

GEBERIT FOR INDUSTRIAL APPLICATIONS
IT FEELS GOOD
WHEN EVERYTHING
JUST FLOWS



**KNOW
HOW**
INSTALLED

SAFE, EFFICIENT AND RELIABLE INDUSTRIAL SUPPLY AND DRAINAGE

Geberit offers piping systems designed to transport water, oil, gas, compressed air and a wide range of other media – developed to meet the highest safety requirements in industrial applications.

With decades of experience in industrial applications, Geberit helps its customers create customised solutions through sound technical know-how, an in-depth understanding of specific requirements, and extensive expertise in material selection and application.

This applies across all industrial sectors – worldwide and with proven reliability.



DATA CENTRE
Heating/cooling
Oils and fuels
Fire extinguishing systems
Roof drainage



CHEMICALS AND PHARMACEUTICALS
Process water, cooling water
and demineralised water
Compressed air
Industrial gases
Fire extinguishing systems



MECHANICAL AND PLANT ENGINEERING
Process water, cooling water
and demineralised water
Compressed air
Industrial gases
Technical liquids
Fire extinguishing systems



FOODSTUFFS INDUSTRY
Drinking water pipes
Saturated steam
Industrial gases
Cleaning agents / disinfectants



SHIPBUILDING
Drinking water pipes
Heating/cooling
Machine room systems
Seawater pipes
Fire extinguishing systems
Drainage systems



AUTOMOTIVE INDUSTRY
Process water, cooling water
and demineralised water
Compressed air
Industrial gases
Technical liquids
Oils and fuels





CONTENTS

KNOW-HOW INSTALLED

- 06 Great reasons to partner with Geberit
- 08 By your side through every project phase
- 09 Geberit PipeSelect
- 09 Geberit BIM Plug-in
- 10 Geberit pressing systems
- 12 Approvals for Geberit piping systems

APPLICATION AREAS

- 16 Treated water
- 18 Compressed air pipes
- 20 Industrial gases
- 22 Fuels and oils
- 24 Water cooling systems
- 26 Saturated steam
- 28 Negative pressure applications
- 30 Ruggedness personified

SUPPLY SYSTEMS

- 34 Geberit Mapress
- 36 Geberit Mapress Stainless Steel 1.4401
- 40 Geberit Mapress Therm
- 42 Geberit Mapress Copper
- 43 Geberit Mapress C-staal
- 44 Geberit Mapress CuNiFe
- 46 Geberit FlowFit
- 48 Geberit pressing tools

DRAINAGE SYSTEMS

- 52 Geberit PE
- 54 Geberit Pluvia

FOR APPLICATIONS IN INDUSTRY AND SHIPBUILDING **GREAT REASONS TO PARTNER WITH GEBERIT**

Piping systems in industry and shipbuilding are subject to special requirements. This is why Geberit provides its customers with comprehensive international support for the planning and implementation of their projects through a dedicated team. You can rely on our comprehensive know-how in the specific requirements of industrial and shipbuilding applications, as well as in the relevant standards, regulations and occupational safety conditions in different countries.

PROFESSIONAL AND PERSONAL SUPPORT

Count on a dedicated contact who understands your needs and provides fast, expert and personal assistance.

ONLINE CATALOGUE OF TECHNICAL DOCUMENTS

Geberit supplies all relevant technical data, product information, drawings and 3D models in digital format to support efficient planning and reliable documentation.

SEAMLESS PROJECT WORKFLOWS

Geberit supports engineers and specialist partners with expertise, reliable logistics, high product availability and on-time delivery.

RELIABLE QUALITY

Geberit stands for durable, high-performance piping systems designed to meet the highest demands in industry and shipbuilding. Safety and quality are more than just words – continuous testing throughout production ensures outstanding reliability and product quality.

PROVEN AND APPROVED

With a variety of materials and sealing elements, Geberit pressing systems offer high resistance to numerous media – including general and specific approvals for many applications.

QUICK APPROVAL – GEBERIT PIPESELECT

Simply enter the medium and operating parameters, and our online tool instantly identifies the right piping system – available whenever you need it.

FAST, SIMPLE AND SAFE INSTALLATION

Working with Geberit piping systems saves time, requires minimal preparation and can be carried out by any skilled person.



BY YOUR SIDE THROUGH EVERY PROJECT PHASE

The Geberit Competence Centre Industry and your local contact support industry and shipbuilding projects from initial planning and tendering through to implementation and operation. Our specialists are well acquainted with the specific challenges involved, such as transporting aggressive media, handling salt water and managing high or low temperatures, as well as the requirements relating to fire and occupational safety.

Just get in touch – we'll respond to your enquiry as quickly as possible.



PLANNING AND SPECIFICATION EXPERT ADVICE AND TECHNICAL ASSURANCE

Geberit provides expert support in the preparation and planning stages, offering sound advice for the planning and configuration of piping systems. Verified documentation and certificates inspire confidence in the safe application of Geberit systems – for operators and plumbers alike.

Key topics include areas of application, media compatibility, compliance with national and international standards, and permissible operating parameters. Sanitary engineers, dealers and fitters benefit from practical, application-focused advice based on many years of experience.



PROJECT IMPLEMENTATION QUICK INSTALLATION – SECURE CONNECTION

Geberit supports its customers and their teams with targeted training and technical advice to ensure their projects are carried out safely, efficiently and smoothly.

Geberit press connection technology enables clean installation without welding – saving considerable time and effort. With state-of-the-art production facilities in Europe, regional warehouses and a global logistics network, Geberit also ensures a high level of delivery reliability.



SEAMLESS OPERATION HIGH RELIABILITY AND RESISTANCE

Geberit stands for reliability and quality in the world of piping systems. The systems are built for long service life and have proven themselves in everyday use for decades.

With high availability, a dependable supply chain and a 25-year spare part warranty, long-term maintenance is always assured. Maintenance work or modifications to the piping can be carried out with minimal disruption, which is a key factor for ensuring smooth operation.



GEBERIT PIPESELECT THE RIGHT SYSTEM IN JUST A FEW CLICKS

Industrial gas, compressed air, treated water, oil, cooling lubricant and other media are all used in numerous industrial applications. The tool Geberit PipeSelect supports users in selecting a suitable piping system. Once the application, medium and operating parameters are entered, the tool takes users directly to the approved piping systems.

GEBERIT BIM PLUG-IN SIMPLE PLANNING WITH BIM

Digital planning and construction using the BIM method have also transformed planning and construction processes in industry. With the Geberit BIM Plug-in, Geberit offers an innovative solution for the digital planning of technical building systems. Accurate, up-to-date data can be accessed directly within the system, making planning simpler and more efficient.

geberit.nl/bim



GEBERIT PRESSING SYSTEMS

QUICK AND RELIABLE CONNECTIONS

Your customers expect reliable and durable pipe joints. They also value quick and economical work on the building site. Geberit supply systems make it possible to achieve both – and have been doing so successfully for decades.

PRESSING MEANS EFFICIENCY

Pressing is a straight forward pipe connection method that saves considerable time compared with welding.

Clean installation without an open flame increases safety, minimises fire risks and fire protection measures, and reduces downtime.

When pressed with Geberit pressing systems, the pipe forms a permanent connection with the fitting through precise reshaping. The mechanical connection is non-positive and permanent. At the same time, the precisely positioned seal ring provides a permanently tight connection.

The correct pressing technique is easy for plumbers to learn, requires no special training and simplifies personnel planning.

VISIBLY SECURE, RELIABLY CONNECTED

Geberit supply systems feature smart mechanisms that ensure safe processing.

Correct insertion depth

With the Geberit FlowFit system, the pipe is inserted into the fitting up to the stopper, making it easy to check that the correct insertion depth has been reached.

Clear tool guide rim

The precise guidance of the pressing jaws on the fitting ensures accurate tool positioning while processing. Starting the pressing tool initiates a controlled process that guarantees consistent quality for every connection.

Pressing instantly visible

With Geberit Mapress and Geberit FlowFit, it is immediately clear which connections have already been pressed. The integrated pressing indicators automatically detach during the pressing procedure and can then be easily removed – or else fall off by themselves.



↑ The coloured pressing indicator clearly shows whether the connection has been pressed.



↑ Easy to identify even in dark corners: If the pressing indicator is still on the Geberit FlowFit fitting, the connection has not yet been pressed.



