



Best of Applications 2019





Maintenance of a sea water pump



Optimising a box clamp on a forklift



Repair of a bridge foundation



Several WEICON products in the production of truck axles



Bonding the door locking system of a bus



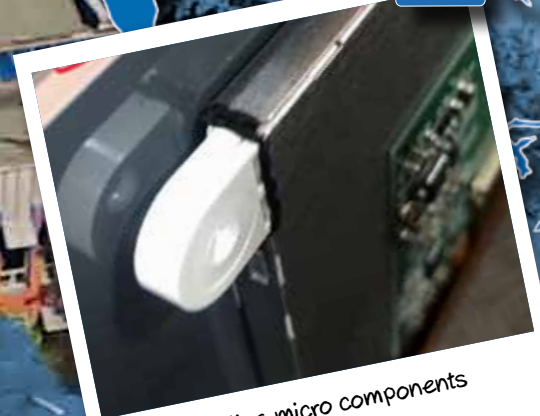
Cleaning the circuit boards on a high-speed train

We don't just sell products, we provide solutions – worldwide. No matter where, we find the right answers to our customers' application requests. Whether adhesives and sealants, technical sprays, technical liquids, assembly pastes and high-performance greases or stripping tools – the WEICON range includes the right product for any purpose.

In this flyer, we present you with a selection of the most interesting applications we have come across in the past year. We hope you enjoy our selection "Best of Applications 2019". Have fun reading and discovering!



Repair of oil pipelines



Bonding micro components in a card reader



Adhesive solution for a swing chair suspension



Repair of an evaporator



Bonding roller cones



Repair of an expansion tube



Maintenance of a filter tank

A specialist manufacturer of axles for heavy load trucks and various vehicles from Finland counts on WEICON!



WEICON products are successfully used in all production processes of this company.

They are characterised by their high performance and excellent reliability.



WEICONLOCK AN 302-71 is used to secure the screws on the differential gear.

The anaerobic 1-component adhesive has medium viscosity, medium strength and is hard to disassemble - the perfect solution for high loads in operating machines.



WEICON Black-Seal is used for sealing the differential.

The special silicone is high-temperature-resistant (+280°C/+536°F), solvent-free, strong, pressure-resistant, ageing-resistant and extremely elastic (elongation at break of approx. 500%).

Its most important feature for this application is its extremely high resistance to the aggressive gear oil.



WEICON Flex 310 M 2 K perfectly seals the vehicle components.

The fast-curing MS polymer based on hybrid polymer is extremely strong, paintable (wet-on-wet), sandable and weather-resistant.

The adhesive is suitable for full-surface bondings and a gap-filling capacity up to ten millimetres.



Our customer has a well-equipped workshop cabinet full of WEICON products - with the right one for every application!



Producing truck axles with WEICONLOCK® AN 302-71, WEICON Black-Seal and WEICON Flex 310 M® 2 K

In this application example, which was carried out in Germany, corroded steel covers on sea water pumps were coated with WEICON Urethane 80.



First, the surface was sandblasted to remove the rust.

Then, the surface was cleaned with our WEICON Cleaner Spray S.



To protect the covers against future corrosion, they were coated with WEICON Urethane 80, blended with WEICON Colour Paste Black.

To coat the four covers, approx. 30 kg of WEICON Urethane 80 and two cans of WEICON Colour Paste Black were needed.



The 2-component polyurethane provides particularly flexible and impact-resistant protection against vibrations and shocks.

In addition, WEICON Urethane 80 is extremely moisture-resistant. The Colour Paste Black ensures a visual appealing result.

Thanks to the protective coating with Urethane 80, the covers now withstand the mechanical stresses due to opening and closing as well as the exposure to sea water.

The repair of the covers prolonged their service life and provides a cost-efficient alternative to purchasing new ones.

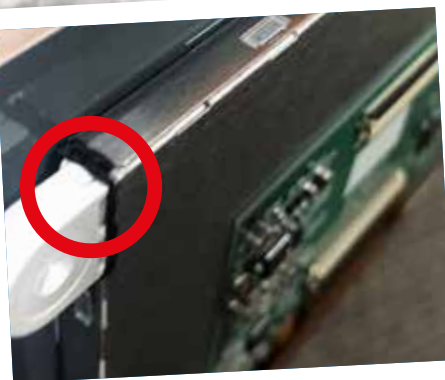


Repair of sea water pump covers with WEICON Urethane 80 and WEICON Colour Paste Black

Even extremely small components can be bonded – like in this card reader of a customer in Taiwan. The device is used daily in public transport.

