VENT LASER PERFORATION TECHNOLOGY

JAYSHRI PROPACK

high performance packaging

www.jayshripropack.com

Jayshri Propack, under the brand name VENT provides high-quality, engineered solutions for your fresh produce packaging needs. Our team comprises of experts who understand the importance of branding and market visibility, and we work closely with you to present your vegetables and fresh produce in the most effective manner.

Our company specializes in creating packaging solutions that prioritize the safety of your produce during transit and storage. We are committed to minimizing waste and helping to promote and market fresh produce for consumers. Our extensive experience and accreditations enable us to offer retail packaging options that are widely accepted by both small and large-scale supermarkets and retail stores.

We specialize in fresh produce, including pre-cut vegetables, salad mixes, and perishable items like berries, avocados, and leafy greens.

Ensuring the freshness of products heavily relies on the strict control of storage temperature and atmospheric conditions.

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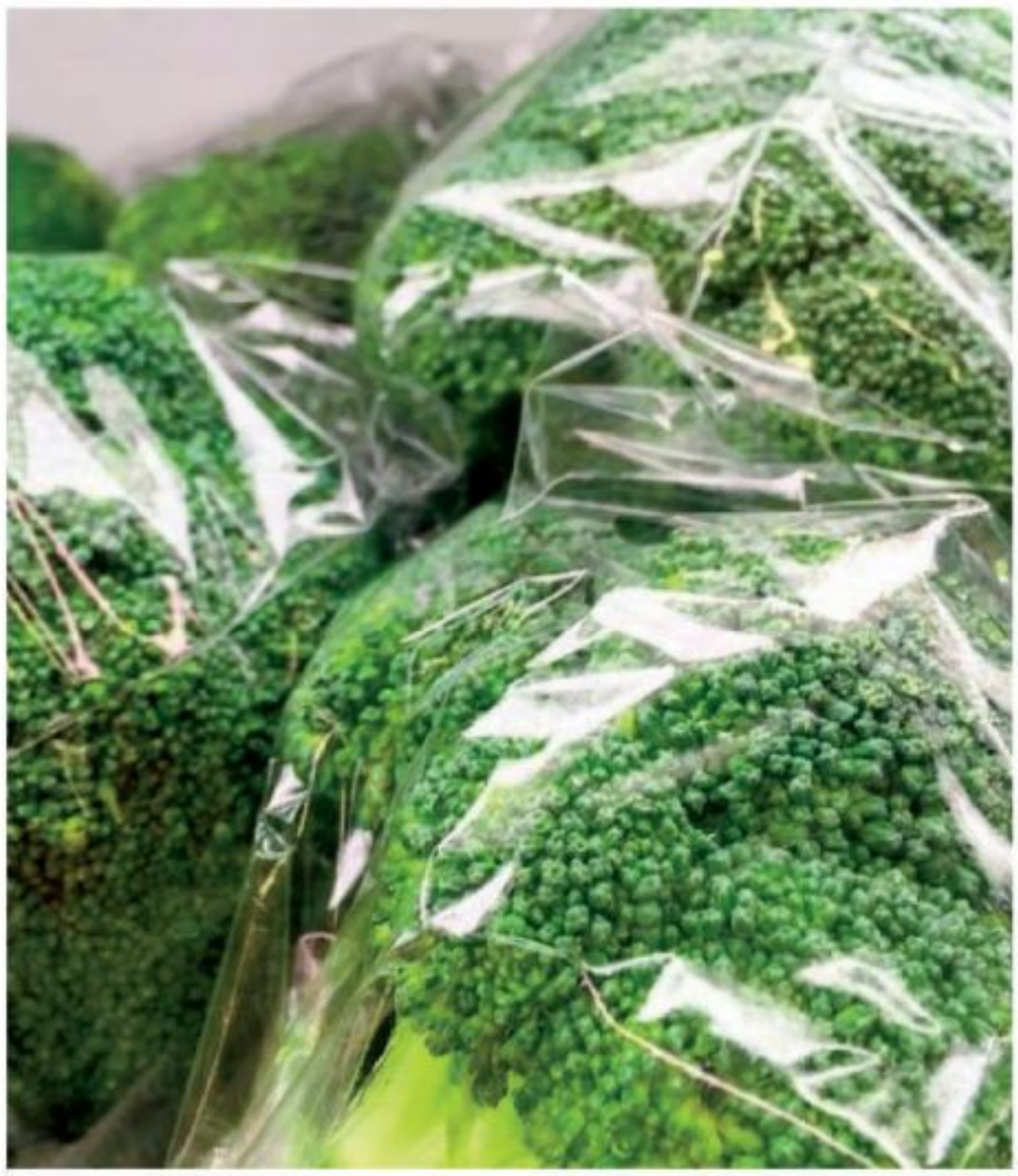
is BRC, ISO, Halal, and Kosher certified. Our commitment to maintaining the highest standards of quality is unwavering. We strictly adhere to processes and accreditations to ensure that we consistently meet the needs of our valued customers.

