

Economic Peaks and Valleys

Economic demands cycle through peaks and valleys in all types of industries. During prosperous times, capital equipment projects are frequently pursued. This makes perfect sense due to increased company profitability and thus a greater amount of capital money available for process improvements. The question I pose: How can your company maintain profit levels during economic valleys? If demand and/or selling price of your product remains constant or even decreases, there is one way to accomplish this task. Decrease your cost involved in producing your products. This is the area in which Bliss Industries can help you. Our goal is to provide a process that decreases your

production costs while maintaining or improving your product quality objectives. The 21st Century is here. Outdated processes are continuing to leave your company vulnerable to economic valleys. If given the



opportunity, we at Bliss will be glad to provide you with a process audit to determine areas in which you

can save on production costs. We ask that you give us a chance to improve your efficiency. Anyone can make money during economic peaks. TEAMBLISS can assist you in improving your bottom line during the economic valleys.

Prepared by: Jason Kessler - Eastern Regional Sales Manager

Shredder/Fluffer

Our new Shredder/Fluffer is the result of both research and patience.

The rewards of these two together have been astounding. After 40 years of trial and error, designing and redesigning, and patenting various shredder/fluffers, we have finally hit the jackpot for our customers.

This newly designed Bliss Shredder/Fluffer is so simple it works. For the agri fiber board industry it can: (1) shred a standard bale (4 x 4 x 8) with 10% moisture content at the rate of 2 minutes per bale and (2) bales which are frozen and have up to 40% moisture content at the rate of 1 every 4 minutes. This unit can also handle round

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bales up to six foot in diameter. There are many applications for the shredder including baled paper and cardboard. This unit has an INDUSTRIAL design that can be custom engineered and manufactured to meet individual project requirements on most baled fiber products.

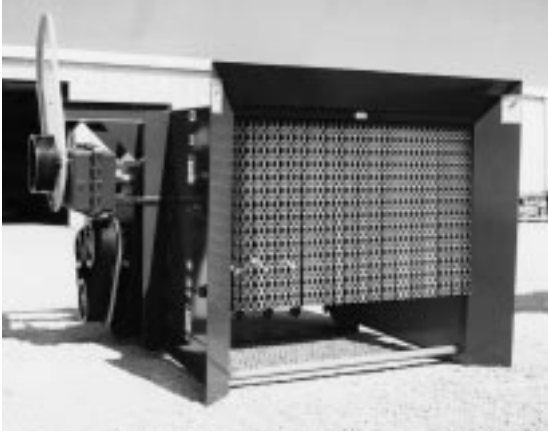


Photo of Bliss Shredder/Fluffer (Fluffy)

This allows us the ability to offer a complete fiber preparation system for the board industry. The shredder/fluffer provides proper raw material characteristics to the refining system. **Our refining system is used on wood, straw, kenaf, and other fiber feed stocks to provide the highest quality of board furnish. A reduction of horsepower, as much as 60%, is achieved with the Bliss refining system.**

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CUSTOMER



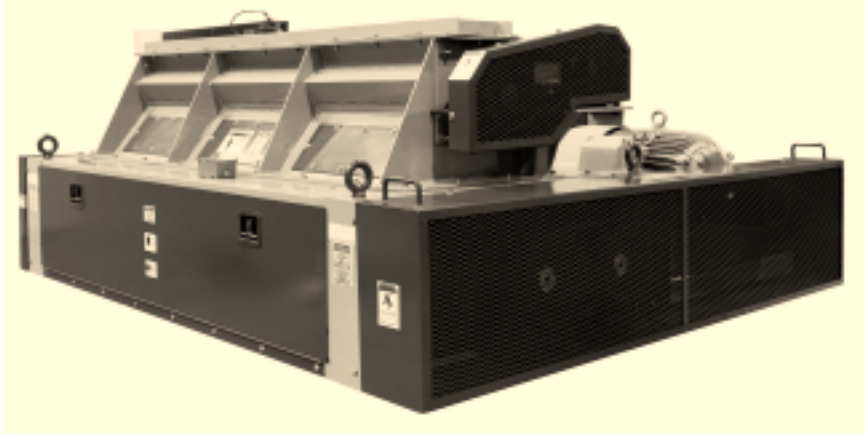
VENDOR

EMPLOYEE

Mission Statement

TEAMBLISS, with the customer as team captain works continually toward improvement. We provide efficiency, productivity and ultimately profitability to the industries we serve.

