

N Newsline

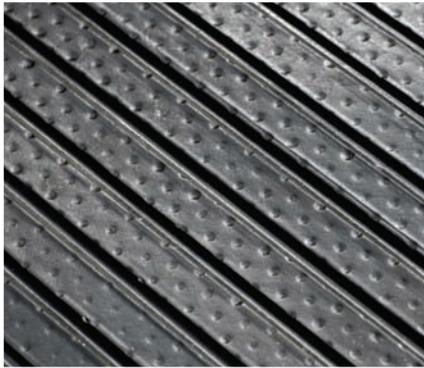
Autumn 2013

**Canning Conveyor
makes big
investment in
extending both
their product
range and larger
engineering
factory**



Canning Conveyor
Material Handling Solutions

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Big investment in product ranges



Cannoflex - Canning Conveyors own brand Conveyor Belting



Canning Conveyor Rollers – Manufacture

Following the launch of it's new Website last year Canning Conveyor has now made substantial investment in expanding the product ranges and services it offers.

New extended product ranges include Impact Bars, V6 Chevron, Baler, Elevator, XE Cross Stabilised, Oil Resistant and Rip Stop Belting. Additionally, the Oil and Standard Friction Back Belt has also been extended and new widths of Chevron Belting are now available.

The range of Vulcanising Products has also been extended, and includes Uncured Rubber Stock, High Wall, Cleat, Rubber Track and Premium Skirting Rubber. A wider range of Tools now includes Buffing Discs, Grinding Wheels, Frog Clamps, Repair Strips, Diamond Lagging and Repair Compound.

CANNOFLEX QUALITIES

Cannoflex Standard Conveyor Belting is made with E.P fabric plies. The top and bottom are provided with abrasion resistant rubber covers to DIN 22102 and B.S. 490.

Application

For conveying heavy and sharp edged goods in bulk such as gravel, crushed stone, limestone, iron pellets, glass and coal, also sand, fertilisers etc. Cannoflex conveyor belts are quality products with an extremely high degree of reliability. The manufacturers have over 60 years of experience in belt production. Extensive testing procedures ensure that Cannoflex belts are released only if they are first class from the viewpoint of chemical, technological, structural and manufacturing techniques.

Carcass

The function of the carcass is to transmit and absorb the forces acting on the belt. It is primarily a question of tensile forces from the driving pulley. Secondly, the carcass absorbs the impact that partly appears when the material is loaded onto the conveyor and partly when the belt with material passes over the carrying idlers.

The carcass consists of one or more plies of textile fabric with rubber on each side to give adhesion and flexibility. The longitudinal direction is called warp and cross direction is called weft.

The conveyor belt fabrics can have the same or different material in warp and weft. One letter is used for designating each, for instance EP, in which E is Polyester in warp and P is Polyamide in weft.

Cotton (B)

A natural fibre used in both warp and weft. Cotton is still used in conveyor belt fabrics, but it is being displaced by synthetic material.

Polyester (E)

Synthetic fibres such as Terylene, Trevira, Diolen, and Tetoron. Polyester fabrics are not influenced by moisture or micro organisms. They are very flexible, have stability in length and are acid resistant.



Polyamide (P)

Synthetic fibres known as Nylon and Perlon. This fabric has more or less the same characteristics as Polyester, but not the length stability.

Polyester-Polyamide (EP)

The EP fabrics have Polyester as the warp and Polyamide as the weft. This combination gives the best possible fabric characteristics with the following advantages:

- High strength in proportion to weight
- High resistance to impact
- Negligible elongation
- Great flexibility, excellent trough ability
- Not susceptible to humidity and micro-organisms

These technical advantages as well as many years' experience in the conveyor belt field are the reason why Canning Conveyor prefer EP as carcass material in conveyor belts.

Covers

The covers protect the carcass and give the necessary friction between belt and driving pulley and between belt and material.

As the covers must resist influences from the transported material and the weather, cover types that are wear resistant, oil and/or heat resistance, antistatic or a combination of two or more of these properties are required.



Cross Stabilised Conveyor Belt



- | | |
|---------------|---------------|
| XE250/2+1 3+2 | XE250/2+2 4+2 |
| XE400/3+2 4+2 | XE500/3+2 5+2 |
| XE630/4+2 5+2 | |

Highwall: S40, S60, S80, S100
Cleat: T20, T25, T35, T35, T55, T75, T90
ALSO: TC CLEATS



ADHESIVE GLUE PACKS & PRIMER "PRE-BUFFED"

