COMPLETE SIZE REDUCTION SOLUTIONS

www.bengalmachine.com | info@bengalmachine.com | 1-800-447-4634



From size reduction, to material conveyance, and finished pellets, the Bengal Machine family of equipment manufacturers offers complete turn key equipment solutions.

Bengal Machine is the parent company of Schutte Hammermill, CSE Bliss Manufacturing, Schutte Motion, and CM Shredder. With a combined heritage of over 165 years in business and as leaders in respective areas of size reduction and material handling, servicing a wide range of industries and applications, only the Bengal Machine family of equipment can offer complete, turnkey solutions for our customers. The expansive product line offers a full range of size reduction equipment and systems to fit any application need. The combination of these world-class brands of the size reduction industry offers customers a fully integrated manufacturer featuring complete, turnkey solutions across a wide range of industries and size reduction applications.

ABOUT BENGAL MACHINE



INDUSTRIAL AND TIRE SHREDDER SYSTEMS

today and beyond, CM Shredders has long been at the forefront of more than 28 countries and are processing over a half a billion tires each year worldwide. cmshredders.com



HIGH QUALITY SIZE REDUCTION EQUIPMENT

worldwide for their rugged construction, economical price, dayhammermills.com



THE NAME YOU KNOW, QUALITY YOU TRUST

along with using customer suggestion that you can only get being directly in the industry. **csebliss.com**



APPLICATION ENGINEERED SOLUTIONS FOR MATERIAL HANDLING AND CONVEYANCE NEEDS

is a product group of the Schutte Hammermill Company. The



PERFECT PELLETS

efficiency, reliability, and superior quality. graf-equipment.com

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INDUSTRIAL SHREDDERS

Our CM Shredders brand produces a line of various industrial shredders ready to handle even the most demanding materials. Extremely versatile for every application, our heavy-duty industrial shredders handle everything from glass, plastics, and electronic waste to car tires, wood, and various metals. Utilizing both dual-shaft shredders and single-shaft shredders, we have the perfect industrial shredding solution for large and small operations. Whether you're shredding various industrial materials or granulating rubber, we have an industrial shredder to meet your needs.



CM Hybrid Shredders

These dual shaft shredders are ideal for many applications. They are available with different knife configurations that can be designed specifically for your application.



CM Solo Shredders

The Solo Series are high performance single-shaft grinding shredders, designed to consistently provide an exact finished particle size.



CM Granulators

The wide range of rotors and hopper sizes allow the machines to be tailored to almost every application in the recycling field. The completely welded heavy steel construction is designed to to withstand the most demanding and universal applications.



Primary Shredder

Processes whole tires into rough shreds for disposal or further processing to Tire Derived Aggregate, Tire Derived Fuel, or Feed Stock for Crumb Rubber Applications.



CM Shredders manufactures the most advanced tire recycling equipment in the industry.

We cover every stage of the tire recycling process, from whole tires to crumb rubber.

CM Shredder's industry leading tire shredders, feature our patented knife system and

Dual Speed Chipping Shredder

Since 1982 CM has built and delivered more of these workhorses than all of our other shredders combined.



Zero Waste System

The CM Zero Waste System screens and separates commingled steel and rubber generated from the Liberator in Stage 2 tire processing.



Chip Shredder

High volume production of specifically sized tire chips. Chips are cleanly cut with very little exposed steel.



Liberator Systems

separates the wire from rubber in tires and other mixed applications. The CM Liberator™ is an extremely robust medium speed Primary grinder.



Dual Drive Crackermill

produces fine rubber for the tire recycling industry. The unique cutting action is produced by two large counter rotating rolls that crack and mill the rubber.

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WOOD GRINDERS AND HOGS

Our Schutte Hammermill brand offers an extensive line of wood grinders and wood hogs for reducing scrap wood to sizes as small as fine wood flour. Like all of our equipment, our line of wood grinders are custom configured to suit the user's material and production goals.



Trim Scrap Grinder
High speed, high
production grinder
for trim scrap, block,
edgings and slabs.



