

WATER & BUILDINGS



3/8" - 2"



DN 15 - DN 125

THE PRESSURE REDUCING VALVE SPECIALIST

Safety valves and fittings for water applications

WHAT SETS GOETZE AND THEIR BUILDING TECHNOLOGY PRODUCTS APART



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.



AVAILABILITY

We offer reliable availability of our standard products for the building technology sector. Products with standard settings and specifications can be shipped from the factory within 3 - 5 working days. This ensures that you receive your order reliably and on time.



RELIABLE COMPETENCE

Technical consulting is not the only focus of our in-house team. We provide support for our customers throughout the entire life cycle of the valve and assist those persons who have to work with the fittings every day by providing them with the necessary information and instructions. It is the task of our field representatives to provide our customers with the very best technical advice at the customer's premises to support them in all aspects related to our products.



ONLINE SERVICES

BIM data, 3D models or product navigator – Goetze offers various services online, so you can ideally integrate the products into your process already at the planning stage. In our online portal, you can download single data sets for individual nominal widths or an exclusive product range file for the series 9000, for example.



EASY INSTALLATION AND MAINTENANCE

Goetze building technology products are extremely easy to install. Thanks to standardised threaded or flanged connections, they can be installed in all conventional lines. The pressure reducing valves can be maintained and the safety valves relieved effortlessly in an installed position. New features, such as the transparent filter cup on the 9000, make it easy to detect the degree of soiling and thus determine any maintenance necessary required.

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 applications for our high-performance fittings.

Our products for building technology

CONVENIENT & ENVIRONMENTALLY-CONSCIOUS SAFETY

from a diverse product range – „Made in Germany“

YEARS OF EXPERIENCE

since being founded in 1949

UNCOMPROMISING PERFORMANCE

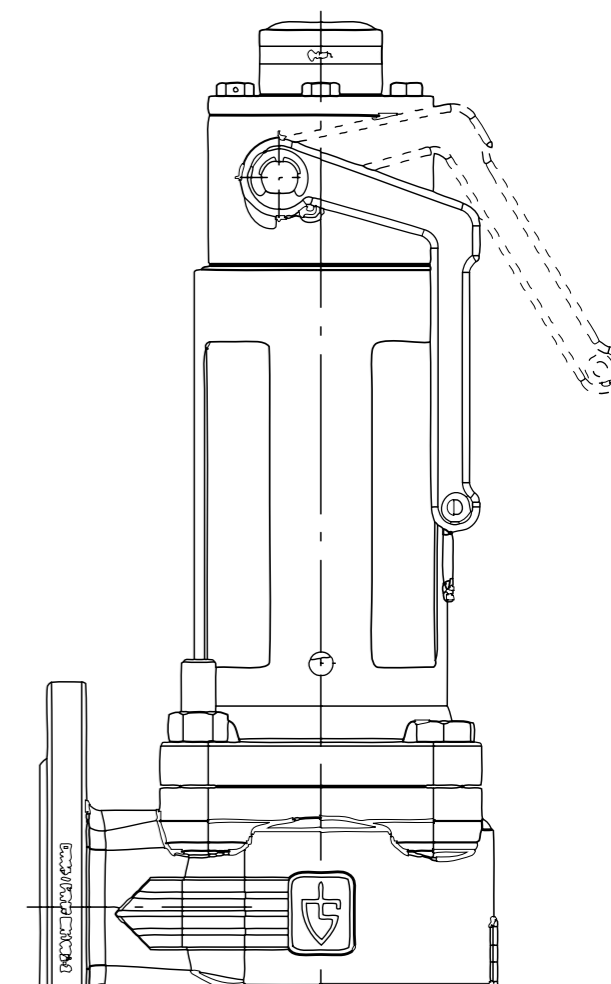
in the areas of water supply, heating, cooling, district heating and solar plants

0,5 BAR – 40 BAR

extensive pressure range, both for inlet pressure and outlet pressure

Goetze's comprehensive expertise

We support our customers with our many years of experience in this sector at the highest professional level. Thanks to the expertise of our qualified development team, we are able to continuously develop new and innovative products and are able to adapt these to individual customer requirements. Making use of skilled manual labour and precise manufacturing methods, we are able to realize the ideas and product innovations of our customers – customer-focused, solution-oriented, flexible and always in top branded quality „Made in Germany“.



BUILDING TECHNOLOGY BY GOETZE

Tradition & innovation hand-in-hand

Driving new innovations and upholding tradition is never a contradiction in terms at Goetze KG. Since its founding in 1949, the fittings factory has manufactured heavy-duty gunmetal products for protecting plants using air, water and heating systems against overpressure or for reducing the inlet pressure to a required level. Gunmetal still plays a crucial role in products from Goetze KG – and is continuously optimised to ensure that market demands are ideally met. The development of the new pressure reducing valve, for example, focused on ensuring that the gunmetal used is environmentally compatible and compliant with potable water requirements. For this reason, the material used is lead-free to prevent lead from entering the recycling loop and therefore also fulfils requirements such as RoHS. For more than 70 years, the supply of valves for building technology applications has been a core area of Goetze KG's business. In addition to the building technology sector, under the leadership of Detlef Weimann,

