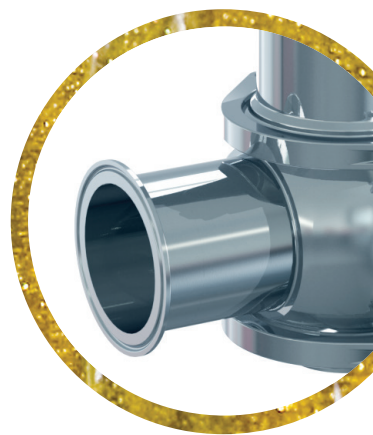




FOOD BEVERAGE PHARMA



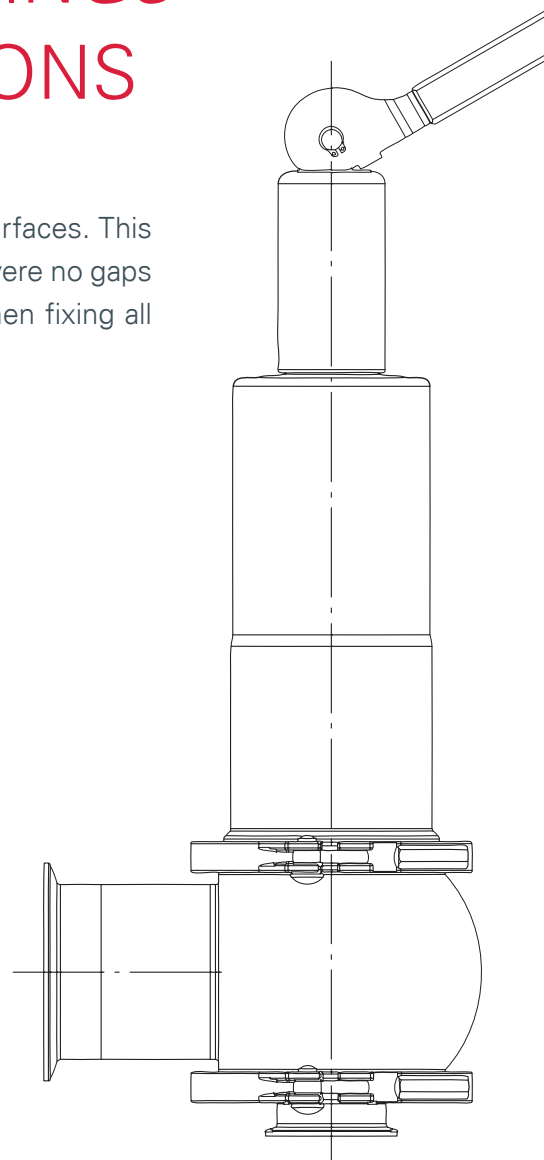
Customized **solutions**
for your business



SAFETY VALVES AND FITTINGS FOR HYGIENIC APPLICATIONS

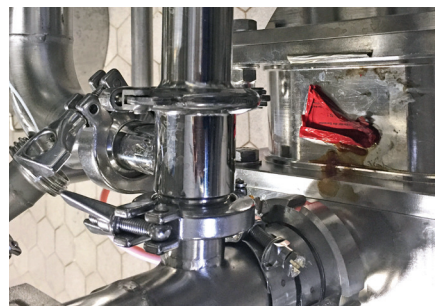
These valves are characterised by the particularly smooth, fault-free surfaces. This makes them perfect for cleaning. Our engineers also made sure there were no gaps when constructing these valves: whether it be at the valve inlet or when fixing all elastomere parts.

Goetze is also proving its skills in the pharmaceutical industry. Our continuously expanding product range caters for this ever growing area of industry. However not only in this field of industry is Goetze also providing safety with its valves, but also in others such as the food industry. Our usual good quality and wide range of certifications guarantee an easy application even under demanding cleaning- and environmental conditions.



FIELDS OF APPLICATIONS

- Food industry
- Breweries industry
- Beverages industry
- Dairy plants
- Pharmaceutical industry
- Medical technology
- Clean service applications
- Cosmetics Industry



TECHNICAL DETAILS

Materials



Media



Temperatures

from -60°C to +400 °C

Pressures

from 0,4 bar to 25 bar

Clamp connections

from DN 10 to DN 100



SERIES 4000

Safety valve

made of stainless steel, angle-type



In the sector of hygienic applications or clean service applications, very high requirements are applied on optimal cleanability and dead space free construction of equipment parts. At the development of the new safety valve series 4000, ranging from DN 25 to DN 100, these exact principles have been fulfilled and therefore exist in a safety valve for the first time. By using a conical diaphragm instead of a rubber flange, the area affected by the Media is optimally separated from the spring housing. On all surfaces, the primary conical valve seal and the housing seals, these principles have been fully implemented. Thus all surfaces are easy to clean. For the lifting of the valves, additionally there is a pneumatic piston actuator and optionally a proximity switch for the display of the valve opening available. In this totality, the requirements of the EHEDG and FDA in the sector of safety valves for hygienic or clean service applications are realized in a unique way.

