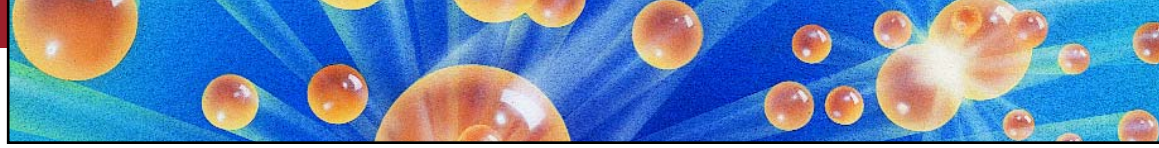
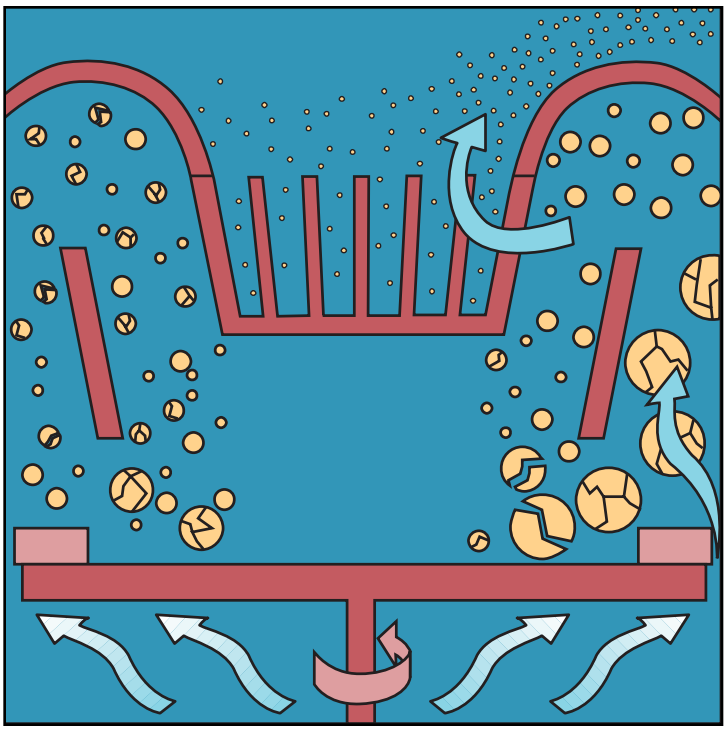
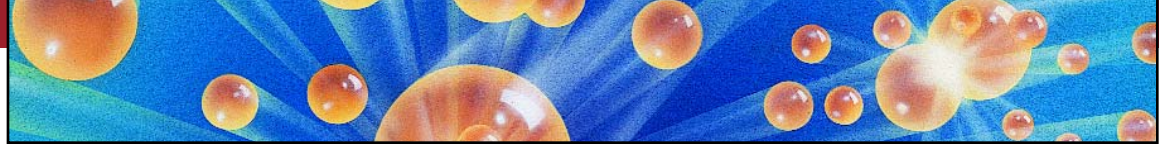


NSP POWDERIZER

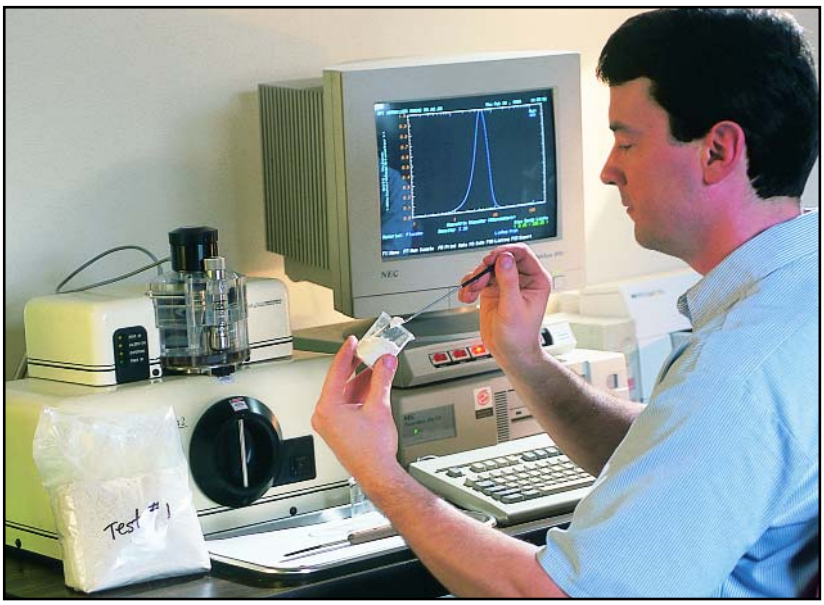


STURTEVANT Inc.

