

Impact Mills FQ-IM40®, FQ-IM40H®

A MILL WITH IMPACT.....

Fluid-Quip is pleased to offer the FQIM40® and FQ-IM40H® horizontal rotor Impact Mills for the corn wet milling third grind application.

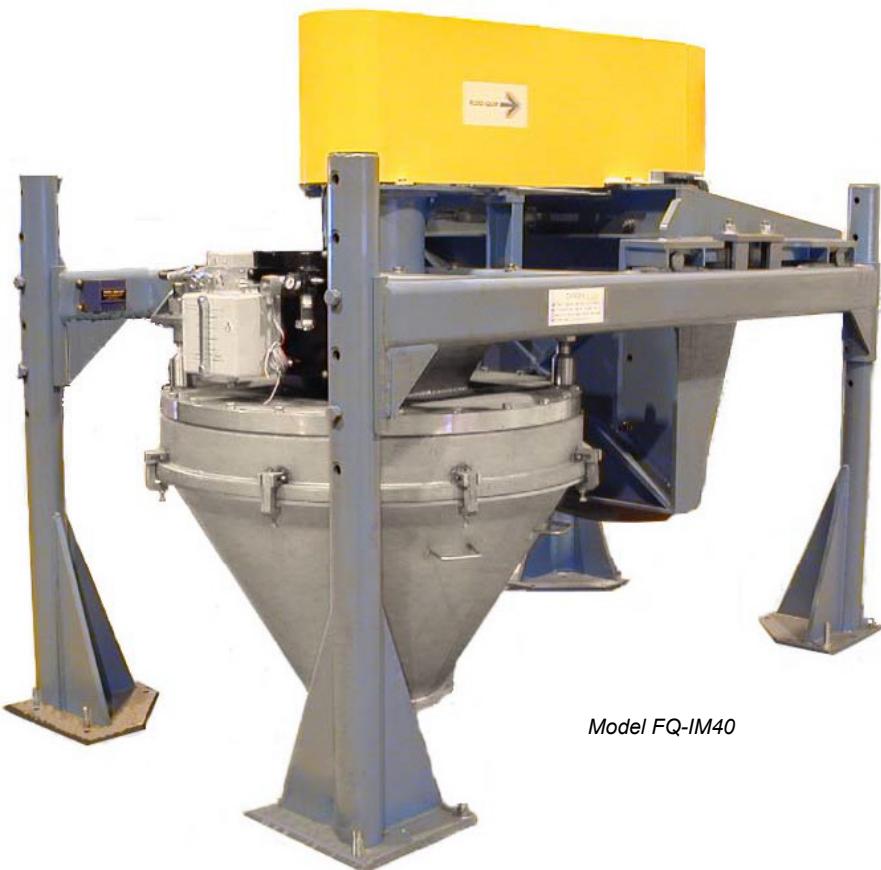
By combining gentle action on the delicate corn fibers with powerful crushing power on the bound starch particles, the Fluid-Quip Impact Mills do make quite an Impact on wet mill bound starch numbers and overall starch yields.

DESIGN FEATURES:

Tight manufacturing tolerances and G1 balance specifications (ISO1940/ANSI S2.19-1989) on all rotating parts reduce the machine vibration to a minimum, resulting in smooth worry free operation, prolonged bearing life, and overall reduced maintenance costs.

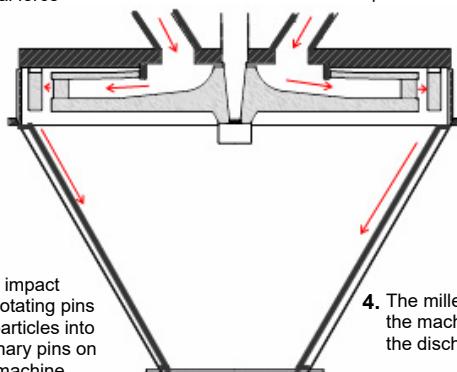
The sturdy frame and motor support were also designed to ensure structural stability and minimize machine vibration.

