Pfaudler
Defining the standard

Corporate Profile 2018

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Defining the standard

Pfaudler is the leading technologies, solutions and services provider to the chemical and pharmaceutical industries, as well as many others.

Ever since our beginning in 1884 with the invention of glass-lined steel (Glasteel®), we have continued to lead the industry with new technologies and solutions to process all types of chemistries.

To put it simply...

Pfaudler Technologies
We help make the world around us. Much of what you see, taste and touch in the world was created or improved using Pfaudler Technologies.

Pfaudler Services
We provide 24/7 support for your entire plant.

Pfaudler Systems
We design and build turn-key process systems.

Pfaudler Innovation
Our innovative spirit continuously drives us to develop the next great technology.

Making the world better

Our technologies are at the heart of processing basic chemicals that are the building blocks forming everyday life products used around the world.

Our innovations support the sterile pharmaceutical and nutraceutical industries to produce the medicines that help people live better lives.

Our process engineers provide green solutions including evaporation systems to reduce VOC and protect the environment, as well as evaporation systems for biofuels and oil re-refining to preserve the world's natural resources.

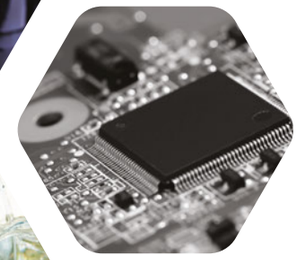
Our technologies provide for safe handling of highly corrosive and hazardous chemicals, protecting personnel, property and the environment.

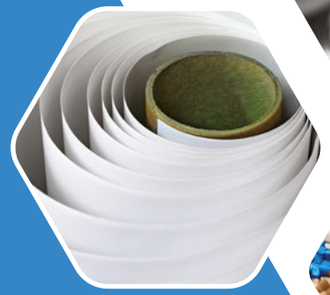
The high-tech electronics prevalent today would not be possible without the ultra-pure semiconductor chemicals produced utilizing our fluoropolymer technologies.

Every day our services groups work to install, maintain and optimize these technologies and solutions in plants around the globe.

Our innovations and expertise define the standard in our industry.

These are but a few examples of how Pfaudler strives to make the world better. We are constantly pushing the boundaries of performance and technology in the most demanding chemical environments. If the chemistry is critical, complex, challenging or cutting-edge, that is where you will find Pfaudler.





Some of the industries we serve:

- Pharmaceuticals and nutraceuticals
- Paints, varnishes and preservatives
- Crop protection
- Electronic components
- Plastics, polymers and silicones
- Food and beverage
- Insulation materials
- Cleaning products
- Cosmetics and personal care
- Fire retardants
- Adhesives
- Water and waste-water treatment
- Precious metal and mineral recovery
- Paper
- Biofuels
- Waste oil recovery
- Flue gas desulfurization

Proud heritage

1880 1890 1900 1910 1920 1930 1940 1960 1970 1980 1990 2000 2010 2020

1884
Glasteel® invented by German brewmaster, Casper Pfaudler.

1903
Pfaudler erects plant in Rochester, NY, USA.

1906
Due to U.S. Food and Drug laws, Glasteel is needed for cleanliness properties.

1907
Pfaudler erects plant in Schwetzingen, Germany.

1920s
With the birth of the chemical industry, Glasteel is needed and used for corrosion resistance properties.