↑ The press connection is mechanically stable and hydraulically leakproof.

- Quick and easy installation with Geberit pressing systems
- Standardised pressing procedure for every connection
- Minimal downtime during ongoing operations
- Easy training and readily available personnel
- Reliable and permanently tight connection

GEBERIT PIPING SYSTEMS **APPROVALS FOR** PEACE OF MIND

Geberit supply and drainage systems have a wide range of approvals for industrial, shipbuilding and technical building systems applications. This gives our customers peace of mind in their projects, knowing they can rely on proven, reliable performance.

GEBERIT PIPING SYSTEMS **APPROVALS**



INDUSTRY



For industrial applications, Geberit Mapress is approved by a range of institutions, including the Association of Technical Inspection Agencies (VdTÜV), the German Institute for Building Technology (DIBt), the Federal Institute for Materials Research and Testing (BAM), the Association of Loss Prevention (VdS), FM Approvals, ISEAG and the Global Loss Prevention Certification Board (LPCB).



SHIPBUILDING



For maritime applications, Geberit piping systems are approved by the American Bureau of Shipping, Bureau Veritas, China Classification Society, Class NK, DNV, Lloyd's Register and Registro Italiano Navale.



TECHNICAL BUILDING

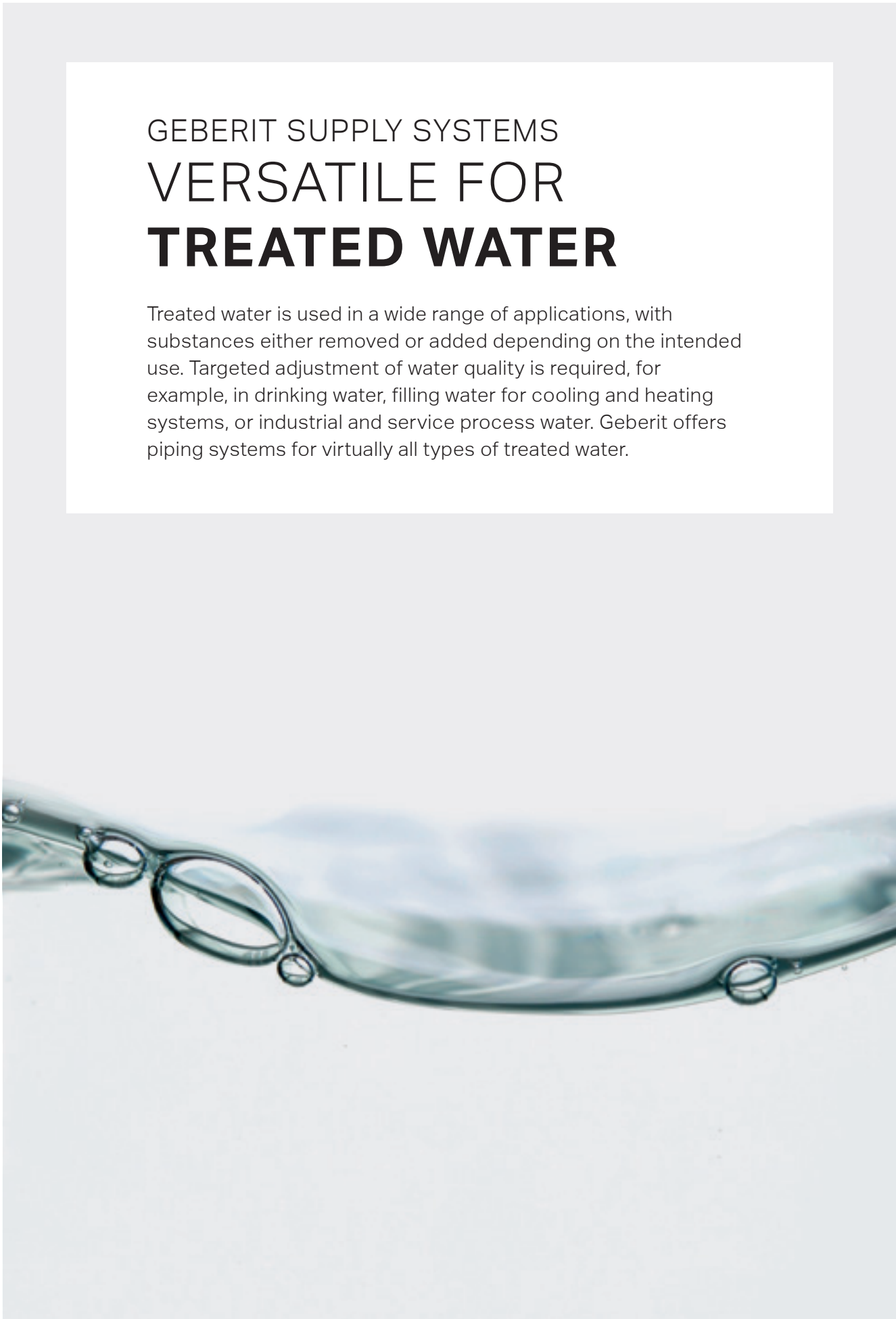


SYSTEMS

In the technical building systems sector, Geberit holds various approvals and certifications from organisations including the German Technical and Scientific Association for Gas and Water (DVGW), the Swiss Gas and Water Association (SVGW), the UK Water Regulations Advisory Scheme (WRAS), the Austrian Association for Gas and Water (ÖVGW), the French Scientific and Technical Centre for Building (CSTB) and KIWA.

APPLICATION AREAS

GEBERIT SUPPLY AND DRAINAGE SYSTEMS ARE DESIGNED FOR A WIDE RANGE OF MEDIA AND APPLICATION AREAS. THEIR CORROSION-RESISTANT MATERIALS MEET HIGH REQUIREMENTS FOR OPERATIONAL SAFETY.



GEBERIT SUPPLY SYSTEMS VERSATILE FOR TREATED WATER

Treated water is used in a wide range of applications, with substances either removed or added depending on the intended use. Targeted adjustment of water quality is required, for example, in drinking water, filling water for cooling and heating systems, or industrial and service process water. Geberit offers piping systems for virtually all types of treated water.

GEBERIT SUPPLY SYSTEMS **VERSATILE FOR TREATED WATER**



↑
Geberit FlowFit with stainless steel adapters



↑
Geberit Mapress with stainless steel adapters

GEBERIT MAPRESS

The Geberit Mapress Stainless Steel pressing system is suitable for nearly all treated water types, including softened or fully demineralised water, as well as ultrapure water with conductivities of $\geq 0.1 \mu\text{S/cm}$. It ensures reliable hygiene and corrosion resistance at pH values of ≥ 4 . All standard methods of treated water production, such as distillation, ion exchange and reverse osmosis, are generally suitable.

GEBERIT FLOWFIT

The flow-optimised supply system made of metal composite material can be installed effortlessly with just two pressing jaws for eight pipe dimensions.

SEAMLESS SYSTEM TRANSITIONS

Transitions from Geberit FlowFit to Geberit Mapress Stainless Steel are simple with the right system components.

APPLICATION AREAS

Treated water – excluding heating and cooling applications

	Geberit Mapress			Geberit multilayer system
	Geberit Mapress Stainless Steel 1.4401	Geberit Mapress Stainless Steel 1.4521	Geberit Mapress Copper CW024A	Geberit FlowFit
Softened water > 5° dH	○	○	○	✓
Softened water < 5° dH	○	○	○ ²⁾	✓ ¹⁾
Demineralised water, level of purity 3 (conductivity 1 to 20 $\mu\text{S/cm}$)	○	○		✓ ¹⁾
Demineralised water, level of purity 2 (conductivity 0.1 to < 1 $\mu\text{S/cm}$)	○	○		✓ ¹⁾
Demineralised water, level of purity 2+ (conductivity 0.056 to < 0.1 $\mu\text{S/cm}$)	○	○		
Demineralised water, level of purity 1 (conductivity > 0.055 to < 0.056 $\mu\text{S/cm}$)				
Demineralised water, level of purity 1+ (conductivity 0.055 $\mu\text{S/cm}$)				

¹⁾ The Geberit FlowFit fittings made of gunmetal, copper, silicon bronze and brass are not suitable for softened water of < 5° dH or demineralised

²⁾ On request

○ Applications with black CIIR seal ring for the Geberit Mapress system, with predetermined operating data

NOTE

Pressing systems are not suitable for water with higher requirements, such as ultrapure water grade 1 or ultra-ultrapure water grade 1+, or water used in pharmaceutical production (highly purified water) / for injection purposes (water for injection). Higher requirements may include conductivity < 0.1 $\mu\text{S/cm}$, CFU < 10/ml and TOC < 10 or seamless pipe joints.

