



Greenbank Terotech Ltd Company Profile

Greenbank Terotech Ltd was originally established in 1954 and since then it has built a global reputation for delivering engineering excellence across a broad range of industrial sectors.

Its design and manufacturing facilities in Derbyshire provide bespoke engineering services to support its customers' on-going requirements for both product supply manufacturing and site-based turnkey projects.

Greenbank Terotech is able to support its customers on a wide variety of electro-mechanical projects from concept to completion offering detail design, manufacture, installation and commissioning.

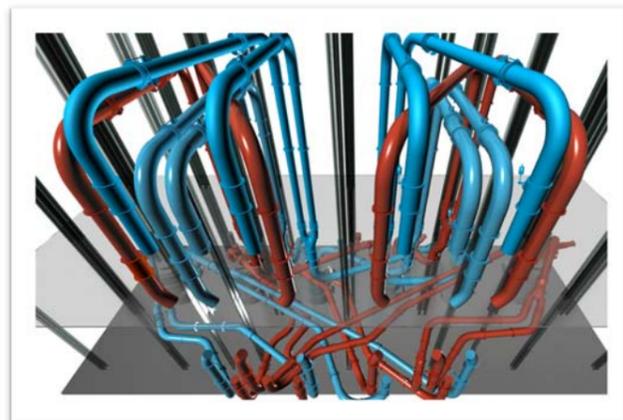
Renowned for its work with power generation plants across the globe, the award-winning company has a long-standing and proven track record in the bulk handling, steel and heavy engineering sectors and, more recently, leisure, water, water treatment, transport and rail.

Throughout its history Greenbank Terotech has constantly evolved, responding to customers' needs through modernisation and legislative changes whilst reacting quickly to opportunities in new markets.



Greenbank Terotech has four operating divisions:

- ◆ **Heavy Industrial Division**
Delivering heavy industrial fabrication, piping systems and wear protection solutions.
- ◆ **Systems Division**
Developing innovative solutions for combustion measurement and control.
- ◆ **Materials Handling Division**
Providing continuous weighing products and bulk material-handling solutions.
- ◆ **Aggregate Technology Division**
Delivering blending and segregation technology and solutions.



Enhancing Performance

Greenbank Terotech Ltd is a first-class heavy industrial engineering company serving the power, coal, steel, cement, bulk handling, paper, mineral, rail, automotive, glass, and food industries in the UK and overseas.

Traditionally, the company's core business has been in the design, manufacture and application of abrasive and corrosive resistant products in bulk material-handling and electricity generation.

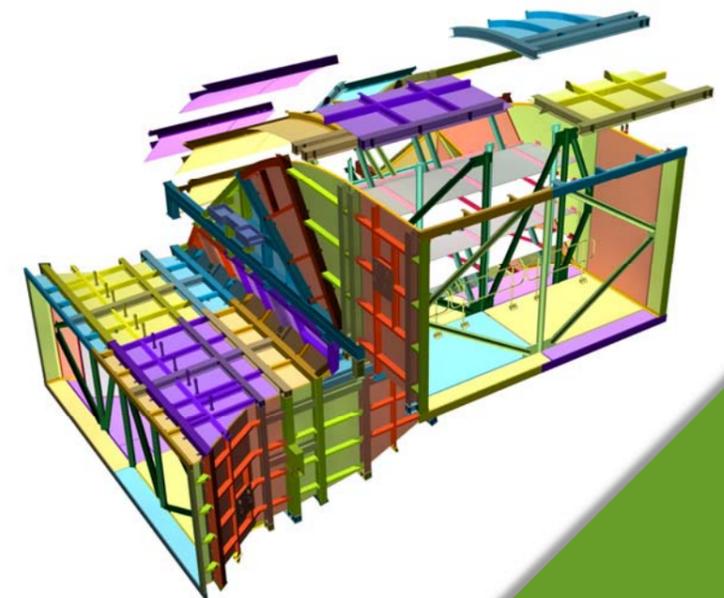
In 2000, the company embarked on a new era, to design technology that improved and enhanced the operation and efficiency of combustion-generating power plants. The emphasis behind this was the growing requirement for cleaner, more efficient technology and control of emissions.

Since then, Greenbank Terotech has become a world leader in the development of unique combustion optimisation technologies, and working together with its sister company Ammegen, it offers an unrivalled solution for boiler efficiency and emission reduction technology.

