



*Argentina - Bolivia - Brazil - Canada - Chile - China - Colombia - Costa Rica - Dominican Rep - Ecuador
El Salvador - Guatemala - Honduras - Italy - Mexico - Nicaragua - Panama - Peru - Spain - USA*

Sequence of events



Company structure





Around the World



● **HEADQUARTERS**

USA - MIAMI

● **SALES OFFICES**

MEXICO

● **FACTORIES**

USA - CAROLINA DEL NORTE

ITALY - RHO

CHINA - DALIAN

● **LOGISTIC CENTERS**

USA - MIAMI

SPAIN - MADRID

CHINA - SHANGHAI

ITALY - MILAN



Headquarters Miami, USA



65 Employees (**50** mechanical Engineers)

6 Associates Universities

4 Associates research centers

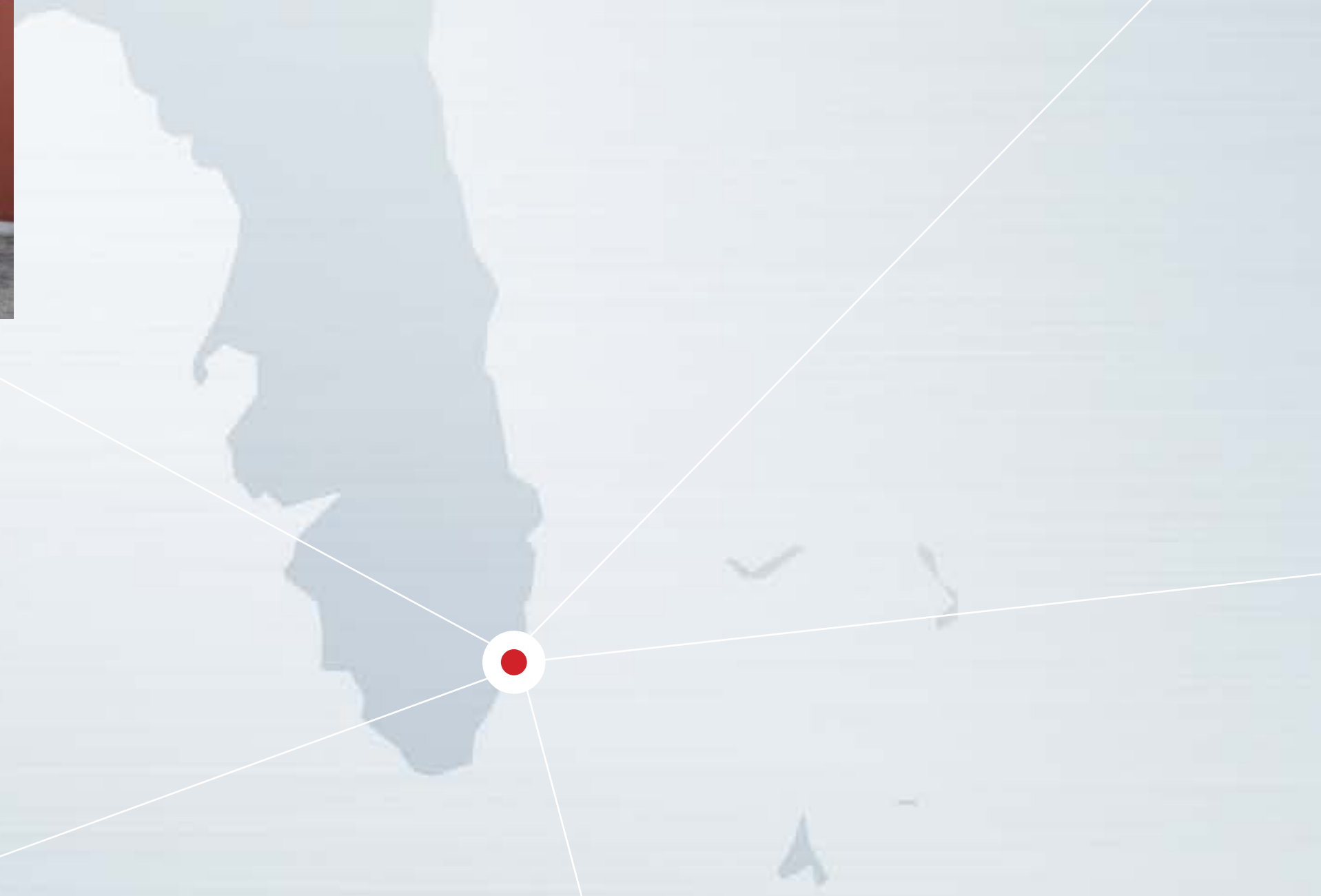
6 Associates consulting firms

Miami, USA

8208 NW 30th Terrace

Miami Florida, 33122 USA

Office: +1 305 592 4404





Memberships and Certifications



American Society of Mechanical Engineers

ASME's mission is to serve diverse global communities by advancing, disseminating and applying engineering knowledge for improving the quality of life; and communicating the excitement of engineering.



American Bearing Manufacturers Association

ABMA's mission is to provide leadership, advocacy and education with a Focus on membership value, industry outreach and issues impacting the global bearing industry.



American Gear Manufacturers Association

AGMA is the global network for technical standards, education, and business information for manufacturers, suppliers, and users of mechanical power transmission components.



Power Transmission Distributors Association

PTDA provides distributor and manufacturer members efficient, high-quality networking opportunities and best-in-class programs which enable member companies to more effectively compete in an ever-changing marketplace.



American Wind Energy Association

AWEA mission is to promote wind power growth through advocacy, communication and education as wind energy works for America's economy, environment and energy security.



System Certification ISO 9001:2000



Our Brands



GEARS AND GEAR BOXES



SPECIAL BEARINGS



ENGINEERING CHAINS



Industries We Serve



CEMENT



SUGAR



STEEL



MINING



PAPER



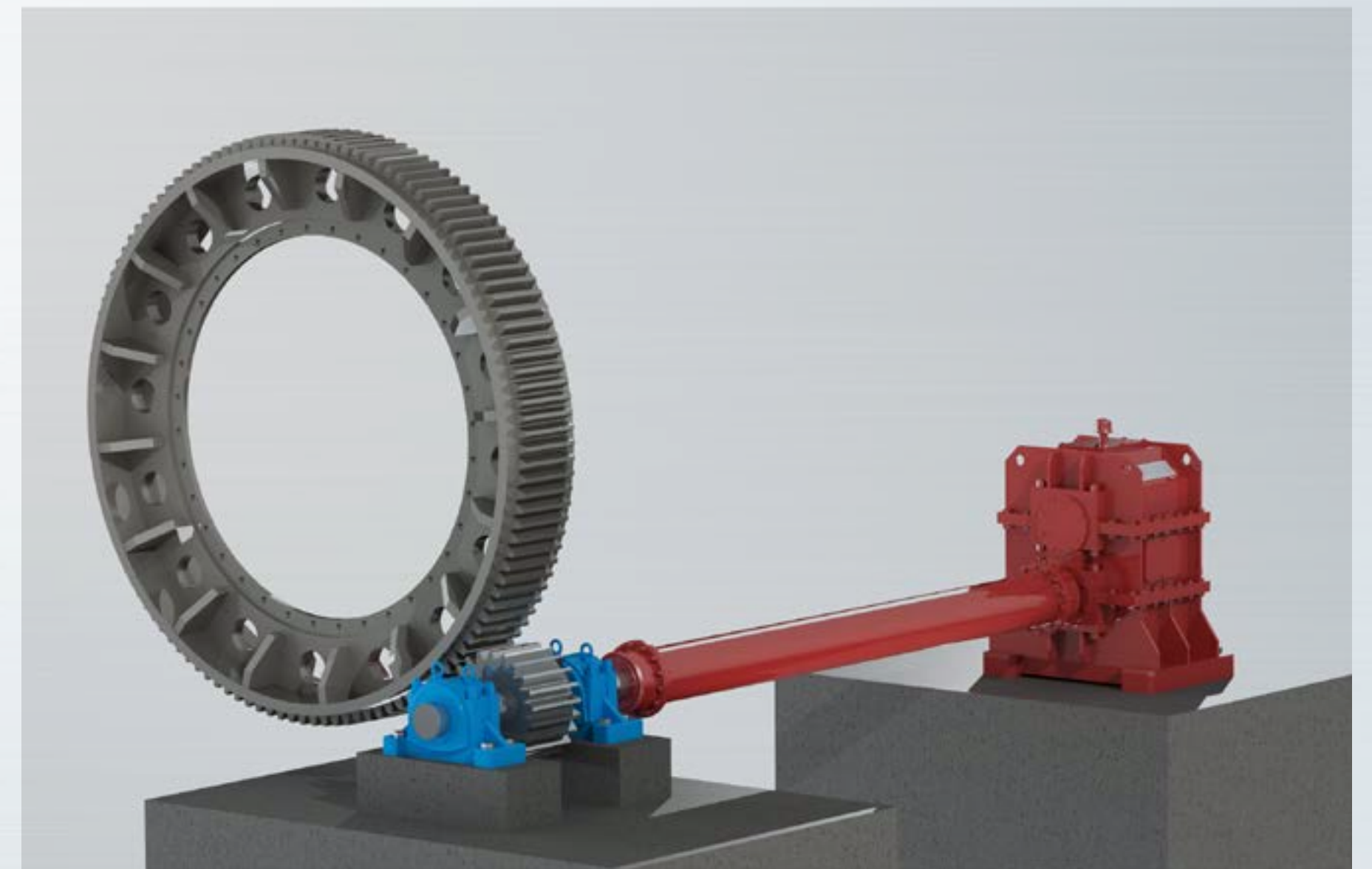
WIND





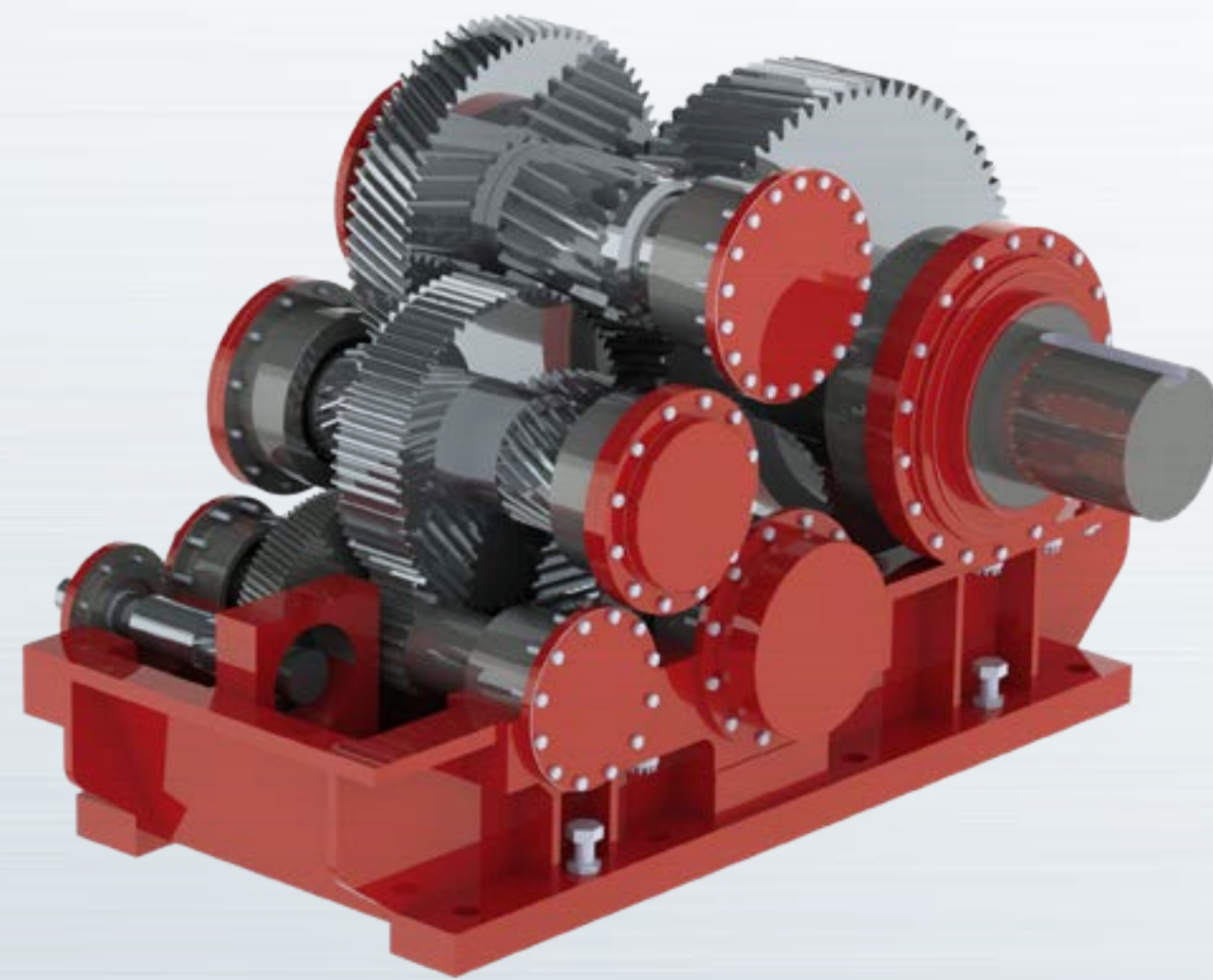
Mining Industry

ABS provides efficient and competitive solutions to the mining industry: design, manufacturing, installation, and service oriented to achieve maximum performance in every one of your projects.

