Geberit Industry

Geberit supply and drainage systems for industrial applications



Geberit industrial applications.

Providing solutions for each industry.

Industrial supply and drainage systems for transporting water, oil, gas, compressed air and many other media which fulfills the most demanding safety standards in industrial applications. With the Know-how and experience gathered over decades, Geberit develops products and systems that guarantee safe, efficient and reliable installations for a wide range of specialist applications.

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1.4401 . MPA NRW . DVGW DW-850 Mapress 19.02.

Industries.

A solution for all applications.

Geberit provide a diverse range of both supply and drainage systems that are essential in industry applications - optimising material costs as well as installation time. Significant research into system performance and the quality of materials used means Geberit provide a reliable, cost effective and sustainable range of products for a variety of industrial applications.



Automotiv

- → Process, cooling and deionised water
- → Compressed air
- → Oils and fuel
- → Technical liquids
- → Technical gases



Food industry

- → Potable water pipes
- → Saturated steam
- → Detergents and disinfectants
- → Technical gases



Plant and machinery construction → Process, cooling and deionised water

- → Compressed air
- → Gases
- → Fire extinguishing systems
- → Technical liquids



Chemical and pharmaceutical industry

- ightarrow Process, cooling and deionised water
- ${\color{red} \rightarrow} \ {\color{blue} Compressed air}$
- → Technical gases
- → Fire extinguishing systems



Shipbuildin

- → Potable water pipes
- → Heating and cooling
- ightarrow Fire protection systems
- → Salt water
- \rightarrow Engine rooms

Supply systems.

Versatile, fast and reliable for industry.

Today, pressing systems set the standard for reliable supply pipes that are economical to install and maintain. Geberit offer an innovative assortment for industrial applications which are simultaneously tried and tested to meet your requirements.

Economical and reliable pressed joints for demanding requirements

Geberit is one of the leading European manufacturers offering complete supply solutions for industrial plants. Geberit pressing systems made of metal or composite materials have demonstrated their worth in many demanding applications and proved their economic efficiency and safety over more than four decades.

High material and processing quality

Precise weld seams, homogeneous material behaviour and smooth surfaces are key features of Geberit supply and drainage systems for industrial applications. As a result, optimum flow behaviour with perfectly located seals and connections are guaranteed.

Approvals and reports

 $\label{lem:numerous} \textbf{Numerous national and international approvals and expert reports are available for}$ Geberit products and systems, which are used not only in industry but also on civil and milltary shipbuilding projects. TÜV reports for high operating pressures and our own reports for a wide range of media provide customers with the reassurance that they are using a tested and safe solution. The quality management systems from Geberit have been certified by the Swiss Association for Quality and Management Systems ${\sf SQS}$ according to ISO 9001.

- → Economical and reliable
- → For demanding applications
- → Highly developed processing and finishing
- → Numerous national and international approvals











































Geberit Mapress pressing systems.

Four materials for all kinds of industrial requirements.

The four materials used for Geberit Mapress pressing systems offer precise and economical solutions for most industrial pipe installations including salt water resistant systems. A wide range of pipe and fitting dimensions paired with application specific seal rings allow for flexible planning and installation.



- ↑ Geberit Mapress Stainless Steel: for exacting requirements regarding hygiene and corrosion resistance.
- → For potable water, chemicals and special media. Also available LABS-free and nickel-free



- ↑ Geberit Mapress
 Carbon Steel: versatile
 for economical
 pipe installations.
- → For heating loops, fuels and compressed air applications



- ↑ Geberit Mapress Copper: fittings for industrial process pipe lines.
- → For potable water, chemicals and special media including gases



- ↑ Geberit Mapress CuNiFe: for shipbuilding and drilling platforms.
- → Copper/nickel/iron alloy resistant to salt water

Geberit Mapress systems at a glance

Geberit Mapress systems	Material	Dimensions	Max. operating pressure			
Geberit Mapress stainless steel system	1.4401 1.4521	DN 10-100 (d12-d108) DN 10-50 (d12-d54)	75 bar 16 bar			
Geberit Mapress carbon steel system	E195, material no. 1.0034 according to DIN EN 10305, outside zinc-plated; E220, material number 1.0215 according to DIN EN 10305, inside and outside sendzimir galvanized	DN 10-100 (d12-d108) DN 20-100 (d22-d108)	40 bar 40 bar			
Geberit Mapress copper system	Recommendation for copper pipes according to CU-DHP, material no. CW024A	DN 10-100 (d12-d108)	40 bar			
Geberit Mapress CuNiFe system	CuNi10Fe1.6Mn	DN 12-100 (d15-d108)	13 bar			

Depending on the pipe dimension and type of pressing operation according to TÜV component identification TÜV.A. 271-12

†Any pressure above 16 bar should be confirmed by request.

Geberit Mapress Stainless Steel

According to the EN10088-2 standard, the molybdenum content must be at least 2.0%; Geberit Mapress stainless steel system pipes 1.4401 have a molybdenum content of at least 2.2% meaning it's a higher quality stainless steel which is more resistant to corrosion. Geberit Mapress offers extreme corrosion resistance and hygiene. With properties suitable for potable water, industrial gases, coolant, pharmaceutical products and food and beverages.

Geberit Mapress CuNiFe

The copper/nickel/iron alloy (CuNi10Fe1.6Mn) used in Geberit Mapress CuNiFe is suitable for salt solutions including saturated solutions (approx. 25%). It is certified for civil and military shipbuilding and on drilling platforms for service, pool and heating water, for salt water cooling systems and salt water-operated sprinkler systems.

Geberit Mapress Carbon Steel

Geberit Mapress system pipes made of unalloyed steel are the economical solution for closed circuits, cooling water, compressed air or sprinkler systems and fire extinguishing pipes. Geberit Mapress carbon steel pipes and fittings are LABS-free and outside zinc-plated. Pipes for sprinkler, compressed air and extinguishing water pipes are manufactured using inside and outside zinc-plated extruded material (sendzimir galvanized).

Geberit Mapress Copper

Geberit Mapress copper fittings are used with copper pipes for heating and cooling water systems, solar systems as well as gas or compressed air pipes. CU-DHP, material no. CW 024A is used in compliance with DIN EN 12449. Geberit recommends copper pipes according to DIN EN 1054.



Geberit Mapress seal rings.

The right seal for the right application.

The seal ring plays an important role in the safety of industrial pipe installations. Geberit Mapress provides special seal rings for various media which cover practically all applications in industry and shipbuilding.



