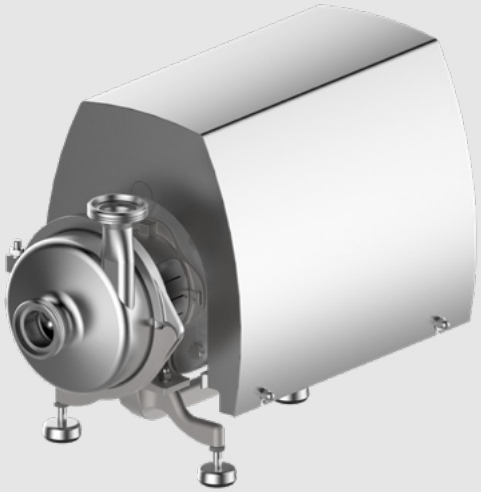





EFFICIENT FLOW. MAXIMUM SAFETY.

GEA Flow Components

GEA Engineering for a better world.

GEA.com

CONTENT

FLOW4YOU

Turning liquids into value.

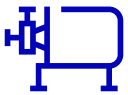
A committed team is by your side, providing valve, pump, and cleaning technologies to keep your product in motion. We are constantly investigating smarter, more efficient and responsible ways to make your process safe and future-proof.

Our ambition is to drive technological change, using our extensive experience, love of innovation, attention to detail and service you can count on at all times.

Read more

Hygienic valve technology

Aseptic valve technology



Hygienic pump technology

Cleaning technology

Empowering key industries around the world

Our technologies serve the industries that help to meet daily needs and drive innovation for a better future.

Beverages
Softdrinks, beer, juice
Smoothie products

Dairy
Milk, UHT milk, yoghurt, cheese

Food
Sauces, cremes and condiments
Ketchup, mayonnaise

Pharma & healthcare
Pharma & liquid healthcare products
Biotech products

Home & personal care
Cosmetics, lotions/gels, toothpaste
Laundry & all-purpose detergents

New Food
Plant-based dairy alternatives
Cell-based meat & proteins

HYGIENIC AND ASEPTIC VALVES

Directing the flow.

Hygienic and aseptic process valves are essential to liquid processing, controlling the flow and protecting sensitive products.

Our valve lines are designed to meet all your needs with unlimited optimization options, including a customizable, modular system – as simple as Lego®.

A structured portfolio for your success

- We provide **hygienic valves** with optimum cleanability to protect sensitive liquids.
- **UltraClean valves** enable extended shelf life through advanced sealing from the atmosphere.
- Our **aseptic and sterile valves** ensure ultimate purity and biocontainment in post-UHT, pharma and cell processing.

Hygienic valves

With more than 1.8 million possible configurations, VARIVENT® Hygienic valves guide the flow in liquid processing lines. The VARIVENT® family consists of VARIVENT® and ECOVENT® valves.

VARIVENT® valves represent the benchmark for flexibility, modularity and variability. The modular valve system allows operators to adapt valve types and functional components to meet any task, optimizing the entire process.

The uniquely comprehensive range of available valve types includes seat valves for all standard functions as well as special application valves.

ECOVENT® valves are characterized by their compact design. They provide a simple and economical solution for standard requirements. The series offers shut-off and divert valves.

Read more

Wine
MSL: > 1 year
pH-value: ≤ 4.5

Beer
MSL: > 6 months
pH-value: ≤ 4.5

Fruit yoghurt / Natural yoghurt
MSL: > 2–4 months
pH-value: ≤ 4.5

Fresh milk
MSL: 7–10 days
pH-value: > 4.5

Hygienic seat valves

Shut-off valves

Divert valves

Double-seat valves

Tank bottom valves

Valves for CIP & gas blocks

Piggable valves

Process valves in the comprehensive VARIVENT® series

Shut-off valves
VARIVENT® and ECOVENT® Single-seat shut-off valves manage the flow of liquids in hygienic applications and are characterized by their ease of operation and flexibility.

Divert valves
VARIVENT® and ECOVENT® Divert valves direct the medium in the right direction. Different type variants distribute liquids from one pipe into two pipes or merge two lines into one in blending processes.

Double-seat valves
VARIVENT® Double-seat valves provide the mixproof shut-off of incompatible media at pipe junctions, ensuring safe and flexible processing, in particular in CIP loops.

Tank bottom valves
VARIVENT® Tank bottom valves hygienically shut off pipes on tanks or containers. The connections can be welded into the tank bottom or mounted flush with the tank bottom wall.

