

Hex@GRID  
VSD4ALL

For DZS VSD+



### There is always a better way

This guiding principle has driven Atlas Copco's vacuum engineers and designers to develop new technologies and revolutionize existing ones. Our innovative products and solutions contribute to the productivity of our customers.

Traditionally, our vacuum pumps offer lower lifecycle costs, higher performance, less energy consumption, simple operation and control, and also easy maintenance.

Now, we offer more than just that. Think about intelligence, optimization, plug & play, digitalization, efficiency and innovation. Think about the Atlas Copco DZS VSD+ and DZM VSD+ intelligent dry claw vacuum pumps.

## DZS 100 – 400 VSD+

The DZS 100 VSD+, DZS 200 VSD+ and DZS 400 VSD+ are a range of Class 0 certified dry claw vacuum pumps; single stage, oil-free, air-cooled and with the VSD+ inverter drive technology built-in. The DZS VSD+ series are a range of long life and durable pumps with very low maintenance for rough vacuum applications. These compact machines with small footprint deliver high reliability through a rugged and robust design.

### Superior performance. Designed to fit process needs.

In terms of performance, the DZS VSD+ series helps achieve ultimate vacuum. This is possible thanks to the integrated VSD+ inverter drive and PI-Loop. As a result, the pump is able to operate at its ultimate vacuum level continuously without overheating. Allowing the DZS VSD+ to effortlessly meet a wider range of process demands and vacuum applications.



Pre-wired, plug and play pressure sensor




Optional connection to temperature sensor




Keypad foil


## A robust and innovative vacuum pump designed for a long life of reliable, efficient operation




**Dry (oil-free) pumping chamber**




**Efficient motor with variable speed option for complete controllability**



**Simple maintenance with contact-free internals eliminating wear**



**Cool running and simple air cooling**

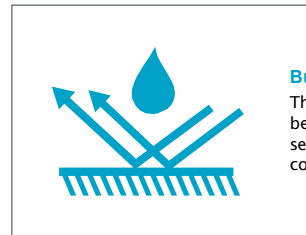


**Compact design with a small footprint**



### Class 0 certified

The DZS VSD+ pumps are certified as being harmless to the quality of the ambient air during the process, eradicating the risk of oil-induced damage to sensitive applications and products. This certification also provides an assurance of sustainability by eliminating the potential harm to humans and the environment that can arise from the use of oil emitting vacuum pumps.



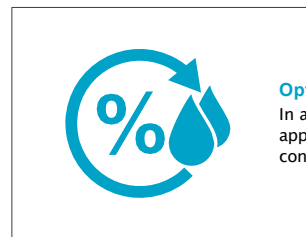
### Built-in corrosion resistance

The DZS VSD+ is equipped with corrosion resistant materials to be compatible with even the harshest applications. The DZS VSD+ series comes with stainless steel claws, and a resistive and durable coating applied to the pumping chamber.



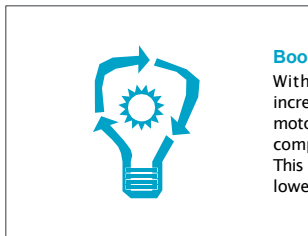
### Easy and low cost on-site maintenance

The DZS VSD+ is designed for simple and low-cost maintenance. Easily cleanable, removable, and replaceable claws do not require complex gearbox stripping and retiming. This allows for fast inspection and quick access to the pumping chamber makes for easy cleaning in the event of product carry-over.



### Option for humid applications available

In addition to the robust build quality that withstands harsh applications, the pump includes an inlet liquid separator and a condensate drain facility especially for humid applications.



### Boosting energy efficiency and performance

With minimal manual intervention, the unique self-sizing features increase efficiency and boost performance. The factory mounted motors are equipped with a VSD+ inverter drive, providing complete controllability and reducing power consumption. This helps to continuously save energy and consequently deliver a lower carbon footprint.



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The HEX@GRID  
VSD4ALL

## How to Build a Central Vacuum System with DZS VSD+

### Hex@Grid VSD4ALL

#### Multi-Pump Control Unit



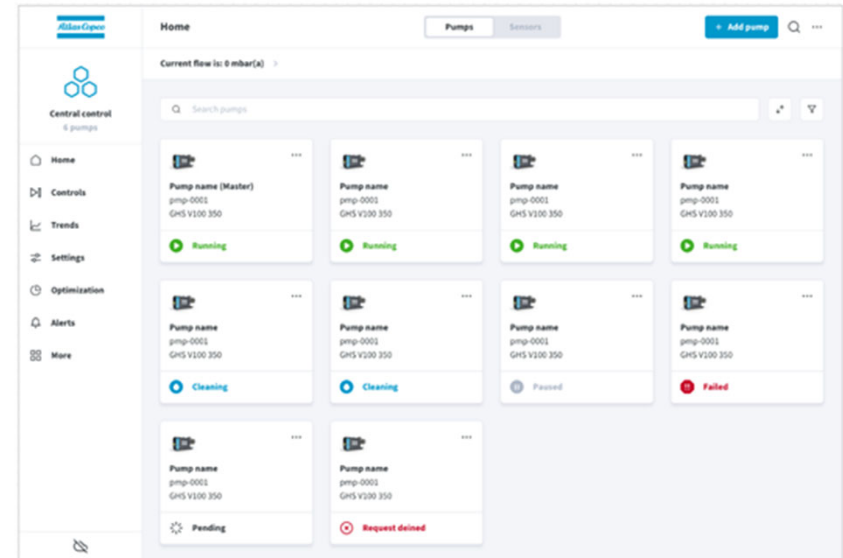
- ✓ New HEX@ Central Controller
- ✓ New multi-pump control box – The GRID
- ✓ VSD4ALL
  - ✓ Built for DZS and GVS VSD+ pumps
- ✓ New Features
- ✓ Always Connected