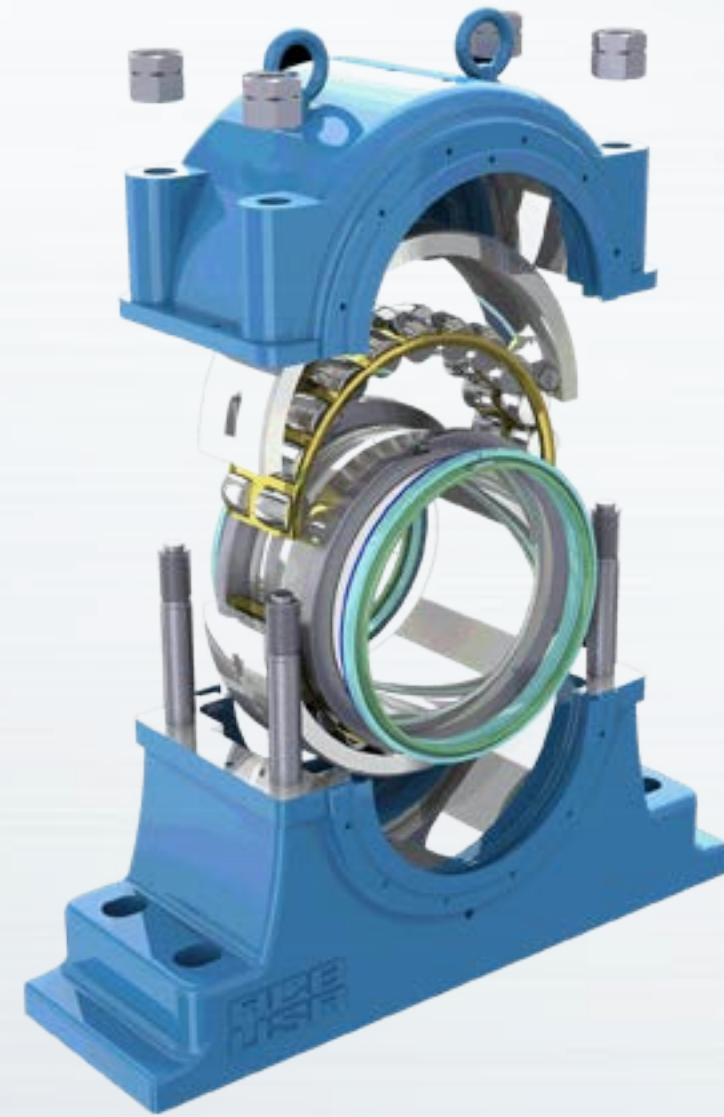




Products for the Mining Industry



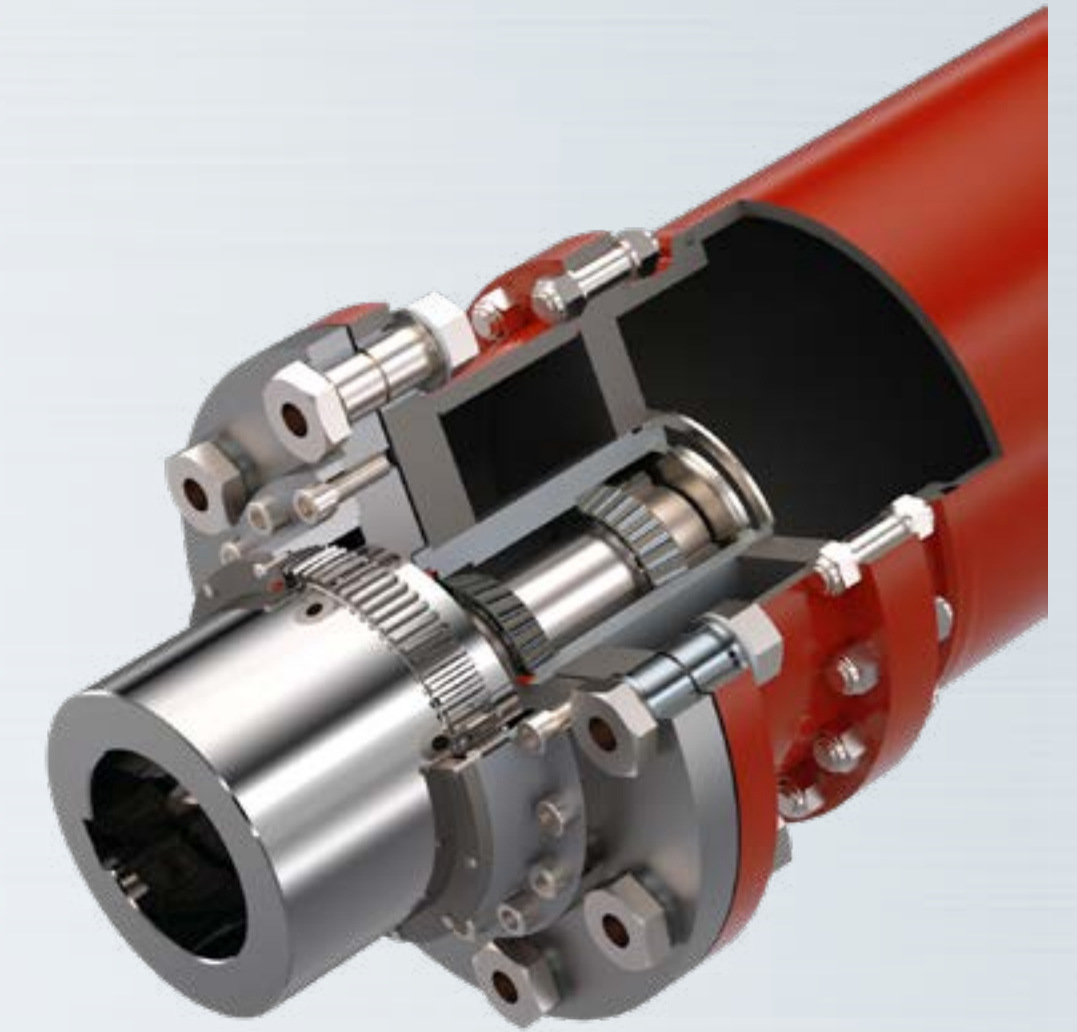
Gears and Gearboxes



Bearings
Bearing Housing
Babbitt's



Girth Gears



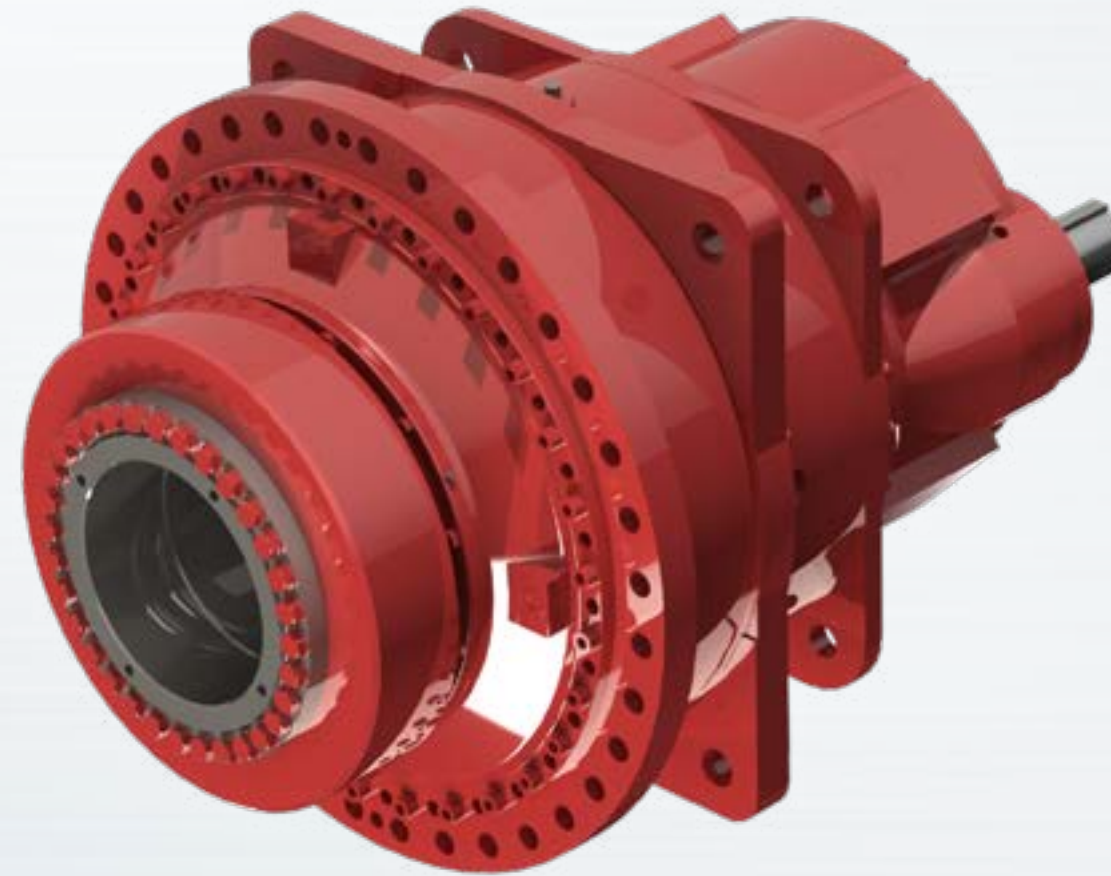
Couplings



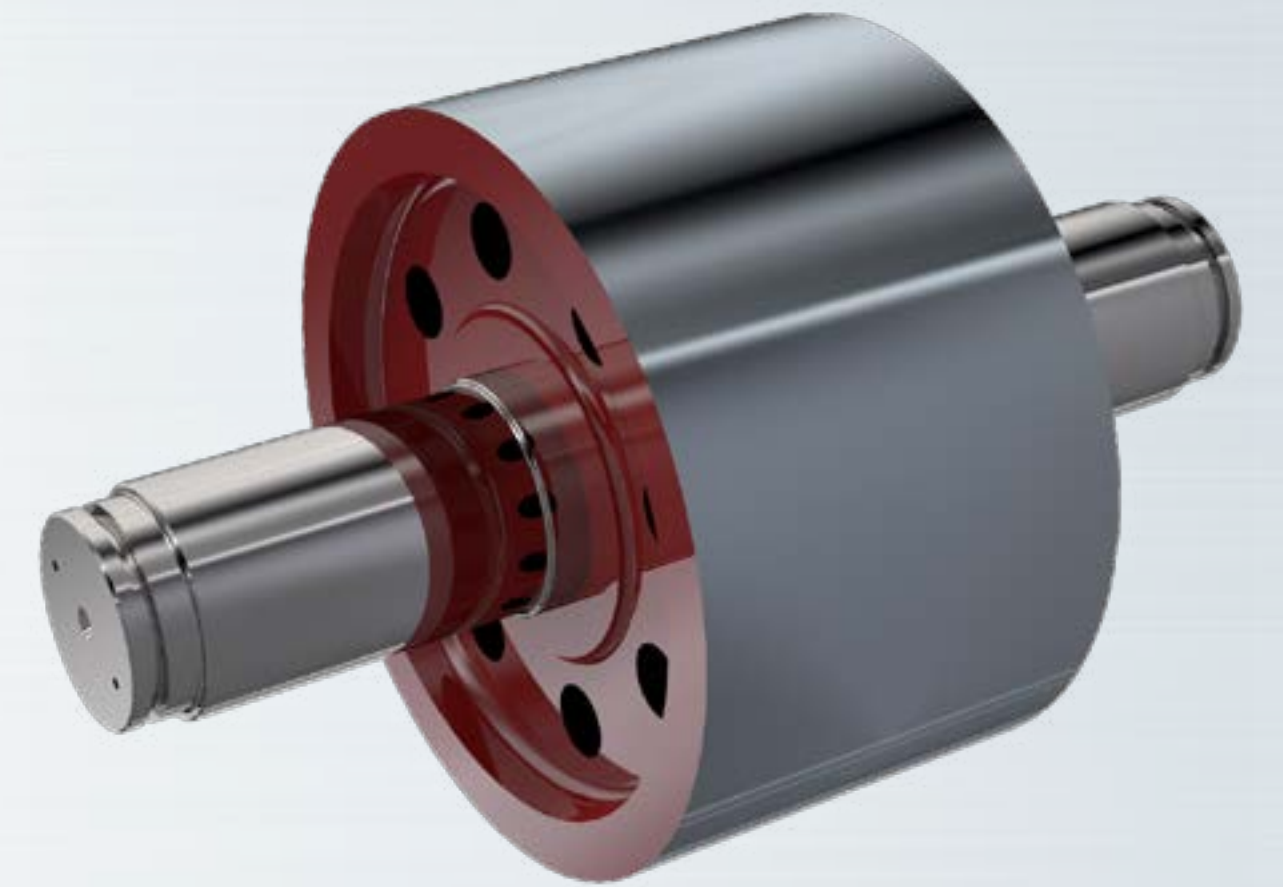
Products for the Mining Industry



Mill Head inlet
and discharge



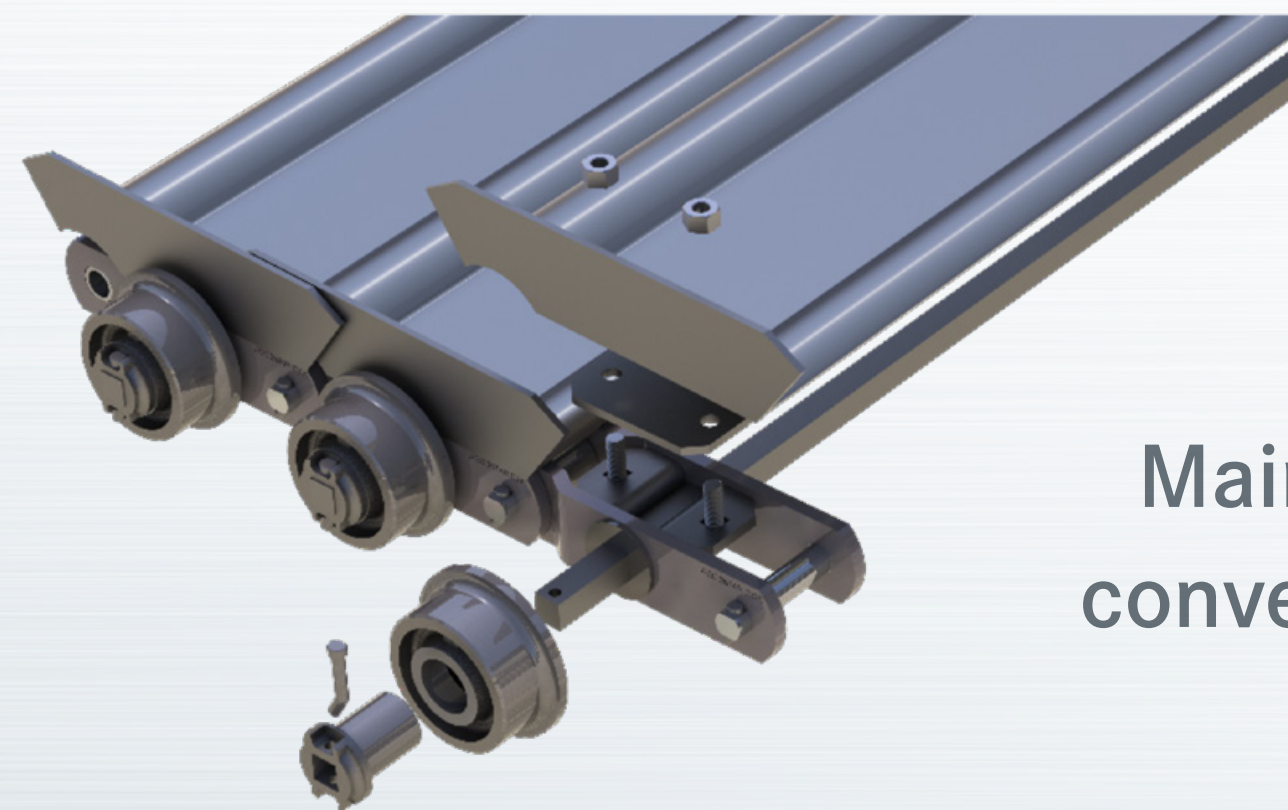
Planetary
gearboxes



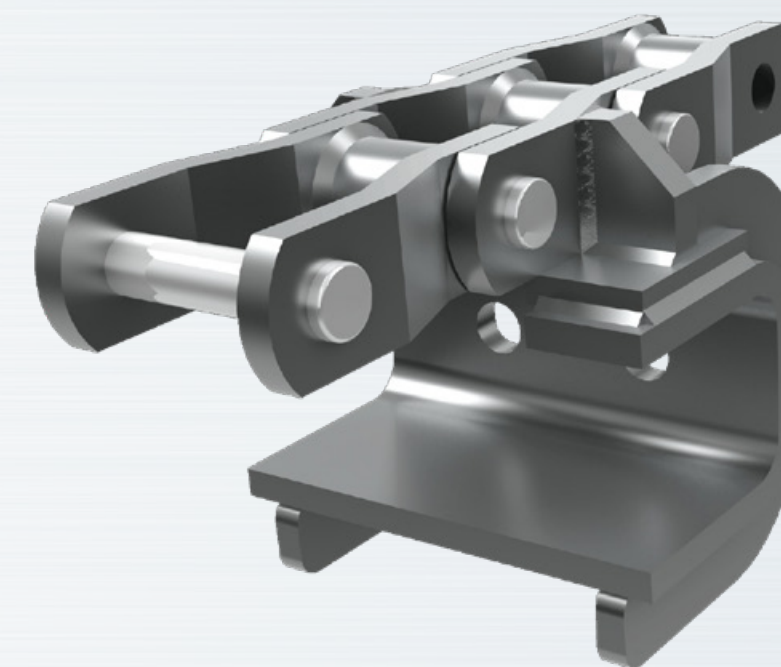
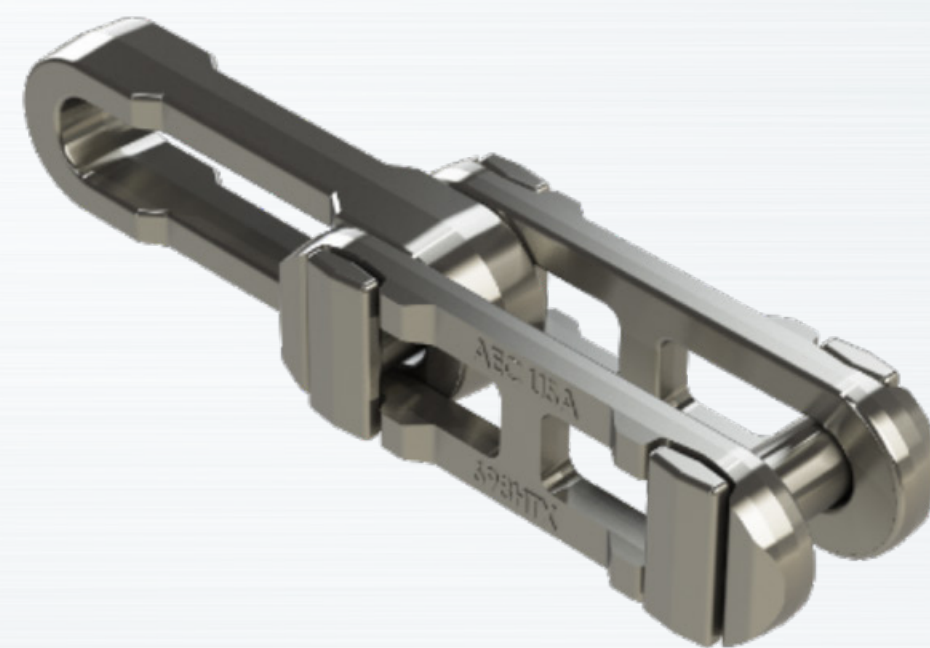
Support
Rollers



