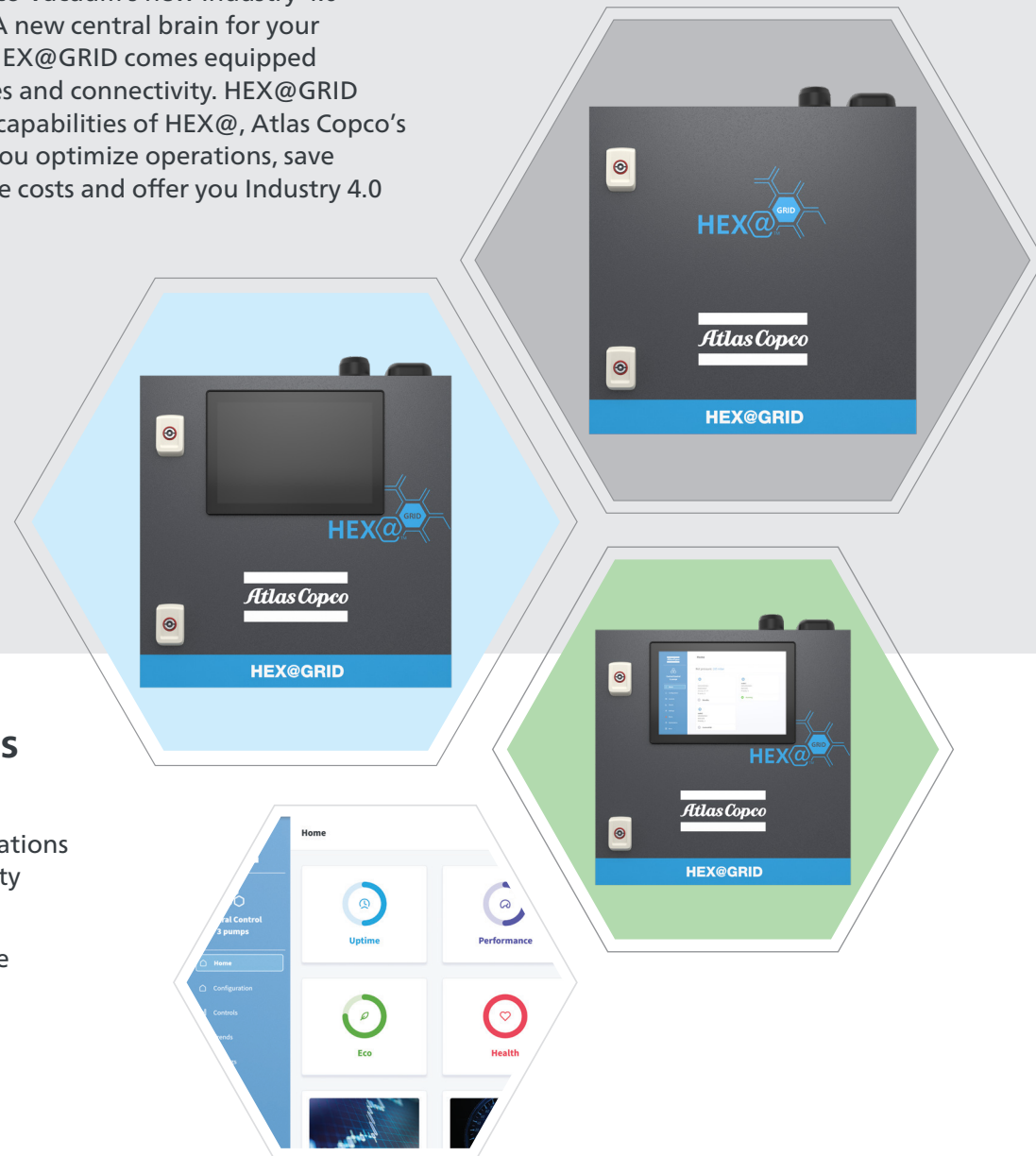# HEX@GRID™

Multi-pump controller for industry 4.0

Multi-pump controller for the future

HEX@GRID is Atlas Copco Vacuum's new Industry 4.0 multi-pump controller. A new central brain for your entire vacuum system, HEX@GRID comes equipped with extra functionalities and connectivity. HEX@GRID leverages the powerful capabilities of HEX@, Atlas Copco's new controller to help you optimize operations, save energy and maintenance costs and offer you Industry 4.0 smart connectivity.
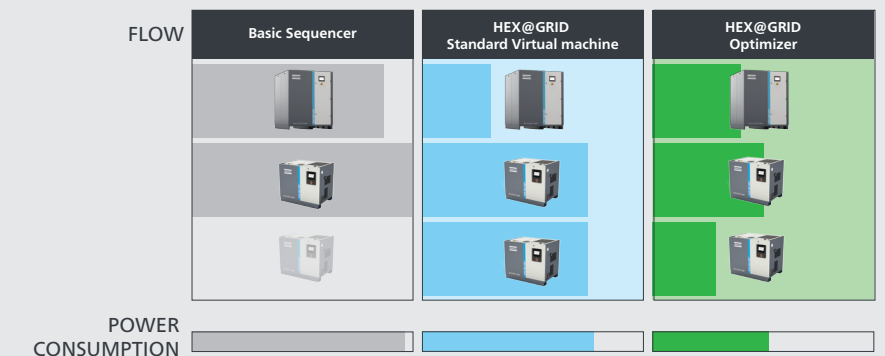
HEX@GRID Optimizer

