

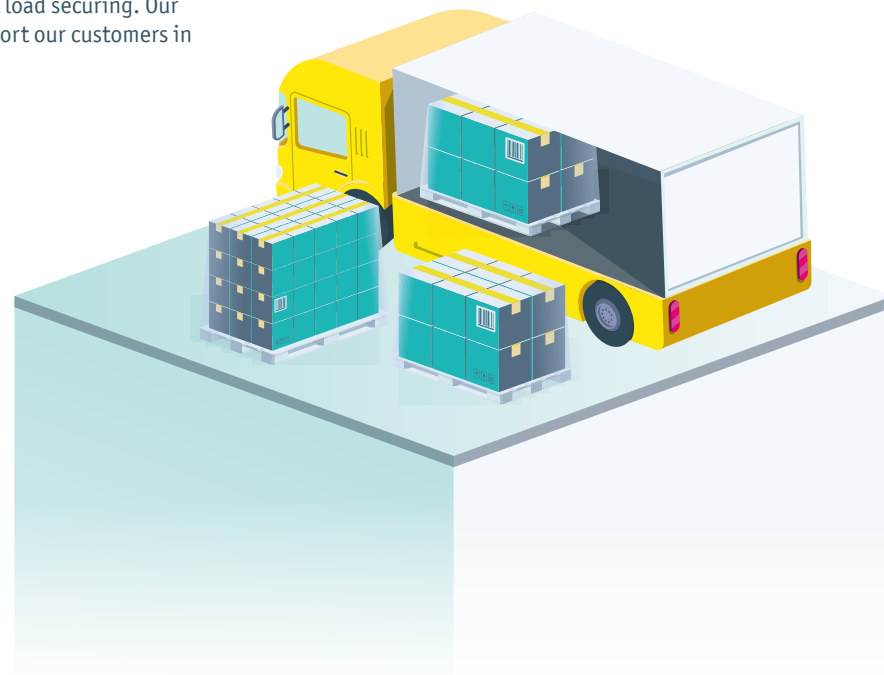


# INTELLIGENT LOAD STABILITY

# IMPROVING TRANSPORT AND LOGISTICS SAFETY

The European Safe Logistics Association (EUMOS) recognises our strong commitment to increasing transport and logistics safety. They've certified that we've demonstrated sustainable efforts towards the EU objectives to achieve zero fatalities on the road by 2050.

We're recognised as experts in helping customers improve their pallet load stability in order to comply with the EU legislation around cargo transport safety and pallet load securing. Our consultants are specially trained to support our customers in achieving this and much more.



## A MESSAGE FROM NEIL



It has been a privilege during my years at Hazel 4D to work closely with customers, creating win-win partnerships and delivering the 4th Dimension!

For over 40 years, Hazel 4D has been a valued packaging partner to brands internationally. They stick with us because we're here for them – not just when they buy our machines or materials, but as we continue to do everything to optimise their packaging and pallet-wrapping operations. Their goal is ours.

We've been building our expertise since we first opened our doors in 1979. In that time it's been our aim – just as it is the aim of our customers – to balance optimal safety, stability, efficiency and quality with cost reductions. We pride ourselves on an approach that can achieve all of this without compromise, something we do by really knowing our stuff, working with the best materials and machines and by getting to know our customers and their challenges.

That's when we're able to do our best, so you can do your best, for less.

A handwritten signature in black ink, appearing to read 'Neil Christie'.

**NEIL CHRISTIE**  
Commercial Director



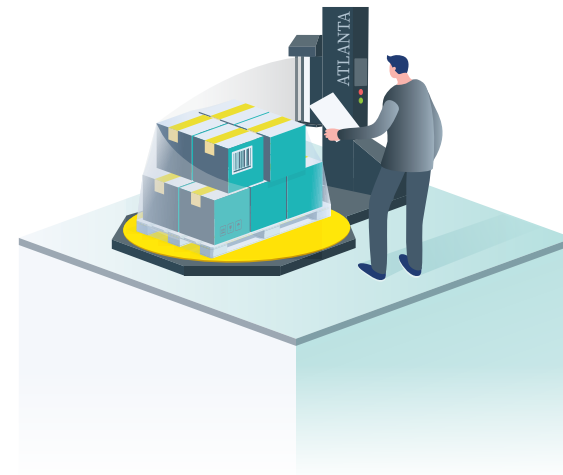


# INTELLIGENT LOAD STABILITY

The complete pallet wrapping optimisation system from the packaging experts at Hazel 4D.

