We know how.

britishrema

British Rema are global leaders in contract powder processing, powder processing equipment and rotary vessel engineering.

Since 1927 we have been providing specialist technical and engineering knowhow in a variety of industries and have become an integral part of our customers' R&D, operations and production processes.

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Who we are

How do you find specialist experts with decades of hands-on experience? **British Rema know how.**

In 1927 we began learning how – and over the following decades we have developed our powder processing and engineering expertise. Today, our knowledge is derived from our experience and determination... and if we don't know the answer, we'll do our best to find it for you.

1927

British Rema Manufacturing Co Ltd is established in Halifax, England, UK to manufacture and sell a newly-patented roller mill, designed specifically for the coal industry.

1939

One of the UK's leading steel and heavy engineering groups, Edgar Allen & Co Ltd, acquires British Rema and moves the business to the home of the British steel industry – the city of Sheffield.

BRITISH REMA

BRITISH 'REMA'
MANUFACTURING CO. LTD.
ONE INDUSTRY ROAD,
SHEFFIELD - 9

1940–1970

Focusing on the mineral processing industry, British Rema exports and installs its plant and equipment all over the world. Today our business still routinely provides spare parts for plant that was originally commissioned in this era.

BRITISH
REMA

1970s

British Rema collaborates with ICI to develop innovative technologies to micronise their engineering thermo-plastics. The resultant resins and milling equipment used to manufacture aerospace composites are still employed today.

We are a team of world-class engineers and scientists who apply our specialist knowledge to help solve technically ambitious process problems.

As part of a global group, all three divisions of British Rema work to ensure consistently high processing performance and safety standards, as standard.

Through over 90 years of engineering and scientific endeavour, our unique offering and specialist insight have enabled us to interpret and overcome a wide range of complex process problems for our customers. Our rigorous working practices ensure that we leave no stone unturned in our search for improvement.

By regularly going above and beyond to deliver upon our promise to our customers we have built supportive long-term relationships and levels of repeat business to be proud of.

1970s/80s

In the USA, Phillips Kiln Services develops patented methods for the alignment and grinding of large rotary kilns. British Rema then joins with PKS, forming Phillips Rema Ltd to exploit technologies across Europe, Russia/ CIS and Africa.

PHILLIPS
KILN SERVICES EUROPE

1980s/90s

Acquired by private shareholders in 1981, British Rema develops opposed jet mill and air classifier technologies and launches a contract processing service to complement its plant and equipment business.

British Rema
PROCESS PLANT ENGINEERS

2000s

British Rema moves to a modern site in Chesterfield to house its research, trialling and development facilities. These premises are subsequently expanded and by 2007 all manufacturing is transferred to the new site.

2010s

A continuous investment programme in plant, infrastructure and training doubles capacity, enabling the safe processing of explosive and hazardous materials as well as earning the ISO9001:2015 standard.

ISO
9001:2015
CDG CERTIFICATION LIMITED

2019

Developing services and widening its market access, British Rema integrates Phillips Kiln Services Europe Ltd fully into the group. The process is completed in 2019 as PKSE becomes British Rema Rotary Engineering.

britishrema

- Powder processing
- Process equipment
- **Rotary engineering**

2022

In March 2022, ownership of the British Rema Group of companies transferred to a newly formed Employee Ownership Trust.

Who we are

British Rema today

We are a group of three distinct but complementary businesses working together to create real value from your process, materials and equipment.

Our collaborative approach and wealth of expertise, gained whilst operating our own range of equipment in our powder processing facilities, give us an extensive knowledge base, and enable us to address the most complex of challenges, irrespective of scale.

Powder processing

We offer a specialist range of milling, air classifying, mixing and blending technologies on a contract processing basis to meet your exact requirements.

Process equipment

We design, manufacture and supply a range of powder processing equipment and systems for milling, air classifying, mixing and blending, and drying. We also provide a comprehensive after-sales service to maximise the service life of the equipment we supply.

Rotary engineering

Previously known as Phillips Rema and Phillips Kiln Services Europe (PKSE), we understand the criticality of rotating equipment and offer inspection, maintenance, repair, design and installation services to cover every stage of a rotary vessel's mechanical life to ensure longevity and optimal performance.

"British Rema are specialists in their field. They are flexible, bend over backwards to help us and act as our eyes and ears to maintain and enhance quality standards."

Advanced Sourcing Manager
Global leader in advanced composite technology

Powder processing

Process equipment

Rotary engineering

What we do

Powder processing

Whether it's advanced polymer composites or minerals direct from the mine, consistent particle size accuracy requires a determined and reliable contract processing partner with the expertise to meet your exacting technical challenges...

British Rema know how.

Powder processing

Our services

In the pursuit of evermore effective production processes, we offer a specialist range of milling, air classifying, mixing and blending technologies on a contract processing basis for small-scale trials through to fully outsourced production.

Milling

Whether you're managing coating thickness or coverage, controlling costs or kinetics, sometimes smaller is certainly better.

The question then becomes how small do you need your particles, and how can you achieve consistency from batch to batch?

