



# CONVEYOR UNITS

QUALITY • PERFORMANCE • RELIABILITY

# FLEXI

The Expandable Conveyor Solution



## Flexible Conveyor Range

For increased efficiency  
in loose loading and  
unloading of vehicles

No.7 of 8





**1 Lineshaft Powered Roller Conveyor**  
The most versatile and economical powered conveyor available.

**2 24V Motorised Roller Conveyor**  
'O' Ring & Poly V  
A low maintenance, low energy conveyor due to minimum moving parts.

**3 Pallet Handling Conveyor**  
Designed for flexibility and heavy duty usage up to 1500kg per pallet.

**4 Belt Conveyor**  
For careful and extremely low noise conveying.

**5 Gravity Conveyor**  
The most cost-effective and simplest conveying solution available.

**6 Belt Under Roller Conveyor**  
Can achieve exceptionally high speeds and throughput rates.

**7 Flexible Conveyor**  
For increased efficiency in loose loading and unloading of vehicles.

**8 Post & Parcel Conveyor**  
Designed specifically for the high demands of the Post & Parcel handling market.

Quality

Performance

Reliability

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### Introduction

The Flexi range of conveyors, by Conveyor Units Ltd, has been integral to thousands of turnkey solutions for some of the most demanding and successful companies across Europe. It is renowned for the robustness of its design, with quality being reflected in a distinct durability in the field. Furthermore, the modularity of the design offers extreme flexibility and simplicity for totally integrated systems. It has been engineered and manufactured in Britain since 1963, resulting in five decades of engineering development and excellence, which today, makes it one of the best known trademarks in conveyor manufacture.

### Facts

- UK's largest conveyor manufacturer.
- 150,000 sq. ft. manufacturing plant on a 7 acre site.
- In excess of 1 million rollers manufactured every year.
- Over 20 km of conveyor produced each year.
- Over a third of conveyor orders shipped overseas.



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Specification			
Type	Load per linear metre*	Conveyor Widths	Roller Diameter
Powered	150kg	450, 600, 750 or 900mm	40mm
Gravity	250kg	450, 600, 750 or 900mm	40mm
Gravity Skatewheel	300kg	450, 600, 750 or 900mm	Skatewheel 49mm
Lite™	80kg	300, 400, 500 or 600mm	48mm

\*Based on level working height.

Powered Roller



Gravity Roller



Gravity Skatewheel



1



2



3

## Increased Efficiency in Loose Loading and Unloading of Vehicles

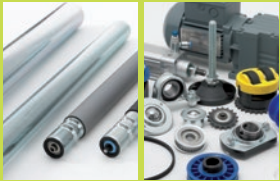
As one of the leading manufacturers of conveyor modules with proven build quality and reliability, we are proud to present a range of expandable, flexible and durable conveyors for loose loading and unloading applications. Loose loading eliminates ‘dead space’ created by pallets or roll-cages.

Engineered to the highest standards to endure the rigorous demands of despatch areas, distribution centres and parcel handling hubs around the world, flexible conveyors provide cost effective handling solutions – not only for the large distribution centres but also for smaller companies requiring only single units.

### Improved Performance – Patented Parts

Conveyor Units holds a European Patent for the following parts across its Flexible Conveyor range, making the range both unique and superior: -

- **Roller Tag Washers** – for increased roller retention.
- **Floating Leg Bolt** – relieving stress and allowing easy manoeuvrability.
- **Fixed Lower Axle** – providing additional rigidity and strength to the conveyor structure.



We have also gained a reputation for supplying high quality competitively priced rollers and spares to all aspects of the material handling industry. Our products are used by blue-chip companies in the UK and throughout Europe.

**1 Large, Bright Zinc Plated Welded Steel Handles**  
Positive grip points for safe and easy manoeuvring of the conveyor.

**2 Reinforced, Ribbed Zinc Plated Steel Side Plates**  
Fully bolted design without rivets. Roller retaining tag washers.

**3 Additional Strength**  
Structural support across width with lower fixed axles. Heavy duty square tubing leg frames with bracing.

● **Fully Adjustable Support Legs**  
These provide a ‘top of roller’ working height from:-

**Powered Roller Expandable Conveyor**  
790mm to 1080mm as standard.

**Gravity Expandable Conveyor**  
750mm to 1035mm as standard.

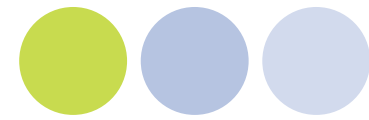
**Gravity Skatewheel Expandable Conveyor**  
750mm to 1040mm as standard.

**LITE™**  
580mm to 865mm as standard.

- **Increases Materials Handling Efficiencies**  
Up to 50% increased efficiencies in loose loading / unloading of vehicle trailers, offering rapid return on investments.
- **Conforms to Health and Safety Standards**  
All steel electrical control cabinets. CE Compliant.
- **Highly Mobile, Extremely Flexible and Easy to Store**  
Quickly manoeuvred, stretched and positioned on braked swivel castors in seconds. Available up to 30m, and it compacts to a 1/3 of its size when not in use.