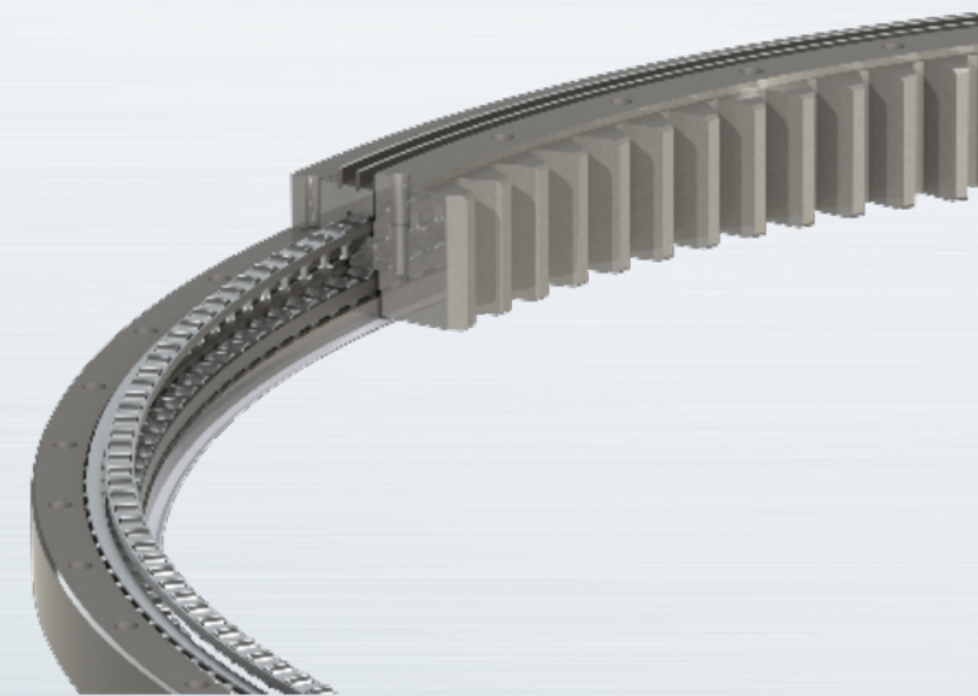
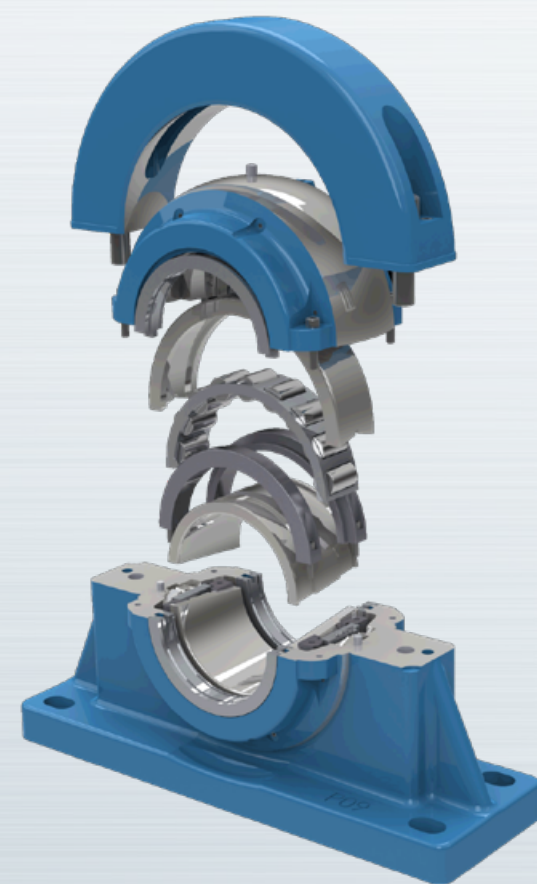
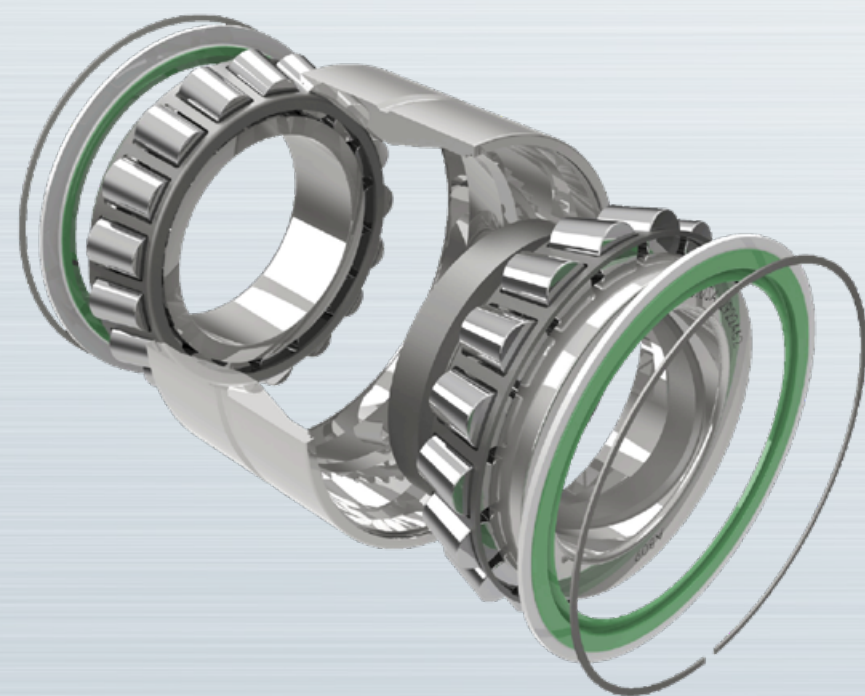
Products for the Mining Industry



Main carrier
conveyor chain



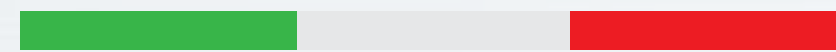
Engineering
Chains



Special Bearings &
Bearing Housing



MGS GEARS





Electrowelded Girth Gears *For Mining Mills and Kilns*



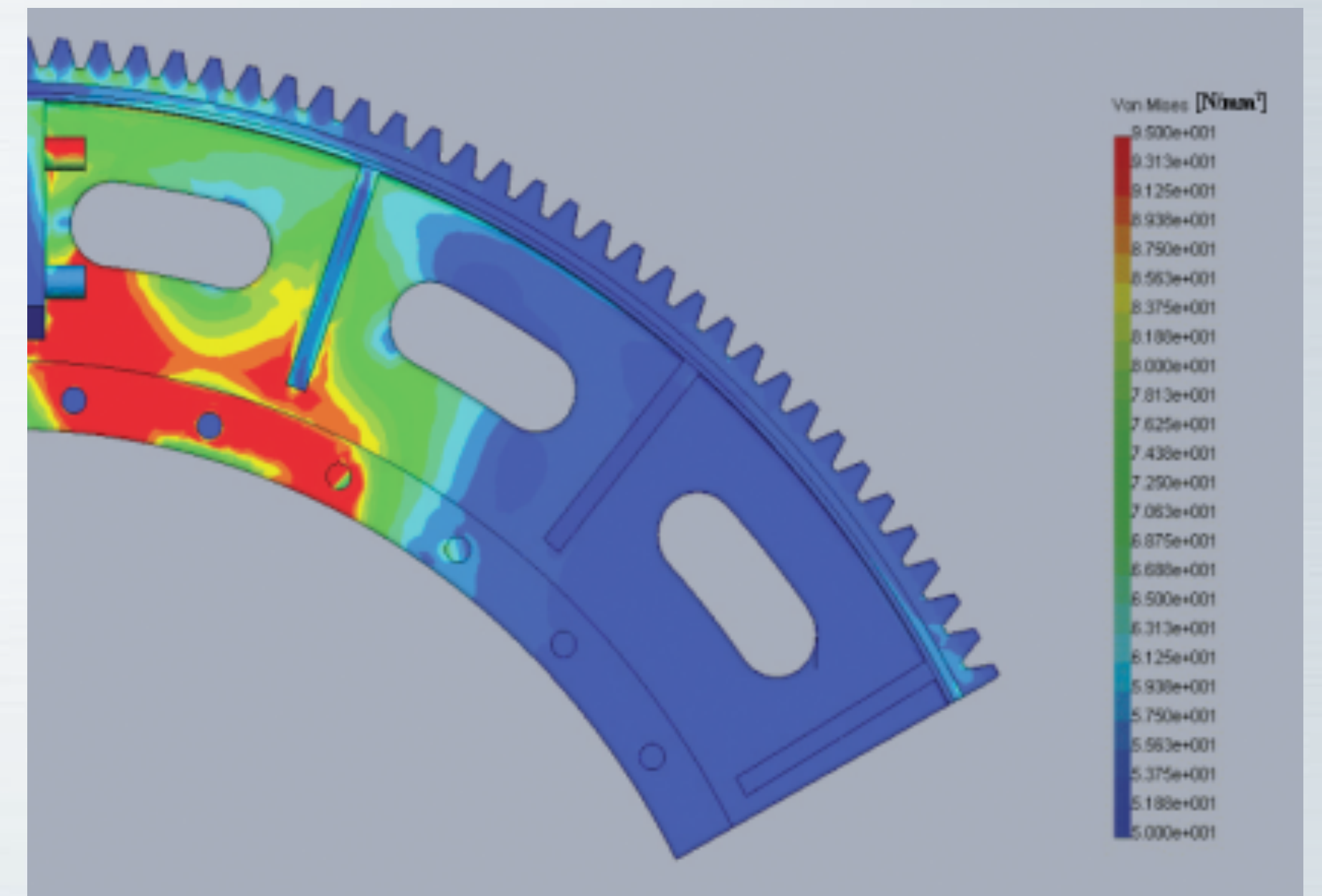
We have designed and manufactured hundreds of electrowelded gears since 1969; lots of them have replaced the traditional cast-steel gears. Gears are produced by using our exclusive process, which covers all steps from design to final testing. Years of experience and the most advanced design technologies, such as the finite-element method, allow us to offer our customers the most efficient products in terms of performance and reliability.

The advantage of electrowelded gears is that they feature a U.S. inspected, fully homogeneous toothed ring in H&T alloyed steel. Maximum performance and top reliability are achieved by coupling the electrowelded gears to our self-aligning pinion.

Electrowelded Girth Gears

For over 40 years our engineering department has collected data on behavior and performance of the components of dozens of mining mills in the 1000 to 3600 kW range. Vibration readings have been taken on main moving parts and their relevant supporting structures; in addition, the status of analyzed elements and any problem arising have been recorded.

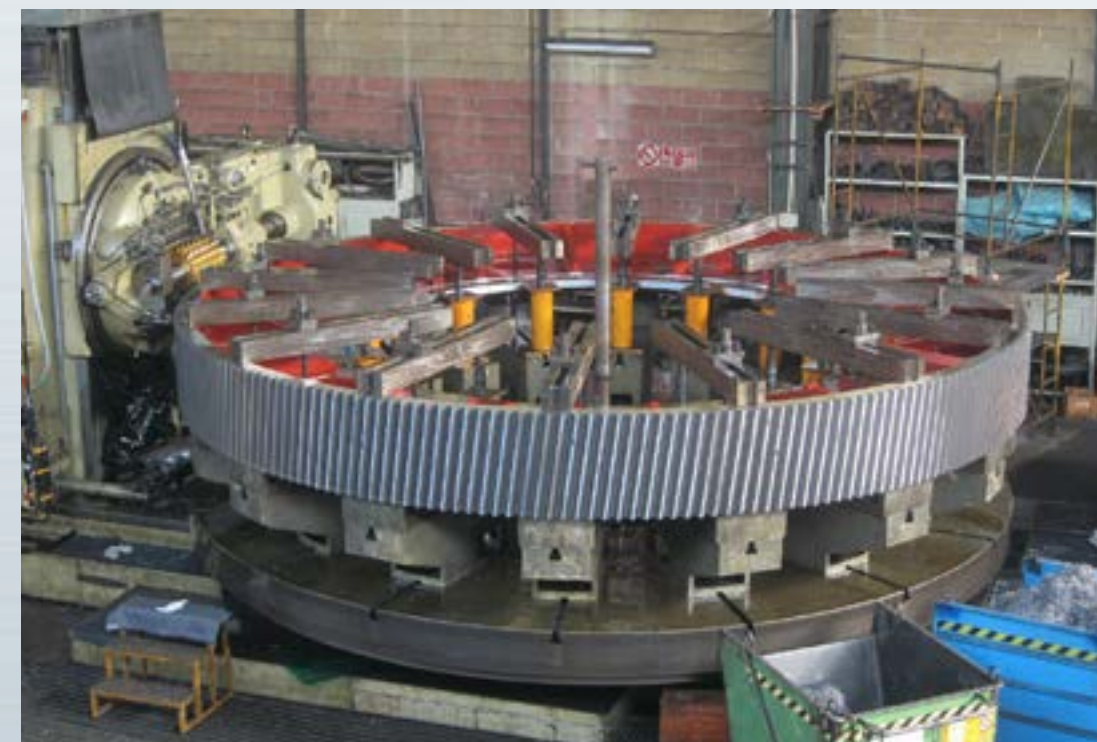
Such readings have been repeatedly taken at preset intervals so as to create a comprehensive data base. Recently, we set up powerful design workstations and installed dedicated software packages for the finite-element method calculation. By using these packages, we can analyze the critical components of machines of our own design as well as other machines.



Girth gear FEM Study since 1980

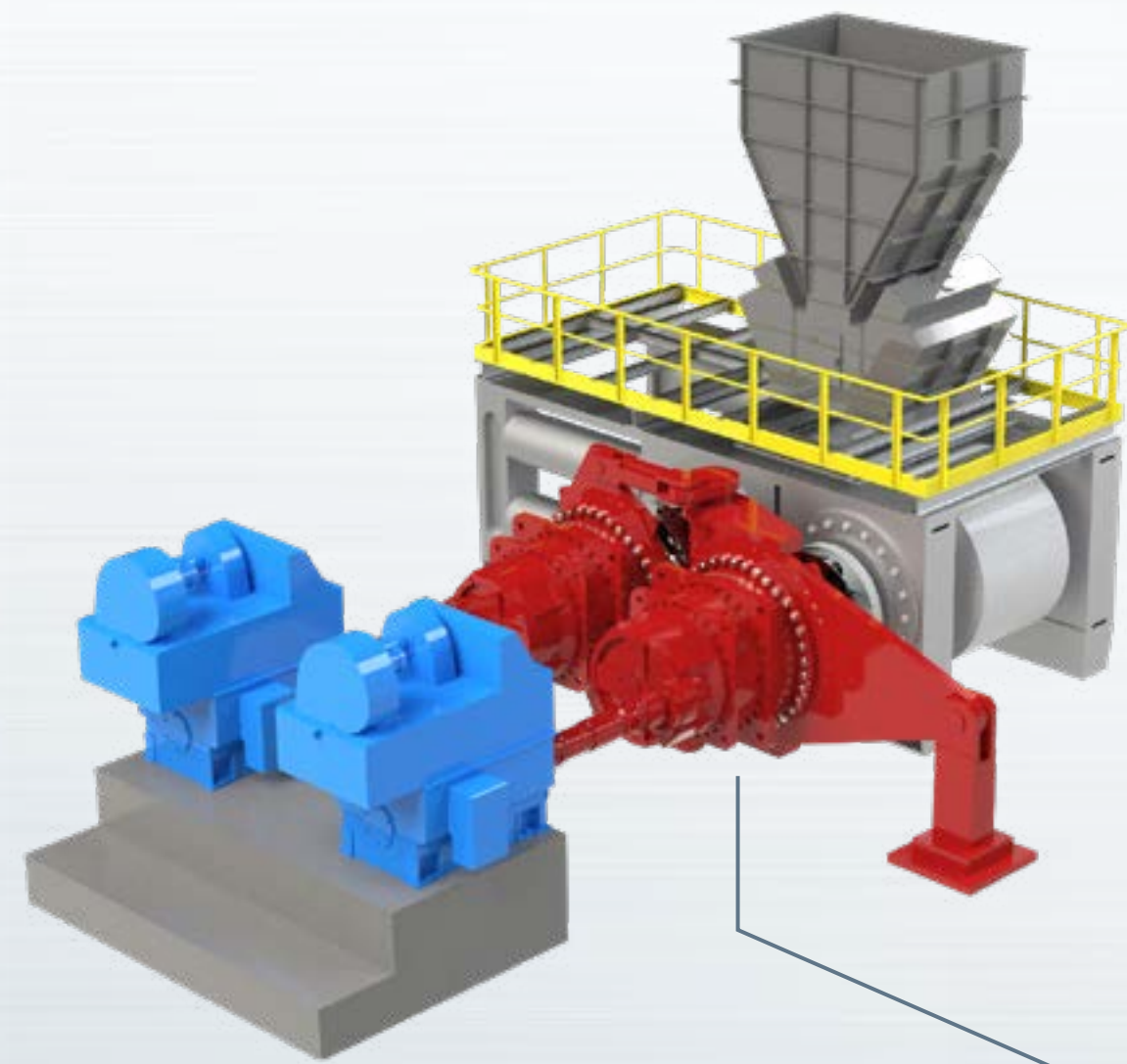


Electrowelded Girth Gears *For Mining Mills and Kilns*





MGS Gears Drop-in Planetary Gearbox for HPGR



The **High-pressure Grinding Roll (HPGR) Technology** has proven to be exceptionally effective for the crushing of iron ore, coal, mining clinker, copper ore, gold ore, iron ore, diamond ore, platinum ore, and other mineral raw materials.

Planetary Gearboxes for hydraulic roller press (HRP) concept designed to overcome some of the biggest challenges facing mining plants today. It features a compact layout, which is important both at greenfield installations and at plant upgrades, where limited space is an increasingly important design and construction factor.

MGS Gears Planetary Gearbox for HPGR

100% externally interchangeable with the original gearbox

Higher gears service factor

Longer Bearing lifespan.