Our team boasts a wealth of experience in milling and micronising powders for a wide range of applications to meet the most demanding of specifications. Whatever your end use, from jet fighter components to hip joints to crop nutrition, trust that we'll find the right answer.

Air classifying

Processing to achieve smaller particles is only part of the answer in the search for improved performance in application.

To manage sensitive production parameters such as melt rate, packing density, dissolution times or tensile strength – you need full control of the particle size range.

Whilst coarser particles can be sieved, the finest particles can only be controlled using air classification techniques managed by a highly capable and experienced team.

Mixing and blending

When mixing and blending, our aim is not only to achieve uniformity in a single batch but also to achieve exacting consistency, time after time, enabling your business to meet the highest customer expectations.

This degree of uniformity requires the right mixer or blender, functioning to the correct parameters, run by a skilled and experienced operator. With expert knowhow, our team operates a series of mixing and blending units that can help to determine and achieve your optimum blend.

Support services

Complementing our wealth of experience in milling and air classifying, our powder processing team has a depth of knowledge that enables us to provide a seamless service.

Process advice

To meet the most innovative of challenges, we regularly help customers to develop their products and processes by optimising material particle size – employing our scientific knowledge and practical experience to run robust R&D scale trials and testing.

We are accustomed to working on long development lead-time projects and we work closely with our customers' technical and development teams at every stage of the process.

Many of our customers know what they need, but may not know what is possible or how to achieve it. We often get asked questions such as: Can this material be milled that fine? What is the particle size of the sample which needs to be matched? Is it possible to remove the fines and the coarse fraction from the sample? Is it possible to blend two or more fractions of different densities?

The material may need a finer particle size to flow correctly, it may require anti-caking agents or flow aids to be blended in – it may simply require dedusting. We help our customers determine what actions and processes are necessary to achieve the maximum value possible from their materials.

Logistics

Our customers are international, with specialist products coming into our contract processing facilities and being shipped out across the world regularly so we understand the regulatory issues involved. Products are packed in a variety of customer-specified formats and we are familiar with sourcing specialist packaging suitable for minimising the risks associated with handling fine powders, as well as arranging UN-approved certification for the transportation of hazardous materials.

Trials and lab testing

We offer milling, air classifying, mixing and blending trials for both existing and prospective customers.

Our in-house laboratory provides particle size analysis using laser diffraction technology. It plays a key role in validating existing processes, R&D testing and the specification of new processing equipment, where the appropriate equipment parameters and sizing can only be properly determined through the careful trialling and measurement of output using a customer's actual material.

For contract processing customers, quality control procedures, appropriate measurements and sampling rates are all agreed in advance. Analytical results are carefully recorded and certificates of analysis can be provided. Where customers require other analysis to be carried out prior to shipment (such as chemical composition), we have close relationships with external commercial analytical laboratories and can manage the collation and reporting of data.

Powder processing

Quality

With much of our production destined for aircraft manufacturing and other highly-regulated applications, quality management is central to everything we do at British Rema.

Accreditations

We operate within a formal quality management system and were one of the first businesses accredited to the ISO9001:2015 standard. Many of our products and management processes are further accredited for use in specialist applications and are routinely audited for compliance by our customers. We regularly work with customers to integrate our processes into their complex end-user-qualified supply chain quality systems.

Certification and traceability

All of our equipment used for the determination and validation of data is regularly calibrated, serviced and certified to NPL standards. We issue certificates of conformity and/or certificates of analysis with each delivery, as required.

Retained samples and detailed production documentation are securely stored for up to ten years.

Product integrity

Process definitions are enshrined into works instructions and job files that accompany each batch of material. These contain all the information relevant to a particular material lot number, allowing us to evaluate and subsequently duplicate particular conditions consistently. Regular testing during production enables us to fine-tune settings to compensate for inevitable variation in raw material characteristics and ensures accurate repeatability from batch to batch.

We strive to minimise contamination risk and consequently are able to meet the rigorous standards needed to supply product for end uses such as medical implants and oral tablets. Strict procedures relating to foreign object debris (FOD) control are in place, compliant with NAS142 to satisfy our aerospace customers.

"The work British Rema has completed for our plant is always good quality, they are flexible, efficient, available at short notice – and their advice and findings are always helpful."

Reliability Manager
European producer of animal feeds and biofuels

Powder processing

Health & Safety

We are committed to protecting the health and safety of our employees, visitors, contractors and the general public, both within the premises we operate and the products we ship.

British Rema's Health & Safety Management System ensures we have a safe working environment, competent employees and safe systems of work for all processes undertaken. This includes carrying out COSHH analyses, risk assessments and employee training, for all materials that we handle and equipment we operate.

