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### Canning supplies two new conveyor systems for Hanson Shardlow.

Owned and operated by Hanson Quarry Products, Shardlow is a sand and gravel quarry located between the villages of Shardlow and Aston-upon-Trent, Derbyshire.

Shardlow Quarry is well known in archeological circles as in 1998 workmen spotted what appeared to be a hollowed-out tree trunk with stone inside which was identified as an ancient logboat. The logboat, at over 10 metres in length, was too long and heavy to be removed in one piece, so it was decided to cut it into smaller sections. The boat was kept damp until all the sections could be lifted out of the gravel layers and stored in underwater tanks to stop the fragile and degraded materials from shrinking and collapsing as they dried out. After 18 months the sections were loaded into a large freeze-drier unit to remove the remaining water, which took about 10 weeks to complete. Once treated and dry, and with all the pieces re-assembled, the sections were despatched to Derby Museum and put on display.

Recently there have been two new conveyor systems installed at the quarry. Designed and manufactured by Canning Conveyor of Worksop the new systems have been located in an existing concrete culvert.

Recently commissioned by Canning the first system, essentially a landfill conveyor supplies backfill material to the working face. Canning supplied a new 40 tonne, minimum capacity heavy duty receiving hopper which has been designed to accept -200mm waste landfill material from reversing quarry dump trucks and to deliver via a belt feeder onto a new 1000mm wide belt conveyor at up to 350 tph.

This hopper which is fitted with a 200mm square aperture hinged product grid has been fabricated from 6mm thick mild steel plate stiffened as required with rolled steel sections and lined on all internal sloping surfaces with 10mm thick low friction white perplas. The hopper outlet is also fitted with a screw type guillotine gate for adjustment of material flow.

Material from the hopper is fed onto a new 900mm wide troughed belt feeder fitted with a low speed high torque shaft mounted drive unit. Featuring heavy duty steel drums, torsion type primary and secondary belt scrapers, screw take up at the tail end, full length skirt plates a 'Davis Derby' emergency stop pull wire system completes the specification.

Material is then fed onto a new 1000mm wide x 82.5m long approx troughed belt feed conveyor which runs horizontally for approximately 60 metres through an existing concrete culvert and then elevating at 15° to discharge into waiting dump trucks.

This conveyor consists of standard field conveyor sections for the horizontal section with the elevating section of substantial lattice frame construction with a 750mm wide galvanised open mesh walkway full length one side and a three sided



This conveyor has been designed to be stop and started fully loaded, on a regular basis for speed of loading.

Canning completed the installation by modifying an existing trestle from Hanson's Clee Hill Quarry near Ludlow to support the elevating section.

Canning Conveyor also supplied a second system for Mineral Conveying. This system, virtually identical to the first operates in the opposite direction with the new 40 tonne minimum capacity, heavy duty receiving hopper receiving 100mm 'as dug sand and gravel' material from reversing quarry dump trucks, which again is delivered by an identical belt feeder onto a 750mm wide belt conveyor at up to 350 tph.

The new 82.5 metres long troughed belt feed conveyor performs an identical function as in the first system, discharging into waiting dump trucks.

This conveyor was also designed to utilise existing lattice frame sections from the Clee Hill site which have been modified for the horizontal and elevating sections with new sections fabricated for the curved section and head and tail ends. Again an existing trestle from the Clee Hill site was modified to support the elevating section.





## Conveyor Solutions – now with Rulmeca Rollers!

Metso Conveyor Solutions offer reliable and efficient solutions throughout the entire material flow. We develop, manufacture and market quality conveyor components, accessories and services that increase the reliability of our customers operations.

Now we are welcoming Rulmeca Rollers in our quality product range!

For more information about your single source supplier, please contact us













### Quarry Plant & Industry Ltd

### Conveyor belts available from stock include:-

Standard EP belt Rip check belt Chevron belt Nitrile belt

Mag belts Heat resistant belt

From 500mm to 2000mm wide

### Complete vulcanising service

Hot & cold repairs Mechanical repairs & joints

Drums lagged Fully experienced teams

### **Idlers & rollers**

UNIROLL system 4" & 5" rollers available from stock along with all interchangeable ends

### **Drums & Pulleys**

Standard stock sizes for belts 600,650,750,800,900 and above Ring locked shafts for ease of removal

#### Other services include

Full conveyor systems
Steel backed rubber sheets & elements
Conveyor covers
Conveyor belt turning device
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### Greenbank Materials Handling 'Complete Conveying Solutions'

Greenbank Materials Handling (GMH) is a leader in engineering design and manufacturing, supplying a global customer base with a wide range of materials handling products and services.

