

Labtech Engineering presents:

The Amazing New Ultra Micro 3-layers Co-Ex film & sheet line

Worlds smallest co-ex Chill Roll line of its kind



Featuring:

- Conical 8 mm extruders that can use regular pellet sizes
- Sectional feed block for A+B+A configuration
- Professional rolling stack with internal water heating and cooling
 - Adjustable roll pressure
- Motorized wind up with bobbin gripper
- Touch screen control of all machine functions
- Up to 75 mm wide die with adjustable lips

The amazing Ultra Micro co-ex chill roll line



As with all our other Ultra Micro lines, this Co-Ex version was designed and built by our engineers on their spare time and given as a gift to our manager.

The line features two units of our conical extruders which have the unique features to be able to use regular plastic pellet sizes. This is made possible by having an in feed section diameter of 18 mm which then gradually reduces to 8 mm at the screw tip.

The line features a section type of feed block which divided the in flow from the two extruders into layers A+B+A. This feed block type ensures a very even layer thickness. The layer thickness is regulated by the speed from the extruders which are driven by infinitely variable speed servo motors with a very constant RPM



The flat die is of coat hanger type and has a set of adjustment screws for the lip gap. With this the gap can be set from 0.1 to 0.3 mm

The feed block and die is connected to the extruders with C-Clamps. They can easily be removed for fast cleaning of both extruders as well as feed block and die.



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Rolling stack with water heating and cooling

All tree rolls in the rolling stack are double walled for internal heating and cooling and connected to a built in water heating and cooling tank with circulating pump. The connections to the rolls are through miniature rotating joints.

The sub cabinet contains the custom built water circulating unit with which is connected to an external water supply. Due to the large internal water tank, the system can be used for several hours without the need for an external supply of cold water.



All the functions on the entire Ultra Micro Co-Ex Chill roll line are controlled on a touch screen with clear and easy to understand graphics. Shown here to the right is the main screen where the whole line is illustrated and where the running Parameters are clearly shown in real life.



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The touch screen controller has a multitude of pages for easy and clear visualization of all machine functions



The sub cabinet also contains all the electrical and electronic components comprising of AC Servo & DC motor controls, relays and controls for water pump, electric water heating, PLC unit for touch screen and various safety controls.

The machine complies fully with CE and all other countries safety standards

Brief technical data on the Ultra Micro Co-Ex Cast film & Sheet line type LUMCR-50

Cast Film LCR-50		2 Layer	A B (With Extruder 2 units)
Roll width	100 mm	Feed Block heater power	300 W
Roll diameter, all 3 rolls	40 mm	Extruder LE8-30/C	
Maximum film width after neck-in	40-45 mm standard, 60-65 mm optional die	Conical screw diameter	18 mm at in feed, 8 mm at end
Film thickness	10 to 300 µm	Screw L/D ratio	30
Die width, standard (optional)	50 mm. (75 mm.)	AC servo motor	400 W
Die adjustable lip opening	0.1 to 0.3 mm	Screw speed range	0 to 300 RPM
Flat die heater power	400 W	Number of barrel heating zone	1
Roll stack DC motor power	30 W	Water cooling on In-feed zone	1
Take-off speed, meter per minute	0.5-5 m/min	Heating power	650 W
DC Nip roll and wind up motor power	15 W	Max pellet size	Standard pellets
Water temperature range	Max 90°C	Complete film line	
Water temperature heater power	1000 W	Suitable for processing of:	LLD, LD & HDPE, PP, PS, ABS
Feed Block		Dimensions (W x L x H) mm.	840 x 1230 x 1235
3 Layer	A B A (With Extruder 2 units)	Voltage	3 phase 400 V, Others on request
		Total power and ampere	4.4 kW, 15 A

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