research
instruments

Solutions Manufacturing Performance

Let´s partner up for your project

www.research-instruments.de

At RI Research Instruments we develop, design, manufacture and test high performance components and systems to the needs of our customers in research, healthcare and industry.

- Particle accelerators
- Energy and fusion technology
- Photon instrumentation
- XUV and EUV solutions and systems
- HV and pulsed power systems
- Special manufacturing services and products

Solutions

From your demanding requirements to the performance of the delivered system or component, we can take your project from conception to completion to make the highest performing and most reliable product, from prototypes, custom tailored systems and components, and series production to turn-key systems.

- Concept development, physics analysis and simulations
- Mechanical, electrical and manufacture-ready design
- Systems design and integration
- Certified tests and quality management
- Manufacturing and assembly
- Installation and commissioning

We master many technologies.
Let us find the best solution for you.

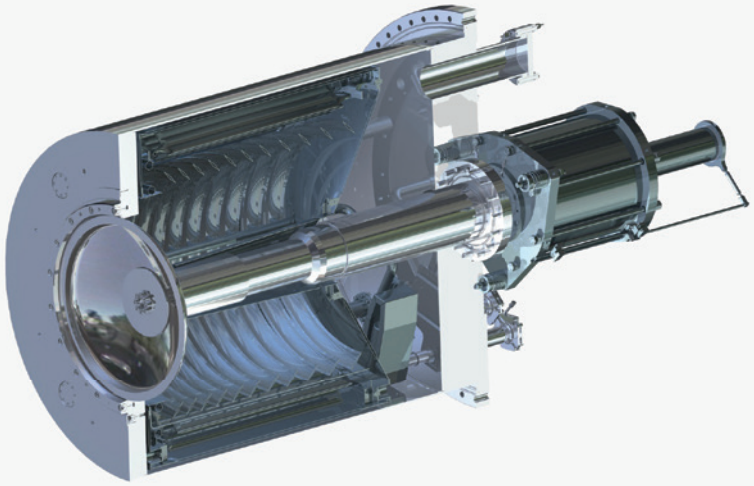
- Superconducting technology
- Vacuum, cryogenics and high pressure vessels
- Accelerator and RF technology
- X-ray optics
- XUV/EUV technology
- HV and pulsed power technology
- Electromagnetic field simulations and measurements
- Metrology

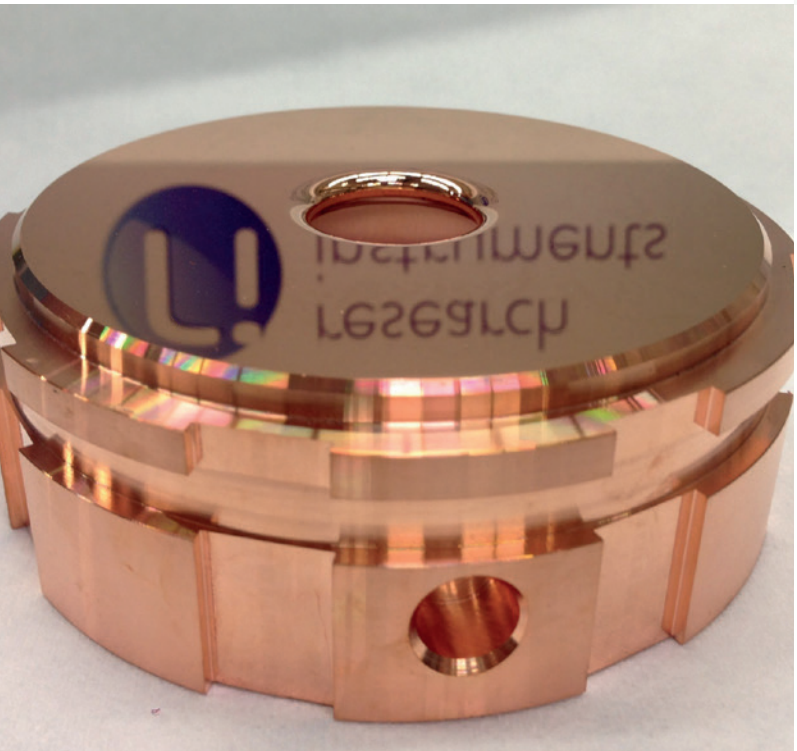
X-ray optics

Manufacturing

On about 10 000 m², we combine high level mechanical and electrical engineering with RF technology, high precision machining, welding and brazing processes, chemical surface preparation, physical coating, clean room assembly and state-of-the-art test facilities.

