

# STEELOX

THE FLEXIBLE  
STAINLESS STEEL PIPE SYSTEM



# DRINKING WATER – THE MOST VALUABLE ASSET ON OUR PLANET

**One of the most crucial challenges in drinking water hygiene is maintaining the quality of the drinking water in the pipes.**

The Austrian family-owned company KE KELIT ensures hygienic solutions for health and care facilities with high-quality long-lasting piping systems. In this connection, the company stays at the leading edge of technological developments and keeps setting international standards with numerous patents; including, for example, the latest STEELOX innovation, which is the first flexible stainless steel drinking water piping system for diameters of up to 25mm.

The system stands out due to the high-temperature-resistant stainless steel and CUPHIN® materials that are used and which have become an absolute must in the field of drinking water hygiene. Stainless steel combined with drinking water in public services is becoming ever more popular and is increasingly in demand. This means that above all in municipal and public buildings like hospitals, aged care and nursing homes, hotels or schools, for example, it is vital to maintain high levels of water quality at all times. Dangerous germs, bacteria and viruses must be avoided at all costs. As a high-temperature-resistant system with operating temperatures of up to 80°C and peak temperatures of up to 100°C, STEELOX can cope with any of these requirements.

The zeta value-optimised fittings and the optimised flow of the STEELOX pipe guarantee the necessary water circulation. With good zeta values and correct dimensioning, it is possible to use a smaller pipe dimension. A lower filling volume of the water-carrying pipes results in the drinking water quality being maintained due to the more frequent exchange of water and the reduced risk of stagnation. By combining pipes and fittings, KE KELIT has the highest flow-through values with STEELOX.

Economising on an energy-efficient basis protects the environment and resources – this careful approach to dealing with our planet is a major factor in the company philosophy of KE KELIT. We pay attention to future generations and their requirements in all our processes. This means that KE KELIT always strives to develop products that conserve resources and are environmentally friendly. KE KELIT has borne the Austrian ecolabel, which is one of the most important awards for sustainable Austrian quality products, since 2020.



ÖNORM B 5175  
registered



ÖVGW reg. W.1.833  
registered



DIN CERTCO reg. 10R001  
registered



Awarded the Austrian ecolabel  
by the Federal ministry

# STEELOX





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STEELOX

STEELOX





KE KELIT corporate headquarters, Linz, Austria

## ABOUT US

- ◆ An Austrian family-owned company
- ◆ Products for the entire world
- ◆ Innovative piping and climate systems
- ◆ Focus on future-proof innovations
- ◆ 150 patents
- ◆ Focus on sustainability
- ◆ Over 700 staff members worldwide



From left to right: Karoline Morawetz-Egger, Karl Egger, Karl Egger, Kristine Egger

### The market leader from Austria

KE KELIT is a family-owned SME headquartered in Linz on the Danube and we have been involved in developing, manufacturing and marketing innovative piping systems for 75 years.

Originally founded in 1945 as an installation company, we are now one of the leading system providers and manufacturers of pipes. Our range includes areas of application such as drinking water, heating, cooling, waste water, underfloor heating & cooling, wall heating & cooling, ceiling heating & cooling, compressed air, solar applications, cooling and district heating.

### An international approach with proximity to customers

Today, KE KELIT has manufacturing facilities in Austria and Malaysia; aside from this we have close ties with strategic partners for manufacturing and developing relevant system components. Since proximity to customers is particularly important in our company, local staff members take care of our customers.

### An innovative pioneer

More than 150 patents and registered designs demonstrate the in-house development expertise of KE KELIT which has played a major part in our success. In particular, future-oriented connection technology like our tool-less KELOX PROTEC plug-in connection or induction welding make KE KELIT one of the leaders in innovation and quality. Our latest innovation driver is the field of ceiling heating & refrigeration (CLIMATE-FIX) where numerous Made by KE KELIT innovations have been developed. Another area is represented by the STEELOX stainless steel pipe system for hygienic drinking water installation.

Apart from this, KE KELIT has developed the world-leading KELOX PROTEC ZETA tool-less plug-in fitting with minimal pressure loss that is protected by numerous patents.

Regardless of the project business that people are involved in – whether it be hospitals, hotels or skyscrapers, residential construction, industrial and district heating – you will find products being used that were made by KE KELIT.





# STEELOX

THE FLEXIBLE  
STAINLESS STEEL-PIPE SYSTEM





# FLEXIBLE DRINKING WATER PIPING SYSTEM MADE FROM STAINLESS STEEL

With "STEELOX" the Austrian pipe system manufacturer KE KELIT is bringing the probably most innovative product of recent years to the market.

