ARMATUREN GOETZE

CLEAN VALVES

SAFETY & HYGIENE – GO HAND IN HAND

Safety valves and fittings for clean utilities.

WHAT SETS GOETZE AND THEIR HYGIENIC PRODUCTS APART

YOUR PARTNER FOR SOLUTIONS

We are a multifaceted team of qualified specialists from various fields. Behind the name and title you will find one thing in particular: an individual with expertise and experience! We strive to pass on this expertise so that we can offer tailor-made solutions to our customers.

GOETZE HYGIENIC VALVES

Particularly high demands are placed on systems in the food and pharmaceutical industries with regard to the cleanability of the surfaces in contact with the medium. The hygienic products of Goetze KG consist of a very smooth and faultless surface with a standard surface roughness of Ra max. 0.75 µm, made of fully forged stainless steel.

HIGH STANDARDS

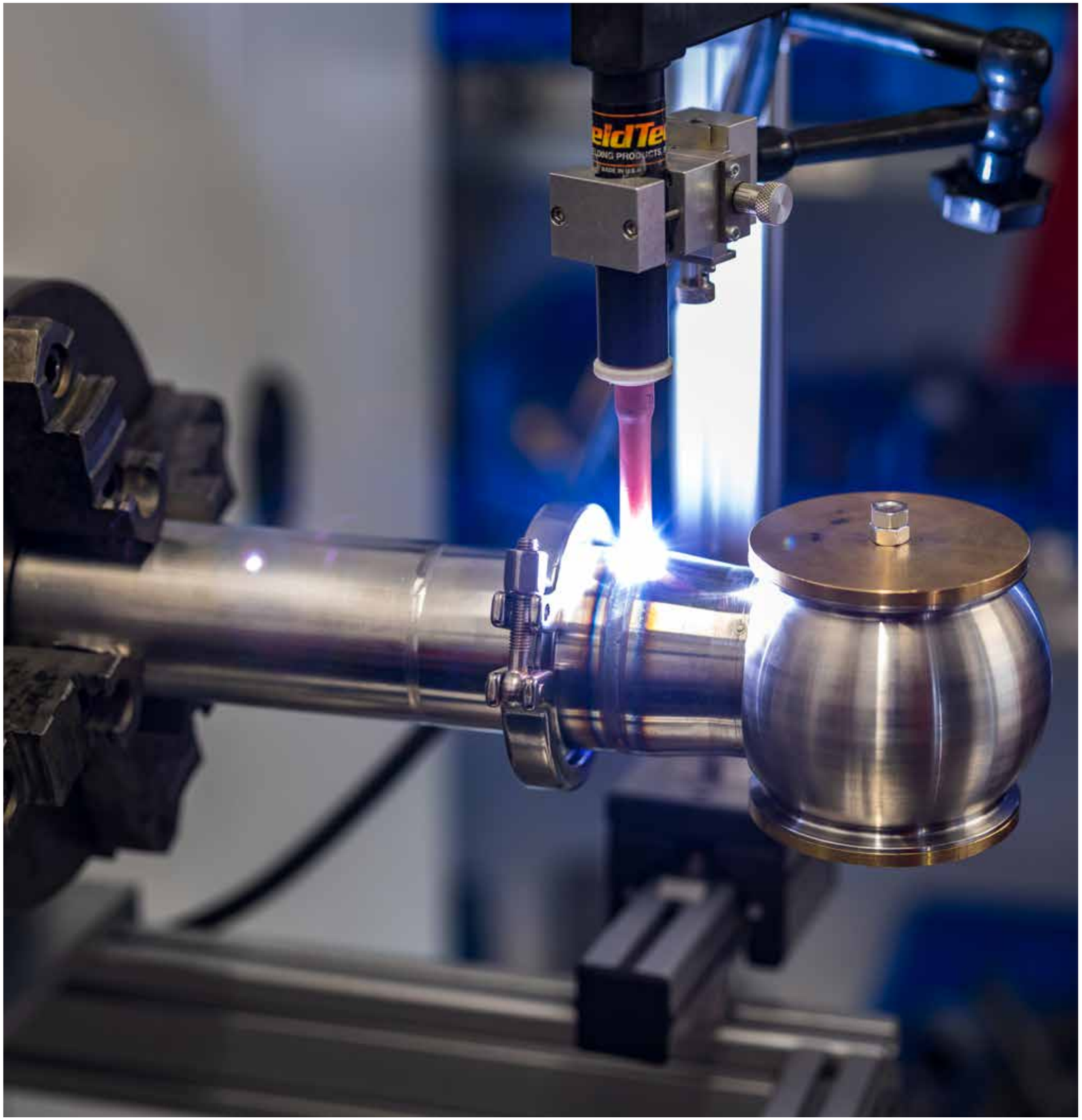
Not only the products but also the raw materials used must meet the highest standards. Goetze hygienic and aseptic safety valves offer a wide range of options and are based on standards and guidelines (DIN 11866, ASME BPE (Bioprocessing Equipment), EN 1672-2, DIN ISO 14159, USP class VI and FDA 21 CFR).

EASY AND QUICK MAINTENANCE

Hygienic valves are characterised by their simple and quick maintenance. Maintenance of the hygienic valves can easily carried-out in an installed position. The simple construction allows the operator to carry-out a required and necessary exchange of the seal with a few simple steps.

SHORT DELIVERY TIMES WORDWIDE

Whether safety valves, overflow valves, hygienic valves or other products from our range, you have the advantage of short wordwide delivery times for all products. In general all orders are processed within 3-5 working days. Are you in a hurry ? Then use our „Fast Track“ production option and your order can be ready for dispatch within 48 hours.



Production process for hygienic applications

Safety valves, which are specially used for applications in the hygienic area, are used in a wide range of industries. In particular in the field of pharmaceutical manufacturing, food production, brewing and water treatment.

If a safety valve is used in hygienic areas, utmost care must be taken in the production process. Goetze KG meets these requirements with a production process specially implements for the hygienic valves. Before the valve is assembled. Amongst others, all parts are washed so that they are free of oil and grease.

Assembly of the valves is carried-out on a special base which is free of dust and grease. During the entire assembly procedure, the fitter wears gloves and ensures that the workplace is clean. At the end of the procedure, yellow protective caps are fitted to the inlet and outlet of the valve so that no particles or dirt and no dirt can enter from the outside during delivery.

