



SYDOX

Continuous loss-in-weight dosing system

SYDOX, is a continuous loss-in-weight dosing system designed to ensure gravimetric feeding of a recipe in processes requiring high accuracy. It guarantees the recipe component ratio in every moment and with extreme responsiveness, respecting and controlling the dosing accuracy and the total productivity of the extruder. Sydox is ideal for flat die-head and blown extrusion lines for products with high technical content, especially for laboratory lines due to its modularity.



PRINCIPLE OF OPERATION

Each sub-component is fully weighed on an "off-center" load cell. The hopper feeds an underlying motorised screw conveyor: the weight loss of the material coming out of the auger provides the PLC, moment by moment, direct feedback on the component's flow rate, and any potential instantaneous or cumulative deviation is quickly checked and constantly adjusted to maintain the set flow rate.

MAIN FEATURES

GREAT ACCURACY & CONTINUOUS CONTROL SYSTEM

Sydox continuously measures the dosing flow rate of each secondary component in order to record and compensate for any variation. The primary component ends up in the extruder by gravity, and is also weighed to achieve greater precision and control.

LOW DOSING PERCENTAGES

Sydox uses a wide range of dosing screws to cover a variety of material flow rates and granulometry, from low percentage additives as well as secondary components with a higher percentage in the recipe. Specially designed augers for dosing at very low rates are available.

INTERCHANGEABILITY AND MODULARITY

In Sydox, each side feeder is a pre-assembled module on a support frame that can be freely positioned and easily assembled without the use of wrenches, allowing them to be moved among different machines. Plug-and-play functionality is guaranteed for both mechanical and electrical components.

STRUCTURAL RIGIDITY

The solid structure of the body acts as a vibration filter so as not to introduce noise into the load cell readings.

EASY-ACCESS

Installation and easy access are strengths of the design, which makes cleaning and maintenance extremely fast and intuitive.

LOADING AND CONVEYING

Sydox is able to manage loading and conveying management as an integrated logic function.

INJECTION REMOTE CONTROL

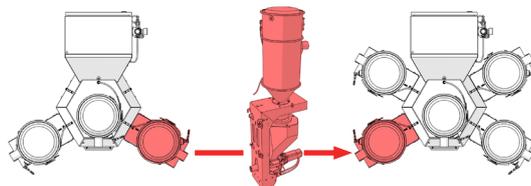
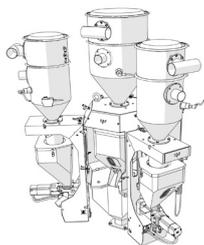
The HMI and the control panel can be put on board or into a dedicated panel and controlled remotely.

INDUSTRY 5.0 & IoT

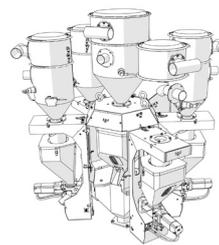
All Syncro machines are ready to be integrated with third party supervisory controls and ERP systems using the latest generation of OPC-UA protocols as standard.

CONFIGURATIONS

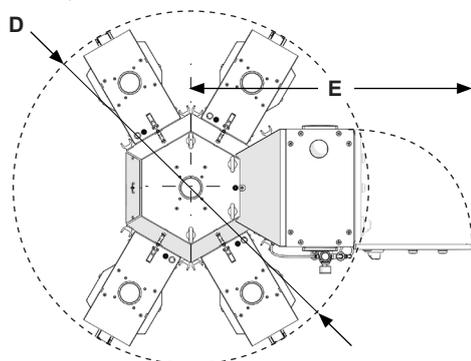
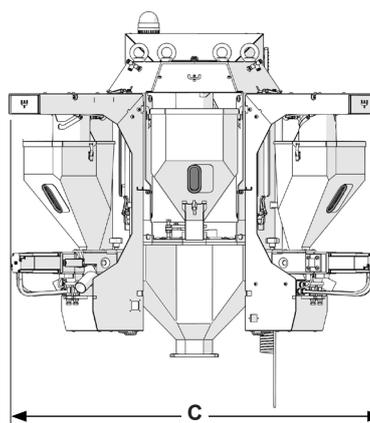
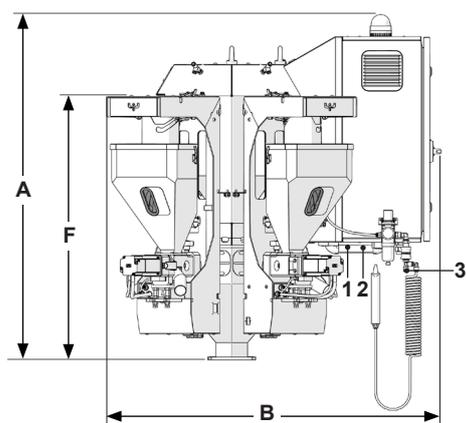
Sydox 1+2



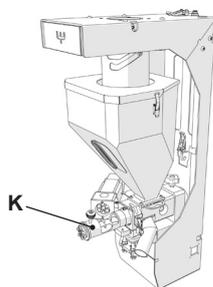
Sydox 1+4



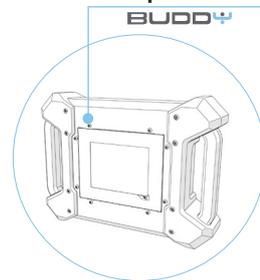
TECHNICAL DATA



Side loader



Optional BUDDY



Model*	Sydox S 1+2	Sydox S 1+4
Dimension A (mm)		930
Dimension B (mm)		935
Dimension C (mm)		1075
Dimension D (mm)		1170
Dimension E (mm)		960
Dimension F (mm)		750
Voltage/frequency (V~ / Hz)		230~50/60
Power (kW)		2,6
Weight (kg)	155	200

*Other models available on request.

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

Dosing screws (K)

Diameter x pitch (mm)	8x 8	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** @ 300 rpm (kg/h)	5,3	14,7	38	59	77	142,8	227,7
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.