



INNOVATIVE SUPPLY FOR MINING AND RECYCLING  
MADE IN GERMANY

Dear Business Partner,

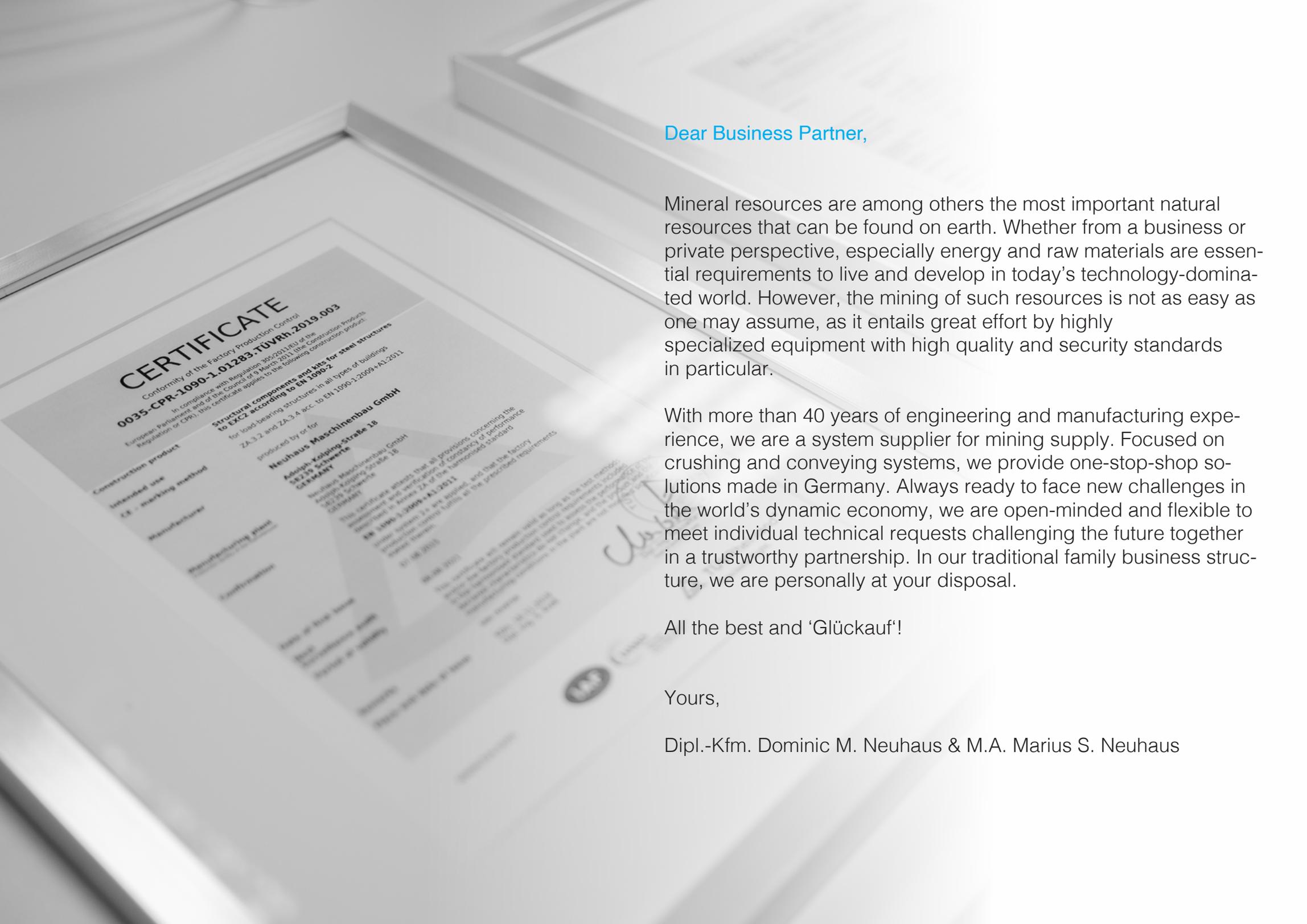
Mineral resources are among others the most important natural resources that can be found on earth. Whether from a business or private perspective, especially energy and raw materials are essential requirements to live and develop in today's technology-dominated world. However, the mining of such resources is not as easy as one may assume, as it entails great effort by highly specialized equipment with high quality and security standards in particular.

With more than 40 years of engineering and manufacturing experience, we are a system supplier for mining supply. Focused on crushing and conveying systems, we provide one-stop-shop solutions made in Germany. Always ready to face new challenges in the world's dynamic economy, we are open-minded and flexible to meet individual technical requests challenging the future together in a trustworthy partnership. In our traditional family business structure, we are personally at your disposal.

All the best and 'Glückauf'!

Yours,

Dipl.-Kfm. Dominic M. Neuhaus & M.A. Marius S. Neuhaus





Dipl.-Kfm. Dominic M. Neuhaus  
Managing Shareholder



M.A. Marius S. Neuhaus  
Managing Shareholder

# QUALITY

Our mining equipment is characterised by high quality standards that will enhance your process reliability. The combination of qualified experts and certified skilled workers, modern machinery and the usage of high quality in materials, ensure top level process standards to meet all product requirements. On this basis, we are proud to be a worldwide active system supplier for well-known middle-sized and concern companies.

## GOAL

Our company has set its goal to utilizing our full potential by constantly scrutinizing and optimizing our competitiveness in order to achieve a maximum degree of customer satisfaction.

## PHILOSOPHY

Our strengths are a result from longtime professional experience paired with profound knowledge in mechanical processing. Combined with a high degree of flexibility and resilience, we do our best to fulfill our customers' requirements by offering a convincing product quality.

