

Full Screen Hammer Mills





KEY FEATURES

- Durable, heavy-duty fabrication designed for superior operation and long lifespan
- 100% of screen utilized for maximum efficiency
- A variety of hammer sizes, patterns, and screen openings available to tailor parameters for each application
- Balanced HP to screen area for maximum power efficiency
- Symmetrical, precision balanced, and reversible rotors
- Durable pillow-block bearings enhance unit lifespan
- Rigid-frame screen mounting for uniform hammer-to-screen clearance
- Unique frame track designed for easy screen removal and exchange without tools
- Large access doors make cleaning and maintenance simple and quick
- Stainless steel and sanitary design available
- Optional wear liners and wear-resistant hammers for abrasive products

Partial List of Materials Processed By Hammer Mills

Alfalfa Aluminum Foil Apples Barley Beans **Bread Crumbs** Buttermilk Cake Mix Candy Carbon Cardboard Scrap Casein Cellulose Ceramic Cereals Chalk Charcoal Cheese Chemicals, Misc. Chicle **Chili Peppers** Chocolate Malt Clays Coal Coca Cake **Coffee Chaff** Cork Corn Diatomaceous Earth Egg Noodles Feed Fertilizer Gelatin Glass Grains Graphite Gum Arabic

Gum Arabic Gypsum Horseradish Hulls Macaroni Manure Minerals, Misc. Mustard Nut Shells Oats (whole, hulls, groats) Oyster Shells Paper Peanuts Peat Moss Plastic Foam Pumpernickel Resin, Various Riboflavin Rice Rubber Salt Sawdust Seed Screenings, Misc. Shellac Shrimp Soap, misc forms Soda Ash Soup Flakes Spices Steel Wool Titanium Tobacco **Tomato Pomace** Water Softener Wheat 9whole, gluten, germ) Wood Yeast



AVAILABLE SIZES & CAPACITIES

~ •

Model sq. in Avg. HP RPM G5 440 $5-15$ 1800 3600 G6 540 15-30 1800 3600 G7 790 40-60 3600 3600
$\begin{array}{ccc} & & & & & & & & & & & & \\ & & & & & & $
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
G6 540 15-30 1800 3600 G7 790 40-60 1800 3600
Go 540 15-30 3600 G7 790 40-60 1800 3600 3600 3600
G7 790 40-60 1800 3600
<u> </u>
G8 860 75-125 3600
C25 2700 125 200 1200
625 2700 125-300 1800

KEY BENEFITS

Prater Hammer Mills are the premier choice for applications requiring high capacities, operational efficiency, and uniform particle size distributions. All Prater Hammer mills are equipped with our proprietary Full-Screen design that enhances end-product quality while simultaneously extending unit lifespan. Major applications include:

- Conditioning of agglomerated blends
- Granulating of almost any material
- Recycling operations
- Reworking of off-spec products

These hammer mills are ideal for a variety of products, including:

000000

ന്

Agricultural products

7

- Biomass materials
- Ceramics
- Cereals
- Chemicals
- Food processing ingredients
- Hemp
- Minerals
- Pigments
- Pulp and paper
- Wood

THEORY OF OPERATION

The Prater Full-Screen Hammer Mill utilizes a specially shaped grinding chamber designed with distinct grind-and-release zones. Coarse raw product is fed into the chamber, using a rotary feeder or screw, by way of a product inlet at the top of the unit. High-speed hammers impact coarse material against stationary cutting plates fixed to the top of the pre-grind chamber. Impact with the cutting plates decreases the velocity of the material and guides it into the hammer path for maximum impact speed differential. Screen-to-hammer clearance is minimized at the 3 o'clock and 9 o'clock positions to amplify impact. As material moves toward the bottom of the chamber, hammer-to-screen clearance increases toward the 6 o'clock position to help with deceleration and egress of fully conditioned particles through the sizing screen. An adjustable diverter system prevents unfinished product from re-entering the inlet and product feed stream. Finished product is discharged via a hopper below the mill where a mechanical conveyor or pneumatic system can be utilized to remove the ground material. Prater provides a full inventory of hammers, screens, and other grinding elements that are available to satisfy almost any grinding application.

> 2 Sammons Court, Bolingbrook, IL 60440 <u>1-844-94</u>2-2466 • praterindustries.com