GEBERIT SUPPLY SYSTEMS
 PRESSURE-RESISTANT
 FOR **COMPRESSED**
AIR PIPES

Compressed air plays a crucial role across industries – as control air in mechanical and plant engineering, in the automotive industry, and as process air in production and manufacturing, including the food sector. Geberit Mapress pressing systems provide the ideal pipe and fitting materials for every required compressed air quality.



← All systems are equipped with a pressing indicator and a contour seal ring.

Compressed air is an economical energy source when its generation, treatment and distribution are optimally coordinated. Depending on the required compressed air quality, Geberit Mapress Stainless Steel, Carbon Steel or Copper can be used for air distribution. Geberit pressing systems have been used in compressed air installations for

many years. Their consistently high tightness and the fast, simple installation method make them a high-quality and cost-effective connection technology.

APPLICATION AREAS

Maximum operating pressures vary according to pipe dimensions; further details and higher pressures are available on request. Geberit FlowFit on request.

		Geberit Mapress Stainless Steel 1.4401 (CrNiMo)	Geberit Mapress Therm	Geberit Mapress Carbon Steel inside and outside zinc-plated 1.0215	Geberit Mapress Copper DIN EN 1057:2010-06
Solids/particles Class ¹⁾	0	✓			
	1 – 2	✓	✓		✓
	3 – 7	✓	✓	✓	✓
	X	✓	✓	✓	✓
Moisture/water Class ¹⁾	0	✓	✓	✓	✓
	1 – 4	✓	✓	✓	✓
	5 – 6	✓	✓	✓	✓
	7 – 9	✓	✓		✓
	X	✓	✓		✓
Oil Class ¹⁾	0 – 1	●○			
	2 – 3	●○	●○	●○	●○
	4 – 5	○	○	○	○

Geberit Mapress Stainless Steel: 25 bar for dimensions 12–54 mm; 12 bar for dimensions 76.1–108 mm

Geberit Mapress Carbon Steel: 16 bar for dimensions 12–54 mm; 12 bar for dimensions 76.1–108 mm

Geberit Mapress Copper: 12 bar for dimensions 12–54 mm

¹⁾ Purity class in accordance with ISO 8573:1: 2010-04 – See Technical Information (TI) on compressed air for more details on compressed air classes

- ✓ The piping system can be used for this application; the seal ring material is determined by the oil content.
- Applications with black CIIR seal ring with predetermined operating data
- Applications with blue FKM seal ring with predetermined operating data

GEBERIT SUPPLY SYSTEMS PROVEN SAFETY FOR INDUSTRIAL GASES

Geberit Mapress Stainless Steel and Mapress Stainless Steel (Gas) are tested and approved systems for a wide range of industrial gases and gas mixtures, as well as for fuel gases. These press systems offer a high-quality, cost-effective alternative to welded, soldered or screwed piping systems.

The positive-fit and lengthways non-positive connections are quick and easy to assemble and guarantee a high degree of tightness (leak rate of < 1*10⁻⁵).

GAS APPLICATIONS SAFELY UNDER CONTROL

Geberit Mapress Stainless Steel (Gas) and Copper (Gas) hold all the approvals required for fuel gases in accordance with DVGW G 260. The fittings for gas installations feature a yellow marking and are also equipped with yellow protective plugs. This makes them easy to distinguish from other Geberit fittings at first glance. To ensure safe sealing during transport of the volatile medium gas, they are fitted with a yellow O-ring made of hydrogenated acrylonitrile-butadiene rubber (HNBR).

Geberit Mapress Stainless Steel and Mapress Copper can also be used for a variety of inert industrial gases using the black standard seal ring according to the TÜV component certificate. Everything from shielding gases for welding applications through to packaging gases for the food industry is possible with the systems. Geberit Mapress Stainless Steel can even be used for various active gases such as oxygen and hydrogen.



↑ For industrial gases, the Geberit Mapress pressing system can be used in all dimensions from 15 to 108 mm



↑ Geberit fittings for gas applications feature a yellow seal ring and a yellow cap.

APPLICATION AREAS

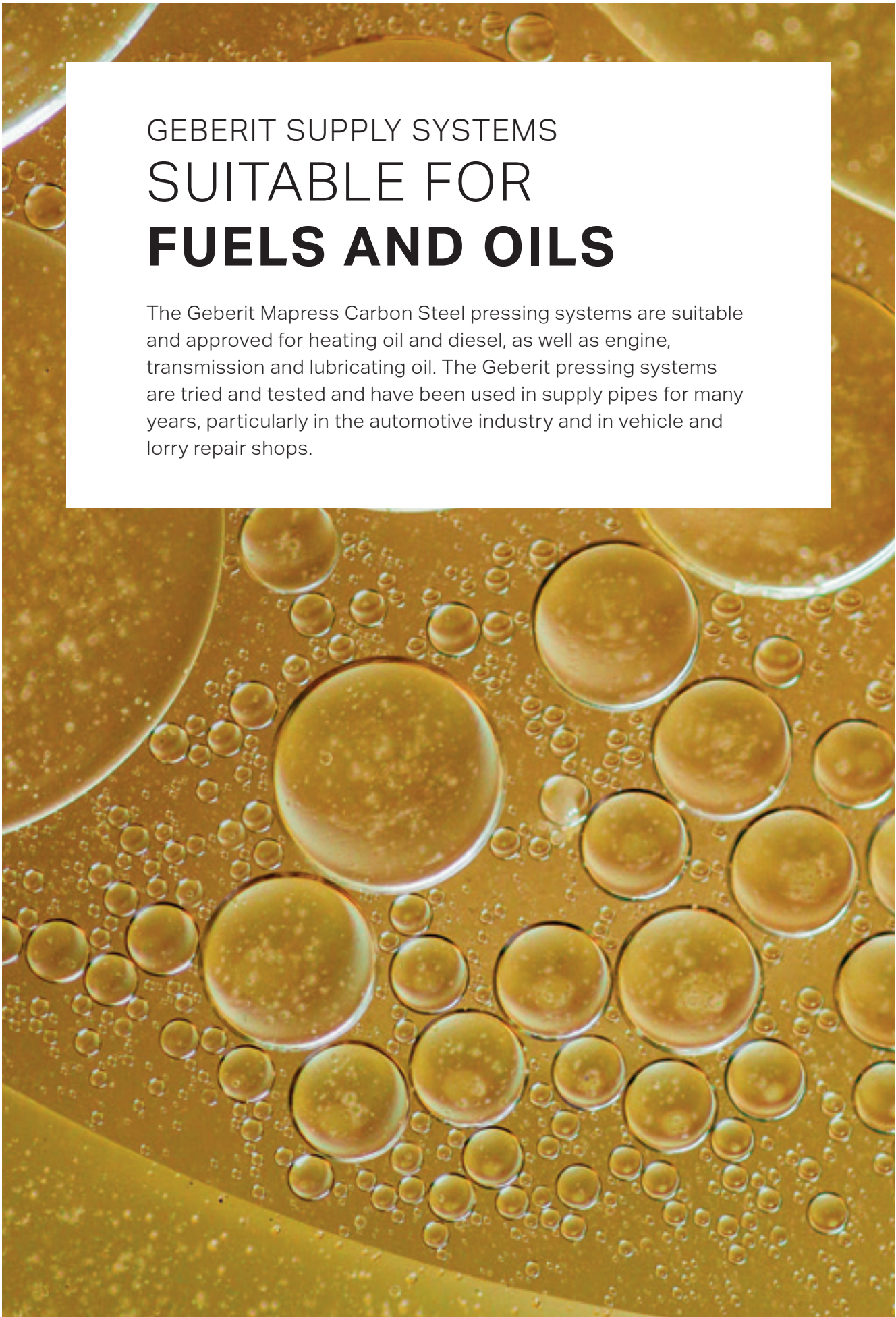
Other gases on request

		Geberit Mapress Stainless Steel 1.4401	Geberit Mapress Stainless Steel (Gas) 1.4401	Geberit Mapress Copper ¹⁾ CW024A	Geberit Mapress Copper ¹⁾ (Gas) CW024A	Temperature range (°C)
Industrial gases	Acetylene	○				-10 to +50
	Argon, argon mixtures	○				-10 to +60
	Helium	○		○		-10 to +60
	Carbon dioxide	○				-10 to +60
	Oxygen	○				-10 to +60
	Nitrogen	○		○		-10 to +60
	Hydrogen (industrial gas)	○				-10 to +60
	Shielding gases according to DIN EN ISO 14175	○		○		-10 to +60
	Synthetic air	○		○		-10 to +100
Fuel gases approved in accordance with DVGW Worksheet G 260	Natural gas		○		○	-20 to +70
	Treated biogas		○		○	-20 to +70
	Propane/butane		○		○	-20 to +70
	Hydrogen (fuel gas)		○			-20 to +70

NOTE
 All system pipes and fittings are metallically bright, free of grease and oil, hygienically perfect and free of corrosive materials when delivered. The operating pressures listed in the TÜV component certificate are limited by test reports, expert reports, standards and/or regulations in some cases depending on the medium (gas or combustible liquids, for example). Details available on request.

