

Flat-Film Take-Off Unit CR 72T

The universal system for casting, calendering and laminating



Application

The flat-film take-off unit CR 72 T is the universal device for the production of flat film/sheets in training, research and development, but also in production and quality control.

The main functions are:

- drawing film
- casting film
- smoothing plates
- calendering
- coating and laminating

Co-extrusion

The compact design makes it extremely easy to put together a co-extrusion system from two or three extruders for producing 'AB', 'ABA' or 'ABC' laminates. The following dies are available for this purpose:

- manifold die
- feedblock, three-layer
- feedblock with viewing window

Features

The advantages of the TEACH-LINE® flat film system are:

- compact design
- easy operation
- universal application for the production of single or multi-layer flat film/sheet

FLAT-FILM TAKE-OFF UNIT CR 72 T

Description

The main feature of the combined calender flat-film system is its design as a three-roll unit with a central fixed roll, an upper adjustable smoothing roll and a lower cooling roll.

The polishing roll can be moved pneumatically. Using a fine adjustment of the gap, it is possible to smooth sheets, to calender film or to produce laminates.

The rolls are of double-jacket design for exact temperature control using fluid heating-cooling units.

The roll surface is chromium plated and polished.

The drive for all three rolls is provided centrally via a DC-motor with reducing gearbox.



Chill-Roll TEACH-LINE® CR 72 T in the basic version with one winder.

Chill-Roll TEACH-LINE® CR 72 T with additional unwinding station for laminating films, textiles or paper.

A central winder with a quick-release clamp is driven by a second DC-motor.

The control panel is positioned at the front of the machine; the ergonomically designed arrangement of the controls enables simple operation.

Safety

A safety switch positioned over the polishing roll and a mushroom button on the operating panel activates an emergency stop and an automatic opening of the polishing roll by 50 mm.



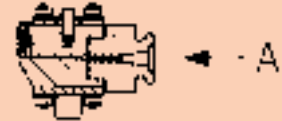
Film and sheet dies for single and multi-layer

Mono-extrusion:

Flat-film dies Dies with fixed lip for film thicknesses from 20 to 1000 µm.

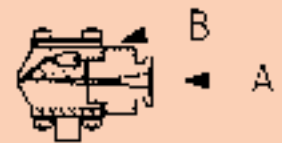


Plate dies Dies with an adjustable lip for film thicknesses from 0.2 to 2 mm.

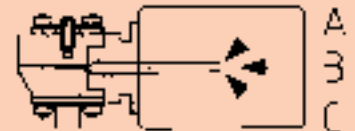


Co-extrusion:

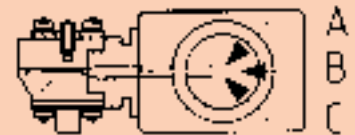
Manifold die Two-layer
Three-layer The tool for the production of laminates from polymers with different viscosities.



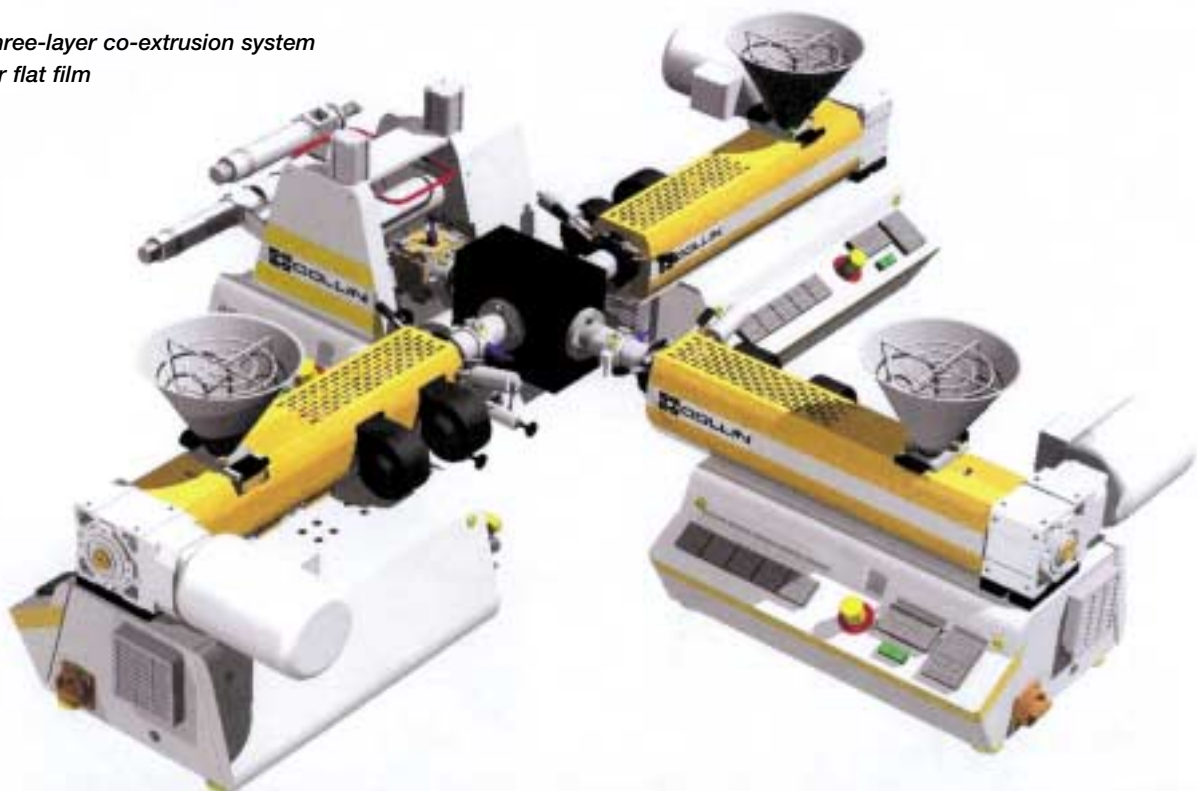
Feedblock Three-layer The standard industrial tool miniaturised for laboratory applications for 'AB', 'ABA' or 'ABC' layers.



