



# 2 STAGE OIL-SEALED ROTARY VANE VACUUM PUMPS

Atlas Copco

GVD 18-28



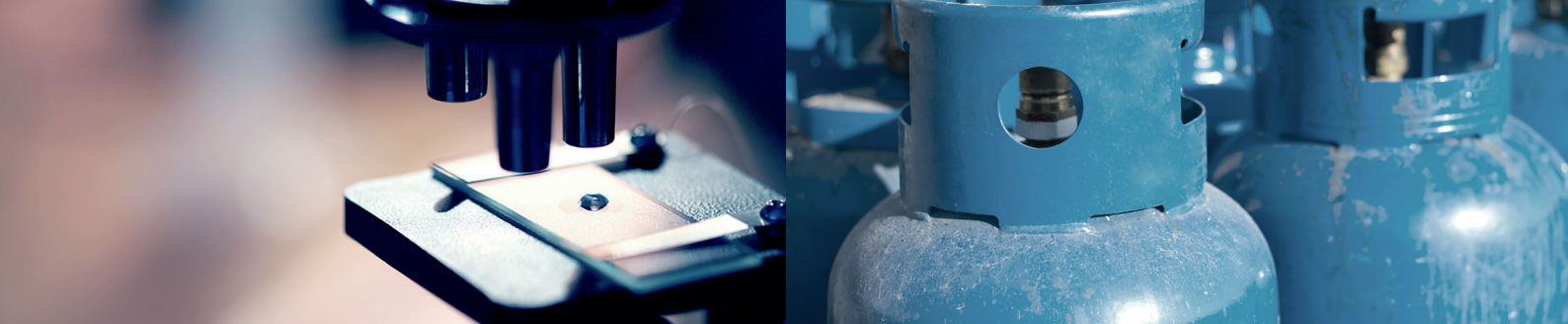
## FEATURES AND BENEFITS

- The pump is designed for reliable, long-term operation.
- Thermal overload device prevents overheating (single phase only).
- The pump is a free-standing unit.
- The drive is provided through a flexible coupling by a single-phase or three-phase (four pole) motor.
- The motors are totally enclosed and are cooled by the motor-cooling fan.
- Easy to use controls.
- Pressure die cast oil box with integral oil seals prevents oil leaks.
- Gas ballast valve for large water vapour handling capacity.
- Externally approved to EN61010, CSA, C22.2 and UL61010.
- Oil distribution valve.
- Pumping chambers are air-tight.
- Oil sight-glass, two oil drain-plugs, inlet-port and outlet nozzle all fitted as standard.

## TECHNICAL SPECIFICATIONS GVD 18-28

	GVD 18		GVD 28	
	50 Hz	60 Hz	50 Hz	60 Hz
Displacement	20.5 m <sup>3</sup> h <sup>-1</sup> / 12.1 cfm	25.0 m <sup>3</sup> h <sup>-1</sup> / 14.7 cfm	32.2 m <sup>3</sup> h <sup>-1</sup> / 19.0 cfm	38.9 m <sup>3</sup> h <sup>-1</sup> / 22.3 cfm
Speed (Pneurop 6602)	170 m <sup>3</sup> h <sup>-1</sup> / 10.0 cfm	20.4 m <sup>3</sup> h <sup>-1</sup> / 12.1 cfm	275 m <sup>3</sup> h <sup>-1</sup> / 16.2 cfm	33.0 m <sup>3</sup> h <sup>-1</sup> / 19.5 cfm
Ultimate vacuum (total pressure) without gas ballast	1.0 x 10 <sup>-3</sup> mbar / 7.7 x 10 <sup>-4</sup> Torr		1.0 x 10 <sup>-3</sup> mbar / 7.7 x 10 <sup>-4</sup> Torr	
Ultimate vacuum (total pressure) with gas ballast	1.5 x 10 <sup>-2</sup> mbar / 1.1 x 10 <sup>-2</sup> Torr		1.5 x 10 <sup>-2</sup> mbar / 1.1 x 10 <sup>-2</sup> Torr	
Inlet connection	DN25 ISO-KF		DN25 ISO-KF	
Outlet connection	DN25 ISO-KF		DN25 ISO-KF	
Max. outlet pressure	0.5 bar / 7 psig gauge		0.5 bar / 7 psig gauge	
Max. inlet pressure for water vapor	20 mbar / 15 Torr		30 mbar / 23 Torr	
Max. water vapor pumping rate	300 gh <sup>-1</sup>		700 gh <sup>-1</sup>	
Weight (without oil)	39 kg / 86 lb		44 kg / 97 lb	
Motor power	750 W	900 W	750 W	900 W
Power connector 1-ph*	IEC EN60320 C19		IEC EN60320 C19	
Maximum oil capacity	1.05 litre		1.5 litre	
Minimum oil capacity	0.75 litre		1.2 litre	
Noise level	57 dB(A) @ 50 Hz		57 dB(A) @ 50 Hz	

