

## SHORT PROFILE

TACKLING GLOBAL CHALLENGES TODAY

FULL  
INFO  
HERE



### WHO WE ARE

VON ARDENNE is a modern, globally successful family business. We are known for our cutting-edge technology, and we are facing up to the social and ecological challenges of our time.

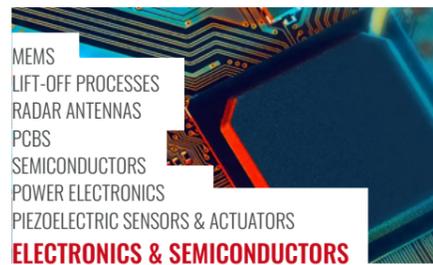
The responsible use of natural resources is one of our foremost priorities. That is why we are constantly looking for solutions that enable sustainable product manufacturing.

### INDUSTRIES & APPLICATIONS

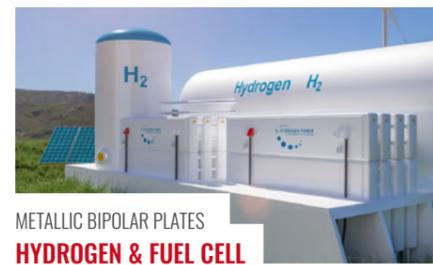
We supply vacuum coating systems for these industries and applications:



BUILDING-INTEGRATED PHOTOVOLTAICS  
WINDSHIELD & SUNROOF  
WINDOWS &  
FACADES SMART GLASS  
**ARCHITECTURAL & AUTOMOTIVE GLASS**



MEMS  
LIFT-OFF PROCESSES  
RADAR ANTENNAS  
PCBS  
SEMICONDUCTORS  
POWER ELECTRONICS  
PIEZOELECTRIC SENSORS & ACTUATORS  
**ELECTRONICS & SEMICONDUCTORS**



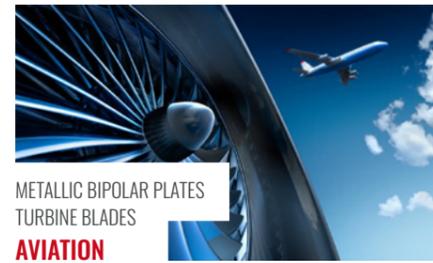
METALLIC BIPOLAR PLATES  
**HYDROGEN & FUEL CELL**



DISPLAYS FOR VEHICLES  
DISPLAYS FOR CONSUMER ELECTRONICS  
**DISPLAYS**



LITHIUM-ION BATTERIES  
**BATTERY**



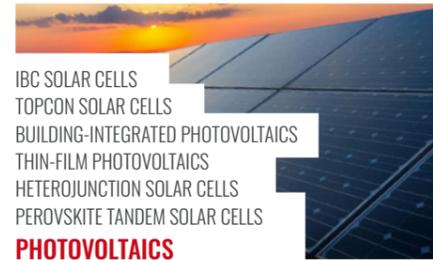
METALLIC BIPOLAR PLATES  
TURBINE BLADES  
**AVIATION**



RECYCLABLE FOOD PACKAGING  
**PACKAGING**



OPTICAL WINDOWS  
DIELECTRIC MIRRORS  
WAFER-LEVEL OPTICS  
LENSES & OPTICAL DOMES  
OPTICAL INTERFERENCE FILTERS  
**OPTICS**



IBC SOLAR CELLS  
TOPCON SOLAR CELLS  
BUILDING-INTEGRATED PHOTOVOLTAICS  
THIN-FILM PHOTOVOLTAICS  
HETEROJUNCTION SOLAR CELLS  
PEROVSKITE TANDEM SOLAR CELLS  
**PHOTOVOLTAICS**



WE ARE  
**FAMILY-RUN**  
IN 3RD GENERATION

WE HAVE MORE THAN  
**1300**  
EMPLOYEES  
WORLDWIDE

IN **7** COUNTRIES  
ON SITE



WE ARE  
**LEADING TECHNOLOGY  
PIONEERS**

WE HOLD  
MORE THAN  
**600**  
PATENTS

FOR OVER  
**30**  
YEARS  
**SUCCESSFUL**

MORE THAN  
**550**  
COATING  
SYSTEMS

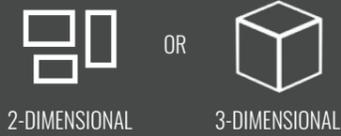
INSTALLED  
IN OVER  
**50**  
COUNTRIES

