115F	-	50 (2")	P	304	235	475	23	21.0	23.0	0.072
-	LFP-2135/2135F			304	235	475		20.0	22.0	0.072
LFP-2115U/2115UF	-	50 (2")	U	265	192	455	35	21.0	23.0	0.072
-	LFP-2135U/2135UF			265	192	455		20.0	22.0	0.072
LFP-3215/3215F	-	80 (3")	P	432	260	600	32	44.0	71.0	0.179
-	LFP-3235/3235F			432	260	505		40.0	67.0	0.179
LFP-3315/3315F	-	80 (3")	P	432	260	620	35	48.0	73.0	0.179
-	LFP-3335/3335F			432	260	530		43.0	69.0	0.179
LFP-3215U/3215UF	-	80 (3")	U	408	258	610	15	44.0	71.0	0.179
-	LFP-3235U/3235UF			408	258	530		40.0	67.0	0.179

PERFORMANCE CHART AT n = 2900 RPM FOR SEWAGE PUMPS



PERFORMANCE DATA AT n = 2900 RPM

Model		Power		Start Method	m^3/h	3	6	12	18	24	36	48	60
Single Phase	Three Phase	kW	HP		l/min.	50	100	200	300	400	600	800	1000
LFP-2115/2115F	-	0.75	1.0	Capacitor	H (m)	13.2	12	9.2	6.5	3.7	-	-	-
-	LFP-2135/2135F			Direct									
LFP-2115U/2115UF	-	0.75	1.0	Capacitor		11	10.2	8.1	6.3	4.4	-	-	-
-	LFP-2135U/2135UF			Direct									
LFP-3215/3215F	-	1.50	2.0	Capacitor		16.6	15.8	14	12.1	10.3	6.5	2.9	-
-	LFP-3235/3235F			Direct									
LFP-3315/3315F	-	2.20	3.0	Capacitor		19.3	18.5	16.9	15.3	13.6	10.3	6.7	3.2
-	LFP-3335/3335F			Direct									
LFP-3215U/3215UF	-	1.50	2.0	Capacitor		10.9	10.5	9.5	8.5	7.3	3.2	-	-
-	LFP-3235U/3235UF			Direct									

Note : Subscript "F" pumps will be provided with a float switch.

LBP

Stainless Steel Submersible Effluent Vortex Pumps

Performance Range

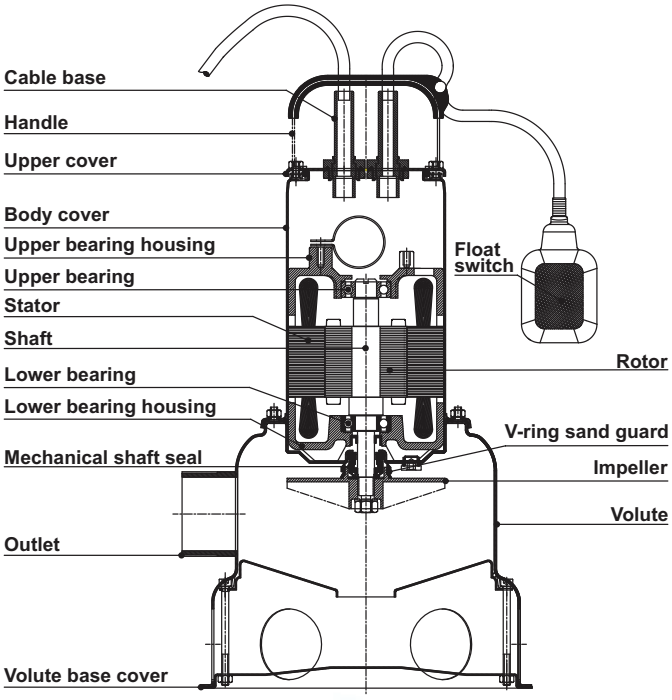
- Flow rate up to 387 l/min. (23 m³/h)
- Dynamic head up to 9 m.

Applications

- All applications of pumping and draining effluent, civil and industrial sewage with suspended solids.
- Pumping stations with one or more pumps for civil and industrial plants.

Features

- Light weight, portable.
- Made out of stainless steel AISI 304 sheet metal.
- High quality mechanical shaft seal.
- Class-F motor insulation which can handle higher motor temperature.
- Thermally protected motors which prevents motor from burn out.
- Vortex impeller designs to handle solids laden sewage and/or fibrous substance.
- A fully waterproof IP 68 structure, combined with a high grade silicon carbide mechanical seal.
- Permanently lubricated ball bearings.
- Solid passage size up to 40 mm.



Vortex Impeller

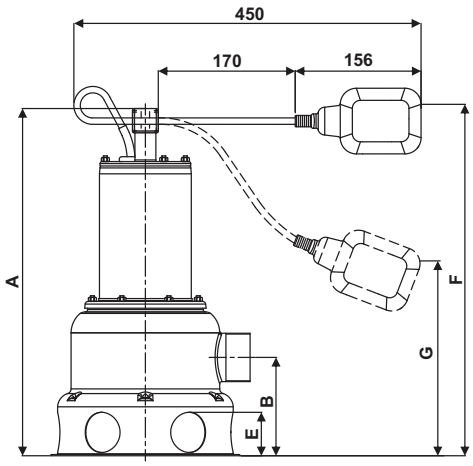
- Vortex impellers create a hydraulic passage, allowing long fibrous materials to pass through without any contact with the impeller.

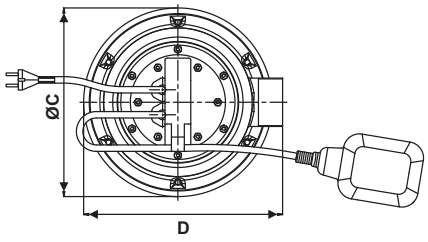
Specification

Pumping liquid		Ambient temp	Max. +50°C
		Liquid temp	0°C to +50°C
		Liquid nature	Pumps are suitable for drainage waste or sump drainage water with or without solids.
Pump	Structure	Impeller	Vortex
		M.seal	Mechanical seal
		Bearing	Ball type bearing
	Material	Impeller	S.S. AISI 304
		Volute	S.S. AISI 304
		Upper cover	S.S. AISI 304
		M.seal	Sic/Sic
Motor		Type	Dry motor
		Insulation	F Class
		Frequency	50 Hz
	Material	Stator body	S.S. AISI 304
		Shaft	S.S AISI 410
		Cable	Thermoplastic Rubber
Protection			IP 68
Duty			S1 - When pump is completely submerged S3 - When pump is partially submerged
Voltage			1 Ph. 230 V +5/-15%

Direction of Rotation

- Clockwise as seen from the motor rear end.