COSHH

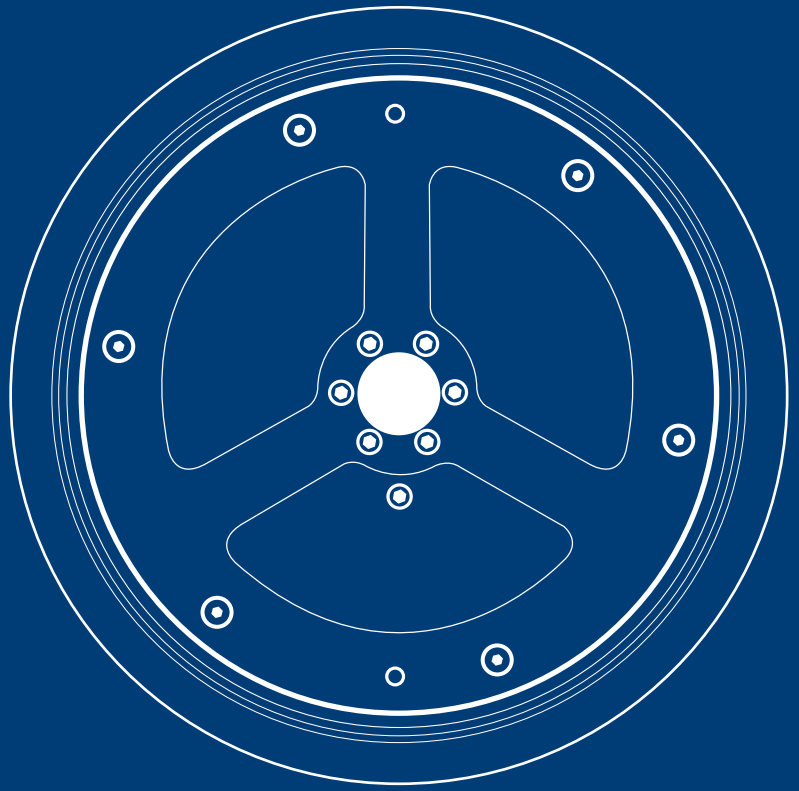
To evaluate the hazards associated with handling, storing and transporting every material, we insist upon full disclosure before we agree to accept delivery. We recognise that many of the materials we process can be proprietary, or commercially sensitive, these are handled under NDA's or contracts. Each material is fully assessed for the plant or process it is assigned to, and each plant is equipped with suitable and sufficient controls for safe processing. Where personal protective equipment (PPE) is identified as a control, employees are trained in its use and maintenance.

ATEX

Many chemicals can form an explosive atmosphere when certain conditions are met, and these conditions invariably exist within a milling system. The team at British Rema assesses the risk for each material to determine whether it can be safely processed in our contract powder processing facility. Our processing plants are rated for and protected against explosive materials, and we take the greatest care to mitigate risk for our customers.

What we do

Process equipment



Managing the intricacies of particle size reduction, classifying, blending and drying requires a safe pair of hands – so from turnkey solutions to bespoke processes…
British Rema know how.

Process equipment

Our equipment

We design, manufacture and supply a range of powder processing equipment and systems for milling, air classifying, mixing, blending and drying – suitable for R&D through to commercial production.

Whether you require a single unit of equipment for installation into an existing system or the design, manufacture, installation and commissioning of a complete large-scale turnkey system, we can help.

Our range of equipment includes:

Mills
Jet mills, Classifier mills, Ball mills, Impact mills and Spiral flow jet mills.

Classifiers
Air classifiers, Twindrive separators and Multiwheel classifiers.

Industrial mixers/blenders
Double cone, V-cone, Octagonal, Interchangeable and Ribbon blenders.

Rotary dryers
Rotary dryers – industrial directly or indirectly heated rotary vessels.

Our engineers design and project-manage major industrial installations in many sectors including chemical, mining, additive manufacturing, aerospace, food and pharmaceutical, and deliver equipment which achieves product consistency and homogeneity.

We also provide a variety of support services such as system design studies, installation, commissioning and validation services plus processing trials where we can process samples of material to help define a customer's equipment requirements.

To maximise the service life of your investment, we offer a comprehensive after-sales service. We supply spare parts and refurbish equipment. We can also advise on and carry out system upgrades and devise maintenance programmes designed to keep your systems in optimum operating condition.

"British Rema specialise in the processing equipment we require, they are very technically minded, easy to work with and provide both good equipment and good service."

Engineering Manager
International supplier of metal powders for additive manufacturing

Mills

Particle size reduction mills and micronisers capable of manufacturing to the most demanding specifications.

The controlled reduction of a material's particle size by milling, grinding or micronising to achieve the required end product is a vital commercial process.

Whether particle size reduction is required as an economical means of improving solubility, to increase dissolution rates or to improve batch-to-batch consistency and performance, British Rema can offer a solution.

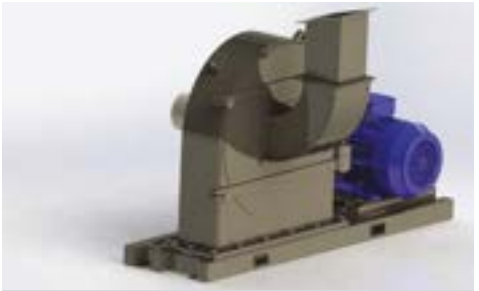
Our mills and micronisers are suitable for laboratory or industrial-scale production and are capable of manufacturing to the most demanding particle size specifications in many sectors including chemical, mineral, metal powder, plastic and polymer processing.