POWDER PROCESSING TECHNOLOGY: THE STURTEVANT SOLUTION.



CUSTOMIZED SOLUTIONS



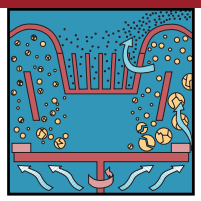
For more detailed information on Sturtevant's size reduction and separation products, or a demonstration at our testing facility, call the powder processing pros at Sturtevant or your local representative. Sturtevant turns problems into solutions.

CALL TOLL FREE:

800-992-0209

STURTEVANT Inc.®

POWDER PROCESSING TECHNOLOGY: THE STURTEVANT SOLUTION.



THE STURTEVANT POWDERIZER®

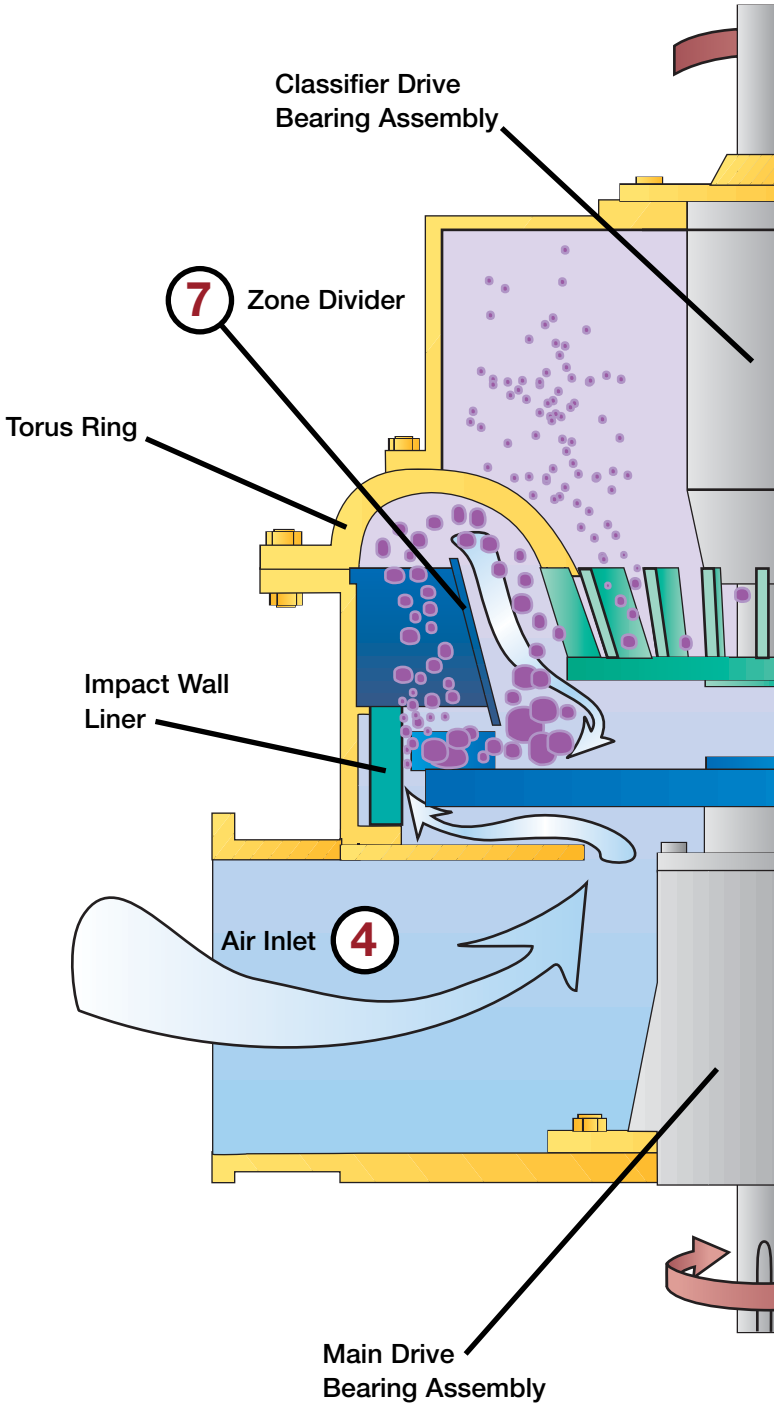
The Sturtevant Powderizer® is a 'classifying impact mill' capable of reducing powders down to less than ten microns. It is fast becoming the workhorse in particle size reduction applications due to its combination of impact milling and air classification technologies...in a single unit! Its flexibility of operation can easily process a multitude of products in the chemical, food, minerals, and other industries requiring efficient and economical particle size reduction.

