

## 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

## WORLDWIDE SALES AND SERVICE

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# VON ARDENNE



WORLDWIDE SERVICE CLOSE TO YOU LOCAL SERVICE FOR GLOBAL CUSTOMERS

## WORLDWIDE SERVICE CLOSE TO YOU

LOCAL SERVICE FOR GLOBAL CUSTOMERS



## DIGITALIZE YOUR WORKFLOWS

With Digital Services & Products

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

DIGITAL SERVICES

## OUR PORTFOLIO



### PROCESS SUITE

Automation  
& Monitoring



### ANALYSIS SUITE

Data Review &  
Analysis



### SERVICE SUITE

Smart Services



# TRAINING



## SKILLED TEAM

### Higher Performance

In customized seminars, we provide you with technical know-how tailored to your needs.

Our seminars cover both basic knowledge and in-depth knowledge of the use and operation of the equipment. This knowledge will help you to strengthen your team in everyday life.

## WE OFFER THE FOLLOWING TRAININGS



### Face-to-Face Training

worldwide or at your site with a practical component



### Webinars & E-Learning

conveniently available online

## VA COLLEGE

### E-Learning-Plattform

In your dynamic business environment, continuous learning is the key to success. To help you stay on top of the latest technology, we've developed VA COLLEGE - a ground-breaking learning management platform designed specifically for the needs of the vacuum coating industry. Discover the future of learning with VA COLLEGE!



#### Why VA COLLEGE?

**Comprehensive resources:** With VA COLLEGE, you have access to an extensive library of learning videos exclusively dedicated to your equipment. Whether you are a beginner, expert or looking to train your new employees, our videos will provide you with the knowledge you need to succeed in this highly specialized industry.

**Interactive learning platform:** The platform offers more than just videos. You can deepen your knowledge through interactive exercises, tests and quizzes. This allows you to review and consolidate your knowledge to ensure you are always on the right track.

**Flexible learning opportunities:** We understand that your time is valuable. That's why we've designed VA College so that you can access your learning anytime, anywhere. Whether you're in the office, on the shop floor or even on the road, learning has never been more flexible.

**Up-to-date:** The content is continuously updated to ensure that you and your employees are always at the cutting edge of technology.

**Expert support:** At VA COLLEGE, experienced experts are on hand to answer your questions and support you in your learning process. You can rely on us to provide you with the help you need.

## CLOSE TO YOU!

### THERE FOR YOU AROUND THE GLOBE

#### Overview

First-class technology, quality and productivity are the key to your success and an integral part of our plants.

VON ARDENNE equipment is used in more than 50 countries. We have installed over 550 coating lines worldwide and support them from our local service locations or our headquarters in Dresden. For questions or issues of any kind, we assist you by phone, personally on site or by remote support.



**Comprehensive support for your coating systems**  
over their entire service life



**Worldwide at your side**  
with local service sites



**Broad product portfolio**  
so that you get everything from a single source










VON ARDENNE's claim is to be able to offer our customers worldwide fast and reliable service. We are therefore represented at seven locations in Europe, Asia and North America.

In addition to our headquarters in Dresden, Germany, our employees from the subsidiaries in China, India, Japan, Malaysia, the USA and Vietnam are there for you.





AT OUR SERVICE LOCATIONS WE OFFER:

 <p><b>Local service hotline &amp; Qualified service personnel</b> [up to 24/7]</p>	 <p><b>Service sales</b></p>
 <p><b>Spare parts management</b></p>	 <p><b>Inspection &amp; maintenance service</b></p>
 <p><b>Upgrades &amp; retrofits</b></p>	 <p><b>Technical training</b></p>
 <p><b>Customer training center at our headquarters in Dresden</b></p>	



IN THE RIGHT PLACE AT THE RIGHT TIME

Our Service for Spare & Wear Parts



Our coating systems are designed to meet your demands for quality - and above all those of your customers. To ensure that everything runs smoothly, maintenance and optimization of the systems and components is essential.

We pay particular attention to ensuring that spare and wear parts are available in the right quality at the right time and at the right costs.

VON ARDENNE supports you with the help of a comprehensive and customized spare and wear parts package, so that the availability of all required parts is always ensured in sufficient quantity.

In addition, we actively support you in spare parts management, e.g. in the form of framework agreements to achieve cost advantages.







UPGRADE? WORLDWIDE UP TO DATE

Technology That Keeps Up With You

We ensure for you that our coating technologies are state-of-the-art and continuously improved. Because we follow the conviction: Today's best technology standard must also be tomorrow's best, so that you can satisfy your customers and investors.

To achieve this, we offer:

 <p><b>Technical Upgrades</b> to improve throughput</p>	 <p><b>Technology Upgrades</b> to improve configurations &amp; parameters</p>	 <p><b>Layer stack optimization</b> to improve your product with the help of our experience</p>	 <p><b>Training in layer stack competence</b> to best prepare your workforce</p>
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JOINT TESTING, SAMPLING & IMPROVEMENT




From Simulation to Pilot Production

Sampling & Layer Development

With a wide range of equipment

In our Technology & Application Center, we work with you and for you on the next generation of your coating applications.

From the simulation of layer stacks and their functionality, to sample production on a laboratory and pilot scale, to the measurement and evaluation of coating and substrate properties, we are prepared to meet a wide range of requirements. This gives you the opportunity to test the function of the coating for your product in advance on relevant sample sizes.

<p><b>Gaining knowledge through simulation</b> of layer composition &amp; properties</p>	
<p><b>Sampling &amp; qualification of properties</b> from a single source</p>	
<p><b>Targeted integration of coating steps</b> into your value chain</p>	



Technology & Application Center Dresden

