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Lineshaft Powered Roller Conveyors



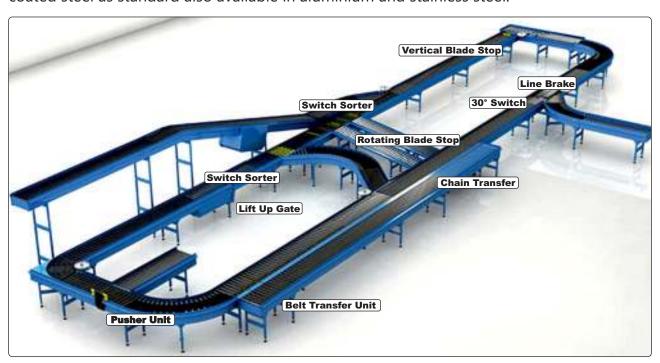
MONK Conveyors Limited

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Overview - Lineshaft Powered Roller Conveyors

The most versatile and economical conveyor available in material handling. For complex configurations of conveyors fewer drives are required compared to conventional equipment. Another unique advantage of Lineshaft Conveyor is the number of ancillary modules which can be driven from one motor by means of couplings and universal joints. They can be easily reconfigured to meet current and future demands. Available in powder coated steel as standard also available in aluminium and stainless steel.



Benefits

- A proven modular design, highly configurable, simple to install and maintain.
- Versatility / adaptability in product handling.
- Allows for a variety of arrangements to be made from standard components.
- Reduced power consumption.
- Reliable noncontact accumulation thus eliminating product damage.
- Easily re-configurable if further ancillary items are added.
- Increased driving capacity.
- Reduced noise.

MONK Conveyors Limited



- 35mm diameter rollers, set at 37.5mm pitch.
- Drive capacity per roller 4Kg.
- 178mm x 32mm x 2.5mm fully jig welded 'Z' section framework.
- Standard speeds available 12, 15, 20, 25 and 30 metres per minute as nominal (other speeds available).
- Suitable for low pressure accumulation.
- Suitable for conveying very small products with a minimum product length of 113mm.
- Drive up to 36 metres from one 0.37Kw drive unit.
- Supplied in 3 metre fully assembled lengths as standard. Other lengths available on request.
- Standard widths available: 412, 462, 512, 612, and 762mm. Other widths available upon request.
- Full product testing available.
- Also available in stainless steel and aluminium.



- 25.4 mm diameter rollers fitted with 35mm diameter plastic sleeves with rollers set at 37.5mm pitch.
- Drive capacity per roller 4Kg.
- 178mm x 32mm x 2.5mm fully jig welded 'Z' section framework.
- Standard speeds available 12, 15, 20, 25 and 30 metres per minute as nominal (other speeds available).
- Suitable for low pressure accumulation.
- Suitable for conveying very small products with a minimum product length of 113mm.
- Drive up to 36 metres from one 0.37Kw drive unit.
- Supplied in 3 metre fully assembled lengths as standard. Other lengths available on request.
- Standard widths available: 412, 462, 512, 612 and 762mm. Other widths available on request.
- Full product testing available.
- Also available in stainless steel and aluminium.



- 50mm diameter rollers.
- Drive capacity XU60 8kg and XU90 12kg per roller.
- Suitable for low pressure accumulation.
- Drive up to 36 metres from one 0.37Kw drive unit.
- Suitable for conveying very small products with a minimum product length of 225mm.
- Supplied in 3 metre fully assembled lengths as standard. Other lengths available on request.
- Standard widths available: 412, 462, 512, 612, 762 and 912mm. Other widths available upon request.
- Full product testing available.
- Also available in stainless steel and aluminium.



- 50mm diameter rollers.
- Drive capacity XU60 8kg and XU90 12kg per roller.
- Suitable for low pressure accumulation.
- Drive up to 48 metres from one 0.37Kw drive unit.
- Suitable for conveying very small products with a minimum product length of 300mm.
- Supplied in 3 metre fully assembled lengths as standard. Other lengths available on request.
- Standard widths available: 412, 462, 512, 612, 762 and 912mm. Other widths available upon request.
- Full product testing available.
- Also available in stainless steel and aluminium.



- 50mm diameter rollers.
- Drive capacity XU60 8kg and XU90 12kg per roller.
- Suitable for low pressure accumulation.
- Drive up to 72 metres from one 0.37Kw drive unit.
- Suitable for conveying very small products with a minimum product length of 450mm.
- Supplied in 3 metre fully assembled lengths as standard. Other lengths available on request.
- Standard widths available: 412, 462, 512, 612, 762 and 912mm. Other widths available upon request.
- Full product testing available.
- Also available in stainless steel and aluminium.

Bend Unit For XU30, XU30S, XU60 and XU90.



- All bends have true taper plastic sleeved rollers to ensure correct load orientation.
- 75mm pitch on inner rail.
- 50mm diameter zinc plated rollers are double grooved at the drive belt positions.
- Heavy duty XU90 belts are used throughout.
- Bend units can be supplied fitted with geared motor units, (60° and 90° only).
- For smaller products intermediate rollers are available & supplied loose for on site fitting.
- The lineshafts are inter-connected by constant velocity (needle roller bearings) universal joints, housed within a rubber gaiter.
- All bends have an inside radius of 859mm.
- Angles available 30°, 45°, 60° and 90°.
- Accumulation not advised.
- Standard widths available: 412mm, 462mm, 512mm, 612mm, 762mm and 912mm. Other widths available on request.



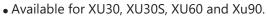
Lineshaft Powered Roller Conveyors

Corner Turn Unit

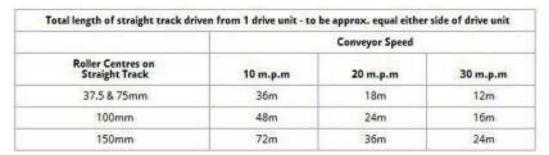


- Suitable for use with 412 and 462mm inside track widths
- Two types available: XU30 612mm² fitted with 35mm diameter rollers and XU60 612mm² fitted with 50mm diameter rollers.
- Used where space is restricted. They are only a substitute for bends and have limitations with respect to maintaining correct product orientation. This is determined by the product length to width dimension ratio.
- Supplied with an adjustable inner nylon turning wheel fitted to assist packages through the corner turn.
- Supplied with an outer guide rail.
- Accumulation not advised.

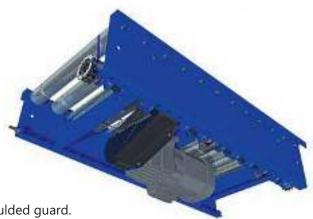
Lineshaft



- Can be fitted to straight track as well as 90° and 60° bends.
- Urethane mounted to reduce transmission noise.
- Screwed tensioner to ensure correct timing belt tensioning.
- Moving parts are fully enclosed in a removable vacuum moulded guard.
- SEW Eurodrive geared motor units 0.37 and 0.75 kW available
- Standard speeds available 12, 15, 20, 25 and 30 metres per minute.