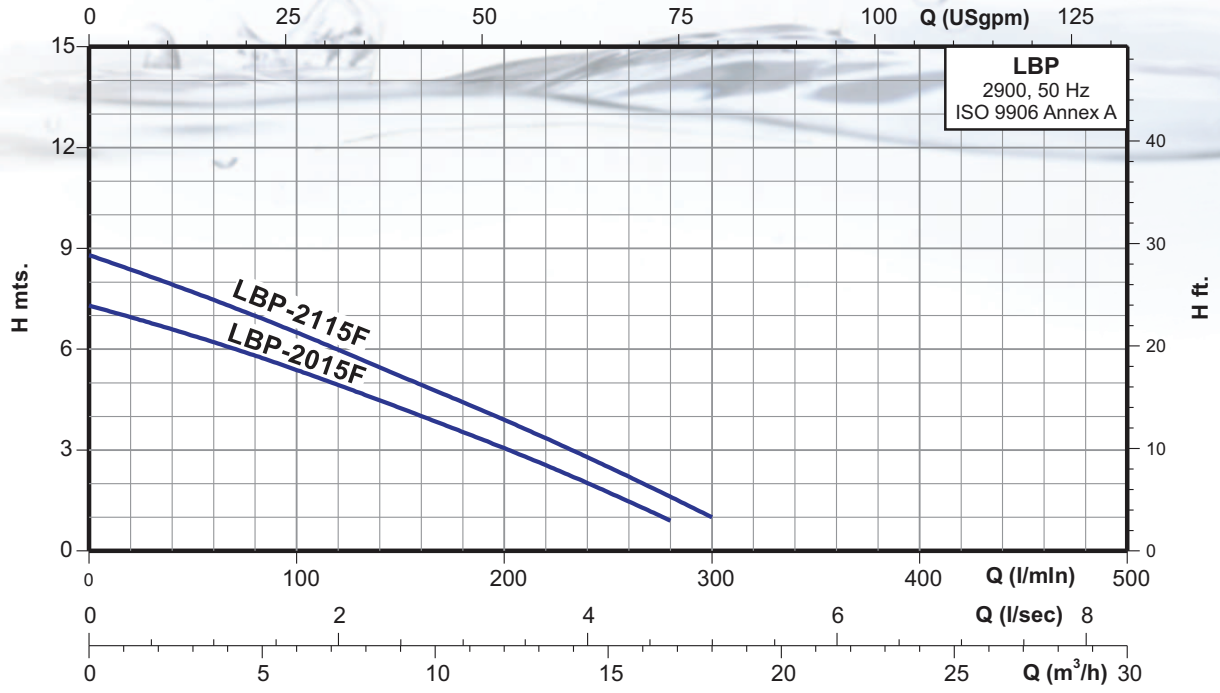




DIMENSIONS

Model	Disc. mm (Inch)	Dimensions (mm)							Net Weight (kg.)	Gross Weight (kg.)	Volume (m^3)
		A	B	C	D	E	F	G			
LBP 2015F	50 (2")	430	123	235	241	55	550	290	9.5	11.8	0.045
LBP 2115F	50 (2")	430	123	235	241	55	550	290	9.5	11.8	0.045

PERFORMANCE CHART AT n = 2900 RPM FOR SS SUBMERSIBLE EFFLUENT VORTEX PUMPS



PERFORMANCE DATA AT n = 2900 RPM

MODEL	POWER		START METHOD	m^3/h	3	6	9	12	15	18
	kW	HP		l/min	50	100	150	200	250	300
LBP 2015F	0.37	0.5	Capacitor	H (m)	6.4	5.4	4.3	3.1	1.7	-
LBP 2115F	0.75	1.0	Capacitor		7.6	6.5	5.3	3.9	2.5	1

LHP

Heavy-Duty Sewage Pumps (5.0 HP to 30.0 HP)

Performance Range

- Flow rate up to 8000 l/min. (480 m³/h)
- Dynamic head up to 40 m.

Applications

- Drainage of waste water from the liberation tank, purifying tank and sewage tank in water treatment plant.
- Drainage of waste water containing fibrous additives from leather factory, dyeing factory and food processing factory.
- Sewage management, accumulated water, septic tank, stock farm.
- Pumping sewage from single and multi family dwellings.
- Pumping sewage from hotels, restaurants, schools and public buildings.

Features

- International standard design : VCT cable, thermal overload protector, silicon carbide mechanical seal, high grade cast iron, good quality and performance.
- P / E Multiple impeller designs to handle solids laden sewage and/or fibrous substance.
- For Extra protection, an oil seal ring has been installed under the oil chamber. This lip seal helps prevent the ingress of silt and sand into the lower seal chamber.
- Superior abrasion resistant mechanical seal manufactured with silicon carbide to ensure the best seal effect.
- Full range offering low to high head and flow capabilities, with compact and easy installation. Also available with Guide Rail System, which allows automatic remote connection and disconnection without entering the pit.
- A water detector arrangement is provided in the seal chamber. In case of seal failure if water enters the seal chamber, a signal can be sent to the control panel so that the pump operator is made aware of a potential seal leakage problem.

Direction of Rotation

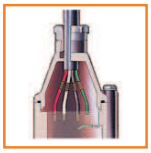
- Clockwise as seen from the motor rear end.

Thermal overload protector

- Equipped with Automatic reset motor protector, prevents motor from burning due to high temperature/phase failure/voltage drop and lock impeller.

Cable base

- Epoxy resin seal cable base to prevent water intrusion into motor through the cable wire.

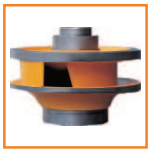


P Type Impeller

- Semi-open impeller enable cutting of delicate materials to prevent clogging.

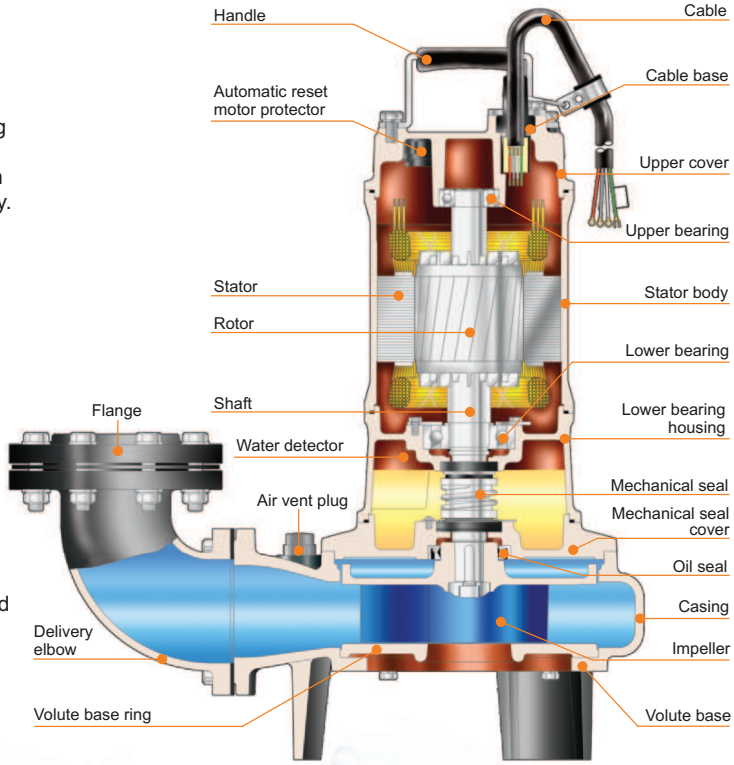
E Type Impeller

- Single channel non-clog impeller, allows large solids passage preventing clogging and allowing effective drainage/dewatering for higher head applications with solids laden media. (7.5 kW to 22 kW)



U Type Impeller

- Vortex impellers create a hydraulic passage, allowing long fibrous materials to pass through without any contact with the impeller. Pump of U type impeller (3 Phase) operating in a higher current when reverse, please adjust into fit directions.

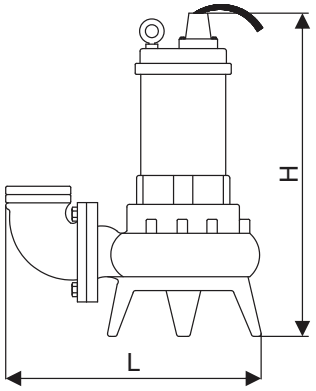


Specification

Diameter(mm)			80 - 100 - 150
Pumping liquid	Ambient temp		Max. +50°C
	Liquid temp		0°C to +50°C
	Liquid nature		Suitable for sewage waste water (with or without solids) from septic tanks, building basements and waste water form factories.
	Max. depth		26M
Pump	Structure	Impeller	P type : semi - open, Non - clog E type : Enclosed single channel U type : Semi-vortex
		M.seal	Double mechanical seal
		Bearing	Ball type bearing
	Material	Impeller	Grey Iron
		Volute	Grey Iron
		Upper cover	Grey Iron
		Volute base ring	Grey Iron
		Mechanical seal	Motor side - Carbon v/s Ceramic Pump side - Silicon carbide v/s Silicon carbide
Motor	Type		Dry motor
	Insulation		F Class
	Frequency		50 Hz
	Thermal Protector		Automatic reset motor protector (up to 7.5 kW) PTC sensors (above 7.5 kW)
	Material	Stator body	Grey Iron
		Shaft	S.S. AISI 410
		Cable	Thermoplastic Rubber
Protection			IP 68
Duty			S1 - When pump is completely submerged. S3 - When pump is partially submerged.
Voltage			3 Ph. 400 V +5/-15%

Special Features on request

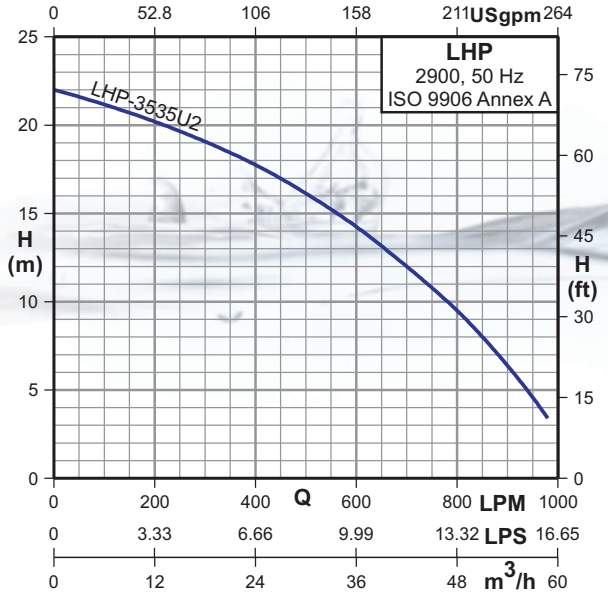
- Other Voltages, Available in 60Hz.



