

THE ULTIMATE GUIDE TO  
**PACKAGING AUTOMATION  
SOLUTIONS**



**TPC** **PACKAGING  
SOLUTIONS**  
**TAPE** Products Company

# THE ULTIMATE GUIDE TO **PACKAGING AUTOMATION SOLUTIONS**



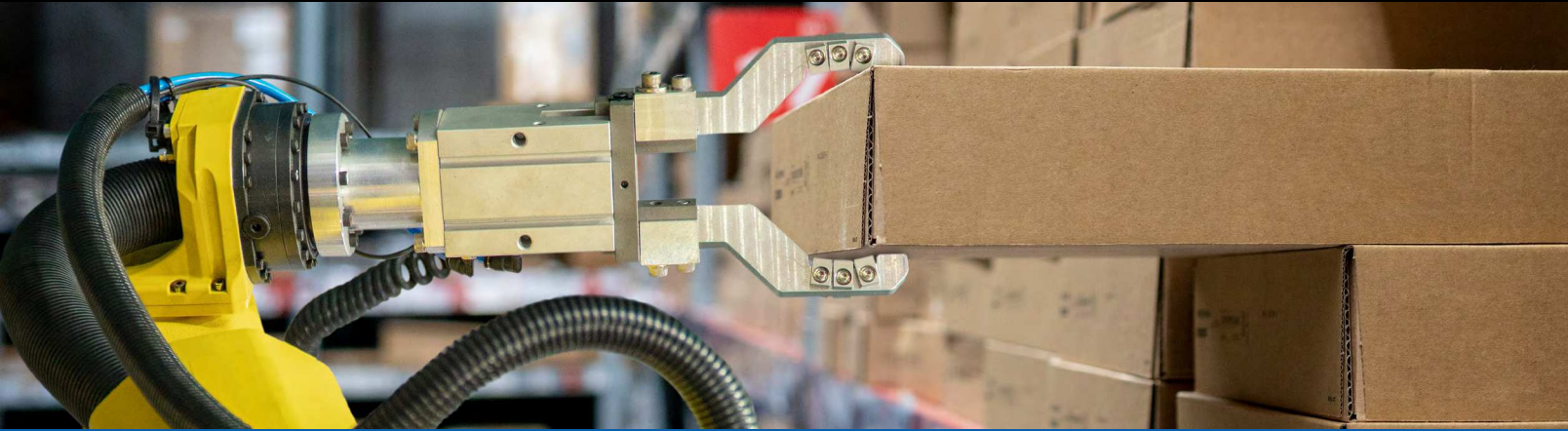
Packaging automation refers to the use of machines to complete various packaging tasks with little to no involvement from human workers. While packaging equipment was developed concurrently with packaging materials, technological developments in the mid-19th century to early 20th century—e.g., the first paper bag machine, the first packaging machinery factory, and the first automatic forming, filling, and sealing machine—led to a rapid expansion in the scope of what was possible in packaging automation. Today, automated packaging systems find application in nearly every aspect of the commercial and industrial packaging process.

**THIS EBOOK EXPLORES THE BENEFITS OF** using automated packaging systems, the types available, key equipment selection considerations, and the qualities to look for in an automated equipment supplier.

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# BENEFITS OF AUTOMATED PACKAGING SYSTEMS

By integrating automated packaging systems within their facilities, manufacturing professionals are able to reap plentiful rewards,



## INCLUDING THE FOLLOWING:



### IMPROVED PRODUCTIVITY.

Automated packaging machinery offers greater processing capabilities (typically hundreds of items per minute) over individual operators, resulting in faster processing times and higher production capacities.



### SMALLER RISK OF ERROR.

Automated equipment is highly unlikely to make an error during packaging operations (e.g., adding the wrong number of items into the packaging) as long as it is programmed and maintained properly, which translates to better process consistency and quality.



### HIGHER EFFICIENCY.

Automated packaging equipment can perform repetitive or demanding operations, allowing workers to complete operations that require higher-level decision making or focus on other aspects of business. This enables an overall better use of resources.



## BENEFITS CONTINUED...

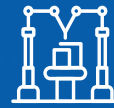


### LOWER LABOR COSTS.



Packaging machinery reduces the number of operators required, resulting in lower labor costs. Increased throughput can give you time back (e.g. I can produce and pack X widgets in four hours, that used to take eight hours).

### SAFER WORKING CONDITIONS.



Employee injuries can be reduced or avoided by using automated packaging equipment to handle bulky or heavy loads.