## Powered Roller Expandable Conveyor



### Powered Applications

Perfect for vehicle loading and unloading, parcel distribution centres, machine-to-machine linking and all cross docking applications. Can be easily moved in or out of trucks for faster, safer, easier loading and unloading.

#### 1 Roller Connecting Bracket

Allows you to quickly and easily connect two or more conveyors together to expand your system.

#### 2 SEW Eurodrive AC Motors

Fully adjustable conveyor speed from 10 to 40 metres per minute; 230V 3Phase, 50Hz supply. Low maintenance – no brushes.

#### 3 Smart Optics - PEC Package Stop

Smart optic sensors act as an electronic package stop. When a package is detected by the sensor it automatically stops the complete conveyor. The stop has an adjustable time delay which can be set by the operator. When the package is removed the conveyor will start automatically.

#### 4 Conforms to Health and Safety Standards

All steel electrical control cabinets, housing a top specification AC inverter with keypad, sealed to IP55 standard and mounted on a lockable sliding tray. Enables easy user access for any adjustments or maintenance. CE Compliant. Start/Stop switch at both ends for safety. Isolator switch included.

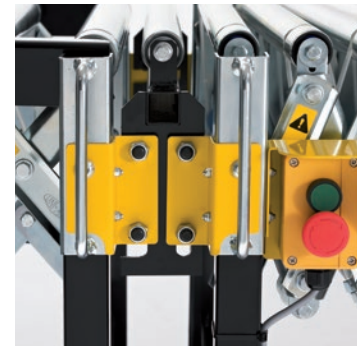
#### 5 Conforms to Electromagnetic Compatibility Directive 2014/30/EU

Supplied with shielded, flat form cable which maintains correct cable routing.

#### 6 Start/Stop Buttons

Start/Stop switch at both ends and Emergency Stop fitted at mid-point for safety. Lengths over 20.0 metres are fitted with two Emergency Stops.

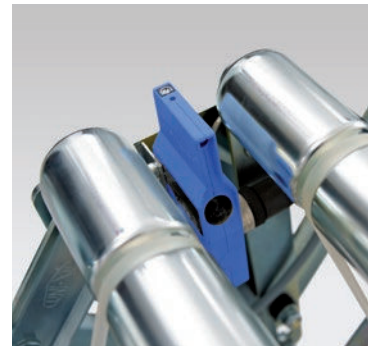
1



2



3



4



5



6



To complete the model number replace the three dashes with the standard conveyor width required; 450mm, 600mm, 750mm or 900mm.

Powered Conveyor Specification			Powered Conveyor Specification		
Model Number	Standard Length Compacted to Expanded	Support Legs per Unit	Model Number	Standard Length Compacted to Expanded	Support Legs per Unit
UFP/ROS/0---/03.75	1.33 - 3.75 metres	4	UFP/ROS/0---/15.00	5.20 - 15.00 metres	13
UFP/ROS/0---/05.00	1.76 - 5.00 metres	5	UFP/ROS/0---/16.25	5.63 - 16.25 metres	14
UFP/ROS/0---/06.25	2.19 - 6.25 metres	6	UFP/ROS/0---/17.50	6.06 - 17.50 metres	15
UFP/ROS/0---/07.50	2.62 - 7.50 metres	7	UFP/ROS/0---/18.75	6.49 - 18.75 metres	16
UFP/ROS/0---/08.75	3.05 - 8.75 metres	8	UFP/ROS/0---/20.00	6.92 - 20.00 metres	17
UFP/ROS/0---/10.00	3.48 - 10.00 metres	9	UFP/ROS/0---/21.25	7.35 - 21.25 metres	18
UFP/ROS/0---/11.25	3.91 - 11.25 metres	10	UFP/ROS/0---/22.50	7.78 - 22.50 metres	19
UFP/ROS/0---/12.50	4.34 - 12.50 metres	11	UFP/ROS/0---/23.75	8.20 - 23.75 metres	20
UFP/ROS/0---/13.75	4.77 - 13.75 metres	12	UFP/ROS/0---/25.00	8.63 - 25.00 metres	21

Lengths up to 30.0 metres available on request.

### Optional Extras:

Zero Line Pressure  
Product Indexing  
Master & Slave  
Smart Optics  
Roller Impact Carts  
LED Lighting  
Guard Rail  
Roller Connecting Brackets  
Larger Diameter Castors

For easier rolling over rough or uneven surfaces.  
Adds the following to conveyor height:  
45mm (200mm diameter castor).

#### ● Flexible and Easily Manoeuvrable

Combination of braked and non-braked, heavy duty swivel castors - 160mm diameter x 50mm.