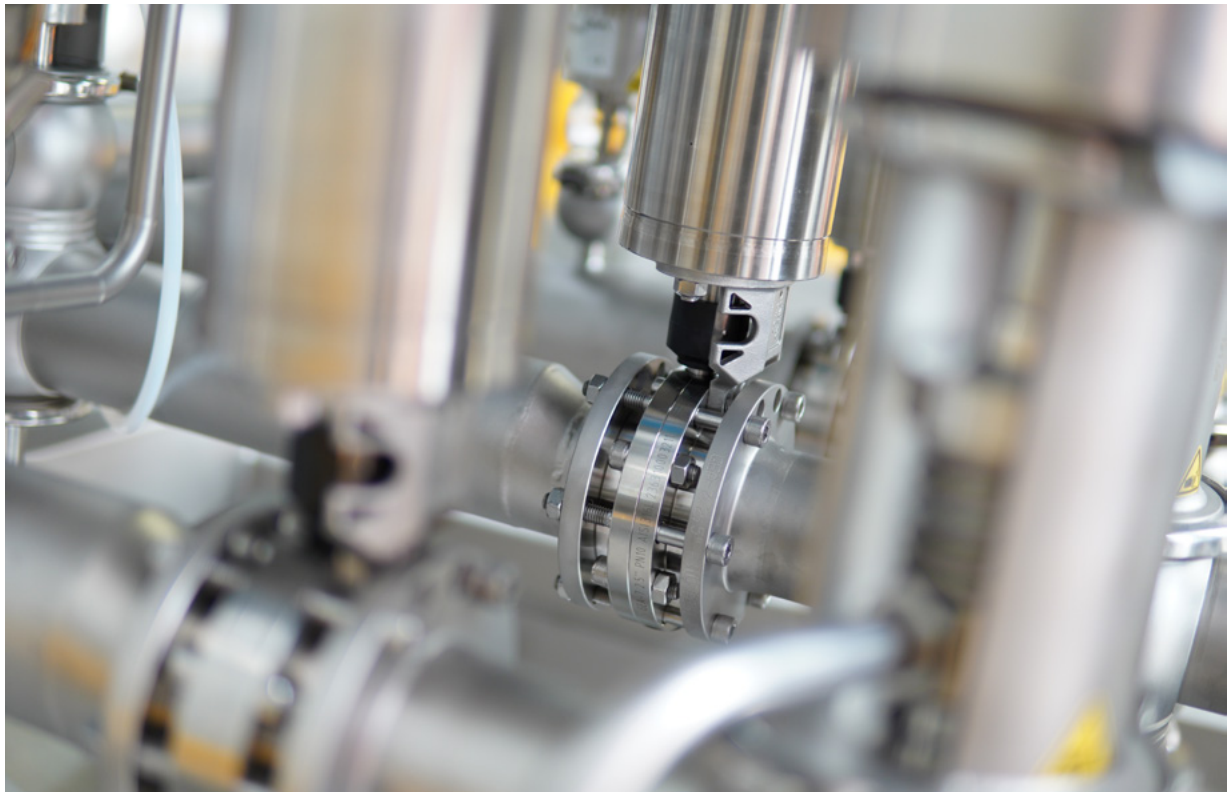
Valves for CIP & gas blocks
VARIVENT® Valves for CIP & gas blocks facilitate the setup of highly efficient CIP systems.

Piggable valves
VARIVENT® Piggable valves are specially designed for product recovery processes.

Technical data	
Nominal width	DN10 – DN150; 1" – 6" OD
Product pressure	up to 10 bar
Material (product wetted)	1.4404 (316L)
Air supply	4 bar – 8 bar
Gasket material	EDPM, FKM, HNBR

Hygienic butterfly valves

Wherever simple is best, hygienic butterfly valves from GEA offer easy-to-apply, yet safe and reliable shut-off functions, whether actuated pneumatically or manually.



Hygienic leakage butterfly valves offer an interesting valve variant for the mixproof separation of media. Highly functional, CIP/SIP-enabled and easy to service, these valves supply continuous safety to production processes.

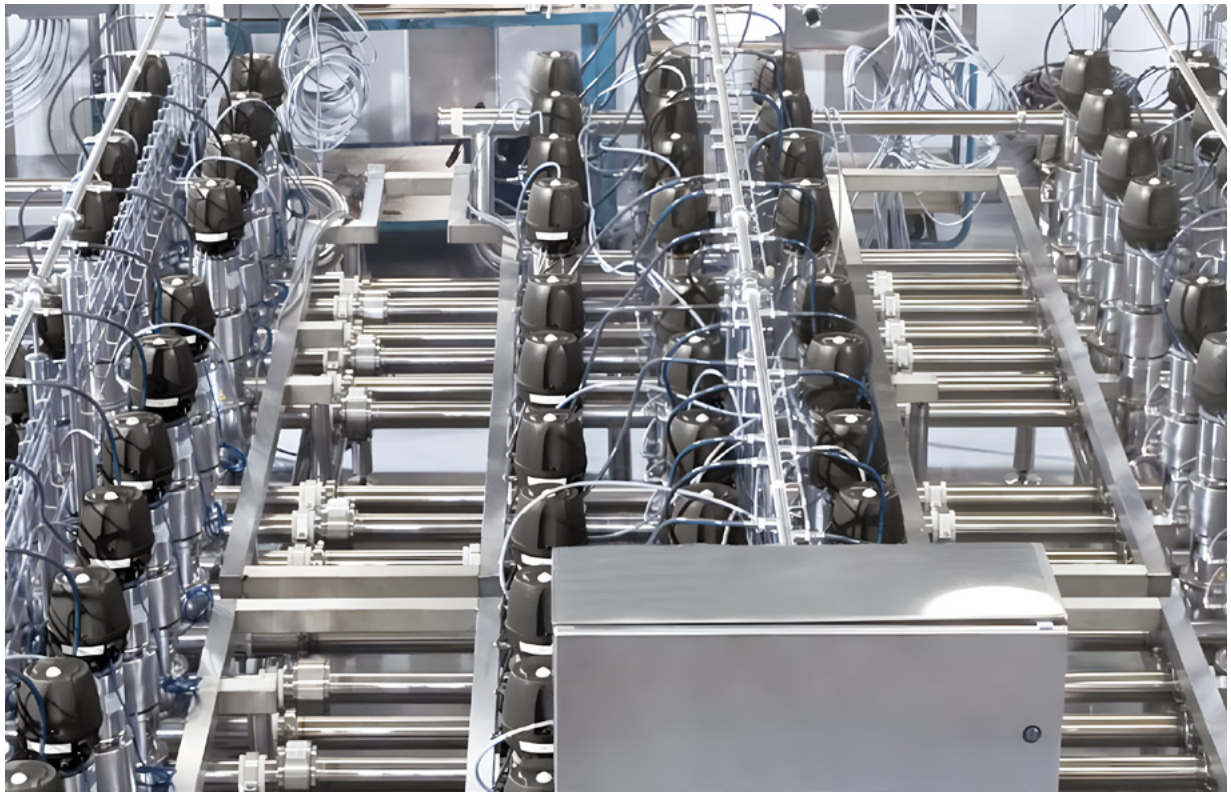
Technical data	
Nominal width	DN15 – DN150; 0.5" – 4" OD
Product pressure	up to 10 bar
Material (product wetted)	1.4404 (316L)/1.4301 (304)
Air supply	4.8 bar – 8 bar
Gasket material	EDPM, FKM, HNBR, VMQ

Butterfly valves

Leakage butterfly valves

Inline technology and expansion compensator

Optimizing the setup of every processing system, these hygienic components provide sophisticated solutions to measure process parameters with real-time control instruments and to relieve mechanical tensions in the pipeline.