STEELOX combines into one product the successful and proven KELOX (a flexible multi-layer composite pipe system) and STEELFIX (a stainless steel pipe system) in products. The piping system is available in sizes d16 - d25 and stands out due to its optimum hygiene properties and high operating temperatures.

Due to its high level of flexibility, processing is very quick and easy. A proprietary tool concept rounds STEELOX off.

STEELOX – the first “ made in Austria” ÖVGW- ÖNORM- & DIN CERTCO-certified flexible stainless-steel piping system.

## FACTS

- ◆ Flexible – can be bent by hand
- ◆ Maximum hygienic properties
- ◆ Quick and easy to work with
- ◆ Sizes d16, d20, d25 mm
- ◆ Coils and straight pipes
- ◆ Peak temperatures of up to 100°C, operating temperatures of up to 80°C
- ◆ ÖNORM-, ÖVGW-, DIN CERTCO-registered
- ◆ Quick and easy installation
- ◆ Pre-insulated with insulation widths of 4, 9, and 13 mm



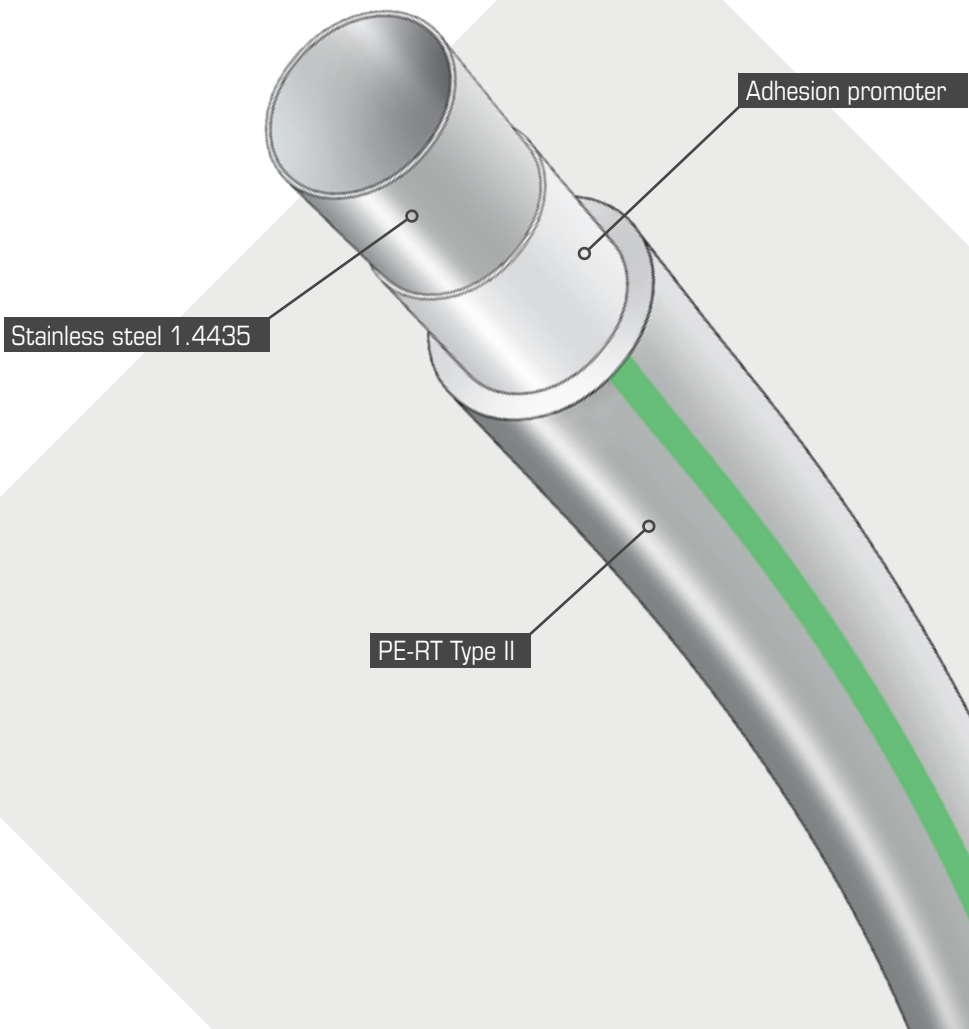
# THE FLEXIBLE STAINLESS STEEL PIPE

Processing is now also very flexible in the stainless-steel drinking water segment, since the pipes can be bent by hand. The system comes in sizes 16, 20 and 25mm, both non-insulated and pre-insulated pipes, with insulation widths of 4, 9 and 13mm, supplied both in coils and as straight pipes.

