

Liquid ring vacuum pumps

single-stage

LPH 40106, LPH 40411, LPH 40516



Pressure range: 150 to 1013 mbar
Suction volume flow: 50 to 270 m³/h

CONSTRUCTION TYPE

Sterling SIHI liquid ring vacuum pumps are displacement pumps of uncomplicated and robust construction with the following particular features:

- handling of nearly all gases and vapours
- non-polluting due to nearly isothermal compression
- oil-free, as no lubrication in the working chamber
- small quantities of entrained liquid can be handled
- easy maintenance and reliable operation
- low noise and nearly free of vibration
- wide choice of material, therefore applicable nearly everywhere
- incorporated central drain
- no metallic contact of the rotating parts

The Sterling SIHI liquid ring vacuum pumps LPH 40106, LPH 40411 and LPH 40516 are single-stage ones. They can be applied without modification as compressors up to a compression pressure of 1,2 bar (see catalogue part K).



APPLICATION

Handling and exhausting of dry and humid gases; entrained liquid can be handled during the normal duty. The pumps are applied in all fields where a pressure of 150...900 mbar must be created by robust vacuum pumps.

Fields of application are for example:

- chemistry and pharmacy for distilling and degassing
- electrics industry for impregnation and drying
- plastics industry for degassing etc.

NOTE

During operation the pump must continuously be supplied with service liquid, normally water, in order to eliminate the heat resulting from the gas compression and to replenish the liquid ring, because part of the liquid is leaving the pump together with the gas. This liquid can be separated from the gas in a liquid separator (see catalogue part accessories)

It is possible to reuse the service liquid.

The direction of rotation of the pump is clockwise, when looking from the drive end on the pump.

GENERAL TECHNICAL DATA

Pump type	unit	LPH 40106	LPH 40411	LPH 40516
Speed	50 Hz 60 Hz		1450 ¹⁾ 1740	
Max. compression over pressure	bar	0,8	1,5	1,5
Max. admissible pressure difference	bar	1,5	1,5	1,5 1,2 ²⁾ 1,5
Hydraulic test (over pressure)	bar		3	
Moment of inertial of the rotating pump parts and of the water filling	kg · m ²	0,0375	0,05	0,065
Sound pressure level at a suction pressure of 200 mbar	dB (A)		65 66	
Min. pulley diameter permissible in case of V-belt drive	mm		160	
Max. gas temperature	dry saturated		240 120	
Service liquid				
max. admissible temperature	°C		100	
max. viscosity	mm ² /s		90	
max. density	kg/m ³		1200	
volume up to shaft level	Liter	3,5	4,5	5,5
Max. flow resistance of the heat exchanger	bar		0,2	

The combination of several limiting values is not admissible.

¹⁾ normal speed

²⁾ for material design 42