

Welcome

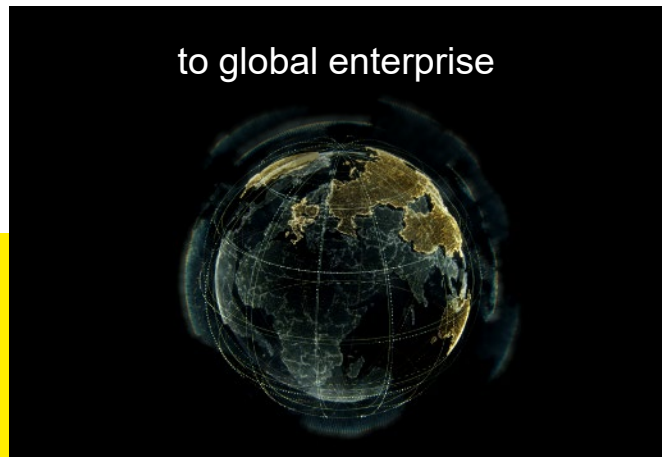
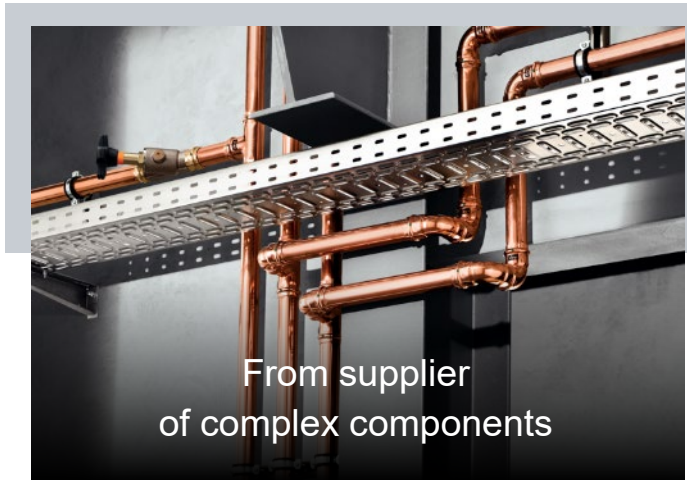
General Command,
General HQ of Civil Defense,
United Arab Emirates

27/02/2025 Dubai

Viega

Who we are !

Where we are and where we want to go



PURPOSE

WHAT DRIVES US AT VIEGA

INSTALLING LIFELINES FOR THE
BUILDINGS OF TOMORROW

Family-owned company and global market leader in metallic press connecting technology.

Viega in numbers.

viega

No. 1

in metallic press systems
worldwide

10

locations

1899

a family business
in its fifth generation

17,000

product articles

>5,500

employees

200

trainees in 20 professions

75

export countries worldwide

23

seminar centres

24

sales subsidiaries
across four continents

1.97

billion euros in turnover (2023)



Hierhin fliegen

ATTENDORN – GERMANY

Unrestricted

Viega Middle East Trading FZE 02/25

ATTENDORN – GERMANY



HEADQUARTER

ADMINISTRATION



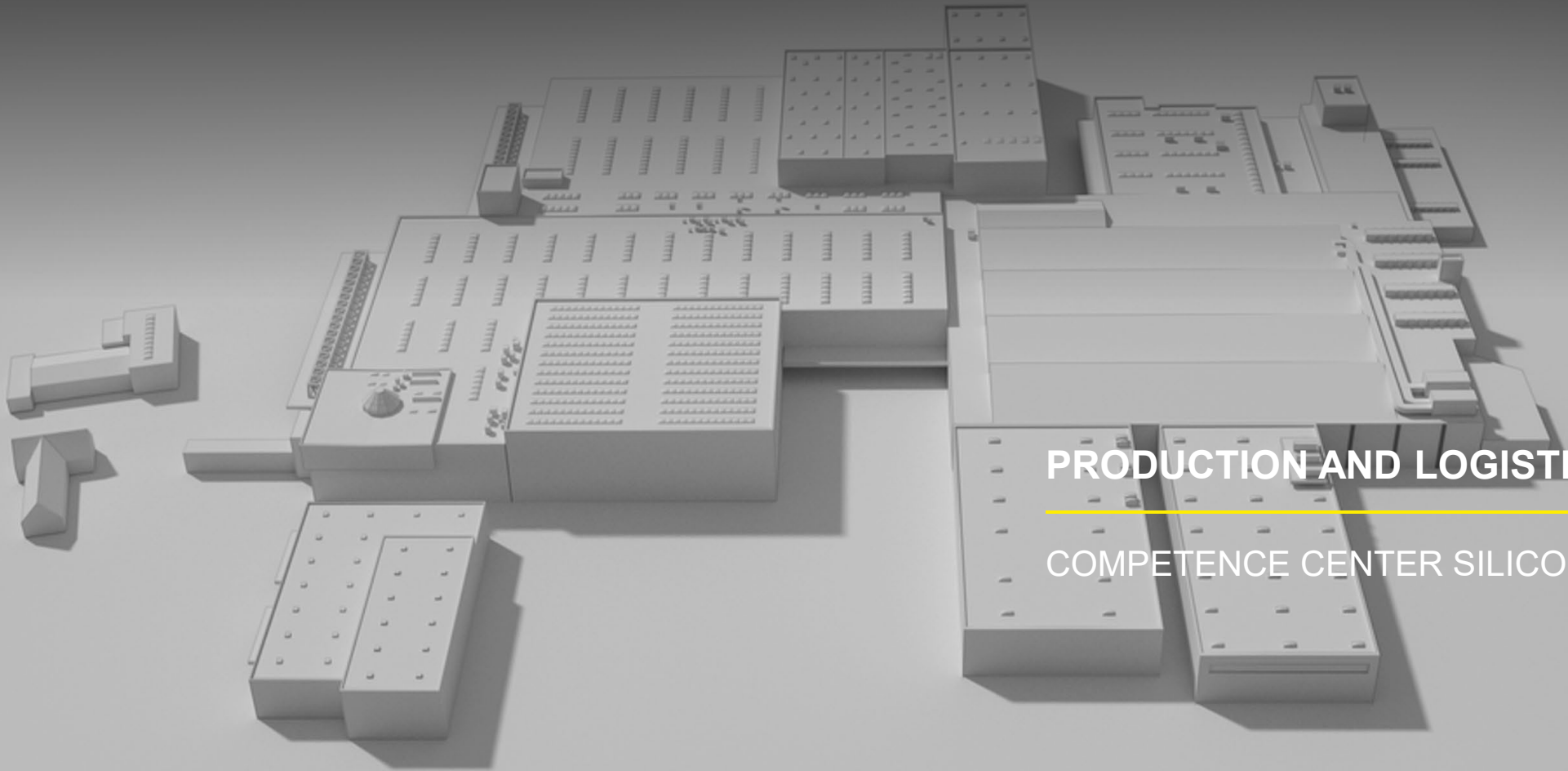
ATTENDORN – GERMANY

HEADQUARTER

ADMINISTRATION



ENNEST – GERMANY



PRODUCTION AND LOGISTIC

COMPETENCE CENTER SILICON BRONZE



ENNEST – GERMANY

FOUNDRY

PERFECTED PROCESS



Onboarding 2023

ENNEST – GERMANY



PRODUCTION

QUALITY CHECKS.
QUALITY CHECKS.
QUALITY CHECKS.



