

Title (en)  
DIAMOND OR CBN FLUTED CENTER CUTTING END MILL

Title (de)  
DIAMANT ODER CBN ZENTRUMSCHAFTFRÄSER

Title (fr)  
FRAISE A EXTREMITE DE COUPE CENTRALE CANNELEE EN DIAMANT OU EN DIAMANT POLYCRISTALLIN

Publication  
**EP 0833712 A4 20000503 (EN)**

Application  
**EP 95920412 A 19950511**

Priority  
US 9505944 W 19950511

Abstract (en)  
[origin: WO9635537A1] A center cutting or plunging end mill (10) or ball mill has one or more spiral grooves (18) and flutes (14) in the walls of a mill body (12) of cemented tungsten carbide. Each groove (18) includes polycrystalline diamond (30) or cubic boron nitride formed in situ along a leading edge (15) of each flute. Such a groove (18) extends across the cutting end of the mill so that the mill can be used for center cutting or plunging. The vein of diamond-like material may extend to the center of the mill body or may extend almost all of the way to the center, leaving an area of tungsten carbide exposed at the center of the mill body. A high temperature-high pressure press is used for forming the polycrystalline diamond-like veins in situ within the grooves in the mill.

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IPC 8 full level  
**B23C 5/10** (2006.01)

CPC (source: EP)  
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• See references of WO 9635537A1

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