

Pure Precision™

Ferrotec provides customers with advanced technology solutions that make their products work better, more precisely, and more reliably. Founded in 1980 on a technology core of FerroFluid magnetic liquid and Ferrofluidic® sealing products, our company and our product portfolio have grown to meet the evolving needs of our customers. Ferrotec is a world leading manufacturer, marketer and distributor of advanced material, component and assembly solutions used in a broad array of end products, manufacturing systems and industries.

Range of Ferrotec Products

- Ferrofluid
- Ferrofluidic® Vacuum Feedthroughs & Rotary Seals
- Electron Beam Vacuum Coating Solutions
- Thermoelectric Solutions For Thermal Management
- Photovoltaic Wafer Production Systems & Process System Components
- Fabricated Quartzware
- Fine & Machinable Ceramics
- Advanced Manufacturing Capabilities & Services

Range of Distribution Products in Europe

- Polycold® Systems, Cryogenic Refrigeration Solutions, by Brooks Automation Inc.
- Welded Metal Bellows, by KSM Corporation

Ferrofluids

Magnetic fluids, or ferrofluids, were developed in the 1960's through the sponsorship of NASA, to address the unique requirements of moving liquid fuel in a gravity-free outerspace environment. Recognizing the potential for commercial applications using ferrofluids, Ferrofluidics Corporation was founded in 1968.

Today, as a world market leader in the field of magnetic fluids, Ferrotec offers products for a range of challenging applications such as audio fluids, to improve performances of audio speakers, fluids for biomedical applications and fluids for damping and Ferrofluidic® seals.



Rotary Vacuum Feedthroughs – Magnetizable Liquids as Seals

Ferrofluidic® rotary feedthroughs use a ferrofluid held in the gap between a rotor and a stator by a magnetic field. The field creates a liquid 'O-ring' around the rotor, which provides a reliable, long life and maintenance free hermetic seal. The seal is also non-contacting; so no particle generation and ideal for high vacuum and low pressure applications over a very wide speed and temperature range.



Welded Metal Bellows

„Edge welded metal bellows are manufactured by welding together very thin rings of press formed material. The elastic characteristic of the material enables free movement both in the axial and radial directions, as well as allowing for angular misalignment, whilst maintaining vacuum integrity. KSM has developed its own design program allowing very rapid response for custom designed bellows. Add to this our in-house manufacturing capability, which includes welding by fully automatic machines in a Class 1000 clean room, allows us to offer rapid delivery, outstanding quality and attractive pricing. Our edge welded bellows can become your preferred sealing solution in diverse fields such as, Semiconductor, Display technology, Photo Voltaic systems, R&D applications, Medical, Aerospace, Military and other industries.“



Electron Beam Evaporators

If antireflective coatings, filters, mirrors or DWDM beam splitters need to be manufactured – Ferrotec participates with electron beam evaporators, electronic power supplies and controllers as well. Vacuum system manufacturers and coating centers worldwide benefit from Ferrotec's competence in these technologies. Ferrotec has developed its experience in this particular sector over several decades. The high quality standard of Ferrotec products has been proofed by leading system manufacturers – resulting in a leading position for electron beam evaporators.



Thermoelectric Modules

Cooling and heating with only one active component? Thermoelectric Modules make it possible. A Thermoelectric Cooler is a semiconductor based electronic component that functions as a heat pump. By applying electrical power, heat will be moved through the module from one side to the other. Therefore, one side will be cooled while the opposite face is heated. This phenomenon is fully reversible only by changing the direction of the current flow. TE Modules are used wherever accurate temperature control, stabilization or fast cycling is required. Ferrotec offers an extensive range of standard TE Modules, but also custom module shapes, sizes and configurations can be produced to meet specific customer needs.



Fabricated Quartz – Structured Transparency

Ferrotec offers a wide range of fabricated quartz products for the semiconductor industry. As one of the world's largest processors of GE quartz, Ferrotec has many years of design and manufacturing experience and extremely modern and flexible production plants in Asia. Numerous quality certification processes by system manufacturers ensure worry free use of our standard and customdesigned quartz products.