- → Geberit pressing technology for reliable, leakproof connections
- → Four different seal rings for most applications
- → Clear colour differentiation of the application ranges
- → With CIIR black, visibly leaks if unpressed, for high processing safety
- → A large number of national and international





















System components with perfect interplay

The Geberit Mapress pressing system consists of the system pipe, fitting and seal ring; these components are perfectly adapted to one another. The press connection ensures mechanical strength, while special O-rings ensure tightness. The media that can be transported in Geberit Mapress supply systems depend on the material and the selected seal ring.

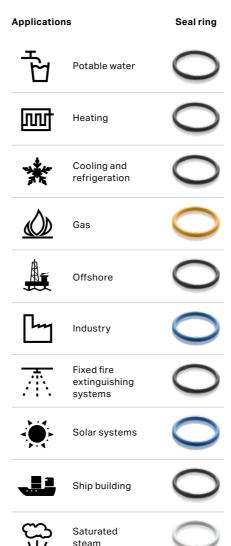
O-rings for permanent tightness

In many standard or special applications in industry, fittings and pipes have to fulfil special requirements or standards. The media that are allowed to be transported depend directly on the seal ring that is used.

Geberit Mapress seal rings: adaptable for many applications

With its material properties that render it resistant to temperatures and chemicals, the Geberit Mapress seal ring FKM blue can be used for a wide range of solar and industrial applications. It is resistant to temperatures from -20 °C up to 220 °C, and is suitable for solar media, mineral oil, heating oil, air containing oil as well as many other industrial media. All press fittings for applications in "solar systems" and "industry" are fitted with the new blue seal ring at the factory. The Geberit Mapress seal ring FKM white is available specifically for saturated steam applications. The Geberit Mapress seal ring HNBR yellow is suitable for gas installations, the Geberit Mapress FKM blue for oil applications. The Geberit Mapress seal ring CIIR black is used in potable water installations and various industrial applications.

Geberit Mapress seal rings (O-rings) for special applications.























Geberit Mapress Stainless Steel







Geberit Mapress CuNiFe

Geberit Mapress

Carbon Steel









Geberit Mapress for industrial gases.

The Geberit Mapress Stainless Steel, Geberit Mapress Stainless Steel Gas, Geberit Mapress Copper and Geberit Mapress Copper Gas pressing systems offer a high-quality and economical alternative to welded, soldered or screwed piping systems for central gas supply. The positive-fit and lengthways non-positive connections are quick and easy to assemble and guarantee a high degree of tightness (leak rate < 1*10-5 mbar l/s).

Geberit Mapress Stainless Steel / Stainless Steel Gas

System pipes and press fittings made of high-alloy, austenitic, stainless CrNiMo steel with material number 1.4401 in accordance with BS EN 10088, with dimensions d12–108 with TÜV component ID TÜV.A.271-07.

Note

Geberit's manufacturing standard defines and guarantees the highest quality standards. All system pipes and fittings are metallically bright, free of grease and oil, hygienically perfect and free of corrosive materials when delivered. The operating pressures listed in the TÜV component certificate are 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.

→ Geberit Mapress Copper



Geberit Mapress for industrial gases

			Pipes/fi	ttings			Seal rings			
Gas type	Stainless steel 1.4401	Stainless steel, Silicone free 1.4401	Stainless steel gas 1.4401	Copper ¹⁾ CW 024 A	Copper gas ¹⁾ CW 024 A	Seal ring CIIR Black	Seal ring HNBR Yellow	Seal ring FKM Blue	Temperature range (•C)	Remarks
Acetylene	1	1				1			-10 to +50	
Argon	1	1		1		1			-10 to +60	
Natural gas			1		1		1		-20 to +70	
Carbon dioxide	1	1				1			-10 to +60	
Methane			1		1		1		-20 to +70	
Propane			1		1		1		-20 to +70	
Oxygen		1				1			-10 to +60	
Nitrogen	1	1		1					-10 to +60	
Hydrogen	1	1							-10 to +60	
Shielding gases	1	1		1					-10 to +60	
Compressed air	1	1		1				1	-20 to +100	DL class 4, ISO 8573 and upwards: Seal ring FKM, blue
Synthetic air	1	1		1					-20 to +100	

 $^{^{\}rm 1)}$ In connection with quality copper pipes in accordance with BS EN 1057.



Further gases and max. permissible operating pressures depending on gas type on request

Geberit Mepla multilayer pipe.

For flexibility and high performance.

Easy, reliable processing and a comprehensive range of pipe dimensions and fittings make Geberit Mepla a flexible, economical piping system. This means Geberit Mepla is suitable for a variety of applications for industrial situations like potable water. Geberit Mepla complies with the required hygiene and safety standards.

Versatile and economical in industry

The Geberit Mepla pressing system is used in the automotive, chemical, pharmaceutical and food and beverage industries for compressed air systems, vacuum systems, cooling systems, process and potable water pipes as well as heating. Geberit Mepla permits easy, reliable and flexible processing. It complies with high hygiene standards and is both reliable and permanently leakproof in operation.

Three layers for reliable application with waters and compressed air

Geberit Mepla system pipes combine the quality advantages of both plastic and metal. The stabilising core comprising an aluminium pipe is surrounded on the outside by a protective coating of HDPE, which provides protection against corrosion and mechanical loads. The central, longitudinally butt-welded aluminium layer makes the pipe stable, bendable and forms a barrier against diffusion. The inner layer of PE-RT is corrosion-resistant and food-safe.

Connections with triple reliability

Geberit Mepla offers triple safety. The insertion depth is visible and indicates the correct position of the fitting on the pipe. A tool guide rim ensures that the pressing tool is correctly positioned. Defined leak paths also ensure that fittings which have not yet been pressed can be clearly detected during the leak test.

Pipes and fittings for a wide range of applications.







Geberit Mepla pipes stay hygienically clean until they are installed.

→ Reliably sealed,





← Geberit Mepla fittings: perfect drinking water hygiene due to the



Maximum permitted temperatures and pressures

Application / Unit	Operating temperature °C	Operating pressure MPa (bar)
Potable water	0–70	1.0 (10)
Heating water (1)	0–80	1.0 (10)
Cooling water without antifreeze agent (1)	0–70	1.0 (10)
Cooling water with antifreeze agent (2)	0-40	1.0 (10)
Treated water (3)	0–70	1.0 (10)
Grey/rainwater	0–40	1.0 (10)
Compressed air (4)	0–40	1.0 (10)
Vacuum (negative pressure)	0-40	≥ 0.02 (0.2)

(1) Closed circuit

(2) Only use approved corrosion-protection agents

(3) Gunmetal fittings are not suitable for ion-free water.

