

LIQUID RING VACUUM PUMPS

GMVT 410/260 – GMVT 410/320 – GMVT 410/400

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

SUCTION CAPACITY : 620 – 1910 m³/h / 365 – 1124 cfm

GÜCÜM single 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 single 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.

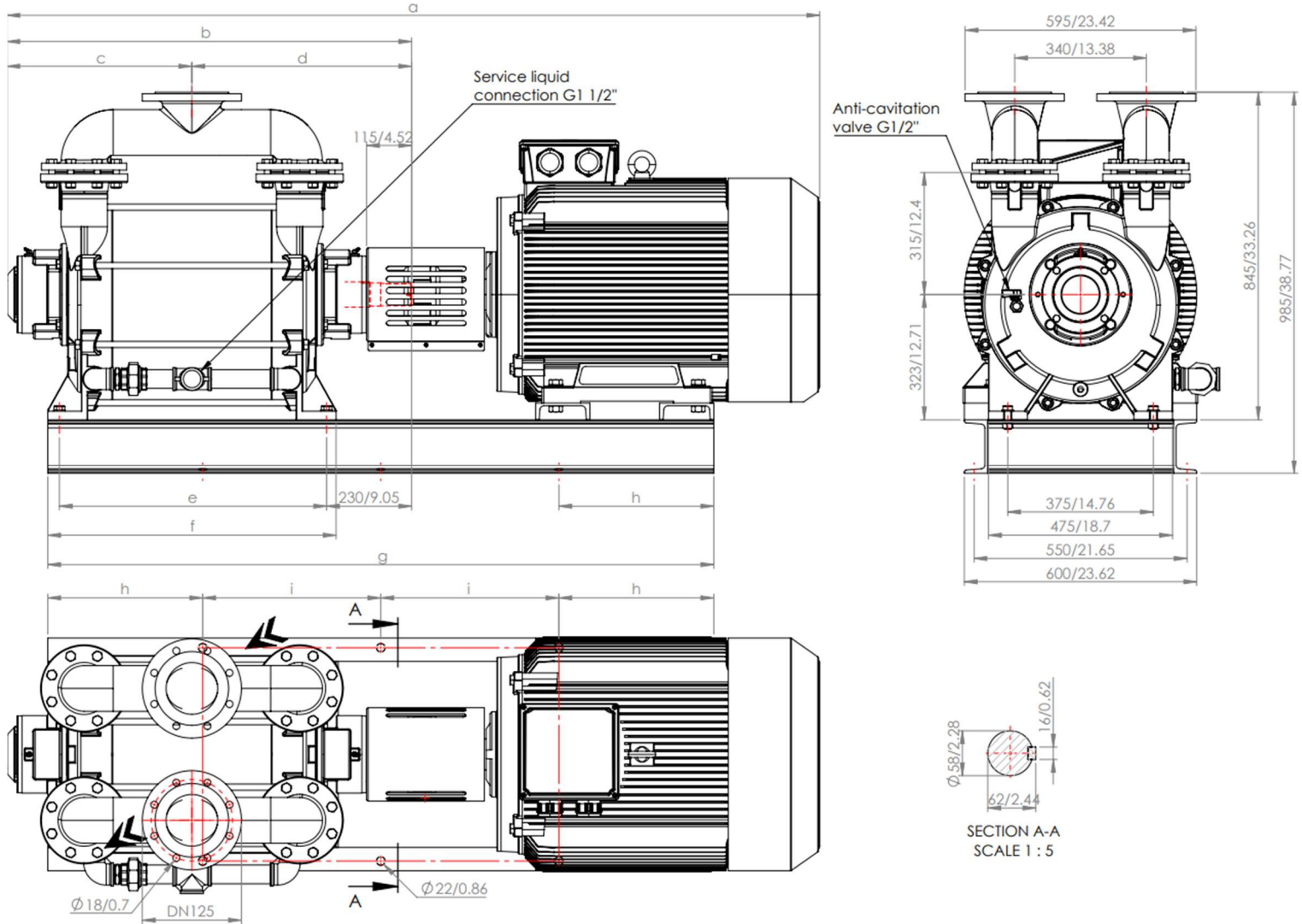
ADDITIONAL NOTE

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)	78 ±3	dB A
Highest density of service water	1200	kg/m ³
Highest heat exchanger flow resistance	0,2	bar

