







MAX - LAX Series

HIGH CAPACITY SINGLE STAGE LIQUID RING VACUUM PUMP

- Heavy duty application, compact
- Low maintenance cost, easy to service
- Precision balanced motor, quiet operation
- Rugged design for reliable operation and long service life
- Capacity up to 600 m³/hr
- Available in cast iron construction and stainless steel
- Built in anti cavitation port

➔ Parameter of the MAX - LAX series liquid water ring vacuum pumps

@ 50Hz - 1.450rpm

Construction		Type	Suction capacity		Max. Vacuum	Output kW	Ex-proof grade of motor	Protection class of motor	Speed r/min	Flowrate L/min	Noise dB (A)	Weight kg	
MAX	LAX		m ³ /min	m ³ /h									
		MAX 30	0.50	30	33mbar	1.1	IP55	2840	2	62	31		
		MAX 50	0.85	50		1.5		2840	2	65	35		
		MAX 80	1.33	80		3		2860	2.5	66	56		
		MAX 110	1.83	110		4		2880	4.2	70	65		
		MAX 150	2.75	165		4		IP55	1440	6.7	63	103	
		MAX 250	3.83	230		5.5			1440	8.3	68	117	
		MAX 300	4.66	280		7.5			1440	10	69	149	
		MAX 450	6.66	400		11			1460	15	73	205	
		MAX 550	8.33	500		15	970		20	74	331		
		MAX 30-Ex	0.50	30		1.1	dIIBT4		IP55	2840	2	62	39
		MAX 50-Ex	0.85	50		1.5				2840	2	65	45
		MAX 80-Ex	1.33	80		3				2860	2.5	66	66
		MAX 110-Ex	1.83	110		4		2880		4.2	72	77	
		MAX 150-Ex	2.75	165		4	dIIBT4	IP55	1440	6.7	63	153	
		MAX 250-Ex	3.83	230		5.5			1440	8.3	68	208	
		MAX 300-Ex	4.66	280		7.5			1440	10	69	240	
		MAX 450-Ex	6.66	400		11			1460	15	73	320	
		MAX 550-Ex	8.33	500		15			970	20	74	446	

- Note:**
1. the curve is obtained under de situation that the suction medium is saturated air at 20°C, the operating liquid is at 15°C and the discharge pressure is 1013mbar. The performance tolerance is ±10%.
 2. the flowrate in the above table indicates the value when the pump connects with a separator. If the operating liquid dose not circulate in the system, the consumed volume of the liquid is twice of the data in the table.

CHARACTERISTIC

MAX - LAX liquid ring vacuum pump range is single stage type with vary port valve design. Simplicity and robustness are the main features but there are other advantages to be highlighted as follows :

- Wide range of applications
- High reliability
- Possibility to handle various gases and vapours nebertheless associated liquid carry over
- Isothermal compression
- One moving part : the rotor
- Low maintenance

