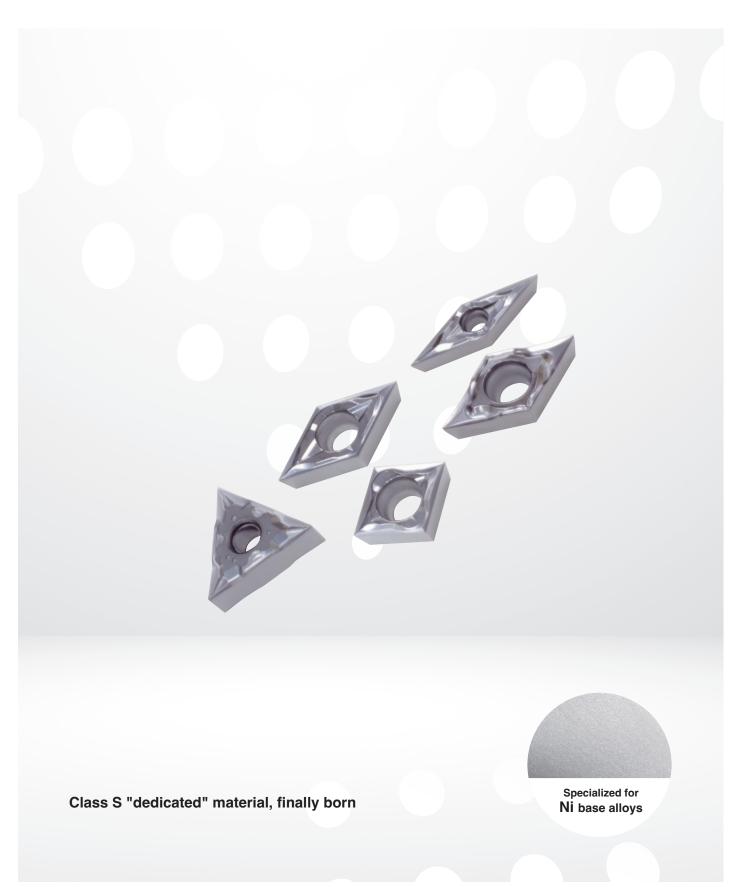
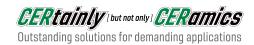
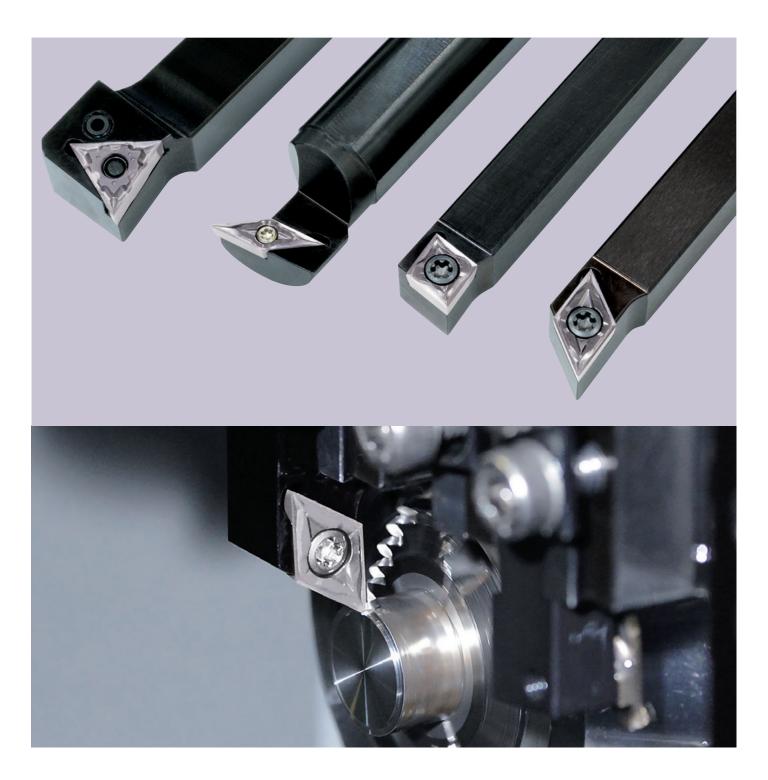
# **NTK650**

For small diameter parts I Materials for processing Ni-based alloys









# For more stable machining of small-diameter Ni based components

Common challenges in Ni-based alloy Machining: Edge damage and wear from welding. Discover stable machining with NTK's Innovative Material, 650.

