CASE ERECTOR BUYING GUIDE

Everything You Need to Know About Case Erectors

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Introduction

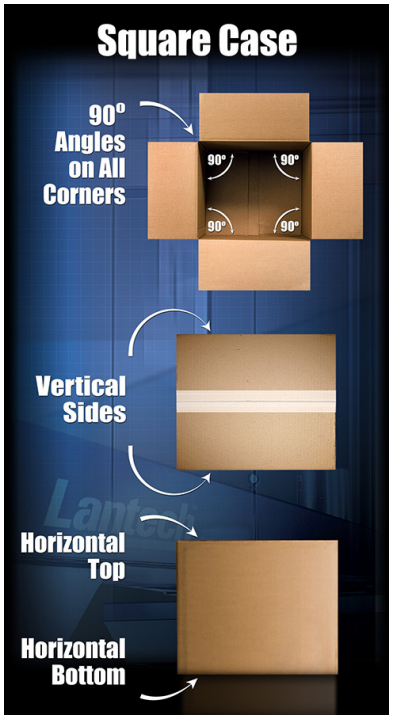
Anyone involved in manufacturing and/or shipping product has wondered about the value of their cases. Are cases really that important at the end of the day? Despite the cost and resources spent to find the right packaging materials, it is very important because roughly 2% of all product still get damaged during transport. If you are thinking of increasing your production or handling capacity, packaging costs are not to be overlooked.

Ideally, we want to invest as little as possible in packaging, without putting the contents at risk. The goal is for your product to arrive at its destination in “as made” condition, at the lowest cost effectively shipped. This will reduce having to replace damaged product, ultimately reducing the amount of (polluting) transport required.

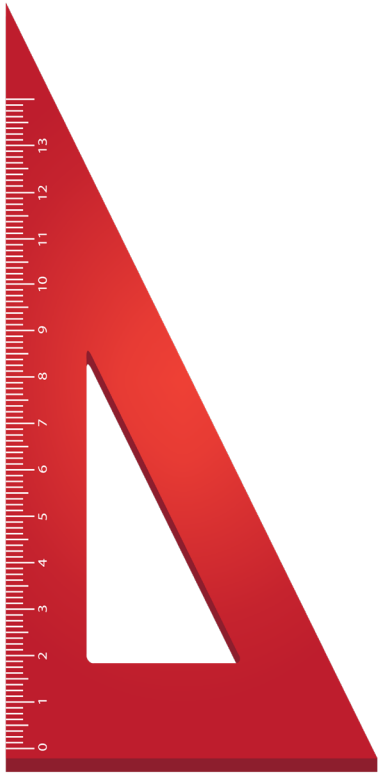
In this guide we will explain the importance of a perfectly square case, and how they help to significantly reduce shipping damage. We will also show you how to identify a square case, and why you should use automation to erect cases. Also included is a list of questions and a check-list to help you determine how your company would benefit from an automatic case erector.

The Strength of 90 Degrees

The better you package your products, the lower the risk of shipping damage. This process ends with the way filled pallets are loaded onto a truck, but starts with the way your products are packed into cases. One per cent of all products transported are damaged during transport due to poorly erected cases. The secret of a good case lies in 90-degree corners. A case must be erected perfectly square and stay that way during filling, until the case is sealed and fixed in position. Square cases provide the basis for damage-freetransport for several reasons:



- Square cases ensure products fit into the case seamlessly. There is no friction between one product and another or between the product and the case itself, resulting in less product damage.
- The cases fit perfectly into an outer case, as they can be placed together without gaps.
- Square cases have greater stacking strength. When cases are stacked the greatest force is exerted at the corners. If you have 90-degree corners, you achieve 30% more stacking strength! In this way you prevent the cases at the bottom from being crushed and the case and contents from becoming damaged.
- You create a stable pallet with straight sides and no protrusions. This prevents the case and product from being damaged during transport and stops wrapping film being torn by sharp, protruding corners.
- Square cases not only reduce shipping damage, but are also better for machines. After all, cases that are not straight can jam machines in the packaging line. That not only affectsworkflow, but can also cause damage to the products and the machines themselves.



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The ROI of an Automatic Case Erector

When it comes to erecting cases you essentially have two options: Either you employ operators to open and seal cases manually or you get a machine to perform these tasks. Erecting cases manually is monotonous work and it is not always easy to find people to do this. You also need to think about how well human labour can create cases that are perfectly square. As your capacity increases and you start to manufacture and/or transport large volumes, the need for automation will also grow. But when do you reach the tipping point?

Generally speaking, if you require more then 3 cases per minute, it makes sense to switch from manual to automatic case erection. A case erector automatically erects case blanks and seals the underside of the case. These machines require a one-off investment, but this amply pays for itself. Just think of the shipping damage that you can prevent by ensuring your cases are erected square. However, the productivity of your packaging process also increases and the cost of each case erected goes down.