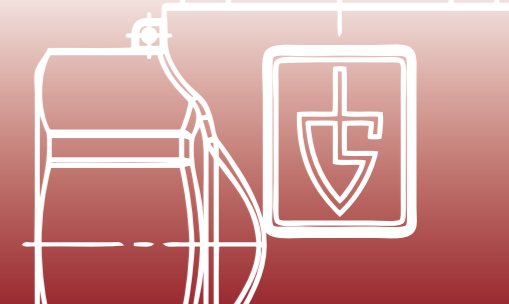
the industrial valve business has been constantly developed and new solutions for customers and their plants have been found. In 2015, the product range was expanded to include safety fittings for cryogenic applications. Our aim is to perfectly fulfill customer requirements at all times. Despite our expanded business sectors, building technology is still one of our most important branches. No matter, whether valves for heating applications, pressure reducing valves, safety valves for solar applications or the safeguarding of fire extinguishing systems:



Goetze products can be found in many buildings today – from multi-storey buildings to single-family houses. Your safety is our top priority in every situation. Experience Goetze quality for yourself in our products and technical advice.



- **1949**
 Founding Gerhard Götze
- **1961**
 Move to the Robert-Mayer-Straße
- **1988-2002**
 Goetze under the direction of Rolf Götze
- **2002**
 D. Weimann acquires the general partner's shares and joins company as managing director
- **2006-2009**
 Modernization of manufacturing site
- **2010-2012**
 Building extension: in-house casino, training rooms
- **2015-2016**
 Founding of the sales subsidiaries in China and Russia
- **2019**
 70th anniversary and founding of the sales subsidiary in Brazil
- **2020**
 New Goetze Water Controls product line



TECHNICAL BASICS

Materials

STAINLESS STEEL



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

GUNMETAL



- robust and of high quality
- wide range of applications
- also available in a lead-free design

SPHEROIDAL GRAPHITE CAST IRON



- robust material
- cost-effective material for standard applications

BRASS



- good price/performance ratio
- cost-effective material for standard applications

Media

LIQUIDS



- Temperatures:**
-270°C to +400°C
- Pump protection
 - Pressure boosters (water-side)
 - Sprinkler systems
 - Cooling circuits

AIR, GASES AND VAPOURS



- Temperatures:**
-270°C to +400°C
- Compressors
 - Pressure vessels
 - Pressure boosters (air-side)
 - Silo container

STEAM



- Temperatures:**
+120°C to +400°C
- Steam
 - Steam plants
 - Sterilizers
 - Autoclaves
 - Boilers

HOT WATER



- Temperatures:**
up to +120°C
- Heating systems
 - Intrinsically safe solar plants
 - Heating, ventilation
 - Co-generation plants (CHP)

POTABLE WATER COLD



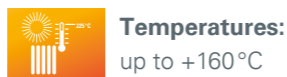
- Temperatures:**
up to +40°C
- Domestic water supply
 - Machines/systems with connection to potable water line
 - Water utilities

POTABLE WATER HOT



- Temperatures:**
up to +85°C / +95°C
- Central potable water heater
 - Process water heater
 - Potable water tank

SOLAR PLANTS



- Temperatures:**
up to +160°C
- Steam
 - Steam plants
 - Solar plants

Connections

Threaded connections
3/8" to 2"
3/8" - 2"

Flange connections
DN 15 to DN 100
DN 15 - DN 100

OUR CERTIFICATES

We rely on quality – nationally and internationally

PROOF OF THE SAFETY AND RELIABILITY WE OFFER FOR THE BUILDING TECHNOLOGY

CE Certification according to the European Pressure Equipment Directive is mandatory for many products and markets. Additional certificates are however proof of our individual quality, such as: TÜV, DVGW, WRAS, ACS, EAC, SINTEF. Last but not least, DIN ISO 9001 stands for the internal quality management process, with its comprehensive functionality and performance assessment. The particularly strict regulations of the national rules guarantee the highest possible degree of safety – especially when it comes to the reliability of your plant.

GENERAL TYPE TEST APPROVALS

- EUROPEAN PED
- NATIONAL TYPE TEST (TÜV)
- EC-TYPE TEST
- TYPE APPROVAL (UK)
- TR ZU 032/2013 (RU)
- MANUFACTURE LICENSE (CHINA) TSG ZF001-2006

APPLICATIONS: POTABLE WATER AND BUILDING TECHNOLOGY

- TYPE APPROVAL (DE)
- TYPE APPROVAL (FR)
- TYPE APPROVAL (EN)
- TYPE APPROVAL
- TYPE APPROVAL (PL)
- TYPE APPROVAL (NO)

ADDITIONAL APPROVALS

- TYPE APPROVAL
- TYPE APPROVAL
- TYPE APPROVAL
- TYPE APPROVAL
- TYPE APPROVAL
- TYPE APPROVAL



- ENVIRONMENTAL MANAGEMENT DIN EN ISO 14001
- PRESSURE EQUIPMENT DIRECTIVE 2014/68/EU
- QUALITY MANAGEMENT DIN EN ISO 9001

