



FRIATEC SPECTRUM



MANNHEIM LOCATION

FRIATEC Aktiengesellschaft

Steinzeugstraße 50
68229 Mannheim
Germany

Phone: +49 (0)621 4 86-0
Fax: +49 (0)621 4 86-1279
info@friatec.de
www.friatec.de

Technical Plastics Division

Phone: +49 (0)621 486-2828
Fax: +49 (0)621 486-1598
info-frialen@friatec.de

Building Services Division

Phone: +49 (0)621 486-1914
Fax: +49 (0)621 486-1599
info-gebaeudetechnik@friatec.de

Ceramics Division

Phone: +49 (0)621 4 86-1879
Fax: +49 (0)621 486-1605
info-keramik@friatec.de

WIESBADEN LOCATION

FRIATEC Aktiengesellschaft

Rheinhütte Pumps Division
Rheingaustraße 96-98
65203 Wiesbaden
Germany

Phone: +49 (0)611 604-0
Fax: +49 (0)611 604-328
info@rheinhuette.de
www.rheinhuette.de



an *Aliaxis* company



FRIATEC AG is a specialist company for products made of non-corroding and wear-resistant materials. We develop innovative solutions for the global market in dialogue with our customers.

Innovations for more than 145 years

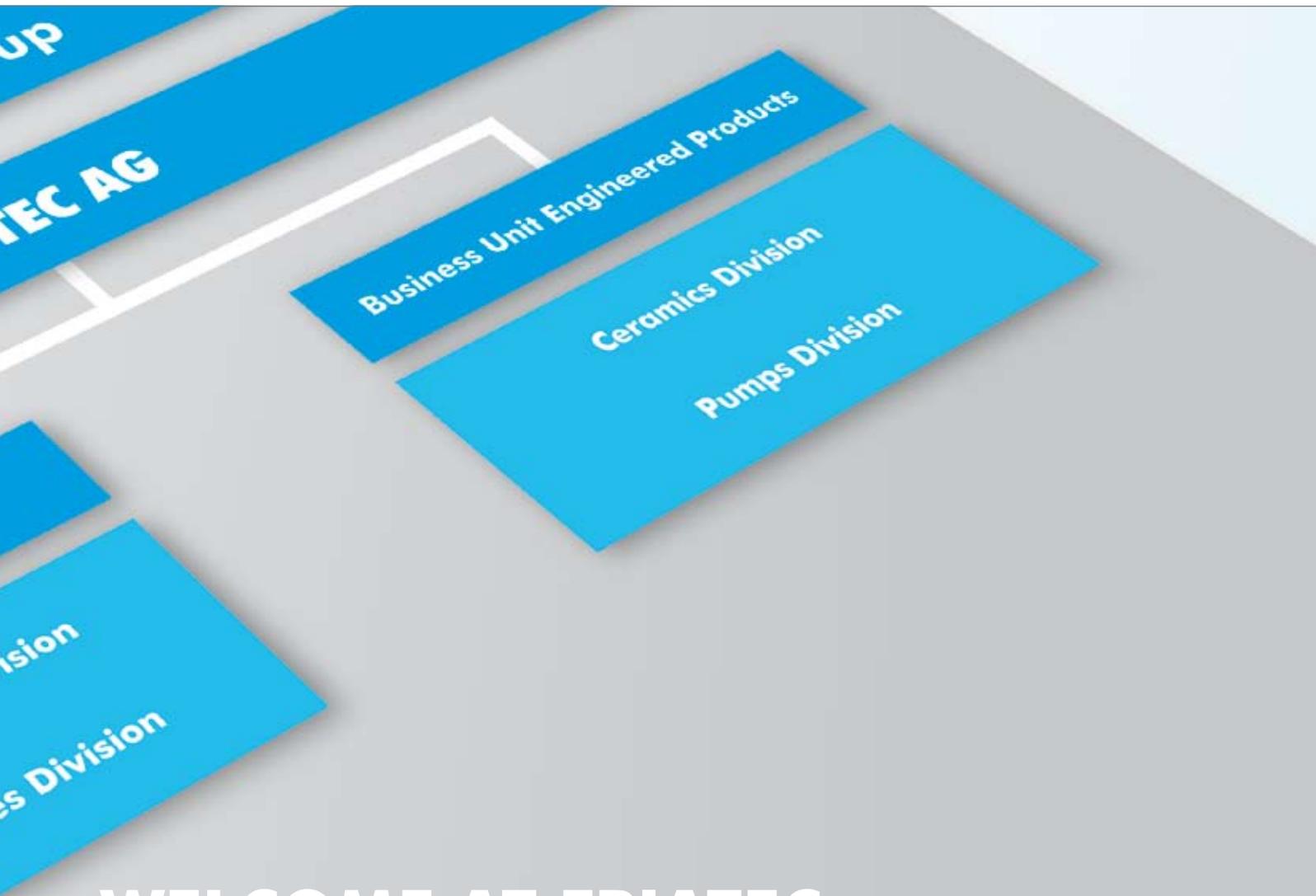
The company was founded in 1863 in Mannheim, Germany, as a brickyard and succeeded in developing its first pathbreaking innovation, chemical stoneware, in 1888. Numerous new developments followed. Among other things, the company started in the mid of the past century processing plastics and combined modern and traditional materials when producing chemical devices and facilities.

