



bytascan

Beta-Ray Gauging System

The **BYTASCAN** uses the Beta ray transmission principle through the material to measure its weight, usually shown in g/m^2 .

OPERATING PRINCIPLE

An beta-ray source is situated in a housing, while another housing contains the receiver and is positioned opposite the transmitter at a set distance (Gap). When a material is positioned between the transmitter and receiver, part of the energy emitted from the source is absorbed by the material. The missing part which is not captured by the receiver is directly proportional to the weight of the measured film according to the properties of the material. Starting from the weight, in case of homogeneous material, the system can calculate the thickness.



MAIN FEATURES

RADIOACTIVE SOURCE

Following the EURATOM guidelines, Bytascan is recognised as radioactive resource. It is supplied with a radioisotope source, Krypton 85, encapsulated in a lead holder which minimizes residual radioation.

INDUSTRY 4.0 & IoT

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

SYNTROL CONTROL

Bytascan is controlled by a SYNTROL supervision system including PC touch screen, keyboard, mouse and printer.

PROCESSES

Bytascan can be used on different process such as stretch film lines, non-woven lines, BOPP lines, coating lines, Blown film lines, rubber, PVC, Sheet & Foil.

LIMITLESS PERFORMANCE

The measurement is not influenced by the color or the transparency of the material, nor by the physical/chemical composition of the same.

HEAVY DUTY STRUCTURE

The heavy duty engineering offers excellent resistance to bending of the main frame and guarantees perfect measurement stability.

EASY ACCESS FOR MAINTENANCE

The Bytascan has been designed to guarantee easy access for maintenance operations.

FAST SET UP

The average start up is done in less than 2h.

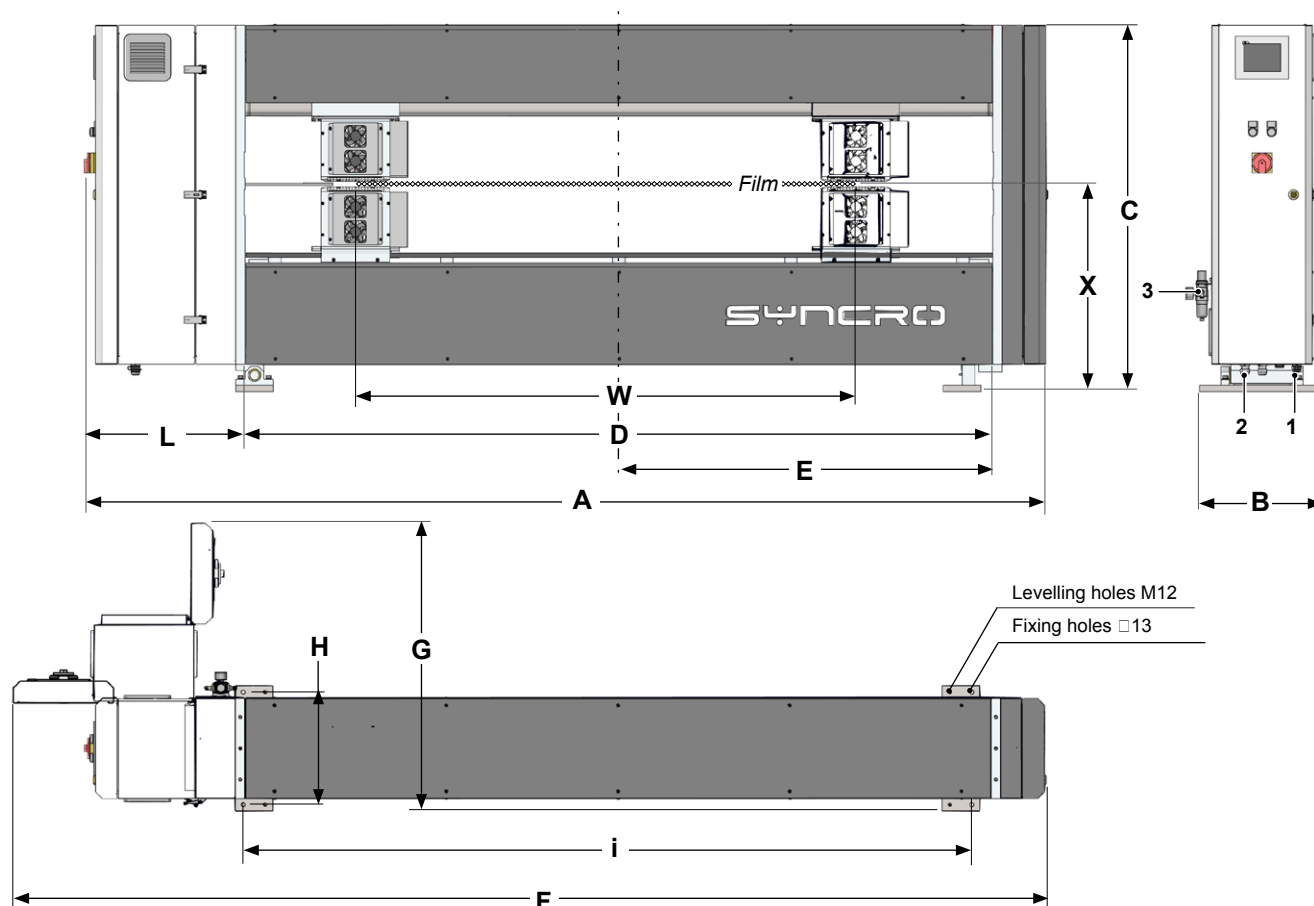
STABLE AND PRECISE

Extremely stable and precise measurement: down to 0.1 micron of repeatability with a max. drift of 0.15 microns in 12h without standardization. Temperature stabilization of the scanning heads and true air gap compensation through an inductive sensor.

AUTO PROFILE CONTROL

As option Bytascan can be connected to SYNTrolgauge to control automatically the thermal bolts used on flat dies or automatic air ring on blow film lines to regulate the film/sheet profile.

TECHNICAL DATA



Model	W max Film width (mm)	X h. Film (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	i (mm)	L (mm)	Max Weight (g/m2)	Power (kW)	Weight (kg)
1000	1000	663,5	2460	400	1200	1790	855	2677	945	360	1733	504	1500	0,8	475
1200	1200		2580			1910	915	2797			1853				495
1400	1400		2820			2150	1035	3037			2093				535
1600	1600		3060			2390	1155	3277,5			2333				570
1800	1800		3180			2510	1215	3397			2453				595
2000	2000		3420			2750	1335	3637,5			2693				630
2200	2200		3680			2990	1455	3897			2933				680
2400	2400		3800			3110	1515	4017			3053	514			700
2600	2600		4040			3350	1635	4257			3293				740
2800	2800		4280			3590	1755	4497			3533				780
3000	3000		4400			3710	1815	4617			3653				800
3200	3200		4640			3950	1935	4857,5			3893				855
3600	3600		4880			4190	2085	5097			4133				880
4000	4000		5480			4790	2355	5697			4733				980
4400	4400		5840			5150	2535	6057			5093				1040
4800	4800		6200			5510	2715	6417,5			5453				1095

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