NEW

Member IMC Group
Ingersoll Cutting Tools

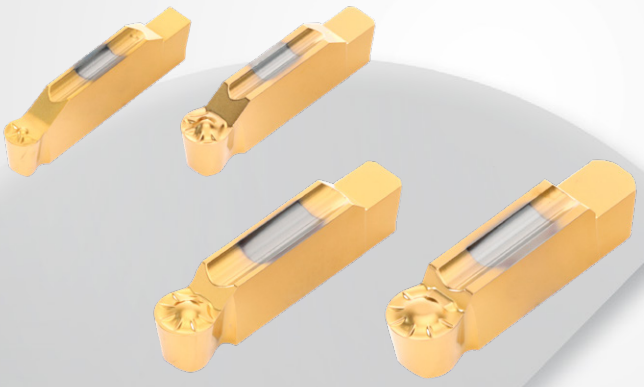
WINSFEED

TCLAMP ULTRA+

PRECISION ROUND TYPE
SINGLE-ENDED INSERT TST

TST PRECISION ROUND TYPE INSERT

- *For external and internal profiling, turning and grooving applications*
- *Precision machining and excellent repeatability*
- *Low cutting force and good surface finish due to the insert's sharp cutting edge*
- *Good chip control over a wide medium-to-finishing machining range*
- *TT3010 grade provides excellent tool life in super alloy machining*



No. T370 E / 01-2024

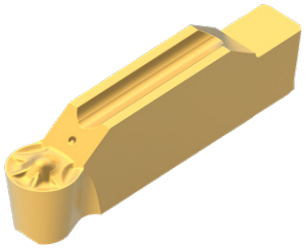
Product Overview

New TST precision round type insert for deep turning and grooving applications.

Ingersoll's deep profiling, external turning and grooving round type single-ended **TST** insert, with its sharp cutting edge, enables lower cutting loads, resulting in stable machining performance and excellent surface roughness, even in super alloy machining. This single-ended insert, with the same geometry as the double-ended **TDT-RS** insert, is capable of deep depth of cut machining where demand has recently grown.

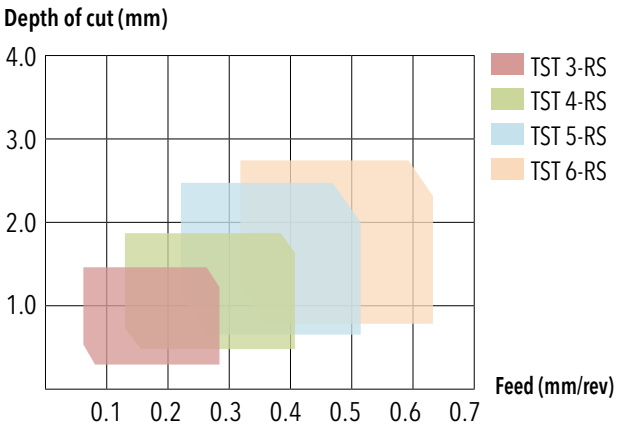
Technical Features & Advantages

- For external and internal profiling, turning and grooving applications
- Precision machining and excellent repeatability
- Low cutting force and good surface finish due to the insert's sharp cutting edge
- Good chip control over a wide medium-to-finishing machining range
- **TT3010** grade provides excellent tool life in super alloy machining