#### ● Roller Design

40mm diameter, steel zinc plated tube with precision bearings. Rollers are driven from heavy duty polyurethane drive belts.

#### ● Fully Adjustable Support Legs

These provide a 'top of roller' working height from:-  
790mm to 1080mm as standard.  
Other heights available on request.

#### ● Roller Centres

125mm as standard when the conveyor is fully extended. Optional 75mm and 100mm roller centres can be supplied for the conveying of smaller packages or cartons. Please note that optional roller centres will affect the conveyor compacted length.

#### ● System Versatility with Variable Control Options

In addition to smart optics, the following are also available:-

Zero line pressure accumulation.

Product indexing.

Two independent conveyors can be connected by use of harting plugs and castors to form one system.

#### ● Self Tracking

Cartons follow twist of conveyor.

No need for engineered curves.

### Specification

Load	Conveyor Widths	Roller Diameter	Standard Speed (metres per minute)
150kg per linear metre*	450mm 600mm 750mm 900mm	40mm	10 - 40 variable

\*Based on level working height.

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## Accumulating Conveyors

### Option 1 Zero Line Pressure Conveyor



Zero Line Pressure Accumulation is achieved by using Sensors to control the ON/OFF of the Geared Motor Unit within each Zone. Product travels along the conveyor to the final Zone where it is detected by a Sensor, whereupon the Motor driving this Zone will stop. The remaining conveyor rollers will, at this point, continue to run and accumulate products along the track using the same process. Each Zone is fitted with its own Sensor to detect product movement. When a product is removed from an Accumulation Zone, all preceding Zones will automatically move product forward into the newly unoccupied Zone.

**Each Zero Line Pressure Zone length is dependent on the roller pitch required.**

- **75mm pitch** the Zone length is 0.75 metres.
- **100mm pitch** the Zone length is 1.00 metres.
- **125mm pitch** the Zone length is 1.25 metres.



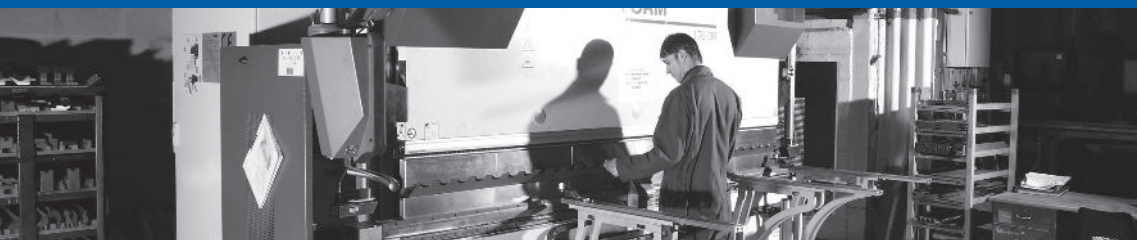
### Option 2 Indexing Conveyor



Indexing Conveyors provide a simple and economic method for the accumulation of products. Here the conveyor is equipped with a Sensor at the Infeed and Discharge ends.

Upon the product reaching the first Infeed Sensor, the conveyor will start up and run, clearing product forward and away from the Sensor. This procedure is repeated until the products reach the Discharge Sensor, thus creating a completely full conveyor. When the Operator removes a product at the Discharge end, the products once again move forward allowing new products to be loaded at the Infeed end.

The conveyor is also fitted with a Clearing Switch, allowing the Operator at the Discharge end to 'call forward' all products towards the Discharge Sensor.



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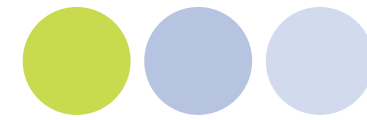
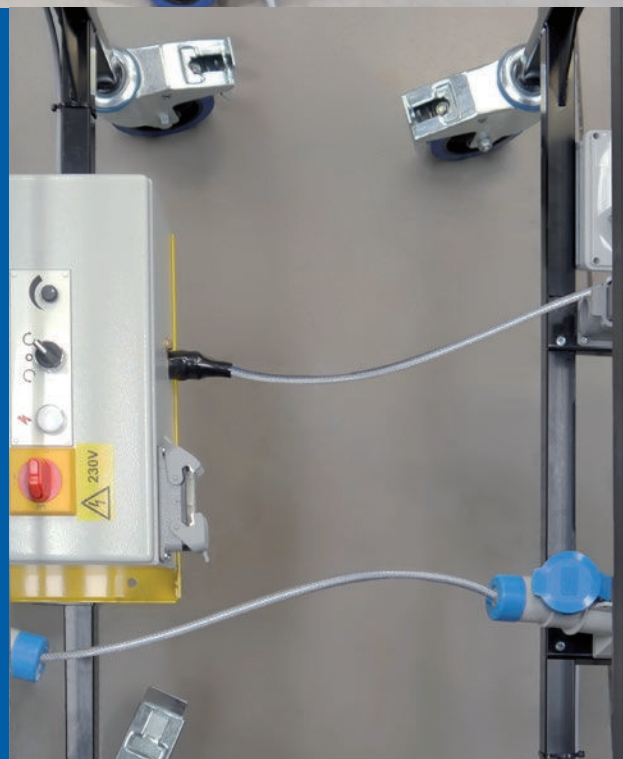