Temperatures
from -40°C to +200°C

Pressures
from 0,4 bar to 16 bar

Clamp connections
from DN 25 to DN 100

+ ADVANTAGES OF THE SERIES

Smooth and faultless surface finish optimized for cleaning process

Minimal dead space in inlet area and no gaps in the valve

Exposed and rinsed o-ring seals

Shape of valve body avoids forming of puddles in the valve after it has opened

Suitable for CIP/SIP due to pneumatic lifting device

Gap-free installation of seals in contact with the medium

Surface roughness standard Ra < 0,8 µm (Internal product wetted parts)

Ra < 1,6 µm (outside, not product wetted parts)

Moulded diaphragm to divide the product chamber from the spring housing

Watch our cleaning and disassembling video



SAFETY & HYGIENE – GO HAND IN HAND



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. In order to meet the highest demands here as well, Goetze gave top priority to precisely these requirements when developing a safety valve.

The result is our Hygiene Safety Valve 4000. Made of fully forged stainless steel with the familiar slim and compact design. However, one thing distinguishes the 4000 valve from the previous Goetze safety valves. The valve sets new standards when it comes to cleaning: With a very smooth surface of $Ra \leq 0.8 \mu m$ all residues can be removed perfectly.

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

The Goetze valve can be disassembled and cleaned in just a few simple steps. No removal is necessary and cleaning and sterilisation in the installed condition (CIP and SIP cleaning) is very easy. In addition, it is also possible to partially disassemble the valve for cleaning. To do this, first loosen the valve clamp between the housing and the spring bonnet in the depressurised state using standard tools.

This is possible without any effort and with ease. Now the complete valve bonnet can be removed from the housing.

All surfaces that came into contact with the medium can now be professionally cleaned and disinfected.

Finally, the valve is reassembled in reverse order – the valve is ready for use again simply and quickly without having to reset the set pressure. No valuable time is lost due to downtime and cleaning times are minimal.

However, despite the possibility of cleaning, safety comes first. The valve is secured against unauthorised adjustment by a visible sealing disc pressed into the cap. This does away with conventional seal wire, which is not easy to clean, and allows simple assembly or disassembly with standard tools without changing or affecting the set pressure of the valve. This is a unique feature of safety valves used for such applications.

SERIES 400

+ ADVANTAGES OF THE SERIES

Smooth and faultless surface finish optimized for cleaning process

Minimal dead space in inlet area and no gaps in the valve

Exposed and rinsed o-ring seals

Shape of valve body avoids forming of puddles in the valve after it has opened

Possible to carry-out CIP/SIP by lifting the disc from the seat

Gap-free installation of seals

Surface roughness standard Ra < 0,8 µm

Option: mechanically polished and/or electro-polished

Safety valve

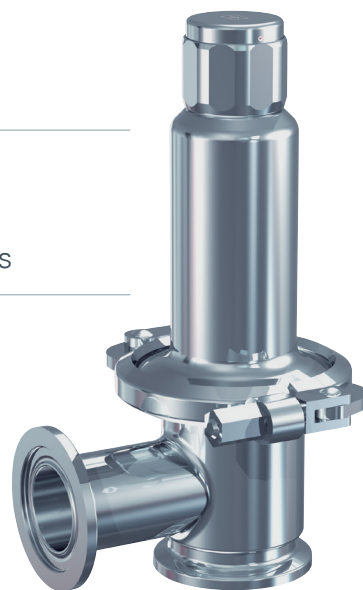
made of stainless steel, angle-type with clamp connections and food connections

The valves in the Goetze Hygienic series are constructed in compliance with the construction features of hygienic design.

This includes smooth, fault-free and optimal surfaces for cleaning, minimum dead space, no gaps and lots of other details.


Difficult to clean components are protected against impurities with stainless steel bellows. The fulfilment of these construction features are proven and confirmed by tests and certificates from the DGUV Committee for Foods and Luxury Items 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

SERIES 400.5

Overflow & Pressure Control Valve

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

Just like the hygienic safety valves, these overflow/control valves are also implemented in line with the construction features of hygienic design and confirmed in tests by the DGUV Committee for Foods and Luxury Items.


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

The valves are particularly used to control processes and systems in the food and pharmaceutical industries.



 **Temperatures**
from -40 °C to +200 °C

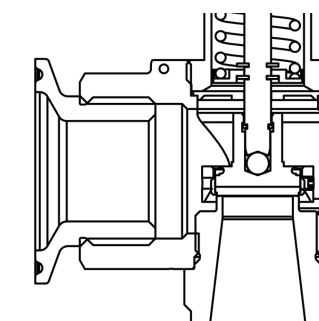
 **Pressures**
from 0,4 bar to 16 bar

 **Clamp connections**
from DN 20 to DN 32

SERIES 451

Safety valve

made of stainless steel, angle-type with clamp connections



More connection possibilities on demand.

+ ADVANTAGES OF THE SERIES

Various connection types

Flat seal up to 25 bar (S18)

Surface Ra < 0,4 µm


Good blow-off capacity


The benefits and applications of this series made of high-alloyed stainless steel begin, where versions made of gunmetal are at their limits.

