Metering Conveyors

Function

The metering conveyor is generally used as a queuing conveyor prior to conveyor junctions, merges or places where accumulation or separation is required. The conveyor is designed to cope with frequent stop/starts.

Whilst the basic design of the conveyor is standard, it is sufficiently flexible to accommodate variations in, belt type, sidewall height, overall length and conveying speed.

Features

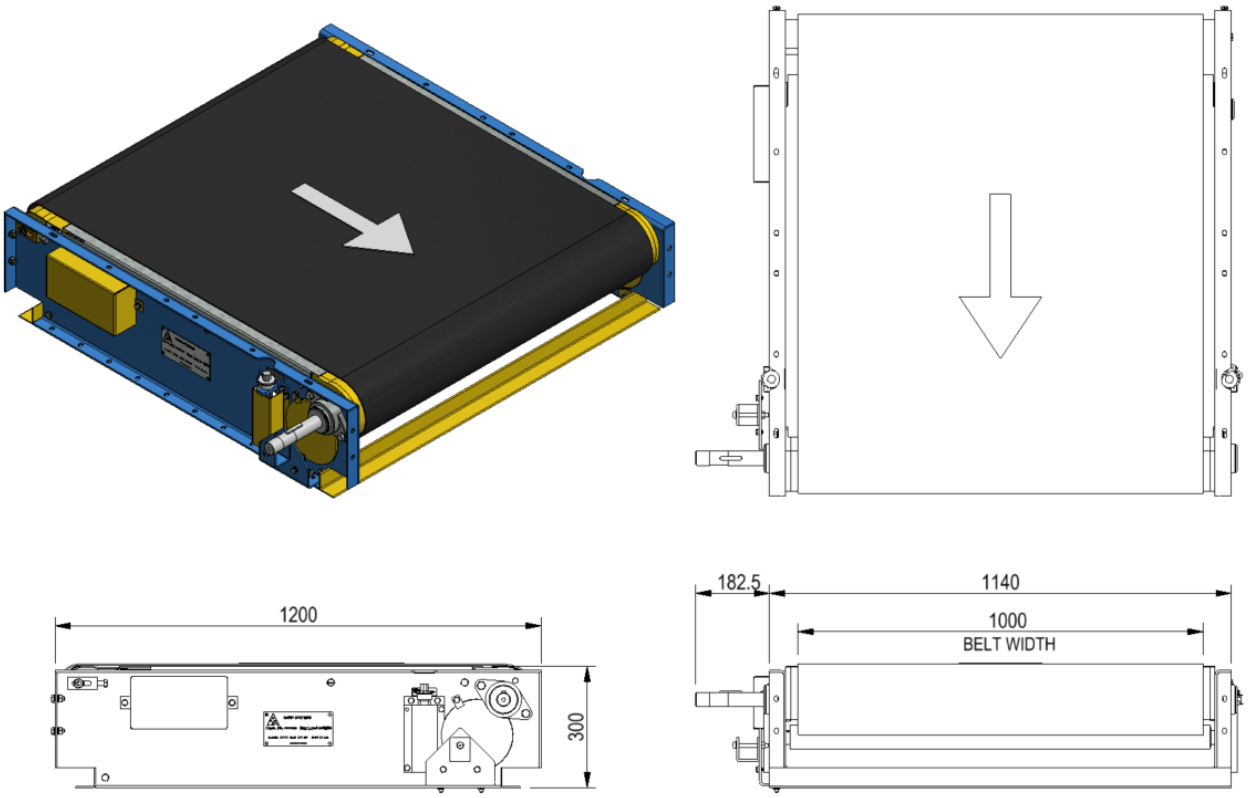
Certain good practices have been established, these include:

- End rollers with special profiled finger guards to eliminate trap points for personnel and product.
- Internal bearings fitted to the tail and take-up rollers to facilitate ease of maintenance.
- Final drive between the gearbox and drive pulley is via a direct shaft mounted gearmotor.
- Cut outs are provided in the conveyor frame to allow for roller to be removed from the side.
- Screw type belt take-up designed to allow adjustment from one side.
- Flexible design that allows for variations in length up to 2500mm. The standard metering conveyor is typically 1200mm long.

Specifications

Part	Specification
Frame	5mm thick mild steel formed channel 290mm deep with 40mm flanges.
Slider bed	Fabricated 3mm mild steel, galvabond finish. Welded angle stiffeners on the underside provide added rigidity. The slider bed is bolted between the two side frames sitting 10mm above to give an overall height of the conveyor of 300mm.
Side guides	3.0 mm mild steel formed to a height of 300mm 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	Constructed from 168mm diameter, 7mm nominal wall thickness mild steel tubing, machined crowned ends assist belt tracking. 10mm thick end plates with W16 taper lock housing and 1615-35 taper lock bushes connect it to the drive shaft.
Drive shaft	35mm 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 207 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 90mm diameter 6mm 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 40mm bright steel shaft.
Take-up roller	60mm diameter 5mm 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 25mm bright steel shaft.
Take-up	Is screw type with the take-up screw supplied with a cross chain connection to allow adjustment from one side only.
Belt speed roller (where fitted)	60mm diameter 5mm nominal wall thickness mild steel tubing with 10mm thick end plates and welded 25mm bright steel shaft. The roller is mounted to the conveyor frame utilising UC 205 precision bearings and 4 bolt housing.
Supports	Floor mounted supports spaced at no more than 1200mm centres with adjustable feet for accurate levelling.
Belting	2505x1000mm LG endless PVC fire rated belt. (typical for 1200mm long conveyor)

General Dimensions



Typical 1200mm long Metering conveyor shown