GEA VARINLINE® housings / connection flanges
The installation of VARINLINE® housings permits integration of two control meters in the pipeline. Our in-line components are hygienically safe, 100% drainable, permitting instrumentation free of dead zones for secure, efficient processing.

GEA VARICOMP® expansion compensator
The innovative and highly compact VARICOMP® expansion compensator equalizes expansions and tensions from temperature differences in pipelines or valve blocks.

Hygienic special application valves

Control valves

Sampling valves

Overflow valves

Constant pressure valves

Safety relief valves

Vacuum valves

We provide versatile valve solutions that keep your operations safe, efficient, and under control. Whether it's managing pressure or optimizing flow, our valves are designed to handle the toughest demands of modern processing plants.

Control valves
VARIVENT® Control valves, suitable for gases, vapors or liquids, are used for reliable modulating control of applications where constant parameters are required.

Sampling valves
Manual sampling of very small amounts as well fully automated mixproof sampling and dosage is possible with our VARIVENT® Sampling valves.

Overflow valves
Critical pressures in the pipeline system can be balanced cost-effectively with VARIVENT® Overflow valves, usually in combination with displacement pumps.

Constant pressure valves
To keep production-relevant pressures at a constant level, these valves are designed for compensating process-related pressure fluctuations.

Safety relief valves
VARIVENT® Safety valves work purely mechanically and offer reliable protection against critical process pressures in pipelines and vessels.

Vacuum valves
To protect vessels and flow paths from negative pressure, VARIVENT® Vacuum valves are used in upside-down position, preventing ingress of outside particles.

Technical data	
Nominal width	DN10 – DN150; 1" – 6" OD
Product pressure	up to 10 bar
Material (product wetted)	1.4404 (316L)
Air supply	4 bar – 8 bar
Gasket material	EDPM, FKM, HNBR

Hygienic tank safety system

GEA VARITOP® Tank safety system

Modular VARITOP® Tank safety systems are widely used in the brewing industry, particularly in the fermentation and storage areas.

Our VARITOP® Tank safety system offers comprehensive protection, from preventing overpressure and vacuum to ensuring controlled gassing and degassing.

Customizable to your specific needs, the system can be centrally connected or mounted on a tank plate. With reliable VARIVENT® valves, your tanks stay secure during every stage of operation.

Technical data	
Nominal width	DN100 – DN125; IPS 6" OD
Product pressure	up to 10 bar
Material (product wetted)	1.4404 (316L)
Air supply	4.8 bar – 8 bar
Gasket material	EDPM, FKM

UltraClean valves

Consumers love treats that stay fresh. To keep milk and juice longer fit for consumption, UltraClean valves offer enhanced protection.

The UltraClean hygiene class refers to processes with special demands to the equipment to shield non-UHT products from germs and extend their shelf life.

Our UltraClean valves in the pioneering D-tec® series feature a hermetically sealed stem diaphragm that prevents the ingress of microorganism from the atmosphere into the product. This increases the microbial stability of the product and maintains its quality and attractiveness over longer periods of time.

D-tec® valves are ideal to process fruit yoghurt and extended-shelf-life (ESL) milk. They are equally suitable for the production of juice, smoothies and ice tea, helping to preserve the natural flavor, touch and nutrient content of the ingredients.

Fruit juice
MSL: several months
pH-value: ≤ 4.5

Ice tea (still)
MSL: > 6 months
pH-value: ≤ 4.5

Fruit yoghurt, heat-treated
MSL: > 5 weeks
pH-value: ≤ 4.5

ESL milk
MSL: 21–45 days
pH-value: > 4.5

Leakage valves

Shut-off valves

Control valves

Double-chamber valves

Divert valves

Tank bottom valves

UltraClean valves in the D-tec® series

Leakage valves
This economical valve design from Aseptomag® is mainly used for mixproof shut-off functions in UltraClean/ESL processing plants.
Type LV, LVBS

Shut-off valves
D-tec® Single-seat shut-off valves are used for the controlled opening and closing of pipelines in UltraClean applications. The innovative connection between valve stem and stem diaphragm minimizes the mechanical stress on the hermetic sealing element.
Type N/DV

Control valves
These valves are used for the exact setting and control of parameters such as flow, pressure, temperature, or filling level in processing plants. An electro-pneumatic positioner enables the exact setting of the valve stem by controlling the pneumatic actuator.
Type P/DV

Double-chamber valves
D-tec® Stem diaphragms are used to hermetically seal the product area from outside contamination. The integrated steam barrier (ISB) enables the safe separation of the product lines with a sterile medium and can be safely closed off from the atmosphere via the two integrated side valves.
Type D/DV

Divert valves
D-tec® Divert valves are used for distributing and merging functions in UltraClean processing.
Type W/DV

Tank bottom valves
D-tec® Single-seat tank bottom valves are used for the monitored control of fluids at tank applications. The valves are an ideal fit for UltraClean applications.
Type N/DV

Read more

TEFASEP® hard sealing

Aseptic valves

Indispensable for numerous key processes, aseptic valves are designed to provide the highest level of biological safety in particularly sensitive industry sectors.

The hygiene class Aseptic refers to processes in the dairy, beverage, food, new food and biotech sectors where secure barriers against microorganisms are crucial.

The Aseptomag® series of aseptic valves is characterized by its uncompromising use of permanently attached and continuously monitored stainless steel bellows that shield the product from contact with microorganisms from the atmosphere.

