



FOR THE STEEL INDUSTRY

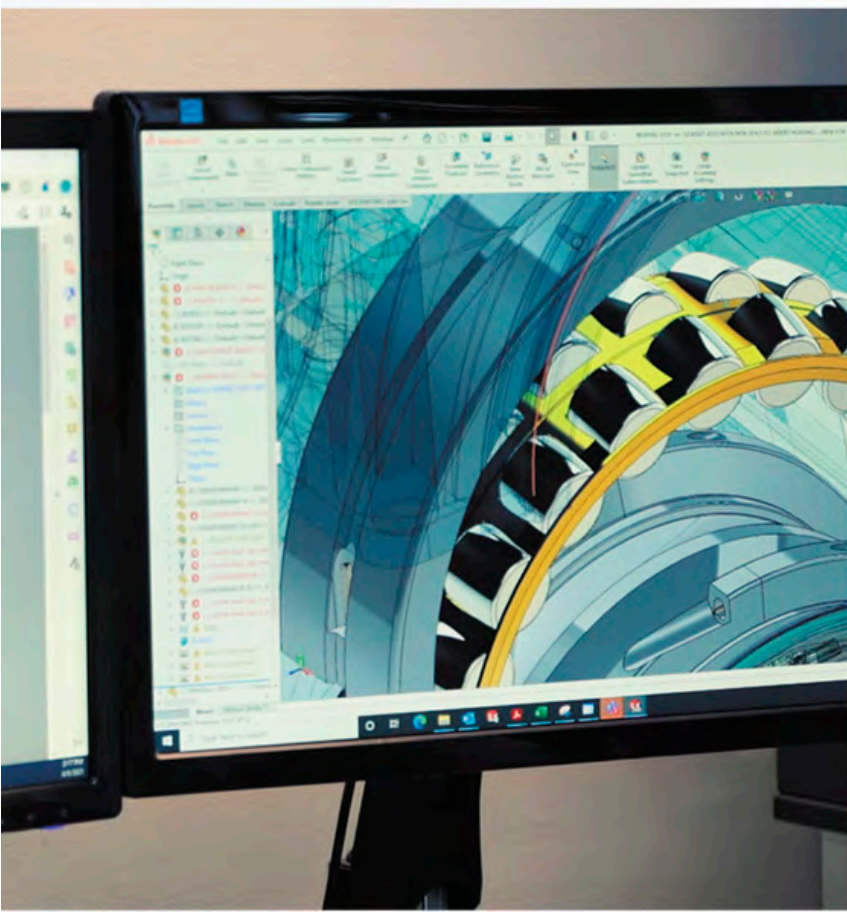
At ABS, we work with the steel industry to design technical solution that best suits to their needs; manufacturing elements fully compliant with their quality requirements and anticipating all scenarios that guarantee the answer of our products for the most demanding production conditions.





WE ARE ENGINEERING

We design and provide the highest bearings and power transmission products, services & solutions to the heavy industry worldwide.





- 1 Miami, USA *Headquarters*
- 2 Texas, USA *Repair Center & Office*
- 3 Puebla, MEXICO *Repair Center & Office*
- 4 Oaxaca, MEXICO *Repair Center & Office*
- 5 Natal, BRAZIL *Repair Center & Office*
- 6 Cartago, COSTA RICA *Repair Center & Office*
- 7 Pamplona, SPAIN *Office & Warehouse*
- 8 Dalian, CHINA *Repair Center & Factory & Office*
- 9 Milan, ITALY *Repair Center & Factory & Office*

- 10 Madrid, SPAIN *Office*
- 11 Bolivia *Office*
- 12 Chile *Office*
- 13 Guatemala *Office*
- 14 Panamá *Office*
- 15 Santo Domingo, RD *Office*
- 16 Lima, PERU *Office*
- 17 Colombia *Office*
- 18 Quito, ECUADOR *Office*

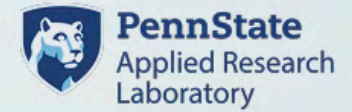


ABS INTEGRATED VALUE PROPOSITION





MEMBERSHIPS AND CERTIFICATIONS





INDUSTRIES WE SERVE

STEEL



MINING



PAPER



WIND



CEMENT



SUGAR



FOOD & DRINK



OUR BRANDS

The design and manufacture of our components is carried out using state-of-the-art technology and undergoes the necessary quality controls to guarantee their reliability in the most demanding industries.

MGS GEARS

MGS GEARS S.r.L. is a leader in all industrial sectors in which parts for the mechanical power transmission are employed, by offering over 30 years' experience in designing and creating gearboxes and highly customized special complexes, in order to meet all our clients' needs.

www.msgsgears.com

ACB

ATLANTIC CUSTOM BEARINGS

State of art design, careful manufacturing process and quality control practices, allows us to manufacture customized bearing with the highest quality of the market. All key processes, from bearing design to raw material selection, forging, heat treatment, grinding up and assembly operation.

www.acb-bearings.com

AEC

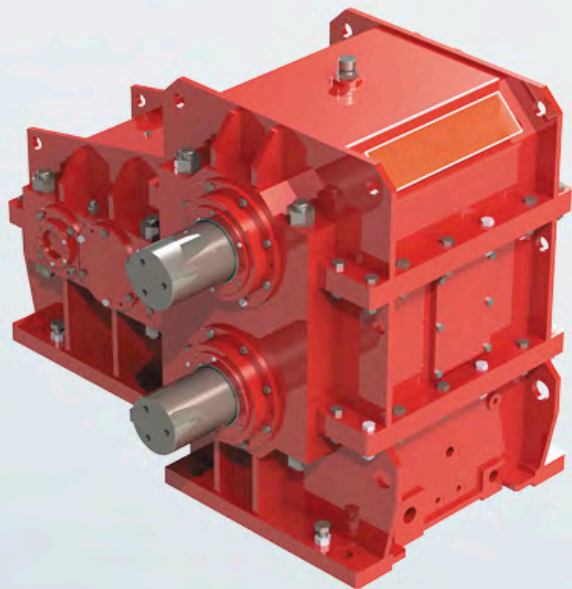
ATLANTIC ENGINEERING CHAIN

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

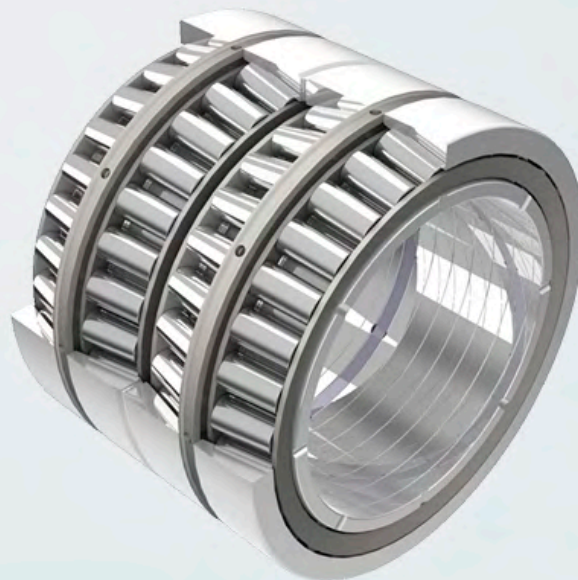
www.aec-chains.com



OUR PRODUCTS FOR THE STEEL INDUSTRY



Gearboxes



Bearings



OUR PRODUCTS FOR THE STEEL INDUSTRY



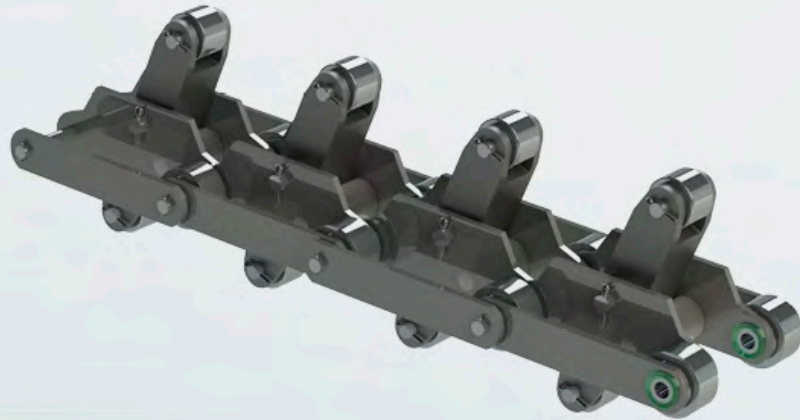
Gears



Cardan Shafts



OUR PRODUCTS FOR THE STEEL INDUSTRY



Engineering Chains



Planetary Gearboxes



OUR PRODUCTS FOR THE STEEL INDUSTRY



Special Bearings



Bearing Housing



STEEL CUSTOMER LIST

We work day by day for our clients, contributing to the simplification of their operational processes, helping them in making technical decisions and guaranteeing our availability and immediacy in the event of any need.





ACEB

ATLANTIC CUSTOM BEARINGS



The United States of America



CERTIFICATE OF REGISTRATION
PRINCIPAL REGISTER

*The Mark shown in this certificate has been registered in the United States
Patent and Trademark Office to the Name of the registrant.*

Int. Cl.: 7

Prior U.S. Cls.: 13, 19, 21, 23, 31, 34 and 35

United States Patent and Trademark Office

Reg. No. 3,492,185

Registered Aug. 26, 2008

ACB-USA
ATLANTIC CUSTOM BEARING

ATLANTIC BEARING SERVICES LLC (FLORIDA
CORPORATION)
4208 NW 30TH TR.
MIAMI, FL 33122

FOR: MACHINE PARTS, NAMELY: BEARINGS; MACHINE
PARTS, NAMELY: BEARING HOUSINGS; MACHINE PARTS,
NAMELY: ROLLER BEARINGS; MACHINE PARTS,
NAMELY: BEARINGS AND BUSHINGS, IN CLASS 7 (U.S.
CLS. 13, 19, 21, 23, 31, 34 AND 35).

FIRST USE 6-1-2007; IN COMMERCE 6-1-2007.

THE MARK CONSISTS OF STANDARD CHARACTERS
WITHOUT CLAIM TO ANY PARTICULAR FONT, STYLE,
SIZE, OR COLOR.

NO CLAIM IS MADE TO THE EXCLUSIVE RIGHT TO USE
"USA", APART FROM THE MARK AS SHOWN.

SER. NO. 77-379,902, FILED 1-24-2008.

JOHN WILKE, EXAMINING ATTORNEY

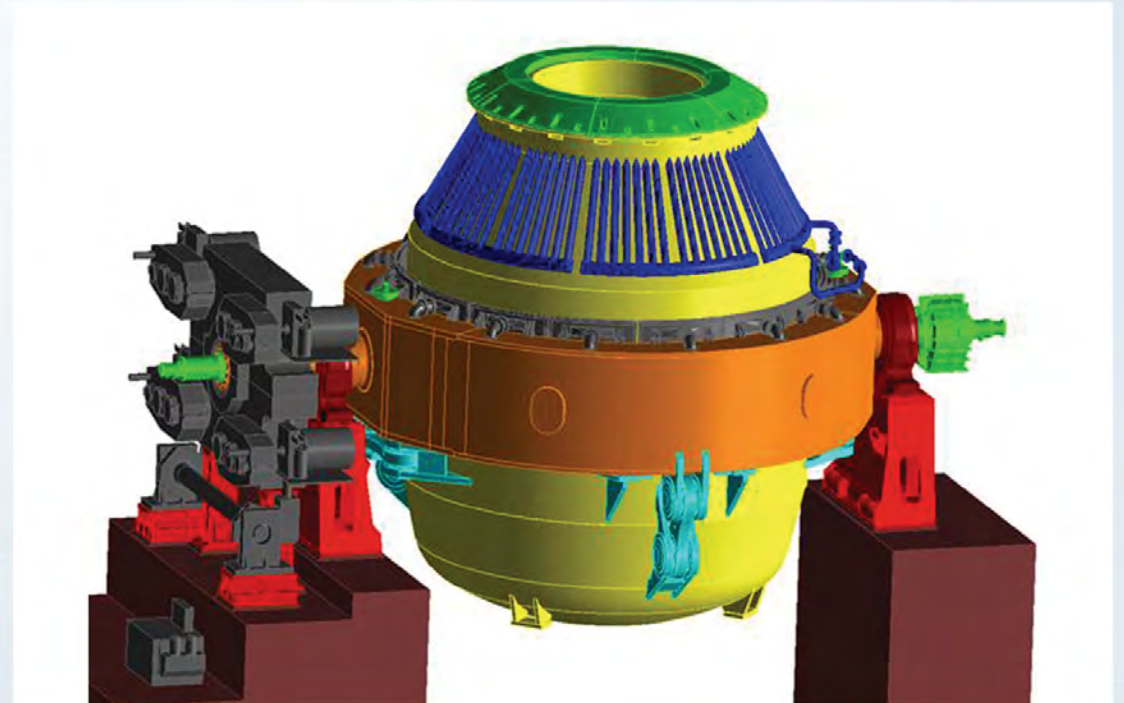
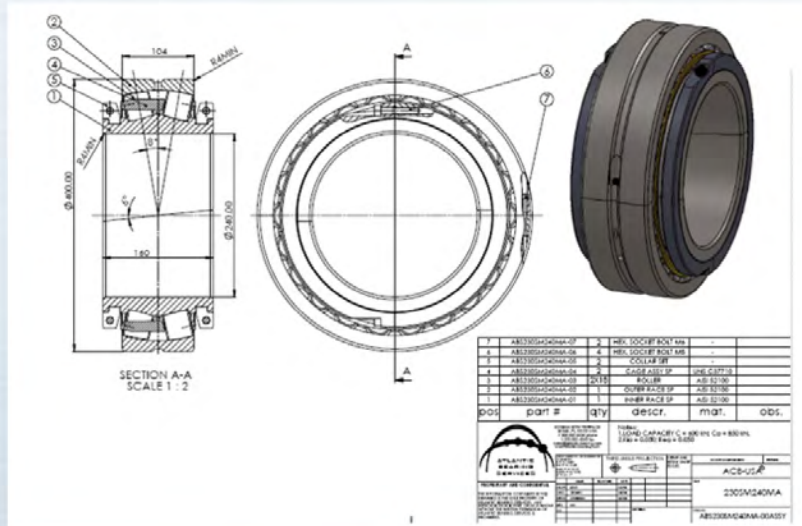


