Automation Considerations for Meat & Poultry Packaging Operations

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AGENDA

✓ Why Automate?
✓ Technology Update/Trends
✓ Vendor/Partner Considerations
✓ Project Execution Suggestions
✓ Summary/Questions
WHAT WE ARE NOT DISCUSSING!

- Warehouse Automation
- Kiosks
- Mobile Robots
- Palletizing
- Food Service Robots
OVERVIEW OF JLS

✓ Founded in 1955
✓ York, PA – 100,000 Sq Ft facility
✓ Focused on High Speed Picking since 2002
✓ Focused on Food Handling since 2007
✓ Today – offer solutions for Primary & Secondary Packaging Automation
✓ Meat/Poultry/Cheese are key markets
WHY AUTOMATE?

✓ Shortage of labor/reliability
✓ Cost of labor is rising – WalMart - $11/hr
✓ Uncertainty of labor in the future
✓ Ergonomics/Worker Safety
✓ Food safety
✓ Repeatable results
✓ Higher throughput
TECHNOLOGY

✓ Robot Trends
✓ Controls
✓ Artificial Intelligence
✓ Grippers
✓ Support Technology
ROBOTIC TRENDS

✓ Traditional Robots
✓ High Speed Pickers
✓ Hygienic Construction
✓ Collaborative
✓ Future
CONTROL TRENDS

✓ Integrated Motion & Logic
  Eliminates Hardware & Connections
  Minimizes Software Interfaces

✓ Advanced HMI Technology
  XML Based Programming & Visualizations
  Embedded Videos

✓ IIoT - Industrial Internet of Things
  Huge opportunities for line optimization
  Leverage Big Data Technology
REDUCTION IN CABINETS
CONTROL TRENDS

Artificial Intelligence
Tactile Sensing
Learning Systems
Big Data in Real Time
Speech & Emotion Recognition
Grippers

Soft Robotics
Eggs
Fruit
Produce
Dough Balls
Marshmallows
Steak Cuts
Chicken Parts
EQUIPMENT ADVANCES

Inspection of Leaking Packages
Label Verification
Date Code Verification
RFID - Verify Tooling & Machine Access
SUPPORT TECHNOLOGY

• Remote Access – traditional & common
• Remote Monitoring – IIoT & Big Data
• Remote Support – Use of AR Technology
SELECTING A VENDOR/PARTNER

✓ Experience with specific requirement
✓ Experience with sanitary design
✓ Validation Process
✓ Field Trial
✓ Share the Risk
✓ Trained Service Personnel – Certified?
PROJECT EXECUTION SUGGESTIONS

✓ Define the Requirement
✓ Frequent Communication
✓ Design Reviews
✓ Pre-FAT Inspection
✓ FAT Checklist – consider IFT
✓ Establish Metrics for success
PROJECT EXECUTION

LESSONS LEARNED
SUPPORT CHALLENGES

✓ Technical Staff needs are increasing
✓ Technical Labor pool is not developing at a sustainable rate
✓ Relying on Vendor service is not the answer
✓ Need for machines to become easier to troubleshoot with remote diagnostics and support to become commonplace
SUMMARY

✓ Labor issues are forcing the hand of processors for automation
✓ Technology is evolving rapidly to create more powerful and simpler systems
✓ Caution is needed in evaluating vendors
✓ Remote support is a critical area for the long term support of equipment
✓ Reminder - new Tax Law Depreciation rules – increases the ROI dramatically