## VISION

Our vision is based on our goal to continuously maintain and improve our competitiveness in order to achieve high dynamics. Furthermore, by strengthening and securing our human capital in the long run, we can ensure a certain level of consistency. Additionally, investing in modern processing technology, enables us to develop and retain young qualified employees and therefore pave the way for a prosperous future.





## REGISTRATION CERTIFICATE

This document certifies that the administration systems of

### NEUHAUS Maschinenbau GmbH

Adolph-Kolping-Str. 18-20, 58239 Schwerte

Have been assessed and approved by QAS International GmbH to the following management systems, standards and guidelines:

### ISO 9001:2015

The approved administration systems apply to the following:

The company NEUHAUS Maschinenbau GmbH based in Schwerte, offer their worldwide customers the development and manufacture of components for the extraction and processing of solid energy and element raw materials.

Original Approval: 17<sup>th</sup> December 2014  
Current Certificate: 17<sup>th</sup> December 2020  
Certificate Expiry: 17<sup>th</sup> December 2023  
Certificate Number: GM2512

Signed:

On behalf of QAS International GmbH

This certificate remains valid while the holder maintains their administration systems in accordance with the standards and guidelines stated above, which will be audited annually by QAS International GmbH. The holder is entitled to display the above registration mark for the duration of this certificate, which should be returned to QAS International GmbH upon reasonable request.  
Issuing Office: QAS International GmbH, Königsallee 92a, 40212 Düsseldorf, HRB 89918



ZERTIFIKAT  
CERTIFICATE CERTIFICAT CERTIFICADO CERTIFICAT

## SCHWEISSZERTIFIKAT NACH DIN EN 1090

DIESES SCHWEISSZERTIFIKAT IST EINE ANLAGE ZUM ZERTIFIKAT NR. **2499 - CPR - 0121083-00-01** ÜBER DIE KONFORMITÄT DER WERKSEIGENEN PRODUKTIONSKONTROLLE UND IST NUR IN VERBINDUNG MIT DEM GENANNTEN ZERTIFIKAT IM GELTUNGSBEREICH DER BAUPRODUKTENVERORDNUNG GÜLTIG.

HERSTELLER:	<b>NEUHAUS MASCHINENBAU GMBH</b> ADOLPH - KOLPING - STRASSE 18 D - 58239 SCHWERTE
MASSGEBENDE BETRIEBSSTÄTTE:	WIE VORSTEHEND GENANNT
TECHNISCHE SPEZIFIKATION:	EN 1090-2:2018-09
BAUPRODUKT(E)	STAHLTRAGWERKE UND BAUSÄTZE BIS EXC3 NACH EN 1090-2
SCHWEISSPROZESS(E):	135 - MAG - METALL- AKTIVGASSCHWEIßEN 138 - MAG - FÜLLDRAHTSCHWEIßEN
GRUNDWERKSTOFF(E):	S235, S275, S355 NACH EN 10025-2 S4600, S5000, S5500, S6200, S6900 NACH EN 10025-6
VERANTWORTLICHE SCHWEISSAUFSICHT:	ARMIN PHILIPP WEINRICH GEB. 17.05.1979 SCHWEIßTECHNIKER/IWT (DVS/IW)
VERTRETER:	N.N.
GÜLTIGKEITSBEGINN:	07.08.2021
NÄCHSTE ÜBERWACHUNG:	06.08.2024 (VOR-ORT-INSPEKTION)
ZERTIFIKATS-NR.:	<b>SCH 0121083-00-01</b>
ANMERKUNGEN:	INNERHALB DEUTSCHLANDS SIND DIE JEWEILS GÜLTIGE BAUREGELLISTE UND DIE ZUGEHÖRIGE ANPASSUNGSRICHTLINIE STAHLBAU ZU BEACHTEN.

Bonn, 30.09.2021

Dipl.-Ing. René Lövenich  
Leiter der Zertifizierungsstelle

# MADE IN GERMANY



Located in the heart of the Ruhr Area, the hot spot for steel production and processing in Europe since the 19th century, NEUHAUS benefits from an excellent infrastructure network regarding logistic and supply chain.

We are able to source high quality material from local producers and our certified hardening companies are located nearby. The central position in Europe enables us to participate from a close network to ship by sea, air or train easily.