Hazel 4D's Intelligent Load Stability system combines our expertise, nano-tech film and latest generation wrapping machines to optimise your pallet-wrapping and improve performance.

How our Intelligent Load Stability System makes a real difference:



## 1 LOWER COSTS PER PALLET WRAPPED

Nano-tech stretch film optimised for best use means savings on materials, but it also means more stable loads, quicker wrapping, reduced downtime, neater and easier stacking and storing and fewer damages and returns. That all adds up to serious savings.

## 2 LESS PACKAGING, LESS WASTE

Our intelligent load stability system can get a super-stable 300% stretch out of Extremus film. This significantly reduces your plastic waste, lowers your PRNs, and allows you to forget other protective packaging too. Great news for your bottom line and the environment!

## 3 MORE STABILITY, IMPROVED SAFETY

Unstable loads in transit are the cause of an estimated quarter of all traffic accidents involving transport vehicles. Not only is our intelligent load stability system reducing accidents on the roads, it's making moving, storing and stacking pallets safer on site too. That means less product damage and unsaleable goods as a result of improved stability.



### THE FOURTH DIMENSION. HOW WE GIVE YOU MORE.

We're proud to have our people set us apart – the insight and expertise they bring means we deliver so much more than machines and materials.

When we work with you to understand your needs, recommend a tailored solution and optimise pallet-wrapping operations, you get total load stability and a real weight off your mind. Plus, we'll make sure it stays that way with regular monitoring to ensure your system is always on top form.



### BENEFITS

- You can reduce your costs, improve the efficiency of your pallet-wrapping and enhance load stability and safety at the same time.
- It's easy, with a complete optimisation system from the packaging experts at H4D.
- Our Intelligent Load Stability System optimises at every step, giving you safer, more stable loads, faster wrapping and up to 300% more out of your materials.

### FREE CONSULTATION

We've been helping brands across the country to get the best out of their packaging for over 40 years.

Call 0113 242 6999 or email [wecare@hazel4d.com](mailto:wecare@hazel4d.com) to find out more about our Load Stability system or book a consultation without obligation.



STRETCH FILM USE  
& PLASTIC WASTE  
REDUCED BY UP TO

# 65%

# TAILORED TO MEET YOUR NEEDS

Our Intelligent Load Stability system really performs because it's tailored to meet the needs of every customer and their operations perfectly.

That's why working in partnership is so vital to our success and the difference we make to our customers. It all begins with a consultation.



1

## WE DISCOVER

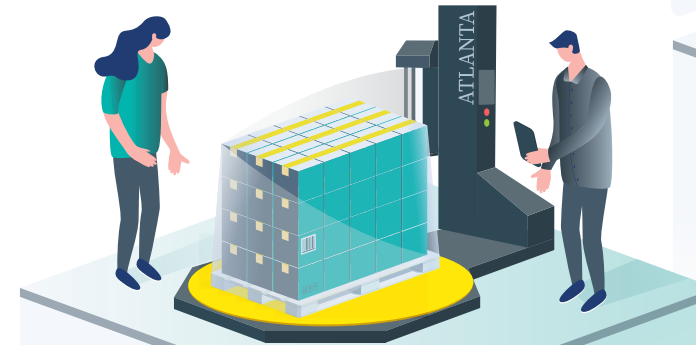
- First, we really get to know your operations, challenges and opportunities to improve.
- One of our experts will test your current system, looking into materials and every machine used, efficiency of material use and time taken to prepare each pallet, and stretch and stability achieved.
- We'll also want to know about any challenges you face, or particular areas you're keen to optimise or improve.



2

## WE RECOMMEND

- Our discovery phase will lead to a full report and a fully-costed recommendation designed specifically for you.
- These recommendations will not only address your specific concerns or challenges, but also identify opportunities to reduce costs, minimise resources and materials used, optimise safety, speed and stability to deliver the ultimate in pallet wrapping performance.



