

GEBERIT IN INDUSTRY

**KNOW
HOW**
INSTALLED



GEBERIT PIPING SYSTEMS SOLUTIONS FOR APPLICATIONS **IN INDUSTRY**



DATE CENTRE

Heating/cooling
Oils and motor fuels
Fire extinguishing systems
Roof drainage



CHEMICAL AND PHARMACEUTICAL

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



MECHANICAL ENGINEERING

Process, cooling 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
Engine room systems
Seawater pipelines
Fire extinguishing systems
Drainage systems



AUTOMOTIVE INDUSTRY

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

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GEBERIT COMPETENCE CENTER INDUSTRY A STRONG PARTNER FOR EVERY TASK

The Geberit Competence Center Industry accompanies industrial and shipbuilding projects from preliminary planning and invitations to tender right through to the implementation and operation stages. Initial enquiries regarding the media compatibility of Geberit products, for example, can be made quickly and easily. All enquiries are dealt with as swiftly as possible – usually within 24 hours. Geberit industry sales consultants are always on hand to answer any questions you might have and provide you with personalised advice and guidance.

PROJECT PLANNING

Geberit provides support to anyone involved in industrial and shipbuilding projects, offering comprehensive advice regarding the preparation and planning of piping systems:

- possible applications
- media compatibility
- adherence to national and international standards and regulations
- admissible operating parameters
- advice on application technology from planners and dealers

PROJECT IMPLEMENTATION

Geberit supports its customers and their employees to ensure the smooth, safe and economical implementation of the piping systems:

- differentiated training programme with basic and advanced courses as well as customer and project specific courses and training
- advice on application technology for pipe fitters

SAFETY IN OPERATION

With appropriate documentation and certificates for the use of Geberit piping systems, Geberit guarantees safety when operating the systems for operators, pipe fitters and plumbers:

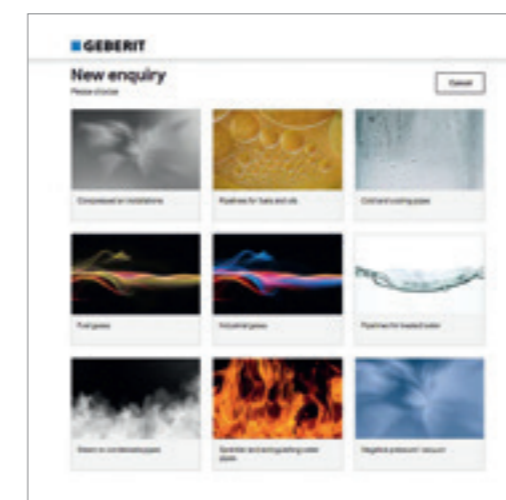
- approvals for piping systems and components for planned use



Contact and media enquiries:
teknisk.dk@geberit.com

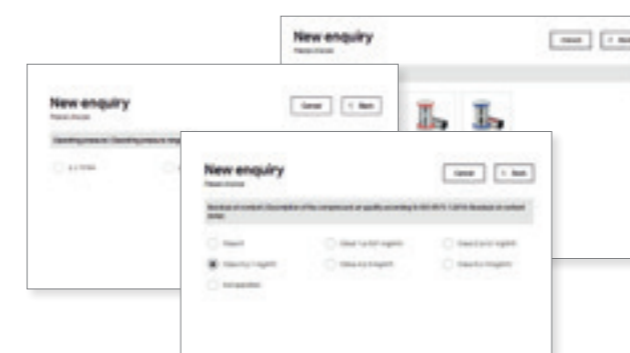
GEBERIT INDUSTRIAL APPLICATION TOOL JUST A FEW CLICKS AWAY FROM THE PERFECT SYSTEM

The Geberit Industrial Application Tool is the quick and reliable application test for medium-transporting supply systems from Geberit. The web tool provides clarity in the planning and installation of industrial and shipbuilding piping.



1. APPLICATION SELECTION

The first step is to select the application. This is where a selection of standard applications is provided. For very specific topics, a direct link is provided to a written request.



2. SPECIFICATION OF THE MEDIUM AND THE OPERATING PARAMETERS

After selecting the application and the desired piping system, different parameters can be selected for the medium and the operating and ambient conditions.



3. OVERVIEW, RESULT AND APPROVAL

If the parameters correspond to the specifications of the piping system, approval is granted immediately. Users can have this approval sent directly to them by email. If no approval can be given, there is the option of selecting a different piping system or submitting a written request with the details already selected.

Get started now www.geberit.dk/service-support/vaerktoejer-apps/



CATALOGUE MODULE

Quick and direct access to all Geberit BIM content. The Catalogue module includes a whole host of product groups spanning piping systems, installation systems, and now also ceramic products and bathroom furniture.



WIZZARD MODULE

Practical functions for planning supply networks and pipe runs facilitate prefabrication significantly by enabling accelerated and cost-optimised prefabrication planning processes. What's more, it is now possible to search for products using Geberit article numbers.



INSTALLATION SYSTEMS MODULE

Simple design of the installation systems with a complete material list. The module saves the need for parallel planning in another software to facilitate the planning process.



PLUVIA MODULE

For calculating the hydraulic certification and dimensioning for roof drainage with Geberit Pluvia directly in Autodesk Revit®.

GEBERIT BIM PLUG-IN

PLUG-IN AND PLAN

Digital planning and construction using the BIM method has brought about fundamental changes in the construction industry. The holistic and model-based approach means that planning and construction processes can also be optimised and accelerated within the sanitary industry. Geberit's aim is to create simple and innovative solutions that offer sanitary engineers, architects and contractors added safety and greater cost-effectiveness. And with the new Geberit BIM Plug-in for Autodesk Revit®, another important step has been taken in the right direction.

STRAIGHTFORWARD INDUSTRIAL PLANNING

Finding up-to-date, complete and valid BIM content that is easy to manage is often a challenge in itself. The Geberit BIM Plug-in offers a reliable, integrated solution that meets all the needs for a straightforward and correct planning process.

AS CURRENT AS IT GETS

The direct connection to the Geberit product information management (PIM) system ensures that the user only uploads tested and approved BIM objects. This prevents the opportunity for planning errors caused by faulty or invalid BIM content.

WORLDWIDE PLANNING APPLICATIONS

The ability to select a specific language and region allows the Geberit BIM Plug-in to be used worldwide. What's more, local product catalogues also ensure that only products that are available locally are used.

MANUFACTURER-NEUTRAL TENDERS

Public projects are often tendered on a manufacturer-neutral basis. This is why Geberit BIM content can be changed to generic designations with a simple click in

the built-in parameters. Once the tender is over, this can be reset so that the time-consuming replacement of objects in the BIM model is no longer necessary.

LIGHT-WEIGHT AND HANDY BIM OBJECTS

Geberit relies on highly simplified, parametric geometries with all the metadata that is relevant for planning in the background. This avoids overloading CAD systems from the outset and allows for efficient planning. Despite their highly simplified geometry, Geberit BIM objects meet the requirements of all planning and construction phases, right through to facility management.



GEBERIT BIM PLUG-IN FOR AUTODESK REVIT®

The Geberit BIM Plug-in can be downloaded free of charge from any Geberit website

www.geberit.dk/sanitets-roersystemer/planlaegning-installation/bim/

FLEXIBLE INSTALLATION

The Geberit BIM plug-in offers a whole host of advantages for efficient, model-based prefabrication with the greatest possible freedom when it comes to the arrangement of the components to be prefabricated:

- All fittings equipped with the article-specific Z-dimension
- Segmenting length wizard for splitting the pipe runs into deliverable lengths
- Numbering wizard for the free designation of components and individual sections
- Model-based tendering with Geberit article numbers possible
- Exportable overview list for easy labelling and connection of parts on the building site



GEBERIT SUPPLY SYSTEMS

VERSATILE FOR TREATED WATER

Treated water is used in a variety of applications. Substances are removed or added depending on the intended purpose. This specific and precise change to the water quality is used, for example, in drinking water, filling water for cooling and heating systems or in service water in trade and industry. Geberit offers piping systems for virtually all treated water.

GEBERIT MAPRESS

The Geberit Mapress Stainless Steel pressing system is suitable for nearly all treated water, such as softened or fully desalinated water, as well as ultrapure water with conductivities of $\geq 0.1 \mu\text{S}/\text{cm}$. It ensures safe hygiene and corrosion resistance at pH values of ≥ 4 . As a rule, all methods for producing treated water, such as distillation, ion exchange or reverse osmosis, can be used.

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.

GEBERIT MEPLA

The Geberit Mepla pressing system combines the advantages of plastic and metal pipes. Thanks to the multilayer pipes, pipe layouts can be adapted easily and flexibly to the constructional situation.

SMOOTH SYSTEM TRANSITION

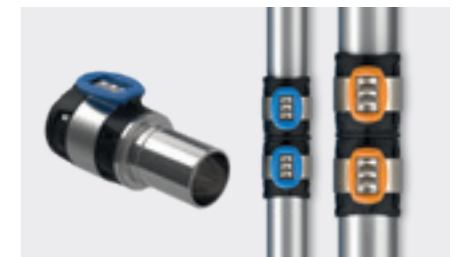
Thanks to corresponding system components, making the transition from Geberit Mepla or Geberit FlowFit to Geberit Mapress Stainless Steel could not be simpler. It is now possible to make threaded adapters in PVDF within the Geberit Mepla piping systems, ensuring that water quality is reliably maintained.