Technically trained personnel, compliance with all relevant regulations and recurring process monitoring of oil- and grease-free cleaning, assembly, testing, packaging and labelling, guarantee the customer a hygienic-compliant safety valve for his applications.

Particularly high demands are placed on systems in the food and pharmaceutical industries with regard to the cleanability, and thus on the design of system parts that are free of dead space. The hygienic valves from Goetze KG consist of a very smooth and defect-free surface with various surface options in accordance with ASME BPE.

For particularly clean applications in very sensitive areas, Goetze KG offers its customers the option of carrying out the assembly of the valves in a kind of „clean room“. By means of various air filters and a prevailing overpressure in the room, undesired particles and substances are not even able to reach the valve during the production process.

TECHNICAL BASICS FOR HYGIENIC VALVES

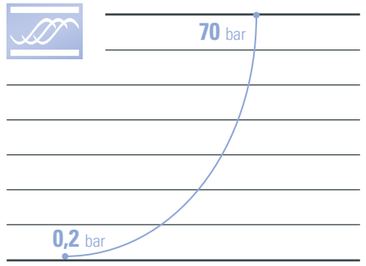
Materials

STAINLESS STEEL

- high-quality material
- corrosion-resistant
- for plants with particularly aggressive media

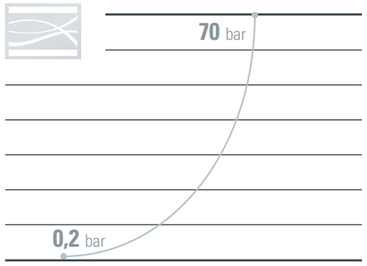
Media

LIQUIDS
from -270 °C to +400 °C



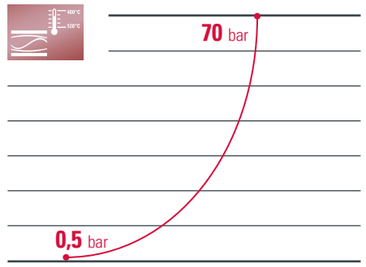
- Pump protection
- Pressure boosters (water-side)
- Sprinkler systems
- Cooling circuits

AIR, GASES AND VAPOURS
from -270 °C to +400 °C



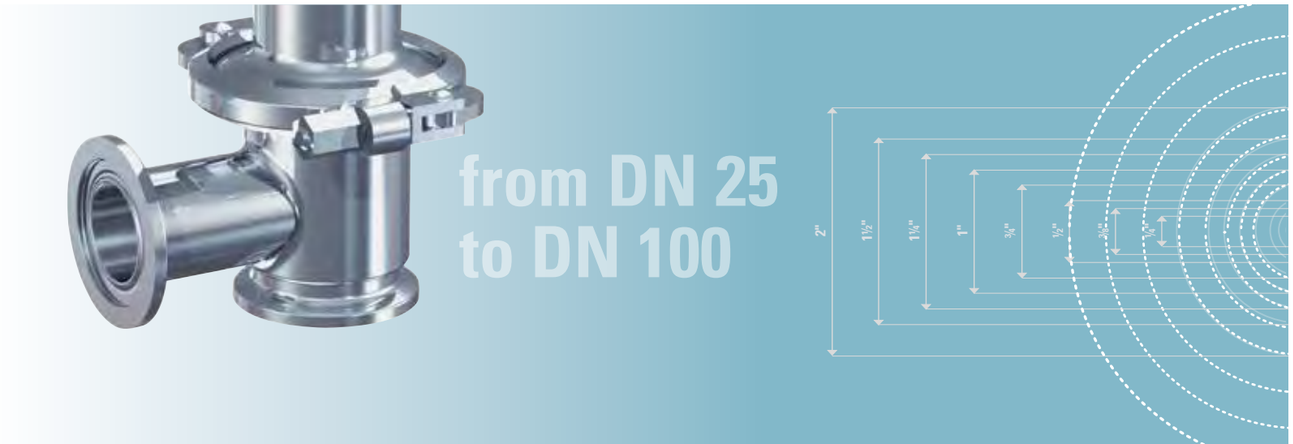
- Compressors
- Pressure vessels
- Pressure boosters (air-side)
- Silo container
- Bulk transport vehicles

STEAM
from +120 °C to +400 °C



- Steam boiler
- Steam plants
- Sterilizers
- Autoclaves
- Boilers

Connections



Series	National Type Test (TÜV)	CE 2014/68/EU	EU Type Examination	UKCA	ASME	CRN	EAC	TS	KC	KCs	DNV	Lloyd's Register	ABS		Registro Italiano Navale (RINA)	RINA
HYGIENIC VALVES																
Hygienic 400	■	■	■	■			■	■	■	■	■			■	■	
Hygienic 400.5		■					■				■				■	
Hygienic 4000	■	■	■	■	■	■	■	■					■	■		■
Hygienic 4020	■	■	■	■	■	■	■						■			
Hygienic 4040	■	■	■	■	■	■	■						■			
Hygienic 4060	■	■	■	■	■	■	■						■			
SAFETY VALVES																
451	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
461	■	■	■	■			■	■			■	■	■	■	■	■
6420	■	■	■	■	■	■			■		■		■		■	
410	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
412	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
OVERFLOW AND PRESSURE CONTROL VALVES																
417		■		■			■				■	■	■	■	■	■
418		■		■			■				■	■	■	■	■	
453		■		■			■				■	■	■	■	■	■
PRESSURE REDUCING VALVES																
9040		■					■						■			
481		■		■			■				■	■	■	■	■	■
482		■		■			■				■	■	■	■	■	■

Series	Materials	Media						Temperature in °C	Set pressure bar
		neutral			non neutral				
		liquid	air/gases	steam	liquid	air/gases	steam	–200 –100 –50 0 50 100 150 200 250 300 350 400	0 0,5 1 5 10 15 20 30 50 70
HYGIENIC VALVES									
400									
400.5									
4000									
4020									
4040									
4060									
SAFETY VALVES									
451									
461									
6420									
410									
412									
OVERFLOW AND PRESSURE CONTROL VALVES									
417									
418									
453									
VACUUM AND AIR VALVES									
1940/45									from -6 mbar to -800 mbar
PRESSURE REDUCING VALVES									
9040									
481									
482									

SAFETY VALVES AND FITTINGS FOR HYGIENIC APPLICATIONS

Materials

Temperatures
from -40 °C to + 200 °C

Media

Pressures
from 0,4 bar to 16 bar

These valves are characterised by their particularly smooth, flawless surfaces. This makes them perfect for cleaning. Our engineers took particular care that no gaps were created during the designing of the valves: whether on the valve inlet or the fitting of all elastomer components.

