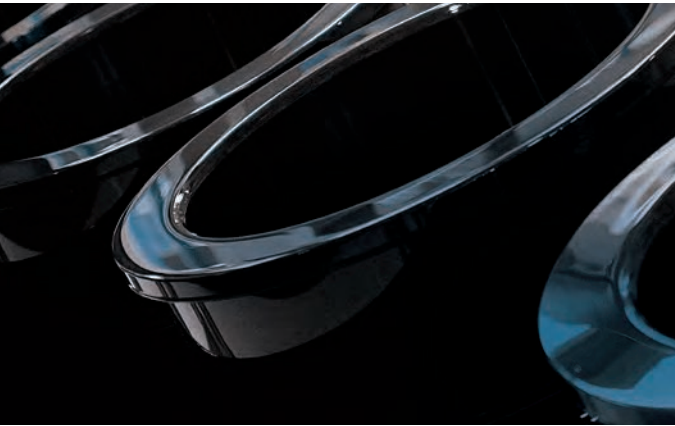




DEWE BRÜNOFIX
SURFACE TREATMENT SINCE 1905

■ Member of **WEISS Unternehmensgruppe.**



SURFACE TREATMENT



PROCESS CHEMISTRY



PLANT ENGINEERING

DEWE BRÜNOFIX GmbH

Germany · Bavaria · Rednitzhembach

www.bruenofix.de



Quality and customer satisfaction



Quality and customer satisfaction in combination with experience and progress are the primary building blocks of our success. They also form the foundation for further development of our more than 115 years of history.

*Ralf Schmidt
Managing Partner*

Our company philosophy is primarily based on quality and customer satisfaction. The name of DEWE Brünofix has stood for black oxidation and phosphate treatment like no other for more than 115 years. We can only sustain this long tradition of surface treatment through consistent quality and the satisfaction of our customers.

Specialist for surfaces

We are a highly specialised company in the field of chemical metal surface treatment. Through a long experience and the unconditional will to constantly improve, we have developed into a leading supplier. Our products, services and equipment are in demand worldwide.

More than 115 years of experience

Our skills and our services are focussed in the fields of chemistry, plant construction and surface treatment. In these areas, our customers benefit from our know-how and the merits of only needing one contact person for all problems – and ultimately from more than 115 years of experience in the field of chemical surface treatment.

Experience and progress



Brünofix was founded in Leipzig in 1905. While originally only chemicals for the black oxidation process were manufactured and distributed, the range of services was soon extended to the manufacturing of vessels and production of chemicals for the black oxidation process.

Our company cherishes more than 115 years of tradition in the treatment of surfaces. Today we produce for our customers worldwide in Rednitzhembach, to the south of Nuremberg

Plant fabricator with the latest technology

After the end of the Second World War, the company's headquarters moved first to Nuremberg and later to Rednitzhembach 20 km away. Since the 70s, DEWE Brünofix has supplied complete plants with the latest technology for chemical surface treatment and, in addition, offers black oxidation, phosphating and stainless-steel colouring in its own fully automated treatment plants.

From product to system provider

In more than 100 years, DEWE Brünofix has matured from a supplier of chemicals to a system provider for surface treatment, plant engineering and process chemistry. Thus, we increasingly see ourselves as a provider of ideas and solutions in the field of treatment of metallic surfaces. Our ambition is to set new standards with innovation, know-how and an understanding of service.