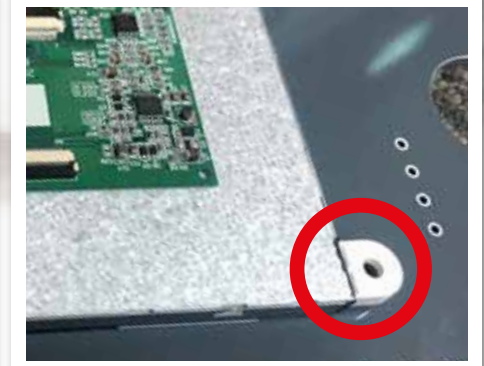
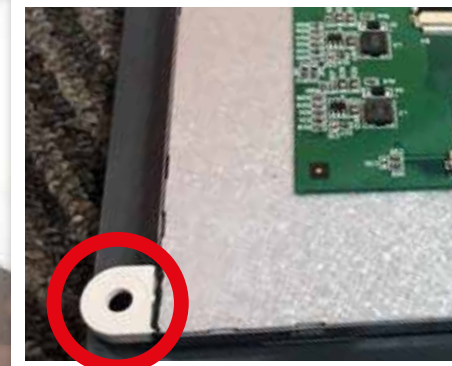


Before the adhesive bonding, all components were cleaned with one of our special cleaners, the WEICON Electro Contact Cleaner.



For the adhesive bond, WEICON Flex 310 M Classic was used in the colour black.

The joined materials were galvanised metal and ABS plastic.



This adhesive was especially suitable, as it is resistant to temperature fluctuations within the component as well as seasonal temperature fluctuations.

After 24 hours, the adhesive bond was fully cured and now easily withstands strong vibrations and a contact resistance of more than $1 \times 10^{10} \text{ Ohm/cm}$.



Bonding of a card reader with WEICON Flex 310 M® Classic black

A forklift can be equipped with different attachments. For lifting boxes without pallets, a so-called box clamp can be used. Our German customer was looking for a way to provide the aluminium surfaces of the box clamp with more traction. The solution: WEICON GMK 2510!



First, all components were cleaned with our WEICON Surface Cleaner.

The spray is perfect for removing various soilings from different surfaces and is the ideal preparation before adhesive.



Then, WEICON GMK 2510 was applied to both sides. The liquid adhesive is particularly easy to apply. It reaches its final strength after 24 hours. Thanks to its permanent elasticity, it withstands dynamic motions particularly well.



The 2-component adhesive based on polychloroprene is the perfect solution for full-surface bondings. It reaches its final strength after 24 hours and the box clamp is fully operational again.



Equipping a box clamp with an elastic surface with WEICON GMK 2510

WEICON Electro Contact Cleaner was used for cleaning circuit boards in a high-speed train in China.



WEICON Electro Contact Cleaner is a special cleaner for the fast and effective cleaning and degreasing of soiled or corroded contacts of all kind.



The cleaner reduces voltage loss and increases electrical conductivity.

It removes contamination that can cause leakage current.



The special formula of the WEICON Electro Contact Cleaner with high-purity solvents removes oxide/sulphide layers, combustion residues and resinous or sooty soiling.



Cleaning of circuit boards in a high-speed train with WEICON Electro Contact Cleaner

Bridges are exposed to high mechanical stress. Moreover, they often have to withstand extreme weather conditions. In this application example from Germany, a crane runway showed significant signs of wear due to corrosion.



Previously, our customer had repaired the problematic areas with adjusting pieces. However, this method was rather difficult.



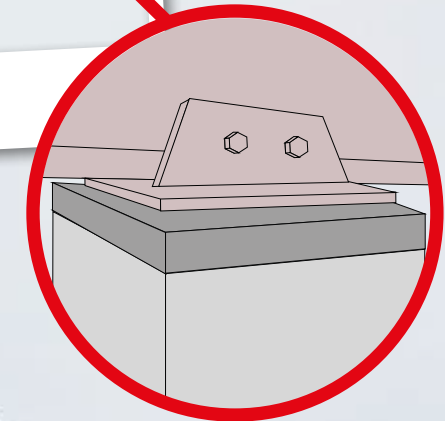
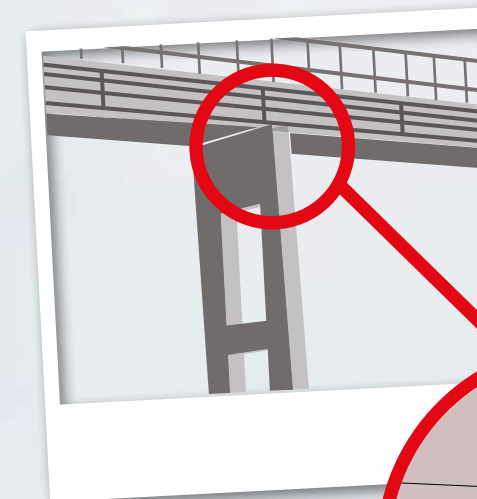
With our Plastic Metal WEICON CBC, we were able to provide the right alternative.

