



PARTING & GROOVING

Series

TSG-H
TSG-H (Full Radius)

Features

Precision Ground, Single-Ended
Compatible with all T-Clamp Ultra+ Holders

Applications

External Grooving, Turning,
& Profiling

Insert Widths

3, 4, 5, 6 & 8mm

Grades

TB2015 - CBN for continuous to lightly interrupted machining of hardened steel

ISO Code

H10-H20

TCLAMPULTRA+™

New CBN-Tipped Inserts for Grooving and Profiling Hardened Materials

- » Excellent surface finish in both grooving and profiling applications
- » CBN grade TB2015 provides excellent wear resistance and adequate toughness
- » Fully compatible with T-Clamp Ultra+ holders



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For more information »



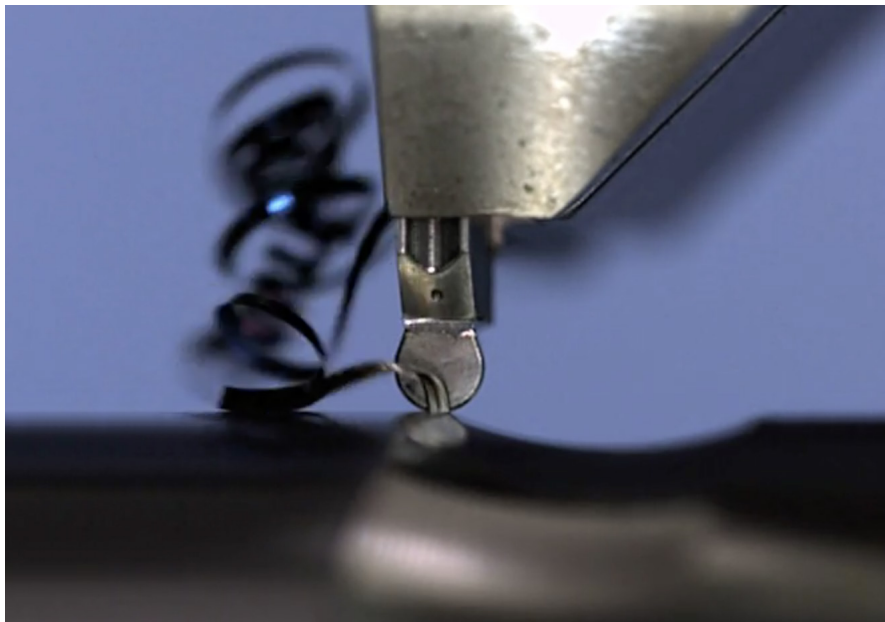
Ingersoll adds CBN tipped inserts to popular TClamp Ultra+ line of inserts.

After the success of the current line of TClamp CBN inserts meant for high feed turning, TSG-HF, other TSG inserts have been added for the machining of hardened materials. These new TSG inserts are suitable for grooving, turning, and profiling to provide more diverse machining solutions for hard materials.

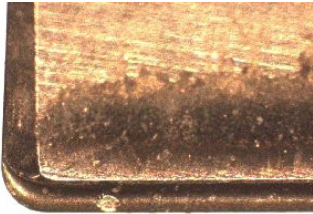
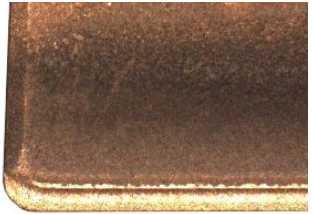
The TSG inserts are offered in the CBN grade TB2015 which provides excellent machining performance in continuous as well as lightly interrupted machining of hardened materials.

