TaeguTec Parting & Grooving Line

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NPN

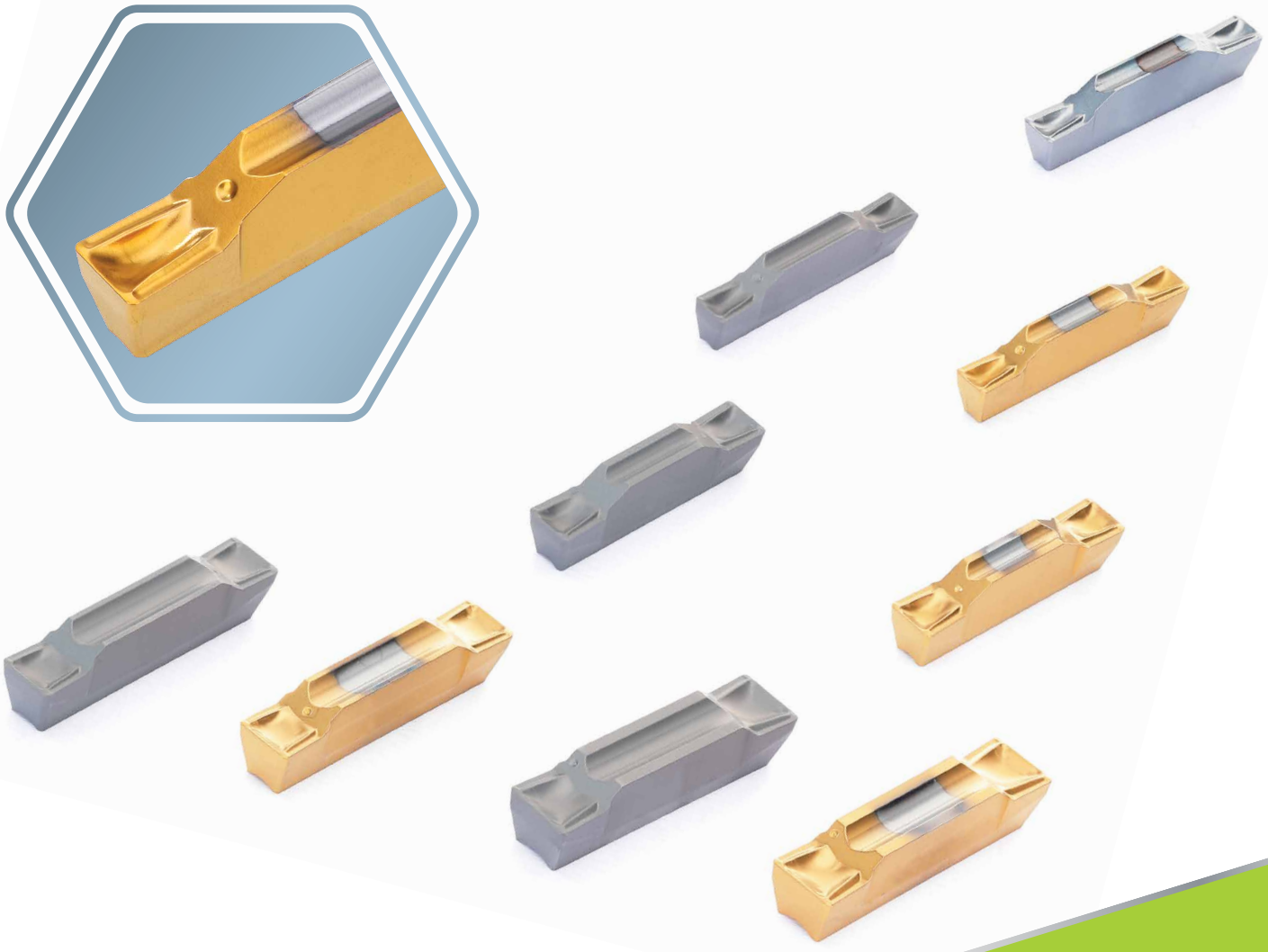
New Product News

expansion

T-CLAMP
PARTING & GROOVING

TaeguTec
WINSFEED
ADVANCED MACHINING

TDCT Insert Grades Expanded



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KEY POINT

TaeguTec's multipurpose TDCT inserts introduce various new grades.

The high-productivity TDCT insert line, with its reinforced cutting edge, can cover high feed parting and grooving. Additionally, the built-in chip breaker design enables excellent chip breaking during turning operations. To expand this multipurpose line to various material machining operations, the line now includes the TT6080, TT8020 and K10 grades, along with the existing TT9080 grade.

Refer to the NPN edition below for more information about the multipurpose TDCT insert line.