Total length of straight track driven from 1 drive unit - to be approx. equal either side of drive unit							
Roller Centres on Straight Track	90° Bend	60" Bend	45° Bend	30° Bend	Switch & Merge	Twin Chair Transfer	
37.5 & 75mm	4.90	3.70	2.40	1.90	7.60	1.00	
100mm	6.10	4.70	3.20	2.40	10.20	1,25	
150mm	9.20	7.00	4.80	3.50	15.20	2.00	









- A jump chain assembly comprises two sprockets and a chain which are used for transferring the drive between lineshafts when they are positioned on opposite sides of the conveyor.
- Standard jump chain 1:1 ration, 17 tooth 1/2" pitch sprockets.
- Speed up jump chain ratio 2:1 available for product separation (14 tooth: 19 tooth 1/2" pitch sprockets and with speed up spools).
- Adjacent jump chain available for driving two conveyors which are side by side 1:1 ration 17 tooth 1/2" pitch sprockets.

Lineshaft Lift Up Gate for XU60 & XU90



- Fitted with plastic rollers slave driven from a 24V motorised roller.
- Fixed section of track must be 75mm roller pitch.
- 900mm clear access given when gate is in the 'up' position.
- To be used for emergency access only.
- The lifting process is by manual operation, although the design does incorporate a spring assisted mechanism which controls and cushions the raising and lowering operation.
- Drive cannot be taken through to the next section of conveyor and the gate assembly cannot be fitted to a hend
- Can be positioned back to back to give a 'TowerBridge' arrangement.
- Standard widths available: 412mm, 462mm, 512mm, 612mm, 762mm and 912mm. Other widths available on request.





- Braked swivel castors as standard.
- Variable heights and lengths available.
- Can be used should site conditions require sections of conveyor to be moved to allow for the passage of fork lift trucks or other equipment through the line of conveyor.
- Standard widths available: 412mm, 462mm, 512mm, 612mm, 762mm and 912mm. Other widths available upon request.



- Incline section uses XU90 conveyor with rollers at 75mm pitch.
- The maximum angle of incline/decline which is recommended with the standard specification of conveyor equipment is 5° depending on the product length and weight, this may be increased.
- We recommend the fitting of intermediate rollers at both ends of the intersection for a distance equal to the maximum product length to prohibit 'nosing-in' between the rollers.
- We recommended that product trials are carried out at our works.



- Right and left hand merges available.
- The rollers are always fitted at 75mm pitch and driven with heavy duty drive belts.
- The ability to merge tracks at 90° and parallel lines when using 60° and 30° bends.
- Merge unit includes jump chains and universal joints allowing the drive to be continued through the unit.
- Can be used in conjunction with XU30 and XU30S conveyor, but intermediate rollers must be fitted.
- Supplied with a turning wheel for positioning at the leg intersection to assist with guidance of the product.
- Accumulation is not advised.
- Maximum throughput of 25 packs per minute based on conveyor speed of 50 metres per minute.
- Standard widths available: 412mm, 462mm, 512mm, 612mm and 762mm. Other widths available on request.

Lineshaft 90° Junction for XU60 & XU90.



- This junction is only used when space is at a premium and the need to merge at 90 ° to the main line.
- An adjustable nylon guide wheel is fitted to assist in the turning of the product.
- Includes jump chains which allows the drive to be continued through the unit.
- We recommended that product trials are carried out at our works

Vertical Blade Stop for XU30, XU30S, XU60 and XU90.



- Incorporates double acting pneumatic air cylinder.
- Air consumption for each cylinder operation 0.70 litres.
- This stop can be incorporated into straight track positioned in between roller pitches for XU60/XU90 and would replace a roller for XU30/XU30S.
- Speed up spools are supplied at the stop position to increase gaps between loads. Speed up jump chain assemblies can also be used for this application.
- Standard widths available: 412mm, 462mm, 512mm, 612mm, 762mm and 912mm. Other widths available on request.



- XU90 fitted with twin cylinders as standard.
- Total air consumption for each operation per cylinder 0.24 litres
- This stop unit has a full width blade and is designed to fit into any straight track position.
- Maximum product weight 15Kg.
- Standard widths available: XU60 412mm, 462mm and 512mm, XU90 412mm, 462mm, 512mm, 612mm and 762mm.
- Speed up spools are supplied at the stop position to increase gaps between loads.
- Speed up jump chain assemblies can also be used for this application.
- This type of stop is particularly useful where conveyor height is to be of a minimum and in two tier systems.
- Incorporates single acting spring return pneumatic air cylinders.
- XU60 upto and including 512mm are fitted with single cylinders, 612mm and 762mm are fitted with twin cylinders.



Line Brake for XU30, XU60 & XU90



- A pneumatically operated rubber covered friction pad comes into contact with the underside of the rollers and gives negative line pressure over a standard brake length of 890mm.
- It can be used in conjunction with stops to reduce line pressure and provide singulation of products to chain transfer units, packing and wrapping machines etc.
- Incorporates two single acting, spring return pneumatic cylinders.
- Total air consumption per operation 0.10 litres.
- For accumulation control, see our 'Technical Manual.'

Swithch Sorter for XU60 & XU90.



- Available at 45° switching angle.
- Incorporates double acting pneumatic cylinders.
- Can be supplied right handed, left handed or bi-directional.
- Minimum product size 200mm x 200mmhe sorter wheels are independently driven from a 0.37 kW SEW motor, to give either 60 or 110 metres per minute.
- We recommend that an inverter is fitted to the gearbox to enable fine tuning of the speed that will be required to suit your application.
- Normally used in conjunction with a 45° mitre section, although other options are available.
- Accumulation is not advisable on these units.
- Maximum operations 3000 products per hour.
- Standard widths available: 462mm, 612mm, 762mm and 912mm.



30° Mitre Section for XU60 & XU90



- Used where one conveyor feeds into or diverts from another.
- Also available as 45°.
- Standard widths available 412mm, 462mm, 512mm, 612mm, 762mm and 912mm. Other widths available on request.



- Comprises a rodless cylinder which has an arm attached to its saddle.
- \bullet When the cylinder is energised the arm traverses across the track width and pushes products onto a conveyor at 90 °.
- Incorporates a double-acting pneumatic air cylinder, 32mm bore.
- Total air consumption for double stroke 7.76 litres per cylinder based on 700mm stroke.
- Suitable for moving a maximum load of 25kg.
- Maximum operations 20 per minute. Please contact us for off set loads and higher throughputs.

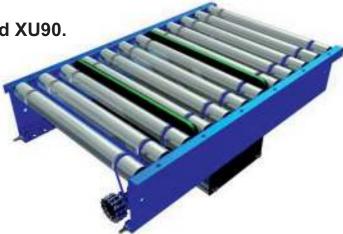


- The minimum chain centres are 112.5mm for XU30 and 150mm for XU60 and XU90.
- Maximum of 15 operations per minute.
- Maximum lift twin chain 50Kgs. Maximum lift triple chain 100Kgs.
- Drive to the transfer chains is via sprockets on the main lineshaft.
- The rise and fall of chains is actuated by double acting pneumatic cylinder(s).
- Available in twin or triple chain transfers with either steel or nylon chain.
- One cylinder is required for twin chain transfers. Two cylinders are required for triple chain transfer.
- Total air consumption for double stroke 0.4 litres per cylinder.
- Standard widths available: 412mm, 462mm, 512mm, 612mm, 762mm and 912mm. Other widths available on request.



