



Spheronizer Aeromatic-Fielder S700

Images



Product details

Category:	Spheronizer
Machine:	NICA S700
Machine code:	22F251
Manufacturer:	Aeromatic-Fielder
Year of construction:	1998

Description



Developed specifically for the pharmaceutical industry, the NICA Spheronizers S700 from 1998 delivers spherical pellets at fast production rates using patented technology to maximize yields.

NICA Spheronizer Process

The NICA Spheronizer consists of a horizontal spinning wheel with a special friction pattern machined on its top surface; it rotates within a cylindrical bowl. Spaghetti-like extrudates are batched and dropped onto the spinning wheel where they are fractured into short lengths. Interactions between the spinning wheel, the wall and the pellets themselves cause the extrudate to be worked into spheres.

Operating Principles

The size distribution and surface characteristics of the spheres are controlled by the batch size, speed, process time and, most importantly, by the characteristics of the extruded mass. The NICA Spheronizer has a patented 'smooth edge' on the friction wheel to eliminate 'milling' of the developing pellets, ensuring a narrow size distribution. Different friction wheel patterns can be interchanged to suit particular requirements. For continuous production, multiple units can be combined with appropriate up and downstream equipment to form an extremely compact and flexible package (such as the NICA IPS range of integrated pelletizing systems).

NICA Range

NICA Spheronizers are available in three sizes: S250, S450 and S700. The NICA S250 is only available as part of the integrated IPS5 system, a process module available exclusively with the GEA PharmaConnect® product. The S450 is available as a standalone machine and, with a batch capacity of 2 kg, is suitable for both product development and small-scale production purposes. The S450 is often integrated with a NICA E140 Extruder to form the IPS25 and IPS50 machines.

The S700 Spheronizer has a typical product capacity of up to 10 kg, providing high throughput capabilities when linked to the NICA E220 Extruder in the form of the IPS100 and IPS200 machines. All units feature variable speed inverter drives and the S450 and S700 are both fitted with pneumatic discharge as standard, allowing remote operation and plant integration.