In addition Greenbank Terotech has developed its abilities to deliver turnkey material-handling products and services which include continuous weighing systems, lean phase conveying, bulk and aggregates-handling systems.

Greenbank Terotech Offers

- ◆ **Engineering Design**
Detailed site survey and measurement routing, 3D modelling and structural assessment.
General arrangement and installation drawings, feasibility, assessment and engineering studies.
- ◆ **Product-Based Solutions**
Combustion enhancement products.
Continuous weighing products.
Bulk handling solutions.
Aggregate segregation technology.
- ◆ **Wear Protection Systems**
Abrasion and corrosion lining systems.
Advanced vacuum bonding system.
Site- and shop-based wear protection relines.
- ◆ **Piping Systems**
Lean phase conveying.
Pipework, supports and structures.
Lined and unlined valves and dampers.
- ◆ **Technical Fabrication Services**
EN 15085 Manufacture of railway vehicles and components certification level 1.
EN 1090-1:2009+A1:2011: Execution of steel and aluminium structures.
- ◆ **Site Services**
Installation and field support services.



Greenbank Terotech Ltd operates the Greenbank Group's core design and manufacturing facilities and provides engineering support and design to the Group.

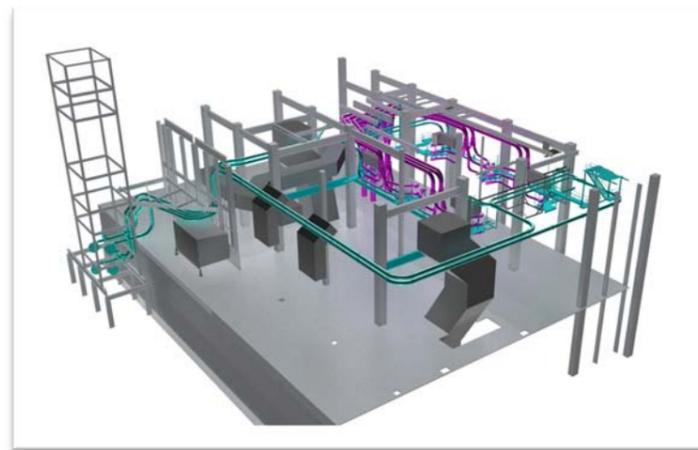
Its design and manufacturing facilities produce bespoke steel fabrications, pipework and supporting systems, abrasive and corrosive resistant lining systems, bulk material-handling systems and innovative custom technologies designed and engineered to minimise operational downtime, extend plant life, increase efficiency and optimise process and plant performance.

The company is renowned worldwide for its expertise in providing cost-effective solutions and piping systems for pulverised fuel, biomass, furnace bottom ash, fly ash, grit, dust and wet slurry piping systems together with all the associated equipment like chutes, valves, diverters, dampers, distributors, supports and secondary steelwork.

Greenbank Terotech is a unique engineering and manufacturing company which thrives on developing itself, its products and its employees to a level of excellence.

Engineering & Technical Capability

- ◆ **Site Survey**
3D Scanning Service & Support
Detailed Site Survey & Measurement
- ◆ **Scheme Proposal**
Front End Engineering Studies
Feasibility, Assessment & Engineered Studies
- ◆ **Engineering & Detail Design**
Routing, 3D Modelling
Structural Assessment
Pipe, Ducting & Supporting Systems
General Arrangement & Installation Drawings
- ◆ **Conceptual and Proof Design**
3D Visual Engineering
Discrete Element Modelling (DEM)
Computational Fluid Dynamics (CFD)
Finite Analysis



Engineering Excellence

Greenbank Terotech Ltd's Engineering & Technical Department undertakes design and engineering projects in support of its own products and services as well as bespoke engineering studies. It provides an exceptional service, having all the detailed knowledge and resources required to make all its engineering projects successful.

Award-winning innovators at Greenbank Terotech have the breadth and depth of technical expertise to respond to the complex nature of many of our industry's challenges. Whatever the problem, Greenbank has the skills, knowledge and experience to plan, design, manufacture and implement a well-engineered cost-effective solution.

Building on skills in mechanical, electro-mechanical, control and instrumentation has allowed the company to meet the demands of today's heavy industrial market. Greenbank Terotech has grown its business to a respected national and international calibre as an assured innovator, designer, manufacturer and supplier of quality engineered products and systems.