- Applications with black CIIR seal ring with predetermined operating data
- Applications with yellow HNBR seal ring with predetermined operating data

¹⁾ In connection with quality copper pipes in accordance with DIN EN 1057 and DVGW GW 392. Additional gases and max. permissible operating pressures depending on gas type on request.



GEBERIT SUPPLY SYSTEMS SUITABLE FOR FUELS AND OILS

The Geberit Mapress Carbon Steel pressing systems are suitable and approved for heating oil and diesel, as well as engine, transmission and lubricating oil. The Geberit pressing systems are tried and tested and have been used in supply pipes for many years, particularly in the automotive industry and in vehicle and lorry repair shops.



APPLICATION RANGES

Additional fuels and oils on request

	Approval in acc. with VdTÜV			Approval in acc. with DIBt	
	Geberit Mapress Stainless steel 1.4401	Geberit Mapress Therm	Geberit Mapress Carbon steel 1.0034	Geberit Mapress Stainless steel 1.4401	Geberit Mapress Carbon steel 1.0034
Heating oil/diesel	○	○	○ ¹⁾	○	○
HVO 100	○	○	○ ¹⁾	○	○
Biodiesel	○	○	○ ¹⁾	○	○
Petrol ROZ 95	○	○			
Benzin ROZ 98	○	○			
Kerosene	○	○			
Bioethanol	●○	●○			
Methanol	●○	●○			
Engine oils (SAE)	○	○	○ ¹⁾	○	○
Transmission oils (SAE)	○	○	○ ¹⁾	○	○
Lubricants and hydraulic oils	○	○	○ ¹⁾	○	○
Waste oils (SAE)	○	○	○ ¹⁾	○	○
Urea nitrate, e.g. AdBlue	●○	●○		○	

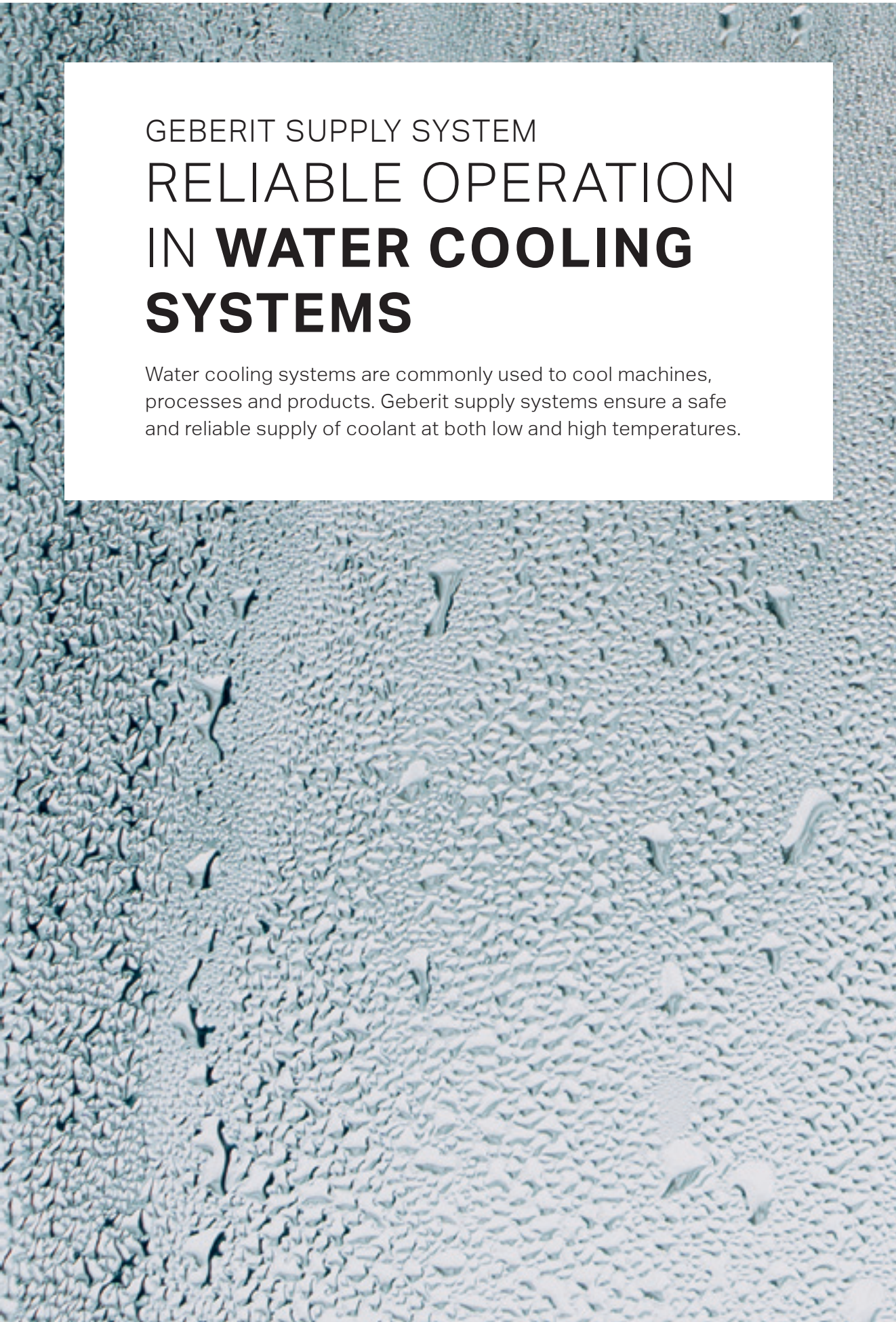
Maximum permitted operating pressure in accordance with DIBt approval: 10 bar (for all dimensions).
Maximum operating pressures subject to pipe dimensions, details and higher pressures on request.

- Applications with black CIIR seal ring with predetermined operating data
- Applications with blue FKM seal ring with predetermined operating data

¹⁾ On request

NOTE

The DIBt approval covers the use of Geberit Mapress for oils/fuels with a flashpoint > 55 °C. On the basis of the TÜV component certificate and in accordance with the requirements of the Pressure Equipment Directive (PED) and the relevant regulations, e.g. the German Federal Water Act (WHG) or the German Ordinance on Facilities for Handling Substances that are hazardous to Water (AwSV), the Geberit Mapress Stainless Steel pressing system can, if required, be used for flammable liquids with a flashpoint of < 55 °C. Use of the Geberit Mapress pressing systems for synthetic oils, brake fluids, cooling lubricants, penetrating oils and cutting oils must always be approved by Geberit.



GEBERIT SUPPLY SYSTEM RELIABLE OPERATION IN **WATER COOLING SYSTEMS**

Water cooling systems are commonly used to cool machines, processes and products. Geberit supply systems ensure a safe and reliable supply of coolant at both low and high temperatures.

Water cooling systems, also known as chillers, are usually closed-loop systems that generate cooling via a liquid intermediate medium. Unlike conventional refrigeration units, they use water or water-glycol mixtures for cooling, where the safety and availability of the coolant play a key role.



↑
Geberit Mapress Stainless Steel is the versatile piping system for demanding technical applications.



↑
Geberit Mapress Therm offers a cost-effective solution for cooling.



