



2 STAGE OIL-SEALED ROTARY VANE VACUUM PUMPS

Atlas Copco

GVD 0.7-28 Series (0.7-27.5 m³/hr @ 50 Hz - 0.5-19.5 cfm @ 60 Hz)



The GVD series of small oil-sealed rotary vane pumps deliver excellent ultimate vacuum pressure, high pumping speeds and superior vapor handling capabilities with quiet operation. With over 200,000 units sold, these pumps offer proven performance that sets the industry standard for R&D and scientific pumping applications. All pumps/motors are approved to UL and CSA standards by an external test house and feature our patented mode selector switch, meaning one model is suitable for both high vacuum or high throughput applications. In summary, you can rest assured that when you choose an Atlas Copco GVD 2 stage oil-sealed rotary vane pump you are choosing a product you can rely on from a company you can trust.

FEATURES AND BENEFITS

- Ultra quiet operation and intrusive frequencies minimized.
- Easy-to-use gas ballast.
- Fast acting anti suck back system protection.
- High torque, 1-phase and 3-phase multi-voltage and 50/60 Hz motors available.
- Efficient high pressure lubrication.
- Oil-tight with printed gaskets, effective shaft seals.
- Clamped-in sight glass.
- Oil box well contains filling spills.
- Hi-tech polymer blades, large diameter, easy-clean oil passages.
- Consistent, built-in quality.
- Wide variety of accessories is available.

APPLICATIONS

- Laboratory bench top vacuum
- Research and development
- Turbomolecular backing pumps
- Freeze drying
- Analytical instruments

TECHNOLOGY



Low noise levels

All our GVD pumps are significantly quieter – noise levels are typically half the noise of a conventional pump and have been achieved by extensive work on the drive train and motor.

Exceptional pumping performance

The pumps have the ability to deliver excellent ultimate vacuum performance with or without gas ballast. This gives the user an opportunity to select the optimum pumping performance without compromising the application.



High flexibility

The GVD pump is ideal for analytical instruments, electron microscopes, physics research, backing turbo pumps and leak detection applications. Configure the same pump and it becomes suitable for distillation, laboratory furnaces, backing vapor pumps, solvent concentration, freeze drying and other drying applications.

Ease of use

All pumps have an IEC connector, adjustable gas ballast valve and are mounted on a baseplate to allow for easy installation.



TECHNICAL SPECIFICATIONS GVD SERIES (50/60Hz)

Pump type	Pumping speed*		Ultimate pressure		Motor power		Overall dimensions			Noise level
			Gas ballast closed		1-ph**		D	W	H	At 50 Hz
	m ³ /hr	cfm	mbar	Torr	50 Hz (W)	60 Hz (W)	mm	mm	mm	dB(A)
GVD 0.7	0.75/0.95	0.4/0.5	3.0 x 10 ⁻³	2.3 x 10 ⁻³	90	90	151	324	178	43
GVD 1.5	1.6/2.0	0.8/1.2	3.0 x 10 ⁻³	2.3 x 10 ⁻³	160	160	151	324	178	54
GVD 3	3.3/3.9	2/2.3	2.0 x 10 ⁻³	1.5 x 10 ⁻³	450	550	170/158**	430	229	48
GVD 5	5.1/6.2	3.0/3.7	2.0 x 10 ⁻³	1.5 x 10 ⁻³	450	550	170/158**	430	229	48
GVD 8	8.5/10	5/5.9	2.0 x 10 ⁻³	1.5 x 10 ⁻³	450	550	180/158**	470/469**	265	48
GVD 12	12/14.2	7.1/8.4	2.0 x 10 ⁻³	1.5 x 10 ⁻³	450	550	180/158**	490/489**	265	48
GVD 18	17/20.4	10/12.1	1.0 x 10 ⁻³	7.7 x 10 ⁻⁴	550	750	183/171**	520	272	57
GVD 28***	27.5/33.0	16.2/19.5	1.0 x 10 ⁻³	7.7 x 10 ⁻⁴	750	900	183/162**	584/570**	272	57

