

# WEAR PARTS FOR DREDGING AND EXCAVATION

GOOD QUALITY WILL LAST!

We also deliver ready-to-install dredger buckets with sleeves already pressed in (either provided by the customer or produced by Friesische Verschleißtechnik GmbH, our partner for steel works and specialised mechanical engineering).

## Dredger buckets

The sheet metal parts are formed hot using specialised tools. The hot-forming process minimises internal stress, which is an important factor for cracking/tearing in structural components.

We only use sheet metal made by German manufacturers with test certificate according to DIN EN 10204 - 3.1.B.

## Production methods

In order to stick to narrow ranges of tolerance and ensure the smooth operation of the finished bucket chain, all components of the dredger buckets are assembled on specialised mounting devices.

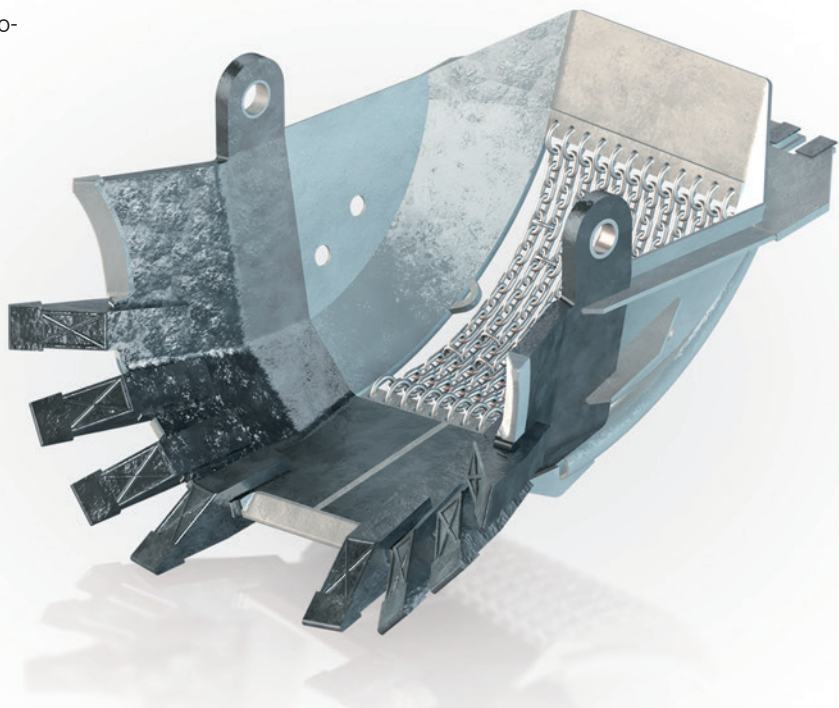
In order to avoid tension cracks and deformations due to internal stress, all dredger buckets are fully stress-relieved after the welding process.

Welding seams under particularly heavy load are checked for cracks using special ultrasound and dye penetrant testing.

## Construction with 3D CAD systems

All components, assembly groups and tools are constructed using a 3D CAD system. We pay particular attention to perfect welding seams, in order to minimise crack formation and to improve force transmission. Based on our long-standing experience in manufacturing wear parts, we recommend a fine-grained boron-alloyed steel, which we temper to reach a strength of up to 1400 N/mm<sup>2</sup>.

Thanks to this quality material, our edges have a consistently high strength right down to the core.



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Thanks to over 90 years of experience and our expert knowledge in conveyor systems, we are able to provide you with customised and perfectly adapted solutions for any task.

## Good quality will last!

All components are designed and drawn in a 3D CAD system, and the shapes and materials are adapted perfectly to the individual requirements in each situation. This is why our forged and welded wear parts for dredging and excavation will work perfectly and last even under most extreme conditions:

- bolts, bushings, sliding bases
- chain links, teeth
- complete dredger buckets for chain-and-bucket excavators and bucket-wheel excavators

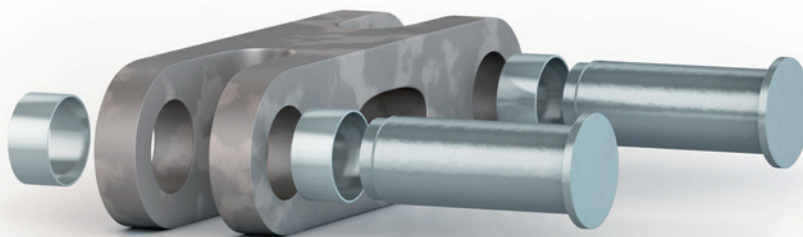
All parts are forged, welded and tempered to meet highest expectations and guarantee long-term functionality and reliability.

## Chain links

For our chain links we use only sheet metal made by German manufacturers with a test certificate according to DIN EN 10204 – 3.1.B.

The contours are cleanly flame-cut, and the drilled holes are finished mechanically. In addition to that, intermediate links are fully stress-relieved after the welding process, in order to avoid cracking and deformations.

Just like the dredging buckets, the tread areas of our chain links are protected by a highly wear-resistant layer containing titanium carbide. The links can also be delivered pre-finished with sleeves pressed in.