↑
Geberit Mapress Carbon Steel system pipes and fittings are made of non-alloy steel 1.0034 and available in various versions.



↑
Geberit FlowFit is easy to install and ensures safe processing even in confined spaces.

APPLICATION AREAS

	Geberit Mapress					Geberit multilayer system
	Geberit Mapress Stainless Steel, product material 1.4401 ¹⁾	Geberit Mapress Therm ¹⁾	Geberit Mapress Carbon Steel, outside zinc-plated, 1.0034 ²⁾	Geberit Mapress Carbon Steel, PP-jacketed, 1.0034 ³⁾	Geberit Mapress Copper, product material CW024A	Geberit FlowFit
Closed cooling water system	○	○	○	○	○	✓
Closed cooling water system with frost protection (e.g. glycol)	○	○	○	○	○	✓
Open cooling water system	○				○	✓
Open cooling water system with frost protection (e.g. glycol)	○				○	✓
Temperature range (°C)	-30 to +100					-10 to +70

According to worksheet AGI Q 151 (German Industrial Construction Association), operational systems made of non-alloy and low-alloy steels with surface temperatures between -50°C and +150°C must be provided with additional corrosion protection. This applies to Geberit Mapress Carbon Steel with an outside zinc-plated finish. If elevated chloride ion concentrations, combined with moisture and temperatures above 35°C, cannot be ruled out, stainless, austenitic steels should be protected against corrosion in accordance with Q 151.

¹⁾ Limit value for chloride ion content and insulating materials according to AGI Worksheet Q 132 or BTGA Guideline 3.004; otherwise apply corrosion protection coating.

²⁾ Corrosion protection coating according to BTGA Guideline 3.004 or AGI Worksheet Q 151.

³⁾ Fittings must be protected with overlapping corrosion protection tape on the system pipe.

⁴⁾ In combination with glycol, the maximum operating temperature is 40°C.

○ Applications with black CIIR seal ring with predetermined operating data



GEBERIT SUPPLY SYSTEMS

SATURATED STEAM

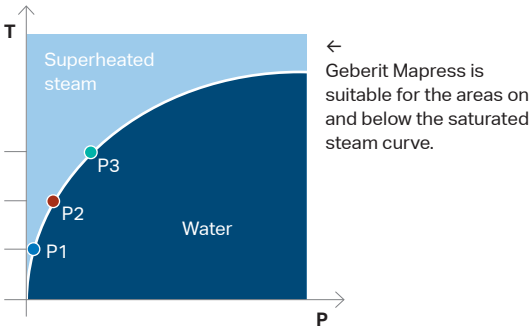
SAFETY UNDER PRESSURE AND HEAT

Saturated steam is used in numerous industrial applications, including the chemical, petrochemical, refining, pulp and paper industries, to name just a few. And with temperatures reaching up to 155°C, this places high demands on the piping systems. Geberit Mapress Stainless Steel meets these requirements in conjunction with special seal rings designed for steam and condensate applications.



Two seal rings for steam applications: black up to 120°C, white up to 155°C

IDEAL FOR SATURATED STEAM
In combination with the white fluoro rubber seal ring (FKM white), Geberit Mapress Stainless Steel 1.4401 is capable of withstanding saturated steam and condensate up to a temperature of 155°C* and a pressure of 5.5 bar in dimensions up to DN100. The black CIIR standard seal ring can be used for temperatures up to 120°C and dimensions up to DN100.



VAPOUR PRESSURE TABLE

T [°C]	T [K]	pD [bar abs]	Steam volume [m/kg]
100	373,15	1,014	1,67
110	383,15	1,434	1,21
120	393,15	1,987	0,89
125	398,15	2,322	0,77
130	403,15	2,703	0,67
135	408,15	3,312	0,58
140	413,15	3,615	0,51
145	418,15	4,156	0,45
150	423,15	4,761	0,39
155	428,15	5,434	0,35

APPLICATION AREAS
Higher temperatures on request

	Geberit Mapress Stainless Steel 1.4401	Dimensions [DN]	Temperature [°C]
Saturated steam and condensate	●	10 – 100	100 – 120
	○	12 – 100	100 – 155*

- Applications with black CIIR seal ring with predetermined operating data
- Applications with white FKM seal ring with predetermined operating data

GEBERIT SUPPLY SYSTEMS CERTIFIED SYSTEMS FOR **NEGATIVE** **PRESSURE** **APPLICATIONS**

Whether in the packaging industry, in suction lines for oils, fuels and other media, in clean room technology or in mechanical engineering, negative pressure plays a crucial role in a whole host of industrial and commercial applications.

NEGATIVE PRESSURE IN A NUTSHELL

Negative pressure refers to a pressure range lower than the normal air pressure at sea level, known as atmospheric pressure. This is around 1013.25 hectopascals (hPa) on average. Depending on the weather, it can fluctuate by about 5% and decreases steadily with increasing altitude above sea level.

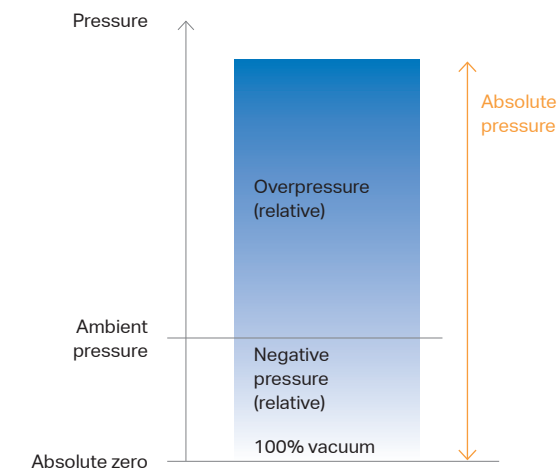
The lowest possible pressure is absolute vacuum, corresponding to 0 mbar. The range between this value and atmospheric pressure is referred to as negative pressure.

In technical applications, negative pressure is usually specified as relative pressure. This means that the difference between the ambient air pressure and the desired system pressure – for example in a pipeline – is measured. In practice, negative pressure levels therefore range between 1013 mbar and 0 mbar.

GEBERIT MEETS REQUIREMENTS FOR NEGATIVE PRESSURE APPLICATIONS

Piping systems in negative pressure applications must be able to rely on a high level of tightness for the pipes and connections. Depending on the application, the level of resistance to corrosion, mineral oil products and other media also plays a role.

Geberit piping systems have been certified by the DVGW up to 200 mbar. Applications below 200 mbar can be accommodated on request. Geberit Mapress Stainless Steel, Copper and Carbon Steel are also all DIBt-approved for oils and fuels. The pipe connections in the Geberit pressing systems have passed the negative pressure test according to the German Technical and Scientific Association for Gas and Water (DVGW), Worksheet W 534, Section 102, with a negative pressure of -0.8 bar relative to atmospheric pressure. Geberit press fitting systems therefore offer reliable solutions for a wide range of negative pressure applications.



↑
 Typical negative pressure applications lie in the range between the ambient atmospheric pressure and the vacuum.



↑
 CIIR seal ring for secure sealing in general industrial applications.

APPLICATION AREAS

Higher or lower pressures available on request

	Geberit Mapress			Geberit multilayer system
	Geberit Mapress Stainless Steel 1.4401	Geberit Mapress Stainless Steel 1.4521	Geberit Mapress Copper CW024A	Geberit FlowFit
Negative pressure: Maximum value -0.8 bar with a minimum absolute pressure of 200 mbar	○	○	○	✓

○ Applications with black CIIR seal ring with predetermined operating data

GEBERIT DRAINAGE SYSTEMS
 ENGINEERD
 TO HANDLE
 AGGRESSIVE MEDIA

Temperature changes, aggressive waste waters, pressure, shifts and chemical influences: the Geberit PE drainage system effortlessly withstands the loads in industrial and laboratory disposal or the loads on buried parts.

GEBERIT DRAINAGE SYSTEMS **ENGINEERD TO HANDLE AGGRESSIVE MEDIA**

The Geberit PE drainage system provides safety and efficiency for use in industrial and laboratory drainage as well as for buried discharge pipes. The robust and shockproof piping material of high-density polyethylene (PE-HD) is resistant to abrasion, not affected by acids, lyes or other aggressive waste waters, as well as resistant to heat for hot water up to 80 °C, short-term up to 100 °C without simultaneous mechanical load, as well as resistant to cold down to -40 °C.