The following years were characterised by the expansion in the core business and the opening up of more and more new business segments. As Deutsche Steinzeug and later as

Friedrichsfeld GmbH, the company, which has been operating under the name FRIATEC AG since 1993, continuously developed to become an internationally active, diversified company.

Spectrum of innovative solutions

As such, FRIATEC AG today offers a spectrum of innovative solutions for many industries, e.g. jointing technology for pipe systems, products for water-carrying building services, special pumps for aggressive, volatile or explosive media, but also ceramic components which are used in laboratory and electrical engineering but also in medical engineering.



WELCOME AT FRIATEC

With its sophisticated solutions, FRIATEC AG is not only among the most well-known and well-established companies in the metropolitan region Rhine-Neckar but is also one of the global market leaders of its industry.

Partner of a powerful community

Since 2003, FRIATEC AG has been a member of the ALIAXIS group of companies with headquarters in Brussels, Belgium. ALIAXIS is the worldwide largest producer of plastic pipe systems for the construction industry, the industry and utilities.

FRIALEN electrofusion guarantees a leak-proof and secure connection between pipe and fitting in gas and water supply applications.



FRIALOC: The first shut-off valve made of PE guarantees a homogeneous PE pipe network. Your benefits: extraordinarily long-lasting, safe, and economic.



FRIAFIT jointing technology guarantees maximum processing safety, efficient installation, and economic operation of the sewage system.



FRIATOOLS technical equipment offers a sophisticated and complete product range with its FRIAMAT electrofusion units and mechanical tools such as scraper tools and rounding clamps.



FRIAGRIP: The universal sealing and grip system for tension-proof connections and repairs of different pipe material and different diameter.

STRAUB: Pipe couplings for different pipe materials in plant construction.



ALWAYS THE RIGHT DECISION

As a pioneer and innovation leader in electrofusion applications, we focus on jointing technology for pipe systems. We meet any demand in this technically demanding area by offering highly-specialised solutions.

Jointing technology for pipe systems has always been an area which has been technically demanding. In buried pipe network construction, gas, water, and sewage pipes made of HD-PE are subjected to numerous different loads such as e.g. high pressures, temperature fluctuations as well as earthmoving and tremors.

As one of the globally leading suppliers of electrofusion fittings, we are aware of the significance of the buried capital of gas and water supply as well as waste water disposal.

It is our mission to ensure the reliability and durability of pipe systems in the long term with innovative, modern jointing

concepts. Our products and services are highly accepted by our customers. Best quality and reliability as well as long years of experience are only some examples for the benefits our customers draw from the cooperation with us. We are convinced of the reliability of FRIATEC solutions.

Our products know no bounds and we combine our technical solutions with comprehensive services. And this worldwide.



