SYNCRO®
SYNCRO GROUP

skymex_WIDE

Thickness gauge for blown extrusion

SKYMEX WIDE CONTACT / NO CONTACT is a capacitive thickness gauge for bubble extrusion lines. It ensures continuous and accurate measurement of the film thickness profile detected by oscillating or rotating around the bubble. It uses a patented triple movement telescope.

PRINCIPLE OF OPERATION

The machine can use either capacitive or backscatter X-ray sensors. In the first case, the dielectric characteristics of the measured film produce a signal variation proportional to film thickness. In the second, which is suitable for products containing PA or EVOH, the signal is attenuated by the absorption of radiation proportional to film thickness. The sensor is mounted in the centre of the beam, the oscillatory rotation of the system around the bubble and the reading of the angular position allow a circumferential profile of the thickness to be generated over 360°.

MAIN FEATURES

PATENTED TRIPLE TELESCOPIC SYSTEM

The triple telescopic system is built with a patented precision mechanism (Patent WO2015/155621) and is positioned on two motorized trolleys that generate the movement around the extruded bubble.

MULTIPLE MEASUREMENT TECHNOLOGIES

One of the following sensors can be accommodated in the centre of the intermediate element of the three-stage telescopic beam:

- Capacitive contact
- Capacitive no contact
- Xray Backscatter ideal for barrier structure.

MOTORISED MOVEMENT

SkYmex fulfils four basic requirements: rigidity, absence of vibration, wide radial measurement range and minimal overall dimensions during rotation. Thanks to the passive beam and the two motorised carriages that synchronise during rotation, the sensor is kept in the centre plane of the carriages regardless of the bubble diameter, guaranteeing wide BUR ranges.

360° ROTATION SYSTEM

As an option, SkYmex can continuously rotate 360° in one direction thanks to the power transmission system integrated in the slewing ring including a WI-FI connection.

WIDE MEASURING RANGE

Each SkYmex model can adapt to the bubble diameter up to a ratio of 4:1 between maximum and minimum diameter. Thanks to the numerous construction sizes, layflats from 4.5 up to 14 metres are available. For layflats smaller than 4.5 metres, the standard SkYmex is available.

ULTRASONIC DISTANCE SENSOR

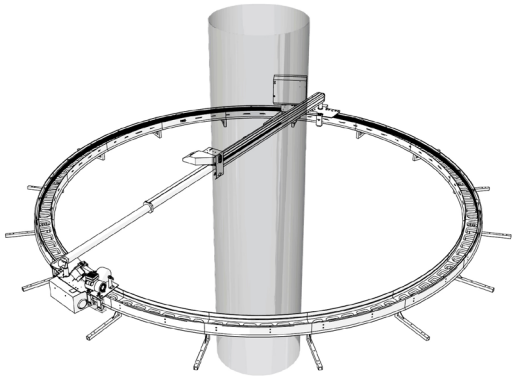
SkYmex is equipped with an ultrasonic sensor that ensures that the set distance between the sensor and the bubble is maintained.

INDUSTRY 4.0 & IoT

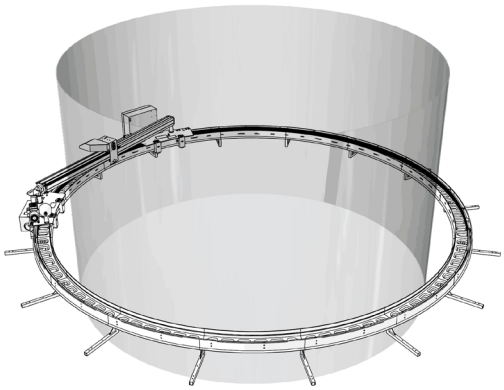
All SYncro machines are ready to be integrated with third party supervisory controls and ERP systems using the latest generation of OPC-UA protocols as standard.