HOW IT WORKS

The feed tube (1) conveys material into the grinding chamber, where it is pulverized by the impactors (2) that are fixed to a high-speed rotor disk (3). The pulverized product is then swept upward in a column of air (4) and exposed to an independently driven classifying wheel (5).

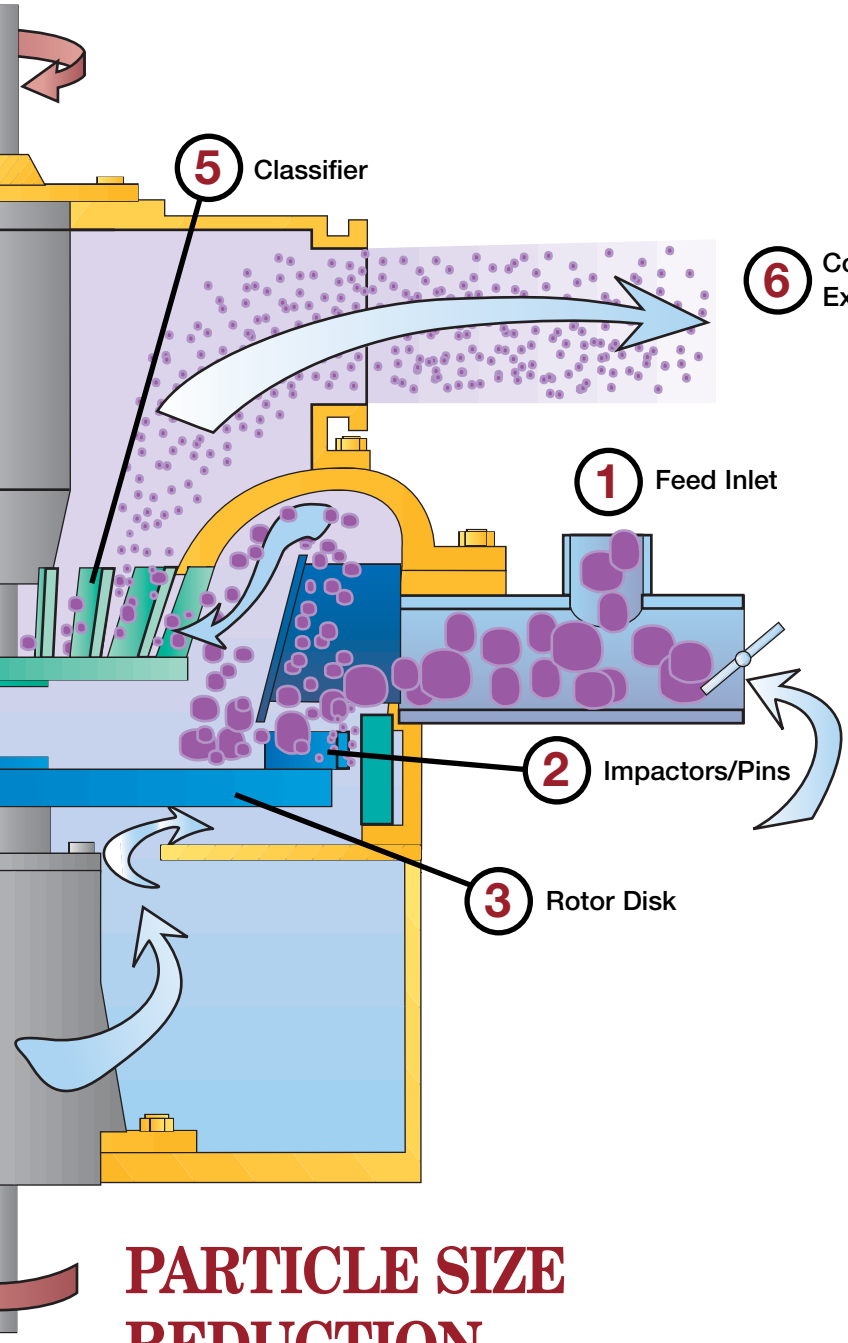
The air flow, created by the system exhaust fan (6), pulls the fine particles through the rotating classifier, while rejecting oversize particles. The oversize particles are thrown to the inside of the zone divider (7), and directed back into the path of the impactors for additional reduction.