**New HiPIMS PVD grade** 

**NTK650** 

# Stable machining of [Ni base alloys x small diameter parts] for all users

#### Features

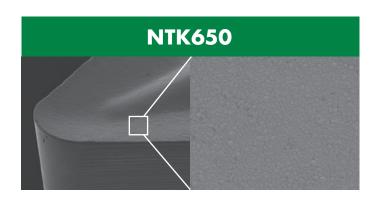
• Adoption of new HiPIMS coating. Improvement of surface-smoothness and suppression of imperfections in film Improves welding performance, which is critical to Ni base alloys. Provides stable machining

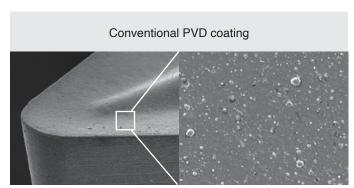
• TiAIN system with excellent hardness and heat resistance achieves long life

Excellent wear resistance even in difficult-to-machine material processing with high cutting edge temperature

#### | Applicable Applications

- · Small diameter of Ni base alloys. (Approx. Φ20) for best performance on workpieces
- · Introducing three new types of NTK's best-selling chipbreakers





#### Performance

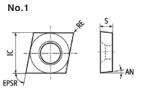
#### Material: Inconel 718 Material: Hastelloy C22 $V_c=50$ m/min f=0.05mm/rev $a_D=1.0$ mm WET, DCGT11T302 $V_c=80$ m/min f=0.05mm/rev $a_D=1.0$ mm WET, DCGT11T302 0.15 0.15 Conventional tool Abrasion loss (mm) Competitor's tool 0.10 (mm) 0.10 Abrasion loss Conventional tool 0.05 0.05 **NTK650 NTK650** 0.00 0.00 50 100 200 250 300 100 150 200 250 300 350 Machining distance (m) Machining distance (m) NTK650 NTK650 Conventional tool Competitor's tool Conventional tool Competitor's tool

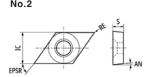
### Cutting conditions

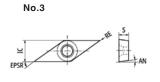
			Cutting parameters	
Grade	Work material	Cutting Speed (m/min)	Feed (mm/rev)	Depth of cut (mm)
NTK650	Inconel	30 - 60	0.03 - 0.07	0.5 - 1.5
	Hastelloy	50 - 100	0.03 - 0.07	0.5 - 1.5

### Lineup

Туре









		Product Number		EPSR	IC	S	AN	RE	BS	Carbide
Shape	Type		CECC			ŭ			55	DVD
		(Metric)		0	mm	mm	0	mm	mm	650
	1	CCGT09T301MYL	Sharp edges	80	9.525	3.97	7	0.08	-	•
	1	CCGT09T302MYL	Sharp edges	80	9.525	3.97	7	0.18	-	•
	1	CCGT09T304MYL	Sharp edges	80	9.525	3.97	7	0.38	-	•
	1	CCGT09T301MCL	Sharp edges	80	9.525	3.97	7	0.08	-	•
	1	CCGT09T302MCL	Sharp edges	80	9.525	3.97	7	0.18	-	•
	1	CCGT09T304MCL	Sharp edges	80	9.525	3.97	7	0.38	-	•
	2	DCGT11T301MYL	Sharp edges	55	9.525	3.97	7	0.08	-	•
	2	DCGT11T302MYL	Sharp edges	55	9.525	3.97	7	0.18	-	•
	2	DCGT11T304MYL	Sharp edges	55	9.525	3.97	7	0.38	-	•
	2	DCGT11T301MCL	Sharp edges	55	9.525	3.97	7	0.08	-	•
	2	DCGT11T302MCL	Sharp edges	55	9.525	3.97	7	0.18	-	•
	2	DCGT11T304MCL	Sharp edges	55	9.525	3.97	7	0.38	-	•
112	3	VCGT110301MYL	Sharp edges	35	6.35	3.18	7	0.08	-	•
	3	VCGT110302MYL	Sharp edges	35	6.35	3.18	7	0.18	-	•
	3	VCGT110304MYL	Sharp edges	35	6.35	3.18	7	0.38	_	•
6	3	VCGT110301MCL	Sharp edges	35	6.35	3.18	7	0.08	-	•
	3	VCGT110302MCL	Sharp edges	35	6.35	3.18	7	0.18	-	•
	4	TNGG160401MFNUL	Sharp edges	60	9.525	4.76	-	0.08	-	•
	4	TNGG160402MFNUL	Sharp edges	60	9.525	4.76	-	0.18	-	•
	4	TNGG160404MFNUL	Sharp edges	60	9.525	4.76	-	0.38	-	•





• : First recommendation

 $\bigcirc: Second\ recommendation$ 

Steel	0
Stainless steel	0
Cast Iron	
Nonferrous metals	
Heat-resistant alloy	•
High hardness material	
Others (non-metallic)	

## Tungaloy-NTK Cutting Tool (Thailand) Co., Ltd.

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YouTube Channel	www.youtube.com/NTKCUTTINGTOOLS	