

The image is a collage of three photographs. The top-left and top-right photos show a blurred view of an automotive assembly line with workers and machinery. The bottom photo is a clear, central view of a car chassis on a production line, with yellow robotic arms on either side. The text is overlaid on the top-left and top-right sections.

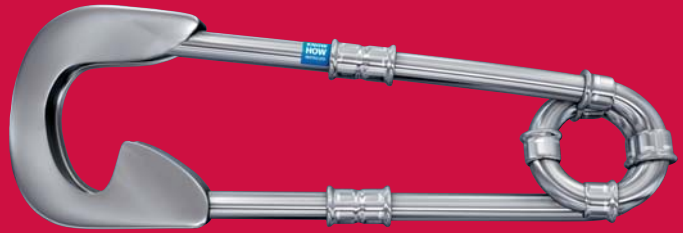
■ GEBERIT

Geberit Supply Systems
Industry: Automotive Engineering

May 2007

Geberit Pressfitting Systems

Modern automotive production involves a wide range of pipe supply systems, all of them able to benefit from fully integrated systems from Mapress - the innovative connection technique that represents the future of piping technology.



Cold pressed jointing offers many benefits over soldering, brazing, or welding. Custom press tools ensure precision pressing of joints with no hot work, open flames, hazardous substances or chemicals, which is especially important in areas where flammable materials may be present.

Mapress pipe systems are lighter than conventional alternatives and easier to handle during installation. The unique geometry of Mapress press fittings gives greater seal contact area for added security and our patented leak path o-ring seal provides an instant visual indication of un-pressed joints, removing the need for subsequent inspection.

Available in outside diameters from 12mm to 108mm with working pressures to 16 bar, Mapress pipes and fittings are available in Stainless Steel (BS316 and BS304), Carbon Steel and Copper.

Our comprehensive range reduces the number of fittings required during installation - perfect for complex systems in confined spaces.

High grade pipe materials allow consistent on-site bending and high corrosion resistance. The risk of corrosion is minimised with fully annealed seam welds and high Molybdenum content of Mapress steel pipes ensures excellent durability.

All components are 100% pressure tested to ensure perfectly tight, reliable connections that cannot be pulled apart.

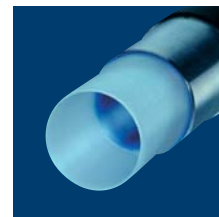


Patented leak path seal rings



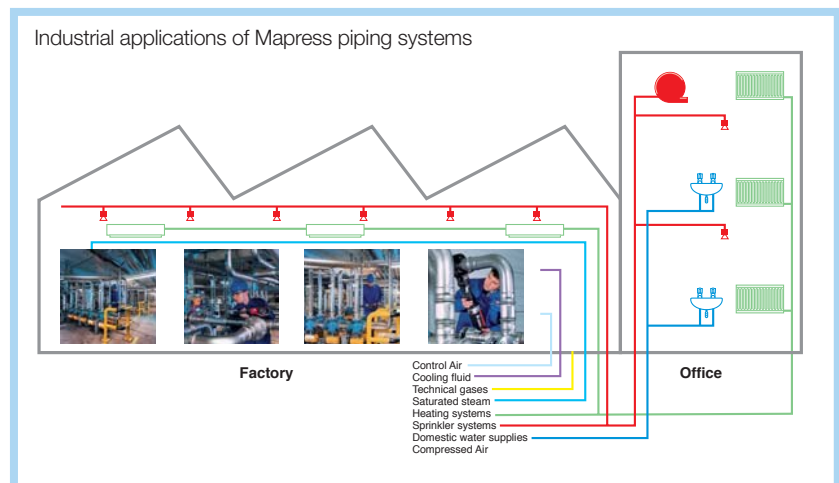
A multi layered composite piping system suitable for hot and cold water, heating and chilled water supplies,

Mepla system pipes and fittings are available in diameters from 16mm to 75mm and are suitable for an operating pressure of up to 10 bar and operating temperatures of up to 70°C.

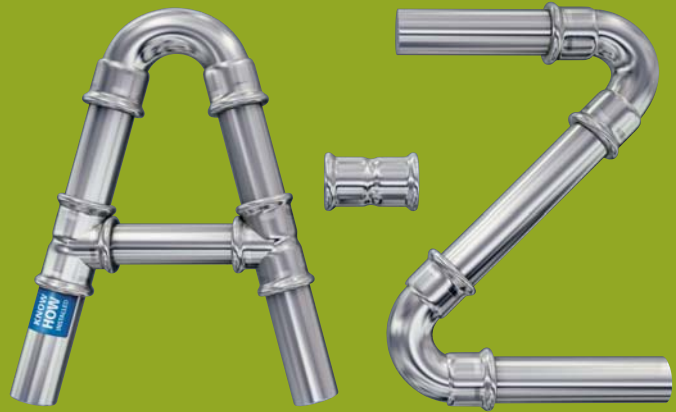


The composite structure offers the flexibility and ease associated with the installation of plastic pipes

combined with the durability and stability of a metallic system. The internal PEX core prevents limescale and bacteria build up increasing hygiene, whilst the edge welded aluminium middle layer provides strength and stability; the HDPE outer gives excellent impact and abrasion resistance.



