Designers, Manufacturers and Suppliers of

Processing Solutions

Using Quality Equipment, Controls and Systems, Since 1925

Prater equipment starts in the testing laboratory.

- Computerized, laser-beam particle size analyzers evaluate the critical properties of the materials to be processed.
- The customer's actual processes are faithfully reproduced to identify exact operating characteristics.
- The new equipment is designed to deliver what the customer's processes demand.

This careful, professional approach results in long lasting, easier-to-maintain equipment that delivers the right finished product at the right cost. Our approach is so effective that some Prater equipment built in the 1930's is still in operation today.

A Broad Range of Products Supplying a Wide Array of Industries In Over 12,000 Installations.

Quality Shows in Everything Prater Builds

- Hammermills
- Flake/Lump Breakers
- Mega Mills
- Fine Grinders
- Classifier Mills
- Rotary Airlock Feeders
- Vibrating Screens
- Centrifugal Sifters
- Air Classifiers
- Compaction/Briquetting and Agglomeration Products
- Minor/Micro Ingredient Systems
- Batch & Continuous Mixers

Serving the Widely Varying Needs of Diverse Industries

- Food Processing
- Chemicals & Agriculture
- Minerals
- Pharmaceuticals



BACKWARDS ENGINEERING

RESULTS COME FIRST

Performance and ROI... Guaranteed.

Starting from a full recognition of what the customer *needs to have happen,* Prater-Sterling engineers design products and systems that maximize output while minimizing investment.

That's what we mean by Backwards Engineering.

Effectively applying the real capabilities of each component to the customer's specific needs, the productivity and reliability of every Prater-Sterling product can be guaranteed.

That's the value of Backwards Engineering.

Ensuring that design innovation always enhances performance, and creativity always improves the customer's bottom line.

That's your return from Backwards Engineering.

Your source for Backwards Engineering is:

Prater Sterling

Tel: 630.759.9595 • Fax: 630.759.6099 • Toll Free: 800.323.5735
Email: info@prater-sterling.com • Web site: www.prater-sterling.com

PRODUCT REVIEW

Prater Sterling

BACKWARDS ENGINEERING

results come first.



Prater specializes in particle management —

matching the proper machine or process system to your specific need.

AUTOMATED SOLUTIONS

manual weighing systems

- Batch control system using *Windows*® based software
- Single or multiple scale systems
- Raw ingredient tracking via bar code readers
- Ingredient tolerance control & tracking
- Production and finished batch tracking & scheduling





process controls

- Batching control systems
- Programmable logic controller based systems
- Material handling control systems
- Complete plant or application specific automation
- Complete data tracking & recording



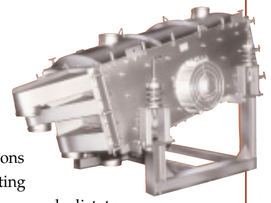
accu-portion® modular weighing & batching systems

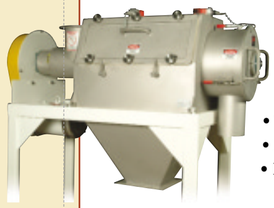
- Multiple supply bins & scale hoppers configurations
- Standard supply bin capacities from .5 cubic feet to 100 cubic feet
- Scale capacities from .25 cubic feet to 50 cubic feet
- Modular design allows for expansion and limited space applications
- System accuracies to $^{1}/_{10}$ of 1.0%

SIZING & SEPARATION

vibrating screens

- One, two or three deck models available
- Size or separate material from 6" to 20 mesh (840 microns)
- Positive eccentric action delivers more uniform distribution over screening surface for more efficient coarser applications
- Optional base or suspended ceiling mounting
- Customizable screen size and body design as needs dictate