Minimizing the risk of contamination and securing sterile process environments, Aseptomag® valves protect the health of consumers, ensuring the integrity of UHT milk, baby food and many other important products.

Soft drink (still)
MSL: several months
pH-value: > 4.5

Ice tea (still)
MSL: > 12 months
pH-value: > 4.5

Babyfood / Nutrition
MSL: several months
pH-value: > 4.5

UHT milk / UHT cream
MSL: > 3 months
pH-value: > 4.5

Shut-off valves

Control valves

Double-chamber valves

Back-pressure valves

Divert valves

Sampling valves

Aseptic valves in the Aseptomag® series

Shut-off valves
Aseptomag® Shut-off valves are used for the controlled opening and closing of pipelines in aseptic processing plants.
Type AV, AVBS, AMV, AF

Control valves
These control valves are used for the exact setting and control of parameters such as flow, pressure, temperature, or filling level in aseptic processing plants.
Type RV, RVIN

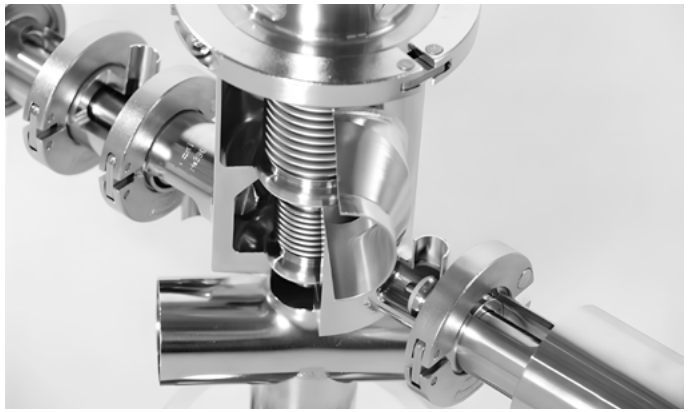
Double-chamber valves
Aseptic double-chamber valves are used for the mixproof shut-off of incompatible products at pipe junctions. These valves represent a special version of a double-seat valve, with the leakage chamber designed as a sterile chamber, hermetically separated from the environment by means of two side valves.
Type DK, DKBS, DDK, AXV, ADV

Back-pressure valves
Aseptomag® Back-pressure valves control a pre-defined pressure in aseptic processing plants.
Type GD, GDIN

Divert valves
Aseptomag® Divert valves are used for distributing and merging functions in aseptic processing plants.
Type UV

Sampling valves
Aseptic sampling valves are used for the safe sampling in aseptic processing plants.
Type PV

Read more



Sterile valves

GEA VESTA® Sterile valves are an essential asset in special pharma, cosmetics and New Food processing applications.

Complex liquid products for health care and nutrition require sterile equipment to ensure the highest level of biological safety. The VESTA® Valve series meets the rigorous demands of sterile processing in laboratory operations as well as in highly specialized production processes.

Thanks to the hermetic sealing of the valve stem by a single-piece PTFE bellow, VESTA® Sterile valves ensure maximum isolation of the process line from the environment.

The uncompromising hygienic design of all product-wetted areas extends to the outer surfaces, which are free of unnecessary gaps and drainable for easy outside cleaning.

Explore new areas of processing
As the growing world population drives the demand for high-protein alternatives to traditional meat products, VESTA® Sterile valves provide an ideal solution for innovative, cell-based protein production processes.

Pharma & biotech

New Food
Cell-based products

Shut-off valves

Tank bottom valves

Sampling valves

Valve blocks

Sterile valves in the VESTA® series

For ensured compliance with stringent food safety regulations, the modular structure of VESTA® Sterile valves can be customized to any specific process conditions while meeting all regulatory requirements.

Shut-off valves
VESTA® Shut-off valves are used for the controlled shut-off of pipelines in sterile process technology. Special HCA graduated variants are available for ideal adaption of the valve when different connection port sizes are required for transit and diversion.
Type H_A

Tank bottom valves
VESTA® Tank bottom valves are positioned primarily at the lowest point of a vessel, although the valve is also fully drainable when installed horizontally. The valves are flush-mounted, eliminating the possibility of any sump and enabling optimum CIP/SIP cleaning. Due to their remarkably compact design, these valves can be used in tight space conditions.
Type H_A/T

Sampling valves
VESTA® Sampling valves impress with their modular structure and compact design. The optimized flow design offers an ideal basis for efficient CIP/SIP processes.
Type H_A/I

Valve blocks
VESTA® Valve blocks are compact and versatile sterile valves with two independent actuators. The concept of the single-piece housing enables merging, separating or diverting of the product flow in tight space conditions. To maximize production times, the valves and sealings can be serviced in few minutes, significantly reducing downtimes. All maintenance steps can be executed with standard tools. PTFE bellows showing no wear during routine checks can be re-used without hesitation.
Type HWA & HXA

Read more

PTFE bellows

Pre-assembled valve manifolds

A plus for plant and process: Save effort and time with valve manifolds pre-assembled by the manufacturer.

Pre-assembled valve blocks, designed with our hygienic or aseptic valves, provide for an efficient use of resources and require a minimum of valuable floorspace in the construction phase.

Valve manifolds are not one-size-fits-all solutions. With more than 25 years of special experience, we are a competent partner in the complex task of designing valve manifold skids from A to Z, exactly to your specifications.

Your benefits with our pre-assembled manifolds:

- No floorspace required during construction
- Assembly according to your process requirements
- Space-saving design – always a priority for us
- Creation of 2D and 3D drawings and renderings
- Consistent hygienic or aseptic design
- Consideration of all legal requirements
- Tension-protected piping with expansion compensators
- Cabling/tubing upon request, also I/O-tested
- Easy to access and to operate
- Documentation according to specific needs
- FAT available upon request

What we can do for you:

Customer service

Project planning

Design in 3D

Production

Support

Product recovery system

Aseptic product recovery system

Hygienic product recovery system

Recover the value – reduce the waste.