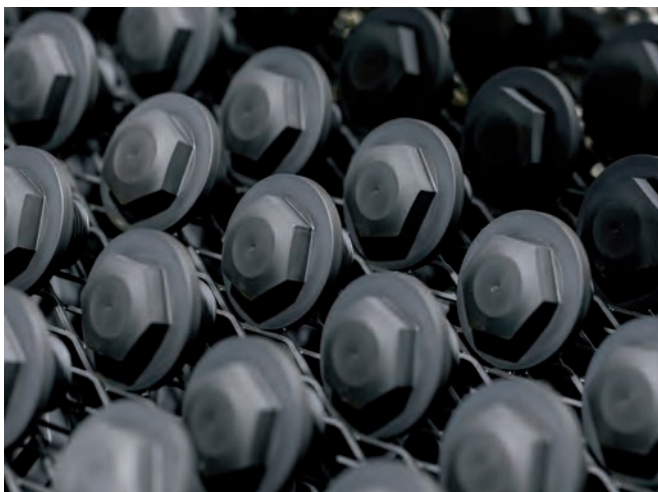
**BLACK OXIDATION
PHOSPHATING
STAINLESS-STEEL COLOURING
SURFACE TREATMENT**

Surface treatment on a contract basis

We can rapidly and reliably carry out the treatment processes black oxidation (ferrous steel and casts), phosphating (zinc and manganese phosphating) and stainless-steel colouring in our computer-controlled fully automated contract treatment plants.

We are specialists for black oxidation, phosphating and colouring processes. The processing of connecting elements, technical springs, components for plant and mechanical engineering as well as for the automotive sector starts with millimetres and can go up to a diameter of 2.30 metres and a unit weight of 1.5 tonnes. And through our patented process for non-destructive testing, we are able to ensure the highest quality. If desired, you can receive the initial sample test reports and acceptance test certificates according to DIN EN 10 204.

Type of surface treatment	Maximum dimensions of the workpieces in mm			
	Standards	Length	Width	Height
Zinc phosphating	DIN EN ISO 9717	1,800	320	500
Manganese phosphating	DIN EN ISO 9717	1,800	320	500
Black oxidation (steel and iron) with pickling	DIN EN 50 938	1,800	320	500
Black oxidation (steel and iron) without pickling	DIN EN 50 938	2,700	450	700
Black oxidation (steel and iron) without pickling: in the envelope process, the height increases to 1,300 mm				
Stainless steel blackening		1,800	320	500
Corrosion resistance testing	DIN EN ISO 9227			
	DIN EN ISO 6270-2			
Tempering	ISO 9587/ISO 9588	850	850	1,340



Skills and proficiencies



Our dedicated team looks after you around our products and for all questions of a chemical and technical nature. We establish our products and procedures at your premises and train your personnel in dealing with hazardous materials, baths, bath analyses and maintenance as well as plant operation.

Problems and solutions

From degreasing through to preservation, we offer the full spectrum of chemical processes. Thanks to our optimised warehousing, for standard products we guarantee a short delivery time of a maximum of two days! Whether spare parts, individual containers or complete plants, DEWE Brünofix is your complete supplier. We can also make the required technology available to you as a cost-effective second-hand version upon request.

In particularly urgent cases, our 24-hour service naturally also has a suitable solution prepared for your emergency.

Disposal

We also support you comprehensively in the disposal of the chemicals required for surface treatment. We organise the transportation and disposal of the remnants from your black oxidation and phosphate treatment baths containing dangerous substances. Environmentally friendly, lawful and cost-effective disposal is guaranteed thanks to our partner in the group of companies, ELZI disposal logistic.

SIVE

BLACK OXIDATION | DYEING
PHOSPHATING
DEGREASING | PICKLING
CORROSION PROTECTION
PROCESS
CHEMISTRY



3H11/Y10/2501/21/



Our chemical product range

Our current chemical product range includes over 300 products around the processes of degreasing, pickling, black oxidising, phosphating, corrosion protection and colourants for stainless steel, brass, copper, nickel silver and die-cast zinc. We develop, produce and market our chemical products around the world and profit from the know-how we have collected over the decades.

Degreasing/pickling

Brünofix Alkalit products

Degreasing for the removal of oils, emulsions, drawing greases and polish residues. From gentle cleaning through to highly alkaline concentrated degreasing agents.

- Simple handling:** base and supplement possible with just one product.
- Flexible:** for hot and cold processes, liquid or in powder form, suitable for ferrous and non-ferrous metals.
- Use:** spraying, immersion, ultrasound

Brünofix Rostalit products

Pickling for the removal of rust, scale and drawing agents. Special pickling agents based on hydrochloric acid, sulphuric acid, phosphoric acid and mixed pickling fluids. Complete pickling agents, i.e. the products already contain surfactants and inhibitors.

- Use:** immersion



Black oxidation/dyeing

Brünofix Brün products

Black oxidation salts for the black oxidation of ferrous and casting materials for visual and corrosion protection purposes in 1, 2 or 3-step procedures, suitable for machine parts, tools, standard parts and weapons technology.