Computational Fluid Dynamics and Discrete Element Modelling

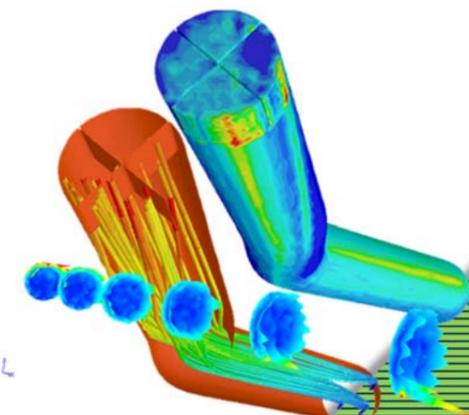
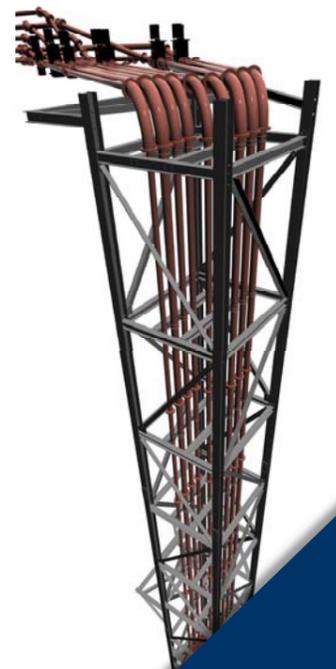
The company utilises Computational Fluid Dynamics (CFD) and Discrete Element Modelling (DEM) to supplement design and development of a variety of systems.

The numerical solution and algebraical equation methods Greenbank use have been developed in-house and correlated with both experimental data, as proven on our own test rig, and real-time data provided by our customers.

CFD and DEM analysis provides great potential for saving time in the design process and therefore proves more cost-effective and quicker when compared to conventional testing for data acquisition.

Greenbank is able to undertake modelling of fluid flow problems, particle tracking, particle control, chemical reactions, temperature and combustion processes.

By validating computer modelling against existing data, Greenbank can identify the optimum positions for devices in pipe networks as well as identifying areas of high pressure drop or poor air movement as successfully demonstrated with our VARB family of products.



The combination of a friendly, professional service having the ability to meet tight and difficult delivery programmes enables a secure and bespoke engineering service for our growing customer base.

Greenbank Terotech Ltd's Heavy Industrial Division delivers single- or multi-discipline services for:

- ◆ In-house engineering, design and procurement
- ◆ Project management services
- ◆ Product design
- ◆ Wear protection systems
- ◆ Rolling of steel plate up to 20mm thick
- ◆ Fabrication of light, medium and heavy section
- ◆ Qualified welding services

Our factory production control system certificate covers for the design, manufacture (including welding) and installation of structural work in steel up to and including:

- ◆ EN1090-1:2009+A1:2011: Execution of steel and aluminium structures
- ◆ EN15085 Manufacture of railway vehicles and components certification level 1

Including accreditation to:

- ◆ ISO9001:2015 Quality Assurance
- ◆ ISO14001:2015 Environmental
- ◆ OHSAS 18001:2007 Health & Safety

◆ Heavy Industrial Engineering

Greenbank Terotech Ltd, supported by its sister company Greenbank Engineering Services based in Creswell, Nottinghamshire, boasts over 4200sqm of manufacturing facilities. It is equipped with 40-tonne lifting capacity, 7m headroom and an extensive range of cutting, rolling and welding equipment enabling the production of light, medium and heavyweight fabrication for local, national and international customers.

Greenbank's manufacturing capability ranges from small bore to large heavy fabrications and ductwork, plus product manufacture and assembly for many OEMs.

In parallel with our industry-leading specialist abrasion resistant lining systems, Greenbank Terotech also offers a full and complementary fabrication service.

General production capacity ranges from 3mm to 20mm for cutting, rolling forming, etc in various grades of steel.

Retrofit and refurbishment is a speciality service offered by the company with rapid response teams geared to delivering quality work in the shortest timeframe to suit emergencies or planned outages.