ENNEST – GERMANY

PRODUCTION

CONNECTED PRODUCTION



ENNEST – GERMANY



PRODUCTION



ELSPE – GERMANY

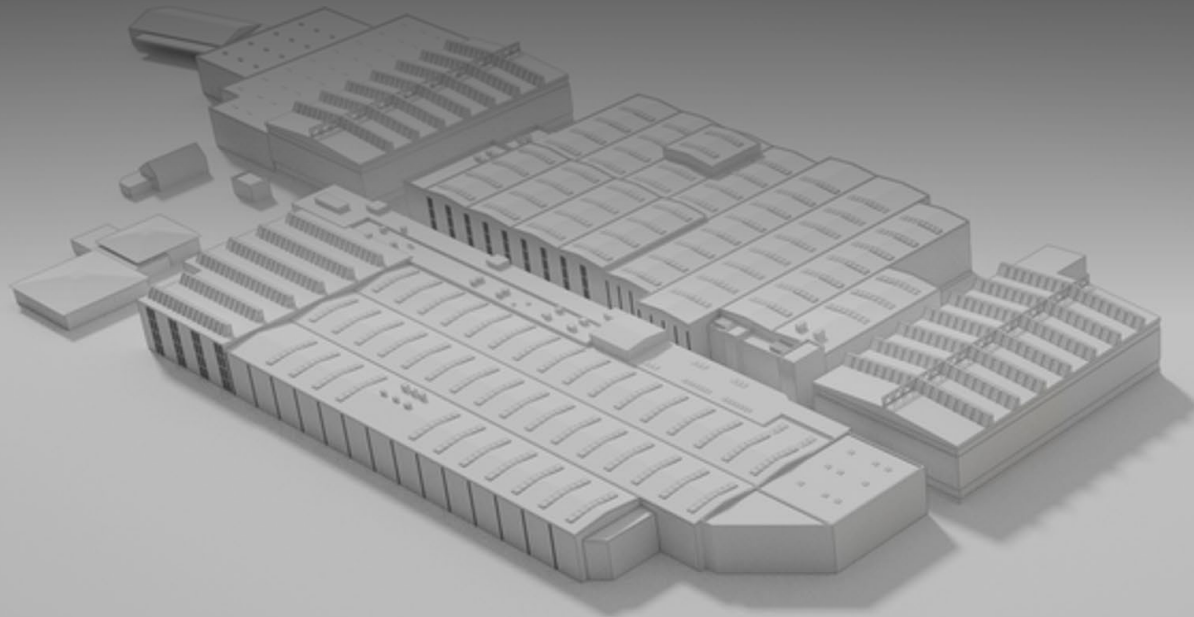


PRODUCTION

POLYMER TECHNOLOGY COMPETENCE
CENTRE



GROßHERINGEN – GERMANY



PRODUCTION

COMPETENCE CENTRE FOR
METAL PIPING SYSTEMS



GROßHERINGEN – GERMANY

PRODUCTION

PROFIPRESS SYSTEM



GROßHERINGEN – GERMANY

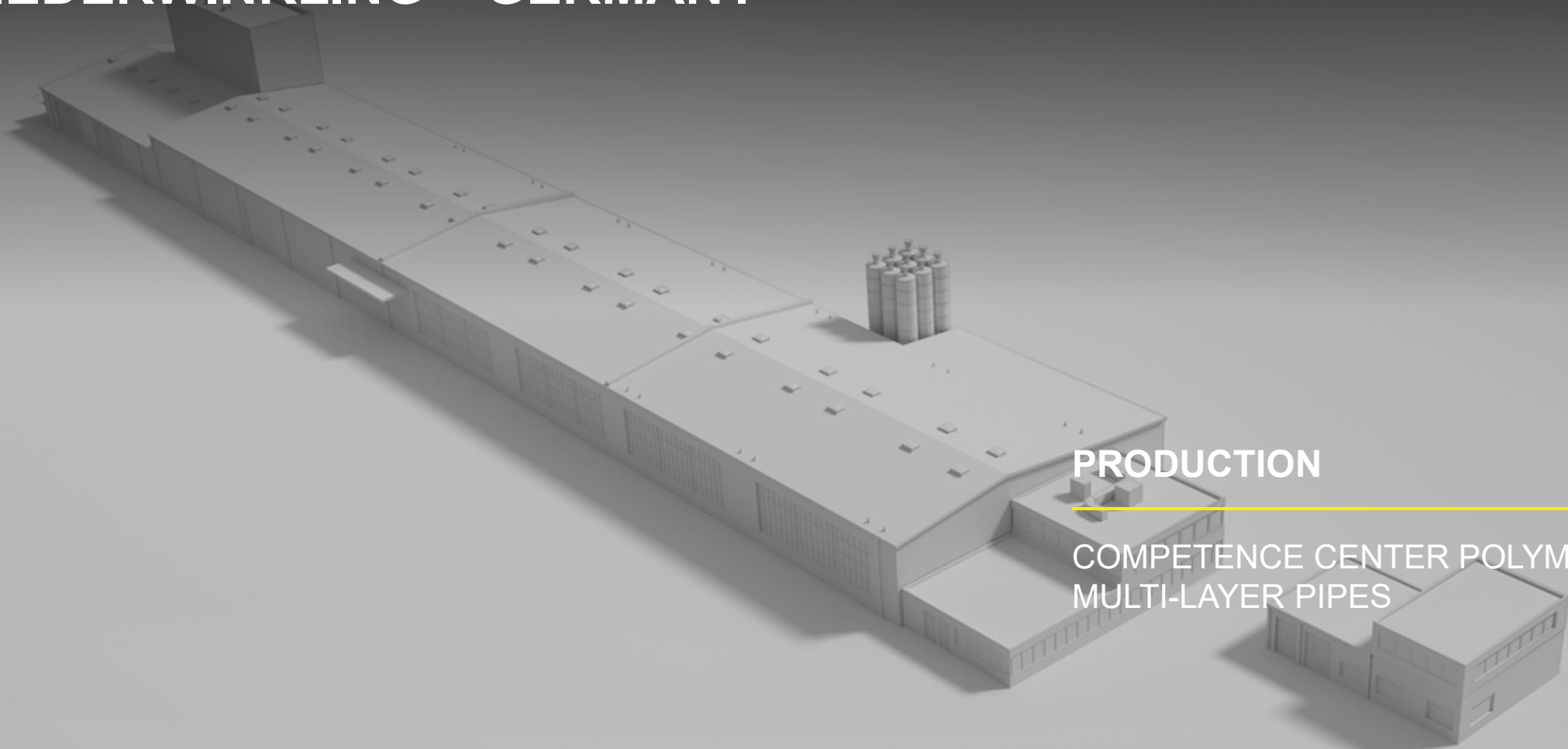


PRODUCTION

MEGAPRESS SYSTEM



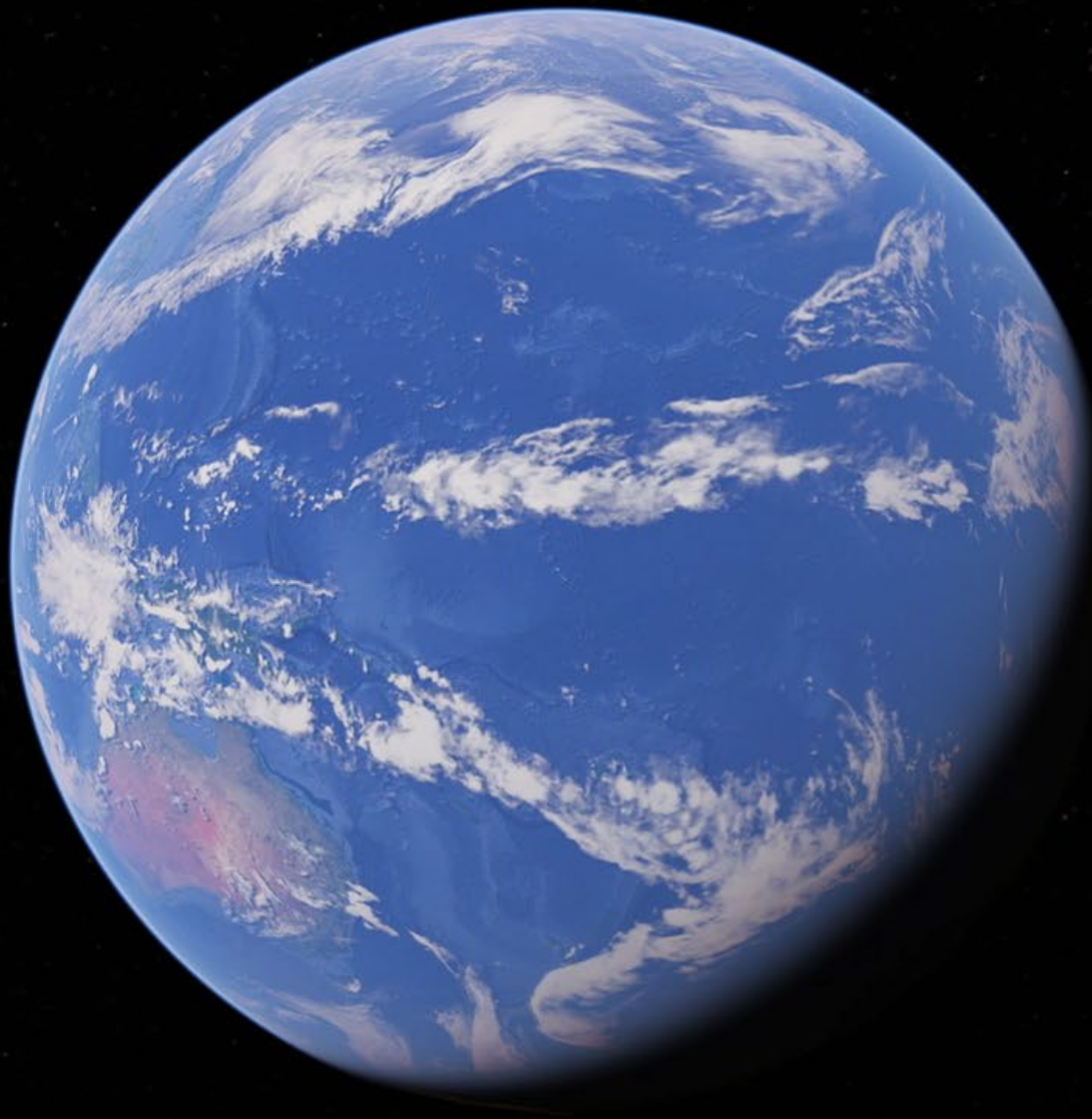
NIEDERWINKLING – GERMANY



PRODUCTION

COMPETENCE CENTER POLYMER- AND
MULTI-LAYER PIPES





Hierhin fliegen

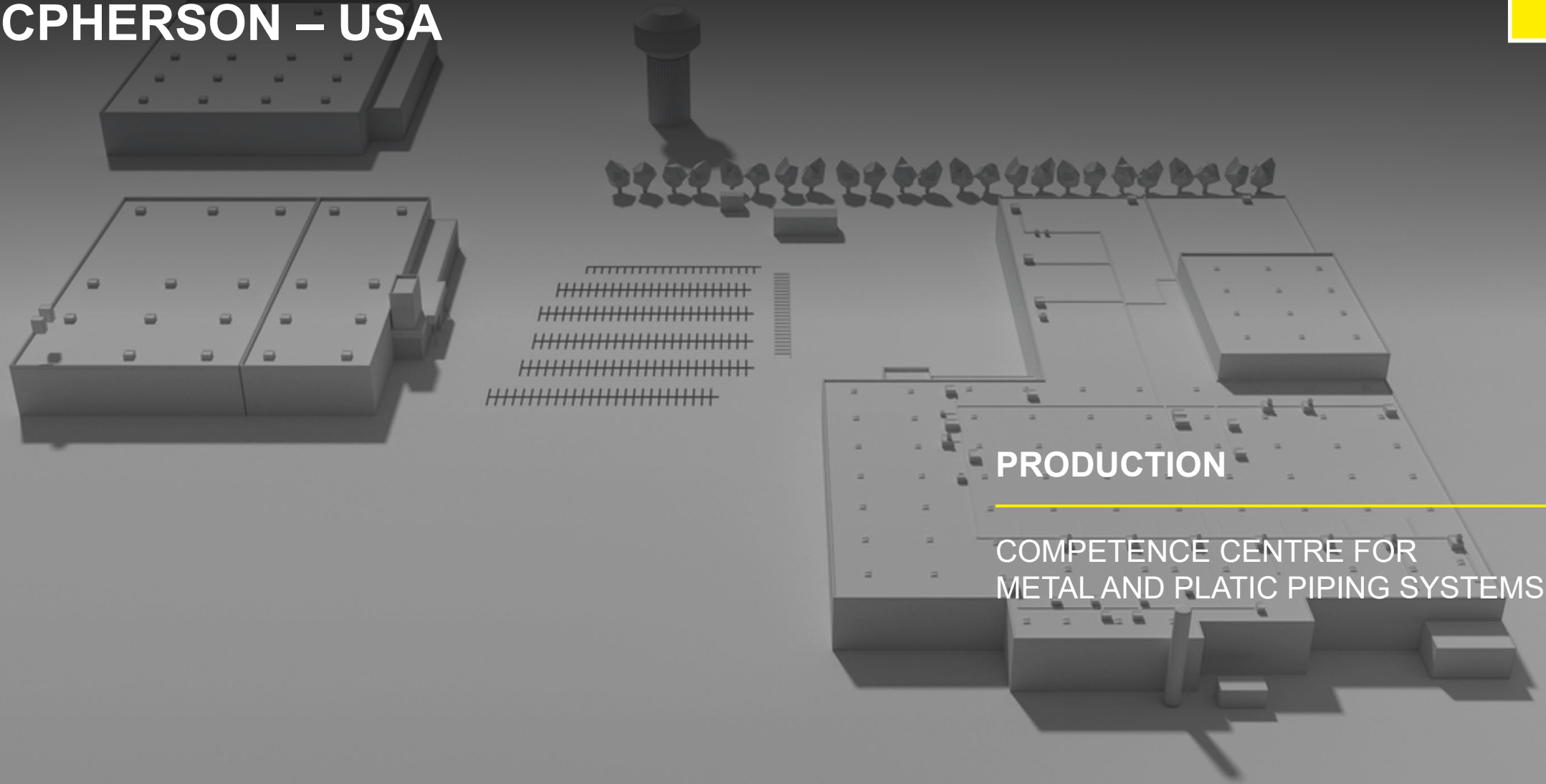
MCPHERSON – AMERICA

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Viega Middle East Trading FZE 02/25



MCPHERSON – USA



PRODUCTION