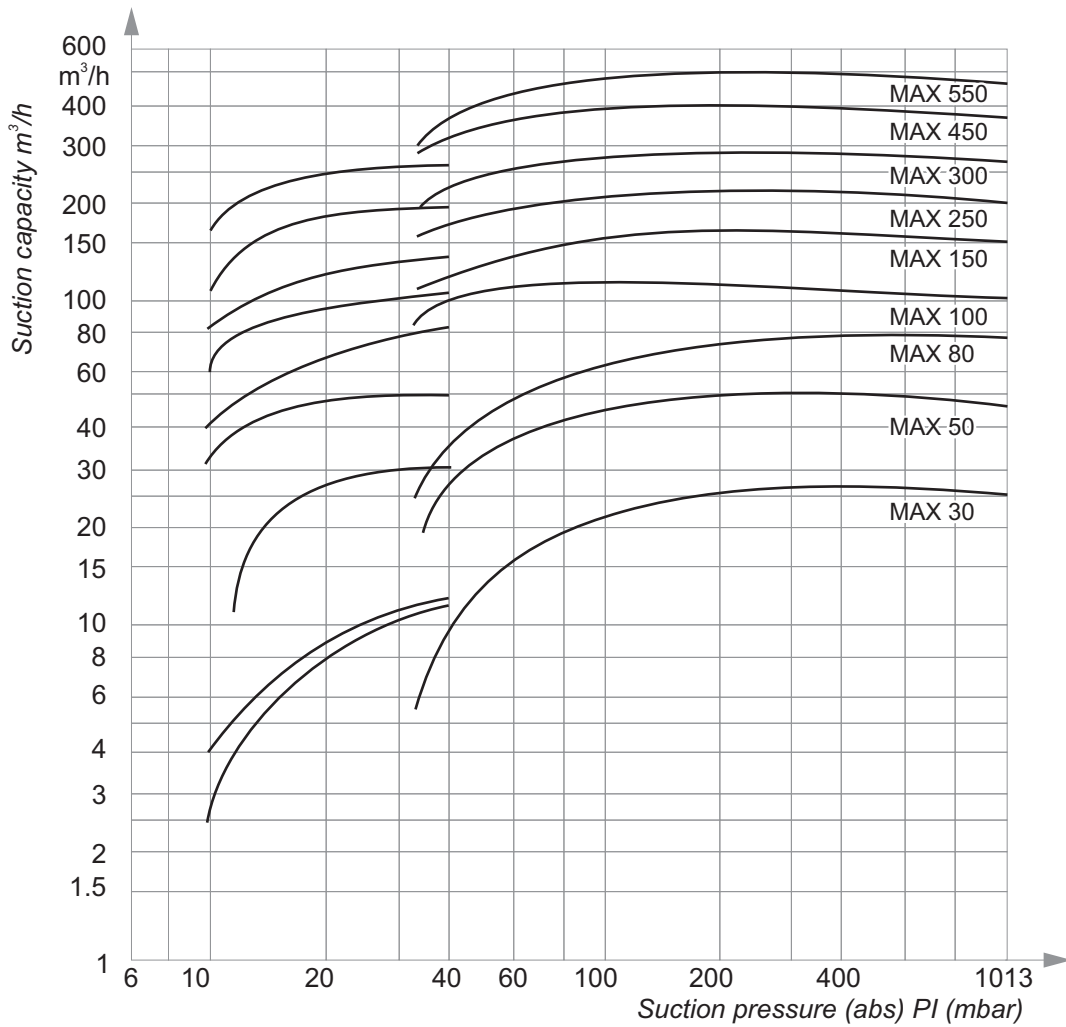
MAIN APPLICATIONS

- Plastic industry
- Chemical industry
- Medical technology
- Food and beverage industry
- General industry



MAX 250 - 5,5 kW

The performance curve of the MAX - LAX series liquid ring vacuum pumps



Accessories



Inlet check valve



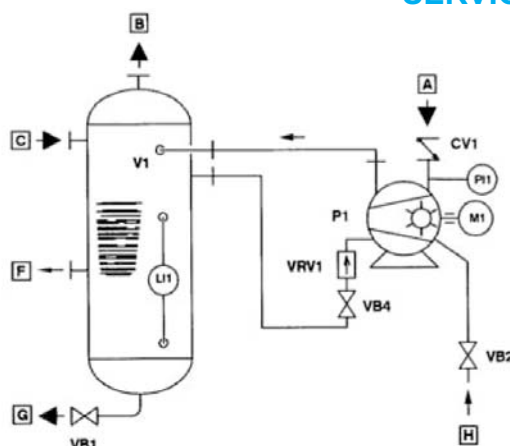
Air ejector

Notes : the above curve is obtained under the conditions that the suction media is saturated air at 20°C, the operating liquid temperature is at 15°C and the discharge pressure is 1013 mbar. The allowance tolerance is $\pm 10\%$. As the performance curve with an ejector, please refer to the left part.