### GREATER ACCESS TO INFORMATION.



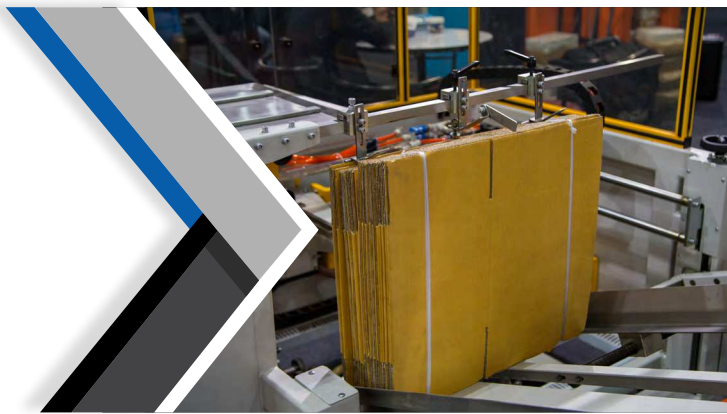
Modern automated packaging systems come with excellent data analysis built into the technology, which makes it easier for manufacturers to review important information about the condition of specific machines or the overall packaging line, troubleshooting problems, etc. so changes can be made accordingly.

# TYPES OF AUTOMATED PACKAGING EQUIPMENT

Manufacturers have a wide range of automated packaging system options to choose from for their specific needs and operations. The type(s) they employ depends on the product, packaging material, and production specifications.



SOME EXAMPLES OF THE MOST COMMONLY REQUESTED TYPES INCLUDE:

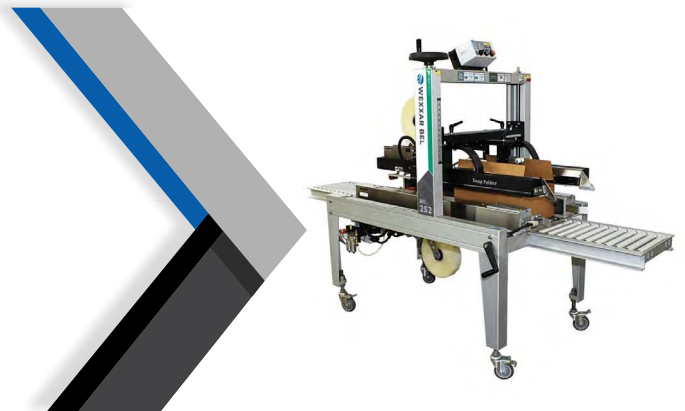


## CASE ERECTORS.

Case erectors—also known as carton erectors or box erectors—unfold and form flattened cartons, boxes, and cases.

## CASE SEALERS.

Case sealers are used to seal and close boxes, cases, and cartons with glue or tape after they have been unfolded and formed into shape.



## BENEFITS CONTINUED...



### CORRUGATED TRAY FORMERS.

Corrugated tray formers fold, tuck, and glue corrugated trays into their intended configurations. These machines are used in a variety of distribution industries, from consumer goods to food and beverage.

### CASE PACKING MACHINES.

Case packing machines pack groups of items together in preparation for shipping. For example, automated pick-and-place systems perform these operations by combining multiple food items, medicines, and other products into cartons, trays, and other secondary containers.



### PALLETIZING EQUIPMENT.

Palletizing equipment—also known as palletizers—are machines used to stack packaging products (e.g., bags, boxes, cartons, and trays) onto a pallet. They support packaging operations in a wide range of industries, including construction, metal, wood and paper, and food and beverage.

### STRETCH WRAP MACHINES.

After a load has been placed onto a pallet, stretch wrapping machines wrap the entire unit (pallet plus load) in plastic film to secure and protect the items during shipping.





## BENEFITS CONTINUED...



### OTHER EXAMPLES OF AUTOMATED PACKAGING MACHINERY INCLUDE:

#### COLD SEAL PACKAGING MACHINES.

Cold seal packaging machines seal packaging materials using pressure alone. These machines are commonly used in ecommerce. Automatic labeling equipment can be added to further automate these machines.



#### PACJACKET SEALER MACHINES.

Built for ecommerce, PACjacket sealer machines produce an on demand poly bubble mailer built around the product being shipped



#### STRAPPING & BANDING MACHINES.

Strapping and banding machines secure items to a package or pallet by looping bands of flat steel or plastic around them.



#### SHRINK WRAPPING MACHINES.

Shrink wrappers cover an item with plastic film and apply heat to shrink the film around the product for a tighter fit.