All of our milling equipment is designed and constructed to ensure high performance, robustness and ease of maintenance. Selecting the most appropriate milling technology for a particular application is not always straightforward and the most appropriate answer might not be the most obvious; it requires experience, trials and an open mind. Our team is here to help with your milling enquiry.

Opposed Jet Mill

Classifier Mill

Ball Mill



Impact Mill

Spiral Flow Jet Mill

Process equipment

Air classifiers

For more detailed information on any of our products or to download a data sheet please visit the website ***britishrema.com***

Our range of air classifiers is invaluable when separating a particle size range to achieve a more consistent material and product performance.

Air classification is a versatile technique used both independently and in conjunction with milling. It can be used to achieve a required particle size distribution or cut point, or assist in rejecting an unwanted fraction or contaminant. Examples include the simple removal of mineral fines, adding value by the separation of waste streams in recycling operations, and the enrichment of the nutritional value of protein sources.

Our dynamic air classifiers allow powders to be segregated into an optimum particle size range to better control mission critical parameters such as melt rate, packing density, dissolution times, tensile strength and flow rate.

The range we offer is suitable for laboratory or industrial-scale production and capable of controlling the particle size distributions required across a variety of sectors; from specialist food and pharmaceutical applications through to the largest scale mineral and mining operations. The resultant particle size distribution is dependent upon machine type and size and the material being processed. Our experienced team is ready to advise on the most suitable classification equipment for your application.

Aerosplit Classifier

Aerosplit 100 Classifier

Multiwheel Classifier

Twindrive Separator

Process equipment

Industrial mixers and blenders

Our robust powder mixing and blending equipment is designed to deliver blend quality and increase productivity.

When your business depends on robust equipment that is capable of fast blend times, lower power consumption and ease of cleaning whilst maintaining the highest levels of product consistency, uniformity and homogeneity, we can help.

From standard powder mixers to bespoke, custom-built equipment, we offer a range of equipment suitable for mixing and blending powders with differing bulk densities and particulate characteristics.

Our range includes rotating, tumbling action and ribbon mixing and blending equipment to suit a wide range of applications and production requirements, from lab to industrial-scale. All of our mixers and blenders incorporate a variety of customised features designed to meet the rigorous standards of the food, pharmaceutical, additive manufacturing, mining and chemical industries.

We also offer trials in our **mixing and blending test facility** where blends can be trialled across a range of blenders to identify the optimum solution.

Double Cone Blender

V-Cone Blender

Octagonal Blender

Interchangeable Blender

Ribbon Blender

Rotary dryers

For more detailed information on any of our products or to download a data sheet please visit the website ***britishrema.com***

Working with our experienced rotary engineering team, we design and supply a full range of industrial rotary drying equipment.

Control of moisture levels in solid materials is a critical process in many industrial applications. We supply custom-built rotary dryers either as a complete unit or replacement parts into a range of manufacturing sectors including agricultural grains, fertilisers, aggregates, minerals, waste and recycling materials.

Our rotary dryers are supported on ‘tyre and roller’ assemblies driven by a surface-mounted girth gear and pinion or a chain drive. The dryer is often positioned at a slight slope to assist gravity and the slow rotation of the drum ensures efficient and uniform drying as the material is tumbled through the length of the vessel.

The combination of movement and heating of the rotary dryer ensures even and cost-effective drying of materials in a continuous and controllable process. Dimensions and throughputs of rotary dryers vary dependent on the materials and the required drying process. We are here to help with your drying enquiry.

Engineering services

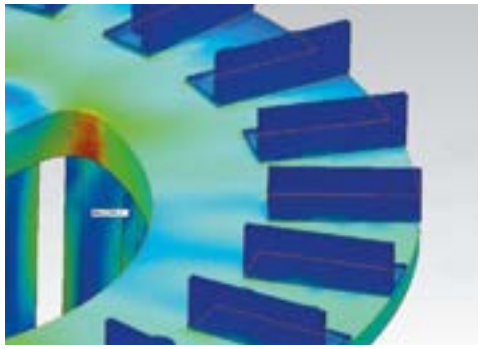
Our specialist services help to define and realise your unique equipment and plant requirements – supporting you every step of the way.

Engineering studies

To assist in determining the type and size of equipment required, we evaluate the properties of a client's materials by assessing the bulk density, particle size distribution and Bond Work Index.

Site surveys and design studies are also undertaken in order to define equipment and plant in accordance with regulatory requirements for ATEX, DSEAR and PED.

The projects we undertake can provide advice or full system design.



Equipment trials

A range of British Rema process equipment including Impact and Opposed jet mills and Air classifiers is available for trials in our UK-based contract processing facilities.

Trials can be run on customer-supplied materials to help define the appropriate equipment and plant to suit a particular application.

