

LIQUID RING VACUUM PUMPS

GMVT 275/220 – GMVT 275/260 – GMVT 275/300

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

SUCTION CAPACITY : 300 – 952 m³/h / 176 – 560 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.

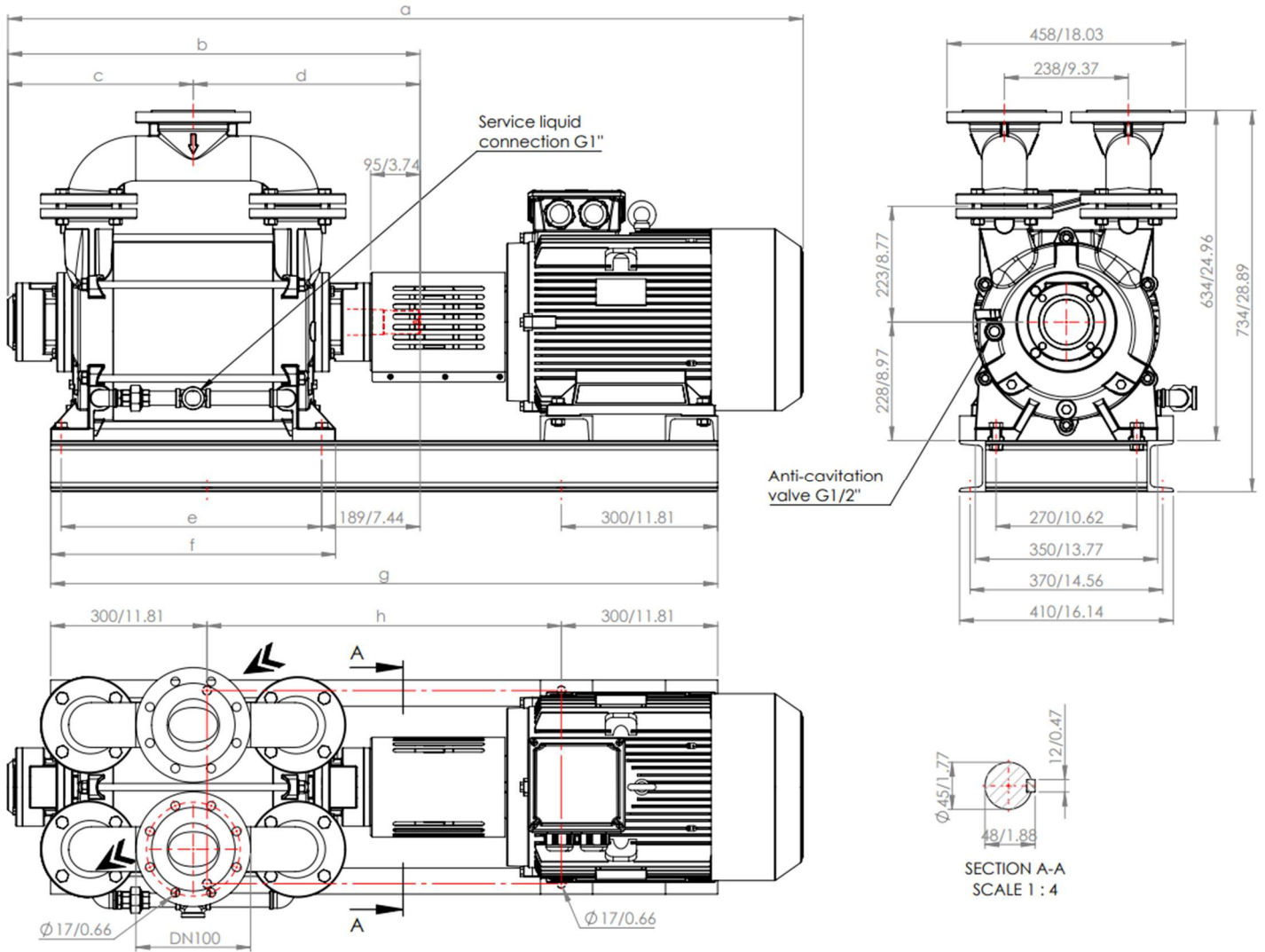
ADDITIONAL NOTE

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.