- Maximum of 20 operations per minute.
- Maximum lift 50Kgs.
- Drive to the transfer chains is via sprockets on the main lineshaft.
- The rise and fall of chains is actuated by double acting pneumatic cylinder.
- Available in twin or triple chain transfers with either steel or nylon chain.
- Two cylinders are required for twin chain transfers. Four cylinders are required for triple chain transfer.
- Total air consumption per operation 0.51 litres per cylinder.
- Standard widths available: 412mm, 462mm, 512mm, 612mm, 762mm and 912mm. Other widths available on request.





- The minimum belt centres are 150mm.
- Maximum of 25 operations per minute.
- Maximum lift 70Kgs.
- Independently driven from a geared motor unit via pulleys on a separate shaft.
- The rise and fall of chains is actuated by a double acting pneumatic cylinder(s).
- Available in twin or triple belt transfers.
- Polyurethane truly endless belt with co-extruded backing.
- Total air consumption per operation 1.04 litres per cylinder.
- Standard widths available: 412mm, 462mm, 512mm, 612mm, 762mm and 912mm. Other widths available on request.



- Supplied left or right hand.
- Fitted with angled driven rollers set at 60mm pitch, which guide the product to the left or right hand side of the conveyor track. This provides a fixed product position for infeed into various types of machinery and within scanning distance for barcode readers and labelling machines etc.
- Each unit includes steel wheel sidequide on one side only.
- We recommended that product trials are carried out at our works.
- Standard widths available: 462mm and 612mm. Other widths available on request.



Pack Turn Unit for XU60 only.



- Supplied left or right hand.
- The unit is fitted with driven rollers set at 75mm pitch.
- Incorporates a jump chain assembly with speed-up spools to give an increase in line speed of 2:1 ratio. This increase in speed, coupled with the hinged nudger bar turns the product through 90°, subject to its weight, length and width ratio.
- Each unit includes steel wheel sideguide on one side only.
- Maximum product weight 8Kg.
- For weights in excess of 8Kg contact sales office.
- We recommended that product trials are carried out at our works.
- Standard widths available: 462mm and 612mm. Other widths available on request.

Guard Rail and Underguarding



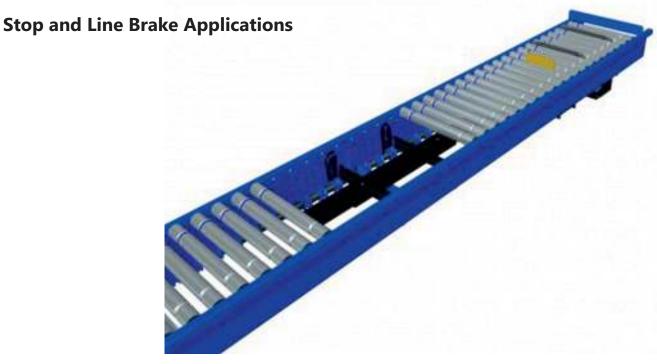
Guard Rail

Two types: 60mm high pressed steel angle or 150mm high pressed channel. Supplied in 3.0 metre lengths as standard. Should odd lengths be supplied, additional holes may need to be drilled for on site fixing.

Underguarding

Lineshaft under-guarding is supplied as an optional extra, this is formed from a grey plastic material, which is positioned locally to the drive shaft but does not extend fully to cover the complete underside of the conveyor.

Complete, powder coated full width under-sheeting is available if required. Please contact our Sales Team for details.



- Fast operation, capable of picking up minimum spaces between cartons.
- \bullet Small bore / stroke cylinder ensures low usage of compressed air.
- Standardised components ensure quality stops at low cost.
- Quickly manufactured to fit any track width.
- Spring return on rotating blade stop cylinder for safety.
- Both vertical and rotating stop units include the necessary larger diameter drive spools to speed up rollers and create gaps between loads.
- Easily repositioned on site if system requires change.

Fixed End Stop



• Two types are available: 60mm high pressed steel angle and 150mm high pressed steel channel.



Gravity Roller Conveyors

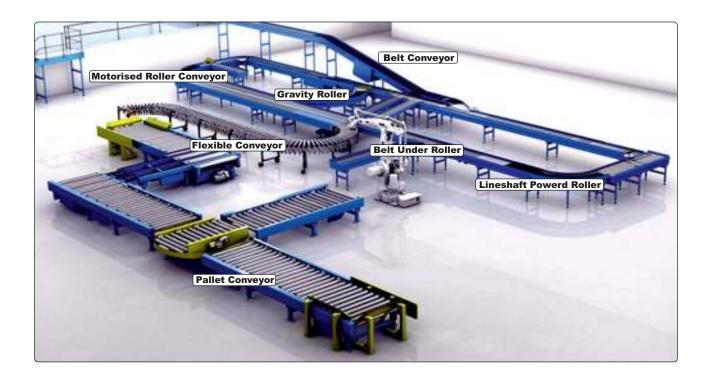


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Overview - Gravity Roller Conveyors

The most cost-effective and simplest conveying solution. A proven product which is highly configurable, easy to install and requires only low maintenance. The modular design ensures that manufacturing costs are kept to a minimum.



Benefits

- Allows for a variety of arrangements to be made from standard components.
- Powder coated frames as standard, aluminium and stainless steel also available.
- Steel, zinc plated rollers as standard
- Ball tables allows for product rotation.
- Multi-punched frames allows roller pitch to be re-configured for different sizes of products.
- Lift Up Gate option provides pedestrian access for fire exits and occasional use.



Straight Sections

Light Duty Gravity Conveyor ZTL PC1

- 64mm x 32mm x 2.5mm fully jig welded 'Z' section framework.
- Standard widths available: 312 762mm (in 50mm increments).
- Static load per roller 20Kg.
- 35mm diameter steel rollers fitted at 37.5mm, 75mm, 112.5mm or 150mm.
- Top of roller height from underside of frame is 69mm.
- Roller tubes are zinc plated as standard.

Medium Duty Gravity Conveyor ZTL PF1

- 64mm x 32mm x 2.5mm fully jig welded 'Z' section framework.
- Standard widths available: 312 762mm (in 50mm increments).
- Static load per roller 30Kg.
- 50mm diameter steel rollers can be fitted at 75mm, 112.5mm or 150mm.
- Top of roller height from underside of frame is 76mm.
- Roller tubes are zinc plated as standard.

Medium Duty Gravity Conveyor ZTM PN1

- 76mm x 32mm x 2.5mm fully jig welded 'Z' section framework.
- Standard widths available: 312 1012mm (in 50mm increments).
- Static load per roller 45Kg.
- 50mm diameter steel rollers can be fitted at 60mm, 90mm, 120mm and 150mm.
- Top of roller height from underside of frame is 83mm.
- Roller tubes are zinc plated as standard.
- 50mm diameter plastic rollers are also available.