QUICKFINDER CERTIFICATES

SAFETY VALVES

Series	National Type Test (TUV)	CE 2014/68/EU	EU type examination	UK CA	EAC	TS	ACS Potable water approval	DNV	R Lloyd's Register	ABS	VERITAS	Shipbuilding
651mHNK	■	■	■	■	■	■	■	■	■	■		■
651mHIK		■	■	■	■			■	■	■		■
451bH	■	■	■	■	■			■	■	■	■	■
851bH	■	■	■	■	■	■		■	■	■	■	■
852bHL	■	■	■	■	■			■	■	■		■
455bHL	■	■	■	■								
355bHL	■	■	■	■								
451bHF	■	■	■	■	■	■		■	■	■	■	■
851bHF	■	■	■	■	■			■	■	■	■	■
651mSK	■	■	■	■	■	■		■	■	■		■
652mFK		■		■	■			■	■	■		■
451bG	■	■	■	■	■			■	■	■	■	■
851bG	■	■	■	■	■			■	■	■	■	■
852bGL	■	■	■	■	■			■	■	■		■
651mWNK	■	■	■	■	■	■	■	■	■	■		■
651mWIK		■		■	■	■	■	■	■	■		■

PRESSURE REDUCING VALVES

Series	CE 2014/68/EU	UK CA	EAC	DVGW	ACS	WRAS	SVGW SSIGE	SINTEF	DNV	ABS	BUREAU VERITAS	VERITAS	R Lloyd's Register	RIWA
9000	■		■	■	■	■	■	■		■				
9040	■		■	■	■	■	■	■		■				
9160	■		■	■	■									
481	■	■	■	■	■	■			■	■	■	■	■	■
382	■		■	■	■	(■)*								
482	■	■	■	■	■	■			■	■	■	■	■	■
682	■	■	■	■	■	■			■	■	■	■	■	■

* Type approval WRAS | pending

QUICKFINDER VALVES

PRESSURE REDUCING VALVES

Series	Materials	Connection type	Media								Temperature in °C	Set pressure bar		
			neutral				non-neutral							
			liquid	air/gases	potable water cold	potable water hot	liquid	air/gases	potable water cold	potable water hot				
9000					■	■							■	■
9040					■	■							■	■
9160					■	■							■	■
481			■	■	■	■		■	■				■	■
681			■	■	■	■		■	■				■	■
382			■	■	■	■		■	■				■	■
482			■	■	■	■		■	■				■	■
682			■	■	■	■		■	■				■	■

TÜV/CE SAFETY VALVES FOR HEATING AND COOLING

Series	Materials	Connection type	Media				Temperature in °C	Set pressure bar
			neutral		non-neutral			
			hot water	liquid	hot water	liquid		
651mHNK			■		■		■	1
651mHIK			■		■		■	1
451bH			■		■		■	1
851bH			■		■		■	1
852bHL			■		■		■	1
455bHL			■		■		■	1
355bHL			■		■		■	1
451bHF			■	■	■	■	■	1
851bHF			■	■	■	■	■	1
652mFK				■		■	■	1

TÜV/CE SAFETY VALVES FOR SOLAR PLANTS AND DISTRICT HEATING

Series	Materials	Connection type	Media								Temperature in °C	Set pressure bar		
			neutral				non-neutral							
			solar	hot water	steam	air/gases liquid	solar	hot water	steam	air/gases liquid				
651mSK			■					■					■	
451bG			■	■	■			■	■	■			■	■
851bG			■	■	■			■	■	■			■	■
852bGL			■	■	■			■	■	■			■	■
455bGFL			■	■	■	■		■	■	■	■		■	■
355bGFL			■	■	■	■		■	■	■	■		■	■
451bH				■					■				■	
851bH				■					■				■	

FITTINGS FOR WATER SUPPLY IN THE BUILDING TECHNOLOGY SECTOR

Series	Materials	Connection type	Media		Temperature in °C	Set pressure bar
			potable water cold	potable water hot		
			651mWNK			
651mWIK				■		■
669				■		■

WATER SUPPLY FITTINGS FOR THE BUILDING TECHNOLOGY SECTOR

Materials



Temperatures
from -20 °C to +120 °C



Pressures
from 0,5 bar to 10 bar
Inlet pressure up to 40 bar
Outlet pressures adjustable

Media



Threaded connections
from 3/8" to 2"



Flange connections
from DN 15 to DN 125

Our pressure reducing valves with potable water approvals, both with threaded or flange connections do not only cover all classic areas of the water supply sector: They are often used for applications in sprinkler systems, in water-treatment or desalination plants. The materials of all wetted parts do not only fulfill the stringent national DVGW regulations but also those in France (ACS), the UK (WRAS) and Norway (SINTEF).

FITTINGS FOR BUILDING TECHNOLOGY ARE USED HERE:



Buildings



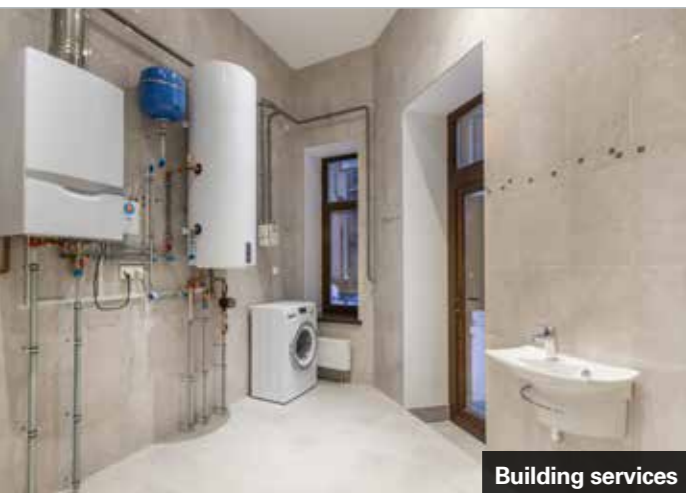
Potable water purification



Water systems



Sprinkler systems



Building services



Construction machinery



Safety showers



Irrigation systems

Series 9000

PRESSURE REDUCING VALVES SERIES 9000

made of lead-free gunmetal
with threaded connections



The first Goetze tap with functional parts made of plastic was developed for the environmentally and health-conscious user.

