

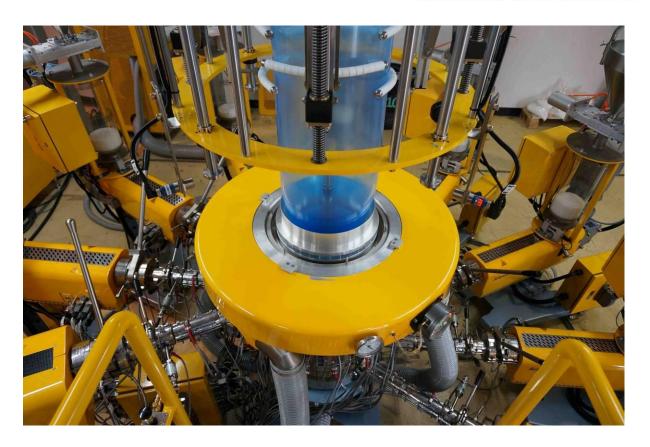
The amazing 9-layers co-ex film blowing line we built for a customer in USA



Above picture shows a brand new 9-layers co-ex film blowing line which we have just completed for a customer in USA. The line was built with many special requests from our customer and the main features are described in brief details on the following pages. The technical manager from the customer has been here twice to test run this line and he is extremely pleased with the line, its high quality and great performance. At the first visit about a month ago he came along with two more engineers from the same company and made the first initial tests which also went very well. But we were asked to make some changes on the line which we did in record time so that we could complete the remaining tests at his second visit. The line us truly amazing and the best he has ever seen and he is willing to share his opinions with you.

We also had a visit last week from another large packaging company in Germany who is about to place an order with us for another 9 or maybe 11 layers co-ex film blowing line. This customer was equally impressed with this line and told us he had never before seen such a well built line which were by far better than any of their other co-ex line they had acquired from a German supplier.



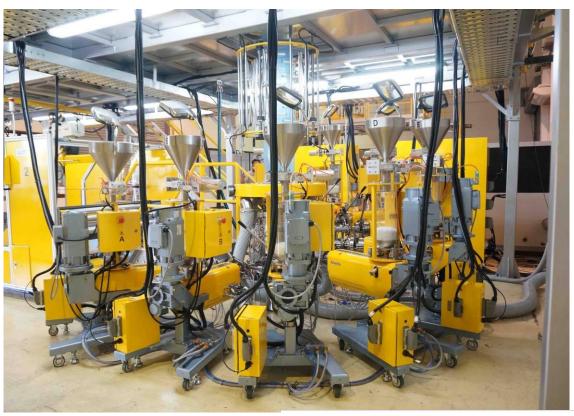




The line comprises of the following:

- 9 extruders comprising of
 - 1 unit 30 mm, 31.8L/D extruder
 - 1 unit 25 mm, 32 L/D extruder
 - 7 unit 20 mm, 32.5 L/D extruders
- Screen changers on all extruders
- 9-layers pancake type die with a die diameter of 120 mm
- New Bubble cage as shown here with 6 rows of curved Teflon rollers, all adjustable synchronously
- Bubble diameter sensors to control film where the bubble is automatically inflated or deflated using an high velocity air blowing system





- New high efficient air ring delivering a very even air without fluctuations around the entire circumference, resulting in an extremely even cooling of the film
- All extruders are equipped with our hopper weighing system which are all controlled from the central control panel





- Platform in 3 levers with a total height of 7 meters
- First floor holds the oscillating Nip Roll as well as the corona treater
- Second floor has a film unfolding unit where one side of the film is split and the film







unfolds to double width of up to 1.1 meter.

- Oscillating Nip Rolls unit placed on first floor of the platform. Here the film wrapped around the oscillating unit can either be led to the corona treater placed on the same floor or it can be directed upward to be split at one side and then unfolded on the above second floor
- A-Frame with carbon fiber rollers. Two set of rubber nip rolls to pull film through the film slitter
- Corona treater on first floor as shown below, treating on both sides of film



Page | 4





- Two fully automatic winds up units placed on the floor as shown here in the lower right part of the picture. These units are placed facing each other and are caged in with a Plexiglas frame which is equipped with electronic safety curtains for optimum safety.
- The wind up units will automatically change the film roll once it is full and change to an empty wind up bobbin.
- The wind up units are equipped with an electric hoist hanging on a rail mounted on the platform ceiling. The hoist will lift up the ready wound film roll from any of the wind up units and move it on to a trolley.

We will be pleased to give you any further information you require on this and any of our other many co-ex lines

Labtech Engineering Co., Ltd.

Bangpoo Industrial Estate, 818 Moo 4, Soi 14B, Sukhumvit Road, Prakasa, Muang, Samutprakarn 10280, Thailand Tel.: 66-2-709 6959, Fax: 66-2-710 6488 and 89,

Email: labtech@labtechengineering.com Website: www.labtechengineering.com