GOETZE VALVES FOR HYGIENIC APPLICATIONS ARE USED HERE:


Pharmaceutical


Brewing


Food Industry

ADVANTAGES OF THE SERIES 4020 / 4040 / 4060

- Due to the extremely small dead space ratio of up to L/D < 0,33 microbiological danger zones and soiling can be effectively avoided
- An optimal cleaning of the surface which comes into contact with the product in the inlet area – as stipulated in hygienic and aseptic processes – is therefore easily achievable at all times
- Exposed o-ring seals in contact with the medium
- Design of valve body avoids build-up of puddles after valve has opened
- Suitable for CIP/ SIP process due to pneumatic lifting option
- Gap-free installation of seals in contact with medium
- Possible surface qualities
  - Ra max. 0,375 µm
  - mechanically polished
  - electropolished
- Moulded diaphragm to separate the product area from the spring area
- The crease-free, flow-optimised and hygienic valves are completely autoclavable and can be disassembled for cleaning in just a few steps and without destroying the set pressure seal

Series 4020

SAFETY VALVES SERIES 4020

made of stainless steel, angle-type,
with hygienic connection

NEW!

The 4020 series is a valve especially optimised for hygienic applications and has a significant blow-off capacity despite its compact design. The valve is optimised for use with aseptic hygienic connections on the inlet and outlet.

The flow-optimised elastomer diaphragm prevents unwanted contamination, that could occur with a rubber bellows. The surfaces are optimised for hygienic applications as standard and are therefore very easy to clean. Naturally, the valve can be autoclaved. Due to the maintenance-friendly design, all seals that come into with the media can be changed in a few easy steps and without destroying the set pressure seal.

Even in the standard version, the surfaces that come into contact with the media have an optimised roughness of Ra max. 0.75 µm and are mechanically polished. An optimised roughness of Ra max. 0.375 µm is also available as an option.

Series 4020 valves are used, for example in beverage filling, in process vessels, in tank protection, in boiler protection, in reaction vessels, in the thermal protection of pipelines and in mixing and drying systems.

Temperatures
from -40 °C to +200 °C

Pressures
from 0,4 bar to 16 bar

Threaded connections*
from DN 25 to DN 50

* for further connections see p. 18 - 21.

Data sheet

Series 4040/4060

SAFETY VALVES SERIES 4040 / 4060

made of stainless steel, angle-type,
with hygienic connection

NEW!

An extremely low dead space characterises the valves of the 4040 and 4060 series. Flanged directly onto the tank or pipeline, these aseptic or hygienic safety valves guarantee the optimum cleanability of the valve inlet.

Thanks to the elastomer diaphragm, the flow is only minimally less than with bellows. All seals that come into contact with the media can be replaced in a few easy steps and without destroying the set pressure seal. Naturally, the valve can be autoclaved.

Even in the standard version, the surfaces in contact with the media have an optimised roughness of Ra max. 0.75 µm and are mechanically as well as electrically polished. An optimised roughness of Ra max. 0.375 µm is also available as an option.

The valves of the 4040 and 4060 series are used, for example in fermenters, bioreactors, reaction vessels, process and transport containers, pressurised pipelines, separators and in pipeline feeds to glass containers (4060).

Temperatures
from -40 °C to +200 °C

Pressures
from 0,4 bar to 16 bar

Pipe connection*
DN 25

* for further connections see p. 18 - 21.

Data sheet Data sheet

Safety fittings for hygienic applications

SAFETY VALVES SERIES 400

made of stainless steel, angle-type, with clamp connections and food connections

with stainless steel bellows

The valves of the Goetze Hygienic Series are designed in compliance with the design features of hygienic design. This includes smooth, fault-free and optimal surfaces for cleaning, minimum dead space, no gaps and many of other details. Difficult to clean components are protected against impurities by means of stainless steel bellows.

The fulfilment of these design features are proven and confirmed by tests and certificates from the DGUV Committee for Foods and Foods and Beverages and the EHEDG (European Hygienic Engineering & Design Group).

The safety valves are approved for worldwide use in accordance with numerous regulations.

Temperatures
from -40 °C to +200 °C

Pressures
from 0,4 bar to 16 bar

Clamp connections*
from DN 20 to DN 32

* Further connection options:
Threaded connections, aseptic connections

Data sheet

OVERFLOW / PRESSURE CONTROL VALVES SERIES 400.5

made of stainless steel, angle-type, with clamp connections and food connections

with stainless steel bellows

Just like in the case of the hygienic safety valves, also in the case of these overflow / control valves the design features of hygienic design have been realized and confirmed by the DGUV Committe for Food and Beverages.

Depending on the use and media, the seals are available with approvals in accordance with FDA , USP, 3-A and ADIFREE.

The valves are particularly used to control processes and systems in the food and pharmaceutical industries. Suitability with various media ranges from air to various neutral and non-neutral vapours, gases and liquids.

Temperatures
from -40 °C to +200 °C

Pressures
from 0,4 bar to 16 bar

Clamp connections*
from DN 20 to DN 32

* Further connection options:
Threaded connections, aseptic connections

Data sheet

SAFETY VALVES SERIES 4000

made of stainless steel, angle-type, with stainless steel spring

In the sector of hygienic applications or clean service applications, very high requirements are applied on optimal cleanability and dead space free design of plant components.

During the development stage 4000 exactly these principles were realized and for this resaon exist in a safety valve for the first time. By means of a conical diaphragm instead of a rubber bellows, the area in contact with the media is optimally separated from the spring housing. On all surfaces of the primary conical valve seal and the housing seals, the design principles have been fully adhered to. Consequently all surfaces are easy to clean. In order to be able to lift the seal from the seat an addtional pneumatic piston actuator and optional proximity switch, which indicates the open position of the safety valve, are available.

