



radicon

with you at every turn

Solutions for the Steel Industry





Radicon believes in engineering quality relationships with our customers that strengthen what we can achieve together. Our business and the people within our business are committed to building long lasting partnerships that are as reliable as our products and as smooth as our service.

Radicon and sister company Benzlers are now part of Elecon Engineering, Asia's largest and fastest growing gear manufacturer. This partnership means that we can offer our customers an enhanced range of standard and bespoke engineering solutions including drop in replacements, all supplied with the product quality and engineering expertise demanded from and delivered by the Radicon business.

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benzlers 
radicon 

Benzlers

Denmark +45 36 34 03 00
Finland +358 9 340 1716
Germany +49 800-350 4000
Italy +39 02 824 3511
Sweden +46 42 186800
+46 19 178 090
The Netherlands +31 77 324 59 00
www.benzlers.com

Radicon

Australia + 61 488 054 028
Thailand +66 3845 9044
United Kingdom +44 1484 465 800
USA +1 847 593 9910
www.radicon.com



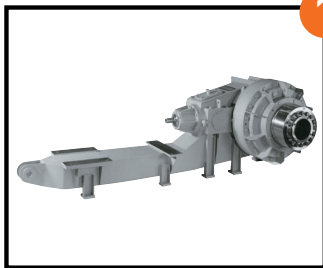


STEEL PRODUCTION

Radicon has been supplying the **Steel Industry** with reliable and robust products for decades, with an in-depth knowledge of these arduous applications our engineers can offer a suitable solution to ensure that the steel industry never stops. We have you, the customers at the fore front of our thoughts when designing products and include features that allow our products to be easily maintained, very often in situ, reducing maintenance time and costs. With the capability to offer drop-in replacements for practically any brand, maintaining the major fixing and interface dimensions whilst often giving capacity upgrades.

To find out more about Radicon products visit radicon.com

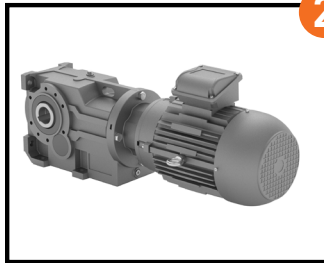




1

BUCKET WHEEL DRIVE

Available in various sizes ranging from 25 to 375 kw and reduction ratio ranging from 140 to 480. The gear unit consists of four to five reduction stages comprising of bevel, helical and planetary gears all manufactured to the highest standards of quality



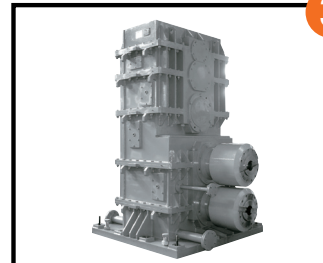
2

GEARED MOTORS

A range of geared motors, including inline, helical worm, helical bevel and shaft mounted. Flexibility of design ensures the geared motor range offers solutions to a variety of applications.

Input Power: Up to 110kW
(147HP)

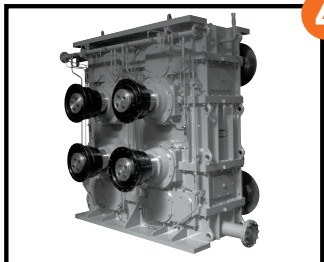
Output Torque: Up to 16,500Nm
(146,000 lb.in)



3

PINION STAND

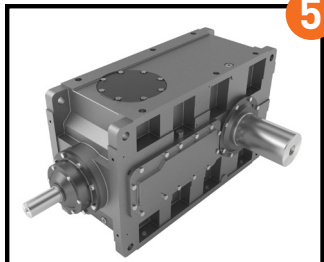
Our pinion stands are flexible and durable and available in a range of ratios to suit all stages of the rolling process. Flexibility in design allows for replacement units to be manufactured offering increased power and load handling capabilities in the same footprint as the original unit.