GMH combines decades of experience in the provision of bulk and materials handling products, conveying and industrial weighing with strategically-aligned partner companies, such as Jeffrey Rader and Aircure to offer bespoke, turnkey solutions for a variety of applications across the spectrum of heavy industry.

Whether conveying crushed ore, coal, sand, gravel, or other bulk materials such as biomass fuels, GMH offers the most advanced industrial weighing applications on a variety of materials and industries.

The GMH weighing portfolio features belt weighers which have time and again proven robust in applications ranging from quarries, mines, power generation, iron, steel, chemical and food processing.

Models such as the HS375 and HS276 combine quality performance and affordability in a modular format with continuous flow rates of up to 5000mtph. These models can be installed into any type of conveyor where space is restricted, and are easily mounted into conveyor stringers or can equally be modified for installation into mobile crushers.

GMH is also at the forefront of developing solutions for the new and emerging biomass fuel handling market, and has expanded its portfolio further with the introduction of Pipe and Tube Conveyor solutions. These are becoming renowned for providing considerable environmental and economic advantages over conventional conveying methods.

By using an enclosed belt design to transport bulk materials pipe conveyors successfully minimise dust generation and spillage providing maximum protection from external contamination and eliminate costs associated with spillage containment. The flexibility of design enables significant reductions in conveyor footprint and power consumption.

Through technical collaboration with Bridgestone Corporation, the pioneers of pipe conveyors, GMH offers customers the latest in enclosed belt transport systems, supported by an unrivalled level of expertise in conveyor technology.





# Bulldog – belt alignment & rip detection switch

4B Braime Elevator Components have launched the new 4B Bulldog belt alignment and rip detection switch. This electro-mechanical system has been designed to detect dangerous misalignment of the conveyor and also detection of belt tear damage

The switch will detect horizontal misalignment of belts when contact is made with the roller; the roller arm will be forced to pivot by the belt activating a switch at 15° to trigger an alarm, and 30° to trigger a shut down procedure of the conveyor. The sensors are usually installed in pairs on opposite sides of the belt.

A steel flexible wire is set below the running conveyor belt approx 20-30mm attached by a rare earth magnet at each end. If the belt is ripped or damaged the wire is pulled away releasing the magnet connection which in turn will activate a switch.

The Bulldog's robust design makes it ideal for the use in heavy duty applications such as quarrying and mining. It is easy to install and doesn't need calibrating.

The Bulldog is compatible with 4B's CBS2 Elite belt alignment monitor and the Watchdog Elite monitoring system.

The Bulldog has been approved for use in hazardous areas according to ATEX.

4B Braime Elevator Components is a

4B Braime Elevator Components is a leading supplier of level controls, intelligent sensors and safety control systems that prevent costly downtime and minimize the risk of explosion in hazardous areas.

For a catalogue or more indepth information, please visit 4B's website at www.go4b.com or send an email to 4b-uk@go4b.com.



### A Masterful Performance In Ferrous Recovery

Earlier this year, Master Magnets were contacted by Guernsey Recycling Ltd about an underperforming Drum Magnet that was supplied by one of Mastermag's competitors. They were keen to find out whether or not Master Magnets felt that carrying out a refurbishment on their existing drum would enhance its performance.

So that Master Magnets could get a better idea of the drums current condition and performance, an Engineer was sent to inspect the unit on site in Guernsey.

The engineer was firstly able to determine the magnetic strength of the Drum using a 'Gauss Meter'. A close inspection was also made on the various ferrous pieces that were not currently being extracted by the Magnet. With this information, the Mastermag engineer reported back to the sales team, who were able to use specialized computer aided software to compare the Drums current performance with the performance figures of an Electro Drum that Master Magnets recently refurbished for a Steel Recycling company in Israel.

Master Magnets MD, Adrian Coleman writes: "It was definitely possible to refurbish the Drum Magnet and this would have most certainly improved the unit's performance but it could only be repaired using the same level of technology that was used when the Drum was originally manufactured. Magnetic Drum design has moved on a lot since then and the Master Magnets Drums are some of the most efficient units on the market today so a new unit would have been much more effective in its separation."