The lead-free body of the pressure reducing valve does not release any harmful substances into the drinking water and is corrosion-resistant in all water qualities. At the same time, the environment is protected by avoiding heavy metals.


The valve insert is made from a high-quality plastic used in medical technology and is resistant to cavitation, temperature and media. The flow rate of the pressure reducing valve has also been sized for maximum performance. A higher maximum flow rate is possible by optimising the flow and by using physical effects in the valve, a higher flow rate is possible with the same pressure drop.

The integrated 160 µm fine strainer insert protects the valve and downstream installation from dirt particles and is easy to clean without having to remove the valve insert and readjust the outlet pressure. The degree of contamination can be recognised through the transparent filter cup.

Another feature is the visible adjustment scale on both sides. This makes the setting process even more convenient by displaying the current set pressure in each position. This means that the setting can be made without a pressure gauge, special tools or operating pressure.

 **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"

Series 9040

PRESSURE REDUCING VALVES SERIES 9040

made of stainless steel
with threaded connections



The 9000 series is also available in a modified version as the 9040 series made of stainless steel. The V4A stainless steel body does not release any harmful substances into the drinking water and is corrosion-resistant in all water qualities. The corrosion resistance is also sized for aggressive media.

The stainless steel version is used, for example, in systems in which food, cosmetics, beverages or other demanding media are processed.

The pressure reducing valve also features the easy-to-clean filter screen with transparent filter cup to protect the downstream system, the valve insert made of high-performance plastic and the setting scale visible on both sides.

For hot water and PN25 applications, a filter cup made of V4A is also available as an alternative.

In this case, the valve insert is also made entirely of plastic and the user benefits from all the advantages of the 9000 series as well as the properties of V4A stainless steel.

 **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"



Washing facilities



Water systems



Industrial kitchens



Bottling plants

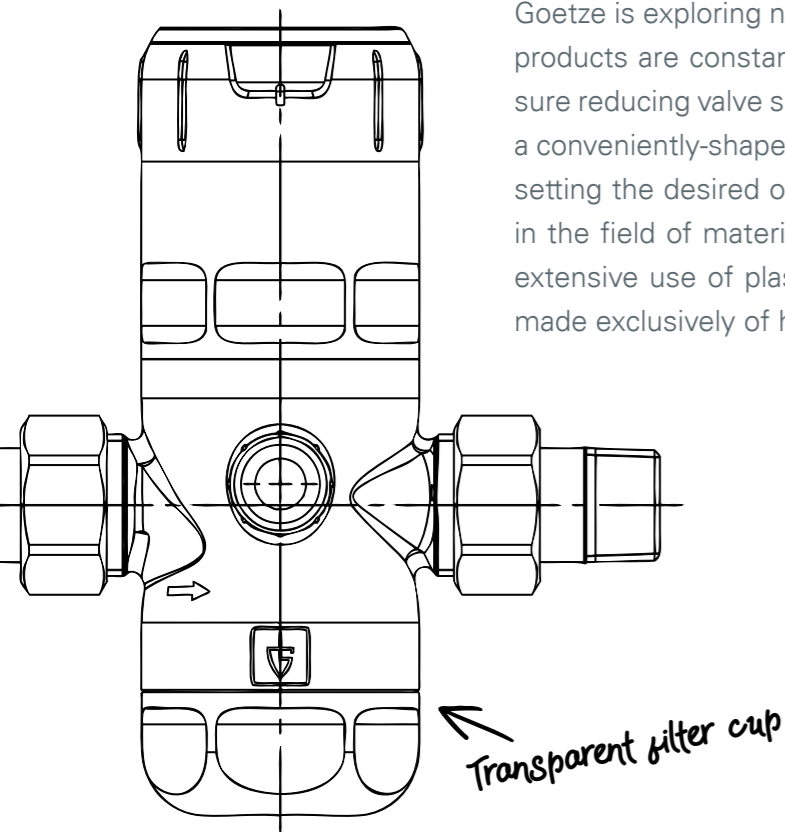
Two years, four heads and a great deal of expertise

New developments always involve a lot of time, patience and attention to detail. This of course is true in the case of our new pressure reducing valve series 9000. A team of experts from our water control division has been working meticulously on this innovation for two years. 58 tools for the production of cast-, plastic- and elastomer parts and many man-hours later, Goetze is able to present an innovative product in its range to protect the potable water supply. This requires compliance with special standards in order to guarantee clean and safe potable water at all times. The development was characterised by various project phases. Firstly, concepts were developed optimised and validated using modern simulation software. Once the parts had been designed, the very latest technology was employed to create the prototypes. The first parts, which were directly subjected to flow and strength tests, were manufactured using the metal 3D printing technique. This means that right from the start maximum resistance can be verified and guaranteed. After fatigue- and production part tests, we now have a new product that stands for maximum operational safety, simple maintenance and a high degree of convenience.