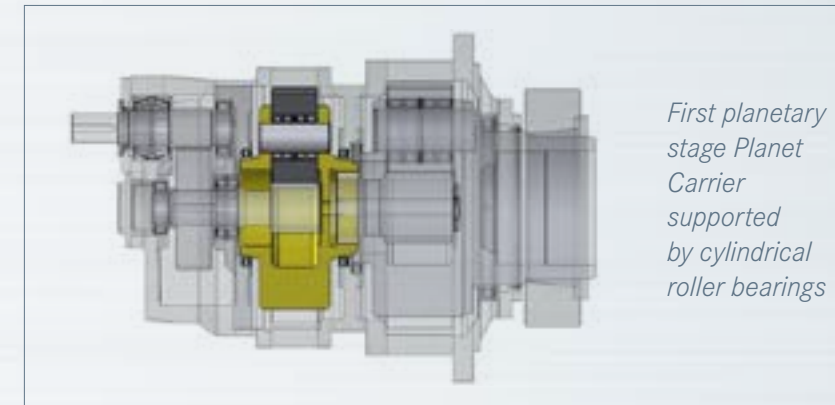
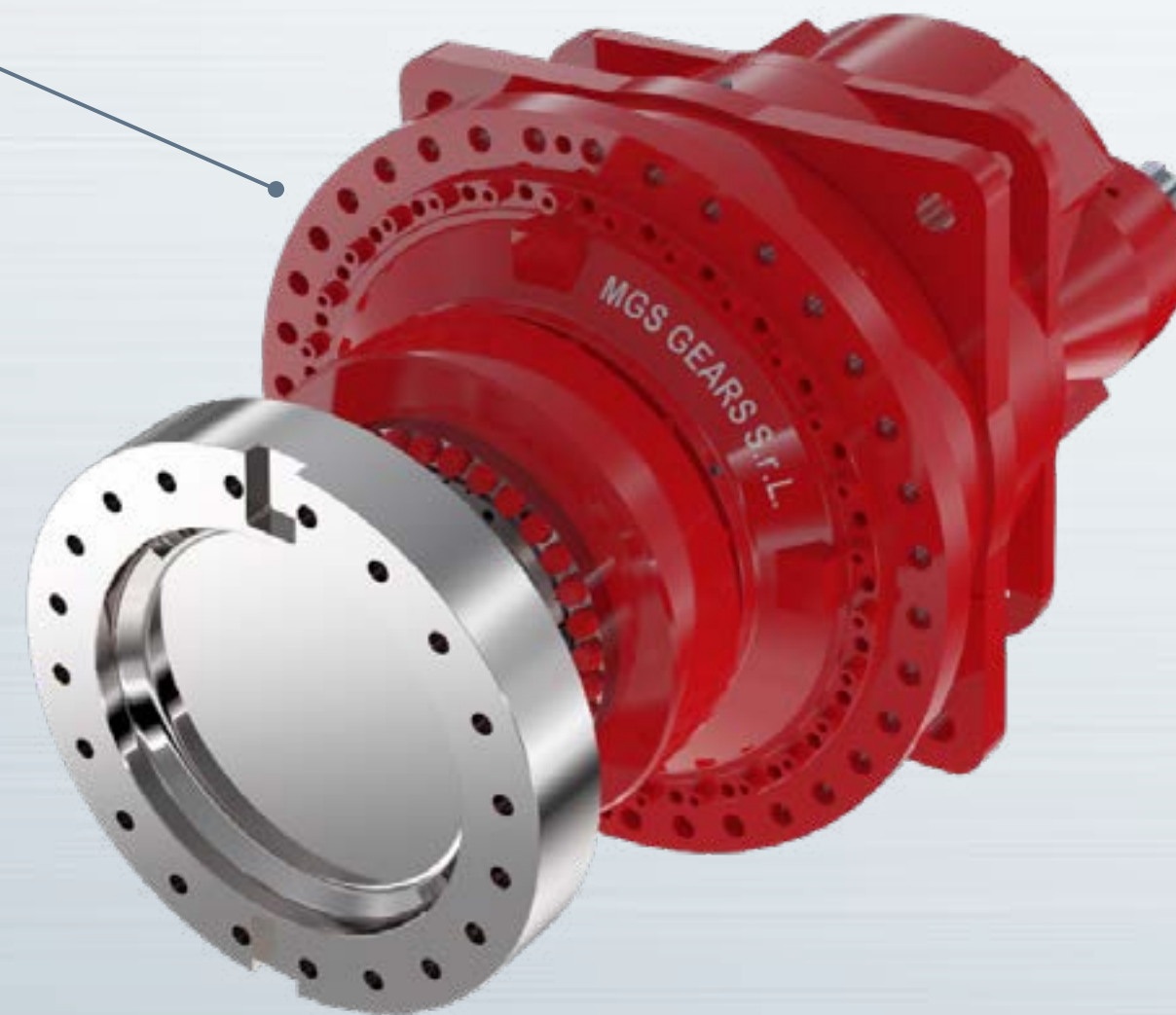
First planetary stage Planet Carrier supported by cylindrical roller bearings

Forged/casehardening alloy steel ring gears to increased hardness and fatigue resistance.

Planetary first stage planets mounted on a pair of 2 row full complement cylindrical roller bearings, matched to obtain optimum load distribution, greater load capacity and longer lifetime compare to the original arrangement.

All cylindrical roller bearings with "black oxide" surface treatment to reduce friction and slippage between the rollers and raceways, as well to favor the lubricant film formation.

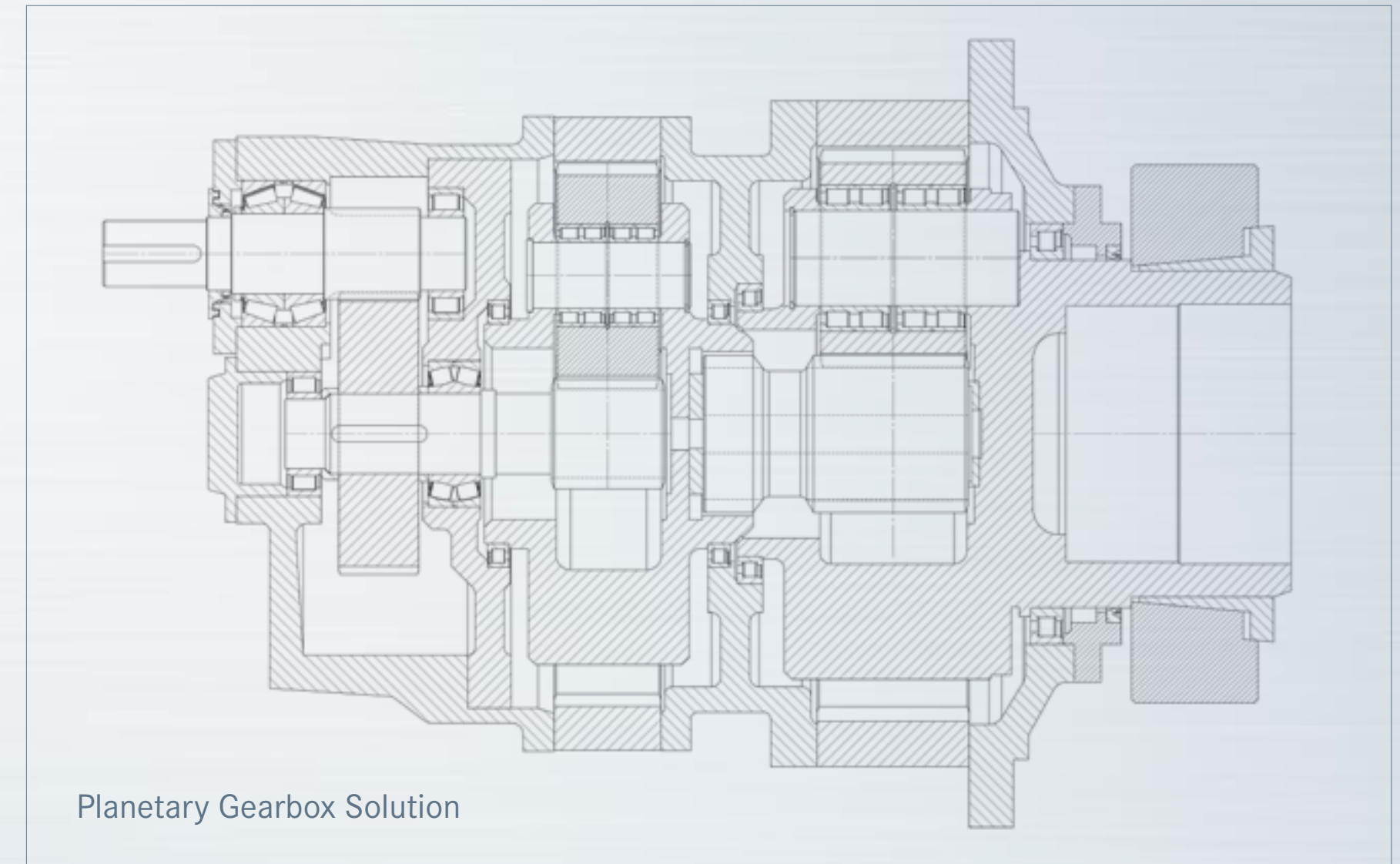
Gear modeling and simulation design using the most advanced techniques available in the industry.



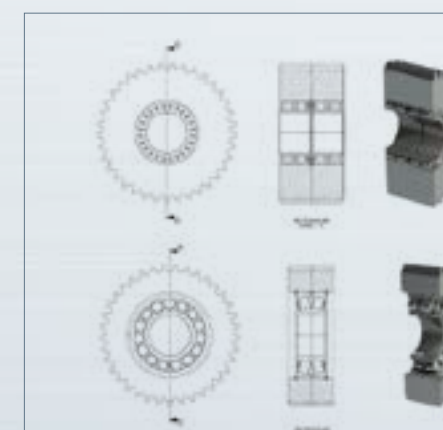
First planetary stage Planet Carrier supported by cylindrical roller bearings



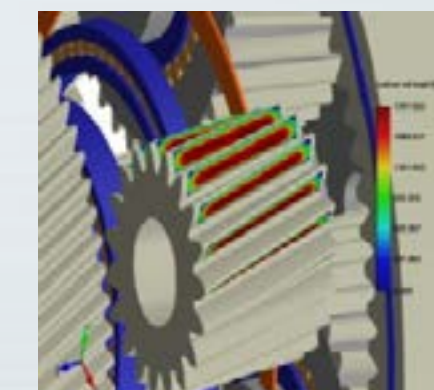
All cylindrical roller bearings with "black oxide" surface treatment to reduce friction and slippage between the rollers and raceways, as well to favor the lubricant film formation.



Planetary Gearbox Solution



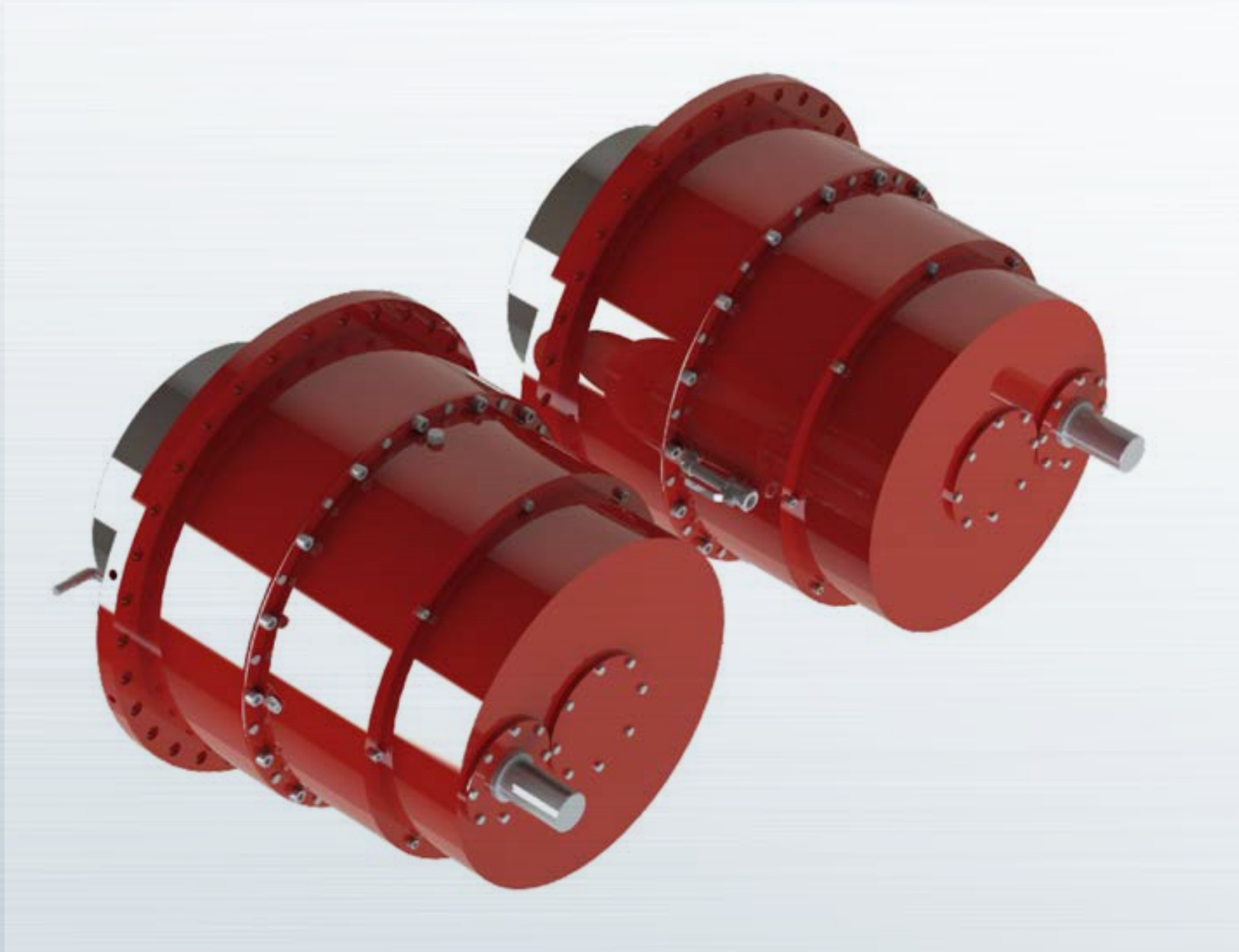
Planetary first stage satellites mounted on a pair of 2 row full complement cylindrical roller bearings, matched to obtain optimum load distribution, greater load capacity and longer lifetime compare to the original arrangement.



Optimized Geometry Gears to achieve optimum load distribution in operation and key element to obtain a higher service factor without gearbox external dimensions modifications

Planetary Gearboxes for hydraulic roller press (HRP)

Planetary Gearboxes for hydraulic roller press (HRP) concept designed to overcome some of the biggest challenges facing mining plants today. It features a compact layout, which is important both at greenfield installations and at plant upgrades, where limited space is an increasingly important design and construction factor.



FCB® Horomill Drive System

The FCB Horomill® is a breakthrough technology in bed compression grinding that enables producers to improve their grinding plant operation. In order to enhance the plants' production capacity and optimize the plant maintenance. Fives and Fachini has implemented significant technical development on its new generation of FCB Horomill®.

FCB Horomill Technology advantages

- Lowest energy consumption
- Best product quality with lower clinker ratio
- Zero water consumption



