

MODULLINE VACUUM GAUGES



Bayard-Alpert



Extractor



Pirani



Cold cathode

Customer benefits

- Radiation hardened vacuum gauges from atmosphere to ultra-high vacuum
- Separate measurement electronics and control unit can be placed in a safe distance
- Maintenance on-site without need to leave the radiation area

VACUUM SOLUTIONS FOR YOUR ACCELERATOR APPLICATION

Customer benefits

- Radiation hardened turbopumps without semiconductor parts to achieve high to ultra-high vacuum
- Separate drive electronics and control unit can be placed in a safe distance
- Maintenance on-site possible

HIPACE TURBOPUMPS



HIPace turbopump



Drive electronics TCP 350

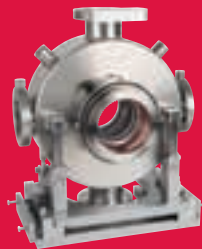
VACUUM CHAMBERS AND SYSTEM COMPONENTS



Customized chamber



Standard components



Customized chamber

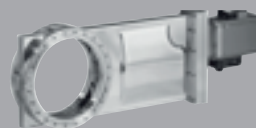
Customer benefits

- Extensive range of standardized vacuum components with perfect compatibility
- Customized chambers produced from high quality materials
- Handling compatible for ultra-high vacuum specifications

Customer benefits

- Robust gate valves for ultra-high vacuum, achieving high conductance
- Angle and inline valves
- Optional actuation methods: manual, with pressurized air or electromagnetic coil

VALVES AND UHV GATE VALVES



UHV Gate valve



Angle valve

ION SOURCES AND DIAGNOSTICS COMPONENTS



Ion source



50 kV irradiation facility

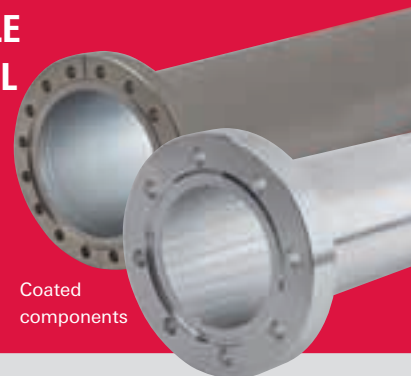
Customer benefits

- Electron Beam Ion Sources (EBIS) for highly charged ion beams
- Electron Cyclotron Resonance Ion Source (ECRIS) for high ion beam currents
- Ion and electron beam optics and diagnostics as well as complete irradiation facilities

Customer benefits

- New sputter method allows coating of hard-to-reach inner surfaces
- Vibration-free, gas-binding pumping principle for ultra-high vacuum generation
- Job coating service
- Coated vacuum chambers and components from one supplier

COATING WITH NON-EVAPORABLE GETTER MATERIAL



Coated components

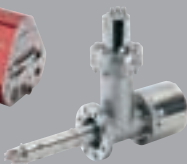
LEAK DETECTORS / RESIDUAL GAS ANALYSERS



Helium leak detector



Mass spectrometer



Gas analyser

Customer benefits

- Verification of the vacuum quality, leak tightness and residual gas analysis
- Sector field sensor cell with high sensitivity for helium and hydrogen on masses 2,3,4
- Compact or modular quadrupole mass spectrometers for residual gas analysis in high and ultrahigh vacuum applications

Customer benefits

- Dry multi-stage roots pumps with outstanding cleanliness, vacuum generation free from oil, particles and fluorine
- Hermetically sealed rotary vane pumps in a compact and robust design
- Diaphragm pumps with AC or DC motors, to generate ultra-high vacuum in combination with high compression turbopumps

ROUGHING PUMPS



Rotary vane pump

Multi-stage Roots pump



Diaphragm pump

All data subject to change without prior notice. (March 2019/10)