To enhance the **BREATHABILITY OF PLASTIC BAGS** with Laser Perforation Technology

The packaging materials of fresh products in a controlled atmosphere are often seen in the form of plastic bags. These bags allow optimal isolation of the products and seal them perfectly from external contamination by mould or bacteria.

In order to prolong the lifespan of a product, it is necessary for there to be a continuous exchange of gases between the inside and outside of the packaging. The levels of oxygen and carbon dioxide present are also key factors in maintaining the quality of the product. To achieve this, plastic bags need to be perforated to allow for proper gas flow. However, the amount of gas exchange needed varies depending on the product, which means the perforation process must be tailored to meet the specific requirements of each product.



Broccoli after 18 days in normal packaging

Broccoli after 18 days in Vent+ Bags

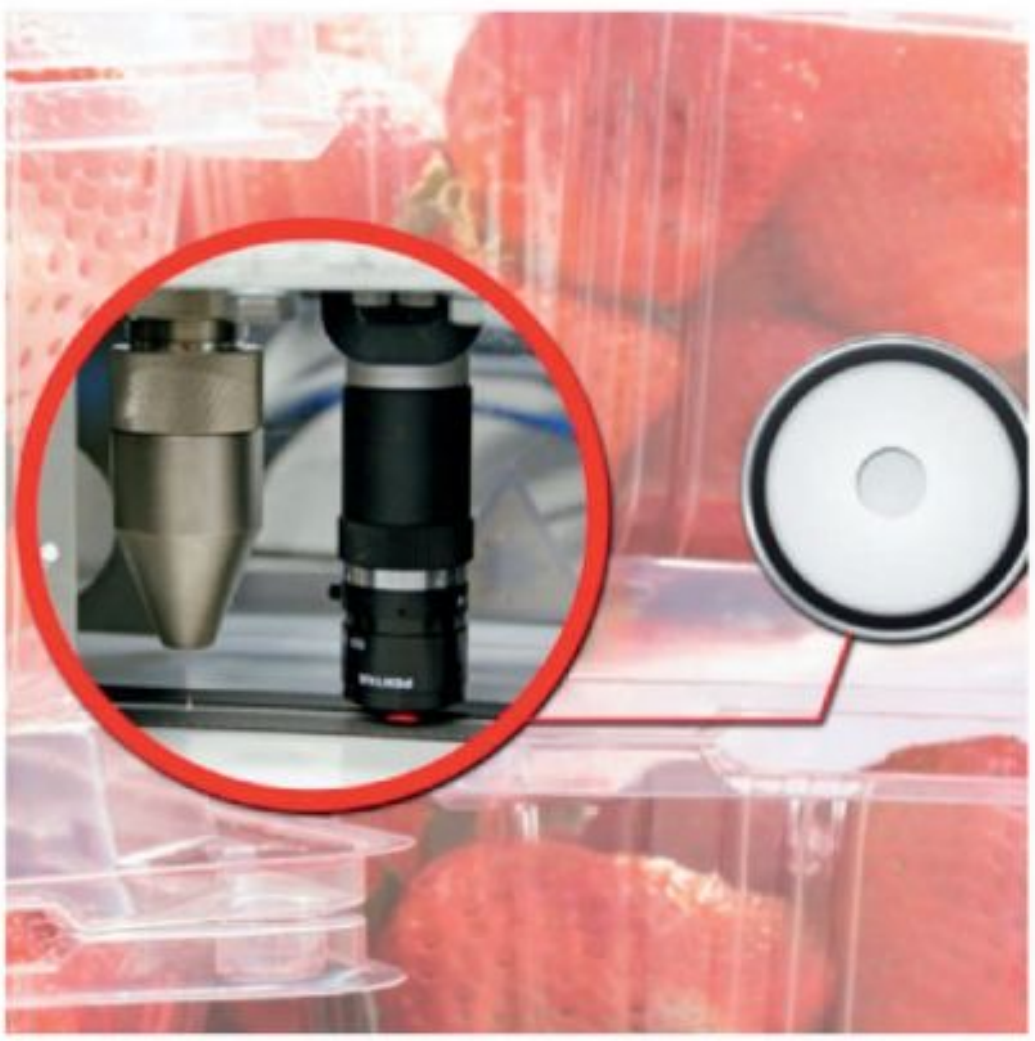
Our patented micro-perforation system designed with highly advanced and unique scientific approach that precisely matches the required oxygen level for each fresh-cut produce throughout its life cycle. The Laser Unit is responsible for creating the micro-perforations achieve the correct permeability.

