



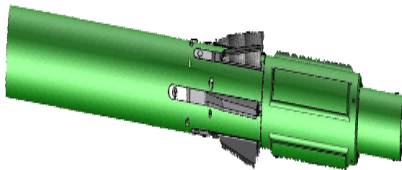
Pilot Mill:

A downhole milling tool designed with an extended pilot or central stinger section that is inserted in the bore of the packer, tubular or equipment being milled. This design helps ensure that the mill follows the desired path and does not damage the casing or liner wall as the milling operation progresses. Minimizes the casing or liner wall damage.



Watermelon Mill:

Watermelon mill is used to mill through collapsed casing and liners. This mill has a tapered top and bottom to allow reaming both up and down. A connection on the bottom allows a stringer to be run blow the mill to keep it centered. This centering prevents cutting out of the casing or sidetracking. Watermelon mills are often run piggyback with a long tapered mill as a pilot. Sizes available 3 1/2" to 6 3/4" and 8 1/4" to 12 3/4".



Section Mill:

Section mills allow you to mill a section of casing for perforation zones, sidetracking, etc.



String Mill:

String mills provide a smooth drilling pattern, making them useful in a variety of construction and cleanout applications.



Inserted Mill:

Common Specifications; Negative Rake, Face Mill, Inch Version – 12 teeth



Junk Mill:

- Available Sizes:
- 8 Tooth - 9 1/2" to 12 1/4"
- 6 Tooth - 8" to 8 3/4"
- 4 Tooth - 5 1/2" to 6 3/4"
- 3 Tooth - 4 3/4"

Junk mill is used for bridge plugs, reamer blades, slip inserts and other smaller objects that are dropped or lost in the well.



Tapered Mill:

Tapered Mills are ideal for milling through collapsed, or pinched casing. The tapered nose guides the process and determines gage. Taper mills can also be used for deburring after a whipstock procedure, removing corrosion, etc. Sizes available 3 1/2" to 12 1/4".



Deep Throat Mill:

Deep Throat Cement Mill is used primarily to drill cement where small amounts of contamination exist. This mill is specifically designed for maximum circulation and cutting speed. Sizes available 3 1/2" to 8 3/4".



Piranha Mill:

Used for milling cemented pipe and in situations where there are large amounts of junk in the hole that requires a mill with a longer life. This mill is specifically designed with a deep "V" for maximum circulation of fluid and to hold large amounts of tungsten carbide dressing. Sizes available 3 1/2" to 8 3/4".



Skirted Mill:

Used inside casings or as a junk mill, skirted mills use the skirt both as a guide and as protection of the surrounding environment from the milling process.



Straight Blade Stabilizer:

Straight blade stabilizer is integrally made of high strength alloy steel AISI 4145H, usually with 3 blades or 4 blades. The working surface of straight stabilizer is provided with carbide insert, diamond compound insert, or overlay welding etc.



Concave Cone Buster:

Concave Cone Buster Mill is used for milling bit cones or other objects where it is advantageous to keep the fish centered under the mill for greatest effectiveness.



Bladed Mill:

Bladed mills are the basic tough tools used to dress off and mill all types of drilling materials-bit cones, bridge plugs, packers, downhole tools and /or pipe. Stabilizer lugs are available for cased hole applications, to prevent casing damage. These mills, when designed for cement milling, have fewer blades and larger flow passage areas to prevent clogging.

