

LIQUID RING VACUUM PUMPS

GMP 520/400 – GMP 520/550

PRESSURE RANGE : 40 – 1013 mbara / 1.18 – 30 inHg

SUCTION CAPACITY : 1250 – 2900 m³/h / 735 – 1710 cfm

GÜCÜM two stage liquid ring vacuum pumps are used for pumping dry and wet gases, small quantities of liquid can be handled. They are used in the areas at which vacuum needed between the pressures 1013 to 33 mbar

Güçüm Two stage liquid ring vacuum pumps have below features;

- Able to pump every kind of gases and vapors,
- Able to handle small quantities of liquid with gases,
- Oil-free, no need to lubrication,
- Pumped gas does not touch to oil,
- Minimum maintenance with high efficiency
- No metallic contact of the rotating parts,
- Works quiet and reduced vibration,
- Nearly everywhere used with suitable material choices.



APPLICATION

Pumps are used for the discharge of dry and humid gases (containing vapor) and a certain amount of water. It can be used in all areas where absolute pressure between 1013 and 33 mbar is required.

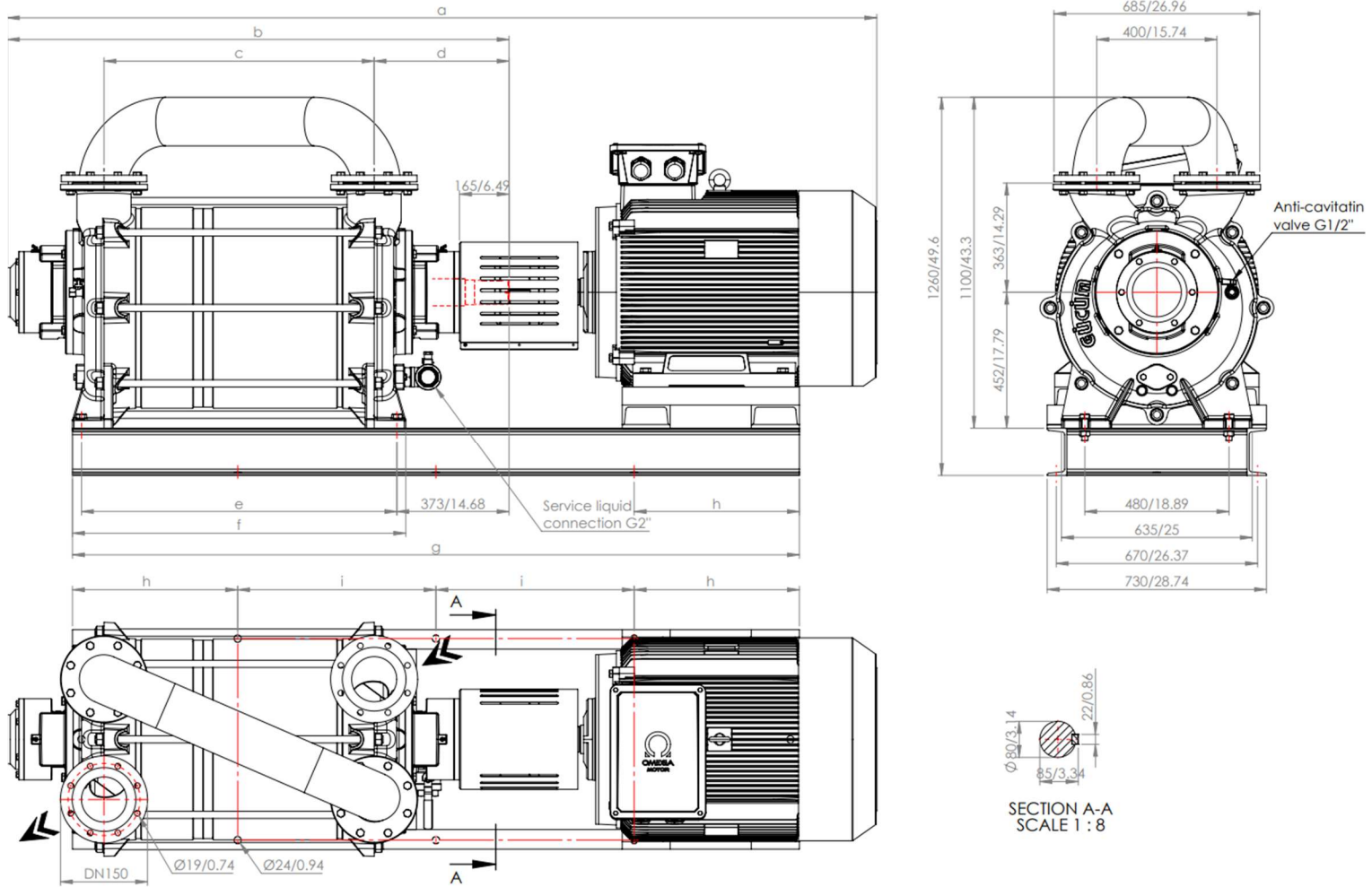
ADDITIONAL NOTE

During operation, the pump must be continuously supplied with liquid (usually water) to replenish the water from the exhaust line and to reduce the pump temperature. The water discharged from the pump is separated from the gas and is suitable for reuse.

The direction of shaft rotation is clockwise when viewed from the motor side.
The tightness is ensured by a standard mechanical seal.

TECHNICAL FEATURES		
Maximum allowable pressure differential	1.1	bar
Highest saturated air temperature	100	°C
Highest dry air temperature	200	°C
Highest service water temperature	70	°C
Highest service water viscosity	4	mm ² /sec
Noise level (at 80 mbar vacuum)	85 ±3	dB A
Highest density of service water	1200	kg/m ³
Highest heat exchanger flow resistance	0,2	bar