A,B,C TRACK

HIGHWALL & CLEATING



S40, S60, S80, T20, T35, T55, T75
A TRACK, B TRACK, C TRACK
ADHESIVES + PRIMER + TOOLS

ALL PRE-BUFFED
ALL EX-STOCK

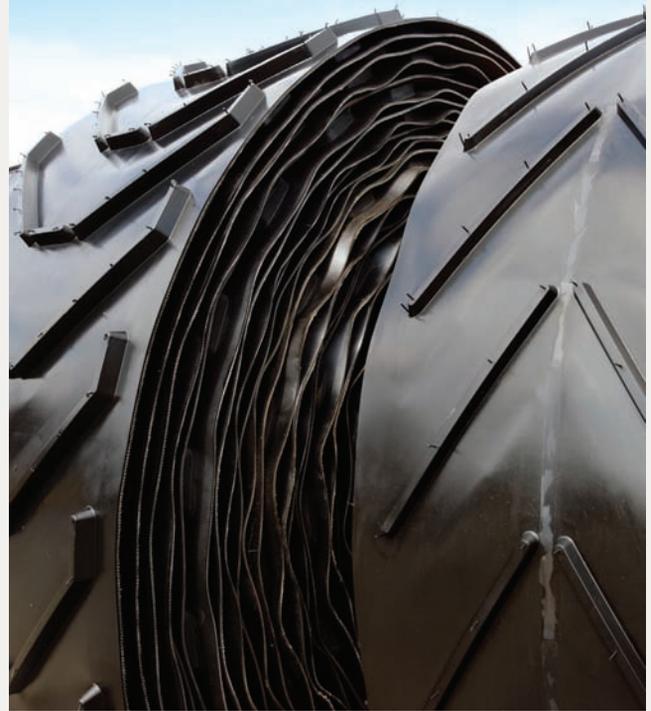
NEW PRODUCTS



NEW

NEW PRODUCTS

2500mm wide flat belt
2100mm wide friction back belt



EXTENDED RANGE OF OIL RESISTANT BELTS

2 ply flat belt
2 ply friction back belt



GRIPFACE BELTS



200mm - 1800 wide
 •• FRICTION BACK ••
 RUBBER BACK 250/2 - 400/3



NEW

**NOW
IN
STOCK**

CHEVRON RANGE

PATTERN C25 - 1000
 Belt Widths 1300, 1400, 1500 & 1600mm
 Types EP315/3 - EP500/3 - EP630/4

SECONDHAND CONVEYOR BELT



For nearly 50 years Canning Conveyor has been supplying secondhand conveyor belting to the Mining and Quarrying Industries.

Our customers range from the large multi-national mining and quarrying organisations to ready-mixed concrete plants, stone, sand and gravel quarries, mines and screening and crushing operations, shipping wharfs, warehouses and the farming industry. We also export large amounts of belting to our agents and customers throughout the world.

No other company has the facilities and expertise to handle the amount of belting which our company supplies.

All secondhand belts are thoroughly examined by our expert staff - only belts which are sound in strength and show very little wear are supplied as reusable. Belts which do not pass examination are used for making other products.

Our sales staff take pride in their fast, friendly service and have at their fingertips the latest stock position and prices.



Stocks of used belting

POLYMER ROLLERS

Canning Conveyor has now been supplying the High Density Polymer Rollers for over eight years. It is a product unique in Europe which is now well tried & tested in the market and supplied only by Canning Conveyor.

Canning's carry an extensive full range of standard Polymer Rollers in stock - used in adjustable and fixed angle troughing sets and return idlers.

Full range and details available within our new updated Roller Brochure. High density polymer rollers are the future in Field Conveyors. Major developments have been made - we supply Polymer Rollers in suspended idlers and returns, incorporated in our new field conveyor bays. Standard stock range includes suspended sets with our unique new safety handles in steel or polymer.

The characteristics of high density polymer rollers are:

1. High quality: The roller shell is manufactured from HDP (High Density Polymer) which is impact resistant, acid resistant, anti-corrosion and anti-alkali in chemical water."
2. Heavy duty, high impact roller performance: Different from the steel roller, Canning's synthetic roller has good impact resistance. The strengthened frame offers the synthetic roller to the same rigidity as a steel roller.
3. Excellent waterproof and anti-dust: Canning's synthetic roller provides triple bearing protection. Seal rings prevent water and dust from entering into the inside of the roller. A special catchment groove utilising centrifugal force keeps the inside of the roller dry in all weather conditions. The patented triple labyrinth seals offer a 45% higher efficiency of preventing water and dust than traditional labyrinths.
4. Higher efficiency: Ejection body, homogeneous mass, good roundness, minimum roller factor, durable for high speed operation, power saving, noise free.
5. Light weight: Canning's synthetic roller is 55% lighter than traditional steel roller, suitable for small drive, head pulley and tail pulley.
6. Low maintenance cost: Long service life (guaranteed for two years under normal operation), no lubrication oil needed, and easy replacement, reduce maintenance labour and time to the minimum.
7. Specification:
 Tube: 102mm/127mm diameter x 8mm wall thickness
 Shaft: Bright drawn mild steel



Canning polymer rollers in conveyor installation



ROLLERS

Canning idlers are manufactured to the highest quality standards in the UK, to ensure accuracy finish & long life.

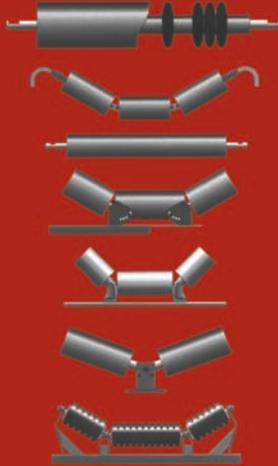
Deep drawn housings & tube to BS6323 part 1 come together on auto-concentric, double-ended welding machines to give good balance & trueness which in turn permits high speeds without excessive vibration.

Zinc plated end caps cover a multi-labyrinth sealing arrangement which protects the precision bearing, and to ensure permanent lubrication a rear seal is fitted encapsulating the grease within the bearing area.

Canning supply idlers to any specification including ISO, BS, NBC, CEMA and DIN and a variety of diameters & lengths. With our replacement idler service we can recognise and cater for all types & sizes available on the market today. Shafts are machined for any fitment.

Transomes are manufactured from mild steel and jog welded for accuracy. All types of variable and fixed angle types are available in many belt widths; 2,3,4, & 5 roll sets can be manufactured to your dimensions. If that which you require is not in plant list, please do not hesitate to contact us to discuss your requirements.

CANNING IDLERS



Our new updated rollers & troughing sets brochure, featuring our range of steel & polymer idlers and accessories is available - by request by post or you can visit www.canningconveyor.co.uk to download a copy.



INTERMEDIATE BAYS




Standard 'Canning' Field Conveyor Intermediate Bays, each 3.048m long, for 600mm and 750mm belts, each consisting of:-

- 2- Stringers fitted with polymer saddles.
- 1- Support stool with detachable legs.
- 2- High density polymer suspended idler sets with polymer safety handles.
- 1- High density polymer parallel return roller.
- 1- Wind hoop.
- 4- Fixing bolts.
- 4- Screw nails.



