

INSERT CHIP BREAKER COMPARISION TABLE

NEGATIVE INSERT TYPE

ISO Classification	Cutting Mode	Mitsubishi Materials	Kennametal	Sandvik	Seco Tools	Taegu Tec	Sumitomo Electric	Tungaloy	Kyocera	Walter	Ingersoll
P	Finish	PK* FH, FP FY	FF	QF LC	FF1, FF2	FA	FA, FB FL	01* TF, 11 ZF	DP* GP, PP XP, XP-T, XF	FP5	FA
	Light	LP C SA, SH	LF, FN	XF PF	MF2	FG	SU LU, FE SX, SE	NS, 27 TSF, AS	PQ	MP3 NF3, NF4	FG
	Light (Mild Steel)	SY				FC		17	XQ, XS		
	Light (With Wiper)	SW	FW	WL, WF	W-MF2	WS	LUW, SEW	FW, SW AFW, ASW	WF, WE WP, WQ	NF	WS
	Medium	MP MA MH	P MN	PM QM, XM	MF3 MF5, M3 M5	PC, MP MT SM	GU UG GE, UX	NM, ZM TM, AM DM, 33, 37, 38	PG, CJ, GS PS, HS PT	MP5	MC MP MT
	Medium (With Wiper)	MW	MW, RW	WMX, WM	W-M6, W-M3 W-MF5	WT	GUW			NM	WT
	Rough	RP GH Std.	RN, RP	PR, HM XMR	MR6, MR7	RT	MU, MX, ME UZ	TH, THS Std.	PH GT Std.	RP5, RP7 NM6, NM9	RT Std.
	Heavy	HR, HZ, HL HM, HX HV	MR RM RH	QR, PR HR, MR	R4, R5, R6 57, RR6, R7 R8, RR9	RX, RH HD, HY, HT HZ, EH	MP HG, HP HU, HW, HF	TRS TU TUS	PX	NR6, NRF NRR	RH
M	Finish Light	SH, LM	FP LF*	MF	MF1	SF	SU, EF	SS	MQ, GU	NF4	SF
	Medium	MS, GM MM, MA ES	MP	MM QM, XM K	MF4	ML EM VF	EX, EG, UP GU HM	SA, SF SM S	MS, MU SU, HU, TK ST	RM5 NM4	ML MP MT VF
	Heavy	GH, RM HL, HZ	UP, RP	MR MR	M5, MR7 RR6		MU MP	TH, SH		NR4, NR5	RH
K	Finish Light	LK, MA	FN	KF	MF2, MF5 M3, M4			CF	KQ	MK5	
	Medium	MK, GK Std.	RP, UN	KM	M5		UZ, GZ, UX	CM Std.	KG, Std., C	RK5, NM5	Std.
	Rough	RK		KR					KH, GC	RK7	
	Heavy	Flat Top	Flat Top		MR3, MR4, MR7 Flat Top		Flat Top	CH, Flat Top	ZS, Flat Top	Flat Top	
S	Finish	FJ*	FS, LF*	SF	MF1		EF		MQ		
	Light	LS, MJ, MJ*	MS	SGF*	MF4, MF5	EA	SU*	HRF		NF4, NFT	
	Medium	MS	UP, P, NGP*	NGP*, SM	M1		EG, EX, UP	HRM SA, HMM	MS, MU, TK	NMS, NMT	
	Heavy	RS, GJ	RP	SR, SMR	M5, MR3, MR4	ET	MU			NRS, NRT	

* Peripheral ground type insert.

(Note) Above charts are based on published data and not authorized by each manufacturer.

7° POSITIVE INSERT TYPE

ISO Classification	Cutting Mode	Mitsubishi Materials	Kennametal	Sandvik	Seco Tools	Taegu Tec	Sumitomo Electric	Tungaloy	Kyocera	Walter	Ingersoll
P	Finish	SMG*	LF*	UM*			FC*, SC*	JS*, 01*	CF*, CK* GQ*, GF* SK*		
	Finish Light	FP, FV LP, SV	UF, 11 LF, FP	PF, UF, XF	FF1 F1	FA, FX FG	FP, LU SU	PF, PSF PS, PSS	GP, PP XP	PF4	FA FG
	Light (With Wiper)	SW	FW	WF	W-F1	WS	LUW, SDW		WP	PF	
	Medium	MV MP, Std.	MF, MP	XM, PM UM PR, XR	F2, MF2, M5	PC MT	MU	23 PM, 24	HQ, MF* XQ, GK	FP6, PS5 PM5	MT
	Medium (With Wiper)	MW	MW	WM	W-F2 W-M3	WT				PM	WT
M	Finish-Light	FM LM	LF, UF FP	MF	F1, F2		FC*, SI* LU SU	PF, PSF PS, PSS	CF*, CK* GQ*, GF* MQ, SK		
	Medium	MM, Std.	MP	MM			MU	PM	HQ, GK	MM4, RM4	
K	Medium	MK, Std. Flat Top	Flat Top	KF, KM, KR	F1, M3, M5		MU, Flat Top*	Flat Top, CM	Flat Top*	FK6	
N	Medium	AZ*	HP*	AL*	AL*	SA* FL*	AG*	AL*	AH*	PM2*	FL*
S	Finish Light	FS*, LS* FS-P*, LS-P* FJ* LS, MS	LF* HP*				SI*	Std.	MQ		

* Peripheral ground type insert.

(Note) Above charts are based on published data and not authorized by each manufacturer.

11° POSITIVE INSERT TYPE

ISO Classification	Cutting Mode	Mitsubishi Materials	Kennametal	Sandvik	Seco Tools	Taegu Tec	Sumitomo Electric	Tungaloy	Kyocera	Walter	Ingersoll
P	Finish Light	FV, SMG* SV	UF, FP FW, LF	PF		FG PC	SI, FK, FB LU, LUW, LB SU, SF	01* PF, PSF PS, PSS	PP, GP* CF XP		
	Medium	MV	MF MP, MW	PM, UM			MU	PM 23 24	HQ XQ	MP4	
M	Finish-Light	SV	HP* LF	MF			SU	SS* PF, PS	GP, CF*	MM4	
	Medium	MV		MM			MU	PM	HQ		

* Peripheral ground type insert.

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