To achieve a frictional connection of the bridge bearing, the heterogenous grinding of the concrete due to micro-vibrations was reconstructed with the casting of WEICON CBC.



That way, the static properties could be restored. The special epoxy resin system has a low viscosity and is thus highly flowable and self-levelling.

WEICON CBC is suitable for a bonding gap of up to 10 mm. Larger gaps can be adjusted additionally by means of metal shims.



WEICON CBC forms a direct and frictional contact to the foundation.

Thanks to no cure shrinkage, high impact strength as well as high resistance to pressure, substances and ageing, the product provides a long-term solution.

Due to the permanently high static strength, constructions remain constant in their alignment.



Repair of a bearing on a crane runway with WEICON CBC (Chocking Backing Compound)

Every day, several thousand cubic metres of water run through the filter system of a hydropower plant. Even though the filter system is designed for the permanent contact with water, these components inevitably show corrosion damages over time. One of our Turkish customers had the same problem.



The filter tank had severe leaks. Thanks to the right products, however, these damages could be repaired and the filter is now protected against corrosion.



Coarse dirt and rust was removed mechanically. That way, cavities and damages could be detected.

Then, the filter tank was cleaned with WEICON Cleaner Spray S.



In the next step, the cavities were filled with the pasty and steel-filled WEICON A and the leaks were sealed.



To provide additional wear protection, a coating with WEICON Ceramic BL was applied in the last step.

Thanks to its filling with silicon carbide and zirconium silicate, the epoxy resin system provides high abrasion and substance resistance.



Our epoxy resin systems offer the ideal combination of fast repair help and long-lasting abrasion protection coating.

Thanks to repair and maintenance, a complete replacement of the filter is prevented and its service life is increased significantly.

With our WEICON products, you save a great deal of time and money.

Hydropower plant:
Repair of a filter with
WEICON A &
WEICON Ceramic BL

In a mine in South Africa, an expansion pipe made of steel was heavily damaged by rust and cavities due to abrasion. Our customer hadn't previously been able to find a solution how to repair the pipe.



First, rust and coarse dirt were removed by sandblasting. Then, the component was cleaned with WEICON Cleaner Spray S.



Next was the repair part. With a maximum layer thickness of 10 mm, our Plastic Metal WEICON WR2 was applied.

The pasty epoxy resin system is mineral-filled and thus particularly wear- and abrasion-resistant. It provides excellent surface protection.



To provide additional wear protection, the pipe was subsequently coated with WEICON Ceramic BL.



Thanks to the use of WEICON products, costs were significantly reduced in this application. The service life of the pipe was increased significantly and a replacement was not necessary. After just two days, the expansion pipe could be used again and the production could be resumed.

In comparison:
When purchasing a new component of this type, it is usually a custom-made product and the delivery takes several months.

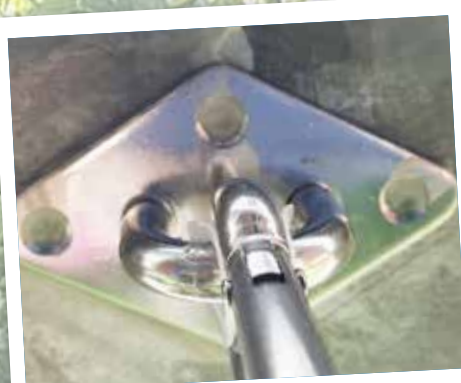


Coating of an expansion pipe with WEICON WR2 and WEICON Ceramic BL

Bonding a swing chair suspension made of stainless steel to a beam made of hot-dip galvanised steel? No problem for WEICON! A colleague from Germany did just that.



First, the hot-dip galvanised surface was sanded off with a piece of sandpaper and then cleaned with WEICON Surface Cleaner.



