

ALD Vacuum Technologies

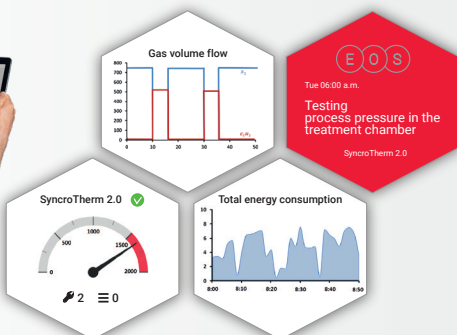
High Tech is our Business

ALD *EXPERT* GRID

Worldwide & mobile access
to your system data

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ALD *EXPERT GRID* - getting to grips with your production data.
ALD systems are deployed in complex production environments and are embedded in complex material flows and the associated business processes (Production Grid).

In order to integrate your system into an existing industrial environment digitally, as well as physically, the appropriate connection is required that allows it to interact with its environment. This is enabled by the Digital Production Grid Integrator (DPGI) developed by ALD, or simply: *ALD EXPERT GRID*. This allows you to view and access all data relevant for the production process on your notebook, tablet or smartphone.

ALD *EXPERT GRID* - keeping the overview

Fully exploit the existing potential of your systems. *ALD EXPERT GRID* supports you in communicating with the production environment and in providing all information. You can plan and initiate the required measures. For instance, you can request a mechanic for a specific time for a certain maintenance activity with the required spare part.



ALD EXPERT GRID - the advantages at a glance

- Enhanced system availability
- Optimization of business processes
- Resource optimization
- Improvement of maintenance planning and execution
- Continuous improvement of the ALD system
- Dashboard for comprehensive overview of system data

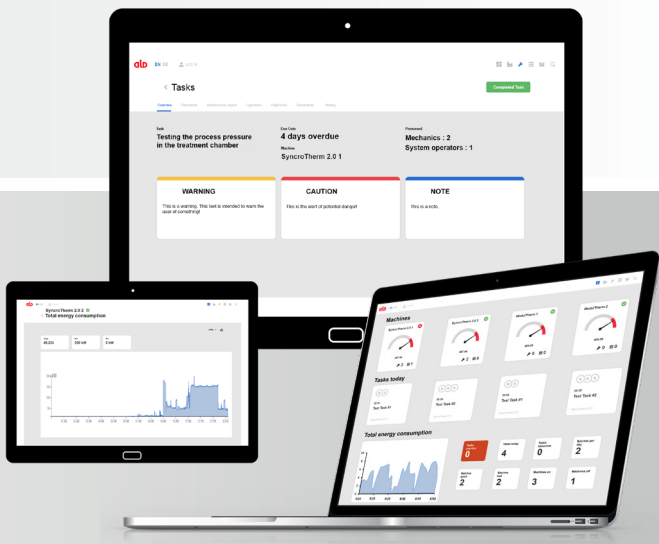
ALD EXPERT GRID - the prerequisites

Local use of the ALD *EXPERT GRID*:

- Network connection at the deployment site of the system for communication with the server
- Integration of the server in your infrastructure
- Mobile terminal devices for display - either a notebook, tablet or smartphone

Worldwide use of the ALD *EXPERT GRID*:

- Same prerequisites as for local use, plus a customer-supplied VPN-connection



ALD *EXPERT GRID* - available products and features

Basic package: ALD *EXPERT GRID*

Capability of recording system data and networking systems, i.e. making the ALD systems I4.0-capable (Digital Empowerment). The system is equipped with a I4.0 platform PC and the necessary basic software.

■ I4.0 Platform PC

Running environment for all necessary software to allow I4.0-integration of your system.

■ Machine Language Secure Connect

Provision of your ALD system with the relevant software and network to connect conventional automation equipment with the I4.0 platform PC in accordance with current safety standards.

■ Embedded Machine

Necessary software to integrate your system in the digitalized production environment.

■ Surface Level

Serves as HMI and offers the possibility of accessing your system via web browser and calling up the required information (Dashboard).

■ ERP Interaction Level (future vision)

Level for communication with the digital production environment. For example, this allows your machine to communicate directly with your ERP system.



Add-Ons: Digital Empowerment Toolbox

Building upon the basic package, the following software products are available which are a type of “digital toolbox of software packages” serving to generate content and facilitate access to the required information.

- **Condition Monitoring**

Dashboard for condition monitoring of the systems.

- **Digital Maintenance Manual**

Maintenance tasks, incl. instructions, are compiled and displayed role-specifically (e.g. supervisor, system operator etc.) in digital form. Maintenance tasks and work previously performed can be stored to enhance the operator’s learning effect.

- **Predictive Maintenance**

Wear and the failure of key system components is forecast allowing digitalized planning of system availability.

- **Resource Management**

Accurate recording of resource consumption and comparison with process parameters. Calculation of future requirements based on product information and thus pre-optimization of the available resources.

- **Easy Access: ALD Expert Webshop & Digital Twin**

System components are provided with QR codes to find the digital image of the relevant component by simply scanning and enable direct access to the ALD Expert Webshop. The digital image (Digital Twin) represents system components with information such as operating instructions, CAD data, circuit schematics details etc.

**Further information on
ALD *EXPERT GRID* is available from:**

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You can find the addresses of all our subsidiaries on:

www.ald-vt.com/contact-sales-partners



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