

M-FOUR (MEW)

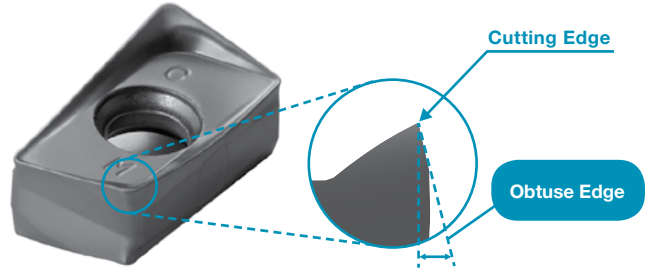
M-Four

MEW Milling Cutter

The M-Four double-sided, 4-edge insert with Kyocera's unique mold technology reduces cutting forces for reduced vibrations

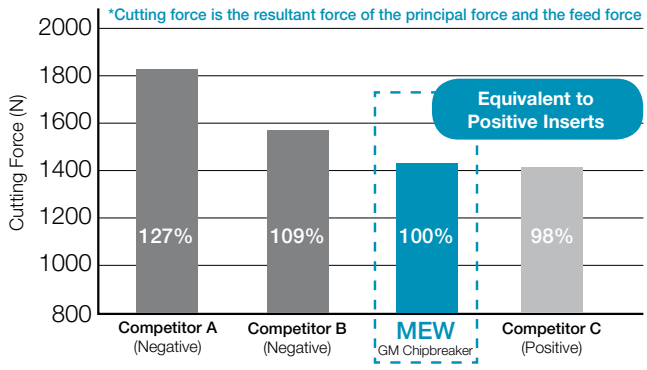


Obtuse Edge for Increased Cutting Edge Toughness



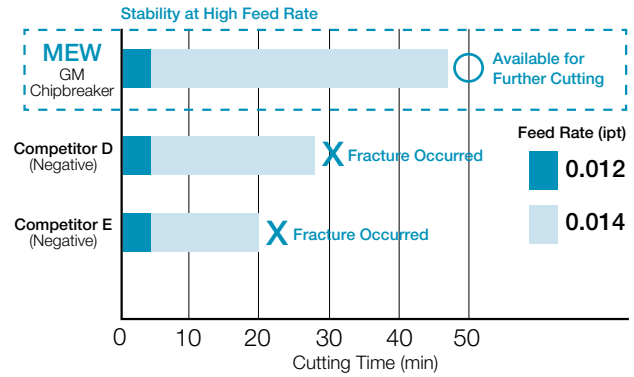
Low Cutting Forces Equivalent to Positive Inserts

• Cutting Force Comparison



1049 Ø20mm Cutter
 $V_c = 500 \text{ sfm D.O.C.} \times a_e = 0.118'' \times 0.591'' \text{ fz} = 0.006 \text{ ipt}$ (Internal Evaluation)

• Fracture Resistance Comparison



4140 (37~39Hz) Ø20mm Cutter
 $V_c = 400 \text{ sfm D.O.C.} \times a_e = 0.118'' \times 0.394'' \text{ fz} = 0.012\text{--}0.014 \text{ ipt}$ (Internal Evaluation)

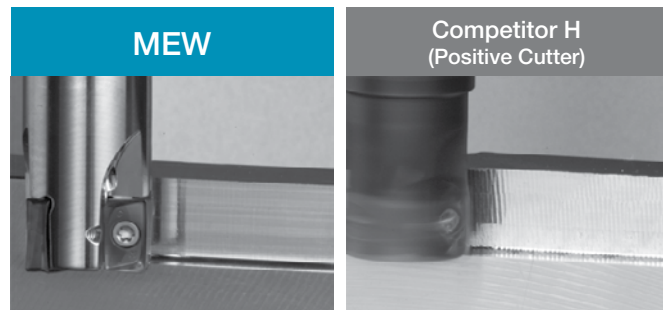
Improved Surface Finish & Minimized Vibration

Sharp cutting and superior resistance to vibration and burrs due to helical cutting edge and optimum axial rake design

Large Rake Angle Reduces Cutting Forces

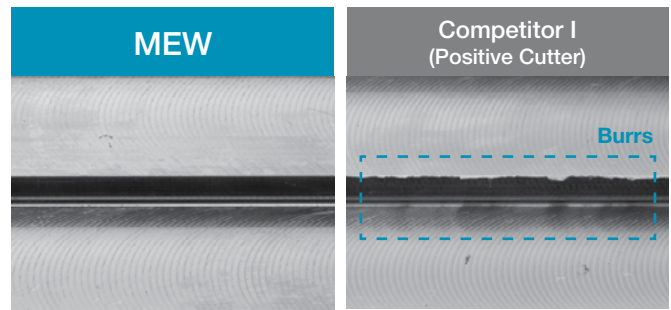
MEW GM Chipbreaker	Competitor F (Negative)	Competitor G (Positive)
+20°	+17°	+17°

Surface of Shoulder Wall



Smooth surface of MEW without chattering

Burr Comparison with Positive Cutters



Fewer burrs than positive cutters due to sharp cutting