## Interconnectable Conveyors

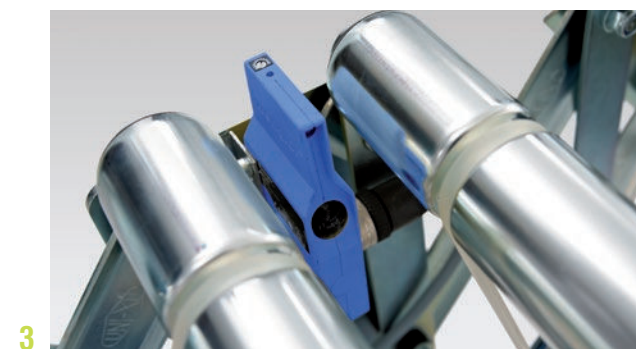


Interconnectable Conveyors enable the user to quickly and easily connect two conveyors together to form one long conveyor run. When not connected together, the conveyors can be used independently.

- Lengths up to 50 metres can be achieved when two conveyors are connected.
- Conveyors are joined together using cables fitted with 32A CEE CARA Plugs for power transfer and Harting Plug/Socket signals for control transfer.
- Mains power supply will only be required to the Master when the conveyors are joined together.
- Once coupled, all Start/Stop and Emergency Stop Buttons will be linked. i.e., any Start/Stop Button can be used to Start or Stop both conveyors and if an Emergency Stop is actuated, both conveyors will stop.
- Zero Line Pressure Zones and Smart Optic Package Stops can also be incorporated into this design of conveyor.



## Ancillaries



### 1 Rigid Impact Carts

Normally fitted at the load point of a conveyor, the Heavy Duty Impact Cart is supplied with strengthened side plates, 50mm x 3mm wall rollers, additional support at mid-point and additional bracings.

- Standard length of Cart is 1.25 metres (125mm pitch), 1.00 metre (100mm pitch) and 0.750 metres (75mm pitch).
- Can be supplied as a flexible Impact Section by removing the bracings.

### 2 LED Lighting

- LED lights can be fitted as an optional extra and are useful when unloading products inside Lorries or unlit factory areas.

### 3 Smart Optics

The Smart Optic comprises a Sensor which is normally fitted in the last conveyor Zone at the Discharge end. When the product covers the Sensor, all motors along the conveyor length automatically stop, then restart upon product removal.

- Smart Optics can be positioned at both ends of the conveyor if required for reversible conveyors.
- Deactivation of the Smart Optic Sensor can be achieved by means of a Turn-Switch located on the Panel, thus making the conveyor a transportation conveyor only.

### 4 Guard Rail

Further protection of the product can be provided via a Sideguard Bracket Assembly. Here a single Side Guard Bearing is mounted to the roller end via a 60mm high bracket. This has the advantage of maintaining complete conveyor flexibility.



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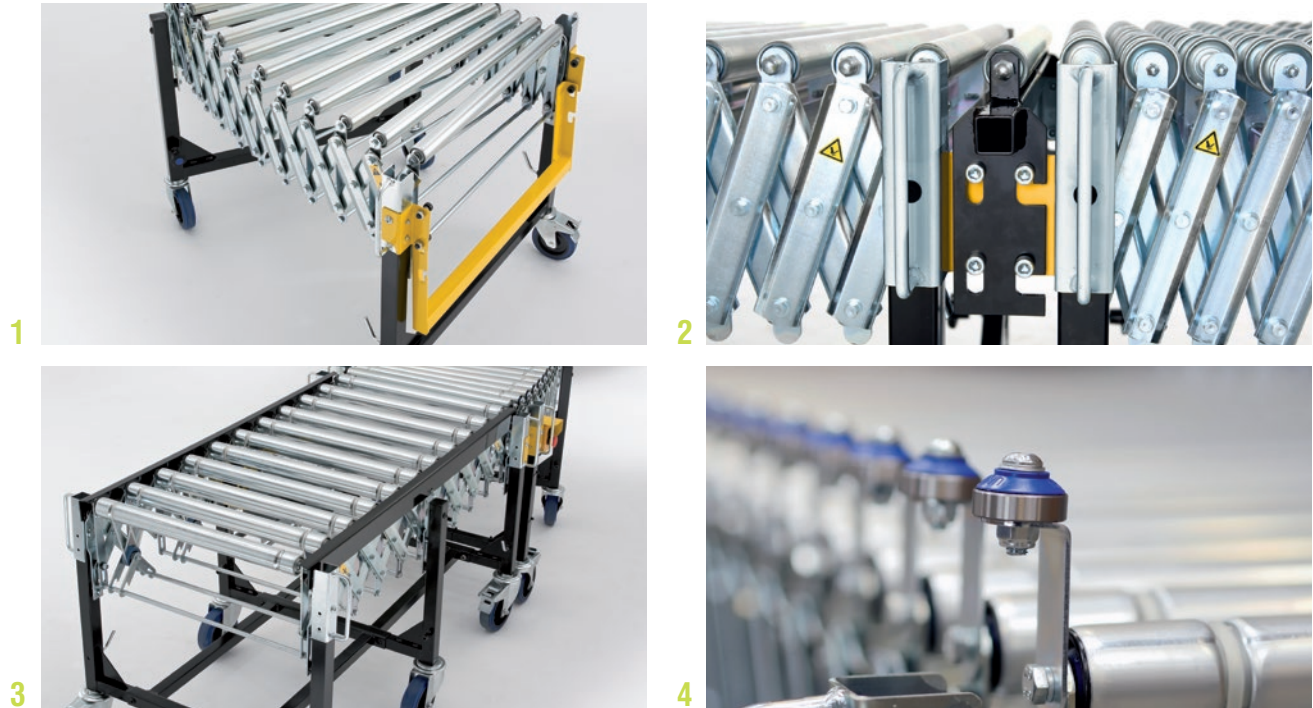


