

Atlas Copco

**GVS 80-400 VSD<sup>+</sup>**  
**GVS 16-630 A**

Fixed and variable speed  
rotary vane vacuum pumps



# Atlas Copco – Your intelligent vacuum specialist

At Atlas Copco we have been developing state-of-the-art vacuum pumps for many years, utilizing our core technologies. We constantly aim to innovate technologies, improve performance and target new application areas. The characteristics of our oil-sealed rotary vane vacuum pumps complement those that have made Atlas Copco the stand-out worldwide supplier of air solutions: high quality, impressive reliability and low life-cycle cost.

With our GVS VSD<sup>+</sup> range of intelligent rotary vane vacuum pumps, we have taken it a step further by adding intelligence through our Variable Speed Drive (VSD) technology and remote connectivity with our VSD<sup>+</sup> app.



## Reliable vane technology with added intelligence and connectivity

The GVS VSD<sup>+</sup> series is a robust and highly regarded range of vacuum pumps with a technologically advanced market-leading design. GVS VSD<sup>+</sup> operates according to the proven oil-sealed rotary vane principle that has been successfully used for many years in all general vacuum applications of the industry.

GVS 80-400 VSD<sup>+</sup> is a range of compact direct-driven rotary vane vacuum pumps that are single stage, oil sealed, air cooled and have the VSD<sup>+</sup> inverter-drive technology built in. The VSD drive located on top of the pump ensures pressure setpoint control.

Control and monitoring are possible with the Atlas Copco VSD<sup>+</sup> app – available for Android and iOS devices. With a Bluetooth connection, the app offers you live visualizations of the actual performance of the pump.



# Remotely connect to your GVS VSD+ intelligent pump

## HMI via smartphone or PC:

start/stop/control/commission,  
local trending and monitoring



## Fieldbus read-out and control:

pressure, speed, temperature, current, RH,  
power start/stop/control/commission



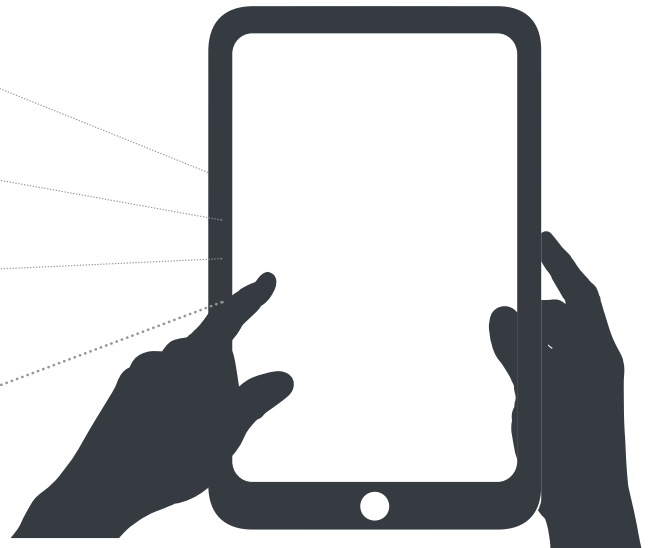
## Multi pump control:

ability to centralize and control multiple  
pumps, including regulating pressure, speed  
and start/stop



