



Portable ergonomic conveyor
Ideal for loading/unloading of
Boxes from trucks/containers

Shorter loading/
unloading time

Higher
through-put

Near zero
wastage

Reduced
manpower

Improved
ergonomics

Enables full
space utilisation



Faster throughput and better dock utilisation with reduced man hours

AccelLoader is a unique solution to assist the workers in loading/unloading tasks from trucks or containers. With AccelLoader, workers can easily improve their handling capacity by multiple times, depending on the size and weight of the boxes.



Specialised durable conveyor belt (5.5 mm thick), PVC, 45 shore hardness and high coefficient of friction suitable for inclined loading and unloading

Belt Conveyor for loading and unloading

The loading unloading conveyor can be adjusted by the Operator in both vertical and horizontal positions, with respect to the positioning for box placement.

- Belt width 600 mm
- Weight carrying capacity - 70 Kg max per box
- Three independent Conveyor belts
- Operator side conveyor belt is able to move UP and Down using an accelerator type grip. Convenient side handle with brakes for side to side manual movement. This Belt covers the width and height of the container for loading and unloading
- Convenient Operator Controls mounted on pivoting conveyor
- 4 way, easy to use Joystick to steer the AccelLoader and select mode of steering
- LED light for illumination in dark areas
- Fan for operator comfort



Sturdy Operator Platform

Operator stands on the platform to perform the loading and unloading of boxes

- Weight carrying capacity of 200 Kg
- Comfortable space - 400 x 400 mm
- Reach a maximum vertical height of 550 mm to easily reach top layer
- Anti-skid rubber mat with special tread surface
- Safety sensor - Platform adjustment and other controls activated only after the sensing Operator's weight
- Safety edge on the front side of the operator platform to automatically disengage the drive in case the platform hits an object or a person while moving forward

Dependable, flexible, safe and uninterrupted loading/unloading for years together



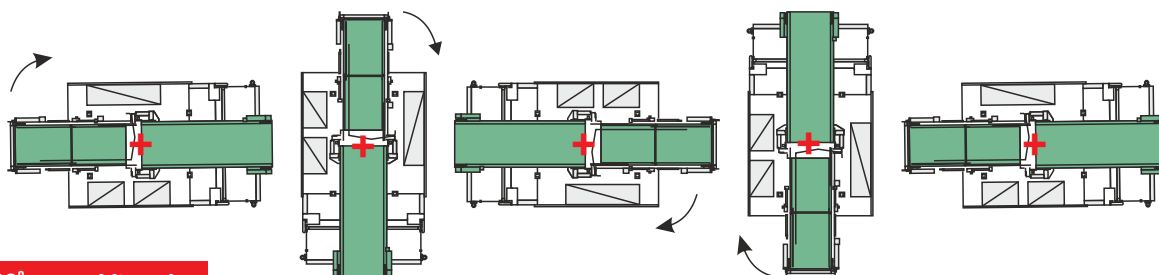
Drive System and safety

Accelloader can be driven from dock to dock with its own power. The equipment has integrated DC driven and steering system.

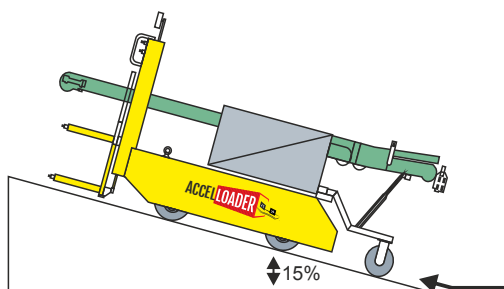
- Travels through dock levellers and plates
- Climb slopes of up to 15°
- Easy controls to steer Accelloader forward, reverse, left or right
- Safety sensors for leading edge/obstacles when moving forward or reverse
- Easy integration with variety of conveyors
- Alarm & indication buzzer during movement of AccelLoader

Easily reaches any position: 360° Rotation about center with turning radius 1830 mm

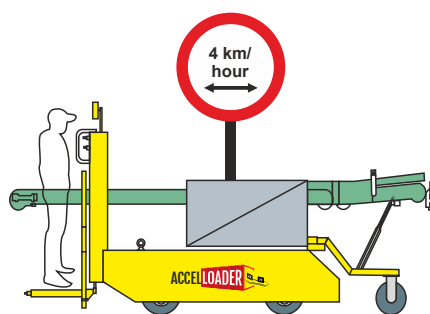
AccelLoader is able to rotate around its own centre enabling easy movements on narrow docs and narrow spaces inside of the warehouse.