(4) Purity class oil 0-3 according to ISO 8573-1:2010E.

→ Combines the advantages of plastic and metal

→ Corrosion-resistant and food-safe

→ Extensive assortment with 8 pipe dimensions and 300 fittings

→ Simple processing

→ Fire protection can be achieved simply and cost-effectively



Geberit drainage systems.For a safe, efficient and reliable solution.

Particularly high demands must be met by drainage systems in industrial applications as aggressive waste waters and environmental protection requirements must be dealt with correctly. Geberit offers the complete solution for industrial drainage requirements with robust, resilient materials, optimised fittings, permanently leak-proof connections as well as fire protection solutions.

Geberit HDPE withstands temperatures, pressure and chemicals

Significant temperature changes, aggressive waste waters, pressure, shifts and chemical influences: Geberit HDPE effortlessly withstands the loads in industrial and laboratory disposal or the loads on buried parts. The robust and shockproof piping material of high density polyethylene (HDPE) is resistant to abrasion, not affected by acids, lyes or other aggressive waste waters. It is also resistant to heat and cold (hot water up to 80 °C, short-term up to 100 °C without simultaneous mechanical load, cold water down to -40 °C).

- → Geberit HDPE: flexible, shockproof, resistant to heat, cold and chemicals
- → Large range of products and wide range or dimensions
- → Flexible and impact resistant
- → Various jointing options
- → Environmentally friendly plastic
- → Fire protection: Geberit fire protection sleeves RS90 Plus



Geberit HDPE.

The professional for waste disposal.

Wherever high resistance is required for drainage Geberit HDPE is the perfect choice. From enormous temperature change or aggressive waste water to pressure shifts and chemical influences Geberit HDPE will provide the solution.

Geberit HDPE defies temperatures, pressure and aggressive media

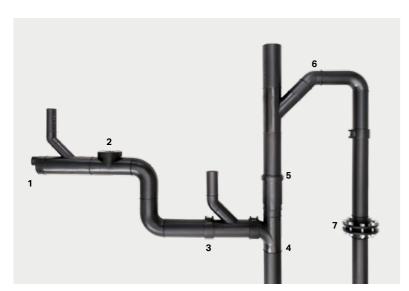
The Geberit HDPE drainage system is manufactured using high density polyethylene (PE-HD) a robust piping material. It is suitable for a number of uses such as industry, commerce, laboratories, for underground installation, in concrete or bridge buildings as well as for house drainage. Hot water does not affect the material at temperatures of up to 80 °C or even up to 100 °C for short periods and without mechanical load. It is resistant against around 95% of all commercially available alkalis, acids and chemicals. The pipes and fittings also withstand shocks, drops, impacts or pressures of up to 1.5 bar without breakage or permanent deformation. The plastic used is environmentally friendly and 100% recyclable. No toxic emissions whatsoever are released during its processing or in the event of a fire.

Geberit HDPE - connections with long-term stability

Geberit HDPE pipes are available in dimensions ranging from DN 30 to DN 300 and in a wide range of fittings. The pipes and fittings can be connected using butt-welding, electrofusion welding, screw connections or flanges, depending on the purpose.

Geberit HDPE - connections with long-term stability

Geberit HDPE pipes and fittings are seamlessly integrated in the Geberit system with its fire protection, roof drainage and industrial systems and can be combined with these without difficulty.



- 1 Eccentric reducer
- 2 Access cap for cleaning
- 3 Electrofusion coupling
- 4 Y branch swept-entry
- 5 Expansion socket
- 6 Butt welding
- 7 Flange connection



















Geberit connection technology.

For an easy, fast and reliable installation.

Connection technologies in industrial applications must be especially reliable. They ensure that operation is without problems and safe for employees and goods.

Three connecting systems for all kinds of applications

Safe, stable and permanently leakproof connections are the overriding goal in all areas of industrial pipe installation. Geberit relies on three connection technologies. Economical and fast press fitting technology that is certified safe is used in supply systems made of metal and composite pipes. The Geberit HDPE drainage system is connected together by a simple plastic welding process using electrofusion couplings or by bolting together for a lengthways non-positive connection. As a result $\,$ connections can be created in the shortest possible time and systems are reliably leakproof. They also offer convincing properties in regards to impact resistance and high load bearing capacity whilst being unremovable, corrosion-resistant and fire-resistant. Connection technologies can also be combined within an application.

Pressing: the right technology for every application

Geberit provide pressing tools for pressing systems in 12-108mm. Hand-operated $\,$ pressing tools are suitable for simple applications, whereas pressing tools with highly efficient electro-hydraulic functions are recommended for quick and efficient results

Electrofusion welding: quick and reliable

The Geberit HDPE drainage system can be permanently connected by electrofusion welding. Chamfering and welding are performed with one tool.

Wherever speed is of the essence and safety is the highest priority. Wherever efficiency matters and cost saving counts. Whatever the installation, Mapress offers complete flexibility, absolute reliability and a seal you can be totally sure of.

- → Three different connection technologies
- → Optimally coordinated system of press fitting and pressing tool, seal ring, system pipe
- → High level of flexibility due to wide range
- → Outstandingly suitable for prefabrication

Mechanically stable and hydraulically leakproof: the pressed joint.







Bolting or electrofusion welding: Geberit HDPE connection technologies

Geberit Mapress Connection.

Equipment needed.

Tool - ACO102



For sizes 12-35mm.

Tool - ACO203



For sizes 12-66.7mm for copper and 12-54mm for carbon and stainless steel.

Tool - ACO203XL



For all sizes (12-108mm)

Deburrer



Ensures no sharp edges on the pipework to protect seal.

Insertion depth marker



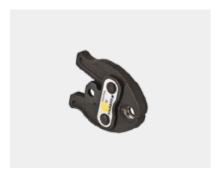
Ensure pipe insertion depth is correct.

Pipe cutter



For pipes from 12-54mm.

Jaw



Used with the appropriate tool, from 12-35mm.

Collar and adapter



For the larger sizes, 35- 108mm. 108mm fittings require two adapters.

For further installation instruction please contact your local representative or call our literature line to request an installation guide on 0800 007 5153

Six stages of pressing.

Cut and deburr pipe



Cut the pipe to length and deburr inside and out so as not to damage the seal ring. Clean chips from the pipe end.