Steel safety handles for Suspended Sets (900mm and 1000mm belts)



Canning polymer suspended sets with unique 'Safety Handles'



Complete Canning Field Conveyor Bays (900mm belt - steel safety handles - in 2.6m long bays).



Polymer safety handles for Suspended Sets (up to 750mm belts)



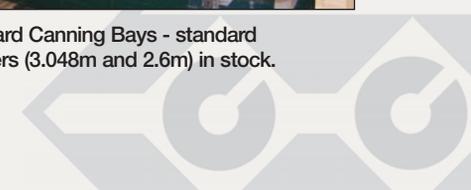
Complete Canning Field Conveyor Bay (750mm belt - polymer safety handles - in 3.048m long bays).



Standard Canning Bay - standard components in stock.



Standard Canning Bays - standard stringers (3.048m and 2.6m) in stock.



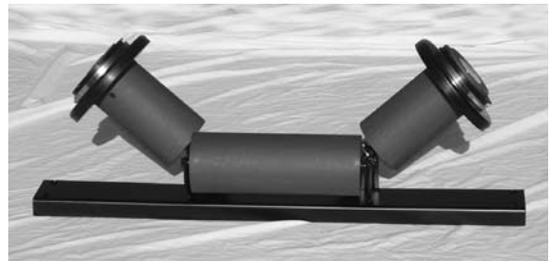


CANNING BELT TRACKING DISC



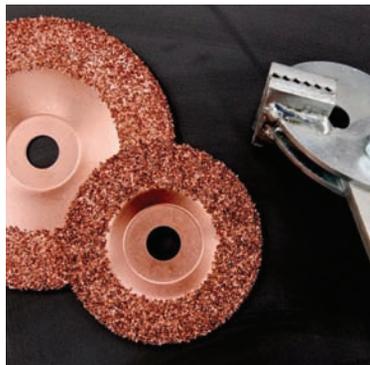
- To suit 102mm and 127mm dia rollers
- Easy to install
- Ex stock availability
- Fits standard field conveyor flexing sets and return rollers
- Unbeatable prices !!

CONTACT 'ROLLER SALES' FOR FURTHER DETAILS 01909 486166



Everything a Vulcaniser would need and more

ALL EX STOCK



Rivet Hinged Fasteners

The Flexco® SR™ Scalloped Edge™ fastener features a low profile that significantly reduces the fastener's exposure to cleaner blades, skirt rubber, and return idlers. Reduced wear and tear on the fastener extends the life of the splice to maximize belt availability and to help keep productivity on a roll.



Rivets to suit Hinge Fasteners

R2 Rivet Hinge Fasteners

FOR ALL YOUR ENQUIRIES:

Contact our Belt Dept:
 Ask for Matt Bateman or Eden Canning
Tel: 01909 486166 or
 email: matt.bateman@canningconveyor.co.uk

FULL DETAILS VISIT OUR WEB
www.canningconveyor.co.uk



FASTENERS & TOOLS - Large Stocks Held

Discount off FLEXCO List Prices available

DON'T WAIT - HAVE IT TODAY ... SAVE TIME & MONEY

Contact us today ..

Tel 01909 486166

Matt Bateman, Eden Canning

Bolt Solid Plate Fasteners

Flexco® Bolt Solid Plate fasteners are engineered to meet the demands of the toughest material handling applications, providing a strong sift-free splice and superior holding ability. A choice of sizes accommodates belts from 3/16" (5 mm) to over 15/16" (24 mm) thick.



Bolt Solid Plate Fasteners



Power Tools for installing Bolt Plate Fasteners



Hand Tools for installing Bolt Solid Plate Fasteners

RUBBER LAGGING **NEW**

Variety of rubber lagging offered in plain, diamond cut pattern 8mm/10mm.

'SLIDE LAG PADS' and retainers (pads to suit drum dias 103/4" to 24" kept instock)

Selection of lagging 'for cold' vulcanising.



NEW SLIDE LAG PADS

Standard stock pads with 10mm diamond rubber in 1800mm (6ft) lengths

SPECIAL OFFER

NEW GEARBOXES, MOTORS & GEARED MOTORS AVAILABLE!

Used Gearboxes, Shaft Mounted Reduction Boxes, Electric Motors, Secondhand & New Conveyor Drums and Bearings, IN STOCK!



Worm Reduction Gearboxes



Shaft Mounted Gearboxes and Geared motors



Electric Motors

Contact our sales dept for your individual requirements

New Gravity Rollers & Frames

We supply made to measure Gravity Rollers, constructed from mild steel, stainless steel or PVC

- Sprocket Rollers
- Grooved Rollers
- Fixed, Sprung Loaded or Hexagonal shafts to suit
- Rubber Coated

We also supply the conveyor frames to suit – for light duty applications such as distributor depots, supermarkets & food industry or heavy-duty applications such as tracks and rollers for pallet handling systems, car & foundry industries.



QUICK DELIVERIES AT COMPETITIVE PRICES

Please contact us to discuss your requirements.