John W. Wilke

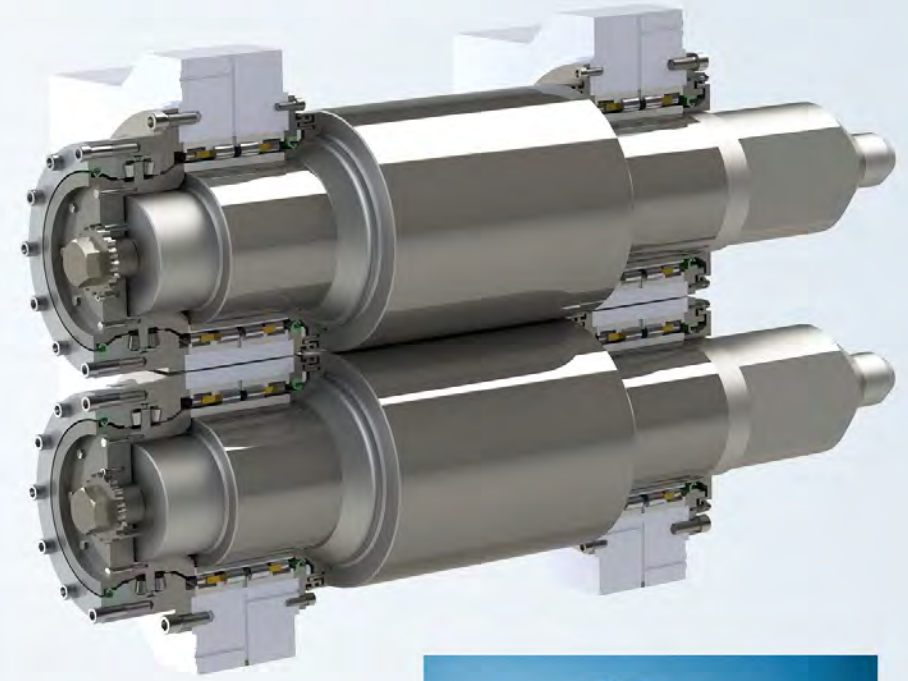
Acting Director of the United States Patent and Trademark Office



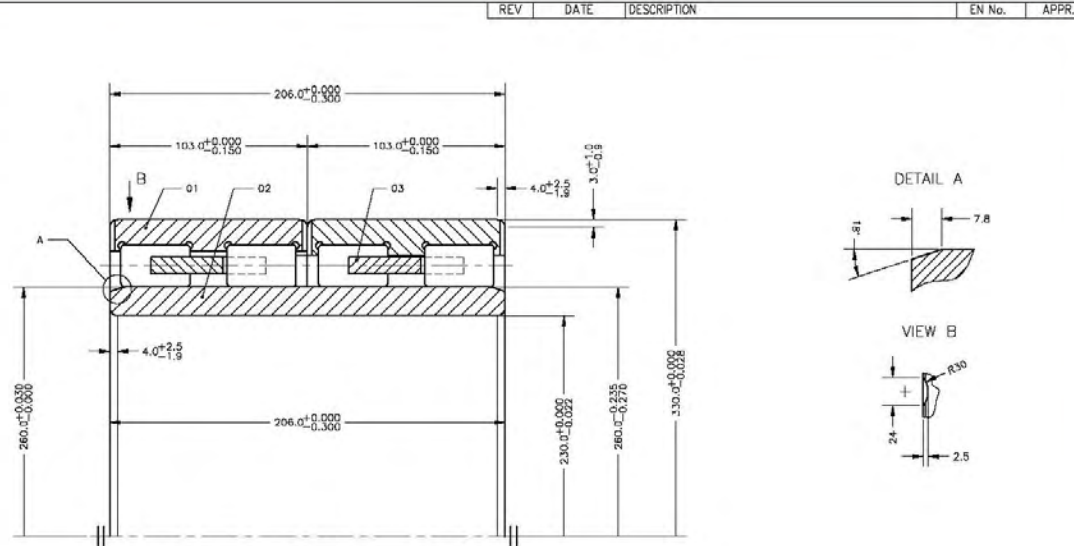
Split Spherical Roller Bearing for USIMINAS Steel Converter



Four row cylindrical roller bearing



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- 6- RADIAL CLEARANCE 0.235-0.300.
- 5- K_{ia} 0.020, K_{eo} 0.035
- 4- 6 OIL GROOVE @ 60°
- 3- LOAD CAPACITY $C = 1\ 870\ 000\ N$, $C_0 = 4\ 000\ 000\ N$.
- 2- NOT TOLERATE MEASURE BY ISO.
- 1- SHAPE LOCATION TOLERANCE SHOULD BE TO CURRENT STANDARD.

03	CAGE	2	1045	1.78/UNIT
02	INNER RING	1	SAE 52100	18.7/UNIT
01	OUTER RING	2	SAE 52100	10.6/UNIT
	QTY		MATERIAL	OTHER FEATURES



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

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ATLANTIC BEARING SERVICES LLC.

2007

DEFAULT TOLERANCES
X ±0.50
XX ±0.25
XXX ±0.13
XXX ±0.06
X/MAX = 25MICRA
REGULATED
SIGNIFICANT
MAJOR

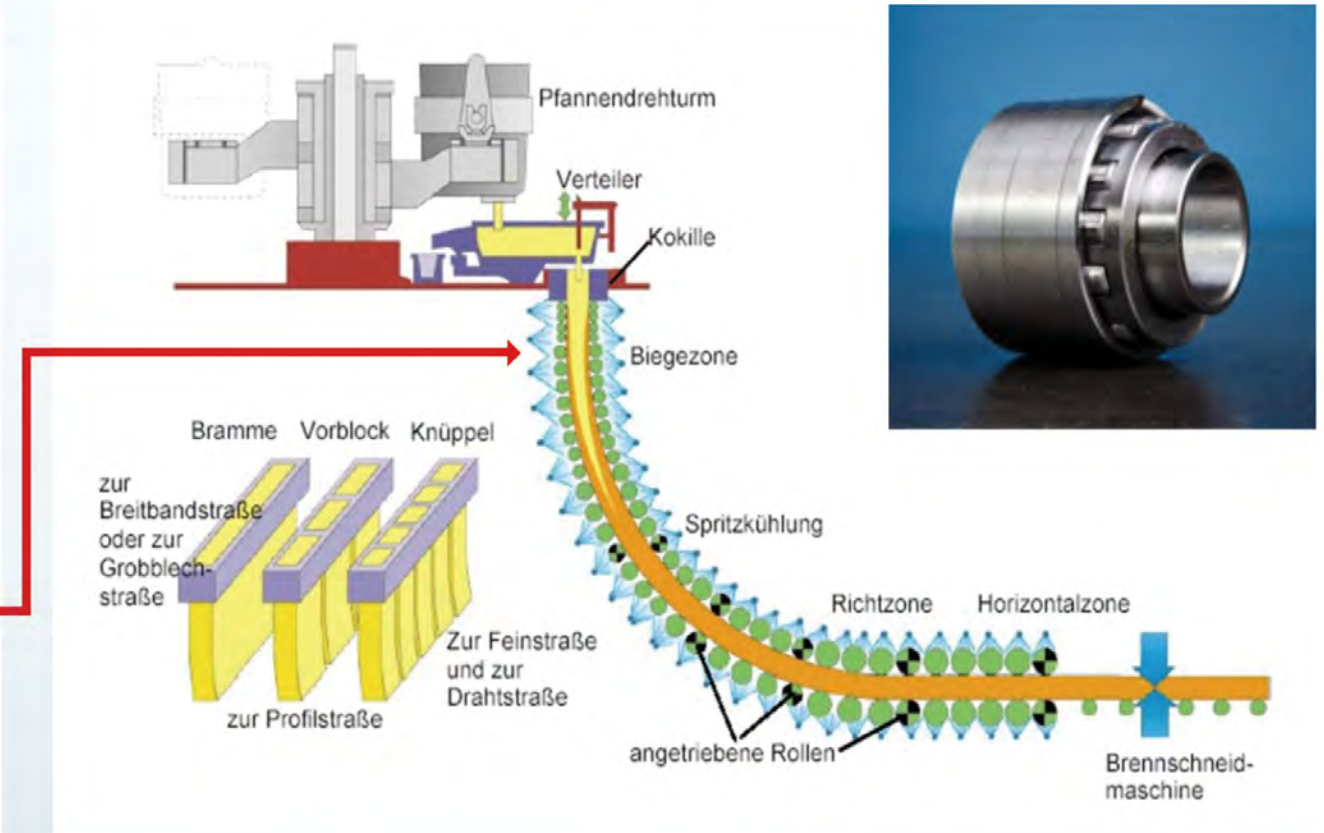
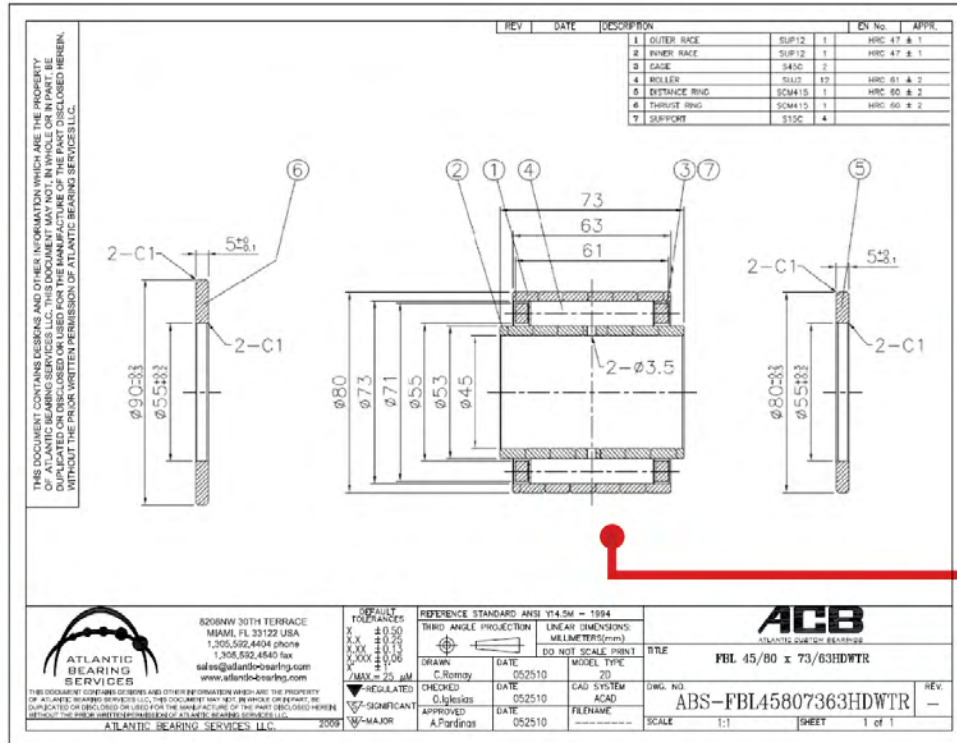
REFERENCE STANDARD ANSI Y14.5M - 1994
THIRD ANGLE PROJECTION
DRAWN DATE 10/31/07
MNT DATE 10/31/07
CHECKED DATE 10/31/07
APPROVED DATE 10/31/07
AP

LINEAR DIMENSIONS: LINDIM
DO NOT SCALE PRINT
TITLE ACB-USA 313824
DWG. NO. ABS101607-313824
SCALE FIT SHEET -



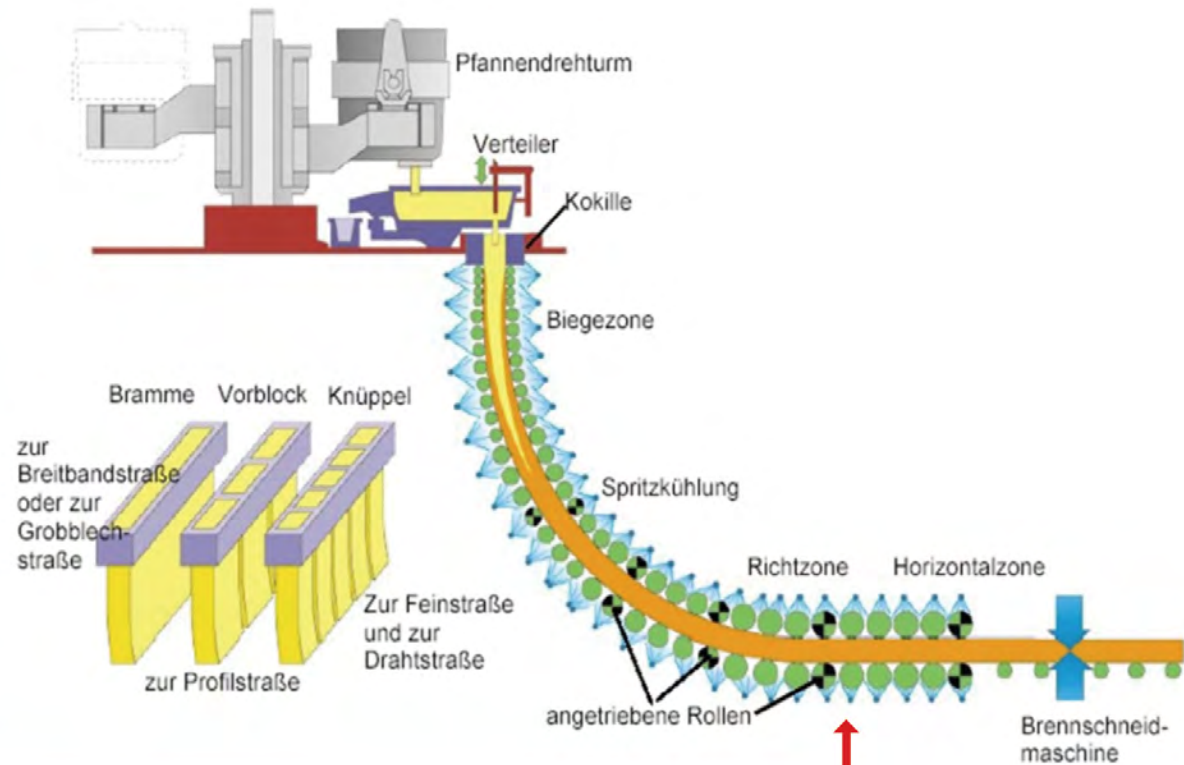
FLB45/80x70/70 Flexible CRB Continuous Casting Machine