4

MILL DRIVES

Specially designed heavy duty rolling mill drive gearboxes, manufactured to the highest standards to ensure the gearbox can withstand the high shocks associated with both hot and cold rolling. Available in different ratios to suit the customers exact requirements and are capable of transmitting input power up to 3,750 Kw.



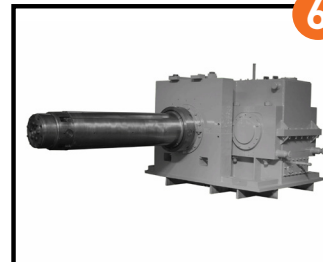
5

HELICAL INDUSTRIAL GEARBOXES

The Series G, combines flexibility of design with reliability in operation, even in the most arduous, and demanding of environments.

Input Power: Up to 1,860 kW
(2,494 HP)

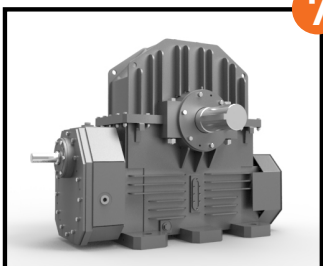
Output Torque: Up to 162,000 Nm
(1,433,821 lb.in.)



6

COILER/ UN-COILER, TENSION REEL & PAY-OFF REEL GEARBOXES

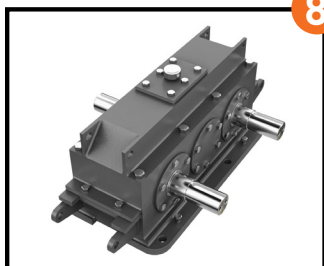
These gearboxes offer a robust design with high load carrying capacity and can be custom built to match the exact requirements of the customer up to 4,000Kw power. The robust design ensures durability and reliability to take the heavy loads of the coils during coiling, reeling and tensioning.



7

DOUBLE REDUCTION WORM

Constructed using two single reduction worm gear units with a primary gear unit mounted on a single worm gear to form the secondary stage. A range of ratios from 75:1 up to 4900:1 these worm gear units are ideal for high torque slow speed drives.



8

CUSTOM AND 'DROP IN' GEARBOXES

With many years of experience in designing, manufacturing and supplying gearboxes into the steel industry, we are more than capable of producing solutions that suit your requirements. Our engineering expertise enables us to offer reliable, durable and efficient solutions in any application within the steel industry.



9

SERIES BD SCREWJACKS

The ideal product to push, pull, lift, lower and position loads of anything from a couple of kilograms to hundreds of tonnes.