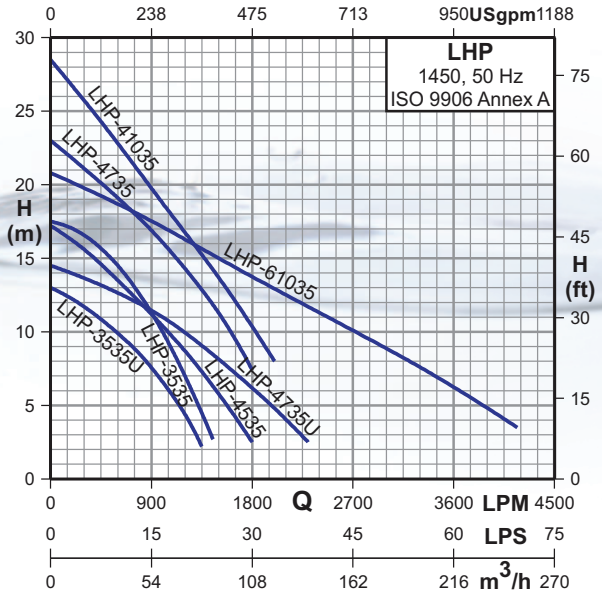
DIMENSIONS

Model	Phase	Disc. mm (Inch)	Impeller Type	Dimensions (mm)			Solid Passage (mm)	Net Weight (kg.)	Gross Weight (kg.)	Volume (m^3)
				Length	Width	Height				
LHP-3535U2	3Ø	80 (3")	P	480	220	595	56	58.0	93.0	0.186
LHP-3535	3Ø	80 (3")	U	580	310	650	50	82.0	127.0	0.288
LHP-3535U	3Ø	80 (3")	P	552	286	695	76	80.0	125.0	0.275
LHP-4535	3Ø	100 (4")	P	580	310	650	50	84.0	129.0	0.285
LHP-4735	3Ø	100 (4")	E	701	404	810	40	146.0	206.0	0.475
LHP-4735U	3Ø	100 (4")	U	701	404	810	65	143.0	203.0	0.475
LHP-41035	3Ø	100 (4")	E	701	404	850	40	163.0	213.0	0.495
LHP-61035	3Ø	150 (6")	E	850	472	905	70	230.0	317.0	0.663

PERFORMANCE CHART AT n = 2900 RPM



PERFORMANCE CHART AT n = 1450 RPM



PERFORMANCE DATA AT n = 2900 RPM

Model	Phase	Power		Start Method	m^3/h	6	12	18	24	30	36	42	48	54
		kW	HP		l/min.	100	200	300	400	500	600	700	800	900
LHP-3535U2	3Ø	3.7	5.0	Direct	H (m)	21.2	20.2	19	17.7	16.1	14.2	12	9.5	6.4

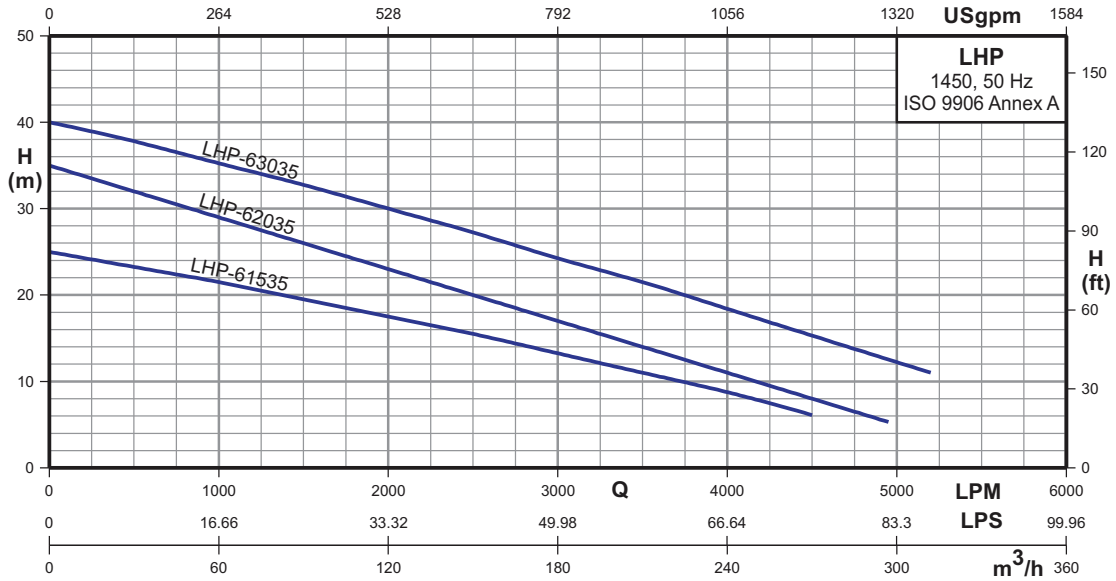
PERFORMANCE DATA AT n = 1450 RPM

Model	Phase	Power		Start Method	m^3/h	12	24	36	48	54	60	90	120	150	180	210	240	246
		kW	HP		l/min.	200	400	600	800	900	1000	1500	2000	2500	3000	3500	4000	4100
LHP-3535	3Ø	3.7	5.0	Direct		17	15.9	14.5	12.5	11.4	10	-	-	-	-	-	-	-
LHP-3535U	3Ø	3.7	5.0	Direct		12.3	11	9.9	8.5	7.5	6.3	-	-	-	-	-	-	-
LHP-4535	3Ø	3.7	5.0	Direct		16.2	14.8	13.5	12	11.1	10.2	5.8	-	-	-	-	-	-
LHP-4735	3Ø	5.5	7.5	Direct	H (m)	21.9	20.3	19	17.8	16.9	15.9	11.3	-	-	-	-	-	-
LHP-4735U	3Ø	5.5	7.5	Direct		14	13.3	12.6	12	11.5	11	8.1	4.7	-	-	-	-	-
LHP-41035	3Ø	7.5	10.0	Direct		26.7	24.5	22.7	20.8	19.7	18.5	13.6	8	-	-	-	-	-
LHP-61035	3Ø	7.5	10.0	Direct		20.1	19.4	18.7	17.9	17.5	17	15	12.9	10.8	9	6.7	4.2	3.7