After being quoted for both the refurbishment of the competitor Drum and for a brand new 'Mastermag' Electro Fragmentiser Drum, Guernsey Recycling decided that the likely difference between the extraction capabilities of both options was too significant and that it was time to replace their existing Drum and invest in a Master Magnets unit. Upon placing the order they also requested that the Master Magnets engineer from the original inspection visit was also present on site to help them with the installation of the new unit.

The Drum, which has now been running for just over two months, was successfully installed in just under a week and Guernsey Recycling are now eagerly awaiting their next shipment of steel.



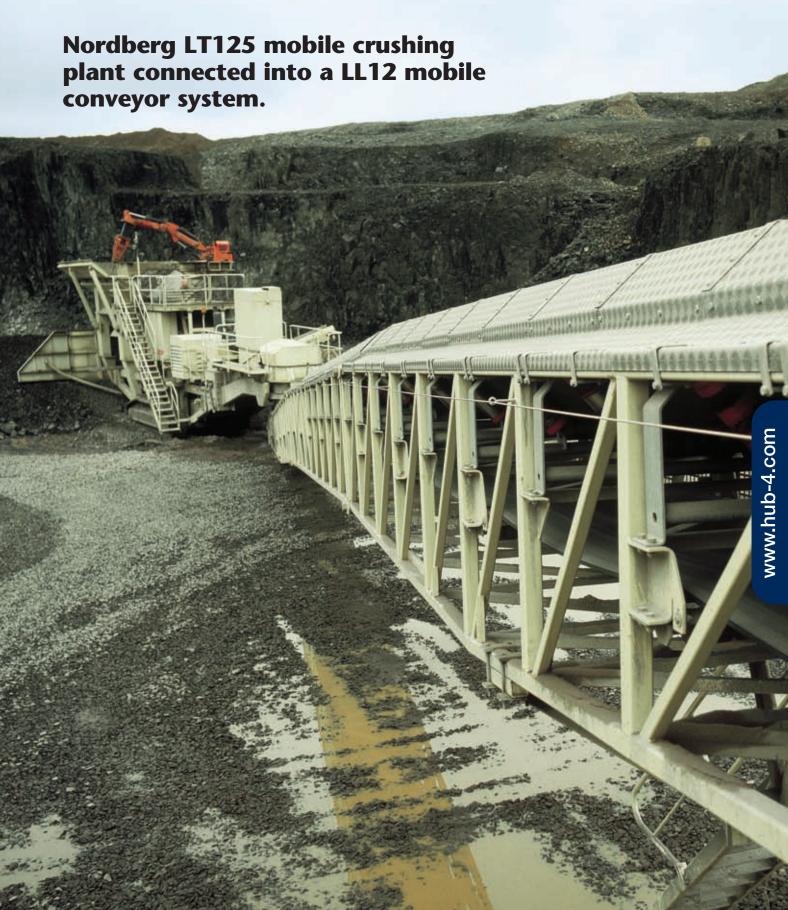


The Director of Guernsey Recycling, Faye Crowe writes: "As soon as the drum was installed we saw a marked improvement in our ferrous recovery. Our previous annual loss through poor magnet up-take was just over 1% per annum - the daily loss was clearly visible and warranted manual collection from our residue feed to catch the dropped steel. The quality and performance of the new drum has all but eliminated that 'drop rate', and streamlined our production."

"From advising us on the magnet order, right through to installation Master Magnets have been extremely helpful and professional; as you can see from the photo, the magnet is working very efficiently and we are extremely pleased with the results."

The decision to replace existing Magnetic Separation equipment is not always easy to make, especially when the machinery is very large and forms an integral part of the process. For this reason, the installation can prove to be particularly difficult and not to mention time consuming. In these circumstances, having a Master Magnets engineer to supervise and assist with the installation ensures that the machine will not only be installed as quickly as possible to keep downtime to a minimum, but that the unit is also commissioned properly to guarantee optimum performance.





In addition to mobile crushing, Metso's Mining and Construction Technology has developed an independent product series for mobile conveying. Nordberg LL Series mobile conveyors are designed to link mobile, primary crushing plants to further processing stages in quarries and mines.

These mobile conveyors are able to follow the primary unit as it moves along the quarry face. Thanks to the excellent mobility, the conveyors can be easily moved to a safe distance from the face for blasting.

