



Extruder & Spheronizer

Model No.- VJEX - Combo

WATCH NOW



Application

Chemical / Agrochemical

- ✓ Herbicides / Insecticides / Fungicides
- ✓ Catalysts
- ✓ Flavors
- ✓ Nutraceuticals

Pharmaceuticals / Food

- ✓ Controlled Release Pellets
- ✓ Multi-Particulate Systems
- ✓ Sustained Release Polymer Coated Pellets
- ✓ Enteric Coated Pellets



About VJ Instruments

At VJ Instruments, we're not just a pharmaceutical instruments manufacturer; we're a driving force behind scientific innovation in the fields of Pharmacy and Pre Clinical research. Since our inception in 2006, we have continually strived to revolutionise the industry by delivering world-class products that not only meet rigorous quality standards but also prioritise ease of use

Our team comprises seasoned professionals with extensive experience in the pharmaceutical industry and academia. We have a proven track record of excellence and a deep understanding of the unique challenges and requirements of the field.

Our Products are specifically meant for small animal behaviour research as well as tools used in R&D, pilot drug development. We also deal with innovative custom-based requirements, tailoring solutions to the specific needs of our clients.

Customer Support

At VJ Instruments, we recognise that our clients need to maximise their ROI over the entire lifecycle of ownership. For our clients, machine downtime is not acceptable. To support them, we maintain a dedicated team of service engineers.

Technical Support and Repair

Live and immediate technical support is available using all major communication tools.

Standard on-site response time.

Value Added Services

We offer our clients value-added services so that they can run their machines with the highest efficiency over time.

- Operator training programs
- Annual maintenance contract
- Machine upgrade consultations

*Terms & condition apply.

Industries we Serve



PHARMACEUTICALS



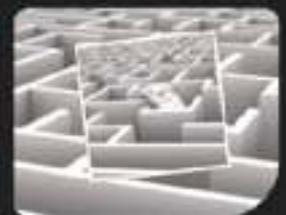
FOOD



COSMETICS



NUTRACEUTICALS

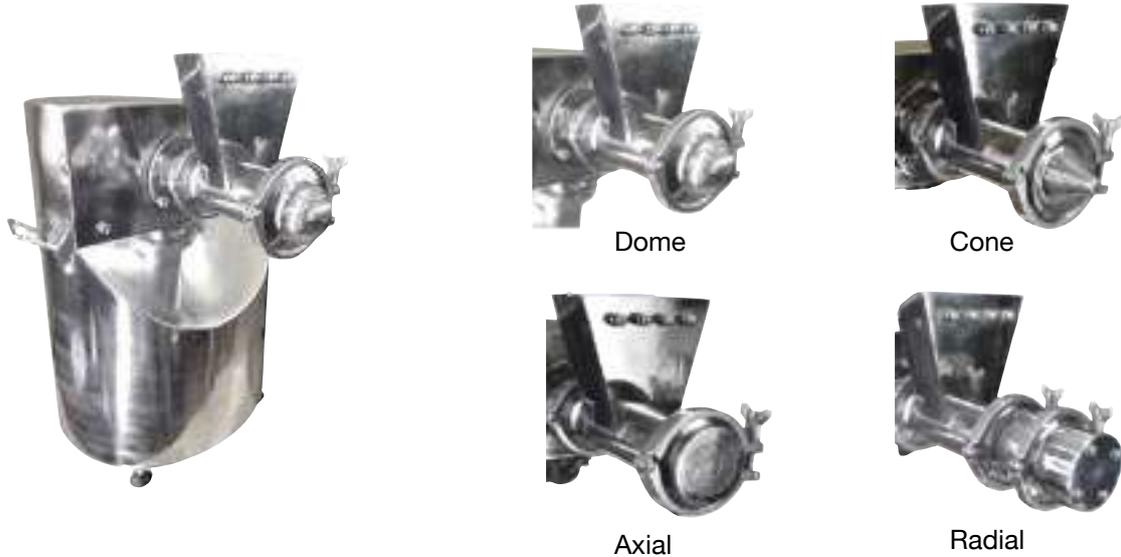


PRE-CLINICAL

Laboratory Multi Granulator

A versatile Low pressure granulator tool from VJ Instruments.

The VJ Instruments Multi Granulator is a bench- top device that allows formulation researchers and new product developers to readily evaluate the best of Four different types of low pressure granulation techniques— dome, cone, radial, and axial extrusion— and determine which one suits their product. The Multi Granulator's size and unique design allow it to evaluate batches as low as 200 grams, saving time and money, yet generating product that is indicative of a full scale production system.



Four types of extrusion—dome, Cone, axial, and radial—can be evaluated by simply changing the extrusion head.

VJ Instruments offers four types of low pressure extruders.

Extruder selection depends mainly on desired final product characteristics.

Extrusion/Spheronization Process Benefits.

- Excellent product flowability
- Easy scale-up
- High yield
- Narrow particle size distribution
- Excellent process repeatability

VJ Instruments Extruders and Spheronizers are manufactured to general chemical industry standards and cGMP standards for pharmaceutical applications.

Operation

The Multi Granulator is easy to setup and assemble with any of the four extrusion configurations for immediate use. A wet mixture is separately prepared manually or in a small mixer. The extruder is fitted with the appropriate die (or screen). The prepared wet material is manually fed through the feed hopper. The wet mass is transported to the extrusion area by a single feed screw. The wet material is gently wiped through the die (screen) yielding well formed extrudates.