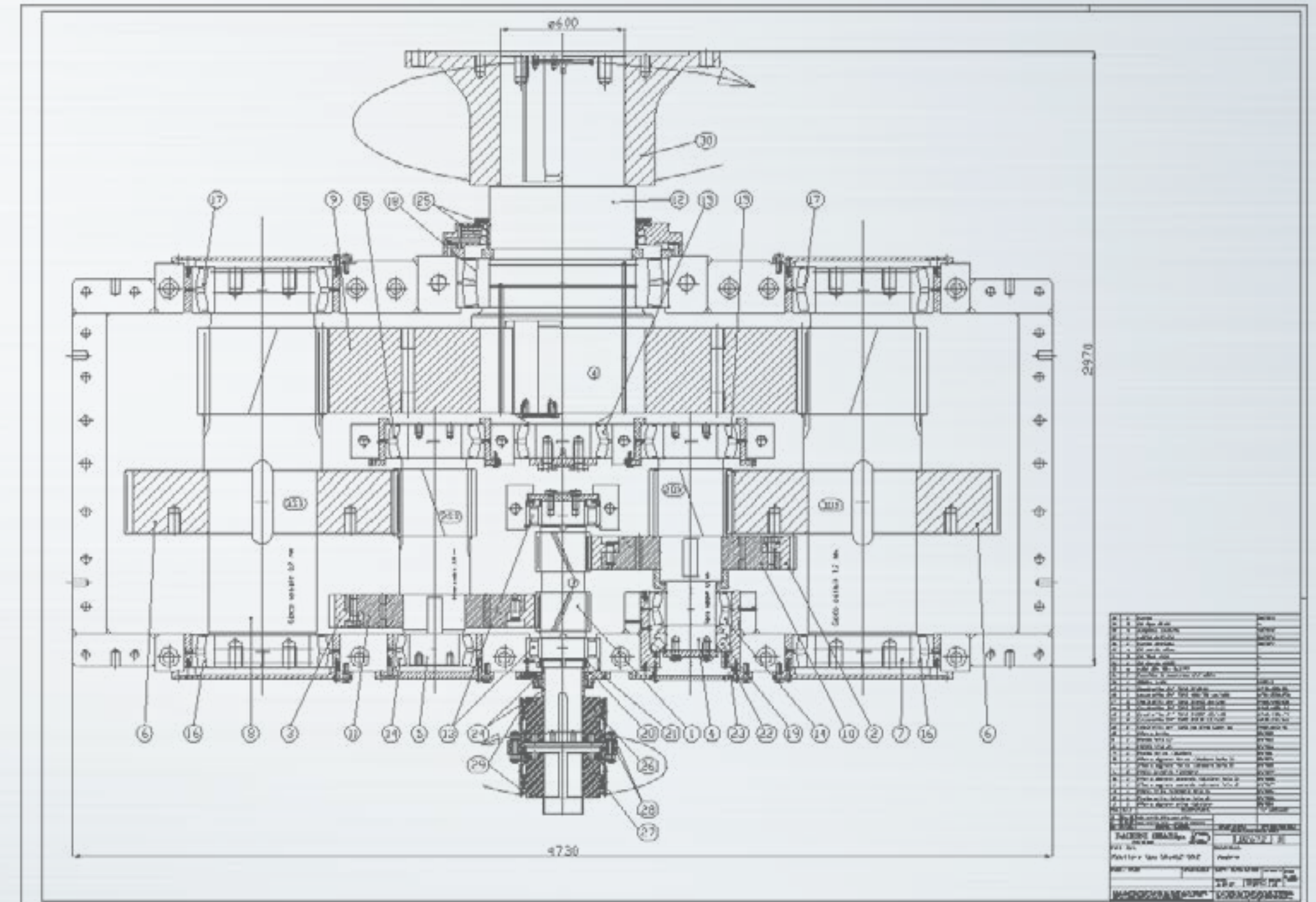
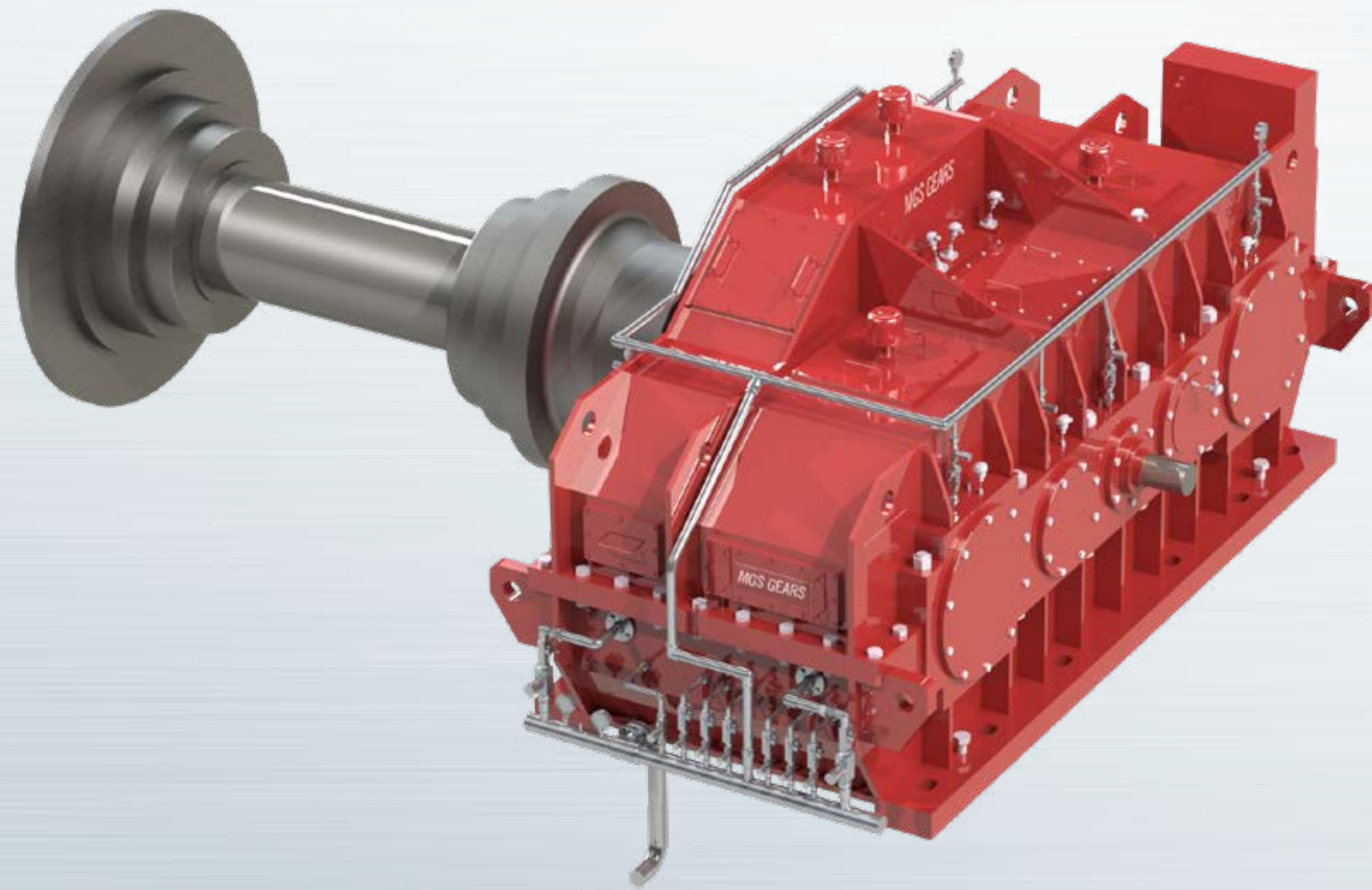


Horomill 3800 Complete Drive System *Miningos Hermosillo, Mexico*

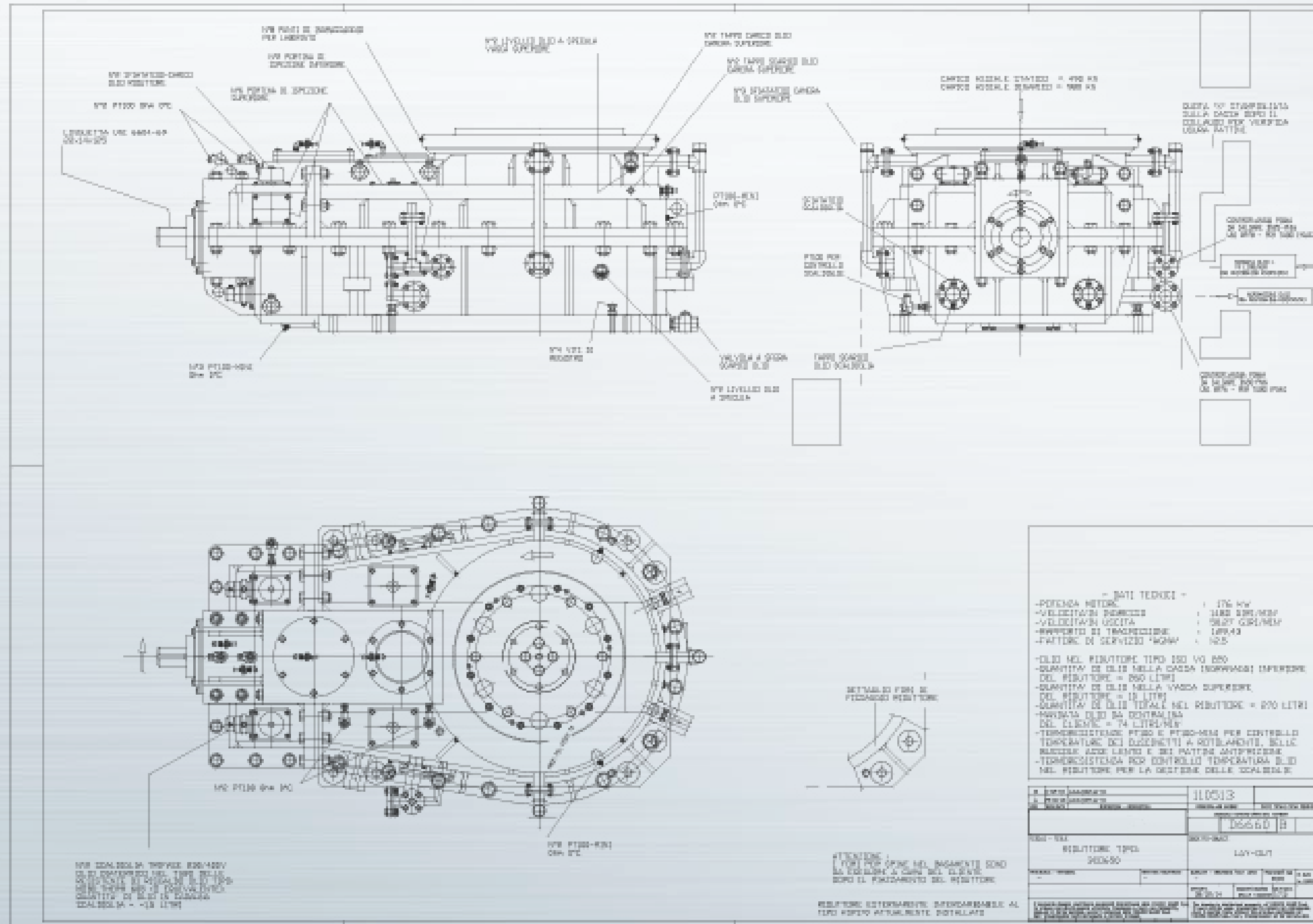


Mining ball mill

Main drive split torque symmetric gearbox CQJ series



Vertical Mill Main Drive

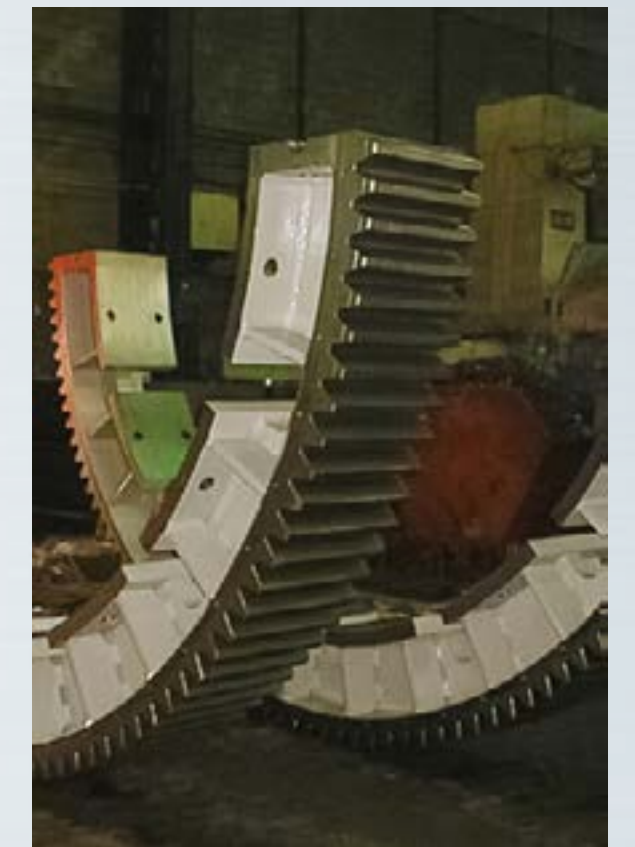
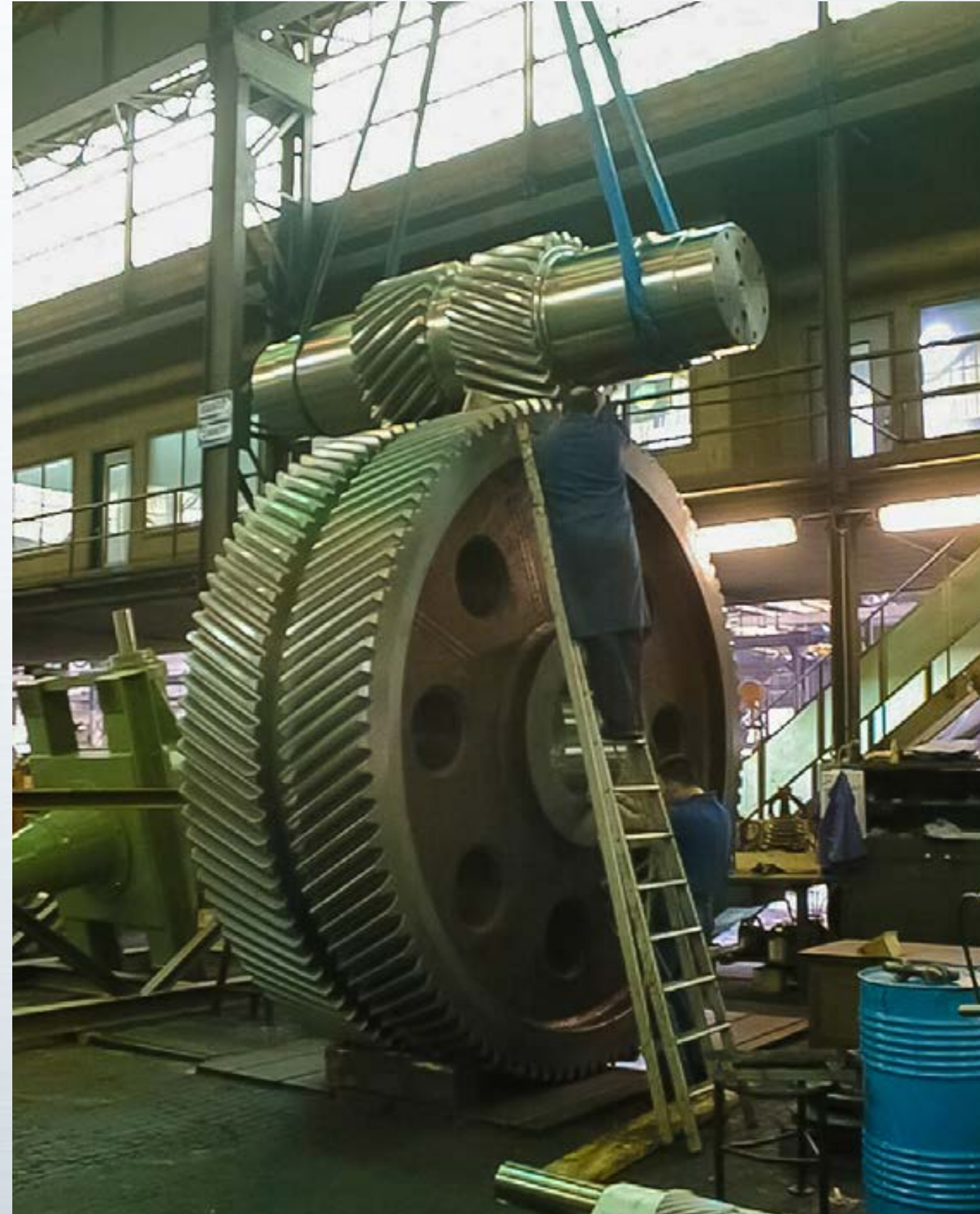


Gearbox Mining Plant
Vertical Drive Mining Mill

Power 1300 Kw
Speed 990/31 Rpm
Weight 38.000 Kg



Repair/Upgrade Services





Before

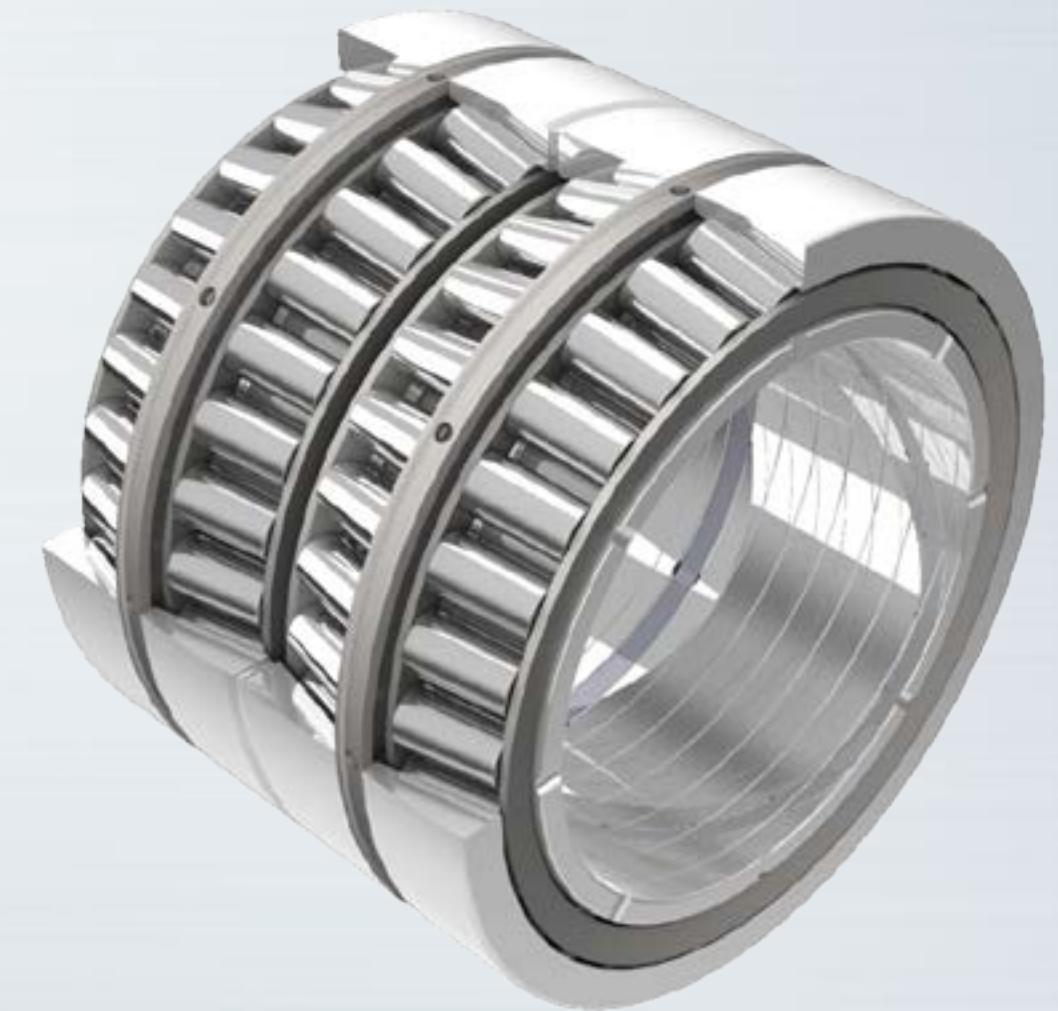
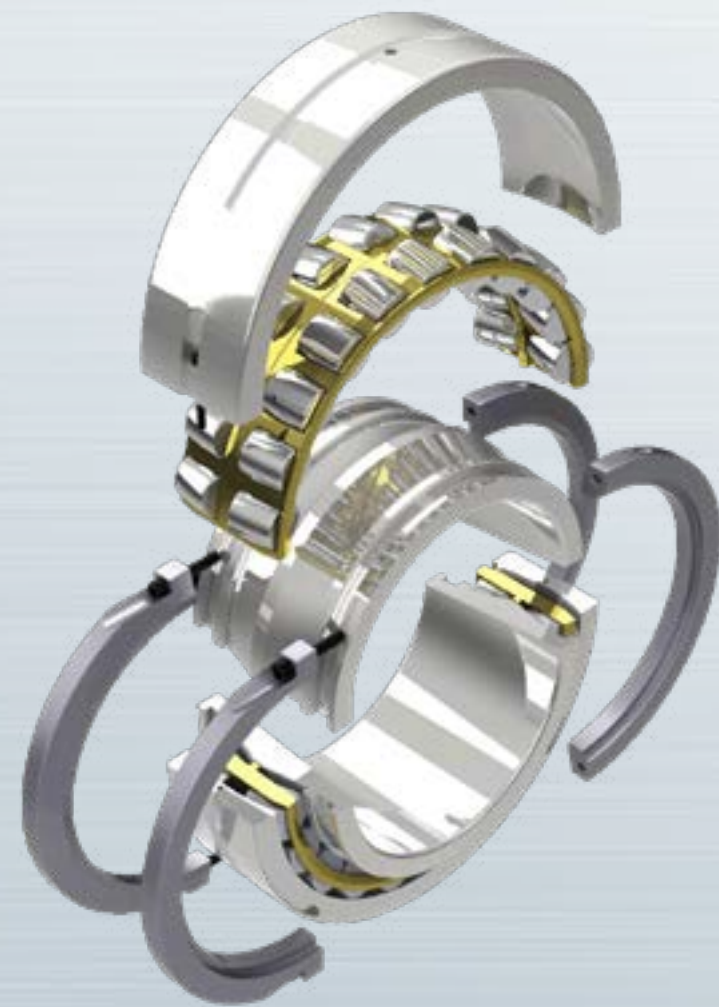