LHP

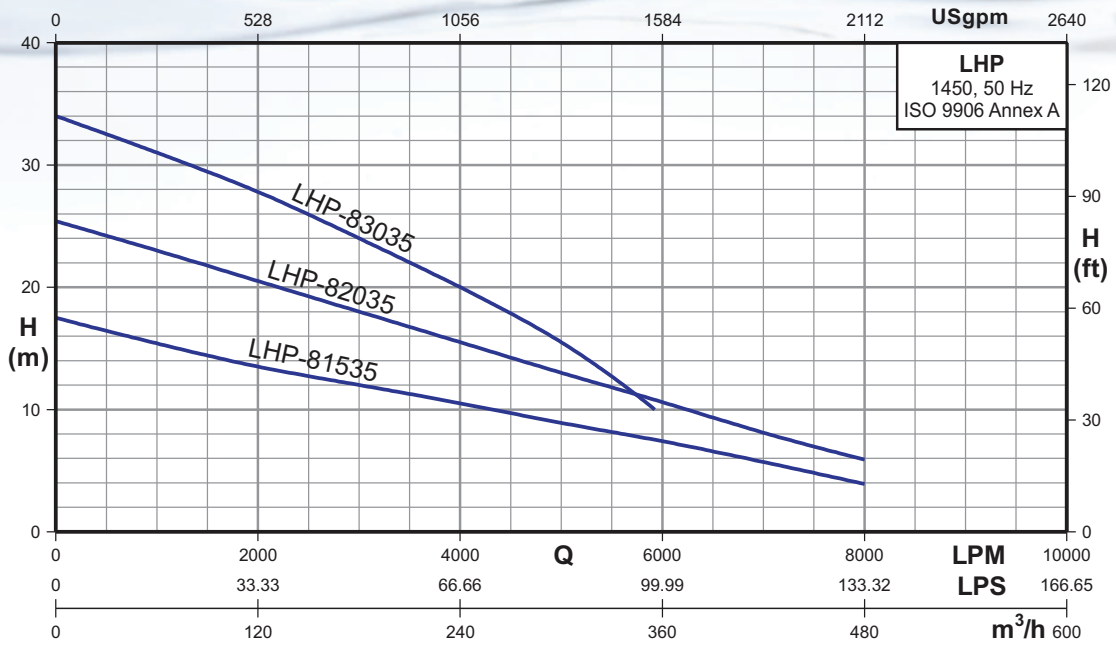
Heavy-Duty Sewage Pumps (5.0 HP to 30.0 HP)

PERFORMANCE CHART AT n = 1450 RPM



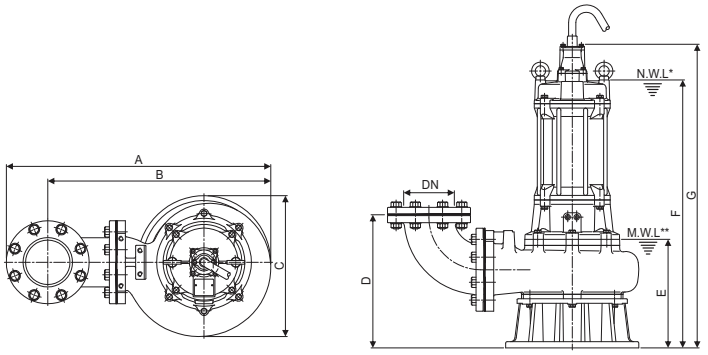
Model	Phase	Power		Start Method	m³/h	30	60	90	120	150	180	210	240	270	300
		kW	HP		l/min.	500	1000	1500	2000	2500	3000	3500	4000	4500	5000
LHP-61535	3Ø	11.0	15.0	Y - △	H (m)	23.2	21.8	19.5	17.5	15.4	13	11	8.7	-	-
LHP-62035	3Ø	15.0	20.0	Y - △		32	29	26	23	20	17	14	11	8	-
LHP-63035	3Ø	22.0	30.0	Y - △		37.9	35.3	32.8	30	27.2	24.1	21.5	18.3	15.3	12

PERFORMANCE CHART AT n = 1450 RPM



Model	Phase	Power		Start Method	m³/h	30	60	90	120	150	180	210	240	270	300	360	420	480
		kW	HP		l/min.	500	1000	1500	2000	2500	3000	3500	4000	4500	5000	6000	7000	8000
LHP-81535	3Ø	11.0	15.0	Y - △	H (m)	16.5	15.4	14.6	13.4	12.8	12	11.3	10.5	9.6	9	-	-	-
LHP-82035	3Ø	15.0	20.0	Y - △		24.2	23	21.9	20.6	19.4	18	16.8	15.5	14.2	13	7.3	5.5	3.9
LHP-83035	3Ø	22.0	30.0	Y - △		32.6	31	29.4	27.9	26	24	22	20	17.9	15.5	10.6	8	5.9

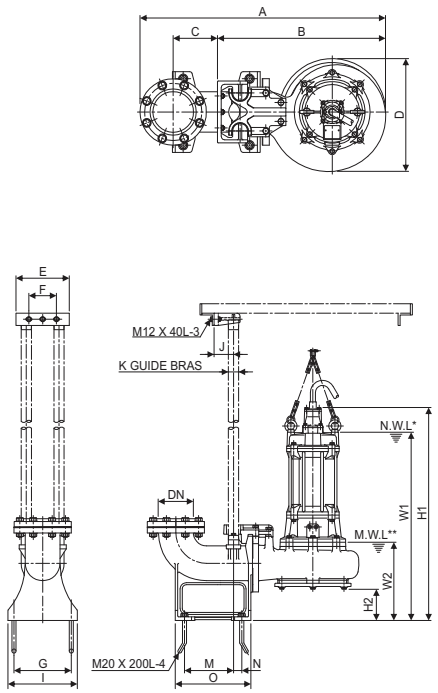
Figure 1



LHP pumps with ring stand. (11 - 22 kW)

Note : (*) Minimum level for pump to operate on a continuous basis (S1 operation).
(**) Minimum acceptable liquid level of the pump. Pump should switch off at this level.

Figure 2



LHP pumps on auto-coupling guide rail system (3.7 to 22.0 kW)

Note : (*) Minimum level for pump to operate on a continuous basis (S1operation).
(**) Minimum acceptable liquid level of the pump. Pump should switch off at this level.

DIMENSIONS Figure 1

Model	Disc. Inch	Dimensions mm							Solid Passage (mm)	Net Weight (kg.)	Gross Weight (kg.)	Volume (m^3)
Three Phase	(mm)	A	B	C	D	E	F	G				
LHP - 61535	6" (150)	848	705	472	442	367	958	1075	70	263	362	0.839
LHP - 62035	6" (150)	809	666	450	387	330	885	1001	76	190	289	0.839
LHP - 63035	6" (150)	850	707	496	400	348	878	945	76	232	361	0.824
LHP - 81535	8" (200)	954	785	502	482	375	966	1084	75	277	389	0.999
LHP - 82035	8" (200)	955	785	470	442	368	966	1080	75	285	397	0.999
LHP - 83035	8" (200)	940	770	510	418	325	855	924	76	310	455	1.560

DIMENSIONS Figure 2

Model	Disc. Inch	Dimensions mm																
Three Phase	(mm)	A	B	C	D	E	F	G	I	J	K	M	N	O	W1	W2	H1	H2
LHP - 4535	4" (100)	812	536	170	310	290	245	200	247	70	50	200	22	285	650	260	718	75
LHP - 4735	4" (100)	905	630	170	405	290	245	200	247	70	50	200	22	285	695	295	791	124
LHP - 4735U	4" (100)	905	630	170	405	290	245	200	247	70	50	200	22	285	695	295	791	124
LHP - 41035	4" (100)	905	630	170	405	290	245	200	247	70	50	200	22	285	735	295	831	124
LHP - 61035	6" (150)	985	658	187	472	260	135	280	340	95	50	240	40	370	830	390	930	22
LHP - 61535	6" (150)	985	658	187	472	260	135	280	340	95	50	240	40	370	980	389	1097	22
LHP - 62035	6" (150)	946	619	187	450	260	135	280	340	95	50	240	40	370	910	355	1026	25
LHP - 63035	6" (150)	966	765	170	496	245	100	200	245	70	50	176	24	280	892	362	959	14
LHP - 81535	8" (200)	1064	662	230	502	300	175	320	350	95	50	269	41	400	984	393	1102	18
LHP - 82035	8" (200)	1064	662	230	470	300	175	320	350	95	50	269	41	400	984	386	1098	18
LHP - 83035	8" (200)	1280	885	230	510	320	280	280	350	100	40	200	80	370	891	361	960	36

LGP

Grinder Pumps (1.0 HP to 5.0 HP)

Performance Range

- Flow rate up to 325 l/min. (19.5 m³/h)
- Dynamic head up to 32 m.

Applications

- Used in pressure sewage system.
- Drainage of waste water from individual residences, apartment, buildings, recreational developments, motels.
- Transferring waste water of commercial buildings, industrial plants, waste water sampling, small hospitals.
- Schools, federal, state and local parks' waste water drainage.
- To transfer various waste water and sewage.