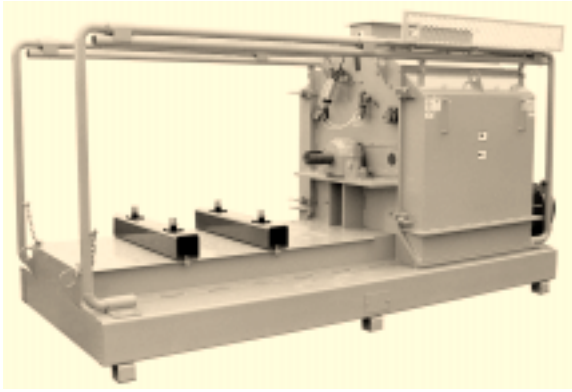
Crumbler



We are always trying to lend an ear to our customers. **A customer came to us and said, "There needs to be a better Crumbler designed." We discussed the need with several people and the consensus was, "Yes", there was a need for a better design, especially when coupled with a counter flow cooler. So, we designed and manufactured one with: (a) single or dual motor drive, (b) one or two pair roll systems, (c) no springs, (d) and one that can operate on your 90 PSI plant air which provides more uniform roll pressure. The Roll Feeders will give you a uniform rate of feed that can be reversed to by-pass the rolls. The capacities range from 10 TPH to 70 TPH.**

[e-mail:engineering@bliss-industries.com](mailto:engineering@bliss-industries.com)

Medium Fine Grinder



Our new Medium Fine Grinder (EMF) is robustly designed with a bi-directional inlet, replaceable cutting plates, and easy to change, positive sealing screen carriages. This mill continues to carry the Bliss quality design, workmanship and productivity.

The EMF Mill was designed for product applications between 40 and 100 U.S. mesh. This is usually accomplished by using a larger perforated screen than standard hammermills. Some of our specialty products include fiber composite filler, spices, botanicals, fish food, pet food and many more. Let us know how we can help you on your medium fine grind applications.

“Service At Its Best”



Bliss Industries, Inc. continues to improve their service with the Piper Navajo Chieftain Airplane. This plane has the capacity for seven people and gives us a better range of service to most of the U.S. and Canada. The service department has first priority, then sales and marketing. Our pilot, Kirk Fitch, has a full time job, not only flying the plane but keeping it serviced as well.

Raised All Around The World

This is the motto of Sanderson Plumbing Products who recently purchased several Eliminator Hammermills. Sanderson is grinding wood waste into flour for the manufacturing of pressed toilet seats. These hammermills are our New Medium Fine Grind (EMF) Hammermills. Sanderson has operated our traditional Eliminator Hammermills for several years. The need for a finer wood flour was the main reason for choosing the new EMF Mills for their new process lines. The particle reduction of wood fiber to many different specifications is a marvelous application for the Eliminator line of hammermills.



Wood Stove Pellets in China

Bliss Industries, Inc. sold a complete wood pelleting plant which is operating in China. Two more wood pelleting operations are in the planning stages for other regions of China. **Bliss Industries designed and supplied the complete wood pellet plant.** That's what we call one stop shopping!

GMO Cereal Grains



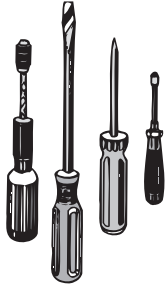
We are genuinely interested in our customers feedback about any processing experiences involving genetically modified cereal grain.

In the past, an 8/64 hammermill screen would produce an average 700 micron granulation. Recently, the same screens have produced as low as 450 micron granulation. In summary, genetically modified cereal grains are producing erratic capacities and granulations during particle reductions preparation.



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Maintenance Tips From Our Service Department



Preventive maintenance is not a dirty word. **Scheduling preventive maintenance keeps the product flowing without interruptions. Scheduling maintenance and safety are everybody's job, starting with the**

operators and maintenance personnel. These people are around the hammermill the most. They should report when bearing temperatures rise or when there is a different sound coming from the hammermill.

Bearing service should be taken seriously. Bliss Industries recommends servicing the hammermill bearings every 1000 hours of operation and installing bearing temperature monitors.

All lubricants have a tendency to deteriorate over the course of time, but at significantly different rates. Thus, sooner or later, it will be necessary to replace the old lubricant with new. It is easier to replace old grease with new grease in the early stages of deterioration. For more information on servicing bearings, contact our service department.

e-mail: service@bliss-industries.com

A TEAMBLISS Farewell

TEAMBLISS lost a valuable employee, friend and brother on January 19, 2000, Ernie Bliss. Ernie was only 63-we will certainly miss him. Dan Harris will be representing Bliss Industries in Oklahoma, Texas, and Louisiana. Dwayne Cary will be your representative in Arkansas and also covering Kansas and Missouri.

In times of profound change, the learners inherit the earth, while the learned find themselves beautifully equipped to handle a world that no longer exists.



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