Temperatures
from -40 °C to +200 °C

Pressures
from 0,4 bar to 16 bar

Clamp connections*
from DN 20 to DN 100

* Further connection options:
Threaded connections, aseptic connections, flange connections

Data sheet

Type test approved safety valves angle-type

SAFETY VALVES SERIES 420

made of stainless steel, angle-type, with hygienic connection

These angle-type safety valves are available for the first time with TÜV and European component approval. This allows the use of tested and approved quality on the smallest pressure tanks and small steam boilers with neutral and non-neutral gas and liquid medias.

The cutting ring threaded connections available as an option make this valve quick and easy to install for use in small pipelines.

The areas of application are, for example, in medical plant engineering as well as areas of the foodstuffs, beverage, pharmaceutical and cosmetics industry. Moreover, all components are made of durable stainless steel.

Temperatures
from -40 °C to + 260 °C

Pressures
from 0,5 bar to 50 bar

Clamp connections*
from DN 8 to DN 10

* Further connection options:
Threaded connections, aseptic connections, flange connections

Data sheet

SAFETY VALVES SERIES 451

made of stainless steel, angle-type, with hygienic connection

Often a valve made of stainless steel is required, but the hygiene requirements, e.g. for cleanability, are lower than in the primary process.

This is where our valves of the 451 and 461 series are used. All components are still made of durable stainless steel.

Due to the various connection sizes available from DN15 to DN32 all connection sizes can be made use of.

In addition to the basic version, the various sealing versions and materials, back-pressure compensating bellows made of stainless steel and / or gastight cap offer special features in order to fulfill the highest safety requirements.

Temperatures
from -60 °C to +400 °C

Pressures
from 0,5 bar to 25 bar

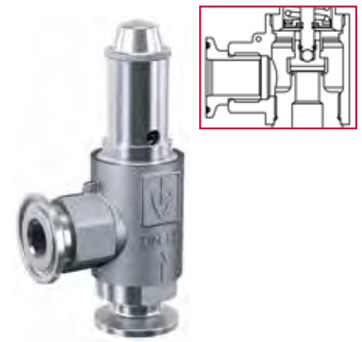
Clamp connections*
from DN 15 to DN 50

* Further connection options:
Threaded connections, aseptic connections, flange connections

Data sheet

SAFETY VALVES SERIES 461

made of stainless steel, angle-type, with hygienic connection



The consequential extension of the 451 valve series with smaller nominal diameters now allows in the case of smaller blow-off volumes an optimal and economical sizing of the safety valve.

The tried and tested variant diversity makes it possible that the valves can be used for a wide variety of media and states of matter.

The areas of application are, for example, in medical plant engineering as well as areas of the foodstuffs, beverage, pharmaceutical and cosmetics industry. Moreover, all components are made of durable stainless steel.

By means of the various connection sizes from DN8 to DN15 this series enlarges the existing range of the series 451.

Temperatures
from -60 °C to +225 °C

Pressures
from 0,5 bar to 70 bar

Clamp connections*
from DN 10 to DN 15

* Further connection options:
Threaded connections, aseptic connections, flange connections

Data sheet

Type test approved safety valves angle-type

SAFETY VALVES SERIES 6420

made of gunmetal, angle-type, with clamp connections

With the 6420 series, Goetze KG offers an all-round safety valve for numerous applications.

The inlet on the product side is made completely of stainless steel, as well as the parts inside that make contact with the product. This allows the 6420 series to be used, for example in the area of beverage processing or in the food industry.

Often a reduced hygienic standard is sufficient in the secondary area.

This valve is impressive due to its various versions, application possibilities as well as its easy handling. In addition, the safety valve offers numerous connection options, correct for every application. Consequently, they are not only available with clamp connections especially for hygienic applications, but also with classic threaded or flange connections.

Temperatures
from -50 °C to +205 °C

Pressures
from 0,5 bar to 16 bar

Clamp connections*
from DN 15 to DN 65

* Further connection options:
Threaded connections, aseptic connections

Data sheet

Type test approved atmospheric discharge safety valves

SAFETY VALVES SERIES 410

made of stainless steel, atmospheric discharge, with hygienic connection

Our smallest and most compact hygienic safety valve with huge blow-off capacities. The 410 series in sizes DN 8 to DN 25 is optimally suited for protecting small and large pressure vessels, made for example of stainless steel.

In addition, it is used in many areas with, for example, aggressive cleaning media, as well as in the secondary areas of the food, pharmaceutical and cosmetics industries.

The standard version is made completely of stainless steel and has a male connection, other connections such as flange or clamp are optionally possible on the inlet side as required.

Temperatures
from -60 °C to +225 °C

Pressures
from 0,2 bar to 50 bar

Clamp connections*
from DN 8 to DN 25

* Further connection options:
Threaded connections, aseptic connections, flange connections

Data sheet

SAFETY VALVES SERIES 412

made of stainless steel, atmospheric discharge, with hygienic connection

This high-performance safety valve made of stainless steel is absolutely unique in its class. Behind its slim, elegant exterior, it conceals the highest precision and performance. This valve can be ordered with a set pressure of up to 50 bar. It is suitable for air and gases that can be freely blown off into the environment.

Not only is the 412 series unique with its continuous and flat seal in the inlet area but also because of its wide range of connection sizes from DN15 to DN50. The series 412 is also being used as a bung valve in the fermentation processes.

During the fermentation process of beer or cider, bung valves with a an adjustable set pressure enable a constant bunging pressure by blowing-off the CO2, which is important for the quality of the beer.

Options such as K/M connection or mounting flange with or without glass are available.

Temperatures
from -60 °C to +225 °C

Pressures
from 0,2 bar to 50 bar

Clamp connections*
from DN 8 to DN 50

* Further connection options:
Threaded connections, aseptic connections, flange connections

Data sheet

Overflow and pressure control valves

OVERFLOW AND PRESSURE CONTROL VALVES SERIES 417

made of stainless steel, angle-type, with hygienic connection

The overflow and pressure control valves of series 417 and 418 are suitable for the protection of pumps. Furthermore, the valves are optimal for pressure relief and control of containers and tanks (e.g. CO2 overlay) and optimal for pressure relief of closed piping systems. This is because the escaping medium can be discharged or returned in a controlled manner.