Telephone 01909 486166, ask for Mandy Nelthorpe or Matt Bateman, or email mandy.nelthorpe@canningconveyor.co.uk or matt.bateman@canningconveyor.co.uk

DON'T BREAKDOWN WHEN YOUR DRUM GOES DOWN



LAGGED HEAD DRUM WITH BOSSED & KEYED SHAFT



SPIRAL DRUM



SLATTED DRUM



TAIL DRUM WITH WELDED SHAFT

CONVEYOR DRUMS

Made to Order



HEAD DRUM WITH SLIDE LAGGING AND TAPER LOCKS



DRUM WITH INTERNAL BEARINGS

- Heavy duty solid, slatted or spiral drums made to order
- Fast turnaround - same day breakdown available
- Large selection of used and unused drums
- Machined flat or crowned face drums available
- Drums can be supplied with diamond rubber lagging

Tel: **Canning Conveyor**
for the quickest turnaround
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IMPACT BARS



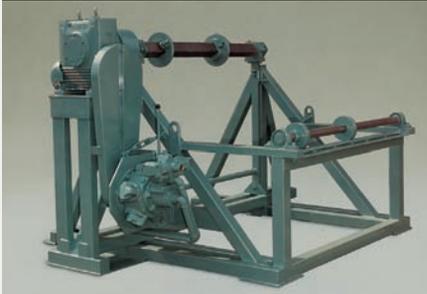
The new Canning Heavy-Duty Impact Bars feature a solid design that prevents belt damage. Manufactured with our highest quality materials these provide exceptional impact and wear resistance, ensuring our impact bars offer superior belt support, significantly longer life, and lower impact bed maintenance requirements.

CANNINGS BELT REELING MACHINE



The CANNING'S BELT REELING MACHINE is a most economical, cost effective way of handling and reeling conveyor belting.

REELER WITH DIESEL DRIVE/ELECTRIC START



REELER WITH DIESEL DRIVE/ELECTRIC START



REELER WITH DIESEL DRIVE/ELECTRIC START



2 Standard Models:

- MODEL C36 belt widths up to 1000mm (36")
- MODEL C72 belt widths up to 1800mm (72")

Both models can reel up to approx 200 metres of 12.5mm (1/2") thick belt.

Portable - for ease of handling on site and available with diesel or electric drive. Can be transported by 35cwt pick-up truck. Hired extensively to British Coal and numerous quarries throughout the UK. Incorporating the unique 'Roll Releasing Mechanism'. Individual machines for alternative sizes and specification made to order.



WHAT WILL SuperDrive™ DO FOR YOU?

The new Canning SuperDrive™ jib head unit is a new field conveyor drive without the conventional gearbox drive. There are many advantages on costs, maintenance, safety and warranties. The SuperDrive™ will push the boundaries of conveyor drive systems into the future.



The principle benefits of the SuperDrive™ are:

- Purpose-build design for belt conveyors
- Total enclosure of motor, gearbox and bearings
- One of the safest drives available
- Low purchasing and installation cost
- Low maintenance cost
- 3 years warranty
- Much higher efficiency compared to conventional drives
- Hermetically sealed to prevent contamination of conveyed materials
- Aesthetic appearance
- Thermal protection switches prevent overheating
- Weight saving is achieved by evenly distributed weight
- Variable frequency converter
- Fewer parts
- Low noise



TOTAL CONVEYOR CONFIDENCE
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Awarded a prestigious contract to supply a twin conveying system complete with towers and all steelwork as part of one of the largest biomass energy plants in Scotland, Canning Conveyor has stepped up to the challenge and delivered a robust, efficient and reliable system for the bulk conveying of materials for the Fuel Handling System.

With an overall project cost in excess of £200 million Scotland's mega 50MWe renewable plant biomass combined heat and power plant (CHP) at Markinch in Fife, commenced build in 2010 and when fully operational in 2013 will be the largest of its kind in Scotland.

The new Biomass CHP lies in the grounds of Tullis Russell Paper Makers and will, when on-line replace their existing coal fired power plant, reinforcing the company's position as one of the world's leading environmentally focused papermakers.

Canning Conveyor step up to the challenge and deliver a twin conveying system for one of Scotland's largest biomass energy plants



Working alongside project manager Saxlund, Canning Conveyor separately negotiated their contract for the Tullis Russell site for the design, detail, manufacture, construction and supply of biomass reception conveyors to screens; the elevating belt conveyor system to feed three separate storage silos and the reclaim belt conveyors from the silos to the boiler feed system as part of a biomass fuel handling system for the power station.

The function of the conveyor system

The function of the Conveyor System is to receive solid fuel from the Bulk Material Handling Units and deliver it to the day storage silos, from where it conveys a measured amount of material to the boiler plant located on the same site.

The system has been designed to have two streams of conveyors that operate independently of, and run parallel to, each other and is designed to be suitable for operation with a blend of recycled and virgin wood.

The conveyor system from reception to storage has a design capacity of 920m³/hr. with an operating capacity of 765m³/hr. The conveyor design rating from storage to boiler plant has a design capacity of 345m³/hr. with an operating capacity of 285m³/hr. There are four defined areas:



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Reception and Screening Area Conveyors - area 1

With incoming trucks depositing their load of pre-shredded recycled and virgin wood into the reception hoppers, material is deposited by mobile belt feeders (by others) onto the twin reception conveyors.

Running horizontally at ground level the 1200mm wide x 67 metres long troughed belt conveyors are designed to accept up to 975cu.m/hr of incoming material with a bulk density of up to 500kg/cu.m, (based on the calculation of 125% of the desired 780cu.m/hr maximum) which the feed points will allow to flow. These conveyors then elevate up via catenaries to discharge via fixed chutes which are an integral part directing material into the disc screens which remove oversize materials.

Positioned above each reception conveyor are cross belt permanent magnetic separators, which have been designed for continuous removal of magnetic ferrous metal from the material being passed beneath them. Magnetic ferrous metal is attracted to the magnetic face leaving the cleaned product on the conveyor below. The ferrous material is then carried by the continuously moving belts on the magnetic separators and discharged to the front of the machines, via fixed integral non-magnetic chutes, into a ferrous metal collection skip.



