GEBERIT

GEBERIT SUPPLY SYSTEMS

# SO THAT EVERYTHING RUNS SMOOTHLY


KNOW HOW INSTALLED


VOLEX
Geberit Mepla
GEBERIT

# LIFELINES **FOR MODERN BUILDINGS**

A modern building works like a complex organism that has to be supplied with water, heat, energy and air. Geberit delivers the solutions that allow its functions to work reliably and consistently. Potable water, heating, cooling and gas, compressed air and other media – Geberit supply systems for residential buildings, industry and public buildings provide the confidence your customers expect from you.

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GEBERIT'S SYSTEMATIC APPROACH TO TECHNOLOGY

# A RELIABLE CONNECTION **THAT IS FIT FOR THE FUTURE**

Supply pipes have to carry out a wide range of tasks in one building and meet complex requirements in safety and hygiene. They supply us with hygienically perfect potable water and pleasant heating power. They transport gas safely to its point of use and must satisfy the highest safety standards in special applications.

### ALWAYS ROOM FOR IMPROVEMENT

Geberit is the market leader in the area of sanitary technology in Europe. This is particularly true in the field of technical building systems. Hardly any other company in this sector invests as much year after year in continually optimising existing systems and in developing new technologies and products as Geberit.

### TAILORED SOLUTIONS FOR SAFE AND CLEAN DOMESTIC INSTALLATION

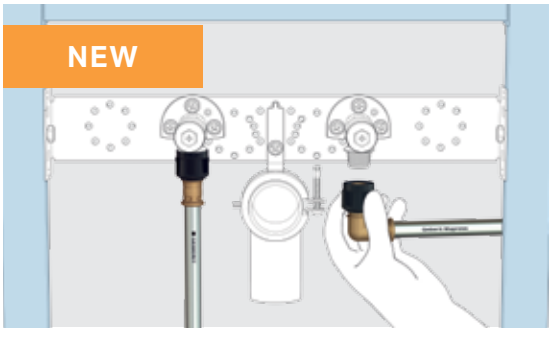
With different products for different tasks, Geberit provides suitable solutions for the private, semi-public, public and industrial sectors. Geberit's piping systems made of plastic and metal solve almost all tasks in domestic installation. Custom-fit adapters ensure reliable, permanent connections within a Geberit supply system and between different product materials.

### QUICK CONNECTIONS FOR YOUR SUCCESS

As a pioneer in pressing technology, Geberit revolutionised pipe installation 50 years ago and has continued to improve it ever since, such as with the Geberit Mapress pressing indicator. With the development of the Geberit PushFit connection system, the company is continuing to pave the way towards economical and safe installation.

### THE PERFECT ADAPTER

For a reliable connection to valves and installation elements, Geberit MasterFix provides a connection technology without the need for tools and without hemping.




Geberit adapter featuring the MasterFix with noticeably audible check for installation completion

### NEW ADAPTER WITH MASTERFIX

Even in dark or narrow installation situations, MasterFix ensures reliable installation, as the adapter noticeably locks in audibly. The Geberit adapter with MasterFix can also easily be detached again even after a long period of operation.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GEBERIT PRESSING AND PUSH-FIT CONNECTION 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. Pipe and fitting are easily fitted together using the Geberit PushFit system. Corrosion-resistant, stainless-steel claws on the inside of the fitting ensure high tensile strength. 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 system, the pipe is inserted until it reaches a stop position on the fitting. It is easy to see the correct connection. A green indicator clearly shows the correct insertion depth on the PushFit and the correct insertion depth for the Volex is easy to spot from all directions thanks to an inspection window.

**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.

**Leaky if unpressed**
If the Geberit Mepla and Geberit Mapress[1)] 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.

Mechanically stable and hydraulically leakproof: the pressed joint.

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

- 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.

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

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

GEBERIT HYGIENE SOLUTIONS

# SAFE DRINKING WATER

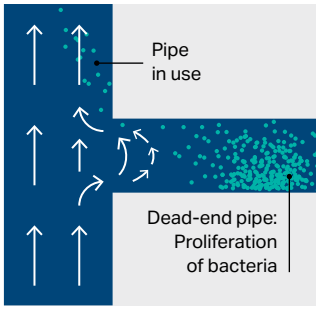
Many consumers are not aware of the fact that dangerous pathogens such as legionella, pseudomonas or other germs lurk precisely where they expect nothing but freshness and cleanliness. With the right solutions, Geberit is able to ensure that plumbers, sanitary engineers and real estate operators can guarantee hygienic safety with the appropriate measures.

## DRINKING WATER SAFETY STARTS WITH THE CORRECT PLANNING.

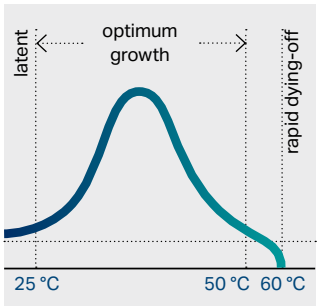
The responsibility for preventing showering from becoming a health hazard and keeping it a carefree pleasure lies with the sanitary engineer, the craftsman and the operator of the relevant drinking water system, because there is no such thing as germ-free drinking water. But a health-threatening concentration can only occur if the pathogens find favourable conditions. With the correct planning and installation, a hygienically safe initial filling and – where required – sanitary flush, this hazard can be safely avoided. As a result, stagnant drinking water can be replaced regularly, ensuring perfect drinking water hygiene.

## STANDARDS AND LAWS: GUIDELINES FOR SAFETY DURING PLANNING, INSTALLATION AND OPERATION.

Guaranteeing drinking water quality in domestic installations is the subject of various ordinances, standards and regulations. At a European level, the EU directive 98/83/EC governs the quality of water for human consumption. The TWV (Drinking Water Ordinance) is authoritative in Austria. If the requirements of the Drinking Water Ordinance and the generally acknowledged rules of technology are observed, then the key prerequisites for a hygienic drinking water supply are in effect. Sanitary engineers, plumbers and operators are also on legally secure ground in that case.




Dead-end pipes in which no water replacement takes place encourage the growth of bacteria.

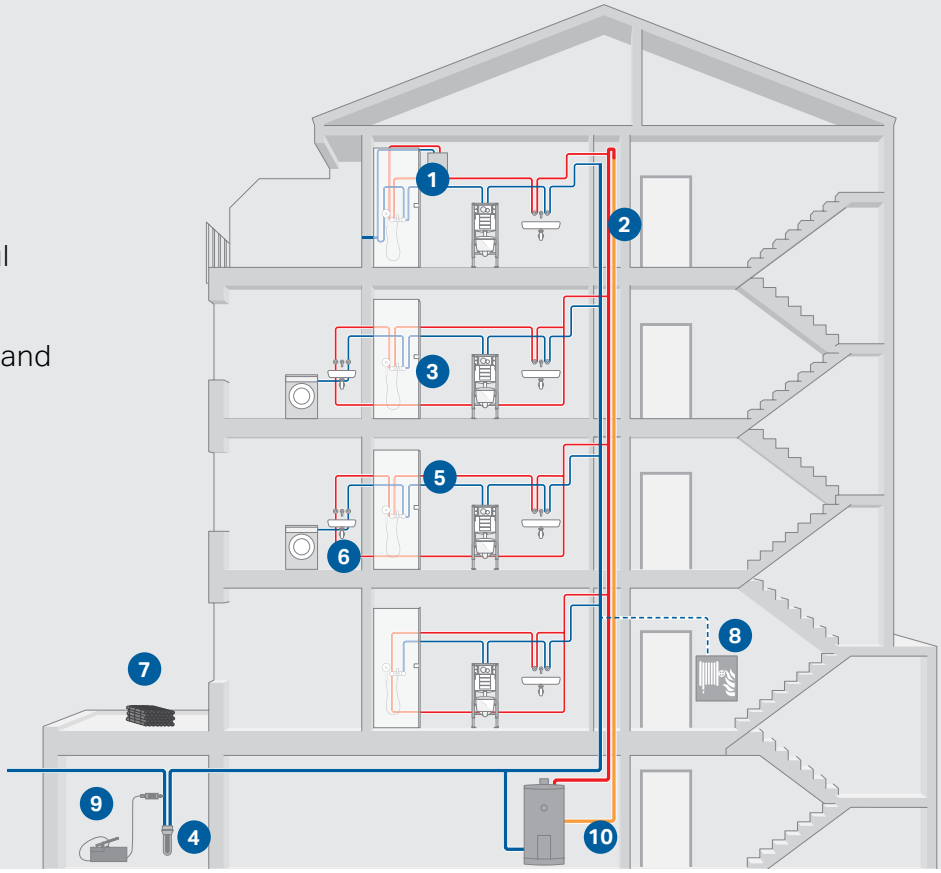



Legionella bacteria reproduce particularly quickly in water at temperatures between 25 and 50 °C.


