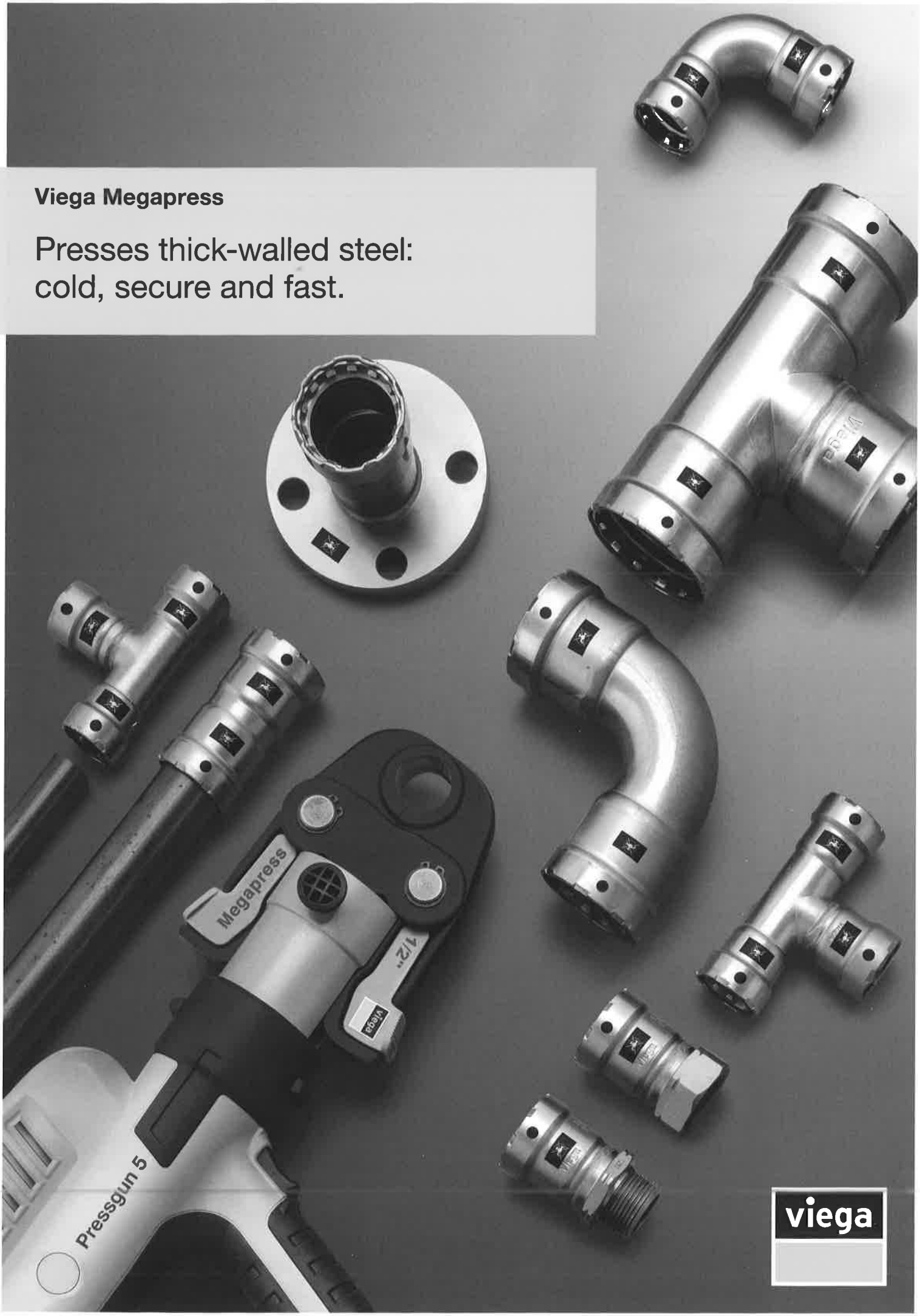
Viega Megapress

Presses thick-walled steel: cold, secure and fast.




Viega

Viega.

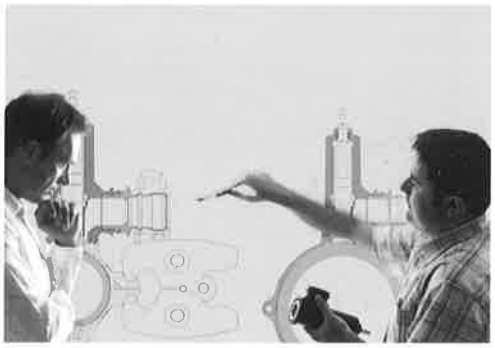
A BETTER IDEA!

Some things last. Even more than 110 years later.
At Viega, innovation and entrepreneurial vision are now more alive than ever before – these success factors date back to the company founders. Today, the Viega Group employs more than 3,500 staff worldwide. Viega is working to continue its long-term success at nine locations. While production is concentrated at its four main sites in Germany, the McPherson/USA group manufactures solutions specially designed for the North American market. And the Wuxi/China site focuses on production for the Asian market. The company specialises in installation technology – the constant driver of growth.

Viega has a worldwide reputation for innovations that set standards.
Take for example press connection technology, the innovative solution for copper pipe systems. Or the introduction of the SC-Contur for visible inspection reliability in every press connector. With Viega, safety is not just guaranteed upon installation. Viega also offers intelligent solutions for the global challenge of operating hygienic drinking water systems.

"Quality made in Germany" is taken seriously at Viega.
Computer-controlled, automated production delivers absolutely reliable results. Each production process is monitored by up to five quality checks that guarantee maximum safety. The result: over 17,000 products for almost every type of application. The equation of quality and flexibility impresses planners, architects, installers specialists and builders around the world. Be it residential apartments, hotels, hospitals, sports areas or production plants – Viega systems are proven for all buildings and applications.



