

ELECTRONICS

SOFTWARE



HV & UHV SYSTEMS

COMPONENTS



PRODUCT OVERVIEW

Precision and Vacuum Technology

PREVAC was founded in Rogów (Upper Silesia, Poland) in 1996. Since its foundation **PREVAC** has been one of the world's leading manufacturers of research equipment for analysis of high and ultra high vacuum applications.

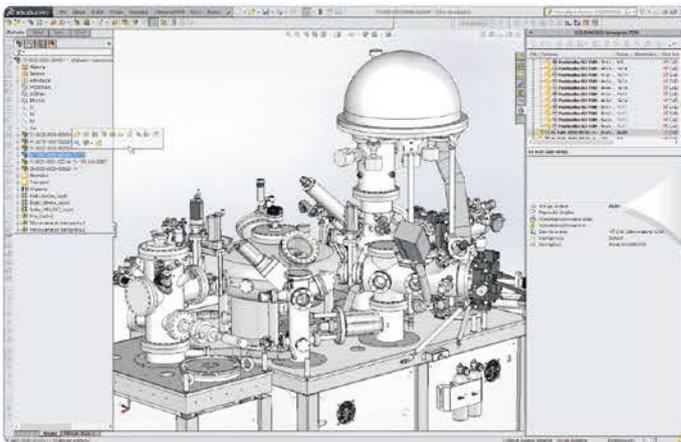
The company is focused on setting the standards in precision UHV technology and **PREVAC**'s logo is recognizable throughout the world as a mark of quality in this field.

PREVAC's greatest assets are many years of experience in vacuum technology and a highly skilled, dynamic and ambitious workforce comprising the best specialists, who are characterised by openness to innovation, initiative and creativity.

With many years market presence, **PREVAC** can be proud of some impressive achievements. Products, designed, manufactured and tested in Poland, are currently working all over the world helping leading researchers to achieve their goals.



Everything starts with design



The Company's success is the result of the highest quality goods and services. The crowning achievement of quality care and continuous improvement of business processes was the award of the **Certificate of TÜV Rheinland** compliance with quality management system ISO 9001:2008.



A confirmation of the high level of innovation and high quality products and services are many prizes and awards contained in the company's collection. Among these, awards from Polish Vacuum Society, Quality International Forum, Business Gazelles.

PREVAC, a member of various vacuum societies actively promotes the science, technology and use of vacuum technology.



HIGH VACUUM AND ULTRA HIGH VACUUM SYSTEMS

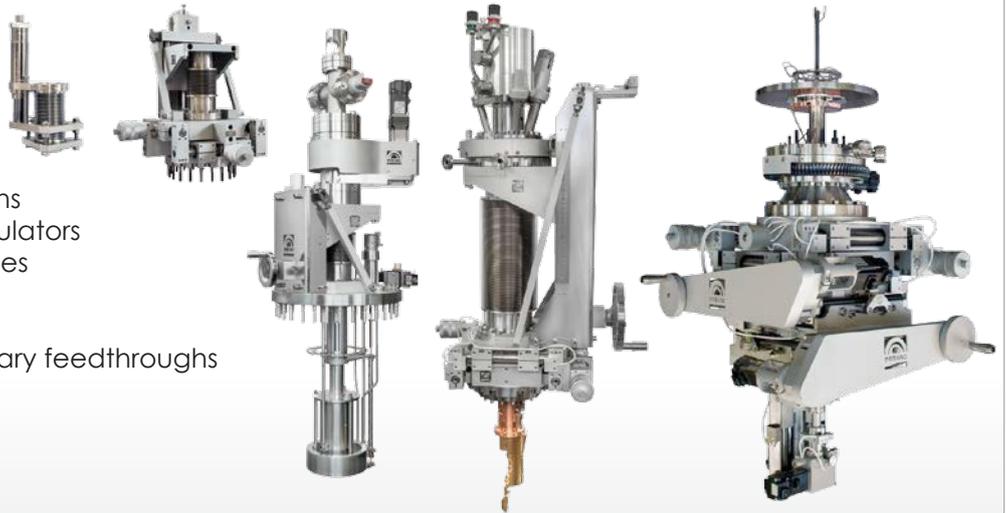
PREVAC designs and manufactures a wide range of bespoke HV and UHV systems configured with any combination of techniques such as:

- XPS / ESCA
- HP XPS
- UPS
- ARPES
- ARUPS
- ISS
- HREELS
- FTIR
- IRAS
- MOKE
- MBE
- PLD
- RHEED
- CVD
- PECVD
- HIPIMS
- Sputter deposition
- Thermal evaporation
- AFM
- STM
- LEED / AES
- TPD
- RIXS
- others



MANIPULATORS, GONIOMETERS AND FEEDTHROUGHS

- XY stages
- Z manipulators
- XYZ manipulators
- Multi axes manipulators (up to 6 axes)
- Manipulators with rotations
- LN₂ or LHe cooled manipulators
- Motorisation for all modules
- Linear feedthroughs
- Rotary feedthroughs
- Differentially pumped rotary feedthroughs
- Linear shifts
- Wobble sticks
- Goniometers