Serving Industry

◆ Product Manufacture, Assembly, Installation and Commissioning



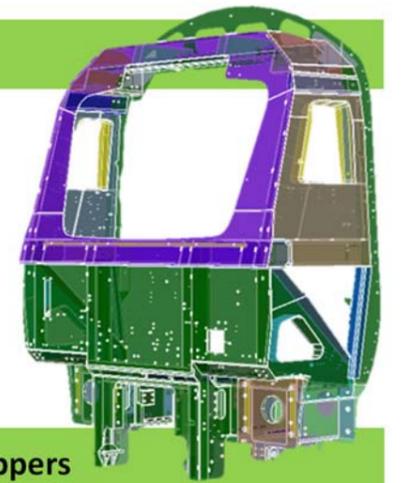
Greenbank Terotech Ltd is happy to partner with OEM and product suppliers to assist with the project management, procurement, supply, manufacture and assembly of an array of electro-mechanical and fabricated products.

Greenbank also represents and distributes specialist international product suppliers, adding value to both parties by manufacturing and procuring locally sourced ancillary products and equipment, all supported by the company's installation and field services team.

◆ Technical and Bespoke Fabrication

Greenbank Terotech undertakes a wide range of fabrication projects, from small-bore ceramic-lined bends for abrasion-resistant duty in steel plants to large-frame ducting and more bespoke fabrication, such as the manufacture of a 95% scale model of an Airbus A380 and mass-produced cab structures destined for the transport and rail network.

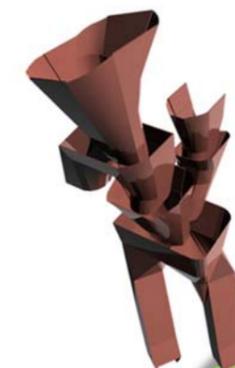
Greenbank's Heavy Industrial Division provides engineering products and service solutions to an array of industries, including power, coal, steel, cement, paper, sugar, minerals, automotive, rail, glass, chemical, food and water.



◆ Conveying Systems, Pipework Systems, Chutes, Silos & Hoppers

To complement our manufacturing capabilities Greenbank offers full engineering design and site installation services from initial site survey and detailing through to final commissioning. All drawings are produced using the latest version of AutoCAD 3D software, giving security to clients that ensures potential clashes are eliminated at concept stage.

Our site erection services can work to CDM regulations as either Principal Contractor, Designer and/or Project Coordinator. All work of any size is accredited to the latest quality, environmental, health and safety standards.



Greenbank Terotech Ltd offer a comprehensive range of lining materials designed to combat erosion and have more than 60 years of expertise on their applications.

Since 1957, Greenbank Terotech's core business has specialised in the design, manufacture and application of abrasive and corrosive resistant products.

Ceramic-based products such as basalt, Zalcon® and alumina are the most well-known lining materials. Other lining materials include nickel and chrome alloys, silicon nitride bonded silicon carbide, epoxy and polyester coatings, Ultra High Molecular Weight Polyethylene (UHMWPE) and an array of performance steels.

These products extend the life of pipework, chutes, hoppers and plant items which are used in many areas of heavy industry such as:

- ◆ Automotive
- ◆ Coal
- ◆ Cement
- ◆ Food
- ◆ Glass
- ◆ Steel
- ◆ Minerals
- ◆ Paper
- ◆ Petrochemical
- ◆ Power generation
- ◆ Water and waste water



◆ Wear Protection and Lining Systems

Cast Basalt

Cast basalt is a material formed from neo-volcanic basaltic rock combined with crystallising agents. When cast it has two exceptional qualities. Firstly, a high resistance to abrasion, which is the most important factor, becoming multiple times higher than that of iron or performance steel. Secondly, it has a very high degree of chemical resistance.

For lining of pipework, chutes, bunkers, cyclones and hoppers, cast basalt is an all-round cost-effective and adaptable lining material that extends the life of equipment where affected by erosion or corrosion.

Its coefficient of friction is similar to steel but improves with wear, which improves the flow of the material being handled, leading to lower pressure drop and improved efficiencies.



Zalcon

Zalcon is an advanced fusion-cast ceramic, developed specifically to resist impact and sliding abrasion in extreme and arduous conditions.

Zalcon is cast at approximately 1800°C into virtually any required lining shape, eliminating many joints which cause premature failure in other ceramic linings, especially tiled.

