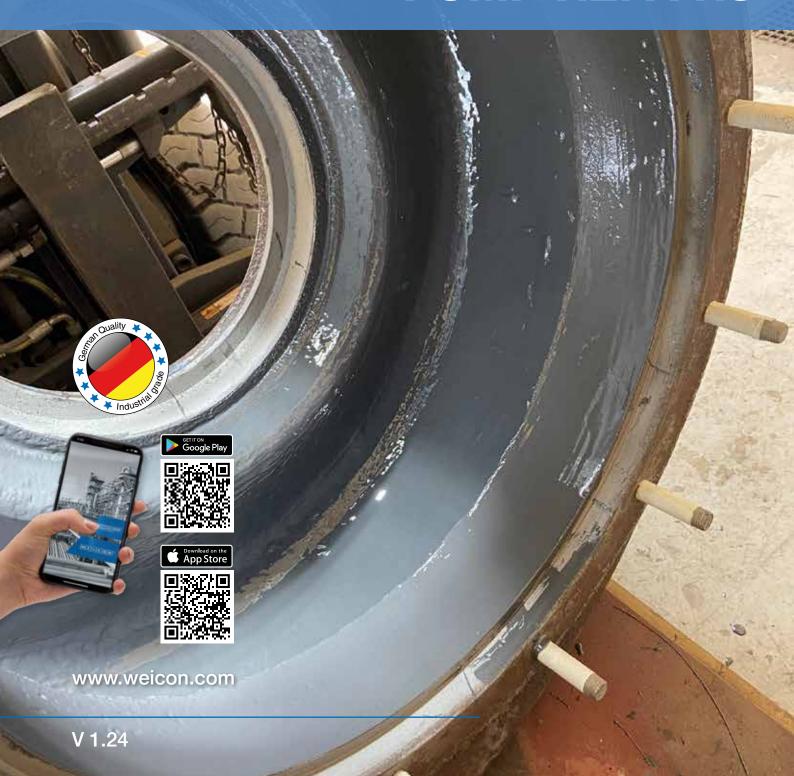






# APPLICATIONS AND PRODUCTS PUMP REPAIRS





The use of protective WEICON ceramic coatings on pumps provides major advantages, such as increased wear and corrosion resistance, improved efficiency, a longer service life and a significant reduction in maintenance costs. Thanks to these benefits, WEICON ceramic coatings offer a valuable solution for the protection of pumps in various industrial applications, ensuring reliable and efficient operation while contributing to overall cost savings and sustainability.

#### **Enhanced Wear & Abrasion Resistance**

The ceramic fillers in WEICON ceramic coatings provide a hard, wear-resistant surface that protects pump components from abrasion caused by fine particles in the pumped fluids.

#### Corrosion & Chemical Resistance

The coating forms a protective barrier against corrosive substances, extending the life of pumps that are operated in aggressive chemical environments. It is effective in protecting against various types of chemical corrosion, including acidic and alkaline media.

#### Improved Efficiency

The ceramic coating creates a smooth surface that reduces friction and turbulence within the pump. This improvement in fluid dynamics can enhance the pump's efficiency, leading to lower energy consumption and better performance.

#### Extended Service Life

By protecting critical components from wear and corrosion, the coating significantly increases durability and extends the service life of pumps. Reduced frequency of maintenance and replacements results in lower overall operational costs.

#### **Reduced Maintenance Costs**

The increased resistance to wear and corrosion means that pumps require less frequent repairs and maintenance. This minimizes downtime, which is particularly beneficial in critical applications where continuous operation is essential.

#### Versatility

Suitable for a wide range of applications, WEICON ceramic coatings can be used on various types of pumps, including centrifugal, split casing, diaphragm and gear pumps. WEICON ceramic coatings are successfully used in many different industries, such as wastewater treatment, chemical processing, mining and oil & gas.

#### **Easy Application**

WEICON ceramic coatings are user-friendly and can be easily applied with basic tools after sandblasting. These protective coatings cure at ambient temperatures, simplifying the application process and eliminating the need for special equipment.

#### **High Temperature Resistance**

Ceramic coatings provide thermal stability and can resist high temperatures, making them suitable for pumps used in elevated temperature environments where other conventional coatings may fail.

#### Improved Reliability

The enhanced protection ensures that pumps operate reliably over longer periods, reducing the risk of unexpected failures. Consistent performance is crucial in maintaining the efficiency and safety of industrial processes.