The mobile conveying system achieves substantial savings in operating costs because it replaces dump truck

haulage. Mobile conveying system results in lower level of dust and exhaust gas emissions and improves work safety.



### SCG Supplies Lead the Way with STARCLEAN German made Belt Cleaning Systems.



The range comprises modular carbide and polyurethane systems for all applications.

Amongst the exceptional attributes of the range are chevron belt cleaning modules and the unique 700 series drop down quick replacement system which allows one man armed with only socket wrench to completely replace or retorque scraper media in seconds.

Known as the industry quality standard to customers in Holland and Germany Shulte Strathaus are aiming for a significant market foothold in the UK and Ireland by signing contracts with SCG.

For a site visit or quote visit www.scgsupplies.co.uk



www.hub-4.com/directory/10151

# Tilt-Down portable bulk conveyor fits tight spaces, cleans easily.

Bulk solids handling specialists, Flexicon (Europe) Ltd., introduce a new Bulk Conveyor with Tilt-Down Portable Base to fit through tight spaces and provide easy access for removal of the flexible screw.

The reduced footprint enables the caster-mounted frame to maneuver through narrow aisles and around corners. With the hopper, support boom and conveyor assembly tilted down, the unit fits through standard doorways and orients the conveyor tube horizontally, allowing the flexible screw to be removed easily for thorough cleaning and inspection.

Each unit is custom configured according to the discharge height, tilt-down height, discharge overhang and overall size parameters of individual applications.

The hopper, which is equipped with a hinged lid, feeds a flexible screw conveyor that transports bulk ingredients ranging from sub-micron powders to large pellets.



Bulk conveyor shown with hopper, support boom and conveyor assembly tilted down, allowing the unit to pass through narrow aisles, around corners and under obstructions. Horizontal orientation of conveyor tube's bottom end allows flexible screw to be removed easily for thorough cleaning and inspection.

The enclosed conveyor tube prevents product and plant contamination, while the gentle rolling action of material being conveyed prevents the separation of blends. The rugged inner screw is the only moving part contacting material, resulting in reduced maintenance and increased reliability.

A broad range of specialised screws is available to handle free- and non-free-flowing bulk materials, including products that pack, cake, smear, seize, plug or fluidize.

The mobile conveyor frame is constructed of carbon steel with durable industrial coatings and in stainless steel finished to industrial or sanitary standards.



### **WHEN PERFORMANCE MATTERS...**

When it comes to your crushing and materials handling requirements, you need reliable equipment that performs in the toughest conditions.

That's why top aggregate producers choose **Continental Conveyor Products**. **Continental Conveyor Products** offers products that are a perfect fit to meet today's industry challenges. **Stamler** feeder breakers and **Continental** equipment are at work in some of the most productive materials handling applications.

Stamler feeder breakers are engineered to cut operating costs and increase productivity by allowing operations to work at their most efficient rate. Continental has pre-engineered conveyor components and has designed a set of standard units that can be utilized to provide complete conveyor system capabilities. Conveyor systems can also be designed and supplied that negotiate both horizontal and vertical curves.

So, when performance matters, choose Continental Conveyor Products.





CONTINENTAL CONVEYOR PRODUCTS

West Quay Road, Sunderland Enterprise Park, Sunderland, SR5 2TD | Tel: 0191 516 5353 | Fax: 0191 516 5399



### KTR Couplings Ltd's new MMC combined cooler for water, oil and air!

KTR's new MMC combined cooler simultaneously proves its worth three times: Used as a water cooler, used as an oil coolercooling either hydraulic or gear lubricant oil, used as a charge air cooler it assures the right temperature of the combustion air. In addition, it can even be used as a fuel

The MMC also proves that less is more. Less size: a compact design offers greater options for installation. Less expense: costs are reduced and efficiency increased thanks to the MMC's great adaptability covering a diverse range of applications. This makes it the ideal cooling power pack for mobile agricultural and construction machines, but also stationary I. C.-engines.



#### Product characteristics:

- High-performance coolers from aluminium for different media in one housing:
- Water coolers
- Oil coolers Charge air coolers
- Fuel coolers
- Design for rough conditions of use
- Selection according to thermal specifications
- Selection of laminae meeting the requirements of application
- Supply with cooler and hydraulic motor
- Block thickness from 32 -200 mm
- Use in mobile machines like agricultural and construction ones etc.

