

## LIQUID RING VACUUM PUMPS

### GVP 275/160 – GVP 275/220 – GVP 275/260

**PRESSURE RANGE** : 0.98 – 30 inHg / 33 – 1013 mbara

**SUCTION CAPACITY** : 44 – 132 cfm / 75 – 225 m<sup>3</sup>/h

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.

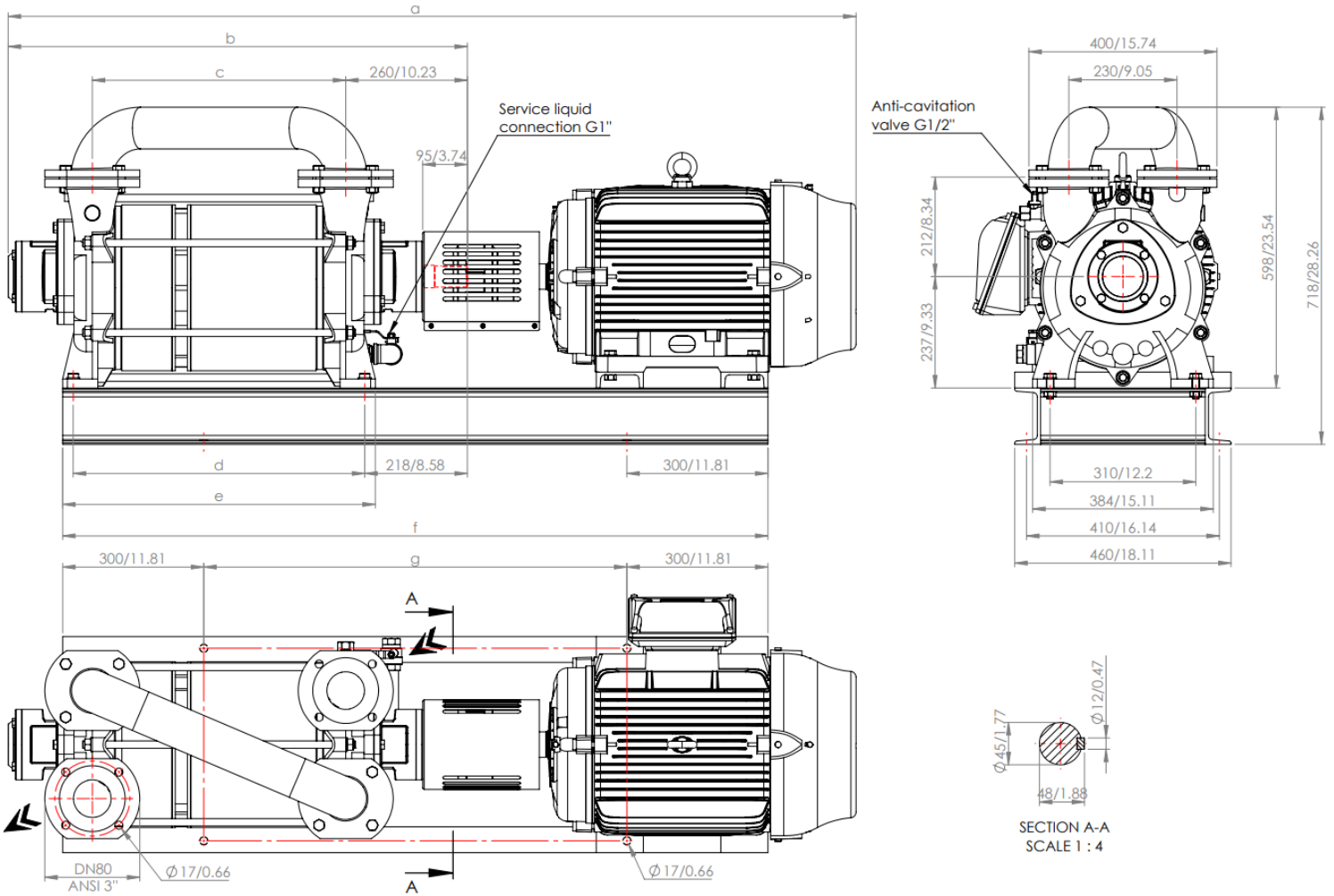
### ADDITIONAL NOTE

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 <sup>2</sup> /sec
Noise level (at 80 mbar vacuum)	80 ±3	dB A
Highest density of service water	1200	kg/m <sup>3</sup>
Highest heat exchanger flow resistance	0,2	bar