CHAMBERS AND MECHANISMS

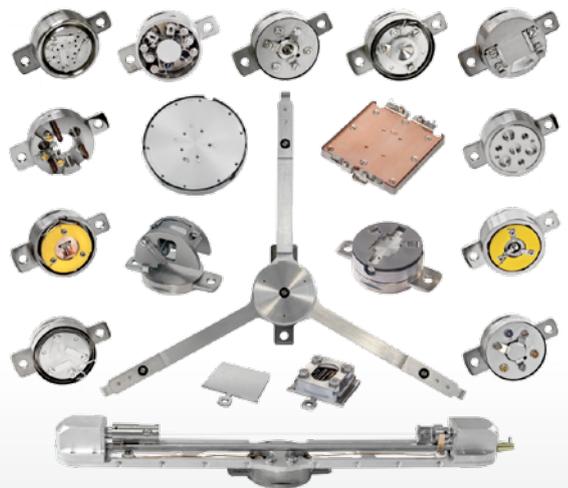
- Analytical chambers
- Preparation chambers
- Load lock chambers
- Sample park chambers
- Radial distribution chambers
- High pressure reactors
- Cleaver chambers
- Reorientation chambers
- Linear transfers
- Transport boxes



SAMPLE HOLDERS

- Sample heating by resistive heating method (up to 1000°C), direct heating or electron beam heating (up to 2000°C)
- Various types of the PTS sample holders - up to 8"
- Helium and nitrogen cooling
- Versions for reactive gas atmospheres
- Holders dedicated for e.g. quartz balance, Faraday cup, high pressure reactors, powder materials
- Adapters for flag style sample holders
- Detachable contact for heating & cooling
- IR & UV transmission mode
- Integrated charge compensation

Approximately 200 individual designs of sample holders have been manufactured to date



INSTRUMENTS

- Hemispherical energy analyser
- X-ray source
- X-ray monochromator
- UV source
- Ion source with wien filter option
- Electron source
- Flood source
- Electron beam evaporator
- Effusion cell
- Cylindrical mirror analyser
- Quartz balance
- Thermal desorption spectrometer



ACCESSORIES

- Titanium sublimation pumps and liquid nitrogen shields
- Vacuum KF-fittings
- Ultra high vacuum CF-fittings
- Electrical feedthroughs
- Fluid feedthroughs
- Bakeout equipment
- Components for load locks
- Vacuum doors
- Shutters
- Mass flow control systems
- Water cooling devices



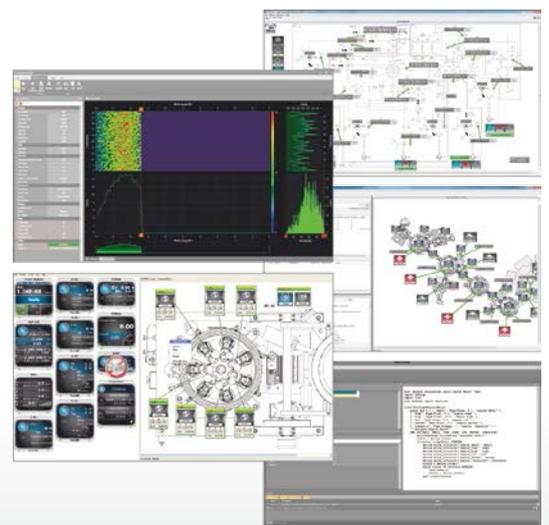
ELECTRONICS

- Vacuum control devices
- Thickness monitor controllers
- Stepping motor control drivers
- Ion source power supplies
- Sample heating power supplies
- Wide range vacuum gauge controllers
- Thickness/rate controllers
- Electron source power supplies
- Electron beam evaporator power supplies
- Titanium sublimation pump power supplies
- High voltage electronics
- Bakeout control devices
- Emission regulators



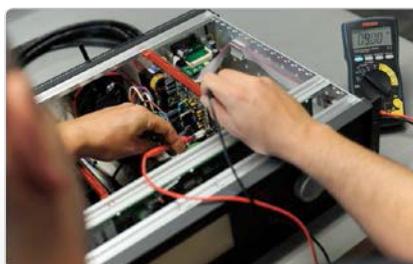
SOFTWARE

- Manipulator control application
- Thermal desorption spectroscopy control application
- Pressure control application
- PID control application (thermal process control)
- Automatisations of the samples transfer system
- Vacuum process control system
- Able to connect/communicate with most of PREVAC devices
- Dedicated software for customer`s systems and devices
- Integration with TANGO and other control systems



SERVICES

- Warranty & after warranty service
- Manipulators and vacuum transfers reoperations
- HV and UHV systems reoperations
- UHV compatible machining and welding
- Electronic units reoperations
- X-ray anodes recovery
- Components reoperations





RESEARCH EQUIPMENT SUPPLIER

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