

**Customizable. Versatile. Cost-Effective.**

GRANUMILL® JR. size reduction systems meet FDA SUPAC (Scale-Up and Post-Approval Changes) guidelines for both impact and screening mills, allowing for low-RPM screening of agglomerates in addition to high-speed impact milling. The mill's versatile design combined with the new, removable containment option provides users with the flexibility to run a variety of processes for a wide range of applications on a single, cost-effective system.

GRANUMILL® JR.

Size Reduction Mill with Flexible Containment Option for High-Potency Compounds

GRANUMILL® JR. Features & Benefits

- Three interchangeable rotor designs available (square/flat, round, and knife) and fine feed control with optional screwfeeder for tighter control over particle size distribution
- GMP design and quick-release housing allow entire mill to be broken down in minutes for cleaning
- Virtually identical tip speed from R&D through production scale ensures easy scale-up and validation
- Approved for USDA 3A applications including dairy processing

Flexible Containment Option Advantages

In cooperation with ILC-Dover, we are able to provide custom-designed solutions for the containment of hazardous APIs in R&D size reduction applications.

- Flexible enclosure set-up allows for use in both containment and non-containment applications, eliminating the need to purchase a second machine solely for containment use
- Capable of meeting an OEB5 classification
- Achievable containment level of 1.0 $\mu\text{g}/\text{m}^3$ on a task basis

Configurable to Meet Your Process Requirements

Additional custom options for the GRANUMILL® JR. include:

- Nitrogen-inerting systems
- Screwfeeding systems
- Water jacketing
- Explosion-proof construction
- In-line or portable base configurations

GRANUMILL JR. Specifications*

Speed (RPM)	500 - 10000
Finished particle size (micron)	175 - 2000
Throughput ((lbs/kg)/hour)	0.2 - 60 / 0.1 - 25
System height (inches/mm)	25 / 635
System width (inches/mm)	12 / 304
System length (inches/mm)	15 / 381
Screen width (inches/mm)	4 / 102
Containment width** (inches/mm)	40 / 1016
Containment depth** (inches/mm)	30 / 762
Containment height** (inches/mm)	45 / 1143

*Dimensions include screwfeeder

**Allow 36 inches/915 mm on side for pass-through port

Additional Resources

MAGNAFLO®/MAGNACOATER® Fluid Bed Systems

Describes how these systems optimize drying, granulating, and coating.



PHARMX® High-Shear Granulating Mixer Systems

Explains how granulating efficiency is maximized and downtime between batches is reduced.



GRANUMILL® Size Reduction Systems

Details how these systems provide high-speed impact milling and low-speed screening of agglomerates.



Retrofit Batch Equipment and Controls

Explains how to update and expand the capabilities of current equipment through software upgrades and/or machine conversions.



Experts in Solid Dosage Technology

A Division of Spraying Systems Co.®

2119 Fisher Drive, Naperville, IL 60563
Tel: 630.665.5001 Fax: 630.665.5981
www.fluidairinc.com