SEN-PACK
SUBSIDIARY OF SENTRY EQUIPMENT & ERECTORS, INC.

Robotic Palletizer Cell With Pack Router

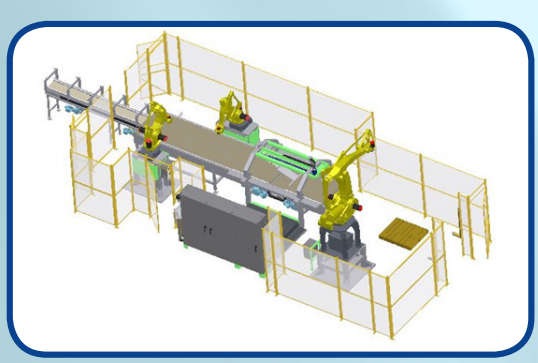
The system is comprised of two main sections:

1. Robotic layer pattern forming module and a staged layer module
2. Robotic palletizer

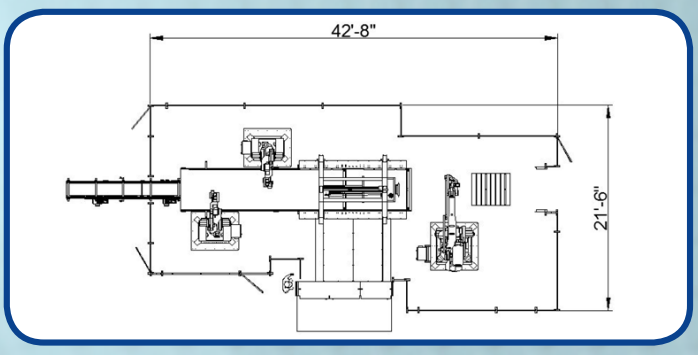
Benefits

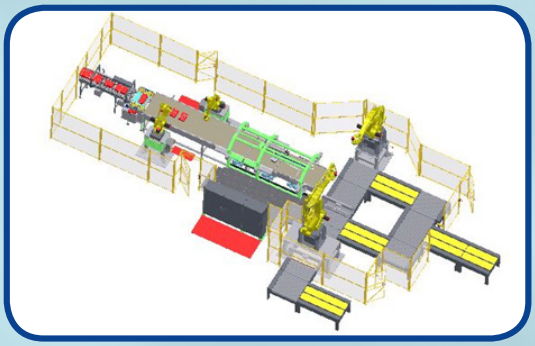
- Completely Integrated System
- Gentle Product Handling
- Highly Flexible
- Small Footprint
- Cost Effective Solution
- Labor Saving Design
- Push Button Change Over

Floor Plans



PRP-60





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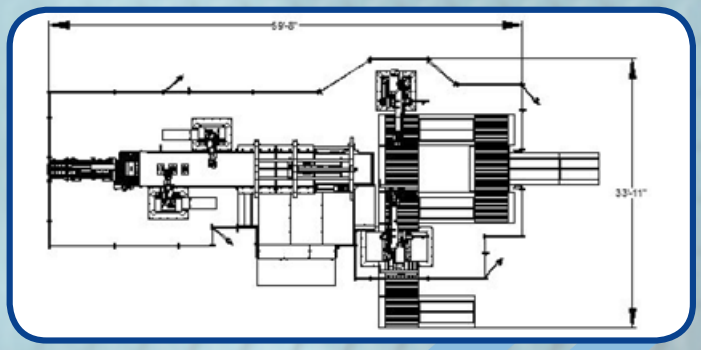

Features

- **Integrated Robotic Layer Pattern Forming Module** The cases/trays enter the pattern former in single file via a metering belt module ensuring the cases remain on a consistent pitch. The metering belt discharges the cases onto a wide mat-top conveyor where the layer forming will occur. As cases enter the layer forming module they are located and tracked by two high-speed robots. The robot(s) capture the case as it is moving forward (only a single robot is working on lower speed products), rotates it and/or moves it left or right as required to form the layer pattern and releases the case. The case continues to advance forward through the layer forming section to the layer staging section.

- **Integrated Staged Layer Module** As the cases enter the staged layer section they will be compressed and squared to ensure a uniform layer. After a complete layer has accumulated in the staging section, an intermediate case stop between the forming section and the staging section will deploy to prevent the first few cases of the next layer from entering the staging area. The case stop at the discharge of the staged layer section will retract allowing the Pusher to push the layer into the head of the palletizing robot. After the layer has entered the palletizing head the pop up stop extends and the intermediate case stop retracts and the new layer of cases begins to accumulate.

- **Integrated Robotic Palletizer** A third or fourth robot is used to palletize the layers (only a single robot is working on lower speed products) after they have been delivered to the staged layer section. This robot uses a full layer end-of-arm-tool (EOAT). The robot places the EOAT at the end of the staged layer section, the pop up stop retracts and the layer is pushed into the tool. Once the layer is in-side the EOAT, squaring plates are engaged to ensure the location of the pattern and to keep it stable as it is moved to the pallet. The robot then moves the tool head over to the pallet at the correct height to release the layer. The roller bed is mounted so that it can be pulled out from under the layer allowing the layer to be placed gently on the pallet.

Technical Details

Main Voltage:	460V, 50/60 Hz, 3 Ph
Control Voltage:	24 VDC
Air Pressure:	80 psi, Air should be dry and clean
Air Consumption:	Approximately 20 SCFM at 80 psi
Control Platform:	Allen Bradley (standard) (Others available)
Temperature:	+5°C to +48°C

SEN-PACK
3055 Tech Park Way
DeLand, FL 32724-6401

For more information:
Phone: 386.763.3312
Fax: 386.763.3321
E-Mail: info@sen-pack.com
www.sen-pack.com