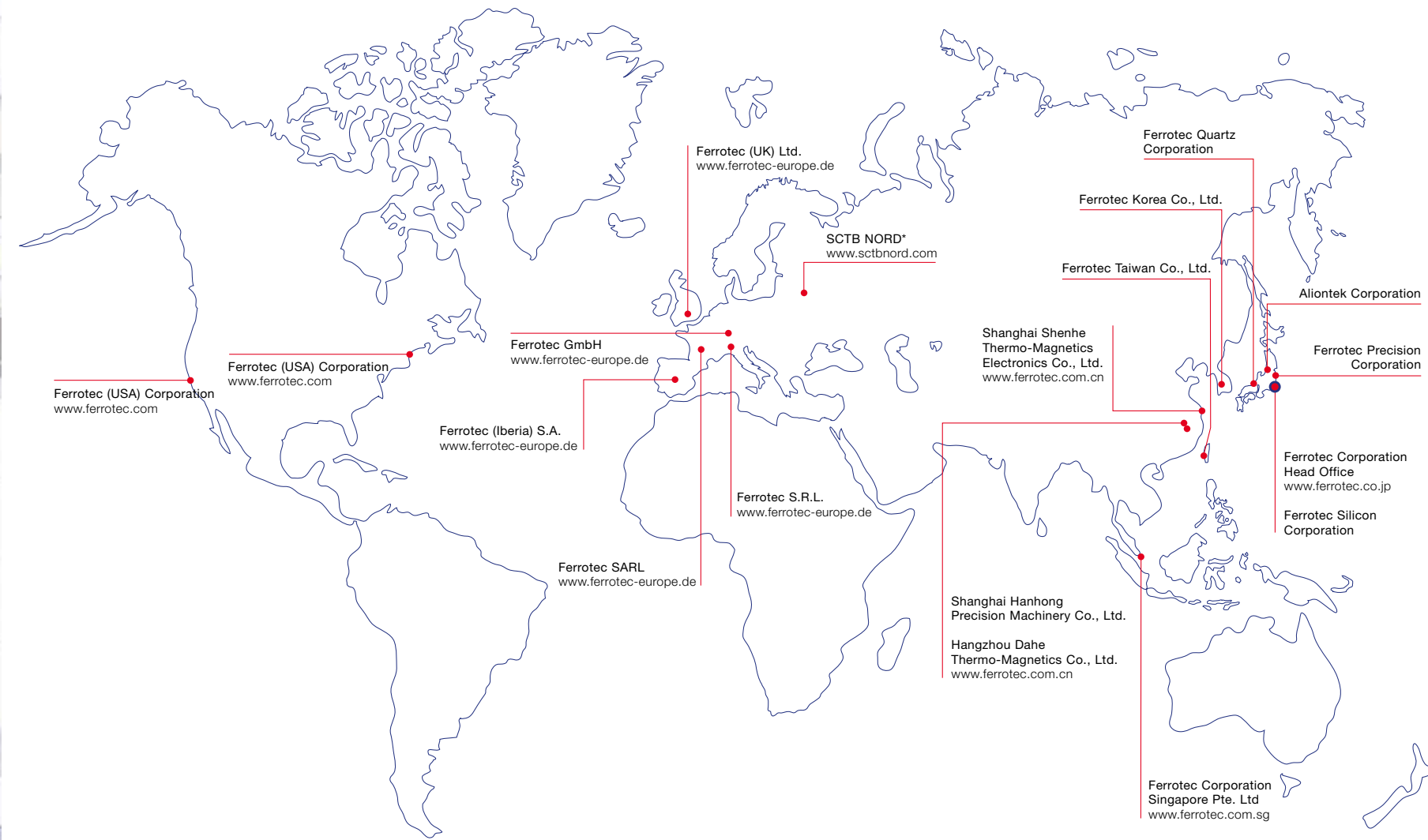
Cryogenerators – Product of Brooks Automation, Inc. Polycold® Systems

Polycold's leading edge technologies are found in applications across a broad range of markets – from semiconductors, optical networking, flat panel displays, detector cooling for aerospace, telescopic, and laboratory requirements, to web coating, decorative coating, and ophthalmic coating. Polycold Cryogenerators reduce lifecycle costs, improve process performance, enhance workplace safety and increase production reliability by providing the highest quality closed-loop Cool Solutions® available in the world.



Ferrotec operates out of regional centers in Japan, China, USA and Europe and offers worldwide sales and service to their international customer base. Founded in 1968 as Ferrofluidics Corporation in the US, the company is meanwhile a Japanese public company and its shares are traded at the JASDAQ in Tokyo.

Ferrotec continues to strengthen its position by strategic acquisitions and developing market required synergetic technologies.



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