The Patented Respiration Measurement System fine-tunes packaging's transmission rates, effectively inducing dormancy in fruits and vegetables using a Respirator and a Laser Unit.

Laser perforation holes are customized on the packs using a laser with diameters varying from **60µm to 200µm.**

EXCEPTIONAL QUALITY CHECK AND HI-TECH FEEDBACK CAMERA SYSTEM

The Jayshri Propack Laser Perforation System is a unique laser that boasts a patented closed-loop feedback camera system. This camera system is integrated into the laser and is responsible for inspecting each hole in the packaging film for quality control purposes. It ensures that the **Oxygen Transmission Rate (OTR)** of each pack is accurate. In case of any variation in film thickness, the laser is automatically adjusted 'on the fly' to maintain consistency. The camera is positioned behind the laser perforation head and examines the diameter and shape of each hole in the film. If any inconsistency is detected, the packaging machine can stop the operation automatically.

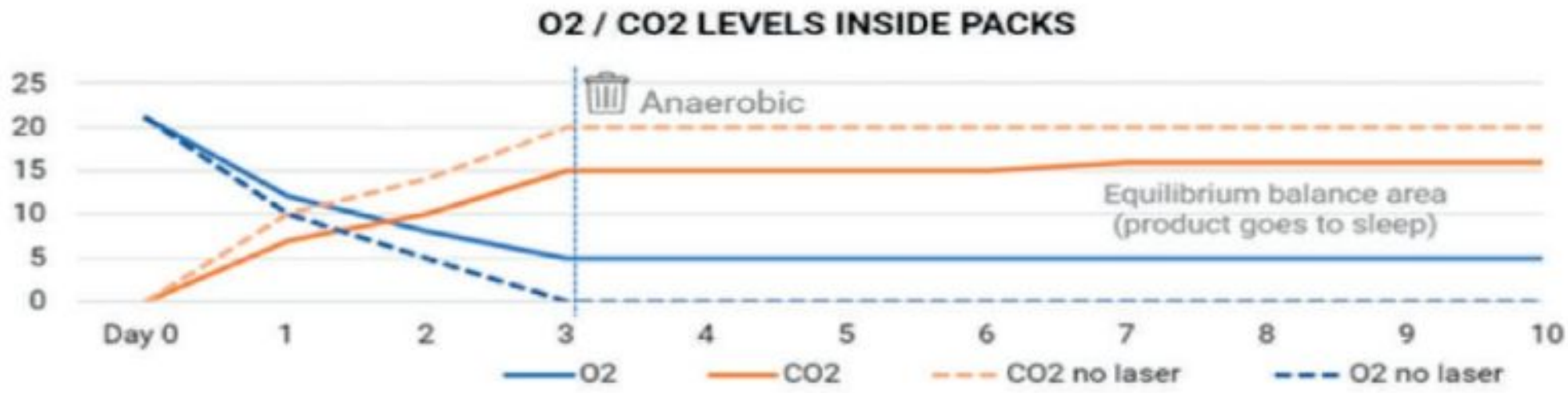


The precision and consistency of our technology is crucial for salads and ready-to-eat meals due to their low respiration rates.

