

Customised Cleanliness: Hygienic Design

Life Science



Pioneering Consistent Hygiene

Quality is our passion

As an owner-managed family business from one of the most significant engineering regions in Germany, we manufacture radial fans for every conceivable industrial application. **As a globally positioned corporation, we support our customers in every economic region of the world** with engineering made in Germany, uniform product quality and comprehensive services. Extensive certifications ranging from DIN EN ISO 9001:2015, valid for each of our production locations, to DIN EN ISO 3834-2 for welding technology and many more are lasting proof of this.

Sustainability and our corporate social responsibility (CSR) are of enormous importance to us, and we endeavour to do justice to the benchmarks in every area of our company and, of course, far beyond. Since 2019, we have drawn on the support of EcoVadis, the globally active CSR platform, in this respect. Indeed, EcoVadis awarded us its silver medal last year. This approach has enabled us to continually expand our sustainability and ensure it is part of every business decision.



Up to standard

Reitz is a member of the EHEDG (**E**uropean **H**ygienic **E**ngineering and **D**esign **G**roup) and DIN (German Institute for Standardisation) expert community and, consequently, under obligation to observe all hygienic production goals according to uniform standards. **Successful audits conducted by renowned manufacturers in the food industry** are evidence that challenges spur us on, and we have created the conditions required to be a reliable partner and supplier for consistently hygienic solutions.



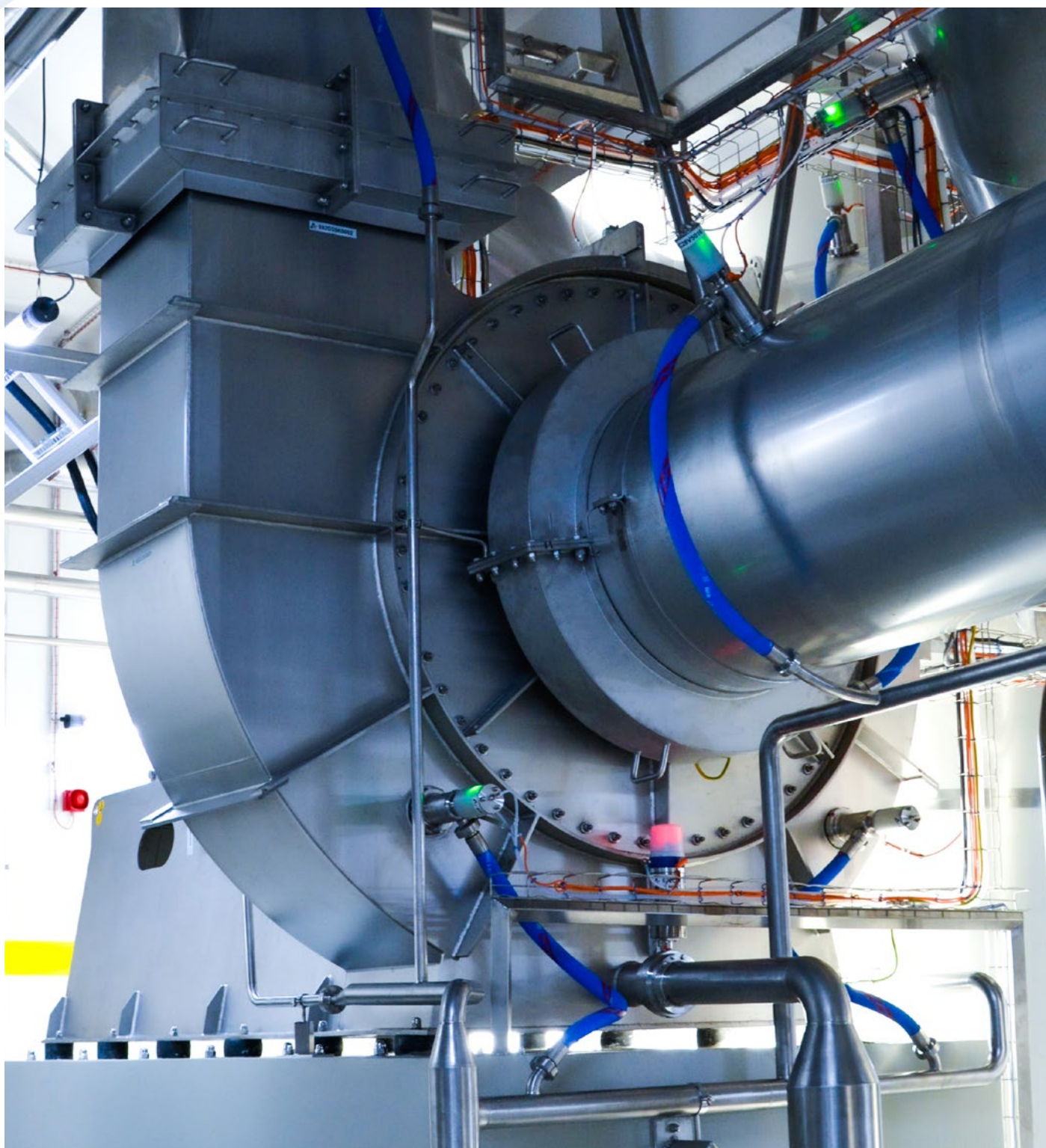
Hygienic design standards, directives and regulations observed by Reitz