COMPETENCE CENTRE FOR
METAL AND PLASTIC PIPING SYSTEMS



MCPHERSON – USA

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PRODUCTION

PROPRESS SYSTEM



**Patented Viega technology
makes our press fittings
the strongest press fittings
on the market**

Viega MegaPress G in UAE

Technology meets Safety



**Understanding the challenges between
Technology and the Local requirements**

Technology meets safety

Viega MegaPress G in UAE – How did we reach here...

United Arab Emirates
Ministry of Interior
Civil Defense G.H.Q
Fire intentional Lab & House
Of Expertise & Training Center
Approval Committee



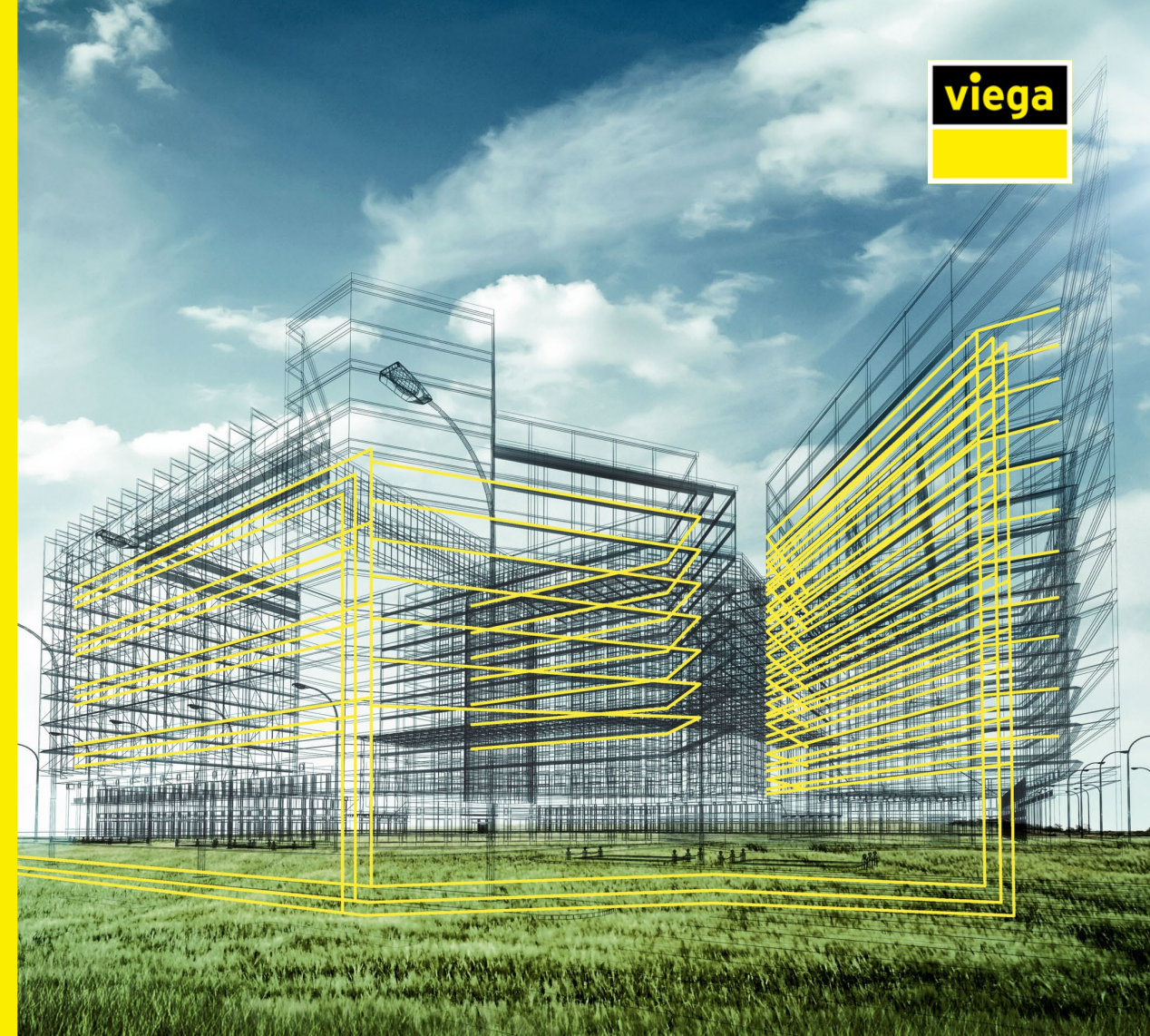
دولة الامارات العربية المتحدة
وزارة الداخلية
القيادة العامة لتدفاع المدني
لجنة اعتماد المختبرات العالمية
وبيوت الخبرة ومعايد التدريب