Functions ideally supported by an innovative design

Goetze is exploring new avenues not only in product development but its products are constantly advancing in terms of design as well. The pressure reducing valve sets itself apart, above all, through an integrated filter, a conveniently-shaped adjustment handle and a clearly arranged scale for setting the desired outlet pressure. Goetze is also breaking new ground in the field of materials. For the very first time, the company is making extensive use of plastics, the transparent filter cup, for example, being made exclusively of high-quality plastic.



Offering even more benefits through plastic

The new pressure reducing valve consists of a combination of materials unique for Goetze. As with numerous other products, the housing is made of gunmetal. Which is lead-free and offers the highest possible corrosion resistance.

The elimination of lead offers further benefits: The environment is sustainably protected by the avoidance of heavy metals and future-proof recyclability is possible.

The use of selected plastics from medical technology, however, is new: for such components as the spring housing, the adjustment handle as well as in the filter cup and associated filter. The valve insert is even made of a plastic that is mainly used in medical technology.

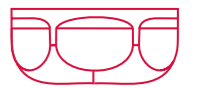
The materials used set themselves apart in particular through high strength, hardness and rigidity even at high temperatures. In addition, plastics suffer little

to no cavitation at all. But there is also enormous creative leeway in terms of the design itself. You benefit, for example, from the high degree of transparency that allows soiling to be detected quickly and the pressure reducing valve to be maintained accordingly.

By expanding the material combination, the user benefits from the positive properties of the plastic without having to forego the usual quality for which Goetze KG is known.



High-quality plastics
For conveying media in the medical technology sector



Transparent filter cup
In transparent for detecting the degree of soiling

Lead-free gunmetal RG+

The lead-free gunmetal RG+ is the result of consistent development from the lead-containing gunmetal RG 5 lead-reduced CuSn5Zn5Pb2-C, which has proven itself for years. It is the preferred material for drinking water installations.

Inside the microstructure, lead has been substituted by sulphur, however it has no effect on the basic properties such as excellent corrosion resistance, tensile strength, elongation, hardness and machinability.

The new RG+ material was extensively tested in the laboratory and over several years in the field. The alloy is standardised by DIN SPEC 2701 and part of the Federal Environment Agency's positive list of metallic materials suitable for drinking water hygiene since 2018.

As well as for the conventional gunmetal, a high tin content in the new alloy ensures the optimum coating structure. In addition to high corrosion resistance it also guarantees long-term safety.

Therefore, the lead-free gunmetal RG+ can be used in all water qualities according to the drinking water ordinance and according to all drinking water-related standards in Europe without any restrictions.

The material has excellent hygienic properties. With a maximum lead content of 0.10% the requirements of national and international legislation, such as for the US are met and is also compliant to the REACH regulation, and will certainly meet future material requirements as well.



Lead-free gunmetal
Safe, environmentally-friendly, corrosion resistant

Lead-free gunmetal housing

Fittings for water supply and building technology sector

PRESSURE REDUCING VALVES SERIES 382

made of spheroidal graphite cast iron, with flange connections



The 382 pressure reducing valve is used in a wide variety of water applications. Whether in apartment blocks, office complexes, hospitals or hotels - it regulates the pressure perfectly wherever large quantities of water are required. Thanks to its low pressure drop, the pressure reducing valve 382 is even used in municipal water supplies.

Only high-quality, approved materials are used for the 382 pressure reducing valve. Thanks to its spheroidal graphite cast iron body, the 382 pressure reducing valve is ideally equipped to withstand the mechanical stresses of the installation.

Its high-quality polyamide coating, which is applied by dipping, offers maximum corrosion resistance - even against seawater and abrasive water.

The valve insert made of V4A stainless steel can be removed quickly and easily for maintenance.

The flanged pressure reducer is equipped with an adjustment scale in the bonnet for easy back pressure adjustment without operating pressure.

 **Temperatures**
from +5°C to +65°C

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

 **Flange connections**
from DN 50 to DN 125

PRESSURE REDUCING VALVES SERIES 9160

made of brass, with threaded connections



The 9160 series - the smallest water pressure reducing valve in the Goetze portfolio.


These mini pressure reducing valves in nominal diameter DN 8 are used particularly in applications such as coffee machines, water dispensers or soft drink dispensers with a fixed water connection. The small size is particularly important here, as the pressure reducing valve is often integrated into the body of the appliance.

In flat water installations, the mini pressure reducing valve is often used in nominal diameters DN 15 and DN 20.

The integrated filter screen protects the appliance and the installation from particles and impurities. An adjustment scale in the bonnet allows pressureless presetting with a screwdriver.

Nominal diameters DN 15 and DN 20 can be installed with optionally available fitting screw connections. Alternatively, they can also be installed directly using female threads.

The body is made of dezincification resistant brass, also available in lead-free brass on request. Fitting screw connections and pressure gauges are available as accessories.

 **Temperatures**
from +5°C to +60°C

 **Inlet pressure** up to 16 bar,
Outlet pressure from 0,5 bar to 12 bar

 **Threaded connections**
from 3/8" to 3/4"

PRESSURE REDUCING VALVES SERIES 481 AND 681

made of stainless steel and gunmetal, with threaded connections



The tried and tested, robust pressure reducing valves in full-metal construction with screw connections have proven themselves not only in the drinking water sector, but especially in harsh operating conditions in the industrial sector for a wide range of media, including aggressive media and at fluctuating ambient temperatures.