# Gravity Roller Expandable Conveyor



**Gravity Applications**  
Perfect for conveying different sized boxes with irregular bases or bags etc. Very easy to quickly manoeuvre in or out of trucks for faster, safer, easier loading and unloading.

- 1 Drop Down Package Stop**  
Prevents product damage by stopping cartons and packages from falling off the conveyor at the discharge end. Simply drops down for storage when not required or when connecting to another flexible conveyor.
- 2 Roller Connecting Bracket**  
Allows you to quickly and easily connect two or more conveyors together to expand your system.
- 3 Heavy Duty Roller Impact Section Option**  
Improves impact loading by fitting of 50mm x 3mm wall rollers with 4mm roller mounting bracket. Additional support stand at mid point of 1.25m length. Rigid and flexible options available.
- 4 Guard Rail**  
Further protection of the product can be provided via a Sideguard Bracket Assembly. Here a single Side Guard Bearing is mounted to the roller end via a 60mm high bracket. This has the advantage of maintaining complete conveyor flexibility.



Powered Impact Cart Shown

To complete the model number replace the three dashes with the standard conveyor width required; 450mm, 600mm, 750mm or 900mm.

Gravity Roller Conveyor Specification			Gravity Roller Conveyor Specification		
Model Number	Standard Length Compacted to Expanded	Support Legs per Unit	Model Number	Standard Length Compacted to Expanded	Support Legs per Unit
UFG/ROS/0---/03.75	1.33 - 3.75 metres	4	UFG/ROS/0---/15.00	5.20 - 15.00 metres	13
UFG/ROS/0---/05.00	1.76 - 5.00 metres	5	UFG/ROS/0---/16.25	5.63 - 16.25 metres	14
UFG/ROS/0---/06.25	2.19 - 6.25 metres	6	UFG/ROS/0---/17.50	6.06 - 17.50 metres	15
UFG/ROS/0---/07.50	2.62 - 7.50 metres	7	UFG/ROS/0---/18.75	6.49 - 18.75 metres	16
UFG/ROS/0---/08.75	3.05 - 8.75 metres	8	UFG/ROS/0---/20.00	6.92 - 20.00 metres	17
UFG/ROS/0---/10.00	3.48 - 10.00 metres	9	UFG/ROS/0---/21.25	7.35 - 21.25 metres	18
UFG/ROS/0---/11.25	3.91 - 11.25 metres	10	UFG/ROS/0---/22.50	7.78 - 22.50 metres	19
UFG/ROS/0---/12.50	4.34 - 12.50 metres	11	UFG/ROS/0---/23.75	8.20 - 23.75 metres	20
UFG/ROS/0---/13.75	4.77 - 13.75 metres	12	UFG/ROS/0---/25.00	8.63 - 25.00 metres	21