Gravity Conveyor CTH NE4

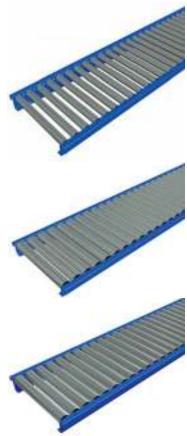
- 100mm x 40mm x 4mm fully jig welded 'C' section framework.
- Standard widths available: 312 1012mm (in 50mm increments).
- Static load per roller 100Kg.
- 50mm diameter steel rollers can be fitted at 75mm, 100mm and 150mm.
- Top of roller height from underside of frame is 106mm.
- Roller tubes are zinc plated as standard.

Gravity Conveyor CTH M60

- 100mm x 40mm x 4mm fully jig welded 'C' section framework.
- Standard widths available: 312 1012mm (in 50mm increments).
- Static load per roller 150Kg.
- **60mm** diameter steel rollers can be fitted at 75mm, 100mm and 150mm.
- Top of roller height from underside of frame is 111mm.
- Roller tubes are zinc plated as standard.

• Gravity Conveyor XU60 PF1

- 178mm x 32mm x 2.5mm fully jig welded 'Z' section framework.
- Standard widths available: 312 1012mm (in 50mm increments).
- Static load per roller 30Kg.
- 50mm diameter steel rollers can be fitted at 75mm, 100mm and 150mm.
- Top of roller height from underside of frame is 183mm.
- Roller tubes are zinc plated as standard.
- 50mm diameter plastic rollers are also available.







Bends

Light Duty Gravity Conveyor ZTL PC1

- Gravity Bend ZTL PC1
- 64mm x 32mm x 2.5mm fully jig welded 'Z' section framework.
- Recommended for products with a maximum weight of 20Kg. (no shock loading).
- 35mm diameter steel rollers can be fitted at 37.5mm or 75mm pitch on the inner rail.
- Top of roller height from underside of frame is 69mm.
- Inside radius 859mm on all conveyors.
- Standard widths available: 312 to 762mm in 50mm increments on all conveyors.

Gravity Bend – ZTL PF1

- 64mm x 32mm x 2.5mm fully jig welded 'Z' section framework.
- Recommended for products with a maximum weight of 30Kg. (no shock loading).
- 50mm diameter steel rollers are fitted at 75mm pitch on the inner rail.
- Top of roller height from underside of frame is 76mm.

Gravity Bend – ZTM PN1

- 76mm x 32mm x 2.5mm fully jig welded 'Z' section framework.
- Recommended for products with a maximum weight of 45Kg. (no shock loading).
- 50mm diameter steel rollers are fitted at 75mm pitch on the inner rail.
- Top of roller height from underside of frame is 83mm.

Gravity Bend - CTH NE4

- 100mm x 40mm x 4mm fully jig welded 'C' section framework.
- Recommended for products with a maximum weight of 100Kg. (no shock loading).
- 50mm diameter steel rollers are fitted at 75mm pitch on the inner rail.
- Top of roller height from underside of frame is 106mm.

Gravity Bend – CTH M60

- 100mm x 40mm x 4mm fully jig welded 'C' section framework.
- Recommended for products with a maximum weight of 150Kg. (no shock loading).
- 60mm diameter steel rollers are fitted at 75mm pitch on the inner rail.
- Top of roller height from underside of frame is 111mm.

Gravity Bend – XU60 PF1

- ullet 178mm x 32mm x 2.5mm fully jig welded 'C' section framework.
- Recommended for products with a maximum weight of 30Kg. (no shock loading).
- 50mm diameter steel rollers are fitted at 75mm pitch on the inner rail.
- Top of roller height from underside of frame is 183mm.



Accessories

Ball Tables

- 22mm Ball Unit secured with claw spring clip.
- Available In widths 312mm to 1012mm.
- Ball pitch 75mm and 150mm.
- Other colours available.
- Stainless Steel available on all products.
- Standard frame finish: Powder coated Blue RAL 5010 or White RAL 9010.

Lift Up Gate Section – ZTL

- Standard length 900mm. Standard widths 312 762mm (in 50mm increments).
- Provides clear pedestrian access for fire exits and occasional access –
- Not recommended for continuous use.
- Spring assisted manual lift operation.
- Comprises standard straight section of conveyor, pivoted from the preceding track.
- Standard length of fixed portion of track 1500mm to house spring assistance.
- Should the access width need to be increased, then two lift-up sections can be positioned back to back to give a 'tower bridge' arrangement, with one of the sections fitted with a swinging leg to provide support for the two sections to rest on.



• Standard length 900mm. Standard widths 312 - 762mm (in 50mm increments)

Lift Up Gate Section - XU60 PF1

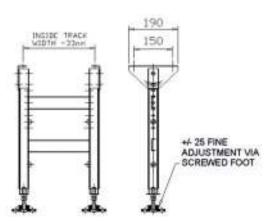
• Standard length 960mm.

Support Stands

To suit XU60/90 and 'Z' section gravity conveyors.

There are two standard types available - please refer to Technical Specification.







Pallet Handling Roller Conveyors



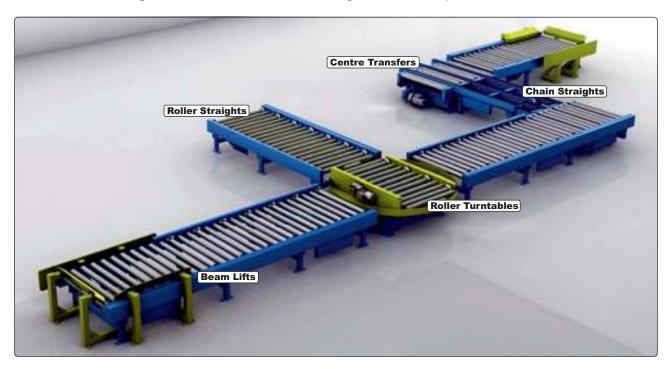


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Overview - Gravity Roller Conveyors

The most cost-effective and simplest conveying solution for heavy pallets. A proven product which is highly configurable, easy to install and requires only low maintenance. The modular design ensures that manufacturing costs are kept to a minimum.



- 24V Roller Conveyor 150mm Pitch
- 50mm diameter rollers.
- Standard widths available: 412mm, 462mm, 512mm, 612mm, 762mm and 912mm.
- Adjustable speeds up to 55 metres per minute.
- Drive capacity 8Kg per roller. For increased drive capacity, please contact the Sales Office as alternative drive transmissions are available.
- Zero line pressure accumulation or simple transportation.
- Supplied in 3 metre fully assembled lengths as standard. Other lengths available on request.
- Suitable for conveying products with a minimum product length of 225mm (75mm pitch), 300mm (100mm pitch) and 450mm (150mm pitch).
- Individual zones can be supplied with 'Plug and Play' connections or external control boards and photo electric cells.
- Full product testing available.
- Also available in stainless steel and aluminium.
- 178mm x 32mm x 2.5mm fully jig welded 'Z' section framework as standard.
- Other widths available on request.