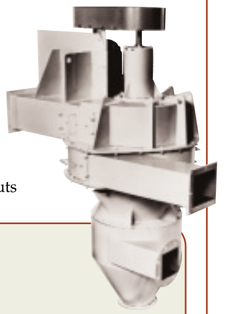


centrifugal sifters

- Scalps product from $^{1}/_{4}$" - 325 mesh
- Ultra high throughput per square foot of cloth area
- Three-bearing shaft support, drilled for air purge
- Fully adjustable 4-paddle rotor
- Removable tool less light-weight rotor assembly

air classifiers

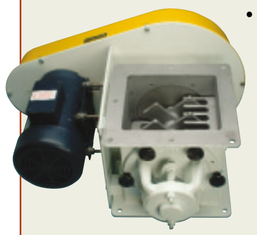
- Separates dry free flowing product from 150 - 1 micron
- Allows for very narrow particle distribution
- Control of mean particle size & cut point
- Pre-classification with cyclonic air-stream
- Adjustable secondary air system for precise cuts



PARTICLE SIZE REDUCTION

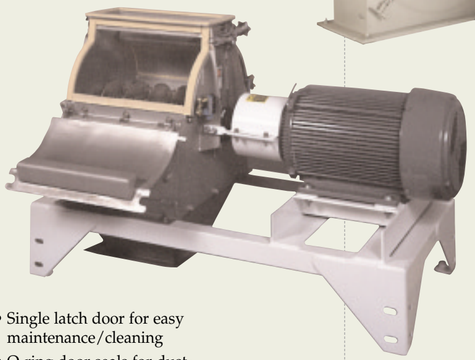
flake/lump breakers

- Reduces pieces or lumps from 6" to 1/16"
- Heavy-duty single-shaft rotor, V-belt driven
- Easily replaceable rotating & fixed blades
- Drilled for air purge seals
- Optional sanitary design



mega mills

- Reduces particles to as small as 50 mesh (250 micron)
- Dynamic rotor symmetry assures superior balance & uniform hammer wear



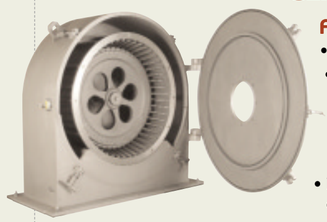


- Single latch door for easy maintenance/cleaning
- O-ring door seals for dust-tight operation
- Easily removable, lighter rotor

FINE GRINDING & CLASSIFIER MILLS

fine grinders

- Final product size 60 – 200 mesh
- External bearing assembly
  - Dynamically balanced reversible rotor assembly
  - Tight clearances between rotor & fixed grinding elements
- Dual o-ring door seal with floating door hinge for a positive seal



hammermills

- Unique design utilizes 100% of the useable screen area
- Uniform granular grind
- Balanced, reversible rotors
- Easy and fast screen changes
- Stainless steel construction available

classifier mills

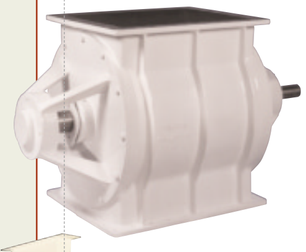
- Final product size 50 mesh to sub-micron size
- Two-stage closed circuit grinding
- Inter stage air classification
- Large access door for quick inspection/cleaning
- Standard door interlock

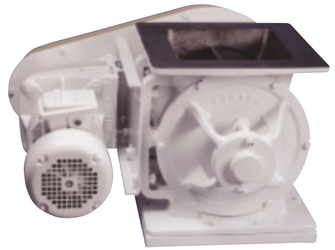


FEEDING & METERING

rotary airlock feeders

- Ultra-tight clearances (for less leakage)
- Self-adjusting packing glands
- Larger pocket capacities for slower rpm and longer life
- Oversized flanges for retrofit applications
- Options including "Quick-Take-Apart" and ceramic lining for abrasive applications





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PARTICLE SIZE ENLARGEMENT

agglomeration, compaction, granulation and briquetting equipment and systems

compactors

- Compacts "off spec" fines into good product
- Turns up to 90% of scrap or reject into usable/salable product
- Converts hazardous or nuisance dust into easier-to-handle forms
- Reduces volume of waste or excess product
- Resolves environmental or flow problems