A product recovery or pigging system helps companies to save product ingredients and flushing water – simply by minimizing waste.

Designed to efficiently recover valuable product from your process lines, this system not only boosts yield but also minimizes the use of water and cleaning agents.

Why waste perfectly good product during pipe cleaning? By reducing product loss, effluent disposal costs, and production downtime, our solution helps you streamline operations.

Ideal for high-quality and highly processed products in industries such as dairy, food, beverages, pharmaceuticals, and personal care, the system minimizes pre-flushing time for longer production time.

We offer aseptic and hygienic product recovery systems.

The VARICOVER® Product recovery system uses a specially designed pig to push valuable product out of the pipeline before cleaning, allowing it to re-enter the production cycle.

Available in fully automated, semi-automated, or manual configurations, each system is tailored to fit your specific needs and product requirements.

Responsible use of resources

Valve automation

Smart control and feedback systems seamlessly integrate modern process valves into your central PLC, enabling flexible and advanced automation solutions.

Our digital T.VIS® Control tops enable system operators to achieve optimum control of their process valves.

Connected to the plant's digital device network, the control tops enable all valve operations to be coordinated and monitored in every detail by the central process management unit.

Our user-friendly range of T.VIS® Control tops showcases the latest in innovative valve automation technology. With optimized air pathways and energy-efficient electronics, they minimize energy and compressed air consumption. The enhanced mechanical design provides superior protection against moisture, dust, shock, and vibration.

IO-Link – the gateway to optimized operations

Our control tops effortlessly integrate into any digital field communication network and are compatible with all standard connections and interfaces. The latest generation of T.VIS® control tops also supports integration into modern IO-Link networks.

Read more

Save over 90% water and cleaning agents with every valve cleaning cycle.

Reducing water consumption is a key priority in sustainable production. GEA's electronic LEFF® function is a significant step forward, offering over 90% savings in water and cleaning agents during valve seat cleaning.

This intelligent technology is integrated as a standard feature in T.VIS® A-15 control tops – the best choice for mixproof double-seat valves.

Your benefits with the LEFF® function

- Significant cost reductions: more than 92 % savings of water and CIP media
- Integrated feature in T.VIS® A-15 control tops
- No complicated programming in the PLC – processing takes place in the control top
- No additional system technology required
- Automatic monitoring of the lift function

Advancing sustainability

The LEFF® function integrated in GEA T.VIS® A-15 control tops has been awarded the GEA Add Better label for its positive impact on reduced water consumption.*

*The Add Better label relates to the LEFF® function integrated in the GEA T.VIS® control top, which saves 92 % of water in comparison to conventional valve seat cleaning.

Read more

Responsible use of resources

HYGIENIC PUMPS

The heart of every process.

For every processing application, sophisticated GEA Hilge centrifugal and positive displacement pumps give you peace of mind, ensuring gentle conveyance with advanced reliability and economic efficiency.

The hygienic design with sterile, cast-free stainless steel, deep-drawn or forged without blowholes, ensures optimal cleanability. Certifications are available for each region and industry.

Read more

Get in contact with our experts

The center of competence for Hygienic Pumps in Bodenheim is your partner all over the world for the best possible pumping solution.

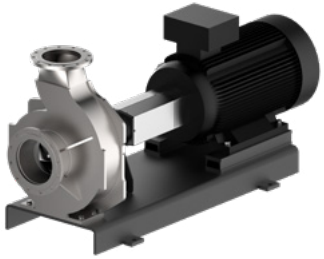
Our pump portfolio

Single-stage centrifugal pumps

GEA Hilge HYGIA
Premium quality, reliability and highest flexibility of customization ensure successful application in the food, beverage, and pharma industries.

GEA Hilge HYGIA H
This high-pressure version of the proven HYGIA series is designed for system pressures up to 64 bar and is used for membrane filtration processes.

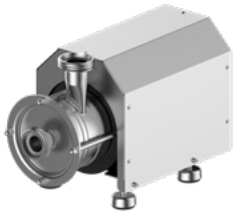
GEA Hilge TP
This centrifugal pump is the smart solution for standard applications. It suits a wide range of applications and offers uncompromising hygiene and quality.



GEA Hilge MAXA
Designed for heavy-duty operation in industrial processes. Especially used in fermentation broth, filtration facilities and transportation of condensate, hot and cold water.

Multi-stage centrifugal pumps

GEA Hilge CONTRA
The hygienic design in every detail provides perfect solutions to numerous tasks in sterile and hygienic processes.

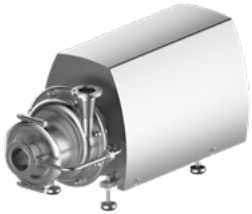


GEA Hilge DURIETTA
This pump in a very compact design has been created for applications with low flow rates at high flow heads.

Self-priming centrifugal pumps

GEA Hilge SIPLA
Especially suited for SIP/CIP return systems and applications with high gas content. Right- and left-hand rotation can be freely adjusted for additional application options.

GEA Hilge SIPLA-HT
This sterile pump is a special variant designed for pharmaceutical, biotech and personal care applications.



GEA Hilge TPS
This pump is the solution of choice especially for emptying tanks as well as for conveying products containing gas, e.g. CIP return systems.

Positive displacement pumps

GEA Hilge NOVALOBE
This rotary lobe pump has been specifically designed for highly viscous media and for applications where gentle pumping is required. The pump is fully drainable with vertical ports.

GEA Hilge NOVATWIN+
The flexible twin screw pump range allows production and CIP operation with one pump. It fulfills the highest hygienic requirements and ensures reliable production.

Single-stage centrifugal pumps

Thanks to our wide range of centrifugal pump types, we can offer you the right pump for your application, your medium and your duty point. Available for standard as well as for highly complex applications with advanced requirements.