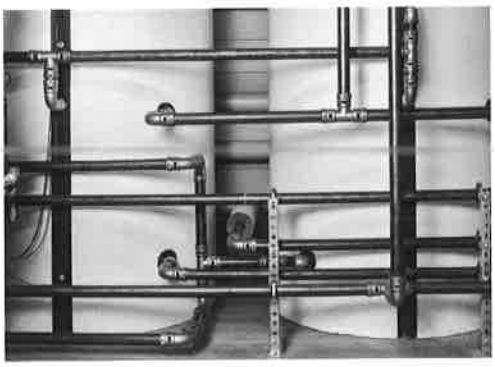




CONTENTS







6
Megapress – the system: Saves assembly time, labour costs without getting hot under the collar.

8
Assembly: Quick, clean, secure and completely weld-free.

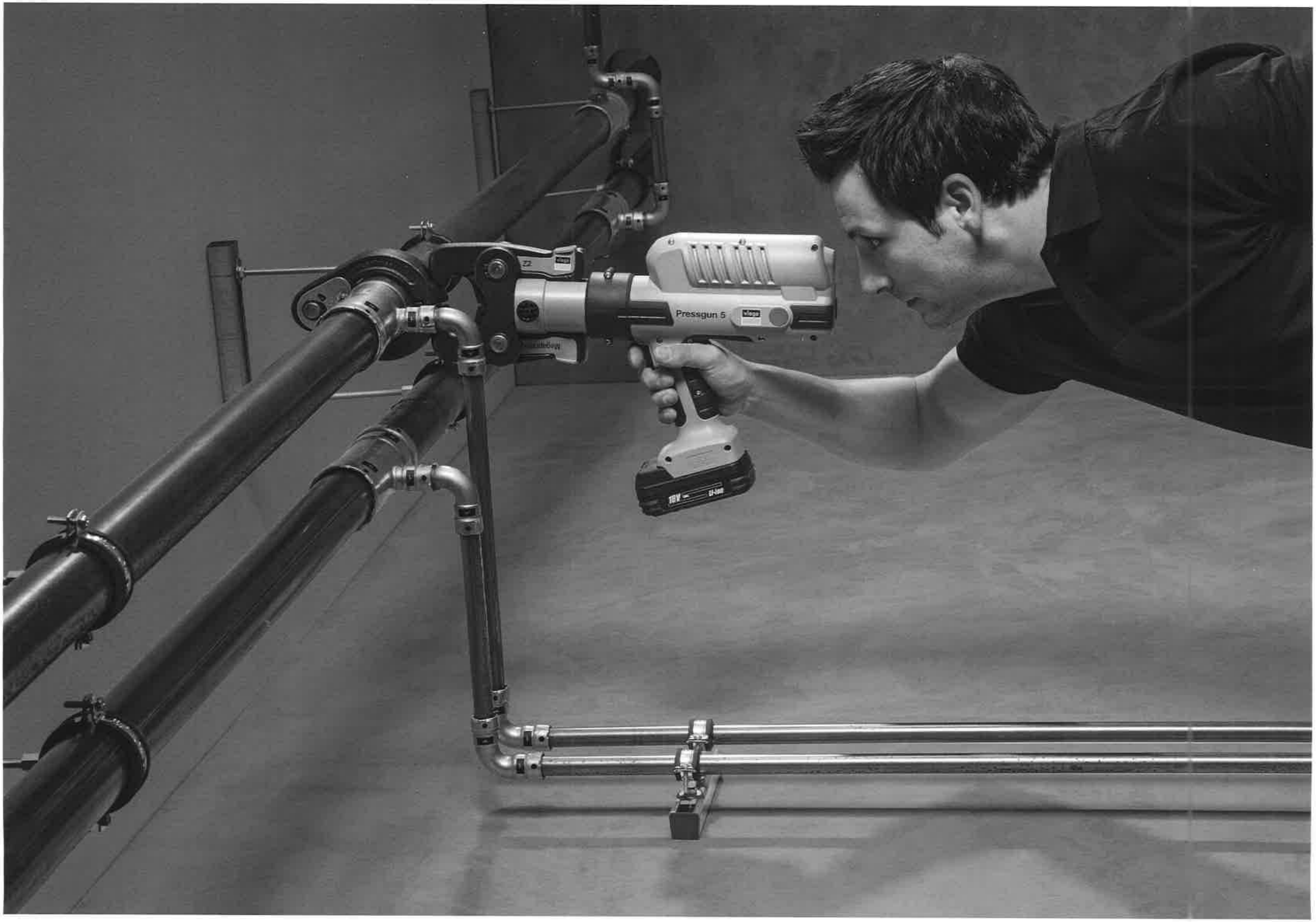
10
SC-Contur: Megapress ensures that steel pipes are leak-proof.
You will give this seal your approval.

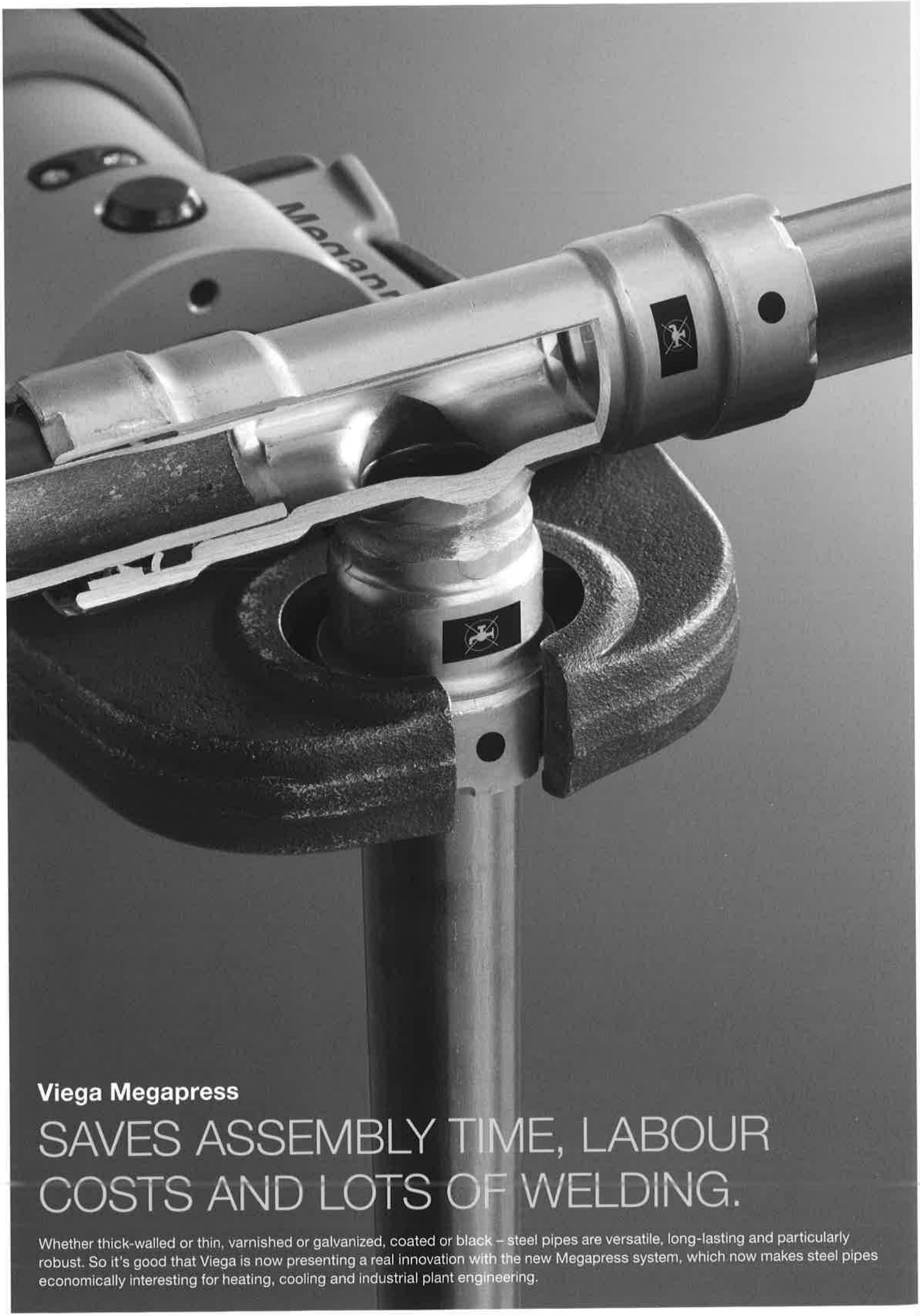
12
Heating and cooling systems: Megapress leaves black steel cold.
But not the fitters of heating and cooling systems.