After



ACEB

ATLANTIC CUSTOM BEARINGS





ACB Split Spherical Roller Bearings

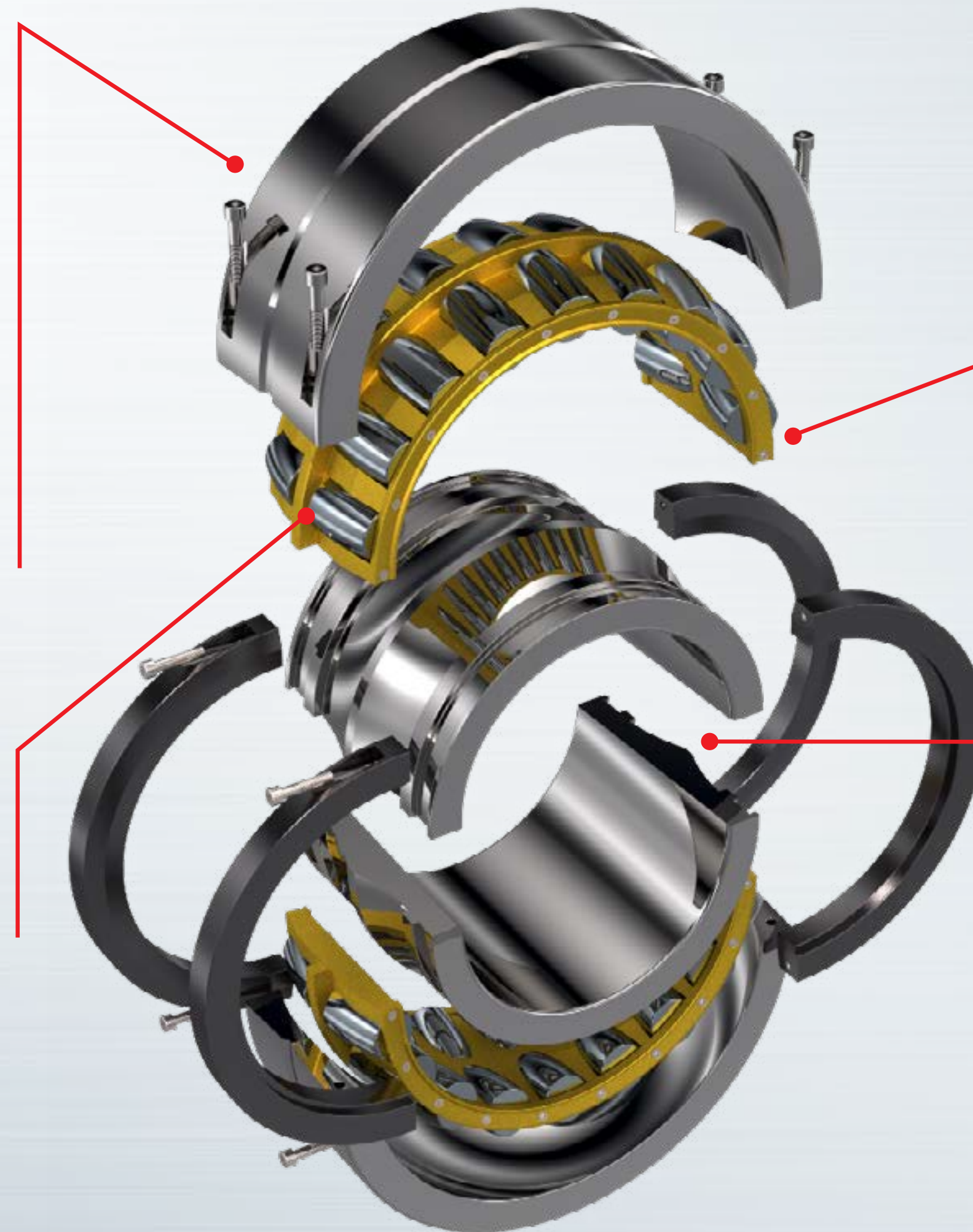
Rings made of High cleanliness bearing steel with bainitic hardening to obtain a considerably higher strength to fatigue and inner ring hairline cracks.

Forged rollers made from High cleanliness bearing steel.

High quality split brass cage.

Optimum roller's guidance and improved lubricant oil film flow.

Form forged rollers made from Ultra-clean bainitically hardened bearing steel.

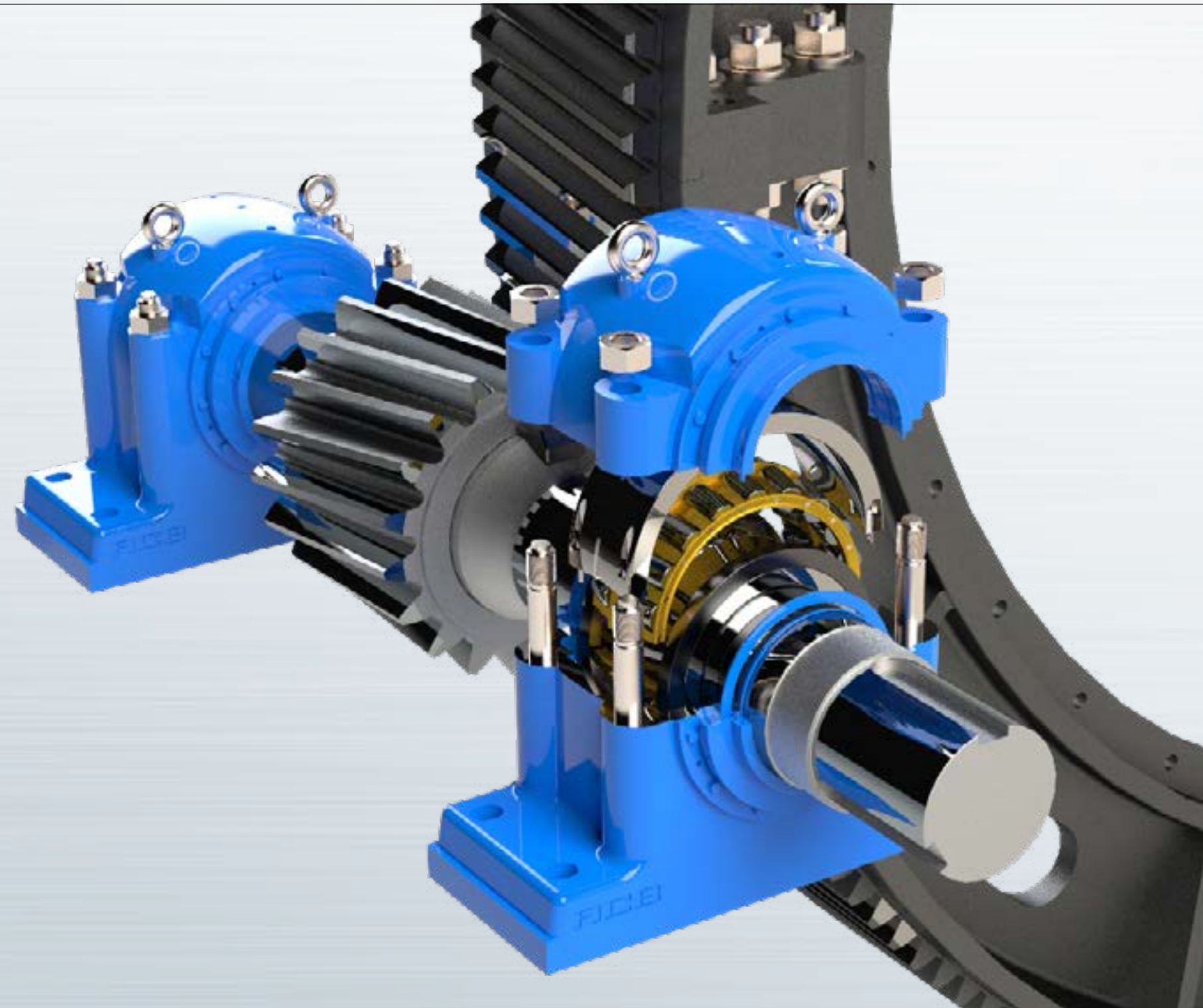


High alloy brass cage.

Pockets profile designed to achieve the optimal roller guidance and improve the lubricant film thickness.

Bearing rings with angled joints to ensure continuity of rollers contact. Load ratings similar than standard bearings.

Supporting driving pinions on Mills and Rotary Kilns



Benefits

Reduced installation cost.

Reduced Downtimes.

Replaces standard solid spherical roller bearings with or without adapter sleeve.

Replaces Babbitt or Bronze Sleeve Bearings.

Easy mounting in standard split pillow block housings.

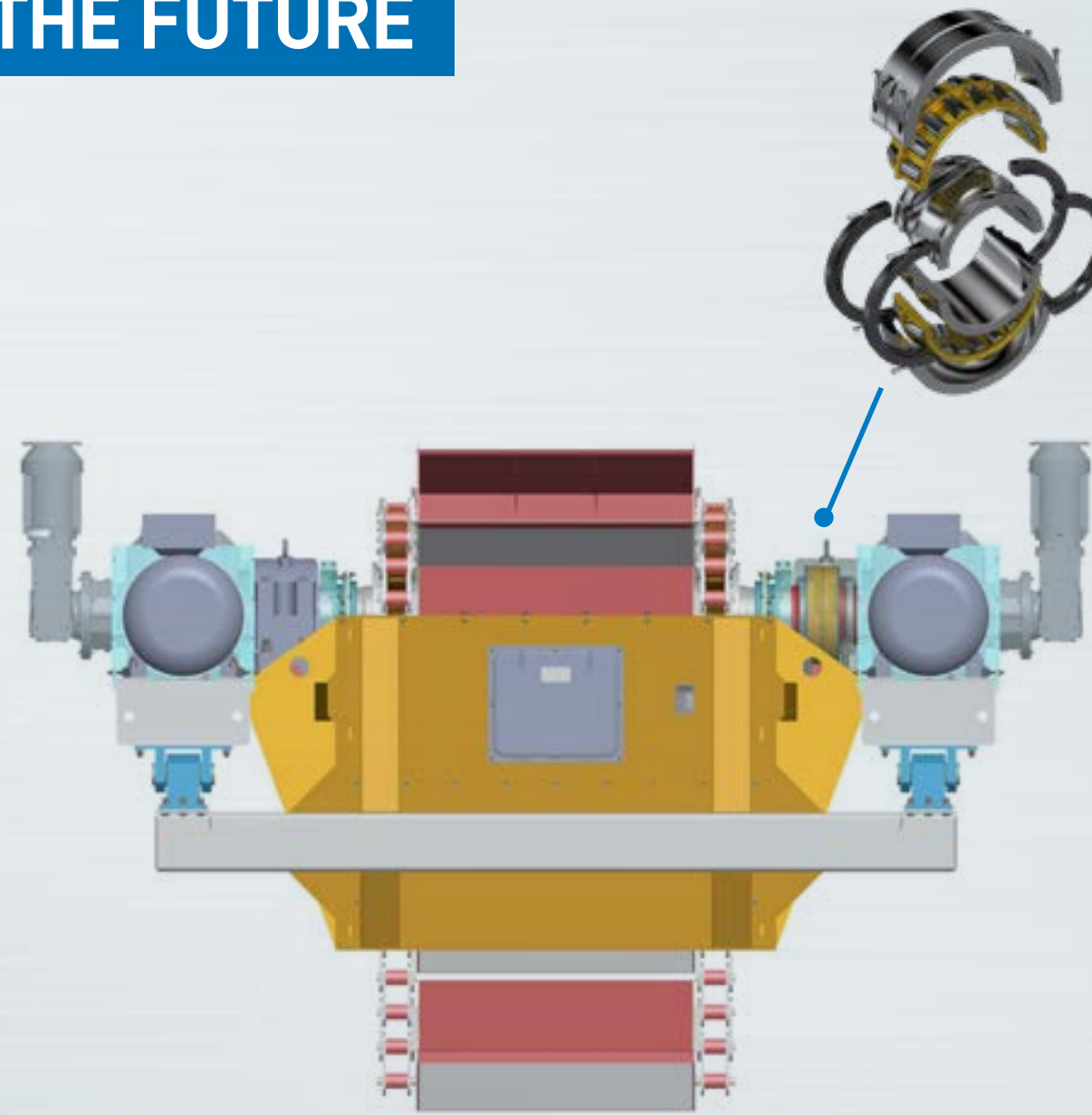
Time saving to replace bearings.