LINER BAGS FOR EXTENDING SHELF LIFE

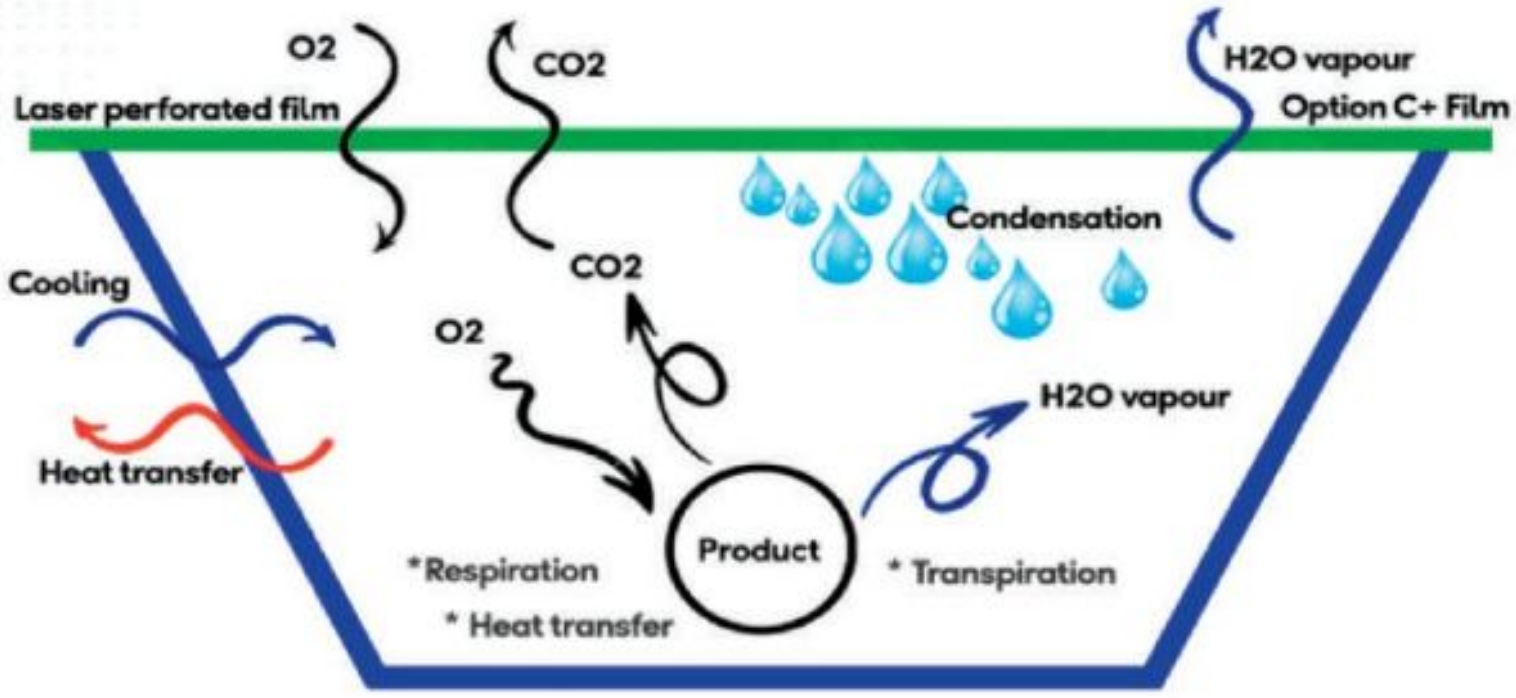
The Vent+ Liner Bag possesses unique traits that make it a valuable packaging solution for transporting and storing bulk fresh produce. Additionally, it can serve as an excellent ripening chamber. By utilizing the Jayshri Propack Laser Perforation System, which is based on Modified Atmosphere Packaging technology, the Vent+ Liner Bag can be micro-perforated, leading to an extended period of freshness. This means less waste, as the produce's flavor, smell, and taste are maintained without any weight loss, skin discoloration, browning, excessive condensation, yellowing, regrowth, lignification, molds, or CO2 damage during transportation or storage.

JPPL MAP: MODIFIED ATMOSPHERE PACKAGING



FEATURES & BENEFITS

- Maximizes the shelf life of fresh products.
- Available in the most commonly used box size on the market.
- Printable
- Plasticiser & GMO-free
- Patented
- Food Contact compliance approved.
- Certified home compostable material by TUV Austria.
- Produce weight loss is virtually zero.
- High Water Vapour Transmission Rate.
- Balanced O2 and CO2 transmission levels.