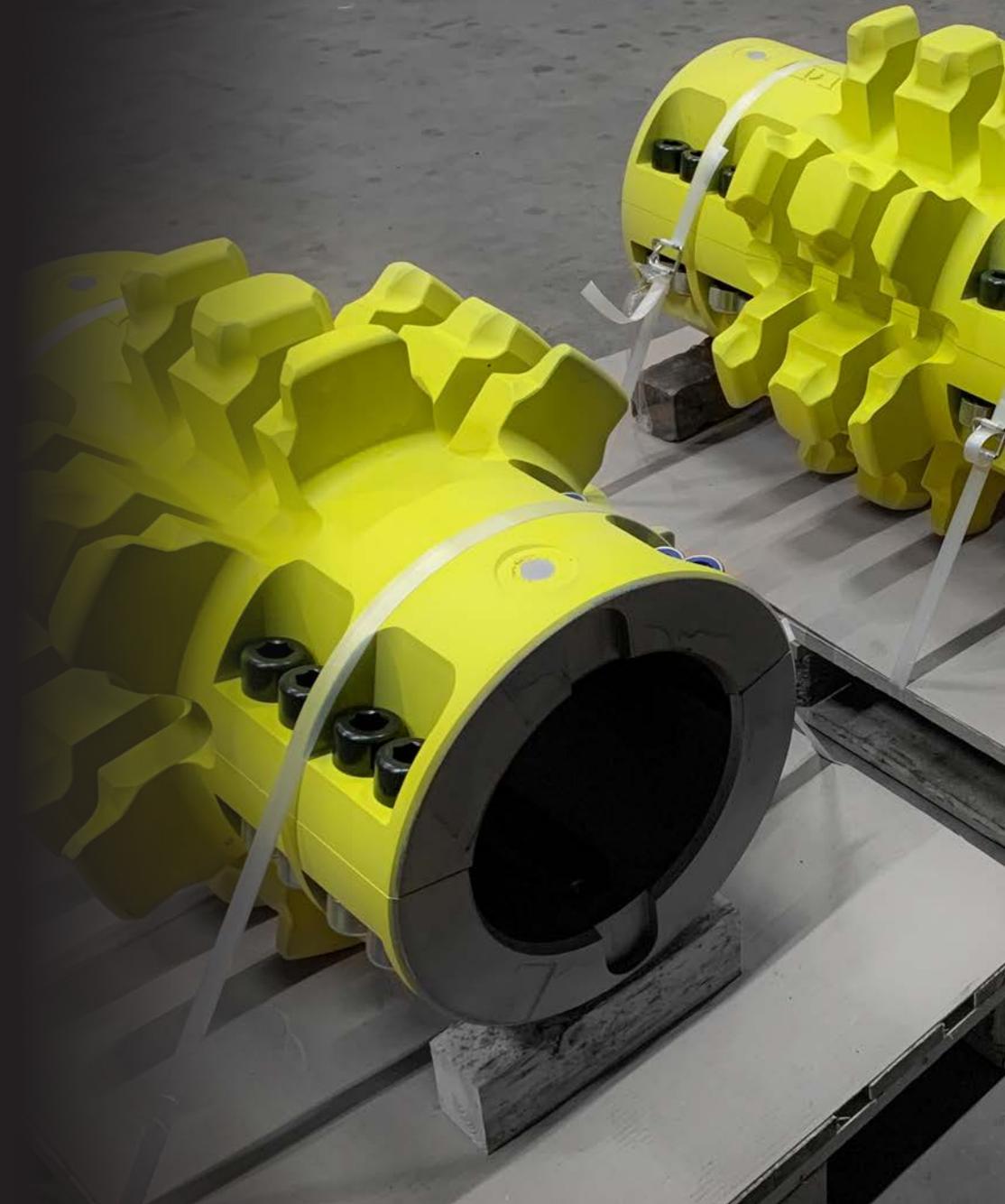


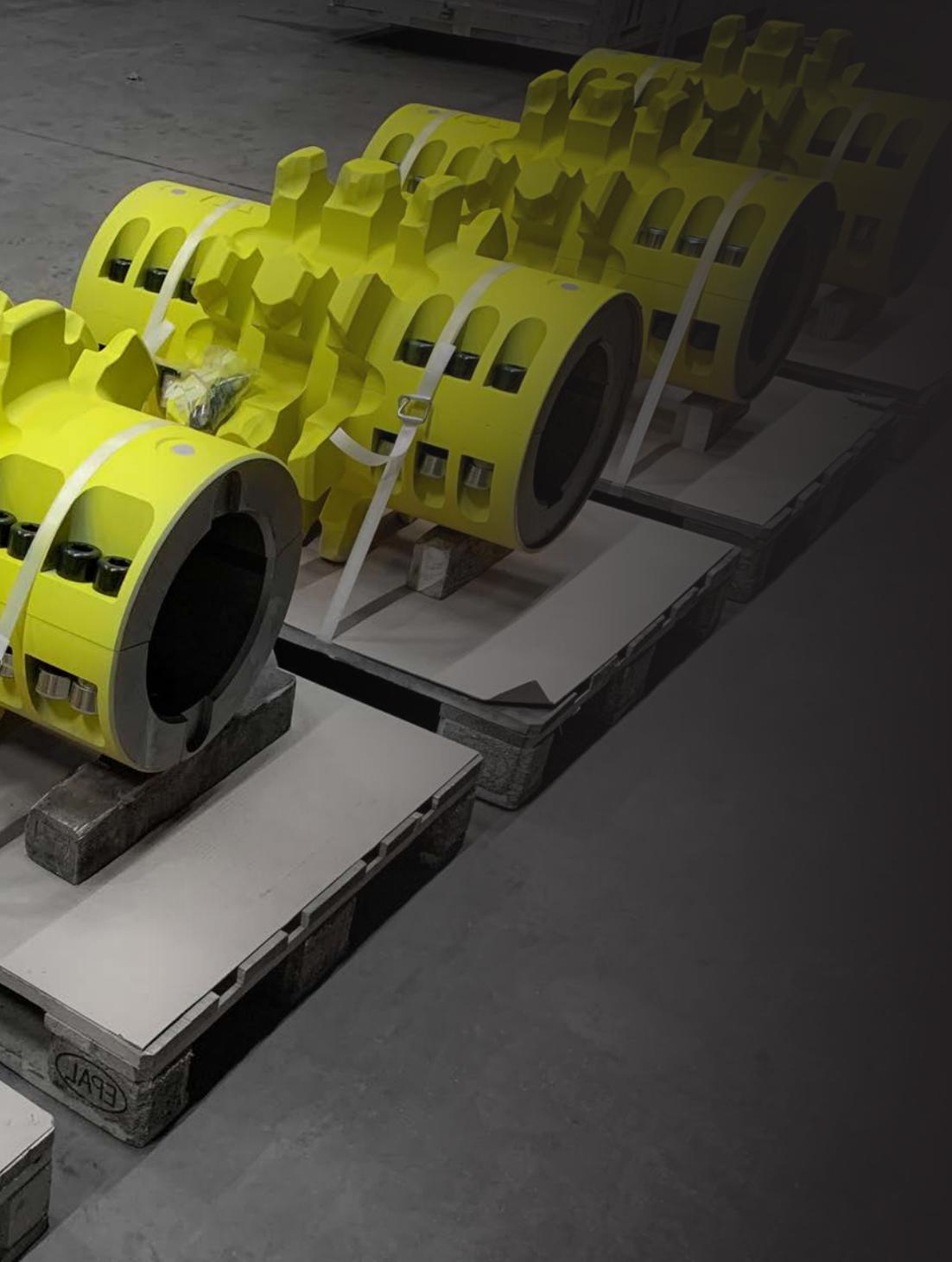


# SPROCKETS

Our core competence with the most extensive experience are Sprockets for Mining, whether it is for hard rock, ores, coal or else. When it comes to manufacture sprockets out of a solid billet, there is no company else which has this massive diversity and know-how for customized sprockets in consideration of the scope of application, geometry and of course compatibility with chains. NEUHAUS Sprockets are manufactured to the highest quality level and designed to fit the customers' conditions at the mine site. Whereas serial produced sprockets