The valves are made entirely of stainless steel and are also suitable for use in hygienic processes such as CIP or SIP cleaning. The use of stainless steel as a material makes the valves particularly resistant to corrosion and aggressive media.

Thanks to the closed and gas-tight design of the 417 series, the series covers an even wider range of applications. The advantage of the 418 overflow valve is above all the high operating pressure of up to 30 bar. Maximum ease of maintenance is ensured by a replaceable valve cartridge.

Due to a variety of possible seals, applications from -60 to +225 °C are possible. The valves can be conveniently adjusted or set during operation via the external adjustment. This allows optimum adaptation to the operating conditions of the system.

The valves can also be supplied with a fixed setting and lead-sealed at the factory. Overflow valves are not equipment parts with a safety function within the meaning of the EC Pressure Equipment Directive 97/23/EC and therefore do not have a type examination certificate.

Temperatures
from -60 °C to +225 °C

Pressures
from 0,2 bar to 20 bar

Clamp connections*
from DN 10 to DN 50

* Further connection options:
Threaded connections, aseptic connections, flange connections

Data sheet

OVERFLOW AND PRESSURE CONTROL VALVES SERIES 418

made of stainless steel, angle-type, with hygienic connection

Temperatures
from -60 °C to +225 °C

Pressures
from 0,2 bar to 30 bar

Clamp connections*
from DN 10 to DN 32

* Further connection options:
Threaded connections, aseptic connections, flange connections

Data sheet

OVERFLOW AND PRESSURE CONTROL VALVES SERIES 453

made of stainless steel, angle-type, with hygienic connection

These overflow and pressure control valves have been developed for complex applications, e.g. with large overflow quantities, viscous media, occurring back pressures.

Due to the backpressure-compensating stainless steel bellows, a backpressure acting on the outlet side does not influence the setting of the valve. Made entirely of stainless steel, the valves are optimally suited for CIP or SIP cleaning.

The pressure springs designed for the setting ranges, with the technically sophisticated design of the functional parts in the flow area and the housing, result in flow rates with proportional control behaviour.

Overflow valves are not equipment parts with a safety function within the meaning of the EC Pressure Equipment Directive 97/23/EC and therefore do not have a type examination certificate.

Temperatures
from -60 °C to +225 °C

Pressures
from 0,5 bar to 25 bar

Clamp connections*
from DN 15 to DN 50

* Further connection options:
Threaded connections, aseptic connections, flange connections

Data sheet

Vacuum and air valves

VENT VALVES TYPE 1940/45

made of stainless steel,
with hygienic connection

The valves of the series 1940 and 1945 are used for vacuum protection of containers or systems.

This prevents, for example, the formation of a vacuum and the resulting damage to the pipeline or a tank. This protection against the formation of a vacuum is mainly used when emptying containers, in tanks, pipelines, heat exchangers and containers in steam systems.

Further applications can be found in systems where the pressure should not drop below atmospheric pressure.

Made entirely of stainless steel, the valves are optimally suited for CIP or SIP cleaning.

Temperatures
from -60 °C to +225 °C

Pressures
from -6 mbar to - 800 mbar

Clamp connections*
from DN 15 to DN 25

* Further connection options:
Threaded connections,
aseptic connections,
flange connections

Data sheet Data sheet

Pressure reducing valves

PRESSURE REDUCING VALVES SERIES 9040

made of stainless steel
with threaded connections

The 9040 series is made of stainless steel.

The stainless steel pressure reducers of the 9040 series are used in different systems and lines in the food, cosmetics and beverage industry. The 9040 series is the right choice particularly in the case of dosing devices, water treatment systems, water supply to steam generators and CIP systems or also in CIP rinsing systems.

The pressure reducer also has an easy-to-clean filter screen with a clear view filter cup to protect the downstream system, the high-performance plastic valve insert as well as a the setting scale visible from 2 different angles. A filter cup made of stainless steel grade A4 is also available as an alternative for hot water and PN25 applications.

Temperatures
from +5 °C to +85 °C

Inlet pressure up to 25 bar,
Outlet pressure adjustable
from 0,5 bar to 12 bar

Threaded connections*
from ½“ to 2“

* Further connection options:
Clamp connections, aseptic connections,
flange connections

Data sheet

PRESSURE REDUCING VALVES SERIES 481

made of stainless steel
with threaded connections

The robust pressure reducing valves of the 481 series made completely of metal with threaded connections are particularly suitable for harsh operating conditions in the industrial sector for a wide range of media, also aggressive media, and for fluctuating ambient temperatures.

In addition to the standard setting range of 1 to 8 bar, the additional outlet pressure ranges of 0.5 to 2 bar and 5 to 15 bar cover a wide range of applications.

Other connections are available upon request.

Temperatures
from -20 °C to +120 °C

Inlet pressure up to 40 bar,
Outlet pressure adjustable
from 0,5 bar to 15 bar

Threaded connections*
from ½“ to 2“

* Further connection options:
Clamp connections, aseptic connections,
flange connections

Data sheet

PRESSURE REDUCING VALVES SERIES 482

made of stainless steel and
gunmetal with flange connections

Flange connections are frequently required for valves. Just for this purpose, the 482 series is available in the nominal width range from DN15 to DN100.

A high-pressure and low-pressure version are also available for sizes DN20 to DN50.

On request, we can fit stainless steel pressure gauges for the various pressure ranges to the pressure reducing valves made of stainless steel.

For maximum maintenance friendliness, the replaceable functional cartridge with dirt trap strainer is also available for the flange versions.