MONK Conveyors Limited



Roller Straights



- 4mm thick side channels.
- 3mm and 5mm thick roller options.
- Chain tension adjusted quickly without removing guards.
- Rollers tangentially driven by 5/8" chain in a fully enclosed side channel.
- Offers minimal backlash, easy tensioning.
- Load capacity of 1500kg per pallet straight modules are available to handle up to 4500kg total conveyor load.
- 150mm or 200mm roller pitch.
- Ability to run cables in non-drive channel with fascia to close section off.
- Ability to fit photocells anywhere along frame via clamp brackets.
- Range of heights available from 425mm 1050mm top of roller.
- Motors available 0.37 kW, 0.55 kW, 1.1 kW and 1.5 kW.
- Lengths available 1050mm to 6000mm in 150mm increments and 1200mm to 6000mm in 200mm increments.
- Speeds available 12 and 18 metres per minute.
- Pallet size 800mm wide x 1200mm long (1000Kg) / 1000mm wide x 1200mm long (1500Kg).
- Motors supplied non braked as standard. (Braked also available).

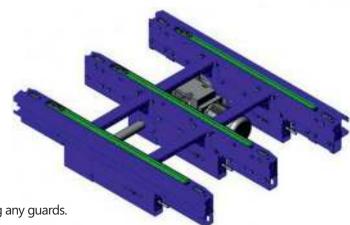
Motorised Roller Straights



- Comprises a number of powered rollers and adjacent gravity rollers.
- The item being conveyed is constantly in contact with the drives.
- 150mm roller pitch (125mm available on request).
- Motorised rollers are used to drive the load along the length of the conveyor and are mounted in flexible brackets such that they are higher than the gravity conveyor rollers.
- The pallet forces the motorised rollers down to the same level as the adjacent non powered rollers, ensuring the weight of the pallet is evenly distributed during transport.
- Load capacity of 600kg per pallet optional 1000kg available on request.
- No geared motors, chains and sprockets.
- Compact and space saving design, can be installed directly on the floor.
- Lengths available 600mm to 3000mm in 150mm increments.
- Standard widths available: 850mm ITW (800mm wide pallet), 1050mm ITW (1000mm wide pallet).
- Range of heights available from 150mm 1150mm top of roller height.
- 0.085 kW per motorised roller, 2 off per pallet position.
- Pallet size 800 / 1000mm leading edge x 1200mm long on rollers.
- Conveyor speeds of 13 and 16 metres per minute both can be used with an inverter.



Chain Straights



- Bi-directional operation.
- Available in twin and triple strand chain versions.
- Chain tension is adjusted quickly and easily without removing any guards.
- Load capacity of 1500kg per pallet.
- 4mm thick side channels.
- 3/4" pitch flat sided chain running on low friction, hard wearing polymer guide strips.
- Ability to run cables and pneumatics in side channel.
- Chain in same lateral position on each module giving a smooth, clean appearance and aiding cable runs.
- Chains positioned for optimum pallet support.
- Range of heights available from 425mm 1175mm top of chain.
- Motors available 0.75 kW, 1.1 kW, 1.5 kW, 2.2 kW and 3.0 kW available.
- \bullet Standard lengths available 1300mm to 3600mm in 50mm increments.
- Pallet size 1200mm leading edge x 800mm / 1000mm long pallets.
- Speeds available 12 and 18 metres per minute.
- Motors supplied non braked as standard. (Braked also available).

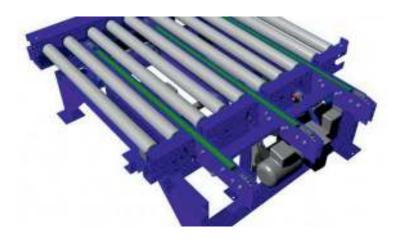
Roller Transfers



- Load capacity of 1500kg per pallet.
- Electric lift action.
- 4mm thick side channels.
- 3mm and 5mm thick roller options.
- Self contained units, which can be fitted to a new or existing chain conveyor straight.
- The pop-up roller transfer is powered by two motorised rollers.
- Nominal roller pitch of 150mm for all pallet types, offering exceptional support for pallets during the transfer operation.
- Available to fit twin and triple strand chain straights.
- Range of top of roller heights available from 500mm 1100mm when transfer down (550mm 1150mm when transfer up).
- Pallet size 1200mm leading edge, 1000mm long on in-feed chain conveyor. 800mm / 1000mm leading edge x 1200mm long on the roller transfer.
- Speeds available 12 and 18 metres per minute.
- Up to 234 pallet transfers per hour.
- Motors upplied braked as standard.



Single Chain Transfer



- Load capacity of 1500kg per pallet.
- Electric lift action.
- Bi-directional chain and rollers as standard.
- Single handled transfer / extended transfer unit.
- Range of heights available from 425mm 1000mm top of roller.
- Motors available chain conveyor 0.75 kW, 1.1 kW, lift transfer 0.75 kW, roller conveyor 0.37 kW, 0.55 kW.
- Combines the features and benefits of the roller systems and chain conveyor in one module.
- Nominal roller pitch of 150mm for all pallet types, offering exceptional support for pallets during the transfer operation.
- 3mm thick steel rollers with steel sprockets.
- 3/4" pitch flat sided chain.
- Pallet Size 800 / 1000mm leading edge on rollers x 1200mm long. 1200mm leading edge x 800 / 1000mm long on chains.
- Speeds available 12 and 18 metres per minute.
- Up to 213 pallet transfers per hour.
- Roller and chain motors supplied non braked as standard. (Braked also available).
- Lift motor supplied braked as standard.

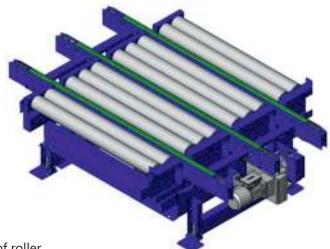




- Load capacity of 1500kg per pallet.
- Electric lift action.
- Bi-directional chain and rollers as standard.
- Range of heights available from 425mm 1150mm top of roller.
- Motors available roller conveyor 0.37 kW, 0.55 kW, 0.75 kW, 1.1 kW, lift transfer 0.75 kW
- Combines the features and benefits of the roller systems and chain conveyor in one module.
- Nominal roller pitch of 150mm for all pallet types, offering exceptional support for pallets during the transfer operation. .
- Pallet size 800 / 1000mm leading edge x 1200mm long on rollers. 1200mm leading edge x 800 / 1000mm on chains.
- Speeds available 12 and 18 metres per minute.
- Up to 184 pallets transfers per hour.
- Roller and chain motors supplied non braked as standard. (Braked also available).
- Lift motor supplied braked as standard.



