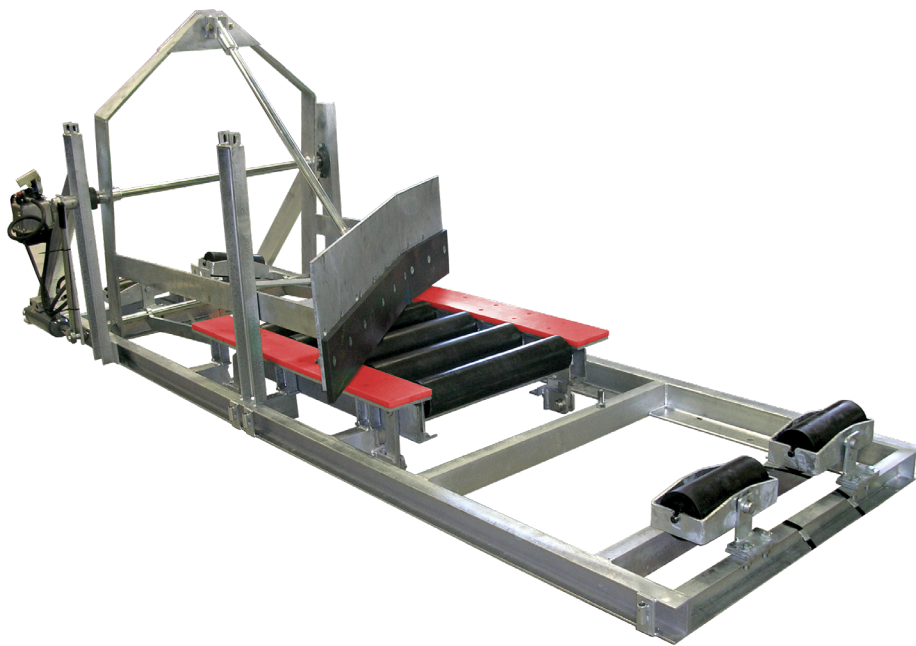




Diverter Ploughs

Fast & Easy
Cleaning Efficiency
Improved Safety





DYNA-TRAC® Diverter Ploughs

A Diverter Plough, when fitted to a conveyor, is an apparatus that can redirect or discharge the material being conveyed at a location between the head and tail ends and is often used as a cost effective solution instead of using a tripper system..

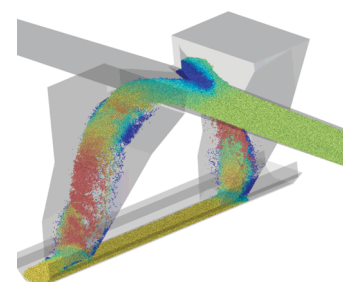
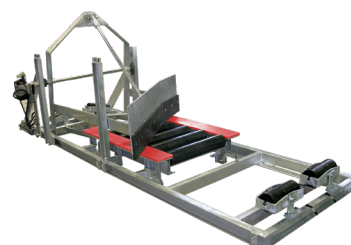
How It Works

Designed to fit onto an existing conveyor structure, the Diverter Plough allows the normal operation of the conveyor to continue even when the Diverter Plough is not in use.

When activated, the Diverter Plough blade will start to lower onto the belt and/or the belt support lifts the belt from a trough shape to a flat shape.

The blade will lightly contact the belt across the entire width, ready to divert material away from the belt surface.

Material then impacts the blade in a steady stream, and the blade will begin to push the material to one or both sides of the conveyor, into discharge chutes.



Core Components of a Diverter Plough

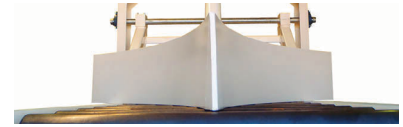
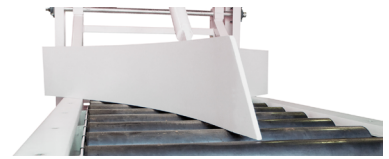
Blade/Blades (Single or Double-Sided)	Belt Support	Discharge Chutes	Structural Frame
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Design Considerations

Blades

DYNA Engineering's DYNA-TRAC® Diverter Plough Blades are made from high wear-resistance materials as the blades come into constant contact with extremely rough and coarse material.