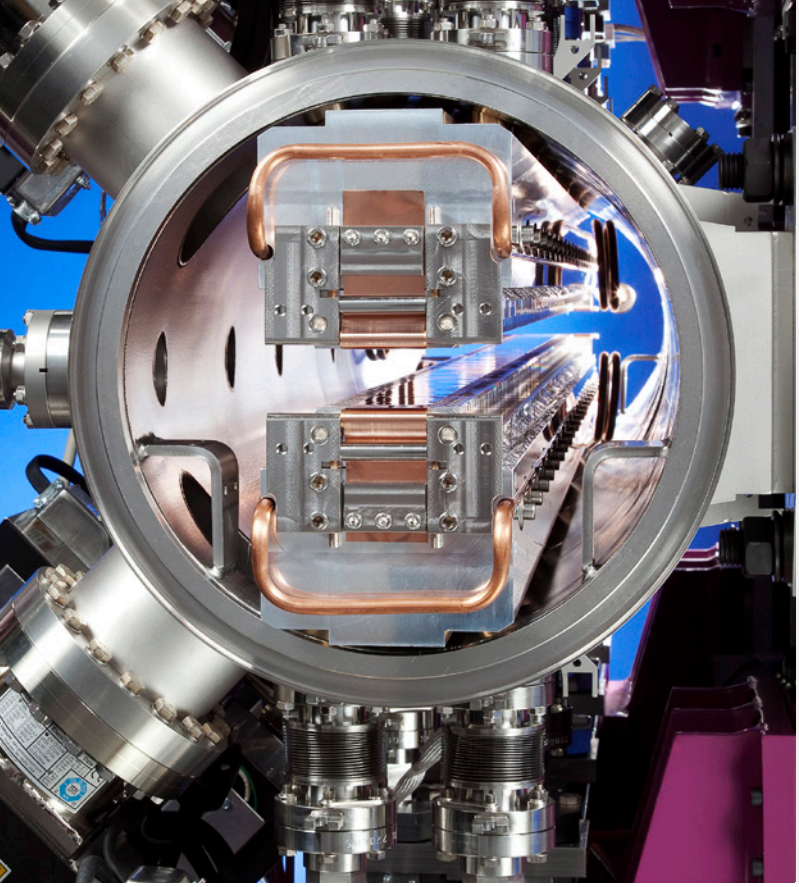
- Forming, milling and turning
- Certified welding and brazing
  - Electron beam welding
  - Vacuum and induction brazing
  - TIG welding
- Electro-chemical and physical surface preparation and coating
- Heat treatments
- Clean room assembly
- State-of-the-art test facilities
  - RF measurements
  - Vacuum and cryogenics
  - Electromagnetic field measurements
  - Dimensional inspection, alignment and vibrational test
  - Cleanroom facilities for final qualification
- System integration





Certificates

- ISO 9001:2008
- German KTA nuclear safety standards KTA 3201.3 and KTA 3211.3
- Accredited for non-destructive tests methods after DIN EN ISO/IEC 17025:2005
- Certified manufacturer of pressure vessels according to PED 97/23/EC, AD 200-Merkblatt HP0 and DIN EN ISO 3834-2 (EN 729-2)