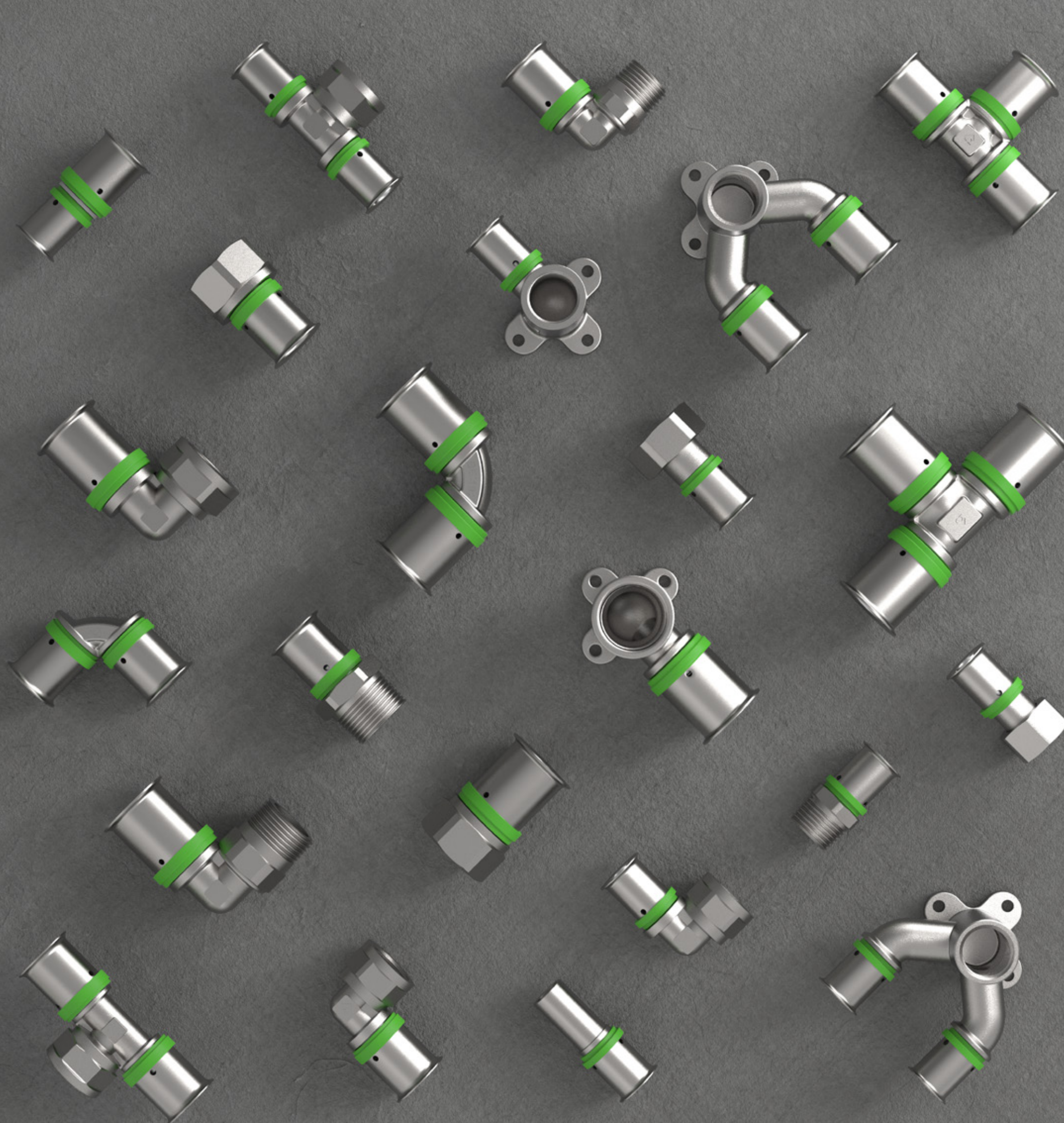
The stainless steel inside layer is sheathed in an outside PE-RT layer that protects it from external influences in an optimum way. This combination of two high-quality materials ensures the outstanding flexibility of the pipe together with optimum hygienic properties. The technical properties are also impressive:

Permanent operating temperatures of up to 80°C, peak temperatures of up to 100°C and a pressure of 10 bar represent the areas of application for the STEELOX system.

The benefits are obvious: The pipes are flexible, highly temperature-resistant, and can be laid straight off the reel, enabling much simpler installation on-site.