GEA Hilge HYGIA

The ideal pump for the most types of liquids and numerous conveying tasks, especially for smooth handling of liquids with solids and fibers in dairy, beverage and food processing.

Technical data	50 HZ	60 Hz
Max. flow rate	175 m³/h	175 m³/h
Max. pump head	75 m	110 m
Max. system pressure	15 / 25 bar	
Surface roughness R_a	≤ 0.4 / ≤ 0.8 / ≤ 3.2 µm	

GEA Hilge HYGIA H

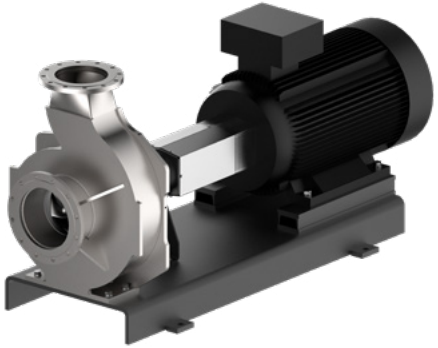
This robust pump series is suitable for the use in industries with high demands to hygiene and reliability. Typical applications for the high-pressure pump are reverse osmosis and nano filtration in the dairy, food and beverage industry.

Technical data	50 HZ	60 Hz
Max. flow rate	200 m³/h	175 m³/h
Max. pump head	100 m	145 m
Max. system pressure	64 bar	
Surface roughness R_a	≤ 0.8 / ≤ 3.2 µm	

GEA Hilge TP

A modular pump with standard design options, easy to adapt to changing requirements, e.g. different mechanical seals.

Technical data	50 HZ	60 Hz
Max. flow rate	170 m³/h	205 m³/h
Max. pump head	90 m	130 m
Max. system pressure	16 bar	
Surface roughness R_a	≤ 0.8 / ≤ 3.2 µm	



GEA Hilge MAXA

A very adaptable pumps with multiple available mountings and impeller variants, designed for very high flow rates as well as media with small, soft solids.

Technical data	50 HZ	60 Hz
Max. flow rate	1,400 m³/h	1,300 m³/h
Max. pump head	100 m	100 m
Max. system pressure	10 bar	
Surface roughness R_a	≤ 0.8 / ≤ 3.2 µm	

Multi-stage centrifugal pumps

The multi-stage pump lines offer a compact design for high pump heads, serving highly complex as well as standard applications.

GEA Hilge CONTRA
Known for the gentle handling of shear-sensitive media, especially in the pharma industry, this pump can be sized for optimum efficiency and matching of duty point.

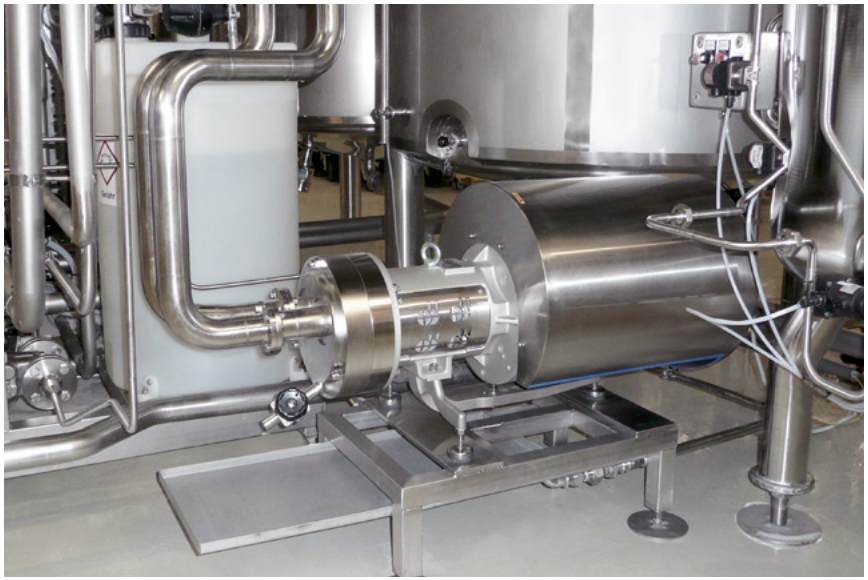
Technical data	50 HZ	60 Hz
Max. flow rate	100 m³/h	100 m³/h
Max. pump head	200 m	230 m
Max. system pressure	25 bar	
Surface roughness R_a	≤ 0.4 / ≤ 0.8 / ≤ 3.2 µm	

GEA Hilge DURIETTA
A pump with a highly compact design, suitable in particular for applications with lower flow rates and higher pump heads.

Technical data	50 HZ	60 Hz
Max. flow rate	8 m³/h	8 m³/h
Max. pump head	72 m	41 m
Max. system pressure	8 bar	
Surface roughness R_a	≤ 3.2 µm	

Self-priming centrifugal pumps

These pump lines are specialized to your cleaning processes and ensure process flexibility and versatility. Thanks to their ability to convey product and CIP liquid with one pump they save investment cost.



GEA Hilge TPS

The good suction performance of this pump ensures shorter process times even when used for media with high gas content. This series offers a modular system for easy adaption to changing requirements.

Technical data	50 HZ	60 Hz
Max. flow rate	115 m^3/h	125 m^3/h
Max. pump head	95 m	138 m
Max. system pressure	16 bar	
Surface roughness R_a	≤ 0.8 / ≤ 3.2 µm	

GEA Hilge SIPLA

A series of smaller SIP/CIP pumps, capable of handling high gas content and equipped for clockwise and counter-clockwise rotation for various types of application.

