



laYerscan

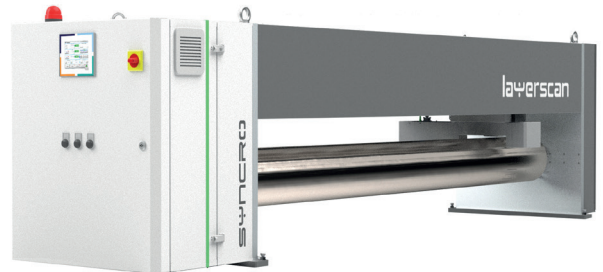
Combined scanner for multi-layer barrier films

The **LAYERSCAN** thickness gauge is a non-contact measuring system that combines the optical signal of a high-resolution CCD sensor with the signal of an inductive eddy current sensor and a capacitive sensor. LaYerscan can simultaneously identify and measure both total film thickness and barrier layer thickness in a multilayer structure.



OPERATING PRINCIPLE

The optical beam is directed onto the tangent of the measuring roller and the film sliding on it, generating a shadow that is detected by the line-scan sensor; the increase and decrease of the shadow on the camera generates a signal that can be used to determine the total thickness of the film. The capacitive sensor measures the dielectric capacity of the entire film, which is composed of several materials with different dielectric constants, while the inductive sensor provides the distance of the measuring head from the roller, which is interpreted as the zero point for the other two sensors. By using the data from the systems sensors, it is possible to determine the total thickness of the film, the thickness of the barrier layer and generate the thickness profiles (total and barrier) along the entire width of the scan.



MAIN FEATURES

DOUBLE PROFILE

The system allows both the total thickness and thickness profile of the film and the barrier layer to be measured at the same time.

ROBUST STRUCTURE

The structure is designed and manufactured to ensure maximum structural rigidity, which is essential for accurate measurement under all operating conditions

MOTORISED ROLLER

The roller is motorised to eliminate the risk of material slipping on the roller and to avoid altering the tension in the film due to drag friction. The motor is synchronised with the speed of the line.

DIMENSIONS

The machine frame is slim and integrates an electrical cabinet and control panel. Installation is quick and easy (plug and play).

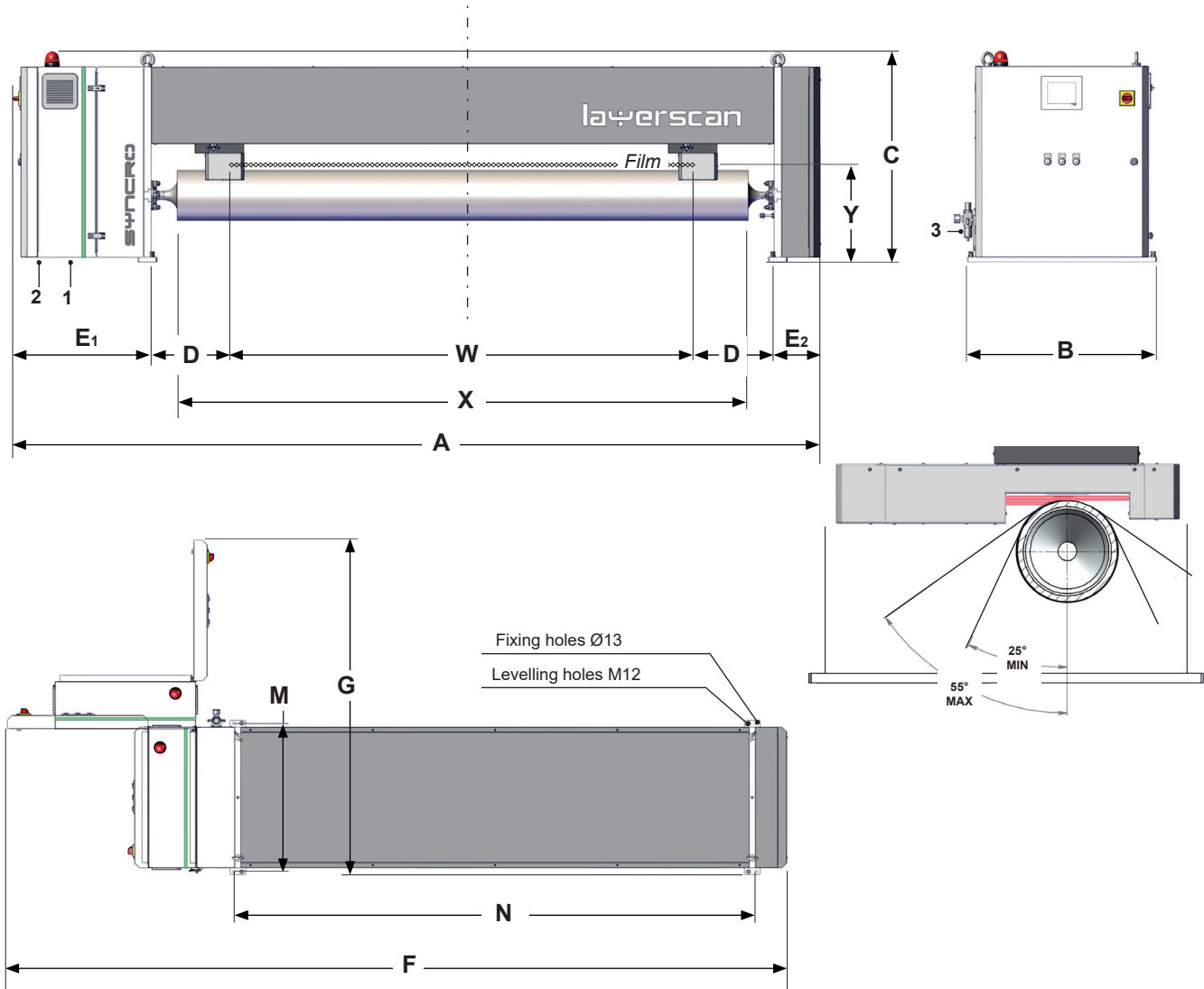
EASY ACCESS FOR MAINTENANCE

LaYerscan is designed to provide easy access to all parts requiring routine maintenance. A pneumatic control allows the entire sensor to be removed from the measuring roller, protecting it during operation and facilitating maintenance.

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



Model	W max. film width (mm)	Y h. film (mm)	X (mm)	A (mm)	B (mm)	C (mm)	E1 (mm)	D (mm)	E2 (mm)	G (mm)	F (mm)	M (mm)	N (mm)	Max Thickness (mm)	Resolution (µm)	Gap Sensor-Roll (mm)	Transversal speed (mm/S)	Power (kW)	Weight (kg)
900	900	387,5	1200	2230	815	885	590	260	220	1745	2820	785	1490	2	0,3	4,5	100	1,38	475
1100	1100		1400	2430							3020		1690						500
1300	1300		1600	2630							3220		1890						525
1500	1500		1800	2830							3420		2090						550
1700	1700		2000	3030							3620		2290						575
1900	1900		2200	3230							3820		2490						600
2100	2100		2400	3430							4020		2690						625
2300	2300		2600	3630							4220		2890						650
2500	2500		2800	3830							4420		3090						675
2700	2700		3000	4030							4620		3290						700

1_ Communication interface; 2_ Power supply; 3_ Compressed air inlet.