

## Model 704

Induction Conveyor Line

# Application

The process of inducing bags onto a tilt tray sorter is an arduous task that demands high levels of accuracy whilst performing thousands of cycles that may involve changes in loading, speed and direction. In order to survive in such a demanding environment Daifuku Logan induction conveyors are designed to meet and exceed the loading placed upon them. This approach ensures high system availability by minimising bag positioning errors and mechanical breakdown.

The Daifuku Logan induction conveyors are based on the proven Model 571 queue & Model 684 merge conveyors that have been in service in airport applications for many years. Each conveyor element in the induction line has its own drive and DCP complete with inverter for flexibility and performance. Provision can be made for 'under scanners' and hand safe devices within the design. The final merge conveyor is of the multi belt type and gives an injection angle of either 30° or 45° dependent upon application and sorter speed.

The induction conveyors are clad along their full length to prevent ingress of labels and other debris and to give a pleasing appearance.

Induction Conveyors are designed to operate in a stop / start or dynamic mode. The mode of operation is dictated by the throughput requirements.



Features	Application Benefits
Underslung HTD	Good speed flexibility and shock absorbance
Shaft Mounted	Ease of maintenance
Two Pulley	Reduces downtime for planned maintenance
Configuration	Reduces conveyor inertia, Improves motor / gearbox life
Lagged Head/Drive	Eliminates problems associated with stray product, improves machine maintainability
Pulley	Minimises belt tensions and slippage and maximises conveyor life
Range of Drive Sizes	Drive pack selected to suit conveyor application, speed, product loading etc.
Designed for High Stop / Start Applications	Can be used extensively throughout any BHS
Short Faced End Pulleys	Eliminates trap points by the use of dummy pulleys
Crowned Tail Pulley	Assists with belt tracking
External Bearings on Pulleys	Pulleys removed through sideframes for ease of maintenance
High Bearing Life	Conveyor designed to L10 50,000 hour bearing life
Head and Tail Snubber Roller	Eliminates tracking problems with short conveyors
Reinforced bed plates	Increases load capacity of conveyor
Design Flexibility	Accommodate variations such as sidewall height, bed width, drive components etc.
Fire Retardant Belting to ISO 340	Reduces the spread of fire.
Quiet Running During Operation	Noise level below 65dBa
Modular Design	Facilitates installation and any subsequent modifications
DCP Control	The use of DCP Control on every stage of induction incorporating individual inverter control for increased flexibility and performance.



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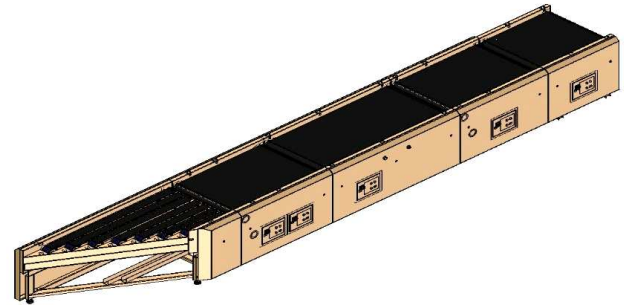
### Induction Conveyor Line Specifications

#### Design Options

Induction Angles  
Length  
Conveyor Speed  
Belt Width  
Sidewall Height  
Belt Type  
Belt Joint  
Material Finish

#### Standard Variations

Available as 30° or 45°.  
To Suit Application.  
To Suit Application.  
1000mm  
50mm  
Smooth top.  
Vulcanised endless.  
Painted mild steel.



#### Additional Design Options

- Belt Movement Sensor
- Handsafe PEC's

## General Description

### Bed Sections

The fabrication is press formed in 2.5mm painted mild steel, and comprises a formed bed plate bolted between two flanged side frames. Rolled steel angle cross members provide a tie between the side frames and the bed plate is reinforced by stiffeners across the width of the conveyor.

### Drive Configurations

Drive is imparted to the head pulley via a helical geared motor or to an additional central pulley when drive access is restricted. Final drive to the pulley is via a heavy duty timing belt or shaft mounted gearbox. The drive components are totally enclosed within a sheet steel guard. The motor gearbox is normally supplied with an integral brake and for rapid stop/start applications the brake is separately and directly excited.

### Pulley

Both the head and tail drive pulleys are of a fully welded construction and are machine turned for concentricity. All pulleys are mounted between external bearings which can be suitably adjusted to align the pulley and provide easy access for routine maintenance. Snubber Rollers with less than 45° of belt wrap are fitted with internal "sealed for life" bearings. Typical pulley diameters are:

- |  |           |                       |
|--|-----------|-----------------------|
| • Head / Tail and Central Drive Pulley | 127mm O/D | 40mm Bearing Dia      |
| • Snubber Roller                       | 76mm O/D  | 30mm Internal Bearing |