Particle size is easily adjusted by increasing or decreasing the classifier speed, without mill shutdown. Other system parameters are easily adjusted to allow for tight control of product size on a variety of materials, for grinding and classifying to less than 10 microns.



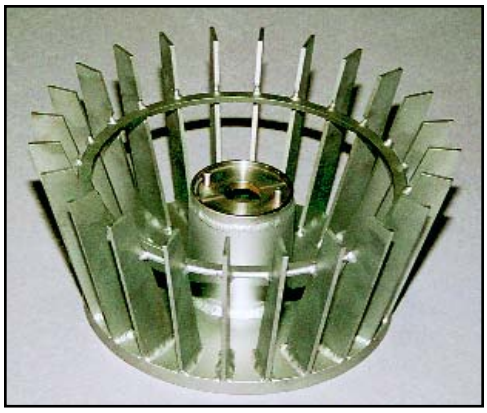
POWDERIZER® FEATURES AND BENEFITS

- Final Particle Size: 5-100 microns
- Reversible impact liner for longer life
- Machine Capacity: 50#/hr -15,000#/hr (Multiple sizes)
- Stainless Steel Construction
- Optional finishes & materials are available
- Suitable for heat-sensitive products
- Narrow particle size distribution
- Entire system can be fully automated
- "Powderizer®" can be easily disassembled for cleaning and servicing
- Externally lubricated bearings
- Bearing cartridge with air purge for longer life



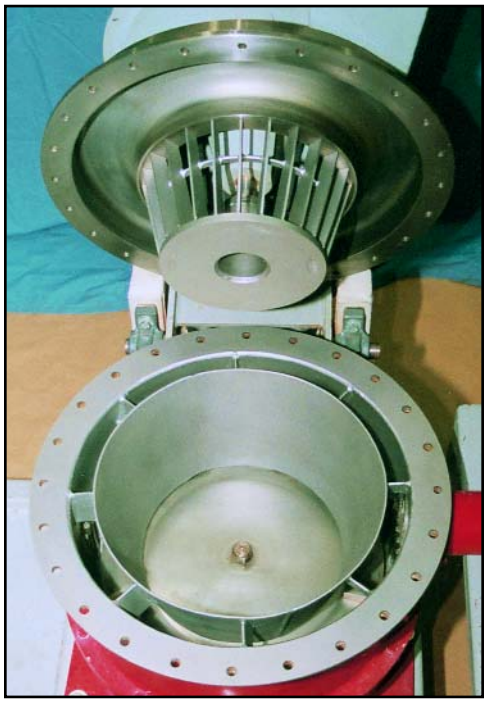
PARTICLE SIZE REDUCTION & CLASSIFICATION. . . in a Single Unit.

The Variable Speed Classifier can be easily controlled & adjusted to produce the required fineness in a narrow distribution range.

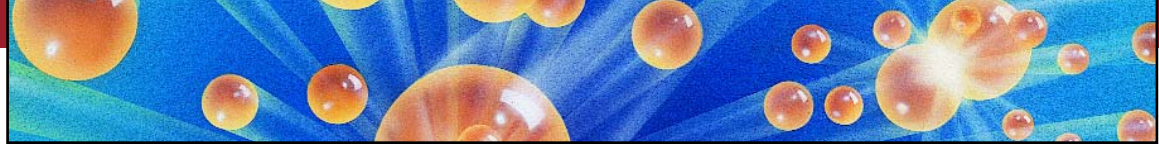


Classifier Wheel
Primary factor in controlling particle fineness and narrow distribution.

