VON ARDENNE



VA INDIGO DIGITAL SOLUTIONS FOR YOUR BUSINESS

DIGITAL SOLUTIONS FOR YOUR BUSINESS

VA INDIGO

DIGITALIZE YOUR WORKFLOWS

WITH DIGITAL SERVICES & PRODUCTS

VA INDIGO

Digital Solutions for Your Business

With **VA INDIGO**, we support you in digitalizing your workflows regarding machine operation - from installation and training to operation, maintenance and troubleshooting to service and support.

The world is getting more and more digital and the industry with it. An important aspect of this development is the digitalization and networking of machines, logistics, periphery systems and resources based on collecting, analyzing and transferring data. This will enable the optimization of not just one production step but a complete value chain. Furthermore, it will open new ways of providing products and services. VA DASHBOARD is the gateway to your coating machine. It summarizes important information about your production equipment on a single screen.

VA DASHBOARD

Visualization of Production KPIs



Based on this global development, we will help you meet future requirements such as autonomy, connectivity, productivity, predictability and flexibility. And we will help you launch into the next era of production.

Optimized use of resources through automated processes

Higher yield & lower costs

for quality & damage management

Enables larger product portfolio

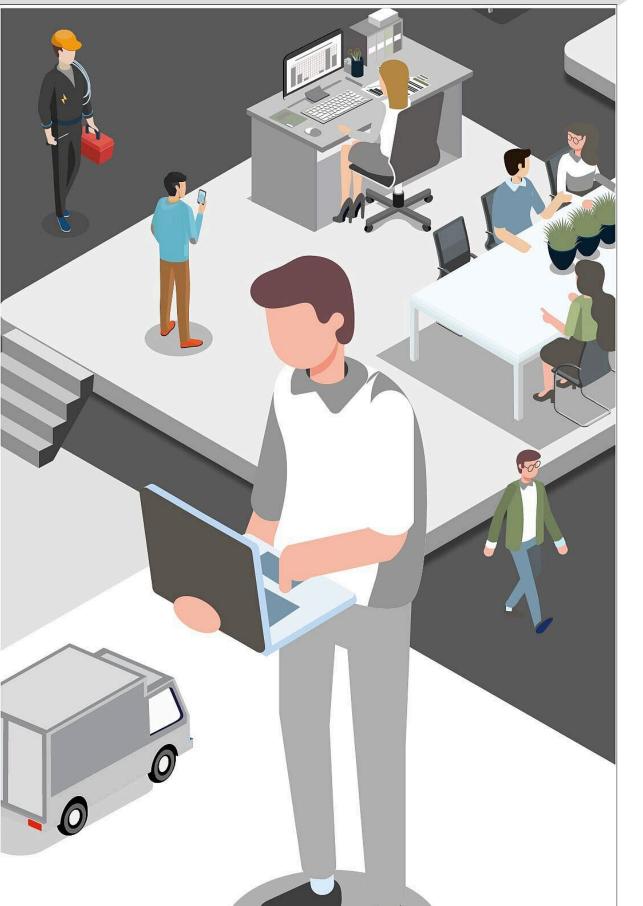
with more profitable products

DEFINED KPIS AT A GLANCE

FAST WEB-BASED ACCESS









PROCESS SUITE ANALYSIS SUITE SERVICE SUITE Automation & Monitoring **Data Review & Analysis Smart Services**

Ľ

The PROCESS SUITE is covering all coating process related software products. We understand the critical importance of maintaining stable and efficient processes while improving yield and usability.

With the PROCESS SUITE, we support your operators in making the coating machines as autonomous as possible and in monitoring the process.

The ANALYSIS SUITE is tailored to meet all your analysis needs. From data collection and provision to in-depth analysis and correlations, this suite offers you a comprehensive solution to make full use of your data.

With intuitive dashboards, trend, exporting and visualisation tools process, your engineers can create their own analysis toolbox, supporting root cause analysis and technological maximizing uptime. optimization of products and machines. Predefined visualized KPIs give Managers overviews - especially for their needs. \square **VA PROCESSMASTER VA CATALOG VA VACUUM ANALYZER VA RECIPEMASTER VA PROCESSDB INTERFACE** VA COLLEGE **VA TIPCOS VA TRENDS & EXPORTER VA LIVE VA PROCESSMONITOR VA PEDIA**

L

The SERVICE SUITE is designed to cover every aspect of your maintenance operations - from ordering spare and wear parts to providing remote support and managing maintenance schedules.

