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 films 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.
VON ARDENNE develops and manufactures electron beam systems which are used for melting, refining, evaporation or heat treatment.

The first electron beam gun was developed in 1960 at the Manfred von Ardenne Research Institute. Our more than 50 years of experience are reflected in over 400 electron beam systems installed worldwide.

Our current EH150V, EH300V and EH800V electron beam guns are the most powerful in the world.

We work on the continuous improvement of our key components at our development center for electron beam technologies. This is where we produce and test our high-quality electron beam guns.

FEATURES AND BENEFITS

Power control by means of a patented VARIOCATHODE

High degree of pressure decoupling

Internal valve to separate EB gun from process chamber

Quick and simple changing of cathode plug

Ease of handling and maintenance

High reliability

High acceleration voltage up to 60 kV

Magnetically self-focusing beam

APPLICATION

High-rate evaporation of metals, alloys and compounds

Melting of metals, alloys and compounds

Heat treatment of different materials, especially metal strip (preheating in evaporation plants, annealing)

HIGH-POWER ELECTRON BEAM GUNS

EH150V/EH300V/EH800V

TECHNICAL DATA

Subject to change without notice due to technical improvement.

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