Prepare the fitting



Remove the protection plug and visually check the seal ring.

Press



Must use correctly sized jaw/collar. Fittings must be aligned correctly in jaw/collar. Ensure insertion depth is met before pressing!

Mark insertion depth



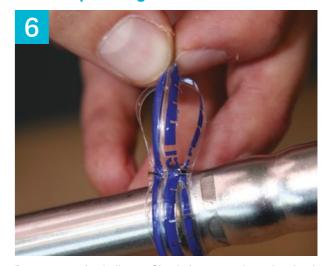
To ensure the pipe is fully inserted before pressing. Gives visual security. This is very important!

Insert pipe into fitting



Ensure the insertion depth is met, this is very important.

Remove pressing indicator



Remove pressing indicator. Check the correct insertion depth has been met.

For sizes 42mm and above you will need to use a collar and adapter for further instructions please refer to the Supply Systems Installation Guide or speak to your local Geberit representative.



Automotive.

The design, development and manufacturing of motor vehicles.

The modern automotive production and components industry requires a large range of clean, safe and flexible piping systems; from process lines to transporting liquid and gas materials, to filling the vehicles with operating liquids or for supply of the production robots, machines and plant. Construction processes in the automotive industry are already highly optimised, but the modern and flexible production can be enhanced by the innovative connection technologies of Geberit Mapress and Geberit Mepla press connection systems.

Cleaner, more flexible piping systems for vehicle production

The breadth of supply systems required in the automotive industry ranges from water supply, process water and chilled water for welding robots to filling lines for operating liquids in the new vehicles produced such as fuel, brake fluid, screen wash or antifreeze. Automotive producers and delivers also need piping systems for compressed air supply for work and control air as well as for fire protection systems. For all the challenges in automotive production, Geberit offers safer, cleaner and more flexibly installed solutions with its multi-faceted press systems - Geberit Mapress and Geberit Mepla. Compared to welding, Geberit press connection systems clearly reduce the down time of the equipment during installation and maintenance and does not require

International Standards and approvals for a wide spectrum of Geberit Mapress

Geberit Mapress press fittings and system pipes are available in the silicone free materials stainless steel and carbon steel. Geberit Mapress is suitable for all materials in the process lines within the automotive industry. The press connection system can be installed without causing a fire risk, because hot work is not required.

















- → Geberit Mapress and Geberit Mepla two supply systems for all applications
- → Suitable for numerous process lines in automobile production
- → Silicone-free pipes and fittings
- → Free from substances that constrain from painting
- → Highly cost effective in plant through reduction of down time
- → Cost reduction through fast, clean and
- → Cold pressed, safe connections without threading, soldering, brazing or welding

Operating pressures

		Maximum Pressure [bar] [†]													
	Press	Hexaç Pre		Lemon		HCPS									
		Mapress Stainless Steel	Mapress Carbon Steel	Mapress Stainless Steel	Mapress Carbon Steel	Mapress Stainless Steel	Mapress Carbon Steel								
	12	75	40	-	-	-	-								
	15	63	40	-	-	-	-								
	18	63	40	-	-	-	-								
	22	40	25	-	-	-	-								
•	28	25	25	-	-	-	-								
	35	16	16	25	25	-	-								
	42	-	-	25	16	-	-								
	54	-	-	25	16	-	-								
	76.1	-	-	16	12	16	16								
	88.9	-	-	12	12	16	12								
	108	-	-	12	12	16	12								

[†]Any pressure above 16 bar should be confirmed by request

Seal ring applications

		Drainage	Solvents	Acetylene	lnert gases	Hydrogen	Oxygen	Industrial vacuum	Compressed air	Control air	Windscreen washer fluid	Frost protection	Cooling liquid	Urea (ad blue)	Diesel, biodiesel	Premium, regular petrol	Brake fluid dot 4	Test oils (mineral oil base)	Mineral oils sae	Oil-water-emulsions	Extinguisher pipes	Sprinkler systems	Ve water	Process water	Coolants	Potable water
oress g	CIIR - black	•	•	•	•	•	•									•	•									
Geberit Mapress seal ring	FKM - blue	•						-				-	-									•	•	•	•	
Geb	EPDM - black								•	•													*	■*		

Geberit Mapress Stainless Steel Geberit Mapress Carbon Steel Geberit Mepla

imum operating pressure, see Vd-TÜV admission table



















Food and Beverage.

Growing, manufacturing, processing and storing the foods of the world.

In hygienically sensitive areas of food industries many different process lines are required. The innovative Geberit Mapress stainless steel press connection system fulfils the strict hygienic challenges of food industries for a variety of applications. In addition, Geberit Mapress stainless steel supply systems can be disinfected chemically or thermally.

Meeting stringent hygiene requirements

Geberit Stainless Steel press connection systems fulfil the strict hygiene requirements for the process lines for the production of food and beverages. Geberit Mapress and Geberit Mepla guarantee a safe and clean installation.

Whether in breweries, cheese dairies and creamaries, sugar factories or abbatoirs, Geberit's solutions are ideal for process lines for cleaning & disinfecting products, saturated steam for disinfection & sterilisation and for various packaging methods including vacuum and gases including technical gases like hydrogen, nitrogen and oxygen.

Geberit Mapress stainless steel for cleaning and disinfection materials

Geberit Mapress press fittings and system pipe are used in the pharmaceutical and food industry in corrosion resistant stainless steel only. Four different seal rings and international approvals offer a wide spectrum of use of the Geberit Mapress system for process lines for cleaning and disinfection products or for saturated steam. The clean installation technology takes into account the required installation hygiene, as stainless steel does not influence the purity of the gases used. All supply systems lines can be chemically or thermally

Geberit Mepla in the food industries

The multilayer pipe system Geberit Mepla can be used in the food industries for compressed air, potable water installations and for heating. Geberit Mepla lends itself to safe, clean and flexible installation. All Geberit Mepla fittings and system pipes are closed with caps and delivered individually packed. This way, the noted hygiene in installation is maintained. Also, installation times are clearly reduced through reduction of down time which is highly cost

- → Hygienic harmless materials fulfil the hygienic challenges of the food industry
- → Geberit system pipes and press fittings are individually
- → Clean installation technology through cold presses without soft solder, hard solder or welding
- → Geberit Mapress Stainless Steel supply systems can be easily disinfected chemically or thermally
- → The high molybdenum content of Geberit Mapress Stainless Steel components ensure excellent corrosion resistance





























