Edge Preparation

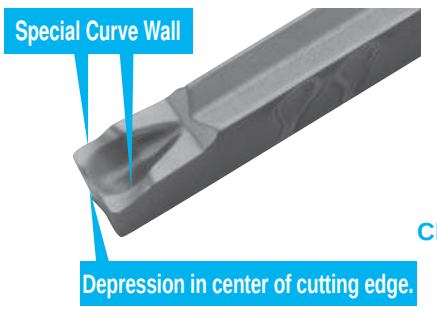
Series	MT-Chipbreaker		TK-Chipbreaker		TMR-Chipbreaker	Without Chipbreaker (NB)	
Edge Specification	Chamfer + hone	Chamfer + hone	Chamfer + hone	Sharp Edge	Chamfer + hone	Hone	Sharp Edge
	Corner-R0.05	Sharp Corner	Corner-R0.2-0.3	Corner-R0.2-0.3	Corner-R0.2	Corner-R0.05	Sharp Corner
							
	CR9025 / PR915	**PR930 / KW10**	**CR9025 / PR915**	**PR930 / KW10**	**PR1115**	**CR9025**	**PR930 / KW10**

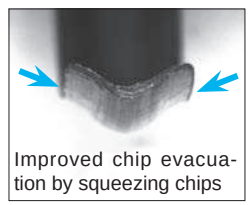
• Sharp Edge Spec. can reduce cutting resistance by 40% compared to chamfer edge.

Series	Advantage
GMM-MT	Specific chipbreaker for cut-off operations requiring sharp cutting performance. Minimizes the Boss.
GMM-NB	Cutting edge is flat with no chipbreaker. Good performance for brass, etc.
GMM-TK	Stable design with chipbreaker for cut-off. Large corner-R. 2-edge for economical performance.
GMN-TK	Same chipbreaker geometry as GMM-TK. 1-edge. Wide application range.
GMN (Std.)	Mainly for deep grooving, but available for groove widening and turning due to projection near side cutting edge. 1-edge and wide application range. Available for cut-off applications.

TMR-Chipbreaker

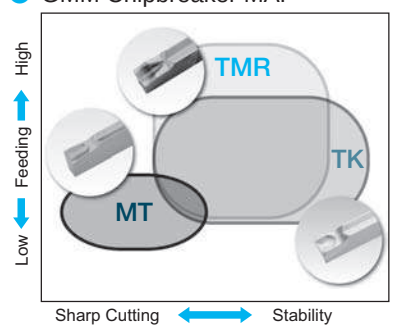
Chipbreaker Advantages





Chip width < grooving width

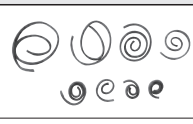
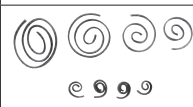
GMM Chipbreaker MAP



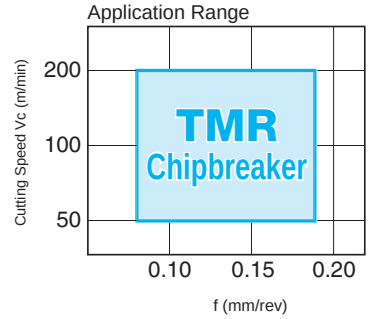
TMR-Chipbreaker enables stable chip control also for high feed rates.

Good chip control even when cutting speed (spindle revolution) is increased.

(Cutting Condition: 15CrMo4 (SCM415), ø30, constant spindle revolution)

Description	n=1060min^{-1}(Vc=100m/min)		n=2123min^{-1}(Vc=200m/min)	
	f=0.12mm/rev	f=0.18mm/rev	f=0.12mm/rev	f=0.18mm/rev
GMM 3020-TMR (Without Hand)				
GMM 3020R-TMR-6D (R-hand)				

Application Range



Recommended Cutting Conditions

Workpiece Material	Vc (m/min)	f (mm/rev)
Carbon Steel	60~200	0.08~0.18
Alloy Steel	60~150	
Stainless Steel	50~140	

Workpiece Surface Roughness

TMR-Chipbreaker provides good surface roughness on the workpiece end face at high feed rate ranges.