VARIED SOLUTIONS

The comprehensive assortment of fittings with special fittings and accessories makes Geberit PE the universal solution for numerous drainage tasks. It is suitable, among other things, for use in industry, trade, laboratories, for buried underground pipes and for roof drainage with Geberit Pluvia.



↑
 Removable connections with loose flange or screw connection



↑
 Lengthways non-positive connections by means of butt and electrofusion welding

APPLICATION RANGES WITH GEBERIT PE

Room temperature (20°C), increased temperature (60°C).
 Additional media on request

		Share (%)	Geberit PE
Alkalies	Caustic potash	Up to 50	✓
	Caustic soda	All	✓
Acids	Sulphuric acid*	Up to 70	✓
	Hydrochloric acid*	Up to 28	✓
	Nitric acid	Up to 25	✓
	Phosphoric acid	Up to 50	✓
Salts	Phosphoric acid	All	✓
	Sodium chloride (salt)	All	✓

* The connections are to be produced lengthways non-positive by means of butt or electrofusion welding. Use with seals only on request from Geberit.

SUPPLY SYSTEMS

AT GEBERIT, SAFETY AND QUALITY ALWAYS COME FIRST. OUR IN-HOUSE TEST LABORATORIES CARRY OUT CONTINUOUS TESTING AS PART OF OUR DAY-TO-DAY OPERATIONS.

GEBERIT MAPRESS FOR VARIOUS **INDUSTRIAL REQUIREMENTS**

For the last 50 years, the name Mapress has stood for a technologically advanced piping system with economically superior and more intelligent connection technology. Geberit Mapress has already paved the way for generations of plumbers who are now abandoning complex connection technologies in favour of simple and reliable pressing. With the wide range of robust product materials, the comprehensive product range, as well as the numerous combination options, Geberit Mapress sets itself apart from the rest due to its universality and is now indispensable in the day-to-day activities of the industrial installations.

THE GROUNDBREAKING SYSTEM

Geberit Mapress is available in stainless steel, carbon steel or copper. Thanks to the large spectrum of pipe dimensions, fittings in different product materials and with different seal rings, Geberit is able to provide solutions for virtually any application in technical building systems and industry. Geberit Mapress CuNiFe is also available for use in shipbuilding projects.

EASY CONNECTION

Making the connection couldn't be easier: the whole deburred pipe is inserted into the fitting. The pressing jaw with the groove is close-coupled on the predetermined pressing contour and the pressing procedure is performed with permanent pressing. The pin marking is useful for checking the insertion depth retroactively. The risk of an error during the pressing operation is virtually zero.

PROTECTION AGAINST DUTS AND DIRT

The pressing sockets of the metal fittings are fitted with protection plugs which offer protection against dust and dirt on the building site and therefore ensure hygienically clean installations from the start. The protection plugs are transparent for general applications and yellow for gas application fittings.



← CIIR BLACK

General applications in technical building systems and industry.



← FKM BLUE

High temperature and chemical resistance.



← HBNR YELLOW

The specialist for gas applications.



← FKM WHITE

The expert for saturated steam applications.

- For high requirements in terms of hygiene and load bearing capacity
- Can be chemically and thermally disinfected
- Extremely high corrosion resistance and excellent hygiene characteristics
- Suitable for different – even aggressive – media



GLOSSY FINISH FOR HIGH REQUIREMENTS

GEBERIT MAPRESS STAINLESS STEEL 1.4401

Geberit Mapress Stainless Steel is the versatile installation system which meets high technical requirements. The product material demonstrates its performance capability in the drinking water supply, in complex industrial applications and in installations with high hygienic requirements, such as those in hospitals or laboratories.

System pipes made of high-alloy, austenitic, stainless CrNiMo steel with material number 1.4401 according to DIN EN 10088, available in pipe dimensions of 12–108 mm.

HIGH MOLYBDENUM CONTENT

The Geberit Mapress Stainless Steel 1.4401 system has a minimum molybdenum content of 2.2%. This value is higher than the usual standards and therefore ensures an extremely high corrosion resistance.

HYGIENICALLY PURE ALL THE TIME

Geberit Mapress Stainless Steel system pipes and fittings are delivered to wholesalers from the factory free of grease and oil and hygienically perfect, sealed with plugs and caps. If required, Geberit Mapress Stainless Steel can be used for chemical and thermal disinfection in accordance with the Drinking Water Ordinance and DVGW data sheet W 557.

APPROVED

Geberit has a number of approvals for Mapress Stainless Steel in technical building system installations and industrial and shipbuilding applications. For example, Geberit Mapress Stainless Steel is approved for drinking water installations, certified by DVGW with the system approval mark DW-8501AT2552, for sprinkler systems, certified by VdS G 4990013 and G 4910039, and for fluids in Groups 1 and 2 in accordance with the Pressure Equipment Directive (PED) 2014/68/EU, certified by TÜV component certificate TÜV A.271-17.

A COMPREHENSIVE SYSTEM

With eleven nominal widths and around 500 fittings and adapters, Geberit Mapress Stainless Steel offers a comprehensive range of application options. The Geberit Mapress Stainless Steel fittings are identified by the blue indicator ring.



Geberit Mapress Stainless Steel bends are also available in 15°, 30° and 60° angles, allowing particularly space-saving installation.

FOR VARIOUS REQUIREMENTS

GEBERIT MAPRESS STAINLESS STEEL

Various Geberit Mapress Stainless Steel product versions are available for versatile use and can be selected to suit specific requirements. Where higher performance is required or installation time needs to be reduced, fittings with premounted HNBR or FKM seal rings offer an efficient alternative.



GEBERIT MAPRESS STAINLESS STEEL, GAS

The fittings for fuel gas applications feature a yellow HNBR seal ring and a yellow cap. These yellow markings ensure they can be easily recognised as gas-approved even after pressing.



GEBERIT MAPRESS STAINLESS STEEL, FKM, BLUE

For applications with special requirements, such as handling oil-containing media, Geberit Mapress with the blue FKM seal ring is the ideal choice. Geberit offers a comprehensive assortment of fittings with premounted FKM seal rings for this purpose. These fittings are marked with a black protective cap for easy identification.



GEBERIT MAPRESS STAINLESS STEEL, LABS-FREE

By consistently avoiding substances that impair paint wetting, such as silicones, oils or other critical materials, Geberit ensures that surface quality is not affected in sensitive applications. Geberit Mapress fittings are thoroughly cleaned under strictly controlled conditions during production. The fittings in the LABS-free assortment are equipped with a black CIIR seal ring and are individually packaged.

VERSATILE CONNECTION OPTIONS



GEBERIT MAPRESS STAINLESS STEEL FLANGE PN 10/16, WITH PRESSING SOCKET

- Dimensions DN15 – DN100
- Design B1 (raised sealing strip with standard sealing strip), EN 1092-1



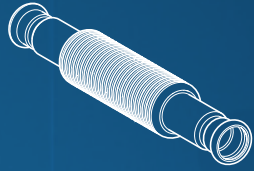
GEBERIT MAPRESS STAINLESS STEEL FLANGE PN 10/16, WITH PLAIN END

- Dimensions DN 20 – DN100
- Design B1 (raised sealing strip with standard sealing strip), EN 1092-1



GEBERIT MAPRESS STAINLESS STEEL NON-RETURN VALVE, FLANGED

- Dimensions DN12 – DN100
- Valve seal made of PTFE
- Section seal of flange made of PTFE
- Seal ring made of CIIR, black



GEBERIT MAPRESS STAINLESS STEEL AXIAL EXPANSION FITTING WITH PRESSING SOCKETS

- Dimensions DN12 – DN100



GEBERIT MAPRESS STAINLESS STEEL BALL VALVE WITH LEVER, FLANGED

- Dimensions DN12 – DN100
- Operating temperature -20 to +120°C



GEBERIT MAPRESS STAINLESS STEEL FLANGED STUB WITH PLAIN END, FOR LOOSE FLANGE PN 10/16

- Dimensions DN 20 – DN100
- Suitable for loose flanges, design B1 (raised face with standard sealing strip), EN 1092-1