Altos Hornos de Mexico (AHMSA) working from 2003

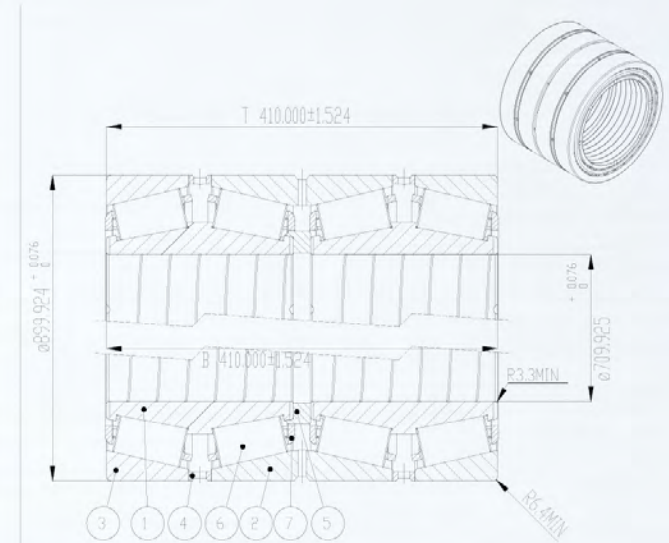
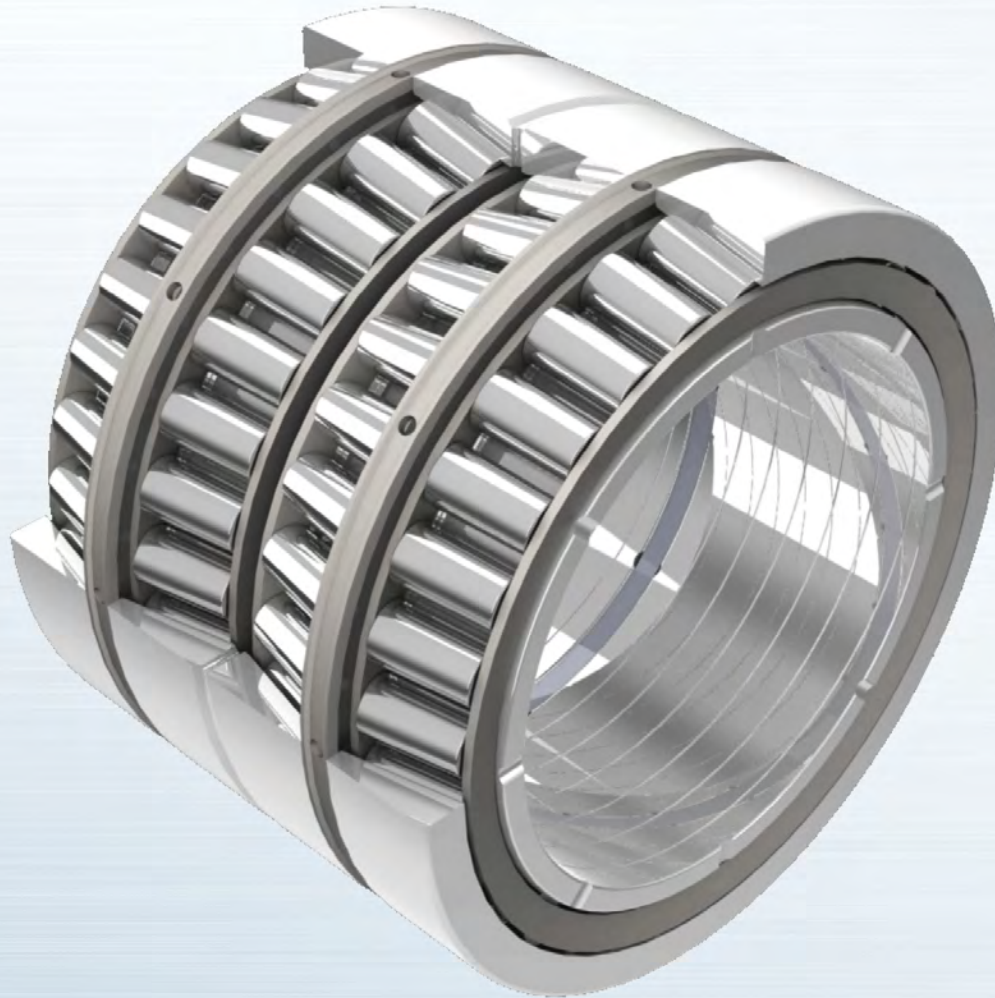


800M100BH Split Bearings and water cooling housing Continuous Casting Machine

Altos Hornos de Mexico (AHMSA) working from 2005



TQO L88244DGW four row taper roller bearing *Arcelor Mittal*



POS	PART NUMBER	DESCRIPTION	QTY	MATERIAL	DRS.
1	L882410DGW	DOUBLE CONE	2	AISI 4320	
2	L8824100	DOUBLE CUP	1	AISI 4320	
3	L8824100	SINGLE CUP	2	AISI 4320	
4	L8824100A	CUP SPACER	2	AISI 1020	
5	L882449DGWSP	CONE SPACER	1	AISI 52100	
6	L882449DGW-06	ROLLER	-	AISI 3316	
7	L882449DGW-07	CAGE	4	AISI 1020	

NOTES:
1. LOAD CAPACITY C = 8500 kN, C₀ = 20500 kN
2. K₁₀ = 0.051 max.

ATLANTIC BEARING SERVICES
8888W 3004 TERRACE
SUITE 17, 3000 LBS
L882449DGW-06
L882449DGW-07
SOPHIA, ARIZONA 85649
SOPHIA@atlantic-bearing.com
WWW.ATLANTIC-BEARING.COM

THIRD ANGLE PROJECTION

REVISIONS

NO.	DATE	DESCRIPTION	BY	CHKD
1	01/11/2011	ISSUED FOR MANUFACTURE	ACB	ACB

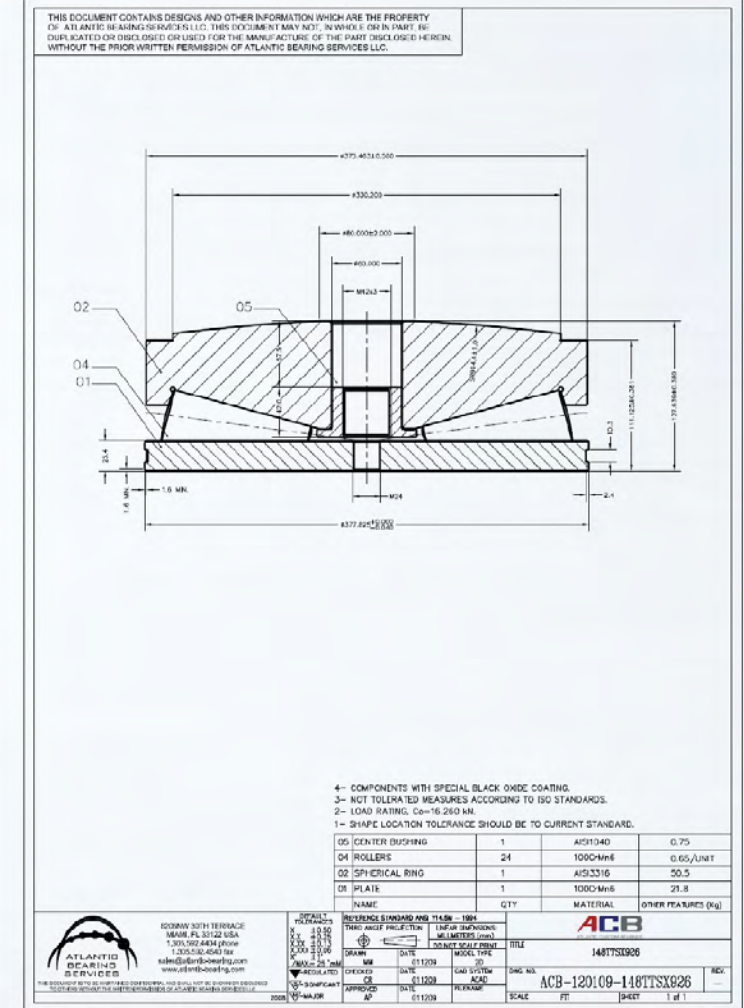
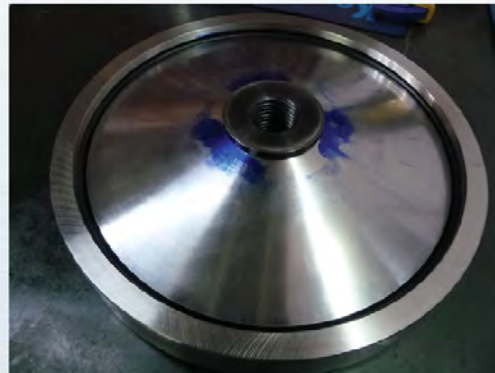
ACB-USA

TITLE: L882449DGW TQO FOUR ROW TAPER ROLLER BRG

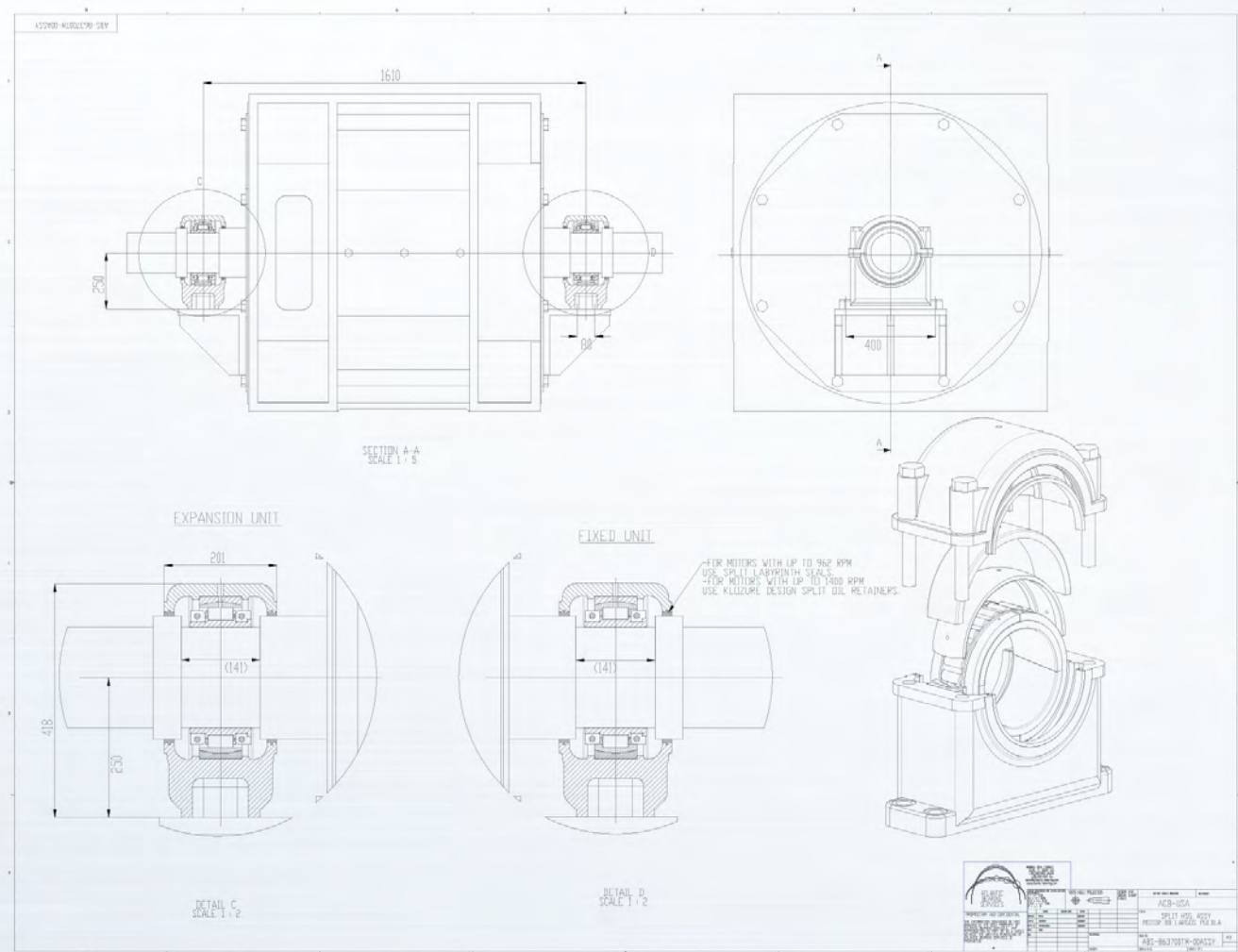
REV NO: A

SCALE: 1:1

SHEET 1 OF 1



Triple ring cylindrical roller bearing units for 5000 HP Synchronic Electric Motor replacing plain bearings



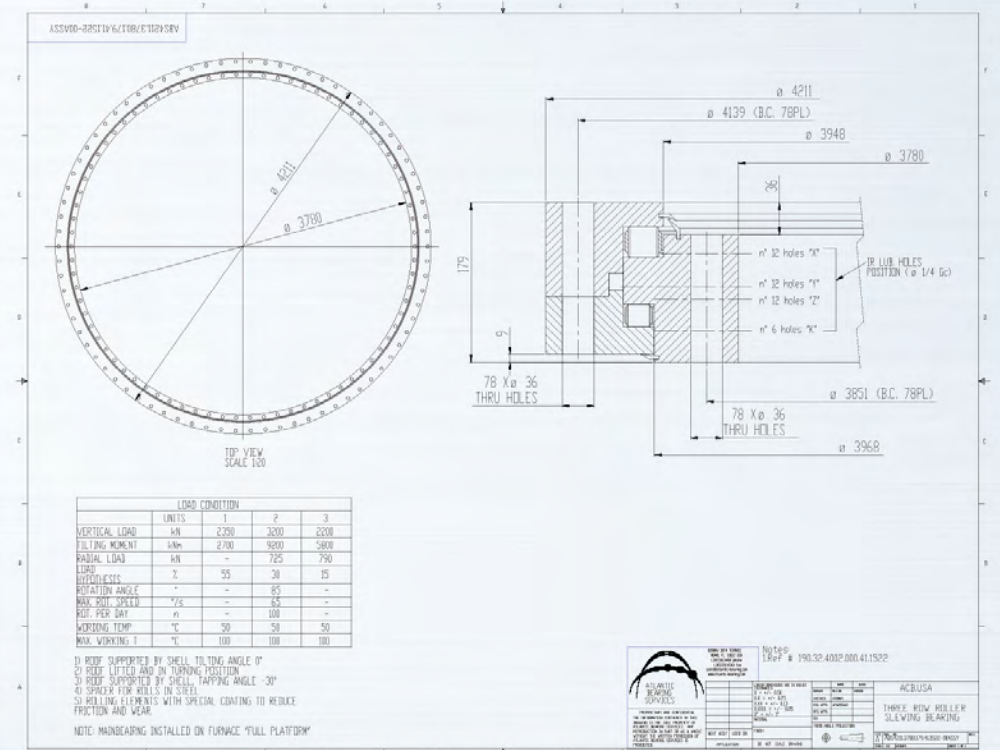
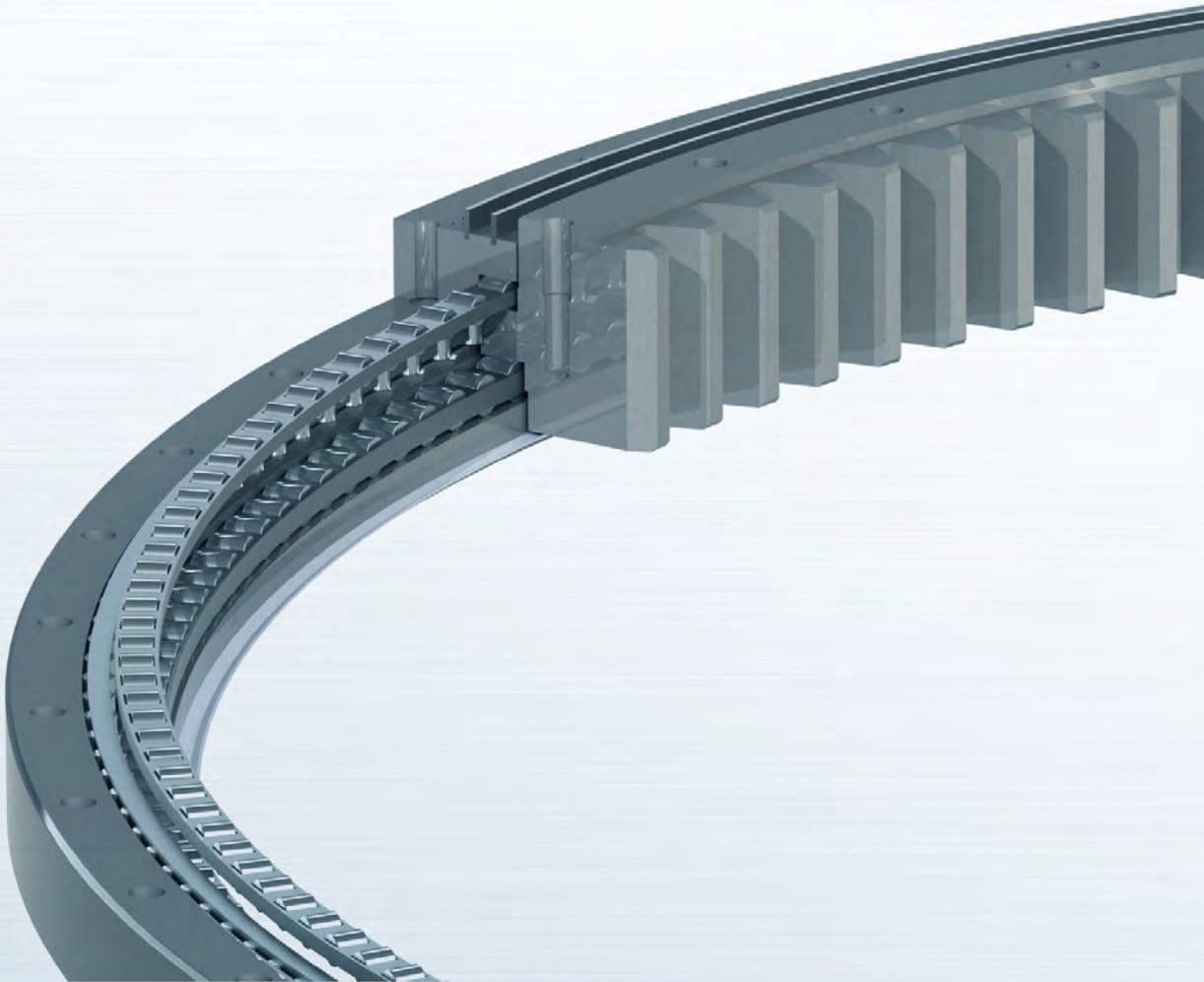
Cooper Type Split Cylindrical Mounted Roller Bearing