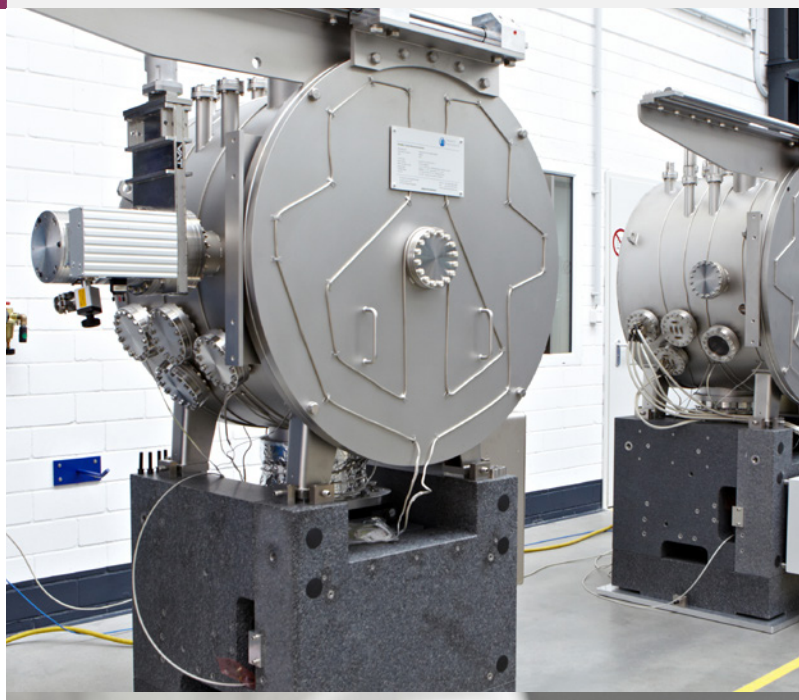
Performance

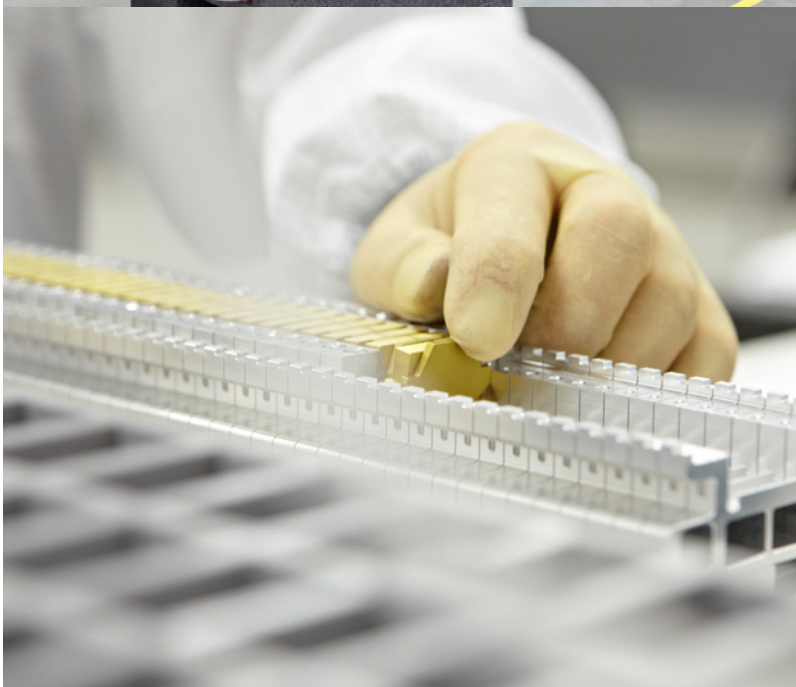
Experience the fascinating world of high-end engineering and manufacturing. We have set standards for building accelerators, equipment for photon instrumentation and products for fusion technology, healthcare and industry:

- Series production of cavities, couplers and wavelength shifters for the European XFEL project
- Machining and vacuum brazing of copper S-band and C-band structures for linacs
- State-of the-art monochromators, experimental stations and off-the shelf cryocoolers
- EUV/XUV solutions for the semiconductor industry

Experience performance

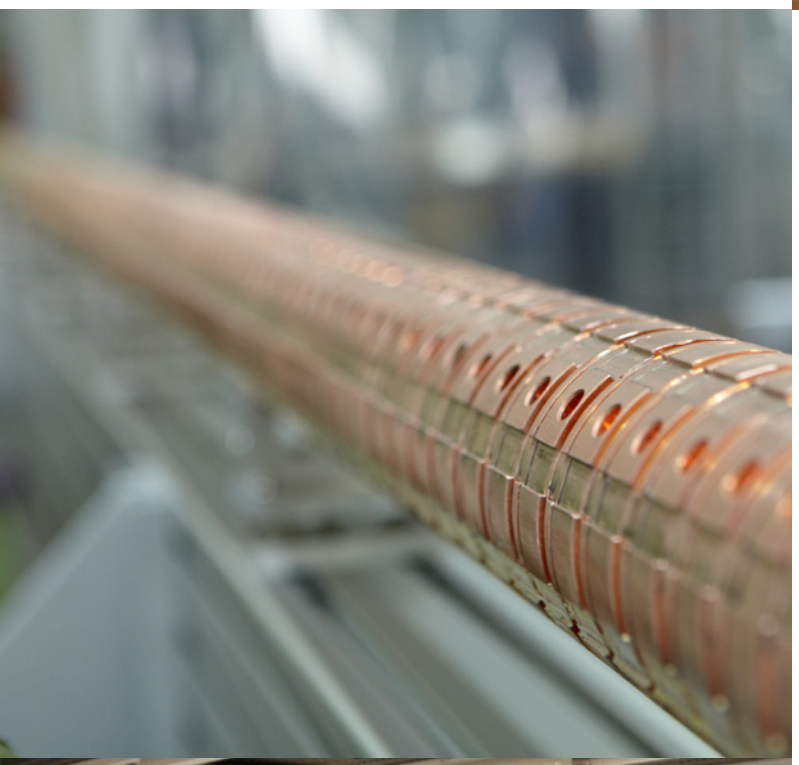
- Linear accelerators
- Normal conducting RF structures and components
- Superconducting RF modules, cavities and couplers for accelerators
- Particle sources and beamlines
- Pulsed power systems and kicker magnets
- Synchrotron light source and FEL instrumentation
- Insertion devices
- LHe and LN2 cryogenics
- XUV and EUV solutions and laboratory equipment
- Fusion – components and sub-systems for ITER
- Key components for aerospace, medical, energy and semiconductor industry