## OVERALL DIMENSIONS

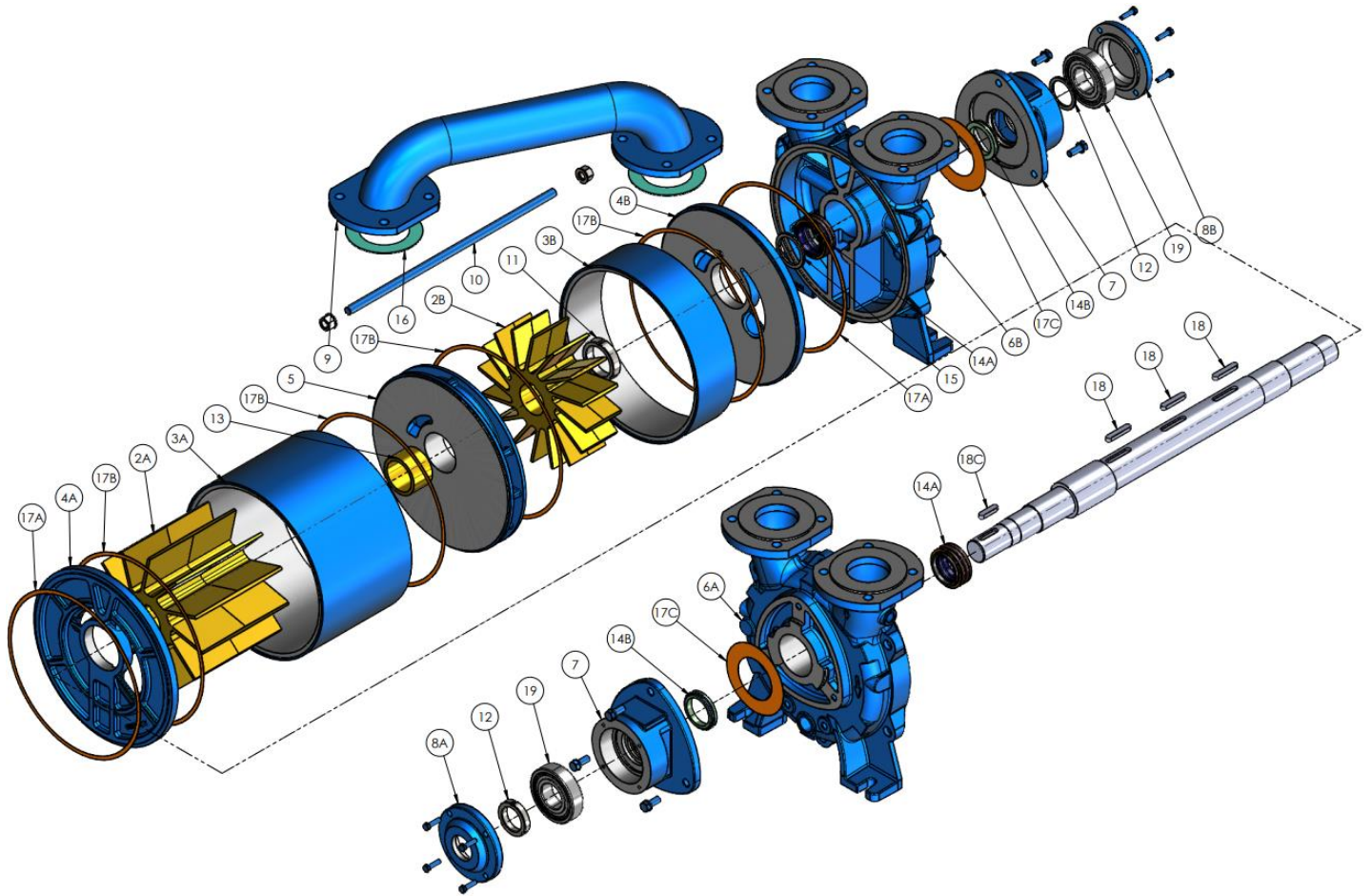


MODEL	50 Hz.	a	b	c	d	e	f	g	Weight (kg / lbs)	
		mm / inch							Bare Shaft	With Motor
GVP 275/160		1620/63.77	877/34.52	439/17.28	520/20.47	565/22.24	1340/52.75	740/29.13	225/496	514/1133
GVP 275/220		1680/66.14	937/36.88	499/19.64	580/22.83	625/24.6	1400/55.11	800/31.49	255/562	577/1272
GVP 275/260		1803/7.98	977/38.46	539/21.22	620/24.4	665/26.18	1500/59.05	900/35.43	275/606	606/1336

MODEL	60 Hz.	a	b	c	d	e	f	g	Weight (kg / lbs)	
		mm / inch							Bare Shaft	With Motor
GVP 275/160		1620/63.77	877/34.52	439/17.28	520/20.47	565/22.24	1340/52.75	740/29.13	225/496	536/1182
GVP 275/220		1760/69.29	937/36.88	499/19.64	580/22.83	625/24.6	1460/57.48	860/33.85	255/562	610/1344
GVP 275/260		1803/7.98	977/38.46	539/21.22	620/24.4	665/26.18	1500/59.05	900/35.43	275/606	626/1380