Depending on the application, blades are commonly made out of hardened steel, engineered plastics or polyurethane. The composition of the blades is an important consideration in the design process. The blade needs to be wear-resistant enough to withstand the application but at the same time be subtle enough not to damage the conveyor belt.



Choice of Blade is Dictated by **3 Factors**

1. How fast the conveyor belt is running.

2. How much material is being conveyed.

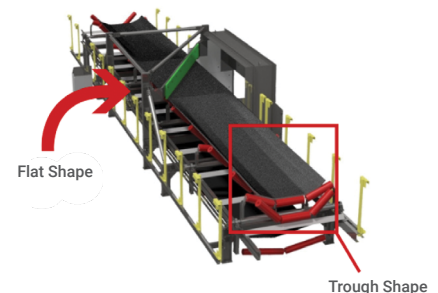
3. Where the material is being moved to.

Double-sided blades can handle a higher material flow rate compared to a single-sided blade. However, double-sided blades incur added costs for additional chutes and structures.

Belt Support System

The belt support mechanism is constructed in a series of transition and flat idler rollers that shape the belt from a trough profile to a flat profile when engaged.

A mechanical energy source is connected to the belt support mechanism in order to lift the belt.



Belt Support System Energy Sources

Hydraulic Cylinder

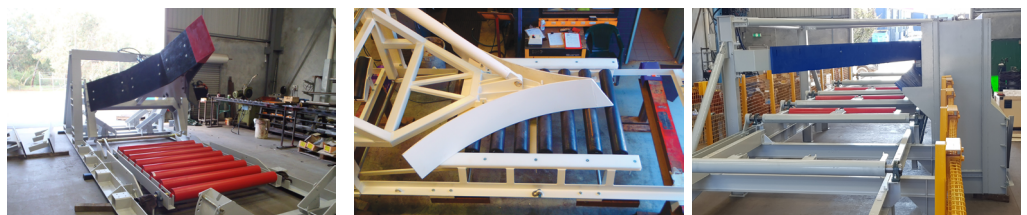
Pneumatic Cylinder

Electromechanical Actuator

Discharge Chutes

The discharge chutes catch the material diverted by the blade over the side of the flattened belt and guides the material down to a suitable discharge location below the conveyor structure. Typical discharge locations include loading points on another conveyor, storage bins, stock piles or a dump truck parked below the discharge chute.

Depending on the desired outcome, the discharged material may re-join the process, be segregated, or moved to another location or stock pile for later further handling.



Structural Frame

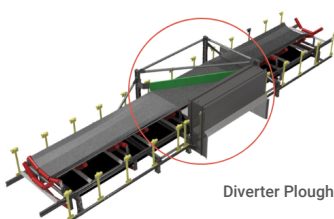
The Diverter Plough frame is built from structural steel and is designed to withstand the load of the material changing direction.

Examples of Diveter Plough Applications

Material Flow Alteration	Material Separation
Bin Maintenance & Emptying of Storage Bins	De-Watering

Benefits of a Diverter Plough Compared to a Tripper

Relatively Compact	Allows Material to Pass through to Original Discharge Location
Can be Designed to Fit onto any Conveyor with Little or No Modification to Existing Structure	Relatively Low-Cost in Design, Manufacture and Installation



Services

- Bespoke Engineering Solutions
- Conveyor Audits
- Conveyor Maintenance
- Pulley Refurbishments
- Fabricating and Manufacturing

Products

- Air Knives
- Belt Scrapers
- Brush Cleaners
- Chutes and Shedders
- Conveyor Belts – Chevron Rubber
- Conveyor Belts – Steel Cord
- Conveyor Belts – Textile / Rubber
- Conveyor Rollers
- Conveyor Skirting
- Diverter Ploughs
- HDPE Conveyor Guards
- Idler Sets and Rollers
- Impact Bars
- Impact Beds
- Inspection Doors
- Inverted V-Trackers
- Pulley Design & Manufacture
- Pulley Lagging
- Pulley Refurbishment
- Spray Bars
- Tracking Rollers
- V-Ploughs

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