Split SRB with bore Bore Ø 17" (431.8 mm) / Brass machined cage / rings with special HT.
Replacing the traditional bronze sliding bearing for the ACB split SRB a sugar mill could save more than \$ 10000 per bearing per year* Feasibility study available on request.

** Main saving concepts: Lubricant saving / Energy saving / water (for cooling) saving / others.*

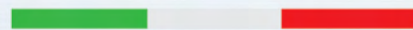
Large Three Row Cylindrical Roller Slewing Ring



Three row slewing bearing for mining material reclaimer.
Bore Ø 4200 mm / Rollers with engineering surface coating / special cage / rollers with ultra optimized profile help to accommodate better the load when simultaneously the tilting moment and swining rotation are present.

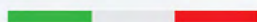


MGS GEARS



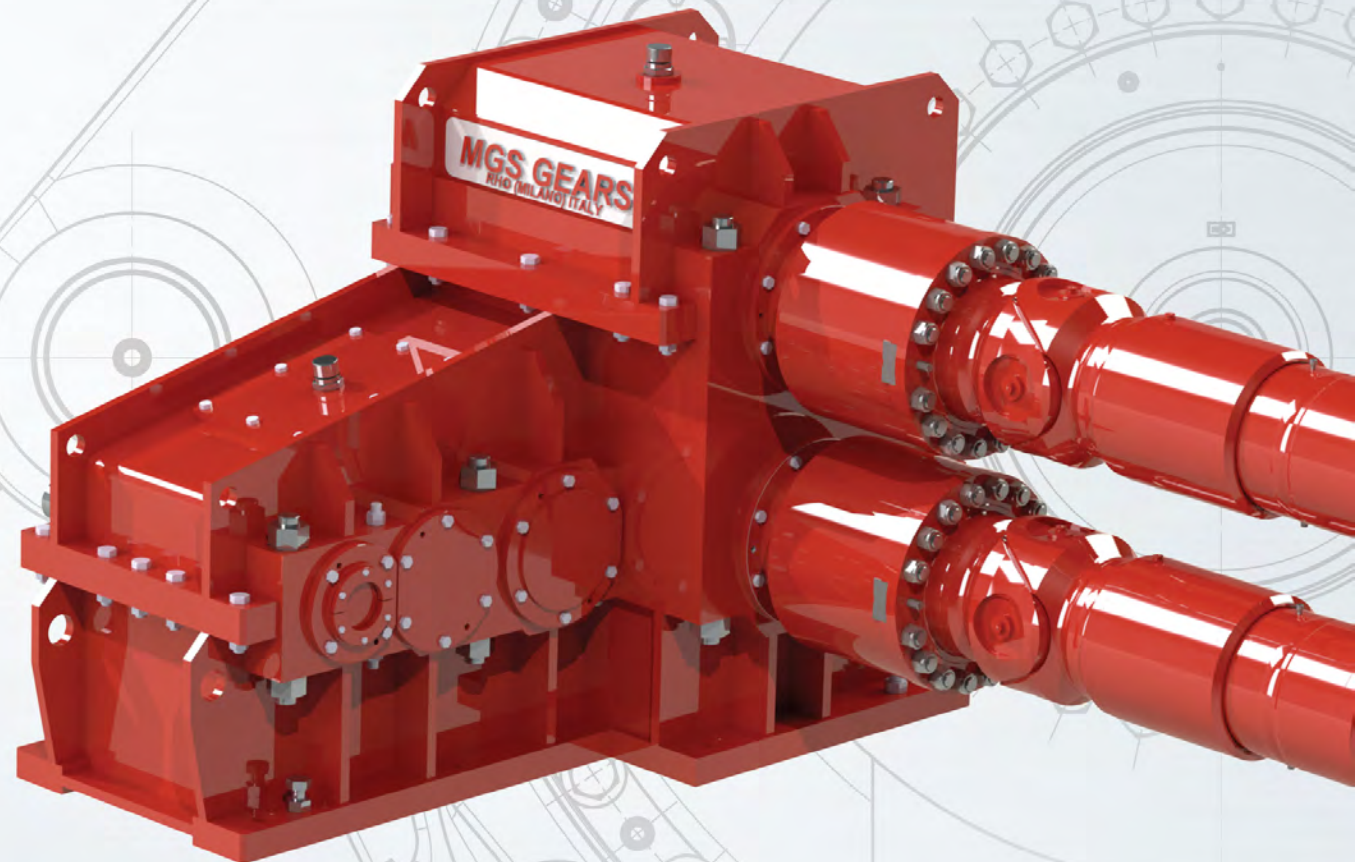


MGS GEARS



SPECIAL GEARS AND GEARBOXES

For the Steel Industry



Special Gears and Gearboxes

MGS GEARS S.r.L. Is one of the lead power transmissions and gearboxes providers for all heavy industry sectors, offering over 30 years of experience in designing and manufacturing gearboxes and specialized mechanical components, all to suit the needs of each customer

MGS GEARS S.r.L. Proud Member and part of 13 European companies that are members of AGMA (“American Gear Manufacturers Association”) 3rd member in Italy.

Gears and gearbox design are carried out using the latest materials. Subject to all necessary QC, included but not limited to destructive and non-destructive testing in order to ensure maximum reliability.

Materials, heat treatments, gear generation and grinding processes are done using the highest advanced methods, protocols and QC techniques in order to ensure maximum reliability.





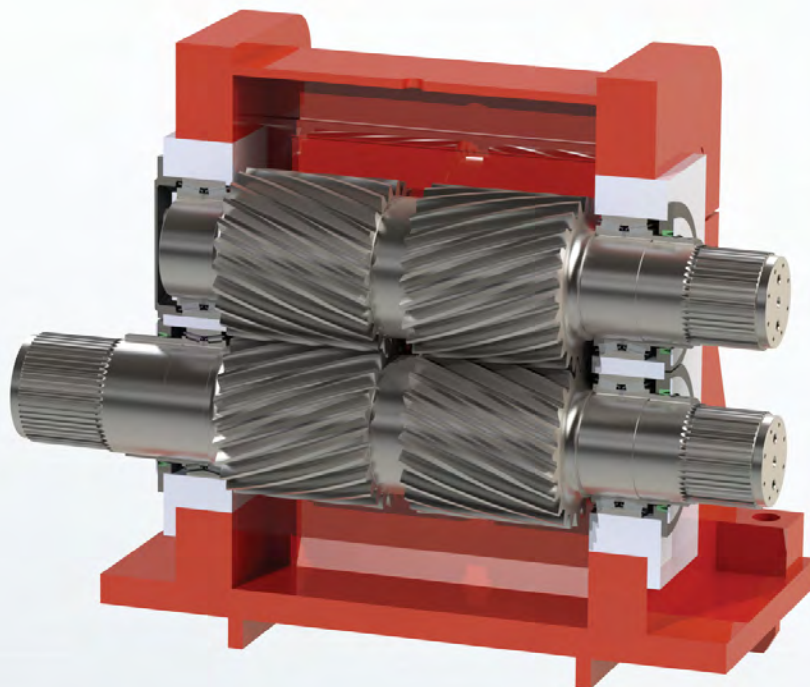
Electrowelded Girth Gears *For the Mining Industry*



We have designed and manufactured hundreds of electrowelded gears; 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.