- DIN 10516: 2020-10
- DIN EN ISO 14159:2008
- DIN EN ISO 22000:2018
- DIRECTIVE 2006/42/EC
- DIN EN 1672-2:2020
- DIN EN ISO 14644-1 to 7
- DIN EN ISO 12100:2010
- REGULATION (EC) No. 2023/2006



The perfect solution for every application

Turbo machinery plays a central role in practically every industrial production process. The performance, efficiency and reliability of Reitz fans ensure their place at the heart of air technology in the most productive contemporary process plants. One characteristic in particular defines the areas in which they are used: diversity.





Life science application method

Reitz is also active in the area of life science, providing high-performance radial fans with optimum levels of efficiency and, consequently, solutions for all typical mechanical and thermal process technology applications that are perfectly tailored to suit the specific requirements of customers. Decades of experience have given us a **clear understanding of the precision and quality demanded of innovative hygienic design.**

Comminution

- Mills and crushers

Mixing

- Drum mixers
- Fluidized bed mixers
- and others

Separating

- Filters and screens
- Classifiers
- Scrubbers

Drying & roasting

- Spray dryers
- Fluidized bed dryers
- Fluid bed dryers
- Batch and drum roasters

Agglomeration

Non-corrosive material, flawless surfaces

Consistent quality assurance pursuant to EHEDG directives begins with the selection of materials. Only those which do not endanger health can be considered. Stainless steels are subjected to additional electropolishing or vibratory grinding. After all, surfaces which come into contact with the product need to be extremely smooth to prevent anything adhering to them. A medium roughness value of $Ra = 0.8 \mu m$ should not be exceeded at any relevant point. Gaps, scratches, pores, holes or badly executed welds cannot be tolerated.

Exclusively FDA-compliant materials

The materials we use are exclusively FDA compliant (**F**ood and **D**rug **A**dministration) and represent no danger whatsoever to human health. This generally involves stainless steel. Our quality control begins with the professional selection and procurement of materials from certified suppliers and continues with careful handling and machining until the final product is completed.





All surfaces undergo intensive processing to avoid adhesions and are inspected in this respect to ensure they are free of fissures, scratches, pores or holes. We exercise maximum care when creating and smoothing all welds.

Examples of surface treatment

Uniform deburring, oil removal, degreasing, descaling, smoothing, polishing, cleaning, rounding of corners and grinding are the corrosion-reducing options surface treatment offers.

Electropolishing – Employing an external power source, this electrochemical removal procedure reduces microroughness and improves the smoothness of the metal. As a result, dirt and other residues find it more difficult to stick and the component surfaces can be cleaned more effectively.

Vibratory grinding – Impellers and surfaces in contact with the product are initially pickled and passivated in many cases before achieving an optimum surface quality through vibratory grinding. The workpiece is ground with abrasive media in a vibration container during this, achieving a precise removal of material.

Pickling and passivating – The purpose of pickling is to remove any impurities with the object of achieving a metallurgically unsoiled surface. The protective passive layer can only form on metallurgically pure surfaces of this nature.

Sandblasting and glass bead blasting – Similar to vibratory grinding, sandblasting and glass bead blasting are employed to achieve maximum homogeneity of surfaces and the side effect of material solidification.

Hygienic design & engineering

While surface treatment and welding require process engineering expertise and craftsmanship in particular, engineering pursuant to EHEDG directives is a real challenge for designers.

Each fan must meet both the individual performance requirements of the customer and every hygienic design requirement. As a result, Reitz has today amassed a rare level of know-how in the manufacture of hygienic design fans.

Cleaning made easy: Clean-in-place

One goal of our hygienic design engineering is to completely avoid cavities within the housing in which dirt can collect.

In addition, uncomplicated cleaning free of residue is a core criterion of successful hygienic designs, as the complete production facility and all machinery contained in it need to be cleaned from top to bottom in many modern companies in the food and pharmaceutical industry after each production run.