3

## WE OPTIMISE

- Once you're happy with our recommendations, we'll get to work developing and setting up your new system.
- We spend time on ensuring that set-up is perfect, fully tested and only handed over to you when we're happy it's performing as it should.
- Your staff will be fully trained to continue making best use of the system, and comprehensive training and reference materials will be left with you.
- We'll keep in touch, so you have access to our experts with any queries or questions as the new system beds in.



4

## WE SUPPORT

- An optimised system requires regular auditing, so this is part of the service.
- We'll ensure that you're able to continue meeting targets, making genuine savings on resources, materials and costs, optimising safety and stability, and will make sure that the system is performing at its best.
- We'll always be happy to discuss new and emerging challenges or ambitions – we like to think we can find a way!

“

Hazel 4D are always first with really innovative solutions and products. We're reassured that in Hazel 4D's care, we're using the very best technology available to suit our needs.

**PURCHASING MANAGER**





# OUR TESTING PROCESS

## State-of-the-art mobile system testing.

We use state-of-the art systems for thorough tests to really understand how we can help customers to improve process, lower costs and optimise stability. The FEF2000 mobile testing system measures the pressure exerted on wrapped pallets to help you get to your optimal solution, balancing great stability with efficient use of materials and resources.



## HERE'S HOW IT WORKS:



We mount electronic modules that measure the forces in 40 positions on each wrapped load, meaning we can identify over or under-use of wrap and too much force (which could lead to crushing) or too little force (which creates instability).



This kind of sophisticated and detailed testing allows us to create settings that fit your needs perfectly. It can be especially useful for customers who have been through extensive transit trials as part of a primary or secondary packaging specification, helping them to recalibrate to a perfect fully tested setting.



We'll adjust your machine settings and train your operatives to monitor this and manage it effectively, using the test data gathered as a benchmark and continuing to optimise your pallet-wrapping in the future.

## CASE STUDY

## 81% IN WASTE REDUCTION AND EFFICIENCY IMPROVED BY OVER 70%

This pet food manufacturer was generating huge amounts of plastic waste and poorly wrapped pallets with a really inefficient pallet wrapping system.

Loose film tail ends were hampering automated racking and the spend on wasted film was adding tens of thousands of pounds to packaging costs. We worked together to identify problems, make cost-effective solutions and drive sustained improvements.



“I would not hesitate in recommending Hazel 4D and their Extremus Nano film.”

OPERATIONS & PROCUREMENT MANAGER

## THE PROBLEM

Our consultation and audit found that this customer had been spending around £142,000 on 91,000 Kg net of stretch film each year. Their automated racking system was regularly grinding to a halt due to loose film tail ends blocking sensors, in some cases causing the production lines to stop completely.

Stability and load safety was compromised, with damaged film producing poorly wrapped pallets and staff having to perform regular roll changes to damaged film. Loads were also being rejected because of load movement, resulting in high costs and unhappy clients. With little support coming from the machine manufacturers they approached us for help.

## OUR SOLUTION

Through testing we identified that with some upgrading and refurbishing of the machines we could achieve a 50% reduction in plastic usage, 40% reduction in film costs and improve on load stability and pallet presentation.

We recommended a change to Extremus film to reduce damage and downtime, reduce waste and massively increase stretch, making efficient use of material, cutting costs and improving load stability. We worked with in-house engineers to test and develop comprehensive new tailored settings to optimise across the process.

We trained all operatives to continue to optimise the new system and to work confidently and efficiently to produce a stable load with no loose tail ends. We continue to monitor the set-up and conduct a quarterly audit to ensure savings balance with operational improvements and quality and stability of wrap.

## THE DIFFERENCE IT MADE...

- Reduction in film use of **46,722kgs** – that's **51%**
- 40% reduction** in film costs, amounting to **£57,000 each year**
- Increased line efficiency – we reduced roll changes by **73%**
- 9,643kg or 81% less waste** core weight generated
- Elimination of loose tail ends, enabling automated racking to function efficiently and elimination of wrapping inconsistencies and damage to film
- Easier maintenance and our continued support



# MADE TO GO THE EXTRA MILE

## EXTREMUS

Ultra strong nano film for up to 300% stretch and unbeatable stability.