The flexibility of the various versions offer the optimal configuration for every application.

In addition to the basic version the numerous sealing possibilities and materials, back-pressure compensating metal bellows and/or a gastight cap offer the necessary optional extras required 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

SERIES 6420 / SERIES 6450

Safety valve

made of gunmetal, angle-type,
with clamp connections

With the new 6420 and 6450 series, Goetze KG now offers an all-round safety valve for numerous applications. Particularly in the field of steam applications, the safety valves made of gunmetal offer numerous application possibilities such as the protection of pressure vessels, steam boilers and steam systems.

Both series offer optimum protection in the industrial sector at temperatures from -50°C to +205°C. For example, they protect systems in mechanical engineering, cooling and refrigeration plants as well as industrial boiler systems with pressures from 0.5 to 16 bar.

The valves impress with their wide range of designs, possible applications and easy handling. The use is simple and uncomplicated - basically nothing can be done wrong. This is possible thanks to the uncomplicated mounting of the valves, as the internal parts can be easily replaced and can therefore be adapted to numerous applications.

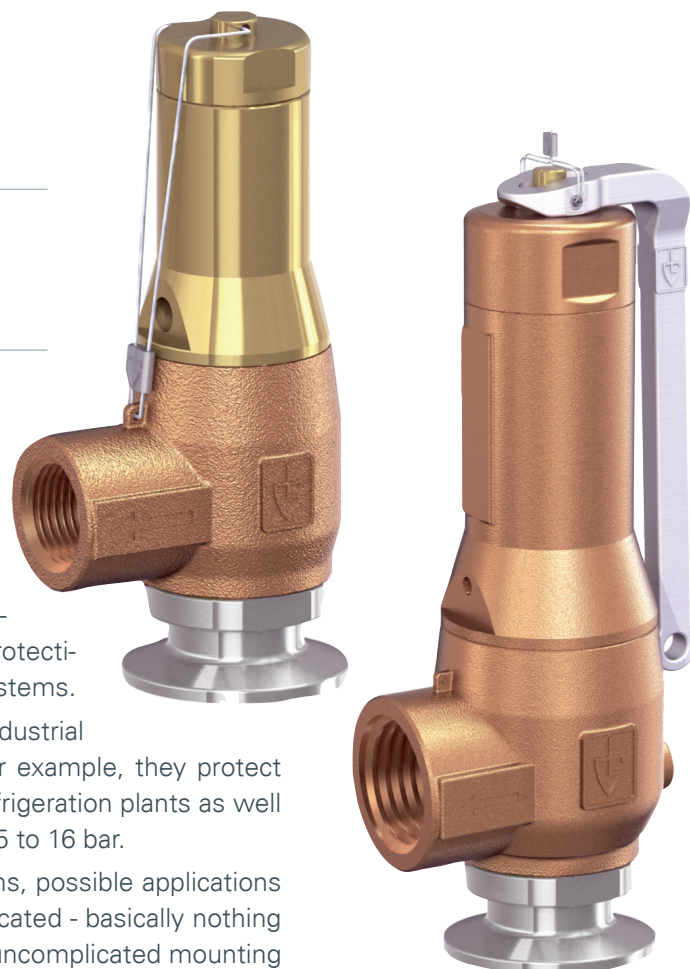
In addition, the safety valves offer numerous connection options, professionally designed for every application.

For example, they are available with clamping connections especially for the pharmaceutical, chemical and food industries, but are also available 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



⊕ ADVANTAGES OF THE SERIES

Various connection types

Surface Ra < 0,4 µm

Flat seal made of PTFE

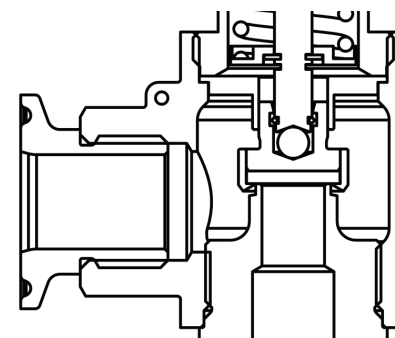
Moulded diaphragm as secondary seal

Good blow-off capacity

SERIES 461

Safety valve

made of stainless steel, angle-type
with clamp connections



More connection possibilities
on demand.




The consequential expansion of the valve series 451 with smaller nominal diameters now allows the best and therefore most efficient design of safety valves with smaller discharge volumes.

The proven versatility in different variations leads to use for a variety of media with different aggregate conditions.

The possibilities for use are in medical process equipment construction and in the food, beverage, pharmaceutical and cosmetics industries in secondary areas.

 **Temperatures**
from -60°C to +225°C

 **Pressures**
from 0,5 bar to 25 bar

 **Clamp connections**
from DN 10 to DN 15

⊕ ADVANTAGES OF THE SERIES

Various connection types

Flat seal up to 25 bar

Surface Ra < 0,4 µm

Good blow-off capacity

THE GOETZE KG

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 family of products 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 and the greatest possible safety is a priority.

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 400.000 valves per year „Made in Germany;“ we are your competent partner for all matters relating to the handling of pressure.



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