Operating pressures

		Maximum Pressure [bar] [†]													
	Press	Hexaç Pre		Lemon- compr		HCPS									
		Mapress Stainless Steel	Mapress Carbon Steel	Mapress Stainless Steel	Mapress Carbon Steel	Mapress Stainless Steel	Mapress Carbon Steel								
	12	75	40	-	-	-	-								
	15	63	40	-	-	-	-								
	18	63	40	-	ı	ı	-								
Ē	22	40	25	-	-	-	-								
Diameter (mm)	28	25	25	-	-	-	-								
eter	35	16	16	25	25	-	-								
ш	42	-	-	25	16	-	-								
۵	54	-	-	25	16	-	-								
	76.1	-	-	16	12	16	16								
	88.9	-	-	12	12	16	12								
	108	-	-	12	12	16	12								

†Any pressure above 16 bar should be confirmed by request

Seal ring applications

Application

		Drainage	Solvents	Acetylene	Inert gases	Hydrogen	Oxygen	Burnable gases (dvgw vp 614)	Industrial vacuum	Compressed air	Control air	Frost protection	Refrigerant (freon)	Extinguisher pipes	Sprinkler systems	VE water	Process water	Coolants	Potable water
ess	CIIR - black			•															
Mapr	FKM - blue									•									
Geberit Mapress seal ring	HNBR - yellow																		
Geb	EPDM - black									•	•					■*	■*	•	

Maximum operating pressure, see Vd-TÜV admission table

Red brass fittings emit metal ions into water. They aren't suitable for deionised water transport unless there is additional treatment at the outlet.



Plant and Machinery.

A large scale production of parts and goods assembled by machine.

In the plant and machinery industry tight, stable pipe connections are required for various special media, for example mineral oils and motor fuels, compressed air, fuel gases, inert gases and special technical gases like oxygen. In combined heat and power plants, steelworks or paper factories, Geberit supply systems can be used for operating and chilled water, purified water, process water, saturated steam and condensate lines, and also sprinkler and fire extinguishing systems.

Stable, varied and secure solutions for industry

The wide range of plant and machinery industries need supply systems for the supply of cooling substances, operating and chilled water, condensate lines, from compressed air control, lubricants and oil to inert gases and technical gases. Further piping systems for compressed air delivery or for breathable air as well as for sprinkler systems, fire extinguishing lines or hydrants are also required. For these challenges in the manufacturing industry, Geberit Mapress and Geberit Mepla press fitting systems offer fast, safe and clean solutions. Through the flexible use, down time in the plant and machinery industry can be clearly reduced.

Geberit Mapress is TÜV approved and allowed for many media, including oxygen and hydrogen

The Geberit Mapress press connection system offers an extensive fitting range in the materials stainless steel and unalloyed carbon steel. Different seal rings, TÜV approved, made to international standards and conformities widen the spectrum of use of Geberit Mapress Stainless Steel to over 200 chemicals and special media. Geberit Mapress is installed easily and economically, with no danger and without open flames. Where previously welding was used, today clean and long lasting safe pipelines can be installed with Geberit press connection systems in the shortest time.

Geberit Mepla - flexible in many industrial applications

Geberit Mepla is also suitable in the process industry for an easy and fast installation technology. The multilayer pipe system can be used for compressed air, cooling systems or for clean and safe hot and cold water installations and heating.

- → Geberit Mapress is TÜV approved and suitable for special media and gases like oxygen, hydrogen and acetylene
- → Geberit Mapress is capable of handling over 200 chemicals
- → Cost reduction through fast, clean and flexible installation
- → High plant availability through reduction of down time
- → Extensive fitting range in various materials
- → Clean cold pressing system without fire risk, also ideal for repairs and extensions

























Operating pressures

		Maximum Pressure [bar] [†]													
1	Press	Hexag Pre		Lemon- compr		HCPS									
		Mapress Stainless Steel	Mapress Carbon Steel	Mapress Stainless Steel	Mapress Carbon Steel	Mapress Stainless Steel	Mapress Carbon Steel								
	12	75	40	-	-	-	-								
	15	63	40	-	-	-	-								
ĺ	18	63	40	-	-	-	-								
	22	40	25	-	-	-	-								
	28	25	25	-	-	-	-								
	35	16	16	25	25	-	-								
	42	-	-	25	16	-	1								
	54	-	-	25	16	-	-								
	76.1	-	-	16	12	16	16								
	88.9	-	-	12	12	16	12								
Ī	108	-	-	12	12	16	12								

†Any pressure above 16 bar should be confirmed by request

Seal ring applications

Application

		Drainage	Solvents	Acetylene	lnert gases	Hydrogen	Oxygen	Burnable gases (DVGW VP 614)	Industrial vacuum	Compressed air	Control air	Frost protection	Refrigerant (Freon)	Cooling lubricant	Mineral oils SAE	Oil-water-emulsions	Extinguisher pipes	Sprinkler systems	VE water	Process water	Coolants	Potable water
SS	CIIR - black	•	•	•																		
Geberit Mapress seal ring	FKM - blue	•																•	•		•	
eber	HNBR - yellow												•									
9	EPDM - black										•								*	■*		

Maximum operating pressure, see Vd-TÜV admission table

Geberit Mapress Stainless Steel Geberit Mapress Carbon Steel Geberit Mepla



Chemical and Pharmaceutical.

The design and development of industrial chemicals and medications.

Stable, reliable pipe connections are essential in chemical and pharmaceutical production. Geberit supply systems can be used to transport chilled water, processed water & process water as well as condensate lines, sprinkler and fire extinguisher systems or hydrants, mineral oils & fuels, compressed air, fuel gases, inert gases and technical gases. Geberit Mapress press connection system is also suitable for the supply of chemicals, as long as Geberit's approval is given. For safe waste disposal Geberit HDPE provides the perfect drainage solution for the chemical and pharmaceutical industry.

Versatile press connection systems for the supply of chemicals

Required in the modern chemical industry there are a great breadth of applications for press connection systems in supply and drainage. There are coolants, compressed gases, chilled and heated water, potable water, lubricants and oil as well as fire protection systems. Further pipelines for the supply of compressed air, for technical gases and for process, deionised and chilled water are required. For all these challenges in the chemical industry Geberit offers the versatile press connection systems Geberit Mapress and Geberit Mepla which provide flexible, clean and secure solutions. Where previously welding was used, today clean and long lasting safe pipelines can be installed with Geberit press connection systems in the shortest time. The reduction of installation times provides for a higher plant availability.