Wherever stagnation can occur in the drinking water system, the Geberit sanitary flush offers a safe solution to guarantee hygienic water replacement in the pipes. With numerous setting options, a compact design and innovative control technology via smartphone and a building service management system, it sets new standards in the industry.

Geberit's know-how can effectively help to prevent bacteria growing to harmful concentrations:

- Correct planning, design and commissioning
- Correct operation
- Preventing stagnation
- Avoiding unfavourable temperatures




### 1 REGULAR FLUSHING
The Geberit sanitary flush prevents longer stagnation times in the drinking water pipes. Smartphone operation is straightforward and easy to use.

### 2 NO LUKEWARM WATER
With good thermal insulation, the cold water stays really cold and the hot water really hot, meaning that no bacteria can multiply.

### 3 TESTED CONSTRUCTION PRODUCTS
Geberit Supply Systems and products for drinking water hygiene fulfil hygienic requirements and are certified by the German Technical and Scientific Association for Gas and Water.

### 4 REGULAR MAINTENANCE
The system components must be cleaned and maintained regularly.

### 5 DIMENSIONING
Pipe diameters that are dimensioned for the actual consumption rather than being too big enable optimal water replacement.

### 6 NO UNUSED PIPES
Water stagnates in pipe sections that are not used or used rarely. Therefore, we recommend Geberit circular pipes.

### 7 CLEAN SYSTEM COMPONENTS
Pipes and fittings from Geberit are protected against dirt by their packaging.

### 8 EXTINGUISHING WATER WITHOUT RETURN PIPE
The water in extinguishing water pipes stagnates over the years. Backflow into the drinking water supply system is prevented by suitable extinguishing water connection points.

### 9 A CLEAN START
A Geberit hygiene filter prevents pipes from being contaminated with unhygienic water during their initial filling – for example, during a pressure test with water.

### 10 USING HEAT AGAINST GERMS
The storage water heater must be set so that water is heated up to at least 60 °C.

Geberit Piping Systems* have plugs that protect pipes and fittings reliably and hygienically against dirt and dust during transport, storage and installation.

*not applicable to Geberit Volex

GEBERIT SERVICES

# A STRONG PARTNERSHIP FOR EACH DELIVERY

Quality and innovation as well as reliability, partnership and personal consultation are all incredibly valuable. We aren't only running at top speed in terms of developing high-quality products, but we also offer you the services and support that you need to be successful. This is even possible on-site or at the building site if required.

### PERSONAL CONSULTATION AND SERVICES

We are happy to help. On the service telephone, in a personal conversation or on site – Geberit is there to offer you help and advice. From specialist information and technical consultation right up to support for any questions relating to planning, we offer comprehensive and straightforward assistance. We will assist throughout the whole construction project if required. And even if something stops working, you can rely on the support of Geberit.

### EXPERTISE FOR YOU

Geberit's comprehensive training programme supports the sanitary industry in preparing for the challenges of the future. We share our knowledge with you in our seminars, via webinars or directly at your building site and therefore contribute to the shared success. We also provide helpful media – from the handbook to the installation video – to help answer your questions and to assist in a wide range of tasks.

### DIGITAL PLANNING SUPPORT

Successful sanitary projects start with good planning. With the Geberit ProPlanner planning software, the practical Geberit ProApp, as well as numerous other tools, we have many options for supporting you in your day-to-day activities. BIM data is also available for building planning in Autodesk Revit.

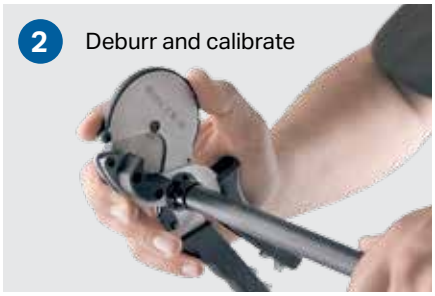

GEBERIT

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

GEBERIT MEPLA

# STAY IN SHAPE
# WITH MORE FLEXIBILITY

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



### THREE LAYERS FOR DRINKING WATER AND HEATING

More corrosion-resistant and lighter than metal pipes, more inherently stable and robust than plastic pipes – 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 corrosion-resistant and food-safe. Geberit Mepla can therefore be used for all drinking water qualities without previous analysis of the drinking water.

### 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) 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 from 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 Geberit MeplaTherm system pipe is the economical alternative for heating installations.

### THE ECONOMICAL SYSTEM

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

# GEBERIT MEPLA

### LEAKY IF UNPRESSED
Unpressed Geberit Mepla fittings leak visibly when subjected to leak tests with water. Water flows out of the unpressed connections. This occurs even at a low water testing pressure and during leak tests at up to 15 bar. The pressure test cannot be completed successfully unless all the connections have been pressed.

### HIGH STABILITY
The particularly thick aluminium layer in Geberit Mepla multilayer pipes ensures a high level of stability and extraordinary mechanical strength. Using high-quality polyethylene and aluminium combines the benefits of plastic with those of metallic piping systems.

### SMOOTH SURFACES FOR MINIMUM ADHESION
The inner plastic layer of Mepla pipes, the high-quality PE-RT, has a surface roughness of only 0.7 µm. It is more difficult for limescale and biofilm to adhere to the smooth surface.

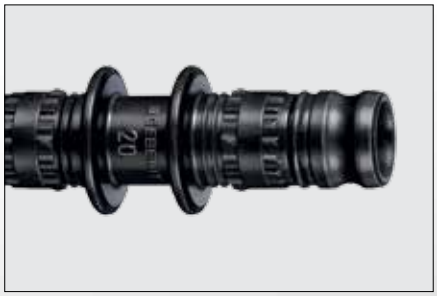
### PRESSING JAW GUIDE
The defined jaw guide on the fitting ensures that the pressing jaw is positioned in exactly the right position during pressing and cannot slip. This prevents failed pressing sequences which therefore guarantees a secure, long-lasting connection.

### IDEAL FOR COLD-WATER PIPES
Cooling pipes can be installed with Geberit Mepla without too much effort, as special processing is not required for corrosion protection.

### SAFETY FOR HIGH LOADS
The tremendous tensile strength of the Mepla press connection ensures a reliable, long-lasting connection. The quality of the press connection is constantly checked and exceeds the values demanded in the standards many times over. This guarantees a high standard of reliability, even in piping systems subjected to high loads.

### FORMS A BARRIER AGAINST DIFFUSION
Oxygen cannot diffuse through the aluminium layer meaning that Geberit Mepla is therefore the ideal solution for heating applications.

### LARGE DIAMETER
Geberit Mepla is available up to a dimension of d75 and can therefore be used in a broad range of applications. Larger construction projects can consistently be installed with Geberit Mepla.



### EQUAL BENDING PROPERTIES

The weld seam is crucial for the quality of the pipe. The homogeneous longitudinally welded aluminium layer in Mepla pipes with its smoothly formed weld seam guarantees the highest possible degree of safety and quality. As a result, the aluminium layer does not overlap. The pipe has the same bending properties in all directions.

### RELIABLE INSERTION DEPTH CONTROL

The insertion depth remains visible at all times. This ensures that the pipe is correctly pushed onto the fitting during installation and can then be correctly pressed. The piping system can therefore be premounted. When the system is ready to be pressed, each connection can be checked immediately to ensure that each pipe is in the correct position.

### FLEXIBLE ADJUSTMENT

Thanks to the good bending capacity, the installation can be adjusted flexibly to the on-site conditions. Pipes in the dimensions of d16 and d20 can be bent effortlessly by hand and using a bending machine up to d50. Installation is easier and fittings can be saved. This saves time and money for the installation.

### EASY AND RELIABLE INSTALLATION

Special cams on the plastic fittings and retaining rings on the metal fittings achieve a high level of fitting retaining force in the pipe and prevent the fitting slipping out of the pipe during installation. The pipe system is therefore easy to install, align and then press.

### FEWER FASTENING POINTS

The special composition of Mepla pipes with the thick aluminium layer reduces the extent to which the pipes expand in response to temperature fluctuations. This means fewer fastening points are required during installation than with conventional plastic pipes.

### HYGIENICALLY PERFECT

Geberit Mepla fittings and pipes have suitable protective caps which facilitate hygienically safe storage or an installation break.


- Push-fit connection system for a quick and economical floor connection
- Safety concept for the perfect hold and tightness
- Green push-fit indicator for a proper connection
- Secure adapters for other Geberit Supply Systems

**NEW**

- Geberit PushFit in bars of all dimensions are now available for long, straight-edged installations

GEBERIT PUSHFIT

# FAST CONNECTION FOR RELIABILITY ON EVERY LEVEL

Geberit PushFit is a supply system developed by Geberit that makes the installation of drinking water and heating pipes much easier and faster. Inserting instead of pressing – this new technology allows you to accelerate the progress of your projects.