1923
The first company to fabricate chemical process equipment with stainless steel.

1932
Created the first agitated Glasteel reactor.

1933
Pfaudler partners with Henry Balfour company, Scotland, UK (originated 1810).

1938
Pfaudler becomes the first company to fabricate chemical process equipment with zirconium.

1942
Pfaudler becomes the first company to fabricate chemical process equipment with tantalum.

1946
Pfaudler becomes the first company to fabricate chemical process equipment with titanium.

1960
Montz invents Thormann® Tower Tray.

1962
Pfaudler acquired the site and assets of Henry Balfour in Scotland.

1969
Pfaudler invents the industry's first Glasteel® temperature sensor.

1973
Pfaudler invents the industry's first and only Glasteel pH sensor.

1973
Pfaudler fabricates the industry's first Glasteel reactor with half-pipe jacket.

1975
Pfaudler fabricates the industry's first Glasteel vessel larger than 80 m^3.

1975
Pfaudler erects plant in Taubaté, Brazil.

1980
Pfaudler acquires Edlon®, Inc. (originated 1964).

1985
Tycon invents the TBO® glass-lined heat exchanger.

1986
Edlon UK established in Leven, Scotland, UK (through acquisition of Stoline).

1988
Pfaudler invents the Cryo-Lock® mixing system.

1989
Tycon invents the Elcolock® mixing system.

1990
Pfaudler invents Pfaudler World Wide Glass (WWG).

1992
Edlon line of Secure and Pure™ ultra-high purity products developed for the semiconductor industry.

1994
Pfaudler is acquired by Robbins & Myers Inc., USA.

1996
Pure-Fusion™ weld seaming technology introduced.

1996
Pfaudler acquires Suzhou Glass-Lined Equipment Company in Suzhou, China (originated 1967).

1997
Pfaudler acquires Tycon Technoglass (originated 1969) San Donà di Piave, Italy.

1998
Montz internals applied for first commercial Dividing Wall Column Operation.

1999
Pfaudler invents GST Turbine and MXT Turbine.

1999
Pfaudler acquires Gujarat Machinery Manufacturers in Karamsad, India (originated 1962).

2002
Pfaudler invents Pfaudler Pharma Glass (PPG).

2002
Tycon invents GlasSiC® Silicone Carbide Exchanger.

2003
Pfaudler invents C-Baffle.

2004
Pfaudler invents Anti-Static Glass (ASG).

2005
Tycon invents the Multibaffling® system for glass-lined reactors.

2008
Pfaudler acquires Mavag AG (Filers/Dryers) in Neunkirch, Switzerland.

2009
Pfaudler invents Abrasion Resistant Glass (ARG).

2011
Pfaudler develops Edlon manufacturing capabilities in Suzhou, China.

2013
Robbins & Myers Inc., USA is acquired by National Oilwell Varco, USA.

2014
Pfaudler invents Cryo-Lock Glasteel Conductive Glass for mixing systems.

2014
Pfaudler becomes part of Deutsche Beteiligungs AG Fund VI.

2015
Pfaudler acquires Montz (originated 1911).

2016
Pfaudler completed the purchasing of PEAS BV, now Pfaudler Services Benelux BV.

2017
Pfaudler Inc. establishes Pfaudler Gulf Coast Service Center in Houston, TX, USA

Pfaudler purchases the assets of Glasskem (originated 2016).

Pfaudler acquires Normag Labor-und Prozesstechnik (originated 1914).

Pfaudler acquires Interseal (originated 1983).

Innovations
Physical growth of the company
Event

In 1884, Casper Pfaudler invented the process for glass-lining steel for the vacuum fermentation of beer. Today, this technology is called Pfaudler Glasteel.

Glasteel has brought unrivalled corrosion resistance, cleanliness and non-stick properties to many industries. Along with our Edlon® brand fluoropolymer technologies, the application of these technologies has expanded from its original purpose to become the critical cog in the processes at the heart of the chemicals, polymers, pharmaceuticals and semiconductor industries, amongst others.

In the mid-1900s, we expanded our capabilities to include process engineering resources, combining our technologies into complete process solutions to meet the ever-growing and evolving needs of the chemicals industry. We started our Services division and it has since expanded to be the largest in the industry, providing life cycle support to our clients.

In 2015, Pfaudler further expanded its chemical engineering and distillation process portfolio with the addition of Julius Montz GmbH, an industry leader in the field of distillation technology.

In 2017, Pfaudler purchased the assets of Glasskem, an italian manufacturer of glass lined equipment.

Still in 2017, Pfaudler expanded its products portfolio with the addition of Normag Labor- und Prozesstechnik GmbH, a glassware manufacturer of lab and process glass, and Interseal Dipl.-Ing. Rolf Schmitz GmbH, an innovative mechanical seals and sealing technologies manufacturer.

With our innovative spirit, we have continued to develop technologies for new applications and improve existing processes. Throughout the years, besides the growth of our Technologies and Solutions portfolios, we have also continued to grow geographically, better meeting the needs of our clients with new facilities located globally. Forward-looking, Pfaudler will continue to expand its chemical process Technologies and Solutions portfolios through innovation and acquisition. The above timeline is a summary of some of our major growth and accomplishments to date.

Today, Pfaudler has grown to be a truly global, multinational and diverse company with over 1,500 employees and manufacturing facilities on four continents, encompassing the Edlon, GMM Pfaudler, Interseal, Mavag, Montz, Normag and Pfaudler branded product lines.

A trusted name

Our unrivalled technologies and solutions can be found around the globe; they are installed in more than 100 countries and across six continents. We have the largest installed base in the industry with two out of every three premium Glasteel® vessels installed globally being the Pfaudler brand. We produce over 56,000 m² of flawless glass-lined steel each year.

