

Fristam for pharmaceutical applications:
Dependability is the best medicine



Fristam
PUMPS

The art of German engineering – for maximum safety and hygiene

Tapping into our unique heritage enables us to produce superior pumps that are both extremely safe and sterile. We are proud that our products meet the highest international standards for hygiene, performance and production quality.



HYGIENE IS IN OUR GENES

Fristam's company history began in 1909 with the production of cream and cheese vats as well as refrigeration units for dairies. Our roots in the dairy industry have firmly anchored our pursuit of the highest levels of quality and hygiene in our business.

Our staff lives by these principles, producing custom-made solutions for our clients that meet their specific requirements when it comes

to maximum hygiene. Today we offer our products and services around the world and in every major manufacturing hub.

As a truly global business, we support our customers with a comprehensive range of offerings covering everything from large scale engineering projects to swift mechanical seal replacements and expert technical advice.

SPECIALISED DEVELOPMENT AND UNIQUE MANUFACTURING QUALITY

We manufacture our pumps according to uniquely high standards of craftsmanship and subject them to a very stringent testing programme. As a result, every Fristam pump is a crafted masterpiece of industrial manufacturing.



CERTIFICATIONS AND STANDARDS BEYOND LEGAL REQUIREMENTS

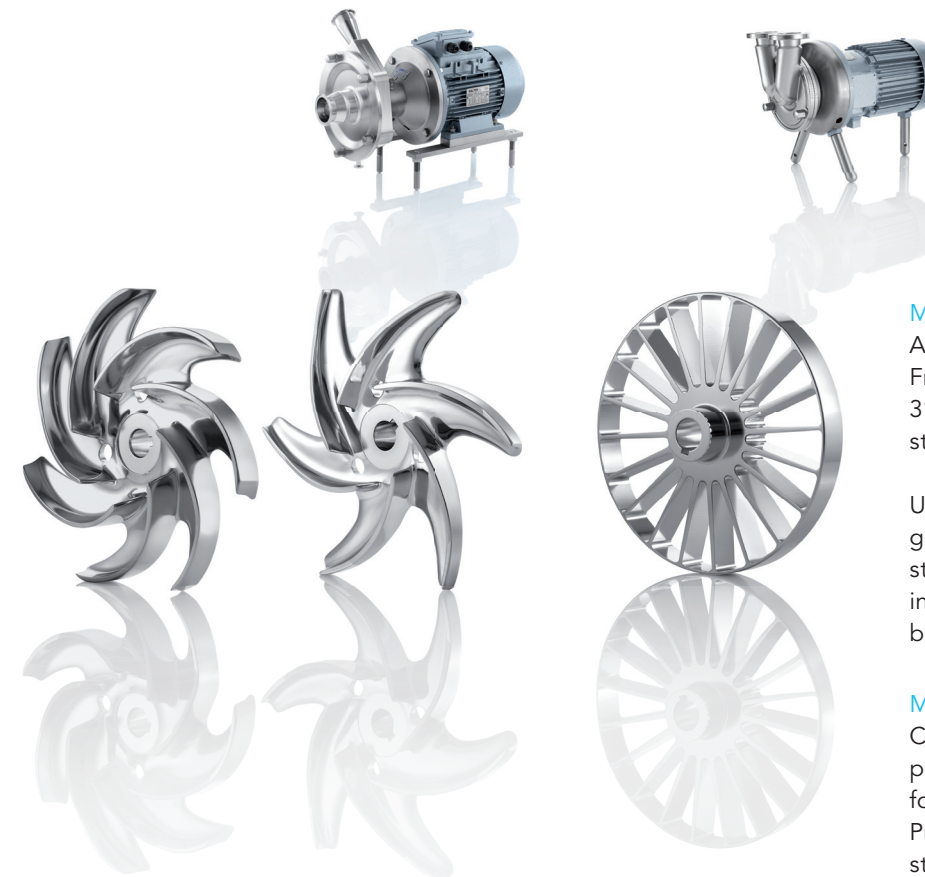
Our pumps and powder mixers meet all German, European and International standards. We don't just strive to meet existing norms; we exceed them.

Fristam is certified according to [ISO 9001:2008](#). This means we can ensure the highest level of quality in every respect. We are also affiliated with [3-A](#) and [EHEDG](#) (European Hygienic Engineering and Design Group), a consortium of suppliers to the food production industry, food-processing companies, research institutes and public health organisations.

COMPREHENSIVE MONITORING AND DOCUMENTATION

All materials and components from suppliers must meet our strict standards for documentation. We record the origin as well as the manufacturing method of every single part with our internal documentation system. This enables us to identify and track each structural element of a Fristam pump built since 1972.