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# HEX@GRID

VSD4ALL



## Connect

- From Anywhere
- Up to 16 DZS or GVS VSD+ pumps
- **Improve Energy and Maximize Maintenance**
- **Set-up a Back-up arrangement**

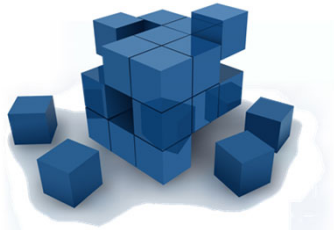
## Clear Interface to visualize all pumps



# HEX@GRID Smart Functionality

## What additional features do we bring to the table

### Configurable Interface & Modes



- Select the information you prioritize and want to monitor.
- Save pump settings configurations to one of four mode slots.
- 2 modes pre-set from factory:
  - Fixed speed
  - PI control

### Notifications and alerts



- Clear notifications of problems.
- Can be configured to appear:
  - On pump
  - In web UI
  - Via email notification
- Understand what is happening when it is happening.

### Intelligent Scheduling



- Ensure that no unwanted pump actions interrupt your process – safeguard production.
- Purge cycles, auto clean, set-point adjustments can all be scheduled to happen during down time.
- Schedule events as often as YOU like.

### Access Management

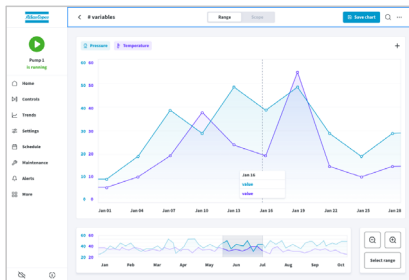


- Allow two access levels in your plant:
  - Controller
  - Operator
- Secure your process from unwanted changes.
- Safeguard your system from unwanted access.

# HEX@ Smart Functionality

What additional features do we bring to the table

## Trends



- View trends of multiple measured metrics over a period of time .
- Compare different metrics to understand what is happening in relation to your process.
- Can include: Inlet Pressure, Motor Speed, Power Consumption, Oil temperature and more!

## Insight Cards



- Recommendations about:
  - Performance improvement.
  - Increasing pump lifetime.
  - Increasing energy savings.
  - Maximising vacuum uptime.
- Improve & safeguard customers vacuum system.
- Up-sell/Cross-Sell opportunities.

## Gen 1 Health Check



- Review pump operation and scan for evidence of problems.
- Identify issues before they occur.
- Schedule option for ongoing peace of mind.

## Automatic Software Updates

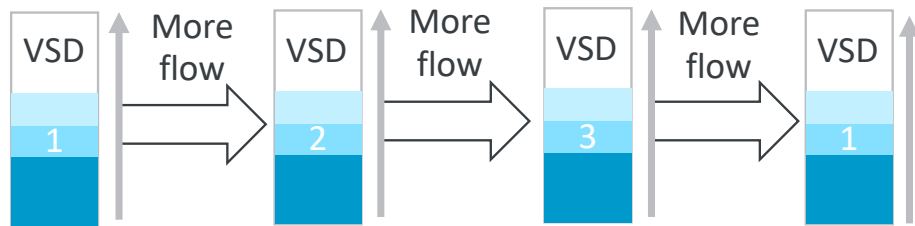


- Updated pumps run more efficiently.
- Improved software and optimized performance.
- Additional features added in each quarterly update.
- Bug fixes also included.
- Customer approval required.

# Central System for DZS VSD+

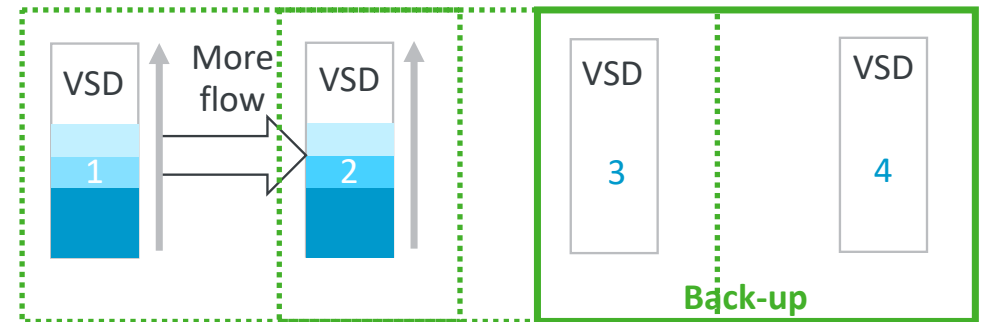
How does it run the central system?

Sequenced VSD+ control



The DZS VSD+ pumps are started 1 by 1 and VSD steered depending on the demand. If one pump reaches its 100%, the next pump in sequence is being activated, using its VSD capabilities to deliver great performance.

Back-Up integration



When Up-time needs to be guaranteed, having back-up pumps is crucial. The back-up pumps are rotated so maintenance is optimized.



# VSD4ALL

## Package

HEX@GRID VSD4ALL Comes with

- Remote Pressure sensor (10m cable)
- 4 Canbus cables

## Set it up

Install the box.

Connect the pumps via Modbus cables

Connect the box to the Network via

- Ethernet
- Wifi (optional)
- Cellular (Optional)
- Gateway



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