↑ Geberit Mepla with plastic adapters



↑ Geberit Mapress Stainless Steel adapters



↑ Geberit FlowFit transitions made of stainless steel

TREATED WATER FOR INDUSTRIAL APPLICATIONS (EXCEPT HEATING AND COOLING WATER)

	Geberit Mapress Stainless steel 1.4401	Geberit Mapress Stainless steel 1.4521	Geberit Mapress Copper CW024A ¹⁾	Geberit FlowFit (PERT II - AI - PE RT II)	Geberit Mepla ¹⁾ (PERT II-AI-PE RT II)	
Softened water > 5° dH	■	■	■	■	■	
Softened water < 5° dH	■	■	■ ²⁾	■ ¹⁾	■ ¹⁾	
Demineralised water, level of purity 3	■	■		■ ¹⁾	■ ¹⁾	Conductivity 1 up to 20 $\mu\text{S}/\text{cm}$
Demineralised water, level of purity 2	■	■		■ ¹⁾	■ ¹⁾	Conductivity 0.1 up to < 1 $\mu\text{S}/\text{cm}$
Demineralised water, level of purity 2+	■	■				Conductivity 0.056 up to < 0.1 $\mu\text{S}/\text{cm}$
Demineralised water, level of purity 1						Conductivity > 0.055 up to < 0.056 $\mu\text{S}/\text{cm}$
Demineralised water, level of purity 1+						Conductivity 0.055 $\mu\text{S}/\text{cm}$

■ Applications with black CIIR seal ring for Geberit Mapress system and EPDM seal for Geberit Mepla with predetermined operating data

NOTE

Pressing systems are not suitable for waters with increased requirements such as ultrapure water degree 1 or ultra-ultrapure water degree 1+, or waters which are used to prepare medications (highly purified water, Aqua valde purificata) and for injection purposes (water for injection, Aqua ad iniectionem). Increased requirements may include, for example conductivity < 0.1 $\mu\text{S}/\text{cm}$, CFU < 10/ml and TOC < 10 or seamless pipe joints.

¹⁾ The Geberit Mepla and Geberit FlowFit fittings made of gunmetal, copper, silicon bronze and brass are not suitable for softened water of < 5°dH or deionised water LP3 and LP2.

²⁾ On request

GEBERIT SUPPLY SYSTEMS PUT OUT THE FIRE EVERY TIME

From automatic triggering sprinkler systems to manually operated water conduits for fire extinguishing, wet sprinkler systems to dry sprinkler systems: in the event of a fire, fire protection equipment must perform reliably. Geberit Mapress piping systems fulfil the requirements specified in relevant standards and regulations.

Geberit pressing systems have been used in sprinkler systems and extinguishing water pipes for many years. The quick and flexible installation of these systems saves time and costs. Using Mapress system pipes and fittings allows weight savings of up to 50% compared with conventional systems.



↑ **GEBERIT MAPRESS STAINLESS STEEL: PRODUCT MATERIAL 1.4401**
Tested and approved for wet and dry sprinkler systems – for example, by VdS and FM – and according to DIN 14462 also suitable and can be used for 'wet', 'wet/dry' and 'dry' extinguishing water pipes.



↑ **GEBERIT MAPRESS CARBON STEEL: PRODUCT MATERIAL 1.0215**
Tested and approved for wet sprinkler systems – for example, by VdS – and also suitable and can be used for 'wet' extinguishing water pipes in accordance with DIN 14462.



↑ **GEBERIT MAPRESS THERM: PRODUCT MATERIAL 1.4301**
Tested and approved for "wet" sprinkler and extinguishing water pipes by VdS.

APPLICATION RANGES

	Approval	Geberit Mapress Stainless Steel 1.4401	Geberit Mapress Carbon steel inside and outside zinc-plated 1.0215
Wet sprinkler systems	VdS	■	■ ■
	FM	■	
	LPCB	■	■
Dry sprinkler system and dry/wet sprinkler system	VdS	■	
	FM	■	
Wet extinguishing water pipe in accordance with DIN 14462		■	■ ■
Dry extinguishing water pipe and dry/wet extinguishing water pipe		■ ¹⁾ ■ ²⁾	

- Geberit Mapress Therm 1.4301/1.4520
- Applications with black CIIR seal ring with predetermined operating data
- Applications with blue FKM seal ring with predetermined operating data

¹⁾ According to VdS approval for sprinkler systems
²⁾ According to FM approval for sprinkler systems



GEBERIT SUPPLY SYSTEMS PRESSURE RE- SISTENT FOR COMPRESSED AIR PIPES

Whether compressed air is needed as control air in mechanical engineering or the automotive industry, or as process air for production or manufacturing processes, for instance, in the foodstuffs industry: the Geberit Mapress pressing systems offer the right pipe and fitting material for any required compressed air quality.



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

Compressed air is always an economical energy source when the procedures involved in generating, processing and distributing compressed air are optimally aligned with one another. Depending on the compressed air quality required, Geberit Mapress Stainless Steel, Carbon Steel, Therm or Copper can be used to distribute the compressed air. Geberit pressing

systems have been used in compressed air systems for many years. The permanently high tightness of the connection and the quick and simple installation technology mean that it is a high-quality and economical connection technology.

APPLICATION RANGES

Maximum operating pressures subject to pipe dimensions, details and higher pressures on request:

	Solids/particles class ¹⁾				Moisture/water class ¹⁾					Oil class ¹⁾		
	0	1-2	3-7	X	0	1-4	5-6	7-9	X	0-1	2-3	4-5
Geberit Mapress Stainless Steel 1.4401 (CrNiMo)	✓	✓	✓	✓	✓	✓	✓	✓	✓	■ ■	■ ■	■
Geberit Mapress Stainless steel/ Therm 1.4301 (CrNi)/1.4520 (CrTi)	✓	✓	✓	✓	✓	✓	✓	✓	✓	■ ■	■ ■	■
Geberit Mapress Carbon steel inside and outside zinc-plated 1.0215			✓	✓	✓	✓	✓				■ ■	■
Geberit Mapress Copper DIN EN 1057:2010-06		✓	✓	✓	✓	✓	✓	✓	✓		■ ■	■
Geberit FlowFit (PE RT II – Al – PE RT II)	On request											
Geberit Mepla (PE RT II – Al – PE RT II)	On request											

Geberit Mapress Stainless Steel and 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

■ 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 INDUSTRI- AL GASES

Geberit Mapress Stainless Steel and Mapress Stainless Steel(Gas) are tested and approved systems for a number of industrial gases and gas mixtures as well as fuel gases in accordance with DVGW data sheet G 260. These pressingsystems offer a high-quality and economical 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 $< 1 \cdot 10^{-5}$).

GAS APPLICATIONS SAFELY UNDER CONTROL

Geberit Mapress Stainless Steel (Gas) and Copper (Gas) possess all the required approvals for fuel gases according to DVGW G 260. The fittings for gas installation have a yellow marking, as well as yellow protection plugs, making them easy to distinguish from other Geberit fittings straight away. To ensure secure sealing when transporting the volatile medium of gas, they are equipped 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 technical 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 technical gases, the Geberit Mapress pressing system can be used in all dimensions from 15 to 108 mm.



↑ Geberit fittings for gas applications are equipped with a yellow seal ring and yellow cap.

APPLICATION RANGES

	Acetylene	Argon	Natural gas	Helium	Carbon dioxide	Treated biogas	Propane	Oxygen	Nitrogen	Hydrogen	Shielding gases in accordance with DIN EN ISO 14175	Synthetic air
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)	-10 to +50	-10 to +60	-20 to +70	-10 to +60	-10 to +60	-20 to +70	-20 to +70	-10 to +60	-10 to +60	-10 to +60	-10 to +60	-10 to +100

NOTE

Our works standard defines and guarantees high quality standards. All our 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 significantly 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.

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

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

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

GEBERIT SUPPLYSYSTEMS 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

	Approval in acc. with VdTÜV		Approval in acc. with DIBt	
	Geberit Mapress Stainless steel 1.4401	Geberit Mapress Carbon steel 1.0034	Geberit Mapress Stainless steel 1.4401	Geberit Mapress Carbon steel 1.0034
Heating oil/diesel	■	■ 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	■ ■		■	

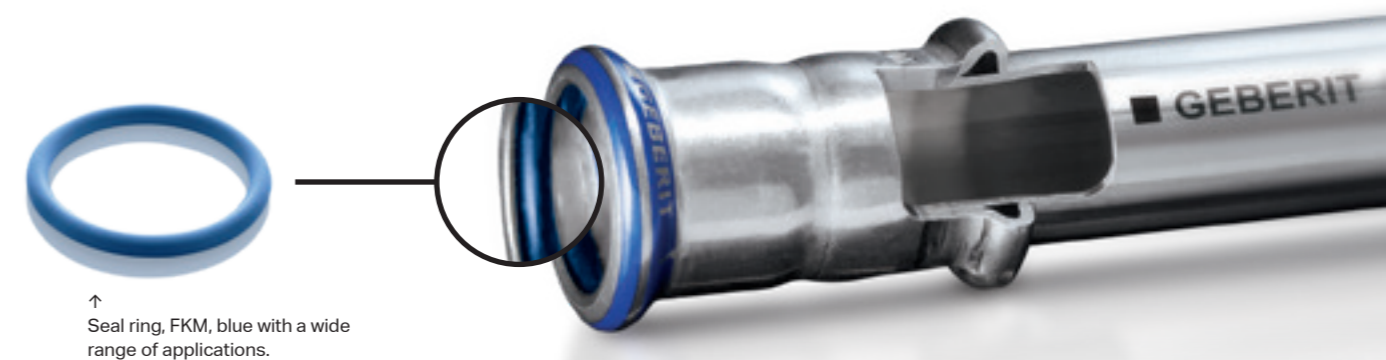
Maximum permitted operating pressure in accordance with DIBt approval: 10 bar (for all dimensions).
Maximum operating pressures subject to pipe dimensions, details and higher pressures on request.