For the adhesive bonding, our WEICON Easy-Mix RK-7100 was used. The fast-curing, high-strength adhesive with residual elasticity is particularly easy to apply thanks to its dosing system – even overhead.



For additional protection, the suspension was then coated with Brushable Liquid Zinc Paint. The Zinc Paint serves as barrier layer and protects the adhesive bond against corrosion.



The swing chair weighs approx. 5 kg, our adhesive bonding engineer approx. 90 kg and his child, who sometimes joins him in the chair, 20 kg.

That amounts to roughly 115 kg the adhesive bond needs to be able to permanently carry. Our adhesive, however, can carry more than three tonnes.

max. load = adhesive surface (mm) · shear strength (N/mm²)
gravity (9,81 m/s²)



Bonding a suspension with WEICON Easy-Mix RK-7100 and coating with WEICON Brushable Liquid Zinc Paint

Oil pipelines with a length of several hundred kilometres run through the whole country of Ecuador. The pipelines have been underground since the beginning of the oil extraction in the 1950s.



Due to the stony layers of soil as well as sometimes extreme temperature fluctuations, the material inevitably shows corrosion damages after several years.

These damages needed to be repaired as well as coated with a wear protection in order to make them durable for the next few years.



The pipelines were pre-treated with WEICON Cleaner Spray S.

When choosing the right coating for the repair, it was important to find a product which can be processed on steel, withstands high temperatures during application as well as curing, and which is also fast and easy to apply.

The 1:1 mixing ratio of our HB 300, its pasty texture as well as its non-drip properties enable a particularly easy application even under difficult conditions.

At the same time, WEICON HB 300 provides a smooth surface structure, which is ideal for an additional wrapping with protective foil or coating with carbon fibre after curing.



This solution offers several advantages:

WEICON HB 300 is an inexpensive and long-lasting solution.

The repair can be carried out on the spot – despite the ambient temperature and the temperature of the streaming oil.

In addition, the Plastic Metal Type WEICON HB 300 can be processed fast, easily and without specific prior knowledge.

Nearly one tonne of WEICON HB 300 was used for a distance of 100 kilometres pipeline in Ecuador for the repair of the corrosion damages.

Pipeline repairs
with WEICON HB 300
in Ecuador

Adhesives are part of our everyday life. For most people, they are constant companions – for example, on their way to work in public transport. Recently, our WEICON Easy-Mix PE-PP 45 has been used in the production of busses in the Czech Republic. The structural acrylic adhesive is used for bonding door locking systems.



For the pre-treatment of the bonding components, WEICON Cleaner Spray S was used. Then, all components were bonded with WEICON Easy-Mix PE-PP 45 - PP to PP as well as PP to glass. The bonding gap of several millimetres could be filled with the 2-component assembly adhesive based on methyl acrylate. WEICON Easy-Mix PE-PP 45 is especially suitable for the structural, high-strength bonding of low surface-energy plastics like PE, PP and TPE.



Easy-Mix PE-PP 45 enables the easy joining of the bonding components. The mixing system ensures safe processing, as thanks to the two separate compartments, mixing errors are prevented.



Our adhesive can be used for all components of the door locking system.

After two to three hours, the adhesive bond has usually reached handling strength. However, the adhesive should cure for approximately four hours at room temperature, before it reaches its full strength.



WEICON Easy-Mix PE-PP 45 is a fast and easy solution for challenging adhesive bonding of plastics.

The flexible adhesive easily withstands stresses after bonding, for example due to the opening and closing of the doors.

This makes it an excellent permanent solution.



Bonding a door locking system with WEICON Easy-Mix PE-PP 45



For a smooth production cycle, clocked processes are essential. Sometimes, certain steps can be optimised and accelerated – for example with the right product. One of our customers in China has recently started using WEICON Silicone Spray as assembly aid for the production of vacuum cleaner hoses.



The components are pre-treated with WEICON Silicone Spray, which helps to join them more easily.

The long-lasting separating film serves as lubricant during the joining of the components, so it preserves the plastics and protects them against embrittlement.



The spray can be used in many production processes and ensures a good surface condition.



Thanks to the use of WEICON Silicone Spray in the production of vacuum cleaner hoses, the work processes and thus the production in general could be optimised. The product makes joining the components easier for the employees and thus contributes to occupational safety within the company.