### VISIBLE RELIABILITY IN THE FITTING

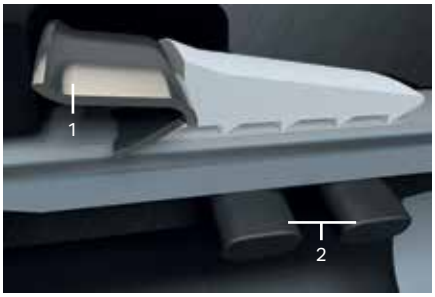
The robust and user-friendly fittings are key to the Geberit PushFit connection system. The Geberit PushFit pipes are simply pushed firmly into the fitting and the internal mechanism ensures that the connection is absolutely rigid with no chance of a leak occurring. At the same time, an indicator in the fitting jumps to "green", thereby signalling that the connection is correctly pushed on and that the pipe is secure and permanently fixed to the Geberit PushFit fitting in a way which ensures it is leakproof.

### ADVANCED TECHNOLOGY FOR A SECURE FIT

When inserting the pipes, an ingeniously designed clamping/claw ring made of corrosion-resistant stainless steel in combination with plastic ensures that the pipe cannot slip out. Once engaged, it can withstand even high pulling forces.

### SOLUTIONS FOR ALMOST ANY CONSTRUCTION SITUATION

An extensive range of shaped parts is available for rapid, simple and economical Geberit PushFit connections. The range includes a suitable fitting for virtually every connection situation. Whether you need a PVDF, gunmetal or brass fitting, the system can be used for all drinking water qualities. The Geberit PushFit adapter with MasterFix enables rapid connection of taps and installation elements. The adapters are equipped with the suitable pressing contour for the chosen system and are available in the dimensions 16, 20 and 25 mm.




1 The clamping/claw ring, which is integrated in the fitting and made of corrosion-resistant stainless steel, provides safe push-fit connections with a high level of tensile strength.

2 Two seal rings provide a permanently leakproof connection.

# GEBERIT PUSHFIT

### PROTECTION AGAINST DIRT AND DUST ON THE BUILDING SITE

All push-fit ends in the Geberit PushFit connection system are fitted with protective caps to protect them from dust and dirt during storage and when being used on the building site. This also ensures better hygiene characteristics.

### ERGONOMIC CALIBRATION AND DEBURRING TOOL

You only need one tool for all three dimensions of the Geberit PushFit connection system. You can debur and calibrate the pipe in just one single step. The ergonomically shaped Geberit PushFit tool is equipped with long-life blades which are resistant to wear.

### VISIBLE SAFETY

The large inspection windows in the push-fit fittings ensure the visible safety of the push-fit connections. The green push-fit indicator shows that a pipe has been safely fitted and is permanently leakproof in the Geberit PushFit fitting.

### PRE-INSULATED PIPES

Geberit PushFit pipes are offered in coils with different insulation thicknesses for all dimensions. Installations are therefore compliant with the standards set out by the German Energy Saving Ordinance EnEV and are completed expeditiously.

### TWO SEAL RINGS: DOUBLY CLEAN AND LEAKPROOF

Geberit PushFit works with a safety concept which consists of two seal rings. The first seal ring not only works as a seal, but also as a particle separator for cleaning the pipe. The second ring offers additional sealing.




## LIGHTWEIGHT MULTILAYER PIPE

The lightweight Geberit PushFit multilayer pipe has a thin but stable aluminium core. All three dimensions can be easily processed and can be bent manually. The flexible but inherently stable and lightweight multilayer pipe is ideally suited to requirements in storey distribution. The multilayer pipe is also available in a protective tube or pre-insulated for sanitary and heating installations.

## HIGHLY FLEXIBLE POLYBUTENE PIPE

The especially lightweight, bendable polybutene pipe enables economical solutions with very few fittings. The all-plastic pipes for the Geberit PushFit connection system are ideal for hydraulically and hygienically optimised circular pipe systems. The polybutene pipe is also available in a protective tube.

- Hassle-free installation
- Reliable connection
- For all installations
- Efficient and smooth work

**NEW**

- Geberit radiant heating and cooling system for underfloor heating or cooling

GEBERIT VOLEX

# RELIABLE CONNECTION FOR EVERY DAY

Geberit Volex offers an economical quality multilayer and single-layer pipe system. As a true all-in-one system, it can be used for all relevant applications: hot and cold water, radiator heating and underfloor heating. All with a connection technology that is quicker than soldering or welding. Geberit Volex fittings can easily be pressed with a pressing tool.

### FOR ALL APPLICATIONS

Multilayer pipes are rugged and their resistance to pressure exceeds the standard testing pressure of 15 bar. These pipes can be bent easily to install with fewer fittings. While the main use for the Geberit Volex multilayer pipes is for drinking water applications and radiator heating, it can also be used for underfloor heating and cooling. Multilayer pipes are available in dimensions d16 to d63.

In addition, Geberit also offers single-layer pipes made of PE-RT. Due to their flexibility, these pipes are well suited for underfloor heating, but they can also be used for drinking water installations with an operating pressure of up to 6 bar. Single-layer pipes are available the dimensions d16 and d20.

### FIT FOR EASY CONNECTION

The wide range of fittings allows for clean and efficient connection. With adapters the system can be connected to other Geberit piping systems and with Geberit Volex adapter with MeplaFix it can also be connected easily to sanitary appliances without hemping.

### ENSURING A SAFE CONNECTION

Geberit Volex comes with a unique insertion depth indicator ring made of Grilamid®, allowing to check from all angles if the pipe is fully inserted before pressing. This flexible indicator will not break, even under rough construction site conditions. It also holds the metal sleeve and serves for tool positioning.

### EXACTLY WHAT YOU NEED

Geberit Volex multilayer products are available in bars or coils and even pre-insulated on request. We provide single-layer pipes in coils. Additional protective sleeves in red or blue are used to differentiate between the cold and hot water pipes in the installation.

# GEBERIT VOLEX

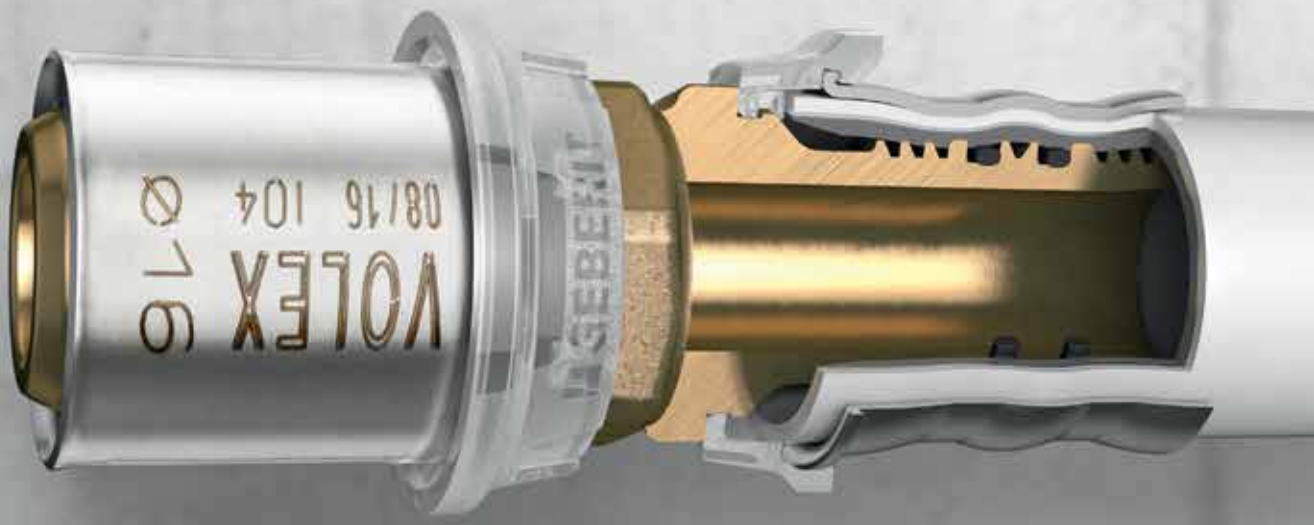
### THE BEST OF BOTH WORLDS
Multilayer pipes combine the robustness of metal pipes with the flexibility and low weight of plastic pipes. The Geberit Volex multilayer pipes consist of an inner pipe made of PE-RT, an aluminium pipe and a protective PE-RT layer on the outside. The inner pipe is fully corrosion-resistant and food-safe. The aluminium layer in the middle makes the pipe stable yet bendable and forms a barrier against diffusion. The white outer layer protects the aluminium core against corrosion.

### SAFE WITH TWO O-RINGS
Every pressing point is secured by two O-rings. Due to the design of these elaborate sealing seats, you know the connection is leakproof if pressed correctly. By using Geberit pressing jaws with the tailor-made pressing contour you will have one more step for a safe connection.

### LIGHTWEIGHT – CARRY LESS, ACHIEVE MORE
Compared to metal both Geberit Volex single-layer and multilayer pipes are very light, so less weight needs to be carried to your site.

