

Finishing-Calender and Chill-Roll Line Type 136

The flexible system to produce flat film, sheet for laminating or to laminate



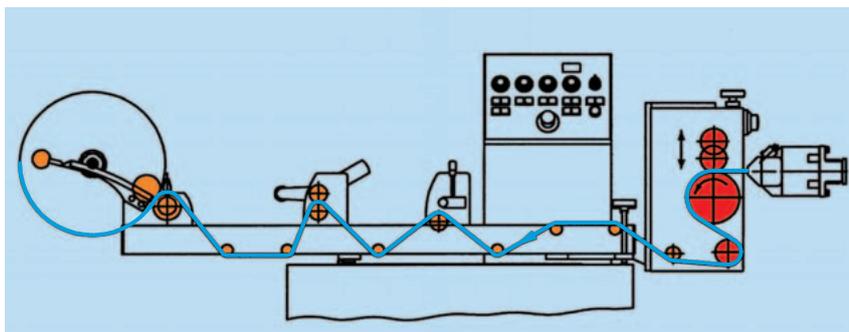
**Finishing-Calender for sheet
Chill-Roll for Film
Coating- and Laminating line for composite film**

From the abstract polymer to the real properties

Finishing-Calender Type 136



Testing extruder 30 mm diam. type E 30 P, slot die 250 mm and finishing calender type 136/350



Application

The laboratory-calender and chill-roll type 136 is universally used in the production of film, but also of sheet and platen.

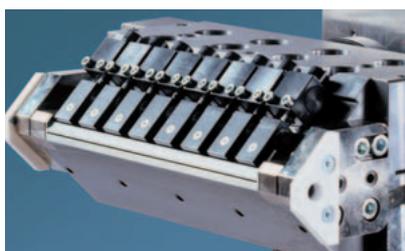
By **simple turning around of the 3-roll-unit** two different processes can be realized:

- the vertical position is used for finishing sheet of 0.15 to 2 mm
- the horizontal position allows the production of film between 20 and 200 μm
- by adding wind-off stations the unit can be used as a laminating-line

Film and sheet dies

Sheet-dies of COLLIN design are offered for extruding film and sheet. Dies of smaller width (50 and 100 mm) are designed with movable lip, whereas dies of 150 and 250 mm width are designed with a flex lip and allow exact gap-setting.

250 mm with flex lip



Slot die 250 mm

Finishing-Calender and Chill-Roll

3-Roll Unit

The main part of the machine is the group of 3 rolls, swiveling at 90 degrees, suitable for horizontal and hanging position of the extruder die.

The group of rolls consists of a chill-roll, a cooling roll and a polishing roll that can be tempered as well. The roll width can be 230 mm or 350 mm (at choice).

All the rolls are doubled-walled to enable their temperature to be accurately controlled by means of a heating-cooling medium and with rotary joints for the connection of external temperature devices. The roll surface is ground and hard-chromium-plated.

The polishing roll can be pivoted pneumatically via 2 cylinders.

Optional hydraulic cylinders will be provided for higher linear loads.

Roller-Stack

The roll-unit is followed by a roller section and a pair of rubber-covered take-off rolls. The roller stack allows the adaptation of film testing devices, edge cutting device or Corona Station.

Chill-Roll Line



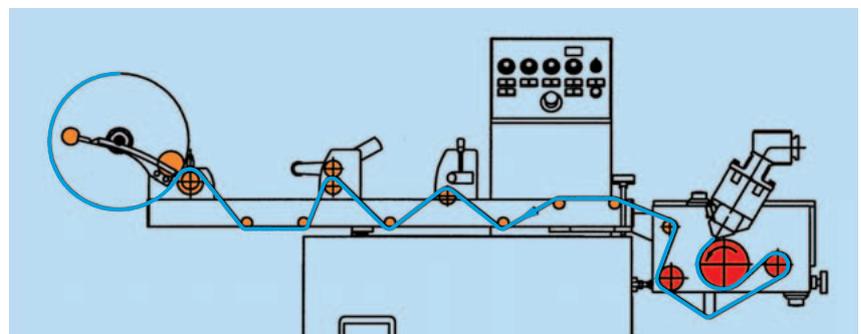
Testing extruder 20 mm diam. type E 20 P with 60 degree adapter, plot die 150 mm, and chill-roll type 136/230 with roller unit in horizontal position

Drive System

Polishing rolls, take-off rolls and wind-up unit are powered by 3 individual adjustable AC-motors.