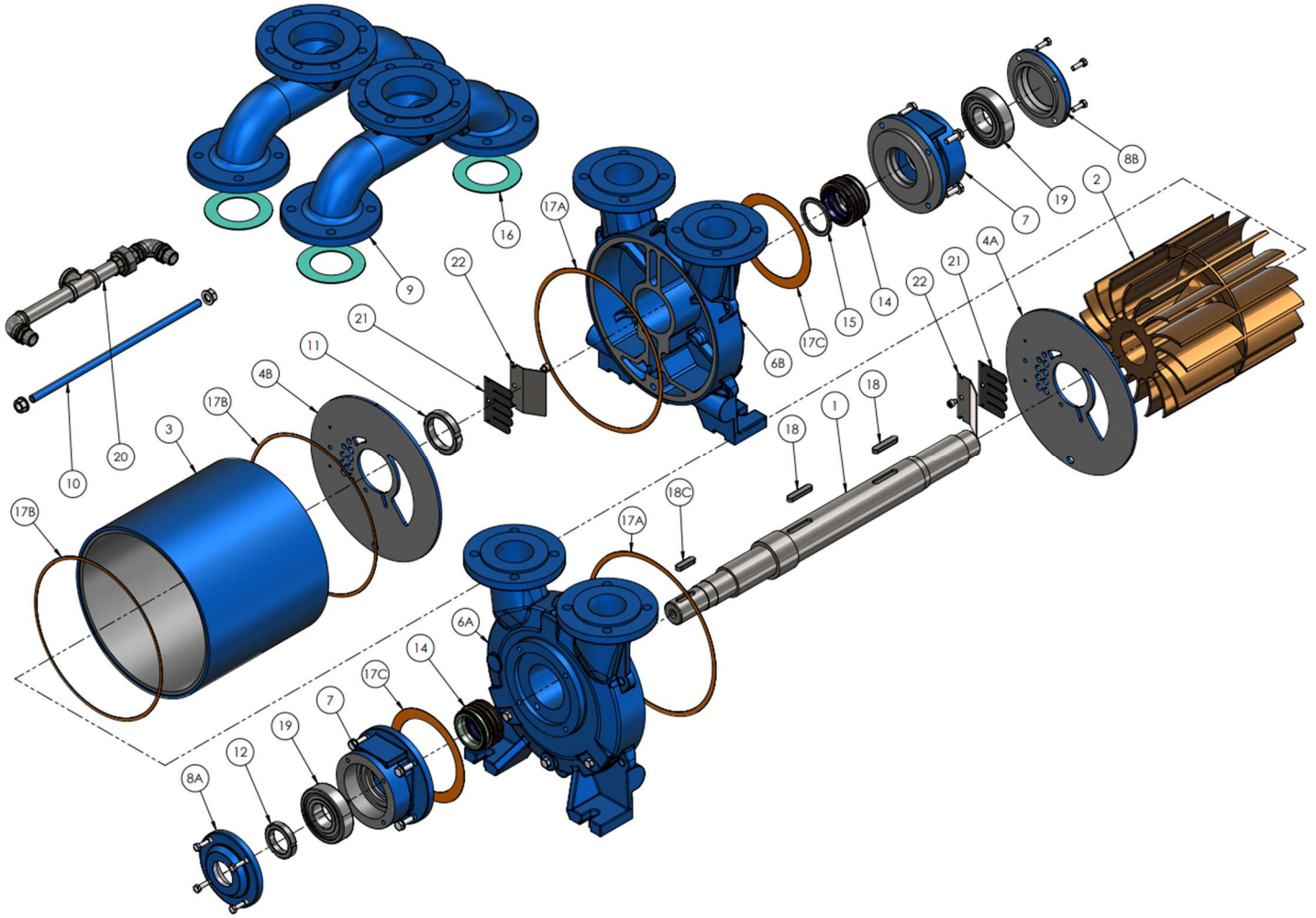
TECHNICAL FEATURES		
Maximum allowable pressure differential	1.1	bar
Highest saturated air temperature	100	°C
Highest dry air temperature	200	°C
Highest service water temperature	70	°C
Highest service water viscosity	4	mm ² /sec
Noise level (at 80 mbar vacuum)	75 ±3	dB A
Highest density of service water	1200	kg/m ³
Highest heat exchanger flow resistance	0,2	bar

