

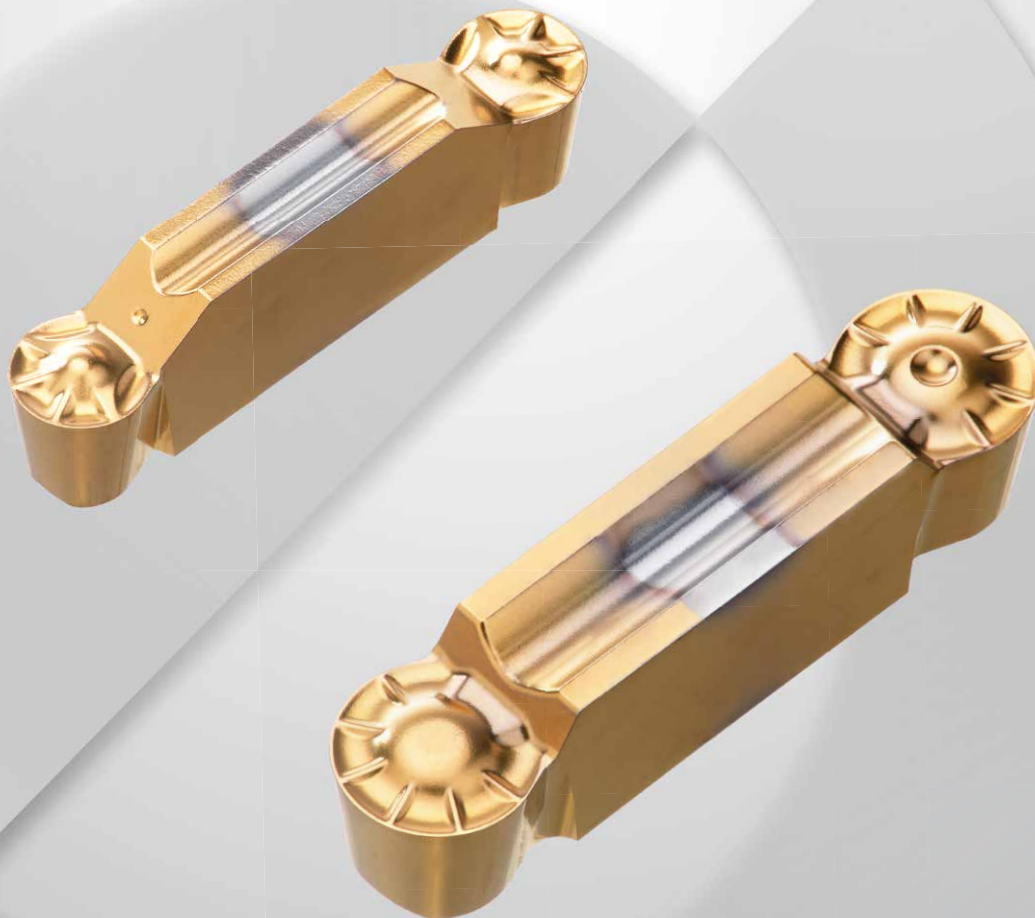


TCLAMP^{ULTRA+}

TDT...-RS PRECISION ROUND TYPE INSERT

INGERSOLL HAS INTRODUCED THE TDT...-RS PRECISION ROUND TYPE INSERT FOR PROFILING, TURNING AND GROOVING APPLICATIONS

- For external and internal profiling, turning and grooving applications •*
- Low cutting force and good surface finish due to the sharp cutting edge •*
- Good chip control over a wide medium to finishing machining range •*
- Precision machining and excellent repeatability •*
- TT3010 grade provides excellent tool life when machining heat-resistant super alloys •*
- The first choice for medium to finishing machining of heat-resistant super alloys •*



General Information

Ingersoll has introduced the TDT...-RS precision round type insert for profiling, turning and grooving applications.

The TDT... -RS precision round type insert provides excellent surface finish for external and internal profiling, turning and grooving applications. A sharp cutting edge due to the ground flank face and high rake angle reduces cutting force, therefore provides good surface finish and longer tool life.

The unique chipbreaker enables effective chip control at various cutting depths during profiling, therefore the TDT...-RS can be used in a wide medium to finishing machining range. In particular, when machining heat-resistant super alloys, it provides precision machining, excellent surface finish and stable tool life.

TDT...-RS Insert - Technical Features

TDT...-RS Insert Features:

- For external and internal profiling, turning and grooving applications
- Low cutting force and good surface finish due to the sharp cutting edge
- Good chip control over a wide medium to finishing machining range
- Precision machining and excellent repeatability
- TT3010 grade provides excellent tool life when machining heat-resistant super alloys
- The first choice for medium to finishing machining of heat-resistant super alloys

Unique chip breaker

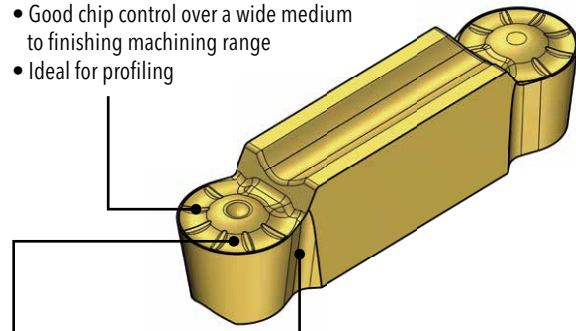
- Good chip control over a wide medium to finishing machining range
- Ideal for profiling

High rake angle

- Low cutting force
- Reduces built-up-edge
- Suitable for difficult-to-cut materials