The task is therefore to design all components right down to the last detail to ensure that they are optimally and, most important, speedily accessible for cleaning, to avoid adhesions and to ensure that cleaning fluid can drain away unobstructed after every cleaning procedure without leaving any residue, without the need to completely dismantle the plant.



In the context of a strictly monitored process chain, each fan undergoes rigorous testing following completion in our measurement centre.



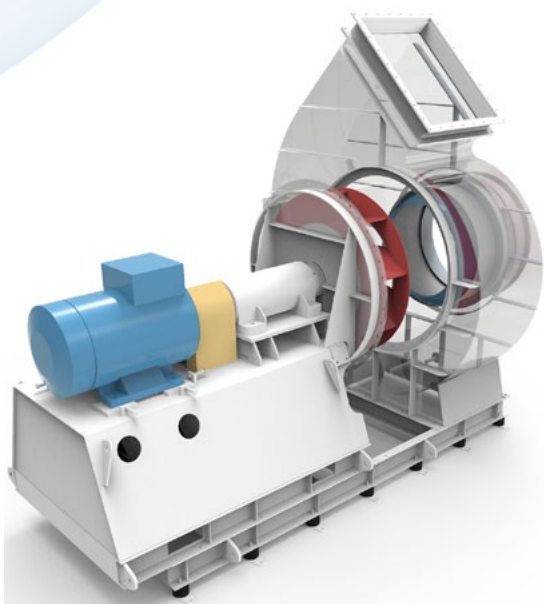
Hygienic design in detail

The high level of Reitz expertise in our white production is apparent in numerous details which are typical for a hygienic design fan and which pose a particular challenge when it comes to design, construction and manufacture.



Design variants

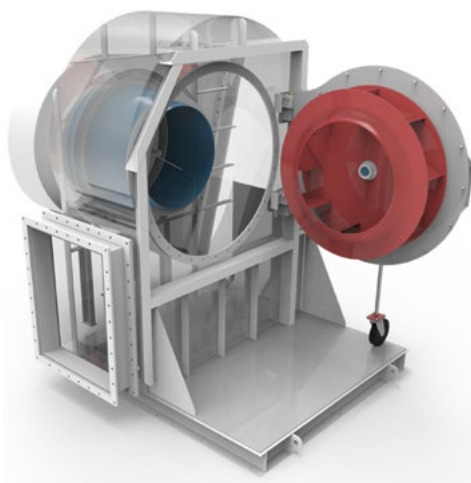
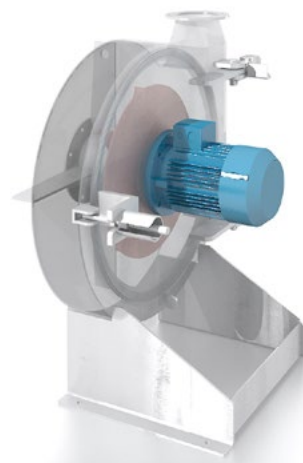
Bacteria, germs and salmonellae represent a constant risk in food production for consumers and manufacturers. A lack of hygiene can lead to the contamination of complete production batches. Tightening of legislation therefore requires plant manufacturers and operating companies to implement comprehensive solutions that cover all components. Reitz recognised this development at an early stage and has established itself as a **leading supplier of customised fans in a hygienic design.**

