

## With Robotic Pick and Place Case Packing

Increased global competition is driving the need for greater operational efficiency and lower operating costs in today's manufacturing lines. Today robots are being used more frequently for case packing and palletizing because of the increased throughput, vision and cost savings today's robotic technology offers. Robots have evolved from being used primarily for palletizing because of their brute strength, to nimbler, gentler handling machines capable of primary and secondary packaging tasks.

The improved safety of robots is prompting manufacturers to operate them alongside human workers, with proper guarding, to increase productivity, as the robot and the worker each perform a task for which they are best suited. Robots can quickly lift large, heavy items and perform high speed repetitive tasks without risk of physical injury. Irregular shaped and smaller items at slower production speeds are still better suited for manual case packing.

Now Combi Packaging Systems in partnership with Motion Controls Robotics offers the flexibility of ergonomic hand packing and automatic robotic pick and place case packing with the integration of a Fanuc robot to a new or existing Ergopack® hand packing station.

Reasons for implementing robots can include:

- Efficiency - performing tasks that are difficult for humans
- Safety - completing tasks that are unsafe for humans
- Complying with emerging regulations - verifying lot and expiration dates; serialization numbers
- Meeting retail packaging variations - varying pack counts, variety packs, retail ready packages
- Cost savings - placed in a high wage environment



**Combi Ergopack with Robotic  
Pick and Place**

# Ergopack® with Robot

## FANUC LR Mate Robot:

### Sequence of Operation

Product will enter the Ergopack via a variable speed product conveyor. The robot will use vision to locate the moving product to be picked and placed into an erected case. The product will be picked, oriented, and placed into an awaiting case that is stationary on the case conveyor. Once the pack is complete, the filled case enters an automatic top and bottom case sealer.

The robot will be mounted behind the product conveyor, which will allow the Ergopack system to be manually operated at the customer's discretion. The front of the packing system will be guarded by doors that are interlocked to the robot.

### Robotic Packing System Includes:

- Combi Ergopack® hand packing system including case erector, hand packing station, product infeed conveyor and case sealer
- 6 axis LR Mate Robot spec'd to the application including design/detail, fabrication, assembly and electrical software
- Fixed robot base that will be anchored to the floor
- Adjustable End of Arm Tooling for a wide range of product sizes and pick positions
- Integrated iRVision system
- System wiring and controls
- Operator pendant for recipe management
- Interlocking perimeter guarding
- Mechanical engineering design, detailing and layout drawings
- Robot programming which may include PLC/PMC; HMI; and Vision Programming
- On-site Training and Support



*Advances in vision sensor technology has led to the development of a variety of end-of-arm tooling that has evolved into more nimble product handling for case packing.*



*Combi's robotic Ergopack® provides the flexibility of parking the robot while hand packing small runs of product*

**Combi**  
Packaging Systems LLC

**shorr** | packaging corp.  
shorr.com 888.885.0055