



Weatherford®

Thru-Tubing Intervention

ClearCut™ Diamond Mills

Weatherford's *ClearCut* series of diamond mills is engineered to optimize penetration rates and bit endurance in hard formation shearing, casing exits, and metal-milling operations. *ClearCut* diamond mills are made from molded steel and cased tungsten carbide; the matrix bonds to the mill body and holds the tungsten carbide particles and diamonds in a geometric arrangement. Patented milling technology generates small, lightweight cuttings, minimizing the time required for drilling through diverse obstructions. Each mill design is tailored to the particular speed and torque characteristics of the motors used.

Applications

- *ClearCut* diamond mills are used for casing exits, specific metal milling operations, and for shearing hard formations and are run on coiled tubing and jointed pipe.

Features, Advantages and Benefits

- Analysis and testing have proved *ClearCut* diamond mills superior to conventional mill technology.
- Patented technology produces small, lightweight cuttings and minimizes drilling times through diverse obstructions.
- The *ClearCut* diamond technology produces clean, elongated windows for freely passing through workstrings and liner assemblies.
- Three mill styles provide a diamond mill designed for the specific job requirement.
- The window mill style elongates the window by maximizing the window diameter sweeping each side of the tubing.



ClearCut Diamond
Crayola Mill



ClearCut Diamond
Window Mill



ClearCut™ Diamond Mills

ClearCut Crayola Mill

Taper mills ream restrictions and de-burr whipstock windows and casing. The small-diameter, lower mill-end, slightly spiraled reamer edges mill away the undersized section to full mill diameter. Taper mills are available in standard sizes and can be special ordered to any required length and OD.

ClearCut String Reamer

When run in conjunction with the window mill, the *ClearCut* diamond string reamer is used to ream the window being milled to achieve optimal window diameter in a single run.

ClearCut Window Mill

The round-nosed window mill is less aggressive and cleans up ledges to give the casing exit a smooth, even transition.

Specifications

The *ClearCut* series is available in various geometries specifically formulated for the application.