WEICON Silicone Spray as assembly aid for the production of vacuum cleaner hoses

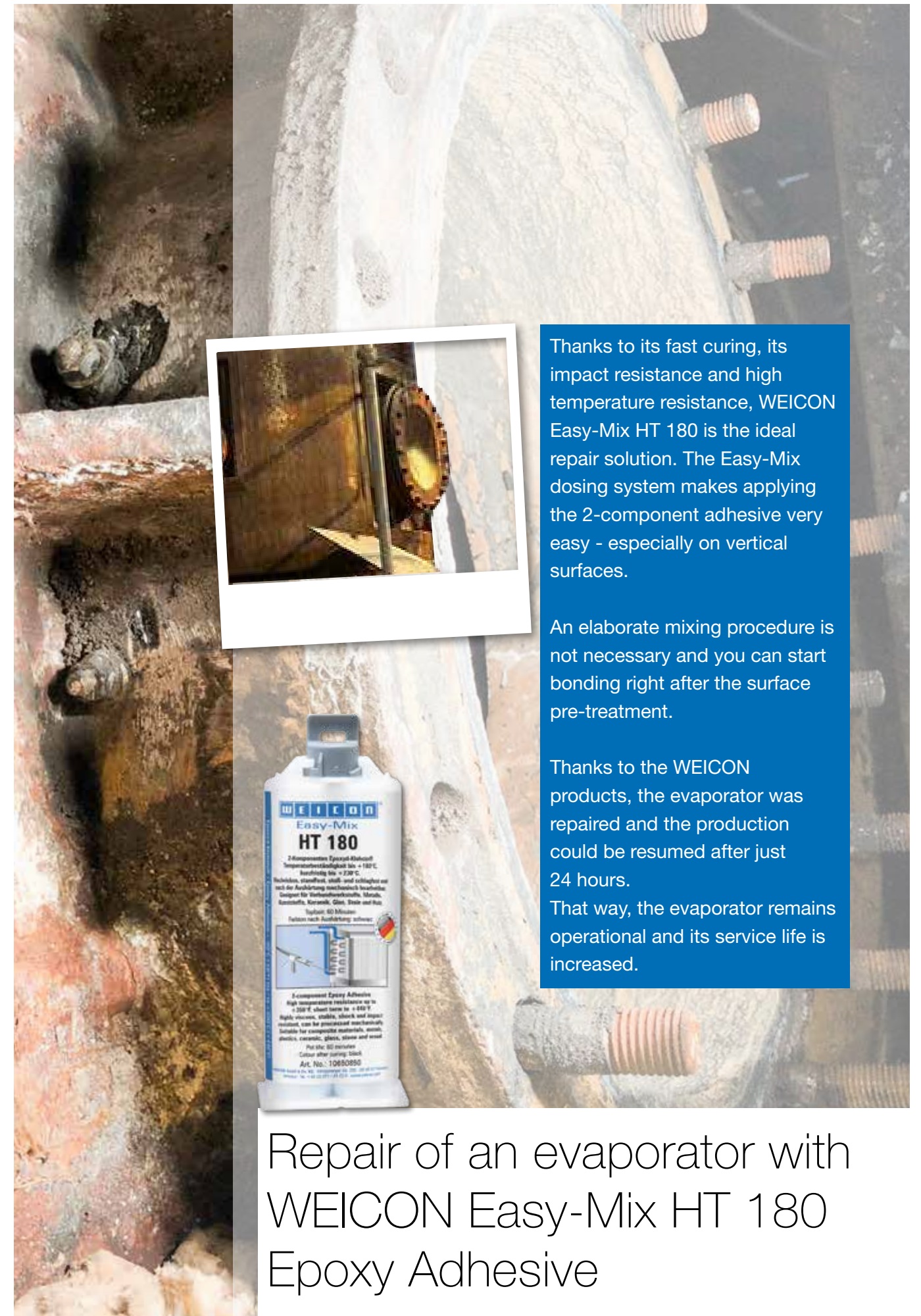
In a petrochemical company in Germany, an evaporator showed heavy material fatigue due to corrosion. This resulted in a loss of pressure on the manhole of the system due to two damaged areas.



First, the temporary solution was removed. Then, the inner and outer surfaces were pre-treated by sanding with a silicon carbide grinding disc. Next, the surfaces were washed off with pH-neutral or demineralised water.



Finally, WEICON Easy-Mix HT 180 Epoxy Adhesive was applied. For additional stabilisation, perforated metal sheets were attached after the first layer, before applying a second layer of the adhesive.