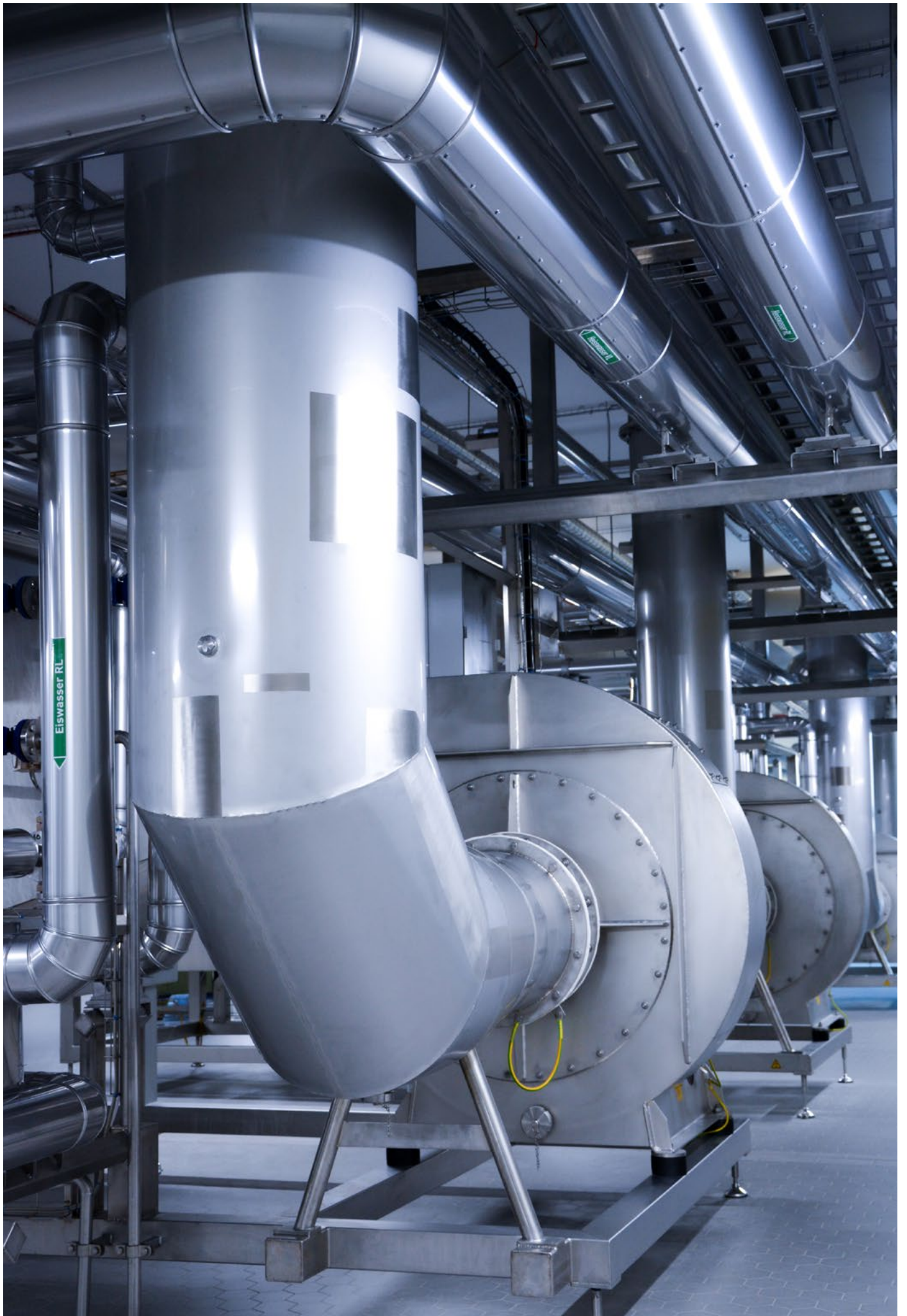


Reitz offers a variety of construction types and design variants. Each hygienic design fan is individually designed and equipped with all the options needed for smooth and hygienically flawless operation.

Equipment options

- Pivoting housing cover
- Disengaging drive unit
- Cleaning access
- Shaft seal with drainage pipe
- Drain fitting
- Raised support for motor
- Pedestal with opening for sweeping
- Cleaning nozzle
- etc.





Reitz service: Always working for you

The demands made of our fans differ from plant to plant, meaning specific expertise is required for each application area. At Reitz, you are talking to **specialists who are familiar with the special aspects of your sector**, because your details make all the difference.

We are, of course, immediately there to help when problems arise, but service for us is much more than tackling emergencies, maintenance of the fan or the provision of spare parts. For us, service is a **holistic range of services at every phase of a project**.

Service in all phases

Sales phase

Optimum planning and smooth implementation right up to a successful start.

Utilisation phase

A high degree of availability, predictable expenses and reliable output.

Value retention

Contemporary extension of service life.



Your challenges



Revenue

Efficient operation of plant and equipment



Legal

Meeting all statutory requirements in terms of operator responsibility
- Ordinance on Industrial Safety and Health, hazard analysis and ATEX directive



Process

Meeting qualitative requirements with limited resources
- Individual maintenance concept



Environment

Equal attention to economics and ecology
- Assuring productivity and energy efficiency



What do we contribute?

- Specific quality promises
- A guarantee
- Flexibility and speed
- Efficient solutions through comprehensive know-how
- Planning security
- Certified technicians
- Global partnership

Our service offer

Base

- Customer support
 - Reliable & uncomplicated
- Fault elimination
- Spare parts sales
- Repairs
 - Factory or on site
- Training

Maintenance

- Basic inspection
- In-depth inspections
 - Impeller, welds, bearings
- Maintenance and repair
- Measurements on fan
 - Vibration, noise, power
- Laser-optical drive train alignment



Consulting

- A firm maintenance offer for own systems and other manufacturers
- Strengthening and conversion
- Industrial and heavy installations in adjacent areas (e.g. flow control)
- Complete plant retrofits

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