Load Capacity: 1 Kg to 100 tonnes

Lifting Speed: Up to 5m/min

APPLICATIONS

Tube Mills

Roller Table Conveyor Drives
Levellers

Flat Products

Boiler Table Conveyor Drives
Coillers & Uncoillers

Sinter Plants

Kiln Drives

Hot Rolling Mills

Mill Stands
Pinion Stands

Continuous Casting

Straighteners
Roller Conveyor Drives

Re-Heater

Boiler Table Conveyor Drives

Universal Beam Mill

Mill Stands
Roller Positioning

Sheering, Splitting, Finishing Operations

Roller Table Conveyor Drives

Ore Blending

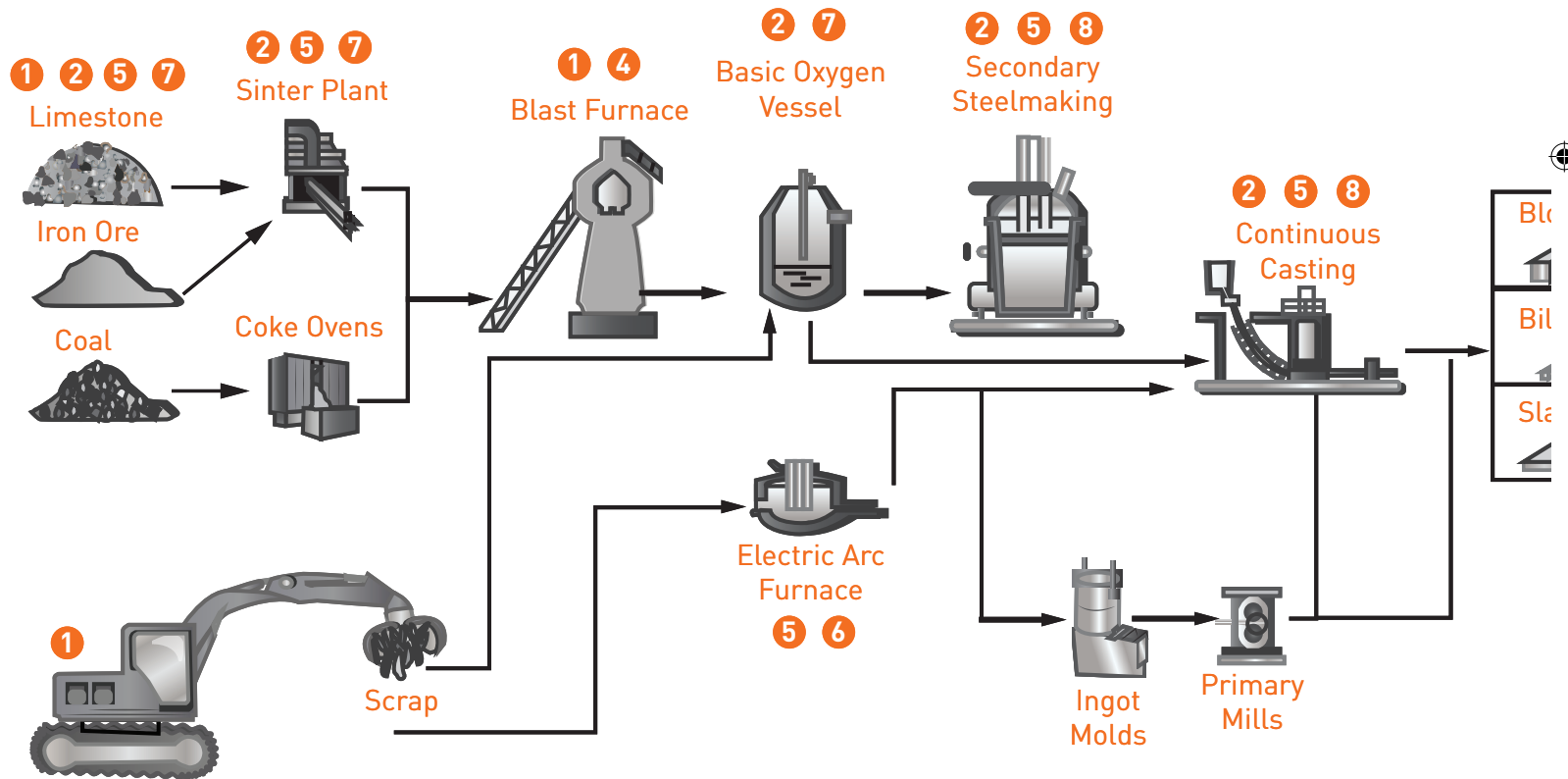
Conveyor Drives
Stacker/ Reclaimers
Pelletiser

Blast, Arc, Secondary Steel

Furnace Tilt Drives

Primary Mill

Mill Stands
Pinion Stands





SERVICE & REPAIR

Radicon service engineers are ready and waiting 24 hours a day, 365 days a year, to provide the following services anytime, anywhere in the world.

Our dedicated service and repair engineers have the necessary expertise and experience to provide simple repair services through to complex overhaul projects in any industry on any brand of gearbox.



