SYNCRO®
SYNCRO GROUP

syline

Single-component continuous gravimetric dosing unit

SYLINE is a gravimetric blender that continuously monitors the weight loss of a material, or a mix of pre-blended materials, feeding an extruder to constantly and precisely control its flow rate. This solution is particularly useful for minimising the cost and space requirements of gravimetric dosing in lines that use mono-component, or which already contain material mixes but do not have active and precise extruder control.

OPERATING PRINCIPLE

The material, stored in a hopper weighed by a pair of load cells, is discharged directly into the extruder below. The hopper is filled by an upstream feeder when the material inside reaches the minimum level. The trend of weight loss over time is the feedback parameter that allows the extruder's screw speed to be adjusted to guarantee the set flow target, the weight or thickness of the extruded product and compensation for any irregularities in the extruder's flow rate.

MAIN FEATURES

GREAT ACCURACY & CONTINUOUS ACTION

SYline measures the extruder flow rate continuously, instant by instant, so that any variation detected is corrected instantly and the machine is able to recalculate and adjust the set and desired gravimetric dosing immediately. The solid construction of the body acts as a vibration filter so as not to introduce noise into the load cell readings.

MINIMALIST DESIGN AND FOOTPRINT

SYline is the simplest solution in terms of cost, footprint and management to achieve active gravimetric-controlled extruder functionality. It is proposed for lines that do not require dosing of components to make up a mix of materials that is not necessary in the case of single-component recipes or pre-mixed upstream of the extruder by external suppliers or in separate stations upstream of the extruder. The on-board panel also ensures quick and easy installation.

EASY CLEANING & MAINTENANCE

Thanks to its removable hopper, SYline allows easy and fast cleaning and material change procedures.

OPTIONALS

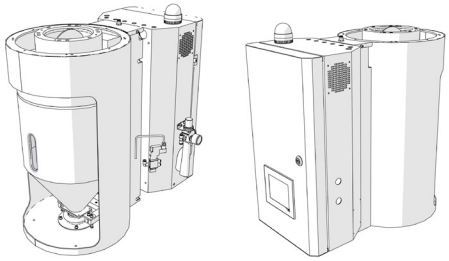
Various options are available to meet every need: dosing kits for high-temperature materials and a centralised control system for transporting and loading material managed by the machine itself.

INDUSTRY 4.0 & IoT

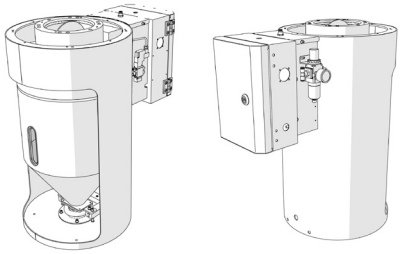
All SYncro machines are ready to be integrated with third party supervisory controls and ERP systems using the latest generation of OPC-UA protocols as standard.

CONFIGURATIONS

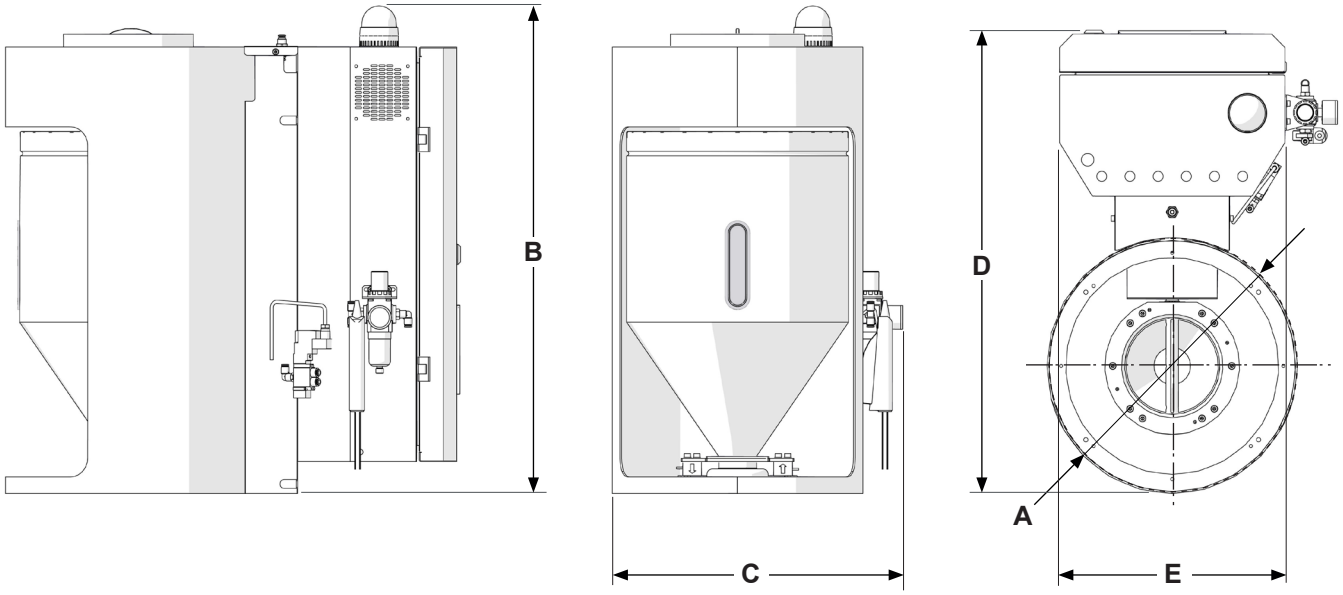
SYline Master



SYline Slave



TECHNICAL DATA



Model	XXS	XS	S	M	L	XL
Nominal troughput (kg/h)	30	110	290	570	1080	1710
Gross volume weight hopper (dm³)	2.5	6	16	34	57	98
Installed power (kW)	0,1					
Consumption Compressed air (Nl/h) 6 bar	20					
Suitable MAX valve diameter (mm)	50		100	150		
Suitable hopper loader model	*	*	F270	F370		F470
Weight MASTER version (kg)	15 **	20 **	30	45	52	65
Dimension Ø A (mm)	220		300	400		500
Dimension B (mm)	380	530	715	765	1005	1105
Dimension C (mm)	330		450	470		500
Dimension D (mm)	410		630	725		840
Dimension E (mm)	235		360			

Values shown refer only to the Master version feeder without the loading system or hopper for manual loading.
*Manual power supply. ** Master and slave version similar design.

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