The materials are optimised for a wide range of water qualities and hot water applications. In addition to the standard pressure range of 1 to 8 bar, the additional 0.5 to 2 bar and 5 to 15 bar Back pressure ranges cover a wide range of applications.

Optionally available with female thread.

 **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 1/2" to 2"

PRESSURE REDUCING VALVES SERIES 482 AND 682

made of stainless steel and gunmetal, with flange connections




Flange connections are often required for fittings. These series are available in the nominal diameter range from DN15 to DN100 for precisely this purpose. In addition to the standard version, there is also a high-pressure and a low-pressure version for these pressure reducing valves made of stainless steel and gunmetal in the nominal diameters DN20 to DN50.

On request, we can also equip the stainless steel pressure reducing valves with stainless steel pressure gauges for the various pressure ranges.

For maximum ease of maintenance, the exchangeable functional cartridge with strainer is also available for the flange versions.

 **Temperatures**
form -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

SAFETY VALVES WITH DIAPHRAGM SERIES 651MW

made of gunmetal, angle type, with threaded connections




651mWVK enlarged outlet (TÜV/CE) 651mWIK with inlet and outlet diameter equal

Particularly in the case of valves which are employed in potable water installations, we do not accept any compromises regarding the materials used. Only the highest quality materials suitable and approved for potable water applications are used in these valves. These types of safety valves with diaphragm are installed in the cold water pipe before the hot water heater to protect it from inadmissible overpressure.

 **Temperatures**
from -10°C to +95°C

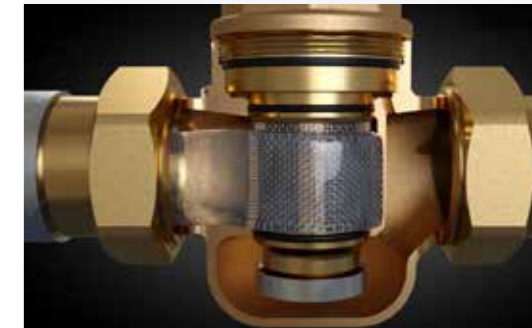
 **Pressures**
from 3 bar to 10 bar

 **Threaded connections**
from 1/2" to 1 1/4"

Pressure reducing valve – simply explained

Assembly instructions are also available as a video

Pressure reducing valve – Installation, maintenance and function simply explained with our assembly video. See how the pressure reducing valve is fitted in a line with threaded connections and how it then works. With a fascinating view into the valve itself and flow graphics.









Watch the pressure reducing valve video now!





TÜV/CE SAFETY VALVES FOR HEATING AND COOLING

Materials 	Temperatures  from -50°C to +150°C	Pressures  from 0,5 bar to 25 bar
Media 	Threaded connections  from ½" to 2"	Flange connections  from DN 15 to DN 100

The product range is designed for hot water and heating systems as well as for cooling and air conditioning systems in single homes and multidwelling buildings and large building complexes. As an example, the safety valves for such installations are fitted with special sealing materials, which are suitable for glycol concentrations of up to 100%. A maximum degree of safety is of paramount importance when we develop new products. Even for combined plants, so-called „Combined Heating and Cooling Systems“, safety valves with the necessary approvals are available from our product range.

TÜV/CE SAFETY VALVES FOR HEATING AND COOLING ARE USED HERE:



Heating systems



Combined heat and power plant modules



Building cooling systems



Large-scale heating systems

TÜV/CE safety valves for heating and cooling

SAFETY VALVES SERIES 651mH

made of gunmetal, all-metal construction,
angle type with threaded connections



651mHNK with enlarged outlet (TÜV/CE) 651mHIK with inlet and outlet diameter equal

Robust safety valve with diaphragm with an all-metal construction. Designed to protect hot-water- and heating-systems. This unmatched design, which does not have any plastic parts, means that these valves are also suitable for very high external temperatures.

SAFETY VALVES WITH BELLOWS SERIES 451bH

made of stainless steel, angle type
with threaded connections



For demanding requirements in hot-water and heating-systems, there is also a version available made of high-quality corrosion- and acid-resistant stainless steel.

This valve is suitable for all hot-water systems, where protection cannot be achieved by using a standard safety valve with diaphragm with the standard set pressures of 2,5 or 3 bar, for example in the case of all large building complexes.

SAFETY VALVES WITH BELLOWS SERIES 851bH

made of gunmetal, angle type
with threaded connections



High performance safety valve with bellows, made of high quality, corrosion-resistant gunmetal. Heating systems with set pressures other than 2,5 or 3 bar are required to be protected by such safety valves.

Apart from indirectly heated plants, the sizing of the valves is based on the heating output of the boiler.

SAFETY VALVES WITH BELLOWS SERIES 852bHL

made of gunmetal, angle type
with flange connections



This safety valve series consists entirely of corrosion-resistant materials. The gunmetal housing, the stainless steel spring and all internal parts made of stainless steel are difficult to beat in terms of resistance, especially in aggressive waters, salt water or saline atmospheres. Whether metallically sealing or, to meet the most stringent tightness requirements, with metallically supported O-ring seal in a diverse range of materials or with counter-pressure compensating metal bellows, there is an ideal design for every application.