### FLAME-FREE INSTALLATION
With Geberit Volex, you do not need to take additional safety measures in order to protect your environment from sparks and flames as for soldering or welding.

### LOW THERMAL EXPANSION
Similar to full-metal pipes, the Geberit Volex multilayer pipe only has a minimal thermal expansion rate.





### RADIANT HEATING AND COOLING
Geberit now offers a complete temperature control system for radiant heating and cooling. The modular devices can be combined to provide a maximum of comfort in terms of room climate and operation. Thanks to its modularity, the system can be extended over time.

### PRESSING TO CONNECT

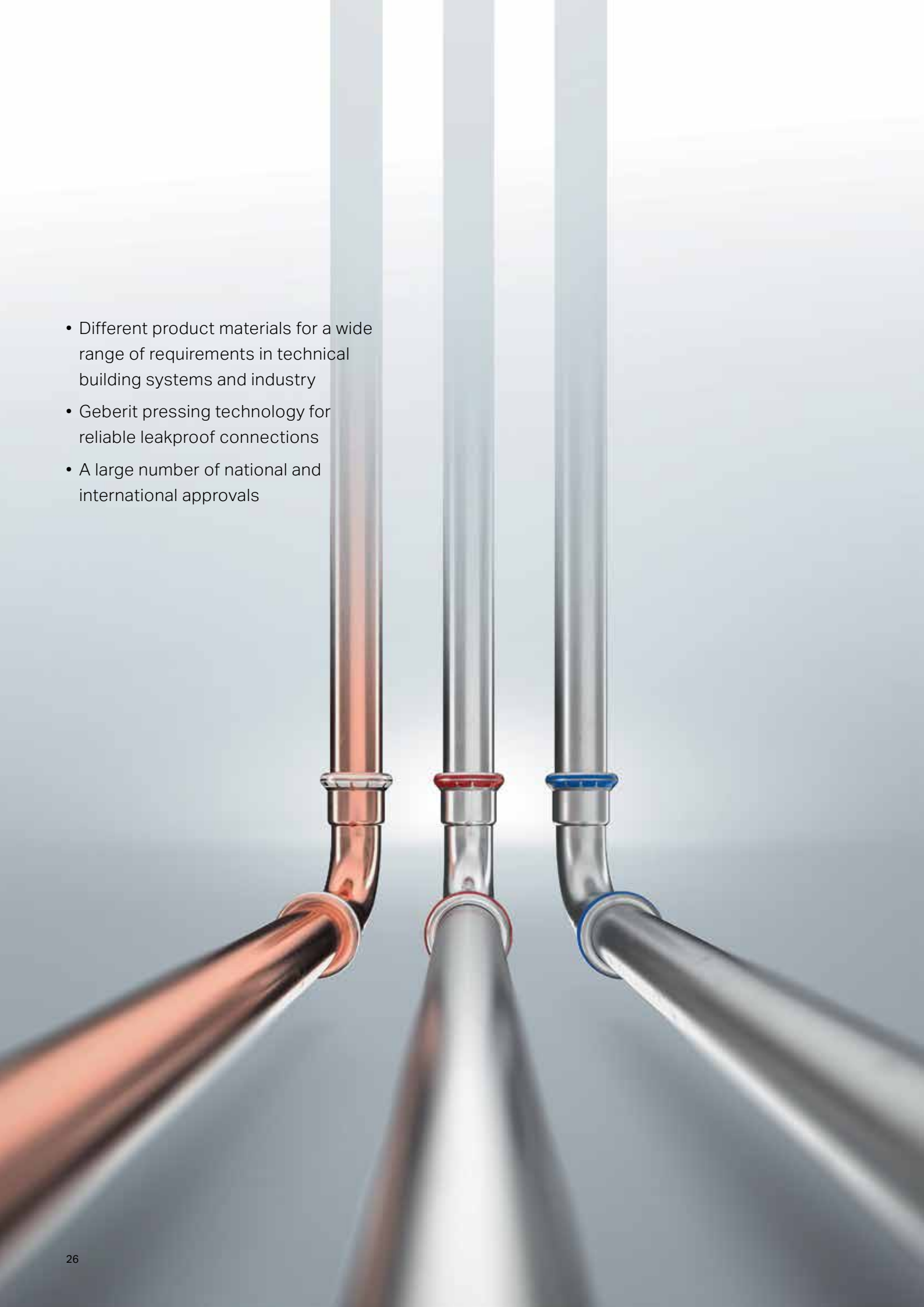
Geberit recommends the maintenance-free original Geberit Volex pressing jaws with tool guide rim. However, Geberit Volex fittings can also be pressed using most pressing tools available in the market. See detailed compatibility list at
→ www.geberit.xy/volex


### NO OXYGEN IN THE PIPE

Both Geberit Volex multilayer and single-layer pipes have an oxygen barrier, preventing corrosion, sludge formation or air in heating circuits. Therefore, Geberit Volex is suitable for heating circuits.

### PERFECT FOR RENOVATION

With white pipes and unobtrusive fittings, Geberit Volex is also well suited for installations in front of the wall.



- Different product materials for a wide range of requirements in technical building systems and industry
- Geberit pressing technology for reliable leakproof connections
- A large number of national and international approvals

GEBERIT MAPRESS

# TRIED-AND-TESTED CONNECTION PRESSED WITH STABILITY

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 sanitary industry.

### THE GROUNDBREAKING SYSTEM

Different Geberit Mapress systems provide customised and economical solutions for different installations in residential buildings and project construction, as well as special applications and industrial pipe installations. 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 not only for technical building systems but also for almost all applications such as solar and industrial plant engineering. Geberit Mapress is also offered for shipbuilding in the product material CuNiFe, which is not described in greater detail here.

### GEBERIT MAPRESS SEAL RINGS

The media that can be transported in Geberit Mapress supply systems depend on both the product material and the selected seal ring. Geberit Mapress therefore offers special O-rings for different liquid and gaseous media which cover almost all applications in technical building systems and industry, leaving hardly anything to be desired.

### CLEAN CONNECTION

Geberit Mapress systems can easily be connected anywhere. With a large selection of suitable adapters, Mapress is easy to connect to other Geberit Supply Systems. Thanks to the Geberit MasterFix adapter, Mapress can also be securely screw-locked without tools with the Geberit installation systems.

**CIIR, black**
General applications in technical building systems and industry

**FKM, blue**
High temperature and chemical resistance

**HNBR, yellow**
The specialist for gas applications

**FKM, white**
The expert for saturated steam applications

**FPM, red**
For sprinklers and extinguishing water pipes

# GEBERIT MAPRESS

## EASY CONNECTION

Making the connection couldn't be easier: The whole deburred pipe is inserted into the fitting and the insertion depth is marked with a pin. 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.

## MECHANICAL STRENGTH

The coordinated components lend the Geberit Mapress system a very high level of strength. Operating pressures of 25 bar and more can therefore be achieved. This enables a wide range of applications which extends far beyond the drinking water and heating installations in technical building systems.

## DETECT UNPRESSED FITTINGS WITH THE SEAL RING

The contour seal ring provides the pressing indicator with additional safety. Due to its special contours, unpressed connections leak during the pressure test. This therefore prevents any subsequent damage during operation.

## PROTECTION AGAINST DUST 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.

## FOR PERMANENT FIXTURE AND A HIGH LEVEL OF SAFETY

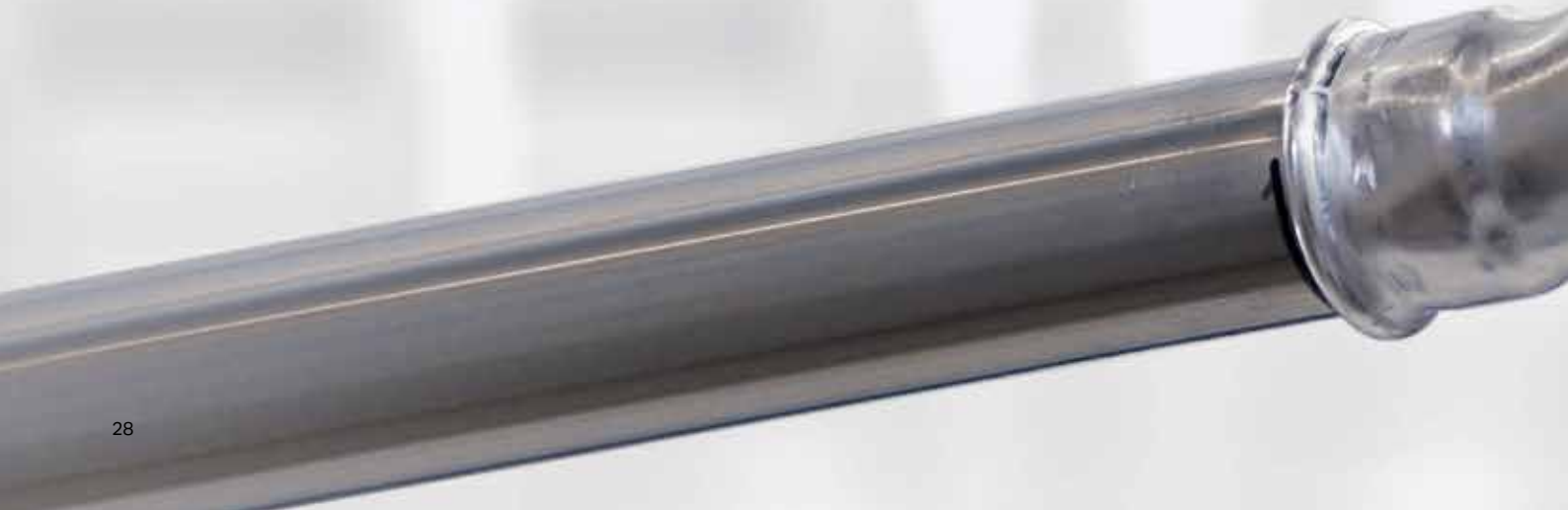
During the pressing sequence, the seal ring is given a precise, pre-defined shape. During this process, the ring absorbs additional energy for permanent and reliable tightness. As a result, the Geberit Mapress pressing system has been working for 50 years.