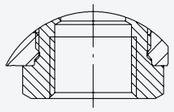
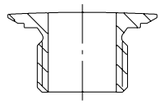
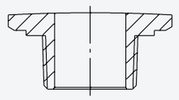
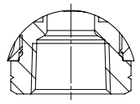
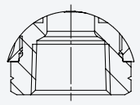
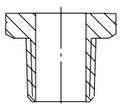
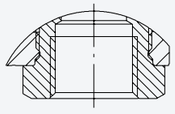
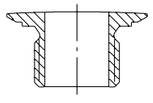
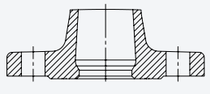
Temperatures
from -20 °C to +120 °C

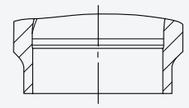
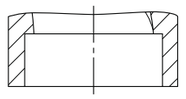
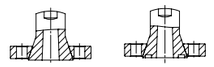
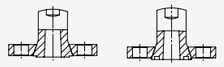
Inlet pressure up to 40 bar,
Outlet pressure adjustable
from 0,5 bar to 15 bar

Flange connections
from DN 15 to DN 100

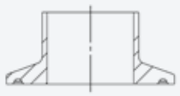
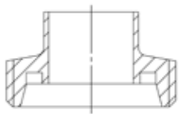
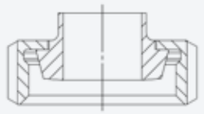
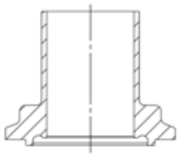
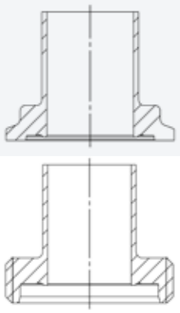
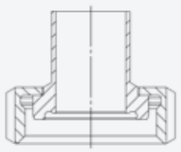
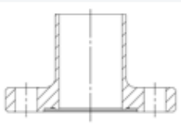
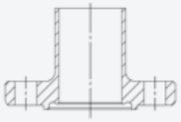
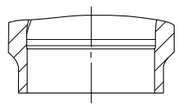
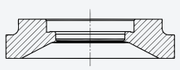
Data sheet

CONNECTION POSSIBILITIES

Connection type	Drawing	Description
f		Whitworth male threaded pipe connection cylindrical; seal not made on thread BSP-P according to DIN ISO 228
m		Whitworth male threaded pipe connection cylindrical; seal not made on thread BSP-P according to DIN ISO 228
BSP-Tm		Whitworth male threaded pipe connection tapered; seal made on thread male connection BSP-T according to DIN EN 10226
NPTf		US standard tapered pipe thread NPT female threaded pipe connection NPT according to ANSI / ASME B 1.20.1 seal made on thread
NPTFf		US tapered pipe thread for dry closure NPTF female threaded pipe connection NPTF according to ANSI / ASME B1.20.3 seal made on thread
NPTm		US standard tapered pipe thread NPT male threaded pipe connection NPT according to ANSI / ASME B 1.20.1 seal made on thread
METf		Metric ISO female connection according to DIN 13 seal not made on thread
METm		Metric ISO male connection according to DIN 13 seal not made on thread
FL		Cast flange connection according to DIN EN 1092

Connection type	Drawing	Description
SE		Welding end SE1 for pipes according to DIN EN ISO 1127 SE2 for pipes according to ASTM A312 S10 SE3 for pipes according to ASTM A312 S40 SE4 for pipes according to DIN 11850 row 2; DIN 11866-A; DIN EN 10357 series A SE5 for pipes according to DIN EN ISO 1127; DIN 11866-B; DIN EN 10357 series C SE6 for pipes according to BS 4825-1; DIN 11866-C
SM		Welding socket SM1 for pipes according to DIN EN ISO 1127 SM2 for pipes according toh ASTM A312 S10 SM3 for pipes according to ASTM A312 S40
LM		Soldering socket LM1 for pipes according to DIN EN ISO 1127 LM2 for pipes according to ASTM A312 S10 LM3 for pipes according to ASTM A312 S40 LM4 for pipes according to DIN EN 12449
FLDxA, **FLDxB**	 FLDxA FLDxB	Loose flange connection according to DIN EN 1092 up to max. PN 100 x = Pressure rating A = Without sealing groove B = With sealing groove
FLAxA, **FLAxB**	 FLAxA FLAxB	Loose flange connection according to ASME B 16.5 up to max. 600 lbs x = Pressure rating A = Without sealing groove B = With sealing groove

HYGIENIC AND ASEPTIC CONNECTIONS

Connection type	Drawing	Description	Standard		Pipe standard
KLSDIN **KLSISO** **KLSASME** **KLSIX**		Clamp connection Clamp connection Clamp connection Clamp connection	DIN 32676-A DIN 32676-B DIN 32676-C ISO 2852		Pipe standard DIN 11850-2 / 11866-A Pipe standard DIN EN ISO 1127 / DIN 11866-B Pipe standard BS 4825-1 / DIN 11866-C Pipe standard ISO 2037
GS1		Threaded ferrule connection	DIN 11851-SC		Pipe standard DIN 11850-2 / 11866-A
KS1		Taper nipple with groove cap nut	DIN 11851-SD		Pipe standard DIN 11850-2 / 11866-A
A-NKS1 **A-NKS2** **A-NKS3**		Aseptic groove clamp connection Aseptic groove clamp connection Aseptic groove clamp connection	DIN 11864-3-NKS DIN 11864-3-NKS DIN 11864-3-NKS		Pipe standard DIN 11850-2 / DIN 11866-A Pipe standard DIN EN ISO 1127 / DIN 11866-B Pipe standard BS 4825-1 / DIN 11866-C
A-BKS1 **A-BKS2** **A-BKS3**		Aseptic collar clamp connection Aseptic collar clamp connection Aseptic collar clamp connection	DIN 11864-3-BKS DIN 11864-3-BKS DIN 11864-3-BKS		Pipe standard DIN 11850-2 / DIN 11866-A Pipe standard DIN EN ISO 1127 / DIN 11866-B Pipe standard BS 4825-1 / DIN 11866-C
A-GS1 **A-GS2** **A-GS3**		Aseptic threaded ferrule connection Aseptic threaded ferrule connection Aseptic threaded ferrule connection	DIN 11864-1-GS DIN 11864-1-GS DIN 11864-1-GS		Pipe standard DIN 11850-2 / DIN 11866-A Pipe standard DIN EN ISO 1127 / DIN 11866-B Pipe standard BS 4825-1 / DIN 11866-C
A-KS1 **A-KS2** **A-KS3**		Aseptic collar connection with groove cap nut Aseptic collar connection with groove cap nut Aseptic collar connection with groove cap nut	DIN 11864-1-BS DIN 11864-1-BS DIN 11864-1-BS		Pipe standard DIN 11850-2 / DIN 11866-A Pipe standard DIN EN ISO 1127 / DIN 11866-B Pipe standard BS 4825-1 / DIN 11866-C
A-BF1 **A-BF2** **A-BF3**		Aseptic flanged connection Aseptic flanged connection Aseptic flanged connection	DIN 11864-2-BF DIN 11864-2-BF DIN 11864-2-BF		Pipe standard DIN 11850-2 / DIN 11866-A Pipe standard DIN EN ISO 1127 / DIN 11866-B Pipe standard BS 4825-1 / DIN 11866-C
A-NF1 **A-NF2** **A-NF3**		Aseptic grooved flanged connection Aseptic grooved flanged connection Aseptic grooved flanged connection	DIN 11864-2-NF DIN 11864-2-NF DIN 11864-2-NF		Pipe standard DIN 11850-2 / DIN 11866-A Pipe standard DIN EN ISO 1127 / DIN 11866-B Pipe standard BS 4825-1 / DIN 11866-C
SE4 **SE5** **SE6**		Butt weld Butt weld Butt weld			Pipe standard DIN 11850-2 / DIN 11866-A Pipe standard DIN EN ISO 1127 / DIN 11866-B Pipe standard BS 4825-1 / DIN 11866-C
VC		Container flange at valve inlet			