High Production Bark
Grinder
Heavily constructed, high
production grinder suitable
for all types of bark and
heavy wood scrap



Hogerizer Wood Hog
High production pallet
and wood scrap grinder,
with capacities surpassing
10 TPH.



FGZ Series Dual Stage Hog/Hammer Mill Combo Reduces large blocky wood waste to a fine

sawdust in a single pass.



Slow Speed, Drop & Go
Wood Hog
Designed for "drop & go"
operation, less power
usage, minimal dust, and
lower manpower.



CSE Bliss Hammer mills
Designed using over 40
years of experience along
with customer input,
CSE offers hammer mills
in a variety of sizes and
configurations, with a
focus on biomass, feed
and grain, and pet food.



We offer an extensive line of hammer mills suitable for a wide variety of applications,

and include wood grinders, industrial, full circle screen, and laboratory scale styles.

Hammer mills work on the principle that most materials will crush, shatter, or pulverize upon impact. Material is fed into the mill's chamber through the feed chute, typically by gravity, where it is struck by ganged hammers attached to a shaft that rotates at high speed inside the mill's grinding chamber. The material is crushed or shattered by a combination of repeated hammer impacts, collisions with the walls of the grinding chamber, and particle on particle impacts. Perforated metal screens or bar grates covering the discharge opening of the mill retain coarse material for further grinding,

Most models are available in gravity or pneumatic discharge.

while allowing properly sized materials to pass.

Mini Mill
Schutte Hammermill
Mini Mills offer the same
operational capability
of larger size reduction
equipment at the fraction
of the price.



Two Stage Mill
Two stacked industrial
mills. Ideal for reducing
bulky material to a fine
consistency, or grinding
free flowing material to
an ultra fine size.

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HAMMER MILLS

PELLETING EQUIPMENT



Pilot scale full circle screen hammer mill Pilot scale full circle screen hammer mill designed with laboratory testing, and small batch and craft production in mind.



Medium Production Mill
This extremely versatile
mid-range production
hammer mill with
economical built in fan,
produces the ideal finish
grind without sacrificing
throughput.



Hammer Mill
Provides the tip speed
required for maximum
throughput. Easy to
change screens produce
the exact desired finished
particle size.



E-Scrap Grinding
Hammer Mill
Complete data
destruction in one pass.
Liberates components for
down-stream separating
and recycling.



WA Series Industrial Mill
Heavy duty hammer mill
that features components
designed for processing
hard and highly abrasive
materials.



FG Series Dual Stage
Hammer Mill
Reduces pre-hogged
or small scrap to fine
sawdust or wood flour in
one pass.

Bengal Machine has partnered with Graf Equipment, a leading pellet mill manufacturer to provide a full line of pelletizing equipment for the Feed and Grain and Biofuel industries.

Easy to use, with an anti-vibration body, Graf Equipment is easy to use and known for being robust and durable. Our high capacity pellet mill and pelletizing equipment feature easy to change dies, and precision engineering. These custom-configured machines promise efficiency, reliability, and superior pellet quality.

The CSE Bliss Manufacturing pellet cooler promises gentle cooling, is easy and fast to clean and eliminates cross-contamination. Efficient and gentle cooling of pellets has a significant influence on the quality. The cutting-edge CSE Bliss pellet coolers promise efficient cooling for high-quality pellets.



Pellet Mills
The robust and reliable pellet mills from Graf
Equipment are ideal for all pelletizing applications.
These mills are constructed of stainless steel and characterized by ease of use and maintenance.



Pellet Coolers
The cutting-edge CSE
Bliss pellet coolers
promise efficient cooling
for high-quality pellets.



Pellet Crumblers
The Graf Equipment crumbler is ideal for multistage grinding systems. A robust design, with high throughput and low energy consumption, this crumbler a reliable partner in your plant.

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INDUSTRIAL CRUSHERS

Our Schutte Hammermill brand offers an extensive line of Industrial Crushers and jaw crushers. Like all of our equipment, our line of crushers are custom configured to suit the user's material and production goals.

Jaw crushers are the size reduction equipment of choice for processing large, blocky and/or abrasive materials. Jaw Crushers are ideally suited for crushing large, blocky and hard materials to a specific particle size with a minimum of fines. Suitable for in-feed material up to 12 inches in diameter. Operation is quiet and virtually dust-free.

