



**ANSIR
SYSTEMS**

Plough Divert Tech Specs



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Function

The Fast Acting Belt Plough has been designed to handle and sort a wide range of products, with minimum impact to the bag during the plough divert operation. The unit has been design to be used in conjunction with the Ansir range of Transport and Queue conveyors and is of modular design enabling the unit to be supplied to suit the customer's specific needs. Fast Acting Belt Ploughs perform:

- Line splitting of flow from one line into two.
- Separation of single bags from a continuous stream of baggage.
- As an inline sortation system.

Features

- Single horizontally mounted plough arm.
- Separate drive for divert mechanism and plough arm.
- Robust welded frame construction.
- Drive and end pulleys are fitted with grease packed precision bearings.
- 360° Motor rotation for one cycle which prevents plough arm over-run

Key Parameters

Sort Rate

1500 units / hour. Dependant on product type

Max Product Size

1000mm long x 450mm high x 750mm wide

Belt Width

1000mm

Conveyor Height

Suit conveyor height as low as 450mm.

Technical Specifications

Frame

Welded channel frame construction. The arm of the plough is of steel box section with a slider bed surface over which the plough belt runs. The diverter belt runs between vertically oriented drive and end pulleys. Belt tensioning is achieved by adjusting the end pulley.

Plough Belt Drive

V-belt to absorb shock loading.

Pulleys

The drive and end pulleys are fitted with precision bearings. The drive pulley is mounted on an extended drive shaft, which is driven by a geared motor.

Drive Shaft / Divert Mechanism

A machined drive flange is fixed to the output shaft of the gearbox which in turn is connected through a link bar mechanism to the main pivoting shaft of the plough arm.

Divert Mechanism – 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. The drive flange completes 360° rotation of travel for one full plough cycle which prevents over-run.

Sensors

Proximity type electrical sensor will detect when the plough arm has reached the out position. When diverting multiple bags this will be used to stop the plough in the "out" position. A second sensor will also indicate when the arm has returned to the "home" position causing the arm to stop.

General Dimensions

