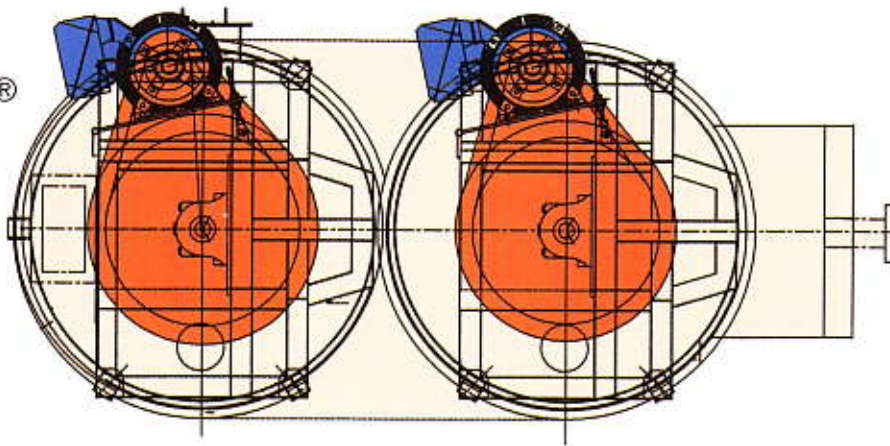
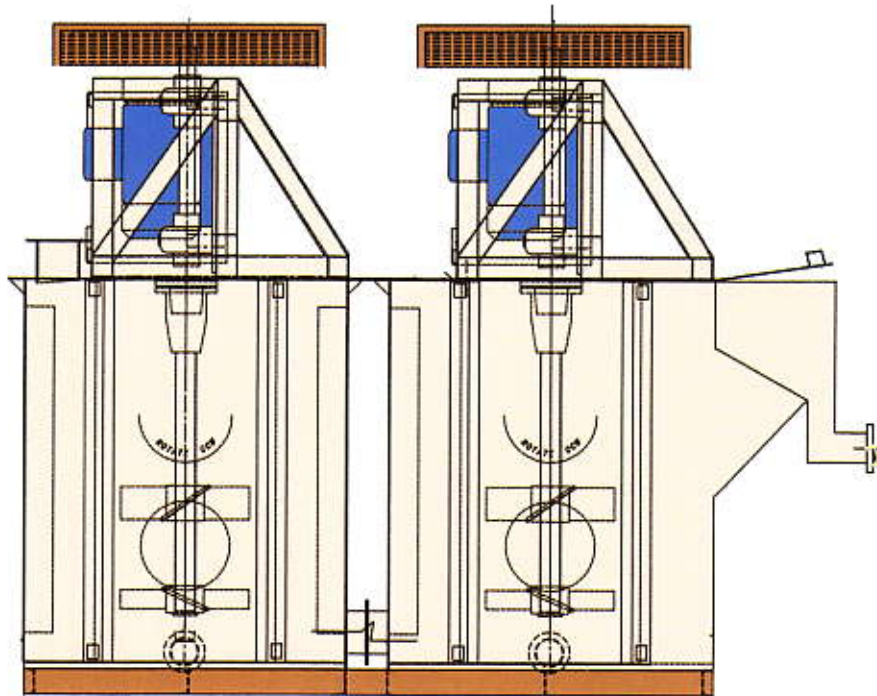


IMPEX[®] TWO CELL DELAMINATOR



IMPEX TWO CELL DELAMINATOR

represents the evolution of IMPEX Delaminators that have been redesigned over the years to improve efficiency, and to reduce maintenance and operating cost. The circular vessels with vertical baffles proves to be much more efficient than other shaped vessels. Since efficient delamination requires high intensity grinding plus suitable retention time, the two cell vessel allows adequate production capacity to prove to be economical. Both cells are designed with the same drive, shafts and propellers so that all rotating replacement parts are the same in both vessels. The mill is suitable for light (nylon/styrene), medium (glass/sand) or heavy (alumina/zirconia) micro-spheres grinding media. Dr. Joe Iannicelli, Vice President with IMPEX, patented the delamination of kaolin clays with ultra fine glass micro-spheres media in 1972.



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FEATURES OF IMPEX TWO CELL DELAMINATOR

TWO CELL VESSEL

The IMPEX Delaminator is designed with two cells connected by a submersed duct that prevents short-circuiting of feed to the product chamber.

TWIN SHAFTS AND DRIVE

Each cell has its own shaft with propellers, motor, V-belt drive, and extra heavy adjustable coupling for true alignment of shafts. Shafts and drives are identical in each cell.

LINING

All wetted surfaces of the vessel, shaft and propellers are protected with 12mm (1/2") thick special rubber coating vulcanized to the surfaces to prevent abrasive wear from the grinding media and feed mineral.