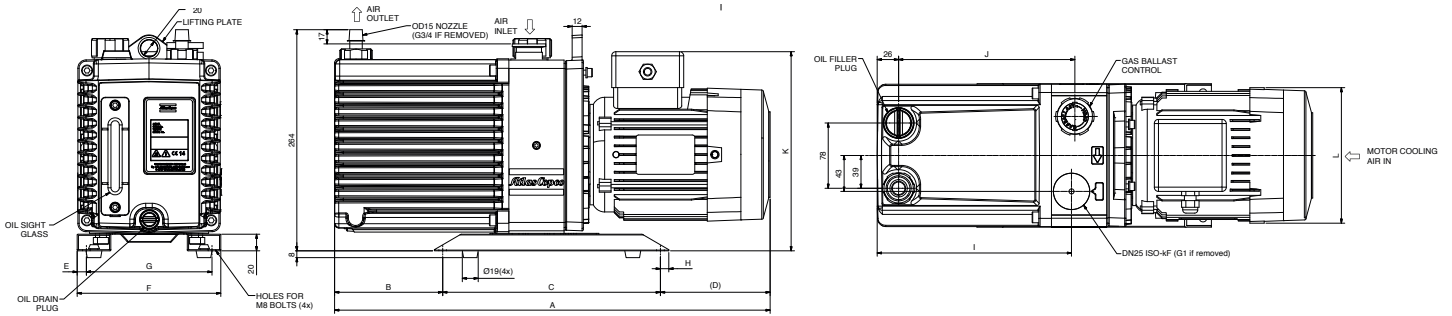
\* 2m long 1-phase cable to be ordered separately. 3-phase motors connect directly to terminal box.



# APPLICATIONS

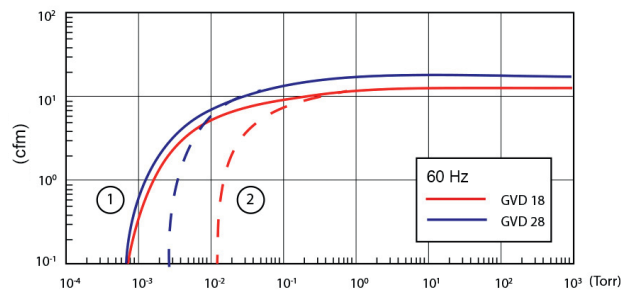
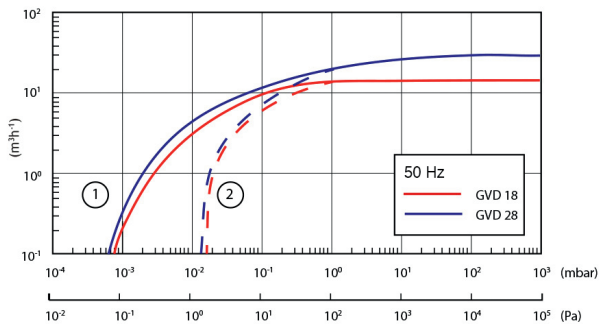
- Analytical instruments - LCMS
- Automotive
- Beam lines and high energy physics
- Centrifuges, ultra-high speed
- Coating
- Cryogenics
- Degassing/curing - oil, epoxy resin
- Distillation/extraction/filtration
- Freeze drying
- Furnaces
- Gas bottle filling/emptying
- Gel drying
- Glove boxes, ovens
- Laboratory bench top vacuum
- Lasers, gas recovery and re-circulation
- Leak detectors, Helium
- Load locks and transfer chambers
- Refrigeration manufacture
- Rotary, centrifugal evaporators
- Surface science instruments
- Turbomolecular backing pumps

# DIMENSIONS



MODEL	A	B	C	D	E	F	G	H	I	J	K	L
GVD 18 1-ph	550	129	260	131	11	171	150	10	232	210	272	183
GVD 18 3-ph	50	129	260	131	11	171	150	10	232	210	238	162
GVD 28 1-ph	570	111	347	126	20	160	120	13	266	244	272	183
GVD 28 3-ph	570	111	347	126	20	160	120	13	266	244	238	162

# PERFORMANCE CURVES



1: Without gas ballast.  
2: With gas ballast.

Available motor voltages:  
 • 1-ph 100-115 V 50/60 Hz  
 • 1-ph 200-230 V 50/60 Hz  
 • 3-ph 200-230 V, 380-415 V 50 Hz & 200-230/460 60 Hz

For ultimate vacuum figures, please consult the technical specification table on the front page.



ISO 9001 • ISO 14001  
OHSAS 18001



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