Geberit Mapress - approved for use with more than 200 chemicals

With the press connection system Geberit Mapress, the corrosion resistant materials stainless steel and unalloyed carbon steel is suitable for a multitude of approved and permitted media. Various seal rings, TÜV release, international approvals and certificates of conformity offer a wide spectrum of usage of the Geberit Mapress system, ranging from waters, compressed air, oils and fuels, through to inert and technical gases, to over 200 chemicals. Because the Geberit press connection system works without soldering and welding, it can be safely installed in potentially explosive areas.

Geberit Mepla is suitable for the chemical industry

The multilayer press system Geberit Mepla can be used in the chemical industry for compressed air, cooling systems or for the hot and cold water installations and heating.

- → Reduction of the installation time through fast, clean and flexible installation
- → High plant availability due to the minimisation of downtime
- → Corrosion resistant materials like Mapress Stainless Steel
- → Industry-safe connection technology through factory made fittings programme
- → Geberit Mapress is TÜV approved and allowed for over
- → Safe working in hazardous areas, due to cold pressed































Operating pressures

			Maximum Pressure [bar] [†]													
	Press	Hexaç Pre		Lemon- compr		HCPS										
		Mapress Stainless Steel	Mapress Carbon Steel	Mapress Stainless Steel	Mapress Carbon Steel	Mapress Stainless Steel	Mapress Carbon Steel									
	12	75	40	-	-	-	-									
	15	63	40	-	-	-	-									
	18	63	40	-	ı	-	-									
Ē	22	40	25	-	-	-	-									
Diameter (mm)	28	25	25	-	-	-	-									
ete	35	16	16	25	25	-	-									
ä	42	-	-	25	16	-	-									
Δ	54	-	-	25	16	-	-									
	76.1	-	-	16	12	16	16									
	88.9	-	-	12	12	16	12									
	108	-	-	12	12	16	12									

†Any pressure above 16 bar should be confirmed by request

Seal ring applications

HNBR - yellow EPDM - black

Maximum operating pressure, see Vd-TÜV admission table

Geberit Mapress Stainless Steel Geberit Mapress Carbon Steel Geberit Mepla



Shipbuilding.

Constructing ships, yachts and other floating vessels.

From private yachts or passenger vessels to offshore projects, Geberit offers many solutions for supplying and draining off various medias in shipbuilding. The Geberit advantage for shipbuilders is thin-walled system pipes of metal or plastic that can be pressed into a system to significantly reduce the overall weight. A variety of media, including fresh water, seawater, compressed air, fuels and oils can be transported through our systems.

Geberit press fitting systems have civilian and military approvals

Typical operational areas for reliable, long life pipes within shipbuilding are potable water installations, fire protection systems, engine room systems with pipes for water emulsions/oil emulsions, mineral oils and lubricating oils, heating and cooling systems with refrigerant and antifreeze as well as compressed air and inert gases. A variety of media can be distributed within Geberit piping systems for shipbuilding, including cooling water, process water, demineralised water as well as sea water and bilge water.

The Geberit Mapress materials of stainless steel, carbon steel, copper and a sea water resistant copper-nickel-iron-alloy (CuNiFe) satisfy the requirements of the marine industry and have acquired international civilian and military authorisations from the most important shipping authorities.

Geberit Mapress CuNiFe - for the sea water cooling and sprinkler systems

Geberit Mapress CuNiFe is a salt water-resistant copper-nickel-iron alloy (CuNi10Fe1, 6Mn) and has proven itself over many years within shipbuilding, for pipelines carrying salt water. It eliminates the need for welding meaning no fire hazard and effectively prevents corrosion. The Geberit Mapress system is used in shipbuilding for engine room systems, the supply of service water, pool water and heating water. Geberit Mapress CuNiFe is, up to a chloride content of 30 g/l, sea water resistant and approved for sea water cooling supply and is also certified for sea water-powered sprinkler systems.

The Geberit Mepla metal composite pipe system for hot and cold drinking water

In using Geberit Mepla press fitting pipes and fittings in shipbuilding, large weight savings can be achieved. Geberit Mepla is a lighter material which is a huge advantage within the shipbuilding industry.

- → Internationally recognised approvals from shipping and military authorities
- → A piping system for various applications in shipbuilding with a comprehensive range of different materials
- → Geberit Mapress pipe systems and fittings can save up to 50 percent in weight compared to similar materials
- → Cost reduction through easy and quick installation technique
- → No fire hazard, as cold pressing system and processing without open flame
- → Suitable for new build and renovation, without fire hazard from welding and brazing



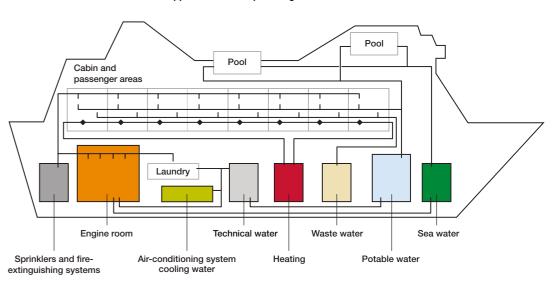




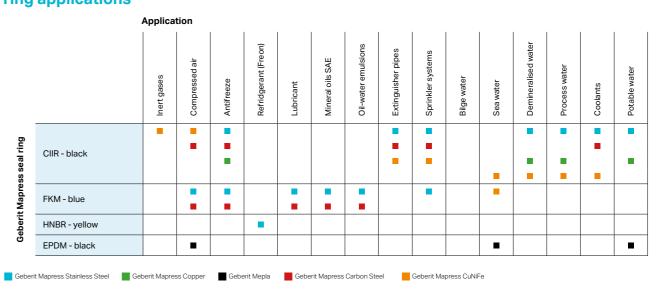




Geberit supply systems are available for a wide range of applications for shipbuilding



Seal ring applications





Geberit Mapress is grazing.

Geberit Mapress delivers an even slicker operation in the Graze factory.



→ Project overview:

Graze.com, the newest concept in healthy snacking, has seen considerable success over the past few years with its snack box delivery service becoming a popular staple in homes and workplaces across the UK. To meet this increased demand, Graze made the decision to upgrade from its existing Feltham location to a purpose-built factory in Hayes; making its already slick operation, even slicker.

Described by installer, Ross McClelland, as "the best food manufacturing facility you're likely to see", the development will complete over a three year period.