Inclined Transfer Belt Conveyors - area 2

From the disc screens material is conveyed by the twin inclined transfer belt conveyors. These are troughed belt conveyors which utilise a totally enclosed air supported belt system with disc type return rollers. These conveyors run horizontally at ground level accepting material from the undersize chutes of the disc screens (by others) before elevating via heavy duty lattice gantries to a height of approximately 30 metres, before discharging at the top of transfer tower A.

This tower designed and manufactured by Canning features two floors; complete with access doors from walkways on all conveyors it incorporates a lifting beam complete with electric hoist.

This tower supports the head/discharge ends of the twin transfer conveyors and the tail end of the main silo feed conveyors which are integrally fitted with fixed chutes directing the discharge onto the silo feed conveyors.

Silo Feed Transfer Conveyors - area 3

From the transfer tower the twin conveyors elevate slightly and discharge via two-way diverter chutes onto the 'Silo 2' feed conveyors, or directly into 'Silo 1', which is achieved by the means of electrically actuated operated flap doors. The 'Silo 2' feed conveyors, also elevate slightly and discharge by a two-way diverter chutes directly onto the 'Silo 3' feed conveyors, or directly into 'Silo 2', again by the means of electrically actuated operated flap doors. The final twin conveyor feed runs horizontally, and discharges directly into 'Silo 3'. The entire twin feed conveyors are enclosed in heavy structure lattice gantries.

Outbye Reclaim Conveyors - area 4

Situated at ground level next to the three storage silos, these twin 41m long troughed belt conveyors are designed to convey up to 345cu.m/hr of pre-shredded recycled and virgin wood with a bulk density of up to 500kg/cu.m, (based on the calculation of 125% of the desired 280cu.m/hr) which is the maximum the feed points will allow. Running horizontally these conveyors accept material from any one of the three reclaim chain conveyors (by others) and then elevate slightly to feed onto the outbye weigh belt transfer conveyors.

Outbye Weigh Belt Transfer Conveyors

These twin trough belt conveyors receive feed from the outbye reclaim conveyors at a rate of 345m³/hr with a bulk density of up to 280m³/hr.; which again is the maximum the feed points will allow. Elevating over the full length of 44 metres they then discharge via diverter chute onto the chain conveyors (by others) which feed the boiler house. Each of these conveyors is fitted with a Board of Trade certified belt weigher, and moisture monitoring equipment.

A successful installation

As well as the design, detail, manufacture and supply of the twin conveying system Canning Conveyor completed and managed the site build up, installation, belt fitting, vulcanising and commissioning for the system. The support gantries and platforms, all steelwork, access platforms and gantries were all manufactured in the Canning workshops, delivered and erected on-site by the Canning engineers.

Working above current health and safety standards the Canning team spent considerable time working alongside sub-contractors; constantly maintaining a high and efficient standard within all areas of the build including ATEX areas and installation of equipment.

Andrew Canning - MD, commented, "The project has allowed Canning Conveyor to demonstrate the quality of their engineering and project management competence coupled with the ability to be cost effective in a competitive market."



Canning Conveyor

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Responsible for all the design, manufacturing and installation work Canning Conveyor have been involved with the project since 2006/7



Canning Conveyor completes the final section of the Lafarge Tarmac-Blashford Conveyor System

With what may be one of the longest conveyor systems in the UK Quarrying Industry, Worksop based Canning Conveyor has completed the final stage of an extension to a 2.5 km field conveyor system at Blashford Quarry near Ringwood, New Forest, Hampshire.

Owned and operated by Lafarge Tarmac, present extraction operations are centred on 'Nea Farm' which supplies processed material to local concrete plants, builders' merchants and local contractors in the Ringwood and Bournemouth area.

Upgrading the original conveyor system

Responsible for all the design, manufacturing and installation work Canning Conveyor has been involved with the project since 2006/7 (ahead of the more recent plant developments) when Lafarge Tarmac made the decision to upgrade the current 2.5 kilometre conveyor system to harmonise the drives on the 14 conveyors and to increase the handling capacity from 150 to 350tph, with the additional benefits of improved reliability and reduced maintenance costs. This involved extending the conveyor system at the face with a new 120m long field conveyor. Canning then made further modifications by splitting an existing conveyor and interfacing a new 20m long elevated lattice section with walkway which is powered by a ceramic lagged SuperDrive™ motorized drive drum. Further modifications of an existing horizontal conveyor entailed a new 22m long, elevated transfer conveyor complete with a tail end loading section, again powered by a SuperDrive™ motorized drive drum. This section of the plant was then completed with the supply of a new 22m long troughed belt radial stockpile conveyor.

Further improvements involved a complete retro-fit of ten ceramic lagged Canning SuperDrive™ units to the whole of the existing conveyor system along with replacement jib discharge and high and low tension bend drums. One conveyor is driven by two double SuperDrive™ units due to the length of the conveyor and previous problems with belt slipping. New belt scrapers were supplied throughout the system as necessary, along with new heavy duty mesh guards where appropriate.

In a final stage, 34 non-drive drums were supplied to complete the upgrade, as the existing non-drive drums would not be capable of handling the upgrade to the system.

This upgraded 2.5km field conveyor system now delivers material to the new sand and gravel plant commissioned in June 2011.

Plumley Wood Extension

Having successfully secured planning permission in 2008 for the extraction of a further 6 million tonnes of reserve at 'Plumley Wood', Lafarge Tarmac has ensured the continuation of operations at Blashford for a period of up to 25 years. At their furthest extent in around 10 years' time, extraction operations at 'Plumley Wood' will reach a point 2.5km beyond the current dig at 'Nea Farm' and approximately 5km (around one hour's conveyor travel) from the processing plant.

With the extension to 'Plumley Wood' approved Canning Conveyor was appointed to commence work in 2011 to design, manufacture and install the further additions and modifications to the already extensive field conveyor system.