Every KTR combined cooler is developed in close cooperation with our customers, taking into account the necessary cooling power. The cooling elements can either be used individually or combined and can be arranged "side by side" or in "tandem' Depending on the application MMC coolers can be equipped with fans which are driven hydraulically or electrically. Two options are available 12/24V or 230/400V electric motors. On bigger machines hydraulic systems have proven their worth subject to higher efficiency, adaptability and lower noise emission.

Regardless of the mode of drive we use the latest design of fans. They not only operate very efficiently, but also very quietly. Thus, if it is noisy on a construction site, do not blame the new MMC combined cooler!

### Made for Motion



KTR Couplings Ltd Unit 7, Robert House, Acorn Business Park, Woodseats Close, Sheffield England S8 0TB

Tel: 0114 258 7757 Email: MMC@ktrcouplings.co.uk

www.ktrcouplings.co.uk/MMC

### **Canning supply more** equipment to the **Recycling Industry**

Canning Conveyor has recently completed a project in the recycling Industry for Reuse Glass UK Ltd which involved the supply and installation of a new transfer conveyor and associated equipment.

Based in Knottingley - West Yorkshire, Reuse Glass are Glass Recyclers who manage a daily incoming mixed stream of waste glass. Needing to upgrade and modify their existing processing system the company contacted Canning Conveyor to supply a new transfer conveyor.

Canning Conveyor were tasked with the supply of a 3.5 metre long x 450mm wide transfer conveyor which was supplied with a crown and lagged drive drum with scraper, tail drum and adjustable 3-roll idlers. Canning also designed manufactured and supplied a new two way head chute complete with hood and associated chutes.

The equipment for the whole project was subsequently installed on-site by Canning engineers. Associated electrical work was carried out by Jenkinson Electrical of Doncaster.

#### Further system modifications:

Canning Conveyor will also be involved in a further project on the Reuse Glass processing system which will require modifications to an existing elevated conveyor. This modification will involve splitting and then raising the back of the conveyor. Canning will then fit a new discharge end (complete with magnetic drive drum) that will feed onto a repositioned 'eddy current' separator. The existing eddy current discharge chute will also be modified to feed the glass stream onto a new tail end/feed unit which will be fitted onto the other half of the split conveyor allowing any non ferrous metals to be fed by chute into an existing mobile skip. To ensure the ferrous removal the back end of the conveyor will be fitted with a chevron belt, whilst the front end will be fitted with a wide plain belt.

John Witheford - Production Manager of Reuse Glass, commented, "The Canning team were very professional and completed the project within the allotted time frame which left no room for error due to tight production schedules. Furthermore they were also very competitive with their pricing."



# High-torque industrial gearboxes come in high-integrity single-piece housings

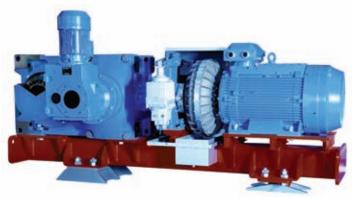
Single casting with integrated bearing seats minimises oil leakage possibilities with helical or bevel gear stages that can deliver superb energy efficiencies of up to 96%

Nord Drivesystems has extended its family of high-integrity industrial gearbox units, adding a family of high-power models with maximum torque ratings up to 200000 Nm.

The new gearboxes employ Nord's proven Unicase concept. The gearbox case is a single piece casting, with all bearing seats integrated and machined in a single process. This optimises strength and eliminates sealing surfaces that could deflect under the effect of torque or radial forces - minimising the possibility of oil leakage and ensuring precise bearing alignments. The resulting high-integrity gearboxes deliver smooth, low noise operation with an extended long product life.

There are four choices in the new High Power Unicase family, offering maximum torques of 60000, 90000, 135000 or 200000 Nm. Available in helical-parallel shaft or helical/bevel right-angled drive configurations, a very wide range of gear ratios can be specified using two-, three-, or multi-stage reductions. The gearboxes are ideal power transmission solutions for material handling and processing equipment in applications such as steel manufacture, aggregates, mining and grain handling. The low losses of the helical gearing technology means that Unicase gearboxes can deliver excellent energy efficiencies of up to 96%-plus.