#### **Environmental Benefits**

Extending the service life of pumps and reducing the need for frequent replacements contribute to sustainability efforts by minimizing waste. Improved energy efficiency owing to reduced friction and wear can lead to lower carbon emissions.



# **Inner coating of pumps**



### Description:

- ► Pre-treatment with sandblasting
- ► Cleaning with WEICON Cleaner Spray S
- ► Repairing the cavitation and corrosion damages with WEICON HB 300
- ► Final coating as wear protection with WEICON Ceramic BL



#### Cleaner Spray S

▶ 500 ml 10000147



▶ 0.2 kg ▶ 0.5 kg ▶ 1.0 kg 10004472 10001084 10000099



▶ 0.2 kg ▶ 0.5 kg 10054394 10000093 10005233

▶ 2.0 kg



# Advantage of our solution:

- ► repairing worn pumps
- ► additional protection for new pumps
- ► cost-effective repair and long service life



# Repair of a pump used in wastewater disposal









### Description:

- ► Clean with WEICON Cleaner Spray S
- ► Sandblast and clean again with WEICON Cleaner Spray S
- ► Apply WEICON HB 300 for the build-up and WEICON Ceramic HC 220 for the final coating



#### Cleaner Spray S

► 500 ml 10000147



#### WEICON Ceramic HC 220

▶ 2.0 kg

10060707

 ▶ 0.2 kg
 ▶ 0.5 kg

 10060702
 10060705



#### WEICON HB 300

► 0.2 kg ► 0.5 kg ► 1.0 kg 10004472 10001084 10000099



# Advantages of our solution:

► fast, low-cost and long-term repair



# Restoration work on a large submersible pump















### Description:

- ► Heavily eroded cast iron on pump
- ► Clean with WEICON Cleaner Spray S
- ► Apply WEICON Rust Converter
- ► Correct the largest damages with WEICON A
- ► After curing, coat with WEICON HB 300
- ► After curing of WEICON HB 300, coat with WEICON GL and finally with WEICON Ceramic BL
- ► The different colours of the two wear protection systems make wear of the coating clearly visible



#### Rust Converter

► 400 ml 10047458



#### Cleaner Spray S

► 500 ml 10000147



► 0.2 kg ► 0.5 kg



#### WEICON HB 300

 ▶ 0.2 kg
 ▶ 0.5 kg
 ▶ 1.0 kg

 10004472
 10001084
 10000099



WEICON GL

▶ 0.2 kg ▶ 0.5 kg ▶



WEICON Ceramic BL

► 0.2 kg ► 0.5 kg ► 2.0 kg 10054394 10000093 10005233



# Advantages of our solution:

- ► function of the pump restored
- ► no new purchase necessary

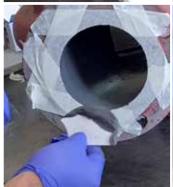


# Maintenance of a pump

















### Description:

- ► Cleaning with WEICON Cleaner Spray S
- ► Filling and levelling the irregularities with WEICON HB 300
- ► Final coating of the pump with WEICON Ceramic BL to protect against further damage



WEICON HB 300

► 0.2 kg ► 0.5 kg ► 1.0 kg 10004472 10001084 10000099



► 0.2 kg ► 0.5 kg ► 2.0 kg 10054394 10000093 10005233



### Cleaner Spray S

► 500 ml 10000147



# Advantage of our solution:

- cost-effective repair compared to a replacement
- ► preventing a long downtime
- ▶ very good abrasion and wear resistance
- ▶ high resistance to substances



# Maintenance of a pump



### Description:

- ► Sandblasting and subsequent cleaning with WEICON Cleaner Spray S
- ► Patching of damaged areas by rebuilding with WEICON HB 300
- ► Grinding and cleaning with Cleaner Spray S
- ► First application of a control coat with WEICON GL
- ► Final coat application with WEICON Ceramic BL





#### Cleaner Spray S

▶ 500 ml 10000147

### **WEICON GL**

▶ 0.2 kg ▶ 0.5 kg ▶ 1.0 kg 10057791 10057714 10057800



▶ 0.2 kg ▶ 0.5 kg ▶ 2.0 kg 10054394 10000093 10005233



# Advantages of our solution:

- ► restoration of their functionality
- ▶ extension of service life
- ▶ avoidance of an expensive new purchase



# **Coating of jet pumps** for sand backfill







### Description:

- ► Two jet pumps were coated with the epoxy resin system WEICON Ceramic HC 220
- ► The pumps are used to build artificial islands in the sea
- ► At the beginning, the contours were restored with Plastic Metal WEICON WR2