Special Gears and Gearboxes

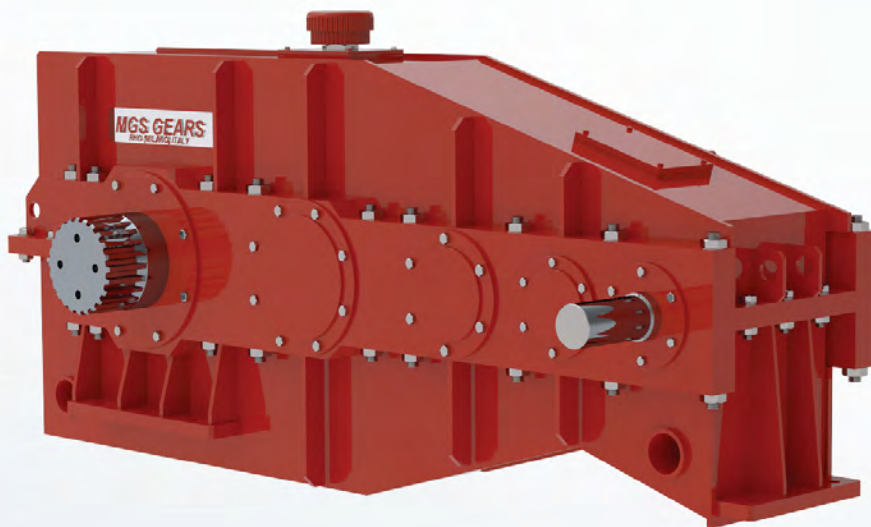


01 F0 pinion stand gearbox

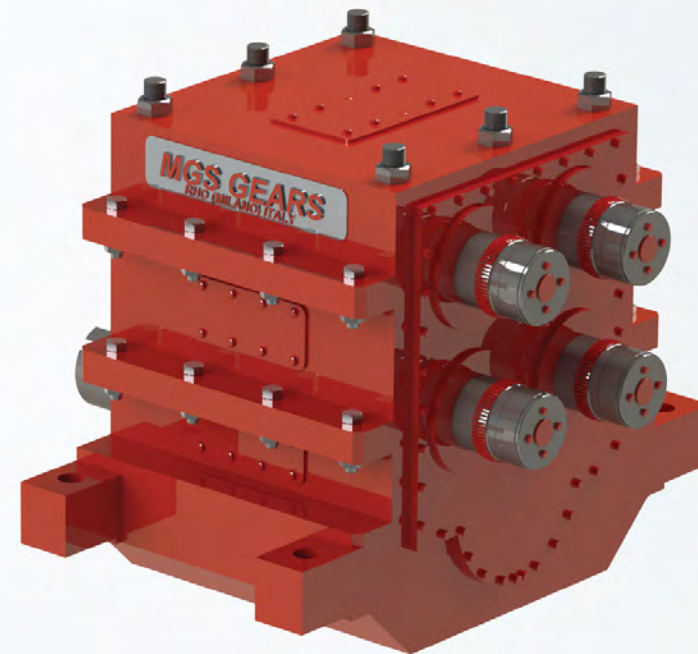


02 Duo gearbox

Special Gears and Gearboxes



03 180 tons crane special gearbox

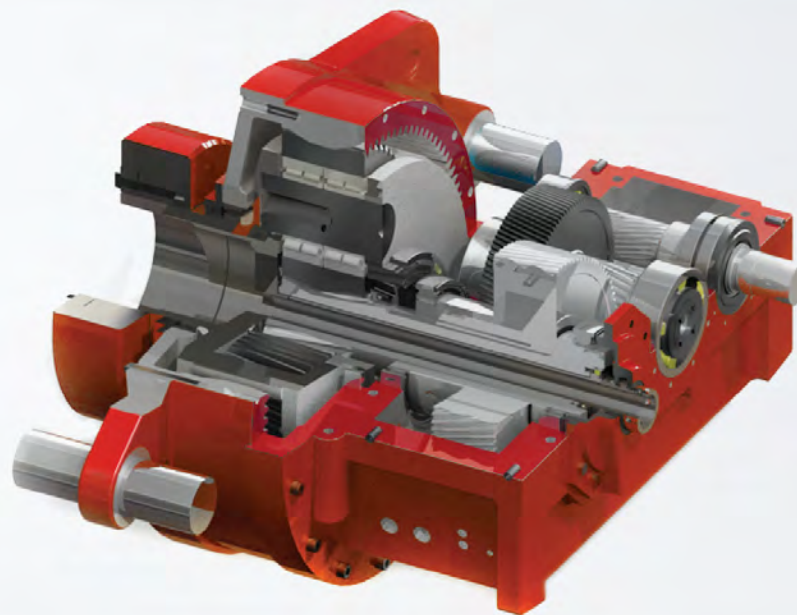


04 Sendzimir gearbox

Special Gears and Gearboxes

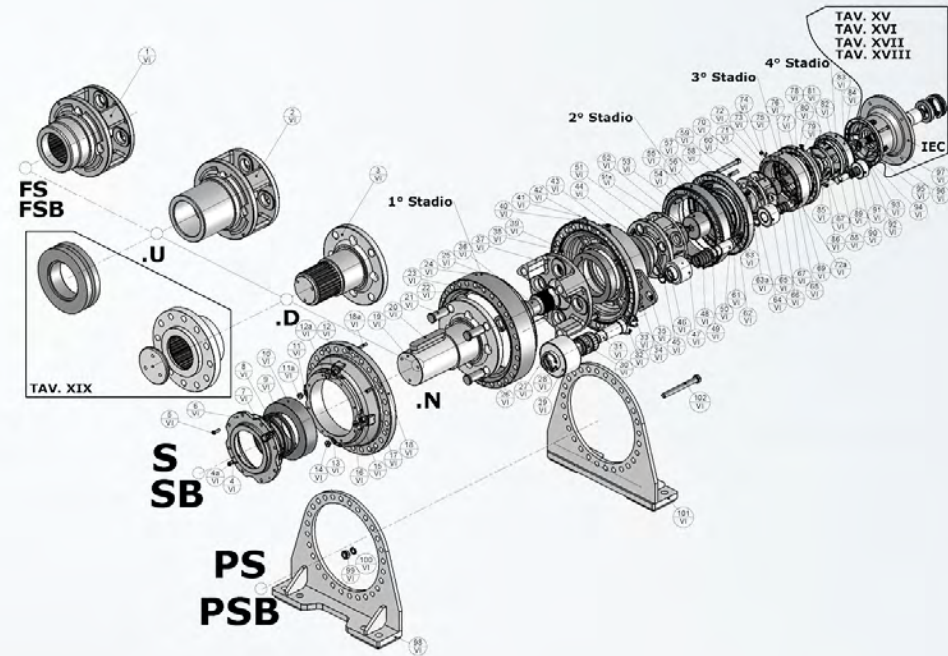
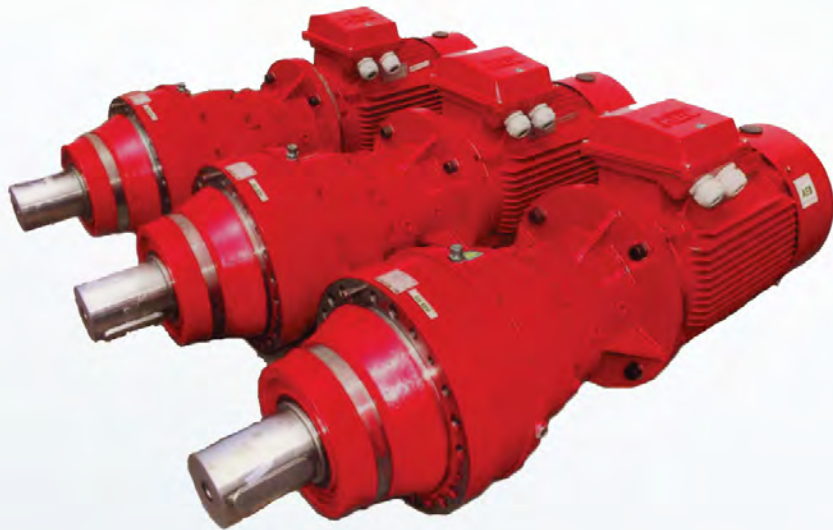


05 Special split torque gearbox

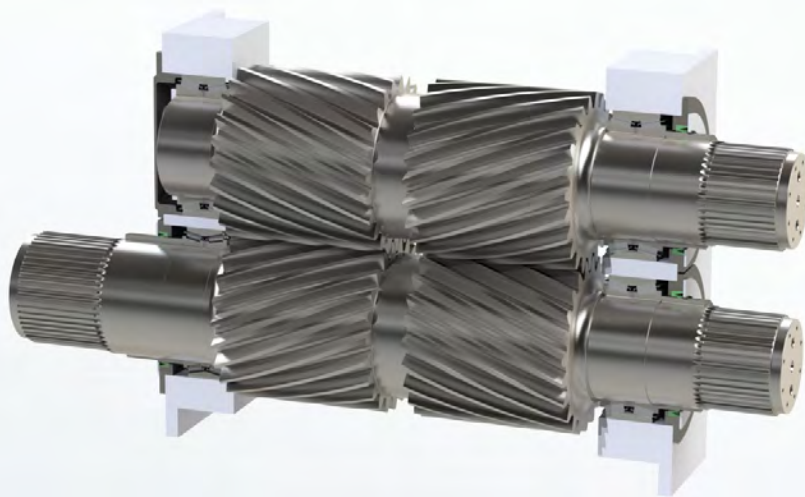


06 Planetary-helical special gearbox

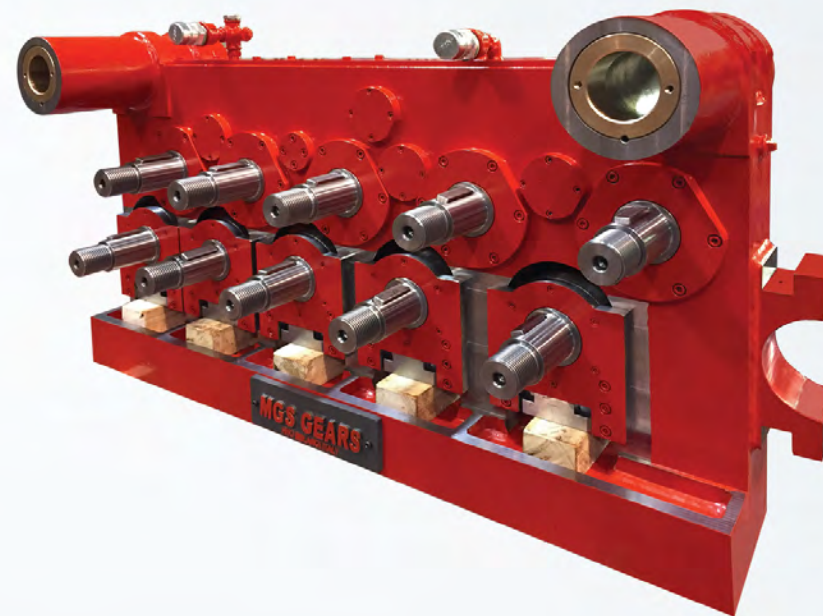
Special Gears and Gearboxes



Special Gears and Gearboxes



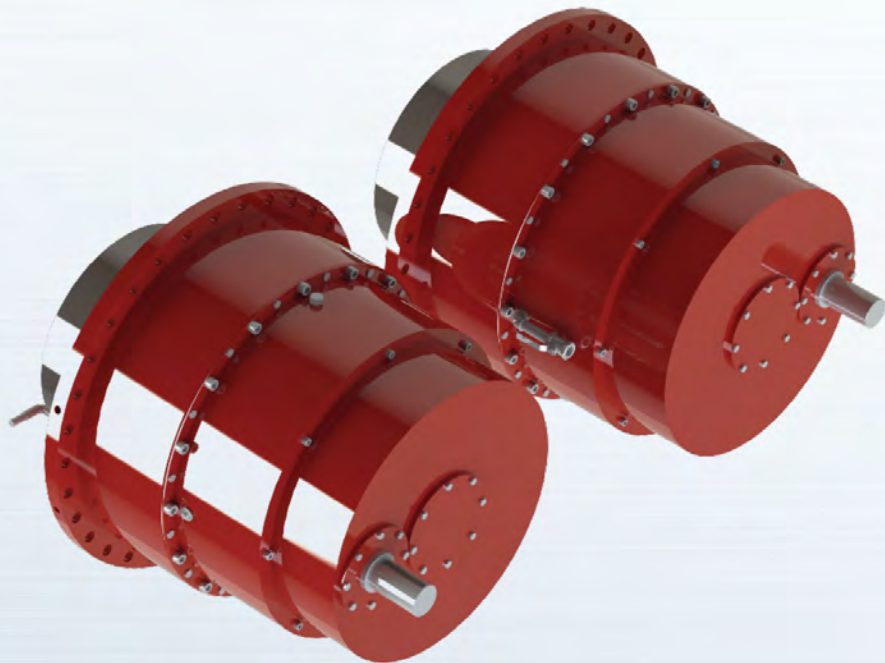
08 Pinion stand gears



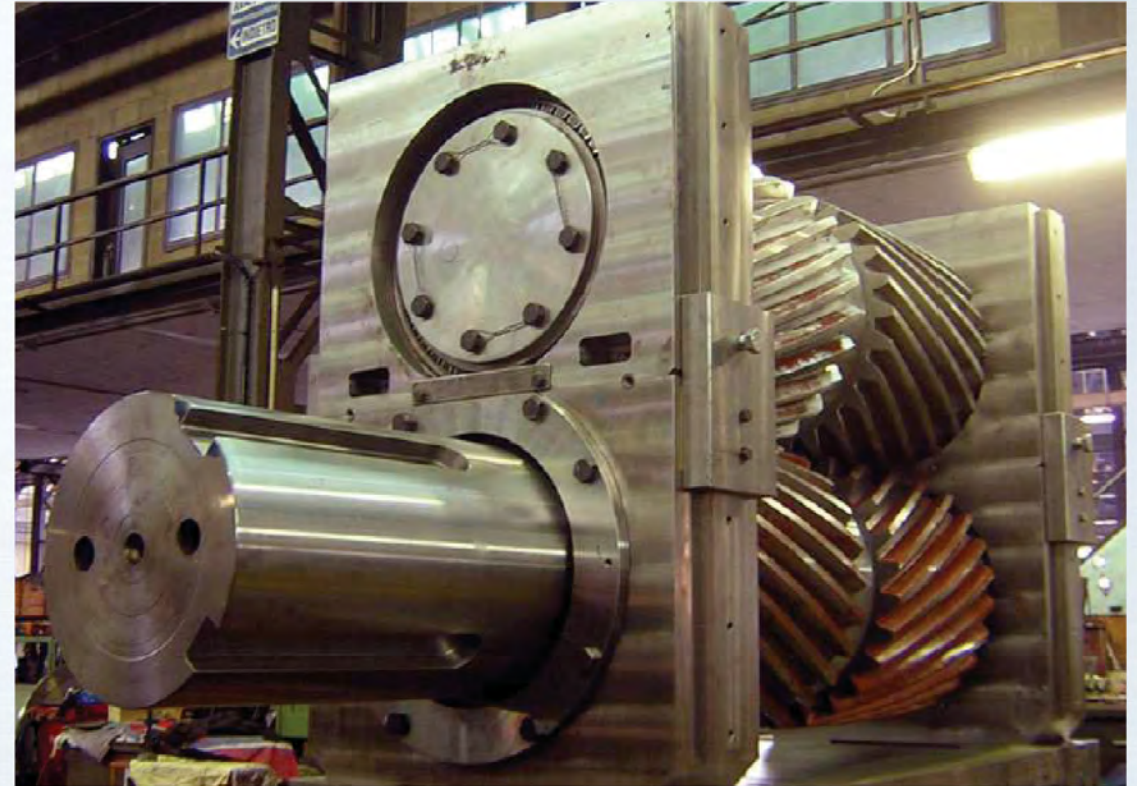
09 Steel straightener gearbox

Planetary Gearboxes for hydraulic roller press (HRP)

Planetary Gearboxes for hydraulic roller press (HRP) concept designed to overcome some of the biggest challenges facing cement 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.