MATERIAL OF CONSTRUCTION

Pos.	DENOMINATION	CONSTRUCTION	
		GX	XX
1	Housing	Fe510 UNI 7729 - DIN ST52	X5CrNiMo17-12-2 - EN 10088-3
2	Port plate	Q 250 UNI - ISO 185	CF8M - ASTM A 351
4	Suction/discharge casing	Q 250 UNI - ISO 185	CF8M - ASTM A 351
3	Impeller	CF8M - ASTM A 351	CF8M - ASTM A 351
11	Shaft	X 20 Cr 13 - EN 10088-3	X5CrNiMo17-12-2 - EN 10088-3
5	Mechanical seal	Stainless Steel or Silicon carbide / carbon/viton	Multiplex SIC/CA/PTFE
7	Manifold	Q 250 JN1 - ISO 185	X5CrNiMo17-12-2 - EN 10088-3

SERVICE LIQUID ARRANGEMENTS



Once through

Standard arrangement for installation where there is enough fresh service liquid available and there are no handling problems down-stream as both the liquid and the gas are not considered as polluted or polluting.

The gas mixed together with the service liquid can be sent directly into the discharge system or, if gas-liquid separation is required, to a separator tank; by gravity, the gas will flow out from the top and the liquid from the bottom.

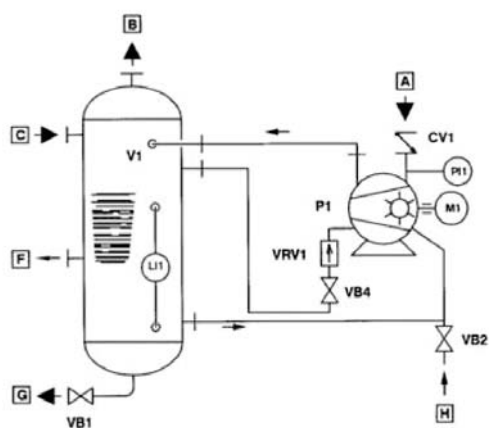
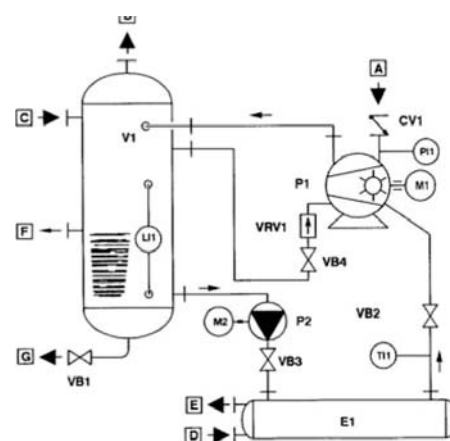
It is recommended to make sure that the service liquid supply pressure is 0.5 bar above the pump discharge pressure.

Partial recirculation

This configuration is particularly indicated when the fresh liquid consumption must be low, the pump can operate with a service liquid having a higher temperature compared to the fresh liquid and when there are no handling problems down-stream as both the liquid and the gas are not considered as polluted or polluting.

The service liquid flow consists partly of fresh liquid (normally approx. 50%) and the remaining quantity by liquid at higher temperature recovered from the separator tank.

Also in this case it is recommended to make sure that the service liquid supply pressure 0.5 bar above the pump discharge pressure.



Recirculated service liquid arrangement

This arrangement has to be followed any time there is an application which requires to avoid any process gas leakage or when there are involved fluids which for their chemical composition or pollution caused by the process gas cannot leave the plant for environmental or process reasons.

The service liquid flows from the pump into a separator tank, recirculated back through a heat exchanger where it is cooled down at a specified temperature and then back to the pump.

In case the heat exchanger generates a high pressure drop this altering the conditions for a good service liquid supply, it is necessary to install a recirculation pump to restore the pressure required in the system.

	Nozzles		Accessories		Accessories
A	Suction	P1	Vacuum pump	TI1	Thermometer
B	Discharge	M1	Vacuum pump el. motor	VRV1	Anticavitation valve
C	Service liquid make up	V1	Separator tank	VB1	Drain valve
D	Cooling water inlet	E1	Heat exchanger	VB2 - VB5	Shut-off valve
E	Cooling water outlet	P2	Recirculation pump	VB3-VB4	Adjusting valve
F	Overflow	M2	Recirculation pump el. motor		
G	Separator drain	CV1	Inlet check valve		
H	Service liquid inlet	P1	Vacuum gauge		