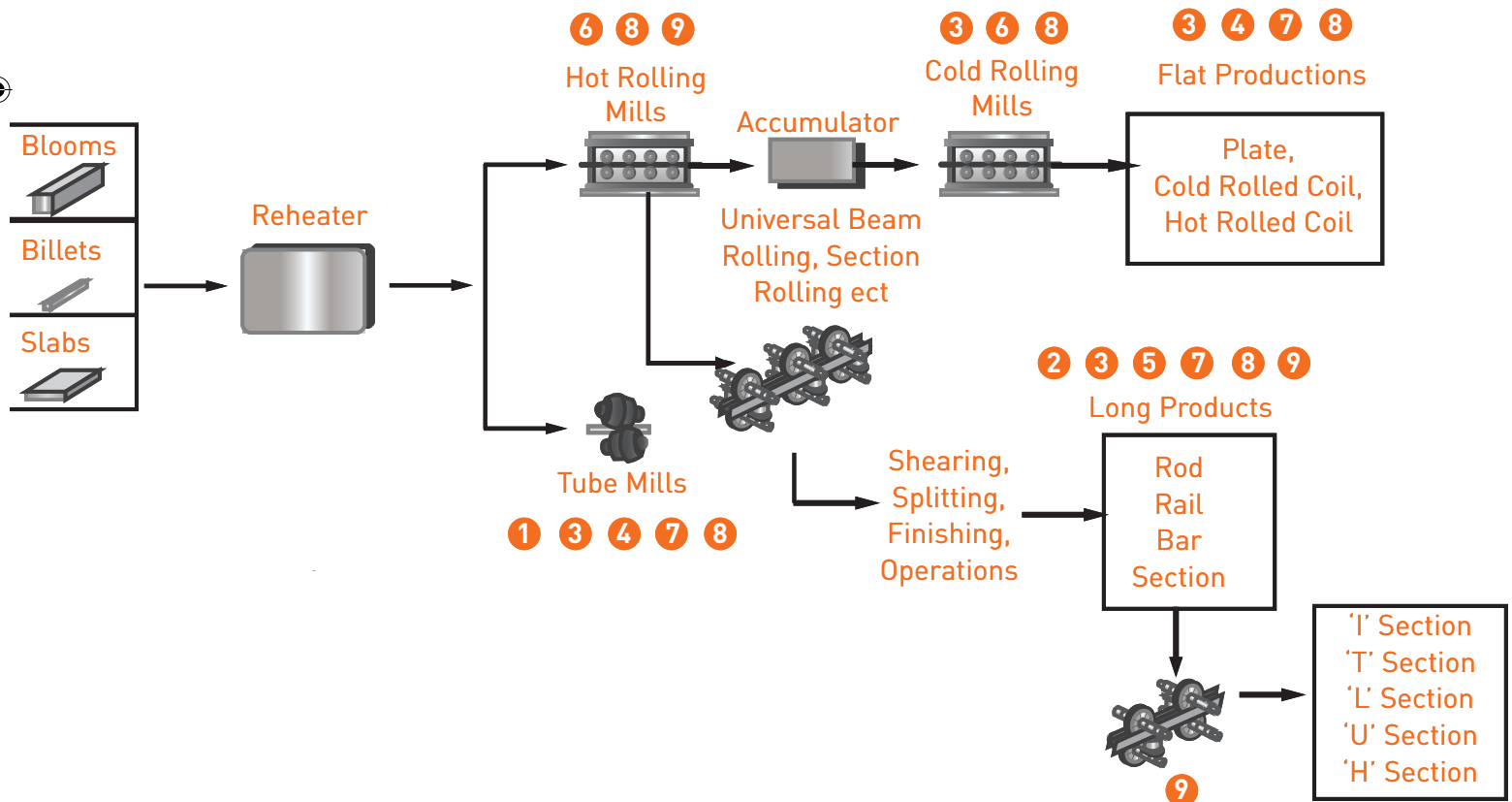
On-Site Services

Repairs, Overhauls & Upgrades

Drop in Replacement Gearboxes

Asset Management

Condition Monitoring & Fault Finding



A rapid turnaround for a global metal rod manufacturer as Radicon replaces a coupling assembly