14
Versatility: For everything under pressure.
Even in industrial and special applications.

16
Pressing tools: Lasting connections made in seconds.

18
The range.


Pressgun 5
viega



Viega Megapress

SAVES ASSEMBLY TIME, LABOUR COSTS AND LOTS OF WELDING.

Whether thick-walled or thin, varnished or galvanized, coated or black – steel pipes are versatile, long-lasting and particularly robust. So it's good that Viega is now presenting a real innovation with the new Megapress system, which now makes steel pipes economically interesting for heating, cooling and industrial plant engineering.

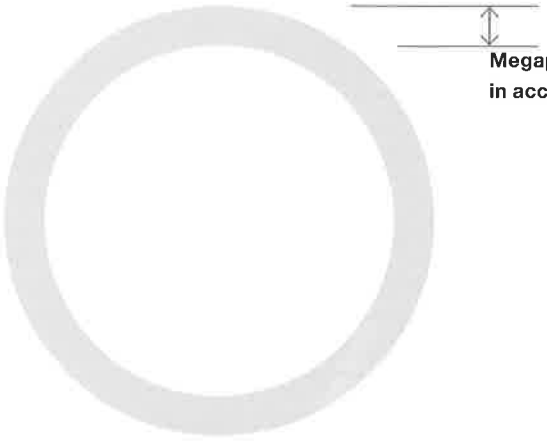
Viega Megapress is the press technology that can press even thick-walled steel pipes. The rounded connectors made from steel material 1.0308 with zinc-nickel coating guarantee the highest quality, robustness and, consequently, longevity. With the Viega Megapress system, steel pipes in accordance with DIN EN ISO 6708 and DIN EN 10220/10255, in the dimensions of ½" to 2", can be securely and reliably connected.

The alternative without any alternative
In comparison to conventional connection methods, Viega Megapress is clearly at an advantage. The cold press technology is simply quicker, safer and more economical than welding, clamping and screwing. The Viega press tools ensure permanently secure connections.

Uses	Suitability/licensing
Heating/air conditioning	TÜV
Compressed air/ technical gases (e.g. nitrogen)	TÜV
Sprinklers/fire extinguishers (wet/dry)	VdS, FM
Shipbuilding	GL, LR, DNV, ABS
Industry	TÜV

The certification listed above will probably have been awarded before the market launch.

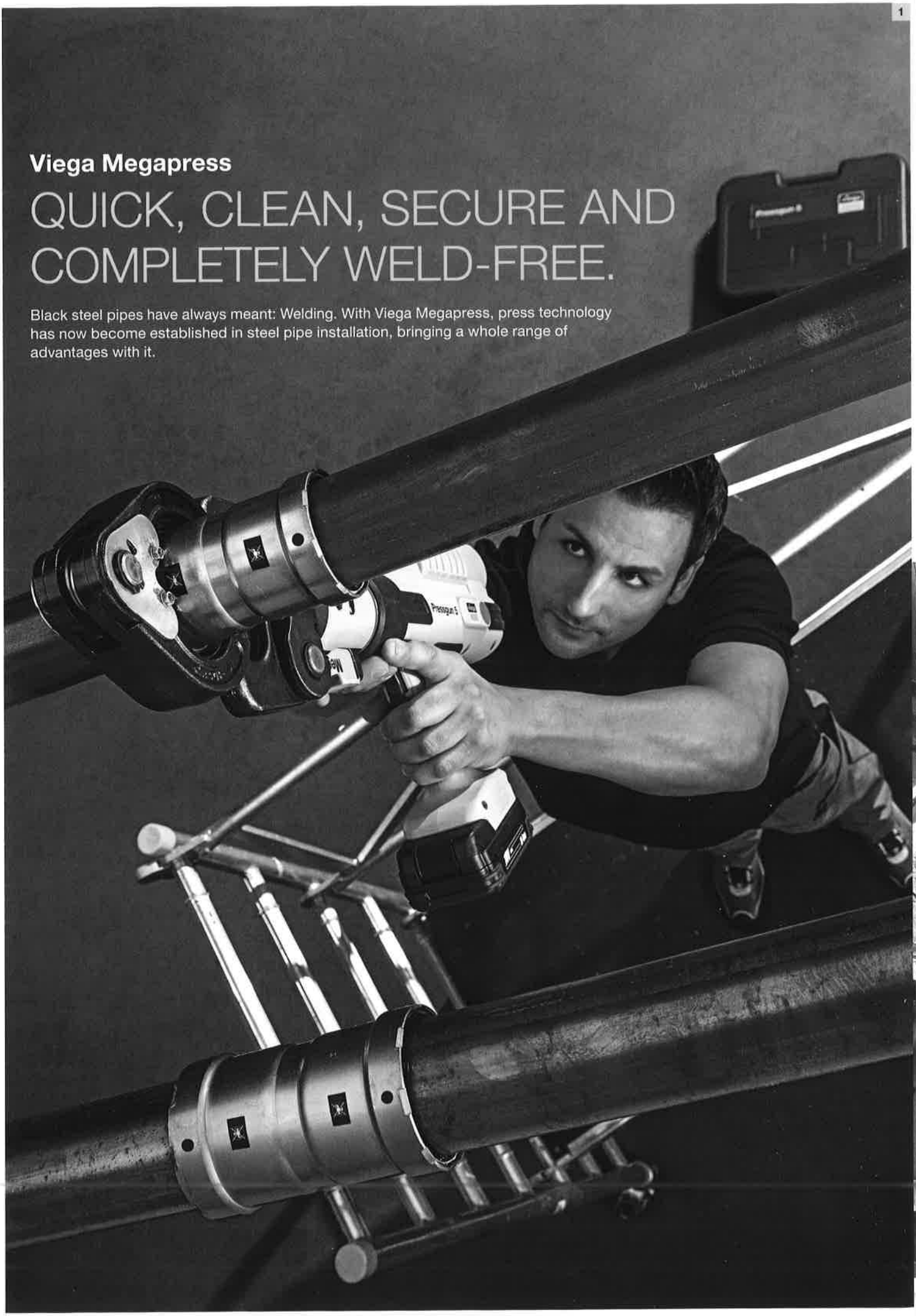
Through thick and thin
Both thick-walled steel pipes in a threaded pipe quality and those in a flue pipe quality can be connected using Viega Megapress. This is possible due to a tolerance adjustment of the pipe diameters. The connectors are designed especially for processing different wall thicknesses, thus offering a maximum degree of flexibility.