An alternative way to reduce the time needed for operators to erect cases manually is to opt for snaplock cases. These can be erected more quickly, but are also a good deal more expensive than normal cases. That means a one-off investment in a case erector can still work out cheaper over the long term, as you will save on packaging costs. The ROI of a case erector is therefore always a combination of required capacity, wage costs and material costs. That may not sound like much, but a small calculation shows that over five years you could save €6,250 ($6,779) to as much as €25,000 ($27,117).

Calculating exactly what the ROI of a case erector will be is a simple task:

- Calculate how many cases are (or need to be) erected during an eight-hour shift.
- Divide that number by 480 (8 hour shift X 60 minutes = 480). You now know how many cases need to be erected every minute.
- Assume that an operator can erect 3 cases per minute. Divide the number of cases that need to be erected per minute by 3. You now know how many operators you need.
- Take the hourly wage of the operator(s) required, multiply it by 8 hours and then by the nubmer of workable days per year. You now have the annual wage costs for manual case erection.
- Multiply the annual wage costs by 10; this is the average service life of a case erector.
- Compare this amount with the investment required in a case erector and you will know how much you can save over a 10-year period.

Should you switch from manual to automatic case erecting?

DOWNLOAD OUR FREE CASE CALCULATOR TO FIND OUT.

DOWNLOAD CALCULATOR

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Considerations to Take Into Account When Buying a Case Erector

Whether a case erector is right for your particular processes, and which one, depends on many different factors.
To ensure you come to the right purchasing decision, it is important to examine the following 13 questions for yourself:

1. What is your existing case erecting process and how many workers are needed to erect the amount of cases needed?
Do you still erect cases by hand? Perform the calculation on page 5.

2. What is your existing case-erection process and how many FTEs are required?
Do you still erect cases by hand? Perform the calculation described previously in this guide.

3. How many cases do you erect per hour/day/shift?
This information is needed to put together a good business case for the purchase of a case erector, but also determines the necessary capacity of the machine.

4. In how many shifts is work done per day?
This partly determines the ROI of the machine.

5. How many different case sizes do you use (min./max. case sizes)?
Do you have one standard case size or do you use all kinds of different sizes of case for packaging products?
A standard machine can erect one size of case at a time, but you can adjust it to handle a different case size within a certain range. However, there are machines that can erect up to four different cases sizes interchangeably.

6. Have the cases been printed on?
If so, the case must be erected in the right way by the machine to ensure the printing remains legible. Depending on the design of the blank and the printing, a machine is used with outfeed to the left or right, viewed from the perspective of the control panel.

7. Which types of case are used (with/without top flaps, display, score lines, etc.)?
This is important to decide how the case is erected. A case with a display cannot be picked up by the machine at that particular point, for example, which means an adjustment has to be made.

Considerations to Take Into Account When Buying a Case Erector - Continued

8. How are the cases sealed?
Do you want to use tape, hot-melt sealing or both? If lots of cases are erected, it may be wiser to invest in a hot-melt installation, which will pay for itself in a short space of time compared with the costs of tape. An ROI calculation is also available for the hot-melt option.

9. Do you have problems with product damage during transport? If so, what is the cause?
A case erector may provide a solution.

10. Will the machine be installed in a packaging line or as a freestanding unit?
Will the machine be freestanding or does it need to be integrated into a packaging line? In the latter case the machine not only has to be physically adjusted for integration with a roller conveyor, for example, but also has to communicate with other machines in the line.

11. What is the layout of the packaging environment/line?
Is there enough space or is space limited? Most machines are L-shaped, with the blank magazine at the side. However, there are also machines with the magazine at the head. This makes the machine much narrower, allowing packaging lines to be positioned closer together.

12. How many packaging lines are there?
You may be able to use a single case erector for several packaging lines, depending on how many cases you need per minute.

13. Do you work one, two or three shifts?
Which operators will be working with the machine? How much of their time will be taken up in future with operating the machine? Think about what instructions they need and whether the machines is simple and easy to use.

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Types of Case Erector: Which One is Right For You?

There are different types of case erectors, and various specifications can also differ from one machine to another. Case erectors can roughly be divided into two categories:

1. Standard machine: these machines have a single magazine with a certain case range. That means cases of different sizes that fall within this range can be erected in turn.

2. Modular machine: as the name suggests, these machines can be constructed in various configurations and with various add-ons to meet specific requirements. It is also possible to use several magazines so the machine can erect up to four different case sizes interchangeably.

Within both of these categories you will see differences in the machine specifications:

- Number of cases that the machine can erect in 1 minute;
- Minimum and maximum case size;
- How the underside of the case is sealed (tape or hot melt);
- The maximum number of cases that the magazine can hold;
- Whether the magazine is positioned at the head or the side;
- Whether there are options for communication with other machines;
- And what options there are for custom configurations and dimensions.

Which type of machine and which specifications you need depend on your answers to the questions starting on page 7 of this guide. We can, however, offer some initial guidance:

For Warehouses and Small Production Companies

The main objective for warehouses and small production companies is often to automate processes. If you do not need to integrate the case erector into a packaging line and there is no need to erect cases of different sizes interchangeably, then you can opt for a basic machine. Does the product require a visual or manual inspection before it is placed in the case? If so, opt for a special machine with a smart combination of automated and manual processes. This will allow the cases to be called for and erected on demand, filled by an operator and then automatically sealed.