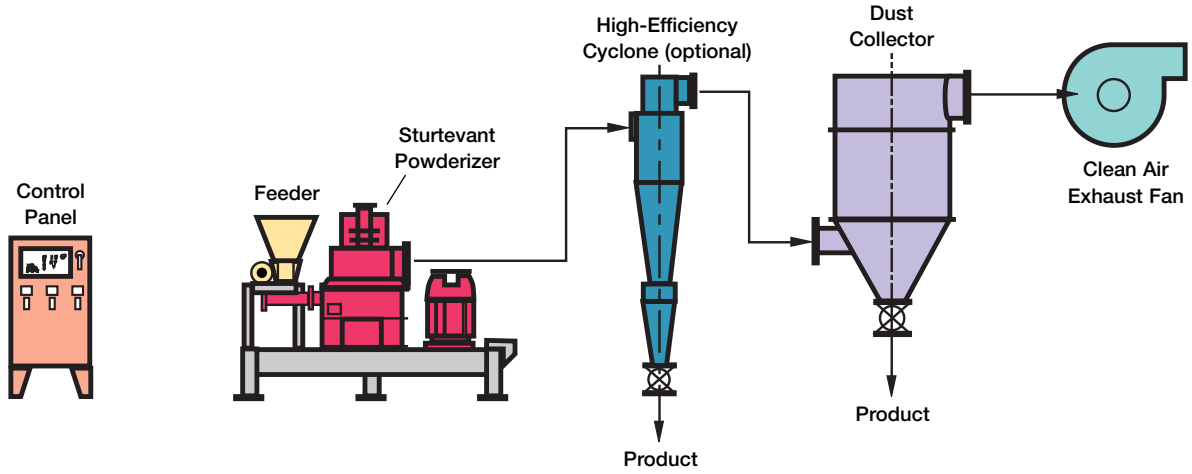
Rotor and Impact Wall
Efficient combination for particle size reduction from high speed impacts.



Internal View of Powderizer®
Showing grinding and classification zones.



TYPICAL POWDERIZER FLOW CHART



SPECIAL APPLICATIONS

- Closed loop systems for grinding in a controlled atmosphere, i.e., inert gas, refrigerated air, ultra-dry air
- Pressure-shock-resistant designed systems for intrinsically safe reduction of explosive materials
- Abrasion-resistant designs for handling a variety of minerals
- "Cool" operation is well-suited for heat-sensitive products and other special applications
- Special designs and finishes for food and pharmaceutical applications
- High-temperature design for flash drying/grinding systems

STURTEVANT NSP-POWDERIZER

	Model No. 1	Model No. 2	Model No. 2.5	Model No. 3	Model No. 4
Main Mill Motor (HP)	5	25/30	75/100	125/150	300
Max Classifier Speed (RPM)	7,000	3,600	2,500	2,000	1,800
Classifier Motor (HP)	1	5	10	30	60
Typical Airflow (CFM)	250	1,250	5,000	7,500	15,000
Production Capacity	300	1,800	5,500	8,500	15,000
Weight (lbs) Approx.	600	1,700	4,500	6,200	10,000
Dimensions Overall (ft.) L x W x H	4 x 2 x 4	7 x 4 x 5	9 x 6 x 6	11 x 6 x 8	12 x 6 x 9

For more information, or a demonstration at our testing facility, call the powder processing pros at Sturtevant or your local representative.

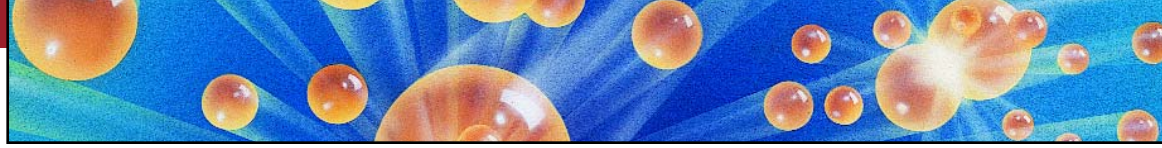
Sturtevant turns problems into solutions.

