

ENHANCING SAFETY AND CONSISTENCY THROUGH AUTOMATED BAGGING

Automated bagging and palletization for a global chemical manufacturer — 472,000 bags per year automated with 99.9% pallet configuration compliance.



> COMPANY BACKGROUND

A global leader in diversified chemicals, producing a wide range of materials used across automotive, industrial, electronics, and consumer applications. The company's high-volume production and distribution operations must deliver efficiency, safety, and consistency to meet customer demand.

> BUSINESS PROBLEM

Manual bagging and stacking processes created ergonomic risks for employees and introduced variability in pallet configurations. Inconsistent stacking patterns led to inefficiencies in storage, handling, and transportation, while manual handling increased the potential for workplace injuries and fatigue.

OUR APPROACH

- ✓ Reduce ergonomic risk associated with manual bagging and stacking
- ✓ Improve consistency in pallet stacking patterns
- ✓ Maintain or improve operational throughput

RESULTS

- ✓ 472,000 bags per year automated instead of manually palletized, significantly reducing ergonomic risk exposure.
- ✓ 99.9% pallet configuration compliance, reducing palletization defects by over 98% to create highly repeatable, customer-ready pallets.
- ✓ 75% reduction in staffing — from eight operators to two — while improving safety, consistency, and throughput.

472,000

BAGS AUTOMATED / YEAR

99.9%

PALLET COMPLIANCE

98%

FEWER PALLET DEFECTS

75%

STAFFING REDUCTION

"TCG's automated solution improved both the safety of the workforce and the consistency of our operations."

— A CHEMICAL MANUFACTURING COMPANY