Features

- Durable heavy duty finned cast iron construction.
- Grinder is complete unit, light weight, compact, and portable, easy to be installed.
- Double protection at connection box: barrier grommet, barrier epoxy, prevent water ingress to the motor area, assuring a longterm reliable operation. Additionally, epoxy encapsulation and stripped leads positively eliminate wicking from the cable.
- Two balls bearing construction support shaft and rotor.
- Dry type motor with high efficiency and low current. Equipped with auto reset motor protector, prevent the motor damage from abnormal heat and current.
- The dual silicon carbide mechanical seal system and extra oil seal protection protects the motor from sewage contamination, to provide you exceptionally long pump service life.
- An excellent vortex impeller and casing water cavity housing design. Provide high efficiency and power saving, handling ground slurry and sewage without clogging or binding.
- Radial cutter and cutter ring: corrosion resistant material, hardened to 55 - 60 Rockwell C.

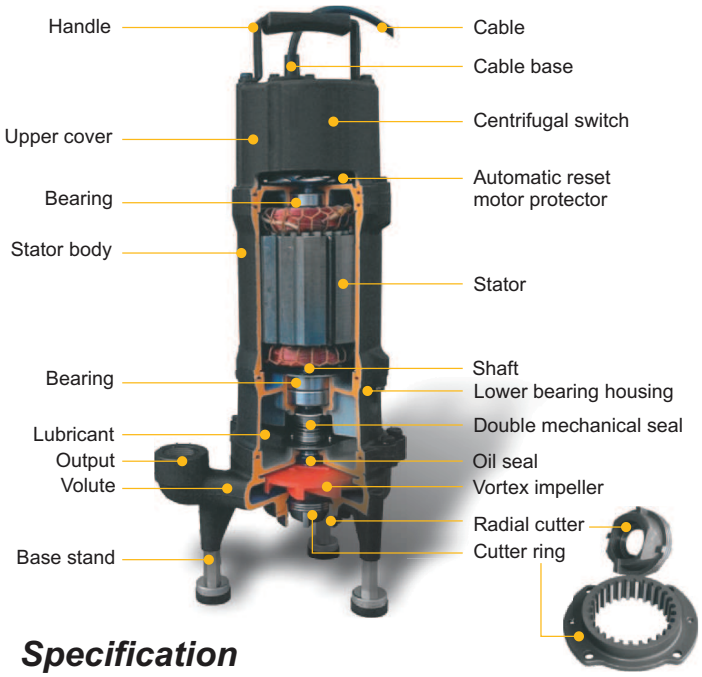
Direction of Rotation

- Clockwise as seen from the motor rear end.

Cutting Ability Demonstration

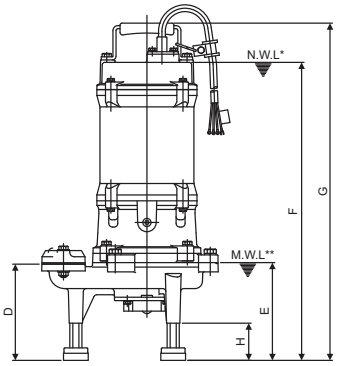
- Specialized one single strong shaft with impeller and radial cutter, dramatically reduces the torque requirement on the motor, cuts with less horsepower, and increases the pump's efficiency. What's more, it prevents clogging with some troublesome objects such as sanitary napkins, plastic, rubber, disposable diapers and cloth items. The design of Lubi grinder prevents clogging, binding and roping. They chop up almost anything and everything in order for you to get a continuous, long - term pumping service.

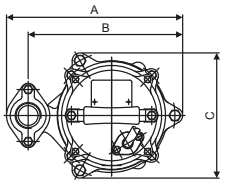
Cutting in progress



Specification

Horse Power			2, 3, 5 HP
Pumping liquid	Ambient temp		Max. +50°C
	Liquid temp		0°C to +50°C
	Liquid nature		Suitable for pumping waste water of commercial buildings, hotels & restaurants, hospitals, industrial plants & kitchen waste.
Pump	Construction	Impeller	Vortex
		Cutting Cons.	Grinding
		Mech. seal	Double Mechanical seal
		Upper Bearing	Ball Bearing
		Lower Bearing	Two ball Bearings
	Material	Impeller	Grey Iron
		Volute	Grey Iron
		Radial Cutter	S.S AISI 440
		Cutter Ring	S.S AISI 440
		Mechanical seal	Motor side - Carbon v/s Ceramic Pump side - Silicon carbide v/s Silicon carbide
Motor	Type		Dry motor
	Insulation		F Class
	Frequency		50 Hz
	Thermal Protector		Automatic reset motor protector
			Water detector (optional)
	Material	Stator body	Grey Iron
		Shaft	S.S AISI 410
		Cable	Thermoplastic Rubber
Protection			IP 68
Duty			S1 - When pump is completely submerged. S3 - When pump is partially submerged.
Voltage			1 Ph. 230 V +5/-15%, 3 Ph. 400 V +5/-15%





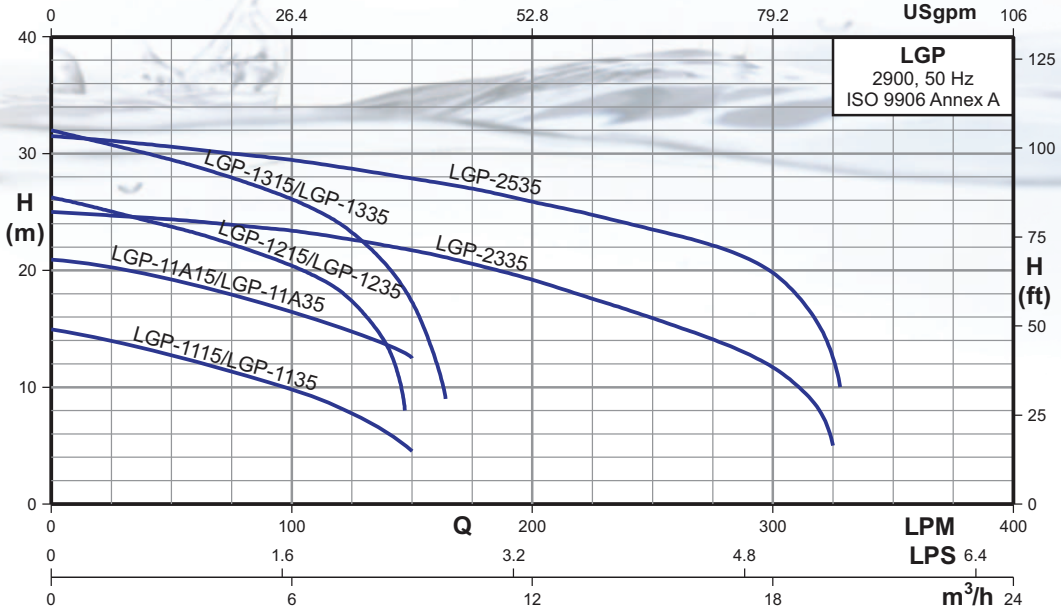
Note : (*) Minimum level for pump to operate on a continuous basis (S1 operation).
(**) Minimum acceptable liquid level of the pump. Pump should switch off at this level.

DIMENSIONS

Type	PHASE	DN	DIMENSIONS (MM)								NET WEIGHT (kg.)	GROSS WEIGHT (kg.)	VOLUME (m^3)
			A	B	C	D	E	F	G	H			
LGP-1115/1115F	1Ø	32	286	250	203	156	160	503	570	61	28	57	0.110
LGP-1135/1135F	3Ø							503	570		28	57	0.110
LGP11A15/11A15F	1Ø	32	286	250	203	156	160	543	610	61	34	64	0.126
LGP11A35/11A35F	3Ø							543	610		34	64	0.126
LGP-1215/1215F	1Ø	32	286	250	203	156	160	543	610	61	38.0	70.0	0.126
LGP-1235/1235F	3Ø							492	556		34.0	64.0	0.117
LGP-1315/1315F	1Ø	32	286	250	203	156	160	543	610	61	40.0	72.0	0.126
LGP-1335/1335F	3Ø							492	556		36.0	66.0	0.117
LGP-2335	3Ø	50	416	339	195	226	160	522	593	61	51.0	86.0	0.156
LGP-2535	3Ø							543	616		54.0	89.0	0.161

All Dimensions in mm

PERFORMANCE CHART AT n = 2900 RPM FOR GRINDER PUMPS



PERFORMANCE DATA AT n = 2900 RPM

Model	Phase	Power		Start Method	m^3/h	1.5	3	4.5	6	7.5	9	12	15	18	19.5
		kW	HP		l/min.	25	50	75	100	125	150	200	250	300	325
LGP-1115/1115F	1Ø	0.75	1.0	Capacitor	H(m)	14	12.8	11.2	9.9	7.8	4.5	-	-	-	-
LGP-1135/1135F	3Ø			Direct											
LGP11A15/11A15F	1Ø	1.1	1.5	Capacitor		20.3	19.2	18	16.5	14.8	12.7	-	-	-	-
LGP11A35/11A35F	3Ø			Direct											
LGP-1215/1215F	1Ø	1.5	2.0	Capacitor		25	23.9	22.2	20.5	17.3	-	-	-	-	-
LGP-1235/1235F	3Ø			Direct											
LGP-1315/1315F	1Ø	2.2	3.0	Capacitor		30.8	29.4	28	26	23.2	17.2	-	-	-	-
LGP-1335/1335F	3Ø	2.2		Direct											
LGP-2335	3Ø	3.7	3.0	Direct		-	24.4	24	23.7	22.8	21.7	19.1	16	11.7	5
LGP-2535	3Ø		5.0	Direct		-	30.6	30	29.5	29	28	25.9	23.5	19.9	12

Note : • Available on request : Other Voltages, 60Hz.
• Subscript "F" pumps will be provided with a float switch.

