

Barrier Biax-2

Two-Bubble Coextrusion Line for Biax Barrier Films



Key Features:

- Versatile extrusion technology can produce films with a variety of barrier resins (EVOH, PA, PVdC)
- Controllable film shrink properties
- Stable process that allows for long production runs without bubble breaks

Macro's Barrier Biax-2 Series of coextrusion biax film lines produces high performance multilayer barrier shrink films for food packaging applications, such as meat, cheese, and poultry packaging shrink films and shrink bags.

Configured in a two-bubble arrangement, the line efficiently performs the three basic processes of producing biax (biaxially-oriented) films: extrusion, orientation, and annealing.

Precise Extrusion with Versatility

Using Macro's TaperPack die, along with carefully designed extrusion screws, each extrusion module allows the processor to extrude a wide variety of polymers from PVdC to EVOH, and Nylon; allowing flexibility to adapt the product to market needs.

The line features Macro's primary tube calibration system, which is a water-based quenching and sizing technology, specially designed by Macro for the biax process. The quenching system ensures that the primary tube is efficiently cooled and precisely calibrated with simple operation that allows for adjustments to be made without stopping the line, generating cost savings from reduced scrap generation during production changes.

Highly Controlled Orientation

The line is equipped with Macro's orientation system, which initiates the MD/TD orientation process to accurately blow the second bubble. The orientation unit allows fast start-ups and the stability to perform long runs without bubble breaks. It also provides the processor with control of the shrink properties and thickness of the final film.

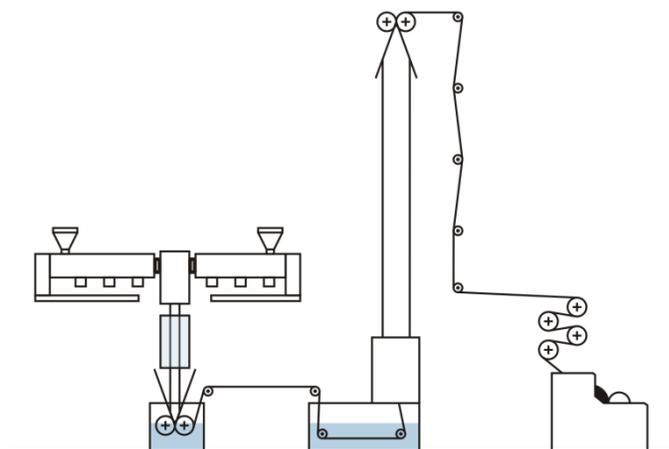
Reliable Annealing

Annealing of the film is performed at an annealing station that consists of four water heated/cooler rollers in s-wrap configurations.

The line is equipped with a vertical randomizing unit and Macro's Automax-S surface winder, which features programmable tension tapering and automatic cutovers.

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Applications:

- Fresh Meat Packaging Film & Bags
- Processed Meat Packaging Film & Bags
- Cheese Packaging Film & Bags
- Poultry & Seafood Shrink Film

Barrier Materials:

- EVOH
- PA (Nylon)
- PVdC

Model	Biax-2-200	Biax-2-400	Biax-2-600
Final Film Width (mm)	200	400	600
Film Thickness Range (µm)	30-90	30-90	30-90
No. of Layers	5, 7, 9, 11	5, 7, 9, 11	5, 7, 9, 11
Raw Materials	PVdC, EVOH, PA, EVA, mPE, Tie Resins		
Output Capacity (Kg/h)	40-60	60-80	100-120
Production Speed (m/min)	Up to 75	Up to 75	Up to 75
Primary Tube Quenching	Water-quenching unit with adjustable sizing system		
No. of Water Baths	2	2	2
Orientation	Orientation unit		
Bubble Stabilizing Cage	Three-level cage with Teflon rollers		
Gauge Randomizing	Vertical oscillating nip		
Annealing Unit	4 annealing rollers, 2 temperature control units		
Width Control System	Width measuring bar with automatic feedback control of second bubble width		
Winding	AUTOMAX-S Surface Winder (additional winder for sheeting optional)		
Airshaft Diameters (mm)	76	76	76



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