## Monitoring:

dashboard, real time, local trending read-out

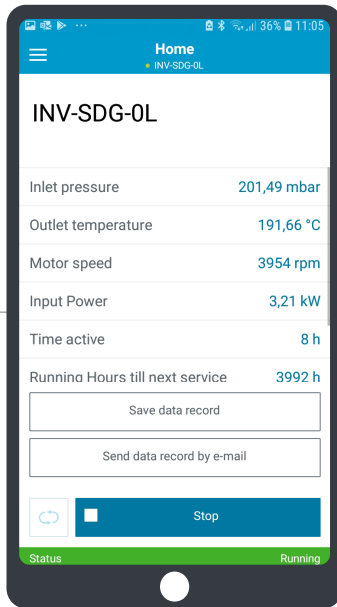


## What if a smartphone could control a vacuum pump?

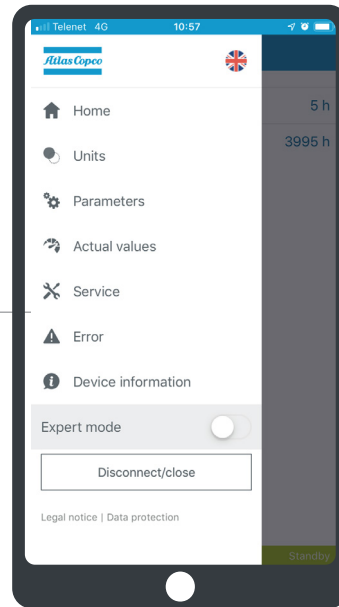


- \* Introducing the VSD+ app, a unique application for iOS and Android devices, that lets you control and monitor a vacuum pump with your smartphone. The VSD+ app allows you to easily commission your GVS VSD+ vacuum pump by only providing three parameters – target pressure, start/stop delay and stop level. Start your pump, connect the VSD+ app via Bluetooth, enter the desired parameters and you are set to run your pump.

\*The VSD+ app is available both on App Store and Google Play



With the VSD+ app, you also have live visualizations of the actual performance and settings. You can monitor details such as inlet pressure, rotor speed, running hours, service intervals.



Welcome to the new front runner in vacuum pump control.



## GVS 16-630 A series

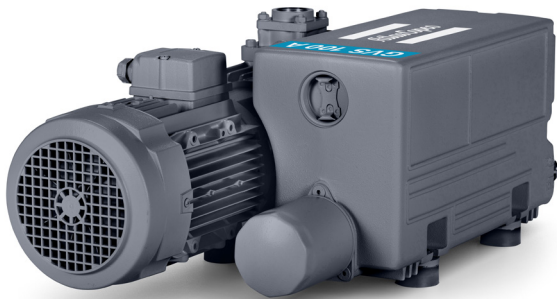
Providing highly efficient vacuum pumping performance, the GVS 16-630 A series is ideal for critical applications in packaging, woodworking, rubber, plastics, electronics, paper and printing, material handling, and other exacting industries. Moreover, with ten models offering pumping speeds ranging between 16 and 840 m<sup>3</sup>/h (at 60 Hz), you will definitely find the right model for your application.

- Easy to install due to compact, space-saving design
- High reliability through a rugged design and optimal oil retention at all operating pressures
- Low maintenance and wear due to optimally selected shaft speeds
- Low noise and vibration levels throughout the pressure range
- Our coolest pump temperatures on the market allow a longer oil lifetime
- Possible to run at any inlet pressure in continuous duty
- High water-handling capability and long oil life

### GVS 470 A & GVS 630 A

- Guided vanes, less noise and increased vane and stator lifetime
- "Comb" lubrication providing homogeneous rotor temperatures and better oil/pump lifetime

### GVS 100 A



### GVS 630 A



### GVS 300 A



# Reliable technology for vacuum processes



## Robust technology

The GVS 16-630 A series operates according to the proven oil-sealed rotary vane principle that has been successfully used for many years in all general industrial vacuum applications. The GVS 16-630 A series is a robust and highly regarded product developed from a technologically advanced market-leading design.



## Innovative features

Atlas Copco has packed the GVS 16-630 A range with innovative features that ensure the highest possible performance at the lowest possible life-cycle cost. The built-in gas ballast valve is fitted as the standard to assist in the water vapor handling capability. Other functions include the lubricant retention and return mechanisms, which mean that these machines are suitable for continuous operation between the atmospheric pressure and their ultimate pressure. The integrated bypass valve in the exhaust filters protects the pump against over pressurization.



## Clean and efficient

The oil-separation circuit of GVS 16-630 A has been optimized to minimize oil vapors in the exhaust gas. The inlet non-return valve protects the vacuum pump against counter rotation in the event of stopping without venting. This device also protects the point of use against the back sucking of oil.