OVERALL DIMENSIONS

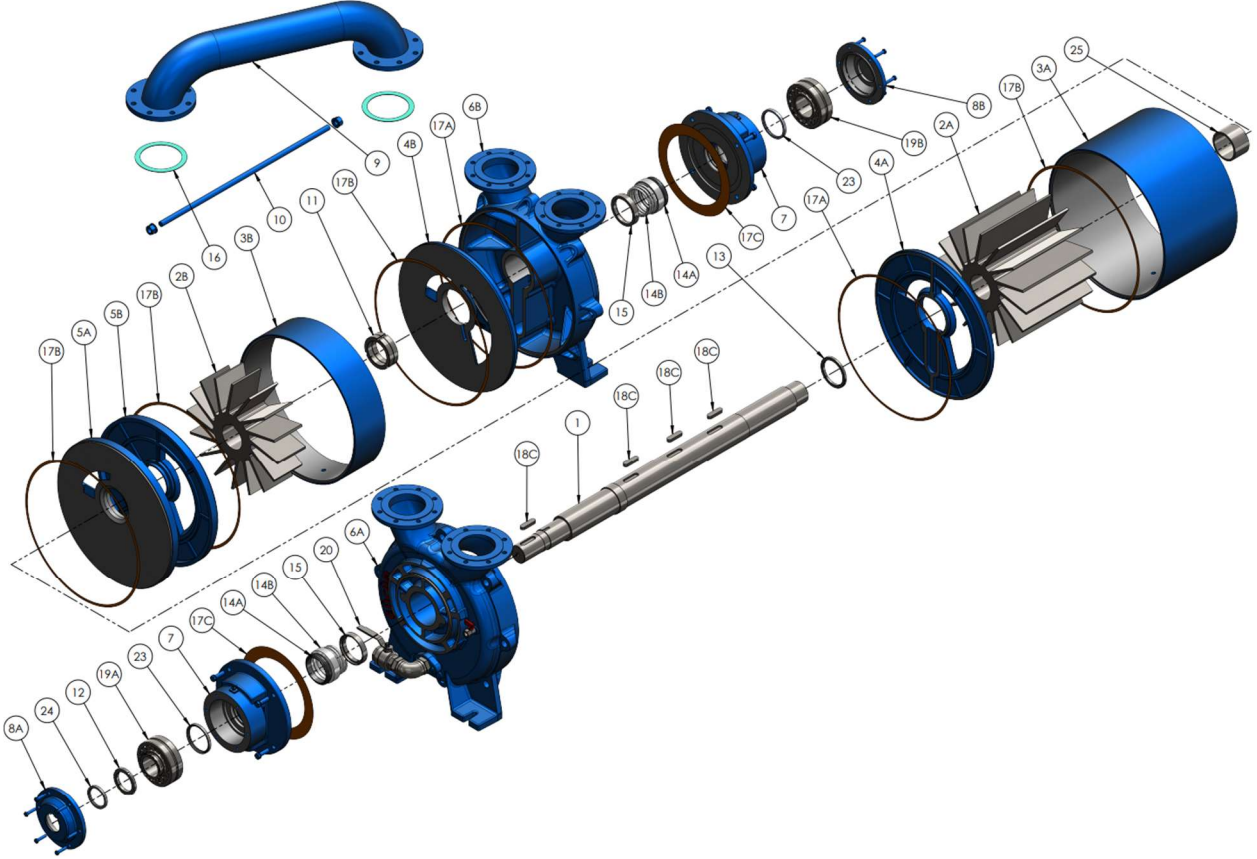


MODEL	50 Hz.	a	b	c	d	e	f	g	h	i	Weight (kg / lbs)	
		mm / inch									Bare Shaft	With Motor
GMP 520/400		2895/113.98	1670/65.75	905/35.63	445/17.52	1060/41.73	1120/44.10	2420/95.27	500/19.68	710/27.95	1180/2601	2280/5026
GMP 520/550		3075/121.06	1850/72.83	1085/42.72	445/17.52	1240/48.82	1300/51.18	2570/101.18	500/19.68	785/30.90	1380/3042	2640/5820