ACB Split Spherical Roller Bearings *Solution for bucket conveyors*

THE PAST



THE FUTURE



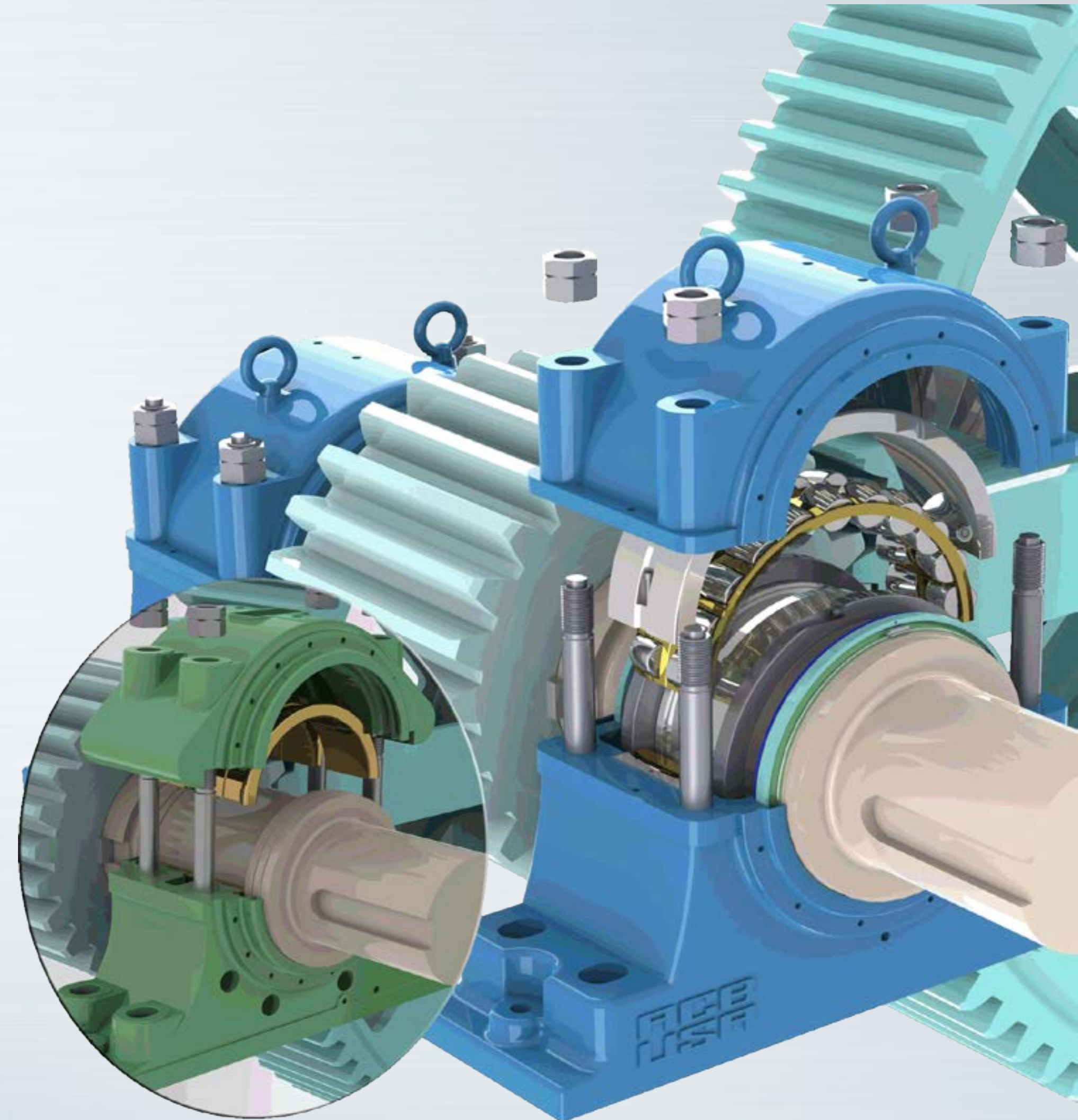
ADVANTAGES

- Split spherical roller bearing, interchangeable with the standard spherical roller bearings
- Lower power consumption
- Low maintenance cost
- Low lubricants consumption
- Long life
- No shaft modification needed
- Shorter maintenance time



Split Spherical Roller Bearing and housing replacing plain bronze liners

Sterling Sugar USA

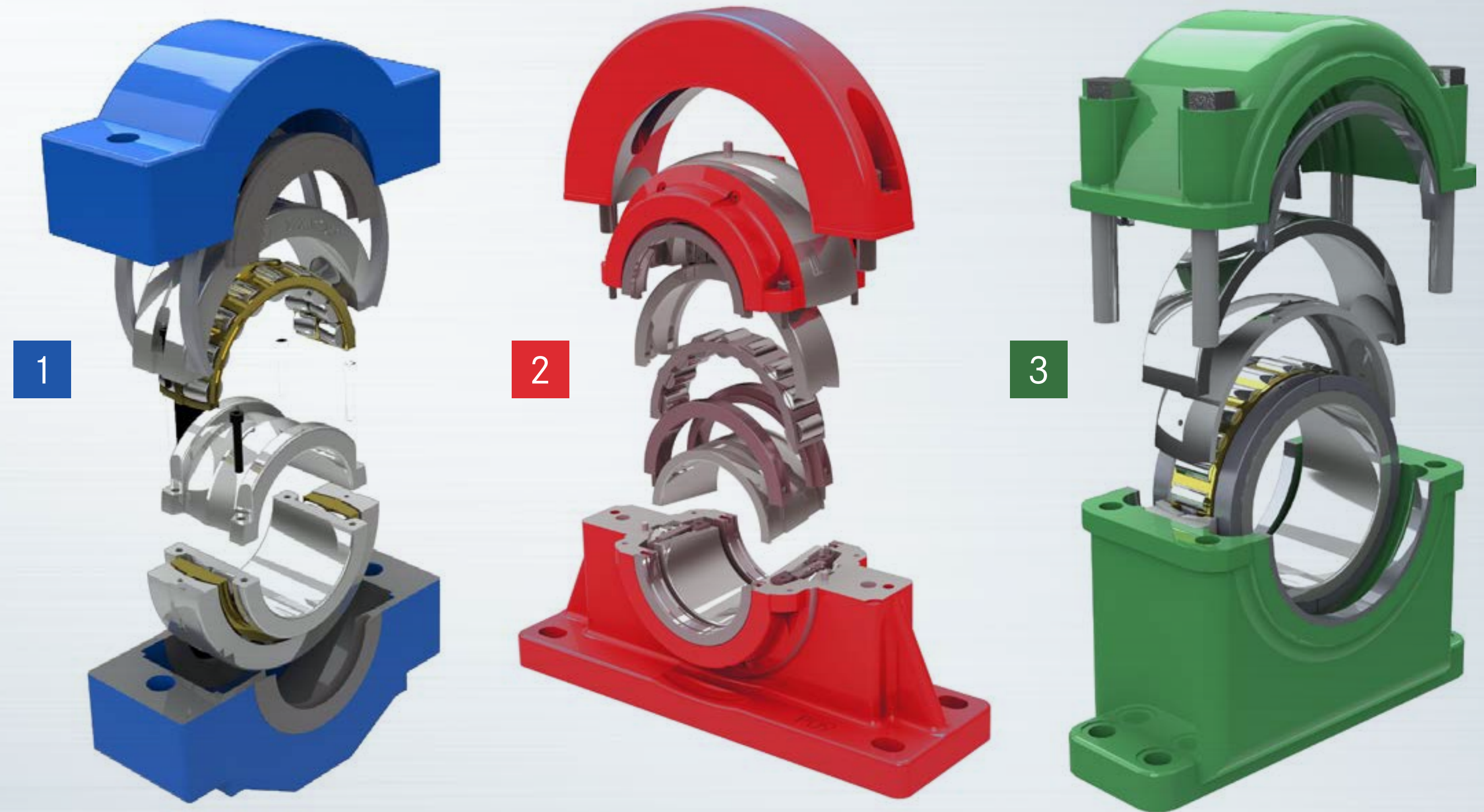


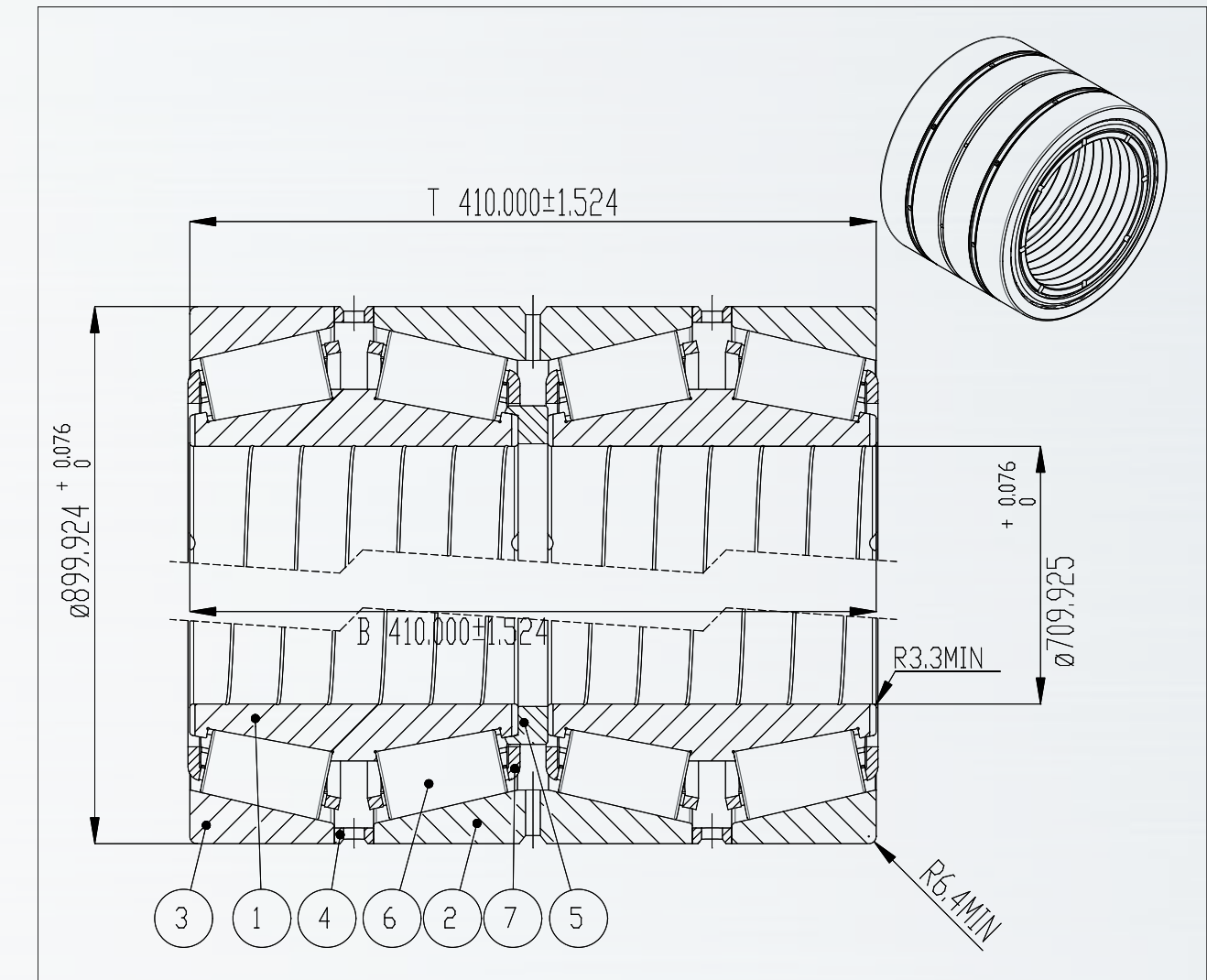
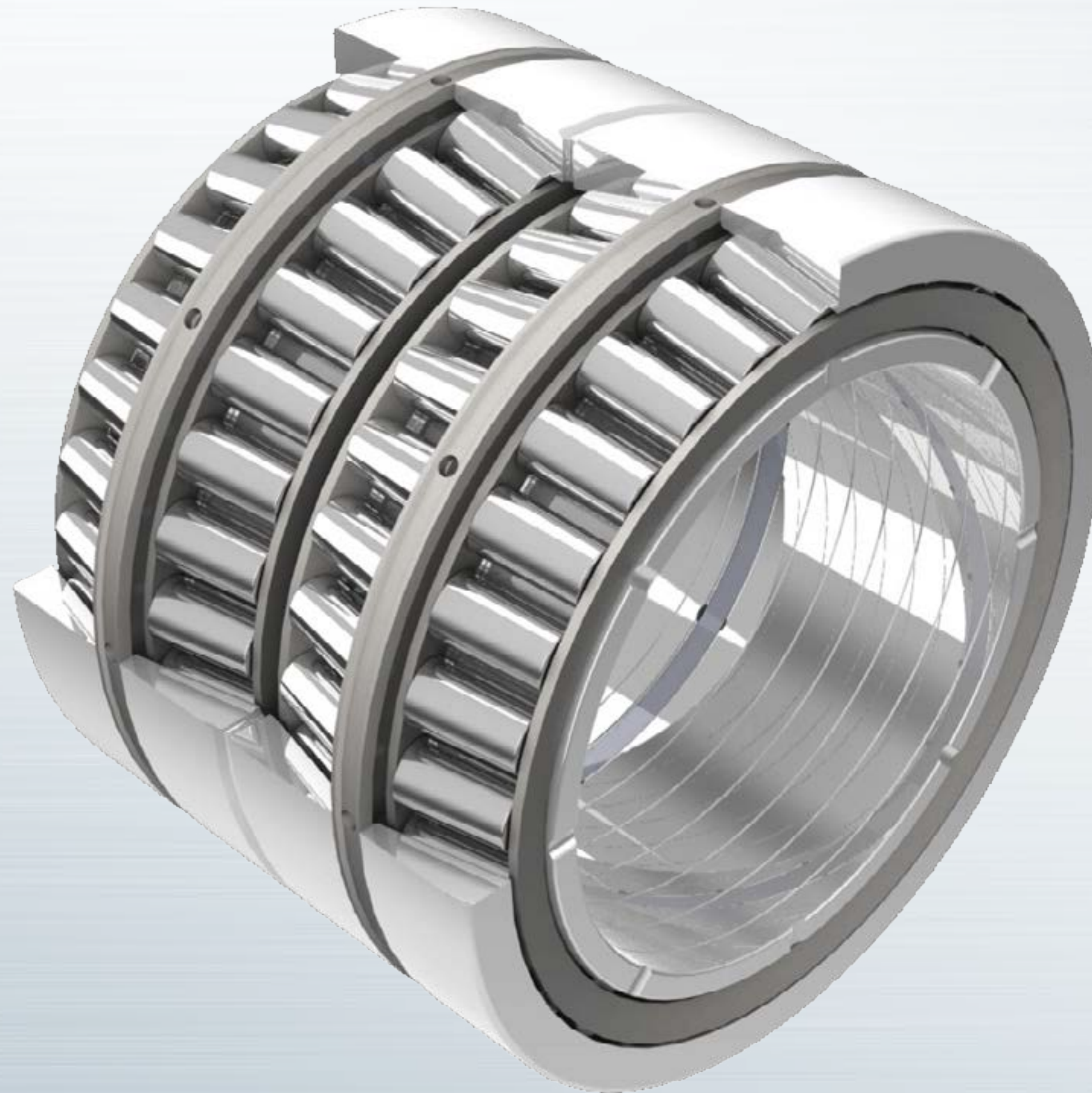
Other split bearing design solutions available upon request.

1 - Sealed split spherical roller bearing unit.

2 - Traditional split cylindrical roller bearing with cartridge and pedestal.

3 - Triple ring split cylindrical roller bearing unit.





POS	PART NUMBER	DESCRIPTION	QTY	MATERIAL	DBS.
1	L882410DGW	DOUBLE CONE	2	AISI 4320	
2	L882410D	DOUBLE CUP	1	AISI 4320	
3	L882410	SINGLE CUP	2	AISI 4320	
4	L882410EA	CUP SPACER	2	AISI 1020	
5	L882449DGWSP	CONE SPACER	1	AISI 52100	
6	L882449DGW-06	ROLLER	-	AISI 3316	
7	L882449DWG-07	CAGE	4	AISI 1020	

8208NW 30TH TERRACE
MIAMI, FL 33122 USA
1.305.592.4404 phone
1.305.592.4540 fax
sales@atlantic-bearing.com
www.atlantic-bearing.com

ATLANTIC BEARING SERVICES

TOLERANCES UNLESS OTHERWISE SPECIFIED:
X = ±0.008
XX = ±0.005
XXX = ±0.003
XXXX = ±0.002

PROPRIETARY AND CONFIDENTIAL
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ATLANTIC BEARING SERVICES. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ATLANTIC BEARING SERVICES IS PROHIBITED.

NOTES:
1. LOAD CAPACITY C = 8500 kN, Co = 20500 kN
2. Kia = 0.051 max.