are mainly made from a high degree of standardization the important properties are often neglected. Therefore, we develop sprockets different for each customer because each customer is faced with different conditions. Considering the chemical and structural composition of the material to be conveyed, the location of the mine site and the integration in the higher-level of the whole conveying system requires an individual product and not a standard catalogue item. Also aligned to the geometry of the specific chain in use, we develop a perfect pitched pair.





## QUALITY ATTRIBUTES

- + individual geometry
- + usage of forged solid billet material
- + consideration of chain, flight bar and material to be conveyed
- + integration in the higher-level system of the mine site
- + CC Shape for perfect chain pitch

## QUALITY BENEFITS

- = highest quality level
- = highest degree of effectiveness
- = full usage of existing potential

reference for customized drive sprockets for round steel chains according to DIN 22252

NEUHAUS provides smart solutions and innovative products for chain conveying systems in collaboration with JDT chains. With our focus on customization, customers can choose between adapting our products to existing systems or collaborating with us to develop new projects.




JDT - Postfach 18 20 - D-58213 Schwerte

**To all who are concerned**

Dear Sirs,

we hereby confirm the collaboration with NEUHAUS as a well-known manufacturer of sprockets. The latest innovation of NEUHAUS' N-Force Sprocket Series, a new approach for innovative and high performance mining, matches the high quality level of JDT products.

We therefore recommend using NEUHAUS sprockets along with JDT chain to achieve the best results for mining.

Mit freundlichen Grüßen/ best regards

J. D. Teile GmbH & Co. KG  
i. V. Alfred Weigel  
Vertriebsleitung/Head of sales  
Authorised Agent




J. D. Teile GmbH & Co. KG

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Vollständiger MwSt.-Nr. 4433  
Vollständiger MwSt.-Nr. 4433

Betriebsleitung  
Commerzbank AG  
Sparkasse Schwerte  
Deutsche Bank  
Postbank  
Volksbank Dortmund

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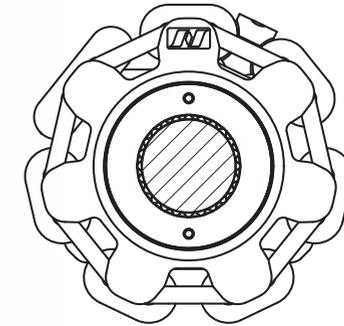
AGGS





reference for customized drive unit system 2x42x146-7T

**CUSTOMIZED SPROCKETS  
FOR STANDARD MINING CHAINS  
ACCORDING TO DIN 22252**



<b>Chain size d x t</b>	<b>Teeth T</b>
18 x 64	5 - 8
22 x 86	5 - 8
26 x 126	5 - 8
30 x 108	5 - 7
34 x 126	5 - 7
38 x 126	5 - 7
38 x 137	5 - 7
42 x 137	6 - 7
42 x 144	5 - 7
42 x 146	5 - 7
48 x 122	6
48 x 152	7
48 x 156	6 - 7
48 x 144 / 160	5 - 8
52 x 127 / 170	6 - 7
56 x 142 / 182	6 - 8
60 x 181 / 197	7
64 x 168	6

reference for customized drive sprocket 52x127/170-7T



48 x 1 1/4 x 160

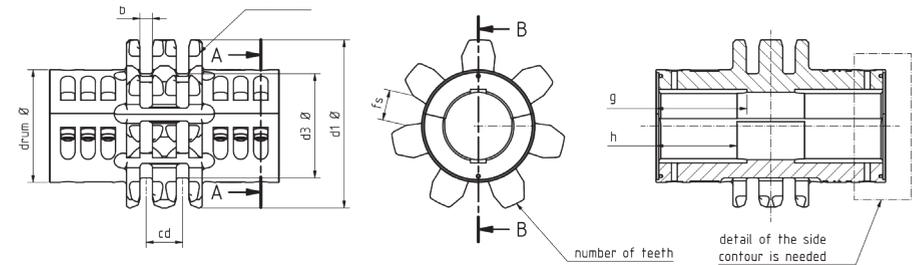
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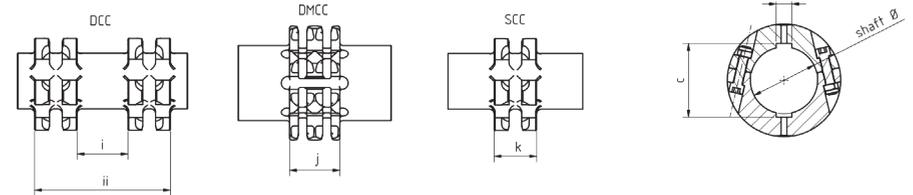
## CUSTOMIZATION IN LINE WITH DIN STANDARDS

Customizing a sprocket means creating the perfect product by selecting the best available material with ideal geometry and heat treatment to fulfill the customer's individual needs and matching the conditions at the mine site.