Advantages and Applications



Advantages

- Fast installation:**
 Minimum machinery downtime ensures maximum plant availability.
- Easy handling:**
 Mapress pipes and fittings offer weight savings of up to 60% compared to traditional products.
- Cost reduction by means of fast and safe assembly methods:**
 Typical installation time reductions of over 35% compared to welded or threaded joints.
- No fire hazard:**
 All joints made cold; no naked flames.
- Suitable for use in clean environments:**
 No sealing compounds, lubricants or flames- minimising disruption during fitting and maintenance.
- No hidden assembly costs:**
 No consumable gases, sealing compounds or solders required to complete the jointing process.
- High quality:**
 Mapress stainless steel pipes and fittings have an increased Molybdenum content to resist corrosion resulting in a longer service life.

Applications

- Suitable for hot and cold general water supplies, e.g. cooling water for welding robots, injection-moulding machines etc.
- Compressed air supply lines up to 16 bar both with and without lubrication.
- Low pressure control air where high system reliability is required.
- Supply of fuels, coolants, washer fluid, lubricants and other liquids to production line machinery and filling stations.
- Mapress stainless steel pipes and fittings are available in silicone free form suitable for paint process applications.

Application	Material
Cooling water	✓ ✓ ✓ ✓
Process liquids	✓ ✓ ✓
Demineralised water	✓
Oil/water emulsion	✓ ✓
Cooking fats	✓ ✓
Fuel oils (based on mineral oils)	✓
Cooling liquid, anti freeze	✓
Brine solutions	✓
Alcohol solutions	✓
Control air	✓
Compressed air	✓ ✓ ✓
Nitrogen	✓
Oxygen	✓
Natural gas / LPG	✓
Solvents	✓

- Geberit Mapress stainless steel ✓
- Geberit Mapress carbon steel ✓
- Geberit Mapress copper ✓
- Geberit Mepla ✓

Application	Mapress seal ring material				
	Butylic Rubber (black)	H-NBR (Yellow-brown)	FEKM (light green)	FKM (dark green)	FKM (red)
Water	✓				
Wet sprinkler	✓				✓
Dry sprinkler					✓
Dry air	✓				
Fuel gases		✓			
Steam			✓		
Solar systems				✓	
Bleach	✓				
Fuel oil					✓
Lubricated air					✓
Cooling fluid					✓
Disinfectant					✓
Petrol					✓
Diesel					✓
Glycol solutions					✓
Acetylene	✓				
Hydrogen	✓				
Oxygen	✓				

Approvals and References

BMW

Applications:

- Compressed air
- Control air
- Regular petrol (91 Oct)
- Premium petrol (95 Oct)
- Diesel
- Mineral oil
- Brake fluid
- Water:
 - cooling water
 - demineralised water

Volkswagen

Applications:

- Compressed air
- Control air
- Nitrogen
- Emulsion
- Diesel
- Mineral oil
- Brake fluid
- Water:
 - cooling water
 - demineralised water

General Motors

Applications:

- Lubricants
- Compressed air
- Control air
- Water:
 - process water
 - (paint shop)
 - cooling water
 - demineralised water

Porsche

Applications:

- Compressed air
- Control air
- Regular petrol (91 Oct)
- Premium petrol (95 Oct)
- Mineral oil
- Brake fluid
- Water:
 - cooling water
 - demineralised water

Brose

Applications:

- Compressed air
- Control air
- Water:
 - cooling water
 - demineralised water

Kuka

Applications:

- Compressed air
- Control air
- Water:
 - cooling water
- Oils

Approvals



Factory Mutual approval for use in wet and dry sprinkler systems.



VdTUV approval for special industrial applications.



Underwriters Laboratories, EX3985 for use in wet, fire extinguishing systems.



DVGW Code of Practice W270.

Other products available from Geberit

Geberit HDPE and Terrain PVCu drainage systems

- Above and below ground soil waste and rainwater systems
- HDPE suitable for chemical waste
- Suitable for both Industrial and Commercial applications
- Ideal for on/off site fabrication
- Offer fast reliable jointing
- Geberit Silent Db20 - Acoustic drainage system

Geberit Installation systems for wall-hung sanitaryware, infra-red flushing controls and taps. Concealed flushing systems for WC's and urinals.

- Easy to install
- Hygienic
- Offer excellent water saving technology
- Maintenance friendly with easy access

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