



**ANSIR
SYSTEMS**

Merge Conveyor Tech Specs



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Function

A merge is a belt conveyor with a 45° angled connection edge that enables the merging of two conveyor lines. Typically used with additional sorting conveyors they provide for a smooth flow of baggage from one line to another.

45° merge conveyors are manufactured in 2 lengths measured along the centreline of the conveyor from the tail end to the discharge / head end. They can be provided at either 1500 mm or 1775 mm centre length.

Features

- Tail end roller with profiled finger guards to eliminate trap points for personnel and product.
- Internal bearings are fitted to tail and take-up rollers for ease of maintenance and quick changeover.
- Final drive between the gearbox and drive pulley is via a direct shaft mounted gearmotor.
- Hinged front section that allows the use of an endless belt.
- 30mm dia nose bar reduces transitional gap between merge and receiving conveyor. Machined flat on face reduces contact patch between the belt and nose bar.

Technical Specifications

Frame

The merge frame is a fabricated combination of mild steel rectangular hollow sections and parallel flange channel welded together to form the main body. Two separate frames are constructed with the front 45° frame section hinge mounted to allow for an endless belt to be fitted. The frame is powder coated finish.

Head Nose Bar

The front non-rotating nose bars are made from 32 mm diameter bright steel bar with a machined flat that provides an airgap between the belt for reduced friction and cooling. The nose bars are fastened to the frame with a series of counter bored 5 mm cap screws.

Slider Beds

Fabricated 3 mm mild steel, zinc plated gold finish. Welded angle stiffeners on the underside provide added rigidity. The slider beds simply sit inside the conveyor frame without the need for fasteners.

Side Guides

3 mm mild steel formed to a height of 300 mm above the conveyor bed and rigidly fastened to the conveyor. Guides are installed to eliminate any interference with baggage flow and to prevent damage.

Drive Pulley

Head drive pulley is 114 mm dia 6 mm nominal wall thickness mild steel tubing finished with 5 mm thick moulded polyurethane lagging. 10 mm thick end plates with W16 taper lock housing and 1610-40 taper lock bushes connect it to the drive shaft.

Drive Shaft

40 mm bright steel, keyed to transfer drive from the motor gearbox. The complete drive roller and shaft assembly is mounted to the conveyor frame utilising UC 208 precision bearings and 2 bolt housing.

Motor / Gearbox

A shaft mounted motor gearbox connects directly to the conveyor drive roller shaft. The transmission equipment is adequately sized for the load, speed, temperature and operating conditions specified.

End Roller

Machined crowned 90 mm diameter 6 mm nominal wall thickness mild steel tubing with UCS208 press fit, internally mounted, grease packed, sealed for life, precision bearings that mount to a non-rotating 40 mm bright steel shaft.

Take-up / Snub Roller

60 mm diameter 5 mm nominal wall thickness mild steel tubing with UCS205 press fit, internally mounted, greased packed, sealed for life, precision bearings that mount to a non-rotating 25 mm bright steel shaft.

Take-up

Is screw type with individual screw for each side of the roller.

Supports

Floor mounted supports with adjustable feet for accurate levelling.

Belting

4920 × 1000 mm LG endless PVC fire rated belt.

General Dimensions

(1500 mm long centre length shown)