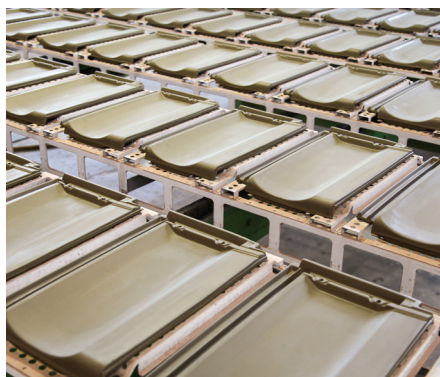
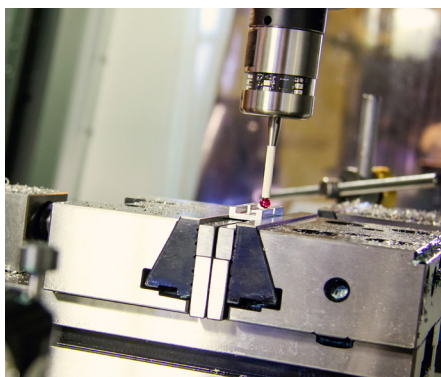
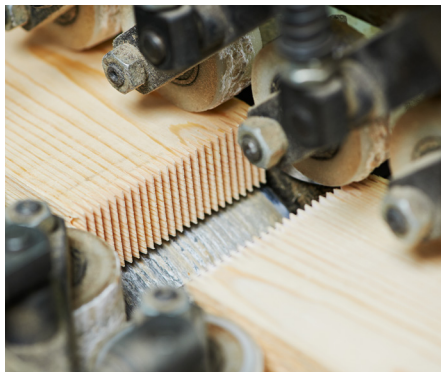


## Ready to use

GVS 16-630 A rotary vane vacuum pumps come complete with all the options and accessories you are likely to need for general rough vacuum applications. In case you have a unique vacuum need, please ask the Atlas Copco representative to help you select the best solution.

# Industrial applications

- Packaging
- Woodworking
- Rubber and plastics
- R&D systems
- Electronics
- Material handling
- Paper and printing
- Medical vacuum
- Environmental
- Modified atmosphere packaging
- Plastics
- Freeze drying
- Clay molding



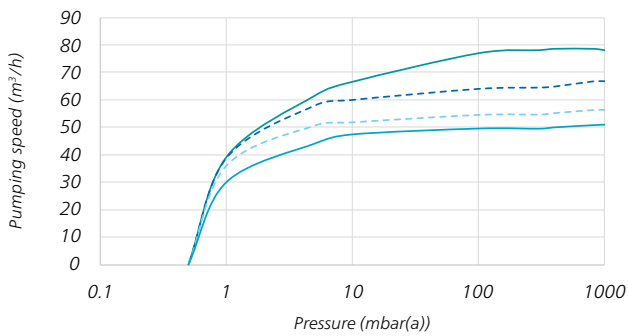


# Technical specifications of GVS VSD<sup>+</sup>

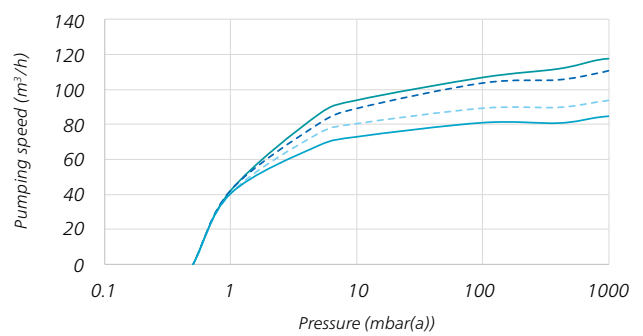
| Pump model<br>(50/60 Hz) | Min-max pumping speed | Ultimate pressure  | Motor power |
|--------------------------|-----------------------|--------------------|-------------|
|                          | m <sup>3</sup> /h/cfm | mbar(a)/Hg(V)/Torr | kW/hp       |
| GVS 80 VSD <sup>+</sup>  | 51 - 78 / 30 - 45     | 0.5/29.88/0.37     | 2.2/3       |
| GVS 120 VSD <sup>+</sup> | 84 - 117 / 49 - 68    | 0.5/29.88/0.37     | 3.7/5       |
| GVS 255 VSD <sup>+</sup> | 119 - 250 / 70 - 147  | 0.3/29.89/0.22     | 7.5/10      |
| GVS 400 VSD <sup>+</sup> | 187 - 351 / 110 - 206 | 0.3/29.89/0.22     | 11/15       |