The first phase of the installation involved the incorporation of two new conveyors designed to accept up to 350tph of -150mm of sand and gravel. Running over generally level ground (with a maximum rise of 5m) a 225m long field conveyor was installed. Driven by a single drum motorised SuperDrive™ unit and supplied on a substantial skid mounted frame with cantilevered jib discharge, this conveyor extends over the 'Plumley Wood' dig to feed a new 460m long field conveyor.



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Again, running over generally level ground (maximum rise of 10m) this second conveyor is driven by a double drum, motorised SuperDrive™ unit and supplied on a substantial skid mounted frame with cantilevered jib discharge. The discharge section of this conveyor is extended and lifted to feed the radial stockpile conveyor in any of its intended positions. The jib discharge of this unit was also extended to cantilever over the rotating tail section of the radial stockpile conveyor onto to which it is designed to feed.

A second field conveyor running from 'Plumley Wood' to the 'Burnt Hill' area, runs over a 30m length of lattice frame gantry. Designed by Canning to span the boggy area of the ground prior to elevating up hill to the 'Burnt Hill' area this lattice bridge is fabricated from rolled steel sections braced and stiffened and is set on concrete foundation bases (by others). Fully galvanised it is fitted with full length spill trays and a 1m wide open mesh walkway and handrails.

Second phase

The second phase involved the installation of a new 160m long field conveyor. Driven by a single drum motorised SuperDrive™ unit this conveyor features a 12m long loading section designed to accept loads from the repositioned radial stockpile conveyor via a discharge chute delivering vertically via a series of crash boxes through a 10m high cascade chute from the future 'Burnt Hill' screen discharge conveyor and from a future reload hopper/feeder belt.

Running over generally level ground (maximum rise of 5m) from 'Burnt Hill', over a road bridge to the 'Nea Farm' side of 'Harbridge Drove' this conveyor feeds a second field conveyor. Driven by a double drum motorised SuperDrive™ unit this 530m long field conveyor feeds a third, 390m long field conveyor driven by a single drum motorised SuperDrive™ unit which subsequently feeds onto a new extended tail end loading section. This new loading section has replaced the existing tail unit on C11 which has been utilised on one of the new field conveyors. The new tail unit was then repositioned, with the existing C12 shortened and the head repositioned to enable the new C11 tail unit to accept the feed from both the existing C12 and the new 390m long conveyor.

Electrical installation

In addition to the design, supply and installation of the conveyor system Canning Conveyor also designed and installed a bespoke control panel positioned next to the head end of each conveyor.

Specification

- Canning Conveyor supplied a standard specification throughout, consisting of the following:
- Canoflex troughed conveyor belts, 750mm wide EP300/3 ply belting with 5mm + 1.5mm covers were supplied throughout
- Ceramic lagged drive drums with internal backstop
- High tension bend pulley, Jib discharge and loop bend drum
- Primary and secondary belt scraper
- Discharge chute with integral crash box and hinged inspection hatchLoop take up unit
- Heavy duty tail end loading section c/w troughed impact idlers and tail drum
- Standard intermediate bays - 750mm wide x 3.048m long
- Emergency stop pull wire system
- Full length polycarbonate belt covers

Each panel contains a soft starter capable of starting the conveyor under load conditions, with circuit and overload protection. Designed to start in sequence the system only allows a conveyor to start if the succeeding conveyor is running, this being indicated by a rotation sensor fitted on the tail of each conveyor. A design feature also interlocks C5 with the current conveyor feeding onto C12, so that either the new conveyor system, or the existing conveyor can run; but not together, thus preventing C12 overloading. Each conveyor is also fitted with a pre-start alarm and a halide light located at the head of each conveyor. A bespoke control panel was also supplied and installed for the radial stacker with traverse buttons to enable the material to be stacked around the head section with provision for three position sensors for positioning the stacker over the washing plant (future installation).

The next 25 years

The complete installation now fully installed and operational will provide the processing operation with immediate benefits, providing significant energy efficiency, quality and reliability for the immediate future.

Canning conveys the gold!

Bulk materials handling plant & equipment specialist, Canning Conveyor of Worksop, Nottinghamshire has recently supplied two lattice framed constructed, trough belt conveyors for a project which involved a major upgrade in production capacity from 6.25 to 8.5 million tonnes/annum at the Lefa Gold Mine in Guinea, West Africa.

The bespoke conveying equipment has been installed under the eye of project engineer Malcolm Hope of Regal Mineral Solutions of Bracknell, UK, who has over 40 years' experience in feasibility and due diligence studies and the design of processing plants and infrastructure for gold production.

Pebbles Crushing Circuit Conveyors

Two conveyors were supplied, the first designed to accept 217 tonnes/hr of -50mm quartz bearing gold ore from a feed conveyor situated at ground level. This 65 metre long conveyor elevates at approximately 12° before discharging into a pebble crusher surge bin.

The second conveyor at 48 metres in length was designed to accept up to 215 tonnes/hr of -13mm quartz bearing gold ore from a crusher situated at ground level, and elevates at approximately 13° before discharging into a two way chute. From the two way chute the crushed pebbles report to either of the mines SAG Mills via existing conveyors.

Both conveyors, designed and built at the Canning workshops were constructed in heavy duty lattice frame sections with support trestles and included a galvanised expanded metal walkway with access stairs at the tail end. Canning also supplied a gravity take-up arrangement which was situated adjacent to one of the trestle supports, complete with a 3 metre high perimeter mesh guard surround.

Driven by 22kW motors with internal backstop and torque limiting device which provides a belt speed of 1.25 metres/sec each conveyor was specified with a 530mm diameter crown faced drive drum with 12mm thick diamond pattern rubber lagging

and included snub, crown faced tail, gravity take up and parallel gravity bend drums.