→ Why Geberit?

With state-of-the-art at the core of their new food manufacturing premises, Graze chose Geberit's easy-to-fit pipe solutions and other plumbing essentials to fulfil all of the factory's building services, however compressed air, process water and nitrogen gas lines also used Geberit Mapress as part of the production process.

Geberit's pipework was specified after Graze team members, Neil Thompson and Jason Low took part in a 'pressing' initiative, through merchants, BSS, in Reading. Armed with a set of Mapress fittings and tools, the duo never looked back thanks to the simple process of fitting Geberit's press-fit solution together; in fact, they went on to win first place in the Geberit Challenge 2012 – a competition to find the fastest and most efficient installer.

"Simply cut, debur, mark insertion depth, press and join, with zero leaks – with the right training anyone can be a plumber! Using Mapress is clean, quick and tidy, with no mess, perfect for a factory as sleek as Graze's." said Ross, responsible for all plumbing installation works.

Beyond Geberit Mapress, Geberit HDPE is used for all drainage on site, with Geberit's Duofix frames used for wall-hung WCs and urinals.

"Fitting Geberit Mapress together is like child's play."

Ross McClellan, Installer.

→ Project information

Building: Graze factory Location: Hayes

Contractor: Graze

Project Completion: Ongoing Expansions

→ Geberit Know-How

Problem: Required building services pipework and drainage as well as pipe lines for compressed air, nitrogen gas and process water.

Solution: Geberit Mapress, Geberit HDPE and Geberit Duofix for WCs and urinals.





World leading research institute installs Geberit Mapress.

The Cambridge biology research institute chooses Geberit Mapress Copper for a risk free pipe system renovation.



→ Project overview:

The MRC Laboratory of Molecular Biology (LMB) is one of the world's leading research institutes. Its scientists are responsible for many pioneering techniques, working to advance the understanding of biological processes at a molecular level, in order to solve key problems in human health.

In early 2013, the LMB moved into a new purpose-built building. Costing £212 million, the building provides first-class facilities to some of the world's leading scientists, located in the hub of one of the largest and most internationally competitive concentrations of healthcare-related talent and enterprise in Europe.

Although a relatively new building, in January 2016 compressed air piping needed installing to match an existing copper system in the building. The original was fitted using silver soldered fittings, but the work needed to be completed while the building was occupied and safety was a high priority so soldering, which requires hot works, was not a suitable option.

→ Why Geberit?

The fact that Geberit Mapress requires no hot works was a major plus point as LMB had to remain occupied while the new compressed air systems were being installed and soldering could have posed a potential risk to building users. Not only can soldering be a potential danger, but the Geberit Mapress system has a neater finish overall finish making exposed pipes more aesthetically pleasing.

Gary Smith, from GRS Mechanical, said: "We had to match an existing compressed air installation constructed from 22mm copper braised joints. Now a fully functioning building, it was hard to get a 'hot works permit', so Geberit Mapress was the obvious choice. As ever with Geberit Mapress, the installation went smoothly and the customer is extremely happy with the end result."

→ Project information

Building: MRC (Medical Research Council)
Laboratory of Molecular Biology
Location: Cambridge
Installer: GRS Mechanical
Project Completion: January 2016

→ Geberit Know-How

Problem: Updating a compressed air pipe system while premises was occupied

Solution: Geberit Mapress





Global manufacturer chooses Geberit Mapress.

A Smurfit Kappa factory in Norwich uses Geberit Mapress to transport liquid glue.



→ Project overview:

Smurfit Kappa, the leading global packaging manufacturer, supplies a range of cardboard-based products, including packaging for the retail, food, postal and industrial sectors. Its factory in Fishersgate required new piping to transport liquid glue (a galvanised starch line), used to bond corrugated cardboard together; Smurfit Kappa's primary product.

The replacement galvanised starch line needed air driven pumps, tappings and the ability to be cleaned with warm water after production so it remains functional. GRS Mechanical removed the majority of the existing 2" galvanised steel pipework, which had become clogged with glue, replacing it with 54mm Geberit Mapress Stainless Steel.

→ Why Geberit?

Geberit Mapress was chosen due to its ease of installation and the fact no hot works are required in its fitting; essential in a highly flammable cardboard factory. Geberit Mapress can also be demounted and is light to install, achieving a neat installation. Stainless steel is strong and unaffected by the glue, with FKM seal rings ensuring exceptional leak protection.

Gary Smith, from GRS Mechanical, said "The success of the new galvanised starch line at the Fishersgate factory has meant that GRS mechanical will be installing the same solution at another Smurfit Kappa site, on Jupiter road in Norwich. The installation was easy and straightforward, GRS uses Geberit Mapress regularly, so is very familiar with the pressing solution."

"The installation was easy and straightforward, GRS uses Geberit Mapress regularly, so is very familiar with the pressing solution."

Gary Smith, GRS Mechanical

→ Project information

Building: Smurfit Kappa cardboard factory **Location:** Fishersgate **Installer:** GRS Mechanical

Project Completion: January 2016

→ Geberit Know-How

Problem: A pipe system to transport liquid glue for production, but can also be flushed out

Solution: Geberit Mapress Stainless Steel





Geberit Mapress delivers the piping solution for Data Centre.

Geberit have developed a bunded pipe solution with FSS in central London.



→ Project overview:

A Data Centre in Central London required new bulk tanks, polishing systems and pipework, fully linking with the existing single skin welded steel pipe system. Tanks had to be drained and de-gassed, with temporary tanks installed and out of hours works required, making the project a particularly costly one.

Fuel Storage Solutions (FSS) historically used compression, single skin, stainless steel pipe on similar jobs, but this particular application required bunded pipe. FSS worked with Geberit in Germany to develop a suitable pipe, complete with a ten year warranty. FSS is now the only company in the world that can offer bunded press-fit pipe of this type and the only company approved by Geberit to fit it.

→ Why Geberit?

With Geberit Mapress, no hot works are required, so for this particular project the installation was completed without the need to empty tanks and put in temporary storage facilities. Any future modifications can be easily done; drain the line or attach a new fitting, for example.

The line was taken from the bulk tanks all the way to the day tank in one continuous run, monitored 24/7 and linked into the BMS, pumps or solenoid valve on the bulk tank. If a leak is detected the line will stop taking-in oil.

Jonathan Barnett, Managing Director for FSS, said: "In our opinion, Geberit Mapress is vastly superior to welded or threaded steel, presenting a better and cheaper alternative. Now, combined with bunding, we have developed with Geberit a unique product that specifically meets the challenges of our sector.