Unlike traditional intelligent multi-pump controllers, using combinations of pumping speeds to achieve total pumping performance, Optimizer adds an extra dimension by knowing the efficiency curve and taking into account the actual power consumed by each individual vacuum pump at every operating point.

Optimizer not only finds the best combination of pumping speeds to meet the demand, but considers all combinations pumping speeds and the total energy consumed.

- Compatible with HEX@, MK5 and fixed speed machines
- Optimizer control
  » Revolutionary algorithm
- Possibility to save 20% or more vs standard sequencers
- Connect up to 20 vacuum pumps

HEX@GRID central control

	Basic Sequencer	HEX@GRID Standard Virtual machine	HEX@GRID Optimizer
FLOW			
POWER CONSUMPTION			

KPIs for process optimization

Develop pump configurations to safeguard your priority

- Vacuum uptime
- Vacuum performance
- Vacuum economy
- Pump health

HEX@GRID Standard

- Compatible with HEX@, MK5 and fixed speed machines
- Virtual machine control
  » VSD leader pump
  » Follower pumps working between 60-100%
- Possibility to save 10% or more vs basic sequencers
- Connect up to 8 vacuum pumps

HEX@GRID LINK

- Compatible with DZS VSD⁺ and GVS VSD⁺
- Virtual machine control
  » VSD leader pump
  » Follower pumps working between 60-100%
- Connect up to 16 vacuum pumps

Main features

Health check
- Monitor your pumps

Central setpoint control
- Stable and smart

Energy saving
- VSD smart control

Notifications
- Adjust your pumps responsiveness using pre-set configurations

Plug and play
- Truly connect and control your system irrespective of technology, type or brand of pump

Easy menu
- Customizable
- Process monitored

Auto update
- Improvements
- New features

Intelligent scheduling
- Add schedules and actions
- Secure your process

New interface
- Clear, intuitive and modern
- Customizable
- Accessible on any device

Truly connected
- Simple connect and control
- Via any smart device
- Secured

Equal wear
- Reduce and combine the maintenance of your pump with equal wear
- Back-up can be included

Get the HEX@GRID advantage

⬡ HEX@GRID is essential to manage a central vacuum system with multiple VSD pumps and maintain stable pressure.

⬡ Visualize the User Interface of all your central on your own device (laptop, tablet, smartphone) or on the 10" HMI of your HEX@GRID.

⬡ With smart controls as virtual machine to save energy or optimizer to have the most energy efficient system possible.

⬡ With back-up integration, the back-up pumps in the vacuum system are rotated for optimal maintenance.

Wall mounted Controller with or without HMI (Pressure sensor included)		
For machines with HEX@, MK5 and fixed speed pumps		For DZS VSD⁺ and GVS VSD⁺ machines
Standard	Optimizer	Link
Up to 8 vacuum pumps	Up to 20 vacuum pumps	Up to 16 vacuum pumps
Up to 8 VSD (MK5 & HEX@)	Up to 20 VSD (MK5 & HEX@)	Up to 16 VSD
Virtual machine control with follower pumps between 60-100%	Optimizer energy saving algorithm	Virtual machine control with follower pumps between 60-100%
Atlas Copco & Non-Atlas Copco pumps		Only Atlas Copco pumps

Connectivity

- On your network (LAN/Wi-Fi) or local via cable
- All Ethernet based protocols are supported and otherways gateways are available as option

Modbus-RTU   Modbus TCP   PROFI NET®
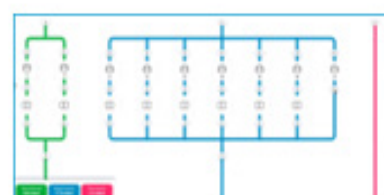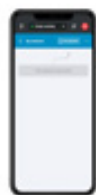
PROFI BUS®   EtherNet/IP™   OPC UA

Options

HEX@GRID comes with various options and is customizable to your needs!

- Competition box
- Wi-Fi bolt
- Genius box
- Gateway for Modbus and Profibus
- Cables and connectors

Optional features

- Dual network control
  » Control two different vacuum networks using a single HEX@GRID with optimizer
  » Unified monitoring
  » Flexible control – including valves

- CVS Visualization
  » View all components of CVS (Pumps, Filter, Drain)

Atlas Copco

atlascopco.com