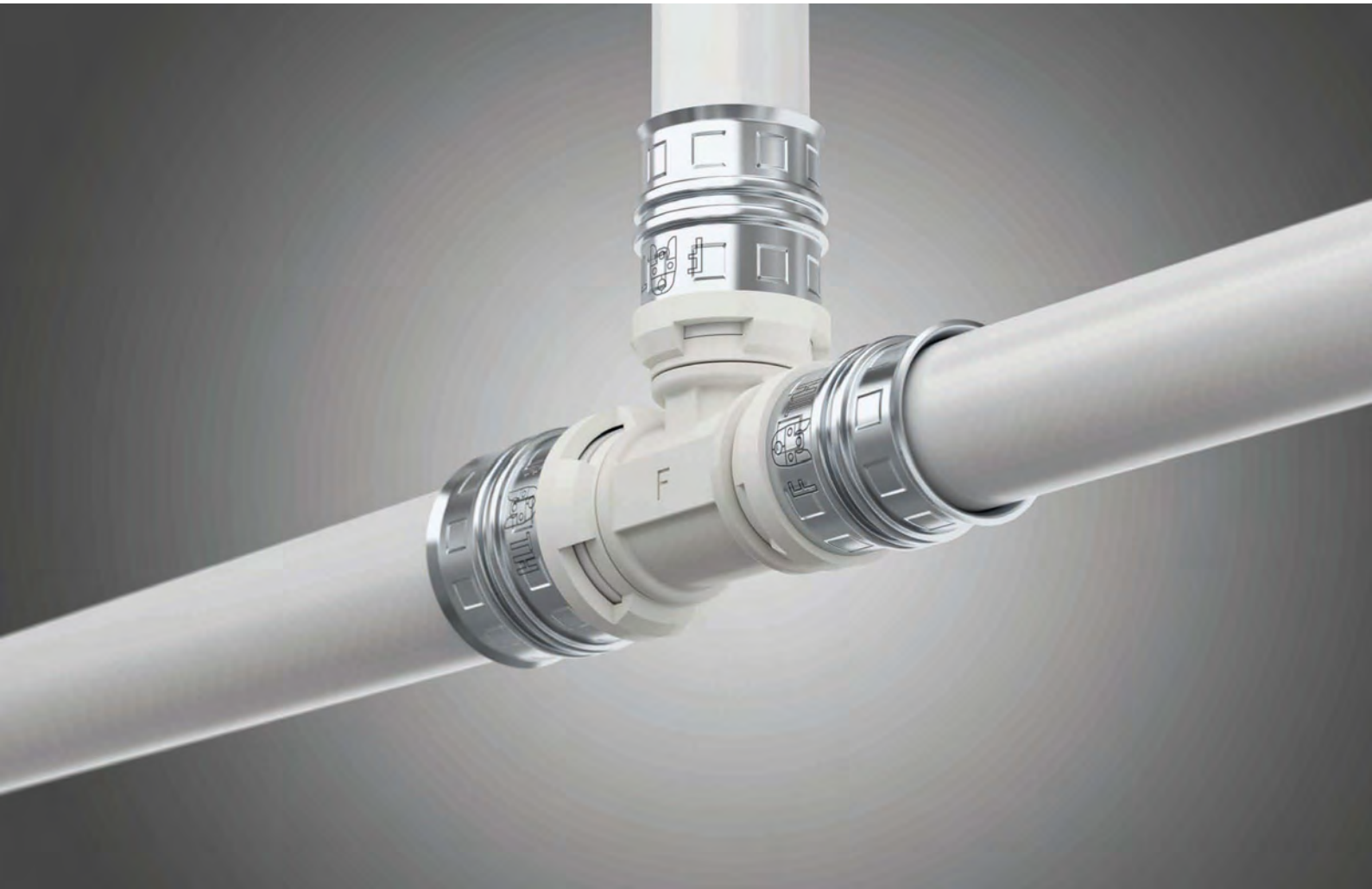


Product brochure

alpex®



Multilayer composite pipe system in dimensions from 16 to 32 mm  
for drinking water and heating installations



## The next step in drinking water and heating installations

### alpex-duo® XS pipe

#### High-quality multilayer composite pipes

The various alpex composite pipe designs are of utmost quality, flexible and practice-oriented, with internally cross-linked materials and a butt-welded aluminium core (PE-Xb/AL/PE-RT). A combination that ensures ideal processing and superior operational reliability. Whether as flexible coiled pipes, stable straight lengths, pre-insulated composite pipes, or pipes with protective sheathing – the installation is easy and time-saving!