Megapress wall thicknesses and diameters in accordance with DIN EN 10220/10255

Be it seamless, welded, galvanized, industrially varnished, epoxy resin-coated or black: Viega Megapress connects pipes with a huge array of surfaces. Permanent and secure – from ½" to 2"!





Viega Megapress

QUICK, CLEAN, SECURE AND COMPLETELY WELD-FREE.

Black steel pipes have always meant: Welding. With Viega Megapress, press technology has now become established in steel pipe installation, bringing a whole range of advantages with it.

Welding is a thing of the past
Granted, welding steel pipes is not a bad connecting option. But the installation itself is anything but easy. A high demand on time, a permanent risk of fire and major physical stress make welding economically unattractive. Heavy gas bottles and welding equipment have to be moved – a real back-breaking job, especially if a pipe needs welding at several metres above eye-level (Fig. 2). And in inaccessible or angled locations, inconvenient mirror-imaged welding is normally the only technique able to make the connection.

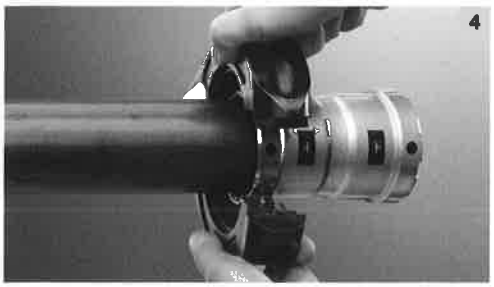

2

Finished up to 60% quicker
On the other hand, connecting steel pipes with Viega Megapress is particularly easy (Fig. 1) and completed in just a few steps. To do this, simply cut the steel pipe to length, deburr, clean and transfer the insertion depth of the Megapress connector to the pipe end. Then place the connector on the pie, apply the press ring or press jaws and connect the entire thing together using the Viega Pressgun (Fig. 3-5). Now, simply remove the security flag from the press connector to signalise that this position has already been pressed. It is completely irrelevant for the installation, which steel pipe wall thickness is used, as long as the pipes conform to DIN EN ISO 6708 or DIN EN 10220/10255.

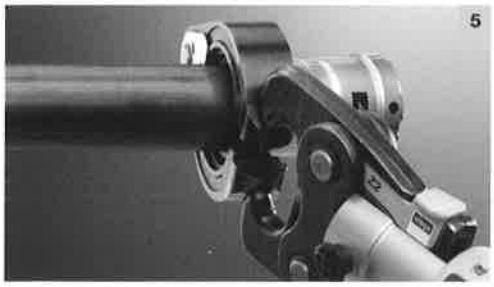
What is left is a secure and guaranteed leak-proof connection, which is able to withstand full pressure immediately. Cooling times or even a fire watch, as is often necessary for welding, are completely unnecessary! But the best is yet to come: Press technology is not just more secure and easier. It is also considerably more economical. In comparison to welding, you save up to 60% of the assembly times when using Viega Megapress for an installation. And this is not just in comparison to welding. Other methods, such as threaded, roller-groove and coupling connections cannot keep the pace with cold press technology in terms of speed and take considerably more time.


3

The steel pipe is cut to length and cleaned. Then the insertion depth is measured and marked. Afterwards, the Viega Megapress connector is fitted up to the marking on the pipe.


4

Megapress connectors between ½" and 1" are pressed with press jaws. From 1¼", press rings are used which are placed around the connector.


5

The connector is pressed quickly with the Pressgun and connected to the pipe.

REASONS FOR VIEGA MEGAPRESS

- Up to 60% less assembly time in comparison with other conventional connecting methods, such as welded, threaded and groove connections.
- Particularly economical due to high time saving during installation.
- Absolutely fire-proof, as flames and flue gases are not produced with cold press technology.
- Viega SC-Contur in all Megapress connectors. Inadvertently unpressed connections are immediately noticeable during a pressure test.
- Universal use. Presses thick-walled steel pipes in the connection nominal widths of ½" to 2" and irrespective of whether the pipe is seamless, welded, uncoated, galvanized or coated with a synthetic resin varnish.



Viega Megapress with SC-Contur

ENSURES THAT STEEL PIPES ARE LEAK-PROOF. YOU WILL GIVE THIS SEAL YOUR APPROVAL.

The economic superiority of press connection technology is down to its rapid, simple assembly. But also in terms of security, Megapress – as is the case with all Viega press systems – is able to particularly shine thanks to the SC-Contur.

