Ergonomic Assist Devices

Ergonomic solutions for loading & unloading containers & trailers

Increased Throughput
Improved Productivity
Lifting Movements Minimized
Profit Increased
Enhanced Workplace

www.destuffit.com
1-800-263-9823

Destuff IT™ Restuff IT™
Ergonomic Design
Destuff-IT™ Unloaders & Restuff-IT™ Loaders are ergonomic intervention devices designed to assist workers manually loading and unloading containers and trailers. The incidences of worker injury and fatigue are reduced by minimizing lifting and carrying movements, contributing to greater workplace efficiency.

Worker Position Optimized
The adjustable platform gives workers the freedom to change their lifting height in relation to product being handled, eliminating overhead lifting and bent over postures.

Conveyor Belt Position Optimized
Workers easily move the pivoting belt conveyor towards the product being handled, allowing for a more ergonomic and productive handling process.

Improving work places through innovative design
Loading and unloading time is reduced.

Integrated with the host conveyor system allows for continuous transfer of product.

Engineered and manufactured for continuous use in multi-shift operations.

www.destuffit.com
MODEL TYPES

Non-Driven Models
Host extendable belt conveyors move Non-Driven Models in and out of the container or trailer. Non-Driven models supported on swivel casters directly connect to the dock end of extendable belt conveyors providing compliance to negotiate dock leveler slopes and transitions. Operators utilize easy-to-reach controls on the platform twin masts for indexing forward & reverse, as well as conveyor start/stop/jog.

Self-Propelled Models
The integrated travel drive and steering system of Self-Propelled Models power host flexible conveyors in and out of the container or trailer negotiating dock leveler slopes and transitions. Operators utilize easy-to-reach controls on the platform twin masts for indexing forward & reverse, steering left & right as well as conveyor start/stop/jog.

Integration - ELS provides the mechanical and controls interface to integrate efficiently with the dock end of the host conveyor system.
## Standard Features

- **Personnel Platform** with vertical height adjustment, ergo mat
- **Drive System**: the host extendable conveyor is used to push/pull the Destuff-IT™
- **Conveyor**: compliant powered belt sections with guides and transitions to transfer product out of the container/trailer.
- **Pivoting Conveyor**: 18” belt width, ergonomic handles with automatic brake release for easy positioning (up, down, left, right), E-stop pull cords
- **Operator Controls**: Easy to reach joy-stick controls mounted on twin masts, (directional forward/reverse, platform up/down, belt on/off/jog)
- **Lighting**: LED lighting illuminates the interior of the container/trailer
- **Base Frame**: Supported on 4 swivel casters, fork truck pockets, detachable rear conveyor section
- **Maintenance Friendly**: modular design, inspection windows, accessible components and controls, quick connect motors and devices.
- **Control System**: On-board PLC control of all drive, pneumatic and hydraulic systems. VFD motor control on all belts providing adjustable speed, smooth and controlled product stopping on a slope. E-stop devices interface with the host conveyor controls.
- **Safe Control**: Operator present sensing interlocks twin mast mounted joy-sticks and buttons, sensing strip on the leading edge of the operator platform interlocks forward motion.

## Optional Features

- **Wider Belts**: 24” and 30” are available
- **Air Compressor**: on-board compressor
- **Hose & Cable Management**: for integration with the host conveyor
- **Optional Voltage**: 5FLA @ 230/1/60V
- **Special Paint** to customer specification
- **Special Conveyor Guides**
- **Skate Wheel End Plate** for the pivoting conveyor

## Specs

- **Voltage Supply Required**: 15AMP @ 115/1/60V
- **Air Supply Required**: 50 scfm @ 100 psi
- **Duty Cycle**: multi-shift operation with continuous duty conveyors
- **V-Belt tracking and pneumatic tensioning**
- **Belt Material**: high grip rubber
- **Belt Capacity**: 150 lb distributed load
- **Belt (Nominal) Speed**: 60 fpm
- **Belt Width**: 18 inches
- **Pivoting Belt Length**: 60 inches
- **Operator Platform Capacity**: 500 lb
- **Environment**: Indoor use, temperature range 41-122°F, humidity 30-90%
- **Steel Casters**
- **Unit Weight**: 2700 lb
- **Yellow powder coat finish**
- **Quick connect coupler for electrical & air power**
- **Hydraulic actuator lifts the operator platform**
- **Pneumatic actuators balance the pivoting conveyor**
Reference Information
Self-Propelled Unloading for use with Flexible Conveyors

**Standard Features**

- **Personnel Platform** with vertical height adjustment, ergo mat
- **Drive System**: On-board steerable drive system to push/pull the host flex conveyor
- **Conveyor**: Compliant powered belt sections with guides and transitions to transfer product out of the container/trailer.
- **Pivoting Conveyor**: 18” belt width, ergonomic handles with automatic brake release for easy positioning (up, down, left, right), E-stop pull cords
- **Operator Controls**: Easy to reach joy-stick controls mounted on twin masts, (directional forward/reverse, platform up/down, belt on/off/jog)
- **Lighting**: LED lighting illuminates the interior of the container/trailer
- **Base Frame**: Steerable dual drive system with urethane wheels, fork truck pockets, detachable rear conveyor section.
- **Travel Speeds**: Faster travel speed for use outside the container/trailer.
- **Maintenance Friendly**: Modular design, inspection windows, accessible components and controls, quick connect motors and devices.
- **Control System**: On-board PLC control of all drive, pneumatic and hydraulic systems. VFD motor control on all belts providing adjustable speed, smooth and controlled product stopping on a slope. E-stop devices interface with the host conveyor controls.
- **Collision Avoidance**: Laser sensors in the 4 corners of the base prevent collision with container/trailer walls.
- **Safe Control**: Operator present sensing interlocks twin mast mounted joy-sticks and buttons, sensing strip on the leading edge of the operator platform interlocks forward motion.