## Sleeves

We use rolled, calibrated and heat-treated sleeves made by our partner Friesische Verschleißtechnik GmbH. The intended material is special quality manganese hard steel.

The ends are parallel and abut each other, and one side is chamfered for easier assembly. Calibrating the sleeves after the rolling process guarantees a tight fit, so that sleeves will not be pushed out of the drilling under load.



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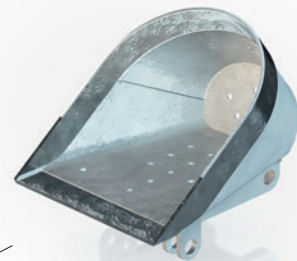
GOOD QUALITY WILL LAST!

The material used for our dredger buckets is easily weldable due to its low carbon content. The edge is available as a separate spare part. The tread area is covered with an extremely wear-resistant layer. The armouring wire contains titanium carbide, which provides very high resistance to abrasive wear.



## **BW - 560**

- bucket-wheel excavator
- coal mining



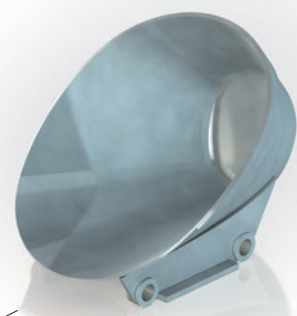
## **BC - 100**

- chain-and-bucket excavator
- dredging



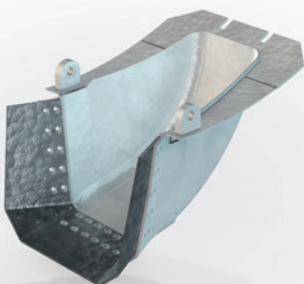
## **BW - 1730**

- bucket-wheel excavator
- limestone surface mining



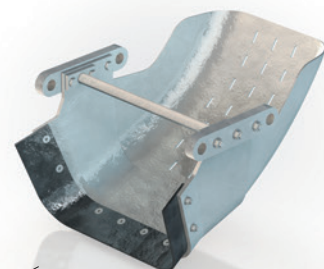
## **BC - 575**

- chain-and-bucket excavator
- dredging



## **BW - 390**

- bucket-wheel excavator
- waste transportation



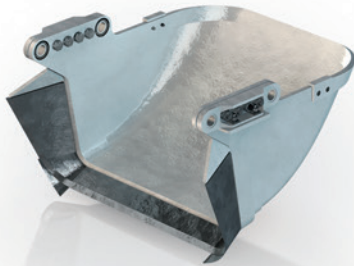
## **BC - 540**

- chain-and-bucket excavator
- dredging

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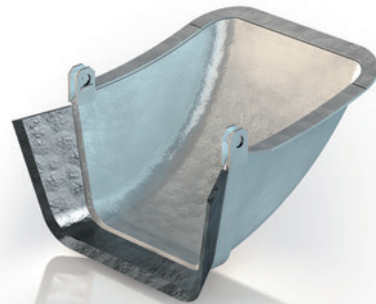
GOOD QUALITY WILL LAST!

We offer specifically manufactured and highly precise buckets for bucket-wheel or chain-and-bucket excavators for different operating ranges, e.g. opencast mining.



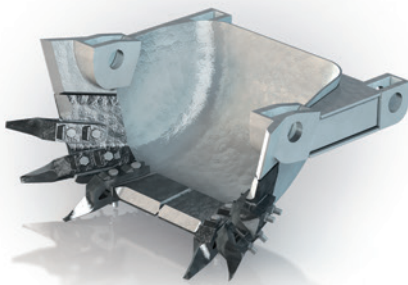
## **BC- 330**

- chain-and-bucket excavator
- dredging



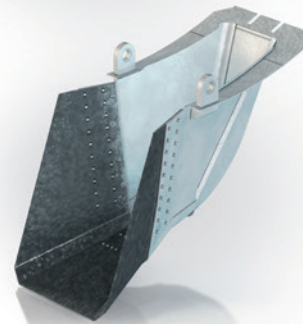
## **BW - 200**

- bucket-wheel excavator
- stockpile production



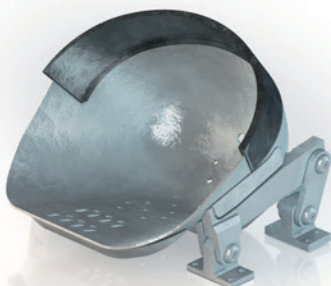
## **BW - 570**

- bucket-wheel excavator
- opencast mining



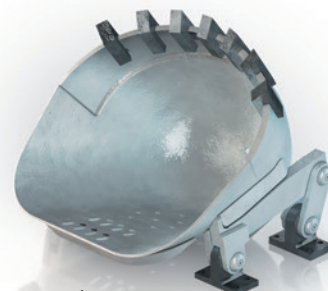
## **BW - 1600**

- bucket-wheel excavator
- stockpile production



## **BC - 220**

- chain-and-bucket excavator
- dredging



## **BC - 255**

- chain-and-bucket excavator
- dredging