## GVS VSD<sup>+</sup> performance curves

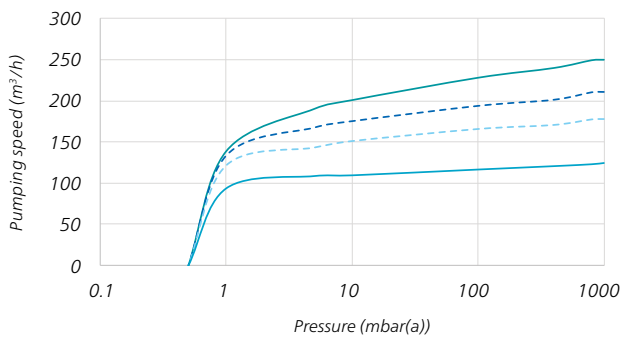
GVS 80 VSD<sup>+</sup>



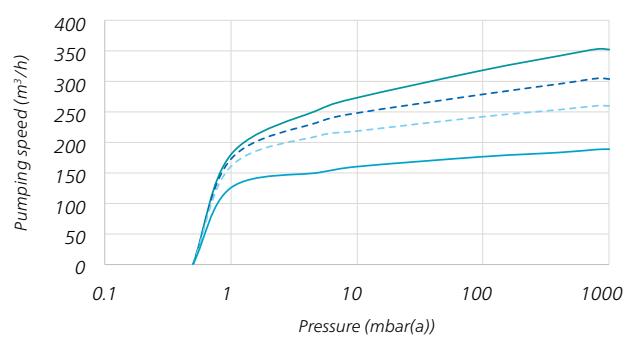
GVS 120 VSD<sup>+</sup>



GVS 255 VSD<sup>+</sup>



GVS 400 VSD<sup>+</sup>



\*Performances given with closed Gas Ballast

## Technical specifications of **GVS A**

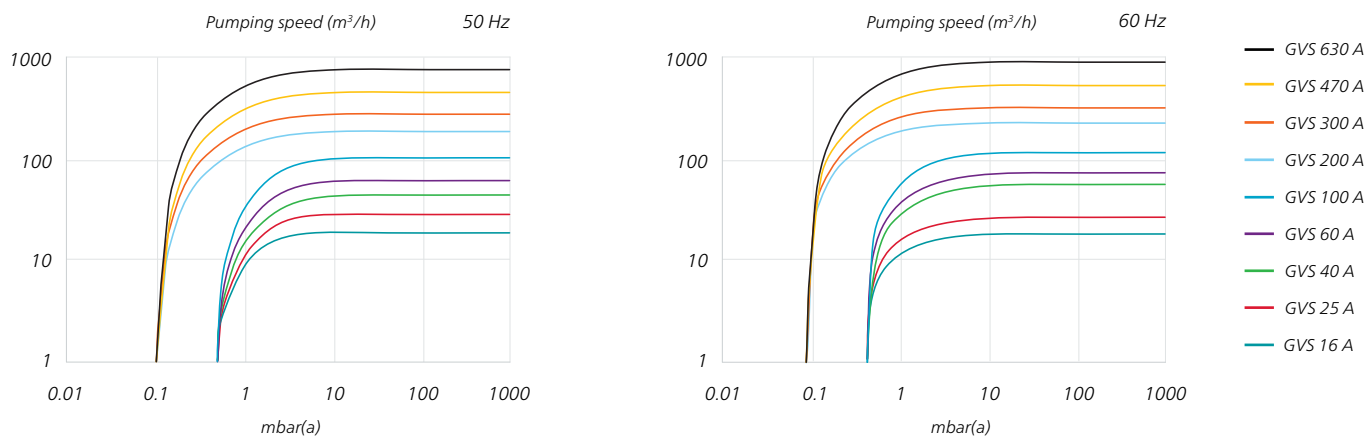
| Pump type      |      | Pumping speed         | Ultimate pressure  | Motor power |         |
|----------------|------|-----------------------|--------------------|-------------|---------|
|                |      | m <sup>3</sup> /h/cfm | mbar(a)/Hg(V)/Torr | 1ph         | 3ph     |
|                |      |                       |                    | kW/hp       | kW/hp   |
| GVS 16 A       | 50Hz | 16/9                  | 0.5/29.88/0.4      | 0.75/1      | 0.75/1  |
|                | 60Hz | 19/11                 | 0.5/29.88/0.4      | 0.9/1.2     | 0.9/1.2 |
| GVS 25 A       | 50Hz | 25/15                 | 0.5/29.88/0.4      | 0.75/1      | 0.75/1  |
|                | 60Hz | 29/17                 | 0.5/29.88/0.4      | 0.9/1.2     | 0.9/1.2 |
| GVS 40 A       | 50Hz | 44/26                 | 0.5/29.88/0.4      | 1.1/1.5     | 1.1/1.5 |
|                | 60Hz | 53/31                 | 0.5/29.88/0.4      | 1.5/2       | 1.5/2   |
| GVS 60 A       | 50Hz | 59/35                 | 0.5/29.88/0.4      |             | 1.5/2.2 |
|                | 60Hz | 71/42                 | 0.5/29.88/0.4      |             | 1.8/3   |
| GVS 100 A (1)  | 50Hz | 98/57                 | 0.5/29.88/0.4      |             | 2.2/3   |
|                | 60Hz | 117/69                | 0.5/29.88/0.4      |             | 3.5/5   |
| GVS 150 (1)(2) | 50Hz | 151/89                | 0.1/29.89/0.08     |             | 3.3/4.4 |
|                | 60Hz | 181/107               | 0.1/29.89/0.08     |             | 3.7/5   |
| GVS 200 A (1)  | 50Hz | 180/106               | 0.1/29.89/0.08     |             | 4/6     |
|                | 60Hz | 220/130               | 0.1/29.89/0.08     |             | 5.5/7.5 |
| GVS 300 A (1)  | 50Hz | 280/165               | 0.1/29.89/0.08     |             | 5.5/7.5 |
|                | 60Hz | 340/200               | 0.1/29.89/0.08     |             | 6.3/8.6 |
| GVS 470 A      | 50Hz | 470/277               | 0.1/29.89/0.08     |             | 9.2/12  |
|                | 60Hz | 570/366               | 0.1/29.89/0.08     |             | 11/15   |
| GVS 630 A      | 50Hz | 700/412               | 0.1/29.89/0.08     |             | 15/20   |
|                | 60Hz | 840/494               | 0.1/29.89/0.08     |             | 18.5/25 |