■ 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.



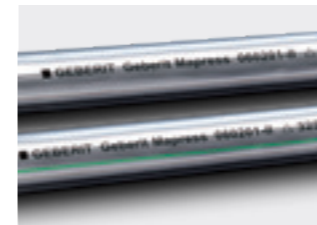
↑
Seal ring, FKM, blue with a wide range of applications.

GEBERIT SUPPLY SYSTEMS

FUNCTIONALLY RELIABLE IN WATER COOL- LING SYSTEMS

Thanks to their levels of safety and reliability, water cooling systems are often used for machine, process and product cooling. Geberit supply systems guarantee safe and reliable supply at low and high temperatures by means of the cooling medium.

Water cooling systems, also known as water chillers, are generally self-contained circulation systems that produce cold by means of a liquid medium. In contrast to conventional refrigerating machines, water or water/glycol mixtures are used for cooling. What's more, the availability and absolute safety of the cooling medium are significant factors.



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



↑ The Geberit Mapress Carbon Steel system pipes and fittings are made of non-alloy steel 1.0034 and are available in a variety of designs.



↑ The Geberit Mepla multilayer piping system combines the advantages of metal and plastic.



↑ Geberit FlowFit is easy to install and can be safely used even in confined spaces. Geberit FlowFit is easy to install and can be safely used even in confined spaces.

	Heating/cooling circuit closed to the atmosphere	Heating/cooling open to the atmosphere	Temperature range (°C)	
Geberit Mapress Stainless steel, product material 1.4401	✓	✓	-30 to +100	Limit value for chloride ion content, insulating materials according to AGI Worksheet Q 132 or BTGA Rule 3.004 specifications, otherwise corrosion protection coating.
Geberit Mapress Therm	✓		-30 to +100	
Geberit Mapress Carbon steel, outside zinc-plated, 1.0034	✓		-30 to +100	Corrosion protection coating required in accordance with AGI (German Industrial Construction Association) worksheet Q 151.
Geberit Mapress Carbon steel, PP-jacketed, 1.0034	✓		-30 to +100	Fittings must be protected with overlapping corrosion protection sleeves on the pipe.
Geberit Mapress Copper, product material CW024A	✓	✓	-30 to +100	
Geberit FlowFit (PE RT II - AI - PE RT II)	✓	✓	-10 to +70	
Geberit Mepla (PE RT II - AI - PE RT II)	✓	✓	-10 to +70	

Applicable for water cooling systems with and without antifreeze agents (glycol-based frost protection).

In accordance with AGI (German Industrial Construction Association) worksheet Q 151, industrial systems made of non-alloy and low-alloy steels must be provided with additional corrosion protection for surface temperatures ranging from -50 °C to +150 °C. This is important for Mapress Carbon Steel, outside zinc-plated.

If increased chloride ion concentrations in conjunction with moisture and temperatures > 35 °C cannot be ruled out, stainless, austenitic steels should be protected against corrosion in accordance with the requirements of Q 151.

GEBERIT SUPPLY SYSTEMS SATURATED STEAM SAFETY UNDER PRESSURE AND HEAT

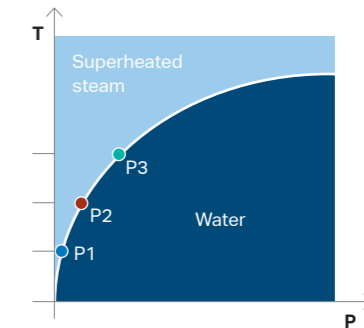
Saturated steam is used in numerous industrial applications, including the chemical, petrochemical, refining, pulp and paper industries, to name just a few. And with temperatures reaching up to 155°C, this places high demands on the piping systems. Geberit Mapress Stainless Steel meets these requirements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



← Geberit Mapress is suitable for the areas on and below the saturated steam curve.

APPLICATION AREAS

Seal rings for saturated steam and condensate	Pipe material Geberit Mapress Stainless Steel 1.4401	Dimensions [DN]	Temperature [°C]
CIIR black	✓	10 – 100	100 – 120
FKM white	✓	12 – 100	100 – 155*

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

*Higher temperatures on request

GEBERIT SUPPLY SYSTEMS

CERTIFIED SYSTEMS FOR NEGATIVE PRESSURE APPLICATIONS

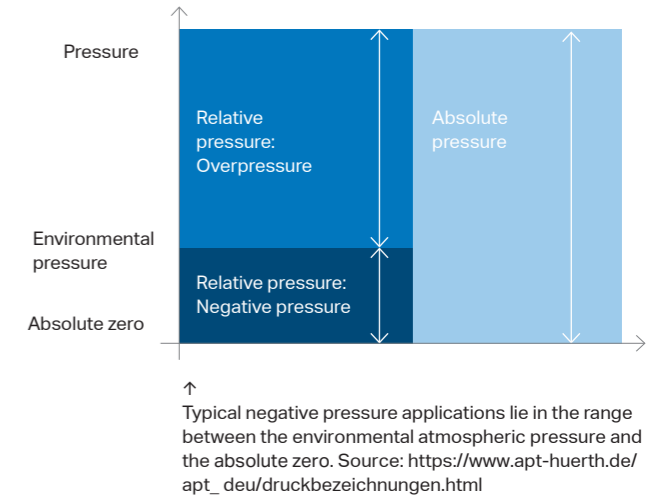
The pipe connections in the Geberit press systems have passed the negative pressure test according to the German Technical and Scientific Association for Gas and Water (DVGW), Worksheet W 534, Section 102 with a negative pressure of -0.8 bar compared to atmospheric pressure. This demonstrates that the press fitting systems from Geberit offer reliable solutions for a wide range of negative pressure applications.

EXTENSIVE APPLICATIONS IN INDUSTRY, TRADE AND RESEARCH

Whether in the packaging industry, in suction lines for oils, fuels and other media, in clean room technology or at the dentist, negative pressure plays a crucial role in a whole host of industrial and commercial applications. This concept refers to the range between atmospheric air pressure and a vacuum, where the absolute pressure is 0 mbar. At sea level, the average atmospheric pressure is 1013.25 hectopascals. This fluctuates by about five per cent during high-pressure and low-pressure weather conditions, and decreases continuously with increasing altitude above sea level. The negative pressure in an application is typically described as 'relative pressure'. This denotes the difference between the actual atmospheric pressure in the surrounding area and the required pressure in the piping system. In practice, the negative pressure ranges from 1013 mbar down to 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.



↑ CIIR seal ring for a secure seal when used with mineral oil products.

NEGATIVE PRESSURE TABLE

Pressing system	Maximum negative pressure*	Minimum absolute pressure*
Geberit Mapress Stainless Steel 1.4401 with CIIR seal ring	-0,8 bar	200 mbar _{abs.}
Geberit Mapress Stainless Steel 1.4521 with CIIR seal ring	-0,8 bar	200 mbar _{abs.}
Geberit Mapress Copper CW 024 A	-0,8 bar	200 mbar _{abs.}
Geberit Mepla	-0,8 bar	200 mbar _{abs.}
Geberit FlowFit	-0,8 bar	200 mbar _{abs.}

*Higher or lower pressures on request

GEBERIT DRAINAGESYSTEMS

RUGGEDNESS PERSONIFIED THE PROFESSIONALS FOR THE DIRTY WORK

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.

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.



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



↑ Removable connections with loose flange or screw connection

APPLICATION RANGES WITH GEBERIT PE

		Share (%)	Room temperature (20 °C)	Increased temperature (60 °C)
Alkalis	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.



GEBERIT PIPING SYSTEMS

APPROVALS

ALWAYS ON THE SAFE SIDE

Geberit supply and drainage systems have a number of approvals for applications in technical building systems and in industry. Because of this, our customers are on the safe side of the law when it comes to their projects, and they can count on reliable and tested functions.



TECHNICAL BUILDING SYSTEMS



In the area of technical building systems, Geberit has approvals and certifications from a number of bodies, including the German Technical and Scientific Association for Gas and Water (DVGW), the Swiss association of gas and water (SVGW), the British Water Regulations Advisory Scheme (WRAS), the Austrian Association for Gas and Water (ÖVGW), the French Scientific and Technical Center for Building (CSTB) and KIWA.