- Corrosion resistance
- Continuous operating temperature resistance of 95 °C
- High chemical resistance
- 100 % impermeable to oxygen
- Favourable rheological properties
- Low thermal linear expansion
- Pre-insulated pipes with halogen-free insulation acc. to GEG and DIN



### Optimal flexibility



With FRÄNKISCHE's alpex pipe bender set, the installers can bend the alpex pipes for drinking water and heating installations in dimensions of 16 and 20 mm to the desired shape in just a few simple steps. Thanks to small bend radii, such fittings as angles are basically no longer required, which makes insulation easier.

- Easy bending by hand
- The use of the alpex pipe bender set allows very small bend radii of 2x outside diameter
- Time and cost saving thanks to fewer fittings



## alpex® fitting

### High-quality fittings

alpex fittings provide the specialist with a suitable solution for every installation situation. The ingenious fitting design and comprehensive selection in dimensions between 16 and 32 mm ensure the highest flexibility in terms of processing options.

- Superior materials: fittings manufactured from high-performance PPSU plastic or dezincification-resistant lead-free silicon bronze
- Flow-optimised: 30 percent larger cross-sectional surface
- Pressing with 2 contours: F and TH
- Leak before press function acc. to DVGW
- Large inspection holes for verifying correct positioning
- Recessed O-rings



### Secure leak before press function



Along with high-quality materials, the alpex fittings ensure even more reliability thanks to their smart processing. During the required pressure test after installation, the user can immediately determine where a fitting has not been pressed, and subsequently fix the leak. This is made possible thanks to the leak before press function.

The press connectors are leaking if left unpressed according to DVGW in the range between 1 and 6.5 bar (water) and 150 mbar (compressed air). The pressure test can be carried out using water or compressed air and is a two-step process for all alpex connectors. Firstly, the installation is tested for leak-tightness and secondly for strength.

This is how fast safety can be!

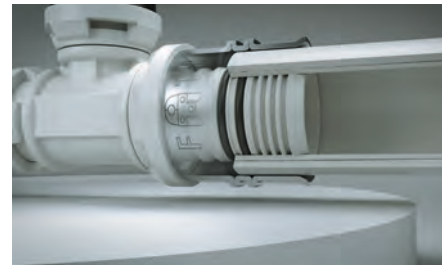


## Easy and safe installation

### Installation without calibration

Calibration is no longer required with the alpex fittings! Install in three simple steps:

1. Cut the pipe with pipe shears to obtain a straight cutting edge (if a pipe cutter is used, you can optionally use the alpex installation aid).
2. Fix the fitting by inserting the base body into the pipe end. Verify correct positioning by means of the inspection hole in the fixation ring.
3. Press the fitting with the pipe using a crimping machine.



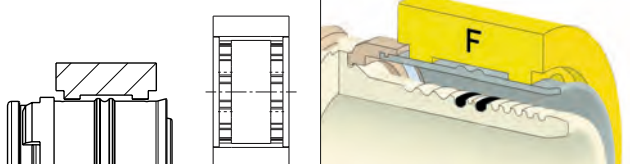
### Easy identification

With alpex, FRÄNKISCHE offers the advantage of 2 possible crimping contours. All alpex fittings can be pressed with the F-contour and the TH-contour – using all common and approved pressing tools. To ensure easy identification, both possible crimping contours are engraved on the pressing sleeve.

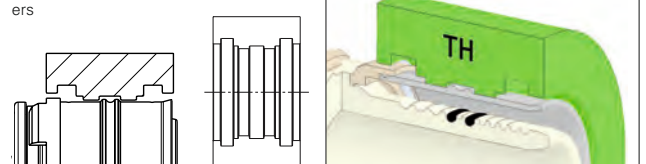
A clear advantage for the installer, who, in most cases, does not need to purchase new tools.



Crimping contour F: FRÄNKISCHE



Crimping contour TH: various manufacturers





## Drinking water hygiene

### Optimised flow and pressure loss values

Due to the optimised and extended range of fittings, the alpex system achieves a total pressure loss that is up to 15 percent lower. This can be achieved, e.g., with the new alpex bend that offers an optimal flow behaviour thanks to its unique, patented manufacturing technology. With up to 30 percent larger cross-sectional surface, our

fittings also feature the largest inside diameter among comparable radial press fittings for multilayer composite pipes. Optimal dimensioning of pipe systems during planning, high-quality materials and responsible system operators are the best prerequisites for hygienically impeccable drinking water installations.