Winder

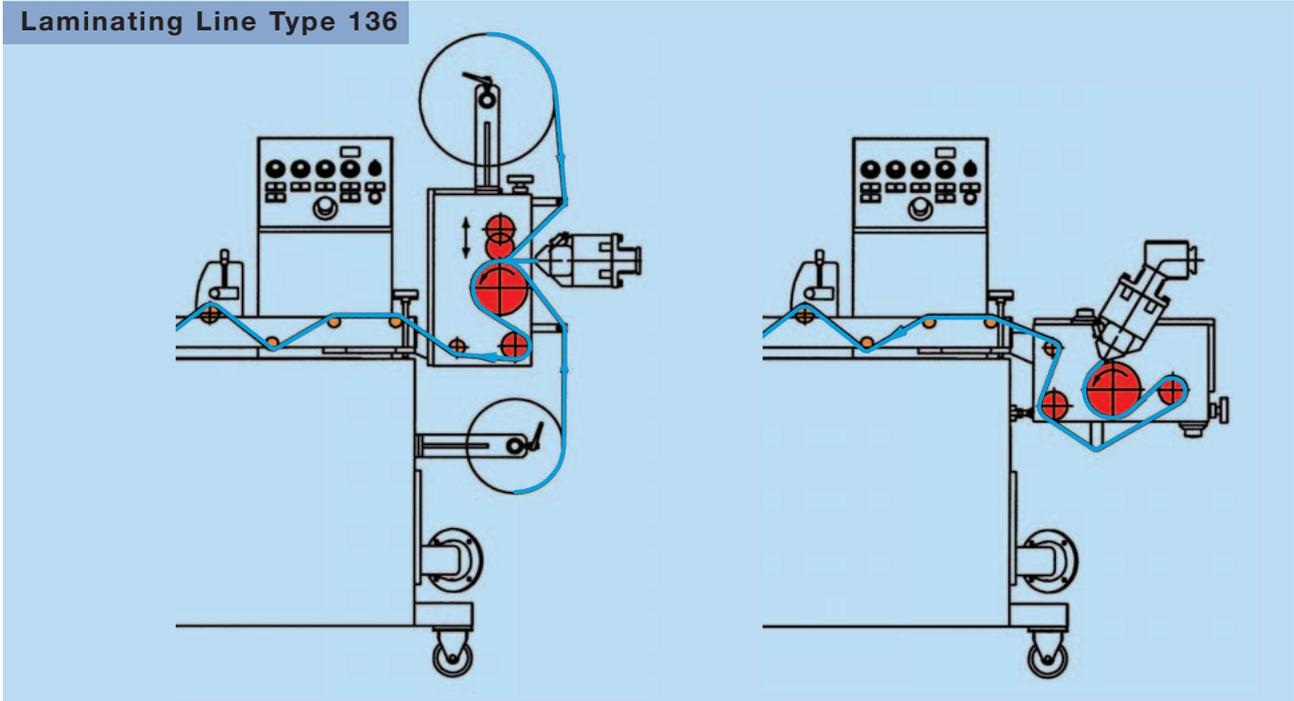
The take-off rollers are followed by an axle wind-up unit. The wind-up unit is available either as a central or circumferential system and allows the winding of very thin film as well as sheet. The winder can also be delivered as a cantilevered winder axis with expandable shaft.



Options

- edge cutting with blades
- edge cutting with rotating knives
- edge strip winder
- Corona treating-unit
- light box for visual control
- water or oil tempering units for heating / cooling of the rolls

Laminating Line Type 136



The finishing-calender can be changed to a laminating line by attaching of wind-off stations.
The integration of suitable preheating units or corona stations allows the simulation of production processes.

The two different production processes can be realized as well, that is:
The horizontal position can be used for low viscosity melt and the vertical for high viscosity melt.

Technical Data

Type		136/230	136/350
Roll width	(mm)	230	350
Film width (max.)	(mm)	200	300
Roll diam.	(mm)	72/144/72	72/144/72
Working position	horizontal	1100	1100
	vertical	830	830
Haul-off speed	(m/min.)	0-6/16/32	
Winding diameter	(mm)	max. 300	max. 300
Weight	(kg)	280	400

Technical modifications reserved

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