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 of Shipping, Registro Italiano Navale and the Russian Maritime Register of Shipping.



INDUSTRY



TS 1599: Issue Draft 5
Cert/LPCB ref. 1031a

TS 1599: Issue Draft 5
Cert/LPCB ref. 1031b

For industrial applications, Geberit Mapress has approvals from several bodies, including the German Association of Technical Inspection Agencies (Vd TÜV), the German institute for building technology (DIBt), the German institute for material research and testing (BAM), VdS Schadenverhütung (loss prevention), FM Approvals and the Global Loss Prevention Certification Board (LPCB).



- Tailored economical solutions for a wide range of installation projects
- Reliably detect unpressed fittings thanks to a defined leak path
- Geberit pressing tool for quick and reliable progress
- Perfectly coordinated tool components

↑
The Geberit pressing tool ensures permanently reliable connections.

GEBERIT PRESSING SYSTEMS CONNECTED QUICKLY AND RELIABLY

Your customers expect reliable and durable pipe joints. They value quick and economical work on the building site. The Geberit Supply Systems, which have been used successfully for decades, enable you to achieve both goals.

SPEED MEANS COST-EFFECTIVENESS

The pipe and/or fitting change shape when they are pressed with a pressing tool developed for this purpose. Geberit press connections create solid mechanical connections which are permanent and lengthways non-positive. The resilience of the deformed seal rings ensures that the fittings are permanently and hydraulically leakproof. Pressing and insertion are quick connection methods which save a lot of time in comparison to traditional methods such as soldering or welding. As open flames are not required, many time-consuming protection measures can also be dispensed with.

IT'S VISIBLY SECURE

Geberit Supply Systems have different mechanisms for ensuring correct processing.

Correct insertion depth

With the Geberit Mepla and Geberit FlowFit systems, the pipe is inserted until it reaches a stop position on or in the fitting. It is easy to see the correct connection.

Tool guide

In all pressing systems, the pressing jaws are designed in such a way that it is almost impossible to position the tool incorrectly. This reduces or prevents failed pressing sequences.

Pressing indicator

Let us not forget press connections. Unpressed Geberit Mapress fittings are therefore identified straight away by the coloured pressing indicators. The coloured pressing indicators at the ends of the fittings are easy to remove after the pressing procedure. In the case of Geberit FlowFit, the pressing indicator simply falls off after the pressing operation.

Leaky if unpressed

If the Geberit Mepla, Geberit FlowFit and Geberit Mapress¹⁾ fittings are not firmly pressed, they will certainly be leaky when subjected to a pressure test with air or water. Defined leak paths ensure that connections which have not yet been pressed are detected reliably. You and your customer can therefore be assured that no nasty surprises will suddenly jump out at you later on and that everything will stay reliably leakproof.



↑
Defined leak paths make unpressed fittings immediately visible in the pressure test.



↑
Coloured indicators identify unpressed Mapress fittings even before the pressure test.



↑
Easy to identify even in dark corners: Either the pressing indicator is still on the fitting or the connection has already been pressed.

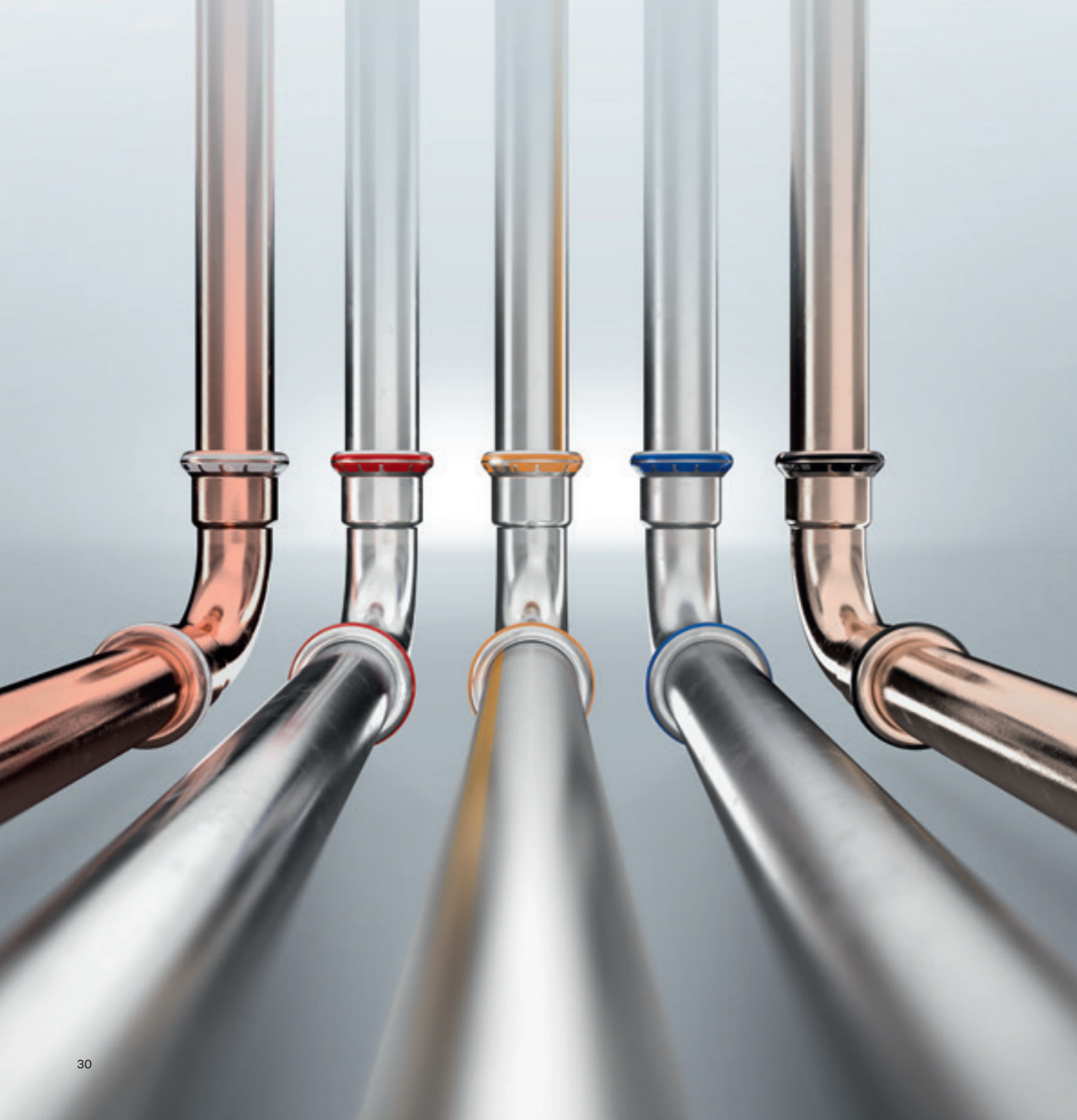


↑
Mechanically stable and hydraulically leakproof: the pressed joint.

¹⁾ Only applies to seal rings CIIR, black, typically used in technical building systems.

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.



←
FPM RED
For sprinklers and extinguishing water pipes.

- Geberit pressing technology for reliable leakproof connections
- Multiple national and international approvals

- 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



GEBERIT MAPRESS STAINLESS STEEL 1.4401

GLOSSY FINISH FOR HIGH REQUIREMENTS

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 is approved for sprinkler systems.

GEBERIT MAPRESS STAINLESS STEEL 1.4521

ECONOMICAL FOR DRINKING WATER

The Geberit Mapress Stainless Steel pipes 1.4521 offer an interesting alternative when requirements stipulate economical and reliable drinking water installations. With the less expensive CrMoTi steel alloy, you don't have to compromise when it comes to hygiene.

- Economical alternative to stainless steel 1.4401; reliably calculable
- Approved for drinking water installations, certified by DVGW with the system approval mark DW-8501AT2552
- Can be chemically and thermally disinfected
- Bendable in all pipe dimensions
- Can be processed as usual with Geberit Mapress pressing tools

System pipes made of high-alloy, ferritic, stainless chromoly steel with material number 1.4521 according to DIN EN 10088.

EQUIVALENT MATERIAL BEHAVIOUR

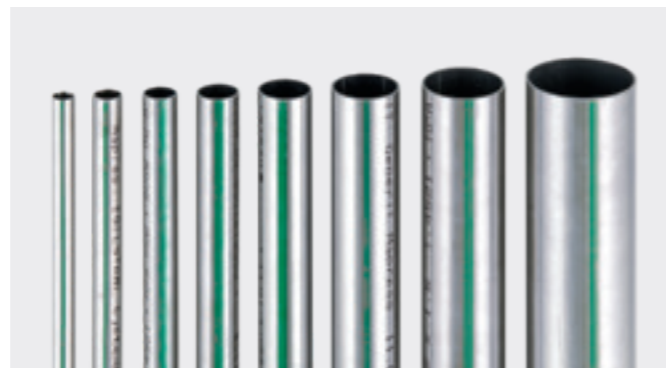
Geberit Mapress Stainless Steel 1.4521 is the cheaper alternative to Geberit Mapress Stainless Steel 1.4401. The Geberit system pipe, product material 1.4521, has been tested and approved for drinking water installations, certified by DVGW with the system approval mark DW-8501AT2552. If required, it can also be used for chemical and thermal disinfection in accordance with the Drinking Water Ordinance and DVGW data sheet W 557.

