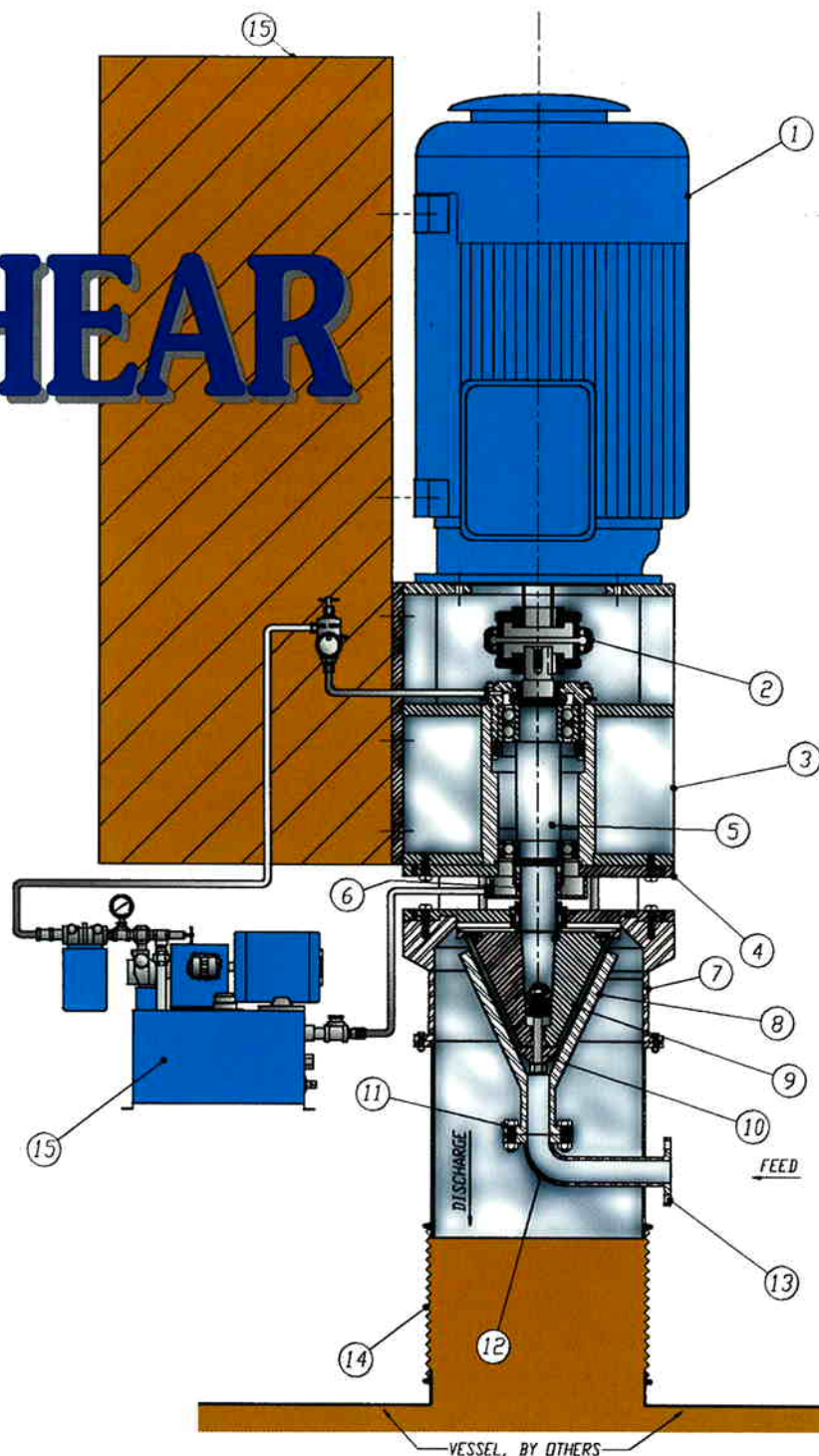


# IMPEX<sup>®</sup> HIGH-SHEAR MILL

The IMPEX High-Shear Mill was developed after over 25 years experience of intensive use in the kaolin clay industry in Georgia. The mill has specifically been designed to control Hercules and Brookfield viscosities of dilatant clays. Also the mill is suitable for dispersion of clays and pigments, delamination and conditioning of clays in preparation for flotation.



INDUSTRIAL MINERALS PROCESS EQUIPMENT CORPORATION

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# FEATURES OF IMPEX HIGH-SHEAR MILL

## HIGH SPEED ROTOR

The heart of the High-Shear mill is the unique cone shaped alloy rotor with replaceable tungsten carbide inserts designed for peripheral speeds in excess of 61 MPS (200 FPS). The rotor has a feed accelerator to bring the feed up to the speed of the rotor. The shear rate increases as the feed moves to the 360 degree discharge.

## FIXED STATOR

The precision built stainless alloy stator is designed for true alignment and close clearance with the high speed rotor.

## PRECISION BEARING HOUSING

The heavy duty bearing housing, high speed shaft, bearings and seals are designed for heavy continuous high torque duty. The housing also supports the motor and high-shear mill.

## ADJUSTABLE SHEAR CLEARANCE

The shaft and bearing assembly is adjustable within the bearing housing so that clearances between the rotor and stator may be adjusted and fixed between 0.0254mm (0.001") and 1.524mm (0.060").

## SELF LUBRICATING SYSTEM

The mill includes a complete oil lubricating pumping system with oil filter, flow control switch, and sight gauge. The pump is direct coupled to a 1/3 HP motor.

## STAINLESS ALLOY HOUSING

All wetted parts of the housing are constructed of stainless alloy with special hard facing on the deflector to resist abrasion.

## SPECIAL SALES AND SLINGER

The mill and bearing housing have special oil and labyrinth seals to contain the lubricating oil and processing slurry.

## FEED CONTROL SYSTEM

The feed is regulated to the mill through an automatic feed valve that is controlled and set by the motor load.

## DIRECT DRIVE MOTOR

The mill is designed for motor loads up to 200 HP. Motor is either 150 or 200 HP, 3600 RPM, 3 Ph., 480/380 v, 50/60 Hz, TEFC, Wye/Delta with 1.15 SF.

## FEED AND DISCHARGE PORTS

The feed port is a standard 50mm (2") 150 psi stainless flanged inlet. The discharge outlet is 479mm (18-7/8") OD with ring for clamping flexible connection to customer vessel.

## MAINTENANCE

The mill has specifically been designed for high efficiency and low maintenance. Long life bearing are easily replaced. The rotor has been designed for quick replacement of the tungsten carbide inserts without the necessity of re-balancing the rotor.

## SHOP RUNNING AND TESTING

All mills are pre-tested and operated in the shop before crating and shipping. Owners manuals with operating and maintenance instructions are included with each order.



SPECIAL ALLOY CASTINGS



ABRASION RESISTANT ROTOR



ADJUSTABLE BEARING HOUSINGS



LUBRICATION SYSTEMS



SHOP RUNNING AND TESTING