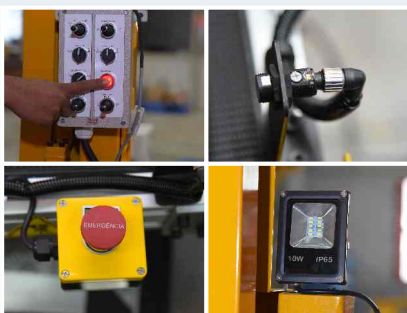
Steers 360° around its axis



Climbs slopes up to 15%



Easy controls for forward/reverse movement at safe speed

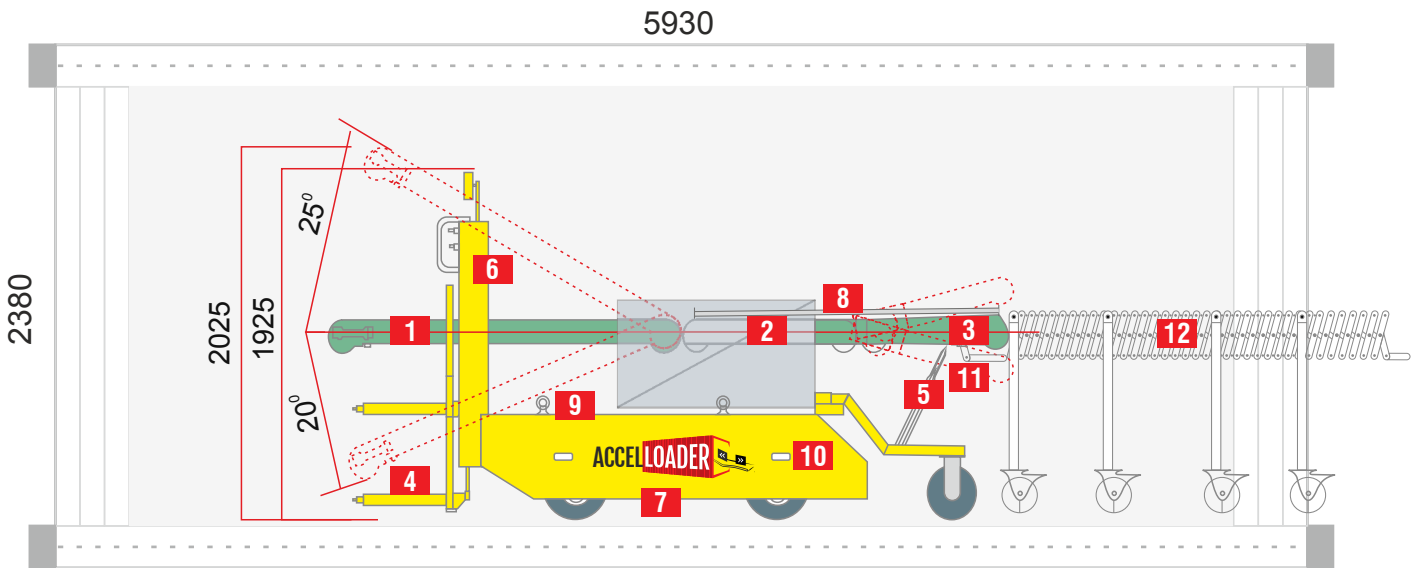


Additional Safety for Emergency

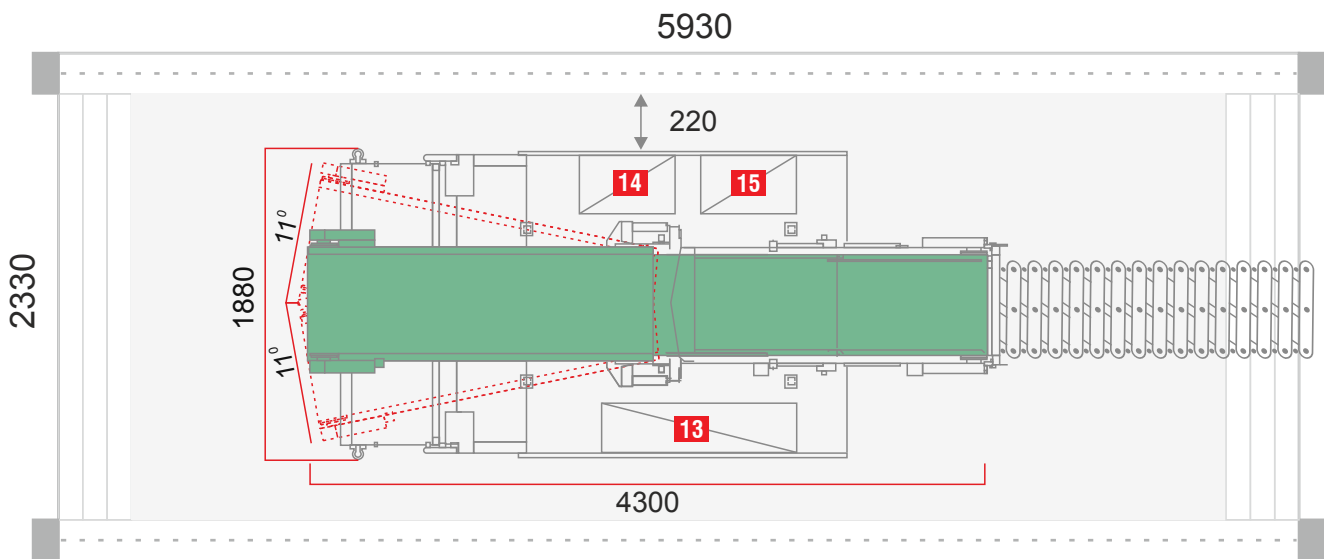
- Safety interlock to prevent sudden movement in the event of power loss
- Electrical lifting actuators precisely controlled with PLC
- Emergency Stops Control to stops all motions at once
- All motions braked in the event of power loss
- Pressure sensed ergo Mats on operator platform senses if Operator is present
- Safety Bumper on the leading edge of operator platform to sense an obstruction and stop forward motion
- End-of Conveyor sensors to prevent products from falling

Control panel protected against dust ingress and vertically falling drops of water or condensation

Accelloader positions shown inside a typical 20 ft Container (All dimensions in mm)



Side View: Conveyor belt inside the Container reaches maximum vertical height of 2025 mm



Top View: Side-to-side movement of Conveyor Belt inside the Container

- | | |
|--|--|
| 1 Powered Lift and Swing belt Conveyor | 10 Pockets for lifting using Forklift |
| 2 Central horizontal belt conveyor | 11 Latching arrangement for collapsible conveyor |
| 3 Fixed inclined belt conveyor adjustable of Gas springs | 12 Collapsible conveyor of desired length to be attached to Accelloader |