#### LABELING EQUIPMENT

Used in a variety of industries, labeling equipment can be used to put preprinted labels on a product or box. Print and apply systems are also available. For example a print and apply systems can integrate with your existing software to produce a shipping label, or create and apply a label with a best buy date and lot number.



# KEY CONSIDERATIONS: IS PACKAGING AUTOMATION EQUIPMENT RIGHT FOR YOU?

Automated packaging equipment offers a number of advantages for manufacturing and production. However, it may not be a great fit in every case.



SOME OF THE CRITICAL QUESTIONS TO ANSWER TO DETERMINE WHETHER A PACKAGING AUTOMATION SOLUTION IS A SUITABLE INVESTMENT FOR YOUR COMPANY INCLUDE:

## IS MY PACKAGING OPERATION SUITABLE FOR AUTOMATION?

Automation technology is suitable for products and processes that are standardized. Packaging operations that utilize non-standard (e.g., irregular, large, or variable packaging) can be expensive or are not possible to automate in some cases.

## WHAT IS MY PRODUCTION RATE?

Automated packaging systems are best suited for high-volume production operations. If you have low-volume or not necessarily consistent production demands, semi-automated packaging systems may be more appropriate for your facility.



## HOW WILL AUTOMATION AFFECT MY LABOR AND OTHER OPERATING COSTS?

Automation technology can help reduce labor costs. However, it is important to ensure the upfront investment, maintenance, and repair costs it comes with will not surpass its labor cost savings.

## DO I HAVE ANY SAFETY CONCERNS?

If your packaging process requires highly repetitive motions or regular handling of heavy items, packaging automation could reduce or eliminate the physical strain on workers.