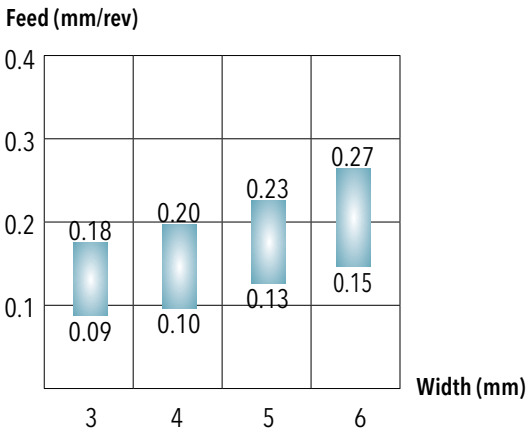


Recommended Application Range

Turning

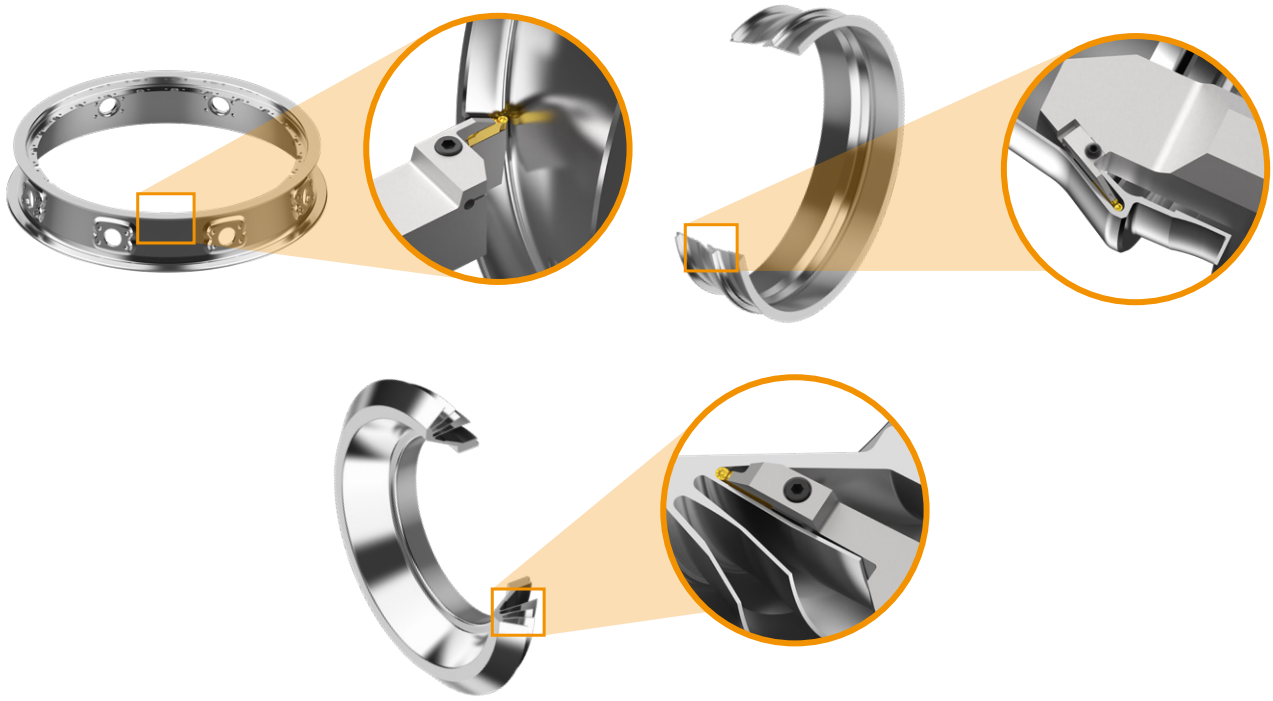


Grooving



Applications

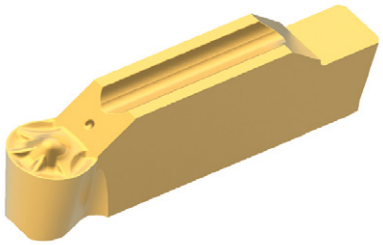
Deep machining capable perfect for tough sectors like aerospace

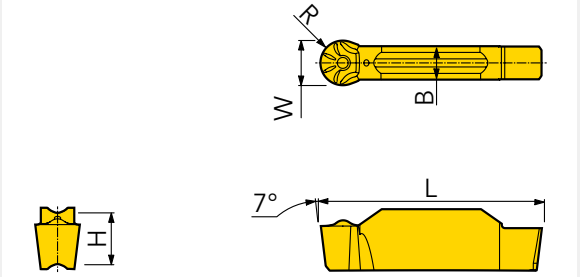


Recommended Cutting Data - Grooving & Turning

ISO	Material		Condition	Tensile strength (N/mm²)	Hardness HB	Cutting speed Vc (m/min)	
						TT3010	TT9080
P	Non-alloy steel, cast steel, free cutting steel	<0.25%C	Annealed	420	125	-	100 - 200
		≥0.25%C	Annealed	650	190	-	100 - 180
		<0.55%C	Quenched and tempered	850	250	-	80 - 160
		≥0.55%C	Annealed	750	220	-	80 - 160
			Quenched and tempered	1000	300	-	70 - 130
	Low alloy steel and cast steel (less than 5% of alloying elements)		Annealed	600	200	-	100 - 160
			Quenched and tempered	930	275	-	80 - 160
				1000	300	-	80 - 150
				1200	350	-	80 - 130
	High alloy steel, cast steel and tool steel		Annealed	680	200	-	90 - 130
			Quenched and tempered	1100	325	-	50 - 80
S	High temp. alloys	Fe based	Annealed	-	200	40 - 60	30 - 50
			Cured	-	280	30 - 50	20 - 40
		Ni or Co based	Annealed	-	250	30 - 40	20 - 30
			Cured	-	350	25 - 35	15 - 20
			Cast	-	320	25 - 35	15 - 20
	Titanium, Ti alloys			Rm 400	-	140 - 180	130 - 170
			Alpha+beta alloys cured	Rm 1050	-	40 - 80	40 - 70

PRECISION INSERT FOR EXTERNAL TURNING, GOOVING AND PROFILING





Designation	R ± 0,05	B	H	L	W ± 0,02	insert-S	Grade	TT3010	TT9080
TST 3.00E-1.50-RS	1,5	2,4	4,7	19,8	3,0	3			
TST 4.00E-2.00-RS	2,0	3,0	4,7	19,8	4,0	4			
TST 5.00E-2.50-RS	2,5	4,0	5,2	25,0	5,0	5			
TST 6.00E-3.00-RS	3,0	5,0	5,2	25,0	6,0	6			

● = P ● = M ● = K ● = N ● = S ○ = H

Order-no.: none • digital version 01-2024

Ingersoll Werkzeuge GmbH

Main Office:
Kalteiche-Ring 21–25 • 35708 Haiger
Tel.: +49 (0)2773-742-0 • info@ingersoll-imc.de

Office South:
Florianstraße 13–17 • 71665 Vaihingen-Horrheim
Tel.: +49 (0)7042-8316-0 • horrheim@ingersoll-imc.de