Technical data	50 HZ	60 Hz
Max. flow rate	78 m^3/h	65 m^3/h
Max. pump head	47 m	60 m
Max. system pressure	10 bar	
Surface roughness R_a	≤ 3.2 µm	

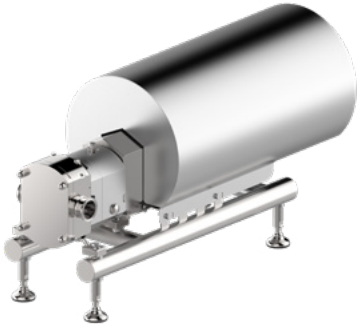
GEA Hilge SIPLA-HT

This range is characterized by its particularly robust properties, completely made from pore- and blowhole-free stainless steel and with optimized hydraulic design for better efficiency.

Technical data	50 HZ	60 Hz
Max. flow rate	50 m^3/h	50 m^3/h
Max. pump head	37 m	51 m
Max. system pressure	10 bar	
Surface roughness R_a	≤ 0.4 / ≤ 0.8 µm	

Positive displacement pumps

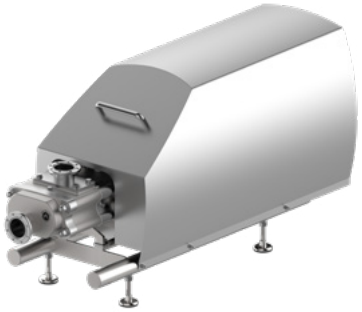
When it comes to pumping sensitive media with high viscosity, GEA positive displacement pumps are the right choice for hygienic processes in the food, beverage or pharma industry.



GEA Hilge NOVALOBE

Gentle and safe conveying with no metal-to-metal contact ensures high-quality processing. The pump is ideally adaptable to demanding tasks thanks to different rotary lobe geometries, connections, seals, and mountings.

Technical data	
Max. flow rate	35 m³/h
Max. system pressure	16 bar
Surface roughness R_a	≤ 0.4 / ≤ 0.8 µm



GEA Hilge NOVATWIN+

Thanks to the gentle and low-pulsation conveying, even sensitive products with large particles remain intact. With the new twin screw pump design, a smaller size can be used in 2/3 of applications.

Technical data	
Max. flow rate	310 m³/h
Max. system pressure	30 bar
Surface roughness R_a	≤ 0.4 / ≤ 0.8 µm

The GEA Hilge NOVATWIN+ series has been awarded the GEA Add Better label for saving 13 % energy.*

* The Add Better label relates to the serial product GEA Hilge NOVATWIN+, released in July 2023. The comparison refers to its predecessor model, the GEA Hilge NOVATWIN.

CLEANING TECHNOLOGY

Hidden champions.

Sophisticated cleaning technology for industrial tanks, silos and containers is rarely in the spotlight, yet vital for safe, efficient processing – because cleanliness matters.

Our cleaning components and services support innovative processes, protecting your product and your brand.

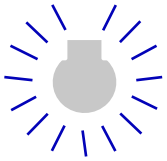
Read more

Mechanical energy does the trick

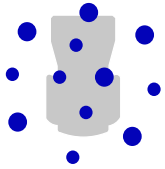
- We continuously develop ways to maximize the impact of mechanical energy in the cleaning process.
- This reduces for our customers the required amount and cost of heat/energy, water and chemicals as well as cleaning time.

Soiling classes

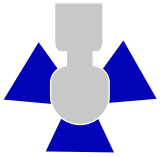
From water-soluble softdrinks to sticky chocolate crusts: Products in tanks are divided into four soiling classes, all of which are covered by our cleaning technology with optimized cleaning solutions.



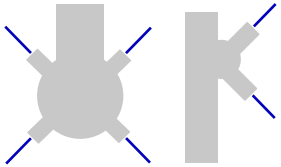
Soiling Class I – Rinse cleaning
Water-soluble products, little or no adhesion to the vessel walls.
→ Static cleaners



Soiling Class II – Low-impact cleaning
Water-soluble solutions, low adhesion to the surface.
→ Free rotating cleaners



Soiling Class III – Medium-impact cleaning
Stubborn residues, stronger adhesion to the vessel walls. Ideally the product is still wet during cleaning.
→ Slow rotating cleaners



Soiling Class IV – High-impact cleaning
Encrusted or dry products, high adhesion to the vessel walls.
→ Orbital cleaners
→ Index cleaners

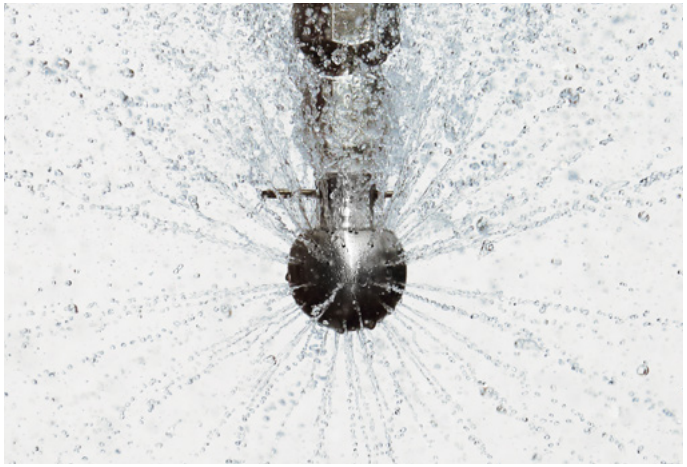
Types of cleaners

Static cleaners

Soiling Class I – Rinse cleaning

Maintenance-free, easy cleaning with low pressure
The cleaning of vessels with water-soluble residues requires less mechanical force. Static spray balls use the liquid running down the vessel walls to create surface friction and dissolve the residues.

These cleaners are the perfect choice to rinse easy-to-clean products with little investment and effort. Various spray patterns and performances can be achieved using a variety of spray ball designs, materials and surfaces.



Free rotating cleaners

Soiling Class II – Low-impact cleaning

Instantaneous, dense and effective cleaning performance
Free rotating cleaners are characterized by their ability to generate a dense spray of fast-moving, high impact droplets radiating in all directions, giving an intensive all-over clean. Rotation is driven by the liquid flow which produces a range of small-to-medium-sized, fast-moving droplets to produce a mechanical force on the vessel walls.