OVERALL DIMENSIONS

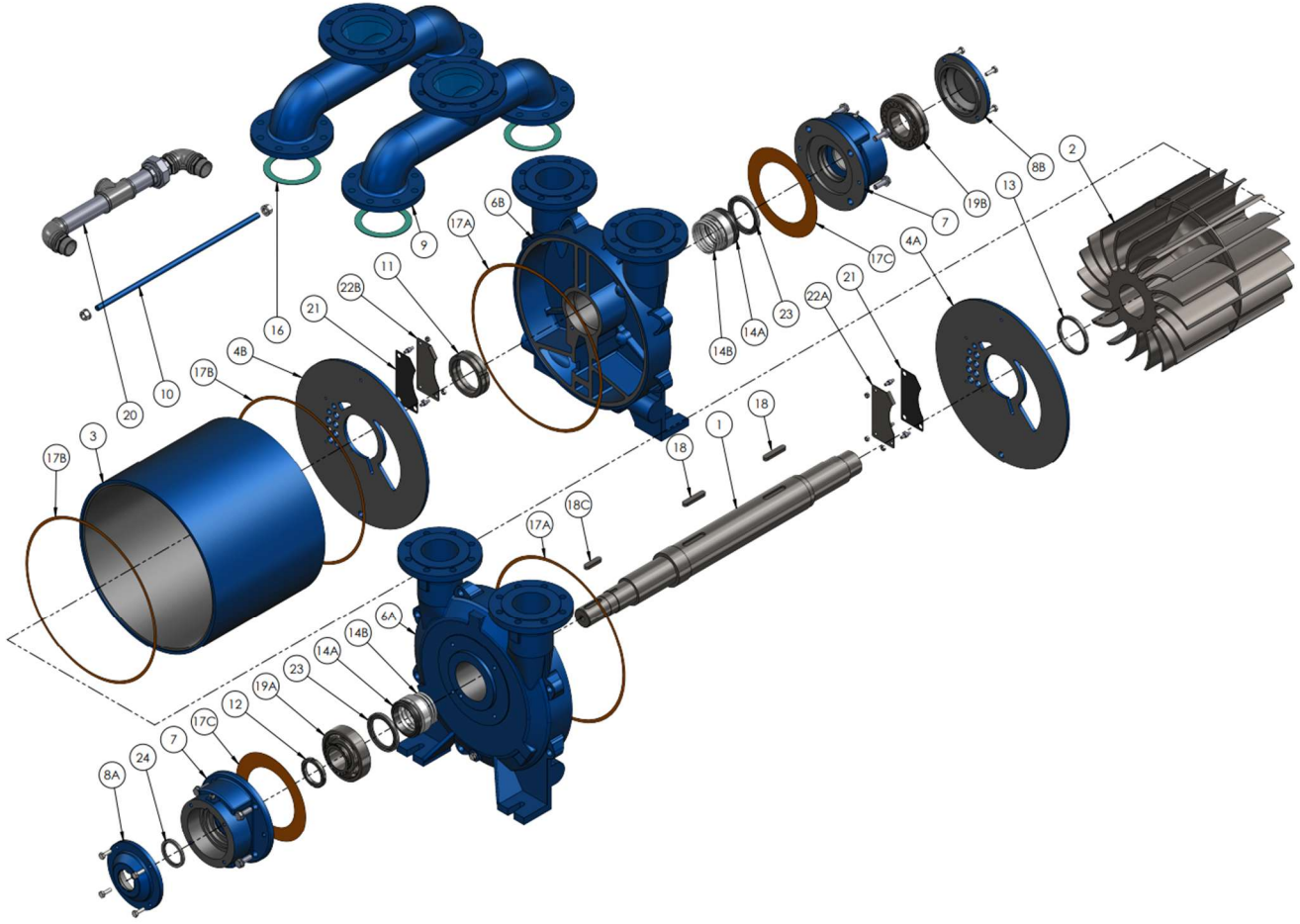


MODEL	50 Hz.	a	b	c	d	e	f	g	h	i	Weight (kg / lbs)	
		mm / inch									Bare Shaft	With Motor
GMVT 410/260		1790 / 70.47	905 / 35.63	405 / 15.94	500 / 19.68	545 / 21.46	595 / 23.43	1460 / 57.48	300 / 11.81	430 / 16.93	440/970	740/1631
GMVT 410/320		1910 / 75.20	965 / 37.99	435 / 17.12	530 / 20.87	605 / 23.82	655 / 25.79	1590 / 62.60	400 / 15.75	395 / 15.55	480/1058	935/2061
GMVT 410/400		2100 / 82.68	1045 / 41.14	475 / 18.70	570 / 22.44	685 / 26.97	735 / 28.94	1720 / 67.72	400 / 15.75	460 / 18.11	530/1168	1120/2470

MODEL	60 Hz.	a	b	c	d	e	f	g	h	i	Weight (kg / lbs)	
		mm / inch									Bare Shaft	With Motor