RELIABLE PROCESSING WITHOUT NEW TOOLS

There is no need to purchase any new tools or learn any new processing methods to process the Geberit Mapress system pipe 1.4521 reliably. The pressing operation is performed as usual with the Geberit Mapress pressfittings 1.4401. The Geberit Mapress system pipes 1.4521 are always identifiable by the green line along the pipe.



↑ Geberit system pipes in stainless steel 1.4521 are processed as usual with the Mapress pressfittings 1.4401.



↑ Eight different pipe dimensions of 12-54 mm.



Hygienically sealed, the pipes are sure to arrive at the building site clean.

NEW

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

GEBERIT MAPRESS THERM ECONOMICAL **FOR** **NON-POTABLE WATER**

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, sprinkler systems, inert gas and negative pressure applications.



↑
Economical and corrosion-resistant system for cooling lines.

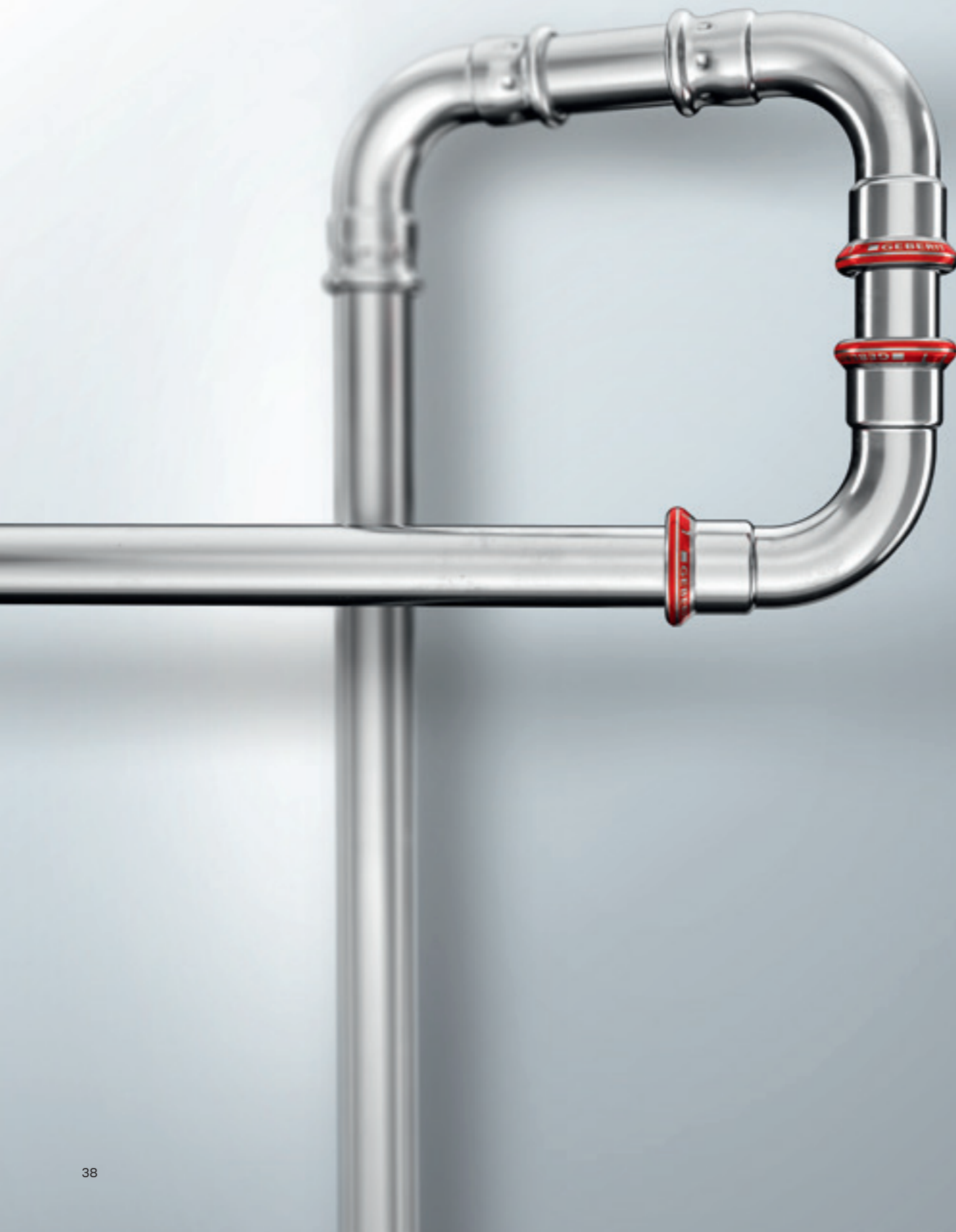


Fittings and pipes are marked with the 'non-potable water' warning sign.
←



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

- For closed circuits, compressed air systems as well as “wet” sprinkler and extinguishing water pipes
- Easy and safe processing



GEBERIT MAPRESS CARBON STEEL

CLOSEDCIRCUITS RELIABLY PRESSED

Geberit Mapress Carbon Steel is an economical solution for piping systems that are closed to the atmosphere. Typical application ranges include heating and cooling circuits, solar systems and “wet” sprinkler and extinguishing water pipes.

JACKETED OR ZINC-PLATED

The Geberit Mapress Carbon Steel pressing system comprises system pipes and fittings, outside zinc-plated with material number 1.0034, as well as system pipes, plastic jacketed (PP) with material number 1.0034, and system pipes, inside and outside zinc-plated with material number 1.0215. Geberit Mapress Carbon Steel is available in pipe dimensions of 12–108 mm; the plasticjacketed system pipes are available in dimensions of 12–54 mm.

BROAD RANGE OF APPLICATIONS

With its 8 µm thick zinc layer, Geberit Mapress Carbon Steel, outside zinc-plated, meets the requirements of stress stage 1 in accordance with DIN EN ISO 2081. Geberit Mapress Carbon Steel is therefore suitable for laying in dry, heatable interiors (corrosivity category C1). The plasticjacketed system pipe with cream polypropylene jacketing is particularly suitable for visually unobtrusive surface mounting, as well as cooling circuits closed to the atmosphere. The inside and outside zinc-plated system pipe is the economical alternative for “wet” sprinkler and extinguishing water pipes and compressed air installations.

BEST CONNECTINS TO MEPLA OR PUSHFIT

Over 400 fittings are available for a diverse range of application solutions. Suitable adapters ensure quick, easy and reliable connections to Geberit Mepla or Geberit PushFit, for an economical connection to heating radiators, for example.

Always the right pipe: Geberit Mapress Carbon Steel pipes are offered with PP jacketing, outside zinc-plating or inside and outside zinc-plating.



GEBERIT MAPRESS COPPER

ROBUST CLASSIC WITHOUT SOLDERING

Robust, convenient and hygienic: this is why many plumbers regularly use copper. With Geberit Mapress fittings, you benefit from the contemporary connection technology, which is processed reliably without soldering and therefore without fire risk.

The Geberit Mapress selection of copper products includes fittings from DHP copper with material number CW024A, gunmetal with material number CC449K and brass with material numbers CW602N and CW617N.

VERSATILE APPLICATIONS

In drinking water installations, heating and cooling water systems, as well as gas and compressed air pipes – copper is found on many building sites even today. Geberit Mapress Copper is also suitable for special applications with increased requirements.

SAFE PROCESSING WITHOUT AN OPEN FLAME

Pressing rather than soldering – Geberit Mapress Copper is also based on this principle. This increases safety on the building site, as an open flame is not

used. Complex fire protection measures are therefore not required.