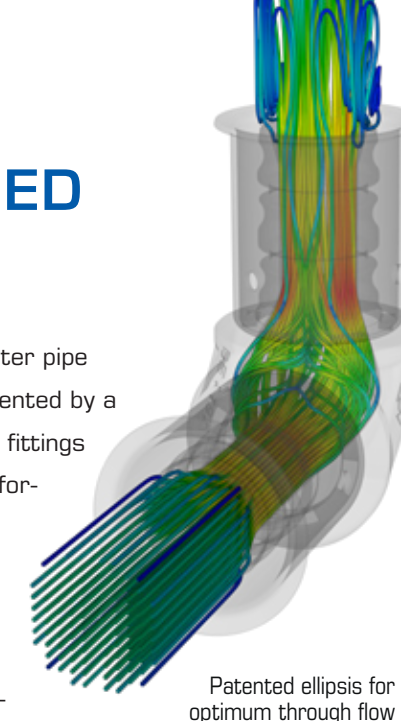
## ZETA-OPTIMISED FITTINGS

It's not just the flexible drinking water pipe that's new. The system is supplemented by a newly developed patented range of fittings to ensure the highest levels of performance under any circumstances.

The materials for construction components in the sanitary segment must always meet higher mechanical and corrosion-chemical standards, particularly with regard to hygienic harmlessness.

The press fitting body consists of lead-free dezincification-resistant Cuphin (CW724R) with additional non-porous metallisation, meaning it is made of a material that meets demanding technical requirements and fulfils high drinking water-related health standards.

The patented elliptical structure inside the press fittings ensures optimum through flow even at the lowest zeta values. At good zeta values, it is possible to use a smaller pipe dimension, which leads to lower costs. Processing is absolutely safe and easy. The properties of the stainless steel sleeves, such as the viewing window and the "Leak Before Pressed (LBP)" function, guarantee proven safe installation.



