

Quantum

New Generation blenders

Benefits:

- **Immune to vibrations.** Quantum is the first gravimetric batch blender that is mechanically and electronically isolated from vibrations.
- **Expandable configuration.** Quantum can be initially equipped with two dosing stations, to subsequently be expanded to three, four, five or six, by simply adding station modules. The control self configures depending on the number of stations installed.
- **Portability.** The Quantum stations are interchangeable, facilitate materials management and eliminate ordinary maintenance.
- **Quick material change.** Colours can be managed by associating to them the respective dosing station. The cleaning operations at colour change are reduced to minimum.
- **Simplified cleaning operations.** Accessibility to weighing pan and mixer chamber is full. Both the weighing pan and the mixer shaft are removable without the use of tools. Speed of operation is guaranteed.
- **Perfect homogeneity of the blend.** The new Quantum mixer, with its spherical shape and circular paddle shaft, provides total homogenization of the different materials with no risk of segregation or powder generation.
- **For all plastic materials.** The very innovative design of Quantum allows the handling of any possible raw granular resin: Virgin, masterbatch, regrind, reprocessed, long fiber, filled or any particular granulometry, shape and bulk density.
- **With remote mixer.** In all those applications where the plasticising unit moves, Quantum can be equipped with remote mixer unit and it can be installed beside the machine on a floorstand.



Quantum embodies innovations that radically change the way injection moulding machines and extruders are fed with blends of materials (virgin, recycled, masterbatch and additives). These innovations contribute to increasing the efficiency of production, and feature improved design, innovative technologies and high performance components, which translate

into concrete advantages for the user. Quantum is utilised in all application environments such as Packaging, Automotive, Industrial and Electronics, Building and Construction, Textile, Furniture, Toys and Housewares, Medical and Pharmaceutical, Recycling and Compounds.

Wf Winfactory 4.0
4.0 R E A D Y

 **Piovan**
Piovan Group

Its flexibility derives from two distinctive and unique characteristics.

a. All the surfaces that come into contact with the process material are stainless steel, usable also in the most critical environments, like those found in medical and food & beverage sectors. Low roughness prevents friction and permits uniform treatment of the polymer pellets, preventing the alteration of physical conditions. Quantum therefore protects the physical characteristics of the raw material, and thereby the quality of the plastic product.

b. Every blender comes with up to 6 dosing stations, which can easily be removed, for emptying or cleaning. Each

dosing station is dedicated to a single ingredient— be it principal or additive; easy removal therefore aids material changes and enables optimal operating conditions to be immediately resumed without contamination from powder or residue. These interventions do not require the blender to be dismantled and can be done manually by an individual operator. The dosing stations can be used across all Quantum blenders in a factory.

Integration with Winfactory 4.0

The control system is designed for integration with Winfactory 4.0, the industrial supervisory software operating by application licence developed by Piovan,

the outcome of consolidated knowledge in various application environments. Winfactory 4.0 can interface all Quantum blenders in the factory for: sharing recipes, managing material and production batches, and tracking raw materials; these are fundamental data for product certification, in particular in food & beverage and medical-pharmaceutical environments.



Quantum 7



Remote mixer



Quantum 12

TECHNICAL DATA		Q7	Q12	Q50	Q80
Max throughput	kg/h	70	120	500	800
Minimum dosing-standard slide gate station	%	1	1	1	1
Dosing range-oversize slide gate station	%	3-100	10-100	10-100	10-100
Capacity of the dosing station	dm ³	5 - 10	13 - 15	13 - 15	15 - 45
Capacity of the mixing chamber	dm ³	4,5	4,5	17	17
Batch volume	dm ³	2,3	2,3	10	10
Max slide station	n.	4	6	6	6
Total installed power	kW	0,3	0,3	0,35	0,35
Dimension	mm				
	L	504	1140	1020	min 1115 - max 1250
	W	565	1140	1130	min 1130 - max 1430
	H min	838			
	H max	938	1080	1460	1780
Weight	kg	50	100	155	235

Hmin: height with smaller hoppers
Hmax: height with bigger hoppers