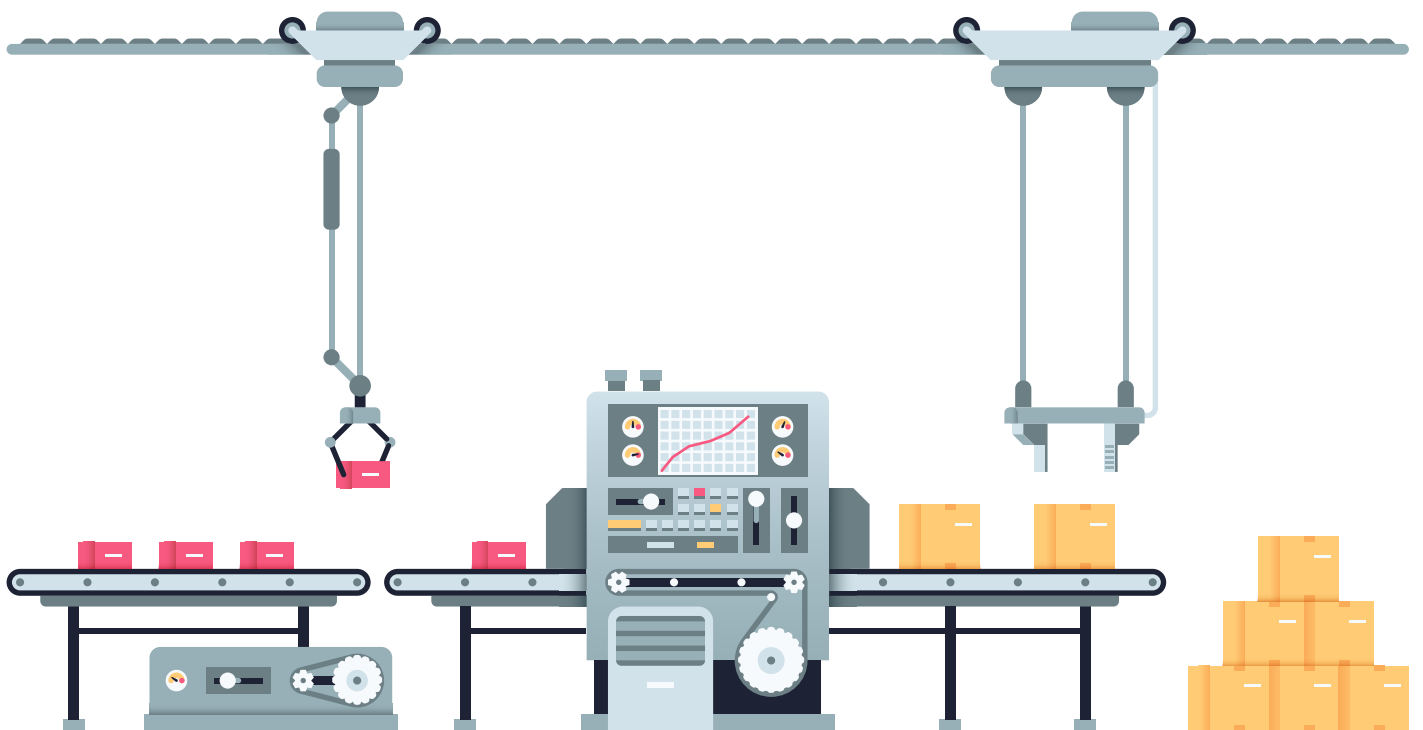


## KEY CONSIDERATIONS CONTINUED...

Once you have decided that automation is right for your process, the next step is to determine which type of equipment will best suit your needs.

SOME OF THE CONSIDERATIONS TO KEEP IN MIND DURING THE EQUIPMENT SELECTION PROCESS INCLUDE:

- TYPE OF PRODUCT BEING PACKAGED
- PRODUCT SHAPE, SIZE, AND WEIGHT
- TYPE OF PACKAGING MATERIAL
- PACKAGING REQUIREMENTS  
(E.G., DURABILITY, ENVIRONMENTAL OR TEMPERATURE RESISTANCE)
- COLOR AND LABELING REQUIREMENTS
- ANTI-TAMPERING AND SECURITY REQUIREMENTS
- ENVIRONMENTAL CONDITIONS
- SPEEDS NEEDED



# HOW TO SELECT THE RIGHT AUTOMATED PACKAGING EQUIPMENT SUPPLIER

Before making an equipment purchase, it is important to thoroughly research and compare potential suppliers.



SOME OF THE QUALITIES  
TO LOOK FOR IN AN IDEAL SUPPLIER INCLUDE:

## **PERFORMANCE GUARANTEES.**

Machines provided by suppliers with performance guarantees are less likely to run into accuracy or precision issues down the line.

## **CUSTOM CAPABILITIES.**

Automation needs vary from company to company. Your supplier should tailor your solution to the requirements and restrictions of your facility - not the other way around.

## **PREVENTATIVE MAINTENANCE PROGRAMS.**

Partnering with an equipment supplier that bundles preventative maintenance work with the equipment not only saves you time and money throughout the service life of the machine; it also results in maximized equipment uptime, ensuring that business continues uninterrupted.

## **SAFETY.**

The safety of your employees is of prime importance. When speaking with equipment suppliers, it is essential to ensure the equipment you receive goes above and beyond in adherence to safety standards.

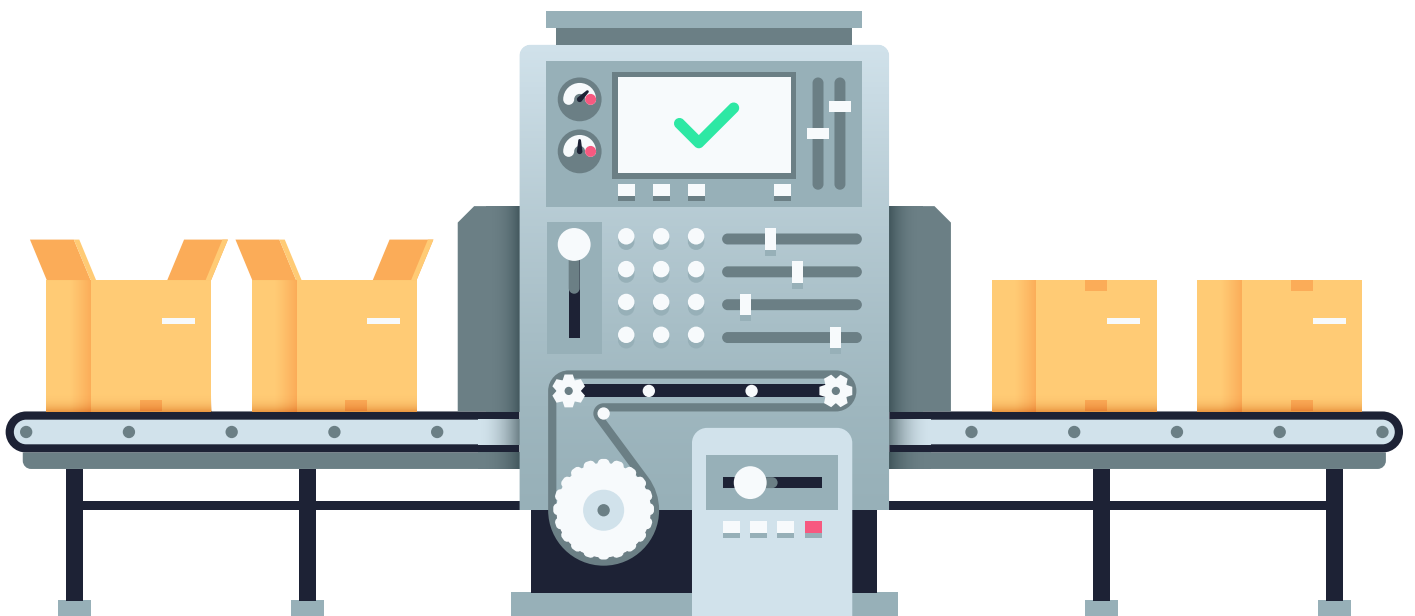
# HOW TO SELECT CONTINUED...

