

# ANALYSER FOR GRANULES GRANULYSER TYPE EGT 100/25



For predicting granule strength and behaviour



The Granulyser is a unique concept machine designed specifically to provide a standard test method to predict the strength and behaviour of granules. By replicating the shear, impact and abrasion forces acting on granules, in simulated industrial production plant conditions, granule performance can be studied in detail enabling informed decisions to be taken on further processing steps.

## FEATURES

- Compact design
- Highly portable
- Easy cartridge loading/unloading of material
- Easy to dismantle and clean
- Removable parts are dishwasher cleanable
- Repeatable conditions giving reliable results

Developed jointly between Hosokawa Micron Ltd, Hosokawa Bepex and The Enzyme Dust Consortium.



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PROCESS TECHNOLOGIES FOR TOMORROW <sup>SM</sup>



# GRANULYSER TYPE EGT 100/25

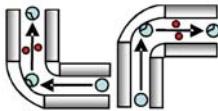
## CONSTRUCTION DESIGN

The device consists of:

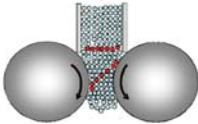
- Two rotating rollers to apply shear deformation
- A pneumatic conveying line with two bends to cause particle impacts
- Dust separation column for entrainment of dust particles
- Filter unit for Whatman GFC to collect airborne dust
- Cartridge with slide valves for particle loading and unloading

## PARTICLE SHEAR AND IMPACT TEST

**Impact** – Particles impact in elbows at set air velocity



**Shearing** – A particle bed is fed between two rollers with an adjustable gap whilst the angular velocity of each roller can be set independently. This leads to a velocity gradient which leads to shear deformation of particles passing through.

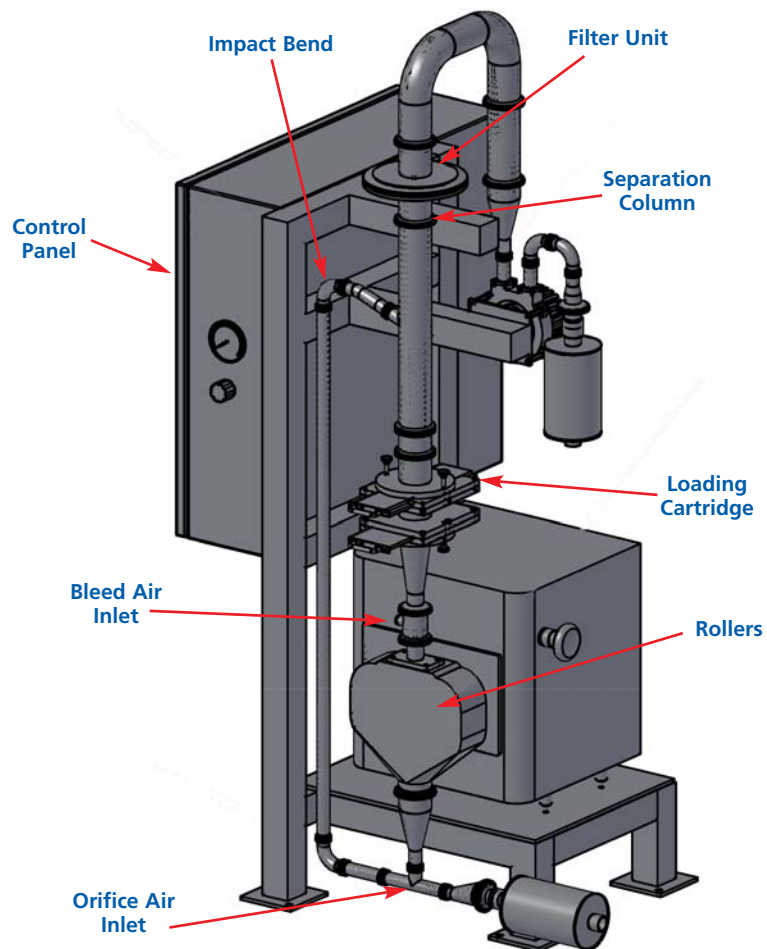


## TEST PARAMETERS

Granule speed, impact angles and residence time can all be controlled with the Granulyser to create specific production conditions. Analysis of the data collected provides valuable information for decisions on processing improvements, equipment selection and set up and handling and final packing operations.

## CONTROL OPTIONS FOR SPECIFIC TESTING

	Minimum	Maximum
Riser Air Velocity (m/s)	5	30
Dust Separation Column Air Velocity (m/s)	0	2
Roller Speed (RPM)	1	100
Roller Gap (mm)	0.2	6



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