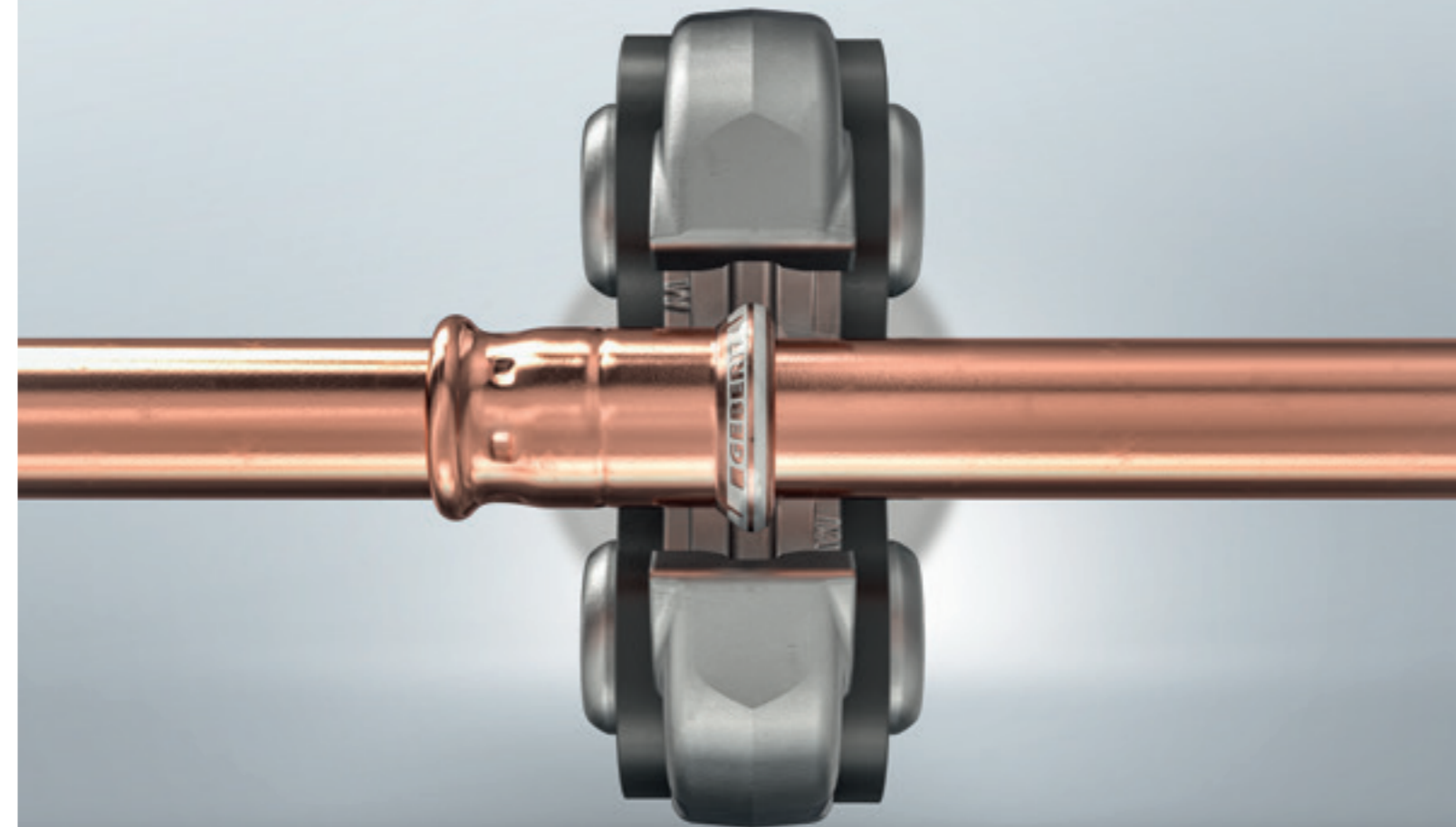
COMPREHENSIVE FITTING ASSORTMENT

The Geberit Mapress copper range comprises a variety of fittings in dimensions of 12–108 mm for Mapress Copper and dimensions of 12–54 mm for Mapress Copper (Gas). Geberit recommends using quality copper pipes in accordance with DIN EN 1057 and DVGW GW 392 – annealed (R220), half-hard (R250) or hard (R290) depending on the dimension.

- Quickly pressed without open flame compared to soldered joints
- Robust connection through cold deformation of pipe and fitting
- Safety thanks to clear detection of unpressed connections
- High pressure and temperature resistance



←
Geberit Mapress Kupfer Fittings für
eine Vielzahl von Einsatzbereichen.



GEBERIT MAPRESS CUNIFE

WHEN YOUR WATER IS SEAWATER

Seawater has a corrosive effect on many metals due to its chloride content. Geberit Mapress CuNiFe system pipes and fittings are THE specialists for applications involving contact with seawater, and are therefore fit for use in a range of shipbuilding and offshore projects.

Geberit Mapress CuNiFe system pipes and fittings consist of a CuNi10Fe1.6Mn alloy with material number CW325H.

PROVEN EFFECTIVENESS IN CONTACT WITH SEAWATER

Geberit Mapress system pipes and fittings made of CuNiFe have an excellent corrosion resistance to seawater. This high corrosion resistance is due to a natural, thin protective coating that quickly forms upon contact with clean seawater. This complex protective coating is mainly made up of copper oxide and is improved by additional nickel and iron, ensuring excellent corrosion resistance.

WIDE RANGE OF APPLICATIONS

The reliability and corrosion resistance of the Geberit Mapress CuNiFe system pipes and fittings have proven themselves in a variety of applications in which installations carry seawater. Shipyards, shipping companies and system suppliers put their trust in this system, using it in shipbuilding and offshore projects for machine systems, fire extinguishing systems and sanitary technology systems. A further area of application is in seawater desalination plants.

→ Geberit Mapress CuNiFe Fittings lassen sich an ihrer Farbe und ihrem schwarzen Indikatorring erkennen.

RELIABLE PROCESSING WITHOUT NEW TOOLS

Geberit Mapress CuNiFe is suitable for piping systems up to pressures of 13 bar. The tried-and-tested Geberit pressing tools are also used for Geberit Mapress CuNiFe, guaranteeing the mechanical strength and tightness of the connections. As is standard practice at Geberit, Geberit Mapress CuNiFe system pipes and fittings are delivered with protective plugs to protect them from impurities and maintain installation hygiene right up to the processing stage. The system pipes are available in dimensions of 15–108 mm.



- Excellent corrosion resistance to seawater
- Black protective caps on the pipe ends and protective caps on the fittings prevent the accumulation of dust and dirt
- Special thermal and mechanical treatments of the pipes and fittings create a homogeneous, high-quality material structure





- Effortless installation involving just a few steps
- Pressure loss-optimised supply system
- Just two pressing jaws for eight pipe dimensions
- Pressing indicator signals unpressed connections even in difficult visibility conditions
- Virtually no failed pressing sequences thanks to reliable tool attachment

GEBERIT FLOWFIT

FLUID INSTALLATION

When it comes to the practical side of installing supply systems, craftsmen are confronted with workflows that are frequently interrupted. With Geberit FlowFit, a new supply system has been created that removes all disruptive factors from the installation process. This makes the workflow as fluid and straightforward as it should be.

EFFORTLESS INSTALLATION

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. Working with such a small number of tools – which are clearly colour-coded according to the individual dimensions – makes it almost impossible to mix up the pressing jaws. The pipe is cut to length and then inserted immediately afterwards, without the need for calibration or deburring. Inspection windows in the fittings clearly indicate whether a pipe has been inserted fully.

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

MINIMAL PRESSURE LOSSES

The bent swept-entries of the fittings achieve reduced pressure losses compared to typical standard systems. These are made possible by innovative production technology. The hydraulic optimisation of fitting and pipe geometry makes it possible to achieve pipe diameters with smaller dimensions and an overall leaner installation with reduced pipe contents and draw-off times.



d75 d63 d50 Just two tools for all pipe dimensionse d40 d32 d25 d20 d18

↑

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. Even the large dimensions are processed with a pressing jaw instead of a pressing collar.

GEBERIT FLOWFIT

CLEAN INSTALLATION EVEN ON A DIRTY BUILDING SITE

All Geberit FlowFit fittings, including the threaded connections and pipes, are fully protected against dirt and transport damage with protective caps.

QUICKER INSTALLATION

The Geberit FlowFit system does not require any calibration or deburring of the pipe. What's more, the elimination of this process also serves to speed up the installation. A specially designed calibration tool is provided for non-round pipes to reduce insertion forces.

VISIBLE UNPRESSED FITTINGS

Following a successful pressing procedure, the pressing indicator detaches so that it is clear to see any unpressed connections in no time when carrying out a subsequent connection check – even in poor lighting conditions. What's more, defined leaks make unpressed fittings visible at a glance in the pressure test.

NO MORE FAILED PRESSING SEQUENCES

The tool and pressing indicator fit together like a lock and key. This virtually eliminates the risk of a failed pressing sequence caused by incorrect positioning.

NO ELECTRICITY REQUIRED

Is it possible to install an entire project with just one tool? With Geberit FlowFit, it couldn't be easier thanks to the hand-operated pressing pliers, which can be used up to d40 mm to make additional tools and pressing jaws redundant. Hand-operated pressing pliers do not need to be connected to the power supply to install pipes, which means the tool is always available, and there are no unnecessary interruptions to the process for replacing batteries or charging rechargeable batteries.

CLEAN MATERIAL

An environmental product declaration exists for Geberit FlowFit for corresponding building certifications. Lead-free fittings comply with future legal drinking water regulations.

INSERTION DEPTH ACCURACY

The fitting has its own inspection window that provides information about the insertion depth. What's more, the clear visual distinction between the silver grey pipes and the black fittings prevents any potential ambiguity.

COMPREHENSIVE ASSORTMENT

Available in eight dimensions from d16 to d75 mm and in the pipe variants bars, coils, with protective tube and pre-insulated, Geberit FlowFit covers the usual practical applications in drinking water and heating installations. Pre-insulated pipes make for a quick and economical solution for the plumber. The assortment also provides for the installation of a pipe-in-pipe hot water circulation system. With almost 500 articles, Geberit FlowFit offers a professional solution for virtually every construction task and situation.

100% QUALITYCONTROL

The fully automated production process includes permanent quality assurance in various sub-processes. Each fitting has a unique identifier based on its production date and time as well as its batch number.



CORRECT POSITION EVERY TIME

The lateral pressing point can be continuously rotated and optimally aligned to suit the processor. This makes it possible to work safely and effortlessly even in hard-to-reach installation locations.



