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

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SUGAR PRODUCTION

Radicon has been supplying the **Sugar 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 sugar 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**

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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)

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.)

3

HIGH SPEED GEARBOXES

Radicon can supply High Speed Gearboxes that can operate at speeds upwards of 10,000 rpm with input speeds over 23,000Kw. Radicon's design expertise ensures solutions can be designed to match the existing products footprint, whilst offering performance and efficiency benefits. An ideal solution for critical applications such as pumps, compressors, steam and gas turbines and generators.

4

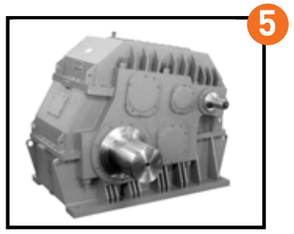
PLANETARY GEARBOXES

Dimensionally interchangeable with other major manufacturers and is designed to be easily modified to suit more custom requirements. The range offers high load carrying capacity, high efficiency, quite running and reliability.

Input Power: Up to 30kW (40HP)

Output Torque: Up to 12,000Nm (106,000 lb.in)

5



DUAL TANDEM

Dual tandem gearboxes are parallel gearboxes manufactured from high tensile carburising alloy steel. The gearboxes can be fitted with full lubrication systems and are manufactured with three piece housing for ease of maintenance.

6

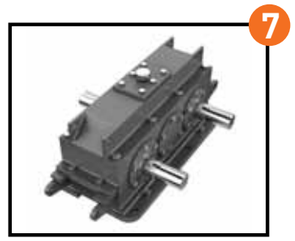
FLEXIBLE COUPLINGS

A comprehensive range of shaft couplings, incorporating, gear type, pin and bush type, Nylicon and mechanical torque limiting type, allowing both parallel offset and angular misalignment.

Output Torque: Up to 1.1 Million Nm

Shaft Diameters: Up to 540mm

7



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.

APPLICATIONS

Knife Drives

Mill Drives

Feeder Drum Drives

Shredders

Feeder Table Drives

Dryers

Turbine Drives

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.

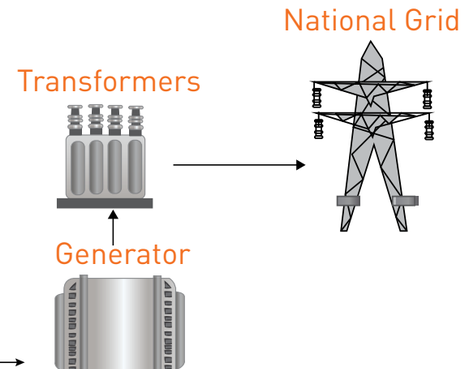
On-Site Services

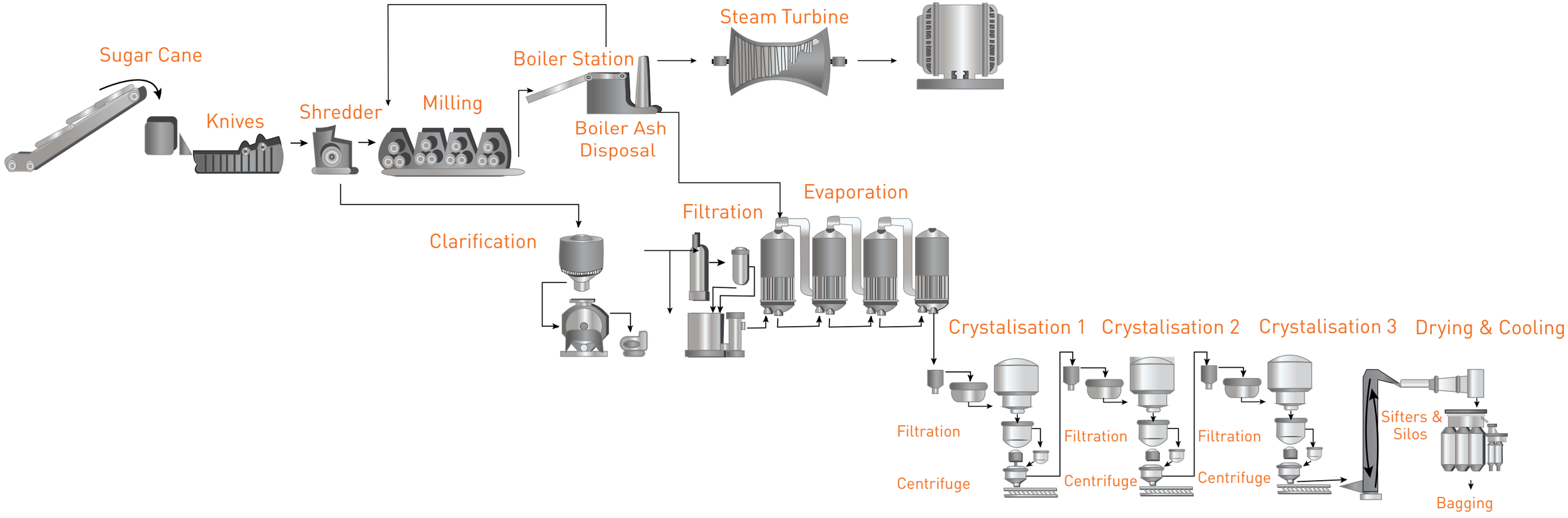
Repairs, Overhauls & Upgrades

Drop in Replacement Gearboxes

Asset Management

Condition Monitoring & Fault Finding





24 Hour response keeps Tata Steel's, Port Talbot coal handling plant moving

When Tata Steel Port Talbot developed a catastrophic failure on their stacker reclaimer, bucket wheel drive they turned to Radicon. With downtime costing thousands of pounds per hour, Radicon needed to get the stacker reclaimer back up and running, fast.

The challenge

The Stacker Reclaimer at Tata Steel's Port Talbot coal handling plant is used to transport coal from the stockyard to the feed conveyors. When the bucket wheel drive gearbox had a catastrophic failure, production had to stop and the call was made to Radicon.

Radicon responded to the call from Tata Steel within 24 hours, and was Tata Steel's first choice due to the long running and successful relationship that has been developed over the years. Within 24 hours of the call, Radicon had identified the root cause failure and consequential damage, ascertained the requirements and agreed a scope of works and starting date.

The solution

The gearbox in question, a Weserhutte shaft mounted, bevel helical, reducer, with shrink disc and a ratio of 220/1 was supplied with a spare unit. However, on closer inspection by the Radicon engineers, it was deemed not to be a direct replacement, because it had a slightly larger hollow bore than the original. Although this could have been rectified, the urgency of the situation and the need to get the plant back up and running meant an alternative solution was required.

The Radicon engineers working closely with the Tata Steel on site engineers devised a solution that was to repair the current unit in situ and utilise components from the existing spare unit to rebuild the original to a serviceable condition. This rebuild also included adjustments to both the bevel sets and end floats to improve the durability and reliability of the unit.

The damaged unit was back up and running within a week, and all the remaining components were returned to Radicon for full refurbishment or replacement.

"Neeed quote."

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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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