Date : 2024-11-06

CERTIFICATE OF COMPLIANCE

This certificate of compliance validates the following			
TEST REPORT NUMBER 'Assessment Reports' are not acceptable	CG24-0104908-01	CERTIFICATE NUMBER	SN.Y000RA
DATE OF ISSUE	2024-09-24	DATE OF ISSUE	2024-11-06
DATE OF EXPIRY	2027-09-23	DATE OF EXPIRY	2027-11-05
Manufacturer details			
NAME OF FACTORY/ MANUFACTURER	VIEGA GmbH & Co. KG	NAME OF THE BRAND	VIEGA
FACTORY ADDRESS / REGION (STREET / TOWN / CITY / COUNTRY)	Viegastrasse 1 - 99518 , Grossheringen, Germany	MODEL / NO	MegaPress G
WEBSITE	www.viega.com	LOGO ON THE PRODUCT	
TEL	+49 2722 61-0	EMAIL	llos.Gatto@viega.de

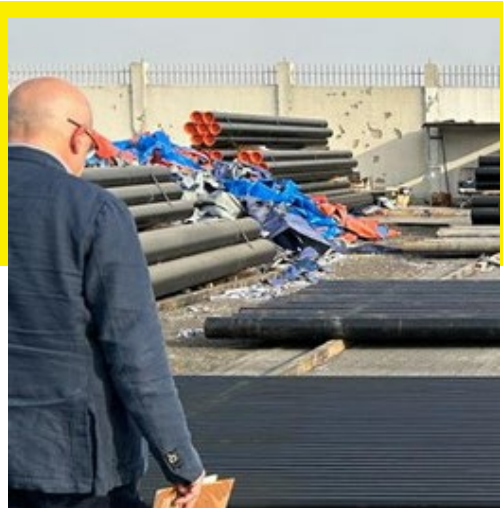
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Viega MegaPress G in UAE - background



On site visits...



- Visiting construction site, finished and under construction
- Visiting contractors
- Visiting pipes suppliers

Experts talks...



- Understanding the challenges
- Merge the experience of local consultants with Viega world- wide experience
- Continuous exchange of opinions, pain points and solutions with Civil Defence

Testing

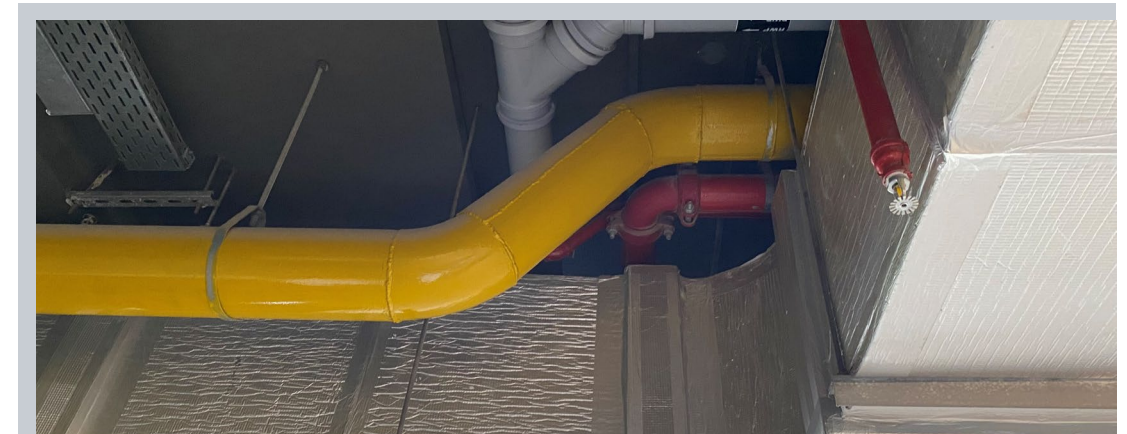
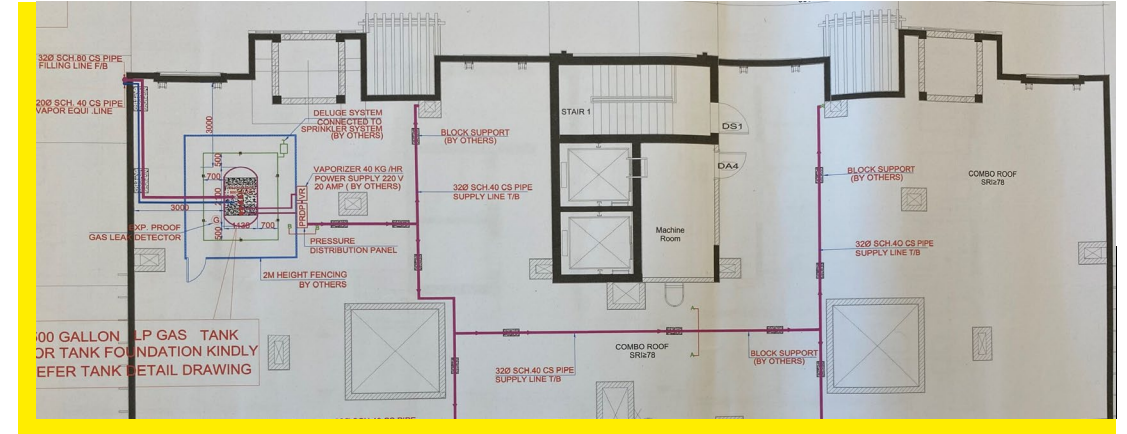


- Pipes samples taken from the UAE market
- Pipes tested for conformity to relevant product standards
- MegaPress G certification testing carried out with local purchased pipes
- CoC obtained

Technology meets safety

Viega MegaPress G in UAE - On site visits

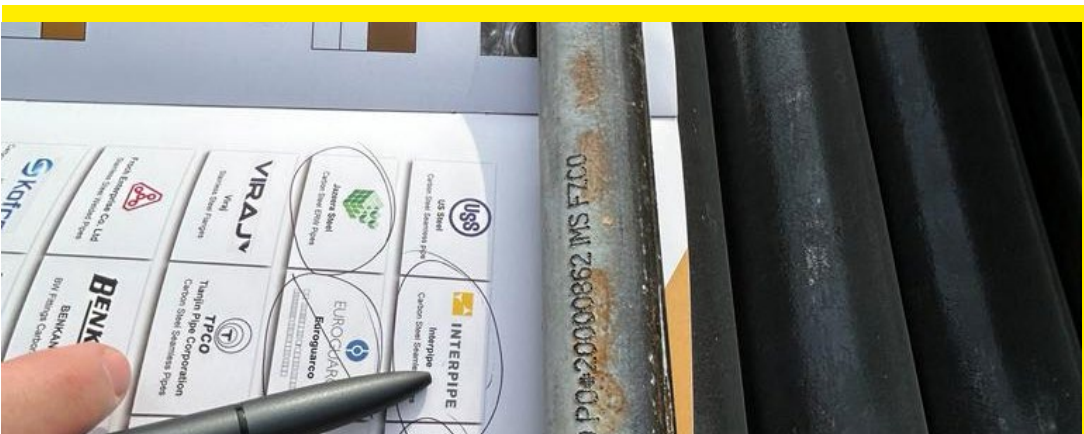
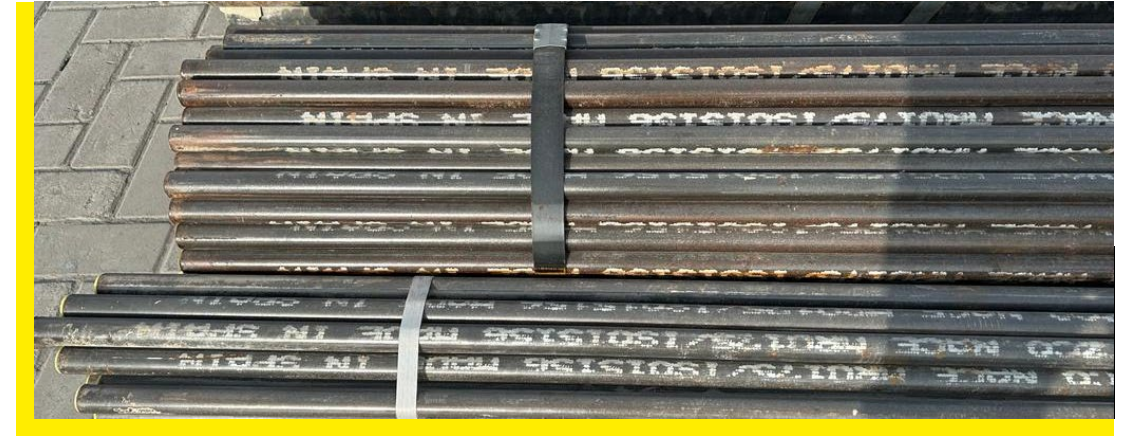
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Technology meets safety