Zalcon's resistance to impact and thermal shock makes it the perfect liner in areas where aggressive materials are handled at velocity or temperature. Its interlocking crystalline structure of Zalcon gives the material superior physical characteristics.

Alumina Ceramic

A widely used engineering ceramic. High-density, diamond-like hardness, fine grain structure and superior mechanical strength are properties that make it suitable for a wide range of demanding applications.

Silicon Nitride Bonded Silicon Carbide

A low-density pre-cast material, consisting of silicon carbide grains bonded together with a matrix of silicon nitride. The material can be manufactured by a number of methods and large complex shapes can be produced.

Nickel and Chrome Alloys

The most popular wear-resistant alloys are white cast iron to BS 4844 grade 2A or 28 (nickel chromium) and BS 4844 grade 30 or 3E (high chromium grades). They can be cast into complex shapes and are therefore suitable for applications where weight is not a limitation.

Epoxy-Based Coatings

Coatings with aluminium oxide, bauxite or PTFE fillers can be built up on a substrate using trowel, brush or airless spray. The compound has moderately good abrasion resistance and protects well against corrosion, having a continuous service temperature range of -20°C to 90°C with short exertion allowable up to 110°C.

UHMWPE

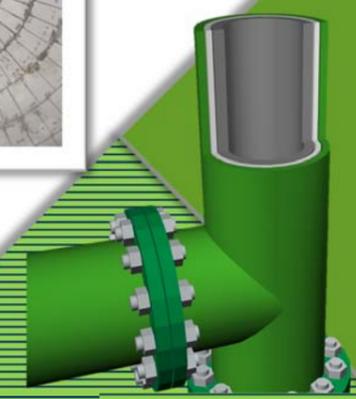
Ultra High Molecular Weight Polyethylene is often used in bunkers, chutes and hoppers at ambient temperatures. It has good sliding properties, having a low coefficient of friction, and it can accommodate some flexing.

Performance Steels

There are several types of proprietary brands of wear plate available. The use of a steel lining can add rigidity to a structure, whereas weight limitations may preclude the use of some other wear-resistant materials.

Applications

- ◆ Chutes, Hoppers and Silos
- ◆ Cyclones, Screens and Separators
- ◆ Mills, Screws and Crushers
- ◆ Pipework and Conveying Systems
- ◆ Sluices and Sewage Systems



Improvement of fuel distribution across the burner zone, and across the boiler load range, is key to delivering improved combustion performance and associated coal-fired boiler performance optimisation particularly for flexible load operation

Greenbank Terotech Ltd entered the field of plant efficiency improvement and emissions reduction technology in the year 2000, when the organisation became aware of a quite literal climate change within the world of large combustion electricity-generating plants.

Increased pressure has been placed on industry to address the environmental impact of power generation, and new legislation has introduced a stringent emission reduction programme.

In response to the growing concern regarding greenhouse gases produced by energy-generating companies, Greenbank Terotech created its Systems Division and an R&D programme targeted at improving the efficiency of large combustion electricity-generating plants.

Two decades later, Greenbank Systems is now a global leader in the field of combustion optimisation, with an award-winning portfolio of products enabling industrial plants using solid fuel to significantly increase their efficiency and reduce environmental impact.

Greenbank's cutting-edge technologies are today being implemented throughout the world, both in existing and new power plant projects.



◆ Pulverised Fuel Balancing Systems

The combined capabilities of the Greenbank Terotech's Systems product line enable delivery of a totally balanced fuel feed from mill to burner, especially in front and rear wall-fired boilers, and can reduce unburned carbon-in-ash levels by as much as 50%.

Products such as the VARB® PF Diffuser, CoalFlo® damper and the G-CAM® carbon-in-ash monitor allow generators to burn coal more efficiently, providing substantial operational savings with the benefit of additional emission control.

Technology is now in place to monitor and control pulverised fuel systems, whether black coal, lignite or biomass, through splits in piping systems or from mill outlet pipework. With Greenbank's technology being so reliable, repeatable and responsive fuel balance can be controlled using a dedicated control unit (DCU) that ensures continued fuel balance and optimum stoichiometric combustion conditions under different and changeable loads.