GVS 100–300 A are also available without motor.

GVS 60/100/200/300/470/630 A are available in oxygen variant. The ultimate pressure is 1mbar(a)/0.8 torr.

GVS 150 is from the previous range.

# GVS A performance curves



\* With gas ballast closed.  
 Pump performance is measured at the inlet pressure and 20°C. Accuracy is +/- 10%.

## Dimensions of GVS VSD<sup>+</sup>

| Pump model<br>(50/60 Hz) | Dimension l × w × h |
|--------------------------|---------------------|
|                          | mm × mm × mm        |
| GVS 80 VSD <sup>+</sup>  | 750 × 360 × 365     |
| GVS 120 VSD <sup>+</sup> | 770 × 400 × 380     |
| GVS 255 VSD <sup>+</sup> | 1010 × 535 × 525    |
| GVS 400 VSD <sup>+</sup> | 1220 × 555 × 551    |

## Dimensions of GVS A

| Pump type      | Dimension l × w × h<br>(with inlet filter)          |
|----------------|---|
|                | mm × mm × mm  |
| GVS 16 A       | 440 × 267 × 347                                     |
| GVS 25 A       | 440 × 267 × 347                                     |
| GVS 40 A       | 563 × 283 × 451                                     |
| GVS 60 A       | 609 × 320 × 481                                     |
| GVS 100 A (1)  | Europe: 762 × 398 × 488<br>World: 791 × 398 × 488   |
| GVS 150 (1)(2) | 865 × 392 × 458                                     |
| GVS 200 A (1)  | Europe: 1078 × 535 × 678<br>World: 1088 × 535 × 678 |
| GVS 300 A (1)  | Europe: 1160 × 555 × 683<br>World: 1120 × 555 × 683 |
| GVS 470 A      | 1274 × 877 × 1130                                   |
| GVS 630 A      | 1567 × 909 × 1068                                   |



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