Patented ellipsis for optimum through flow

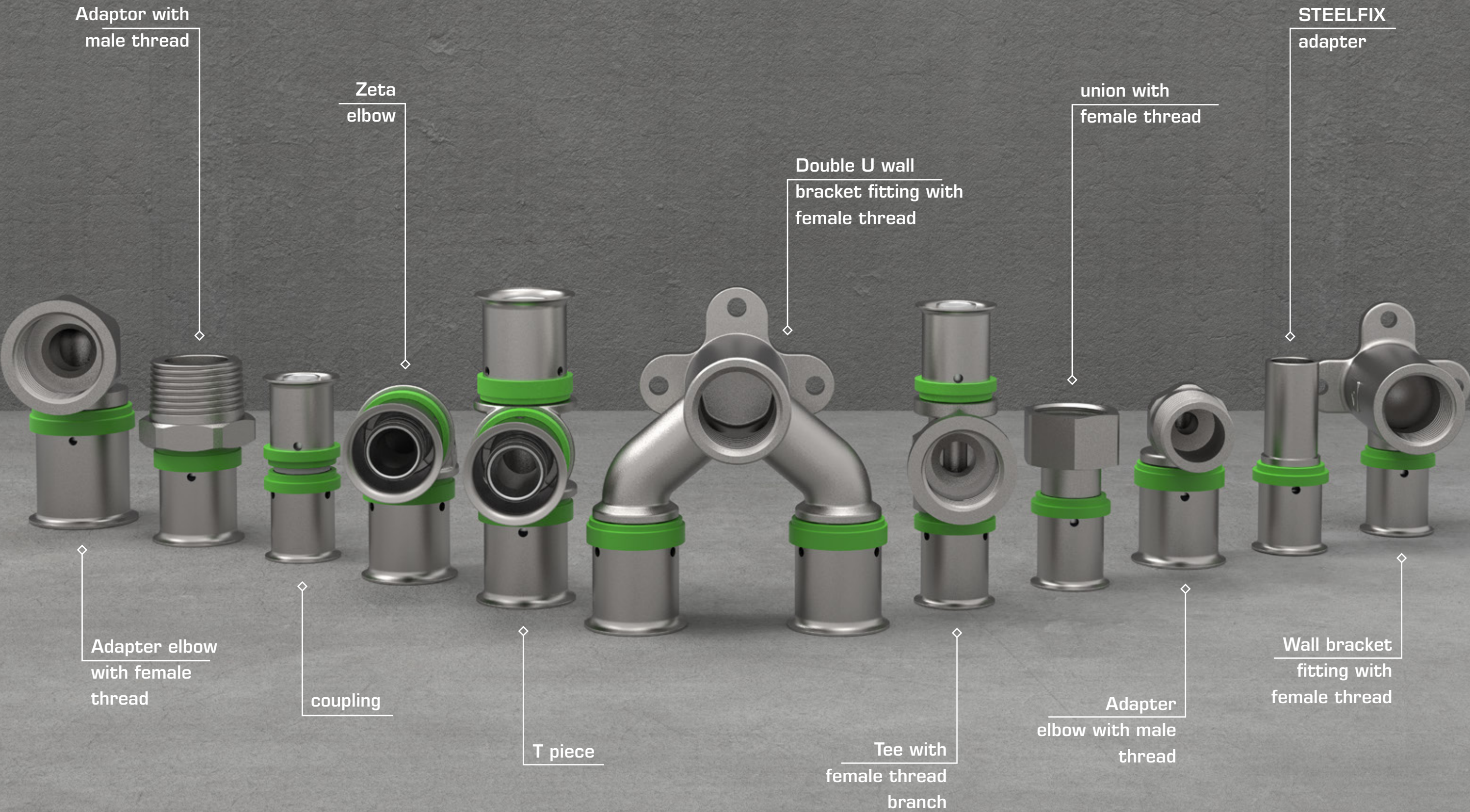
## FACTS

- ◆ Cuphin
- ◆ DZR
- ◆ Lead-free
- ◆ Zeta-optimised by means of patented KELIT ellipsis
- ◆ LBP - leak before pressed
- ◆ Stainless steel sleeve
- ◆ High-temperature-resistant sealing components



# STEELOX

RANGE OF FITTINGS





# SPECIAL TOOLS

In addition to the newly developed fittings concept, the piping system comes equipped with specifically coordinated tools: Pipe cutters, pipe deburrers, bending springs and press jaws with the newly developed SX contour supplement the system, which ensures that the installation process is smooth, quick and safe.



◆ **Press jaws with the new "SX contour"**

Never use the wrong tool again: To ensure that you use the correct tool, the press fitting has a unique four-groove marking.



◆ **Three-star multi-deburring tool**

When you deburr the pipe there is no residue in the inner tube.



◆ **One-handed deburring tool**

In difficult, tight installation situations, the one-handed deburring tool makes things much easier due to its small size.