Cleaner Spray S

▶ 500 ml 10000147



#### WEICON Ceramic HC 220

▶ 0.5 kg ▶ 2.0 kg 10060702 10060705 10060707



▶ 0.2 kg ▶ 0.5 kg

▶ 2.0 kg 10054401 10000087 10000088

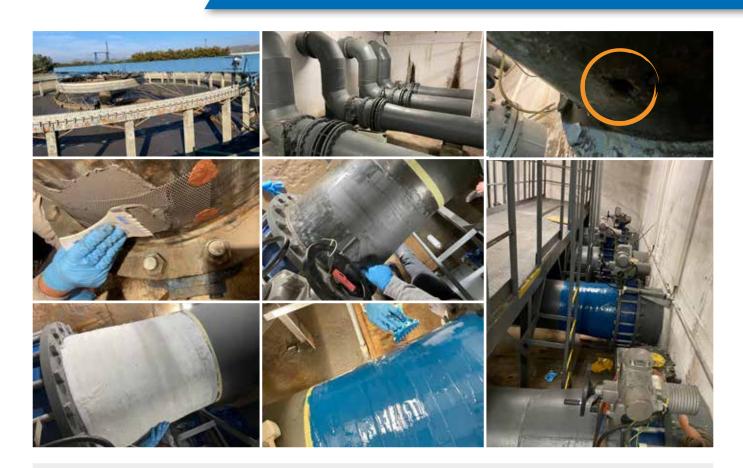


# Advantage of our solution:

- ► increasing the conveyor rate
- ▶ short downtime and fast recommissioning
- ▶ very cost-effective repair and maintenance
- ► durable wear protection
- ▶ long service life despite sand-water mixture



# Repair of sewage pipes



### Description:

- ► Repair of one of the return pipes of the sewage treatment basin was required
- ► The area of damage was located in the pumping station
- ► The diameter of the pipeline is 600/800 mm
- ► Over the years holes from 1 mm to approx. 15 mm have been formed due to corrosion
- ► The repair took five hours



### WEICON Pipe Repair-Kit

**5/15**► 5 cm x 1.5 m
10055737

**5/35**► 5 cm x 3.5 m
10055738

**10/35** ► 10 cm x 3.5 m 10055740

**12/100**► 12 cm x 10 m
10058306

Certified to NSF/ANSI 61

#### Cleaner Spray S

► 500 ml 10000147

### Repair Stick Copper

► 57 g ► 115 g 10006609





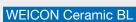
# Advantages of our solution:

- dismantling of the pipe was not necessary for the repair
- ▶ the pipe could be put back into operation after around 24 hours









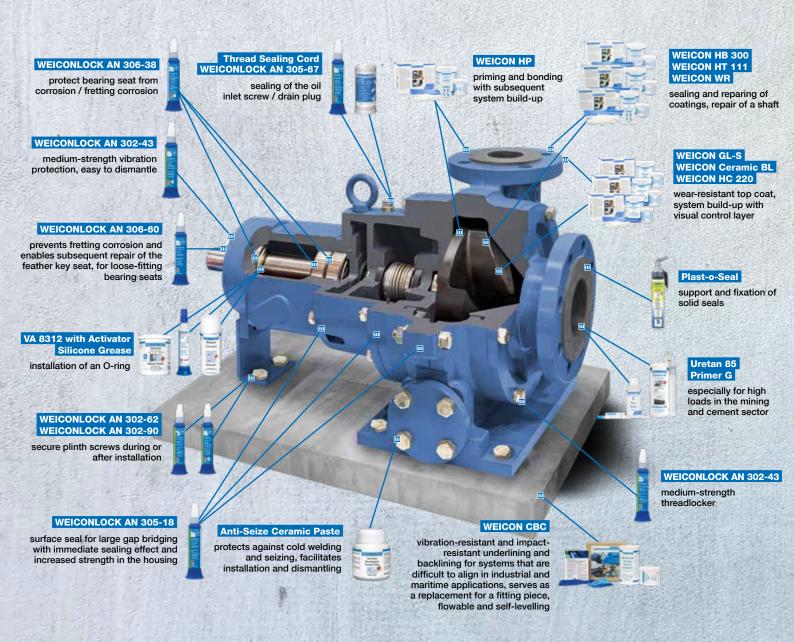
► 0.2 kg ► 0.5 kg ► 2.0 kg 10054394 10000093 10005233