With comprehensive features, including staff training and a knowledge database, this suite is your one-stop solution for optimizing efficiency and

VA TRIMSHIM

 $\overline{\mathbf{A}}$

VA PROCOS

VA CATHODE MANAGEMENT

VA MAINTENANCE MONITOR

VA RECIPEMASTER Automated Recipe Routines



VA PROCESSMASTER Automated Process Stabilization



VA TIPCOS Tipping Point Control



VA VACUUM ANALYZER Evaluation of Vacuum Quality



VA PROCESSDB INTERFACE

Interface to Machine Data

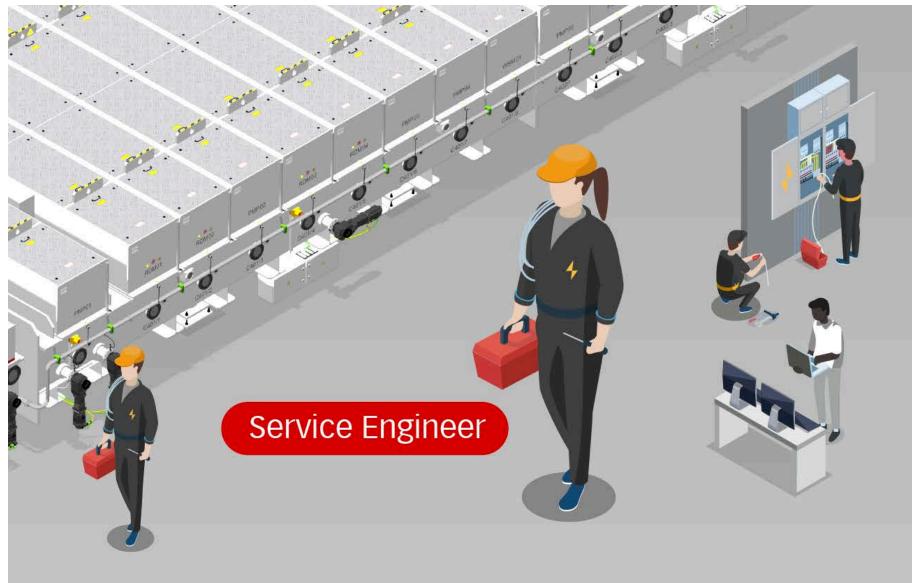


VA TREND & EXPORTER Data Visualizer & Exporter

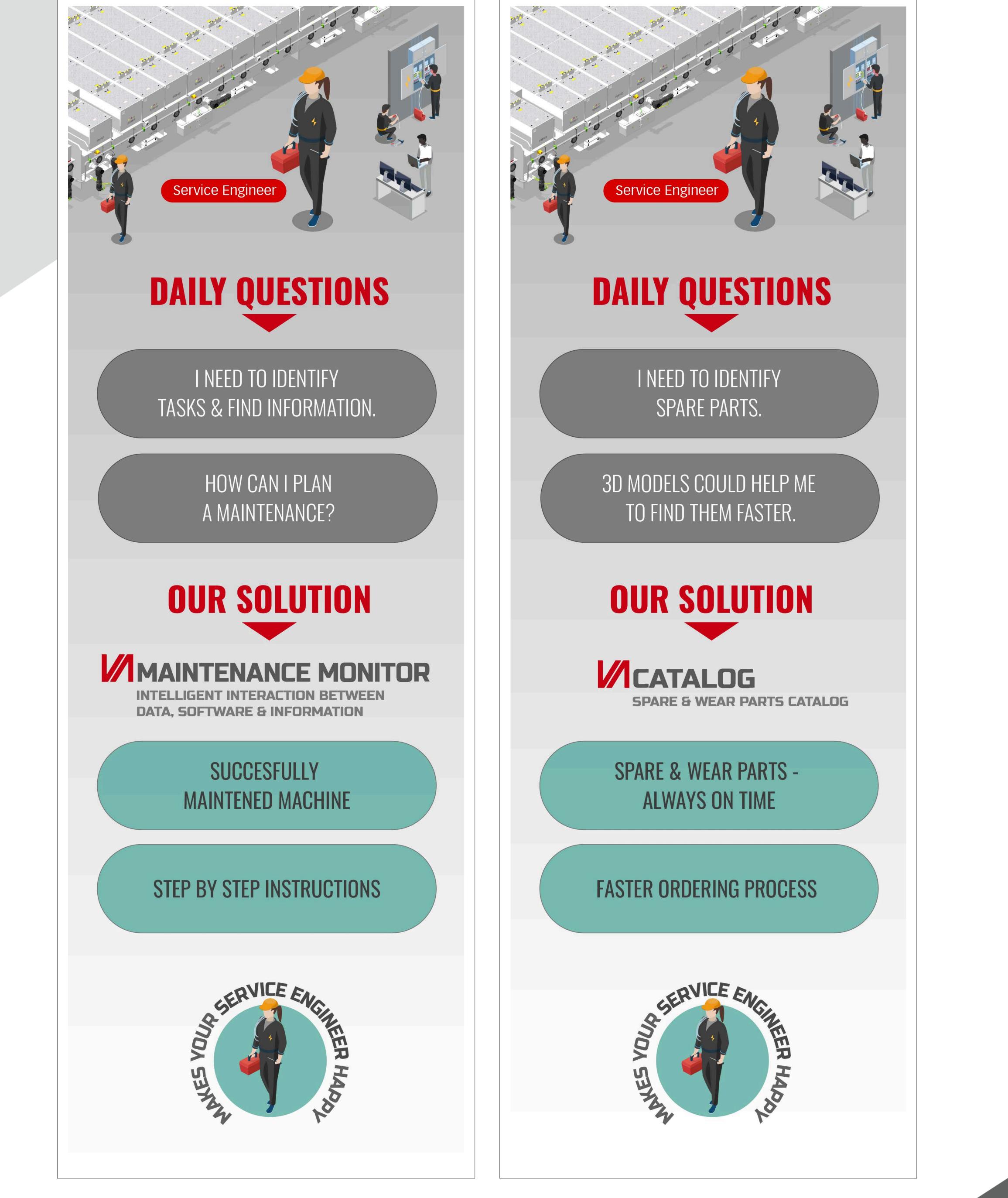


VA MAINTENANCE MONITOR

Intelligent Interaction



VA CATALOG Spare & Wear Parts Catalog



OUR STRENGTHS

IN-HOUSE TECHNOLOGY & APPLICATION CENTER

Sample coatings of customer applications
 Development of customized layer stacks
 Product & process verification and optimization
 Testing of new technologies and components



GLOBAL PROJECT EXPERIENCE

VON ARDENNE equipment is used in over 50 countries.

We have established an installed base of hundreds of coating systems worldwide, ranging from small tools to equipment for large-area coating applications for several markets.



PROFESSIONAL SIMULATION SUPPORT

We offer professional simulation technology to ensure best process quality with regards to plasma, heat and cooling. Furthermore, our simulation tools help demonstrate, develop and improve layer properties and define or optimize processes, details and the performance of our systems.



COMPREHENSIVE SERVICE PORTFOLIO

♥ VON ARDENNE service hubs around the world
♥ On-site service

• Remote access by our technology department

Or Provide the Contract of the Contract of

• Spare & wear part warehouse close to customers

€ Lifecycle extension of wear parts



VON ARDENNE has a network of partners for even more profound R&D work and to identify future technologies. It consists of:

Or Praunhofer Institutes such as IPMS, FEP, IST and ISE

Or C Province Constitutes of the Helmholtz Association (Jülich, Berlin)

⊕ Universities (Kiel, Dresden, Sheffield)

⊙ Companies such as FAP GmbH, scia Systems GmbH



UPGRADES & RETROFITS

As soon as your business is growing, your VON ARDENNE equipment will grow accordingly - thanks to its modular design and the upgrades we provide. We will also supply you with the necessary technology upgrades if you decide to change your applications.