PROPELLER PITCH

Each shaft has two 1066mm (42") diameter propellers. The top propeller has a 150 percent pitch driving the slurry downward while the bottom propeller has a 100 percent pitch driving the slurry upward. This opposing action creates intensive contact of the media with the mineral to be delaminated.

INTERNAL SCREENS

In order to contain fine micro-spheres, a double mesh stainless wire screen is strategically mounted internally near the discharge outlet.

MOTORS AND DRIVES

Each cell is driven by a 150 HP, 900 RPM, 480/380 V 3 Ph, 60/50 Hz, TEFC, 1.15 SF, motor, V-belt drive with guard, and heavy duty bearings.

RIGID COUPLINGS AND SHAFTS

An extra heavy double cone shaped coupling with flanges is used to connect the heavy duty shaft to the V-belt drive shaft. This special designed coupling permits true alignment of the shaft as well as simplifying maintenance.

AIR VENTS

Due to the intensive action within the delaminator, air vents are installed on each cell.

GRINDING MEDIA

Various forms of grinding media may be used with this mill. The most commonly used on kaolin clays are nylon, styrene, glass, sand, and alumina micro-spheres.

FEED AND DISCHARGE PORTS

The feed and outlet ports may vary with customer request, but normally the feed is 12" x 24" (304.8mm x 609.6mm) flanged port and the outlet is an 8" (203mm) flanged port.

MAINTENANCE ACCESS

A bolted 25" diameter (635 mm) maintenance access door is installed in each compartment for filling the mills with grinding media and maintenance.

DRAIN AND AIR PURGE PORTS

Each compartment has a 152mm (6") 150 psi flanged drain outlet plus a 50mm (2") 150 psi flanged inlet for air purging and agitating the grinding media and processing slurry after prolonged shutdowns.

INSPECTION PORTS

Each cell has two quick opening inspection ports for visual inspection of operations inside of the vessel. Each cell has a 12" diameter (300 mm) pipe coupling on the top cover for a vent as well as for the installation of chemical addition used to avoid sedimentation of grinding media and contained slurry on prolonged shutdowns.

NOMINAL CAPACITY

On kaolin slurries in the 30–40% solids range, the delaminator is capable of a nominal 2 MTPH when delaminating from a 30–40% <2 um feed to a 75–80% < 2 um product. The liquid volume of each cell is approximately 10.8 cubic meters (2,873 gallons). A minimum of 50% by volume of grinding media is required.

MAINTENANCE

Most of the maintenance problems are created by improper shutdowns or start-up procedures. However, preventive maintenance programs including lubricating bearings every 300 hours, plus periodic inspection of the rubber lining, will give years of trouble free operation. An Owner's Manual with operating and maintenance advice is included with each order.