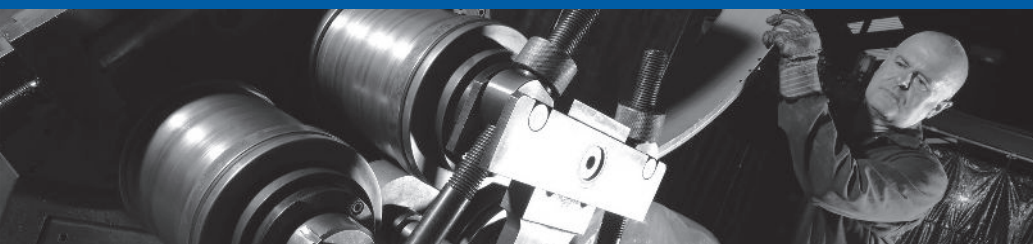
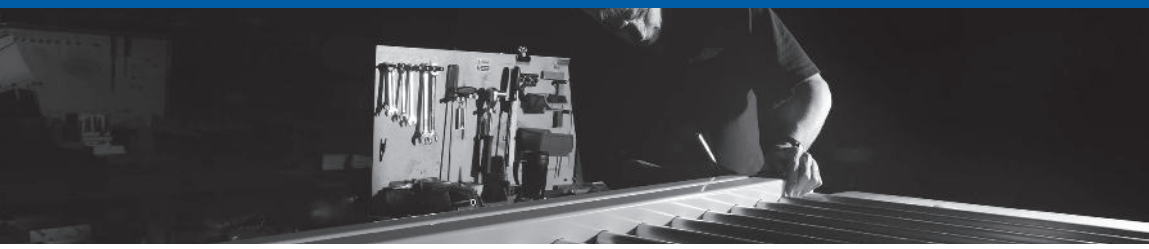
Lengths up to 30.0 metres available on request.

**Optional Extras:**  
Roller Connecting Bracket  
Roller Impact Section  
Guard Rail  
Package Stop  
Larger Diameter Castors  
*For easier rolling over rough or uneven surfaces.*  
*Adds the following to the conveyor height:*  
*40mm (160mm diameter castor).*  
*85mm (200mm diameter castor).*

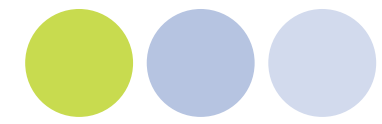
- Roller Centres**  
125mm as standard when the conveyor is fully extended. Optional 75mm and 100mm roller centres can be supplied for the conveying of smaller packages or cartons. Please note that optional roller centres will affect the conveyor compacted length.
- Roller Design**  
40mm diameter, heavy duty, steel zinc plated tube with semi – precision bearings, offering extended conveyor life. Also available with high impact PVC Plastic Rollers for the conveying of sensitive loads. (NB. At a reduced load rating).
- Fully Adjustable Support Legs**  
These provide 'top of roller' working height from: 750mm - 1035mm as standard. Other heights available upon request.
- Self Tracking**  
Cartons follow twist of conveyor. No need for engineered curves.
- Flexible and Easily Manoeuvrable**  
Combination of braked and non-braked, heavy duty swivel castors - 125mm x 36mm. Larger diameter castors for easier rolling over rough or uneven surfaces. Please note this adds the following to the conveyor height: -  
40mm (160mm diameter castor).  
85mm (200mm diameter castor).

Specification		
Load	Conveyor Widths	Roller Diameter
250kg per linear metre* (Steel rollers only)	450mm 600mm 750mm 900mm	40mm

\*Based on level working height.







# Gravity Skatewheel Expandable Conveyor



**Gravity Applications**  
A rugged conveyor ideally suited for many roles from packaging and flexible assembly lines to loading and unloading of trucks and containers. The conveyor is easy to move around on heavy duty castors and simply compacts to a quarter of its size when not in use.

- **Flexible and Easily Manoeuvrable**  
Combination of braked and non-braked, heavy duty swivel castors, 125mm x 36mm.
- **Drop Down Package Stop**  
Prevents product damage by stopping cartons and packages from falling off the conveyor at the discharge end. Simply drops down for storage when not required or when connecting to another flexible conveyor.
- **Fully Adjustable Support Legs**  
These provide a top of skatewheel working height from 750mm to 1040mm as standard. Other heights available on request.

Specification		
Load per linear metre*	Conveyor Widths	Skatewheel Diameter
300kg 80kg	450mm	49mm - steel 48mm - plastic for lighter applications

\*Based on level working height.

- **Skatewheels**  
The flexible standard - 49mm diameter, heavy duty zinc plated and suitable for all flat based loads. 48mm diameter plastic skatewheel also available for lighter applications.
- **Skatewheel Centres**  
125mm as standard when the conveyor is fully extended. Optional 75mm and 100mm roller centres can be supplied for the conveying of smaller packages or cartons. Please note that optional skatewheel centres will affect the conveyor compacted length.

To complete the model number replace the three dashes with the standard conveyor width required; 450mm, 600mm, 750mm or 900mm.