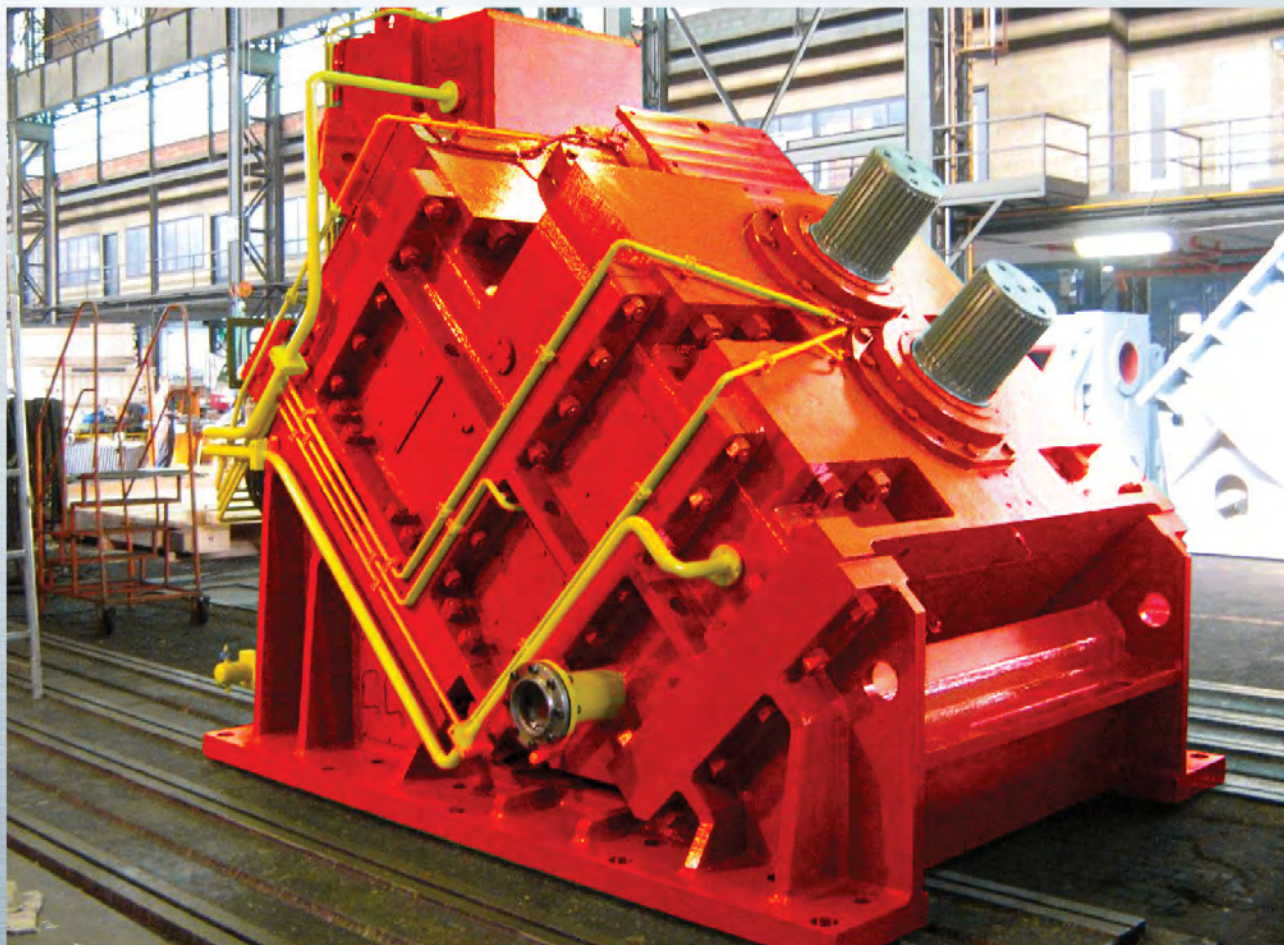
Girth Gear and Spare Gears



F0 Stand gears

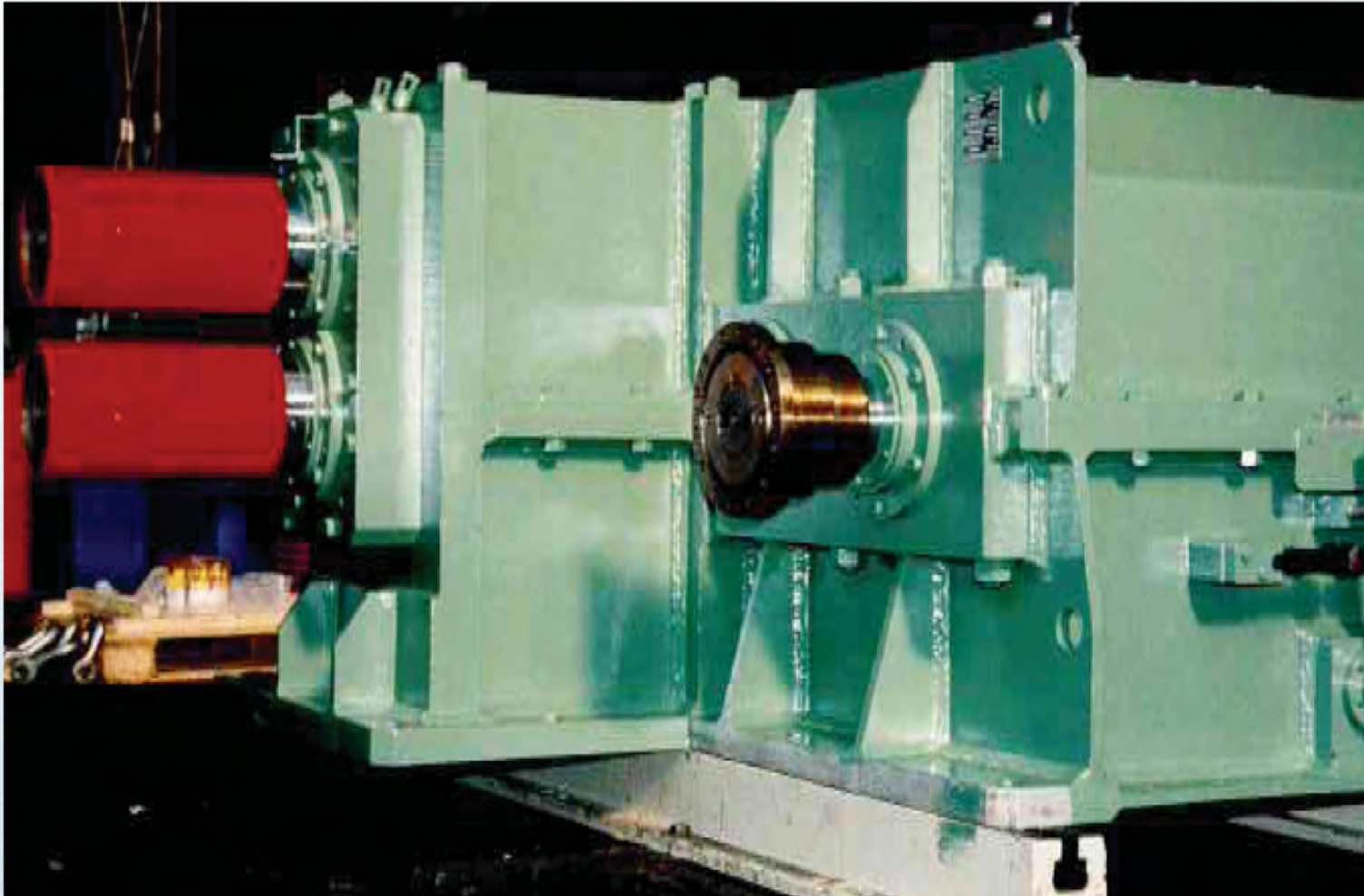
Thyssen Krupp

Gear Reducers



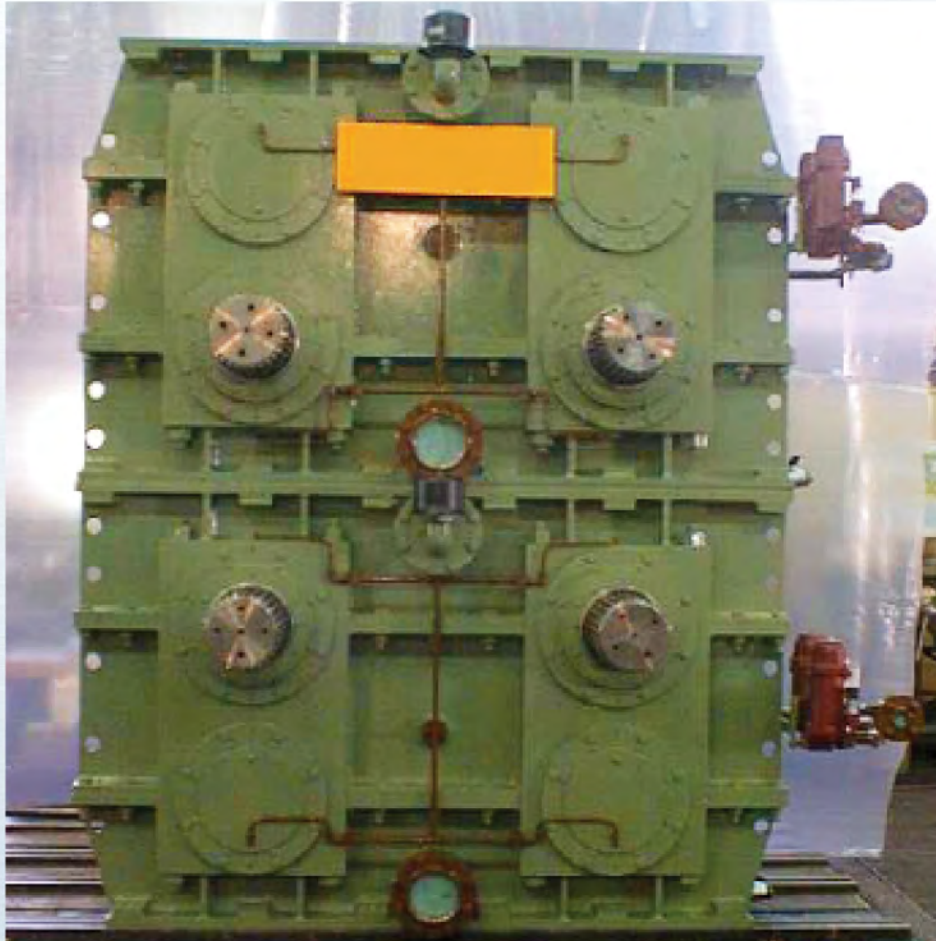
**Hot Tube Mill Special
Gearbox 45 tons
Tenaris Canada
Algoma Tubes**

Gear Reducers



Steel Mill
Special Duo
two speed,
Mino Italy

Gear Reducers



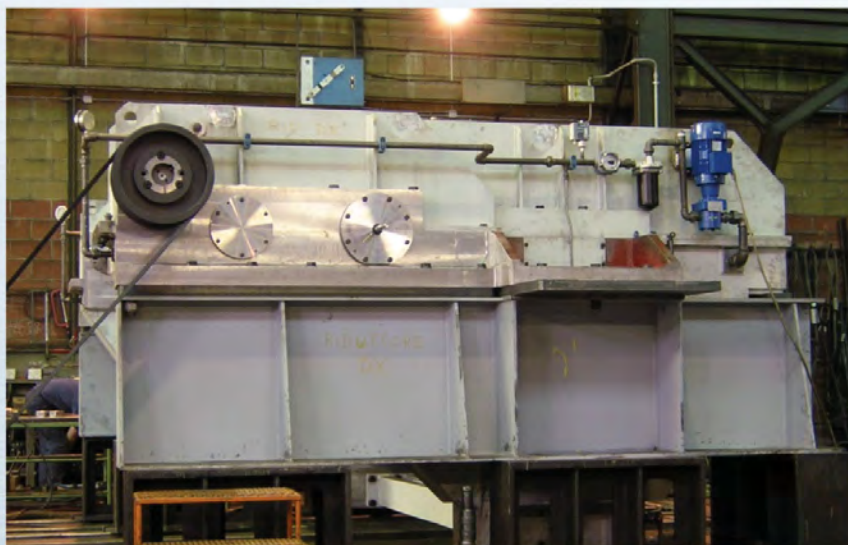
**Tube Mill Special
Gearbox Dalmine
Italy 60 Tons**

Gear Reducers



**Hot Steel Mill Special
Gearbox.Thyssen
35 Tons**

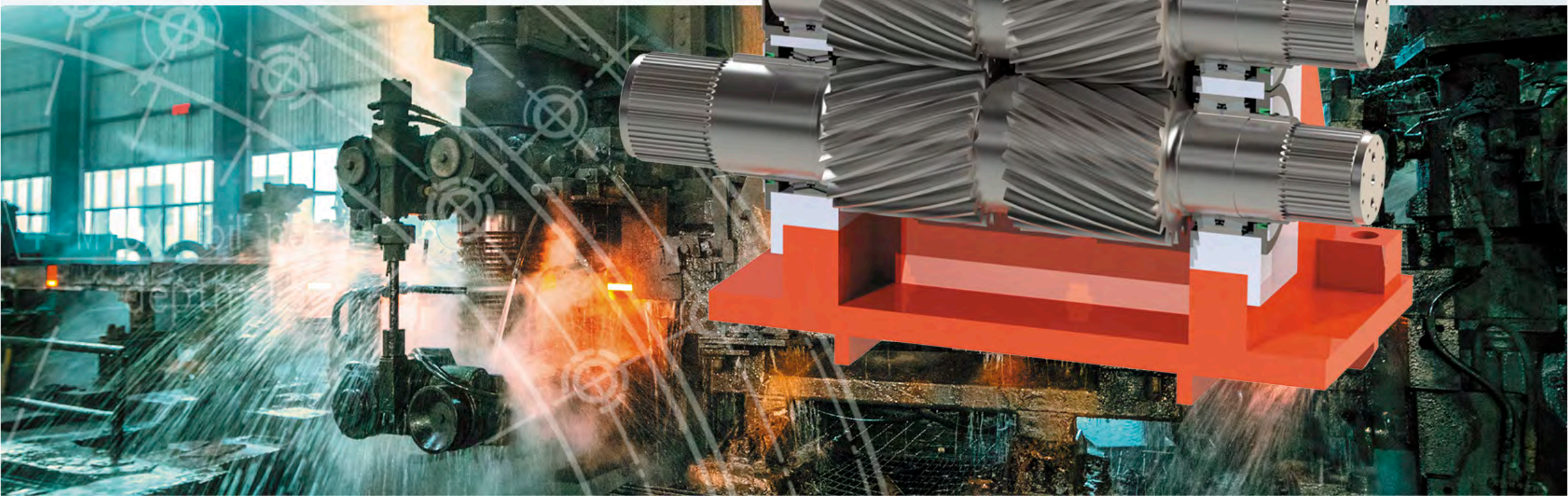
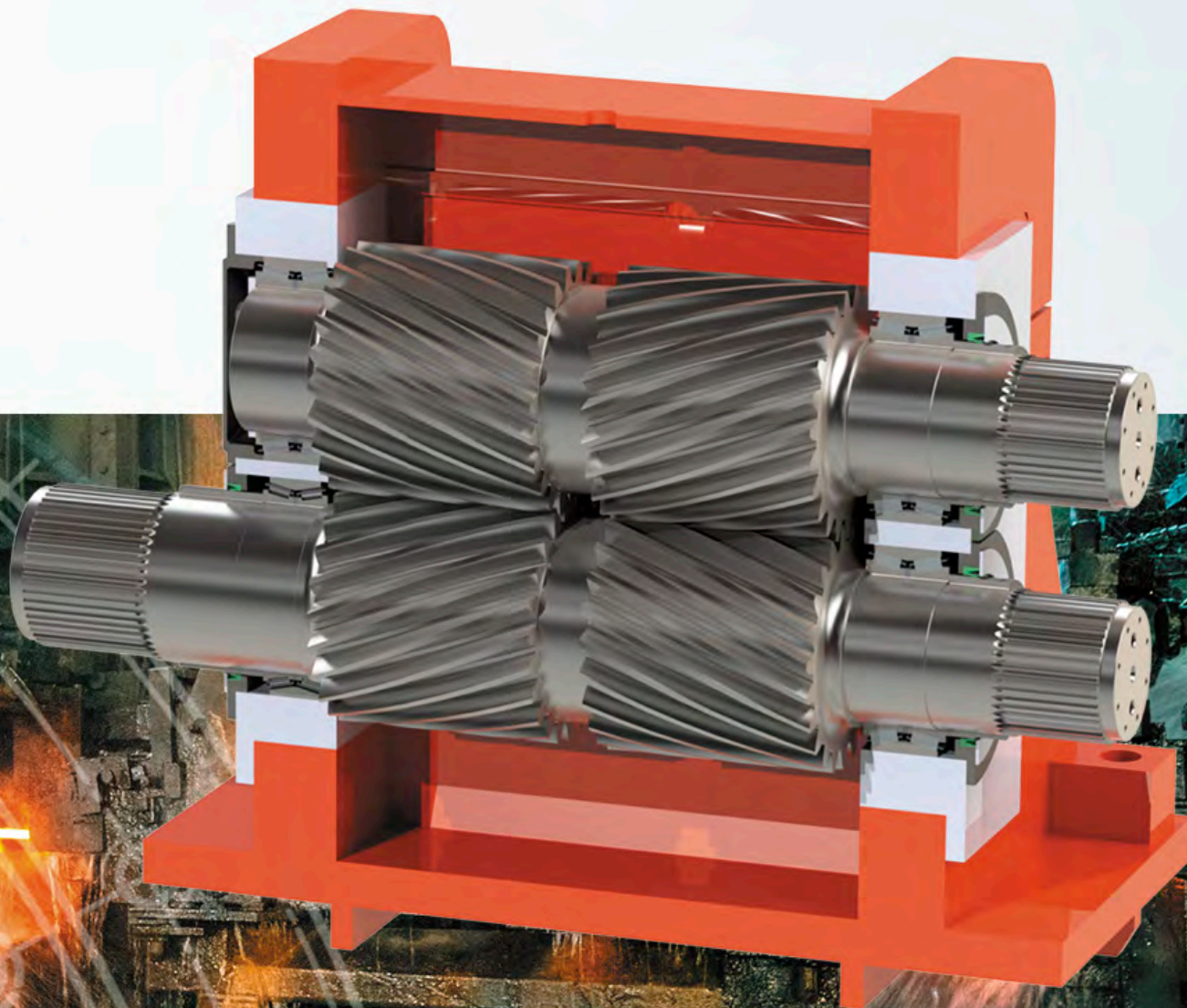
Gearbox 3CP1130 - Main Hoist 350 ton. Steel Plant





ABS Gearbox Repair Center

Big Spring, Texas (USA)





Full Service Repair Center in Big Spring, Texas

ABS proudly offers wind generation customers affordable high-quality repair services for their wind turbine fleets in the US. Also ABS USA pride themselves in their abilities to work closely with their customers to supply them with the best mechanical repair solutions for their fleet. ABS mainly excels in:

Gearbox Inspection and Assessment Services: ABS global team of specialists use state of the art equipment to inspect any gearbox brands. ABS provides a exhaustive analysis report of customer's gearbox condition, operating ability and recommends course of action.