WITH RELIABILITY FOR MORE QUALITY OF LIFE

Reliability, durability, comfort, ecological compatibility, economy, and functionality – these features characterise modern, water-carrying building services. With its proven and innovative components which meet all these aspects, the Building Services Division is among the leading system suppliers.

All components are optimally matched among each other. This pays off in new buildings, renovation or modernisation. Drinking water lines are the main arteries of a building. Our pipe systems made of plastic supply all consumers with hygienically perfect, bacteriologically safe drinking water. In bathrooms and sanitary facilities, our installation systems and concealed flushing cisterns are part of the design. Be it brick-, dry-wall or system solutions: All individual needs of the constructors can be met. For the renovation in already occupied buildings, pre-fabricated complete elements are available which already comprise all required installation parts.

The water-saving dual-flush technology of the concealed flushing systems is not only easy on the purse but also on the environment. Our in-house sewage system drains waste water extremely silently from the building. Preventive fire-protection solutions for pipes round off the system.

The constructor must be able to rely on the invisible technology behind the wall. System technology by FRIATEC is a very important element for a functioning building.



Quick: The push-fit system FRIATHERM multi saves up to 40 percent of the time required to install drinking water lines.



Individual bathroom design: The installation system FRIASET for brick- and dry-wall applications.



Part of the bathroom design: The FRIATEC operation panels combine a high level of functionality and aesthetic design.



Sound-absorbing: The in-house draining system FRIAPHON made of high-quality plastic guarantees silence in the building thanks to its dual pipe layout.



Safe: The Staudt fire protection system complies with all requirements on preventive fire protection.

Aerospace: Camera housings and pressure sensor diaphragms made of oxide ceramic guarantee a highest level of safety.



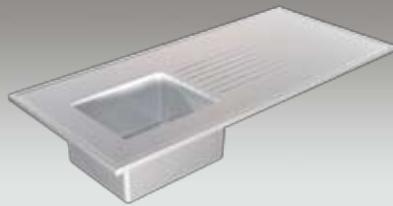
Medical engineering: The X-ray source - one of the primary components of the CT scanner - facilitates precise diagnoses with minimum radiation doses.



Plant engineering: Magnetically inductive flow meters guarantee precise measuring results when transporting liquids.



Laboratory technology: FRIDURIT laboratory benchtops and sinks made of technical ceramics withstand all the stains and stresses of everyday work in a laboratory environment.



Environmental technology: FRIDURIT fume scrubbers for optimal exhaust air cleaning.





FAVOURITE IN MANY DISCIPLINES

With our brands FRIALIT-DEGUSSIT and FRIDURIT, we are the technology and market leader in ceramic materials of the 21st century.

Our Ceramic Division specialises in high-performance ceramics – this material is used in all applications where metal and plastic reach their limits. Our special ceramics are extraordinarily resistant to heat, corrosion and chemical agents, as well as extremely dimensionally stable and wear-resistant.

Thanks to their unique properties, our ceramic products are today used in high-tech industries, the chemical industry, mechanical engineering, electrical engineering as well as laboratory and environmental engineering.

FRIALIT-DEGUSSIT oxide ceramics are integral part i.e. of X-ray image intensifiers, pressure sensor diaphragms, bottling plants, oxygen sensors, and high-pressure pumps.

Under the FRIDURIT brand, laboratory benchtops and sinks made of technical ceramics as well as fume scrubbers and neutralisation units are developed, produced and marketed. We are permanently improving our high-performance materials to develop materials which are environmentally compatible and fully recyclable.

WE CREATE OPTIONS



As pump manufacturer with many years of experience, we offer innovative solutions for the pumping of demanding fluids with our brand Rheinhütte. Today, we are the preferred partner for manufacturers and operators of plants in various industry segments worldwide.

The Pumps Division designs and manufactures pumps for the safe and efficient pumping of fluids. This is no easy task because fluids and gases make very different demands: They are aggressive, corrosive or explosive, viscous, gaseous or containing solids. High pressures and extreme temperatures exist during the pumping of fluids. The solution of these tasks is based on our experience of more than 150 years. The large variety of materials of the Rheinhütte pumps provides us with the flexibility to meet the most varied customer demands. The result: We offer a unique range of products which function reliably even under the most stringent conditions.