Gravity Skatewheel Conveyor Specification		
Model Number	Standard Length Compacted to Expanded	Support Legs per Unit
UFG/SWS/0---/03.75	1.08 - 3.75 metres	4
UFG/SWS/0---/05.00	1.43 - 5.00 metres	5
UFG/SWS/0---/06.25	1.77 - 6.25 metres	6
UFG/SWS/0---/07.50	2.12 - 7.50 metres	7
UFG/SWS/0---/08.75	2.46 - 8.75 metres	8
UFG/SWS/0---/10.00	2.81 - 10.00 metres	9
UFG/SWS/0---/11.25	3.15 - 11.25 metres	10
UFG/SWS/0---/12.50	3.50 - 12.50 metres	11
UFG/SWS/0---/13.75	3.84 - 13.75 metres	12
UFG/SWS/0---/15.00	4.19 - 15.00 metres	13
UFG/SWS/0---/16.25	4.53 - 16.25 metres	14
UFG/SWS/0---/17.50	4.88 - 17.50 metres	15
UFG/SWS/0---/18.75	5.22 - 18.75 metres	16

Gravity Skatewheel Conveyor Specification		
Model Number	Standard Length Compacted to Expanded	Support Legs per Unit
UFG/SWS/0---/20.00	5.57 - 20.00 metres	17
UFG/SWS/0---/21.25	5.91 - 21.25 metres	18
UFG/SWS/0---/22.50	6.26 - 22.50 metres	19
UFG/SWS/0---/23.75	6.61 - 23.75 metres	20
UFG/SWS/0---/25.00	6.96 - 25.00 metres	21

Conveyor Width	Skate Wheels per Axle
450mm	7
600mm	9
750mm	11
900mm	13

**Optional Extras:**  
Roller Connecting Bracket  
Drop Down Package Stop  
Roller Impact Section  
Large Diameter Castors  
*For easier rolling over rough or uneven surfaces.*  
*Adds the following to conveyor height:*  
*40mm (160mm diameter castor),*  
*85mm (200mm diameter castor).*



# LITE™ Expandable Conveyors

For the ultimate in flexibility, specify the LITE™ range of expandable gravity conveyors. Perfect for 'end of line' packaging applications or wherever flexibility and portability is demanded.

Virtually any shape of conveyor design can be achieved with this system, from the very tight inside radius curves; to a full 360° complete circle.

- **Withstands Rigorous Demands**  
Reinforced, ribbed zinc plated steel side plates. Structural support across width with heavy duty square tubing leg frame. Fully bolted design without rivets. All steel skatewheel axle support - 'one-piece' and 'constantly vertical' - ensures maximum strength throughout. Jig welded and spanning the conveyor width.
- **Fully Adjustable Support Legs**  
580mm to 865mm as standard, with 100mm castors.
- **Skatewheel Centres**  
125mm as standard when conveyor is fully extended.

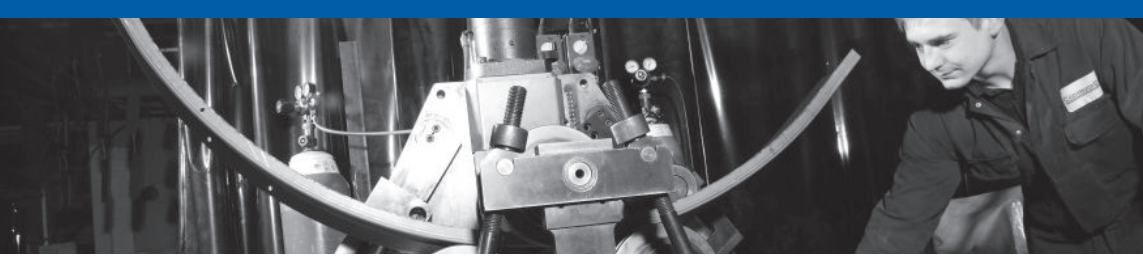


To complete the model number replace the three dashes with the standard conveyor width required; 300mm, 400mm, 500mm or 600mm.

LITE™ Conveyor Specification		
Model Number	Expanded	Compacted
UFGL/SWP/0---/02.00	2.0 metres	0.63 metres
UFGL/SWP/0---/03.00	3.0 metres	0.94 metres
UFGL/SWP/0---/04.00	4.0 metres	1.25 metres
UFGL/SWP/0---/05.00	5.0 metres	1.57 metres
UFGL/SWP/0---/06.00	6.0 metres	1.88 metres
UFGL/SWP/0---/07.00	7.0 metres	2.19 metres
UFGL/SWP/0---/08.00	8.0 metres	2.50 metres
UFGL/SWP/0---/09.00	9.0 metres	2.82 metres

Specification		
Load	Conveyor Widths	Skatewheel Diameter / Pitch
80kg per linear metre*	300mm 400mm 500mm 600mm	48mm / 125mm