### PPSU – high-performance plastic






Polyphenylsulfone (PPSU) stands for hygienic and physiological safety. The material boasts optimum resistance to hydrolysis and chemicals, even during long-term exposure to high temperatures. High impact resistance is also of particular advantage at the construction site.

### Silicon bronze – lead-free brass

Our brass material is both dezincification-resistant according to ISO 6509 and complies with all requirements of the REACH Regulation and the EU Drinking Water Directive. You are always on the safe side with silicon bronze (CuSi).

**PPSU and silicon bronze – for lead-free and hygienically impeccable installations with alpex!**

### Comparison of material qualities

					
	High-performance plastic PPSU	Dezincification-resistant brass acc. to ISO 6509 lead-free (CuSi)	Dezincification-resistant brass CC770S	Copper-tin-lead alloy CC499K	Standard brass tin-plated CW617N
<b>UBA TrinkwV</b>	✓	✓	✓	✓	✓
<b>Dezincification-resistant</b>	✓	✓	✓	✓	✗
<b>Lead content</b>	0 %	≤ 0.1 %	≤ 1.6 %	≤ 3.0 %	≤ 2.2 %





## System compatibility

### alpex® L

Multilayer composite pipe system in large dimensions from 40 to 75 mm for drinking water and heating installations

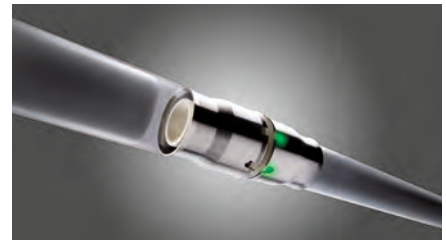
- Leak before press function acc. to DVGW
- Easy visual inspection due to extra large inspection holes
- Perfect addition to alpex



### alpex-plus®

Innovative push-fit fitting in dimensions from 16 to 26 mm with stainless steel sleeve

- Ideal for narrow and confined construction site situations
- Green indicator for verifying correct positioning
- Time- and cost-saving due to fewer processing steps



## Technical data

### System

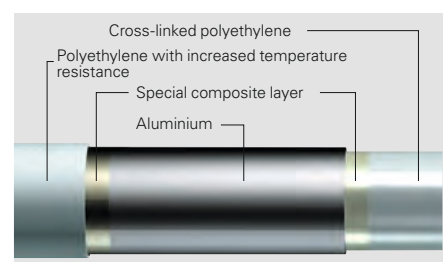
DN	12	15	20	25
Dimension [mm]	16 × 2.0	20 × 2.0	26 × 3.0	32 × 3.0
Operating temperature [°C]	max. 95 (permanent)			
Operating pressure [bar]	max. 10			
Material class DIN EN 13501-1	E			
Application	Drinking water and heating installations			

### alpex multilayer composite pipe

Material	PE-Xb/AL/PE-RT
Thermal conductivity [W/(m·K)]	0.45
Linear expansion [mm/(m·K)]	0.026

### alpex fitting

Material	Polyphenylsulfone (PPSU)/ dezincification-resistant brass / silicon bronze
Pressing sleeve	Stainless steel
Crimping contour	F – TH
Leak before press function acc. to DVGW	Yes





## Benefits at a glance

The alpeX system is extremely durable and convincing due to its high load capacity and hygienic safety. All flow-optimised pipes and fittings can be

installed in a space-saving manner, are easy to insulate and resistant to hot water of up to 95 °C. Utmost user-friendliness and efficient operation

coupled with quality and highest possible safety – these are the goals we pursue and guarantee with our ongoing practice-oriented further developments.



