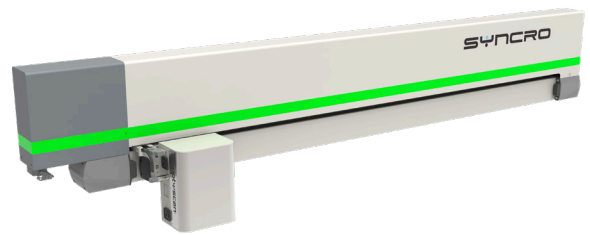




Optical sensor Gauging System

OPTYSCAN represents the latest technology on the market in film thickness gauging. Thanks to its compact design, due to the source and receiver being mounted on the same side of the film, it can be installed on the chill roll frame. The extrusion lines will benefit from these characteristics resulting in compact and the gauging being very close to the die head will guarantee a fast feedback and control particularly appreciated during the start-up process.



OPERATING PRINCIPLE

OptYscan uses NIR (Near Infra-Red) technology. Its optical sensor is based on low coherence interferometry. The material is illuminated with a broadband near infrared light source; the optical head collects the reflection from upper and lower boundaries of the film and through the analysis of the frequency interference spectrum the measure of the thickness is obtained.

MAIN FEATURES

NIR TECHNOLOGY

NIR technology based on low the interferometer concept, exempt from any certification needed for radioactive systems.

INCREASED ACCURACY

OptYscan has a 1 mm measuring spot with accuracy down to 0.1 micron. Precision of the measurement is improved versus either IR, X-ray or capacitive systems which have measuring spots between 5 and 20 mm.

STABLE AND PRECISE

Film displacements and vibrations that fall within the focal range of the OptYscan do not have influence on the quality of the measurement.

LIMITLESS PERFORMANCES

The system guarantees an absolute thickness gauging and doesn't need any calibration once set up.

COMPACT AND VERSATILE

OptYscan is based on the backscattering principle, therefore it doesn't need a second head on the other side of the film thus allowing it to be installed directly on the casting unit and allowing the total length of the line to be reduced by about 2-3 meters in respect to other measuring systems saving space, frames, structures and rolls.

FAST START UP

Thanks to the unique installation on the chill roll OptYscan will guarantee a faster response in auto profile control due to its proximity to the die, especially during start-up where each meter of film extruded is important.

EASY ACCESS FOR MAINTENANCE

OptYscan has been designed to guarantee easy access for maintenance operations.

PROCESSES

OptYscan can be used on different process such as stretch film lines, non-woven lines, BOPP lines, coating lines, Blown film lines.

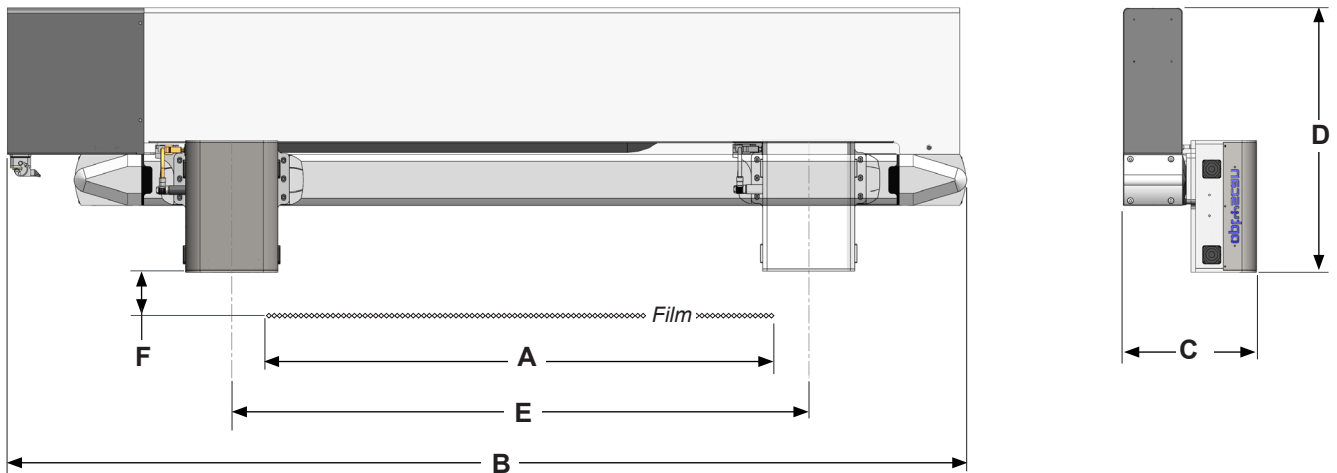
SYNTROL CONTROL

OptYscan is equipped with SYntrol control cabinet along with PC touch screen, keyboard, mouse and printer.

INDUSTRY 4.0 & IoT

OptYscan is equipped with PLC integrated with OPC-UA protocol for industry 4.0.

TECHNICAL DATA



Model	A max Film width (mm)	B (mm)	C (mm)	D (mm)	E (mm)	Power (kW)	Weight (kg)
1100	1100	2077	290	740	1250	2,3	70
1300	1300	2277			1450		73
1500	1500	2477			1650		78
1600	1600	2577			1750		80
1700	1700	2677			1850		82
1800	1800	2777			1950		85
1900	1900	2877			2050		87
2100	2100	3077			2250		90
2300	2300	3277			2450		95
2500	2500	3477			2650		105
2700	2700	3677			2850		120
2900	2900	3877			3050		135
3100	3100	4077			3250		150
3300	3300	4277			3450		165
3500	3500	4477			3650		180

Optical sensor model	EP1	EP2	EP3	EP4
Thickness measuring range (n=1,5)	5-100 μm	20-380 μm	0,05-1,8 mm	0,15-4 mm
Resolution	< +/- 2 μm			