LLP

Large Volume Water Pumps (3.0 to 15.0 HP)

Performance Range

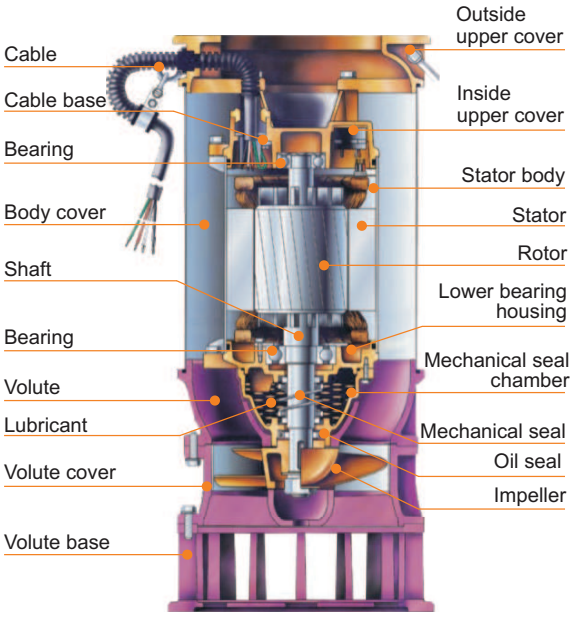
- Flow rate up to 9000 l/min. (540 m³/h)
- Dynamic head up to 6 m.

Applications

- Aquaculture water pumping and drainage for large volume water applications.
- Water supply for landscape and water features.
- Water extracting from rivers, lakes and reservoirs.
- Flood control.

Features

- Large flow capacities achieved with almost no vibration or noise by use of Propeller or Mix Flow design, giving easy operation and energy savings.
- Robust construction and compact design with a dry motor, double mechanical seal and impeller flow guide vane for high efficiency.
- Simple operation and maintenance.



Flood control

Aquafarm dewatering

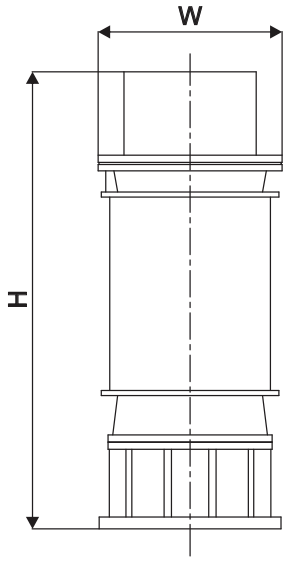
Ditch dewatering

Specification

Diameter(mm)			200 - 250 - 300
Pumping liquid	Ambient temp		Max. +50°C
	Liquid temp		0°C to +50°C
	Liquid nature		Suitable for aquaculture water pumping, flood control and water extraction from rivers, lakes and reservoir.
	Max. depth		30 M
Pump	Structure	Impeller	Propeller / Mixed Flow
		M.seal	Double Mechanical seal
		Bearing	Ball type bearing
	Material	Impeller	Bronze
		Volute	Grey Iron
		Upper cover	Bronze
		M.seal	Carbon v/s Ceramic
Motor	Type		Dry motor
	Insulation		F Class
	Frequency		50 Hz
	Material	Stator body	S.S AISI 304
		Shaft	S.S AISI 304
		Cable	Thermoplastic Rubber
Protection			IP 68
Duty			S1 - When pump is completely or partially submerged.
Voltage			3 Ph. 400 V +5/-15%

Direction of Rotation

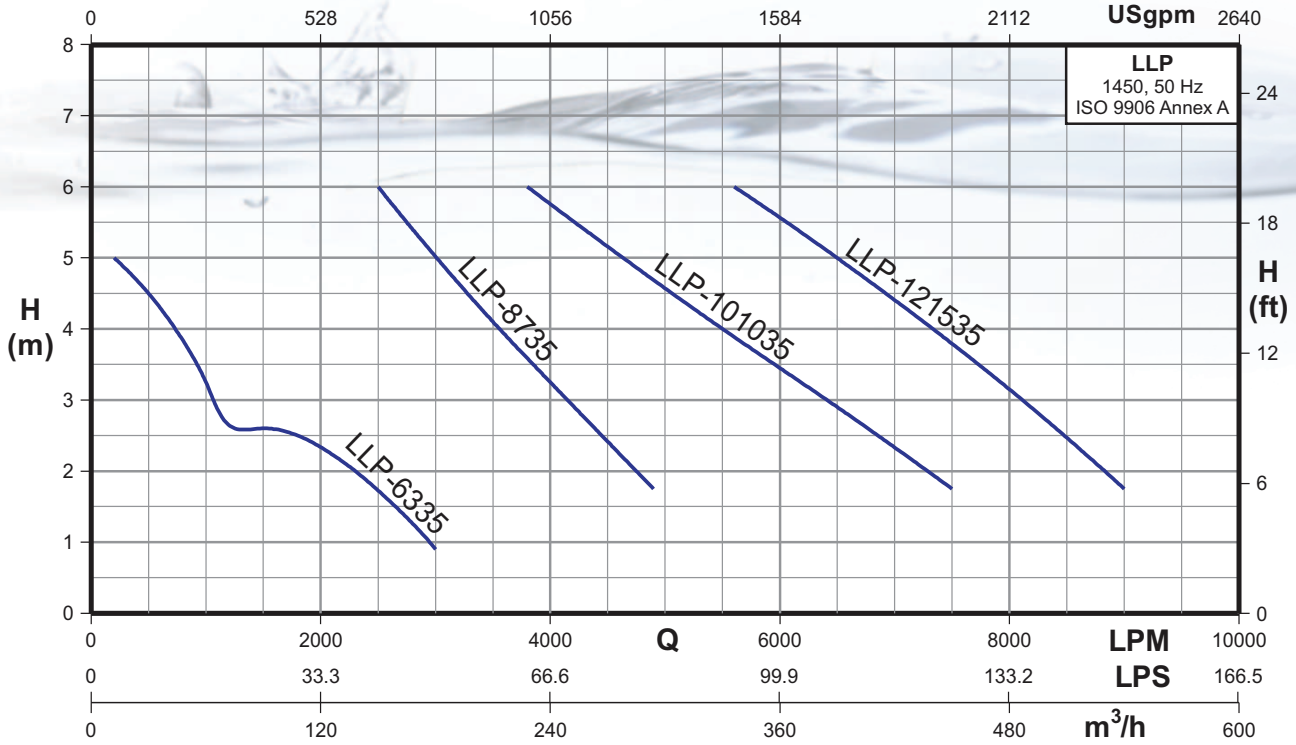
- Clockwise as seen from the motor rear end.