Brünofix colouring products

Special salts and solutions for the chemical blackening of stainless steel, brass and copper, zinc die-casting alloys and nickel silver.

Corrosion protection

Brünofix fluid – water displacer

Ready-to-use products, mostly without fire hazard categories. Washable, giving a very long lifetime. Matt surfaces which can be painted over or oily, shiny surfaces. Thin surface film with excellent corrosion protection properties, ideal for black oxidated or blank metal surfaces.

Brünofix passivations – temporary corrosion protection

For matt surfaces for subsequent coatings (lacquering, powder-coating, etc.) with short-term corrosion protection.

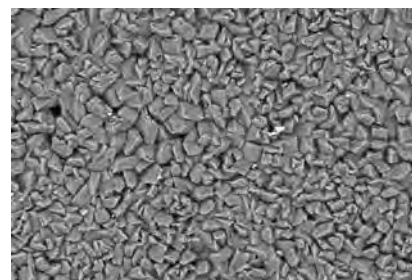
Brünofix Emulsin – rust protection

Variable surface film, depending on concentration, with excellent corrosion protection properties. Matt to slightly shiny surfaces. Best suited for use on phosphated and blank metal surfaces.

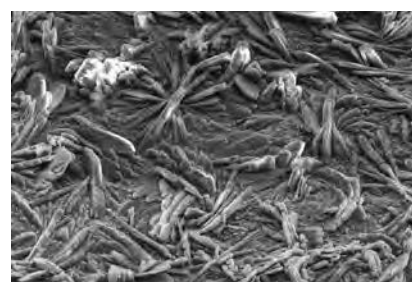
Phosphating

Brünofix Phosphata products

Zinc, zinc calcium and manganese phosphating agents, thin layer for cold forming, for precisions parts, as an adhesion primer for coatings and for improvement of sliding properties. Thick layer as corrosion protection with high abrasion resistance. As a dark layer for the possible substitution of black oxidated layers. Used in spraying and immersion procedures.