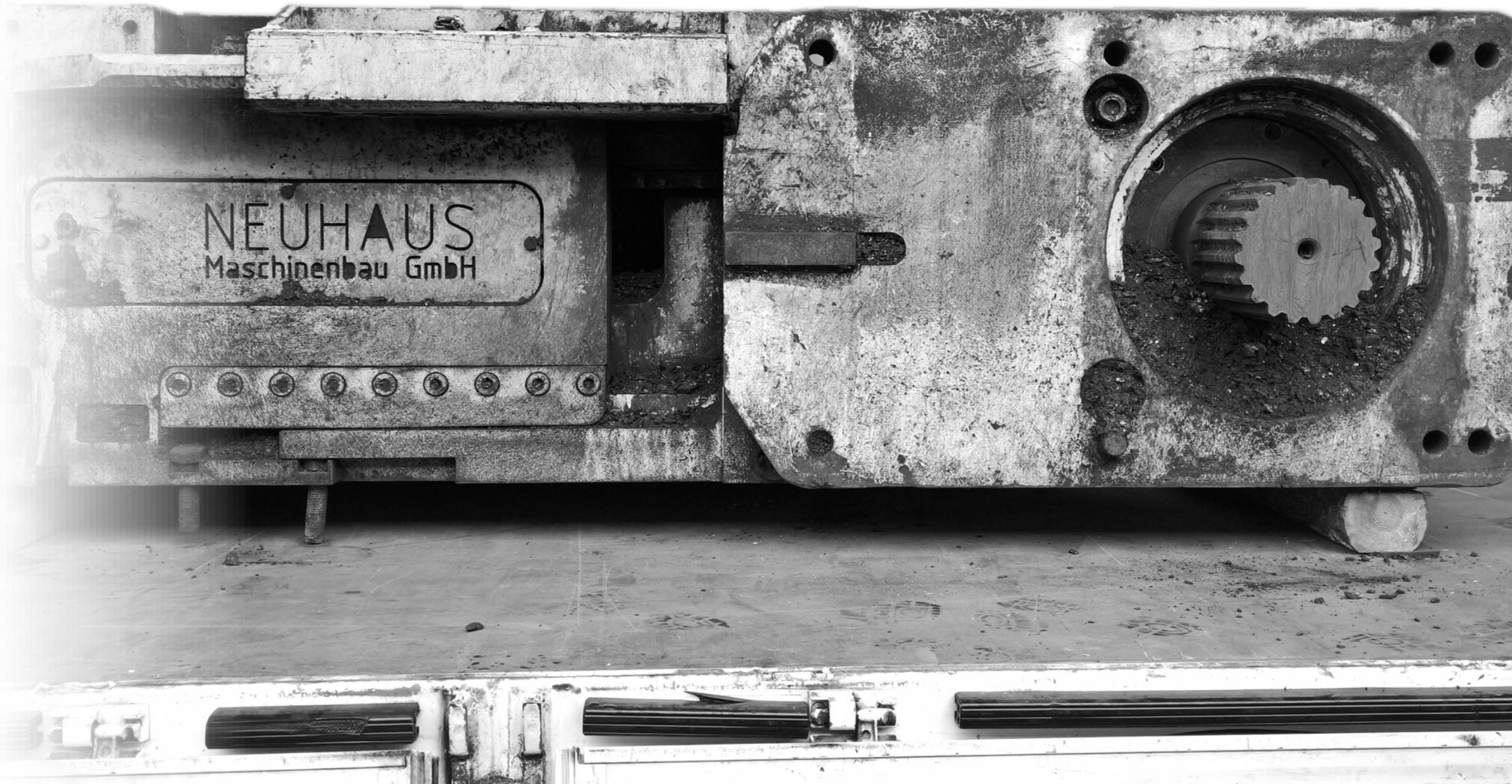
please mark type of sprocket Double Chain Conveyor / Double Middle Chain Conveyor / Single Chain Conveyor

A-A ( 1 : 10 )



## PROVEN REFERENCE

From a retrospective view NEUHAUS mining equipment is well experienced over decades within the German Mining Era by RAG AG - worldwide known and appreciated.