Applications

- ◆ Dynamic Pulverised Fuel Balancing & Control
- ◆ Online Carbon-in-Ash Measurement
- ◆ Gravimetric Fuel Feed & Control Systems
- ◆ Advanced Steam Leak Detection & Location



◆ Dynamic Measurement and Control

This is achieved through measurement and understanding of fuel flow and associated velocity specific to each burner's pulverised fuel (PF) pipe configuration followed by the necessary adjustment to fuel flow using appropriate flow-balancing technology. This helps facilitate improved alignment of air flow and fuel flow thereby helping to establish the required air-to-fuel ratio (AFR).

Addressing improved fuel distribution and associated burner-to-burner AFR is fundamental to managing emissions to air such as NOx, and CO particulates etc. It is also fundamental to addressing other combustion performance-related challenges associated with fireside corrosion, carbon-in-ash as well as slagging and fouling within the furnace. Delivery of improved combustion stability is also fundamental to improved flexible operations and minimum stable generation (MSG).

In addition to fuel distribution, PF particle size distribution can have a significant impact on burner combustion performance. Good management of PF particle size distribution through appropriate management of the milling system is essential. Therefore, online measurement and monitoring of mill exit PF particle size distribution will help facilitate appropriate mill management and help ensure fuel is delivered to the burner zone at the required particle size distribution.

Whilst addressing and managing key influencing factors such as burner-to-burner fuel distribution, fuel quality and particle size distribution is essential to delivering improved combustion performance with commensurate improvement in boiler performance. Management of combustion zone stoichiometry (theoretical plus excess air necessary to complete combustion) and flexible loading are further key elements that must be addressed.

Combustion zone stoichiometry is managed via the addition of appropriate primary and secondary air flow to the furnace. Getting the balance right is extremely important but is often undermined via excessive 'uncontrolled' furnace air ingress (tramp air) or in-leakage at other locations such as the air-heater and duct seals.

The key to facilitating improved combustion performance is the balancing of fuel distribution across the burner zone, management of fuel quality and PF particle size distribution and minimising uncontrolled air ingress to ensure the combustion zone operates at the required air-to-fuel ratio.

Products and Systems

- ◆ **G-CAM® and H-CAM**
Carbon-in-ash analysers for flue gas and hoppers
- ◆ **CoalFlo® Damper**
PF balancing damper for multi-outlet mills
- ◆ **GA200®**
Advanced acoustic steam leak detection system
- ◆ **GravMaster®**
Pressurised gravimetric feeder
- ◆ **MillMaster®**
Particle size analyser
- ◆ **PfMaster PFMS®**
Pulverised fuel monitoring system
- ◆ **VARB® and Control-Gate®**
PF diffuser and balancing system



Materials Handling Division

The goal is to develop our customer services and our customer relations to become the reliable and obvious choice for our customers'

Greenbank Terotech Ltd offers both standard and bespoke product and systems-based designs and solutions for companies operating in the aggregates, power, cement, steel, minerals, glass, ports and terminals markets. Greenbank Terotech is also at the forefront of developing bulk material-handling solutions for the new and emerging biomass market.

The highly skilled staff at Greenbank Terotech combine decades of experience in the provision of bulk and material-handling products with strategically aligned partner companies to offer bespoke turnkey solutions for many handling applications in aggregates, biomass and fuel handling, together with coal and mineral processing.

The latest addition to our services is on-site retrofitting of weighing equipment to comply with ATEX regulations. This service comprises the supply of any relevant equipment, terminals, enclosures and isolators that may be required. Greenbank's site team can also install the equipment and supply all the necessary certification to satisfy the regulations, offering full peace of mind for the client

◆ Continuous Weighing Systems

Following the acquisition of H&H Services' continuous weighing division in 2008, Greenbank can now supply a wide range of product-based systems.

Greenbank now offers a full range of industrial continuous weighing systems, including gravimetric belt weighers and feeders. Using either a Merrick MC3 controller, or one of our own range of controllers, this equipment can be used in loss-in-weight applications such as batching feeders or simply as weight monitors.