Gearbox Upgrade: Using ABS extensive engineering expertise, ABS can provide gearbox overhaul services to increase capacity and operating capability. ABS can also offer their customers re-engineer and upgrades options for any gearbox or gearbox component. ABS's main goal is to pinpoint the failure points of customer's gearbox models and to offer upgrades in order to achieve the gearboxes a longer life cycle.



We are proud to be the MGS Gears exclusive warranty and aftermarket services workshop in the Americas.



Full Service Repair Center in Big Spring, Texas



Testing Capabilities

Vibration Analysis
Sound Analysis
Oil Cleanliness Analysis

Temperature Analysis
Oil Pressure Analysis
Complete Test Report

Test Rig Specifications

Item	Description
Motors	GE Custom 8000 [R]
Model No.	5KAF84111494901
Max Nominal Power (kW)	2,237 theoretical 1,800 operational
Rated Speed (rpm)	1,800
Control System	TMEIC 6F3A4768



Full Service Repair Center in Big Spring, Texas



Testing Capabilities

Vibration Analysis
Sound Analysis
Oil Cleanliness Analysis

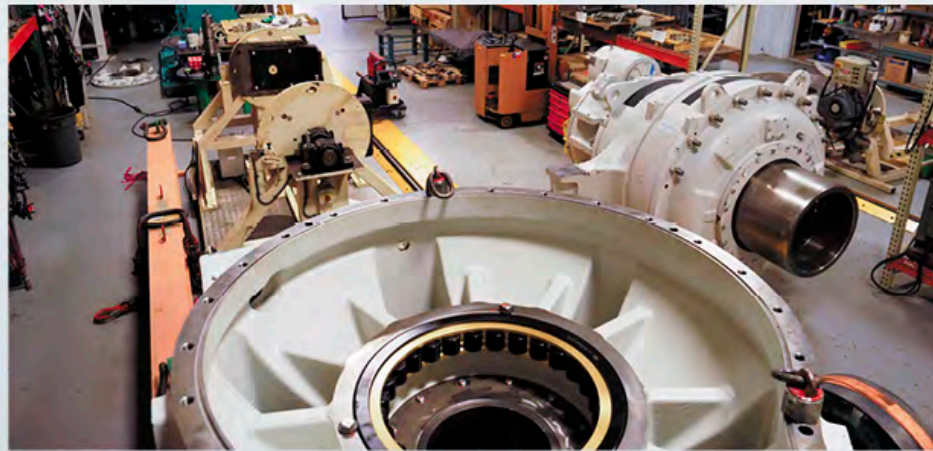
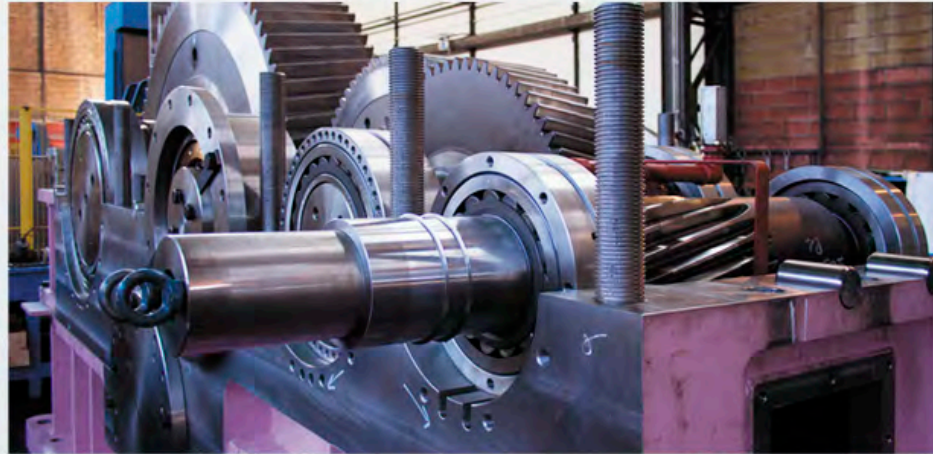
Temperature Analysis
Oil Pressure Analysis
Complete Test Report

Test Rig Specifications

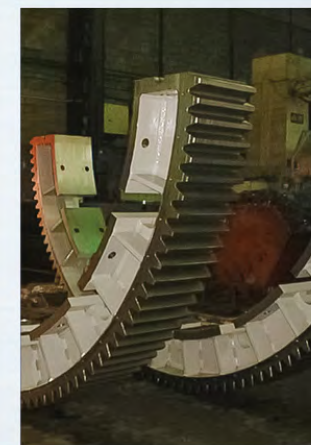
Item	Description
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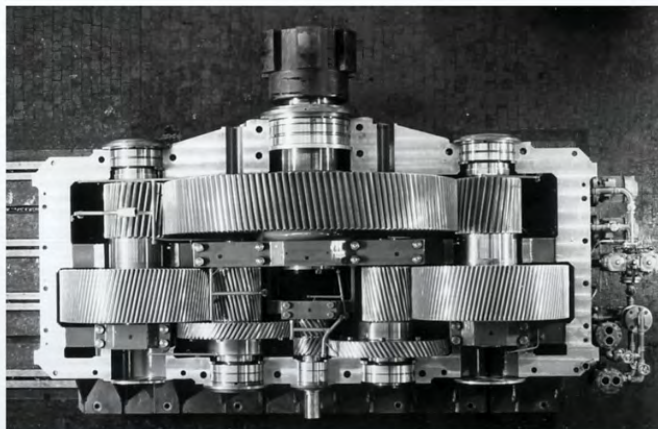
Full Service Repair Center in Big Spring, Texas



Repair/Upgrade Services



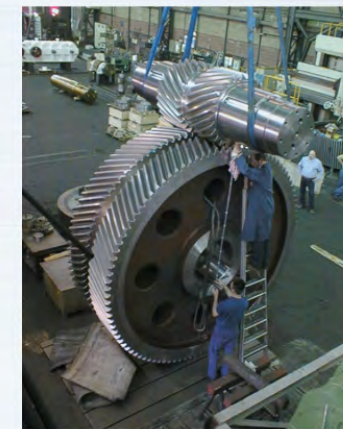
Gears and Gearboxes Repair And Upgrade



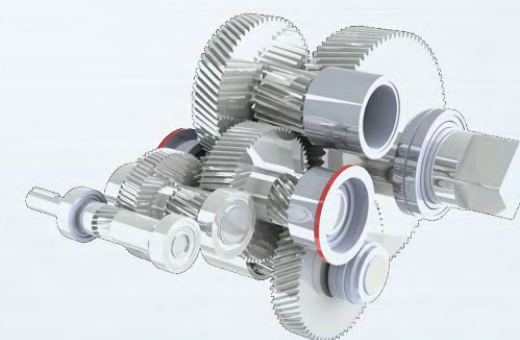
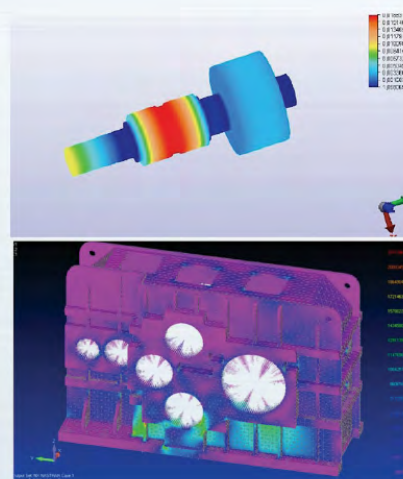
Split torque gearbox repair/upgrade
Cement Mill Drive, Italy



New gear set for a 150 tons split torque gearbox / Cement Mill Drive Tailand



Upgrade new set of gears for a Kawasaki
Gearbox / Sugar mill main drive / Guatemala



All gears and gearbox housing designed
using FEM Analysis

Repair/Upgrade Services



Before



After

Repair/Upgrade Services

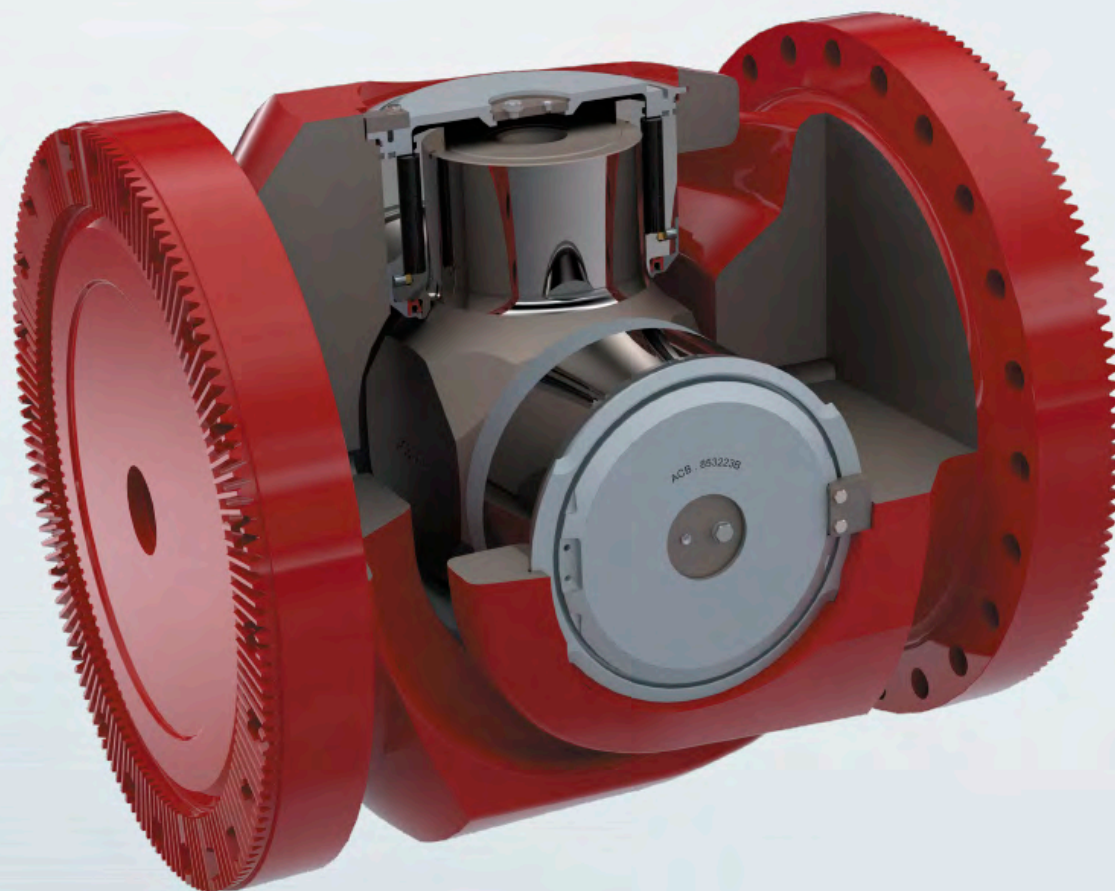


Before

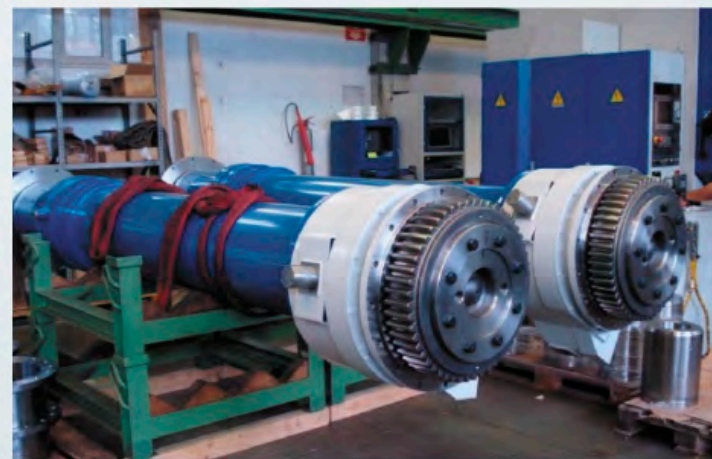


After

Cardan Shaft / Couplings / Gear Spindles



Cardan Shaft / Couplings / Gear Spindles



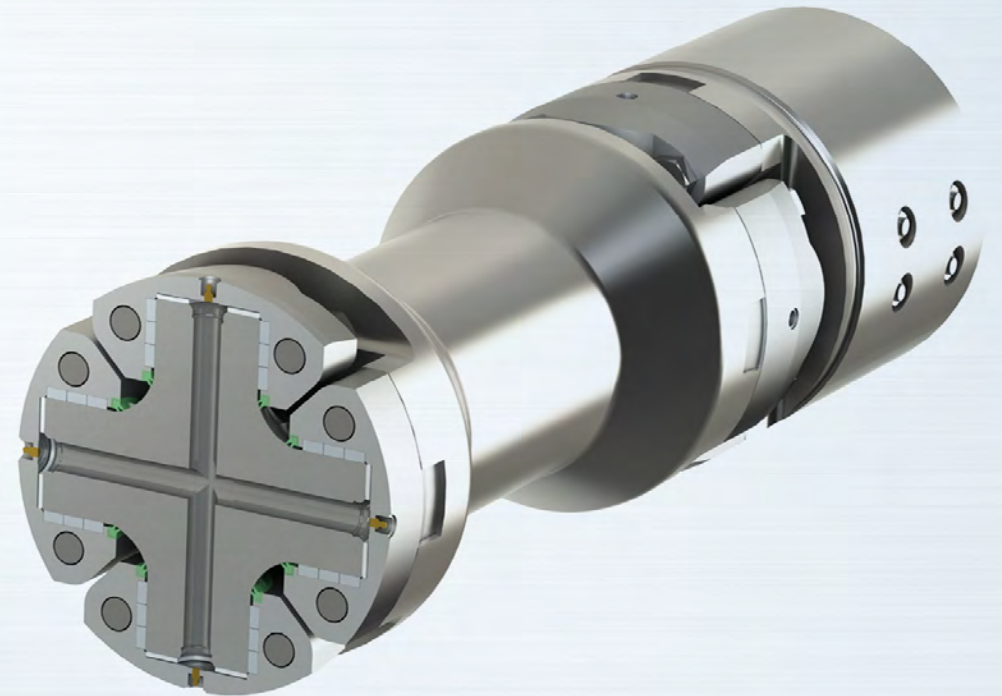
Cross Assembly for a 1100 mm swing diameter cardan shaft