Centre Chain Transfer



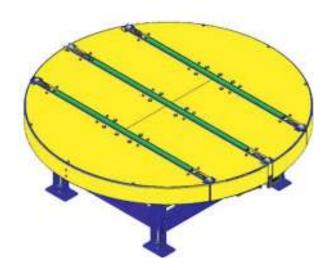
- Load capacity of 1500kg per pallet.
- Electric lift action.
- Bi-directional chain available as standard.
- Range of heights available from 500mm 1150mm top of roller.
- Combines the features and benefits of the roller systems and chain conveyor in one module.
- Nominal roller pitch of 150mm for all pallet types, offering exceptional support for pallets during the transfer operation.
- Pallets can be received and transferred in either direction.
- Motors available roller conveyor 0.37kW, 0.55kW, 0.75kW, 1.1kW, lift transfer 0.75kW.
- Pallet size 1200mm on leading edge x 800 / 1000mm long on in-feed chains. 800 x 1000mm leading edge x 1200mm long on rollers.
- Speeds available 12 and 18 metres per minute.
- Up to 208 pallet transfers per hour.
- Roller and chain motors supplied non braked as standard. (Braked also available).
- Lift motor supplied braked as standard.

Roller Turntable



- Designed to change the direction of pallet travel by rotation of the pallet through any angle from 90° up to 180°, whilst keeping the relationship of the pallet runners to roller conveyor the same.
- Range of heights available from 400mm 1150mm top of roller.
- Motors available roller conveyor 0.37 kW (12 metres per minute), roller conveyor 0.55 kW (18 metres per minute).
- Pallet size 800 / 1000mm leading edge on rollers x 1200mm long.
- Two rotation speeds available rotation drive 0.18kW (2rpm), rotation drive 0.37kW (4rpm).
- Up to 174 pallets per hour rotating 90°.
- Roller and turning motors supplied braked as standard.

Chain Turntable



- Designed to change the direction of pallet travel by rotation of the pallet through any angle from 90° up to 180°, whilst keeping the relationship of the pallet runners to the chain strands the same.
- Two rotation speeds of 2rpm and 4rpm.
- Range of heights available from 425mm 1175mm top of chain.
- Motors available chain conveyor 0.75 kW (12 metres per minute), chain conveyor 1.1 kW (18 metres per minute).
- Pallet size 1200mm leading edge x 800mm (1000Kg max) / 1200mm leading edge x 1000mm (1500Kg max).
- Up to 174 pallets per hour rotating 90°.
- Three chains at 450mm centres.
- Chain and turning motors supplied braked as standard.

Bash Plates and End Loading Side



Bash Plates

- Heights available from 400mm 1150mm top of roller.
- Widths 1600mm or 1800mm.
- Very strong construction.
- Used with roller and chain conveyors.
- Function protects conveyor from FLT damage.
- Floor mounted ensures no forces transmitted into conveyor.

End Loading Side Guards

- Heights available from 400mm - 1150mm top of roller.
- Widths 1135mm or 1400mm.
- Very strong construction.
- Used with roller and chain conveyors.
- Function ensures correct pallet positioning and protects conveyor from damage.
- Floor mounted ensures no forces transmitted into conveyor.
- Re-configurable leg centres can be altered and supports can be installed 'facing in' or 'facing out'.



Interfloor Conveyors









MONK Conveyors Limited



Interfloor Conveyors

See our Heavy Duty Belt Conveyors catalogue for full details

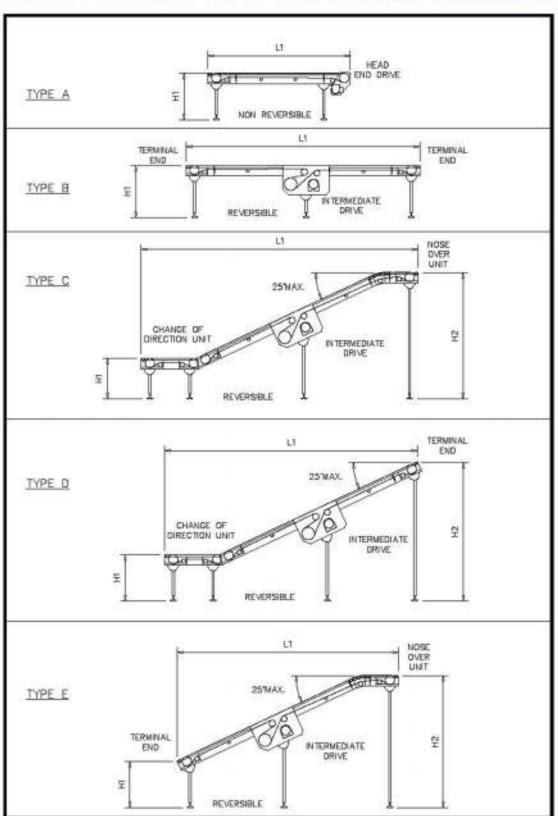














Zero Line Pressure Roller Conveyors



MONK Conveyors Limited

Unit 9, The Christy Estate, Ivy Road, Aldershot, Hampshire GU12 4TX
Tel: +44(0)1252 369800 Fax: +44(0)1252 369801 Email: sales@monk-conveyors.co.uk
www.monk-conveyors.com

Overview - Zero Line Pressure Roller Conveyors

Zero Line Pressure accumulation with integral photo cells. The conveyor has individually powered rollers, is highly modular creating the possibility to add / remove zones from conveyor installations. It is very versatile for the transportation of various totes / cartons, whilst providing ultra-efficient accumulation.

Transport zones can be made more cost efficient using less motors with poly V belt transmission as an alternative to traditional round belt drives. The principal benefits being the ability to slave more rollers from each motor drive with minimal losses in speed / torque.





- Zero line pressure accumulation.
- No contact between loads.
- Eliminates product damage from pressured accumulation alternatives.
- Modular design. Allows for variety of configurations to be made from standard components.
- Low voltage, 24V DC brushless motorised drive rollers.
- Low energy consumption.
- Low noise.
- Plug and play options / photocells.
- Pre-mounted and pre-wired electrical components, resulting in reduced electrical installation times and costs.
- Other widths available on request.
- Full product testing available.
- Also available in stainless steel and aluminium.

MONK Conveyors Limited



24v Roller Conveyor - 75mm Pitch



- 50mm diameter rollers.
- Adjustable speeds up to 55 metres per minute.
- Drive capacity **8Kg** per roller. For increased drive capacity, please contact the Sales Office as alternative drive transmissions are available.
- Zero line pressure accumulation or simple transportation.
- Supplied in 3 metre fully assembled lengths as standard. Other lengths available on request.
- Suitable for conveying products with a minimum product length of 225mm (75mm pitch), 300mm (100mm pitch) and 450mm (150mm pitch).
- Individual zones are supplied with 'Plug and Play' connections or external control boards and photo electric cells.
- Full product testing available.
- Also available in stainless steel and aluminium.
- 178mm x 32mm x 2.5mm fully jig welded 'Z' section framework as standard.
- Standard widths available: 412mm, 462mm, 512mm, 612mm, 762mm and 912mm.
- Other widths available on request.