# REPAIR OF A CENTRIFUGAL PUMP

- ► fast and durable repairs
- ▶ bonding
- ➤ coating
- ► gap compensation and filling





# PRODUCT OVERVIEW

Name	Art-Nr.	Content
	10030474	10 ml
AN 302-43 (NSF)	10016419	20 ml
AIV 3UZ-43  DVGV  Interpretation  Interpretati	10017876	50 ml
	10019968	200 ml
	10019899	20 ml
AN 302-62	10017881	50 ml
	10019976	200 ml
AN 302-90	10019905 10017891	20 ml 50 ml
AN 302-90	10017691	200 ml
	10019941	50 ml
AN 305-18 NSF Norfcod Compounds Program Listed \$2 Relations 105/42	10019999	200 ml
AN 305-18 NSF Program Listed 32 Registration 167442		
	10019591	300 ml
AN 305-67	10032101	50 ml
- 111 000 01	10033883	200 ml
	10030478	10 ml
AN 306-38 Econipor	10016443	20 ml
WELCO ohne Mess of the Propins during the Propins d	10017888	50 ml
	10020027	200 ml
	10019955	50 ml
AN 306-60	10020040	200 ml
	10034150	300 ml
	10014387	90 g Tube
	10014388	120 g Brush top can
Plast-o-Seal®	10039427	230 g Presspack
	10014389	300 g Cartridge
Thread Sealing Cord*  WRAS TZW  UL-TESTED	10026655	175 m plastic can
	10018863	12 g <b>P</b>
W 2010	10016432	30 g <b>P</b>
VA 8312	10019793	60 g <b>P</b>
	10000242	500 g <b>F</b>
CA-Activator (NSF) Registrator (NSF) Registrator (NSF) Registrator (NSF) Registrator (1819)	10000282	150 ml
Cleaner Spray S	10000147	500 ml
Rust Converter	10047458	400 ml
Repair Stick (NSF) Certified to NSF/ANSI 61	10010227	57 g
Copper NSF/ANSI 61	10006609	115 g
5/15	10055737	white
5 cm x 1.5 m	10067737 10055738	black white
Pipe (NSF) 5/35 5 cm x 3.5 m	10053738	black
Repair-Kit Contribut to 10/35	10055740	white
NSF/ANSI 61 Facility #1 USA 10 cm x 3.5 m	10067743	black
<b>12/100</b> 12 cm x 10 m	10057026	white

	art-Nr.	Content
10	054394	0.2 kg
WEICON Coramic BL**	000093	0.5 kg
Ceramic BL**	005233	2.0 kg
10	060702	0.2 kg
WEICON Ceramic HC 220**	060705	0.5 kg
	060707	2.0 kg
10	054381	0.2 kg
WEICON A	000003	0.5 kg
	000006	2.0 kg
10	060361	0.2 kg
WEICON GL 10	057714	0.5 kg
10	057800	1.0 kg
10	057791	0.2 kg
WEICON GL-S 🛑 🖫 10	060362	0.5 kg
10	060363	2.0 kg
	054393	0.2 kg
WEICON HP 10	054003	0.5 kg
10	054004	2.0 kg
10	004472	0.2 kg
WEICON HB 300 PABS 10	001084	0.5 kg
10	000099	1.0 kg
10	062982	0.2 kg
WEICON HT 111 PABS 10	062984	0.5 kg
10	062985	1.0 kg
	054400	0.2 kg
WEICON WR	000077	0.5 kg
	000078	2.0 kg
	054401	0.2 kg
	000087	0.5 kg
10	880000	2.0 kg
WEIGON OBC	045020	3.0 kg
Chocking Backing Compound	045019	10.0 kg
- Compound		Ū
Orothano oo	057130 057188	500 g 540 g
Primer G	057199	50 g
10	067867	120 g Brush top can
Anti-Seize Ceramic Paste	067869	450 g Can
10	000208	1.0 kg
10	1000206	Can
10	053151	5 g Tube
10	050566	85 g Tube
(NSF)	050558	450 g
Silicone Grease*	050563	Can 1.0 kg
Topograph with		5.0 kg
10	051113	Bucket
10	051118	25.0 kg Bucket

<sup>\*</sup> BAM tested and safety-related evaluated according to leaflet M 034-1 "List of nonmetallic materials compatible with oxygen" (DGUV information 213-075) of BG RCI

<sup>\*\*</sup> drinking water approval according to BS 6920