Ternium Monterrey, Mexico



Special compact high torque cardan shaft block type

FO Mill AHMSA

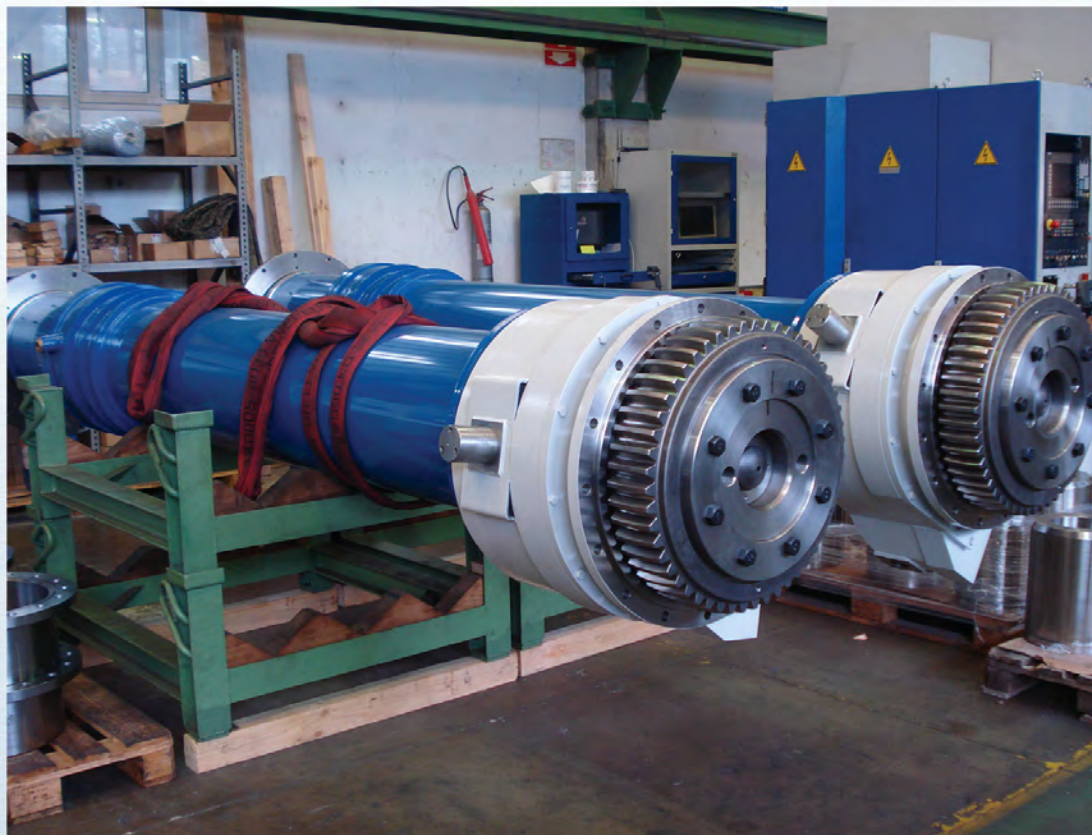


Cardan Shaft



Torque Range from 180 Nm to 900,000,000 Nm



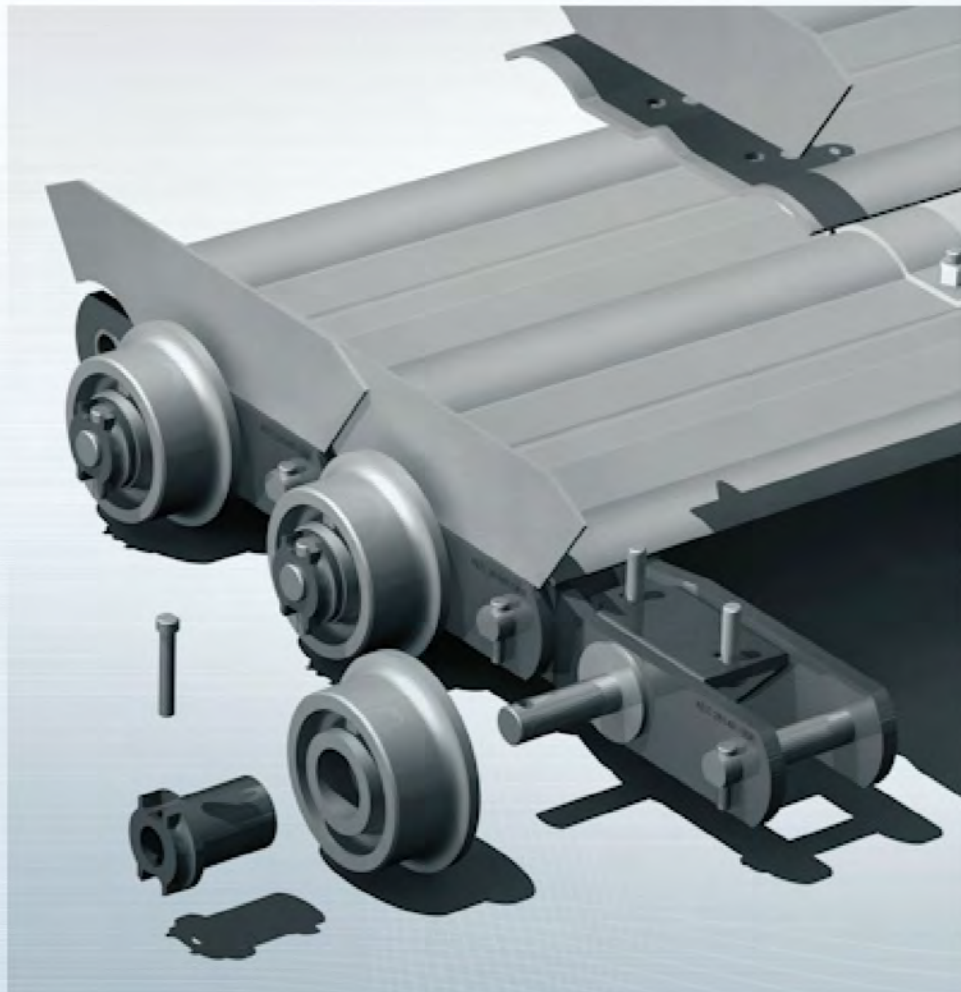




AEEC

ATLANTIC ENGINEERING CHAIN

Atlantic Engineering Chains Since 1999



The United States of America



CERTIFICATE OF REGISTRATION
PRINCIPAL REGISTER

The Mark shown in this certificate has been registered in the United States Patent and Trademark Office to the Name of the registrant.

Int. Cl.: 6

Prior U.S. Cls.: 2, 12, 13, 14, 23, 25 and 50
United States Patent and Trademark Office

Reg. No. 3,663,342
Registered Aug. 4, 2009

AEC-USA
ATLANTIC ENGINEERING CHAIN

ATLANTIC BEARING SERVICES
(FLORIDA LIMITED LIABILITY COMPANY)
820 NW 50 TERRACE
MIAMI FL 33122

FOR: META ENGINEERING CHAINS, NAMELY, DROP FORGED CHAINS, RIVETLESS CHAINS, BAGASSE CARRIER CHAINS, CONVEYOR CHAINS, CAST COMBINATION CHAINS, WITH DEDICATED CHAINS, SYSTEMS FOR DRAGGING CHAINS, WIDE STEEL, DRAG CHAIN, 9011 CLASS PINTLE CHAINS, CANE CARRIER SLAT CHAINS, STANDARD PINTLE CHAINS, IN CLASS 9 (U.S. CLS. 2, 12, 13, 14, 23, 25 AND 50).

THE MARK CONSISTS OF STANDARD CHARACTERS WITHOUT CLAIM TO ANY PARTICULAR FONT, STYLE, SIZE, OR COLOR.

NO CLAIM IS MADE TO THE EXCLUSIVE RIGHT TO USE "ENGINEERING CHAINS", APART FROM THE MARK AS SHOWN.

SER. NO. 77-665,897, FILED 1-23-2009.

JOHN GARTNER, EXAMINING ATTORNEY



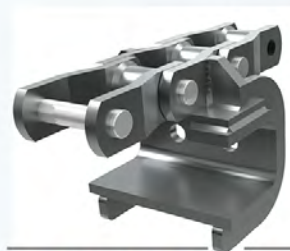
John Doll

Acting Director of the United States Patent and Trademark Office

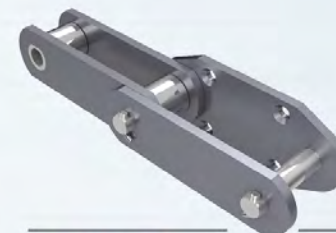
Engineering Chain for steel industry

AEC Chains emerge as a new highly engineered chain in the market and are designed to ensure the highest quality and performances. We manufacture many types of chains including Drop Forged Reivetless, Steel Roller Conveyor, Cast Combination, Welded Steel chains and others. Every AEC Chain Component is manufactured using the highest quality of steels or alloy steels.

AEC chains receive a proper heat treatment in order to achieve the right balance between resistances to shock loading forces and long wear life. Our main goal is to offer our customer a personalized solution which ensures long-lasting and cost effective chains for your Mining applications.



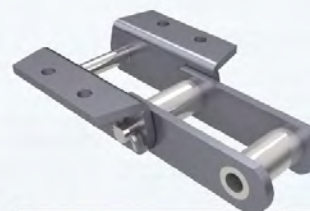
1 **AECWHX124HDHK**
Bridge Scraper Reclaimer



2 **AEC2532NE300**
Bucket Elevator



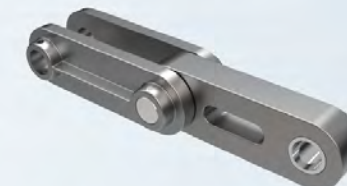
3 **AECXG78WH82**
Aerial Conveyor



4 **AECER111K22**
Conveyor Elevator



5 **AECER864K443**
Conveyor Elevator



6 **AEC250HT**
Drop Forged Chain



7 **AEC203.2SP**
Drag Chain

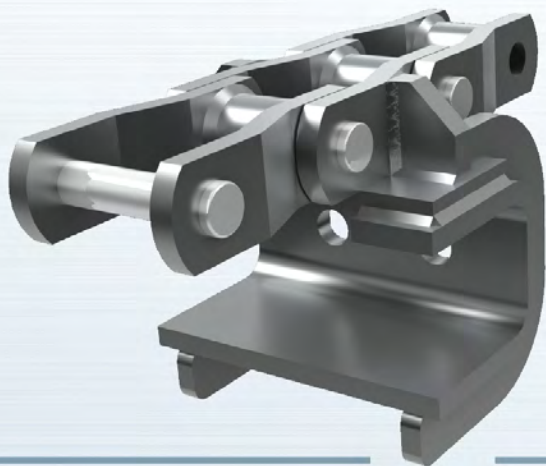


8 **AECWR4185A2SP**
Bridge Scraper Reclaimer



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

Engineering Chain for steel industry



1

BRIDGE SCRAPER RECLAIMER



2

45 TON DRAW BENCH CHAIN
Dual Pitch



3

AERIAL CONVEYOR

Engineering Chain for steel industry



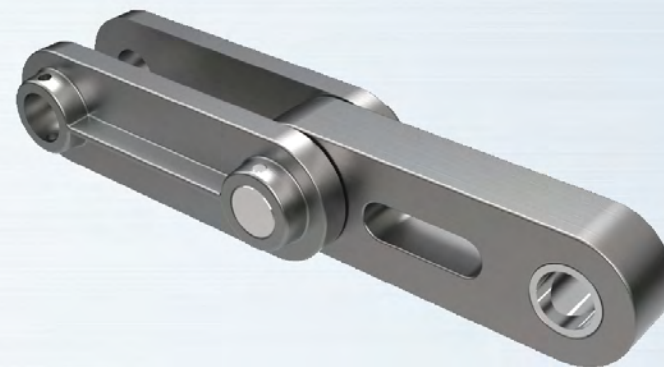
4

BD DRAG CHAIN
Special Attachment



5

COOLING BED CHAIN
With Pusher Dog



6

DROP FORGED CHAIN

Engineering Chain for steel industry



7

COOLING BED CHAIN
Bronze Bushed Rollers and Wheels



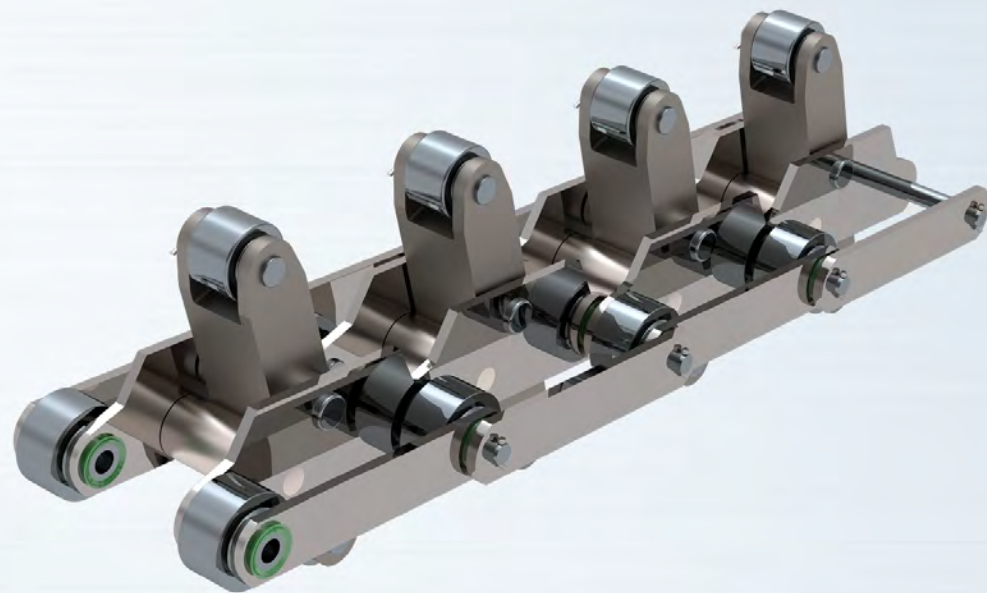
8

AERIAL CONVEYOR CHAIN
Wire Coil Carrier



9

COIL CARRIER CHAIN
With SP Hook



Tilting Dog chain (Sealed)



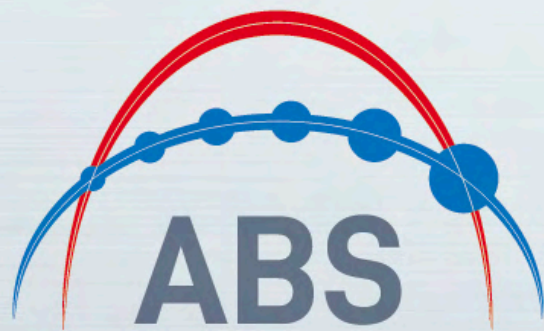
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A world in motion

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