reference for customized sprocket 8x30x108-7T made out of one solid billet

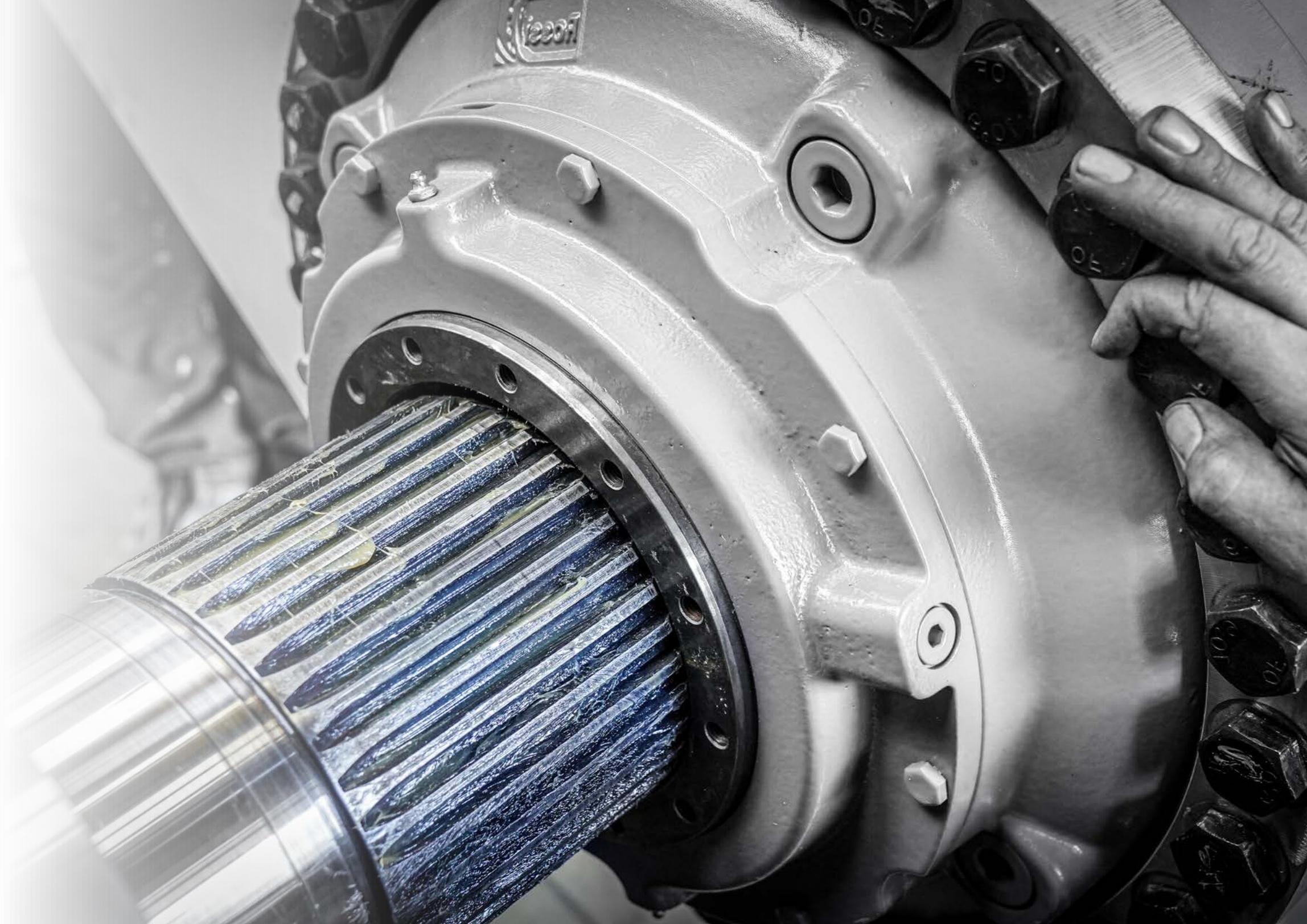
DEMAG 8t



# ASSEMBLIES

A close-up, black and white photograph of a mechanical assembly. The central focus is a curved metal ring with several engraved markings: 'SKF' at the top, '2244 EC' below it, 'GERMANY' in the middle, and '22 273 S' at the bottom. To the left, a series of small, circular components, likely bearings or rollers, are arranged in a curved line. The background is dark and out of focus, emphasizing the metallic textures and precise engineering of the parts.

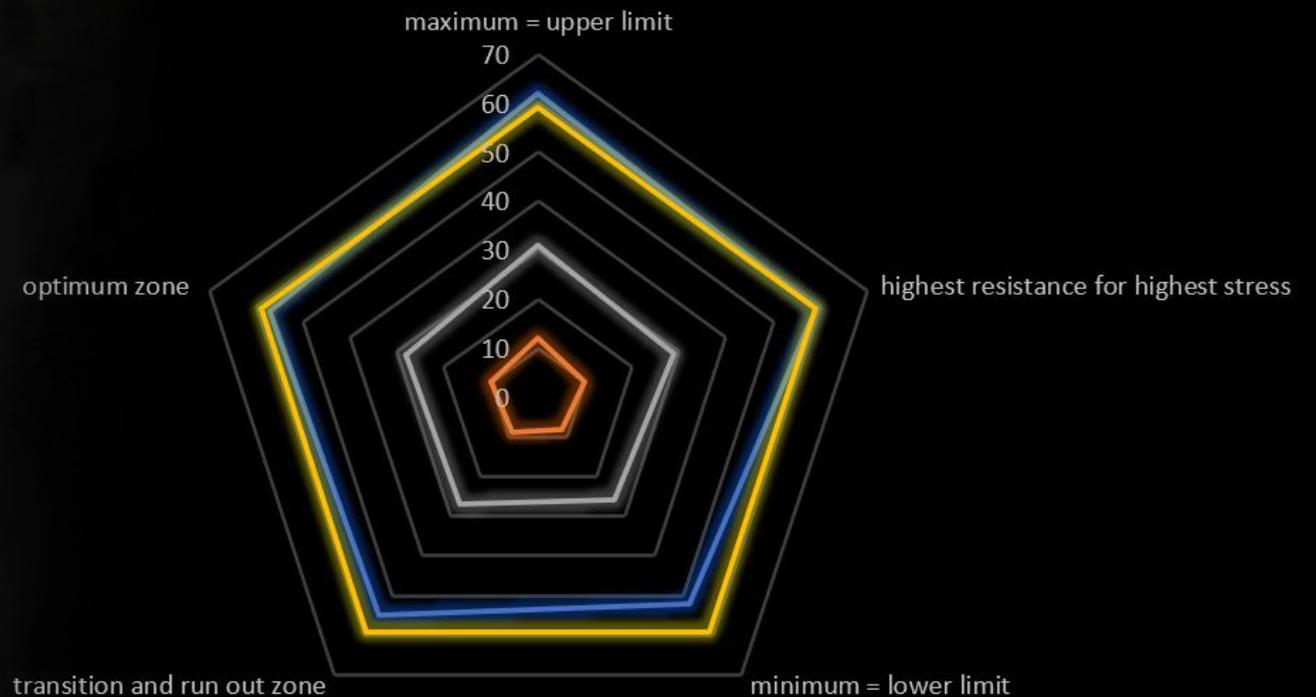
To ensure maximum life-time, our equipment is customized designed and manufactured according to careful selection of technical specifications and materials. In line with an external certified DIN EN ISO 9001:2015 Quality Management System the design and the manufacture is quality- and safety-oriented, and corresponds to the state of the art.