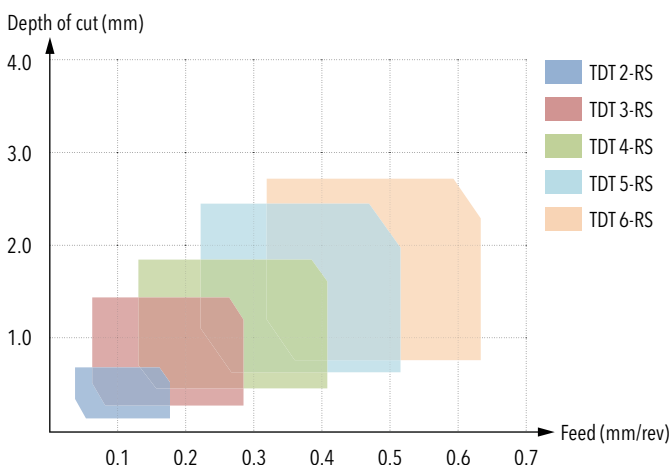
Precision insert

- Sharp cutting edge
- Good surface finish
- Precision machining capable

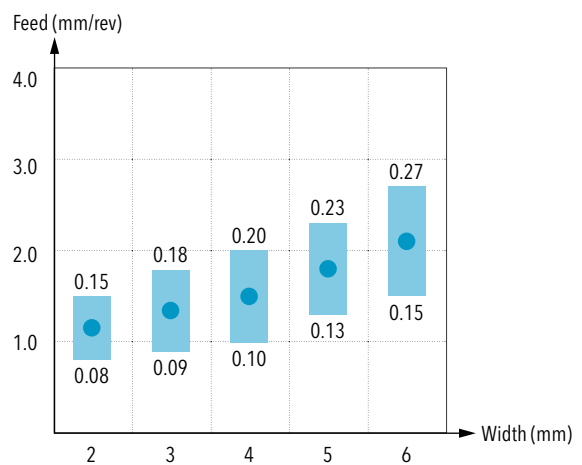


TDT...-RS Insert - Application range

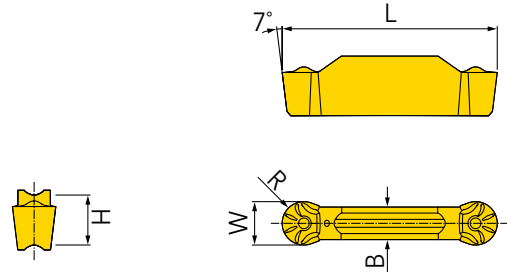
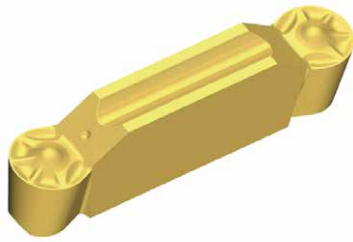
Turning



Grooving



PRECISION ROUND TYPE INSERT FOR PROFILING, TURNING AND GROOVING



Designation.	R	B	H	L	Tmax	W ± 0,02	WSP-S	Grade	TT3010	TT9080	K10
TDT 2.00E-1.00-RS	1,0	1,7	4,7	20,0	19	2,0	2		●	●	●
TDT 3.00E-1.50-RS	1,5	2,4	4,7	20,0	19	3,0	3		●	●	●
TDT 4.00E-2.00-RS	2,0	3,0	4,7	20,0	19	4,0	4		●	●	●
TDT 5.00E-2.50-RS	2,5	4,0	5,2	25,0	19	5,0	5		●	●	●
TDT 6.00E-3.00-RS	3,0	5,0	5,2	25,0	19	6,0	6		●	●	●

● = P ● = M ● = K ● = N ● = S ○ = H

TDT...-RS Chipbreaker - Cutting conditions

ISO	Material	Condition	Tensile strength (N/mm ²)	Hardness HB	Material No.	Cutting speed Vc=m/min			
						TT3010	TT9080	K10	
P	Non-alloy steel, cast steel, free cutting steel	< 0.25% C Annealed	420	125	1	100 - 200			
		>= 0.25% C Annealed	650	190	2	100 - 180			
		< 0.55% C Quenched + tempered	850	250	3	80 - 160			
		>= 0.55% C Annealed	750	220	4	80 - 160			
		Quenched + tempered	1000	300	5	70 - 130			
	Low alloy steel and cast steel (less than 5% of alloying elements)	Annealed	600	200	6	100 - 160			
		Quenched + tempered	930	275	7	80 - 160			
		Quenched + tempered	1000	300	8	80 - 150			
		Quenched + tempered	1200	350	9	80 - 130			
		High alloy steel, cast steel and tool steel	Annealed	680	200	10	90 - 130		
			Quenched + tempered	1100	325	11	50 - 80		
S	High temp. alloys	Fe based	Annealed	-	200	31	40 - 60	30 - 50	30 - 40
			Cured	-	280	32	30 - 50	20 - 40	20 - 40
		Ni or Co based	Annealed	-	250	33	30 - 40	20 - 30	20 - 30
			Cured	-	350	34	25 - 35	15 - 20	15 - 20
			Cast	-	320	35	25 - 35	15 - 20	15 - 20
	Titanium, Ti alloys	-	Rm 400	-	36	140 - 180	130 - 170	100 - 130	
		Alpha+beta alloys cured	Rm 1050	-	37	40 - 80	40 - 70	20 - 50	

Ingersoll Cutting Tools

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