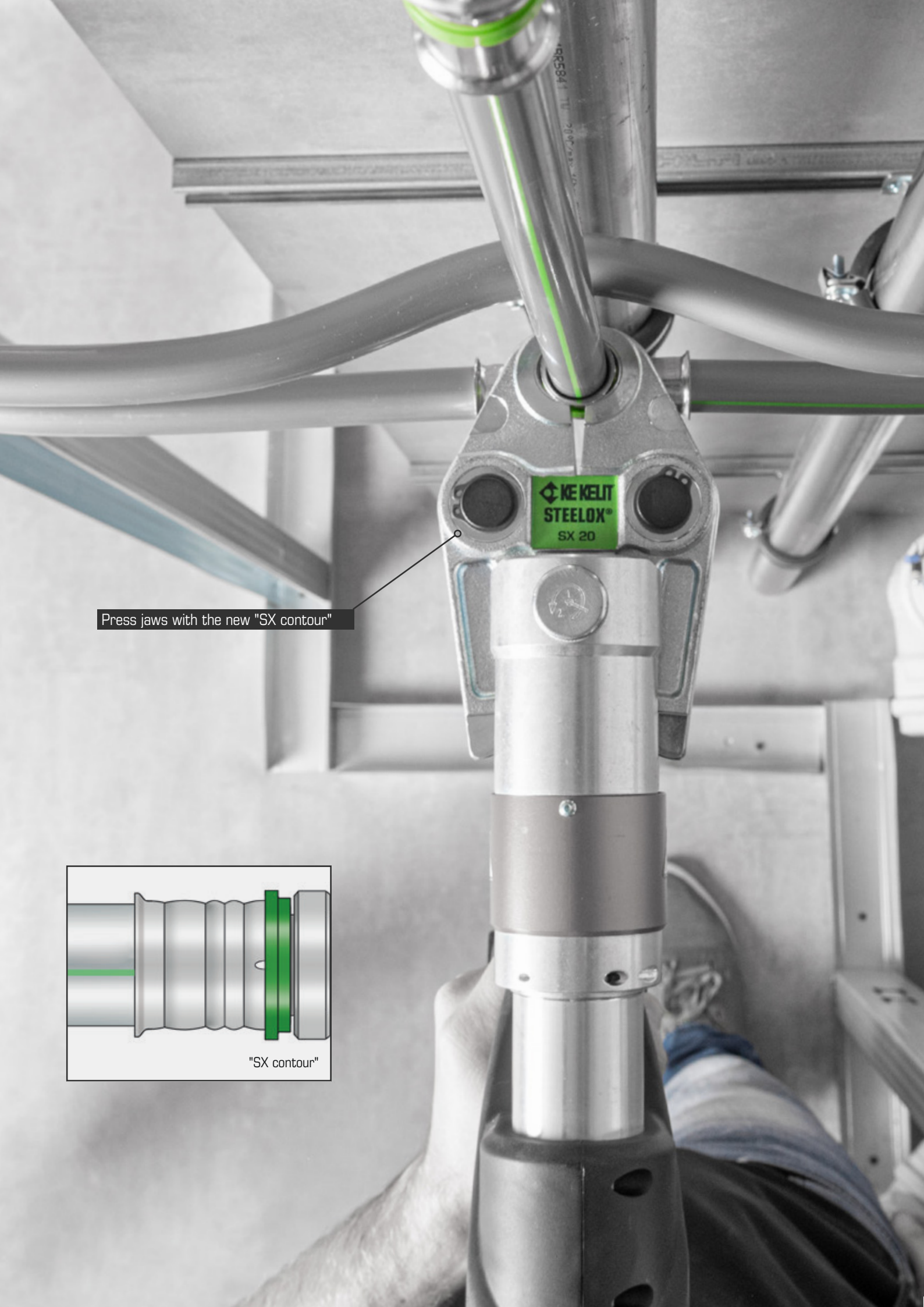
◆ **Pipe cutter**

The bevelled blade makes it easier to cut the pipe to length. Other technical aids: Support for clean 90-degree cuts or a spring for returning to the original position after cutting to length.

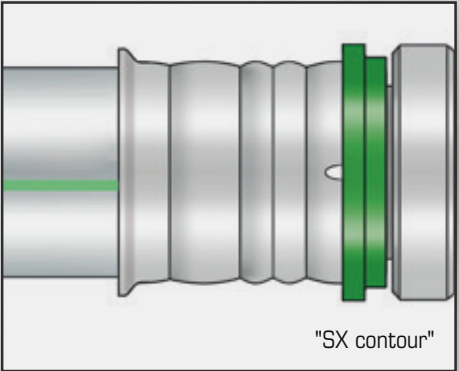


◆ **Bending spring**

The glass fibre-reinforced bending spring is used as a support when bending the desired radii.



Press jaws with the new "SX contour"





# THE PERFECT PARTNER

## STEELOX + KETRON

KETRON – electronic sanitary fittings and flushing modules with intelligent free-flushing system – are the perfect partner for the STEELOX pipe system.

Due to their individually configurable flushing logics and contactless operation using infra-red sensor, KETRON sanitary fittings and flushing modules ensure optimal drinking water hygiene. In areas where a particularly high level of hygiene is required or water delivery points are used by a large number of people, the combination of STEELOX and KETRON is the perfect choice.



## FLAWLESS HYGIENE

At any location where germs, bacteria and viruses have no place, STEELOX is in demand as a high-temperature-resistant system. In municipal buildings especially – such as hospitals, nursing homes or kindergartens – it is particularly important to maintain the quality of drinking water at all times.

The high-temperature-resistant stainless steel and Cuphin materials withstand permanent operating temperatures of up to 80°C and peak temperatures of up to 100°C. The Cuphin material is lead-free, dezincification-resistant and with additional non-porous metallisation. In this way, STEELOX meets the high health standards in the drinking water sector.



An overview of KETRON's wide range of products can be found on our website:  
[www.kekelit.com/produktlinien/ketron](http://www.kekelit.com/produktlinien/ketron)





# WALL FITTINGS

## STEELOX + KETRON

The KET160/165 surface-mounted wall-mounted washbasin tap is ideal for hygienic applications, large sinks and washing drains, both in new buildings and in renovations.

The battery-operated fitting impresses visually with a robust, chrome-plated metal housing. The KETRON Service App can be used to configure a needs-based hygiene flush. In addition, reports can be generated on usages, parameters and flushes.



# INFRARED SENSOR

To guarantee that the water flow is stopped promptly in the event of faults in the sensor area, the self-measuring infrared sensor has multiple safety functions.

In addition, a special mechanism for thermal disinfection is integrated into the wall fitting, ensuring high process reliability and easy handling. The range is completed with adjustable scald protection and optional app configuration.



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KET160 KETRON wall-mounted washbasin taps

SMX477 STEELOX double U wall bracket fitting

SMX100 STEELOX multi-layer compound pipe



# SHOWER FITTINGS

## STEELOX + KETRON

The KET500/505 surface-mounted shower faucet is the perfect solution for the shower, both in new buildings and in redevelopments.

Intelligent KETRON fittings automatically flush stagnant water at the point of use on a cost-efficient and reliable basis to guarantee a complete exchange of water regardless of the level of use.



## PIEZOELECTRIC PUSHBUTTON

Compared to infrared sensors in the shower, the piezoelectric pushbutton works reliably even in heavy steam conditions. The water flow can be switched on or off using the pushbutton. On reaching the adjustable water flow time, the fitting stops automatically (self-closing function).