# TREATMENTS

## Heat Treatment & Hardening Characteristic of Sprockets Material 1.7225 42CrMo4+QT

- permissible course and tolerance of surface layer hardness 53-62 HRc
- permissible depth of hardening zone 8-12mm
- permissible course and tolerance of tempered core hardness 26-31 HRc
- theoretical course of ideal surface layer hardness 59 HRc



## THE HEAT TREATMENT

The most important hardening process in the heat treatment is the transformation of steel from austenite into martensite structure by heating and quenching. The steel structure changes its properties to a hard and brittle but finer structure and then needs to get heat treated again to gain more tensile strength and toughness.

In a second step, the so-called tempering, the hardness will be reduced and the required properties (hardness, tensile strength and toughness) of the steel will be set. Therefore the steel is heated again to create the desired hardness in use, depending on the alloy content and desired properties, of course.

### TEMPERING

The highest toughness is achieved when the hardness structure consists of martensite, which is only possible to a limited extent with larger cross-sections. As a consequence, NEUHAUS Sprocket cores are always tempered to a level above the standard.

### INDUCTIVE HARDENING

In the inductive hardening process, special inductors, which are adapted to the component conditions, are used to heat the component partial and precise. The heating creates a magnetic field which induces eddy currents in the edge zone of the component.

The inductive hardening process is computer controlled in such a way that the surface of the components is heated until the desired hardening temperature is reached and ready to quench.

### CERTIFIED QUALITY STANDARDS

NEUHAUS is only operating with hardening companies which are certified by our Quality Managers and experienced in Mining Equipment.



# ROTORS



## CUSTOMIZATION

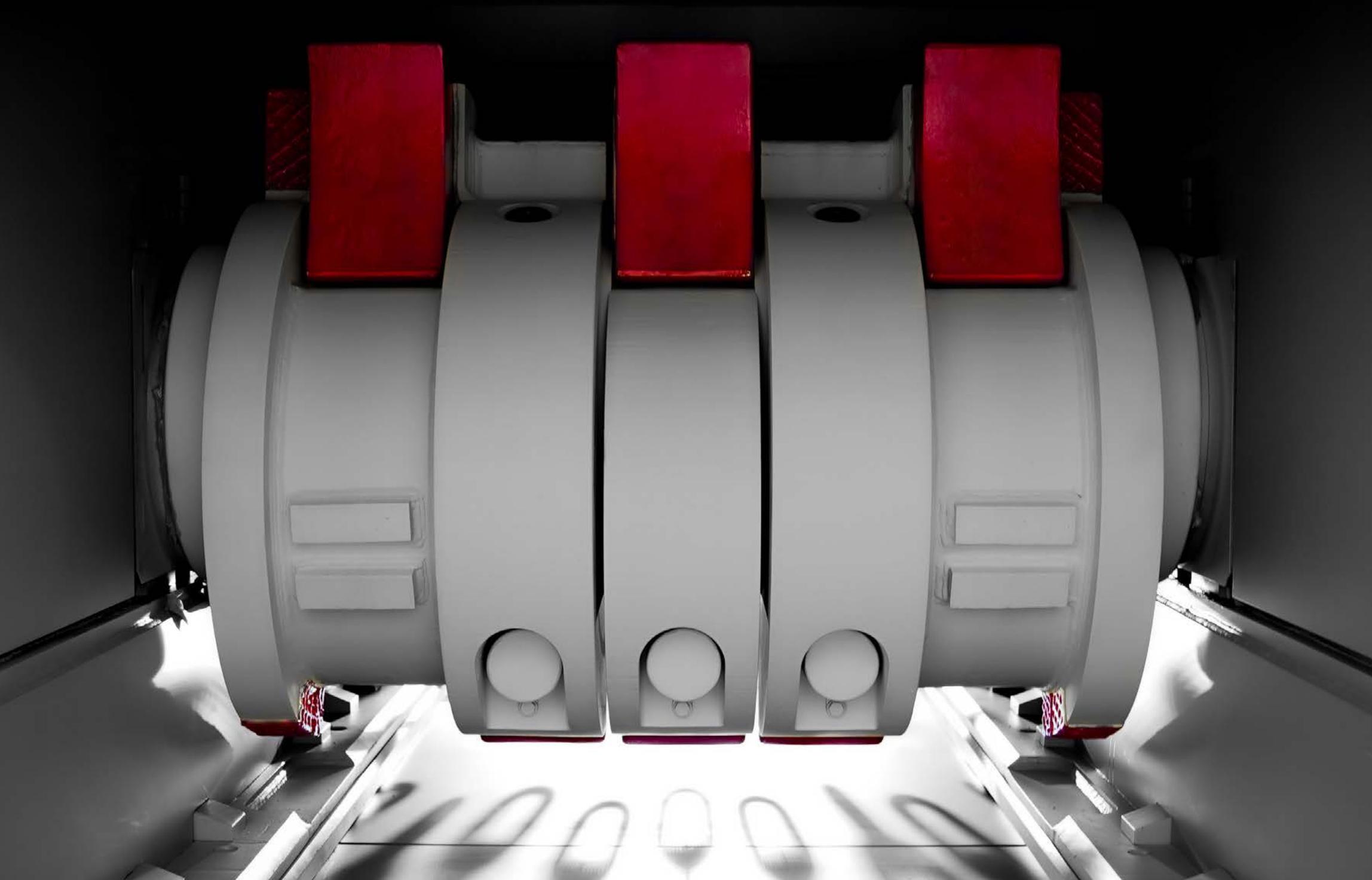
Individual customer conditions require tailored products for running optimized processes and thus in the main goal to save time and money.