**Optional Features**

- **Wider Belts**: 24” and 30” are available
- **Air Compressor**: On-board compressor
- **Hose & Cable Management**: for integration with the host conveyor
- **Optional Voltage**: 10FLA @ 575/3/60V
- **Special Paint** to customer specification
- **Special Conveyor Guides**
- **Skate Wheel End Plate** for the pivoting conveyor

**Specs**

- **Voltage Supply Required**: 12AMP @ 460/3/60V
- **Air Supply Required**: 50 scfm @ 100 psi
- **Duty Cycle**: multi-shift operation with continuous duty conveyors
- **V-Belt tracking and pneumatic tensioning**
- **Belt Material**: high grip rubber
- **Belt Capacity**: 150 lb distributed load
- **Belt (Nominal) Speed**: 60 fpm
- **Belt Width**: 18 inches
- **Pivoting Belt Length**: 60 inches
- **Operator Platform Capacity**: 500 lb
- **Environment**: Indoor use, temperature range 41-122°F, humidity 30-90%
- **Steel casters and urethane drive wheels**
- **Unit Weight**: 2960 lb
- **Yellow powder coat finish**
- **Quick connect coupler for electrical & air power**
- **Hydraulic actuator lifts the operator platform**
- **Pneumatic actuators balance the pivoting conveyor**
Reference Information
Non-Driven For Loading for use with Telescopic Conveyors

Standard Features

- **Personnel Platform** with vertical height adjustment, ergo mat
- **Drive System**: the host extendable conveyor is used to push/pull the Restuff-IT™
- **Conveyor**: compliant powered belt sections with guides and transitions to transfer product into the container/trailer.
- **Pivoting Conveyor**: 18” belt width, ergonomic handles with automatic brake release for easy positioning (up, down, left, right), E-stop pull cords
- **Operator Controls**: Easy to reach joy-stick controls mounted on twin masts, (directional forward/reverse, platform up/down, belt on/off/jog)
- **Lighting**: LED lighting illuminates the interior of the container/trailer
- **Base Frame**: Supported on 4 swivel casters, fork truck pockets, detachable rear conveyor section
- **Maintenance Friendly**: modular design, inspection windows, accessible components and controls, quick connect motors and devices.
- **Belt Control**: Variable belt speeds, photo sensors for product indexing, gap pulled between product with integrated pop-up stop, belt stopped if the operator is not ready to transfer the product.
- **Control System**: On-board PLC control of all drive, pneumatic and hydraulic systems. VFD motor control on all belts providing adjustable speed, smooth and controlled product stopping on a slope. E-stop devices interface with the host conveyor controls.
- **Safe Control**: Operator present sensing interlocks twin mast mounted joy-sticks and buttons, sensing strip on the leading edge of the operator platform interlocks forward motion.

Optional Features

- **Wider Belts**: 24” and 30” are available
- **Air Compressor**: on-board compressor
- **Hose & Cable Management**: for integration with the host conveyor
- **Optional Voltage**: 5FLA @ 230/1/60V
- **Special Paint** to customer specification
- **Special Conveyor Guides**

Specs

- **Voltage Supply Required**: 15AMP @ 115/1/60V
- **Air Supply Required**: 50 scfm @ 100 psi
- **Duty Cycle**: multi-shift operation with continuous duty conveyors
- **V-Belt tracking and pneumatic tensioning**
- **Belt Material**: high grip rubber
- **Belt Capacity**: 150 lb distributed load
- **Belt (Nominal) Speed**: 60 fpm
- **Belt Width**: 18 inches
- **Pivoting Belt Length**: 60 inches
- **Operator Platform Capacity**: 500 lb
- **Environment**: Indoor use, temperature range 41-122°F, humidity 30-90%
- **Steel Casters**
- **Unit Weight**: 2700 lb
- **Yellow powder coat finish**
- **Quick connect coupler for electrical & air power**
- **Hydraulic actuator lifts the operator platform**
- **Pneumatic actuators balance the pivoting conveyor**

Optional Features

- **Wider Belts**: 24” and 30” are available
- **Air Compressor**: on-board compressor
- **Hose & Cable Management**: for integration with the host conveyor
- **Optional Voltage**: 5FLA @ 230/1/60V
- **Special Paint** to customer specification
- **Special Conveyor Guides**
**Standard Features**