For e-Commerce Companies

For an e-commerce company reducing volumes is likely to be an important goal. You therefore work with lots of different case sizes. In this case a modular machine with several magazines would be the most appropriate option. If you integrate the machine into the packaging line, you can call for a case with the right dimensions based on the size of the product.

For Manufacturing and Production Companies

At manufacturing and production companies the case erector will probably form part of a larger packaging line. You should therefore opt for a modular machine that can communicate with other machines in the line. Do you have little space available? In that case opt for an inline machine with the magazine at the head. This will allow you to position the various packaging lines closer together.

Want advice on which machine is best suited to your particular processes?

Please contact us:
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The Features of a Good Case Erector

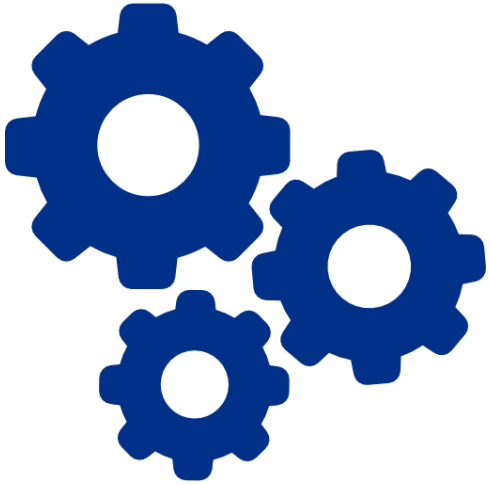
You have analysed your packaging process and you know roughly what type of case erector you would need. However, one machine is quite different from another. Certain technical features can make quite a difference when it comes to the quality of the cases – and their squareness in particular. A good machine produces a square case and makes sure the square corners are maintained from beginning to end. This guarantees the quality of the cases and means fewer faults will occur. Pay attention to the following components and features when purchasing a case erector:

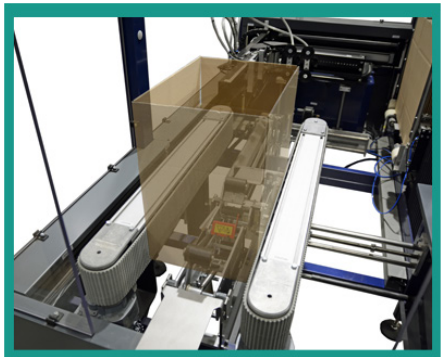
Blank Feed System

If blanks are not fed into the machine correctly, a fault can occur. The machine therefore needs a feed system that controls the speed at which the individual blanks are delivered to the pick-up frame precisely. Also look at how this feed system and the magazine are designed. Operators need to be able to refill the blanks easily, without having to bend, lift or reach. This must also be possible while the machine is running. In addition, it should be easy to adjust the magazine to a different case size.

Pick-up Frame

The pick-up frame is the heart of the machine. This is where the case is opened and has to be positioned with 90-degree angles. This works best if the case is picked up on two sides. While ensuring that the case remains square, the bottom flaps are then folded and held securely in place. Make sure the machine can also cope with blanks that are irregular.





Lantech's case equipment provides 100% precise control through the entire forming process.

READ HOW HERE

Transport Through the Machine
The case must now be pushed further through the machine, carefully and without too much resistance. Its 90-degree corners must be maintained at all times.

Sealing System
When the case is sealed it is exposed to additional resistance forces. It is therefore particularly important that it remains square at this stage.

Handling Cases
The case is always an external factor that can significantly disrupt the automatic case-erecting process. Blanks will not always have been cut perfectly square and correctly. In addition, increasing use is being made of recycled cardboard, which is thinner and therefore weaker. A good case erector must also be able to process this type of case properly without any faults occurring.

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Putting Together a Business Case

This guide will help you put together a good business case for the purchase of a case erector. Countless companies have already seen for themselves how a good case erector can increase the efficiency of their packaging process. The benefits include:

- Reduce operating costs;
- Increased productivity;
- Reduced packaging costs;
- Less downtime on the packaging line;
- Less shipping damage.

With square cases you can then be sure that your product will arrive at its destination in perfect condition. A case erector is therefore the ideal solution for companies that want to transport their products safely.

Are you interested in finding out how a case erector would fit into your packaging process?
Or would you like advice on how to put together a good business case?
Our experts will be happy to help.
Please contact us:
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USA: +1 502-267-4200

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About Lantech

In 1972 Lantech made an impact on the world by inventing the stretch wrapper and changing the way companies package and protect their products for shipment. Now, billions of pallet loads are stretch wrapped every year. Today we build case and tray handling machines in the Netherlands and stretch wrappers in the United States, with sales and technical support worldwide. Over the years our business has been built on innovation, customer support and the mission to dramatically reduce shipping damage globally.

LEARN MORE ABOUT OUR CASE ERECTORS

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