"FSS has since been asked to look at using this new piping solution for water, coolants, gases and waste products in sensitive areas where leaking is not an option."

Jonathan Barnett, Managing Director for FSS.

→ Project information

Building: Data Centre
Location: Central London
Installer: FSS (Fuel Storage Solutions)

Project Completion: July 2013

→ Geberit Know-How

Problem: Required a bunded piping solution to transport fuel

Solution: Bespoke, bunded Geberit Mapress Stainless Steel







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Geberit provides the solution for luxury yacht.

A range of Geberit products have been used extensively for engine cooling, fire protection, bilge and fuel systems on board Sunseeker's flagship luxury yacht.

→ Project overview:

Palatial in scale, the 25-knot, 40 metre long Sunseeker yacht presents ultra-spacious accommodation for up to 12 guests, with clever layouts that allow the crew of nine to move discreetly about the boat. There is a wide choice of cabin configurations, and options include automated balconies to the forward master suite and main deck. Particularly suited to the marine industry, Geberit Mapress Stainless Steel and Geberit Mapress CuNiFe have been used extensively for engine cooling, fire protection, bilge and fuel systems on board Sunseeker's flagship luxury yacht.

→ Why Geberit?

Geberit's piping systems offer the boatbuilding industry many advantages, not least because its thin-walled pipes reduce overall weight significantly. In addition to the weight savings, Sunseeker International was impressed with the hygienic properties and wide variety of media that Geberit Mapress can carry, including potable water, hot water, seawater, compressed air, fuels and oils.

Within the boat-building industry, where safety is paramount, another key advantage of the Geberit Mapress system is its sealing integrity and reliability. Salt water can corrode metals, whereas copper-nickel alloys have proven themselves over many years in pipelines carrying salt water and in shipfitting areas. With Geberit Mapress CuNiFe, welding is unnecessary and corrosion on piping systems is effectively prevented. Geberit Mapress piping systems be pressed in a few simple steps, without the need for welding, screwing or soldering. They also provide a reliable, tight connection where any leaks can be visibly detected during the pressure test making installation, even in tight spaces, a breeze.

→ Project information

Vessel: Sunseeker

Contractor: Sunseeker International Project Completion: Summer 2010

→ Geberit Know-How

Problem: Pipe system for engine cooling, fire protection, bilge & fuel systems suitable for a yacht

Solution: Geberit Mapress Stainless Steel and Geberit Mapress CuNiFe





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Geberit Mapress Stainless Steel performs for Greencore Group.

Geberit have delivered steam, air and potable water for the food factory in London.



→ Project overview:

Greencore Group plc is a leading international manufacturer of convenience foods, supplying a wide range of chilled, frozen and ambient foods to some of the most successful retail and food service customers in the UK and US.

Its factory at Park Royal in London is part of Greencore's 'Food to Go' business, manufacturing pre-packed sandwiches for major supermarket and high street chains, petrol forecourts and convenience stores.

In May 2016 a new tray wash machine was installed in a refurbished area of the factory, using Geberit Mapress Stainless Steel to deliver steam, air plus hot and cold water. This is the first of five phases of works which will utilise the pressing solution.

→ Why Geberit?

Gregory Pelling, CEO of Miramar Engineering explained their decision to use Geberit Mapress: "During the design process it became apparent that due to the time and space constraints within this project we were going to need to work beyond the normal threaded systems.

"Our Head of Mechanical, Ben Fisher, selected the Geberit Mapress system as the solution. When we presented our recommendation to the client they were impressed with the product selection and reassured by its guarantee. Since installation we have been asked to tender for additional projects for the same client as they were so delighted with the work."

"Speed of installation was proven during the project undertaking and the presentation of the final product shows the quality of the system. The client's expectations have been exceeded and the end result is being presented within the group as an example of what is achievable from a good mechanical install."

Ben Fisher, Head of mechanical and project manager.

→ Project information

Building: Greencore Factory Location: Park Royal, London Installer: Miramar Engineering Project Completion: May 2016

→ Geberit Know-How

Problem: Pipe system to deliver steam, air and potable water for food production

Solution: Geberit Mapress Stainless Steel







National Grid choose Geberit for the Pier of the Year.

Geberit Mapress Stainless Steel for gas is selected for large project for the Cleethorpes Pier gas ugrade.



→ Project overview:

Cleethorpes Pier, named 'Pier of the Year' in 2016, is an iconic Victorian landmark, first opening in 1873. In 2015, the pier was completely refurbished, retaining its traditional beauty with the addition of the latest mod cons and styling, including floor to ceiling windows on one side of the building to capitalise on the dramatic views.

As part of the refurbishment, gas works needed upgrading, switching from expensive bottled LPG to mains gas. Geberit Mapress 88.9mm Stainless Steel gas pipe was installed at high level under the pier structure, joining a meter adjacent to the promenade which now supplies gas to the new kitchen and '1873' restaurant, located at the end of the pier. Specified and installed by the National Grid, this project was the first time the energy provider had used Mapress on a large scale.

→ Why Geberit?

The National Grid usually uses traditional welded steel and screwed piped fittings, but chose Geberit Mapress instead for its corrosion resistant properties and the fact no hot works were required; a key consideration for engineers working in difficult, cramped conditions, often deluged by waves and adverse weather conditions.

Following training from Geberit and some successful trials on smaller installations, the National Grid decided Mapress was the right product for the Cleethorpes Pier gas upgrade. What made it particularly suitable is stainless steel's corrosion resistant properties, essential for gas pipework routed under the pier. From a safety perspective, Geberit Mapress' no hot works credentials were also a big bonus, ideal for engineers working in such an inhospitable environment. The pier is also a historic structure that cannot be put at risk from fire. One of the biggest benefits of Geberit Mapress was the reduction in time on site, which obviously equated to a financial savings versus the traditional welded and screwed steel process. In addition to this, the lightweight manner of the material made it easier for our installers to lift the pipework into place.

"Cleethorpes Pier's upgrade to mains gas has gone extremely well, with Geberit Mapress proving itself to be a viable solution for the National Grid on future projects."

James Whitmore, Network Supervisor I&C for the National Grid.

→ Project information

Building: Cleethorpes Pier Location: Cleethorpes Client: National Grid

Project Completion: April 2016

→ Geberit Know-How

Problem: Gas piping upgrade required for pier

Solution: Geberit Mapress Stainless Steel Gas





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