Features

- Single screw extruder with variable speed (10-90 rpm)
- Easily converts into a dome, cone, radial, or axial extruder
- Capable of extruding granules from 0.3 mm to 8.0 mm diameter

*axial from 2.0 mm to 8.0 mm diameter;
radial from 0.6 mm to 1.2 mm diameter;
dome & Cone from 0.3 mm to 2.0 mm diameter*

- GMP design with SS 316 contact parts
- Die is SS 316
- 1.0hp 230VAC /3/60 variable speed drive for extrusion screw
- Sanitary clamps allow for quick disassembly, cleaning, and conversion to any of the three extrusion configurations. No tools required.
- Separate stainless steel control panel with motor starter

Application

Chemical / Agrochemical

- ✓ Herbicides / Insecticides / Fungicides
- ✓ Catalysts
- ✓ Flavors
- ✓ Nutraceuticals

Pharmaceuticals / Food

- ✓ Controlled Release Pellets
- ✓ Multi-Particulate Systems
- ✓ Sustained Release Polymer Coated Pellets
- ✓ Enteric Coated Pellets

Spheronizer



The VJ Instruments is a bench top device that provides researchers and new product developers a means to easily evaluate the effectiveness of spheronization on their extruded products. The size and unique features allow it to evaluate batch sizes as small as one litre, while generating product indicative of a full scale production system. The lab spheronizer is designed to convert moist cylindrical extruded granules into smooth, uniform spheres in a variety of applications.



**Checked Plates available
from 1mm to 8 mm Pitch**

Features

- Bench top device ideal for a laboratory environment
- Easy disassembly of process parts
- 230 mm diameter friction plate
- Capable of producing 0.5 mm to 10.0 mm spheres
- Friction plates available with groove spaces of 1-8 mm
- Friction plates available in various grid patterns
- Variable plate speeds between 600- 1800 rpm
- GMP design with SS 316 product contact parts
- 304SS jacketed bowl for heating/ cooling
- 1.0hp 230VAC /3 / 60 motor to drive friction plate
- Separate stainless steel control panel with motor starter and inverter

Operation

The Spheronizer can be easily assembled with the desired friction plate for spheronization. Moist granules, from an extruder or mixer, are fed into the spinning friction plate and thrown against the inside of the Spheronization, forming a “twisting rope”. Collisions of the particles with the wall, friction plate, and other particles result in plastic deformation of the granules, forming spheres. The final shape of particles is time and formulation dependent. Once the desired particle shape is achieved, the batch is discharged through a manual plug valve and discharge chute, collected, and dried.

Sr. No.	Specification	Details
1	Certificates	GMP, ISO, CE
2	Type	Single Screw
3	Production Capacity	2-6 kg/hr depends on formulation.
4	Perforated mesh hole diameter	<p>Ø 1 mm standard. Optional with addition Cost-</p> <p>Ø 0.5 mm Ø 0.6 mm Ø 0.8 mm Ø 1.2 mm Ø 1.5 mm</p> 
5	Product	Any Aqua base or solvent base formulation.
6	RPM of screw	10 to 150 rpm
7	Hopper Discharge	Auto discharge by gravity
8	Electric Accessories	230 V 1 Phase 50 Hz /440 V 3Phase 50 Hz
9	MOC Contact Parts	SS 316
10	MOC Non-Contact Parts	SS 304
11	Hardware	Standard Make (Bearing shaft seal of SKF etc or equivalent)
12	Finish	Non Contact Area Matt Finish Contact area Matt Finish Machine part- Machine Finish
13	HMI (Touch Screen)	Delta
14	Drive Motor	Crompton or equivalent
15	Reduction Gear Box	Standard Make.
16	Documents	User Manual, Warranty Certificate.
17	Electric Consumption	1.0 Kw
18	Dimension (LXWXH) in mm	425 mm (L) X 500 mm (W) X 575 mm (H)
19	Weight	48 kg
20	Control Panel	22 kg 300 mm (L) X 375 mm (W) X 475 mm (H)

Sr. No.	Specification	Details
1	Certificates	GMP, ISO, CE
2	Chequered Plater	3.0 mm Pitch (Std) Optional with extra cost. 1.0 mm to 8.0 Pitch
		
3	Production Capacity	100 to 500 gm per batch (2-6 kg/hr depends on formulation.)
4	Product	Any Aqua base or solvent base formulation.
5	RPM	100 to 1400 rpm
6	Electric Accessories	230 V 1 Phase 50 Hz / 440 V 3 Phase 50 Hz
7	Air purged inlet	Through Fan
8	MOC Contact Parts	SS 316
9	MOC Non-Contact Parts	SS 304
10	Hardware	Standard Make (Bearing shaft seal of SKF etc or equivalent)
11	Finish	Non Contact Area Matt Finish Contact area Matt Finish Machine part- Machine Finish
12	Drive Motor	Crompton or equivalent
13	HMI (Touch Screen)	Delta
14	Documents	User Manual
16	Electric Consumption	1 Kw
17	Dimension (LXWXH) in mm	360 mm (L) X 425 mm (W) X 500 (H)
18	Weight	48

Some of Our Other Instruments.

<https://www.vjstruments.com/products/>



Note - Upgrading design is continuous process.

1. All the images displayed in the offer are for representation purpose only but actual may vary.
2. Dimension & weight may vary

International Clients



Industrial Clients



IITs, AIIMS, CSIR, Government & Private Institute