Feedblock Three-layer with window The new type of tool for viewing the melt flow in the feedblock.

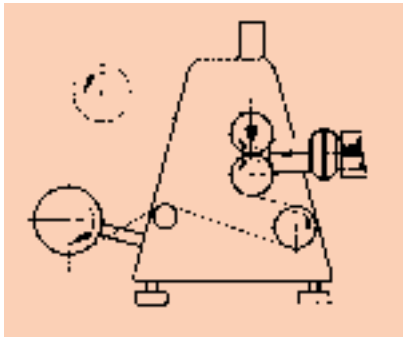


Three-layer co-extrusion system for flat film



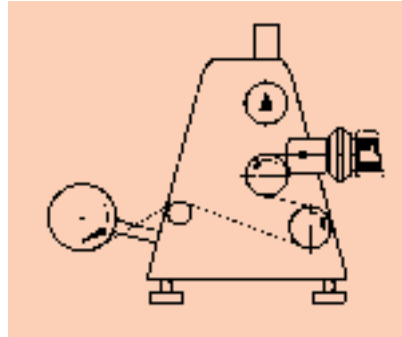
Applications

Calendering/laminating



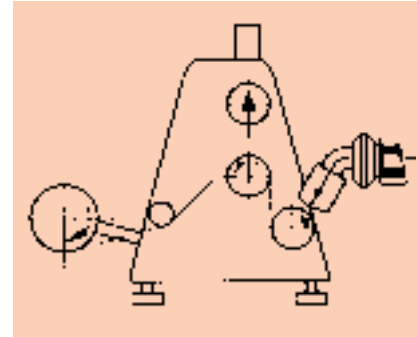
For polishing or calendering tasks the upper roll is lowered pneumatically to a precisely adjustable roll gap. A take-off station positioned above the die provides the fabric for lamination onto the polymer.

Horizontal drawing



With the upper roll raised, film is drawn with the horizontally positioned die via the central roll. Here, the central roll may be heated to a specific temperature and the lower roll cooled.

Vertical casting



With low viscosity polymers the die is positioned, for example, at an angle of 60° for casting on to the lower cooling roll.

Technical data

Roll diameter	72 mm
Roll width	190 mm
Torque	0,9 Nm
Max. external die width	200 mm
Max. die working width	100 mm
Take-off speed	0,5 - 14 m/min.
Fine setting of gap	0,1 - 2 mm
Drive power of roll unit	100 W
Drive power of winder	45 W
Total electr. power rating	500 W
Pneumatic rapid opening stroke	50 mm
Line pressure for 100 mm	85 N/cm
Electrical net connection	1 x 230 V, 6 A, 50/60 Hz
Connection to cooling water rolls	2 x 3/8" internal thread
Compressed air connection	6 bar / hose 6 mm diam.
Winder diam.	max. 250 mm
Tensile force	95 N
Required cardboard cores for winder	2" (52 mm) Ø
Length of the cardboard cores	170 - 200 mm
Dimensions: Length x depth x height	825 x 550 x 635 mm
Weight	55 kg

Technical modifications reserved.

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