| 4 Operator platform | 13 UPS mounted on Accelloader |
| 5 Gas Springs and locking arrangement for conveyor segment 3 | 14 PLC Panel |
| 6 Columns with electric actuators to lift the operator platform | 15 VFD panel |
| 7 Battery pack tray | |
| 8 Side guides to prevent conveyed object from falling off | |
| 9 Lifting hooks for lifting using belts or slings and crane | |

Suitable for Distribution Centers, 3PL and general logistics in multiple industries

Productivity and Economic Advantages

Significantly higher case rate/worker

Easy sorting/palletising within the dock area

Reduce loading/unloading time

Get rid of demurrage, idle charges incurred for trailers/containers

Easily gets inside and reaches right up to the end of truck/container

Reductions in overtime charges, especially in peak season

Eliminates risks of injury and accidents while handling

Full Container space utilisation

Optimise/lower the number of doors in warehouse

Accelloader is ideal for intra-logistics operations in multiple industries



Automobile



White Goods



Logistics



Food



Paper Industry



Pharma

Add-on automation for AccelLoader



Collapsible conveyor

A motorised collapsible conveyor that seamlessly connects to AccelLoader. It can turn and move in any direction as per the requirement. Standard option in this comes of 6 mtrs in length which can be expanded up to 14 mtrs as per the need.