DIMENSIONS

Model	Disc. mm (Inch)	Dimensions (mm)			Solid Passage (mm)	Net Weight (kg.)	Gross Weight (kg.)	Volume (m^3)
Three Phase		Length	Width	Height				
LLP-6335	150 (6")	-	285	638	20	52.0	91.0	0.159
LLP-8735	200 (8")	-	340	923	22	122.0	176.0	0.272
LLP-101045	250 (10")	-	380	1015	22	164.0	228.0	0.344
LLP-121535	300 (12")	-	430	1077	23	209.0	282.0	0.432

PERFORMANCE CHART AT n = 1450 RPM FOR HEAVY DUTY SEWAGE PUMPS



PERFORMANCE DATA AT n = 1450 RPM

MODEL	POWER		START METHOD	m^3/h	30	60	90	120	150	180	210	240	270	300	360	420	510
Three Phase	kW	HP		l/min	500	1000	1500	2000	2500	3000	3500	4000	4500	5000	6000	7000	8500
LLP-6335	2.2	3.0	Direct	H (m)	4.5	3.2	2.6	2.3	2	-	-	-	-	-	-	-	-
LLP-8735	5.5	7.5	Direct		-	-	-	-	6	5	4.1	3.3	2.4	-	-	-	-
LLP-101035	7.5	10.0	Direct		-	-	-	-	-	-	-	5.8	5.2	4.6	3.4	2.5	-
LLP-121535	11.0	15.0	Direct		-	-	-	-	-	-	-	-	-	-	5.6	4.4	2.5

LAS

Heavy-Duty Construction Drainage Pumps (1.5 HP to 15.0 HP)

Performance Range

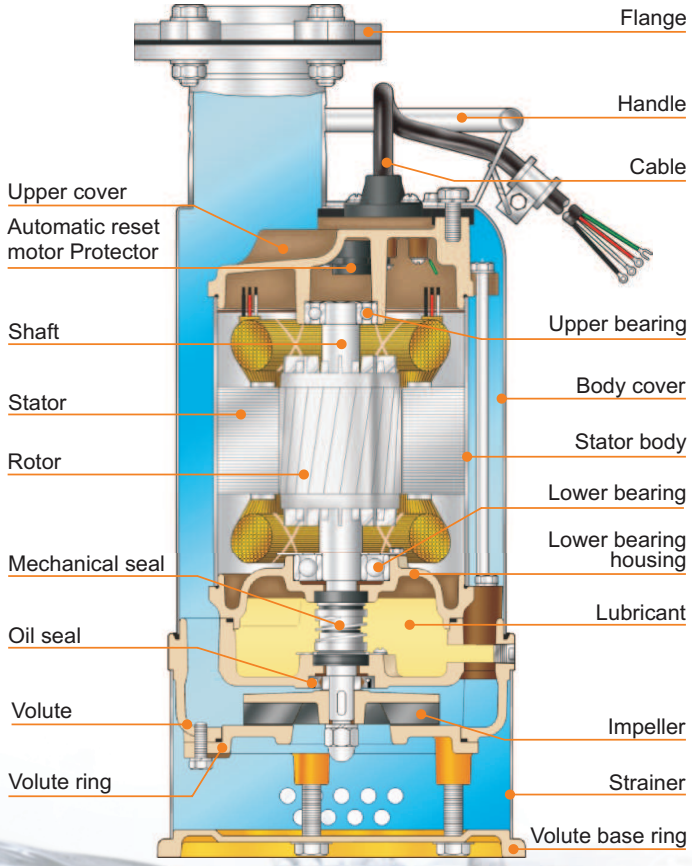
- Flow rate up to 2600 l/min. (156 m³/h)
- Dynamic head up to 47 m.

Applications

- Civil engineering dewatering of tunneling and ground works, also for storm water sewers.
- Dewatering of fluids containing solid sediments.

Features

- Specifically designed for civil engineering applications, where a heavy duty, light weight, top discharge design, is required which is easy to handle. The double outer casing, water cooled motor makes it particularly suitable for low water level applications.
- A fully waterproof IP 68 stainless steel structure, combined with a high grade silicon carbide double mechanical seals.
- The LAS range of pumps are compact, strong and easy to operate in any situation.
- Special designed high efficient and wear resistant HCR (High Chrome) impeller.
- Multi impeller design suitable from high head with small capacity to low head with large capacity of application requirement.
- Optional discharge connection (Hose, flange and thread connection)



Direction of Rotation

- Clockwise as seen from the motor rear end.

Special Features on Request

- Other voltages.
- Available in 60Hz.

Thermal overload protector

- Equipped with Automatic reset motor protector, prevents motor from burning due to high temperature/phase failure/ voltage drop and locked impeller.

HCR Impeller

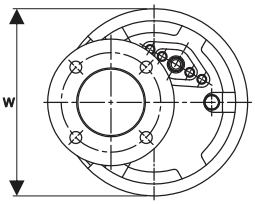
- The LAS impeller is manufactured with a high chrome alloy (HCR) steel with a hardness of 55 - 60 Rc., which makes it resistant to prolonged use in abrasive applications.

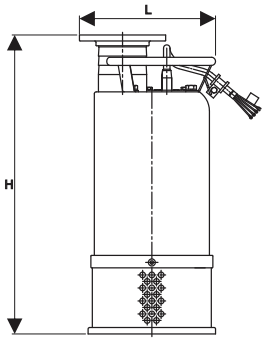
Protector

Impeller

Specification

HP			1.1 to 3.7 kW	5.5 to 11 kW	
Diameter (mm)			50 - 80	80	100 - 150
Pumping liquid	Ambient temp		Max. +50°C		
	Liquid temp		0°C to +50°C		
	Liquid nature		Suitable for dewatering at civil engineering sites and pumping of storm water.		
	Max depth		30m		
Pump	Structure	Impeller	Open	Open	Enclosed
		Mech. seal	Double Mechanical seal		
		Bearing	Ball type bearing		
	Material	Body cover	S.S. AISI 304		
		Upper cover	Grey Iron		
		Volute	Hard Ductile Iron		
		Impeller	HCR		
		Wear Ring	-	HCR	
	M. seal	Motor Side	Carbon v/s Ceramic		
		Pump Side	Silicon Carbide v/s Silicon Carbide		
Motor	Type		Dry motor		
	Insulation		F Class		
	Frequency		50 Hz		
	Thermal Protector		Automatic reset motor protector		
	Material	Stator body	S.S. AISI 304	Grey Iron	
		Shaft	S.S. AISI 410		
		Cable	Thermoplastic Rubber		
Protection			IP 68		
Duty			S1 - When pump is completely or partially submerged.		
Voltage			1 Ph. 230 v +5/-15%, 3 Ph. 400 v +5/-15%	3 Ph. 400 v +5/-15%	