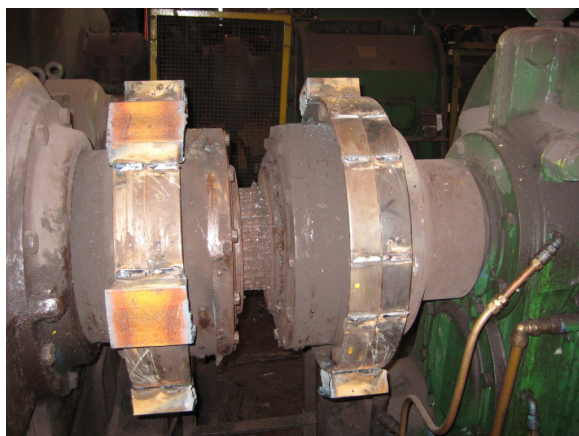


When a multi-million dollar metal rod business had a coupling failure on a reduction gearbox and pinion stand gearbox they needed to get production started again fast. They were at risk of losing revenue and customer contracts, so Radicon had just a 24-hour maintenance window to complete the work within.

The challenge

This global metal rod manufacturer based in the UK got in touch with Radicon due to a coupling failure on the reduction gearbox and pinion stand gearbox on an existing rod mill. Production had stopped entirely, putting them at risk of losing revenue and customer contracts. The issue needed to be solved in a 24-hour maintenance window and the new couplings had to fit the existing footprint.

Radicon was chosen due to an existing good relationship with the manufacturer as well as being able to provide an effective, flexible solution supported by dedicated aftercare.



The Solution

Within 30 minutes of receiving the call for assistance our team attended the site and worked with the client to arrive at the best solution. It was decided to improve and replace the design of the current outdated coupling assembly.

By combining current Radicon products with specially designed and manufactured adaption plates, we were able to interface the new product within the current interface. This removed the need for a costly project that would have involved removing the gearboxes. To regain production the customer made a temporary repair to the mill drive using components provided by Radicon, which were installed over the next outage period.

The customer is now looking at working with Radicon again to provide extra couplings and collaborate on future projects.

“With the joint efforts of both Radicon and ourselves a potential damaging situation was turned around with speed and precision. This has given all involved a great sense of achievement and we look forward to the same successes in the future.”

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No downtime for RBT as Radicon fit drop in replacement for 30 year old gearbox

When Redcar Bulk Terminal (RBT) decided to replace an obsolete unit Radicon were called in to engineer a drop in replacement. With very high downtime costs, it was essential to organise the work to cause the minimum of disruption.

The challenge

RBT handles over 12 million tonnes of raw materials per year. Heavy-duty conveyors are used to move coal, iron ore and slag cement on and off bulk cargo ships. Conveyor 9A had been driven for over 30 years via two Radicon BU28 under driven worm boxes. Although the unit was still running reliably, efficiency and maintenance considerations made replacement the only sensible long-term choice.

Conveyor 9A is a critical operational aspect at RBT. Downtime is extremely expensive as ships waiting offshore, or missing the tide, cost thousands of pounds per hour. The new units had to be driven by the existing 205kW 3.3kV motors and connect to the drive shaft on the conveyor drums.



The solution

Radicon was chosen to supply new units due to a successful ongoing relationship and their specialism in drop in replacements. The two old gearboxes were replaced with new Radicon units.

In order to achieve a perfect fit various modifications were made. The new gearbox output shaft had to match the position of the old unit, so Radicon designed, engineered and fabricated an adapter plate. The old pin and buffer style couplings were replaced with modern alternatives.

The two new units if running for 16 hours a day over 240 days a year will save RBT over £25,000 in the next 5 years on electricity costs alone. This when combined with the reduced maintenance and service costs equates to a substantial saving for the business over the next 5 years. Radicon planned and executed the work to cause minimal disruption and plant operations were not affected.

“Radicon delivered on both the quality of the product and all agreed timescales. RBT also appreciated the all round support and backup Radicon provided.”

Peter Woolaston
Mechanical Engineer, RBT

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