24V Roller Conveyor - 100mm Pitch



- 50mm diameter rollers.
- Adjustable speeds up to 55 metres per minute.
- Zero line pressure accumulation or simple transportation.
- Supplied in 3 metre fully assembled lengths as standard. Other lengths available on request.
- Drive capacity 8Kg per roller. For increased drive capacity, please contact the Sales Office as alternative drive transmissions are available.
- Suitable for conveying products with a minimum product length of 225mm (75mm pitch), 300mm (100mm pitch) and 450mm (150mm pitch).
- Individual zones are supplied with 'Plug and Play' connections or external control boards and photo electric cells.
- Full product testing available.
- Also available in stainless steel and aluminium.
- 178mm x 32mm x 2.5mm fully jig welded 'Z' section framework as standard.
- Standard widths available: 412mm, 462mm, 512mm, 612mm, 762mm and 912mm.
- Other widths available on request.



Zero Line Pressure Roller Conveyors

24v Roller Conveyor - 150mm Pitch



- 50mm diameter rollers.
- Adjustable speeds up to 55 metres per minute.
- Zero line pressure accumulation or simple transportation.
- Drive capacity **8Kg** per roller. For increased drive capacity, please contact the Sales Office as alternative drive transmissions are available.
- Supplied in 3 metre fully assembled lengths as standard. Other lengths available on request.
- Suitable for conveying products with a minimum product length of 225mm (75mm pitch), 300mm (100mm pitch) and 450mm (150mm pitch).
- Individual zones are supplied with 'Plug and Play' connections or external control boards and photo electric cells.
- Full product testing available.
- Also available in stainless steel and aluminium.
- 178mm x 32mm x 2.5mm fully jig welded 'Z' section framework as standard.
- Standard widths available: 412mm, 462mm, 512mm, 612mm, 762mm and 912mm.
- Other widths available on request.

Switch Sorter



- Minimum product size 200mm x 200mm.
- Available at 45° switching angle.
- Normally used in conjunction with a 45° mitre section, although other options are available.
- Accumulation is not advisable on these units.
- Maximum operations 3000 products per hour.
- Incorporates double acting pneumatic cylinders.
- Standard widths available: 462mm, 612mm, 762mm and 912mm.
- The sorter wheels are independently driven by a 0.37kW SEW motor, to give either 60 or 110 metres per minute.
- We recommend that an inverter is fitted to the motor to enable fine tuning of the speed to suit your application.
- Can be supplied right handed, left handed or bi-directional.

Pusher Unit



- Comprises a rodless cylinder which has an arm attached to its saddle.
- When the cylinder is energised the arm traverses across the track and pushes products onto a conveyor at 90°.
- Incorporates a double acting pneumatic air cylinder, 32mm bore.
- Total air consumption for double stroke 7.76 litres per cylinder based on 700mm stroke.
- Suitable for moving a maximum load of 25kg.
- Maximum operations 20 per minute. Please contact us for off set loads and higher throughputs.

Motorised Roller - 30° or 45° Mitre Section



- Used where one conveyor feeds into or diverts from another.
- Available for XU60 only
- Standard widths available 412mm, 462mm, 512mm, 612mm, 762mm and 912mm. Others available upon request.

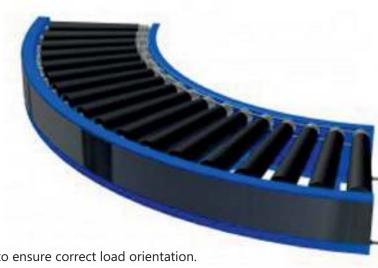


Belt Transfer Unit



- The minimum belt centres are 150mm.
- Maximum of 25 operations per minute.
- Maximum lift 70Kg.
- Independently driven from a geared motor unit via pulleys on a separate shaft.
- The rise and fall of belts is actuated by a double acting pneumatic cylinder(s).
- Available in twin or triple belt transfers as standard.
- Polyurethane truly endless belt with co-extruded backing.
- One cylinder is required for twin and triple transfers.
- Total air consumption per operation 1.04 litres per cylinder(s).
- Standard widths available: 412mm, 462mm, 512mm, 612mm, 762mm and 912mm. Other widths available on request.

Bend



- All bends have true taper plastic sleeved rollers to ensure correct load orientation.
- 50mm diameter zinc plated rollers are double grooved at the drive belt positions.
- For smaller products intermediate rollers are available and supplied loose for on site fitting.
- All bends have an inside radius of 859mm.
- 90 degree bends are fitted with two motorised rollers, all others are fitted with one.
- Angles available: 30, 45, 60 and 90 degrees.
- 75mm pitch on inner rail.
- Zero line pressure accumulation or simple transportation.
- Full product testing available.
- For increased drive capacity please contact the Sales Office as alternative drive transmissions are possible.
- Standard widths available 412mm, 462mm, 512mm, 612mm, 762mm and 912mm.
- Other widths available on request.



Belt Driven Roller Conveyors





Overview

Ideal for conveying medium weight loads (up to 50Kg), over long distances up to 30 metres from one drive, or at high speeds (up to 107 metres per minute). Accumulation logic is in-built within the factory-fitted wired up sensors, giving minimal controls interfacing on site, and the benefit of reduced installation costs and low maintenance. Very versatile for transporting or accumulating with the option of changing from one to the other.



- Modular design.
- Allows for variety of arrangements to be made from standard components.
- Integral photocells.
- Quicker installation and wiring. Reduced costs.
- Buffering of totes & cartons WITH contact between products, but WITHOUT line pressure.
- Offers maximum system throughout rates.
- High speed.
- Faster, higher throughputs.
- Quiet.
- Reduced noise is more conducive to good working environment.
- Encapsulated and fully guided belt path.
- Integrally safe.

Straight Track



- 50mm diameter rollers.
- Rollers fitted at 75mm, 100mm and 150mm pitch.
- Drive capacity 4.5Kg per roller.
- Supplied in 3 metre fully assembled lengths as standard. Other lengths available on request.
- Standard widths available: 412, 462, 512, 612, 762, and 912mm. Others available on request.
- Full product testing available.

Belt Transfer



- Can be fitted to straight sections of track with minimum centres of 150mm.
- The assembly is actuated to the transfer position by a double acting guided 63mm bore x 25mm stroke pneumatic cylinder.
- Available in twin or triple band transfers.
- Just one cylinder is required for twin and triple band transfers.
- Air consumption for double stroke 0.59 litres free air per cycle (operated at 3 bar with 35kg lift capacity).
- Belts are truly endless timing belts with co-extruded backing.
- Independently driven from its own geared motor unit.
- Transfer up position is 15mm above top of rollers, down position is 10mm below top of rollers.
- Maximum cycle time 25 operations per minute.
- Maximum lift, twin/triple chain 70Kg (when supplied with air at 6 Bar) and 35Kg (when supplied with air at 3 Bar).
- Standard widths available: 412mm, 462mm, 512mm, 612mm, 762mm and 912mm. Others available upon request.

Switch Sorter



- IIndependently driven from a 0.37 kW SEW motor, to give either 60 metres or 110 metres per minute maximum linespeed over sorter wheels.
- Multiple operation: 'straight ahead', 'switch left' and 'switch right'.
- Minimum product size 200mm x 200mm.
- Pneumatically operated 45 degree switching angle.
- Normally used in conjunction with a 45 degree mitre section. Other options are available
- 50kg maximum product weight per switch sorter.
- We recommend that an inverter is fitted to the motor to enable fine tuning of the speed that will be required to suit your application.
- Standard widths available: 462mm, 612mm, 762mm and 912mm.



