



SYblend **XXS**

Continuous loss-in-weight gravimetric blender

SYBLEND is a gravimetric continuous loss-in-weight feeder for dosing and blending up to four components simultaneously and adjusting the flow rate and g/m of the extruder. SYblend is the ideal solution for processes that are more sensitive to small variations in the ratio of components, especially in the case of additives or dyes present in small percentages such as the production of multi-layer barrier extrusion lines and texture lines such as BCF, FDY and POY.



PRINCIPLE OF OPERATION

The dosing unit of each component, consisting of a hopper, screw feeder and brushless motor, is weighed using an off-center load cell. Each component is discharged into the central hopper through a static cascade mixer, measuring and adjusting the weight loss of each component instant by instant and simultaneously controlling the dosing ratios between the components within the set percentages. The material level in the central hopper is weighed on a load cell and maintained at a constant fill level so that the extruder flow rate is always the same as that set at the feeder.

MAIN FEATURES

GREAT ACCURACY & CONTINUOUS ACTION

SYblend continuously measures the amount of material being discharged into the central hopper for each component, and instantaneously adjusts the speeds of each feed screw to maintain the set point data. The design of the feeding screws combined with the control software ensures excellent dosing accuracy even for extremely low component flow rates up to the limit of about 100 g/h. The machine design mitigates the effects of vibrations so that the load cell readings remain accurate.

QUICK START-UP AND WASTE REDUCTION

Dedicated software functions optimize machine start-up and reduce waste:

- quick filling of the feed screws independent of the set component percentage
- quick calibration and learning of the screw speed according to the indicated hourly output.

EASY CLEANING AND MAINTENANCE

SYblend is designed for practical and quick cleaning procedures with no spanners or tools required to remove hoppers, feeders and transport screws meaning quick recipe changes.

EXTENDED RANGE AND MODULARITY

SYblend features a range of dosing screws to cover a wide range of material flow rates and particle sizes, from additives in the most limited lines to main components in the most extensive lines. SYblend can be easily configured to suit up to a maximum of 4 components.

OPTIONAL

Various options are available to meet every need:

- component and dosing kits for high temperature materials.
- a centralised control system for the transport and loading of material managed by the machine itself.
- SMARTDRAYN system for an automatic material emptying procedure that requires no action on the part of the operator.

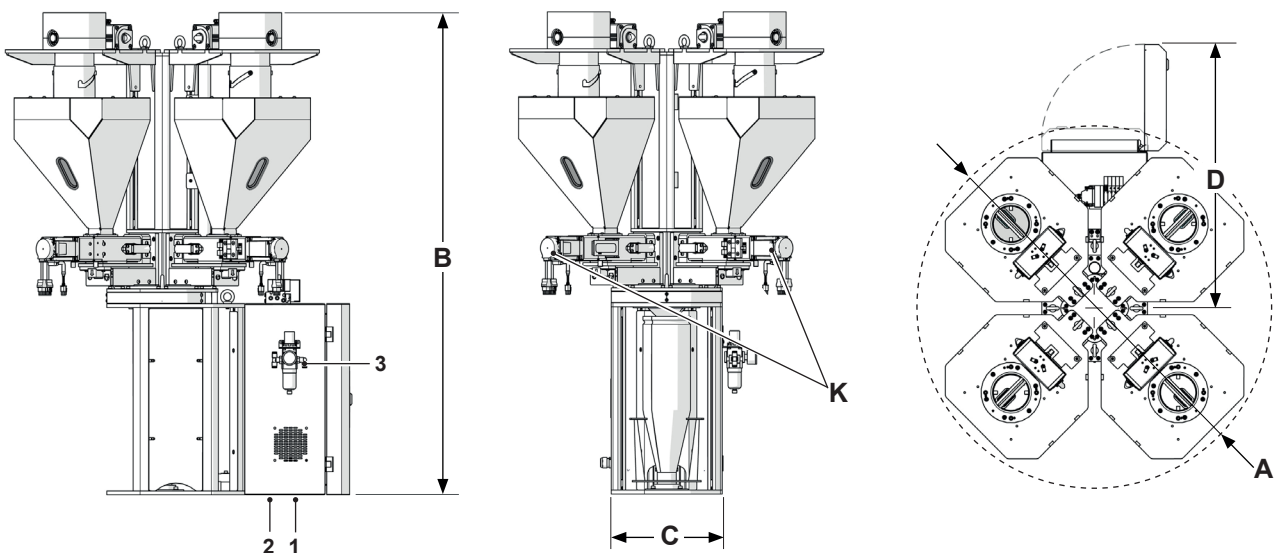
INDUSTRY 4.0 & IoT

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.

MODULARITY



TECHNICAL DATA



Model	XXS2	XXS3	XXS4
Max capacity** single component (kg/h)		320	
Single hopper volume (dm ³)		10,2	
Installed power (kW)	1	1,4	1,8
Suitable hopper loaders		F200 - F270	
Working temperature (°C)		0 - 40	
Storage temperature (°C)		-10 - 60	
Pneumatic working pressure (bar)		6	
Weight (kg)	150	175	200
Ø A (mm)		1000	
B (mm)		1350	
Ø C (mm)		290	
D (mm)		800	

Dosing screws (K)							
Diameter x pitch (mm)	8 X 6	10 x 8	15 x 10	15 x 15	20 x 20	25 x 25	30 x 30
Flow rate** @ 450 rpm (kg/h)	9,5	23	50	75	110	220	320
Flow rate** @ 5 rpm (kg/h)	0,06	0,1	0,6	1	1,3	2,9	3,5

* 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.

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