SYNCRO®
SYNCRO GROUP

SORTYX

Inspection and selection of granules

SortYx is the system for inspecting and selecting granules based on various parameters: shape, size, colour and chemical composition. Especially useful for lines using reprocessed materials (PCR), it allows granules to be separated, improving the quality of the batch before being processed on the extrusion line.

OPERATING PRINCIPLE

A suitable vibrating system creates a planar bed of granules that advance at a controlled speed towards a chute, which is followed by a phase of free fall. During the fall, the granules pass through the focal plane of a camera system which, thanks to various optics and specific illuminators, analyses their shape, size and color; thanks to IR technology, it is also possible to identify their chemical composition. Granules that do not meet the selection parameters are separated thanks to a ballistic system, creating two separate channels for selected and rejected granules.

MAIN FEATURES

QUICK MEASUREMENT

The SortYx system can analyze multiple granules at the same time during their short falling time, making the selection and eventual ejection of material at the set hourly rate quick.

COMBINED ANALYSIS

Thanks to different cameras working in several zones of the light spectrum, SortYx can conduct analyses on different parameters: working with visible light, selection is based on granule shape, total size and colorimetry; cameras based on the IR spectrum select granules on the basis of their chemical composition, recognizing their constituent polymer and thus possible contamination.

CONTINUOUS OPERATION

The system can be fed either manually by batch or by a suitable loading system, making it compatible with continuous operation at a constant hourly flow rate.

ROBUST STRUCTURE

The structure is designed to be as solid as possible in the camera area to keep it free of the vibrations that the single-layer cascade of granules generates.

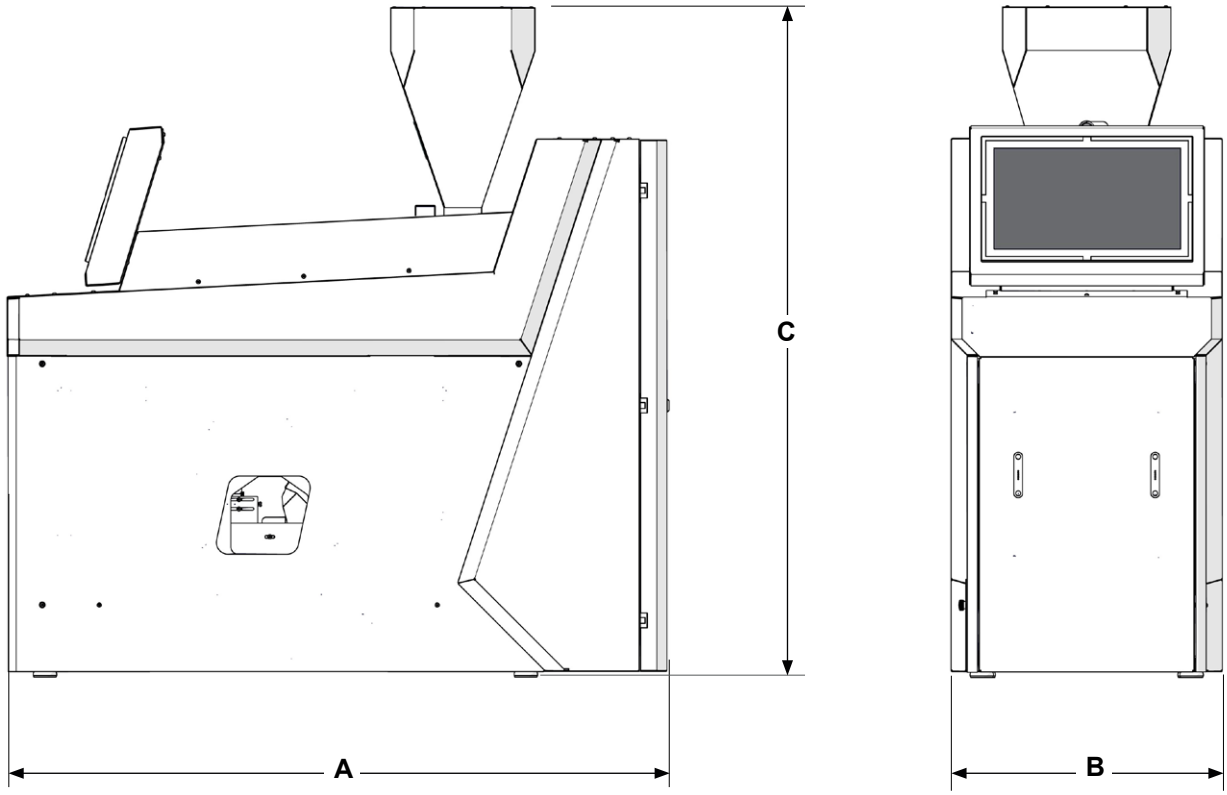
ACCESSIBILITY

The SortYx design allows quick access to all its main parts, allowing easy maintenance procedures.

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



	A	B	C
Dimensions	1700 mm	700 mm	1720 mm
Nominal hourly flow rate	200 (kg/h)*		
Voltage/Frequency	230V / 50 Hz		
Total power	3 kW		
Weight	400 Kg		
Temperature range	5°C - 40°C (41°F - 104°F)		
* Flow rate values are calculated considering the apparent density of the granule = 0,55 kg/dm3. They vary according to the grain size of the material.			