Other connection types such as flange connection according to DIN EN 1092 / ASME B16.5, APV plain / grooved flanges, NA Connect, SMS threaded / tapered connection pieces are available on request.

SAFETY & HYGIENE – GO HAND IN HAND

Systems for the food and pharmceutical industry need to comply to very strict requirements regarding their cleanability. In order to meet the highest demands here, Goetze gave top priority to precisely these requirements during development of this safety valve series.

The result of this is our Hygienic Safety valve series 4000, which is fully forged stainless steel with its distinctive slim and compact design. However, one thing distinguishes the 4000 valve series from previous Goetze safety valves. The valve sets new standards when it comes to cleaning: With a very smooth surface of 0,75 µm (optional Ra max. 0,375 µm) all residues can be removed effortlessly.

In order to ensure a constant hygienic status during the entire service life of the valve, usually cleaning and if necessary, disinfection must be carried out at regular intervals.

The Goetze valve can be disassembled and cleaned in just a few simple steps. This can be done without either removal of the valve from the plant nor destruction of the setting seal. Cleaning and Sterilisation in place (CIP and SIP) is very easy. It is also possible to partially disassemble the valve for cleaning. Step one: Loosen the valve clamp between the body and the spring housing in the pressureless state using common tools.

This is easily possible without any effort. Now the complete spring housing can be removed from the body.

Now, all surfaces that were in contact with the medium can be professionally cleaned and sanitized.

After this, the valve is reassembled in reverse order – the valve is ready for use again without the need to reset the pressure. Valuable time is not lost due to downtime and the duration of the cleaning process is kept to a minimum.

Although cleanability has a high priority, the most important characteristic is safety. The valve is protected against unauthorised adjustment by a visible setting-seal disc pressed into the cap Therefore, there is no need for a conventional sealing wire, which is not easy to clean. This allows simple assembly or disassembly with common tools without changing or affecting the set pressure of the valve. This is a unique feature of our safety valves used in such applications.

ASSEMBLY / MAINTENANCE

The cleaning process

Hygiene is an omnipresent topic, especially in the food processing industry. Particularly high demands are placed on the surface in contact with the media. Therefore, a dead space-free design of components is essential.

ADVANTAGES

- Maintenance without breaking the seal
- Simple and quick replacement of sealing elements
- Maintenance in the installed position is fuss-free

Watch our cleaning and disassembling video.

HOW TO HANDLE PRESSURE

The competence of Goetze KG Armaturen has been in demand for more than 70 years. Our wealth of experience is as broad and varied as our areas of application for our high-performance fittings.

The Goetze product range

500.000 VALVES PER YEAR
out of a wide product portfolio – „Made in Germany“

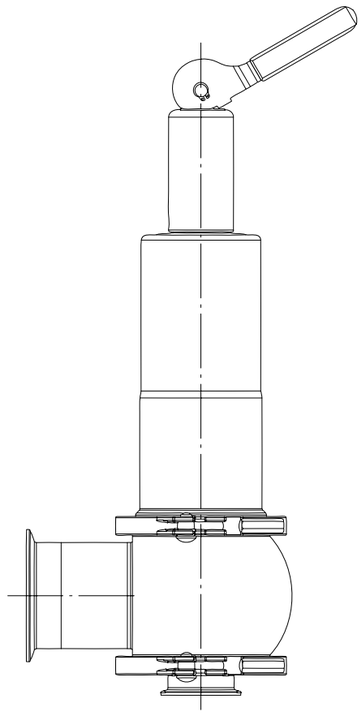
Our locations
GERMANY, LUDWIGSBURG
CHINA, BRAZIL, USA | OWN DISTRIBUTORS

-270 °C – +400 °C
uncompromising performance

0,2 BAR – 1500 BAR
impressive pressure range

Goetze’s concentrated expertise

We support our customers with our many years of experience in this sector at the highest level. Thanks to the expertise of our qualified development team, we are able to continuously develop new and innovative products and adapt to individual customer requirements. Using precise manual work and precision manufacturing, we are able to advance the ideas and product innovations of our customers – customer-focused, solution-oriented, flexible and always in German brand quality.



THE GOETZE KG ARMATUREN

Individuality for more safety

The competence of Goetze KG Armaturen has been in demand for 70 years. Our wealth of experience is as broad and varied as our areas of application for our high-performance fittings. Our well thought-out product portfolio covers every industrial application: Liquids of all kinds, gases, technical vapours and steam. Goetze valves are used with temperatures ranging from -270 °C up to +400 °C. The greatest possible safety is a priority.