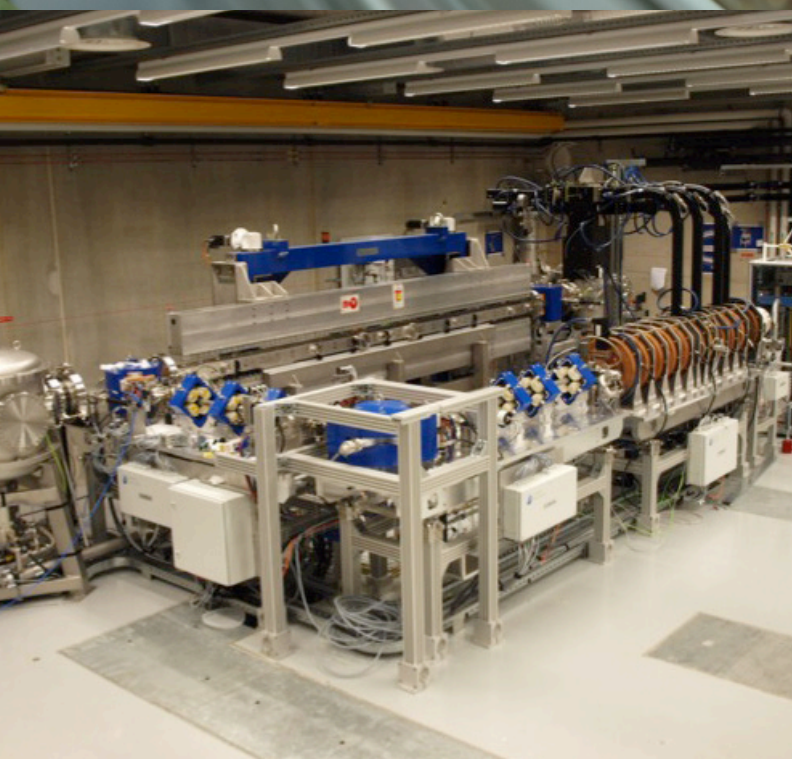




Let us find a solution for your application

What are the smallest elementary particles and how do they interact? How was the universe formed and what created matter? What are the fundamental building blocks of life and how can we use the resources of our planet in the most sustainable way? How can we fight diseases like cancer?





Answers to the most fundamental questions require sophisticated and often large machinery at the cutting edge of technology. We at RI Research Instruments take pride in delivering key components and systems for research facilities, life science laboratories, healthcare, energy technology and industry.

- High energy physics
- Material and life sciences
- Heavy ion physics and astrophysics
- Nuclear physics
- Energy and fusion technology
- Particle therapy
- Medical isotope production
- Semiconductor test and manufacturing tools
- Special manufacturing e.g. for chemical, pharmaceutical and special machinery industry
- Aerospace

Contact

Easy to connect with us

Find us in Bergisch Gladbach, near Cologne with his millenia of history at the rim of the industrial center of Europe. We are a medium sized company established in 2009 by the particle accelerator core team of former Interatom/Siemens and ACCEL Instruments GmbH.
Our management holds a significant equity stake of the company, which is majority owned by Bruker EST Inc.

Partner up with the RI team

Our >300 dedicated staff of highly skilled physicists, engineers, technicians and project supporters have decades of experience in finding solutions and making components and systems for science laboratories, healthcare, and industry around the globe. Partner up with us and experience how we can make your most challenging project dreams come true.

Teamwork makes the dream work.

Let's team up and see how our experts can support your cause.

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