OVERALL DIMENSIONS



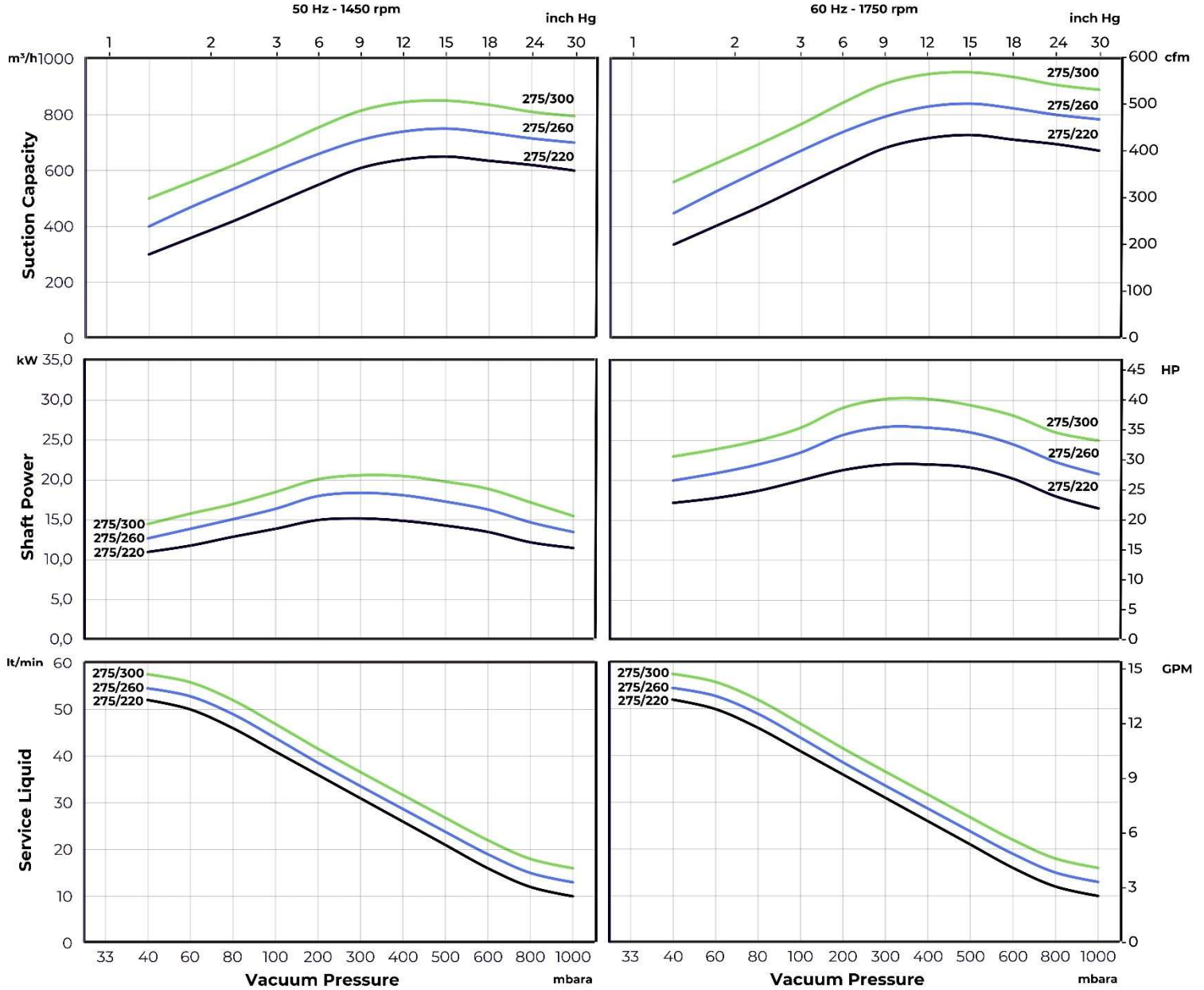
MODEL	50 Hz.	a	b	c	d	e	f	g	h	Weight (kg / lbs)		
		mm / inch								Bare Shaft	With Motor	
GMVT 275/220		1405/55.31	711/27.99	316/12.44	395/15.55	420/16.53	467/18.38	1170/46.06	570/22.44	215 / 474	350 / 771	
GMVT 275/260		1510/59.44	751/29.56	336/13.22	415/16.33	460/18.11	507/19.96	1260/49.6	660/25.98	225 / 496	385 / 849	
GMVT 275/300		1550/61.02	791/31.14	356/14.01	435/17.12	500/19.68	547/21.53	1300/51.18	700/27.55	237 / 523	420 / 926	
MODEL	60 Hz.	a	b	c	d	e	f	g	h	Weight (kg / lbs)		
		mm / inch								Bare Shaft	With Motor	
GMVT 275/220		1470/57.87	711/27.99	316/12.44	395/15.55	420/16.53	467/18.38	1220/48.03	620/24.4	215 / 474	375 / 826	
GMVT 275/260		1510/59.44	751/29.56	336/13.22	415/16.33	460/18.11	507/19.96	1260/49.6	660/25.98	225 / 496	400 / 882	
GMVT 275/300		1615/63.58	791/31.14	356/14.01	435/17.12	500/19.68	547/21.53	1350/53.14	750/29.52	237 / 523	475/1047	
Motor Specifications												
			50 Hz		60 Hz		50 Hz			60 Hz		
Type			Frame Size – Flange Type				rpm	kW	HP	rpm	kW	HP
GMVT 275/220			160L – B3		180M – B3		1450	15	20	1750	18.5	25
GMVT 275/260			180M – B3		180L – B3		1450	18.5	25	1750	22	30
GMVT 275/300			180L – B3		200L – B3		1450	22	30	1750	30	40