High quality raw materials and the latest nanotechnology make Extremus the unbeatable film it is. When optimised, Extremus can stretch up to 300%, delivering the ultimate in strength and stability. And because it's puncture and tear resistant, it's still quick and efficient to use. Here's how it changes the game:



**Extremus MFNANO 12**  
A high-quality puncture-resistant 33 layer nano stretch machine film.



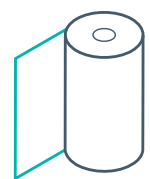
### OUTSTANDING HOLDING FORCE

Extremus stretch film is produced from a unique blend of polymers using the latest nanotechnology for outstanding holding force and reduced movement.



### SAFE, STABLE PALLET

Consistent strength and stability means safer pallet transit, little or no damage to products, quicker unloading, easier handling for customers and safer storage.



### ULTRA STRONG APPLICATION AND UP TO 300% STRETCH

Ultra strong nano film means you use less without compromising on the stability and safety of each load.



### MINIMAL WASTE & COST

This significantly reduces the volume of plastic used, lowers your plastic waste and PRN's, and allows you to forget other protective packaging too.



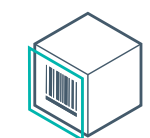
### CONSISTENT MATERIAL BLEND & HIGH PUNCTURE RESISTANCE

This puncture-resistant load holding 33 layer nano stretch machine film is manufactured using state-of-the-art nanotechnology.



### FASTER WRAPPING

So you can keep up your wrap-speed without worrying about punctures and line stoppage



### OPTICAL CLARITY

Extremus has a substantially thinner gauge than standard stretch film giving unbeatable clarity.



### HIGH CLARITY, EASY SCANNING

This speeds up scanning and unloading for customers and gets you back on the road sooner. Loads are presented neatly and professionally too.

## CASE STUDY

## SAVINGS OF OVER £100,000 A YEAR ON TRANSIT PACKAGING

A food manufacturer was incurring excessive financial and operational costs due to ineffective stretch wrapping processes.

The company was spending around £150,000 annually on stretch film, using 100 tonnes of plastic film and spending time and money repairing old machines.

## THE PROBLEM

Worn, damaged wrapping machines were causing stretch film to break and meant wrapped pallets were extremely unstable. The machines were unable to keep up with production during peak periods which resulted in bottlenecks and downtime.

Large supermarket chains were rejecting and returning damaged and leaning shipments, so warehouse operatives were spending a significant amount of time re-wrapping pallets. The frustrated operatives were loading the stretch film incorrectly in an attempt to prevent film breakages and keep the machines wrapping. Their Warehouse Manager repeatedly commented 'my guys deserve better'. The problem was costing them money, time and their reputation.

## OUR SOLUTION

We audited their current machinery, testing for correct setup and each machine's ability to stretch film and apply it in the most efficient manner. We then measured the amount of film used to wrap each pallet, the performance of the film, its strength and the amount wasted due to quality and poor machine set-up. Finally, we monitored the standard of pallet wrapping and listened to machine operators talk through the process and the practical difficulties faced when preparing pallets for transit.

We recommended making the switch to Extremus film and new state of the art turntable pallet wrappers, which when optimised could deliver up to 300% stretch. We created two bespoke wrapping programmes to suit their needs, whilst using the minimum volume of stretch film. Due to the combination of film and equipment used, the ROI on the new machines was less than 7 months. Careful training and ongoing contact as part of the maintenance contract with the team at Hazel 4D meant that the operations team was confident in using the system, and that savings were realised on an ongoing basis and the team could call Hazel 4D with any issues.