Blending trials are carried out in our dedicated mixing and blending test centre. Our team is available to discuss trial outcomes and advise on equipment options.

Equipment design

We offer an extensive portfolio of standard equipment but when a customer's application requires a specialist solution our engineering team is equipped with the knowledge, experience and software to be able to design and supply bespoke solutions.

Installation supervision

As part of our project management service we offer on-site assistance during the installation of British Rema equipment and associated ancillary plant.

Commissioning

Our engineering experts are available for the on-site commissioning of British Rema supplied plant and equipment such as 'dry running' of equipment, live commissioning with product, and training in the efficient operation of the plant.

After-sales services

Our comprehensive after-sales service includes the supply of spare parts, servicing, repairs, upgrades and maintenance for all British Rema equipment to safeguard your investment.

Spares

Our dedicated spares division offers replacement parts for all British Rema equipment to ensure optimum performance reliability.

Repair and refurbishment

Repairs and refurbishment of British Rema equipment can be accommodated by our engineering team at our workshop based at our headquarters in Chesterfield, UK.

We carry out servicing and offer service contracts to help maintain lasting performance and optimal equipment service-life.

Machine upgrades

We offer upgrade options as an economical and effective way of modernising existing British Rema equipment.

Our upgrade solutions include replacing analogue electrical controls with HMI touchscreens and replacement of filter bag systems with easier to maintain cartridges.

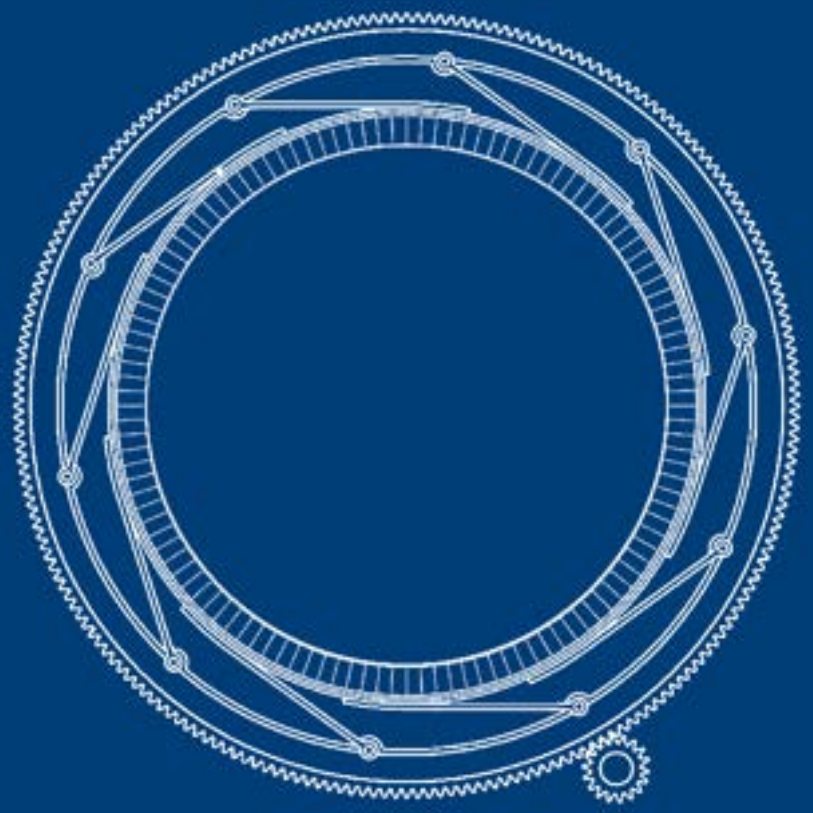
Technical services

As part of our after-sales support services, we also offer on-site inspection and assessment of plant and equipment.

Following an inspection, we provide a detailed technical report with our recommendations to ensure your equipment continues to operate to its full potential.

What we do

Rotary engineering



Maintaining, repairing, aligning, analysing, upgrading or supplying industrial-scale rotary vessels whilst minimising downtime requires a rigorous engineering approach…

British Rema know how.

Rotary engineering

Our services and equipment

British Rema Rotary Engineering provides comprehensive field and technical services that cover every stage of a rotary vessel's mechanical life from design to supply, installation and commissioning, maintenance, inspection and repair.

Previously known as Phillips Rema and Phillips Kiln Services Europe – PKSE, we understand the criticality of industrial rotating equipment and provide comprehensive maintenance services covering every stage of a rotary vessel's mechanical life to ensure longevity and optimal performance.

Boasting an outstanding safety record and many years of practical hands-on experience, our rotary team can solve complex mechanical engineering problems whilst maximising the service life of all types and makes of rotary vessels – including kilns, dryers, mills, calciners, coolers and similar equipment.

From a single day's consulting to a large-scale turnkey project, our experienced engineers offer a broad range of services including design, supply, build and commission, along with detailed analysis, customised design, repairs, inspection, maintenance, and spare parts for all types of rotary equipment.

We thrive upon developing long-term partnerships and have worked with many of our customers for several decades. As a result, we enjoy high levels of repeat business built upon specialist expertise and consistently high service levels.

