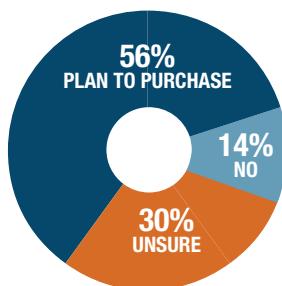


2025 PHARMA PACKAGING & PROCESSING

KEY TRENDS & INSIGHTS



PURCHASE PLANS IN THE NEXT YEAR

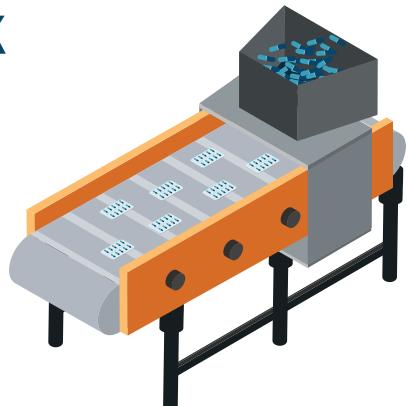


MACHINERY PURCHASE OUTLOOK

PHARMACEUTICAL MANUFACTURERS (INCLUDING CONTRACT MANUFACTURERS/PACKAGERS)

MOST IN-DEMAND MACHINES

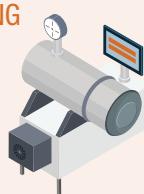
- 63% CARTONING, MULTIPACKING & CASE PACKING
- 63% FILLING, CAPPING & CLOSING
- 38% CODING, LABELING, PRINTING & READING
- 38% INSPECTION & TESTING
- 38% BAGGING, POUCHING & WRAPPING



TOP SIX MANUFACTURING AND PACKAGING CHALLENGES

PHARMACEUTICAL MANUFACTURERS

- 44% KEEPING UP WITH REGULATORY CHANGES
- 42% SPACE/FOOTPRINT CONSTRAINTS
- 42% EXPANDING AUTOMATION/REDUCING MANUAL PROCESSES
- 27% SERIALIZATION & AGGREGATION
- 27% SUPPLY CHAIN MANAGEMENT
- 24% MACHINE MONITORING (INCLUDING REMOTE)



REGULATORY CHALLENGES AND REQUIREMENTS

PHARMACEUTICAL MANUFACTURERS

TOP REGULATORY CHALLENGES

MOST DIFFICULT OR TIME-CONSUMING

- 71% DOCUMENTATION & REPORTING
- 49% PRODUCT TESTING & VERIFICATION
- 29% SERIALIZATION & AGGREGATION
- 29% PACKAGING COMPLIANCE
- 29% MATERIAL AND INGREDIENT TESTING & VERIFICATION



MEETING REQUIREMENTS

STEPS TAKEN

- 62% EXPANDED TRAINING
- 56% PURCHASED NEW EQUIPMENT
- 53% ADOPTED PREDICTIVE/PREVENTIVE MAINTENANCE
- 49% UPGRADED/RETROFITTED EQUIPMENT
- 42% INCREASED AUTOMATION
- 42% DIGITIZED DOCUMENTATION AND REPORTING



LOOKING TO THE FUTURE

TECHNOLOGY-FOCUSED PACKAGING FEATURES

PLAN TO ADD

PHARMACEUTICAL MANUFACTURERS	OEMs
27% RFID TAGS	26% AI-SUPPORTED PROCESSES
25% WIRELESS PACKAGING SENSORS	26% DATA-GATHERING SENSORS
23% AUGMENTED REALITY INTERACTIVITY	24% REMOTE TROUBLESHOOTING/UPGRADES
20% MEDICATION ADHERENCE PACKAGING (SUCH AS EMBEDDED SENSORS, CONNECTED LABELS)	19% REMOTE MONITORING
	19% AUTOMATION AND ROBOTIC

PACKAGING FORMAT GROWTH OUTLOOK

3-YEAR PROJECTION

PHARMACEUTICAL MANUFACTURERS	OEMs
42% PRE-FILLED SYRINGES/INJECTORS	38% PRE-FILLED SYRINGES/INJECTORS
33% BLISTER PACKS	30% AMPOULES
33% SOLID DOSE BOTTLES (NO SECONDARY CARTON)	23% BLISTER PACKS

E-COMMERCE IMPACTS

PHARMACEUTICAL MANUFACTURERS

- 31% CURRENTLY SELL VIA E-COMMERCE
- 13% PLAN TO START WITHIN THREE YEARS

OPERATIONAL CHANGES TO ACCOMMODATE E-COMMERCE

- REDESIGNED PACKAGING FORMATS
- Hired additional staff
- EXPANDED AUTOMATION
- Engaged co-packers

SUSTAINABILITY PRIORITIES

PHARMACEUTICAL MANUFACTURERS PLAN TO INCORPORATE

- LIGHTWEIGHTING/MATERIAL REDUCTION
- COMPOSTABLE MATERIALS
- RECYCLED MATERIALS (PCR MATERIALS)
- Biodegradable materials

PMMI connects consumer goods companies with manufacturing solutions through the world-class PACK EXPO portfolio of trade shows, PMMI Media Group and PMMI Business Drivers.

This research blends quantitative surveys and qualitative interviews with pharmaceutical End Users (users of equipment to produce and/or package pharmaceutical products) and OEMs. Data was collected October - November 2025.

Source: PMMI's 2025 Trends and Challenges in Pharmaceutical Manufacturing White Paper.

Learn more at pmmi.org and packexpo.com and pmmimediagroup.com.