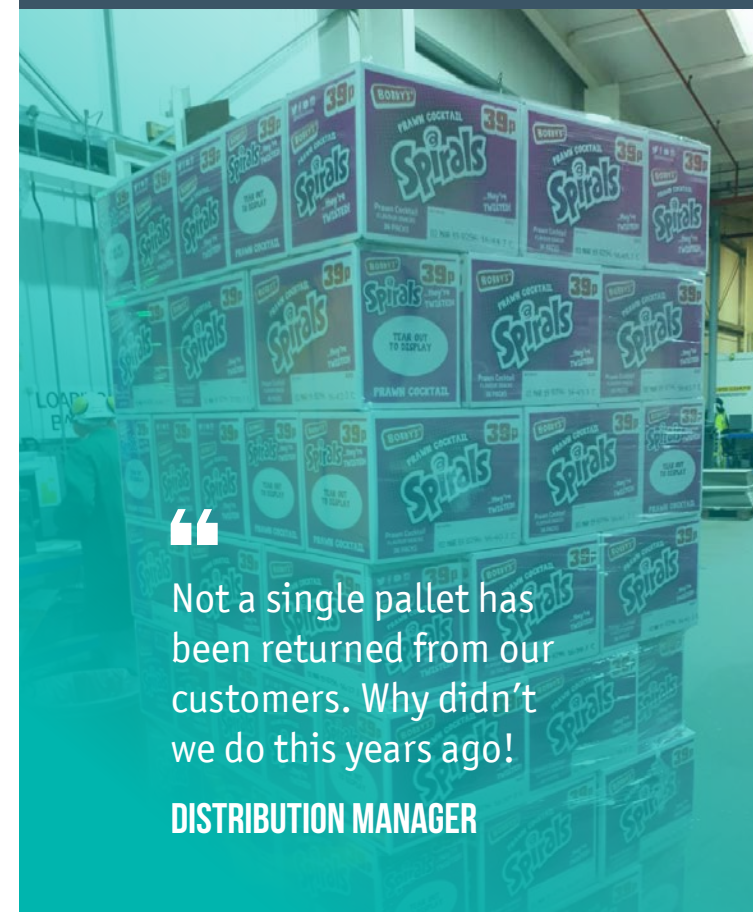
## THE DIFFERENCE IT MADE...

- ◆ Huge cost savings in excess of **£100,000 a year**
- ◆ Reduced plastic waste impact by **65%**
- ◆ Production downtime reduced
- ◆ Improved stability of pallets
- ◆ No film breakages
- ◆ Increased number of pallets wrapped per day
- ◆ Reduced need for roll changeovers



Not a single pallet has been returned from our customers. Why didn't we do this years ago!

**DISTRIBUTION MANAGER**





Built to deliver ultimate performance, stretch and speed.

We're exclusive UK distributors of Atlanta's smart, adaptable machines. We chose Atlanta because they consistently deliver savings, stability and total peace of mind to your pallet-wrapping process. Built to optimise materials performance, minimise waste and streamline your pallet-wrapping efficiency, a range of models and ways to buy or lease mean there's something for all wrapping needs.



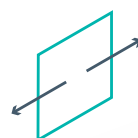
### PRECISION PROGRAMME CONTROLS

You can create your own programmes, use a whole range of pre-programmed settings and when in use, lock them, so you get the same perfect wrap consistently across a load – it makes getting up and running faster and delivers better results.



### EASY INSTALLATION FOR FAST SET UP

Installation is plug and play, so it's a simple set up – once we've optimised your film and wrap, trained you and tested the system, you're ready to go, faster and stronger than ever before.



### PATENTED PRE-STRETCH ROLLERS

Variable pre stretch rollers ensure you get the most out of your film. They require low maintenance to ensure consistent film performance and they can deliver up to 300% stretch from Extremus films.



### ERGONOMIC OPTIONS

Loose tail ends are a hazard, and give your customers work to do. Ergonomic controls allow you to pack tight and neat, with no tail ends, for an easy load, unload and store.



Hazel 4D have successfully achieved a much safer pallet with less than a quarter of the weight of film.

DISTRIBUTION MANAGER



## CASE STUDY

### PLASTIC USAGE REDUCED BY 66%

How we helped a bedding manufacturer reduce plastic usage by 66%.

This family-run firm ships around 195,000 pallets of bedding each year, but their poor film and damaged machines meant that they were wasting wrap and still not managing to eliminate rips, tears or returned pallets.



With Hazel 4D's input and knowledge, they have put best practice into the production area driving cost and efficiency savings.