Aluminium Roller Conveyors



The new Uni-XU aluminium roller conveyor has a modern and aesthetically pleasing design which can be a great advantage where your image is important. It is extraordinarily versatile, almost any configuration is possible using the comprehensive range of modules. It has a high strength-to-weight ratio and is virtually maintenance free, important if used in inaccessible areas. All aluminium components are anodised providing exceptional corrosion resistance to the ravages of air, temperature, moisture and chemical attack.

The following pages show only a small selection of the large range of modules available. For more information please contact our sales department on 01252 369800.



- The most versatile and economical conveyor available in material handling.
- The more complex the configuration of conveyors, the fewer drives are required compared to conventional equipment.
- One of the unique advantages of Lineshaft Conveyor is the number of ancillary modules which can be driven from one motor by means of couplings and universal joints.
- Easily reconfigured to meet current and future demands.
- Standard widths available: 412mm, 462mm, 512mm, 612mm, 762mm and 912mm.

Bend

- Available for XU60 and XU90.
- All bends have true taper plastic sleeved rollers to ensure correct load orientation.
- 75mm pitch on inner rail.
- 50mm diameter zinc plated rollers are double grooved at the drive belt positions.
- Heavy duty XU90 belts are used throughout.
- Can be supplied fitted with geared motors (60° and 90° only).
- For smaller products intermediate rollers are available
- The lineshafts are inter-connected by constant velocity (needle roller bearings) universal joints, housed within a rubber gaiter.
- All bends have an inside radius of 859mm.
- Angles available 30°, 45°, 60° and 90°.





Chain Transfer



- Available for XU60 and XU90.
- The minimum chain centres are 150mm for XU60 and XU90.
- Maximum of 15 operations per minute.
- Maximum lift twin chain 50Kgs. Maximum lift triple chain 100Kgs.
- Drive to the transfer chains is via sprockets on the main lineshaft.
- The rise and fall of chains is actuated by double acting pneumatic cylinder(s).
- Available in twin or triple chain transfers with either steel or nylon chain.
- One cylinder is required for twin chain transfers.
- Two cylinders are required for triple chain transfer.
- Total air consumption for double stroke 0.4 litres per cylinder.

Belt Transfer



- Available for XU60 and XU90.
- The minimum belt centres are 150mm.
- Maximum of 25 operations per minute.
- Maximum lift 70Kgs.
- Independently driven from a geared motor unit via pulleys on a separate shaft.
- The rise and fall of chains is actuated by a double acting pneumatic cylinder(s).
- Available in twin or triple belt transfers.
- Polyurethane truly endless belt with co-extruded backing.
- Total air consumption per operation 1.04 litres per cylinder.
- Standard widths available: 412mm, 462mm, 512mm, 612mm, 762mm and 912mm.



Switch Sorter / Diverter



- Available at 45° switching angle.
- Variable speed.
- Incorporates double acting pneumatic cylinders.
- Can be supplied right handed, left handed or bi-directional.
- Minimum product size 200mm x 200mm.
- The sorter wheels are independently driven from a 0.37 kW SEW motor
- Normally used in conjunction with a 45° mitre section, although other options are available.
- Maximum operations 3000 products per hour.
- Standard widths available: 462mm, 612mm, 762mm and 912mm.

Vertical Blade Stop



- Available for XU60 and XU90.
- This stop can be incorporated into straight track positioned in between roller pitches for XU60/XU90.
- Speed up spools are supplied at the stop position to increase gaps between loads. Speed up jump chain assemblies can also be used for this application.
- Incorporates double acting pneumatic air cylinder.
- Air consumption for each cylinder operation 0.70 litres.
- Standard widths available: 412mm, 462mm, 512mm, 612mm, 762mm and 912mm. Other widths available on request.





FlexChain Conveyors



Flat Belt Conveyors



Mat Top Bend



Grip Conveyors



Heavy Duty Trough Conveyors



Plastic Container Handling System



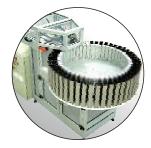
Special Roller Conveyor



Rotating Storage Tables



Diverter Units



Indexing Buffer Stores



Elevators - Plastic or Stainless Steel



Luggage Handling



Multi-Lane Flat Belts



Ready Made Meal Conveyor Line



Sheet Panel Transfer Unit



Fruit Packing Line



Conveyors & Handling Equipment Examples



FLEX-CHAIN PLASTIC SLAT CONVEYORS. Ideal for efficiently conveying products between processes and machines. Very versatile, with large or small radius horizontal and vertical corners. Pinch grip system for vertical conveying. Also available in food quality stainless steel.



ROLLER & BELT CONVEYOR INSTALLATION. Automatic handling of boxes containing statements for MBNA. This installation uses belt conveyors, roller conveyors and vertical lifters together with gates, escapements and sensors. Controlled by a PLC with a touch screen for operator input.



PALLET CONVEYORS. Heavy duty pallet roller conveyors for 800, 1000 &1200mm wide pallets with loads up to 1500kg. 63mm diameter chain driven rollers. Supplied in standard lengths of 1588mm with individual drives for zero line pressure mode.



FLAT BELT CONVEYORS. Used here for unloading finished components from a machining center. Drip trays are used to collect the cutting oil and return it to the system.



ROLLER CONVEYORS. Rugged roller conveyors available in plain gravity or line-shaft driven with the option of plastic or steel rollers. Many accessories such as stops, gates, diverters, mergers, transfer units. Also available in stainless steel.



INTERFLOOR CONVEYORS. Very efficient method of transporting goods up to and down from a mezzanine floor. Uses a high grip belt and a powerful drive.



Conveyors & Handling Equipment Examples



LARGE INSTALLATIONS. Spectacle lens handling plant using our Flex Chain conveyors, flat belt conveyors and vertical lifters. The system handles plastic trays which contain two lenses. A sophisticated but operator friendly control system ensures that trays take the correct path though the plant.



VERTICAL LIFTS. Available as a single vertical lift as shown above or as a continuous unit. Used for transferring to and from mezzanine floors or high level conveyors.



FLEX-CHAIN BUFFER STORE. Typical system handling Horlicks containers in the filling area. This system gives a 20 minute store by the side of the main production line.



FLEX-CHAIN CONVEYOR SYSTEM. Transporting trays with an order of two spectacle lenses from five RAX Lens Stores to the dispatch department.



ROTATING STORAGE TABLES. Used for creating a buffer store at the end of a line, products are fed onto the table as it slowly rotates. An operator will then visit the table and pack or transfer the product back into the line.



PACKING LINES. Chocolate bar packing line using a combination of Flex-Chain and belt conveyors. The line could be configured in five different layouts, allowing a number of different products to be run using one set of conveyors.



The Conveyor Company









Design + Quality + Reliability = Efficiency

Choose the best conveyor for your project from our large range for a total solution

MONK Conveyors Limited

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