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 Cover	✓			✓	✓			1
7. Bearing Carrier	✓			✓	✓			2
8A. Bearing Cover	✓			✓	✓			1
8B. Bearing End Cover	✓			✓	✓			1
9. Manifold				✓	✓		✓	2
10. Tie Rod				✓	✓		✓	6
11. Impeller Nut			✓					1
12. Bearing Nut			✓					1
14. Mechanical Seal			MG1/MG3 – Ø60 – G6 / SiC – Carbon – Viton					2
15. Mechanical Seal Spacer				✓	✓			1
16. Klingrite Cover				Klingrite				4
17B. Casing Gasket				Paper				4
17C. Bearing Carrier Gasket				Paper				2
18. Impeller Key				✓	✓		✓	2
18C. Coupling Key				✓	✓		✓	1
19. Bearing				6310-ZZ/C3 / 100Cr6				2
21. Valve				PTFE				2
22. Valve Cover				✓	✓			2
23. Service Liquid Connection				✓	✓		✓	1 set

CHARACTERISTIC CURVES



Suction Capacity		
Type	50 Hz	60 Hz
GMVT 275/220	300 – 650 m³/h / 176 – 382 cfm	336 – 728 m³/h / 198 – 428 cfm
GMVT 275/260	400 – 750 m³/h / 235 – 441 cfm	448 – 840 m³/h / 264 – 494 cfm
GMVT 275/300	500 – 850 m³/h / 294 – 500 cfm	560 – 952 m³/h / 330 – 560 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.