MANAGING DIRECTOR

## THE PROBLEM

During a consultation and a full test of ten machines, we found that the stretch wrap being used was of poor quality, prone to ripping and tearing. In an attempt to get it working better, operators were often loading the film onto machines incorrectly, damaging the roll so that wrap was wasted. With no confidence in the wrap they were also wrapping several times, using much more film than should be needed.

This activity led to huge variances in the pre-stretching and tensioning of the film, causing unstable loads that were difficult to move safely and regularly resulted in rejected loads that had to be reworked at considerable expense.

## OUR SOLUTION

Our aim was to achieve a stable load, a reduction in film used and the elimination of waste, and improved efficiencies with effective machines.

We replaced three damaged machines and swapped their stretch wrap for our Extremus Stretch Film, a high-performance load holding film with a high tear resistance and up to 300% stretch. We spent time training their operators on the science behind stretch wrapping, how to load the Extremus Film correctly and its benefits for load stability. Working with their in-house engineers, we optimised the settings of the wrapping machines to increase their performance and save time and money.

State-of-the-art mobile testing system enabled us to measure the forces exerted on wrapped pallets to fix instabilities and improve the rigidity of the pallets. We continue to conduct frequent audits to check that savings and operational improvements are being maintained.

## THE DIFFERENCE IT MADE...

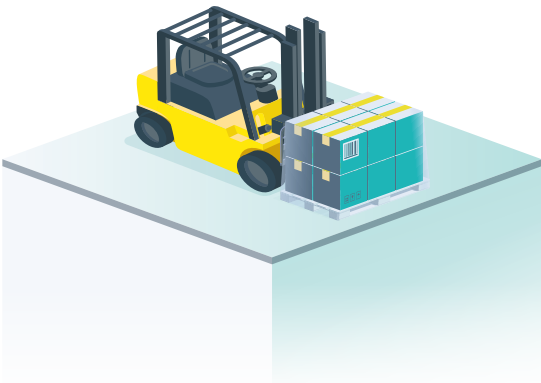
- Annual stretch wrap spend **reduced by £93,900**
- Operators can now load film correctly, eliminating damage to film
- A consistent stretch on film
- Less film needed to wrap each pallet
- Damage at beginning of film roll eliminated
- Reduced damages in transit
- Pallets can now be bulk stacked safely





# MEET THE LOAD STABILITY TEAM

Our team of experts includes technical consultants, packaging technologists, project managers and procurement specialists.



## KEVIN OLIVER

Technical Sales Manager

Kevin is a fully certified load stability expert with over 20 years experience in technical sales at Hazel 4D. He regularly keeps up to date with the latest technologies in the industry by attending EUMOS and other load stability summits. An expert in equipment specifications and pallet load stability, Kevin implements complex and highly effective process improvement solutions. He ensures his customers receive the very best fit to their unique requirement and provides consultation, best practice guidance and training.

07824 814389

kevin.oliver@hazel4d.com

LinkedIn/kevinoliver1



## ALEX SURTEES

Technical Sales

Alex has over eight years' experience at Hazel 4D, with significant experience successfully running major logistics operations. Alex is a fully trained film and load stability expert and uses his skills to deliver unique solutions that perfectly match our clients' individual applications. He is equally comfortable applying his load stability optimisation knowledge to clients' existing machines or to new machines supplied by Hazel 4D.

07780 493428

alex.surtees@hazel4d.com



## BRYAN STUTTERHEIM

Technical Consultant

Responsible for managing Hazel 4D's technical support division, Bryan enjoys solving a load stability challenge and spends his time helping clients upgrade their stretch wrapping automation systems. With over 20 years in the industry, he thrives on finding new solutions!

07825 747224

bryan.stutterheim@hazel4d.com

LinkedIn/bryanstutterheim



# A TAILORED SOLUTION

## BOOK A FREE CONSULTATION

When we work with you to understand your needs, recommend a tailored solution and optimise machines and material, you get total load stability and a real weight off your mind. Plus, we'll make sure it stays that way with regular monitoring to ensure your system is always on top form.

To find out more about our Load Stability system or book a consultation, call or email:

0113 242 6999

WECARE@HAZEL4D.COM







WE'RE NOT YOUR AVERAGE  
PACKAGING SUPPLIER.  
WE ARE YOUR SPECIALIST  
LOAD STABILITY PARTNER.



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