- **Personnel Platform** with vertical height adjustment, ergo mat
- **Drive System**: On-board steerable drive system to push/pull the host flex conveyor
- **Conveyor**: Compliant powered belt sections with guides and transitions to transfer product into the container/trailer.
- **Pivoting Conveyor**: 18” belt width, ergonomic handles with automatic brake release for easy positioning (up, down, left, right), E-stop pull cords
- **Operator Controls**: Easy to reach joy-stick controls mounted on twin masts, (directional forward/reverse, platform up/down, belt on/off/jog)
- **Lighting**: LED lighting illuminates the interior of the container/trailer
- **Base Frame**: Steerable dual drive system with urethane wheels, fork truck pockets, detachable rear conveyor section.
- **Travel Speeds**: Faster travel speed for use outside the container/trailer.
- **Maintenance Friendly**: Modular design, inspection windows, accessible components and controls, quick connect motors and devices.
- **Belt Control**: Variable belt speeds, photo sensors for product indexing, gap pulled between product with integrated pop-up stop, belt stopped if the operator is not ready to transfer the product.
- **Control System**: On-board PLC control of all drive, pneumatic and hydraulic systems. VFD motor control on all belts providing adjustable speed, smooth and controlled product stopping on a slope. E-stop devices interface with the host conveyor controls.
- **Collision Avoidance**: Laser sensors in the 4 corners of the base prevent collision with container/trailer walls.
- **Safe Control**: Operator present sensing interlocks twin mast mounted joy-sticks and buttons, sensing strip on the leading edge of the operator platform interlocks forward motion.

**Optional Features**

- **Wider Belts**: 24” and 30” are available
- **Air Compressor**: On-board compressor
- **Hose & Cable Management**: for integration with the host conveyor
- **Optional Voltage**: 10FLA @ 575/3/60V
- **Special Paint** to customer specification
- **Special Conveyor Guides**
- **Skate Wheel End Plate** for the pivoting conveyor

**Specs**

- **Voltage Supply Required**: 12AMP @ 460/3/60V
- **Air Supply Required**: 50 scfm @ 100 psi
- **Duty Cycle**: multi-shift operation with continuous duty conveyors
- **V-Belt tracking and pneumatic tensioning**
- **Belt Material**: high grip rubber
- **Belt Capacity**: 150 lb distributed load
- **Belt (Nominal) Speed**: 60 fpm
- **Belt Width**: 18 inches
- **Pivoting Belt Length**: 60 inches
- **Environment**: Indoor use, temperature range 41-122°F, humidity 30-90%
- **Steel casters and urethane drive wheels**
- **Unit Weight**: 2960 lb
- **Yellow powder coat finish**
- **Quick connect coupler for electrical & air power**
- **Hydraulic actuator lifts the operator platform**
- **Pneumatic actuators balance the pivoting conveyor**
**Optimized Worker Positioning**
Workers stand on an adjustable height platform allowing them to optimize their lifting position, eliminating overhead reaching.

**Easy Reach Controls**
Operator controls are mounted on the twin masts on either side of the operator platform allowing them to drive in and out of the container as unloading progresses.

**Conveyor Load Point Adjustable**
Workers adjust the conveyor position near to the items being unloaded, eliminating the need to carry them. This saves time and reduces strain and exertion on workers. The conveyor supports a distributed load of 150 lbs.

**Lifting Movements Minimized**
The conveyor is easily moved up or down and side to side, minimizing the lifting motions required to place the product onto the conveyor.

**Host Conveyor Integration**
Designed for both telescopic and flexible systems. The Destuff-IT™ & Restuff-IT™ belt starts and stops according to requests from the main host conveyor so that the product flow is integrated.

**Continuous Conveyor Transfer**
The conveyor’s flexible path allows for positive continuous transfer of the product to the main host conveyor system. Guarding and guides channel the product preventing catching and damage.

**Moveable to Multiple Docks**
Independent drive mechanism allows for highly maneuverable steering in tight spaces. Designed to drive up typical dock leveller plates. Location sensors on four corners prevent impact to trailer walls.

**Robust Design**
Ruggedly built for continuous multi shift operation.

**Enhancing workplaces through innovation**

1-800-263-9823 | sales@destuffit.com
SAFETY FEATURES

• **Safety interlock** for adjustable conveyor section to prevent sudden movement in the event of air supply loss.

• **Redundant safety brake** for the operator platform mechanism.

• **Hydraulic lift cylinder** check valves and relief pressure.

• **E-Stop** controls stop all motions.

• **Integrated controls** with the host conveyor system.

• **Location sensors** on four corners of self-propelled model to prevents impact to container walls.

• **Operator Present Sensor** for Resuff-IT™ Loaders functions to sense if there is an operator to complete the transfer process. This prevents the product from falling off the end of conveyor.

• **All motions braked** in the event of power loss.
RETURN ON INVESTMENT

To assist in determining the positive financial impact a Destuff-IT™ and Restuff-IT™ installation offers, ELS can provide an estimated Return on Investment (ROI) report based on data for your operation.

This estimate considers expected improvements in productivity, safety and storage/handling costs, for both continuous and intermittent unloading operations. Contact ELS or its company representative to obtain an input form to capture your application information.