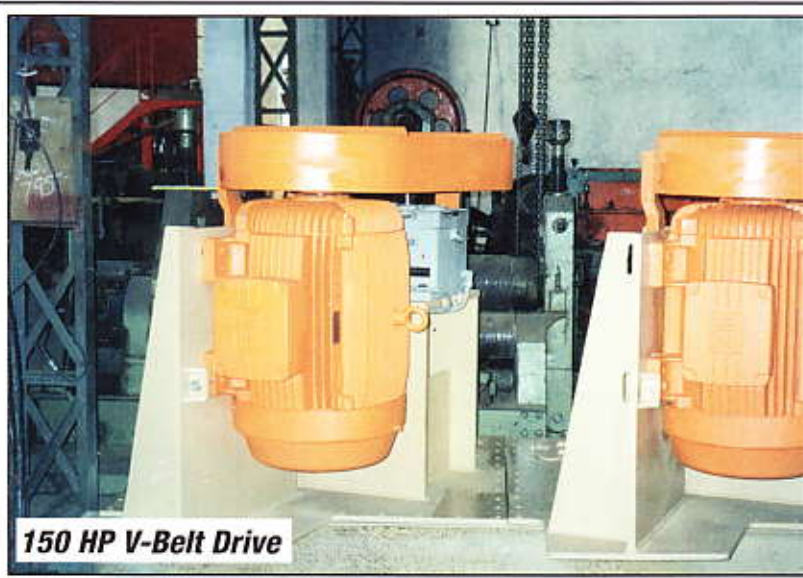
Precise Shop Fabrication



Abrasion Resistant Propellers



Fine Media Screen

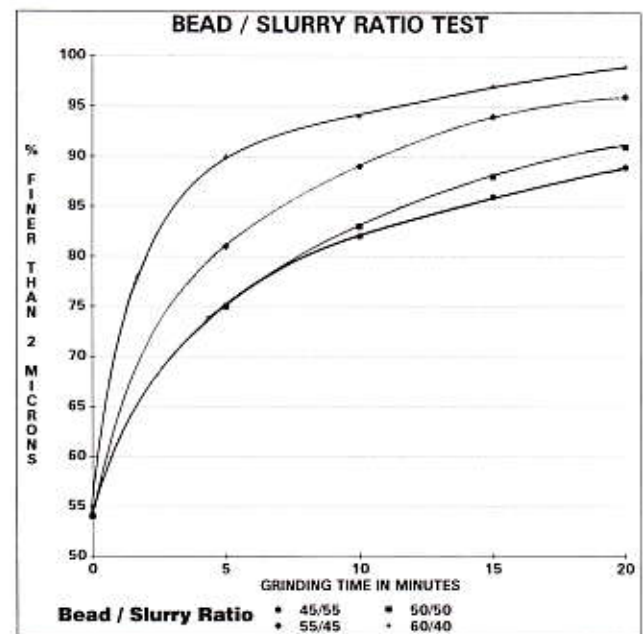
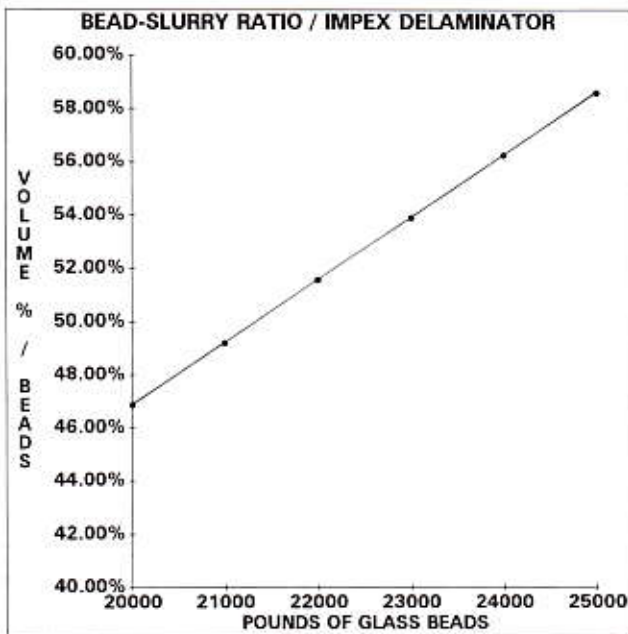
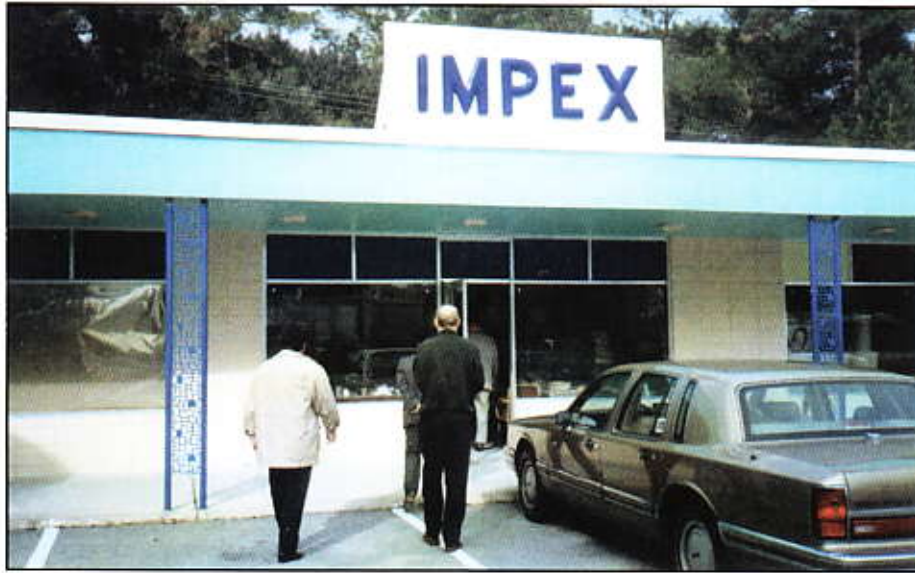


150 HP V-Belt Drive



Special Vulcanized Rubber Lining

IMPEX Technical center maintains laboratory and pilot delamination facilities for customer requirements.



IMPEX offers the following product lines plus maintaining laboratory and pilot plant equipment for test work.

Pilot Plant Blungers
 Primary Two Cell Blungers
 Drag Classifiers
 Screens
 Secondary Blungers

Conditioners
 Two Cell FMM Delaminators
 Mine Blungers
 Centrifuges
 Rotary Vacuum Filters

Drum/Press Cake Repulpers
 Filter Blungers
 Clarifiers/Thickeners
 Pilot Plant Delaminators
 High Shear Mills

High Shear Blungers
 Make Down Blungers
 Calciners
 Elliott Classifier Mills
 Pin Mill Pelletizers

For More Information

IMPEX CORPORATION

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