PRESSING EVEN IN TIGHT CONSTRUCTIONAL SITUATIONS

It is no longer essential to fully enclose the pipe during the pressing process, as the tool only has to be applied to the laterally positioned pressing indicator. This makes it easy to work safely even in corners or narrow places.



- Flexible, bendable and yet inherently stable
- Clean, safe and easy to process
- Reliable press connection
- Quick and secure transitions to other systems such as Geberit Mapress and Geberit PushFit



GEBERIT MEPLA

FLEXIBLE AND INHERENTLY STABLE

The Geberit Mepla multilayer pipe system combines the advantages of metal and plastic. Ensuring fast progress at the building site and complying with all the necessary standards and regulations.

THREE LAYERS FOR DRINKING WATER AND HEATING

Lighter than metal pipes, more inherently stable and robust than plastic pipes, and easy and safe to process: Geberit Mepla combines the advantages of both types of pipe. Stable, bendable and able to form a barrier against diffusion: Geberit Mepla also remains leakproof when subjected to pressure far in excess of the standard testing pressure of 1.1. MPa (11 bar). The outer plastic layer made of polyethylene (PE-RT of the second generation) protects against corrosion and mechanical damage. The central aluminium layer makes the pipe stable and bendable. The inner layer, which is likewise made of PE-RT, is corrosionresistant and food-safe. In accordance with the Drinking Water Ordinance, Geberit Mepla is suitable for all types of drinking water without restriction.

SAFE INSTALLATION OF DRINKING WATER AND HEATING

With Geberit Mepla, you only need one single system for the drinking water and heating supply. Pipe dimensions from 16 to 75 mm and a selection of around 300 fittings made of polyvinylidene fluoride (PVDF/PPSU) and gunmetal offer a solution for almost any installation task. All pipe dimensions are permitted for use in the heating installation from 0 to 80 °C, in the drinking water installation from 0 to 70 °C and for operating pressures up to 1 MPa (10 bar). Clever connections such as the cross fitting have proven their worth in day-to-day applications such as radiator connections for a connection to two parallel pipes without intersecting.

THE ECONOMICAL SYSTEM

Geberit MasterFix establishes quick connections to the Geberit sanitary elements. Special fittings simplify the transitions of Geberit Mepla to the metal Geberit Mapress system. Installing series-connected or circular pipes is especially economical with the Geberit MasterFix T-piece.



GEBERIT MEPLA

LEAKY IF UNPRESSED

Unpressed fittings can be reliably identified during a leak test.

HIGH STABILITY

Using polyethylene and aluminium combines the benefits of plastic with those of metallic systems.

HYGIENICALLY PERFECT

The surface roughness of just 7 µm reduces the build-up of chalk and biofilm. Protective caps ensure reliable and hygienic protection during storage and transport.

PRESSING JAW GUIDE

The defined pressing jaw guide prevents slipping and failed pressing sequences.

RELIABLE INSPECTION OF THE INSERTION DEPTH

The insertion depth remains visible at all times and indicates whether the pipe has been correctly pushed onto the fitting.

IDEAL FOR COLD-WATER PIPES

Special processing is not required for corrosion protection.

SAFE FOR HIGH LOADS

The high tensile strength of the Geberit Mepla connections ensures reliable functioning even with high loads.

FORMS A BARRIER AGAINST DIFFUSION

The aluminium layer reliably prevents oxygen diffusion – ideal, for example, for heating applications.

LARGE DIAMETER

Available up to a dimension of 75 mm.

EASY AND RELIABLE INSTALLTION

The uniform bending capacity enables flexible adjustment to on-site conditions, and the cams and retaining rings ensure reliable installation, alignment and pressing operations. There are also fewer fastening points than with other plastic pipes.



GEBERIT PE

ROBUST RESISTANCE NO MATTER WHAT

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

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 PLUVIA

ROOF DRAINAGE WITH NEGATIVE PRESSURE

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

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 opt 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.

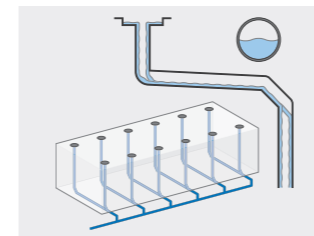
The result: double the amount of rainwater discharge at half the pipe diameter. There is also greater design freedom in terms of planning, since there is no longer any need for pipelines that have to be laid with a slope.

SUITABLE FOR PRACTICALLY ANY ROOF SHAPE

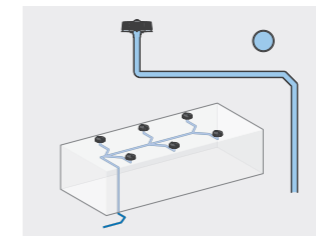
Geberit Pluvia ensures architectonic freedom, as different roof shapes can be reliably drained with it. The syphonic roof drainage makes many things possible that would not be technically feasible with conventional systems.

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.



↑
Conventional roof drainage system



↑
Geberit Pluvia syphonic roof drainage

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.

GEBERIT PLUVIA

ALL-ROUND RELIABILITY

Perfectly matched components ensure that the overall system functions flawlessly. Sophisticated details and a consistently high level of material quality reliably ensure durability, safety and smooth operation.

THE GEBERIT PLUVIA ROOF OUTLETS

- Geberit roof outlets for all roof types
- Reliable sealing with the Geberit flange gasket made of EPDM
- Each roof outlet is tested individually for tightness at the factory
- Rotating lock bar for easy installation
- With the Pluvia emergency overflow, it is possible to convert to an emergency overflow system

SIMPLER PLANNING AND CALCULATION

- Just a few clicks to the right solution for your design situation with the Geberit Pluvia Product Finder
- Geberit ProPlanner software with plug-in for Autodesk® Revit® for hydraulic calculation



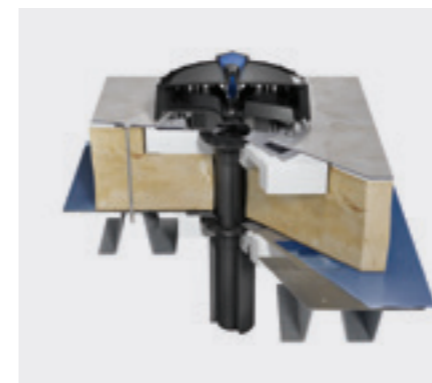
THE GEBERIT PLUVIA FASTENING SYSTEM

- Fastening points required only every 2.50 m on the building structure
- Can be installed easily using a hammer thanks to the universal tension wedges
- Fastening with electrofusion tape enables later determination of anchor points
- Ideal for lightweight roofs since there are only weak forces acting on the building structure

ROOF STRUCTURES – THE RIGHT SOLUTIONS FOR EVERY CONSTRUCTION SITUATION



Example 1
Concrete roof with bitumen roof foil



Example 2
Lightweight roof, insulated with roof foil and the Geberit vapour barrier connection



Example 3
Weight-bearing concrete roof with bitumen roof foil



Example 4
Weight-bearing concrete roof with bitumen roof foil



- Fire protection products for a high level of safety
- Reliable sealing of component openings
- Proof of fire protection for various constructional situations



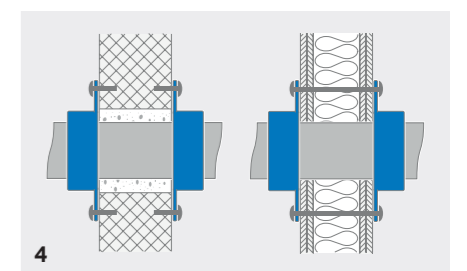
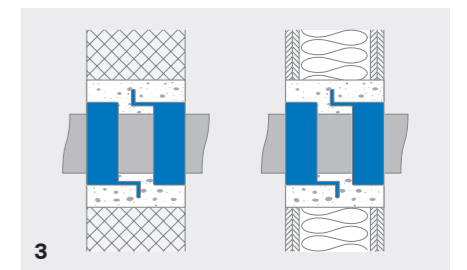
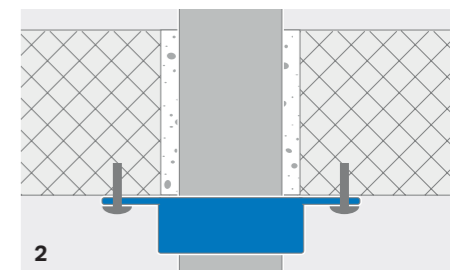
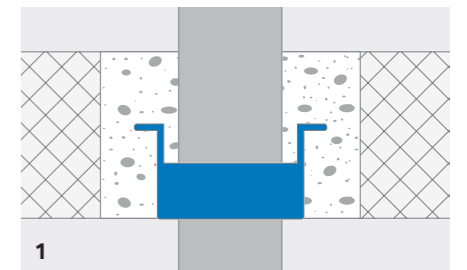
FIRE PROTECTION

RELIABLE PROTECTION AGAINST FIRE SPREAD

Wall and ceiling openings as well as installation ducts can make it easier for fires in buildings to spread if they are not sealed in a proper standard-compliant way. The Geberit fire protection sleeve RS90 Plus EN seals the pipe opening in case of fire and prevents smoke, fire and heat spreading to other rooms or parts of the building. The fire protection sleeve RS90 Plus EN can be used with all Geberit drainage systems.

