

SUCTION FLOW ZONE DESIGN REFERENCE FOR SUBMERSIBLE AXIAL PUMP

Hall PUMP

Several problems might arise if the insufficient shape and dimensions of the suction flow zone are decided at the design stage and from the hydro-dynamical point of view. Problems such as: eddy current of the surface water, air mixing with the water, heavy turbulence of water flow and the formation of stagnant water. In order to prevent or to reduce these causes, there are several things that need to be considered:

- The liquid of suction flow speed should be kept constant (flow speed 0.3~0.5m/s).
- Suction flow zone of water depth and floor slop variation of slope angle should be 30°~45°.
- Suction flow zone should fill up with concrete.
- In two pump operations, eddy current protection wall must be installed in the suction zone.
- In a two pump operation, any sudden obstacles at the suction flow zone must be avoided and maximum divergent angle must not exceed 20°.



In case of two pump operation



Equipped with a protection device against eddy current



HCP PUMP MANUFACTURER CO., LTD.

We reserve the right to alter specifications of product at any time without giving prior notice.

www.hcppump.com.tw









FEATURE

PUMF

- High efficiency motor connects directly to the impeller for the best energy savings.
- Strong material and construction, double mechanical seal, epoxy resin cable entry, IP68 waterproof.
- Shaft and impeller has been precisely balanced for a quiet and long life performance.
- Standard protection is miniature thermal protector and mechanical seal leakage detector. Optional protection devices available.
- The 3D computerized impeller and vanes conductive design, creates a higher pump efficiency.
- Sacrificial Anode : Sacrificial Anodes are highly active metals that are used to prevent a less active material surface from corroding. Sacrificial Anode reduces the rusting corrosion in sea water and increase the lifetime of the pump.

SUBMERSIBLE AXIAL PUMP STATION ADVANTAGES

Stand type

(pipe connect)

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Well type

(pipe connect)

- Sample design and construction for pump station.
- Frugal space makes it easier for installing and maintaining.
- Reduced expense in the pump station construction and installation.

APPLICATIONS

- Water supply or drainage for industrial.
- Water supply for cooling in the power plant.
- Used for large volume dewatering.
- Large scale aquaculture farming.
- Flooding Control.
- Others: Extraction of water from dock and river.

PROTECTOR DESCRIPTION (Optional)

- The Miniature Thermal Sesnsor (MTS) is mounted on the motor winding. The MTS sends a signal to the control box when the motor overheats. Consequently, the power supply is cut off, which prevents the pump from overload, overheating, etc.
- The Moisture Sensor (MS) is installed in the mechanical seal chamber, motor housing (optional) and the wiring chamber (optional). The MS detects moisture and sends a signal to the control box to prevent the pump from water leakage.
- The Bearing Thermal Sensor (BTS) is installed around the bearing. The BTS sends a signal to the control box when the bearing overheats to prevent the pump from overload, due to a damaged bearing.



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PERFORMANCE CURVES





PERFORMANCE SPEC. Note: Weight Without Cable & Elbow Set.

50Hz	Model	Output HP(kW)	Discharge Inch (mm)	Phase Ø	Start Method	Head m	Capacity		Well type			Stand type		
							m ³ /m	in m ³ /h	Dimension		Weight	Dimension		Weight
									Α	B	ку	Α	B	кд
	LA-2250	50 (37)	22"~24" (550~600)	3	Y-∆	4	38	2280	825	1380	755	825	1960	1130
	LA-2260	60 (45)	22" (550)	3	Y-∆	6	31	1860	825	1380	755	825	1960	1130
	LA-2875	75 (55)	28" (700)	3	Y-∆	3.5	60	3600	870	2150	1530	870	2760	2060
	LA-28100	100 (75)	28" (700)	3	Y-∆	5	60	3600	870	2150	1600	870	2760	2130
	Model	Output HP(kW)	Discharge Inch (mm)	Phase Ø	Start Method	Standa		dard	Well type		/pe	Stand type		
I									Dimension		Weight	Dimension		Weight
						m-m³/min		ft/GPM	m			m	m	ka(lb)
			22"24"						A	B	755	A	В	itg(ib)
60Hz	LA-2250	50 (37)	(550~600)	3	Y-∆	4-	·36	13-9510	825	1380	(1665)	825	1960	1130
	LA-2260	60 (45)	22" (550)	3	Y-∆	6-	28	20-7400	825	1380	755 (1665)	825	1960	1130
	LA-2875	75 (55)	28" (700)	3	Y-∆	3.5	-60	11-15850	870	2150	1530 (3373)	870	2760	2060
	LA-28100	100 (75)	28" (700)	3	Y-∆	5-	60	16-15850	870	2150	1600 (3527)	870	2760	2130



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Sacrificial Anode

Well type

(open flow)

0*11174.2

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PRODUCT NOMENCLATURE

LA — Туре

22 Discharge inch

HP

SPECIFICATIONS

Disc	charge (mm)	550 ~ 700					
s es	Liquid Temp.	0~40°C (32~104°F)					
Limit Of U	Applications	Wastewater • Industry drainage • Agriculture irrigation • Aquaculture water					
	Frequency	50Hz/60Hz					
	Motor	50Hz/8P (750RPM: LA2250/2260) • 50Hz/10P (600RPM: LA2875/28100) • 60Hz/10P (720RPM: LA2250/2260) • 60Hz/12P (600RPM: LA2875/28100) • Dry Motor					
0	Insulation	Class F (155°C)					
[ype	Protection	IP68					
F	Protector	MTS (Miniature Thermal Sensor) • MS (Moisture Sensor)					
	Bearing	Ball Type					
	M.seal	Double M.seals					
	Impeller	Axial					
	Upper Cover	FC-200					
	Motor Frame	FC-200					
	Shaft End	SUS420J2					
_	M.seal	SIC/SIC & SIC/SIC					
teria	Casing	FC-200					
Ma	Impeller	SCS13					
	Cable	3PNCT/2PNCT or H07RN-F					
	Wearing ring	SCS13 · SUS304 · ALBC3					
	Base stand / Outer cover	SS400 (Stand type)					
	Optional	Discharge and flange can be made to custom specification.					

Well type