SIZES OF THE VENT LINERBAGS

- Use the Liner bag with the right transmission.
- Liner Bag should be sealed airtight.
- Temperature should not go below -1°C to prevent cold injuries.
- When the temperature is significantly higher than the indicated storage temperature, it's advised to keep the bag open to prevent temperature-related damage.

W 400 x H 600 x G 165 cm	Suitable for crate 40 x 30 cm
W 680 x H 800 x G 170 cm	Suitable for crate 60 x 40 cm
W 360 x H 450 x G 110 cm	Suitable for crate 33 x 24 x 8,6 cm (Blueberries)
W 360 x H 600 x G 110 cm	Suitable for crate 31 x 20 x 28 cm (Green asparagus)

VENT+ LINERBAGS FOR CHERRIES

- Pre-chill immediately after harvesting. At least 24 hours before packing.
- Keep handling to a minimum.
- Pack fresh and dry produce into the Vent+ LinerBag.
- Squeeze excessive air out of the bag and seal it airtight.
- Store in a cool room at 0-1°C.
- Cherry storage life: up to 65 days.

VENT+ LINERBAGS FOR BANANAS

LinerBag used for bananas

- The new Vent+ Liner bag outperforms conventional packaging systems and is a game changer in the banana supply chain.
- Ripening in only 4 days instead of 6 days while maintaining high product quality, which significantly reduces costs.
- Optimal transmission for 11 and 18.5 kilo bananas is determined. Non-standard sizes are possible.
- Vent+ Liner Bag is applicable for other fruits and vegetables. Example: cherries. blueberries, avocados, mangoes, etc.

How does it work?

- Vent+ Liner Bag: No moisture was recorded, and quality remained intact as bananas packed inside stayed dried.
- Conventional Liner Bag: The moisture is leading to increase in quality defects after ripening.

Key advantages for retailers

- Higher product quality and negligible waste.
- Less in-store waste.
- Positive customer feedback.
- No differences with bananas that were harvested 2 weeks later and packed. In conventional packaging, sold side-by-side.

VENT LINERBAGS FOR BELL PEPPERS

Start of storage

- During storage, the LinerBag is closed.
- During this process, the O2 level will drop and the CO2 level will increase to a level at which the product has just enough O2 to not suffocate and can continue to breathe.
- In this way, the product goes to sleep.

21 days of storage

- With LinerBag, weight loss recorded was only 1-5%.
- LinerBag opened to show freshness.

- With LinerBag, even a damaged pepper has not been infected or has infected others.

- Without LinerBag, Bell peppers lost quality, weight, and freshness.

Effects of storing bell peppers in LinerBags:

Less dumping: 2nd product for free

- Companies don't need to dump their products on the market. These bargains, for example, a second product for free, often end up in consumers trash cans.
- Supermarkets can offer fresh and healthy products at a much larger (i.e., global) scope.

Less food waste after transportation

- Fewer products are damaged (and thrown away) during transport upon arriving at their final destination. This enables growers to get a larger share of their products freshly delivered to markets and destinations.

Less production needed

- When products can be stored longer and fewer products are wasted, less production is needed. This means greater efficiency in the value chain and less waste.

Customer's problem, Our Solution and Result

Problem	Solution	Result
• Only shipment by air is possible in many cases. • Too much moisture condensation in bags. • Discoloration of product. • Dehydration of product. • Rot of product. • Short shelf life. • Uneven ripening stage.	**VENT+ Liner Bags**  • Prevents CO2 damage, yellowing, skin discoloration and more. **VENT+ Roll Stock**  • Suited for automated packing processes, available with various film structures. **VENT+ Preformed Bags**  • Suited for manual packing, available with or without wickets or gussets. **VENT+ Lidding Films**  • Customised solutions for different types of produce packed in PET or PP trays.	• Shipments by sea are possible in most cases. • Cost reduction (less product recall, less food waste). • Better quality in many cases. The temperature control is more stable than shipments by air. • Lower CO2 emission. • Extra shelf life extension. • Best possible quality and freshness extension this means reaching new markets. • Homogeneous ripening. • Happy customers.

OUR TEAM HAS A LOT OF EXPERIENCE WITH DIFFERENT VEGETABLES, FRUITS AND FLOWERS.

Raspberries

Brussel Sprouts

Mangoes

Roses

Lettuce

Bell Pepper

Kiwi

Banana

Grapes

Broccoli

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