## QUICK VISUAL CHECK OF THE PRESSING OPERATION

The pressing indicator on all Geberit Mapress fittings can be removed manually after the correct pressing operation, and it indicates unpressed connections before the pressure test. The colour of the pressing indicator enables clear identification of the material. For clear identification, the Geberit logo and the dimensions are printed on the pressing indicator.

## PIPES WITH A HOMOGENEOUS MATERIAL STRUCTURE

A special thermal treatment process ensures a homogeneous material structure, including weld seams without band edges. The seams are also smoothed mechanically. This results in the pipes and fittings behaving uniformly during pressing and when used.



## COMPACT FITTING DESIGN

The compact fitting geometry takes up little space, which results in narrower fitting combinations. Geberit also offers numerous fittings which are coordinated to the respective application.

## RELIABLE PRESSING SYSTEM THANKS TO SMOOTH SURFACES

The extremely smooth surface is a prerequisite for added system safety and guaranteed long-term tightness. Particularly when supporting the seal ring in the inside of the fitting, the clean weld seam is key to the system's permanent tightness and to cutting susceptibility to corrosion. The weld seams are smoothed with a mechanical treatment and the roughness values are therefore well below those stipulated by the European standards.

- For extremely 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

# POLISHED PERFORMANCE 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 extremely high hygienic requirements, such as those in hospitals or laboratories.

### HIGH MOLYBDENUM CONTENT

The Geberit Mapress Stainless Steel 1.4401 system has a minimum molybdenum content of 2.3 %. This value is higher than the usual standards and therefore ensures an extremely high corrosion resistance as well as excellent hygiene characteristics.

### VERSATILE AND RELIABLE

If you are faced with the challenge of overcoming high hygiene requirements, high temperatures and pressures or aggressive liquids, then Geberit Mapress Stainless Steel is the right choice for you. It is suitable for drinking water installations in living areas, in areas particularly sensitive to hygiene, and for industrial buildings and applications.

### HYGIENICALLY PURE ALL THE TIME

Geberit Mapress Stainless Steel is suitable for thermal and chemical disinfection if this is prescribed by directives and regulations or if the supply network is already contaminated. The pressing sockets on the pipes and fittings are delivered with a leakproof plug already fitted. It offers reliable protection against dust and dirt until processing.

### APPROVED FOR SPRINKLER SYSTEMS

You can use Geberit Mapress Stainless Steel for “wet”, “wet/dry” and “dry” sprinkler systems. The system has received VdS approval and other important international approvals.

### 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.

As system pipes, CrNiMo steel 1.4401 is provided for diverse applications and CrMoTi steel 1.4521 is offered as an economical alternative for drinking water installations. Geberit Mapress Stainless Steel pipes are bendable up to a dimension of 108 mm.

The wide range of adapters and transitions to other Geberit piping systems optimises the economical use of product materials. The Geberit MasterFix adapter ensures a quick, tool-free and reliable screw connection to the Geberit sanitary elements.

The Geberit Mapress Stainless Steel pipes 1.4521 offer an interesting alternative when requirements stipulate economical but nevertheless reliable drinking water installations. The product material is identifiable by the green protection plugs and the green line.

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

GEBERIT MAPRESS CARBON STEEL

# ECONOMICAL CIRCUITS PRESSED IN NEXT TO NO TIME

Geberit Mapress made of non-alloy carbon steel is the economical solution for closed installations without oxygenation capacity. The typical application ranges include heating systems, cooling water systems, solar systems, sprinkler systems, extinguishing water pipes or compressed air networks.

### JACKETED OR ZINC-PLATED

The Geberit Mapress Carbon Steel system pipes and fittings are made of non-alloy steel 1.0034. The pipes are available in different designs: outside zinc-plated (12 to 108 mm) or with a cream-white plastic jacketing (12 to 54 mm), which is particularly suitable for a visually unobtrusive surface mounting. For extinguishing water and sprinkler systems, Mapress Carbon Steel pipes are also available in non-alloy steel 1.0215, inside and outside zinc-plated (15 to 108 mm).

The Geberit Mapress Carbon Steel fittings are outside zinc-plated and also finished with a protective chromate conversion coating. The red colour of the pressing indicator signals the product material carbon steel.

### FAST CONNECTION

The pressing procedure is not only straightforward, but also fast. In fact, it is around twice as fast as welding or soldering. Why? Primarily because the connection requires virtually no preparatory work and the pressing procedure itself is faster. Cut to length, debur, attach fitting, press – done.

### NO OPEN FLAMES

The strength and tightness of the press connection is achieved by cold deformation of the pipe and fitting. An open flame, which is required in cases such as soldering or welding, is not required in this case. As a result, no additional protective measures need be taken when carrying out renovations or repairs.

### BEST CONNECTIONS TO MEPLA AND PUSHFIT

Over 400 fittings are available for a diverse range of application solutions. Suitable adapters ensure quick, easy and reliable connections to Geberit Mepla, Volex or 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.

- Pressed quickly without an open flame
- Robust connection through cold deformation of pipe and fitting
- Safety thanks to clear detection of unpressed connections
- High pressure and temperature resistance

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.

### 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.

### FAST CONNECTION

The pressing procedure is not only straightforward, but also fast. In fact, it is around twice as fast as soldering. Why? Primarily because the connection requires virtually no preparatory work and the pressing procedure itself is faster. Cut to length, debur, attach fitting, press – done. The strength and tightness of the press connection is achieved by cold deformation of the pipe and fitting. The pressing indicator and defined leakage paths also ensure the highest level of safety when pressing and in operation. Leaks are reliably detected during the visual check and the subsequent pressure test.

### COMPREHENSIVE RANGE OF COPPER WITH THE BEST CONNECTIONS

The Geberit Mapress Copper fittings are made of high-quality copper with the alloy CU-DHP and are identified with white pressing indicators. Geberit Mapress Copper is approved for temperatures of up to 120 °C (180 °C for solar applications) and pressures of up to 1.6 MPa (16 bar). The fitting range covers all conventional dimensions from 12 to 108 mm. We recommend the use of copper pipes in compliance with DIN 1057 for processing with the Geberit Mapress Copper fittings. The Mapress Copper fittings can be used with soft (R220), half-hard (R250) and hard (R290) copper pipes.

A wide range of adapters, which can also be pressed, establish connection options to Geberit Mepla, Volex and PushFit.
The Geberit Mapress Copper transition with MasterFix adapter establishes the connection to Geberit cisterns and elements for washbasins. It can be quickly and easily screwed without tools.

Geberit Mapress Copper fittings for a range of application ranges, such as gas applications with yellow seal ring.

PIPE-IN-PIPE HOT WATER CIRCULATION SYSTEM

# SAVE ENERGY
# INCREASE EFFICIENCY

Hot water pipe and circulation line in one: the Geberit pipe-in-pipe hot water circulation system lets you complete your work faster when installing a drinking water system and provides your customers with a hot water solution that saves valuable energy.

### HYGIENIC AND ENERGY SAVING

Instead of two pipes installed in parallel for the inlet and return flow of the hot water, the pipe-in-pipe hot water circulation system uses a pipe inside a pipe. The return flow inside the hot water pipe has two fundamentally positive effects. On the one hand, the hot water cools down much less, which reduces energy losses; on the other hand, the heat emitted to cold water pipes installed in parallel is reduced so that the risk of microbial contamination in the cold water is significantly decreased. The pipe-in-pipe hot water circulation system allows you to comply with standard temperature specifications more easily.