◆ GBW-100 Belt Weigher

Single Idler Belt Weigher for flow rates up to 1000TPH

◆ GBW-200 Belt Weigher

Single Idler Belt Weigher for flow rates up to 50TPH

◆ GBW-300 Belt Weigher

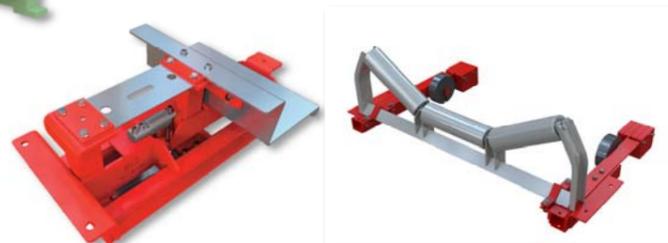
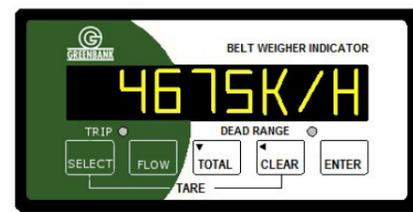
Advanced Single Idler, Medium Duty, Belt Weigher

◆ GBW-400 Belt Weigher

Advanced Single Idler, Heavy Duty Belt Weigher

◆ GBW-436 Belt Weigher

Dynamic Belt Weigh Indicator & Controller



◆ Bulk Materials Handling and Minimising Dust Emissions

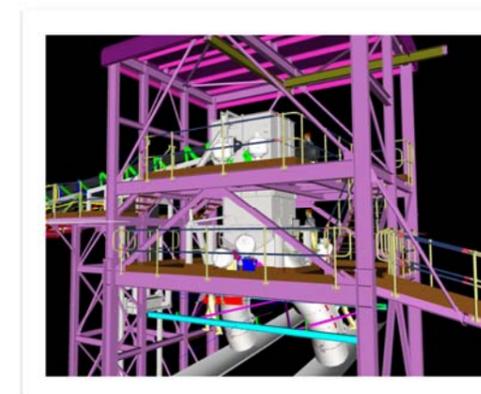
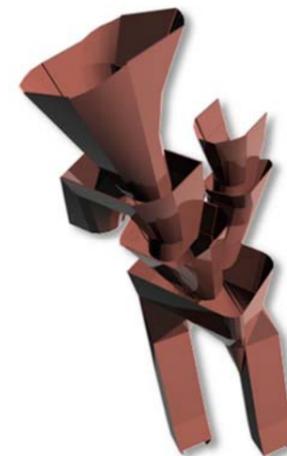
Transfer chutes form an integral part of all bulk material-handling systems and are a critical element in operational efficiency.

Inefficient designs can result in the degradation of material, increased spillage, generation of dust, increased wear on conveyor components and increased power consumption. Another knock-on effect of poor design can be increased costs stemming from spillage, demurrage, maintenance and additional repairs.

Greenbank Terotech provides chute designs that promote mass-flow, increase the life expectancy of conveyor components, reduce downtime and minimise maintenance costs.

The new school of thought on chute design advocates the gentle guidance of material in the right direction, rather than intervention chutes that use deflector doors or impact to turn or deflect the material flow, which can consequently cause the diverter doors to fail. The maintenance problems of sticking diverter doors are eliminated and the capacity of the system is greatly increased by the use of swinging chutes.

From conception to installation, Greenbank Terotech's engineers combine the latest techniques in Computational Fluid Dynamics with expert design skills to produce high-performance chutes which improve operational efficiency.



By utilising state-of-the-art Computational Fluid Dynamics (CFD) and Discrete Element Modelling (DEM) software, Greenbank Terotech engineers can conduct investigations into air movement and velocity within bulk material chutes and at loading points in a transport system.

Expert analysis of the data generated by Greenbank Terotech's CFD and DEM programmes can determine the most suitable strategy for both having time in the design process and delivering a cost-effective solution.

Using Greenbank Terotech's proven techniques, systems can be designed which significantly improve flow conditions, minimise dust emissions, and provide a more efficient and environmentally sound transportation of today's bulk materials.

Material Handling Solutions

◆ Control Flow Chutes

Dust reduction and slide promotion at conveyor heads, transfer points and silos

◆ Two-Phase Conveying

Biomass and lean-phase conveying systems

◆ Pipe Conveyors

Dust-reducing tubular conveying systems

Greenbank Terotech Ltd's Aggregate Technologies Division provides the aggregate processing industries with a range of equipment and bespoke plant to produce high-quality products and increase plant efficiency.