This high level of transparency and extensive communication enables us to offer the most hygienic and safest pumps available today.



Fristam FPV and Fristam FZ with pump housing, cover and impeller 0,4µ RA with electro polish.

MAXIMUM MATERIAL SAFETY

All product-related components in Fristam pumps are made from either 316L, 4435, 4462 or 4539 stainless steel, Hastelloy or titanium.

Using only these high-quality metals guarantees the best possible hygienic standards for operation in sensitive industries such as pharmaceuticals, biotechnology and cosmetics.

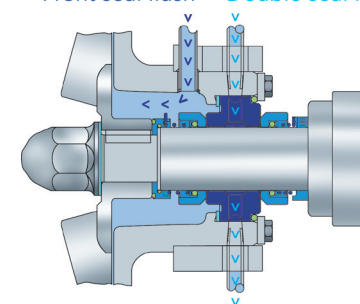
MAXIMUM CLEANLINESS

Casing drain and mounting options provide complete drainability critical for long-term system cleanliness. Pumps can be easily configured for steam-in-place sterilisation with no external cooling devices required.

WATER FOR INJECTION (WFI)

Fristam is the industry leader in WFI and other high-purity services. We offer specific precision adaptations of our FP series. They feature an advanced seal design that protects product sterility, saves valuable product and ensures a long seal life.

Front seal flush Double seal flush



Fristam pioneered a pressurized double seal flush system that maintains positive pressure in the critical seal area to ensure product sterility and prevent flashing. The front seal flush is a recirculation loop, which saves valuable product. The internal seal design provides extra cooling and lubrication on the front seal face to significantly extend seal life and offer more system uptime.

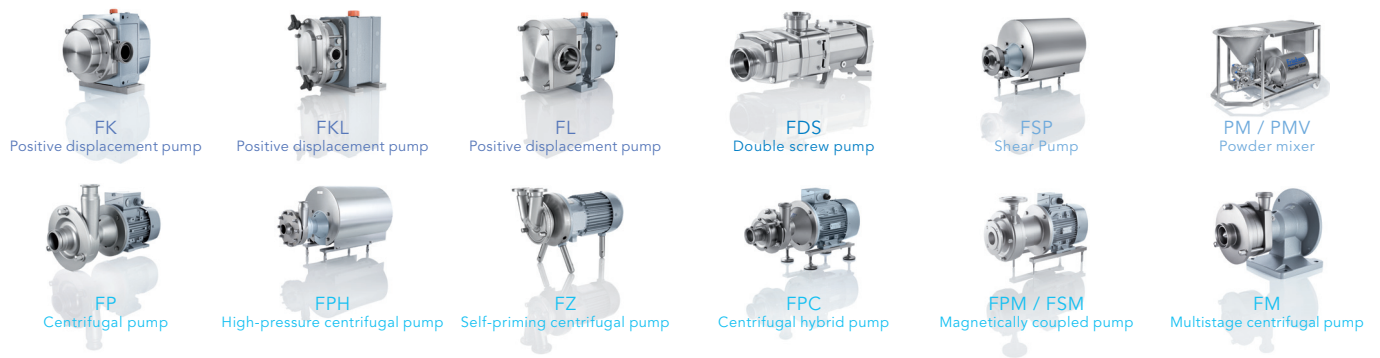
PHARMACEUTICAL OPTIONS

- | | |
|---------------------------------|---|
| Material | Stainless steel 1.4404 (316L), 4435, 4462 or 4539 |
| Mechanical seal materials | Cast chrome, ceramic, silicon carbide, tungsten carbide, or carbon. Numerous seal and piping configurations, including single seal piping, are available to meet your specific processing requirements. |
| Finishes | Electropolishing and enhanced internal surface finishes to 15 Ra are available on most products. |
| Elastomers | USP Class VI elastomers are standard for pharmaceutical applications, perfluoroelastomers are also available. |

All materials and seals conform to the most stringent food standards and certification processes.

[Fristam offers the most comprehensive documentation package with complete traceability of all parts, including elastomers.](#)





Fristam's comprehensive programme: there's nothing we can't pump! Our complete product portfolio comprises 12 lines of hygienic centrifugal, double screw, positive displacement and shear pumps, as well as powder mixers – an exhaustive range for almost every conceivable application. Our thorough approach begins by gathering deep insights into your processes, so that every pump we supply is a fully tailor-made solution that meets your specific requirements. At Fristam, we pride ourselves on delivering full technical and local support throughout the entire lifecycle of your pump and beyond. Our forward-thinking approach and superior quality standards, combined with more than one hundred years of experience, make Fristam your first choice for maximum safety and optimal hygiene.