



**Your partner in Germany
for filtration and engineering**



The Company

ZIND Verfahrenstechnik has been operating successfully in the field of filtration for over 25 years now. We offer customers the benefit of our broad experience and sound technical knowledge built up over many years - combined with certified quality management.

The core business of ZIND VT lies in separating solids from liquids and gases in the pharmaceutical, biotechnology, food, semiconductor and water treatment sectors. Our range of services includes both standard and custom-made solutions designed to meet our clients' individual requirements.

In collaboration with our partners we can offer a broad and innovative range of products for specific customer applications. In an effort to keep pace with the market we are continuously adapting these as new developments arise.

Our highly skilled technical staff optimise existing equipment but we also offer our customers full-service packages - including everything from planning through to installation and commissioning of the systems.

We have been ISO 9001:2008 ICG-GZBB certified since 2004.

Vision

The experts at ZIND VT collaborate with customers and suppliers to meet all challenges. Together they develop innovative technologies to ensure that they remain competitive for the future.

Service

Service is one of the main pillars of our business.

We give our customers our full support, offering them all the help and advice they need. An entire service network has been set up to provide this.

Our after sales service ensures that our customers get the best possible personalised assistance.

If special measurements are required, we offer extra services using our own instruments such as integrity test devices, filter wetting and test stations, or work together with external partners.

Quality management

Our TQM quality management system is certified to DIN-ISO 9001:2008, DIN Standard, EN 6001 for medical products. Our flexible approach means that we can even offer standards such as GOS and UDT.

We carry out CE certification for the products we supply



Semiconductors

The semiconductor market presents major challenges in terms of the media it uses. Components for these sophisticated high tech products are manufactured in clean-room conditions. This imposes high demands on the supplier in terms of production purity, quality management and cooperation with the partner.

ZIND VT rises to these challenges and is continually developing products with its partners to meet the demands of the future.

Point of Use Filtration

- DI water up to 85°C < 0.05 m
- Chemical filtration up to < 0.03 m
- BOE filtration with high circulation rates
- CMP-filtration
- Gases
- Gassing and degassing



Pharmaceuticals - Biotechnology - Food

The manufacture of products in the pharmaceutical industry is a highly sensitive operation which places maximum demands in terms of knowledge, materials and quality management on the supplier. A key factor is the transparency of products requiring certificates, references and batch numbers which are manufactured and delivered in sterile or non-sterile conditions to international standards.

As an expert partner with multinational operations, ZIND VT offers a portfolio of services specially tailored to meet the needs of the pharmaceutical industry. For food industry processes such as wine filtration, spirit, mineral water and juice processing we satisfy our customers' individual needs with our equipment.

Fermentors for production

Dead End Filtration

- Sterile filtration of liquids and gases
- Pre- and sterile filtration of LVP and SVP
- Sterile filtration of serums (mycoplasma filtration)
- Depyrogenisation
- Ventilation of tanks, fermentors





Ultrafiltration - Cross-Flow-Filtration

Ultrafiltration and cross-flow filtration are common processes in membrane technology today. They are used in downstream processing for concentrating proteins, cells and pyrogens and for the separation of products made using extracellular methods.

Crucial here is a product line which is scalable from the laboratory up to the production scale. Our modules are designed to offer various channel geometries, a robust design, different membrane types, Prostream/Hystream and a wide range of separation rates.

ZIND VT offers a comprehensive range covering everything from mini-modules through to production modules (scale up) for use as reusable (multi-use) or one-off (single-use) units in its portfolio. Starting with membrane discs, the scale up can be validated in steps from 0.01 m² to 5 m² cassettes. Multi-use cassettes can be replaced one-to-one with single-use ones without changing the process. Modified PES membranes can be used as Hystream or Prostream versions for cell harvesting, clarification, concentration and buffer exchange.



Water

Water is a major factor in the manufacturing industry, especially in the pharmaceutical, biotechnology and semiconductor segments. Very strict requirements apply here with regard to the purity of the water as a medium.

Thanks to its experience and its broad product portfolio ZIND VT can offer technical solutions for all purity levels.

PRE RO Filtration

- Colloid filters
- Active carbon filtration
- Self-purifying filter systems
- Backwash filters
- Bag filters
- Pre-filters for desalination of brackish and sea water





Gas and compressed air analysis filters

ZIND VT has added new products to expand its existing range. These include:

- Gas and analytical filters
- Filters for compressors
- Gas and sterile filters
- Coalescer filters
- Adsorption filters

Backed up by more than 25 years of experience and extensive know-how, ZIND VT is a system provider of innovative products featuring high-productivity technologies.



Custom-made products

Equipment and components which are designed to meet the needs and requirements of specific customers are more important than ever. These include individual components such as specially made assemblies and also complete turnkey systems.

ZIND VT can supply the following custom-made equipment: specially designed filter enclosures and tanks plus appropriate technical equipment made from a wide range of materials such as:

- Plastics: PP, PVDF, PTFE single and multi station
- Stainless steel: 1.4435 ferrite-free up to 0.5 %, 1.4404, 1.4571, carbon steel or plated with PP, Halar or Teflon, single and multi station

Water treatment systems

- for the optical and semiconductor industries, with PP or PVDF piping compliant with the given standards and specifications

Degassing systems

- for DI or process water

Heat exchangers

- made of common types of stainless steel and plastic for the semiconductor and pharmaceutical industries

Valves

- for the semiconductor and pharmaceutical industries

Mobile filter systems

- for liquid and air-gas filtration, switchable, with various options such as manual, semi-automatic, automatic, CIP, SIP, built-in integrity testing



APPLICATIONS

- Semiconductors
- Biotechnology
- Pharmaceuticals
- Food
- Ultrafiltration
- Cross-Flow-Filtration
- Water
- Gas and compressed air analysis filters
- Custom-made products



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