



EQUIPMENT: AUTOMATION

# PACKAGING AUTOMATION

HOW CONVERTING TO AN AUTOMATED SYSTEM  
CAN SAVE YOU TIME AND MONEY.



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# DAMAGE REDUCTION THROUGH PACKAGING AUTOMATION

## NOBODY LIKES DAMAGE.

You don't like it, and your customers certainly don't like it. Automation can fix your damage woes once and for all.

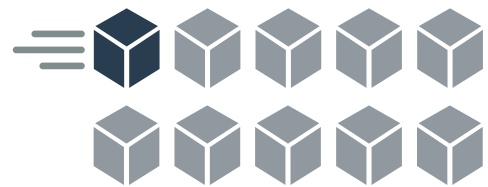
Whether visible or not, the cost of damage each year is too high. It's widely understood that 0.5 percent of all products are lost to damage that happens somewhere between production and sale.

Ensuring proper void fill can help to protect your shipments from damage, as can wrapping pallets correctly when they are loaded for shipment. The creation of stable loads can help you to recover up to as much as 50% of potentially lost products.

When a person is responsible for erecting, packing, sealing, and wrapping cases, there is a higher chance for damage. That person will do a decent job at first, but after a while they will begin to produce inconsistent and substandard work. Machines have the ability to perform to the same levels for hours at a time without jeopardizing quality.

Using automation also removes the human error aspect of packaging that typically leads to damage.

**Damage prevention starts with the right evaluation of your process, followed by the proper automation to reduce damage.**



**1 in 10**

*boxes shipped will be damaged*



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# PROCESS IMPROVEMENTS THROUGH PACKAGING AUTOMATION

It goes without saying that the key to successful warehouse operations is smooth, efficient product flow.

- One person can erect about 3 cases per minute; one automated case erector can assemble approximately 27 boxes per minute.
- One person can only seal 10 cases per minute; a case sealer can seal nearly 40 uniform boxes per minute.

IMPROVED  
PROCESSES  
&  
INCREASED  
THROUGHPUT

It takes one person approximately 4 minutes to hand wrap a pallet; that's approximately 15 loads per hour. A semi-automatic machine can wrap up to 35 loads an hour and a highly automated wrapper can be programmed to wrap up to 150 loads per hour.

Machines can work long hours, as well as at night and on weekends, providing an overall increase in productivity. A cost comparison of skilled workers versus an automated system is the best analysis to determine if increased productivity can offset any human staff-related costs.

**Automation helps improve the process, increase the throughput and take your warehouse operations to a whole new level.**

*You're welcome.*



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# LABOR SAVINGS THROUGH PACKAGING AUTOMATION

The cost of labor is steadily going up. In 2014, the Employment Cost Index recorded its largest increase in 5 ½ years for the cost of US labor.

With an average increase of 2% annually, labor costs will continue to be a large factor when it comes to total cost of doing business.

If you're shipping 2,500 cases a day, based on the standard hand assembly statistics, it would take one person nearly 14 hours to complete without a break. If you ran a case sealer at a modest 5 times increase, you'd get the full 2,500 cases assembled in under 4 hours.

One person using a case sealer can process, in 5 minutes, what someone hand sealing can do in 30 minutes. If a facility is shipping out thousands of cases a day, they're employing a team of workers to erect, pack, and seal cases.

**Automation is clearly a winner in the labor savings game.**

**UP TO**



**OF TOTAL PACKAGING COSTS  
ARE LABOR-RELATED**

## **ROI EXAMPLE**

**Company:** Emergency Construction and Erosion Supplier

**\$ 6,023.00** Projected film cost reduction per year

**\$ 4,725.00** Projected labor cost reduction per year

**8.9 MONTHS** Projected ROI on machine purchase



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# MATERIAL USAGE REDUCTION THROUGH PACKAGING AUTOMATION

Anytime that you can reduce the percentage of material used, but keep the same production levels or, even, increase your output quantity, you're automatically saving money.

An automated sealer uses a single 1,500 yard roll of tape to yield an output of 3,176 boxes; by comparison, a person would utilize a 220 yard roll and yield only 110 boxes, equating to 6,352 yards of tape to achieve the same result as the machine. A 1,500 yard roll of tape will cost less per inch and will need to be replaced far less than a 220 yard roll, potentially saving hundreds of dollars per year.

Ensuring that stretch film is stretched to its full potential will not only improve load integrity, but it will also save you money when it comes to material usage. Most machines can pre-stretch wrap up to 300%; by hand-wrapping, the most one person could only hope to pre-stretch the material is 10 – 15%.

**By reducing the amount of materials you use, you're increasing the amount of awesome on your bottom line.**

**By automating the case sealing portion of packaging, you've got the potential of increasing your output by**

# 600%

## ROI EXAMPLE

**Company:** Leading Chemical Manufacturing Company

**\$ 8,103.00** Projected film cost reduction per year

**11.7 MONTHS** Projected ROI on Stretch Wrap Machine purchase



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# IMPROVED SAFETY & ERGONOMOICS THROUGH PACKAGING AUTOMATION

Musculoskeletal injuries are the leading cause of employees missing work. Automation can reduce those injuries and the risks involved.

These risk factors often affect operators who manually package products in facilities just like yours:

- Lifting, pushing, or pulling heavy objects
- Working in awkward positions
- Performing the same or similar tasks repetitively
- Bending and/or reaching

It costs US businesses over \$15 billion a year to manage the costs of injuries resulting from falls. Slips and falls account for 15% of accidental deaths in warehouses, 25% of injury claims, and a whopping 95 million lost work days per year. Aisles and walkways that are unorganized and crowded can cause tripping hazards, especially if you've got lots of people moving around a packaging area to keep up with the demand.

The use of automated equipment is an effective way to prevent worker injuries. Many of today's automated production devices keep workers a safe distance from the more hazardous areas of work. Human staff is still needed to operate and program the equipment, but the actual hands-on work is left to the machine, protecting the health and safety of staff.

## SAFETY & ERGONOMICS IN THE WORKPLACE

Non-fatal workplace injuries related to musculoskeletal disorders cost businesses more than

**\$ 21 BILLION**  
PER YEAR

The average back injury can cost

**\$3,000 - \$10,000** in Direct Costs

**\$30,000 - \$100,000** in Indirect Costs



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# LET'S GET STARTED.

Choosing the right end-of-line automation should be a careful consideration for any business. There are several factors to consider when making your choice. But first, you need to find out what is right for you.

## You need a solution.

*"Automating [aspects of the] manufacturing process [such as packaging] not only drives costs down, it improves quality, reduces waste and optimizes energy use. [...The] application of automation is an essential ingredient in the sustainability of manufacturing businesses; automation will consequently increase a manufacturer's competitive edge."*

- Mike Wilson, Chairman of the British Automation and Robot Association

Everything you've read and all the research you've found says automating end-of-line packaging processes will help your overall goal of doing more business with less resources. And, sure, it all sounds good, but how do you know if it's right for your facility? Where do you start? What do you look for? And how are you going to convince your management team that the initial expense is worth it in the long run?

## WE'RE HERE TO HELP

Automating your process has many benefits, and we're here to make sure you benefit from every single one of them.

Step **01**

### Get in touch.

Our product specialists are ready with the answers you need.

Step **02**

### Get answers.

We'll assess your needs and show you how we can help.

Step **03**

### Get a solution.

Damage prevention starts with the right solution. We'll provide that solution.



## Call Us

Our knowledgeable specialists are ready with solutions.

**844-211-5548**

## Email Us

No time to call? No worries, send us an email.

**knowledge@ipack.com**





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