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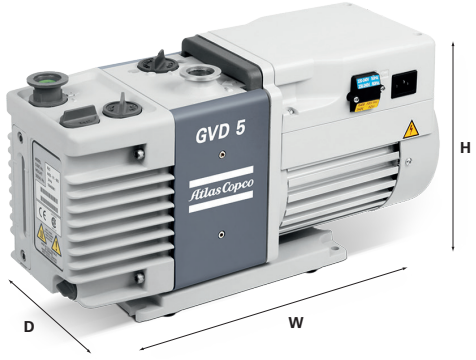
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2 STAGE OIL-SEALED ROTARY VANE VACUUM PUMPS

Atlas Copco

GVD 40-275 Series (40-275 m³/hr @ 50 Hz - 25.9-180 cfm @ 60 Hz)



The GVD series two stage oil sealed rotary vane vacuum pumps are renowned for their high ultimate vacuum, rapid pumping speeds, quiet operation and ability to handle water vapour. These direct drive rotary vane pumps are inherently compact and vibration free, and with their finger-proof fan and coupling housings they offer excellent operator protection. A comprehensive range of accessories is available to allow use on the widest variety of vacuum applications.

FEATURES AND BENEFITS

- Advanced pressurized oil circuit to give effective lubrication even under high gas loads.
- When the pump is switched off, the spring loaded distributor valve provides oil and air suck-back protection.
- Gas ballast control to assist in handling high water vapor loads.
- Industrial roller bearings on drive shaft for ultimate reliability and long, trouble free life.
- Full height oil sight glass for easy checking of oil level and condition.
- Easy change oil filter, with oil filter condition gauge on larger models.
- Central inlet port to allow easy mounting of mechanical booster pump if required.
- Easy to maintain, with convenient service kits and international customer support.
- A wide range of accessories to match your application needs.
- The pumps and accessories can be supplied either as individual components or as fully systemized, factory-tested combinations.

APPLICATIONS

- Refrigeration and air conditioning system evacuation, drying, and backfilling
- Vacuum drying and distillation
- Backing pump for high vacuum applications
- Vacuum metallurgy processes
- Thin film coating technologies
- Freeze drying
- Transformer and cable drying and impregnation, insulating oil treatment plant
- Cryogenic vessel evacuation

TECHNOLOGY



Reliable system protection devices

Every pump has protection devices to prevent oil and air suck-back into the vacuum system if the pump stops while under vacuum. A variety of inlet protection devices are used, depending on the pump size and cost, but emphasis is always placed on reliability and simplicity.

Positive pressure oil lubrication

The GVD pumps incorporate a well proven positive pressure oil lubrication system which has been developed to ensure correct lubrication in all duty modes and particularly to prevent oil starvation with high gas loads.



Low noise levels

The GVD pumps maintain Atlas Copco's reputation for quiet operation pumps with low noise levels.

Easy maintenance

The advanced lubrication system allows the GVD pumps to work with wide oil level tolerances, which reduce the need to top-up the oil. All GVD pumps are constructed with internal dowels, which reduce the need for skilled setting of tolerances, when the pump is dismantled. The pumps are designed so that all key components are easily accessible.



TECHNICAL SPECIFICATIONS GVD SERIES (50/60Hz)

Pump type	Pumping speed*		Ultimate pressure		Motor power		Overall dimensions			Noise level
			Gas ballast closed		3-ph kW		D	W	H	At 50 Hz
	m ³ /hr	cfm	mbar	Torr	kW	hp	mm	mm	mm	dB(A)
GVD 40	37/44	21.8/25.9	1.0 x 10 ⁻³	7.7 x 10 ⁻⁴	1.1/1.5	1.5/2	253	665	409	65
GVD 80	74/90	43.6/53	1.0 x 10 ⁻³	7.7 x 10 ⁻⁴	2.2/3	3/4	274	796	445	70
GVD 175**	160/196	94/115	1.0 x 10 ⁻³	7.7 x 10 ⁻⁴	5.5/6.5	7.5/8.5	410	994	563	75
GVD 275**	255/306	150/180	1.0 x 10 ⁻³	7.7 x 10 ⁻⁴	7.5/8.5	10/11	415	1088	565	75



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