



UMANG[®]
encapsulation solutions

LABORATORY & PRODUCTION MACHINERY

Spheronizer



Spheronization is the necessary step of Granulation by extrusion. Its a self contained compact machine designed to deliver Spherical Pellets at fast production rates.



It is a process where the preformed Vermicelli once dropped in the bowl & exposed to rotating Chequered Plate, are fragmented into pieces equal length of diameter of Extrudes, because of the tangential & centrifugal force, they collide with the cylindrical walls of the Spheronizer. Finally the rope type movement of the extrudes at the outer border give a rolling action on the fragmented extrudes & convert them into spheres.



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 & pitch of chequered plate.





Special Features

- Compact design acquires limited footprint and GMP Suites pellet production.
- System components easily accessible for cleaning and maintenance.
- Interchangeable Chequered Plate attachments, allows to produce Different Sizes of Spheres/Pellets.
- Complete process Automation with PLC controls & HMI.
- Minimal Radial Clearance between Plate & Bowl.
- Pneumatically controlled Auto Discharge.

Advantage

- Batch Process.
- Radial Clearance & Air purging for maximum yield.
- VFD driven motor for infinite variable speed.
- Concentricity of Plate with Drum maintained.

Optional Features

- Stainless steel 316 L construction contact parts rest Stainless steel 304.
- 21 CFR Part II compliance.
- Jacketed Spheronizer Drum.
- Jacketing for Temperature control.
- Cooling / Heating jacket for heat sensitive product.
- Various pitched (1, 2, 3, 3.2, 6.5 & 10 mm) Checkered Plate for product suitability.
- UL & CE Certification
- Radial plate can be provided.

Model	USPH-150	USPH-250	USPH-380	USPH-500	USPH-700	USPH-900	USPH-1100
Capacity / hr	50 - 100 gm	250 - 500 gm	1 - 2 kg	2 - 5 kg	7 - 8 kg	11 - 15 kg	25 - 50 kg

Our Global Reach



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