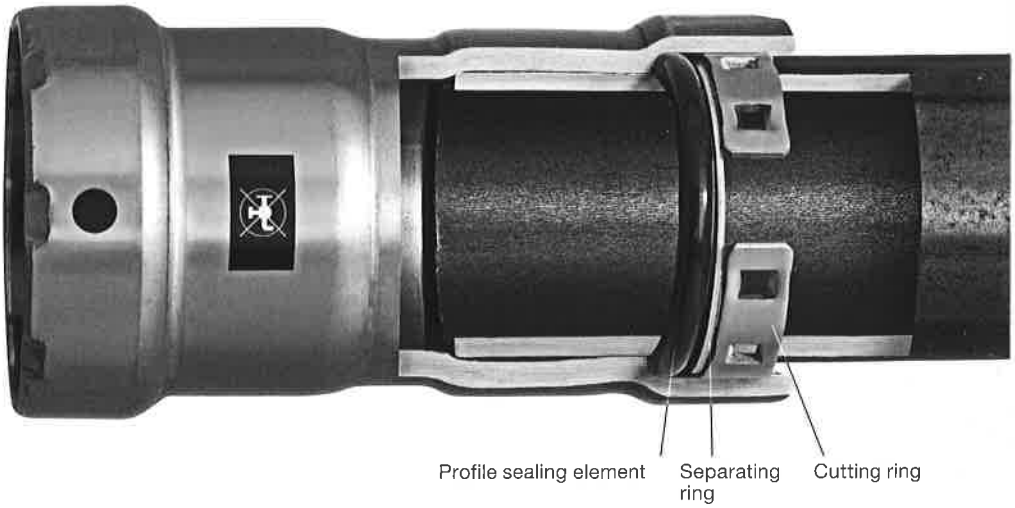
The Viega SC-Contur is an innovative safety feature, which leads to a guaranteed forced leakage in unpressed connections. In this way, inadvertently unpressed connections immediately become visible during a leakage test and can then be pressed. The Viega SC-Contur guarantees complete security – over the entire test range.

Complex requirements, simple solution

Of course, Viega Megapress is also equipped with the SC-Contur, but in a slightly modified form: While the forced leakage is normally produced through a small channel on the sealing element, it occurs through a tolerance optimisation between the press connector and steel pipe with Megapress. The best answer to the particular requirements, which are placed on a connector through different wall thicknesses and surfaces of steel pipes. By coordinating the connector diameter with the numerous steel pipe variations, Megapress becomes a flexible steel pipe connecting system, while guaranteeing the forced leakage of inadvertently unpressed connections (Fig. 1).

Security at a glance

Nevertheless, the SC-Contur in the Megapress system offers the same advantages as with other Viega systems. The entire installation can be inspected using a unique central leakage test. The dry test region is between 22 mbar and 3 bar, while the wet leakage test region ranges from 1 to 6.5 bar. As a result, Viega Megapress not only fulfils the requirements of established standards and rules. It also exceeds these in part – e.g. with a considerably larger pressure range.



A separating ring in front of the sealing element prevents this being damaged when the pipe is inserted. During the press procedure, the cutting ring presses into the pipe, giving the connection a particular security.

Not for drinking water

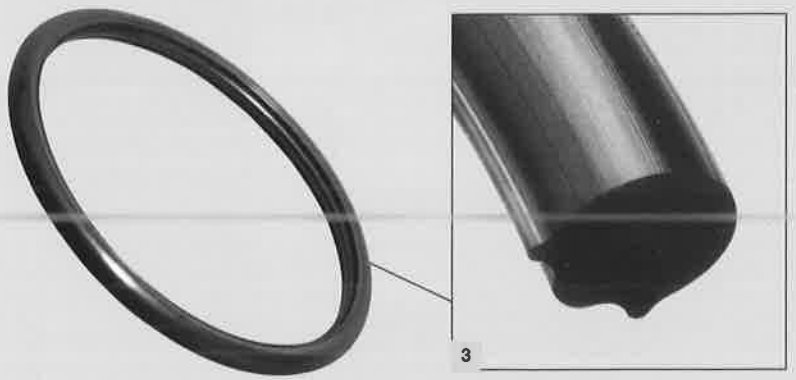
Viega Megapress is not suitable for installations of drinking water pipes. Each individual connector has a clearly visible label (Fig. 2). The symbol of the crossed-out water tap is clear. This makes any confusion or inadvertently incorrect use of Viega Megapress impossible.



Just in case and playing it safe

The Megapress connectors have a special profile sealing element. This makes it possible to press seamless, welded, galvanised, industrially varnished, epoxy resin-coated and black steel pipes with one and the same connector. The EPDM sealing element encompasses the pipe in three places (Fig. 3) at the same time, guaranteeing an absolutely leak-proof connection, even with coarse surfaces and unevenness. In addition, the Megapress connectors have the tried-and-tested Viega SC-Contur, guaranteeing the highest possible level of reliability.