Furthermore, when your equipment is ageing, we will retrofit your systems with new components, no matter if they are VON ARDENNE or third-party machines.



WHO WE ARE & WHAT WE DO

VON ARDENNE develops and manufactures industrial equipment for vacuum coatings on materials such as glass, wafers, metal strip and polymer films. These coatings give the surfaces new functional properties and can be between one nanometer and a few micrometers thin, depending on the application.



vonardenne.com

We supply our customers with technologically sophisticated vacuum coating systems, extensive expertise and global service. The key components are developed and manufactured by VON ARDENNE itself.

Systems and components made by VON ARDENNE make a valuable contribution to protecting the environment. They are vital for manufacturing products which help to use less energy or to generate energy from renewable resources.

Our customers use these materials to make high-quality products such as architectural glass, displays for smartphones and touchscreens, solar modules and heat protection window film for automotive glass.



WORLDWIDE SALES AND SERVICE

VON ARDENNE GmbH (headquarters) | Am Hahnweg 8 | 01328 DRESDEN | GERMANY **Sales:** 449 (0) 351 2637 189 | sales@vonardenne.com **Service:** 449 (0) 351 2637 9400 | support@vonardenne.com

VON ARDENNE Vacuum Equipment (Shanghai) Co., Ltd. I 🕲 +86 21 3769 0555 I 💼 +86 21 6173 0200 I sales-vave@vonardenne.com; support-vave@vonardenne.com VON ARDENNE Malaysia Sdn. Bhd. I 🕲 +60 4408 0080 I 💼 +60 4403 7363 I sales-vama@vonardenne.com; support-vama@vonardenne.com VON ARDENNE Japan Co., Ltd. I Tokyo office I 🕲 +81 3 6435 1700 I 💼 +81 3 6435 1699 I sales-vajp@vonardenne.com; support-vajp@vonardenne.com VON ARDENNE North America, Inc. I Ohio office I 🕲 +1 419 386 2789 I 💼 +1 419 873 6661 I sales-vana@vonardenne.com; support-vana@vonardenne.com VON ARDENNE Vietnam Co., Ltd. I 😒 +84 966 29 29 50 I sales-vavn@vonardenne.com; support-vavn@vonardenne.com VON ARDENNE Vietnam Co., Ltd. I 😒 +84 966 29 29 50 I sales-vavn@vonardenne.com; support-vavn@vonardenne.com

Pictures: VON ARDENNE Corporate Archive, VON ARDENNE Family Archive, shutterstock.com. © All rights reserved. ENGLISH 04/2024