As we are fully independent, we have no allegiance to any particular OEM so our recommendations are always tailored to meet our customer's needs, allowing us to offer the most cost-effective solutions globally.

With a large number of ongoing contracts in progress across the globe at any one time, our customers operate across fields as diverse as cement and clay, foods and fertilisers, petrochemicals and plastics.

To assist our international customer base, Rotary engineering's UK head office supports additional staff and agents situated across Europe, The Middle East, Africa, North America and the Asia Pacific regions.

"We have a good working collaboration with British Rema and I am very satisfied with the wide range of engineering services they reliably provide for our rotary kilns."

Maintenance Manager
International cement company

Maintenance and repair services

British Rema's rotary engineers apply their specialist knowledge and experience to optimise performance, maximise efficiency and extend the operational life of your industrial rotary equipment.

Maintenance and inspections

We provide scheduled and on-demand maintenance services for all makes and types of rotary vessels.

The key to effective maintenance of industrial rotary vessels is the ongoing identification and monitoring of potential problems, along with the formulation and implementation of action plans to resolve issues before they adversely affect your machinery and your process.

With this in mind, we carry out regular rotary vessel audits and inspections to monitor and evaluate the mechanical performance and condition of your valuable plant assets.

Inspections include diagnostic evaluations of the support and thrust rollers and roller support bases, assessment of the shell and tyre condition, positioning and design, the mechanical condition of the drive system, including the girth gear and pinion, the vibration and movement of piers and support beds and the lubrication systems.

Resurfacing and grinding

For many reasons, rotary kiln and vessel tyre and roller surfaces can show signs of wear such as pitting, spalling, cracking, marking, irregular face profiles and rolled-over edges.

These conditions can cause vibration, high power consumption, alignment problems and short bearing life which result in premature bearing failure and damage to the tyre retaining components.

Resurfacing restores the rotating contact surfaces to 'as new' condition to improve mechanical stability.

Tyres, support rollers, thrust rollers and tyre thrust faces can all be restored to surface finishes that meet and exceed OEM tolerances. Worn support roller and tyre faces are ground in-situ whilst the rotary unit is in normal production.

Alignment

Alignment of the shell between the support piers, girth gear to pinion, and tyres to support rollers is essential to prolong the service life of all industrial rotary vessels, as flexing and distortion reduce the mechanical stability of the shell and increase mechanical stress and component wear greatly.

We recommend carrying out regular full alignment surveys on all kilns and other rotary vessels as we can detect potential issues and recommend ways of eliminating the problems before they develop into critical mechanical failures.

Analysing and resolving rotary vessel issues accurately and quickly can eliminate ongoing damage; prolonging the life of your equipment and reducing costly downtime.

The rotary team use various methods of alignment, depending on the specific requirements:

- Hot kiln / rotary vessel alignment
- Cold kiln / rotary vessel alignment
- Inner bore-site alignment
- Thrust monitor dynamic roller alignment

Repairs

We provide a full range of repairs, refurbishment, replacement and installation services to extend the service life of rotary vessels.

This repair and installation work can involve simple repair work such as changing bearings and rollers, installing or reversing girth gears, replacing tyres, rollers, tyres and support bases, doing filler bar work by shimming tyres, changing shell sections, installing seals, mill repairs and grate cooler repairs – right through to the installation of new rotary vessels.

We also provide expert supervision of repair work carried out by in-house staff or preferred contractors, alternatively, we can provide full turnkey project solutions.

All of our repair work is carried out to internationally recognised standards of tolerance, quality and safety. The work is supported by our in-house design engineers and our procurement team will ensure all parts supplied are sourced competitively and ethically from our global, approved supply chain partners.

When on-site, we comply with our customers' health and safety and environmental requirements. Our safety standards and record are second to none, and we can provide references from some of the most demanding of customers and industries including fertilisers, petrochemicals, fine chemicals and catalyst manufacture.

Parts supply

We supply rotary kiln and vessel equipment, parts, spares and replacements as well as installation...

Equipment and parts

We design, manufacture and install complete replacement rotary vessels or large component parts.

Typical examples are shell sections, girth gears and pinions, kiln and dryer seals and support components, such as tyres, support rollers and shafts, thrust rollers, bases and seals.

As well as offering a complete design service, we offer redesign or retro design of parts for any OEM brand and we can re-engineer parts and equipment using the latest materials and standards.

Industrial rotating equipment

Rotary dryers and drums are an ideal solution for industrial applications requiring drying, drying plus mixing, mixing, coating and washing processes.

For many years, we have been supplying custom-built rotary vessels into a range of manufacturing sectors including agricultural grains, fertilisers, aggregates, minerals, metals, waste incineration and recycling.

Installation

Our skilled and experienced engineers can plan and execute a full range of installation services that support both our parts supply and repair activities or act as a part of a larger team carrying out a customer-led project.

Rotary engineering

Technical services

Impartial expert advice to help you achieve a more efficient and cost-effective production process.