LAS 21A15, 21A35

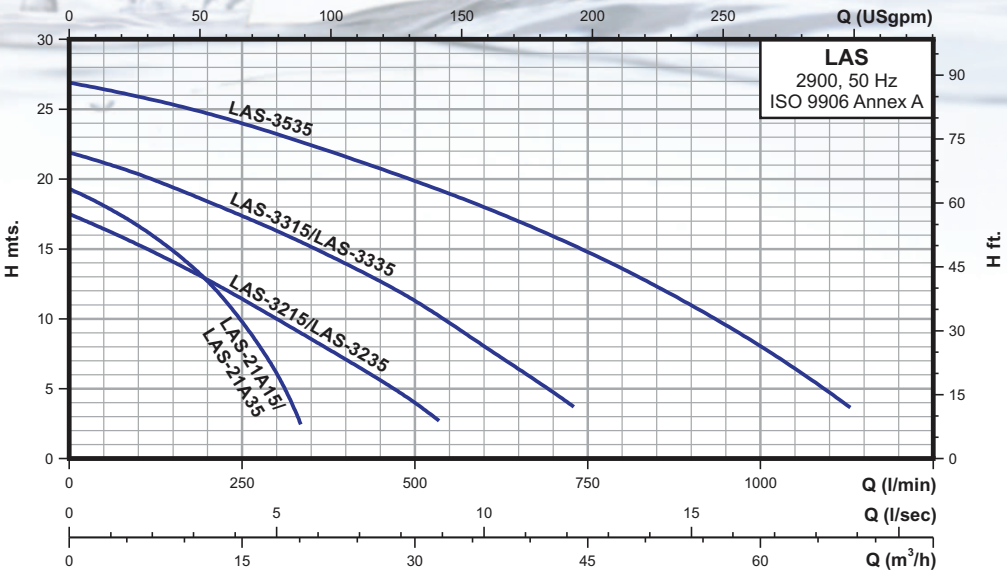
LAS 3215, 3235, 3315, 3335, 3535

LAS 3735, 4735, 6735, 41035, 41535, 61035, 61535

DIMENSIONS

Model		Disc. mm (Inch)	Dimensions (mm)			Solid Passage mm	Net Weight (kg.)	Gross Weight (kg.)	Volume (m^3)
Single Phase	Three Phase		Length	Width	Height				
LAS 21A15/21A15F	-	50 (2")	210	210	510	8	29.0	49.0	0.077
-	LAS 21A35/21A35F		210	210	435	8	25.0	45.0	0.068
LAS 3215/3215F	-	80 (3")	250	240	630	11	43.0	68.0	0.111
-	LAS 3235/3235F		250	240	535	11	39.0	64.0	0.097
LAS 3315/3315F	-	80 (3")	250	240	645	11	47.0	72.0	0.113
-	LAS 3335/3335F		250	240	560	11	42.0	67.0	0.101
-	LAS 3535	80 (3")	250	240	600	11	46.0	71.0	0.107
-	LAS 3735	80 (3")	290	290	690	10	74.0	102.0	0.150
-	LAS 4735	100 (4")	290	290	690	10	76.0	104.0	0.150
-	LAS 6735	150 (6")	290	290	745	10	78.0	106.0	0.160
-	LAS 41035	100 (4")	290	290	690	10	76.0	104.0	0.150
-	LAS 61035	150 (6")	290	290	745	10	80.0	108.0	0.160
-	LAS 41535	100 (4")	290	290	725	10	82.0	112.0	0.170
-	LAS 61535	150 (6")	290	290	785	10	86.0	116.0	0.180

PERFORMANCE CHART AT n = 2900 RPM FOR CONSTRUCTION DRAINAGE PUMP



PERFORMANCE DATA AT n = 2900 RPM

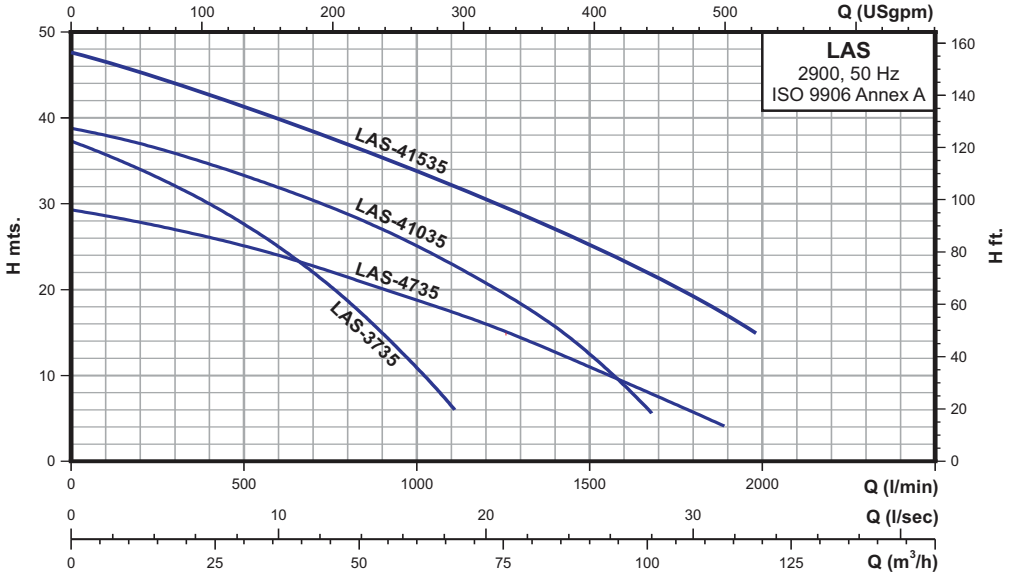
Model		Power		Start Method	m^3/h	6	12	18	24	30	36	42	48	60	66
Single Phase	Three Phase	kW	HP		l/min	100	200	300	400	500	600	700	800	1000	1100
LAS 21A15/21A15F	-	1.1	1.5	Capacitor	H m	16.5	12.5	6	-	-	-	-	-	-	-
-	LAS 21A35/21A35F			Direct											
LAS 3215/3215F	-	1.5	2.0	Capacitor		15.3	12.8	10	7	4	-	-	-	-	-
-	LAS 3235/3235F			Direct											
LAS 3315/3315F	-	2.2	3.0	Capacitor		20.3	18.4	16.4	14	12.5	8	5.5	-	-	-
-	LAS 3335/3335F			Direct											
-	LAS 3535	3.7	5.0	Direct		26	24.5	23.3	21.6	19.9	18	16	13.5	8	4.7

Note : Subscript "F" pumps will be provided with a float switch.

LAS

Heavy-Duty Construction Drainage Pumps (7.5 HP to 15.0 HP)

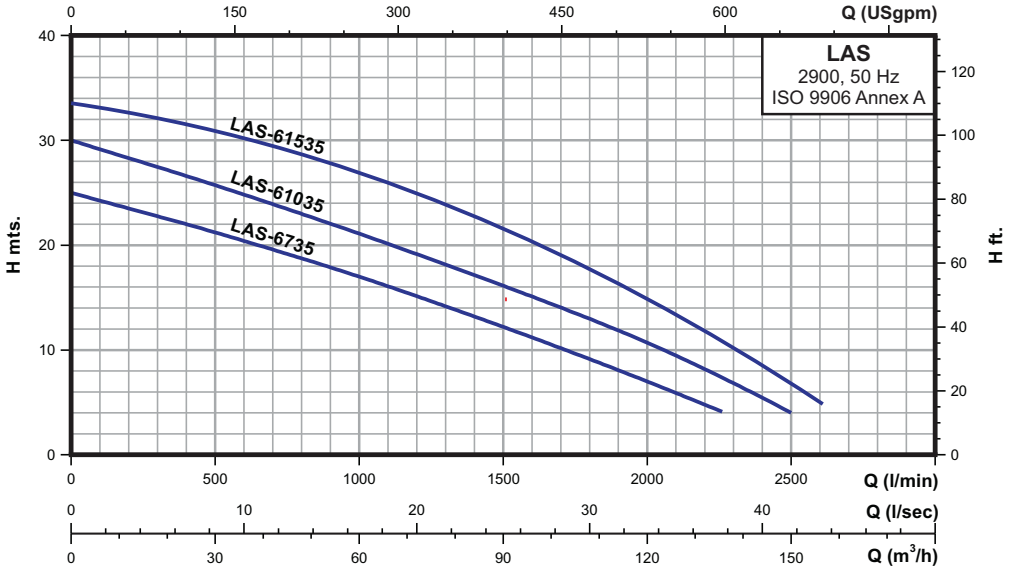
PERFORMANCE CHART AT n = 2900 RPM FOR CONSTRUCTION DRAINAGE PUMP



PERFORMANCE DATA AT n = 2900 RPM

Model	Power		Start Method	m³/h	12	18	24	30	36	48	54	60	66	72	84	96	108
Three Phase	kW	HP		l/min	200	300	400	500	600	800	900	1000	1100	1200	1400	1600	1800
LAS 3735	5.5	7.5	Direct	H m	34.0	32.0	30.0	27.5	25.0	18.6	15.0	11.0	6.2	-	-	-	-
LAS 4735			Direct		27.9	27.0	26.0	25.0	24.0	21.5	20.0	18.8	17.5	16.0	12.7	9.20	5.7
LAS 41035	7.5	10.0	Direct		37.0	35.9	34.6	33.4	32.0	28.8	27.0	25.0	23.0	20.8	15.6	9	-
LAS 41535	11.0	15.0	Direct		45.3	44.0	42.7	41.3	39.9	37.0	35.4	33.8	32.2	30.5	27.0	23.3	19.3

PERFORMANCE CHART AT n = 2900 RPM FOR CONSTRUCTION DRAINAGE PUMP



PERFORMANCE DATA AT n = 2900 RPM

Model	Power		Start Method	m³/h	18	36	54	72	90	108	126	144
Three Phase	kW	HP		l/min	300	600	900	1200	1500	1800	2100	2400
LAS 6735	5.5	7.5	Direct	H m	22.8	20.5	18.0	15.0	12.1	9.0	6.0	-
LAS 61035	7.5	10.0	Direct		27.5	24.9	22.0	19.0	16.0	13.0	9.4	5.4
LAS 61535	11.0	15.0	Direct		32.1	30.2	27.8	26.0	21.5	17.7	14.9	8.6