STURTEVANT Inc.®

Sturtevant, Inc.
348 Circuit Street
Hanover, MA 02339

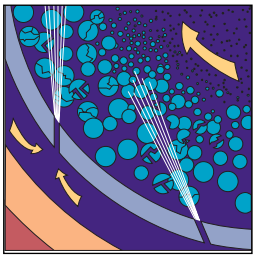
- **PHONE: 781-829-6501**
- **FAX: 781-829-6515**
- **TOLL FREE: 800-992-0209**
- **E-MAIL: sales@sturtevantinc.com**

POWDER PROCESSING TECHNOLOGY: THE STURTEVANT SOLUTION.

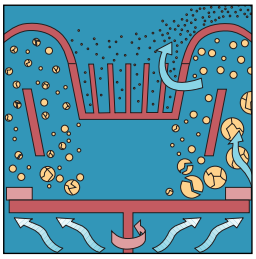


PROVEN PERFORMERS

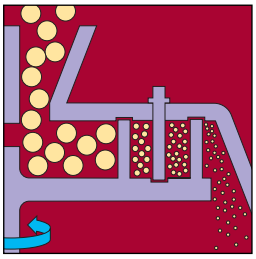
For most dry material size reduction or separation needs, Sturtevant's extensive line of products can meet your requirements.



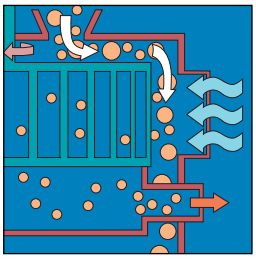
Micronizer®: Jet mills dry particles to sub-micron size; some models USDA-accepted.



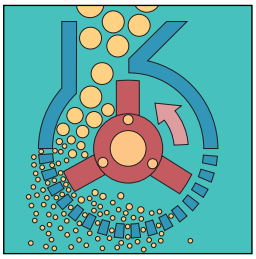
Powderizer®: Air-swept impact mill with integral classifier; grinds to low-micron range with tightest particle size distribution.



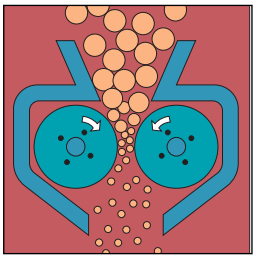
Simpactor®: Centrifugal, pin-type impact mill; reduces low- to medium-density materials to 50-200 mesh.



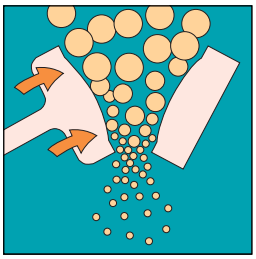
Air Classifiers: Air streams separate fine and coarse particles with mechanical rejector for product quality assurance.



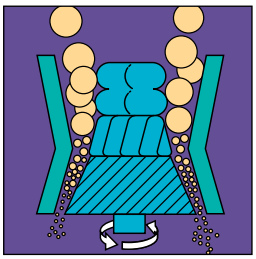
Hammermill: Versatile, perfect for friable materials; easy access for maintenance or inspection.



Roll Crusher: Best-suited for controlled reduction of friable materials; minimal fines.



Jaw Crusher: Ideal for coarse and intermediate crushing; minimal fines production.



Screening Machines: Separates powders into several fractions for multiple products or eliminating dust and oversized particles.

Sample Grinders: Disk type grinder for very fine work at small throughput rates.

TYPICAL POWDERIZER APPLICATIONS

- Calcium Carbonate
- Acrylic Resin
- Limestone
- Mica
- Coatings
- Zinc Oxide
- Gypsum
- Iron Oxide
- Corn Meal
- Kaolin
- Ammonium Phosphate
- Sugar
- Talc
- Wood Flour
- Cocoa
- Boric Acid
- Rice
- Graphite
- Silica Gel
- Sodium Bicarbonate
- Cellulose
- Wheat Flour
- Fish Meal
- Lactose
- Sodium Chloride
- Walnut Shells
- Herbicides
- Fungicides
- Fertilizers
- Starch
- Phosphates
- Magnesium Hydroxide
- Powdered Milk