The scope of supply also included vee-ploughs and primary and secondary belt scrapers, all of which were fully guarded in accordance with current legislation.

An emergency stop pull wire system to all accessible areas with emergency stop buttons at the head and tail ends completed the specification with an over length (for site vulcanising) quantity of 600mm wide 'Cannoflex' EP500/3 ply belting with 5mm + 2mm rubber covers.

Good performance:

Malcolm Hope – Project Engineer, commented, *“Both conveyors that were supplied by Canning have performed faultlessly since commissioning; the client is very pleased with now complete Pebble Crushing Circuit.”*



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“We looked at a variety of options to fund this investment and found that the lease hire proposal was the most attractive option.

Frimstone go for lease hire with option to purchase on Canning Conveyor SuperDrive™ Ground Conveyors

Bulk material handling specialist Canning Conveyor of Worksop, Nottinghamshire has recently supplied two conveyor systems to Frimstone Limited of Crimplasham, Norfolk.

Frimstone Limited, a family owned business, has over 70 years' experience in mineral extraction, recycling and restoration projects. The company currently operates six sand and gravel sites, and one carrstone quarry where aggregates are supplied to trade and domestic customers throughout East Anglia.

Following initial discussions with Canning Conveyor, Frimstone decided, rather than purchase the two systems outright they would take out a 5 year lease on the equipment.

Colin Faiers – Finance Director, commented, “We looked at a variety of options to fund this investment and found that the lease hire proposal was the most attractive option. We particularly like the ability to spread the cost over five years as this allows us to match our costs to revenue and also match the cost to the projected life of the reserve.”

The two conveyor systems which were manufactured at Canning's Worksop base, were delivered to site and fully installed on suitable civils (by Frimstone engineers) at Watlington Quarry within ten weeks of the order been placed.

Increased efficiency and environmentally friendly:

The new conveyors will enable Frimstone to increase production at the quarry which is near Kings Lynn in Norfolk. The conveyors will transport unprocessed material from the working area to a processing plant which is 1.3km away. Frimstone is looking to double production in the next twelve months and the conveyors offer increased efficiencies over dump trucks. They are also more environmentally friendly minimising both noise and dust. The use of conveyors is also in line with the existing planning permission on the site and avoided the need for further planning costs.



The two 600mm wide troughed belt conveyor systems are designed to accept up to 150tph of 50mm sand and gravel over generally level ground. At 420 and 150 metres in length they are both driven by a 37Kw and a 22Kw single drum ceramic lagged motorised Canning SuperDrive™ respectively. Supplied with high tensioned bend pulleys, jib discharge drums, loop bend drums, primary and secondary belt scrapers the installation includes discharge chutes with integral crash boxes and hinged inspection hatches. Both units are built on a substantial skid mounted frame with cantilevered jib discharge and are fully guarded.

Including two complete conveyor systems, Canning also supplied loop take up units, heavy duty tail end loading sections, intermediate bays, blocked chute probes, rotation sensors and full length centrally mounted emergency stop pull wire systems.

Geraint Morris, Interim Managing Director, commented, "The whole operation was supervised by our Site Manager, and from start to finish the installation went according to plan and was completed ahead of schedule. Overall a very successful project and we all thought the attitude and commitment of the Canning engineers was first class."

The benefits of a lease with an option to purchase.

With over 90% of FTSE 100 Companies now using leasing, it is not surprising that over 30% of all capital equipment purchased in the UK is now leased. Leasing equipment is highly tax efficient and preserves working capital. Supplied at a fixed cost it provides an immediate payback, is easy to upgrade and on expiry of the lease offers Frimstone the option to purchase the equipment for a nominal fee.

It's a very simple process that has allowed Frimstone to choose a fixed term between 1-5 years. All Frimstone then had to do was take out insurance cover, (including all third party liabilities) for the full market value of the equipment whilst on lease at Watlington Quarry. All maintenance and repair, or replacement of parts, are at extra cost during the lease period.



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Canning Conveyor lend a hand with the redevelopment at Guernsey Airport



Canning Conveyor has recently supplied an aggregate conveying system for construction work on the redevelopment of Guernsey Airport.

With planning approval granted in October 2011 the £80 million contract, which is part of the Guernsey Airport Redevelopment Project, predominately includes the rehabilitation and reconstruction of the existing airfield pavements including the runway, apron and taxiways and the installation of a new surface water drainage system.

Commenced in January 2012 the project will take approximately 2 years to complete.

Bespoke System

The bespoke system which has been supplied on hire was designed and manufactured by Canning Conveyor for the sole purpose of conveying incoming aggregates from ships at Guernsey Docks.

Designed to accept 200tph of -20mm aggregates the system includes a conveyor mounted receiving hopper fed from a

barge mounted 360° grab. Mounted centrally this hopper feeds material onto a 16 metre long, ship to shore conveyor.

This conveyor incorporates many unique features that deal with the rise and fall of the tide. The tail end of the conveyor is fitted with a pneumatic tyred wheel bogie which runs on the hatch cover of the ship; the head section being mounted on a support trestle para-bolted to a new concrete pad on the sea wall. This support trestle is fitted with a slewing and pivoting arrangement which allows the conveyor to rise and fall at the tail end with the tide. A further feature allows the tail to be lifted by the ship mounted grab and slewed around to rest on the sea wall at times of high wind or gales.

All aggregate is delivered from this conveyor onto a 50 metre long ground conveyor which runs horizontally on the quay side which then feeds into a receiving hopper on a 12 metre long stockpile conveyor. This stockpile conveyor which elevates to a height of 4 metres discharges into waiting dump trucks, or alternatively stockpiling material onto the ground.

Canning SuperDrive

The ground conveyor is powered by a Canning *SuperDrive*[™] motorized 22kW single drive drum which is designed specifically to power ground conveyors operating in these applications, having the motor, gearbox and bearings totally enclosed and hermetically sealed inside a steel shell drum.