Industrial Crushers are ideal for processing a variety of large, heavy, bulky or abrasive materials that will break or reduce upon impact. Large in-feeds allow for easy processing of blocky materials for high tonnage rates.



Industrial Jaw Crusher

Ideally suited for crushing large, blocky and hard materials to a specific particle size with a minimum of fines. Operation is quiet and virtually dust-free.



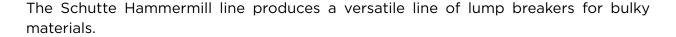
Stone Crusher

Reduces stone scrap for volume reduction or re-use. This ruggedly constructed Stone Crusher offers exceptional performance and value.



RC Series Industrial Crusher

Ideal for processing a variety of large, heavy, bulky and/or abrasive materials. The large infeed allows for easy processing of blocky materials.



Lump breakers are ideal most common de-agglomeration applications, and where flowability is the goal. Ranging in sizes from laboratory scale to heavy industrial, these lump breakers are high capacity, available in carbon steel, stainless steel, or even food grade, construction with single or double rotor designs, featuring hammer and comb for optimized performance on a variety of materials.

Lump breakers are custom configured to meet your production goals and material requirements.



High Capacity Lump Breaker

High capacity, single rotor lump breaker, featuring hammer and comb design. Suitable for most common de-agglomeration applications.



High Capacity Dual Rotor Lump Breaker

The KE Series is a high capacity lump breaker featuring a dual rotor design and is ideal for high tonnage and tough to process materials.



Food Grade Lump Breaker

High capacity, single rotor lump breaker, featuring hammer and comb design. Suitable for most common de-agglomeration applications.

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MATERIAL HANDLING SYSTEMS

REPLACEMENT WEAR PARTS

Our Schutte Motion brand provides material handling equipment and conveyance systems - including screw and auger conveyors, belt conveyors, vibratory conveyors and screeners, and hydraulic dumpers - to meet any application need. Ruggedly constructed equipment, configured to your application demands means higher productivity and less downtime.



Screw and Auger Convevors Screw Conveyors and Feeders custom tailored and suitable for almost any industry.



Belt Conveyors A full range of rubber, plastic, and steel belt conveyors for unit handling and bulk handling in any environment.



Dumpers Equipped with continuous duty motors and the robust design features extra rugged structural members.



Vibrating Conveyors and **Screeners** Ruggedly built sizing equipment, designed to handle abrasive as well as

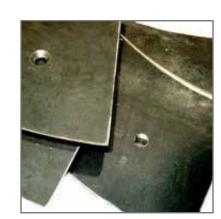
light, fragile materials.



Replacement Hammers



Screens and Grates



Bengal Machine equipment is very ruggedly constructed and with proper routine

maintenance will remain in service for may years to come. To achieve this, we

recommend periodic inspection of all replacement wear parts. We recommend that a

Bengal Machine companies can provide almost any replacement parts for size reduction equipment that you may need. We offer all the internal wear parts, including precision laser cut wear liners, and screen carriages. We can also provide equipment refurbishing.

Proper mill maintenance and replacement of wear items can improve equipment performance, and even help with vibration problems. To avoid costly downtime, we recommend periodic inspection and replacement of components that wear over time. We can trouble shoot issues, and provide the correct parts or even complete rebuilds.

We maintain a large inventory of parts for all current product offerings, and models,

Including hammer mills, shredders, lump breakers and crushers.

set of replacement components be kept on hand.

Wear Plates



Shredder Components



Hammer Rods & Bearings



Rotor Rebuilds

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CUSTOM CONFIGURED TURNKEY SIZE REDUCTION SYSTEMS

Bengal Machine can provide custom configured turnkey systems for size reduction and material handling within our extensive family of equipment manufacturers.

We are the only fully integrated group of size reduction equipment companies that can offer complete turn-key systems for all stages of size reduction, plus material handling and conveyance equipment as well. No matter your process, or production goals, we can help get you there.

Bengal Machine is your one-stop for complete turnkey systems to improve your process results.



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