

VON ARDENNE 

VA INDIGO DIGITAL SOLUTIONS FOR YOUR BUSINESS

**VA INDIGO**

**DIGITAL SOLUTIONS  
FOR YOUR BUSINESS**

Digitalize your workflows  
with Digital Services & Products  
on the way to smart manufacturing

# 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.

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



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



### DAILY QUESTIONS

HE WANTS TO SEE INFORMATION OF DIFFERENT PRODUCTION SITES.

HE NEEDS OVERVIEWS FOR INTERNAL ANALYSIS & IMPROVEMENTS

### OUR SOLUTION

**VA DASHBOARD**  
VISUALIZATION OF PRODUCTION KPIs

DEFINED KPIS AT A GLANCE

FAST WEB-BASED ACCESS



## PROCESS SUITE

Automation & Monitoring



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.



**VA PROCESSMASTER**  
**VA SMART OPERATOR**  
**VA TIPCOS**  
**VA PROCESSMONITOR**  
**VA TRIMSHIM**  
**VA PROCOS**



## ANALYSIS SUITE

Data Review & Analysis



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 optimization of products and machines. Predefined visualized KPIs give Managers overviews - especially for their needs.



**VA VACUUM ANALYZER**  
**VA PROCESSDB INTERFACE**  
**VA TRENDS & EXPORTER**



## SERVICE SUITE

Smart Services



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 maximizing uptime.



**VA CATALOG**  
**VA COLLEGE**  
**VA LIVE**  
**VA PEDIA**  
**VA CATHODE MANAGEMENT**  
**VA MAINTENANCE MONITOR**



## VA SMART OPERATOR

Automated Recipe  
Routines



Operator

### DAILY QUESTIONS

HOW CAN I EFFICIENTLY SWITCH FROM  
COATING PRODUCT 1 TO PRODUCT 2?

HOW CAN I GET STANDARDIZED  
RAMP-UPS AND RUMP-DOWNS?

### OUR SOLUTION

**VA SMART OPERATOR**  
AUTOMATED RECIPE ROUTINES

CREATE PROCESS ROUTINES  
BY SOFTWARE SUPPORT

PREDICTABLE UP-TIME



## VA PROCESSMASTER

Automated Process  
Stabilization



Operator

### DAILY QUESTIONS

OUR LAYER STACKS ARE GETTING  
MORE COMPLEX.

HOW CAN I PREVENT DEVIATIONS  
FROM THE PROCESS?

### OUR SOLUTION

**VA PROCESSMASTER**  
AUTOMATED PROCESS STABILIZATION

EASIER & FASTER  
PRODUCT SETUP

INCREASED PRODUCTION YIELD



## VA TIPCOS

Tipping Point Control



Operator

### DAILY QUESTIONS

HOW CAN I EFFICIENTLY  
FIND THE OPTIMAL WORKING POINT?

HOW CAN I DETERMINE THE  
TIPPING POINTS OF CATHODES GROUPS?

### OUR SOLUTION

**VA TIPCOS**  
TIPPING POINT CONTROL

PREVENT EXCEEDING  
TIPPING POINT & LESS WASTE

INCREASE SPUTTER RATE



## VA VACUUM ANALYZER

Evaluation of Vacuum  
Quality



Process Engineer

### DAILY QUESTIONS

DO WE HAVE A CHANGE  
IN VACUUM QUALITY OVER TIME?

HOW LEAK-PROOF IS  
THE COATING MACHINE?

### OUR SOLUTION

**VA VACUUM ANALYZER**  
EVALUATION OF VACUUM QUALITY

CONCLUSIONS OF  
VACUUM COMPONENT QUALITY

MONITOR VACUUM  
OF THE MACHINE



## VA PROCESSDB INTERFACE

Interface to Machine Data



### DAILY QUESTIONS

I NEED TO GET HISTORICAL DATA OF THE PROCESS.

I NEED TO FIND CERTAIN CORRELATIONS.

### OUR SOLUTION

**VA PROCESSDB INTERFACE**  
INTERFACE TO MACHINE DATA

ROOT CAUSE ANALYSIS

USE DATA WHERE NEEDED



## VA TREND & EXPORTER

Data Visualizer & Exporter



### DAILY QUESTIONS

I NEED A TOOL TO GET DATA FROM THE MACHINE.

I NEED THEM IN A CERTAIN DATA FILE FORMAT.

### OUR SOLUTION

**VA TREND & EXPORTER**  
DATA VISUALIZER & EXPORTER

TREND VISUALISATION OF ANY PROCESS PARAMETER

EASY ACCESS TO DATA



## VA MAINTENANCE MONITOR

Preventive Maintenance



### DAILY QUESTIONS

I NEED TO IDENTIFY TASKS & FIND INFORMATION.

HOW CAN I PLAN A MAINTENANCE?

### OUR SOLUTION

**VA MAINTENANCE MONITOR**  
PREVENTIVE MAINTENANCE

SUCCESSFULLY MAINTAINED MACHINE

STEP BY STEP INSTRUCTIONS



## VA CATALOG

Spare & Wear Parts Catalog



### DAILY QUESTIONS

I NEED TO IDENTIFY SPARE PARTS.

3D MODELS COULD HELP ME TO FIND THEM FASTER.

### OUR SOLUTION

**VA CATALOG**  
SPARE & WEAR PARTS CATALOG

SPARE & WEAR PARTS - ALWAYS ON TIME

FASTER ORDERING PROCESS



# 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.



## CLOSE PARTNERSHIP

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

- 🕒 Fraunhofer Institutes such as IPMS, FEP, IST and ISE
- 🕒 Institutes of the Helmholtz Association (Jülich, Berlin)
- 🕒 Universities (Kiel, Dresden, Sheffield)
- 🕒 Companies such as FAP GmbH, scia Systems GmbH



## 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
- 🕒 Regular technical and technological trainings
- 🕒 Spare & wear part warehouse close to customers
- 🕒 Lifecycle extension of wear parts



## 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.



PRODUCT TOPICS



PRODUCT INDEX



COMPONENTS



vonardenne.com

## 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.

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.

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.



SALES CONTACTS



SERVICE CONTACTS

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