GMVT 410/260		1855 / 73.03	905 / 35.63	405 / 15.94	500 / 19.68	545 / 21.46	595 / 23.43	1540 / 60.63	300 / 11.81	470 / 18.50	440/970	895/1973
GMVT 410/320		2020 / 79.53	965 / 37.99	435 / 17.12	530 / 20.87	605 / 23.82	655 / 25.79	1640 / 64.56	400 / 15.75	420 / 16.54	480/1058	1070/2359
GMVT 410/400		2100 / 82.68	1045 / 41.14	475 / 18.70	570 / 22.44	685 / 26.97	735 / 28.94	1770 / 69.68	400 / 15.75	485 / 19.09	530/1168	1175/2590

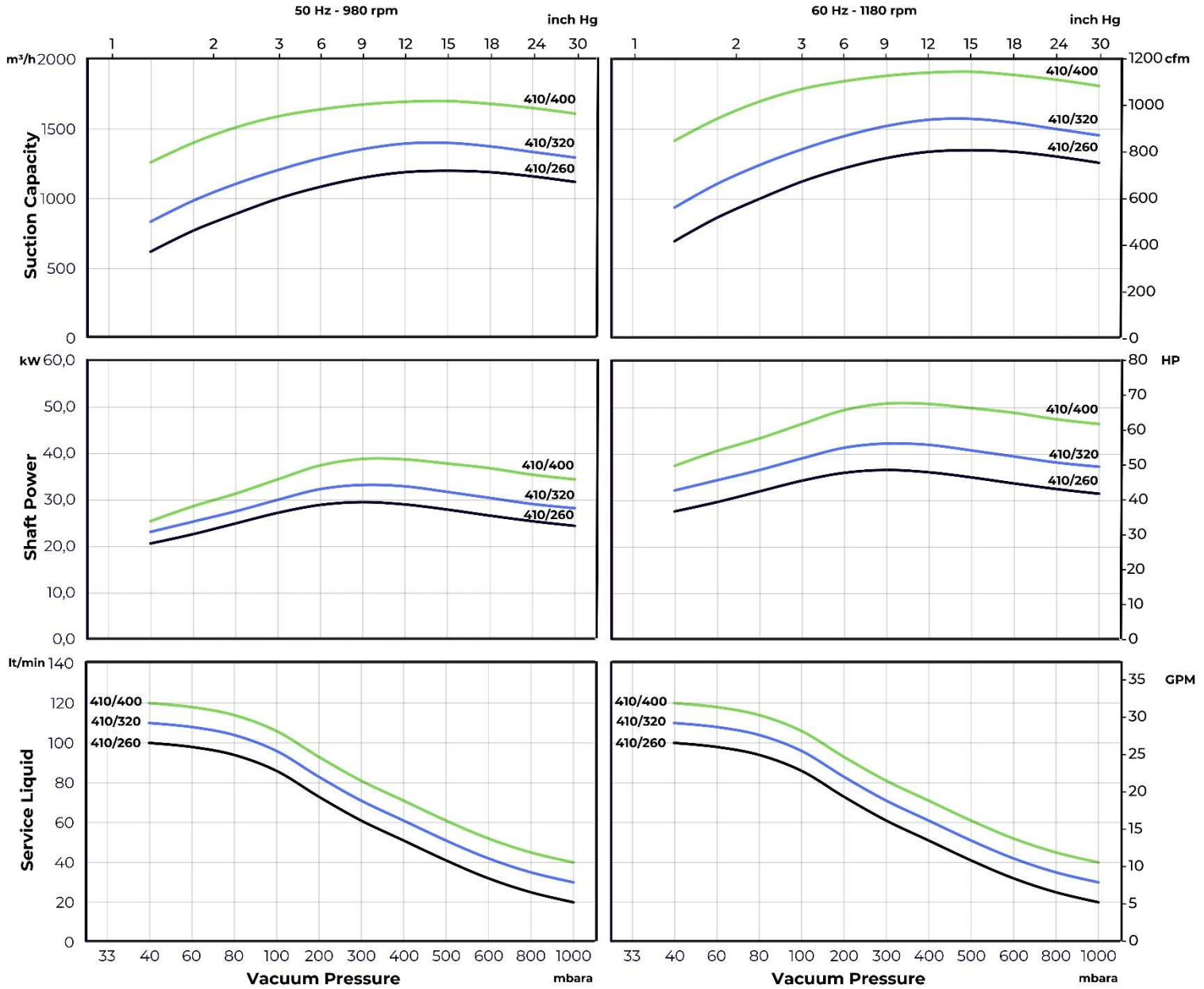
Motor Specifications								
	50 Hz	60 Hz	50 Hz			60 Hz		
Type	Frame Size – Flange Type		rpm	kW	HP	rpm	kW	HP
GMVT 410/260	225M – B3	250M – B3	980	30	40	1180	37	50
GMVT 410/320	250M – B3	280S – B3	980	37	50	1180	45	60
GMVT 410/400	280S – B3	280M – B3	980	45	60	1180	55	75