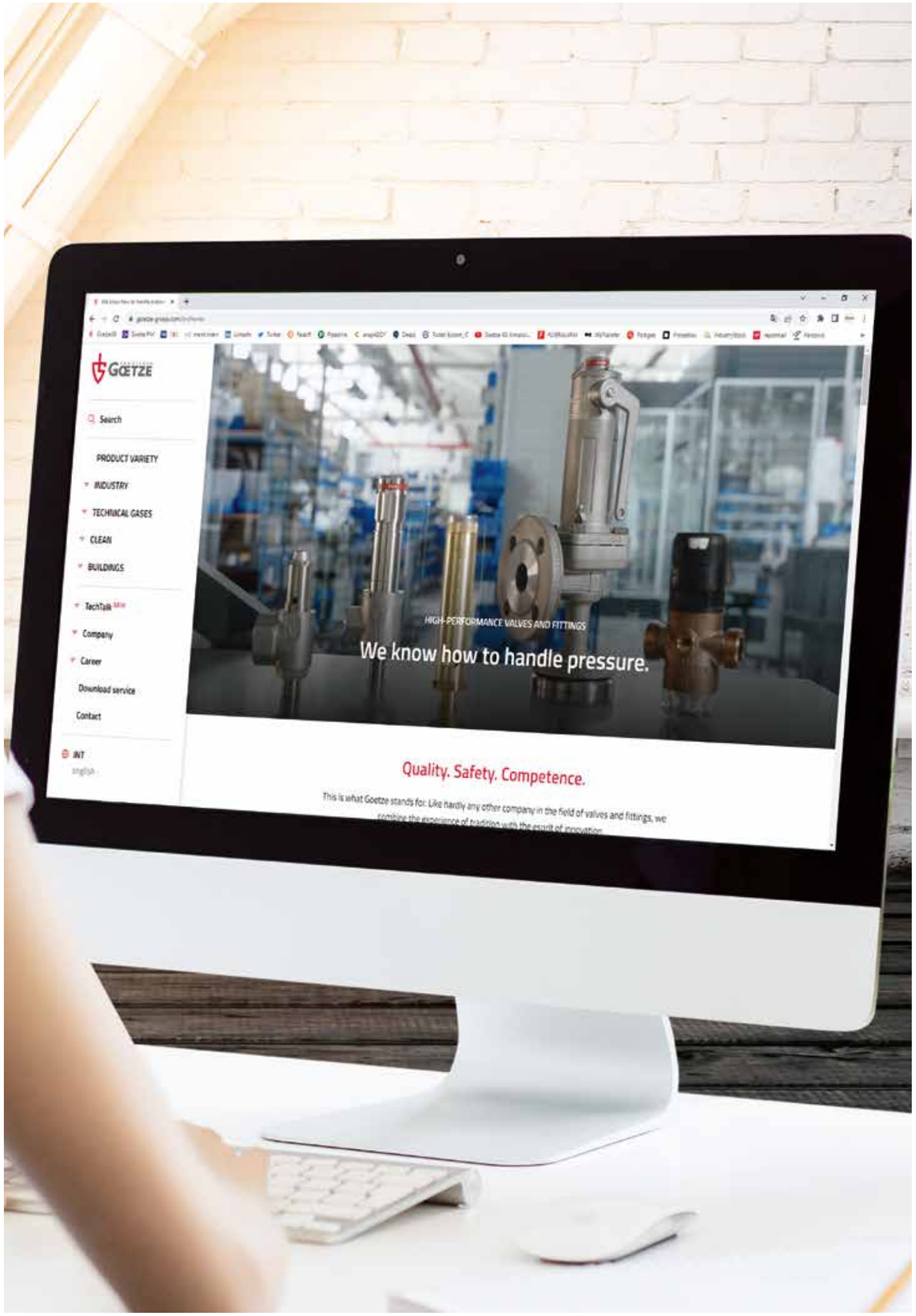
PROFESSIONAL AND COMPETENT ADVICE

At any time, you can reach a competent contact partner as part of our in-house team at Goetze. Whether it is for the product selection, the configuration of the right valve, urgent requests, whether per telephone call or per mail, there is a personal multilingual consultant at your disposal. With over 500.000 valves per year „Made in Germany“, we are your competent partner for all matters relating to the handling of pressure.

Technical consulting is not only the focus of our in-house team. We provide support for our customers with the necessary information and instructions throughout the entire life cycle of the valve thereby assisting those persons who have to work with the fittings every day. Our field representatives are tasked with providing customers with the best possible consultation service at the customer’s facility and supporting them in all questions concerning our products.

GLOBAL TRADE

Goetze products – available worldwide, directly and quickly. No matter whether through Goetze or our trading partners. Our sales subsidiaries and local dealers will always provide the advice you need to find the product that suits you best. Discover our dealer network and find your local dealer.



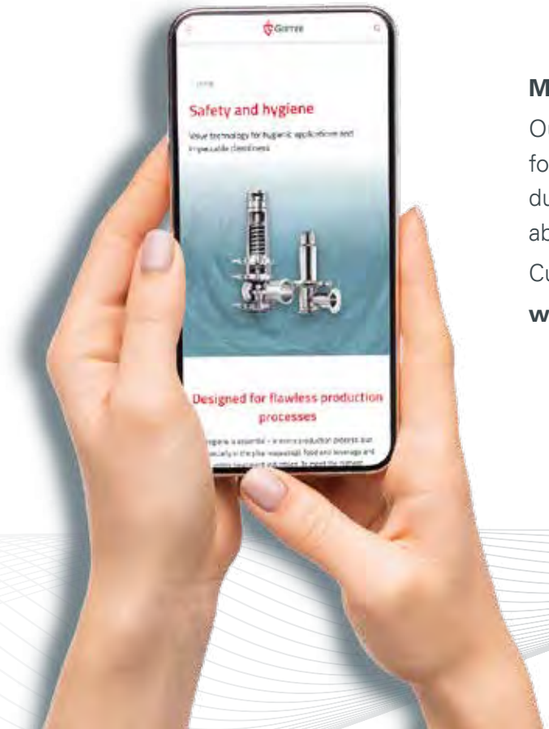
INTERNET SERVICE OF GOETZE

DESIGN AND CALCULATION OF SAFETY VALVES

With the help of a design programme and with the alpha-w value as well as the narrowest flow diameter of our safety valves, the valve suitable for discharging the required volume can be determined according to AD regulation A2-2000, in accordance with the international and European standard DIN EN ISO 4126, API 520 and ASME BPVC-VIII. Our experts offer you competent advice on the optimal and economical sizing of your valve.

3D MODELS AND TENDER DOCUMENTS

We provide free-of-charge our 3D models in various and common formats. On our website you will find them under the section „Service/Download“.



MOBILE WEBSITE

Our website is also available in a version optimised for smart phones. As usual, you may find your products simply and easily – also when you are out and about.

Curious? Just take a look!

www.goetze-group.com

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