GEBERIT MAPRESS STAINLESS STEEL BEND WITH PLAIN ENDS

- Dimensions DN12 – DN100
- 15°, 30°, 60° and 90° available



GEBERIT MAPRESS STAINLESS STEEL PIPE BRIDGE

- Dimensions DN12 – DN25



GEBERIT MAPRESS STAINLESS STEEL T-PIECE WITH FEMALE THREAD

- Dimensions DN12 – DN100



GEBERIT MAPRESS STAINLESS STEEL ADAPTER WITH UNION NUT MADE OF CRNI STEEL

- Dimensions DN12 – DN25
- Seal ring made of CIIR, black
- Flat gasket made of EPDM
- Medium temperature with EPDM flat gasket 0–100°C



GEBERIT MAPRESS STAINLESS STEEL ADAPTER WITH FEMALE THREAD AND PLAIN END

- Dimensions DN12 – DN100



GEBERIT MAPRESS STAINLESS STEEL ADAPTER WITH WELD-ON AND PLAIN END

- Dimensions DN12 – DN100
- For welding to stainless steel pipes in accordance with EN ISO 1127, material no. 1.4404

NOTE

Geberit manufacturing standards define and guarantee the highest quality requirements. All system pipes and fittings are delivered metallically bright, free from grease and oil, hygienically perfect and free from corrosive substances. The operating pressures listed in the TÜV component certificate are, in some cases – depending on the medium (e.g. gas or flammable liquids) – significantly limited by test reports, expert opinions, standards and/or regulations. Further details are available on request.

- Affordable stainless steel alternative when drinking water approval is not required
- Corrosion-resistant
- For cooling circuits and compressed air
- Compatible with the familiar Geberit Mapress pressing tools

ECONOMICAL FOR NON-POTABLE WATER

GEBERIT MAPRESS THERM

Geberit Mapress Therm is suitable for use in many applications where moisture can occur and no approvals for drinking water are required.

EASY RECOGNITION

The Geberit Mapress Therm fittings are clearly identifiable by the orange pressing indicator, while the Geberit Mapress Therm system pipes feature a continuous orange line that runs along the length of the pipe.

SUITABLE FOR VARIOUS APPLICATIONS

The Geberit Mapress Therm system is suitable for a wide range of applications in technical building systems and industrial environments, including heating and cooling circuits (with or without frost protection), as well as compressed air, inert gas and negative pressure applications.



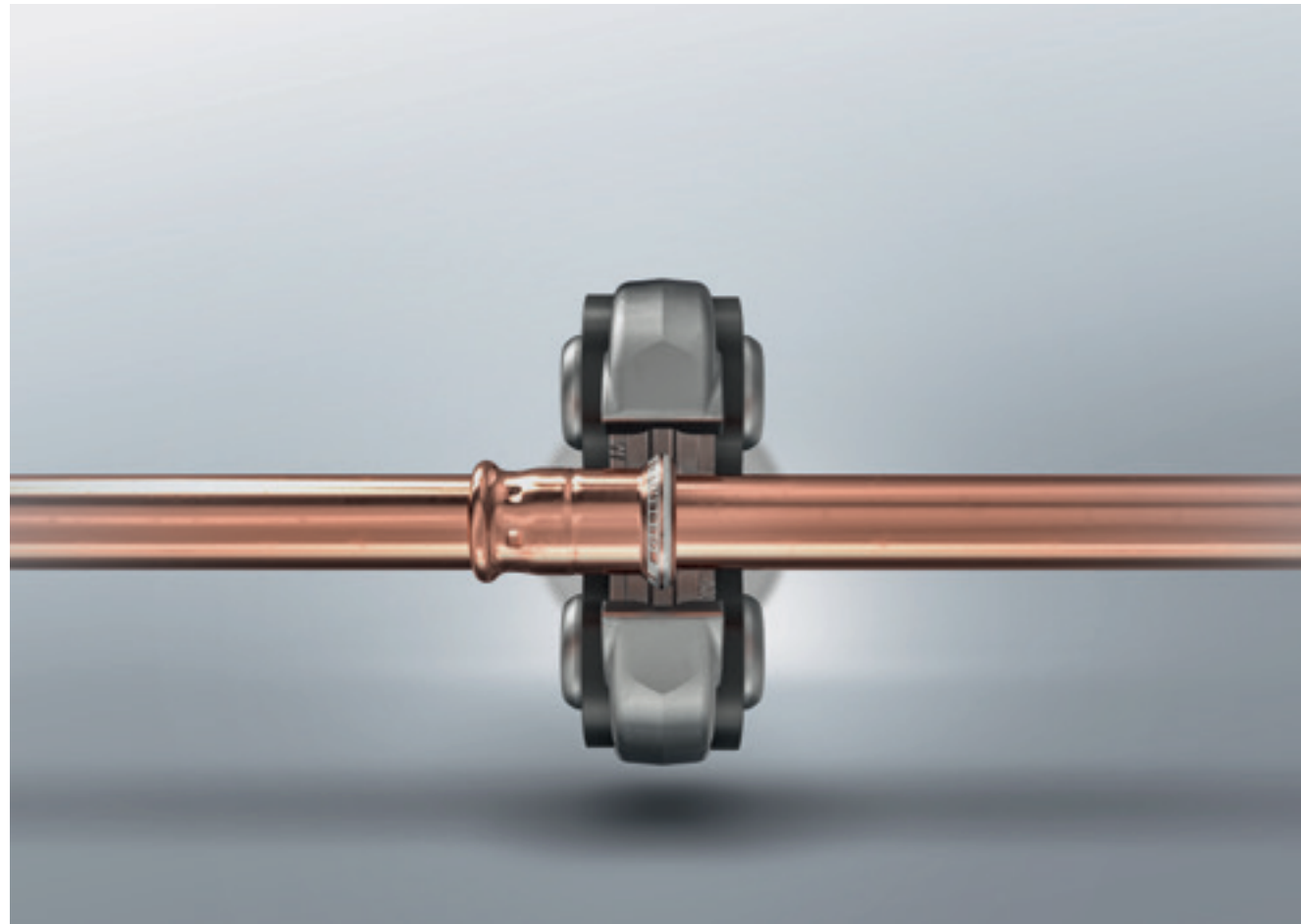
↑
Economical and corrosion-resistant system for cooling lines.



Fittings and pipes are marked with the 'non-potable water' warning sign.
←



↑
Extensive product range with dimensions ranging from d15 to d108.



ROBUST CLASSIC WITHOUT SOLDERING **GEBERIT MAPRESS COPPER**

Robust, convenient and hygienic – this is why many plumbers continue to use copper as their material of choice. With Geberit Mapress fittings, you benefit from contemporary connection technology that eliminates the need for soldering, ensuring safe installation with no fire risk.

- Quickly pressed without open flame compared to soldered joints
- High resistance to temperature and pressure

www.geberit.nl/mapress-koper



CLOSED CIRCUITS SECURELY PRESSED **GEBERIT MAPRESS CARBON STEEL**

Geberit Mapress Carbon Steel is the economical solution for atmospherically closed piping systems. Typical applications include heating and cooling circuits, indoor solar installations, and 'wet' sprinkler and extinguishing water pipes.

- For closed circuits, compressed air systems, as well as 'wet' sprinkler and extinguishing water pipes
- Cost-effective material
- Various system pipes: outside zinc-plated 1.0034, plastic-coated (PP) 1.0034, and inside and outside zinc-plated 1.0215
- Comprehensive assortment

www.geberit.nl/mapress-c-staal



WHEN WATER MEANS SEAWATER **GEBERIT MAPRESS CUNIFE**

The chloride content of seawater makes it corrosive to many metals. Geberit Mapress CuNiFe system pipes and fittings are designed specifically for applications involving seawater contact, making them ideal for shipbuilding and offshore use.

- High corrosion resistance to seawater thanks to a protective coating of copper oxide containing nickel and iron
- Made from Cu-Ni10-Fe1.6-Mn alloy, material number CW325H
- Special thermal and mechanical treatment of pipes and fittings creates a homogeneous, high-quality material structure

www.geberit.nl/mapress-cunife



APPROVED TECHNOLOGY FOR PIPE SYSTEMS



FLUID INSTALLATION **GEBERIT FLOWFIT**

Geberit FlowFit is a supply system developed for fast, trouble-free and easy installation – ideal for everyday use on the building site.

- Effortless installation in just a few steps
- Just two pressing jaws for eight pipe dimensions
- Pressing indicator for clear identification of unpressed connections – even in poor visibility
- Rotatable pressing point for easy access to the press fitting



← Just two pressing jaws are required to press all eight dimensions. The colour coding of the pressing indicator and pressing jaw makes it easy to identify which tool is the right one to use.