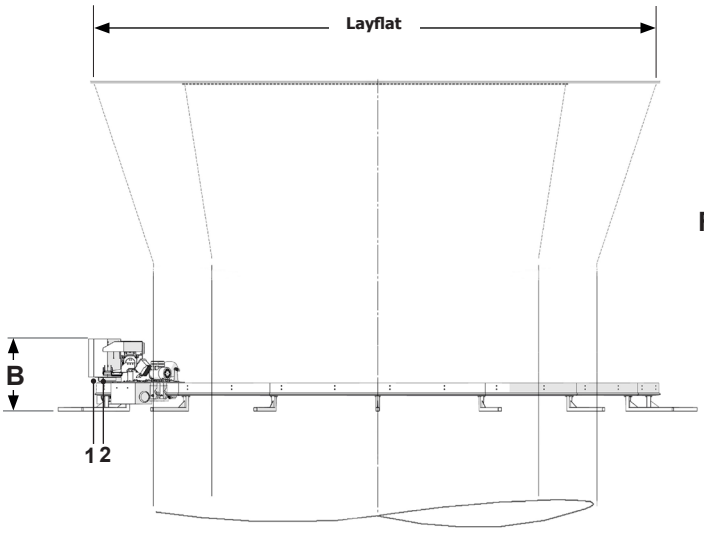
TECHNICAL DATA

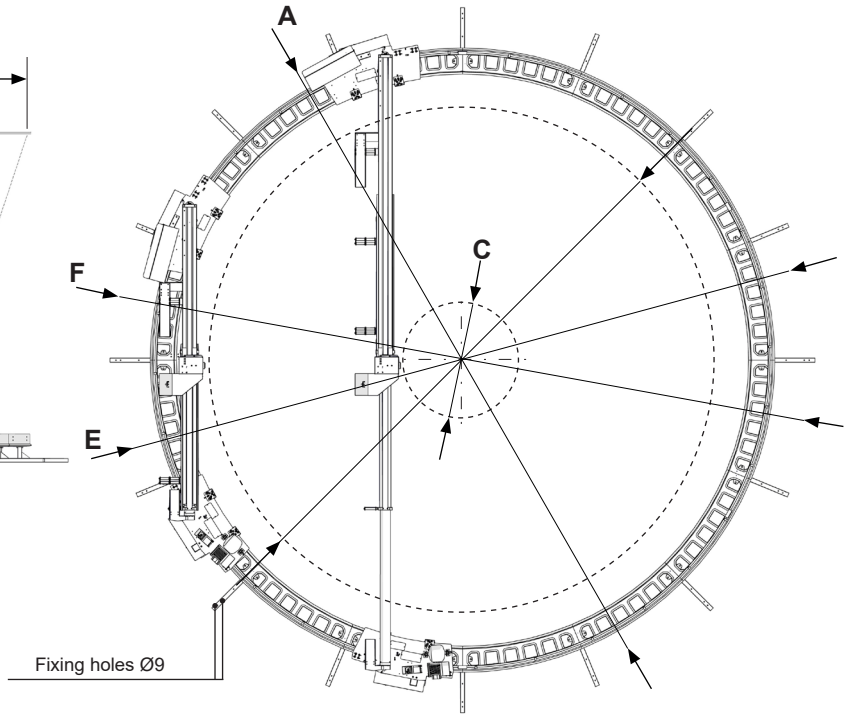
Minimum layflat



Maximum layflat







Model	Layflat (mm)		Ø A (mm)	B (mm)	Ø C (mm)*	Ø D (mm)*	Ø E (mm)	Ø F (mm)	Power (kW)	Weight (kg)
	min*	max*								
7200	1800	7200	6250	735	1205	4825	6410	6500	0,5	450
10000	3600	10000	8550	1015	2290	6700	8705	8795		550
* Indicates the cold film, during processes the diameter could be increased up to 5%.										
1_ Communication interface; 2_ Power supply.										