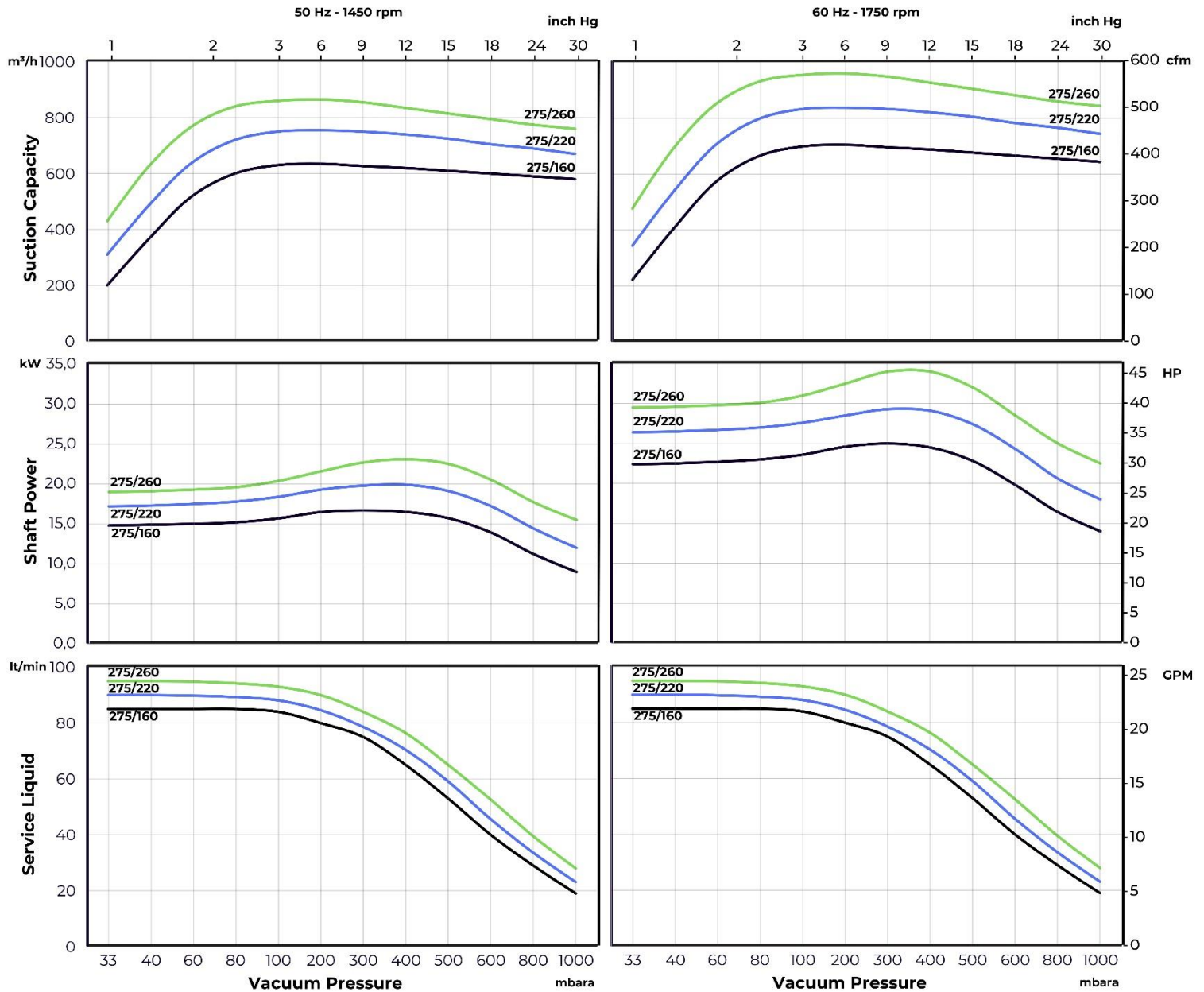
Motor Specifications								
Type	50 Hz	60 Hz	50 Hz			60 Hz		
	Frame Size – Flange Type		rpm	kW	HP	rpm	kW	HP
GVP 275/160	284/6T – B3	284/6T – B3	1450	18,5	25	1750	22	30
GVP 275/220	284/6T – B3	324/6T – B3	1450	22	30	1750	30	40
GVP 275/260	324/6T – B3	324/6T – B3	1450	30	40	1750	37	50

## 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
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
5. Intermediate Plate		✓		✓	✓			1
6A. Suction Casing	✓			✓	✓			1
6B. Discharge Casing	✓			✓	✓			1
7. Bearing Carrier	✓			✓	✓			2
8A. Bearing Cover	✓			✓	✓			2
8B. Bearing End Cover								2
9. Manifold				✓	✓		✓	1
10. Tie Rod							✓	4
11. Impeller Nut			✓					1
12. Bearing Nut			✓					1
13. Impeller Spacer			✓					1
14. Mechanical Seal			MG1-Ø55-G6 / SiC – Carbon – Viton					2
15. Mechanical Seal Spacer				✓	✓			1
16. Klingrite Cover				Klingrite				2
17A. Casing Gasket				Paper				2
17B. Cover Gasket				Paper				4
17C. Bearing Carrier Gasket				Paper				2
18. Impeller Key				✓	✓		✓	1
18C. Coupling Key				✓	✓		✓	1
19. Bearing			6310-ZZ/C3 / 100Cr6					2

## CHARACTERISTIC CURVES



Suction Capacity		
Type	50 Hz	60 Hz
GVP 275/160	200 – 635 m <sup>3</sup> /h / 118 – 374 cfm	220 – 705 m <sup>3</sup> /h / 129 – 415 cfm
GVP 275/220	310 – 755 m <sup>3</sup> /h / 182 – 444 cfm	345 – 838 m <sup>3</sup> /h / 203 – 493 cfm
GVP 275/260	430 – 865 m <sup>3</sup> /h / 253 – 509 cfm	480 – 960 m <sup>3</sup> /h / 282 – 565 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.