











NEWSLETTER



LABORATORY SCIENTIFIC

DENGINEERING

SINGLE-LAYER CAST FILM EXTRUSION LINE

TYPE LCRX-300/MARK II

INTEGRATED WITH SINGLE-SCREW EXTRUDER MARK II

MARKJ

NEW

Labtech Engineering proudly presents its LABORATORY SCIENTIFIC SINGLE-LAYER CAST FILM EXTRUSION LINE MARK II, featuring the LCRX-300/MARK II Cast Film Unit integrated with our LEX25-30/MARK II Single-Screw Extruder.

The MARK II series offers several advancements for laboratory extrusion applications:

- Modern, space-saving design that maximizes workspace efficiency.
- Significant investment cost reduction for new setups.
- Shortened production timelines for quicker equipment onsite delivery.
- Delivers film quality and performance consistent with our standard models.

With these advantages, the Cast Film Line MARK II becomes a compelling option for several market important segments:

- Startups with limited capital and venturing with a cost-effective solution.
- Organizations operating with restructed budget.
- University laboratories seeking professional-grade equipment for academic research and training.

Our Cast Film Attachment MARK II is designed for seamless integration with Labtech's Single-Screw Recycling Extruders MARK II. This pairing creates a compact, efficient system for combining film production with plastic recycling.

HB TECH ENGINEERING

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TYPE LEX25-30/MARK II

25 MM SINGLE-SCREW EXTRUDER MARK II TYPE LEX25-30/MARK II

The LEX25-30/MARK II features a lean body mounted on a sturdy steel frame positioned beside its electrical cabinet. With four casters, it is for easy laboratory repositioning while maintaining stability.



Barrel and Screw:

- 25 mm diameter screw with L/D ratio of 30
- · Mixing elements to ensure thorough material processing
- Constructed from high-quality nitrided steel
- Fully compatible with all standard commodity plastics

Thermal Regulation:

- Precise four-zone temperature control system
- Features independent zone cooling fans for gradual temperature transitions
- Drive System:
- High-performance 4 kW AC motor
- Achieves operational speeds of up to 300 RPM
- Coat Hanger Flat Die:
- Optimized flow geometry for uniform polymer distribution
- Adjustable lip gap ranging from 0.3 to 2.0 mm
- \cdot Individual temperature controls precisely up to 300 $^{\circ}$ C
- Handles full range of commodity polymers
- · Vertical or horizontal roll stack orientation as factory pre-set

CAST FILM ATTACHMENT MARK II TYPE LCRX-300/MARK II

The LCRX-300/MARK II is a highly adaptable attachment, incorporating a coat hanger die, a two-roller stack, and essential downstream components including edge cutters, pull rolls, and winding system – all in a space-efficient arrangement.

Roll Stack Design:

- · Features two rolls, each with 145 mm diameter
- The cast roll connected to a water tempering unit for precise roll surface temperature control up to 120°C
- The roll stack can be configured in vertical or horizontal orientation during factory setup for diverse film processing

Edge-Cutter with Wind-Up Cassettes for Edge Trims (Option):

- Delivers clean, uniform edges for maximum material usage
- · Efficient trimmed waste collection via convenient cassettes

Pull Roll Station:

- · Features two rubber rolls with adjustable pressure settings
- · Smooth and consistent movement at speeds up to 15 m/min

Winding System:

- Air expansion shaft with PVC bobbins
- Quick product removal and efficient changeovers for enhanced workflow productivity
- Control System:
- · User-friendly interface on a swingable control panel
- Manages all parameters with comprehensive security features



TECHNICAL SPECIFICATIONS

25 MM SINGLE-SCREW EXTRUDER MARK II		LEX25-30/MARK II
Screw Diameter		25 mm
L/D Ratio		30:1
Max Screw Speed		300 RPM
Drive Motor Power		4.0 kW
Max Barrel Temperature		300 °C
Maximum Output	For Strand Pelletizing	15 kg/hr (LDPE)
	For Cast/Blown Film	10 kg/hr (LDPE)

CAST FILM ATTACHMENT MARK II	LCRX-300/MARK II
Roll Diameter (All 2 Rolls)	145 mm
Roll Width	350 mm
Max Die Width	300 mm
Max Roll Temperature (Optional Water Tempering Unit)	120 °C
Die Lip Opening (Adjustment Range)	0.3 - 2.0 mm
Max Film Width (Untrimmed)	250 mm
Max Line Speed	15 m/min



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