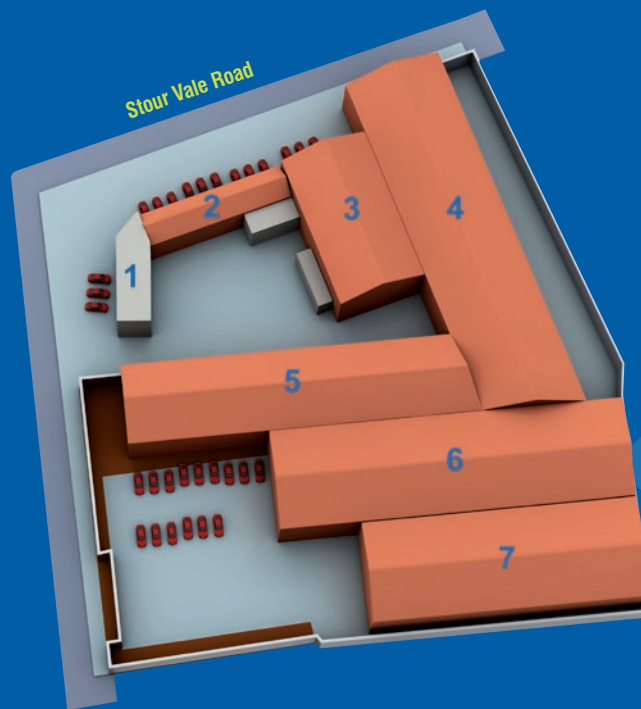
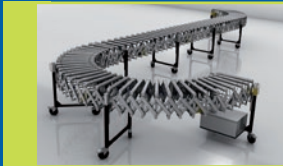
\*Based on level working height.





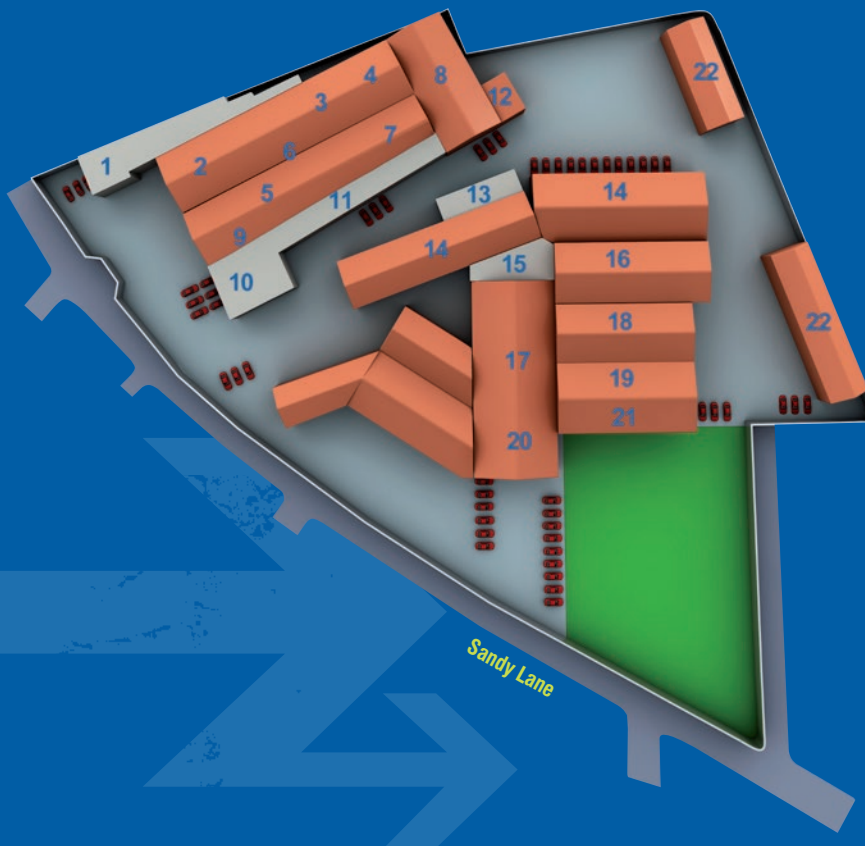
## LYE SITE

- 1 Reception / Sales Office
- 2 Spray Area & Tool Room
- 3 Fabrication Area
- 4 Roller Department
- 5 Press Department / Component Manufacture
- 6 Flexible Conveyor Assembly
- 7 Bearing Assembly & Stores



## STOURPORT SITE

- 1 Main Reception / Sales Office
- 2 Despatch
- 3 Ancillary Assembly
- 4 Press Brake
- 5 Powder Coating Plant / Curing Oven
- 6 Production Welding
- 7 Bend Fabrication
- 8 Press / Laser Processing
- 9 General Assembly
- 10 Belt Conveyor Assembly
- 11 Stores
- 12 Goods Inwards
- 13 Accounts / Purchasing Departments
- 14 Principal Roller Department
- 15 Tapered Roller Assembly
- 16 Pallet Conveyor & Special Product Assembly
- 17 Injection Moulding
- 18 Punch Press / Laser Department
- 19 Aluminium Conveyor Assembly
- 20 Product Development
- 21 Showroom / Demonstration Area
- 22 Storage Warehouse



### Conveyor Units Ltd.

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[www.conveyor-units.co.uk](http://www.conveyor-units.co.uk)

[www.conveyorrollers-uk.co.uk](http://www.conveyorrollers-uk.co.uk)

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