Liquid ring vacuum pumps
single-stage

LOH 20103, LOH 20107

Pressure range: **150 to 1013 mbar**
Suction volume flow: **7 to 58 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
- Low noise and nearly free from 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 LOH 20103 and LOH 20107 are single-stage ones. They can be applied without modification as compressors up to a compression pressure of 1 bar (see catalogue part K).

APPLICATION

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

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

NOTE

During operation the pump must be continuously supplied with service liquid, normally water, in order to eliminate the heat resulting from gas compression and in order 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).
Reuse of the service liquid is possible.
The direction of rotation of the pump is clockwise when looking from the drive on the pump.

GENERAL TECHNICAL DATA

		Unit	LOH 20103	LOH 20107
Speed	50 Hz 60 Hz	rpm	2800 [1)] 3400	2800 [1)] 3400
Max. compression over pressure		bar	1	
Max. admissible pressure difference		bar	1,5	
Hydraulic test (over pressure)		bar	3	
Moment of inertial of the rotating pump parts and of the water filling		kg · m²	0,0033	0,005
Sound pressure level at a suction pressure of 200 mbar		dB (A)	66	67
Min. pulley diameter permissible in case of V-belt drive		mm	80	
Max. gas temperature	dry saturated	°C °C	240 120	
Service liquid				
max. admissible temperature		°C	100	
max. viscosity		mm²/s	90	
max. density		kg/m³	1200	
volume up to shaft level		liter	0,9	1,0
Max. flow resistance of heat exchanger		bar	0,2	

The combination of several limiting values is not admissible.
[1)] normal speed