Vacuum tube lifter

Vacuum tube lifter is an easy and reliable equipment for all your pick and place needs. Vacuum Tube Lifter facilitates instant lifting or loading of material from the collapsible conveyor.

Dimensional and Technical Specifications

Dimensions

Length	4300 mm
Width	1880 mm
Height at max up front flexible conveyor	2055 mm
Loading platform height	Adjustable platform
Wheelbase	1250 mm
Max clearance from ground	100 mm
Max clearance from ground when platform is at bottom position	50 mm
Turning radius driving Mode 1	1766 mm @ 45° rotation
Turning radius in driving Mode 2	1766 mm @ 360° rotation
Operator Platform up/down	500 mm
Conveyor belt width	600 mm
Flexible Conveyor reach	11° horizontal each side about center plane & 20° vertically downside & 25° vertically upword about center plane
Flexible conveyor size	L x W = 2000 mm x 600 mm
Max box size that can be handled on Conveyor	Width 500 mm & weight 70 kg.

Weight

Weight of AccelLoader including Batteries & UPS	1860 Kg
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Speed and Movement

Accelloader Moving speed	Fixed speed up to 4 km/h	
Conveyor belt speed	Min. 24 m/min	Max. 40 m/min
Max. load capacity on flat ground	75 kg/meter of conveyor length	
Max. slope with load*	15%	
Duty cycle	Multi-shift operation with continuous duty conveyors	
Steering and Drive system		
Type of control	Joystick & selector Switch	
Drive mechanism	Electric actuator	
Drive type	All wheel drive	
Steering system	Mode 1 - Functions with front wheel steerable OR Mode 2 - Capable of rotation around centre of the equipment	

Battery and Charger

Full battery charging time	8 hrs.
Battery charger	Inbuilt in the UPS or External as per need
Input voltage	3 ph, 415 vac
Input Frequency	50-60 Hz
Battery charger capacity	42Ah
Power consumption during complete charge cycle	7.5 kw– full load & all operations
Operating temperature	10 to 50°C
Operation display	LED
Input fuse	10-A
IP protection	As per Ip51
No. of Batteries	20
Batteries type	Lead Acid (Loaded on a replacable tray)
Battery voltage	12 v
Standard Charger voltage	415 VAC
Charger Plug	Can be supplied as per country of usage

Drive Motor and Transmission

Motor type	Induction with Hyponic compact drive system
Electricity	Alternating current
Rating (S2 - 5')	0.4 kW each (x 4)
Drive Torque	500 N-m
Transmission system	Geared Electric motor
Drive	4 x 4 (electric motor)
Max torque	500 N-m
Service brake	Electric
Parking brake	Electro-Mechanical
Wheels	
Drive wheels	4 nos
Steering wheels	4 nos
Tyres	Non marking on the floor
Drive tyres size	405/119 mm (Dia. / Width)

Steering and Drive system

Type of control	Joystick & selector Switch
Drive mechanisam	Electric actuator
Drive type	All wheel drive
Steering system	Mode 1 - Functions with front wheel steerable OR Mode 2 - Capable of rotation around centre of the equipment

Get in touch for a Live Demonstration



Live Demonstration of the AccelLoader is available on request with an advance intimation of 2-3 days. During the demonstration, the complete functioning of AccelLoader can be closely observed in near real-life conditions for loading/unloading operations using Boxes in a 20 feet Container. Trials on your materials can also be conducted considering the feasibility and on prior intimation.

The Live Demonstration will help to:

- Experience product first hand
- Prove productivity, safety and ergonomic benchmarks
- Make an accurate estimate of RoI and savings
- Understand training needs and any other aspects beforehand

Fine Handling
& Automation

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