

FASTPAL

ROBOTIC PALLET SELECTION & TRANSFER



OPERATIONAL OVERVIEW

The system utilizes an overhead power transfer device traveling on a floor supported track. The device is equipped with a pneumatically actuated pallet clamp which senses pallet height. The device will pick-up the top pallet from a stack for delivery to the Load Palletizing device (LPD). Pallets will be stacked two strand chain conveyor. Clamping is by four independent air cylinders which clamp first from the front and the device will collect two pallets from a stack when Double or Quad pallet mode is required.

The device has the following features:

- Automatic controls - When signaled, the device will pick-up a pallet from the selected location and deliver it to the load palletizing device. Touch screen controls are included for manual operation.
- Controlled acceleration and deceleration for precise positioning via servo controls
- Automatic slowdown and over travel stops at each end of system to inhibit device from exceeding travel limits.
- Precision rack and pinion drive system
- Pallet range: - TBC.
- Double Pallet pick-up. *Is/Is not included*
- Double Pallet placing in the pallet centralizer. *Is/Is not included*
- Quad Pallet placing mode available both with single and double pallet cycles. *Is/Is not included*

SPECIFICATIONS

Products	Pallets (wooden or plastic)
Size	Requirement of Customer
Load Weight	Conveyor Maximum Load Weight 87lbs/sq ft Pallet Lift Maximum Load Weight 88lbs
Pallet Sizes	Maximum Pallet Size: 61in Wide x Max LPD Throat (standard 78.74in) Minimum Pallet Height: 4.33in Maximum Pallet Height: 7in
Conveyor Speed	Nominal Conveyor Speed 59ft/min
Rate	No rating for product flow rate
Pallet Lift	Double pallet lift capability available dependent on total load. Pallet rotation available.
Performance	150 Loads/Hour for single pallet operation. Lower cycle on multiple pallets
Double Pallet Detector	For standard units with single pallet pickup, the Fastpal head is fitted with a double pallet pickup detector in case of pallets stuck together.

PALLET LINES FOR FASTPAL (PAM)

CHAIN CONVEYOR FOR PALLET DELIVERY TO FASTPAL DEVICE



OPERATIONAL OVERVIEW

The two chain conveyor is uni-directional. The unit can carry multiple stacks with gaps between stacks. To achieve this, photoelectric sensors will be installed for load measuring and load sensing and a PLC program to control the movements.

A stack will be entered on to the line at the non-motor end. If the next downstream conveyor is clear the load will move to this conveyor. If the downstream conveyor is blocked, then loads will begin to accumulate in a forward accumulation mode. Inspire maintain a definable gap between each unit load, typically 7.88in. This gap enables correct measurement of stacks to another conveyor or shuttle/transfer car.

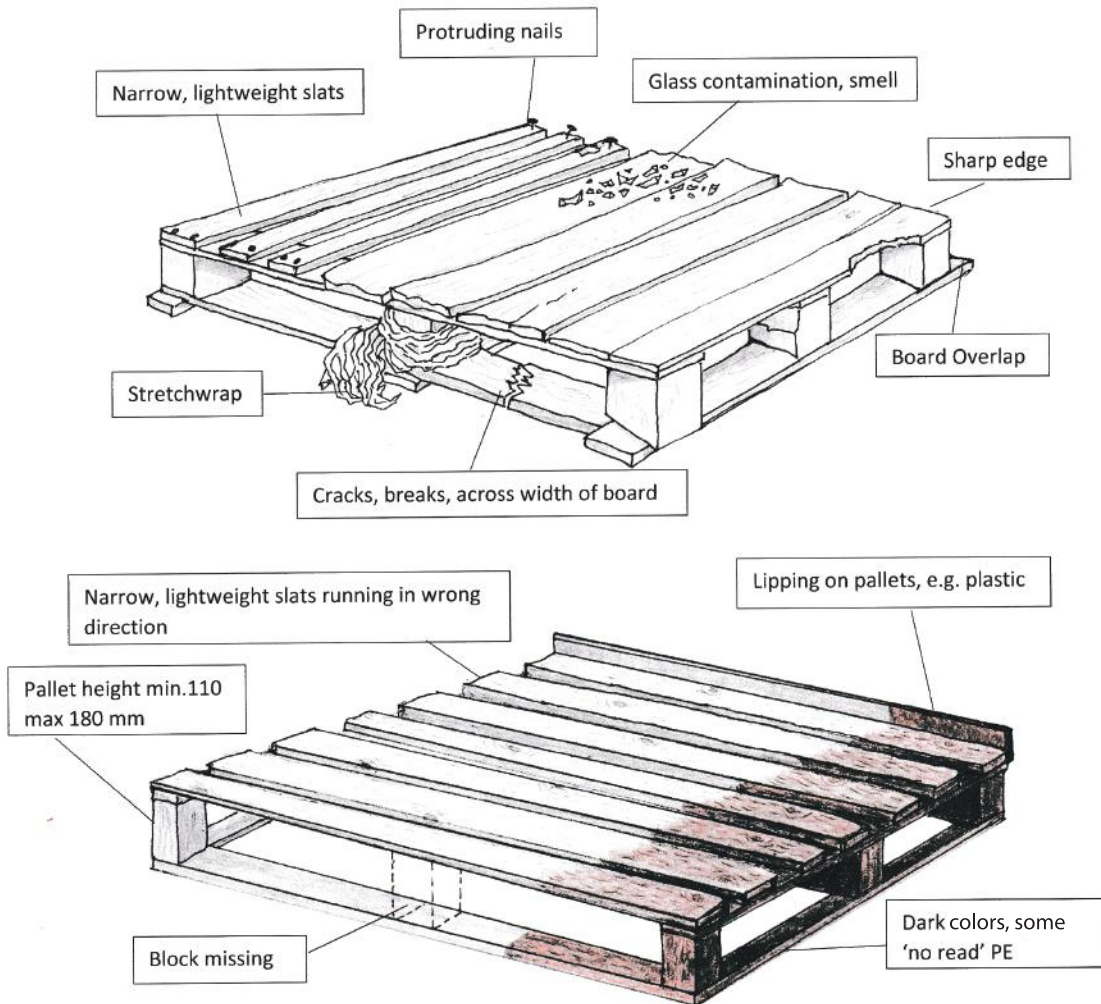
If removal of stacks is by forklift truck a roller conveyor is provided with cut outs between rollers at the fork truck fork pitch. A PE detects if the FLT is present and prevents the conveyor from moving while it is in place.

If the two chain conveyor is used with a Fastpal, stacks of pallets will be placed on the entry end of the line by a forklift truck and move down on the chains to the end of the line and will be picked off by the Fastpal pallet gripper. When one stack is used up another will move down to the pallet pick up end. Three photoelectric cells are necessary in addition to the Fastpal PLC program and iMPRESS computer programs.

SPECIFICATIONS

Product	Rigid loads at least 7.88in wider than the conveyor chains. This can be pallets, boards or other stacks
Conveyor Height	13.39in top of chains unless otherwise stated
Conveyor Speed	Nominal Conveyor Speed 45.28 ft/min
Conveyor Width	35.43in standard
Rate	Depends on conveyor dimensions. For a 157.48 in length about 200 stacks/hr
Drives	Option for VFD or DOL
Load Building	Forward only with gaps
Electrical	400v 3Phase 50Hz
Chain	3/4in Simplex Chains
Capacity Weight	1653lbs for a 137.8in length of 39.37in wide. Others depend on conveyor length, width and motor size.

Pallet Issues



All pallets must have full perimeter base board. Standard 3 leg Euros can be handled but in one direction only.