Free rotating cleaners from GEA meet the exacting demands from premium manufacturers, harnessing and directing the mechanical forces to provide optimum cleaning.

Slow rotating cleaners

Soiling Class III – Medium-impact cleaning

Effective, powerful and economic cleaning performance
GEA's slow rotating cleaners use targeted flat or round jets to project the cleaning solution onto the vessel walls. The slow rotating units are an efficient and cost-effective solution for stubborn and difficult to clean vessels.

These units operate at higher liquid pressures than traditional free rotating units but, because of their design, maintain slow rotation speeds. This enables these devices to impact greater cleaning forces onto the vessel walls.

Orbital cleaners

Soiling Class IV – High-impact cleaning

Optimized spray jet projection and cleaning power
The extensive range of our orbital cleaners includes modular solutions with selectable nozzles that can be adapted to any cleaning task.

The compact design, combined with powerful jets, makes these cleaners perfect for cleaning a variety of vessel sizes and equipment, especially where hygienic safety is a priority and where sticky residues can make cleaning difficult.

Index cleaners

Soiling Class IV – High-impact cleaning

Designed for the most difficult applications
Index cleaners from GEA benefit from GEA's solid stream nozzle technology combined with the piston index mechanism, which optimizes spray jet projection and cleaning power onto the vessel walls.

Our index cleaners optimize the efficiency of cleaning operations offering both 360° or 180° spray patterns.

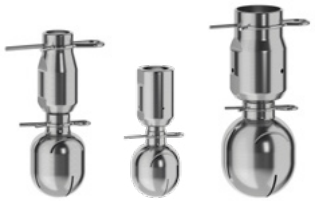
Our cleaner portfolio

Spray Balls
Spray balls are designed for flush cleaning with a high flow rate, thus providing powerful flushing at low pressure.

Torus / Chemitorus
The Torus and Chemitorus range ensures a repeatable and sustainable cleaning result, especially in applications where low flow and low pressure are required.

Turbodisc / Chemidisc
The Turbodisc and Chemidisc offer a cost-effective professional cleaning performance by optimizing the energy available to produce an instant uniform coverage of all internal surfaces.

Clipdisc / Sanidisc
The Clipdisc and Sanidisc are designed for use in ultra-hygienic applications where product purity and elimination of contamination problems are essential.



Turbo SSB
The Turbo SSB ensures a consistent cleaning result due to the naturally slower rotation speeds and increased dwell time of the fan jets cleaning the tank wall.

Sanitor
The Sanitor is a compact slow rotating cleaner ideally suited for applications where a high sanitary unit with increased cleaning power is required.

Rotating Jet Cleaner Type 2E/2B
The Jet Cleaner Type 2E is built for hanging in tanks in numerous industries. Whereas the Type 2B is suitable for mobile cleaning because it is placed on a trestle.

Cyclone / Twister
Due to their compact design the Cyclone can be inserted and mounted through 76.2 mm / 3-inch insertion openings and the Twister can be inserted and mounted through 100 mm / 4-inch insertion openings.

Typhoon / Tempest / Tornado
The Orbital Cleaners are liquid driven and can be used for mobile or stationary applications. The round jet nozzles rotate around two axes simultaneously and produce focused high impact jets generating a highly efficient 3D wash pattern.

OC200
The OC200 is the most powerful and first modular cleaner of the range. This cleaner is designed for most efficient cleaning of large vessels and demanding cleaning tasks.

JB 6
Due to the robust design and the effective performance the JB 6 is used for strong mechanical cleaning in medium to large tanks.

Fury 404
The Fury 404 index cleaners are designed for medium sized tanks, producing a number of high-impact jets which oscillate through 90° while the cleaner continually indexes around the central axis. The Fury 404 offers 360° and 180° wash patterns and can be used with open top tanks.

Fury 602 / Tankmaster
The Fury 602 index cleaners are designed for large and open top storage tanks. They produce high-impact, solid stream jets which oscillate through 90° while the cleaner continually indexes/rotates around the central axis providing full intensive coverage. The Fury 602 offers both 360° and 180° wash patterns.

Fury TWB
The Fury TWB cleaners are ideal suited to applications where high power jets and low flow volumes of cleaning fluid are essential to minimize effluent costs and reduce the wash cycle time.

IS 25 Retractor
The In-line Sprayer IS 25 is designed utilizing GEA world-renowned hygienic valve technology. This retracting cleaning head is ideal for cleaning tanks with agitators and for process pipe cleaning.

GEA SERVICE

For your continued success.

Take advantage of our wide range of service and consulting offers so your investment remains sustainable and your components are optimally adjusted to the process.

Getting you started
- Service Training (in-house/on-site)
- Installation & Commissioning Support

Keeping it running
- Maintenance of Valves & Pumps
- Rent a Pump
- On-site Technical Support
- GEA Repair Workshop
- Remote Support
- Genuine Spare Parts from OEM

Constantly improving
- Upgrades & Conversions

Together with you
- SLA (Service Level Agreements)

By your side – everywhere.

On-site service
For many tasks – from troubleshooting to in-depth advice – our on-site expert service remains the best option. Whether fault diagnosis and repair or modernizing your setup, we bring a wealth of insight to the table.

Remote support
We offer efficient, time-saving remote support from our experienced service specialists. Innovative augmented reality tools help us identify and solve technical issues without spending resources on travel and lodging.

Repair Service
Why replace what you can renew? Our repair shops return refurbished components as good as new, supporting sustainable plant operation.

Read more

Safety matters.

Ensured workplace safety with our LoTo solutions
We equip your process valves from GEA with LoTo solutions to protect your workforce and your plant during service operations.

Our LoTo (lock out, tag out) devices are available as disk locks and bellows locks to mechanically prevent any valve movement, and as easy-to-apply air locks that block pneumatic actuation.

Read more

Engineering for a better world.

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