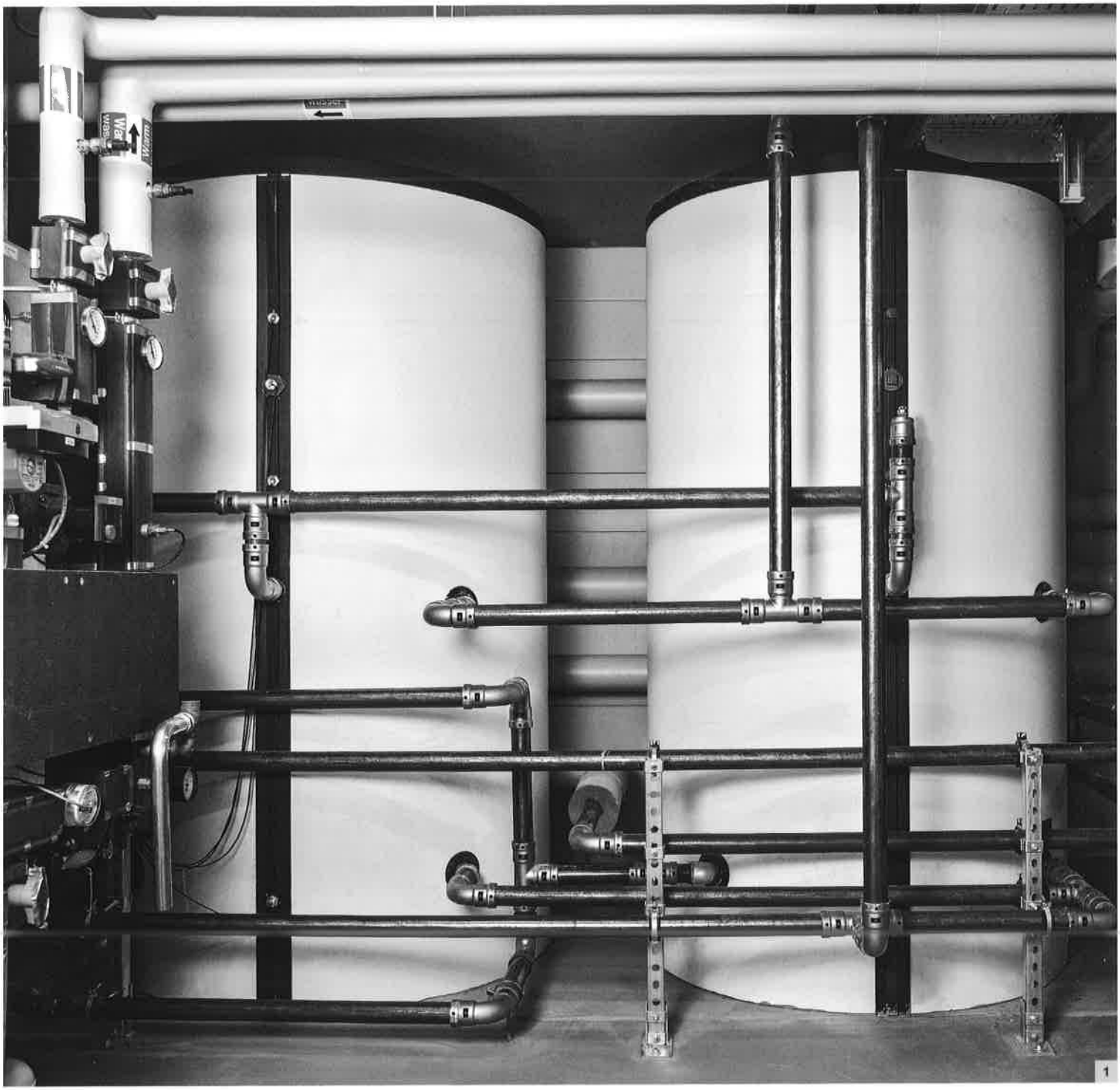
Megapress profile sealing element



Viega Megapress for heating and cooling systems

LEAVES THICK-WALLED STEEL COLD. BUT NOT THE FITTERS OF HEATING AND COOLING SYSTEMS.

When installing heating and cooling systems, there is lots to pay attention to – irrespective of whether it is a completely new installation or extensive renovation work. Viega Megapress offers a series of advantages in both cases, which will warm the cockles of any fitter's heart.



1

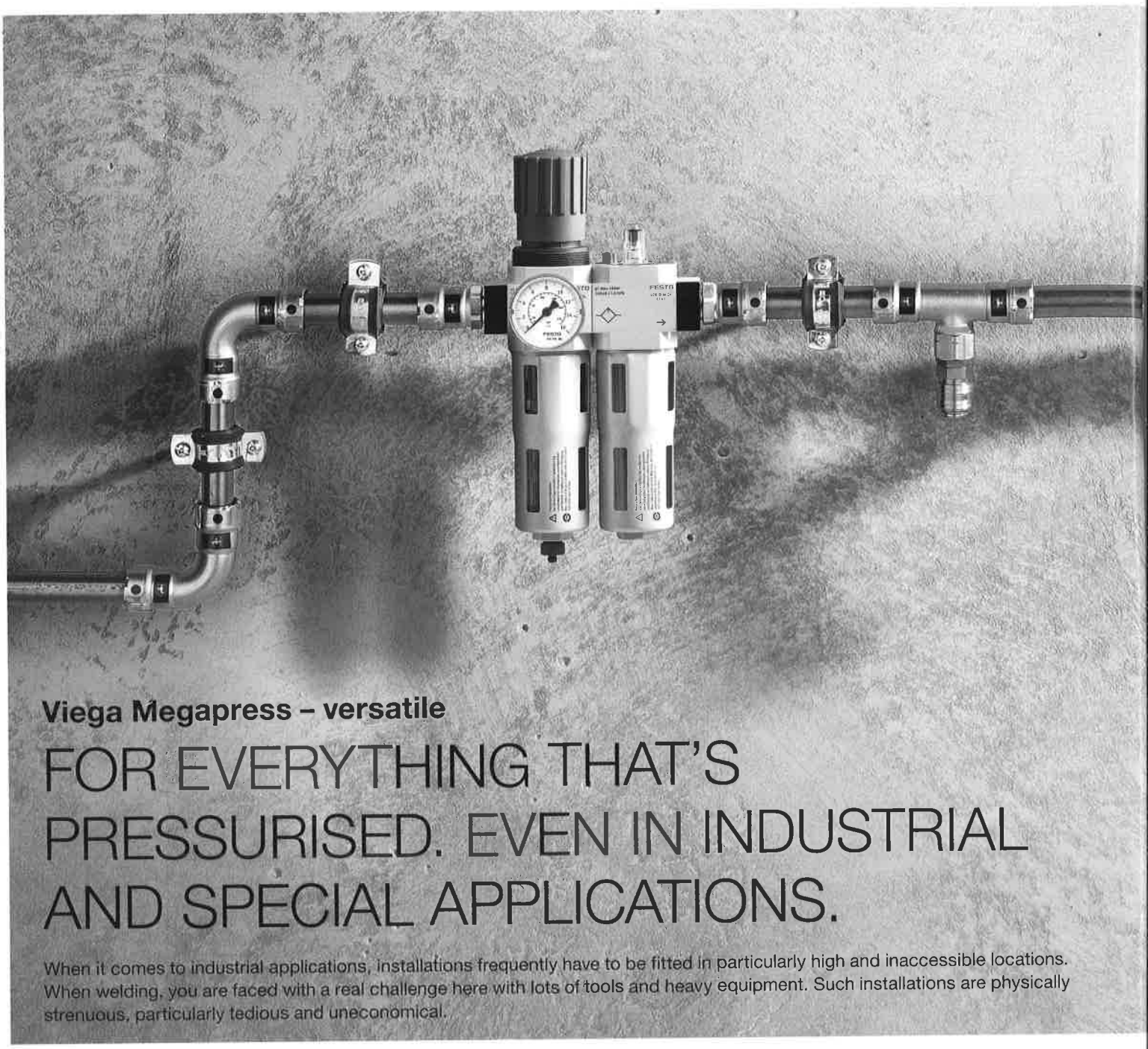


Simple connection of old and new
When it comes to renovations in older residential houses, existing installations made form thick-walled steel pipes are increasingly found. These pipes, some of which are decades old, are still in good condition due to their extremely robust material. Often, the fitter can connect to existing installations, when replacing a boiler, for example (Fig. 3). But up to now, connecting a new boiler to an existing steel pipe system has only been possible with laborious threaded connections or welding. Although, in the case of welding, further problems are caused by the residual water. However, in old buildings especially, welding work leads to an increased risk of fire – due to the building materials used back then which can be highly combustible. Megapress makes welding superfluous, ruling out any risk of fire as a result. The tried-and-tested press technology guarantees secure and rapid work steps and an economic connection to the existing, thick-walled steel pipes. Naturally this also applies for radiator replacements in black steel pipe installations, which is a process that has been really laborious to date.