Temperatures
from -10°C to +120°C



Pressures
from 2,5 bar to 3 bar



Threaded connections
from 1/2" to 2"



Temperatures
from -10°C to +120°C



Pressures
from 0,5 bar to 25 bar



Threaded connections
from 1/2" to 2"



Temperatures
from -10°C to +120°C



Pressures
from 0,5 bar to 25 bar



Threaded connections
from 1/2" to 2"



Temperatures
from -10°C to +120°C



Pressures
from 0,5 bar to 25 bar



Flange connections
DN 40 and DN 50

TÜV/CE safety valves for heating and cooling

SAFETY VALVES WITH BELLOWS SERIES 455bHL

made of stainless steel,
angle type with flange connections



In addition to the spheroidal graphite cast iron version, flanged safety valves are also available in high-alloy stainless steel. With metallic-supported elastomer bellows and elastomer seals, these D/G/H safety valves are specially approved for protecting large heating systems in industry and building technology as well as in combined heat and power plants and district heating supply systems. The valves fulfil the requirements of the Swiss SWKI.

SAFETY VALVES WITH BELLOWS SERIES 355bHL

made of spheroidal graphite cast iron,
angle type with flange connections



The 355 series flanged safety valve impresses with its consistent concept in terms of performance, function and design. The use of cast iron as the housing material creates an especially cost-effective variant. This is particularly beneficial for heating applications and steam, as well as lower requirements for corrosion resistance.

The metallically supported, moulded elastomer seal offers safety in the temperature range from -10°C to 120°C.

SAFETY VALVES WITH BELLOWS SERIES 451BHF / 851bHF

made of stainless steel / gunmetal,
angle type with threaded connections



These valves fulfil the highest demands on the corrosion resistance of the materials. With stainless steel bellows and metal-supported elastomer seals, these D/G/H and F-approved safety valves can be used to protect heating and cooling systems in industry and building technology. This is a universally applicable safety valve, especially for indirect heating and cooling via heat exchangers. The valves fulfil the requirements of the Swiss SWKI

SAFETY VALVES WITH DIAPHRAGM SERIES 652mFK

made of gunmetal, all-metal construction,
angle type with threaded connections



The safety valve with diaphragm version 652mFK-EPDM is especially designed for the protection of closed cooling circuits. This valve, made of corrosion-resistant gunmetal, with an all-metal construction, is resistant for plants and cooling media with a cooling media containing up to 100% glycol.

It's unbeatable value for money makes this a standard valve specified in tenders for cooling and air-conditioning plants.



Temperatures
from -10°C to +120°C



Pressures
from 0,5 bar to 25 bar



Flange connections
from DN 15 to DN 100



Temperatures
from -10°C to +120°C



Pressures
from 0,5 bar to 25 bar



Flange connections
from DN 15 to DN 100



Temperatures
from -40°C to +120°C



Pressures
from 0,5 bar to 25 bar



Threaded connections
from ½" to 2"



Temperatures
from -50°C to +150°C



Pressures
from 1 bar to 16 bar



Threaded connections
from ½" to 2"



TÜV/CE SAFETY VALVES FOR SOLAR PLANTS AND DISTRICT HEATING

Materials



Temperatures
from -60°C to +400°C



Pressures
from 0,5 bar to 50bar

Media



Threaded connections
from ½" to 2"



Flange connections
from DN 15 to DN 100

The safety valves for solar plants are designed and tested for high media temperatures. Even for the SOL-valves for intrinsically safe plants, the materials have been tested up to 160°C.

TÜV/CE SAFETY VALVES FOR SOLAR PLANTS AND DISTRICT HEATING ARE USED HERE:



Solar power plants (collectors)



District heating supply



District heating generation



Solar heating systems (collectors)

TÜV/CE safety valves for solar plants and district heating

SAFETY VALVES WITH DIAPHRAGM SERIES 651mSK

made of gunmetal, angle type with threaded connections



Diaphragm safety valve for protecting small and medium-sized, intrinsically safe solar heating systems. The valve is characterised by a number of special features: Temperature resistance tested up to 160 °C, 100 % metallic and with different connections up to a size of one inch.

The valve is component-tested in accordance with TÜV directives for closed, intrinsically safe solar heating systems with flow temperatures of up to 120 °C. Depending on the connection size, it is suitable for a heating output of up to 200 kW.

 **Temperatures**
from -10 °C to +120 °C

 **Pressures**
from 2 bar to 10 bar

 **Threaded connections**
from ½" to 1"

SAFETY VALVES WITH BELLOWS SERIES 851bG / 852BGL

made of gunmetal, angle type with threaded or flange connections



These high-performance safety valves with bellows are suitable for protecting non-intrinsically safe solar heating systems with temperatures of over 200 °C as well as district heating supply systems, steam boilers and pressurised containers. The metallic bellows protects sliding and moving parts from the medium and thus from dangerous deposits. The spring chamber and spring are protected against penetrating steam and high temperatures.

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

 **Pressures**
from 0,5 bar to 50 bar

 **Threaded connections**
from ½" to 2"

 **Flange connections**
DN40 and DN50

SAFETY VALVES WITH BELLOWS SERIES 451bG / 455bGFL

made of stainless steel, angle type with threaded or flange connections



These highly corrosion- and temperature-resistant stainless steel safety valves from the 451 series with stainless steel bellows fulfil the highest demands in terms of temperature resistance and features. For protecting non-intrinsically safe solar heating systems and district heating supply systems with temperatures above 200 °C.