We are committed to technology and innovation with over 30% of our staff consisting of technical graduates. They apply our technologies as solutions to real-world problems and also develop the next new game-changing innovations.

Integrating our technologies into complete process solutions for a myriad of applications such as reaction, evaporation, distillation, filtration and drying, amongst many others, our global team of process engineers, project engineers and project managers, provide turn-key process design and build.

Of course, our worldwide solutions and technologies require global support for installation, maintenance, and optimization. To better serve our clients, we provide 24/7 global service support with the largest field service organization in our industry, providing over 7,500 service calls per year. We have rapid aftermarket parts response, with thousands of parts in stock for immediate shipment.

For decades, Pfaudler has defined the standard with our unrivalled level of expertise, innovation, solutions, services and our commitment to quality. This is why we are trusted by over 90% of the world's top 20 ICIS chemical companies.

Our Brands

- Edlon
- GMM Pfaudler
- Interseal
- Mavag
- Montz
- Normag
- Pfaudler

What Pfaudler stands for

Our values guide who we are and everything we do. They are what we live by and strive for every day.

Dynamic
We continually search for better solutions to ensure we meet the needs of our customers and the challenges of tomorrow.

Trusted
We provide a proven reliability in all our technologies, services and solutions that reinforces our reputation as the trusted industry leader.

Professional
We pride ourselves on expert technical advice, rapid service response and on-time delivery that defines the standard for the industry.

Innovative
We leverage our worldwide team's knowledge and expertise to create new technologies that deliver high value solutions for our customers and shape the industry.

Responsible
We actively support inclusion and diversity, protect the environment and maintain the highest standards of compliance and ethics in everything we do.

Since the very beginning, we have revolutionized the industry to meet the highly specific chemical processing needs of our clients. Day in and day out, year after year, with proven reliability, we design and manufacture the technologies necessary to create the chemicals the world needs.

Pioneering technologies

The name Pfaudler has become synonymous with chemical processing and corrosion resistance. You will find examples of the results of our advanced thinking throughout all areas of typical chemical and pharmaceutical plants as our portfolio of technologies covers all chemical unit operations, including the following:

- Corrosion resistance
- Mixing
- Heat transfer
- Fluoropolymer
- Filtration
- Drying
- Ultrapure
- Precious metal recovery
- Reaction
- Evaporation / mass transfer
- Distillation / absorption
- Storage tanks and receivers
- Controls
- Modular design / construction
- Sealing

Pf Systems

Integrated systems

Our capabilities do not end with our technologies themselves. Leveraging vast chemical processing expertise and experience, our process engineers integrate these technologies into complete, fully integrated, efficient operating process systems.

The following is just a sample of our extensive process knowledge:

- Water treatment chemicals
- API pharmaceuticals solutions
- Semiconductor chemistry
- Fluorine and chlorine based chemistry
- Agricultural chemicals
- Solvent recovery
- Acid recovery
- Polymer technologies
- Biofuels
- Oil re-refining
- Bio-pharmaceuticals solutions
- Nutraceuticals / vitamins / flavors
- Beverages
- Alcohols

Process development plays a major role in developing solutions for the critical needs of our clients. Utilizing our Pilot Test Facility, we process our clients' materials, applying our Reaction, Mixing, Distillation, Evaporation, Filtration, Drying and Heat Transfer Technologies in various configurations to develop, design and build novel solutions for our clients.

Pf Services

Not only do the world's top chemical companies trust Pfaudler's Technologies and Solutions to produce their products, they also rely on our engineering, technical services and aftermarket parts to keep their plants operating efficiently.

Life cycle support

We provide our clients with parts and maintenance services throughout their entire plants for our technologies, as well as those of others. But our services also extend far beyond that of normal maintenance.
Our highly-skilled engineers and technicians work with our clients upfront and during projects to optimize the process design. We consult with clients on their existing processes and then design and install upgrades, improving safety, increasing efficiency, and reducing operating costs.
For those critical plant shutdowns, whether planned or unexpected, our services are available 24/7 to ensure our customers' downtime is minimized.

See below for a just a snapshot of some of the services we offer:

- Consultancy
- Project management
- Installations
- Pilot testing / toll operation
- Maintenance
- Safety
- Process engineering
- Troubleshooting
- Upgrades and process improvements

Pfaudler has been and always will be driven by an innovative spirit. It began with Casper Pfaudler in 1884 creating what was then impossible; a process to bond glass to steel to combine the benefits of smooth, clean, inert, corrosion resistant glass with the strength of steel.

Continual innovation

It has been over a century since then, and we have continued this process time and time again. It's our doctrine: identify the seemingly unsolvable problems and create new technologies to provide solutions.

