New Ultra Micro Film Blowing Line

The line was secretly designed and built by our engineers and technicians during their spare time and was presented as a New Years gift to our company's manager. A lot of engineering has gone into this design, completely designed and built from scratch and the result is truly amazing. This Ultra Micro film blowing line worked so well that we decided to offer it to our entire customer worldwide. It was shown for the first time in April 2012 at the NPE exhibition in USA and it drew a huge crowd at all times during show hours.

The Ultra Micro film blowing line has the following features:

The film tower has a total width of 150 mm and can accommodate a film of a lay flat width up to 100 mm. The rubber nip-rolls are spring loaded and driven with a variable speed DC motor. The A-frame is made with adjustable collapsing angle and there are two film bubble stabilizing frames with adjustments to accommodate different film bubble diameters

The tower has a motorized height adjustment with die to nip-roll distance from 430 to 570 mm

The die is of spiral mandrel type with inlet at the bottom and connected to the extruder with a c-clamp.

The air ring has an adjustable lip opening and the cooling speed turbo blower built in connected to the air ring

air is supplied by a variable to the tower sub cabinet end with four flex hoses

The tower sub cabinet shown to the right

contains:

- digital set and read out PID controller for the die,
- speed controlling knobs for nip-rolls
- Up and down buttons for the height adjustment

temperature

and blower

motorized film tower

Downside of tower is equipped with a film inspection lamp

Note the pen on the control panel.

This is just to give an idea of the small size of the extruder

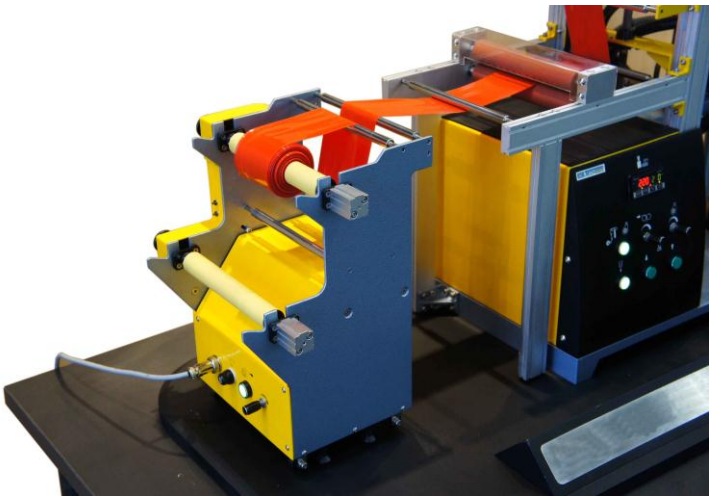
The extruder is made with a conical screw and barrel having a starting diameter of 12 mm and ending diameter of 8 mm. The screw length is 24 L/D; Thanks to the conical design, the extruder can be fed with comparatively large pellets of a max size of 1.5 x 1.5 mm.

The barrel has one heating zone which is controlled by a PID temperature controller with digital set and readout values. The drive is made with a geared variable speed DC motor and the speed control is from a potentiometer knob on the sub cabinet panel.

The hopper has a turret valve, same as with our larger extruders and it has a discharge pipe on the side to empty out the hopper.

The extruder has a non functional control panel mounted on a swing arm. The panel is an exact replica of our larger extruders

The film wind up system comprises of a set of rubber nip-rolls on the out feed conveyor of the film tower and a two-station wind up unit.



The wind up unit has two spring loaded bobbin film cores which are both driven with a variable speed geared DC motor. The speed regulation is made with a turning knob on the lower front or the sub cabinet. Both wind up shafts have a slip clutch system to give sufficient tensioning of the film web.

Technical Data on the Ultra Micro Film Blowing line Type LUMF-150

Extruder LE8-24/C	
Conical screw diameter	**12 mm at in feed, 8 mm at end**
Screw L/D ratio	**24**
DC motor power	**36 W**
Screw speed range	**0 to 300 RPM**
Number of barrel heating zone	**1**
Air cooling on barrel zone	**1**
Heating power	**300W**
Max pellet size (cylindrical)	**1.5 x 1.5 mm**
Dimension	**180 x 440 x 420 mm**

Film Tower LF150	
Maximum film lay flat width	100 mm
Film speed, meter per minute	5 m/min
Standard film die diameter	20 mm (Gap 1.2 mm)
Height from die to nip-roll	440 to 640 mm
Total height of film tower	800 to 1,000 mm
Total electrical power	590 W
Two-Station Windup	
Maximum film lay flat width	100 mm
Film speed, meter per minute	5 m/min
Total electrical power	24 W
Complete film line	
Dimensions	450x1200x1010 mm
Voltage	Single phase 220 V, Others on request
Total power and ampere	1154 W, 5.25 A