Quantum

Gravimetric batch blenders with continuous extrusion control

Benefits:

- Gravimetric blending up to 8 ingredients
- Double load cells for maximum dosing accuracy
- High precision extrusion and weight per meter control with PLC
- Easy-to-remove mixing shaft for simplified maintenance
- New patented mixer design for more homogenous blend
- Configuration for single extrusion and for co-extrusion lines
- Integration with Winfactory 4.0





This innovative dosing system has been developed to ensure high accuracy, versatility and accuracy in extrusion processes, enhancing the advantages of both the gravimetric batch technology and the loss-inweight systems. The Quantum E dosing system has been designed and built in such a way as to allow complete traceability of each component and the repeatability of each cycle, also as a consequence of the new trapezoidal shape of the dosing gate, which allows further precision, with the integration of a rapid unloading device.

The particular design of the patented spherical mixer, with double load cells, prepares a completely homogeneous and precise blend of the various ingredients.



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Integration with Winfactory 4.0 and TeleService

Quantum E is ready for complete integration with Winfactory 4.0, the new software for production processes monitoring, developed for the Smart Factory of Industry 4.0.

Winfactory 4.0, working with 15-inch touch screen panel, allows complete plant management and accurate measurement of material and energy consumption.

Another 4-inch color touch screen is embedded in the blender structure to perform the TeleService function, through Piovan's remote technical support service.

Advanced control system

The use of Quantum E is simple and intuitive: control is achieved through a latest-generation PLC system, while a new HMI allows the operator to view in real time the running of the process and all the operating parameters for the total extrusion control

The control interface is available in 11 languages, with a color touch screen panel - 7'' or 15'' - and allows the management of a system from 1 to 11 layers.

Integrated quick discharging device



Quantum E 15" color touch screen panel



Mixer on double load cells

TECHNICAL DATA		QE200	QE600	QE1200
Nominal hourly production	kg/h	200	600	1200
Slide gate station dosing range	%	0,5 -100	0,5 -100	0,5 - 100
Auger station dosing range	%	0,2 - 20	0,2 - 20	0,2 - 20
Capacity of the dosing station*	dm³	18/26/30/45	26/30/45/75	26/30/45/90
Batch capacity	kg	3	5,5	12
Capacity of the mixing chamber	dm³	9	18	42
Maximum number of slide gate stations	n.	6	6	6
Maximum number of auger stations	n.	2	2	2
Total installed power	kW	0,5	0,5	0,5
Dimension $L_{max}/W_{max}/H_{max}$ (configuration with 6 stations)	mm	1072/992/1524	1072/992/1801	1201/1223/1781
Dimension $L_{max}/W_{max}/H_{max}$ (configuration with 8 stations)	mm	2112/992/1524	2112/992/1801	2202/1223/1781
Weight	kg	250	300	400

* According to the model and configuration



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