PREVENT THE SPREAD OF FIRE AND SMOKE

The Geberit fire protection sleeve RS90 Plus EN seals pipe feed-throughs through walls and ceilings in the event of a fire, preventing the spread of smoke and fire in a fire compartment for 30, 60 or 90 minutes. All fire protection solutions have been approved. The Geberit fire protection sleeve RS90 Plus EN offers universal fire protection solutions for pipe feed-throughs through ceilings and wall, as well as close-to-ceiling mountings.



- 1 Installed flush with the ceiling
- 2 Attached to the ceiling
- 3 Installed flush with the wall
- 4 Attached to the wall

GEBERIT TOOLS FOR PRESSING SYSTEMS

STRONG FOR RELIABLE PRESSING OPERATIONS

Low weight, faster work and convenience: this is what the Geberit pressing tools have to offer. Alongside the Geberit pressing collars with snap mechanism and the maintenance-free Geberit pressing jaws, Geberit tools ensure quick processing and a reliable connection when installing supply systems.

CONVIENIENT PROCESSING

The Geberit pressing tools are compact, lightweight and provide a high level of convenience. Their easy handling and low weight are particularly noticeable when performing overhead work.

EFFECTIVE WORK

The battery-operated Geberit pressing tools are fitted with modern lithium-ion batteries. Thanks to the long battery running time, the Geberit pressing tools require charging less often and, due to short charging times, they can be put back into operation more quickly.

DIGITALLY CONNECTED

The Geberit pressing tools ACO 103plus, ACO 203plus and ACO 203XLplus each have a Bluetooth® interface for the NovoCheck app, which can be used to read out device information and pressing documentation.

NO MAINTENANCE THROUGHOUT THE ENTIRE SERVICE LIFE

High pressing performance without the need for external maintenance: the maintenance-free Geberit pressing jaws ensure a balanced distribution of force which lasts throughout the entire service life.

FOR LARGE DIMENSIONS

Regardless of how the pipes are aligned, these are held firmly onto the pressfitting by a snap mechanism in the Geberit pressing collars, thereby ensuring easy and reliable handling.



↑ Eine integrierte Pressstellenbeleuchtung bei der Geberit ACO 103plus, ECO 203 und ACO 203XLplus sorgt für gute Sicht in dunklen Ecken.



↑ Der Geberit PowerTest gibt Ihnen Auskunft über den Zustand Ihrer Geberit Pressbacke.



↑ Ab der Durchmesserdimension 63 mm bei Geberit Mepla und ab Durchmesser 42 mm bei Geberit Mapress kommen Pressschlingen zum Einsatz.



- Compact, lightweight, convenient – and suitable for use anywhere.
- Perfect pressing operations thanks to a fixed pressure of 700 bar.
- All Geberit Mapress dimensions can be pressed with just a single pressing tool.



GEBERIT COMPACT CP700G HYDRAULIC POWER PACK

COMPACT POWER- HOUSE AT WORK

Compact, lightweight and convenient: The new Geberit Compact CP700G hydraulic power pack can be carried and used anywhere on the building site. The fixed pressure of 700 bar guarantees perfect pressing operations with Geberit Mapress for all dimensions with compatibility [2] and [4]. This makes it an ideal pressing tool for handling increased requirements.

MOBILE PIECE OF KIT

Its battery operation makes it flexible enough for use anywhere on the building site, since it is not dependent on a mains power supply. The carrying belt makes it easy to transport, take along on lifting platforms, and carry while performing pressing operations. What's more, the 1.5 metre hydraulic hose including remote control means pressing operations can even be carried out close to the pressing cylinder.



MEETING HIGH REQUIREMENTS

The fixed pressure of 700 bar on the device guarantees perfect pressing operations, particularly in applications with increased pressure requirements, such as sprinkler systems or compressed air with a high safety factor (SF 4). The combination of the hydraulic power pack, pressing cylinder, and pressing or adapter jaw automatically results in the suitable pressing force for the respective dimension. This ensures the connections are securely pressed with the required pressure. With the Geberit pressing cylinder with compatibility [4], increased industrial and shipbuilding requirements up to an operating pressure of 16 bar can be achieved for the dimensions d76.1–d108 mm.



FOR ALL DIMENSIONS

All Geberit Mapress dimensions from d12–d66.7 mm with compatibility [2] and from d76.1–d108 mm with compatibility [4] can be pressed with just a single pressing tool. This means a diameter of d108 mm can be completely pressed in a single step. This makes for a time-saving and economical installation – even for projects with large dimensions.

↑ Pressing cylinders with compatibility [2] and [4] ensure the correct pressing force for different dimensions without the need for additional tools

TECHNICAL DATA

Compatibility:	[2]/[4]
Rechargeable battery capacity:	5 Ah
Dimensions:	300x195x210 mm
Weight:	4.6 kg*
Length of the hydraulic hose:	1.5 m
Remote control cable length:	2.0 m

*Data without pressing cylinder and battery



DEVICES THAT WELD TOGETHER



GEBERIT PIPE SCRAPER

In a short period of time, a pipe or fitting can be prepared for welding with a Geberit electrofusion coupling.

- For Geberit PE and Geberit Silent-db20
- Can be used with traditional cordless drill drivers
- Ideal in narrow areas or areas that are difficult to access
- Scraping knife that can be quickly and easily replaced
- Available for various diameters: d56, d63, d75, d90 and d110



BUTT WELDING MASHINES

The Universal and Media butt welding machines are easy to operate and can be converted quickly. Thanks to their particular robustness, they are well suited to both prefabrication in the workshop and use at the building site.



GEBERIT WELDING PLATES

Durable and ready for use in no time: This makes the new Geberit welding plates a loyal and reliable companion both for prefabrication in the repair shop and even on building sites.

- Available in models KSS-160, KSS-200 and KSS-315
- Longer service life and easy cleaning thanks to the optimised polymer coating
- Ergonomic grip options for safe welding work
- Ready for operation at 220 °C within only a few minutes



GEBERIT ELECTROFUSION MASHINE ESG 3

The Geberit electrofusion machine ESG 3 for the piping systems Geberit PE and Geberit Silent-db20 is made for demanding everyday work at the building site. It is powerful and suitable for electrofusion couplings or electrofusion couplings with integrated thermal fuse of all pipe dimensions from 40 to 315 mm.



GEBERIT ELECTROFUSION MASHINE ESG LIGHT

The small Geberit electrofusion machine ESG light is the compact alternative to the ESG 3 and ensures easy handling at the building site. The ESG light makes it possible to connect Geberit PE and Geberit Silent-db20 pipes and fittings with the help of electrofusion couplings.

GEBERIT ESG 3 AND GEBERIT ESG LIGHT INCOMPARISON



Geberit electrofusion machine	Geberit ESG 3	Geberit ESG LIGHT
Pipe dimension 40–160	✓	✓
Pipe dimension 200–315	✓	
Electrofusion couplings	✓	✓
Electrofusion tapes	✓	✓
Electrofusion couplings with integrated thermal fuse	✓	
Quick exchange of the connecting cable for electrofusion coupling	✓	✓
Fall impact cushioning	✓	✓
Right angle plug	✓	✓
Remote control	✓	
Simultaneous welding of up to three electrofusion couplings	✓	
Possible to interrupt the welding procedure	✓	✓
Operation with power generator	✓	
Weight in kg	5,9	2,0

- Higher than average innovative capacity thanks to ongoing investment in our own development and research projects
- Reputation for outstanding expertise in numerous fields
- Uncompromisingly high quality and production standards

AN ORIGIN STORY FOR THE FUTURE FOR TOMORROW'S **SANITARY TECHNOLOGY**

Geberit aims to improve people's quality of life over the long term with innovative solutions in the area of sanitary technology. To do this, the company is constantly developing its products, systems and solutions and, as the market leader in sanitary technology, keeps setting new standards.

On average, Geberit invests two percent of its sales into its own research and development and applies for around 20 new patents every year. Geberit's innovative capacity is based on existing know-how and the ongoing research activities in fields such as hydraulics, statics, hygiene, acoustics, materials and fire protection.

SYSTEMATIC APPROACH

A customer requirement or brilliant idea is often the starting point for developing a new product. Meticulous, systematic work then follows, because the innovation process at Geberit does not leave anything to chance. This is why, for example, the required characteristics of the product material that will later go into series production are defined at a very early stage. If such a product material does not yet exist, the product material engineers get to work and develop – in close cooperation with plastic producers, universities and test institutes, of course – a new product material themselves. Although this involves a great deal of time and effort, this procedure has proven worthwhile in, for example, the development of the Geberit Silent-Pro highly sound-insulated drainage system or the Geberit PushFit piping system.

50 YEARS IN THREE MONTHS

As soon as the first prototypes for a new product are available, they are put through their paces. To do this, tough tests are carried out in the sanitation laboratory to simulate a product life of 50 years within three months. Only the best product solutions survive this hardness test. At the Building Technology and Acoustics Laboratory, the static and acoustic characteristics of individual products as well as whole systems are tested. Here, experts investigate how a particular innovation or improvement behaves in conjunction with other sanitary technology components.

Testing is carried out by the application engineers once the scientists and engineers have given a new innovation the green light. Series production is not contemplated until the product has proved successful in the market within the scope of numerous test installations.

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