Our special pumps deliver acids and alkalis as safe as industrial waste water and seawater. But they can also easily withstand hot molten salt of 550°C or toxic liquids such as mercury. Among the areas of application are the chemical and pharmaceutical industry as well as the petrochemical industry. As manufacturer of special pumps, we are again and again faced with the challenge to develop new pump technologies.

A challenge which we are pleased to accept.



The heavy duty chemical centrifugal pump type RCE solves delivery problems in the entire chemical industry, the raw materials industry, and many other industry segments.



The magnetic drive metal pump type RMKN is suitable for use in applications with aggressive, toxic and explosive but also liquids with a minor content of solids.



The chemical standard pump type RCNku is suitable for various applications. The pump fully made of plastic is e.g. used for chemically aggressive and also contaminated media across all applications of chemical engineering.



Chemical standard pumps of the type RNP with ETFE lining with high capacities and differential heads set new standards in the technology of plastic-lined pumps.



Liquid ring gas pumps type FGP made of ceramic can be used in any chemical, pharmaceutical and engineering applications thanks to their properties which offer numerous benefits.

PRESENT ON FUTURE MARKETS WITH FRIATEC



Product innovations and high quality are significant elements of the FRIATEC strategy. With our solutions, which we develop in cooperation with our customers, we permanently set new standards and open up new options:

- Our Technical Plastics Division as pioneer in electrofusion for HD-PE pipe systems developed trend-setting products such as FRIALOC, the first shut-off valve made of PE.
- As pioneer of the push-fit interconnection technology, our Building Services Division again and again set new benchmarks. Such a benchmark is the further development of the push-fit pipe system FRIATHERM multi which completely revolutionised the installation of pipe systems.
- FRIATEC AG has been making history for one and a half decades in industrial ceramics. Developments of our Ceramics Division have become indispensable in the chemical, pharmaceutical, food industry and medical engineering.
- The Pumps Division focuses on continuous product improvements and is today developing solutions in the growth area of renewable energies which are to set new standards in the market of tomorrow.
- Numerous certificates and patents are proof of our competence in quality and innovation.
- FRIATEC AG is permanently investing in research and development to further improve existing products and to surprise the market with new innovations over and over again.
- By permanently optimising our technical and business processes, we make a consistent contribution to lastingly reduce impacts on the environment.
- Special customer workshops take place in our modern training and congress centre. These workshops provide practical training on our products. In addition, our showroom provides our visitors with a comprehensive overview of our company and product portfolio.





DIVERSITY IN VOCATIONAL EDUCATION AND TRAINING

The qualified training of young people means more to FRIATEC than a mere socio-political obligation. Especially in times of increasing higher skill shortages, we ensure by comprehensive training measures that we always have qualified personnel.

FRIATEC offers qualified vocational training for alumni in the industrial, technical and commercial area. As partner of the “**Duale Hochschule Baden-Württemberg, Mannheim**”, FRIATEC also offers practice-oriented study programmes with majors in industry, international business, information technology and mechanical engineering.

Practice-oriented: the FRIATEC junior company

FRIATEC uses modern training methods to optimally prepare for a start in the professional career. The junior company, where young people are trained e.g. to become industrial mechanics or mechatronic engineers in a practice-oriented way, has proven to be specifically suitable for the future. The junior company is designed as “company within the company”, i.e. the trainees are dealing with specific products and services for their customer FRIATEC but also for external customers. The trainees organise complete projects independently.

This ranges from the planning phase and selection of suppliers up to final assembly and sale of the product. They can thus obtain additional knowledge and useful experience for the future apart from the general content of the training programme. A concept which catches on: Several companies in the metropolitan region Rhine-Neckar have been sending their trainees to the junior company for years.

Far-reaching: further training

Be it changes in international markets, different statutory provisions or new customer requirements, challenges like these can only be successfully dealt with at FRIATEC if our employees are prepared to learn a lot of new things. We support them in this learning with a broad range of further training options and honour their commitment correspondingly.