### SMALLER INSTALLATION WORKLOAD AND LOWER MATERIAL REQUIREMENT

The installation workload on the building site is significantly reduced. After all, instead of two pipes, you only install one for the circulation. This also saves space in the supply duct. The set for the pipe-in-pipe hot water circulation system can be assembled easily and without special tools. It is suitable for Geberit Mepla as well as Geberit Mapress Stainless Steel and Geberit Mapress Copper and consists of a connecting fitting, a head piece and the PE-Xc inner pipe, 14 x 1.5 mm. The outlet dimension per floor is at least d22 for Geberit Mapress and at least d32 for Geberit Mepla.

### ECONOMICALLY SUPERIOR IN EVERY RESPECT

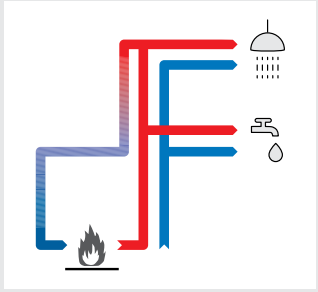
No fastening to the building structure, no insulation and no separate fire protection feed-through: along with the energy cost savings, the pipe-in-pipe hot water circulation system offers noticeable cost benefits. Your customers in the residential construction sector will also appreciate that rentable areas, particularly in larger residential buildings, are increased due to the reduced space requirement in the duct.

### 1X HOT WATER RISER PIPE OVER 9 FLOORS WITH GEBERIT MEPLA

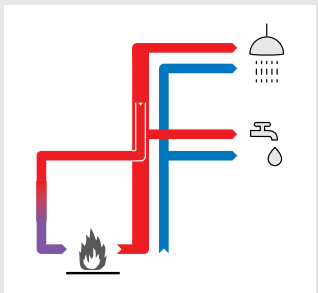
| | Conventional circulation | Pipe-in-pipe hot water circulation system |
|---|---|---|
| Pipes | 600 € | 1,300 € |
| Insulation and fastening | 1,300 € | 1,290 € |
| Total material | 1,900 € | 2,590 € |
| Installation workload* | 1,190 € | 840 € |
| Manufacturing costs | 3,090 € | 3,430 € |
| Energy requirement due to heat loss ** | 3,400 kWh / a | 1,940 kWh / a |
| Energy costs due to heat loss *** | 218 € | 125 € |
| Energy costs due to heat loss (over 10 years) | 2,180 € | 1,250 € |

* Assumption: average hourly rate for fitter (assistant) €50.–
** Assumption: 7 W/m
*** Assumption: energy costs 6.4 cent/kWh

- Alternative to conventional circulation line with two sections
- Improved drinking water hygiene
- Reduced energy requirement for water heating
- Economical installation through single-section technology



Pipe-in-pipe: the economical solution for the pipe-in-pipe hot water circulation system.



Improved drinking water hygiene with reduced heat emission to the cold-water pipe.

Conventional circulation: separate pipes for hot water inlet and return flow.

Pipe-in-pipe hot water circulation system: saves material, space and energy.

GEBERIT TOOLS

# PRESSING TOOLS FOR ADDED CONVENIENCE

Low weight, fast work and much more: convenience, power and many other advantages. This is what the Geberit pressing tools have to offer. Ideal for processing Geberit pressing systems.

### CONVENIENT PROCESSING

The Geberit pressing tools are compact, lightweight and provide a high level of convenience. The swivelling head on the Geberit ACO 103plus means that it is also easy to press in narrow spaces. Easy handling and low weight are particularly noticeable when performing overhead work.

### IMPROVED PERFORMANCE

With the new brushless motor in the Geberit pressing tool ACO 203plus, the Geberit Mepla and Geberit Mapress piping systems can be pressed up to 10% more quickly[1)]. In addition, up to 40% more pressing operations[1)] are possible per battery charge.

### CHARGE RECHARGEABLE BATTERIES LESS OFTEN

The Geberit pressing tools are driven electrohydraulically. The battery-operated 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. In addition, two 1.5 Ah rechargeable batteries are always contained in battery-operated pressing tools in a case. This means it is possible to work with one rechargeable battery while the second is being charged.

[1)] When compared to the predecessor model – Geberit ACO 202

**NEW**

The new rechargeable batteries with 5 Ah for the Geberit pressing tools ACO 203plus and ACO 203XLplus allow three times more pressings up to a dimension of d108 in comparison to rechargeable batteries of 1.5 Ah.

**NEW**

The new pressing tools Geberit ACO 103plus, ACO 203plus und ACO 203XLplus come with a Bluetooth® interface for the NovoCheck app, which allows to read the tool information and the pressing records.


An integrated pressing point light in the Geberit ACO 203plus, ECO 203 and ACO 203XLplus ensures good visibility in dark corners.


A slim, non-slip handle ensures reliable and ergonomic operation.

- Compact and lightweight with high performance
- Also suitable for restricted construction situations
- Slim, non-slip handle for reliable handling
- Electrohydraulic drive
- Good visibility in dark corners thanks to integrated LEDs (pressing tools ACO 203plus / ECO 203)
- Easy maintenance thanks to the brushless motor (Geberit pressing tools ACO 203plus / ACO 203XLplus)


You will find the correct combination of pipe dimensions and suitable tools on page 44


Geberit pressing jaws for Geberit Mepla, Geberit Volex and Geberit Mapress

### NO MAINTENANCE THROUGHOUT THE ENTIRE SERVICE LIFE

High pressing performance without external maintenance. The maintenance-free Geberit pressing jaws ensure a balanced distribution of force which lasts throughout the entire service life. Even after prolonged and intensive use, the corrosion-resistant surfaces keep the tool in top quality.

### PRESSING OPERATION WITH MAXIMUM PRECISION

Incorrect pressing is practically a thing of the past thanks to the precise pressing jaw guide of the fitting. Set in the correct position, the pressing jaw grips reliably and cannot slide out of place. This guarantees durable and reliable connections.

### GEBERIT POWERTEST

The Geberit PowerTest provides you with information about the condition of your Geberit pressing jaw. Hold the Geberit PowerTest at the front between the pressing jaw and press a fitting. If the Geberit PowerTest changes colour, the pressing jaw can continue to be used.

GEBERIT TOOLS

# PRESSING JAWS AND **PRESSING COLLARS**

The Geberit pressing collars with snap mechanism and the maintenance-free Geberit pressing jaws ensure quick processing and a reliable connection when installing supply systems.

Easy handling on-site

Also for easy overhead installation

Special adapter jaw for pressing large Mapress pipe diameters

Geberit pressing collars for Geberit Mepla, Geberit Volex and Geberit Mapress

### FOR LARGE DIMENSIONS

From dimension d63 for Geberit Mepla, d42 for Geberit Mapress and d50 for Geberit Volex, pressing collars are used for pressing rather than pressing jaws. Regardless of how the pipes are aligned, these are held firmly onto the pressfitting by a snap mechanism, thereby ensuring easy and reliable handling. The Geberit pressing collars and Geberit adapter jaws require regular service.

### COMPACT DESIGN

Thanks to the small, compact but extremely robust design, processing is convenient even in narrow spaces.

### RELIABLE APPLICATION

The adapter jaws can be easily hooked onto the pressing collars because the user can see the connection area clearly, and so will know when the Geberit adapter jaw is engaged correctly.