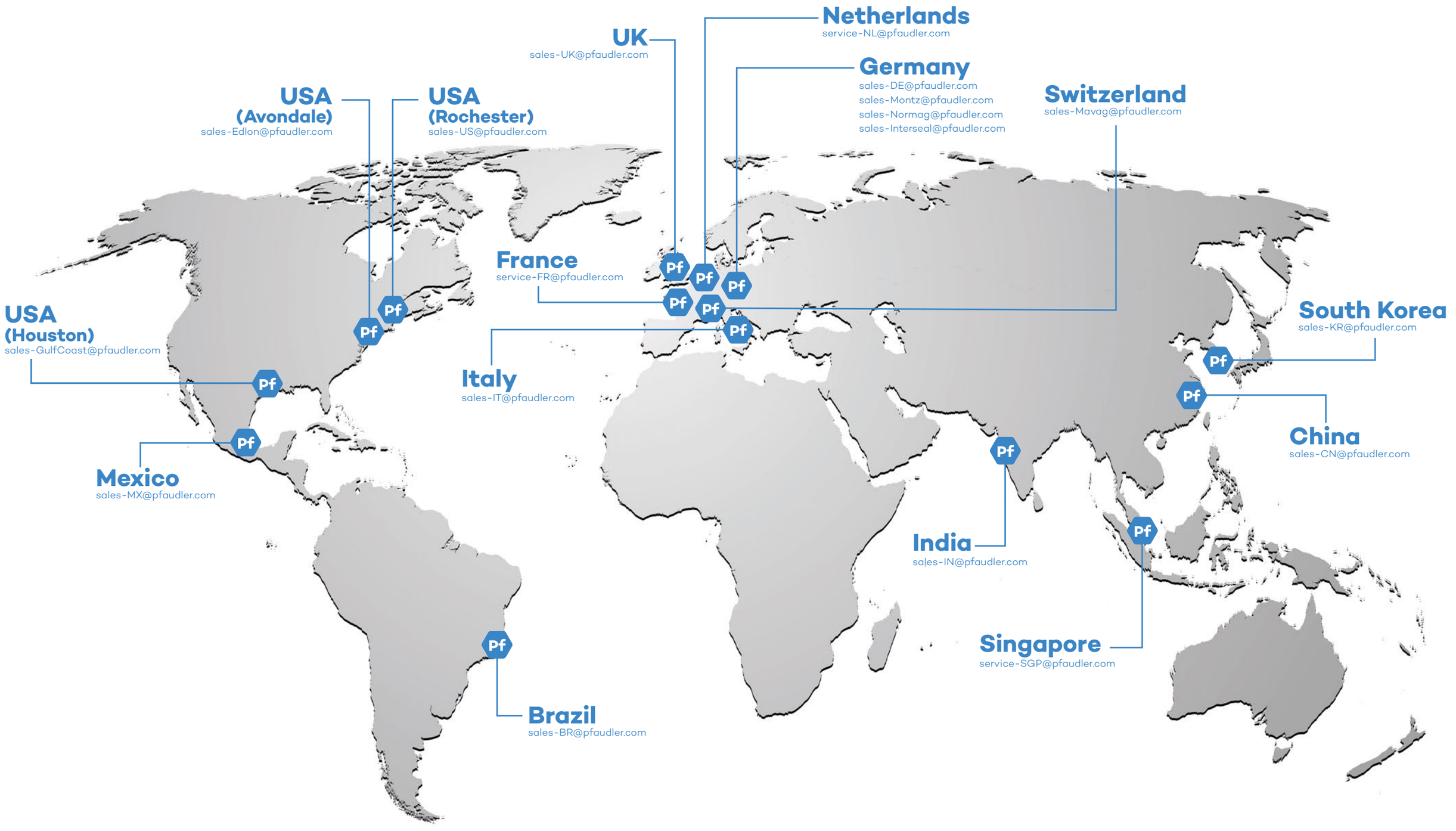
It's looking at chemical processes and finding a better way in order to improve efficiency, lower cost, reduce footprint, improve quality and protect the environment. Our customers come to us with difficult, complex problems and we find solutions. This is how we have continuously defined the standard in the industry and always will.

Looking after our world

We're committed to sustainable and environmentally-friendly working practices. That is why over 95% of the content of the products we create is recyclable and we have dedicated refurbishing and recycling centres.

The average age of our equipment is over 25 years and the majority of our customers choose to refurbish rather than recycle Pfaudler equipment. This is testament to the quality of our workmanship and also helps provide a sustainable long-term platform.

Locations


USA
(Avondale)
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