Having over 40 years of experience in aggregate-handling benefiting our own product range, we also work closely with third-party suppliers, which facilitates a flexible approach to design and thereby ensures the best results for particular processing requirements. The division's products and services also benefit from the other Greenbank in-house facilities such as the design and engineering office, steel fabrication workshops and wear-protection lining services.

The main product ranges are:

- ◆ Processing plants
- ◆ Sand classifying and blending
- ◆ Fines recovery
- ◆ Lignite removal
- ◆ Pipe conveyors
- ◆ Truck un-loaders
- ◆ Concrete batching plants
- ◆ Vibrating twin-shaft mixers for UHPC
- ◆ Industrial magnets
- ◆ Eddy current separators
- ◆ Metal detectors



◆ Processing Plants

We can design, manufacture and install bespoke plants or plant upgrades to process a large variety of materials including sand and gravel, C & D (construction and demolition materials), limestone and hard rock products. Our designs maximise the raw material's potential whilst minimising waste. Any incorporated third-party equipment is chosen from our high-quality approved suppliers. Safety and ease of maintenance is paramount in our designs. Quality is assured and overseen by Greenbank's in-house QH&S department.

◆ Sand Classifying and Blending

Our bespoke plants are designed to classify and re-blend sands into the desired specification. Efficient, accurate results can be achieved as we use our own design of teeter classifier and state-of-the-art electronic control. This equipment is combined with quality, third-party pumps, hydro-cyclones and screens. An optional lignite or lights removal facility is available.

◆ Fines Recovery

Working closely with a third-party hydro-cyclone designer and manufacturer, our bespoke fines recovery plant will achieve results that are far superior to "off-the-shelf designs".

◆ Lignite Removal

Greenbank Aggregate Technologies' lignite or lights removal plant is an updated and improved version of the Stamford Separator and Classifier. improve They can be used to make previously unsaleable sands or gravels acceptable for the mar-

◆ Gravel Blending

Using Greenbank weighing systems and customised electronic controls, bespoke gravel blending plants are available to mix gravels into the desired blend. Hopper sizes and ongoing conveyors to suit customers' requirements.

◆ Pipe Conveyors

Most suitable for conveying materials along routes that contain obstacles that prevent conventional straight-troughed conveyors being used or when the product being conveyed requires containment such as dusty or lightweight materials.

◆ Concrete Batching Plants

Our bespoke and modular designs are available for dry and/or wet batching. All of our designs focus on safety, minimal batching time, robust construction, low maintenance and low capital cost.

◆ Vibrating Twin Shaft Mixers

Greenbank Aggregate Technologies can provide, through international partners, a range of twin shaft paddle mixers. The mixers offered have several advantages that enhance the production of UHPC (ultra high-performance concrete) and soil stabilisation mixes. In addition to this, the technology we offer reduces the amount of water required in certain mixes and during the mixer cleaning process.

◆ Industrial Magnets

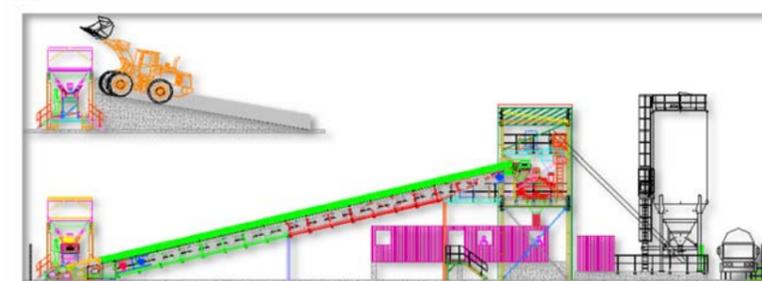
Depending upon the application and magnetic strength required for the duty, units are selected from a large standard range or are bespoke made. Types available are suspended block and self-cleaning permanent or electro-magnets. Self-cleaning magnets have guarding to CE standards.

◆ Eddy Current Separators

The Eddy Current Separators are used to recover the non-ferrous metals from waste materials or remove them as a contaminant from the process. The units are units are selected from a large standard range or are bespoke made all with guarding the CE standards

◆ Metal Detectors

Conveyor-mounted metal detectors are typically installed to protect equipment such as crushing or grinding equipment.





The Greenbank Group UK Ltd

Greenbank Engineering Services Ltd

Franklyn Yates Engineering Ltd

Greenbank Terotech Ltd

Ammegen Ltd

GAIM Ltd