APPLICATION

# TECHNICAL DATA

| | Operating conditions | | | | Piping system | | | |
|---|---|---|---|---|---|---|---|---|
| | GEBERIT PUSHFIT / MEPLA / VOLEX | | GEBERIT MAPRESS | | GEBERIT PUSHFIT | | GEBERIT MEPLA | |
| APPLICATION | Operating temperature | Max. operating pressure | Operating temperature | Max. operating pressure | PushFit PB | PushFit ML | Mepla | Mepla Therm |
| Hot and cold potable water | 0 – 70 °C [7] | 10 bar | 0 – 100 °C | 16 bar | ✓ | ✓ | ✓ | |
| Cold potable water | 0 – 20 °C | 16 bar | | | | | ✓[11] | |
| Heating water [2] | 0 – 80 °C [8] | 10 bar | 0 – 100 °C | 16 bar | | ✓ | ✓ | ✓ |
| Cooling water without antifreeze agent | 0 – 70 °C | 10 bar | 0 – 100 °C | 16 bar | | ✓ | ✓ | ✓ |
| Cooling water with antifreeze agent [3] | -10 – +40 °C [4] | 10 bar | -10 – +40 °C | 16 bar | | ✓ | ✓ | ✓ |
| Remote network heating water ≤ 120 °C [2] | | | 0 – 120 °C | 16 bar | | | | |
| Remote network heating water ≤ 140 °C [2] | | | 0 – 140 °C | 16 bar | | | | |
| Saturated steam [2] ≤ 120 °C | | | 0 – 120 °C | 2 bar | | | | |
| Saturated steam [2] ≤ 155 °C | | | 5 – 155 °C | 5 bar | | | | |
| Service water [1] | 0 – 40 °C | 10 bar | 0 – 100 °C | 16 bar | | ✓ | ✓ | ✓ |
| Treated water [6] | 0 – 40 °C | 10 bar | 0 – 100 °C | 16 bar | | ✓ | ✓ | ✓ |
| Rainwater with a pH value > 6.0 | 0 – 40 °C | 10 bar | 0 – 100 °C | 16 bar | | ✓ | ✓ | ✓ |
| Salt water | 0 – 70 °C | 10 bar | | | | ✓ | ✓ | ✓ |
| Grey and black water with pH value > 0.6 | | | 0 – 100 °C | 16 bar | | | | |
| Extinguishing water (wet) | 0 – 70 °C | 10 bar | 0 – 70 °C | 16 bar | | ✓ | ✓ | ✓ |
| Extinguishing water (wet/dry; dry) | 0 – 70 °C | 10 bar | 0 – 70 °C | 10 bar/16 bar | | ✓ | ✓ | ✓ |
| Sprinkler (wet) | | | 0 – 70 °C | Varies depending on Ø | | | | |
| Sprinkler (wet/dry; dry) | | | | | | | | |
| For thermal medium (solar) [10] | | | -25 – +220 °C | 10 bar/16 bar | | | | |
| For mineral oils | Temperature and pressure available on request | | | | | | | |
| For fuels [1] | Temperature and pressure available on request | | | | | | | |
| Chemicals and technical liquids [1] | Temperature and pressure available on request | | | | ✓ | ✓ | ✓ | ✓ |
| Compressed air (oil purity class 0-3)[9] | 0 – 70 °C | 10 bar | 0 – 100 °C | Varies depending on Ø | | ✓ | ✓ | ✓ |
| Compressed air (oil purity class 0-X) [9] | | | 0 – 100 °C | Varies depending on Ø | | | | |
| Negative pressure | 0 – 40 °C | ≥ 0.2 bar (absolute) | 0 – 40 °C | ≥ 0.2 bar (absolute) | | ✓ | ✓ | ✓ |
| Inert gases (e.g. nitrogen) | 40 °C | 10 bar | 0 – 100 °C | Varies depending on Ø | | ✓ | ✓ | ✓ |
| For industrial gases [1] (e.g. acetylene, shielding gases) | Temperature and pressure available on request | | | | | | | |
| Natural gases | | | -20 – +70 °C | Varies depending on system | | | | |
| Liquefied gases | | | -20 – +70 °C | Varies depending on system | | | | |
| Biogases[1] | | | -20 – +70 °C | 5 bar | | | | |

| | | | | | |
|---|---|---|---|---|---|
| Surface roughness (µm) | | 7 | 7 | 7 | 7 |
| Thermal expansion (mm / (m·K)) | | 0.13 | 0.029 | 0.026 | 0.026 |
| Thermal conductivity (W / (m·K)) | | 0.22 | 0.41 | 0.43 | 0.43 |
| | | d x wall thickness in mm | | | |
| DN DIMENSIONS | 10 | | | | |
| | 12 | 16 x 2.0 | 16 x 2.0 | 16 x 2.25 | 16 x 2.25 |
| | 15 | 20 x 2.0 | 20 x 2.0 | 20 x 2.5 | 20 x 2.5 |
| | 20 | 25 x 2.5 | 25 x 2.5 | 26 x 3.0 | 26 x 3.0 |
| | 25 | | | 32 x 3.0 | 32 x 3.0 |
| | 32 | | | 40 x 3.5 | |
| | 40 | | | 50 x 4.5 | |
| | 50 | | | 63 x 4.5 | |
| | 65 | | | 75 x 4.7 | |
| | 80 | | | | |
| | 100 | | | | |

| Piping system | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| GEBERIT VOLEX | | GEBERIT MAPRESS CARBON STEEL | | | GEBERIT MAPRESS COPPER | GEBERIT MAPRESS STAINLESS STEEL | | |
| Volex ML | Volex SL | Carbon steel, outside zinc-plated 1.0034 / 1009 | Carbon steel, outside PP-jacketed 1.0034 / 1009 | Carbon steel, inside and outside zinc-plated 1.0215 / 1009 | | CrNiMo steel 1.4401 / 316 | CrMoTi steel 1.4521 / 444 | CrNi steel 1.4301 / 304 |
| ✓ | ✓ 12) | | | | ■ | ■ | ■ | |
| | | | | | | | | |
| ✓ | ✓ 12) | ■ 5) | ■ 5) | | ■ | ■ | ■ | ■ |
| ✓ | | ■ 5) | ■ 5) | | ■ | ■ | ■ | ■ |
| ✓ | | ■ 5) | ■ 5) | | ■ | ■ | ■ | ■ |
| | | ■ 5) | | | ■ | ■ | ■ | ■ |
| | | ■ 5) | | | | ■ | ■ | ■ |
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| | | | | ■ 14) | | ■ 13) | | |
| | | | | | | ■ | | |
| | | ■ 5) | | | ■ | ■ | ■ | ■ |
| | | ■ | | | ■ | ■ | ■ | ■ |
| | | ■ | | | ■ | ■ | ■ | ■ |
| ✓ | | | | | | ■■ | ■■ | ■■ |
| ✓ | | ■ 15) | ■ 15) | ■ 15) | ■ 16) | ■ 17) | ■ 21) | ■ 18) |
| | | ■ 15) | ■ 15) | ■ 15) | ■ 16) | ■ 17) | ■ 21) | ■ 18) |
| ✓ | | | | | ■ | ■ | ■ | ■ |
| ✓ | | Upon request | | | ■ 16) | ■ 17) | ■ 21) | ■ 18) |
| | | | | | | ■■ | | |
| | | | | | ■ 19) | ■ 20) | | |
| | | | | | ■ 19) | ■ 20) | | |
| | | | | | | ■ | | |
| 7 | 7 | 10 | 10 | 10 | - | 1.5 | 1.5 | 1.5 |
| 0.025 | 0.18 | 0.012 | 0.012 | 0.012 | - | 0.0165 | 0.0104 | 0.016 |
| 0.42 | 0.4 | 60 | 60 | 60 | - | 15 | 23 | 15 |
| d x wall thickness in mm | | | | | | | | |
| | | 12 x 1.2 | 12 x 1.2 | - | x | 12 x 1.0 | 12 x 1.0 | - |
| 16 x 2.0 | 16 x 2.0 | 15 x 1.2 | 15 x 1.2 | 15 x 1.5 | x | 15 x 1.0 | 15 x 1.0 | 15 x 1.0 |
| 20 x 2.0 | 20 x 2.0 | 18 x 1.2 | 18 x 1.2 | 18 x 1.5 | x | 18 x 1.0 | 18 x 1.0 | 18 x 1.0 |
| 26 x 3.0 | | 22 x 1.5 | 22 x 1.5 | 22 x 1.5 | x | 22 x 1.2 | 22 x 1.2 | 22 x 1.2 |
| 32 x 3.0 | | 28 x 1.5 | 28 x 1.5 | 28 x 1.5 | x | 28 x 1.2 | 28 x 1.2 | 28 x 1.2 |
| 40 x 3.5 | | 35 x 1.5 | 35 x 1.5 | 35 x 1.5 | x | 35 x 1.5 | 35 x 1.5 | 35 x 1.5 |
| 50 x 4.0 | | 42 x 1.5 | 42 x 1.5 | 42 x 1.5 | x | 42 x 1.5 | 42 x 1.5 | 42 x 1.5 |
| 63 x 4.5 | | 54 x 1.5 | 54 x 1.5 | 54 x 1.5 | x | 54 x 1.5 | 54 x 1.5 | 54 x 1.5 |
| | | 66.7 x 1.5<br>76.1 x 2.0 | | 76.1 x 2.0 | x | 76.1 x 2.0 | | 76.1 x 1.5 |
| | | 88.9 x 2.0 | | 88.9 x 2.0 | x | 88.9 x 2.0 | | 88.9 x 1.5 |
| | | 108 x 2.0 | | 108 x 2.0 | x | 108 x 2.0 | | 108 x 2.0 |