Viega MegaPress G in UAE - On site visits

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Technology meets safety

Viega MegaPress G in UAE - On site visits



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Welding

- Each welding may be different one from the other
- Speed, distance, obstacles
- Different welders
- Level of attention
- Availability of skilled people
- Safety at work
- Presence of open flames → fire protection requirements
- Moving of heavy cylinders

Technology meets safety

Testing

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Pipes quality check

- Correspondence to declared standards
- Measuring wall thickness
- Measuring ovality
- Checking the surface quality
- Mechanical characteristics

Technology meets safety

Testing

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Attachment No. 1 to Test Report No. : CG24-0104908-01

Size 2" ½



Size 3"



Size 4"



Elastomeric material for o-ring



System testing

- In accordance with ANSI LC 4 standard
- Carried out by IMQ
(Civile Defense recognized lab)
- Using UAE provided pipes

Welding Accident Statistics

According to the U.S. Bureau of Labor Statistics, there are approximately 2,500 annual cases of serious, non-fatal injuries related to welding and soldering among workers in the United States. [The National Institute for Occupational Safety and Health](#) estimates that approximately 150 workers die yearly from welding-related accidents, including burns, asphyxiation, and falls. The Occupational Safety and Health Administration reports that the leading causes of welding accidents include inadequate safety training, poor equipment maintenance, and failure to follow proper safety procedures.

What are the main defects in gas welding?

Gas welding defects can include **lack of penetration, lack of fusion, poor appearance, undercut, and porosity**. Common causes are an incorrect welding speed, distance between the metal and blowpipe nozzle, or blowpipe nozzle size.

How These Incidents Happen

Not every cause of residential building explosions is listed here, but these do cover the most likely culprits:

- **Gas leaks.** One of the primary causes of explosions in residential buildings is gas leaks. Whether from gas cylinders or direct gas lines, a leak can lead to catastrophic outcomes, especially if the space lacks proper ventilation. Ensuring regular checks and maintenance of gas lines and cylinders is vital for safety.
- **Faulty gas appliances.** Gas appliances like stoves, heaters, and ovens can malfunction, leading to gas leaks. It's essential to connect these appliances properly to gas lines and replace expired gas cylinders to prevent leaks that could cause explosions.
- **Poor maintenance of gas equipment.** The condition of gas lines and cylinders can deteriorate over time, leading to leaks if they become corroded. Regular inspections by qualified technicians can help detect and address these issues early on.
- **Improper installation.** Incorrect installation of gas units can lead to gas leaks. It's crucial to have gas appliances installed by professionals to ensure they're connected correctly and safely.
- **Faulty connections.** Gas leaks in residential buildings are often caused by defective connections in the gas pipeline. Such leaks can lead to explosions when gas accumulates and is ignited by a spark or flame.

Technology meets safety

Experts talks

”

- Any product or system shall be considered within the local conditions for a proper and safe installation...
- Fire Safety code needs always to be up to date with technology and trends in building sector...
- Extensive gas piping systems in buildings shall be further sectioned to decrease the gas volume in case of an emergency shut-off...
- Training plays an important role...
- Use of approved products is important...
- Installation of domestic appliances shall be done by contractors using appropriate hoses and limited lengths... Importance of ventilation
- Difficulty of welding operations in certain conditions (space, fire safety, cylinders transport)



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Technology meets safety

Technology meets safety!

Press technology – Viega MegaPress G

- Move the responsibility from the human to the machine
- Performing thousands of connections, one equal to the other
- Minimize the risk of human mistakes
- Prevent accidents during installation phases (no open flames)
- <https://www.instagram.com/reel/CnP0m0gKuC4/?igsh=OHN5MDRpb2R4ejUw>

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**Technology meets
Safety !**

Technology meets safety

Technology meets safety!

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Traditional Installations ?

Future of Piping Installations !

Piping Connections - Comparison



*Building Services Research and Information Association is a non-profit distributing association promoting knowledge and providing specialist services for construction and building services stakeholders. Aim is to make buildings better by improving their environmental, operational and occupational values, and support the industry by providing guidance and solutions.

Piping Connections - Comparison



Threading



Grooving



Welding



**Press Connection
(Viega Megapress)**

Piping Connections - Comparison

Method	Number of pipe cuts	Cutting time (minutes)	Threading / grooving time (minutes)	Machine set-up time (minutes)	Assembly time total (minutes)	Total (minutes)
Threading	116	78	166	15	738	997
Grooving	100*	73	20	13	504**	610
Welding	116	78	-	-	1721	1799
Megapress	116	78	-	8	312	398

Note:

* 1/2 inch groove fittings are not available so this was not included.

** This total time included a 44 minute and 9 seconds estimated time to assemble the missing fittings.

Piping Connections - Comparison

In Hours and Minutes this equates to:

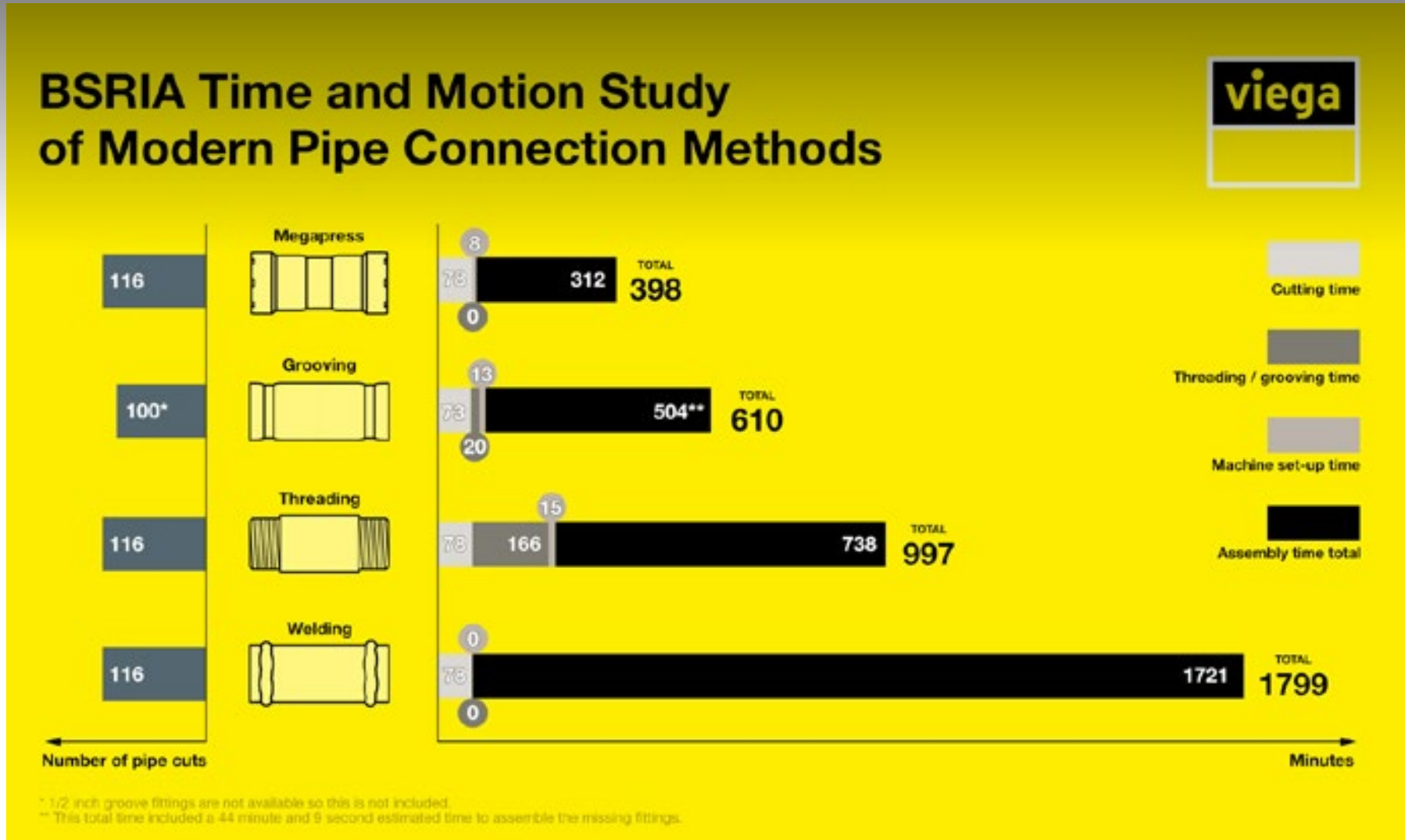
- Grooving: 10 hours 10 minutes
- Threading: 16 hours 37 minutes
- Welding: 29 hours 59 minutes
- **Megapress: 6 hours 38 minutes**

These results demonstrate that in practice **Megapress** provides a...