In addition, the shower faucet offers a specially developed mechanism for thermal disinfection without special tools. The KETRON Service App can be used to configure a needs-based hygiene flush. In addition, reports can be generated on usages, parameters and flushes.



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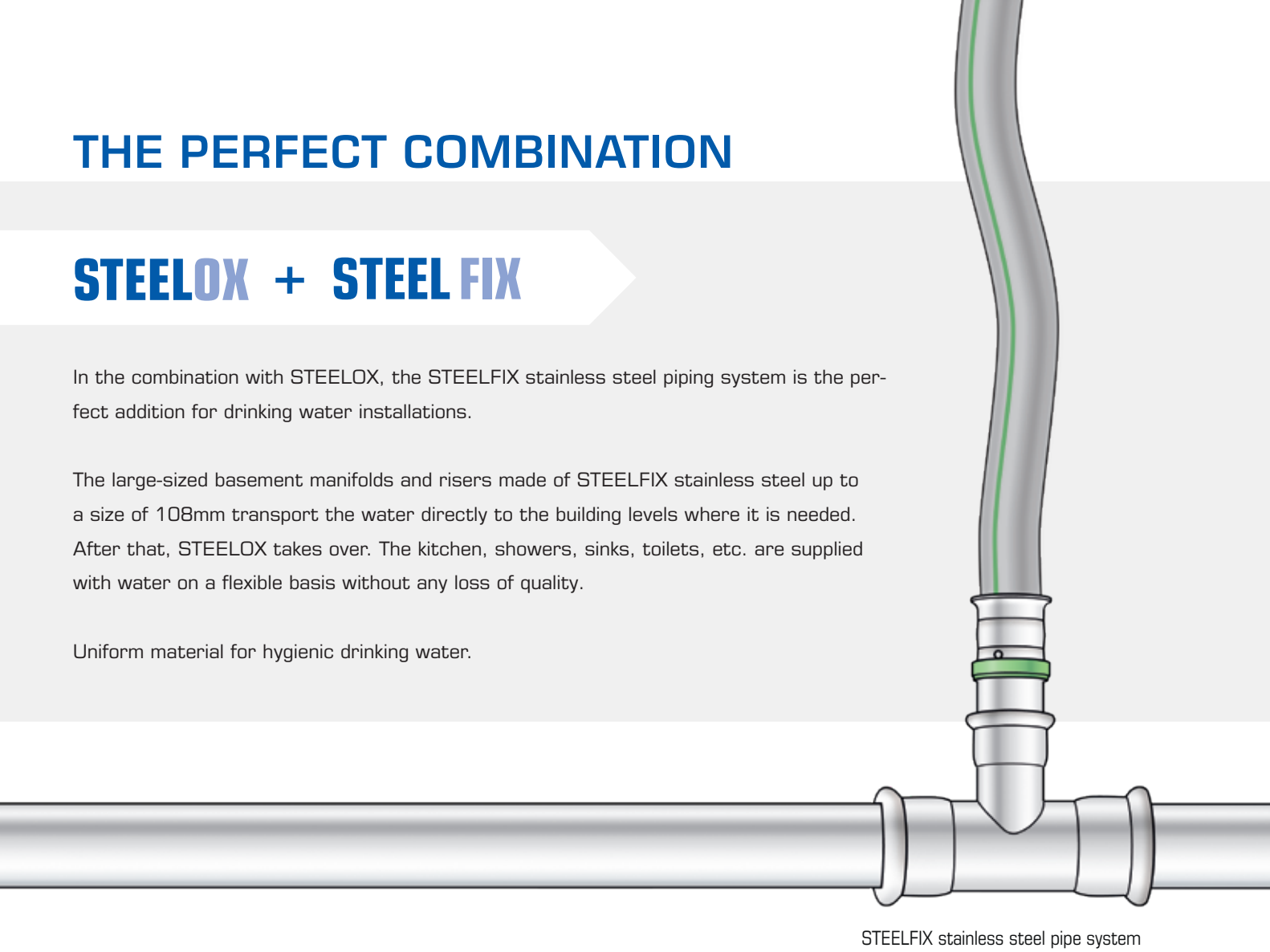
# THE PERFECT COMBINATION

## STEELOX + STEEL FIX

In the combination with STEELOX, the STEELFIX stainless steel piping system is the perfect addition for drinking water installations.

The large-sized basement manifolds and risers made of STEELFIX stainless steel up to a size of 108mm transport the water directly to the building levels where it is needed. After that, STEELOX takes over. The kitchen, showers, sinks, toilets, etc. are supplied with water on a flexible basis without any loss of quality.