**Applications generally approved if the defined additional requirements are met in accordance with the footnotes.**

1) After Geberit approval
2) Only use approved inhibitors
3) Use only approved antifreeze agents
4) Higher temperature only after approval by Geberit
5) Closed systems only
6) Application range according to TI "Treated waters"
7) Malfunction temperature according to EN 806-2: Tmal = 95 °C, total 100 h over the course of the service life
8) Malfunction temperature in accordance with ISO 10508:2006: Tmal = 100 °C, total 100 h over the course of the service life
9) Oil purity class in accordance with ISO 8573-1:2010DEE; for details on moisture and particles, see Technical Information "Geberit Piping Systems for Compressed Air Installations"
10) Service life with collector downtime of 200 h/a at 180 °C, 60 h/a at 200 °C, total of 500 h/service life at 220 °C
11) Exclusively MeplaFix
12) Maximum operating pressure of 6 bar
13) Maximum operating pressure: 16 bar for d22 – 76.1 mm, 10 bar for d88.9 – 108 mm
14) Maximum operating pressure: 16 bar for d22 – 54 mm; 12 bar for d66.7 – 76.1 mm; 10 bar for d88.9 – 108 mm
15) Maximum operating pressure: 25 bar for d12 – 28 mm; 16 bar for d35 – 54 mm; 12 bar for d66.7 – 108 mm
16) Maximum operating pressure: 16 bar for d12 – 54 mm; 10 bar for d66.7 – 88.9 mm; 8 bar for d108
17) Maximum operating pressure: 25 bar for d12 – 54 mm; 16 bar for d76.1 mm; 12 bar for 88.9 – 108 mm
18) Maximum operating pressure 16 bar for d15 – 76.1 mm; 10 bar for d88.9 – 108 mm
19) Maximum operating pressure: 1 bar
20) Maximum operating pressure: 5 bar
21) Maximum operating pressure: 16 bar for d15 – 54 mm

**Only applicable to Geberit Mapress systems**

- ■ Application with black CIIR seal ring with predetermined operating data.
- ■ Application with blue FKM seal ring with predetermined operating data.
- ■ Application with yellow HNBR seal ring with predetermined operating data.
- ■ Application with red FPM seal ring with predetermined operating data.
- ■ Application with white FKM seal ring with predetermined operating data.

Applications apply with standard fitting and seals. For applications with additional fittings and seals, please see the applications in the tables contained in the catalogue for the respective piping system.

PRESSING JAWS & PRESSING TOOLS

# TECHNICAL DATA

| | Geberit ACO 103plus | Geberit ACO 203plus | Geberit ECO 203 | Geberit EFP 203 | Geberit ACO2XLplus | Geberit ECO 301 | HCPS |
|---|---|---|---|---|---|---|---|
| |  |  |  |  |  |  |  |
| **Compatibility** | 1 | 2 | 2 | 2 | 2XL | 3 | HCPS |
| **Characteristics** | | | | | | | |
| LED pressing point light | | ✓ | ✓ | | ✓ | | Hydraulic hose with control line, length 5 m<br>Can be equipped with Geberit electric pipe deburrer RE 1 |
| Bluetooth® | ✓ | ✓ | | | ✓ | | |
| Brushless motor | | ✓ | | | ✓ | | |
| Swivelling head | ✓ | | | ✓ | | | |
| Power supply | Rechargeable battery | Rechargeable battery | Mains | Mains | Rechargeable battery | Mains | Mains |
| **Technical data** | | | | | | | |
| Nominal force (kN) | 19 | 32 | 32 | 32 | 32 | 45 | 190 |
| Protection degree | IP20 | IP20 | IP20 | IP30 | IP20 | IP20 | IP44 |
| Cable length (m) | - | - | 5 | 5 | - | 5 | 2.5 |
| Power consumption (W) | 240 | 450 | 450 | 450 | 450 | 560 | 800 |
| Operating temperature | -20 – +60 °C | -20 – +60 °C | -20 – +60 °C | -20 – +60 °C | -20 – +60 °C | -20 – +60 °C | -20 – +60 °C |
| Sound pressure level at user's ear | 75.5 db(A) | 76.5 db(A) | 78.5 db(A) | 78 db(A) | 76.5 db(A) | 78 db(A) | 78 db(A) |
| Vibration emission value ($m/s^2$) | ≤ 2.5 | ≤ 2.5 | ≤ 2.5 | ≤ 2.5 | ≤ 2.5 | ≤ 2.5 | ≤ 2.5 |
| Weight (kg) | 1.7 | 2.8 | 3.2 | 3 | 3.8 | 5 | 110 |

## THE PRESSING TOOLS FOR GEBERIT MEPLA

| | d16 | d20 | d26 | d32 | d40 | d50 | d63 | d75 | |
|---|---|---|---|---|---|---|---|---|---|
| **Geberit Mepla hand-operated pressing pliers** | ✓ | ✓ | ✓ | | | | | | |
| **Compatibility [1]**<br>Geberit pressing tool ACO 103plus | ✓ | ✓ | ✓ | ✓ | ✓ | | | | Geberit Mepla pressing jaw [1] |
| **Compatibility [2]**<br>Geberit hand-operated pressing tool MFP 2<br>Geberit pressing tool ACO 203plus<br>Geberit pressing tool ECO 203<br>Geberit pressing tool ACO 203XLplus | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | Geberit Mepla pressing jaw [2] |
| | | | | | | | ✓ | ✓ | Geberit Mepla pressing collar [2]<br>Geberit adapter jaw ZB203 [2] |

## THE PRESSING TOOLS FOR GEBERIT VOLEX

| | d16 | d20 | d26 | d32 | d40 | d50 | d63 | |
|---|---|---|---|---|---|---|---|---|
| **Geberit Volex hand-operated pressing pliers** | ✓ | ✓ | ✓ | | | | | |
| **Compatibility [1]**<br>Geberit pressing tool ACO 103plus | ✓ | ✓ | ✓ | ✓ | | | | Geberit Volex pressing jaw [1] |
| **Compatibility [2]**<br>Geberit hand-operated pressing tool MFP 2<br>Geberit pressing tool ACO 203plus<br>Geberit pressing tool ECO 203<br>Geberit pressing tool ACO 203XLplus | ✓ | ✓ | ✓ | ✓ | ✓ | | | Geberit Volex pressing jaw [2] |
| | | | | | | ✓ | ✓ | Geberit Volex pressing collar [2]<br>Geberit adapter jaw ZB203A [2] |

## THE PRESSING TOOLS FOR GEBERIT MAPRESS

| | d12 | d15 | d18 | d22 | d28 | d35 | d42 | d54 | d66.7 | d76.1 | d88.9 | d108 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Compatibility [1]**<br>Geberit pressing tool ACO 103plus | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | | | Geberit Mapress pressing jaw [1] |
| **Compatibility [2]**<br>Geberit pressing tool ACO 203plus<br>Geberit pressing tool ECO 203<br>Geberit EFP 203 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | | | Geberit Mapress pressing jaw [2] |
| **Compatibility [2XL]**<br>Geberit pressing tool ACO 203XLplus<br><br>Geberit hand-operated pressing tool MFP 2 | | | | | | ✓ | ✓ | ✓ | ✓ | | | | Geberit Mapress pressing collar [2] [3]<br>Geberit adapter jaw ZB203 [2] |
| **Compatibility [2XL]**<br>Geberit pressing tool ACO 203XLplus | | | | | | | | | | ✓ | ✓ | ✓/✓ | Geberit Mapress pressing jaw [3]<br>Geberit Mapress adapter jaw ZB 221 [2XL] / ZB 222 [2XL] |
| **Compatibility [3]**<br>Geberit ECO 301 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | | | Geberit Mapress pressing jaw [3] |
| | | | | | | ✓ | ✓ | ✓ | ✓ | | | | Geberit Mapress pressing collar [2] [3]<br>Geberit Mapress adapter jaw ZB303 [3] |
| | | | | | | | | | | ✓ | ✓ | ✓/✓ | Geberit Mapress pressing collar [2] [3]<br>Geberit Mapress adapter jaw ZB323 [3] / ZB324 [3] |
| **Compatibility [HCPS]**<br>Geberit HCPS pressing tool | | | | | | | | | | ✓ | ✓ | ✓ | Geberit Mapress pressing collar for pressing cylinder HCP |

Photo: Marie-Louise Halpenny.

# READY FOR **GREEN BUILDING**

Green building continues to gain in importance. The economical use of water is one of the key characteristics of a sustainable building.

**WATER CONSUMPTION: –75 %**
The visitor's centre consumes only a quarter of the water volume used by conventional domestic engineering solutions. This is due in part to the Geberit Sigma concealed cisterns 12 cm with dual flush. These are equipped with Sigma50 actuator plates.

**DESIGN: MELTED INTO THE LANDSCAPE**
The facade, which is made of basalt that was mined nearby, is modelled on the cliffs that stand proudly above the world-famous Giant's Causeway. The visitor's centre, which has a green roof, appears to melt into the breathtaking landscape.

**AWARD: BREEAM EXCELLENT**
Projects require exemplary water consumption, energy consumption and sound insulation solutions if they are to meet the high standards of BREEAM, LEED, DGNB, Minergie and other recognised sustainability labels; Geberit offers these kinds of solutions.

Not far from the Northern Irish village of Bushmills stands a building that hardly looks like one from the outside. Thanks to its sustainable overall concept, the visitor's centre at the Giant's Causeway – which was designed by Heneghan Peng Architects and opened in 2012 – is considered a model green building. Design, materials, energy concept, transportation concept – the significance of sustainability spans all areas here, with water consumption clearly playing a main role.

The Giant's Causeway consists of around 40,000 uniformly shaped basalt columns.

**www.geberit.com/products/references**

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