# WHAT WE OFFER

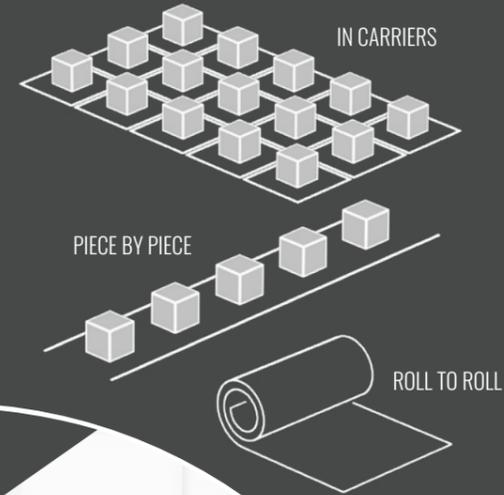
**EQUIPMENT** We offer our customers systems that can deposit ultra-thin layers on various substrates to produce different functionalities.

The systems are modular and scalable. Which is why they can keep pace with the requirements of our customers.

Our systems can coat substrates in various shapes:



And they can be arranged in different ways:



CLUSTER SYSTEMS



ROTARY DISK SYSTEMS



SYSTEMS FOR HORIZONTAL COATING



SYSTEMS FOR VERTICAL COATING



SYSTEMS FOR ROLL-TO-ROLL COATING



SYSTEMS FOR HORIZONTAL COATING WITH HIGH VOLUMES



SYSTEMS FOR HORIZONTAL COATING ON LARGE AREAS



SYSTEMS FOR COATING METAL STRIPS WITH HIGH VOLUMES



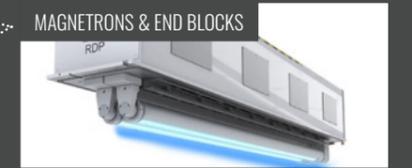
## TECHNOLOGIES & COMPONENTS

VON ARDENNE has been involved in the development of electron beam evaporation from the outset in the 1950s. VON ARDENNE was also a pioneer in the development of magnetron sputtering

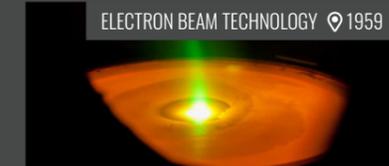
technology in the 1970s. In addition, other technologies such as linear evaporation or laser arc evaporation can be integrated. We develop the key technological components for our systems ourselves, such as magnetrons, electron beam guns and linear evaporators.



MAGNETRON SPUTTERING 1974



MAGNETRONS & END BLOCKS



ELECTRON BEAM TECHNOLOGY 1959



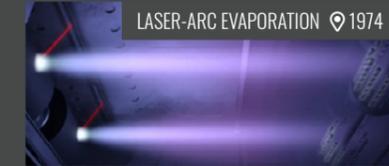
ELECTRON BEAM GUNS



EVAPORATION TECHNOLOGY 1961



LINEAR EVAPORATOR



LASER-ARC EVAPORATION 1974



LASER-ARC MODULE

## SOFTWARE

The world is becoming increasingly digital. VON ARDENNE helps you meet future requirements such as autonomy, connectivity, predictability and flexibility. Our system controls are tailored to production needs in the digital age. On this basis, we offer a comprehensive digital product and service portfolio with **VA INDIGO**.

## ENGINEERING

The ability to develop customized system concepts and components together with our customers - that is what has set us apart for decades.

From technology to mechanical and electrical project planning, from simulation and design to automation and data preparation - at VON ARDENNE you get everything from a single source.

**SIMULATION**  
for electromagnetic processes, mechanical systems, weld seams, plasma, strength and thermal properties

**COATING SYSTEMS**  
we develop & optimize systems together with our customers for specific applications

**SAMPLING**  
for testing and optimizing coating systems under laboratory and production conditions

**PILOT PRODUCTION**  
on our systems to enable initial products before our customers can produce them themselves



TECHNOLOGY & APPLICATION CENTER WITH ITS OWN DEVELOPMENT FACILITIES