 **Temperatures**
from -60 °C to +400 °C

 **Pressures**
from 0,2 bar to 70 bar

 **Threaded connections**
from ½" to 2"

 **Flange connections**
from DN 15 to DN 100

SAFETY VALVES WITH BELLOWS SERIES 355bGFL

made of spheroidal graphite cast iron, angle type with flange connections



The safety valve with flanged connections made of spheroidal graphite iron offers ideal protection for non-intrinsically safe solar heating systems with temperatures up to 200 °C and above as well as for district heating supply systems, steam boilers and pressure vessels.

The metal bellows protects sliding and moving parts from the medium and thus from dangerous deposits.

In addition, the compression spring and spring chamber are protected against steam penetration and high temperatures. By using spheroidal graphite iron as the body material, this series can be an economical alternative, depending on the application.

 **Temperatures**
from -10 °C to +350 °C

 **Pressures**
from 0,2 bar to 40 bar

 **Flange connections**
from DN 15 to DN 100

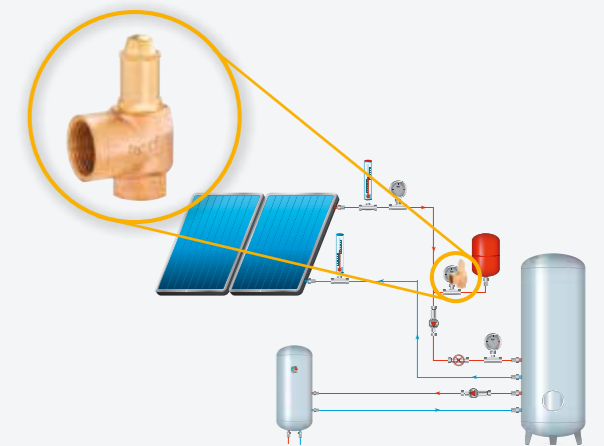
Thermal solar systems



Thermal solar systems are technical installations that absorb sunrays, and with the aid of the carrier medium, transport the energy to heating systems or hot water boilers and emit this in a usable form.

Medium temperatures of well over 160 °C are usual in larger systems. We talk about an inherently-safe solar heating system when the expansion tank absorbs a thermal volume dilation and compensates for this change in volume by generating steam.

In this process, there is no automatic feed of the heat carrier (medium) and, accordingly, this includes the typical small system located on the roofs of many residential properties.



Type 651mSK with identification code SOL for closed, intrinsically safe solar heating systems with initial temperatures of up to 120 °C.

FOR HIGHER TEMPERATURES

Type 851/451bG and 852bGL/355/455bGFL with EPDM up to 170 °C (↗ glycol mixture) or with PTFE up to 225 °C or for stainless steel versions with a metallic seal up to 400 °C.

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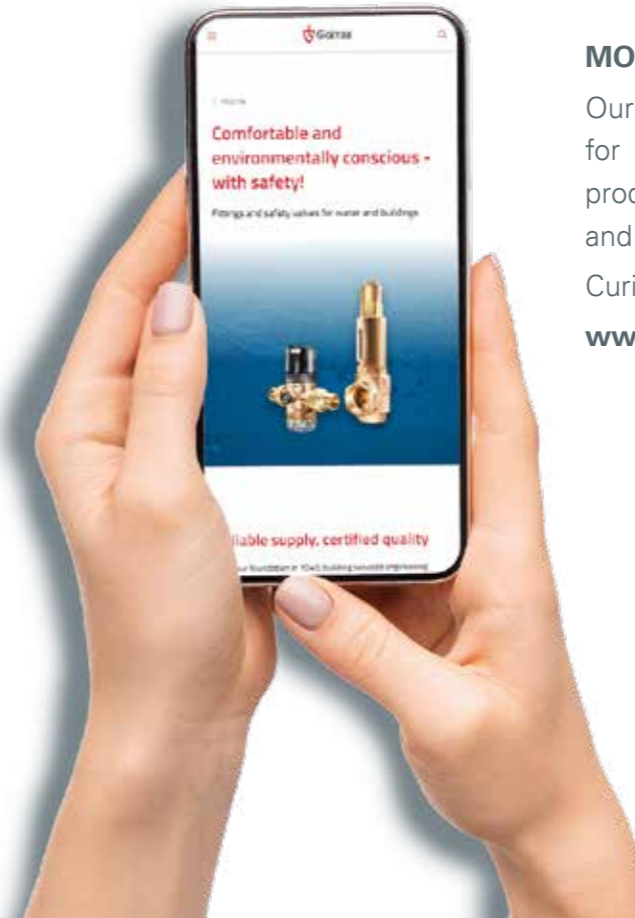
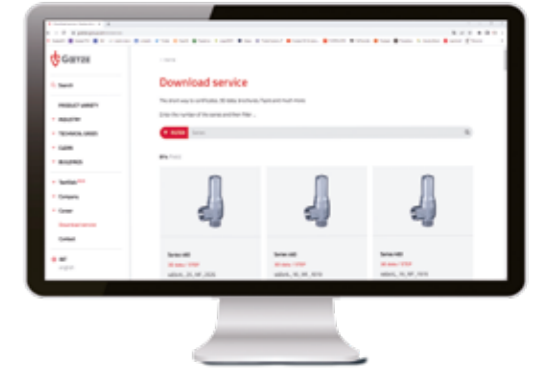
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