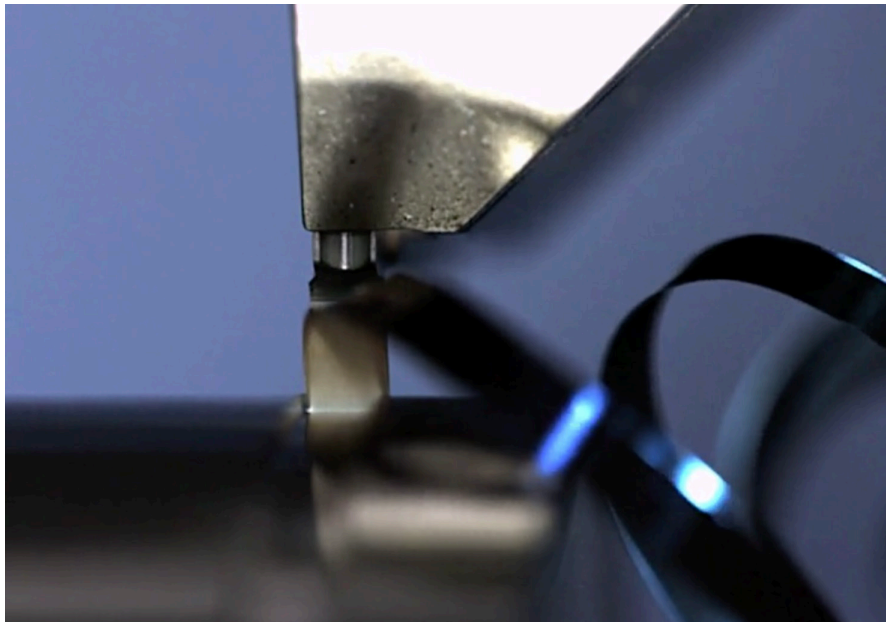
T-Clamp CBN Inserts

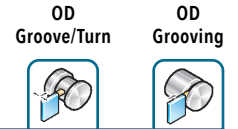
new For turning and grooving	new For turning and grooving profiling	For high feed turning
 <p>TSG</p>	 <p>TSG (Full-Radius)</p>	 <p>TSG-HF</p>



Case Study

	Competitor	Ingersoll
Material	Heat Treated Cr-Mo Alloy (HRC 58)	
Application	External Grooving	
Insert	Single-Ended CBN Insert	TSG3.00H-0.20 TB2015
Holder	Grooving Holder	TTER25.4-3
Cutting Speed, v_c (sfm)	490	
Feed Rate, f_n (ipr)	.003	
Depth of Cut, a_p (in.)	.118	
Coolant	Wet	
Results	 Chipping after 30 cycles	 Good wear pattern after 120 cycles





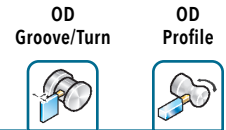
Series TSG-H

SINGLE-ENDED CBN INSERTS GROOVING & TURNING

		Size	Dimensions (inch)			
			CW Cutting Width	RE Corner Radius	BW Body Width	INSL Insert Length
		3.00H-0.20	.118	.008	.089	.787
		4.00H-0.20	.157	.008	.118	.787
		5.00H-0.40	.197	.016	.157	.984
		6.00H-0.40	.236	.016	.197	.984
		8.00H-0.40	.315	.016	.236	1.181

Part Number	SSC Insert Seat Size	Turning				Grooving		Grade TB2015
		ap (inch) Depth of Cut		fn (ipr) Feed Rate		fn (ipr) Feed Rate		
		Min.	Max.	Feed Min.	Feed Max.	Feed Min.	Feed Max.	
INCH								
TSG3.00H-0.20	3	.000	.012	.0008	.0028	.0008	.0020	•
TSG4.00H-0.20	4	.000	.016	.0012	.0035	.0008	.0028	•
TSG5.00H-0.40	5	.000	.020	.0020	.0051	.0012	.0039	•
TSG6.00H-0.40	6	.000	.024	.0020	.0059	.0016	.0047	•
TSG8.00H-0.40	8	.000	.031	.0028	.0079	.0020	.0063	•

• = Standard Items



Series TSG-H (Full Radius)

SINGLE-ENDED, FULL-RADIUS CBN INSERTS GROOVING, TURNING & PROFILING

	Size	Dimensions (inch)				
		CW Cutting Width	RE Corner Radius	BW Body Width	INSL Insert Length	AN Clearance Angle Major
	3.00H-1.50	.118	.059	.094	.787	7
	4.00H-2.00	.157	.079	.118	.787	7
	5.00H-2.50	.197	.098	.157	.984	7
	6.00H-3.00	.236	.118	.197	.984	7
	8.00H-4.00	.315	.157	.236	1.181	10

Part Number	SSC Insert Seat Size	Turning				Grooving		Grade TB2015
		ap (inch) Depth of Cut		fn (ipr) Feed Rate		fn (ipr) Feed Rate		
		Min.	Max.	Feed Min.	Feed Max.	Feed Min.	Feed Max.	
INCH								
TSG3.00H-1.50	3	.000	.012	.0012	.0039	.0008	.0024	•
TSG4.00H-2.00	4	.000	.016	.0016	.0055	.0008	.0035	•
TSG5.00H-2.50	5	.000	.020	.0020	.0071	.0012	.0043	•
TSG6.00H-3.00	6	.000	.024	.0024	.0087	.0016	.0051	•
TSG8.00H-4.00	8	.000	.031	.0031	.0114	.0020	.0067	•

• = Standard Items



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