EFFORTLESS INSTALLATION

Geberit FlowFit makes it possible to handle a complete installation up to d40 without changing tools, as it only requires two pressing jaws to cover eight dimensions. With fewer tools, each clearly colour-coded by dimension, mixing up the pressing jaws is virtually impossible. The pipe is inserted directly after being cut to length – no calibration or deburring required. Inspection windows in the fitting clearly indicate whether the pipe has been fully inserted.

The pressing indicators have been designed to act as a clear tool guide rim. These fall off after pressing, making it obvious which connections have already been pressed.

MINIMAL PRESSURE LOSSES

The bent swept-entries of the fittings reduce pressure losses compared with conventional standard systems. This is made possible by innovative production technology. Hydraulic optimisation of the fitting and pipe geometry allows the use of smaller pipe diameters and results in a more compact installation with reduced pipe volume and draw-off times.

More information on Geberit FlowFit can be found at www.geberit.nl/flowfit



↑ The tool no longer needs to fully enclose the pipe during the pressing process – it simply engages with the laterally positioned pressing indicator. This makes it easy to work safely even in corners or confined spaces.



↑ Inspection windows provide immediate visual confirmation that the pipe is fully inserted. Is the pressing indicator still in place? Then the fitting has not yet been pressed.

BUILT FOR RELIABLE CONNECTIONS

GEBERIT PRESSING TOOLS

Faster work and greater convenience – Geberit pressing attachments feature pressing collars with a practical snap mechanism and maintenance-free pressing jaws, perfectly designed for working with Geberit pressing systems.

COMFORTABLE OPERATION

Geberit pressing tools are compact and lightweight, offering greater comfort compared with welding equipment. Their easy handling and low weight are particularly noticeable when performing overhead work.

EFFICIENT OPERATION

The battery-operated Geberit pressing tools are fitted with modern lithium-ion batteries. With long operating times and short charging cycles, they require less frequent charging and are quickly ready for use again.

SERVICE-FREE FOR LIFE

High pressing performance without external servicing: the maintenance-free Geberit pressing jaws ensure a precisely calibrated distribution of force that lasts throughout their entire service life. Maintenance can be carried out by the user, and the jaw condition verified using the Geberit PowerTest.



PRESSING DATA MADE EASY VIA APP

Check device parameters, view the device status or adjust basic settings.

The NovoCheck app can be used in parallel for multiple pressing tools by simply connecting the relevant devices via the Bluetooth® interface.



↑
Geberit offers a comprehensive assortment of pressing tools, pressing jaws and collars for compatibility levels [1] to [4].



↑
For Geberit Mapress up to d35, pressing rings and adapter jaws are ideal for use in confined spaces. The compact pressing ring is positioned and securely pressed using the pressing jaw, which can swivel up to 180°.





DRAINAGE SYSTEMS

**GEBERIT DRAINAGE SYSTEMS OFFER OUTSTANDING
PLANNING FLEXIBILITY AND ECONOMIC EFFICIENCY.
INNOVATIVE DETAILS AND PROVEN TECHNOLOGY
ENSURE RELIABLE FUNCTIONALITY.**

- Large range of products and wide range of dimensions
- High temperature and chemical resistance
- Robust and shockproof
- Various connection options
- Environmentally friendly plastic

ROBUST RESISTANCE NO MATTER WHAT

GEBERIT PE

Massive temperature changes, aggressive waste waters and soils, pressure, shifts and chemical influences: when high resistance is required in drainage technology, Geberit PE is the ideal system, fulfilling all the relevant standards.

DEFIES EXTREME TEMPERATURES

The high density of the material makes Geberit PE particularly robust. Hot water does not affect the material at temperatures of up to 80 °C – or even up to 100 °C in the short term and under certain conditions. In the event of cold, the tough material is even still shockproof at temperatures of -40 °C.

SHOCKPROOF AND FLEXIBLE

The pipes and fittings withstand shocks, drops, impacts or pressures of up to 1.5 bar without breakage or permanent deformation. This robustness provides, most notably, a guarantee during the construction stage that the pipeline will remain intact despite possible mechanical influences.

RESISTENT TO CHEMICALS

The Geberit PE drainage system is suitable for a multitude of applications in industry or laboratories. The material is resistant to most standard alkalis, acids and chemicals.

PERMANENT SEAL

The welding joints of Geberit PE pipes remain persistently leakproof for many years and offer building owners and plumbers a high degree of safety.

COMPREHENSIVE ASSORTMENT

The robust pipes are available in all common diameters from 32 to 315 mm, and the range of fittings including the special fittings is nearly comprehensive.



↑
Perfectly equipped for nearly all tasks: Geberit PE has a very wide assortment



↑
Geberit offers a comprehensive assortment of welding tools and accessories.

- High savings in materials
- Fast installation
- Optimal design freedom and use of space
- Less time spent on maintenance
- High performance and reliability

ROOF DRAINAGE WITH NEGATIVE PRESSURE

GEBERIT PLUVIA

Geberit Pluvia drains roofs efficiently and reliably even under the heaviest rainfall. Because significantly less product material and space is required for syphonic roof drainage than for conventional systems, free space is opened up. More design freedom in planning, higher profitability during installation and in operation: good reasons to choose for Geberit competence. Through tried-and-tested technology, innovative details and comprehensive service, Geberit Pluvia has been setting new standards for many years.

While conventional systems simply allow rain to run off through sloping pipes, the compact Geberit Pluvia pipe system fills up quickly and extracts the rainwater from the roof using the resultant negative pressure. The Geberit Pluvia roof outlets prevent air from being sucked in and guarantee reliable performance.

The result: double the amount of rainwater discharge at half the pipe diameter. There is also greater design freedom in terms of planning, since there is no longer any need for pipelines that have to be laid with a slope.

SUITABLE FOR PRACTICALLY ANY ROOF SHAPE

Geberit Pluvia ensures architectonic freedom, as different roof shapes can be reliably drained with it. The syphonic roof drainage makes many things possible that would not be technically feasible with conventional systems.

FEWER ROOF OUTLETS

Thanks to the high discharge rate of the syphonic roof drainage system, fewer roof outlets are required. This results in savings in product material and the amount of work needed, while also preserving the roof.

FEWER DISCHARGE PIPES

Because the pipes are filled completely, fewer drains are required. The effect: more flexibility in planning.

FEWER UNDERGROUNDING PIPE CONNECTIONS

Fewer discharge stacks and fewer connections mean lower installation and material costs.

SMALLER PIPE DIAMETER

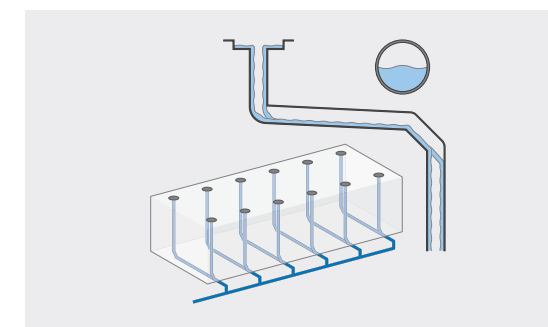
Geberit Pluvia pipelines are designed for a complete filling. This reduces the pipe diameter to a minimum.

SELF-CLEANING SYSTEM

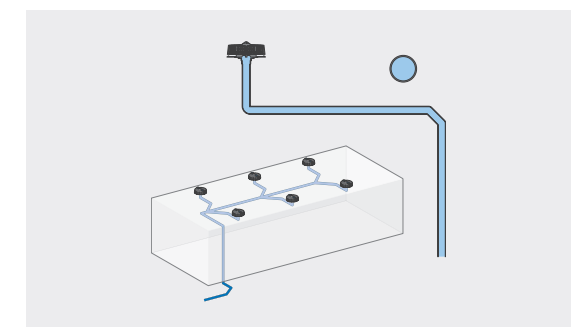
The high flow velocity when the pipeline is filled produces suction which contributes to the self-cleaning of the system. This ultimately means less time spent on maintenance.

NO SLOPE

Because Geberit Pluvia pipelines are laid horizontally, the drainage system does not result in any loss of space.



↑
Conventional roof drainage system



↑
Geberit Pluvia syphonic roof drainage

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