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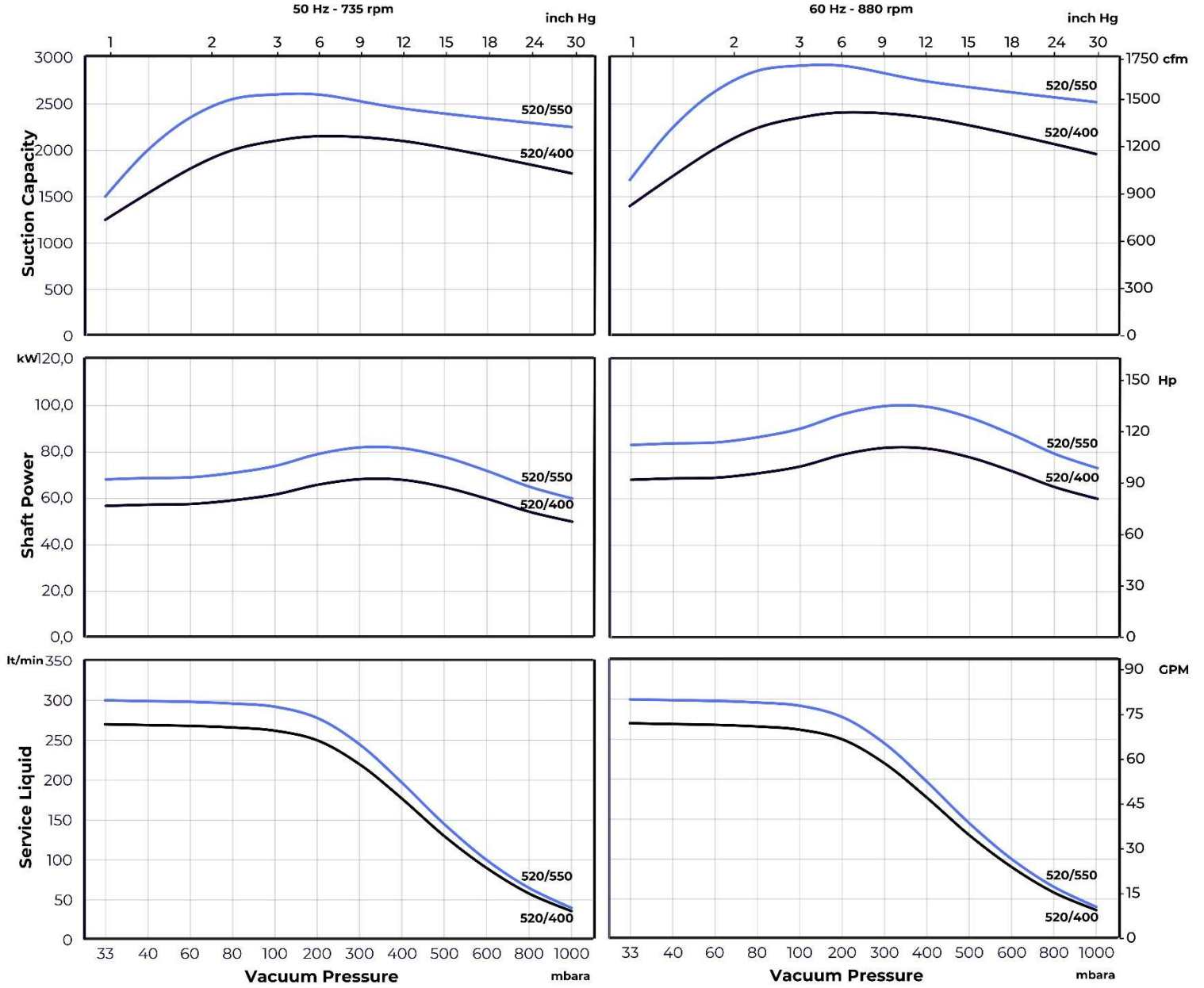
Motor Specification								
	50 Hz	60 Hz	50 Hz			60 Hz		
Model	Frame Size – Flange Type		rpm	kW	HP	rpm	kW	HP
GMP 520/400	315M – B3	315M – B3	735	75	100	880	90	120
GMP 520/550	315M – B3	315M – B3	735	90	120	880	110	150