Extremely practical in practice
The advantages of Megapress quickly become clear in practice. In one specific case, a complex of three buildings with a total of 55 residential units was completed. Figure 1 shows the installation of two buffer reservoirs of an air-water heat pump, which uses Viega Megapress. About 500 connections of the new press system were fitted throughout the entire building project. Megapress satisfied the demands of the municipal developer to withstand both a certain time pressure and cost pressure. A task, for which Megapress is a quick and economical solution in comparison with welded connections due to its press technology.

Combines corrosion protection and time saving
When installing modern cooling systems (Fig. 2), particular attention should be placed on corrosion protection. Due to the high temperature drops between transported medium and the ambient air, condensation can quickly build up – which increases the risk of corrosion. To date, moulded pieces and connectors have had to be given an additional corrosion protection coating in accordance with AGI Worksheet Q 151. But the Viega Megapress connectors are almost inherently very corrosion-resistant as they leave the factory, due to their high-quality zinc-nickel coating. This saves some time and work stages.





Viega Megapress – versatile

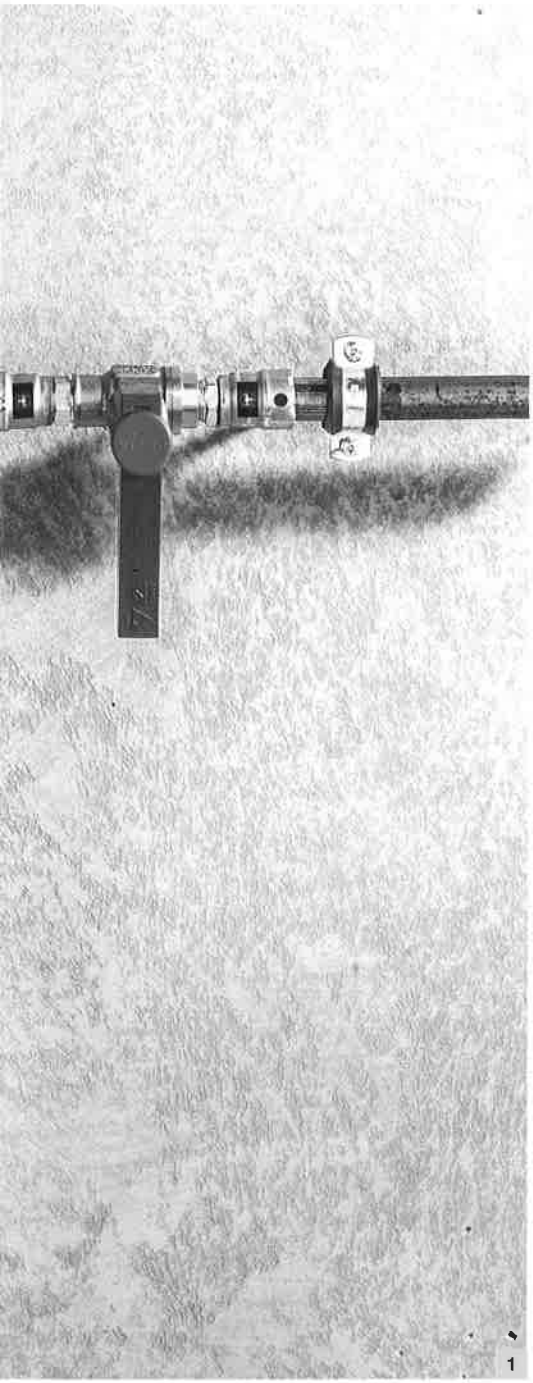
FOR EVERYTHING THAT'S PRESSURISED. EVEN IN INDUSTRIAL AND SPECIAL APPLICATIONS.

When it comes to industrial applications, installations frequently have to be fitted in particularly high and inaccessible locations. When welding, you are faced with a real challenge here with lots of tools and heavy equipment. Such installations are physically strenuous, particularly tedious and uneconomical.

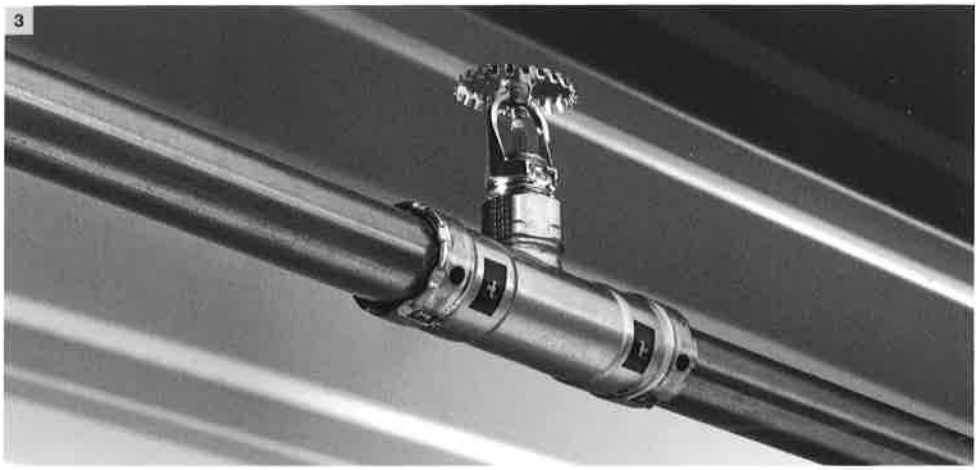
Viega Megapress is the better alternative here. Because cold press technology can completely show off its advantages when it comes to difficult installations. It is not only quicker than conventional welding. It is also considerably easier to operate. Very high installations can only be pressed quickly with a press machine. And because the head of the Viega press machines can rotate by 180°, you can reach even the last corner effortlessly.