We are a manufacturer of and supplier for horizontal and vertical oriented crushing solutions for all kind of materials to exactly meet the customers' individual conditions (e.g. materials to be crushed, throughout performance, match of dimensions to individual requirements, drive situation, usage of right tooling, and many more).



reference for customized vertical rotor in recycling industry

reference for customized horizontal rotor for mining industry



## QUALITY ATTRIBUTES

- + proven product experience
- + ultra-wear resistant tooling
- + security-locksystem for tooling
- + resisting abrasive wear
- + customized engineering

## QUALITY BENEFITS

- = adaptability
- = supporting a reliable work flow
- = increasing output and productivity
- = meeting individual / local conditions
- = longer life-time
- = saving set-up and assembly times
- = less standstill
- = increasing service life
- = high endurance results in economic efficiency

reference for customized horizontal rotor for mining industry

# HEAVY ENGINEERING



We are equipped with a wide range of modern machinery to provide  
precised mechanical processing for heavy engineering components.

reference for raw forged steel block 14to

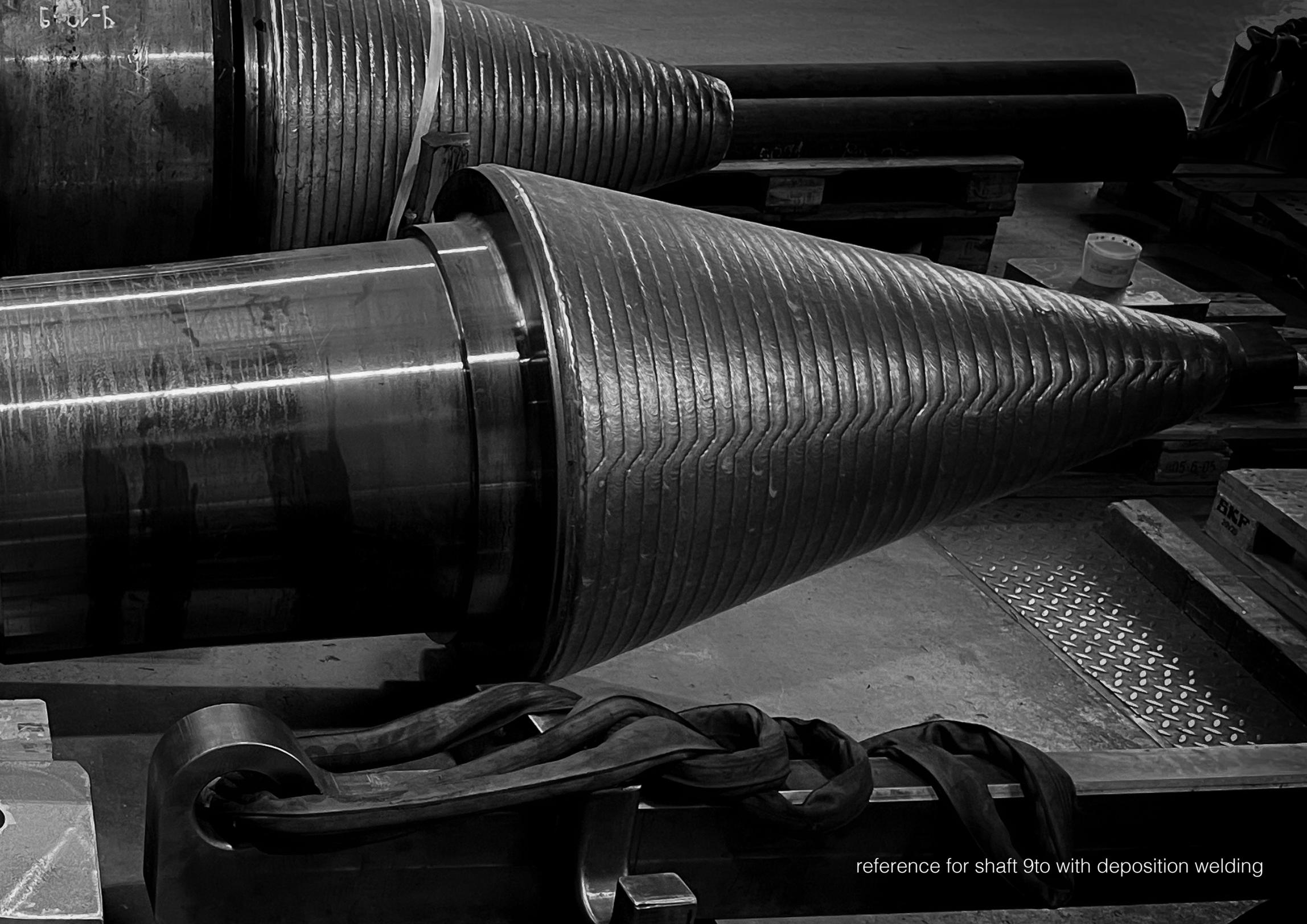


reference for bearing housing 8to



501 1500





reference for shaft 9to with deposition welding

# STEELWORK & CONSTR



# CONSTRUCTION



As certified welding company by European Standard EN 1090, we offer high quality steelwork and construction with a maximum loading weight of 40to per unit.

reference for steelwork & construction of a rolled ring with a diameter of 3,500mm





reference for steelwork & construction of two crusher housings for recycling industry



# SYSTEM SUPPLIER

In a rough business with changing demands and requirements at a high technical level we are there for our customers to support. As a One-Stop-Shop we provide services to the full extend. Beginning with consultation based on our great experience we prepare customized solutions, sourcing the best

material and ensure a production in our modern industry 4.0 manufacturing facilities with nearly 100% of vertical integration. The completion and test runs of assemblies are done by trained and qualified skilled workers with great job experience and professional equipped infrastructure at their disposal.

## QUALITY ATTRIBUTES

- + One-Stop-Shop Supplier
- + modern Industry 4.0
- + high service level

## QUALITY BENEFITS

- = meeting individual needs
- = comply with sustainability
- = competent supplier means strong business partner



NEUHAUS  
MASCHINENBAU GMBH  
GERMANY



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