EXPLODED VIEW AND PART LIST



PART NAME	Gray Cast Iron	Nodular Cast Iron	AISI 420	AISI 304	AISI 316	Bronze	Others	Piece
1. Shaft			✓	✓	✓			1
2A. First Stage Impeller			✓	✓	✓			1
2B. Second Stage Impeller			✓	✓	✓			1
3A. First Stage Cover				✓	✓		✓	1
3B. Second Stage Cover				✓	✓		✓	1
4A. Suction Plate		✓		✓	✓			1
4B. Discharge Plate		✓		✓	✓			1
5A. First Intermediate Plate		✓		✓	✓			1
5B. Second Intermediate Plate		✓		✓	✓			1
6A. Suction Casing	✓			✓	✓			1
6B. Discharge Casing	✓			✓	✓			1
7. Bearing Carrier	✓			✓	✓			2
8A. Bearing Cover	✓			✓				1
8B. Bearing End Cover	✓			✓				1
9. Manifold				✓	✓		✓	1
10. Tie Rod				✓			✓	8
11. Impeller Nut			✓					2
12. Bearing Nut			✓		✓			1
13. Impeller Washer			✓	✓	✓			1
14A. Mechanical Seal – Stable				G13-CARBON				2
14B. Mechanical Seal – Rotary					✓			2
15. Mechanical Key					✓			2
16. Klingrit Gasket				Klingrit				2
17A. Casing – Paper Gasket				PSP Pressband				2
17B. Cover – Paper Gasket				PSP Pressband				4
17C. Bearing Carrier -Paper Gasket				PSP Pressband				2
18C. Kaplan Kaması				✓	✓		✓	1
19A. Front Bearing Set				SKF22214_EK				1
19B. Rear Bearing				SKF22214_E				1
20. Service Liquid Connection				✓	✓		✓	1
23. Oil Seal – 110x130x12				NBR				2
24. Oil Seal – 82x105x13				NBR				1
25. Impeller Spacer			✓	✓	✓			1

CHARACTERISTIC CURVES



Suction Capacity		
Model	50 Hz	60 Hz
GMP 520/400	1250 – 2150 m³/h / 735 – 1265 cfm	1400 – 2400 m³/h / 825 – 1412 cfm
GMP 520/550	1500 – 2600 m³/h / 882 – 1530 cfm	1680 – 2900 m³/h / 990 – 1710 cfm

The above characteristic curves have been prepared in accordance with ISO 21360 standards. The curves are valid for the vacuum of 15°C service water and 20°C dry air supplied to the liquid ring vacuum pump at atmospheric pressure (760 mmHg / 1013 mbar). The values in the chart have a tolerance of $\pm 10\%$.

Characteristic curves vary under different operating conditions.