Compressed air systems and technical gases

Compressed air systems (Fig. 1) and pipe networks for technical gases are good examples for steel pipe installations in industry. For example, nitrogen installations, which were welded up to now due to their high requirements, can now be created with Viega Megapress as well (Fig. 2). This is similar for compressed air systems as well. These are often used as circular piping installations in the ceilings of industrial halls and are connected to equipment and machinery using distribution stubs. With Viega Megapress, you benefit from the easy installation at great heights, while the practical T-piece constructions allow a particularly rapid, secure and clean connection to the equipment.



1



3

Sprinklers and fire extinguishers
Sprinkler systems made of thick-walled steel pipe are mandatory in buildings with high risk categories such as industrial and commercial plants due to their robustness, stability and longevity, legislative authorities even demand their use. Ultimately, they must withstand the increased everyday external strains as well as great heat in the case of a fire.

Viega Megapress is ideal for creating and expanding such sprinkler systems (Fig. 3). The Vds and FM certification will probably have been awarded before the market launch.



2

Viega Pressgun

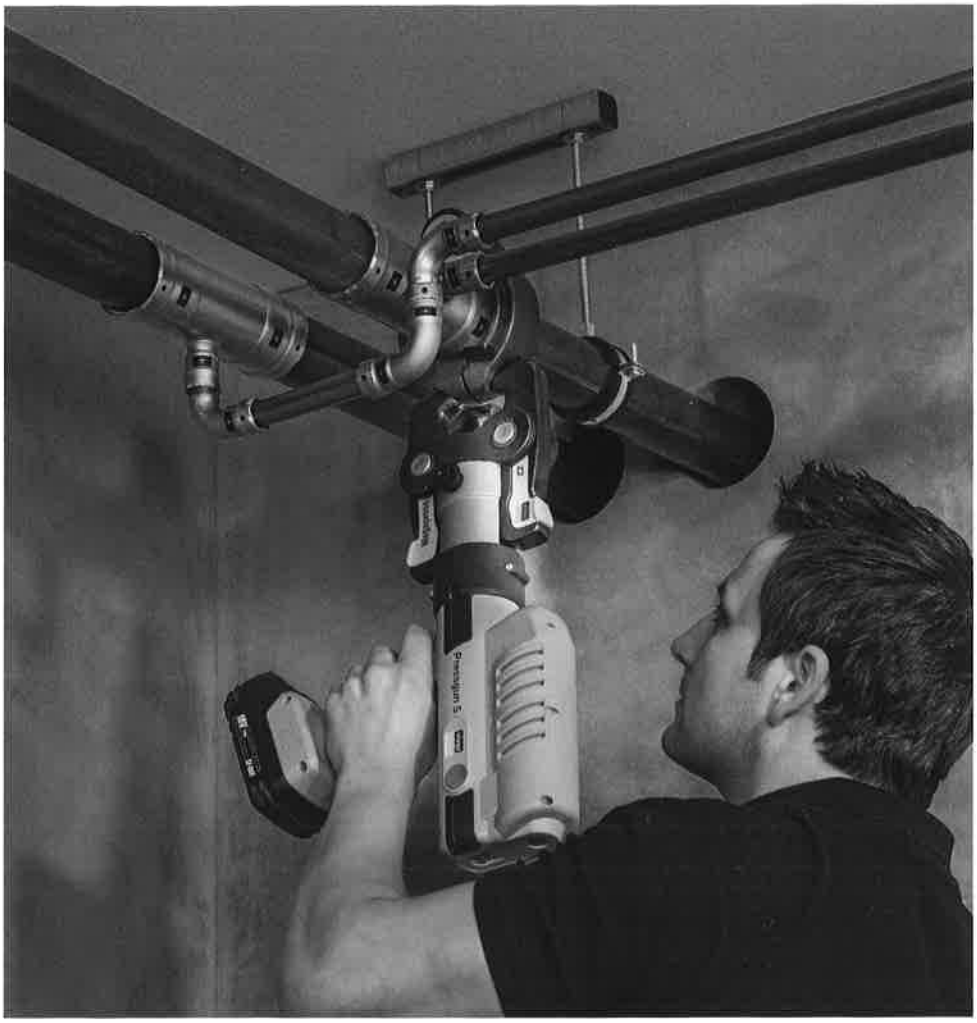
LASTING CONNECTIONS MADE IN SECONDS.

The quality of Viega press tools is impressive under the hardest working conditions. With their TÜV-tested safety equipment, they are among the most reliable and, therefore, successful in Europe. Long maintenance intervals also guarantee a high cost-effectiveness.











Press technology accessories for Viega Megapress in a practical case, consisting of three press jaws (½" – 1"), three press rings (1¼" – 2") and hinged press jaws Z2.

Viega Pressgun 5

- High-performance pressing tool, battery- or mains-operated.
- For all press connectors sizes 12–108 mm.
- Weighs 3.2 kg (without press jaw).
- Especially easy to use with one hand.
- Light high-performance 18 V/2.0 lithium-ion batteries with protection from deep discharge and improved cold-start function. Optional extra for higher capacity requirements: 18 V/4.0 Ah battery.
- 180° rotatable press head and jointed press rings for maximum flexibility in any situation.
- Integrated LED to light-up pressing point.
- TÜV-inspected safety technology: Tripping delay, pin retainer, service display and automatic safety lock.
- Long service interval: 4 years or 40,000 pressings. Safety lock after 42,000 pressings.

Viega Megapress

THE RANGE

The Viega Megapress range is perfect for installing long-lasting steel pipe systems. With over 126 different connectors, sleeves, arches, threaded connections, reducers, T-pieces and flanges in the dimensions of ½", ¾", 1", 1¼", 1½" and 2" it offers a large choice and high level of flexibility for any installation. The Megapress range is rounded off by connection elements for groove connections and the Viega Prestabo system.



● 4216



● 4216.1



● 4226



● 4226.1



● 4218



● 4215.1



● 4217.2



● 4215



● 4215.5



● 4212



● 4211



● 4213



● 4213.1



● 4265



● 4263



● 4259
4259.1



● 4256



● 4289

Viega GmbH & Co. KG

Plumbing and heating systems
Viega Platz 1
DE-57439 Attendorn
Germany

Phone +49 2722 61-1297
Fax +49 2722 61-1146

info@viega.com
www.viega.com

INT 722 173-2/14
We reserve the right to effect changes.

viega