- **78%** time saving compared with welding
- **60%** time saving compared with threading
- **35%** time saving compared with grooving



Time and Motion Study - BSRIA Report - Traditional pipework methods vs. Viega Megapress Piping Connections - Comparison





**"Do you want to
improve safety...
Do you want to save
installation time....
and a lot of Hot
Works(Welding)"!**

Time and Motion Study - BSRIA Report - Traditional pipework methods vs. Viega Megapress

Piping Connections - Comparison



DON'T WORK HARD



WORK SMART



VIEGA MEGAPRESS G

**Safe & Secure
Installations for the Buildings of Tomorrow**

Megapress G Agenda

Main applications

Technical Information

Further Information

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Megapress G

Main applications



Natural gas/liquid gas

Compressed air

Heating oil/diesel fuel

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Megapress G

Application - Natural gas/liquid gas

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**PUTS AN END TO WELDING WORK
EVEN IN GAS INSTALLATION.**



Megapress G

Application - Compressed air



**STANDS UP TO EVERYTHING -
EVEN THE HIGHEST DEMANDS.**



Megapress G

Application - Heating oil/diesel fuel



FOR HIGH REQUIREMENTS AND
HIGHEST DEMANDS.

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Megapress G

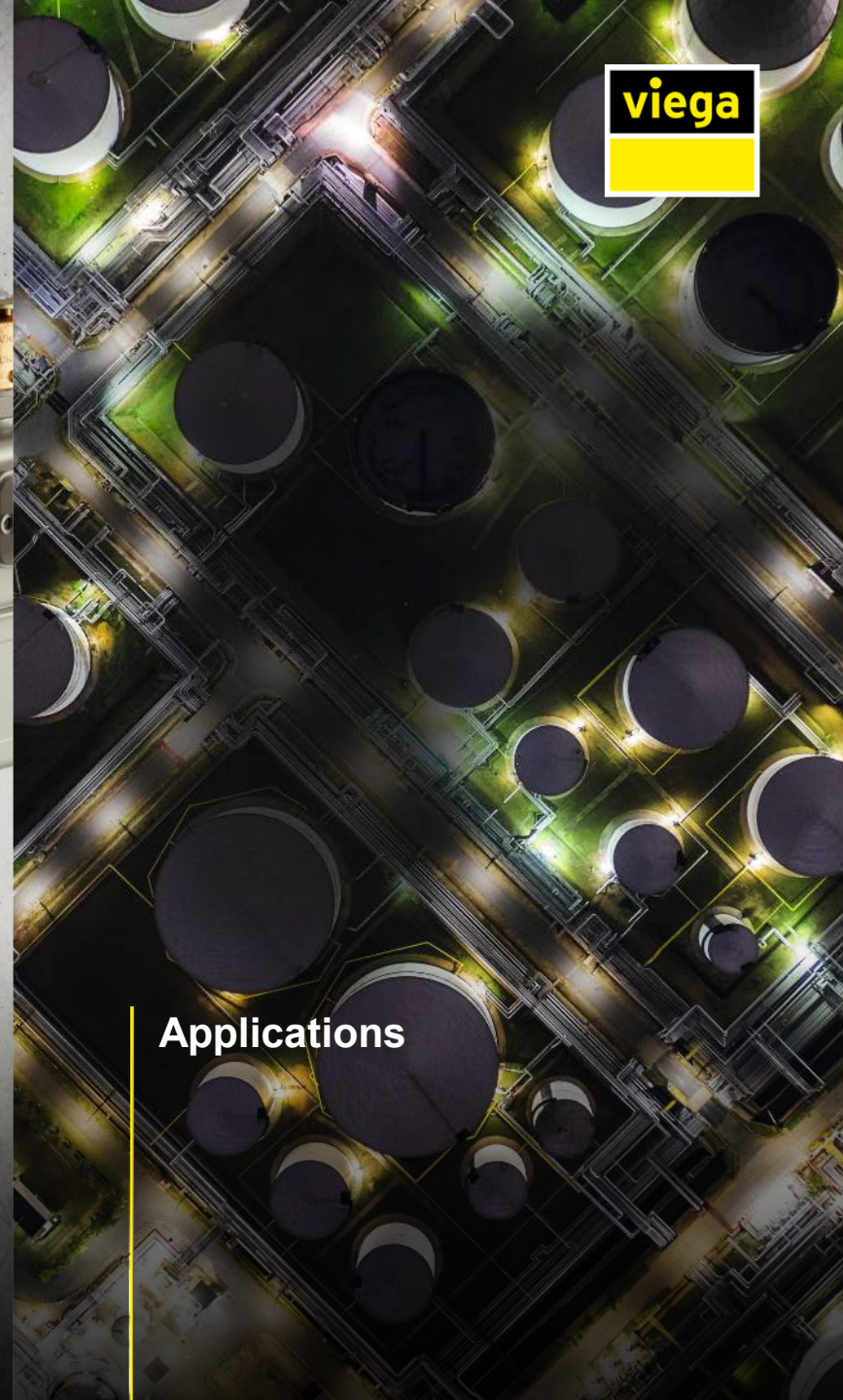
Technical Information



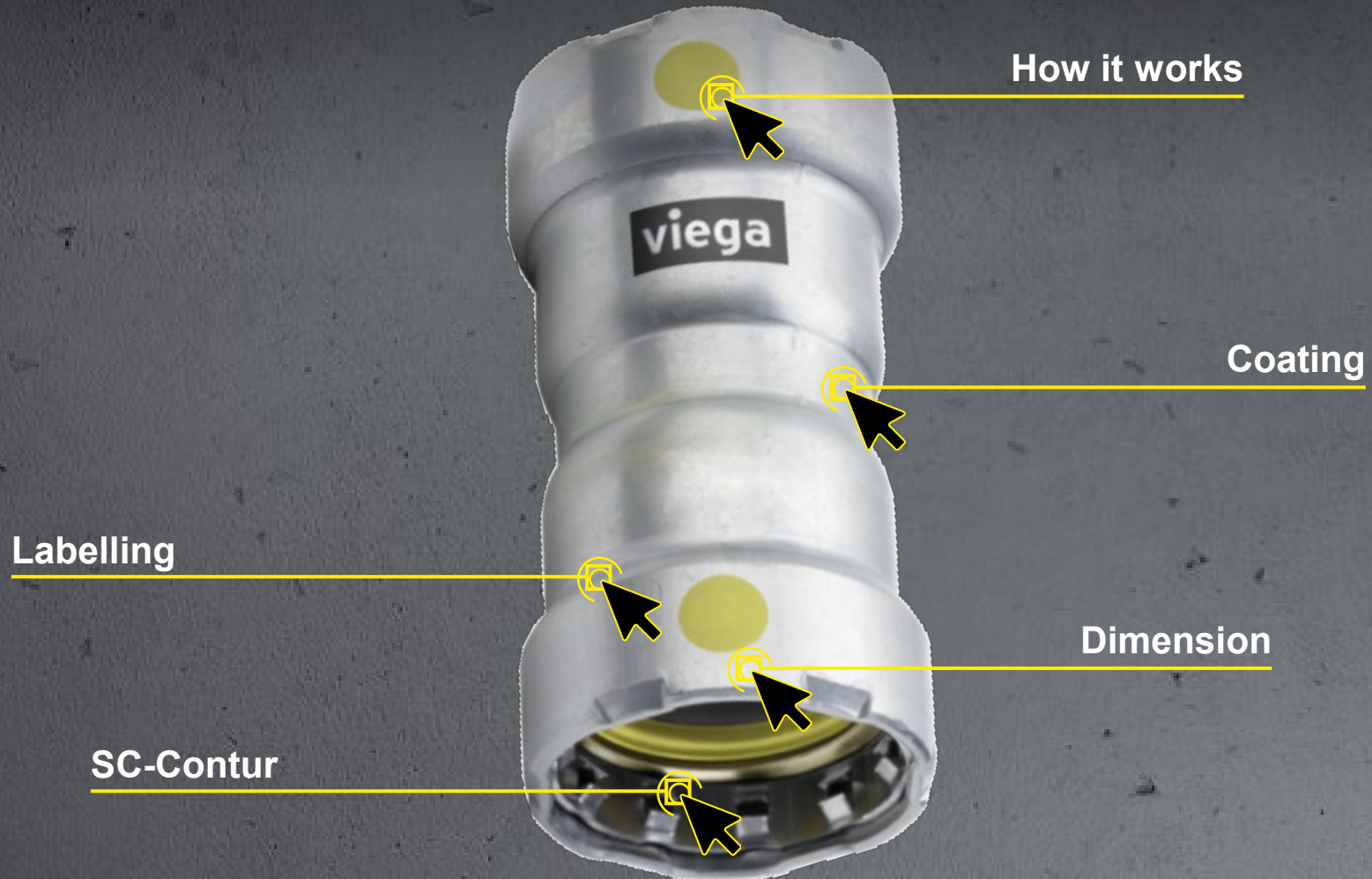
Megapress G connector



How to use?



Applications



Megapress G

Sizes from 1/2 up to 4 inch

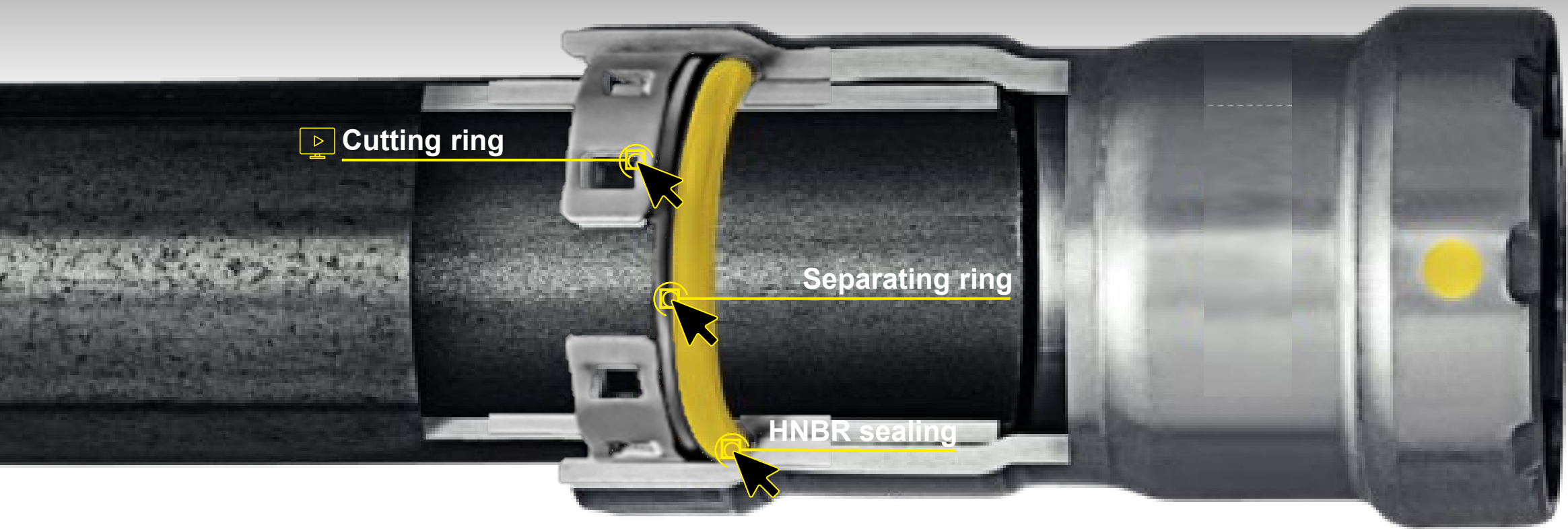


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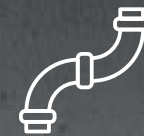
How the connector works



Megapress G

Cutting ring

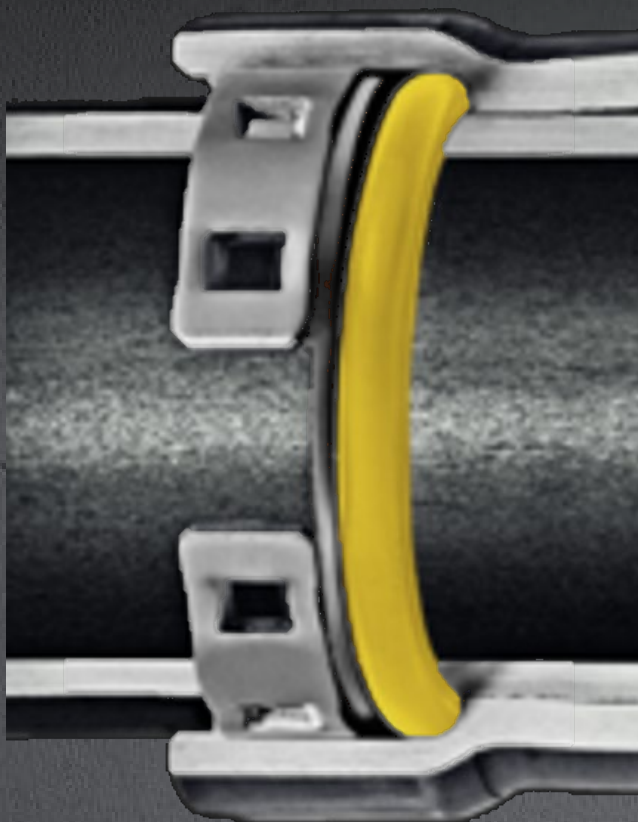
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Strong connection

- Material: Stainless steel (1.4021)
- Holds the connector on the pipe





Protection

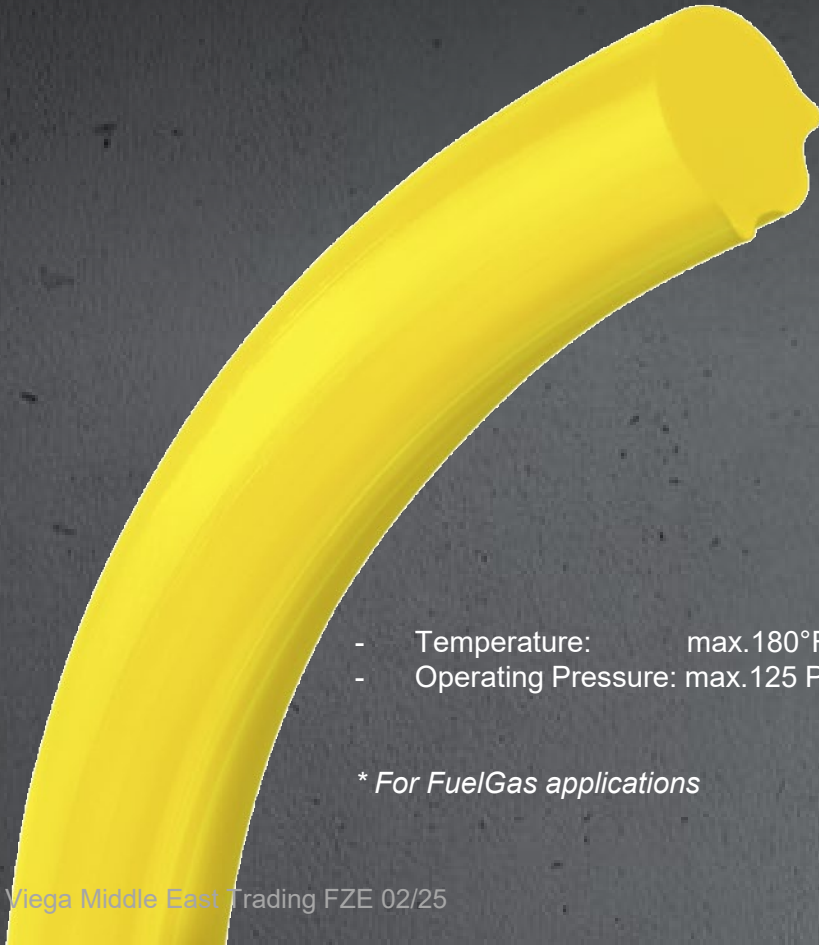
- Protects the sealing element against the cutting ring
- Material up to 2 inch: **Stainless steel (1.4301)**
- Material 2 1/2 up to 4 inch: **Graphite**