Uniform material for hygienic drinking water.



STEELFIX stainless steel pipe system

## REGISTRATIONS

KE KELIT always strives to ensure the highest quality of its products before they are launched on the market – always conditional upon all approvals having been obtained, processing standards having been met and safer processing being ensured.

As the first manufacturer in Austria, KE KELIT has been granted ÖVGW registration for its flexible stainless-steel drinking water piping system. Apart from this, the system is registered according to ÖNORM B5175 and Germany's DIN CERTCO 10R001.



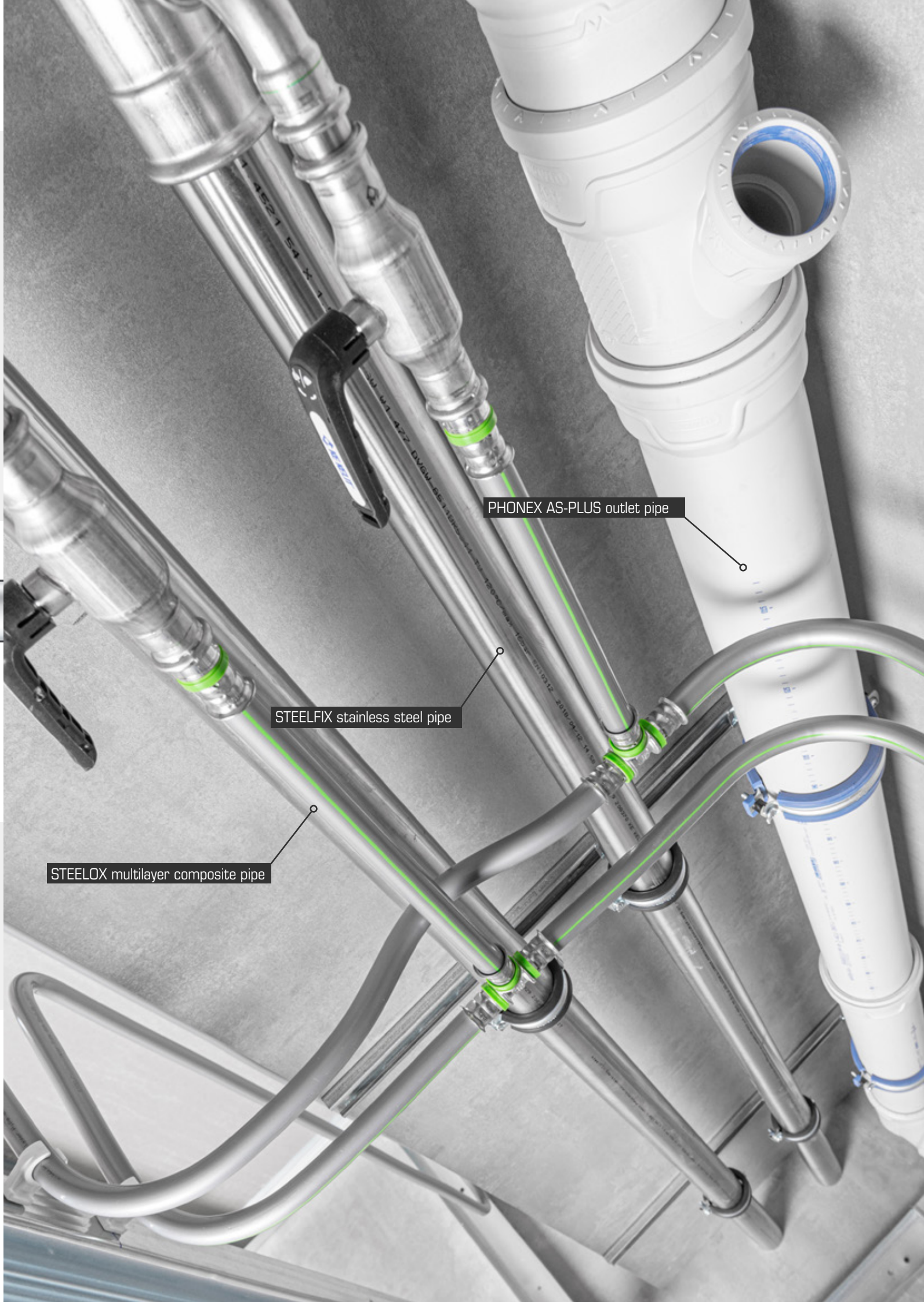
ÖNORM B 5175  
registered



ÖVGW reg. W.1.833  
registered



DIN CERTCO reg. 10R001  
registered



PHONEX AS-PLUS outlet pipe

STEELFIX stainless steel pipe

STEELOX multilayer composite pipe





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