The gear units conform to Nord Drivesystems' modular design concept. This provides a plug-together approach to add-ons that makes it extremely simple to configure



gearboxes for specific applications. A wide range of accessories includes brakes, backstops, a drywell solution, condition monitoring equipment, and a choice of cooling systems. Combined with the flexibility to be mounted on six sides, or via an optional flange, the new gearboxes can be adapted easily to provide customer-specific power transmission solutions.

Complete drive solutions can be configured and supplied on bed plate assemblies which could include foot mounted 3 Phase electric motor, soft start fluid couplings, output flexible couplings, ancillary pony drive and any necessary cooling or condition monitoring systems

Because of the gearboxes' inherently high efficiencies, Nord Drivesystems expects the units to appeal strongly to the refurbishment and repair market, especially when replacing older relatively inefficient worm gear units. In such applications, the energy savings will often provide a payback on the investment measured in months.

As with all Nord Drivesystems gearboxes, the company's production line is set up for rapid manufacture of application-specific solutions inline with customer requirements.

More information: http://nord.com/









The essential requirements for a large conveyor belt tension system is to provide an accurate set slack side tension which is consistent in all conditions whilst the conveyor is running. This prevents sag in the return belt and loss of troughing contour in the carrying strand of the belt. A fast response time is important to eliminate transient peaks during changes in the conveyor loadings absorbing the elastic belt stretch.

It is clear, that unless the tension system is always active and controlled, the tension will vary with conveyor loading and this will cause wear and slippage etc on the belt. This is particularly important if the length of the conveyor is changing as it often does in mining operations.

If the tension is not controlled the belt can slip causing start up problems and excessive wear on the belt. It is also dangerous as all the energy wasted in slip can cause heat build up.

Hagglunds Viking motor with 97% torque efficiency is ideal for this application keeping the difference between pay in and pay out to an absolute minimum. They provide a complete system that controls tension very efficiently and continuously using their hydraulic motors to directly drive the winch at a constant pressure using their power units

which have been customised to give all these features and long trouble free life with minimal maintenance. Gearboxes are eliminated with this direct hydraulic drive improving the performance and simplifying the drive arrangement.

The tension can also be increased for starting up the conveyor under load and then reduced for normal running to get the best operation and life from the belt. It is easy to cater for differing sizes of conveyor by simply changing the motor and pump sizes and the Hagglunds failsafe brakes hold the tension in during shutdown periods or in emergency stop situations.

These systems have been used on surface mining, tunnelling and underground mining including coal mines with explosion proof requirements.

The system has minimal control and is basically start and stop with the necessary interlocks for example to make sure system pressure is available before lifting the brakes. Belt maintenance is also catered for with manual controls of the system.



### **Quarry Plant & Industry Ltd.**

Q.P.I. are a leading supplier of conveyor belting, rollers & conveyor components in the UK. With their new purpose built head quarters based in Leicestershire, England, QPI are within easy reach of almost any destination in the UK.

Established in 1995 they have seen sales grow significantly over the past years.

Q.P.I. believe the reason for this is due to their commitment to high standards. Q.P.I continually seek out new global manufacturers for the highest quality products at the best possible prices. They believe combining this with superior customer service puts them ahead of the competition.

Q.P.I . currently employ 23 full time permanent personnel including 6 teams of on-site vulcanising engineers, site fitters & a coded welding engineer.



Their continual staff training programme ensures all staff are highly trained on all aspects of their work. With focus in particular to Health & Safety.

Q.P.I. are favoured on all the major aggregate producing companies "preferred supplier" list & have national contracts for products & services including

Conveyor belting, vulcanising, idler rollers & drums.

Growing supply to O.E.M.'s is a good indicator of how competitive this company has become.

Innovative products include the patented UNIROLL system



This revolutionary system allows a selection of end types to be added to the base roller which enables us to supply, ex-stock, a huge quantity of rollers in 4" & 5"diameters.

It also allows problem areas such as material pegging on feed points to be addressed by shrinking the face of the roller & using longer ends.

With stock holding among the biggest in the UK,

If you need rollers Q.P.I. have got them!

ENDUROPLY brand conveyor belting.



Q.P.I. Conveyor belt stocks are among the most extensive in the UK.

Holding all specifications of rubber belting they can supply the correct belt for quarrying and crushing applications to the demanding recycling industry.

Other stocked items include large stocks of conveyor drums, Steel backed rubber sheets & tiles & Low friction chute lining materials

Further information please visit

Web site www.qpiltd.co.uk