## COST EFFECTIVENESS.

Finding a balance between performance and price is important.

### SOME OF THE WAYS TO HELP DECREASE EQUIPMENT COSTS WITHOUT SACRIFICING EQUIPMENT PERFORMANCE INCLUDE:

- UNDERSTANDING THE OPTIONS AVAILABLE  
(E.G., NEW VS. USED EQUIPMENT, HIRING VS. CONTRACTING TECHNICIANS)
- CONSIDERING EQUIPMENT THAT MIGHT HAVE A HIGHER PRICE BUT PRODUCES BETTER OUTCOMES WITH LINE UP TIME, LESS OPERATOR INTERVENTION, AND LESS MAINTENANCE.
- UPGRADING EXISTING EQUIPMENT BEFORE BUYING NEW EQUIPMENT, IF POSSIBLE
- DISCUSSING DISCOUNTS, REBATES, AND OTHER SPECIAL OFFERS WITH SALES REPRESENTATIVES
- AVOIDING UNNECESSARY PRODUCT FEATURES AND ADDITIONS
- IDENTIFYING THE BEST PACKAGING MATERIAL FOR THE MACHINE  
(AS WELL AS CONSIDERING COST-EFFECTIVE ALTERNATIVES)
- INVESTING IN A PREVENTATIVE MAINTENANCE PLAN





# AUTOMATED PACKAGING EQUIPMENT AT TPC PACKAGING SOLUTIONS

At TPC Packaging Solutions , we specialize in the supply and integration of automated packaging equipment.

BY PARTNERING WITH US FOR YOUR PACKAGING AUTOMATION NEEDS, YOU BENEFIT FROM OUR:

## ABILITY TO DELIVER BETTER OUTCOMES.

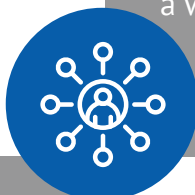
Our thorough process combines our expertise with your expertise to build a solution together that achieves the goals you have, and other needed outcomes that are uncovered during our collaboration with your team.

## EXTENSIVE EXPERIENCE.

We have provided successful automation solutions that have helped companies to establish a competitive edge in their field for over 50 years.

## BROAD RANGE OF EQUIPMENT.

We offer a variety of automated packaging systems, which allows us to accommodate a wide range of packaging needs.



## OPTIMIZED SOLUTIONS.

Our team will help you identify the packaging automation solution that best fits your needs, in terms of both budgetary and specifications requirements. Our complete solutions help increase packaging productivity while decreasing the total cost per packaged unit.

## LONG-TERM SUPPORT SERVICES.

Whether you need modification, repair, or servicing assistance, we are available to help you keep your process running as smoothly and efficiently as possible, long after point of purchase.

**HAVE ANY QUESTIONS REGARDING  
PACKAGING AUTOMATION EQUIPMENT?**

**REACH OUT TO US TODAY AND WE'LL  
BE HAPPY TO HELP YOU GET STARTED.**



# ABOUT TPC PACKAGING SOLUTIONS

With more than 50 years of expertise in working with companies and products in nearly every industry, **TPC** provides new ideas that improve our partner's efficiency and effectiveness in the workplace.

Offering selected corporate rebates and product-specific loyalty programs, TPC provides customized tapes and packaging solutions for many areas of business including manufacturing, fabricating and assembly, packaging, protecting and shipping, facilities repair and maintenance; marking identification and coding, building, and construction and HVAC.

**CONTACT US**



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