We are uniquely placed to provide impartial advisory and supervisory services to designers, site managers and maintenance engineers.

Our involvement can range from expert supervision of maintenance work through to full turnkey project management. Our customers benefit from having access to a valuable technical support and back-up support service, where our experienced engineers can also be used as part of your own maintenance and technical support teams.

We will provide you with all you need from answers to frequently asked questions on mechanical operations to interim and project management and training in mechanical maintenance best practice.

Consultancy, diagnosis and advice

Our work often starts when a problem is noticed at the plant by a customer. It could be vibration, an unusual noise or a small crack or fissure appearing on a surface.

We respond rapidly to meet with the customer and discuss the problems being encountered, then, after an on-site inspection and assessment of the plant, we will determine the root cause and provide a full technical report – offering recommendations on the actions required to resolve the problems.

We will recommend short, medium and long-term solutions and offer troubleshooting services to ensure the equipment stays operational.

Surveys and reporting

On other occasions we attend a site to carry out a survey of the plant, which allows us to identify potential problems that may develop if action is not taken.

For some of our customers we carry out regular inspections to support their on-site planned maintenance systems, enabling us to make recommendations which increase plant reliability and reduce costs.

Design

Our team can design, redesign and re-engineer parts and equipment, including shells, support rollers, girth gears and seals that meet or exceed OEM specifications. We can also produce drawings and engineering calculations, when required, and use CAD and 3D simulation software to design or adapt any component to ensure it is fit for purpose.

Project management

Whether you need support for shutdown repairs or large installations, we can project-manage the repair work on your rotary equipment. Providing project plans, health and safety assessments, method statements, design assistance and on-site technical assistance to suit your requirements.

Training and seminars

Our experienced team is happy to pass on their knowledge of best mechanical maintenance practices to your own maintenance team through the public and in-house training seminars we offer.

Training seminars

Our mechanical maintenance of rotary kilns and dryers training seminars have run regularly for over 25 years across the globe. The programmes are suitable for all plant engineers, production and maintenance personnel.

During the seminars we share our knowhow with attendees so that they return to their plants with a thorough understanding of the important differences between static process and dynamic rotary equipment.

We equip participants with the ability to carry out their own maintenance inspections and planning to keep rotary equipment running at optimum efficiency.

In-house training

When there is a need to train a group of employees we work with our customers to deliver a training programme designed to meet the specific training needs at their own plant.

Public seminars

Our public seminars are an invaluable opportunity to spend time with British Rema's expert rotary engineers who are fully immersed in the critical aspects of rotary vessel mechanical maintenance.

Participants will learn industry best practices and gain knowledge and skills that will have a positive impact on their working practices and plant performance.

"I have been able to immediately apply what I learnt at the kiln training seminar to benefit our business, for example, by making simple adjustments to kiln positioning in order to consume less energy. We've also detected two problems that we have been able to solve straight away, just by changing our daily inspection procedures."

Maintenance Manager
Saint-Gobain Weber Portugal SA

Who we do it for

Who we do it for

Our experience

Whether it's processing mineral supplements, simulating sand from Mars or cement production – our team has a wealth of expertise and processing experience which enable us to overcome a wide variety of technically-demanding challenges.

We partner with global and SME manufacturers, both in the UK and around the world, to provide equipment and specialist knowledge in a variety of sectors including:

- Additive manufacturing
- Aerospace
- Agri-food and agrochemical
- Cement
- Chemical
- Food
- Medical and pharmaceutical
- Mining
- Waste processing and recycling

If you would like to know, in more detail, about any of the specific sectors we work with please get in touch.

"British Rema has very strong experience in aerospace grinding. They have technical processes that others cannot reproduce and they are reliable with good batch-to-batch stability – which is essential in our industry."

European Business Unit Manager
Global aerospace chemical supplier

Additive manufacturing

In the developing world of additive manufacturing, the particle size distribution of the metal particles is crucial to ensure a high quality end product in Selective Laser Melting and other techniques.

Starting with atomised metal powder particles, British Rema classifiers are used to generate ideal particle size distributions and our blenders are well suited for creating homogenous mixes of blended powders.

On a larger scale, British Rema has designed inerting systems and supplied classifiers into industrial ball milling systems processing highly explosive aluminium powders, including detailed ignition hazard assessments and protective instrumentation and control systems.

Aerospace

Integrated into the supply chains of both military and mainstream aircraft programmes, our team at British Rema are world-renowned experts in the contract processing of thermoplastic polymers with particular focus on the aerospace industry.

Used in some of the most critical aircraft parts, consistently achieving precision particle size distribution ensures perfect melt characteristics and flawless output.

Our contract powder processing business is fully focused on quality and compliance, and is subject to regular customer audits.

In addition, we design and lease equipment to overseas customers on a long-term basis as well as providing operator training and full support – all to provide a robust processing solution for manufacturers in this highly-regulated sector.

Our experience continued...

Agri-food/Agrochemical

Supplying and maintaining equipment alongside contract processing our customers' materials, the agri-food and agrochemical sectors are served by all three British Rema divisions.