Thanks to its fast curing, its impact resistance and high temperature resistance, WEICON Easy-Mix HT 180 is the ideal repair solution. The Easy-Mix dosing system makes applying the 2-component adhesive very easy - especially on vertical surfaces.

An elaborate mixing procedure is not necessary and you can start bonding right after the surface pre-treatment.

Thanks to the WEICON products, the evaporator was repaired and the production could be resumed after just 24 hours.

That way, the evaporator remains operational and its service life is increased.

Repair of an evaporator with WEICON Easy-Mix HT 180 Epoxy Adhesive

An industrial company from Germany was looking for a way to bond roller cones. The rollers serve as guide rails for foils and paper in printing houses.



With the help of a drill and a brush attachment, the inside of the rollers was roughened.



During the starting of the rollers, the adhesive bonds on the cones are exposed to high rotational speed and thus large torsion forces.

These extreme conditions are no problem for WEICONLOCK AN 306-30 and thus, the permanent operation of the rollers is ensured.

In addition, WEICONLOCK AN 306-30 is perfect for the passive material pairing of aluminium and stainless steel and ensures fast curing.



Bonding roller cones with WEICONLOCK® AN 306-30



Next, the roughened surfaces were cleaned with WEICON Surface Cleaner.



Then, it was time for our WEICONLOCK AN 306-30.

Thanks to the ergonomic WEICON Pen-System, the high-viscosity adhesive can be applied precisely and easily.



Do you need help with finding the right adhesive?
Or do you need support for a specific application?
We are happy to help! Feel free to send us your
questions, photos or videos - we are now on
WhatsApp, too!

+49 (0) 251 9322 328
info@weicon.de
+49 (0) 157 92 470 122

We look forward to your applications in **2020!**

WEICON GmbH & Co. KG (Headquarters)

Königsberger Str. 255 · DE-48157 Münster
P.O. Box 84 60 · DE-48045 Münster
Germany
phone +49 (0) 251 9322 0
info@weicon.de

WEICON Middle East L.L.C.

Jebel Ali Ind Area 1
P.O. Box 118 216 · Dubai
United Arab Emirates
phone +971 4 880 25 05
info@weicon.ae

WEICON Inc.

20 Steckle Place · Unit 20
Kitchener · Ontario N2E 2C3 · Canada
phone +1 877 620 8889
info@weicon.ca

WEICON Kimya Sanayi Tic. Ltd. Şti.

Orhan Gazi Mahallesi 16. Yol Sokak No: 6
34517 Hadimköy-Esenyurt · Istanbul
Turkey
phone +90 (0) 212 465 33 65
info@weicon.com.tr

WEICON Romania SRL

Str. Podului Nr. 1
547176 Budiu Mic (Targu Mures) · Romania
phone +40 (0) 3 65 730 763
office@weicon.com

WEICON SA (Pty) Ltd

Unit No. D1 · Enterprise Village
Capricorn Drive · Capricorn Park
Muizenberg 7945 (Cape Town) · South Africa
phone +27 (0) 21 709 0088
info@weicon.co.za

WEICON South East Asia Pte Ltd

7 Soon Lee Street
#01-11 iSPACE · Singapore 627608
Phone (+65) 6710 7671
info@weicon.com.sg

WEICON Czech Republic s.r.o.

Teplická 305
CZ-417 61 Teplice-Bystřany
Česká republika
phone +42 (0) 417 533 013
info@weicon.cz

WEICON Ibérica S.L.

Av. de Somosierra 18, Nave 6
San Sebastián de los Reyes
28703 Madrid · Spain
phone +34 (0) 914 7997 34
info@weicon.es

WEICON Italia S.r.L.

Via Capitano del Popolo, 20
16154 Genova · Italy
phone +39 (0) 010 2924 871
info@weicon.it

www.weicon.com



Management
System
ISO 9001:2015
ISO 14001:2015

www.tuv.com
ID 9108636595



Art.-No. 10907602

www.weicon.com

Any product specifications and recommendations given herein must not be seen as guaranteed product characteristics. They are based on our laboratory tests and on practical experience. Since individual application conditions are beyond our knowledge, control and responsibility, this information is provided without any obligation. We do guarantee the continuously high quality of our products. However, own adequate laboratory and practical tests to find out if the product in question meets the requested properties are recommended. A claim cannot be derived from them. The user bears the only responsibility for non-appropriate or other than specified applications. FSM 10907602/01/20/500