

Laboratory machines for the processing of polymers

# Multifunctional-Extrusion Line MF-ExB-600 and MF-ExB-450

Multi-purpose lines for extruding mono-layer or composite materials



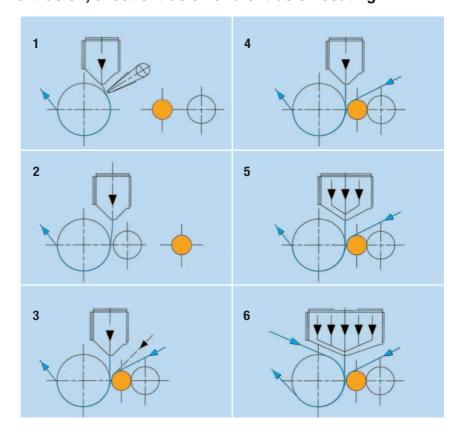
- Production of mono-layer or multi-layer cast films
- Coating on one or both sides
- Laminating of paper, non-wovens, aluminium foil
- Polishing or embossing of polymer sheet

## Multifunctional lines for film extrusion, sheet extrusion and extrusion coating

Particularly the packaging sector requires an increasing number of composite materials. With the help of extrusion coating, the properties of paper, textile materials, non-wovens, aluminium or plastic films can be combined in an innovative way.

Dr. Collin GmbH offers a new multi-purpose line for development processes on a pilot scale such as:

- 1. Flat film extrusion
- 2. Polishing/embossing
- 3. Extrusion coating, double layer
- 4. Coating, single layer
- 5. Coextrusion coating
- 6. Laminating of coextruded material



Multifunctional coextrusion - cast film/polishing/laminating line Type MF-ExB-600



# Multifunctional line MF-ExB-600

The line consists of the following modules:

#### Extrusion:

One or more moveable extruders with integrated electric and control equipment for feeding the required flat film die. Feed blocks for three or five layers allow the extrusion of the required amount of layers.

#### Coating unit:

A four-roll stack consists of a chill roll, a backing roll, a cooled supporting roll and a post-cooling roll. All rolls are of double-wall design for precise cooling. A quick roll change-over procedure allows the line to be adapted to suit a wide variety of processes.

#### Winder:

Two unwinding stations and one windup unit are designed as central winders. Web tensioning devices ensure an optimum winding quality.

Corona pre-treatment and adhesive coating units allow an optimum pre-treatment of the webs.

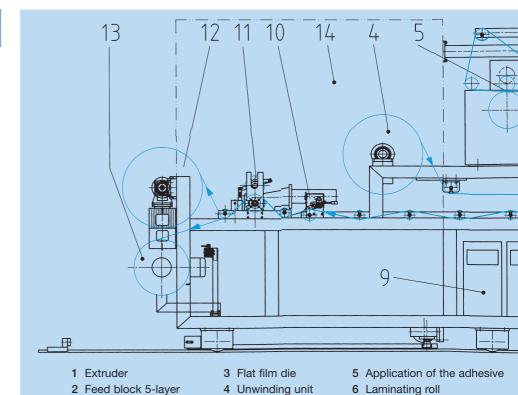
Additional options:

Edge trimming and edge trim wind-up;

Film thickness gauge for primary and finished webs.

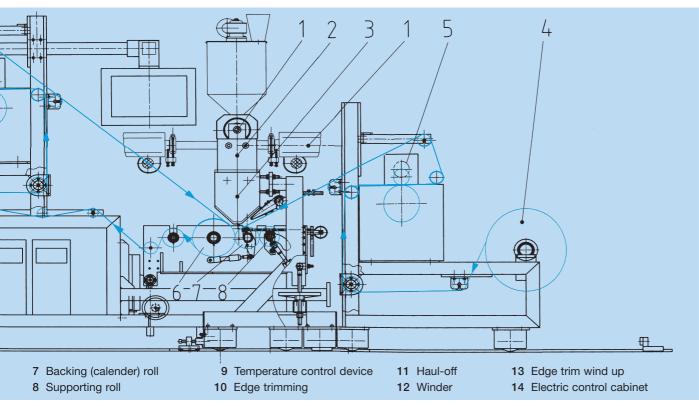
#### Central electric control:

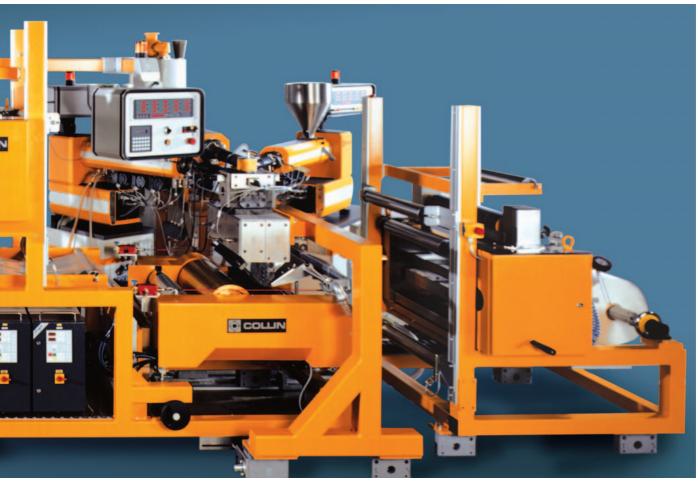
The entire line is controlled by a central micro-processor system. Data is acquired by a master PC and stored in archives.











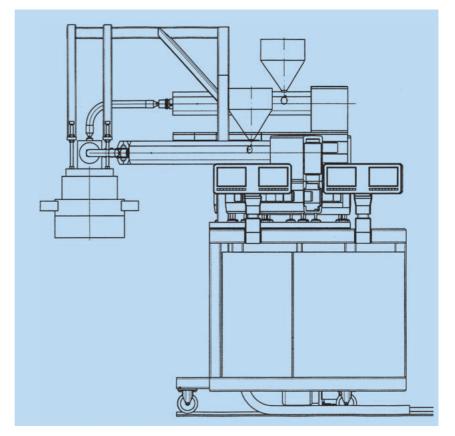
### **Travelling platform for coextrusion coating**

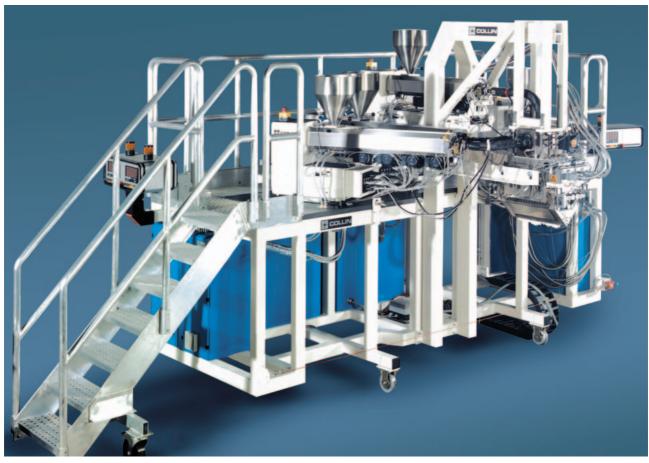
This coating module is comprised of four extruders as well as the required extrusion dies for the application of five layers and mounted onto a travelling platform.

The downstream equipment can thus be arranged freely or started up in the exact position.

#### Special features:

- Rapid or slow motion for exact positioning of the die above the coating line
- Swivel-mounted extruder for easy removal of the screws
- Electrical cabinets are integrated in the travelling platform









# Extrusion coating line ExB-450

A medium-size line allows the production of coatings in widths of up to 350 mm. The possibilities are similar to those described for the larger type ExB-600.

The line allows the operation of one to five ancillary extruders for the production of extruded film with one to seven layers. Two or three unwinding stations allow for all methods of lamination.

The frame fixtures are already provided, hence the components for potentially required pre- or post-treatment processes can simply be retrofitted.

#### Deliverable Design:

TYPES	Type Roll width	Processing width	Operation-	
OL:11 D. 11 T	(mm)	(mm)	speed (m/min)	
Chill-Roll Type 136/350	350	250	5 - 30	see leaflet Chill-Roll Type 136
MF-ExB-450	450	350	5 - 50	
MF-ExB-600	600	500	5 - 50	

Represented by:

Technical modifications reserved

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