With an impressive track record the Canning *SuperDrive*[™] offers many benefits which include extremely low maintenance costs – (none, other than recommended synthetic oil change after 30,000 running hours) and a higher efficiency (97%) compared to approximately 85% on conventional drives.

The Canning *SuperDrive*[™] single drive drum which provides a belt speed of 1.6 metres/sec to the ground conveyor is fitted with ceramic lagging and includes a high tension bend pulley, jib discharge drum, loop bend drum and a primary and secondary belt scraper. Complete with a discharge chute with integral crash box and hinged inspection hatch the entire unit is mounted on a substantial skid mounted frame with cantilevered jib discharge.

Along with a loop take up unit, heavy duty tail end loading section the conveyor structure is made up of Canning intermediate bays and *Cannoflex* belting throughout.

Designed and manufactured in the Canning workshops the system is providing an effective and reliable system for the construction of the airport in the handling of the incoming aggregate for this huge project.



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Canning Conveyor supplies two belt reeling stations for the EMAL project

Canning Conveyor, bulk materials handling plant & equipment specialist has recently supplied two conveyor belt reeling stations to SENET in South Africa for their client Emirates Aluminium (EMAL) for a project near Abu Dhabi City.

Important strategic initiative:

EMAL is a state-of-the-art aluminium smelter complex contributing to the diversification and industrialization of the UAE economy by supplying the world with high quality metal, for the benefit of present and future generations. An important strategic initiative for Abu Dhabi, Dubai and the UAE, EMAL is a key component of Abu Dhabi's diversification and industrialisation policy.

The aluminium complex is being built in two phases on a 6 square km site in the Khalifa Port and Industrial Zone in Al Taweelah, half way between Abu Dhabi and Dubai.



Production capacity:

Phase one of the smelter commenced operations on 2 December 2009 and will have a production capacity of 750,000 tonnes of primary aluminium per annum with a product mix of sow, standard ingot, tee ingot, extrusion billet and sheet ingot. First phase costs were approximately 5.7 billion \$US comprising of 756 reduction cells arranged in two potlines, an on-site 2,000 MW power plant, an anode manufacturing plant and multi-product cast house.

Phase Two when complete, will increase total production on the site to a capacity of 1.5 million tonnes per annum, making EMAL the world's most productive and highest efficient single-site aluminium smelter complex.

Bespoke machinery:

In supplying the two conveyor belt reelers for use with conveying systems installed at EMAL, Canning Conveyor designed, manufactured (with corrosion protection) and fully assembled the two bespoke machines, including in-house testing prior to delivery to site.

Incorporated into a spider frame the 3.1 metre diameter Canning model C1800 powered belt reeling machine is designed to handle up to a maximum of 1800mm belt width, approximately 20mm thickness of type ST1000 transverse reinforced steel cord belting. The reeler is capable of pulling up to 1500 metres of steel cord belt from the conveyor, pulling the belt along the conveyor rollers and is suitable for reeling up to 400mm lengths.

The C1800 is driven by a 30Kw electric drive, braked geared motor via chain drive and is suitable for a power supply of 415v, 3 phases, 50Hz and is fully guarded to current H&S standards.

The second machine a non-powered reeler was manufactured was specifically designed by Canning Conveyor for this application and incorporated a 100W hand wheel and an applied and released side mounted disc brake which was sourced in Canada.

Both machines were manufactured to a very high customer specification and quality and were supplied with a 30kW control panel to IP65, wall mounted enclosure, MCCB, including overloads and push buttons.



Canning Conveyor designed, manufactured (with corrosion protection) and fully assembled the two bespoke machines, including in-house testing prior to delivery to site.

The specification covered areas as paint finish, protection, instrumentation and control, electrical, local push button stations, electrical installations, site conditions and plan site operations and procedures.

The full design and manufacture took approximately 14 weeks and comprised of a full recommended spares package for the equipment, including full operating and servicing manuals.

The equipment installed by SENET is now fully operational. Bruce Watts- (Engineering Director) of SENET, commented, *“The Canning Conveyor equipment was part of a complete alumina and coke handling import conveying system supplied by SENET. The belt reelers were used extensively during the installation stage of the project (phase one) and will be used again during phase two. Once this has been completed the equipment will be kept on site by the client to be utilised for conveyor belt replacement.”*



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Canning Conveyor invest in new larger factory for Engineering



Canning Conveyor has just completed the purchase and move of their engineering into a new 4000 square metre factory premises, which is located on Claylands Avenue Industrial Estate in Worksop. The complex is split into adjoining factory units each complete with full length 5 tonne capacity cranes. The units will be split into fabrication, machine shops and assembly. The factory has two storey offices.

This expansion was needed to cater for the current engineering workload. It also gives better scope and facilities for the additional larger engineering contract work and also for the manufacture and assembly of the Canning SuperDrive ground conveyor equipment as well as the Canning standard modular conveyors.

This new engineering factory will also be the home of the Canning Film & TV conveyor equipment, including our unique patented Tumbleator R Moving Platform, where we can offer the facility for build-up, pre-test and run for game-show, film & TV work alike!



Canning Conveyor is also investing in additional works labour and engineering staff as needed for the increase in engineering work within the Materials Handling Industry and these additional factory premises will cater for this growth.

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**THE SAFEST, MOST ADAPTABLE
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Major benefits / features:

- Maximum safety!
- Variable speeds: infinitely variable - from 0 to 8m/sec (18MPH)!
- Low noise!
- Adaptability: supplied in a variety of lengths from 12ft (4m) to 85ft (50m) long!
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- Various Pilot Gameshows
- Major Films
- Stella McCartney Adidas Presentation

**Contact Andrew Canning on
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