HOW IT WORKS:



1. Slurry enters rotor through the feed inlets and is accelerated to pins around the periphery of the rotor by centrifugal force

2. Rotating pins impact the fiber and starch particles, breaking starch free from the fiber and reducing the particle size of starch grits



3. The initial impact from the rotating pins flings the particles into the stationary pins on inside of machine housing further freeing the starch from the fiber and reducing particle size.

4. The milled slurry exits the machine through the discharge chute.

BENEFITS OF IMPACT MILLING

Compared to traditional disc milling for the corn wet milling third grind application, the impact mill offers the following advantages:

- Less energy consumption per unit of grind rate.
- Less fine fiber generation in the product slurry.
- Lower overall bound starch in fiber.
- Increased starch yields
- Optimum machine performance across wide range of capacity and feed conditions without need for operator adjustments.
- Consistent machine efficiency and product quality across the life and wear cycle of the impact pins.
- Less temperature rise across the machine, reducing the risk of starch gelatinization.
- Smaller motor sizes required.

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MACHINE SPECIFICATIONS

- Belt drive machine design
- Dual flanged feed inlets with flanged cleanout ports
- Standard foot mounted motors
- Vibration switch with internal adjustable alarm/shutdown limits
- Alemite® oil lubrication system with air pressure loss detection feature is included with the FQ-IM40 Machine.
- Vogel® lubrication systems are included on the FQIM40H machine and are also available as option on the FQ-IM40 Machine.
- 60 degree discharge hopper with flanged outlet

Alemite® is a registered trademark of Alemite LLC. Vogel® is a registered trademark of Vogel Lubrication, Inc. (a company of the SKF Group)

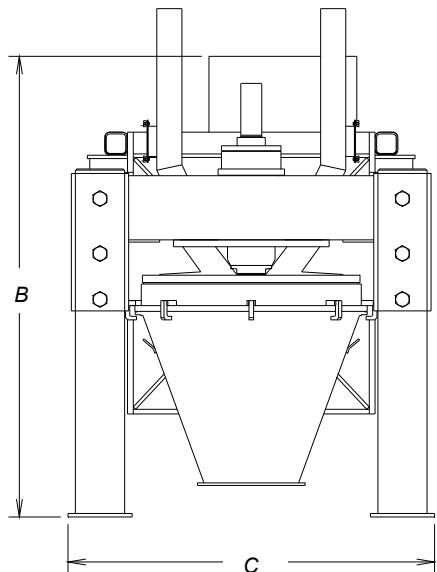
MATERIAL SPECIFICATIONS

TOP DISC: Forged 17-4 PH Stainless steel, Cond. H1150
HUB DISC: Forged 316L stainless steel, solution annealed
ROTATING PINS: stainless steel, 316/316L, ASTM A276
STATIC PINS: stainless steel, 316/316L, ASTM A276 PIN
SCREWS/BOLTS: stainless steel, 17-4 PH, 30-35 RC
SHAFT: Steel, alloy, 4340, hot rolled, annealed, ASTM A322

MACHINE FRAME: Carbon steel, epoxy painted

	FQ-IM40	FQ-IM40H
Rotor Diameter	40"	40"
Rotating Pins	40 (2 1/8" pins)	40 (3" pins)
Machine Speed (max rpm)	3170	3055
Motor Size max (hp)	300	600
(kw)	225	450
Grind Capacity (bu/day)	24,000	40,000
(MTPD)	600	1000
Weight less Motor (lbs)*	7500	14000
(kgs)*	3400	6365
Length (A) (inches)*	104	140
(cm)*	265	356
Height (B) (inches)*	81	101
(cm)*	206	257
Width (C) (inches)*	60	80
(cm)*	153	204

* approximate



FQ-IM40H Depicted