THIRD ANGLE PROJECTION

DEBUR AND BREAK SHARP EDGES

3D MET SCALE DRAWING

REVISION

ACB-USA

TITLE:
L882449DGWTQO
FOUR ROW
TAPER ROLLER BRG

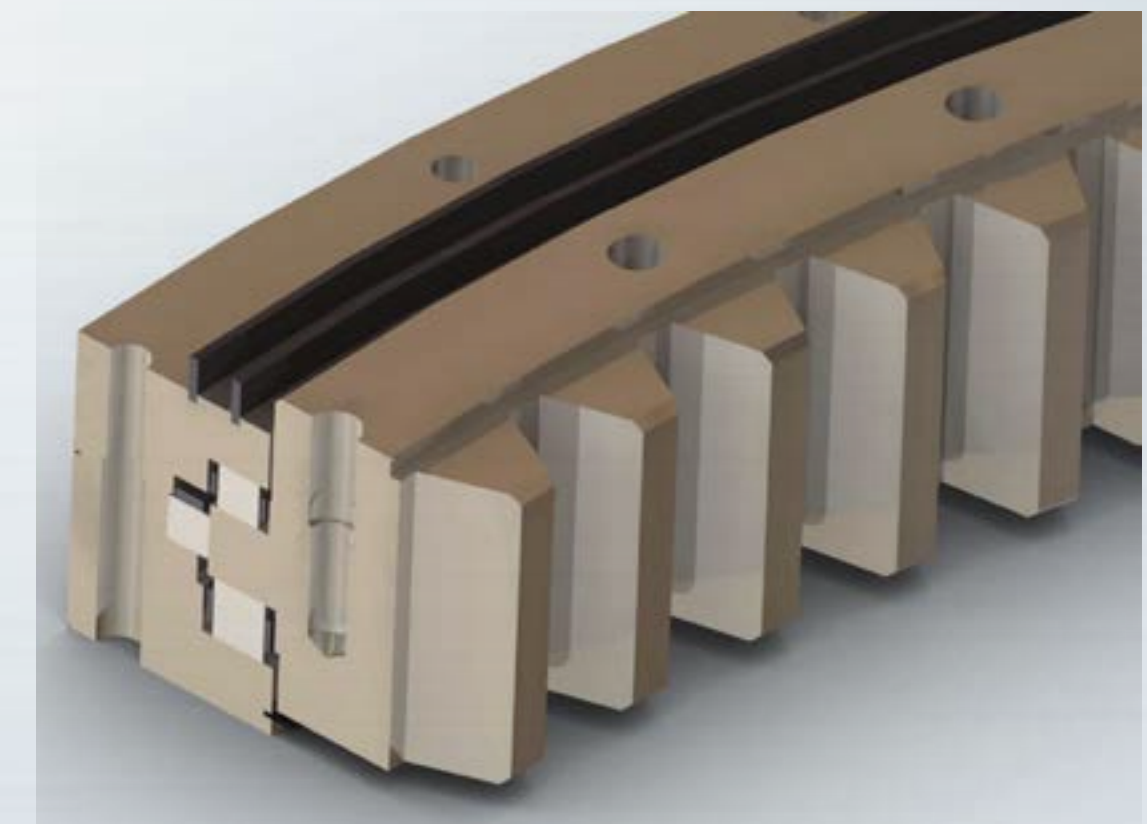
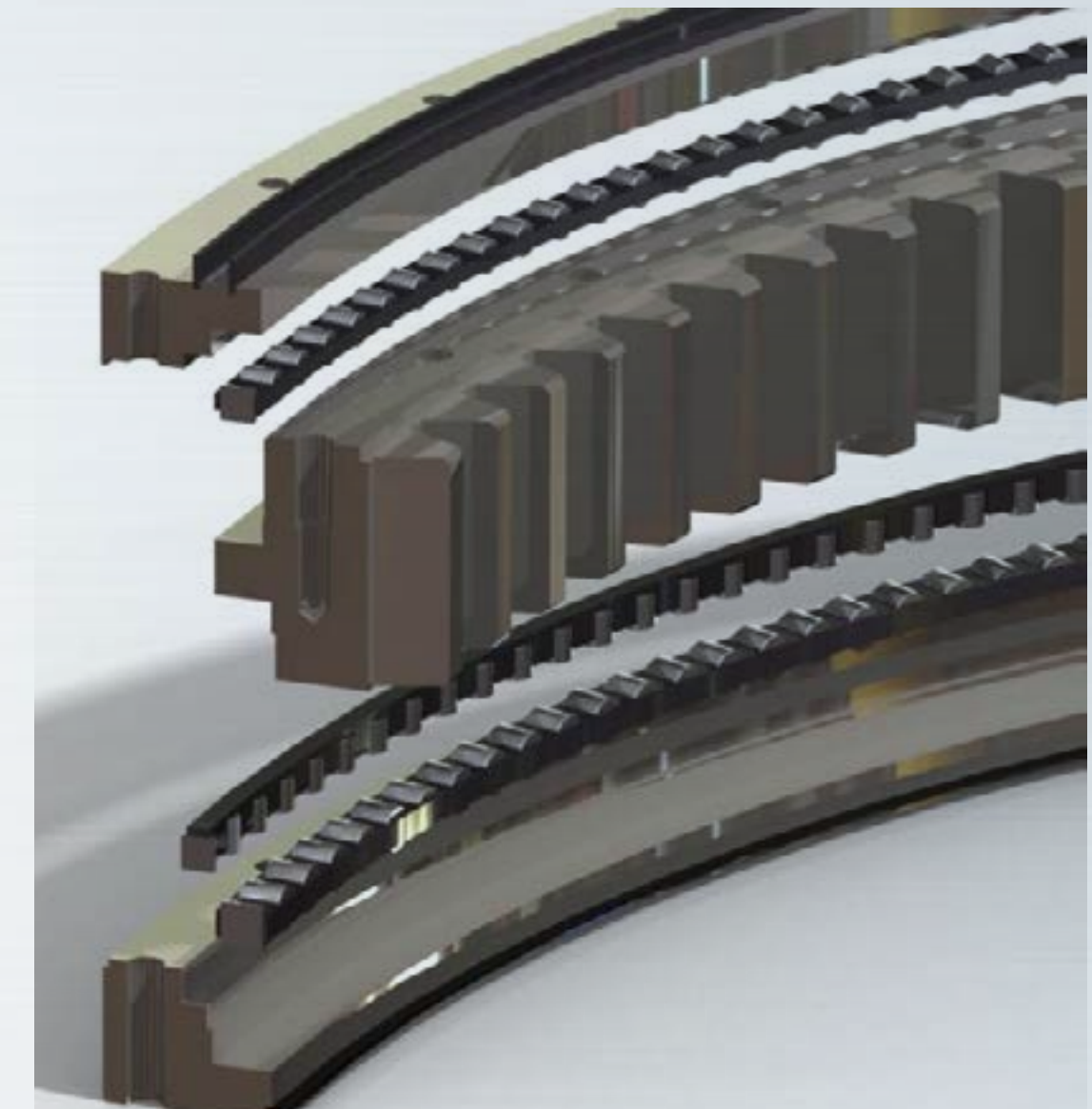
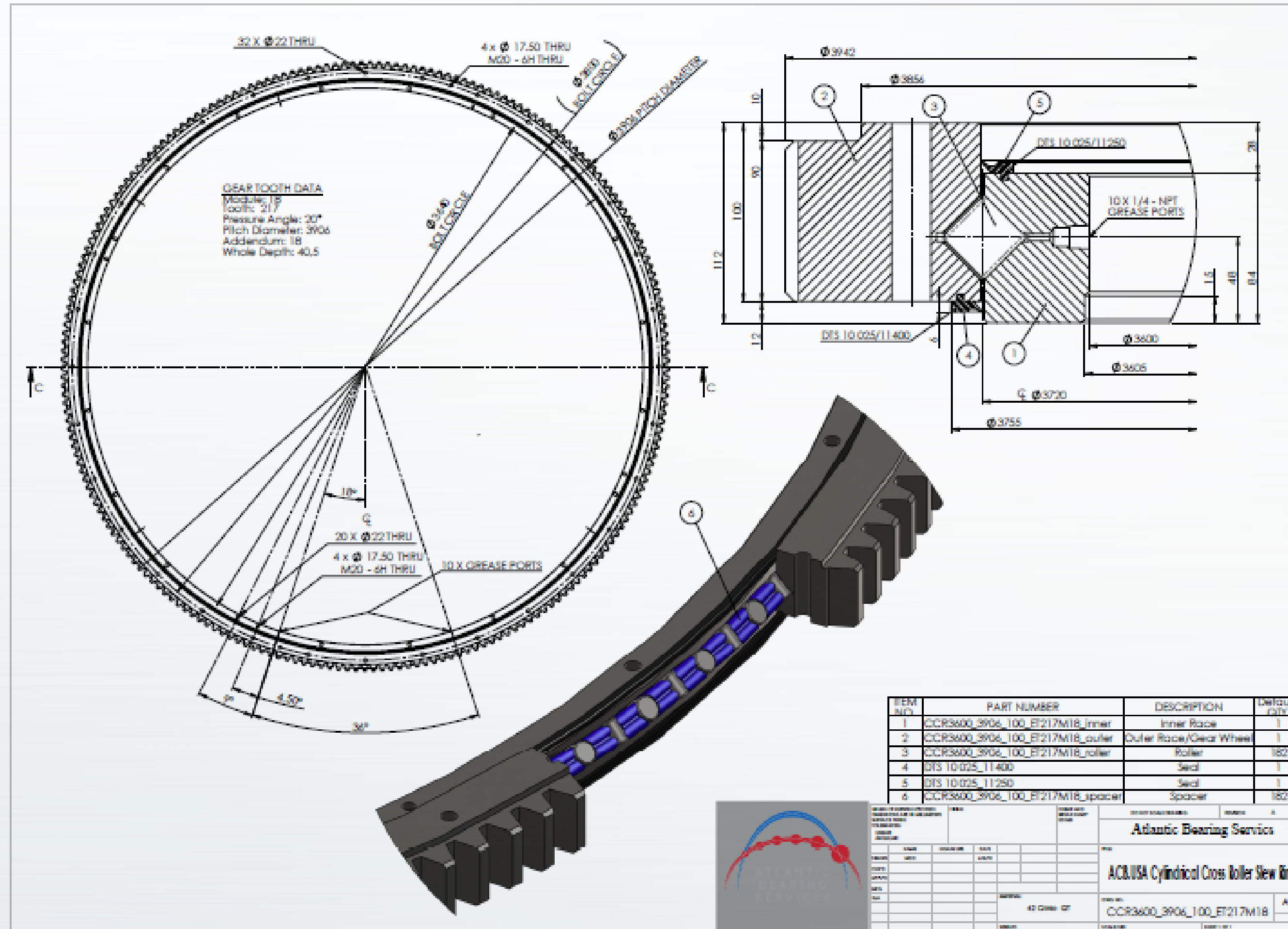
DWG NO:
ABSL882410DGWTQO-00ASSY

SCALE: A20

WEIGHT: 635Kg

SHEET 1 OF 1

Slewing Ring *Rio Tinto*





AEECE

ATLANTIC ENGINEERING CHAIN

LEYENDA

TRANSPORTADORES

- 1 Elevador de cangilones
- 2 Alimentador de tablillas
- 3 Transportador de cazuelas
- 4 Transportador reclamador
- 5 Transportador de arrastre
- 6 Transportador de banda

ARRIBO Y TRITURACIÓN DE MATERIAS PRIMAS

- 7 Arribo de caliza
- 8 Arribo de arcilla
- 9 Arribo de aditivos primarios
- 10 Arribo de carbón
- 11 Arribo de aditivos secundarios
- 12 Trituradora de martillos

MOLIENDA, DOSIFICACIÓN Y MEZCLA

- 13 Galpón de homogenización
- 14 Silo de caliza
- 15 Silo de arcilla
- 16 Silos de aditivos primarios
- 17 Molino de rodillos y placa para crudo
- 18 Silo de crudo
- 19 Molino de rodillos y placa para carbón
- 20 Filtro de mangas
- 21 Silos de carbón
- 22 Chimenea del molino de carbón

PRECALENTAMIENTO

- 23 Pre-calcinador
- 24 Torre acondicionadora

FASE DE HORNO

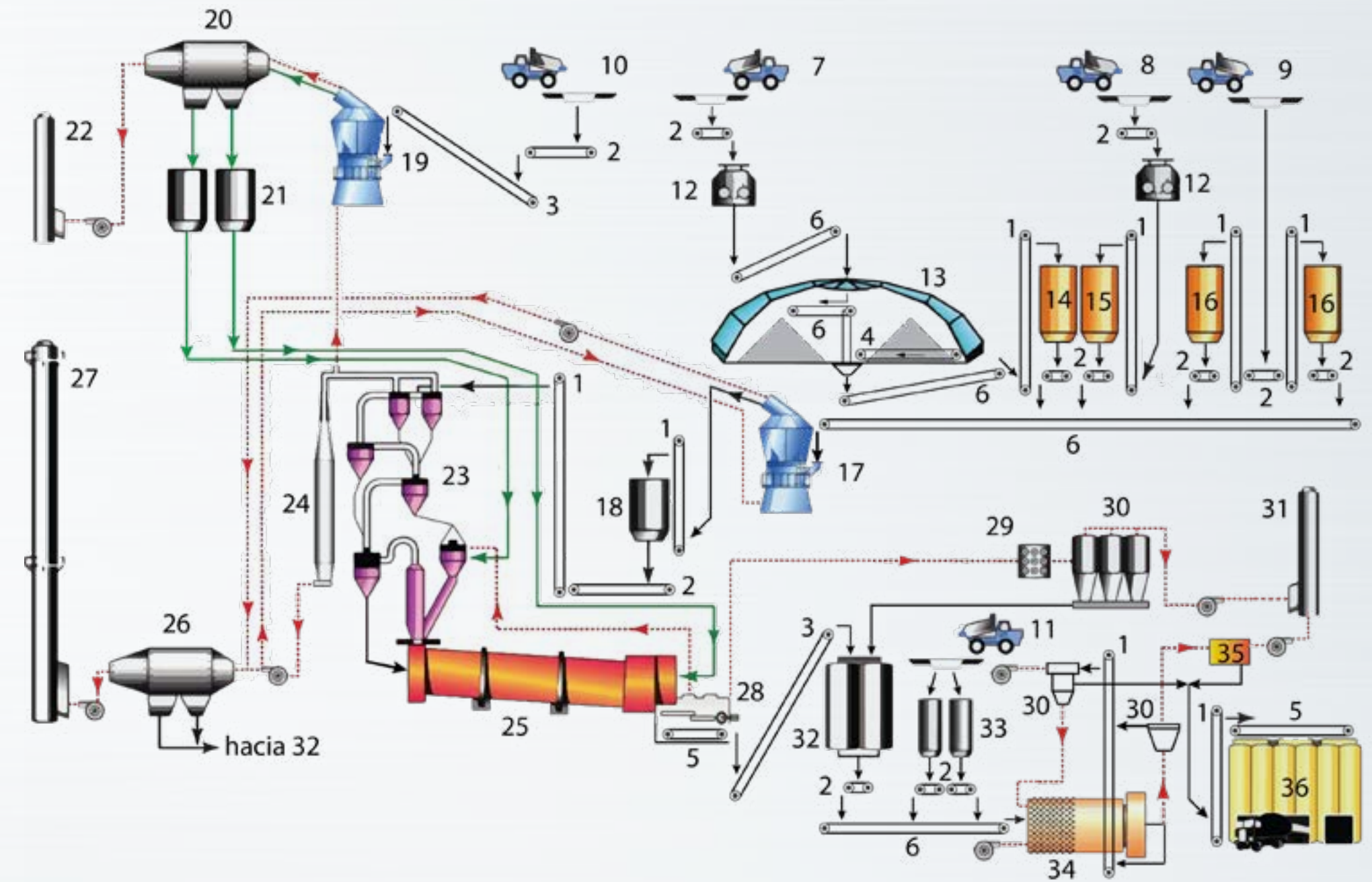
- 25 Horno rotativo
- 26 Filtro de mangas
- 27 Chimenea del horno

ENFRIAMIENTO DEL CLÍNKER Y MOLIDA FINAL

- 28 Enfriador de clínker
- 29 Intercambiador de calor
- 30 Separadores de polvo
- 31 Chimenea del enfriador
- 32 Silo de clínker
- 33 Silos de aditivos secundarios
- 34 Molino de bolas
- 35 Colector de polvo
- 36 Silos de miningo

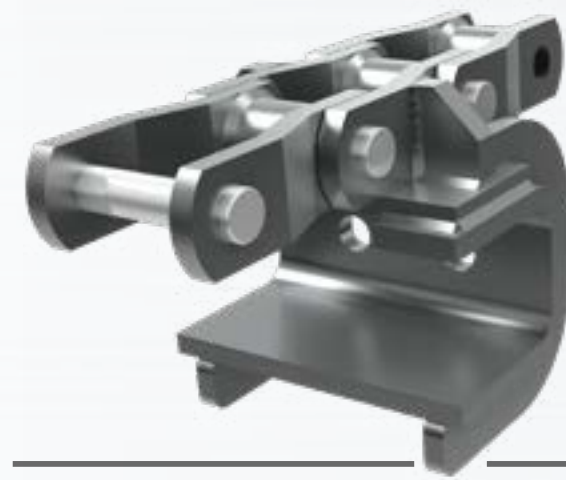
LINEAS DE FLUJO POR COLOR

- Negro: Miningo, clínker, crudo y sus ingredientes
- Verde: Carbón molido
- Rojo Punteado: Aire con polvo



AEC Chain emerged as a provider of new highly engineered chains designed to ensure the highest performances and longest lifespan. Every AEC chain component is manufactured using the highest quality steels/ alloy steels.

AEC chains receive a proper heat treatment attaining the right balance between resistances to shock loading forces and long wear life. AEC's main goal is to offer customer a personalized solution guarantying long-lasting and cost-effective chains.



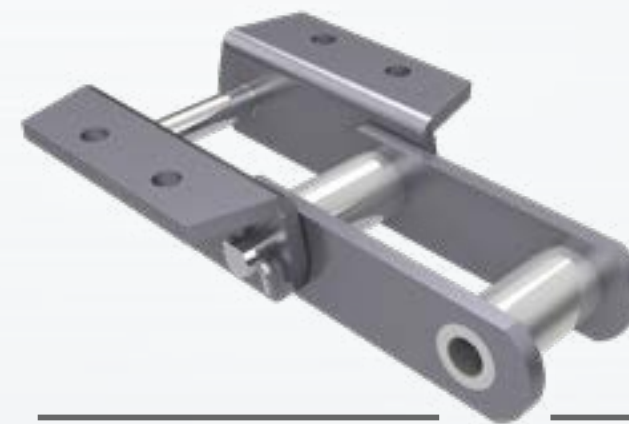
1 **AECWHX124HDHK**
Bridge Scraper Reclaimer



2 **AEC2532NE300**
Bucket Elevator



3 **AECX678WH82**
Aerial Conveyor



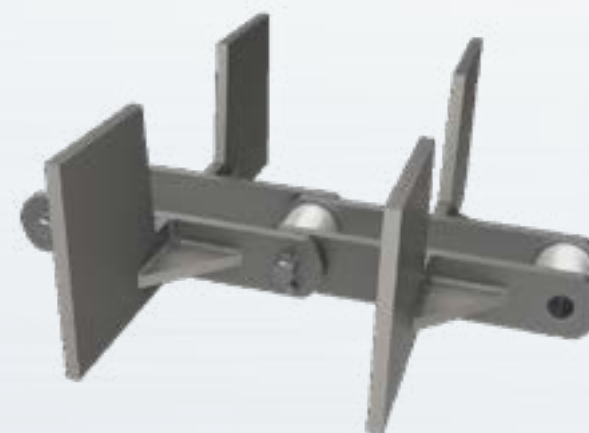
4 **AECER111K22**
Conveyor Elevator



5 **AECER864K443**
Conveyor Elevator



6 **AECP250HT**
Drop Forged Chain



7 **AECP203.2SP**
Drag Chain



8 **AECWR4185A2SP**
Bridge Scraper Reclaimer



9 **AEC678Ht**
Drop Forged Chain / Aerial Conveyor