EXPLODED VIEW AND PART LIST



PART LIST	Cast Iron	Nodular Cast Iron	AISI 420	AISI 304	AISI 316	Bronze	St-37	Qty.
1. Shaft			✓	✓	✓			1
2. Impeller				✓	✓	✓		1
3. Cover				✓	✓		✓	1
4A. Suction Plate				✓	✓			1
4B. Discharge 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				✓	✓		✓	2
10. Tie Rod				✓	✓		✓	8
11. Impeller Nut			✓					2
12. Bearing Nut			✓					1
13. Impeller Spacer					✓			1
14A. Mechanical Seal - Stable				MG1-Ø80-G6 / SiC - Carbon - Viton				2
14B. Mechanical Seal - Rotary					✓			1
16. Klingrite Cover				Klingrite				4
17A. Casing Gasket				Paper				2
17B. Casing Gasket				Paper				2
17C. Bearing Carrier Gasket				Paper				2
18. Impeller Key				✓	✓		✓	2
18C. Coupling Key				✓	✓		✓	1
19A. Front Bearing				6314-ZZ/C3 / 100Cr6				1
19B. Rear Bearing				21314-EK/C3				1
20. Service Liquid Connection				✓	✓		✓	1 set
21. Valve				PTFE				2
22A. Front Valve Cover				✓	✓			1
22B. Rear Valve Cover				✓	✓			1
23. 110xX30X12 HMS5 V Oil Seal				Rubber				2
24. 82X105X13 HM5S VOil Seal				Rubber				1

CHARACTERISTIC CURVES



Suction Capacity		
Type	50 Hz	60 Hz
GMVT 410/260	620 – 1200 m³/h / 365 – 706 cfm	700 – 1350 m³/h / 412 – 795 cfm
GMVT 410/320	835 – 1400 m³/h / 491 – 824 cfm	940 – 1575 m³/h / 553 – 927 cfm
GMVT 410/400	1260 – 1700 m³/h / 742 – 1000 cfm	1420 – 1910 m³/h / 836 – 1124 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 ±10%.

Characteristic curves vary under different operating conditions.