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TDCT

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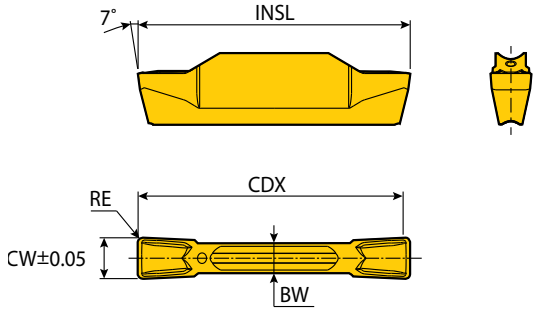
Double-ended inserts for grooving, turning, face grooving and parting



Designation	Demension (mm)				
	CW	RE	BW	INSL	CDX
2	2.0	0.30	1.7	20	19
3	3.0	0.30	2.2	20	19
4	4.0	0.40	3.0	20	19
5	5.0	0.40	4.0	25	24
6	6.0	0.40	5.0	25	24

Insert	Designation		Insert seat size	Turning		Grooving	PVD Coated			Uncoated
				ap (mm)	Feed (mm/rev)	Feed (mm/rev)	new TT6080	new TT8020	TT9080	new K10
	TDCT	2E-0.3	2	0.4-1.2	0.12-0.18	0.05-0.18	●	●	●	●
		3E-0.3	3	0.4-1.8	0.15-0.19	0.07-0.25	●	●	●	●
		4E-0.4	4	0.5-2.4	0.18-0.24	0.08-0.30	●		●	●
		5E-0.4	5	0.5-3.0	0.20-0.30	0.09-0.35	●		●	●
		6E-0.4	6	0.5-3.6	0.22-0.36	0.12-0.40	●		●	●

●: Standard items

Recommended Cutting Conditions

T-CLAMP PARTING & GROOVING

Grooving and Turning

ISO	Material		Condition	Tensile strength (N/mm^2)	Hardness HB	Material No.	Cutting speed Vc(m/min)			
							TT6080	TT9080	TT8020	K10
P	Non-alloy steel, cast steel, free cutting steel	<0.25%C	Annealed	420	125	1		100-200	80-150	
		>=0.25%C	Annealed	650	190	2		100-180	100-150	
		<0.55%C	Quenched and tempered	850	250	3		80-160	70-130	
		>=0.55%C	Annealed	750	220	4		80-160	70-120	
			Quenched and tempered	1000	300	5		70-130	60-100	
	Low alloy steel and cast steel (less than 5% of alloying elements)		Annealed	600	200	6		100-160	80-120	
			Quenched and tempered	930	275	7		80-160	70-130	
				1000	300	8		80-150	70-110	
				1200	350	9		80-130	60-100	
	High alloy steel, cast steel and tool steel		Annealed	680	200	10		90-130	80-110	
			Quenched and tempered	1100	325	11		50-80	40-60	
M	Stainless steel and cast steel		Ferritic / martensitic	680	200	12		80-170	70-130	
			Martensitic	820	240	13		80-150	70-110	
			Austenitic	600	180	14		80-170	70-130	
K	Gray cast iron (GG)		Ferritic		160	15	110-250			70-100
			Pearlitic		250	16	90-140			50-90
	Cast iron nodular (GGG)		Ferritic		180	17	120-230			70-100
			Pearlitic		260	18	90-180			60-90
	Malleable cast iron		Ferritic		130	19	90-180			60-120
			Pearlitic		230	20	80-150			50-80
N	Aluminum - wrought alloy		Not cureable		60	21				300-800
			Cured		100	22				230-310
	Aluminum-cast, alloyed	<=12% Si	Not cureable		75	23				280-830
			Cured		90	24				200-510
		>12% Si	High temp.		130	25				130-300
	Copper alloys	>1% Pb	Free cutting		110	26				
			Brass		90	27				120-200
			Electrolitic copper		100	28				90-150
	Non-metallic		Duroplastics, fiber plastics			29				
			Hard rubber			30				
S	High temp. alloys	Fe based	Annealed		200	31		30-50	20-30	30-40
			Cured		280	32		20-40	15-20	20-40
		Ni or Co based	Annealed		250	33		20-30	15-20	20-30
			Cured		350	34		15-20	15-20	15-20
			Cast		320	35		15-20	15-20	15-20
	Titanium, Ti alloys			Rm 400		36		130-170	80-100	100-130
			Alpha+beta alloys cured	Rm 1050		37		40-70	15-30	20-50
H	Hardened steel		Hardened		55HRC	38	25-45			20-40
			Hardened		60HRC	39	25-35			20-30
	Chilled cast iron		Cast		400	40	25-45			20-50
	Cast iron nodular		Hardened		55HRC	41	25-45			20-40

Steel | Stainless steel | Cast iron | Nonferrous | High temp. alloys | Hardened steel

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