

# Liquid ring vacuum pumps in compact design



## LEM 26, LEM 51 LEM 91, LEM 126, LEM 161

**Pressure range:** 33 to 1013 mbar  
**Suction capacity:** 6 to 190 m<sup>3</sup>/h

### CONSTRUCTION TYPE

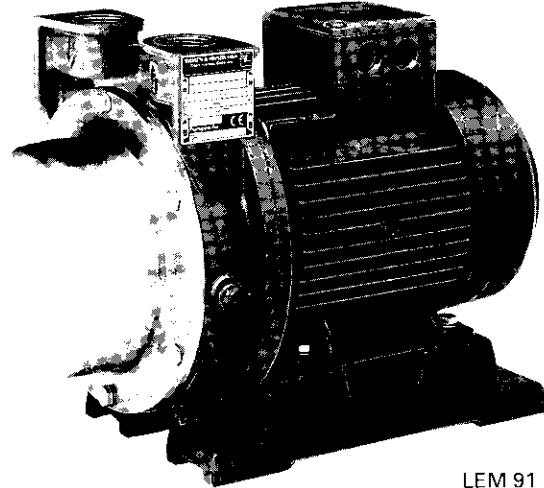
SIHI liquid ring vacuum pumps are displacement pumps of uncomplicated and robust construction with the following particular features:

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

The SIHI liquid ring vacuum pumps LEM are single-stage ones.

### 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 pressures between 33 ... 900 mbar must be created by robust vacuum pumps.



LEM 91

### NOTE

During operating 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 A). It is possible to reuse the service liquid. If necessary, the pumps are equipped with a device by which the contaminated service liquid can continuously be drained during operation (dirt drain).

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

### GENERAL TECHNICAL DATA

Pump type	unit	LEM 26	LEM 51	LEM 91	LEM 126	LEM 161
Speed	50 Hz 60 Hz			2900 3500		1460 1750
max. compression pressure	bar			1,3		
max. admissible pressure difference	bar			1,1		
Moment of inertial of the rotating pump parts and of the water filling	kg/m <sup>2</sup>	0,003	0,005	0,007	0,009	0,070
Sound pressure level at a suction pressure of 80 mbar	dB(A)	68		72 (67)*		65
max. gas temperature	dry saturated			200 100		
Service liquid						
max. admissible temperature	°C			80		
max. viscosity	mm <sup>2</sup> /s			4		
max. density	kg/m <sup>3</sup>			1200		
volume of liquid up to shaft level	liter	0,4	0,6	0,5	0,6	2,0
max. flow resistance of the heat exchanger	bar			0,2		

\* Value in parenthesis: measurement with sound insulation cap