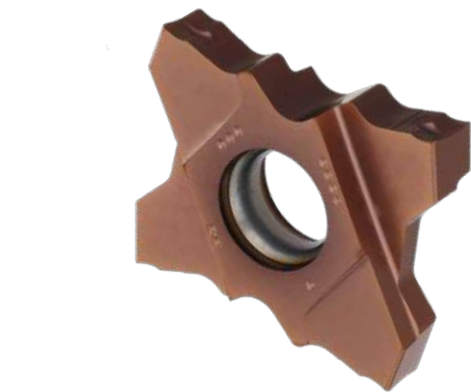


# NPN

New Product News



## TQJ 20 Insert Line Expansion



## KEY POINT

**TaeguTec extends TQJ 20 insert cutting width up to 3.0 mm and adds the TT9080 grade.**

To meet diverse market demands, the TQJ 20 insert line now includes a wider cutting width and the TT9080 grade. Going forward, this expansion means TaeguTec provides excellent machining solutions to wider markets, including not only small parts machining but also diverse machining such as CNC machines and the automotive parts industry.

Please see the previous NPN for further information on the QUAD-RUSH's TQJ/S 20 inserts.



**QUAD-RUSH**  
PARTING & GROOVING



### TQJ 20 Inserts Features

- Expanded cutting width: 1.0-3.0 mm
- Excellent chip breaking and outstanding surface finish due to the J-type positive chip breaker
- Addition of the TT9080 grade following the TT4430 grade for small parts



## Recommended Cutting Conditions

### Grooving and Turning

ISO	Material	Condition	Tensile Strength (N/mm <sup>2</sup> )	Hardness HB	Material No.	Cutting speed Vc(m/min)			
						TT9080	TT4430		
P	Non-alloy steel	<0.25%C	Annealed	420	125	1	100-200	90-180	
		>=0.25%C	Annealed	650	190	2	100-180	90-160	
	and cast steel, free cutting	<0.55%C	Quenched and tempered	850	250	3	80-160	80-140	
		>=0.55%C	Annealed	750	220	4	80-160	80-140	
	Low alloy steel and cast steel (less than 5% of alloying elements)	Quenched and tempered		1000	300	5	70-130	70-110	
				600	200	6	100-160	90-140	
		Annealed		930	275	7	80-160	80-150	
				1000	300	8	80-150	80-130	
	High alloy steel, cast steel and tool steel	Quenched and tempered		1200	350	9	80-130	80-120	
				680	200	10	90-130	90-120	
	M	Stainless steel and cast steel	Ferritic / martensitic		680	200	12	80-170	80-150
Martensitic				820	240	13	80-150	80-130	
Austenitic				600	180	14	80-170	80-150	
K	Grey cast iron (GG)	Ferritic / pearlitic			160	15			
		Pearlitic			250	16			
	Cast iron nodular (GGG)	Ferritic			180	17			
		Pearlitic			260	18			
	Malleable cast iron	Ferritic			130	19			
		Pearlitic			230	20			
N	Aluminum-wrought alloy	Not cureable			60	21			
		Cured			100	22			
	Aluminum-cast, alloyed	<=12% Si	Not cureable			75	23		
		>12% Si	Cured			90	24		
	Copper alloys	>12% Si	High temperature			130	25		
		>1% Pb	Free cutting			110	26		
			Brass			90	27		
	Non-metallic		Duroplastics, fiber plastics				28		
Hard rubber						100	28		
S	Fe based	Annealed			200	31	30-50	30-40	
		Cured			280	32	20-40	20-30	
	High temp. alloys	Ni or Co based	Annealed			250	33	20-30	15-25
			Cured			350	34	15-20	15-20
			Cast			320	35	15-20	15-20
	Titanium and Ti alloys	Pure		Rm 400		36	130-170	100-150	
		Alpa+bata alloys cured		Rm 1050		37	40-70	40-60	
H	Hardened steel	Hardened				38			
		Hardened				39			
	Chilled cast iron	Cast				40			
	Cast iron nodular (GGG)	Hardened				41			

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