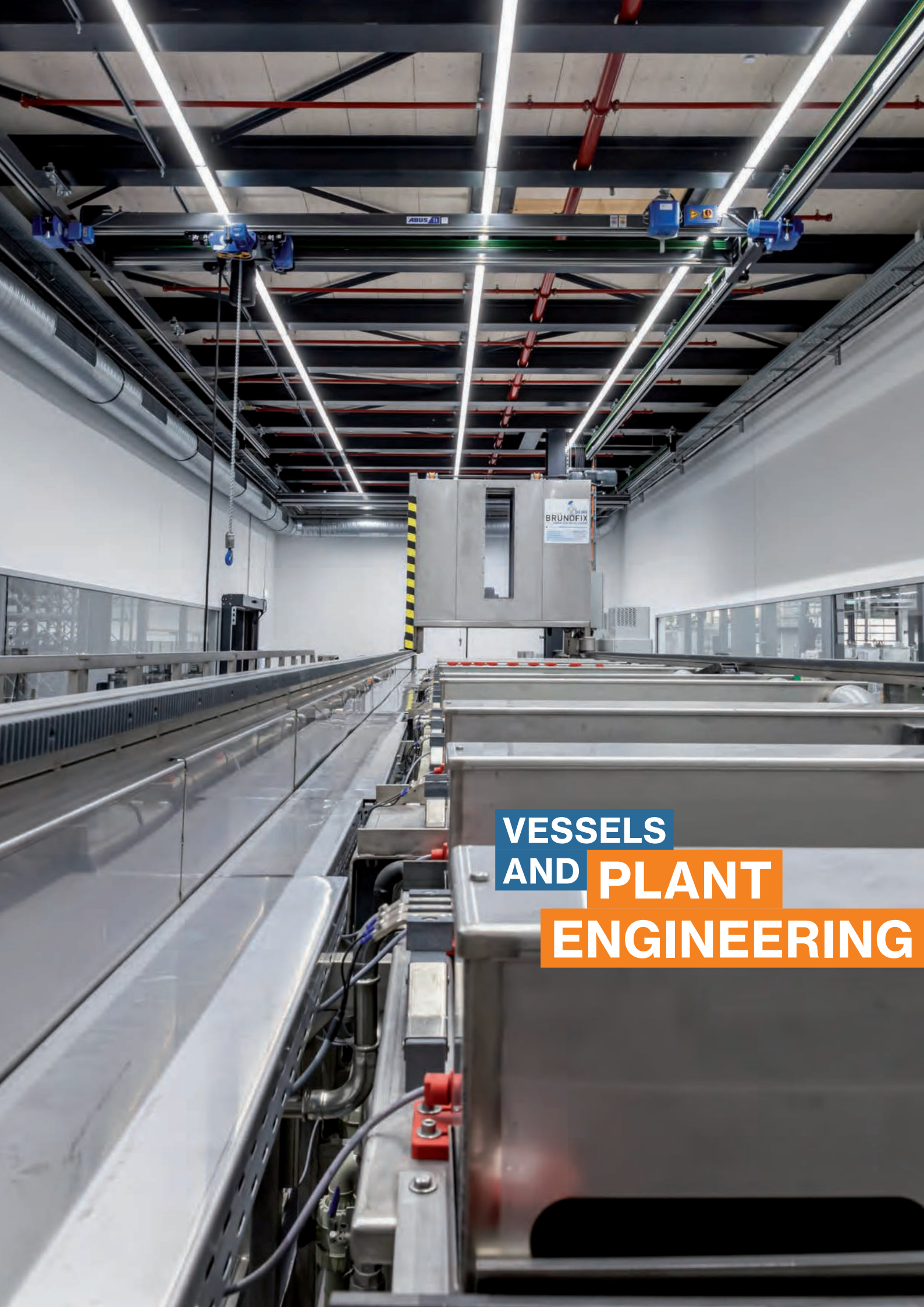


Structure of a manganese phosphating under extreme magnification.



Structure of a zinc phosphating under extreme magnification.





**VESSELS
AND PLANT
ENGINEERING**

Plants and vessels

Individual vessels

Whether heated or unheated, isolated or single-walled, stainless steel or lacquered, with integrated control unit or for connection to a control panel – DEWE Brünofix vessels come in almost any size and variation. Our supply programme also includes accessories such as extraction units, oil separators, baskets of goods, etc.

Compact plants

Ideal for processing small quantities (up to 500 kg per day) cost-effectively on your own premises. All components (incl. exhaust air extraction and cleaning and control box) are integrated into a stainless steel frame in order to guarantee quick and easy installation/start-up as well as a good lasting visual impression. The compact plant covers all the functions and safety features of a „large“ plant in a small space.

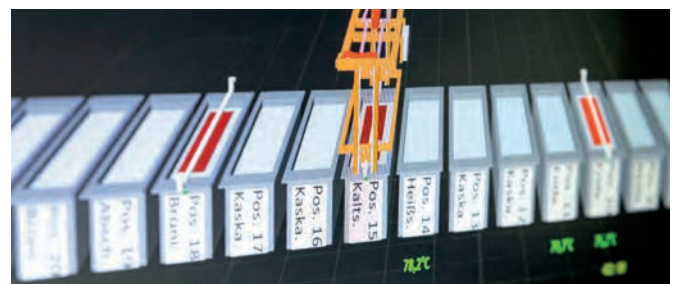
Surface treatment plants with manual or crane-assisted feeding

The widespread plants for the black oxidation, phosphating and dyeing chemical processes (stainless steel, brass and copper) consist of individual containers with a common control cabinet and exhaust air system with exhaust air cleaning with or without a crane.

Plants with fully automated transportation systems

The use of a plant with a fully automated transportation system may be of interest for a high throughput of goods or if reproducible and documentable production processes are required. With our BlackPhos master computer software, we offer you these systems both with pure sequence control and with mixed programme control.

BLACKPHOS
DEWEBRÜNOFIX



DEWE
BRÜNOFIX
SURFACE TREATMENT

■ Member of **WEISS Unternehmensgruppe**.

DEWE Brünofix GmbH
Pruppacher Weg 8
91126 Rednitzhembach
Germany

Phone +49 9122 98 68-100
Fax +49 9122 98 68-130
Email info@bruenofix.de
Web www.bruenofix.de

