Aerospace & Defense Technologies * Alternative Energy Research * Automotive * Biosciences * Ceramics

Chemicals * Coatings * Electronics * Filtration * Laboratory * Precious Metals * Sealants * Specialty Lighting

Processing Equipment for Milling, Blending and Grinding
U.S. Stoneware was founded in 1865 and manufactures its products in a 70,000 sq.ft. facility located just south of Youngstown, Ohio. Early in its history, U.S. Stoneware developed an expertise in formulating ceramic materials with superior wear resistance to meet the requirements of various process industries.

Today we manufacture ceramic ball mills, jar rolling mills, milling jars, grinding media, drum tumblers and rollers and a host of additional equipment to meet our customers milling, grinding and blending needs.
U.S. Stoneware's unitized jar mills are engineered for economy, compactness and mobility; perfect for R&D batch runs or laboratories looking for a reliable compact unit for smaller production requirements.

Assured reliability results from all steel welded frames, powerful roller chain or synchronous belt drives and pillow blocks with cartridge-type permanently sealed ball bearings for efficient operation.

Most 700 Series jar mills are built with a special no-creep roll design; jars stay centered. Multi-position idle roll can be moved to accommodate various sized containers.
Offered in Alumina Fortified, High Alumina, Stainless and Rubber Lined styles, our mill jars are the perfect companion to our line of jar mills. Regardless of your requirements, we have a mill jar to fit your application.

Rubber lined jars are available in the following materials: Polyurethane, Neoprene, EPDM, Low Ash and Nitrile.

We also carry a complete line of replacement gaskets for our jars in the following materials: Neoprene, EPDM, Viton® & Teflon®.

Viton® & Teflon® are registered trademarks of E. I. du Pont de Nemours and Company or its affiliates.

U.S. Stoneware has assembled an extensive collection of specialty ceramic grinding media to fit your process applications.

Cylindrical Alumina Grinding Media

High-density, ultra-high fired alumina grinding media is the ideal medium for wet or dry milling. High specific gravity and cylindrical shape give it greater weight per volume, more contacts per mill revolution, and greater area of attrition with each contact.

Result: faster, finer grinding or dispersion, often cutting milling time in half.

Zirconia Grinding Media

Magnesia Stabilized Zirconia grinding media mills twice as fast as equivalently-sized alumina media with only 1/2 the media weight loss and only 1/3 the wear (weight loss) of the grinding jar, with accompanying reduced batch contamination.

Available in radius end cylinders, with length equal to their outside diameters.
Available in 12, 27, 52, 87, 117, and 210 gallon capacities, our ball mills can be equipped with accessories to meet your special requirements.

12 Gallon Replacement Cylinder Assembly

52 Gallon Mill. Shown With Optional Controls.

52 Gallon Water-Jacketed Explosion-Proof Mill. Shown With Optional Controls.
Model 730 & 792 Drum Tumblers

Both models feature heavy welded steel frames and bases to provide rigid support. Both units must be bolted to the floor.

* Model 730 Steel Drum Tumblers *

End-over-end tumble mixing in 55 gallon steel drums is a rapid, effective and economical method for mixing or blending wet and/or dry materials. Single and double drum designs are available with constant (13 RPM) or variable speed (8-20 RPM) options. Capacity = 1,000 pounds per drum

* Model 792 Heavy Duty Tumbler *

Can be used to rotate fiber or steel drums. Unique tumbling action ensures thorough mixing of product. Standard unit has a constant speed of 22 RPM.

Model 931 CTV Mixer

Offset end-over-end tumble blending of a wide variety of can or pail sizes. Designed to handle up to 100 pounds per container. Effective and economical method of blending dry materials and mixing of wet materials. Comes standard with variable speed drive having a speed range of 5 to 44 rpm. Sturdy all welded steel construction. Quick release mounting of pails and cans holds containers securely. Optional items include run timer, explosion-proof motor and controls (for single speed operation) and special mounting attachments to handle non-standard containers.

Model 730 SS Shown with optional wooden barrel holder
Model 745 Adjustable Drum Rollers

These units save time, labor and money in applications where mixing is performed by rolling the container. Fully adjustable to roll any round container from a 5 gallon pail to a 55 gallon drum.

Machine capacity = 1,000 pounds per drum.  
Single speed models rotate a 55 gallon drum at 37 RPM.  
Variable speed models rotate a 55 gallon drum between 20 & 50 RPM.  
Heavy duty wheels can be adjusted to clear hoops and bungs of containers being rolled.  
Single and three phase TE and XP motors are available.