We have designed and supplied rotary equipment ranging from small, two metre, two-pier vessels for simple mixing and drying processes in fertiliser plants, up to a 160 tonnes per hour, 25m long steam-tube dryer, using specialist steels and bespoke welding protocols for drying rapeseed flake. We then maintain this equipment during its entire working life.

At the same time, in our powder processing division we regularly micronise fertiliser components to create the optimum particle size for subsequent homogenous blending and product efficacy.

Cement

As specialists in the maintenance of industrial rotary vessels, our rotary engineering division's reputation was originally built on the cement industry in the 1970s.

Analysing kiln alignment and ovality, refurbishing tyres and rollers and, when required, replacing entire kiln sections, we have worked with global cement groups and independents across Europe, Russia/CIS, Africa and Asia.

Previous projects have included the design and replacement of an 8m diameter tangential girth gear on a 6m diameter rotary kiln and the changing of multiple kiln sections simultaneously.

Our process equipment division is a long-standing supplier of ball mills and classifiers, commonly found in cement plants and we are regularly called upon to give independent expert advice on kiln performance issues as we have no affiliation with any of the OEMs.

Chemical

In such a diverse and demanding sector – all three divisions of British Rema can help you achieve control and consistency when processing chemicals.

We have designed and built equipment from laboratory to commercial-scale to process powdered chemicals effectively and efficiently. Recent projects include blending pigments and dyes to improve colour control and intensity, and micronising ingredients such as phosphorus for fertilisers and sulphur for fungicides to improve yield by protecting grapevines from mildew.

Our contract powder processing division has a wealth of experience toll milling and classifying organic materials such as structural polymers, resins and waxes, many of which traditionally require cryogenic milling, plus inorganic materials, minerals and ores, even extremely hard substances such as metal oxides, carbides and nitrides.

In addition, our rotary engineering division is experienced in maintaining and repairing industrial-scale kilns, dryers and similar rotary equipment for processing ores, cements, minerals and chars.

Food

Due to the fast-paced increase in global population, the production of safe and sustainable food resources has become one of the world's most pressing challenges.

Our food grade milling and mixing equipment is designed for R&D or commercial production of powdered ingredients. Our customers are successfully using air classifiers to enrich the protein content of dried pulses and grains. We also have experience in blending proteins and nutritional supplements.

We've designed, installed and maintain rotary mixing and drying equipment for producing many high-quality bulk food products including sugar, rice, grains and seeds.

Our powder processing team offers support to our other divisions and potential clients in the form of trials to determine viability, capabilities, optimum particle sizes and production rates of food products.

Our experience continued...

Medical/Pharmaceutical

Having supplied micronising production plants to the European sites of major pharmaceutical companies, our team at British Rema is familiar with the regulations, including GMP, IQ, OQ, PQ protocols and other relevant requirements.

Plant specifications have included inert atmospheres, contained feed and discharge, and all the relevant instrumentation and control systems.

Our contract powder processing division regularly micronises thermoplastic polymers for use in medical implants and dental applications, and so complies with the extensive quality controls and validation procedures that these sectors require.

Mining

With a long-standing heritage in the mining and mineral industry, we have installed plants in many countries across the world and have mills and classifiers that are well suited to this environment.

Recent projects have included a turnkey ball mill plant for grinding and screening aluminium hydroxide at 6 tonnes per hour and a classifying plant for calcined gypsum, and in our contract powder processing facility we handle specialist abrasive materials and minerals such as zircon flour and cryolite.

Waste processing/Recycling

Alongside helping our customers combat the global food challenges we face today, British Rema is also focused on supporting customers involved in the processing of waste materials.

We've supplied equipment designed to extract lime from waste streams for use in agricultural soil enrichment treatments and built equipment for processing fly ash to achieve the appropriate standard for use in concrete and grout products. Another example is the separation of fine grades of glass for use in coatings, paints and shot blasting.

Our powder processing division has been involved in determining the optimum particle distribution for biomass feedstocks, converting granules into powders to allow reprocessing of polymers and glass, and adding value to waste products such as tyre char, to ensure they are viable as a potential feedstock.

Also, our rotary engineering division ensures the optimal operation of incineration drums for the vital processing of hospital and other hazardous waste products as well as supplying and maintaining vessels for recycling waste into fibreboard and processing sewage to be used as fertiliser or alternative fuels.

Ask us...

Our wide range of skills and experience means we can apply our knowledge to any problem no matter which area you may work in.

In fact we pride ourselves in trying to find the right solution for all sorts of complex challenges – we like to think that's what makes us different.

So if you have a problem that needs solving, ask us!

Ask us

If you have any questions or want to find out how British Rema can help, please get in touch.

+44 (0)1246 269 955
knowhow@britishrema.com
britishrema.com

britishrema

Powder processing | Process equipment | Rotary engineering

British Rema
Image Works, Foxwood Close
Chesterfield, Derbyshire S41 9RB
United Kingdom

Version 2 – September 2023

britishrema