Megapress G

Sealing element

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- Temperature: max. 180°F (70°C)
- Operating Pressure: max. 125 Psi * (9 bar)

** For FuelGas applications*



HNBR

- Shape Wave (up to 2 inch)
Benefit: Three contact points to seal on different pipe surfaces
- Shape Round (2 1/2 up to 4 inch)
Benefit: Increased thickness of the cord to seal on different pipe surfaces



Megapress G

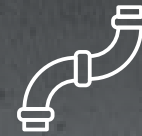
Clear labelling



Visible

- **Gas application**
- Colour coding: Yellow
- Dimension
- Viega labelling
- Batchcode
- HNBR –Sealing
- CS (for Carbon Steel)





Zinc-Nickel Coating

- The connectors made of 1.0308 Steel material with a zinc-nickel coating guarantee the highest quality and durability, and therefore of course a long service life



Smart Connect feature (SC-Contur)



Safety at a glance

Immediately indicates any inadvertently unpressed connection:

- min. air pressure: **2.2 kPa** (0.022 bar)
- max. air pressure: **300 kPa** (3 bar)



Megapress G

How to use

Industrially
painted

Galvanised

Painted by hand

Black uncoated

Rusty

Stamped
markings

Step 1

Select a pipe



Step 2

Select a connector



Step 3

Select a press tool

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Step 4

Installation

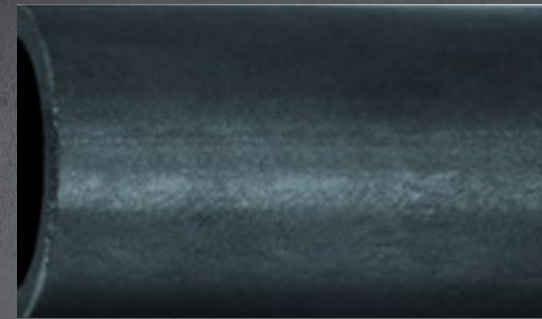


Step 1 – Select a pipe



Galvanised

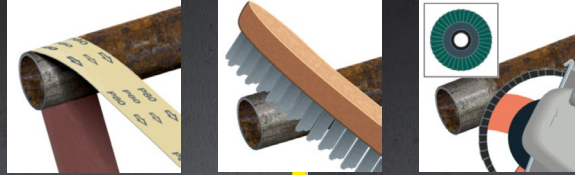
- Could be used after cutting and deburring
- No surface preparation necessary



Black uncoated

- Could be used after cutting and deburring
- No surface preparation necessary

Step 1 – Select a pipe



Stamped markings

- Not usable for Megapress G
- The imprints lead to leaks



Painted industrial or by hand

- Surface preparation necessary



Rusty

- Surface preparation necessary



Prepared pipe

- Free from dirt, smooth, firm, even and undamaged

Megapress G

Step 2 - Practical assortment



Megapress G

Step 3 – Select a press tool

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1/2" / 3/4" / 1"

Megapress press jaw



1 1/4" / 1 1/2" / 2"

Megapress press ring with V2
actuator

Megapress G

Step 3 – Select a press tool

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2 ½" / 3" / 4"

Megapress press ring
with Pressgun-Press Booster
for Megapress XL

Chapter



1. Cut



4.1 Press jaw



2. Deburr



4.2 Press ring



3. Mark



5. Leakage test



Complete video

Preparation

- 1. Cut pipe to length.**



Preparation

2. Deburr and clean the pipe.



Preparation

3. Mark the insertion depth.



Pressgun 6 Plus

4.1 Press with press jaw.



Pressgun 6 Plus

4.2 Press with hinged adapter jaw and press ring.



Megapress G

Leakage test



5. Leakage test



Megapress G

Complete video



Preparation

- 1. Cut pipe to length.**



Overview



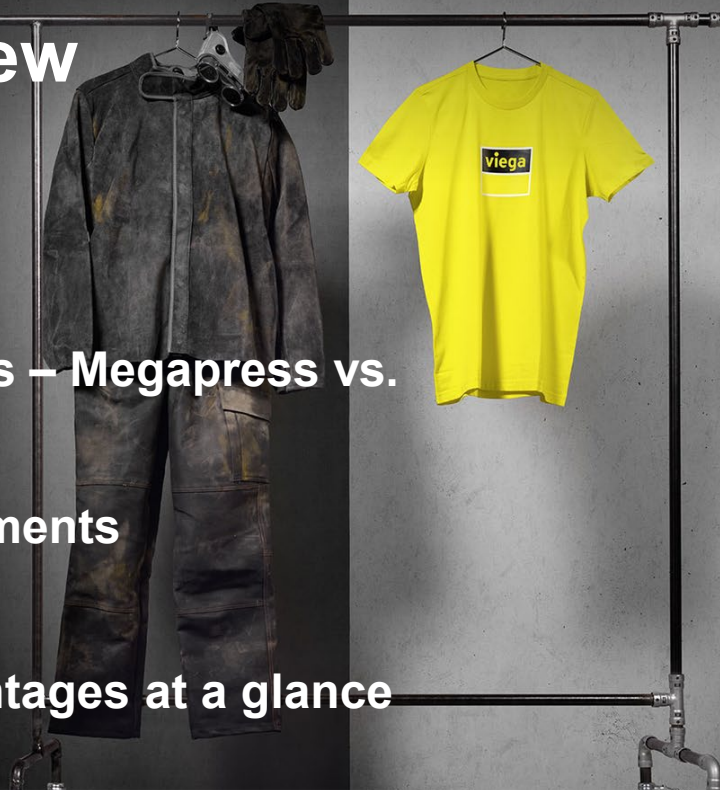
Videos – Megapress vs.



Documents



Advantages at a glance



Videos



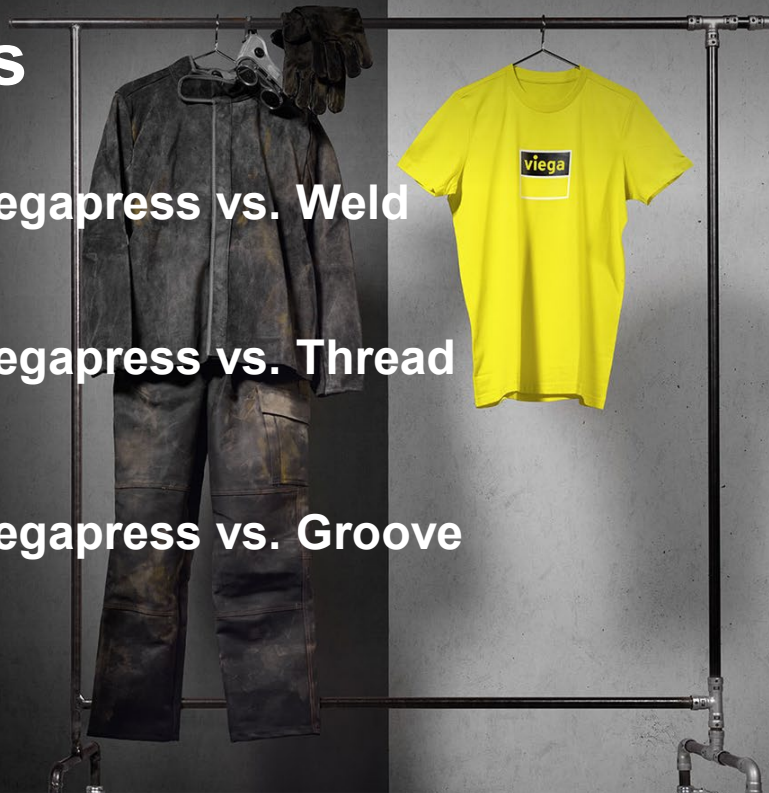
1. Megapress vs. Weld



2. Megapress vs. Thread



3. Megapress vs. Groove



Megapress G vs. Weld



Megapress G vs. Thread



Megapress G vs. Groove



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M. Ansari



R. Joseph

Advantages at a glance



No risk of fire

No open flame thanks to cold pressing technology

Cooling times and fire guards are eliminated and thus also the additional time and costs for fire protection precautions



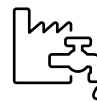
Up to 80% faster

Compared to welding



Practical assortment

Connectors: 1/2 up to 4 inch



Large application range

In addition to the main applications, there are many other technical applications





CONNECTED IN QUALITY.