30 % MORE  
CROSS SECTION



95 °C

HIGH CONTINUOUS  
OPERATING  
TEMPERATURE



HYGIENICALLY SOUND



COMPLIANCE WITH  
GERMAN ENVIRONMENT  
AGENCY / DRINKING  
WATER ORDINANCE



PRESS JAW  
FLEXIBILITY



LEAK BEFORE PRESS  
FUNCTION



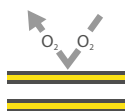
SUPERIOR MATERIAL  
QUALITY



DURABILITY



SYSTEM COMPATIBILITY



100 % IMPERMEABLE TO  
OXYGEN



INCRUSTATION-FREE



IDEAL  
WALL THICKNESS

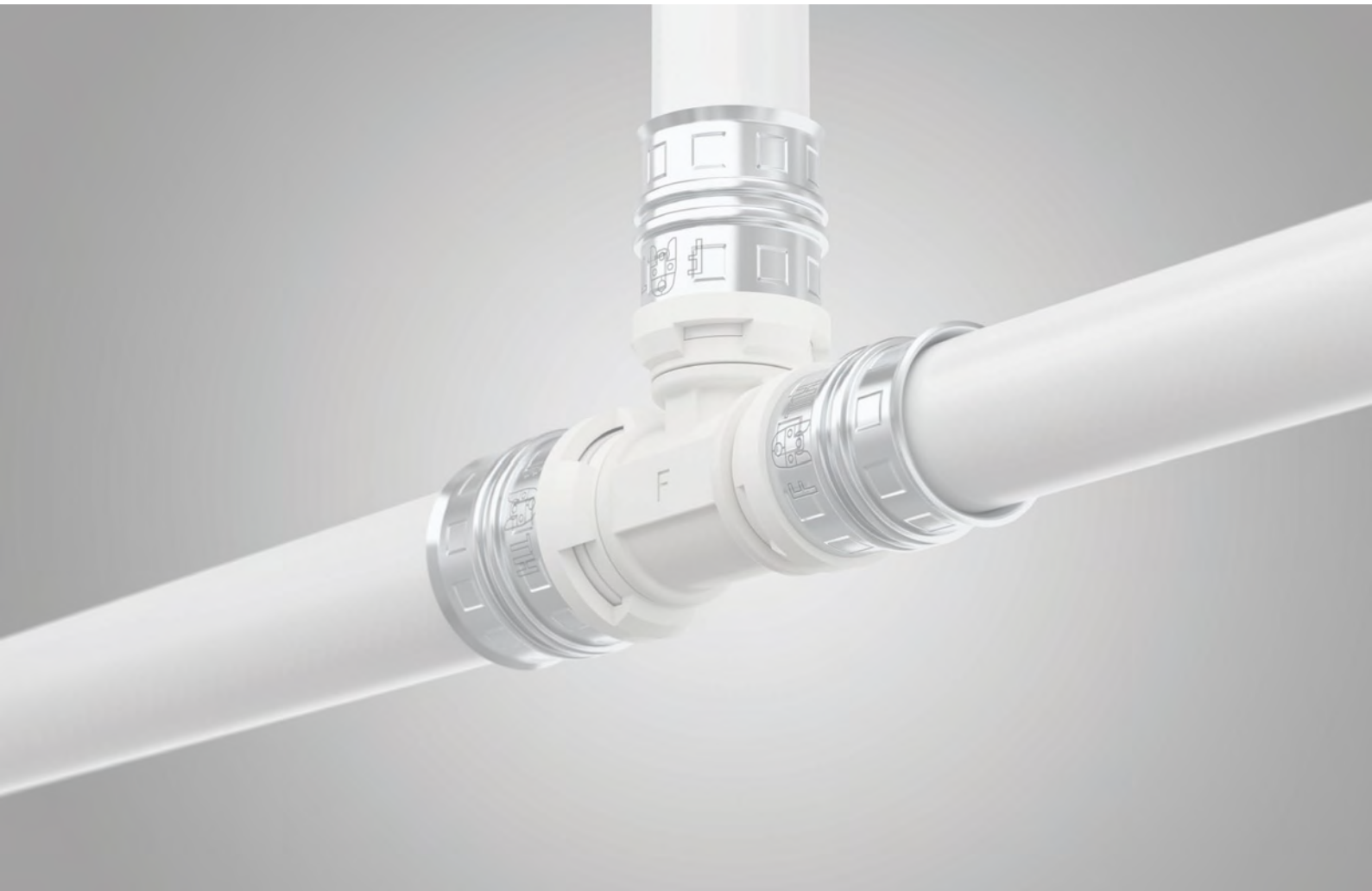
## Controlled safety



In addition to the WRAS approval, all FRÄNKISCHE alpeX system components feature a 10-year certificate.



For all products of the pipe connection technology, FRÄNKISCHE has also entered into an assumption of liability agreement with the Central Association of the Sanitary, Heating and Air-conditioning Industry (Zentralverband Sanitär Heizung Klima (ZVSHK)).



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EN-UK.70429/2.06.25 | Subject to change without notice | 06/2025