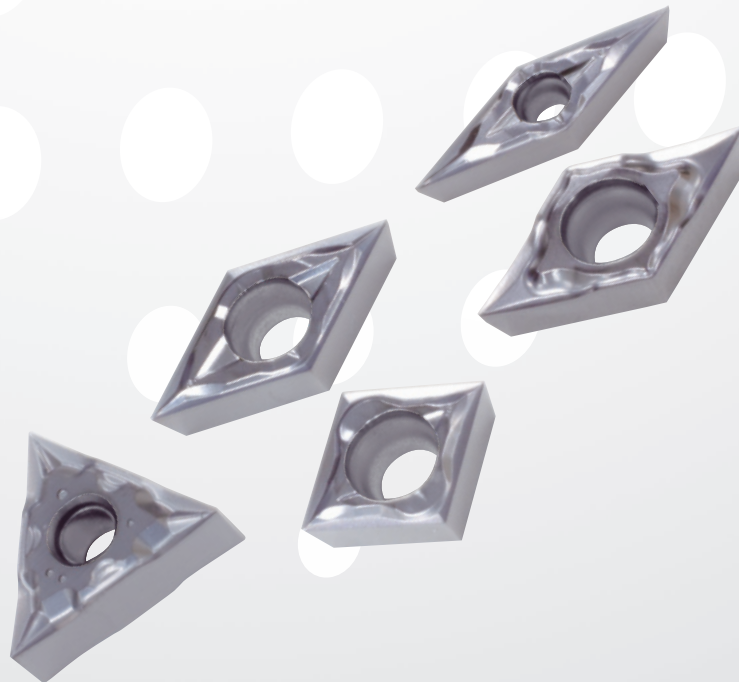
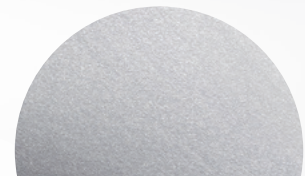


NTK650

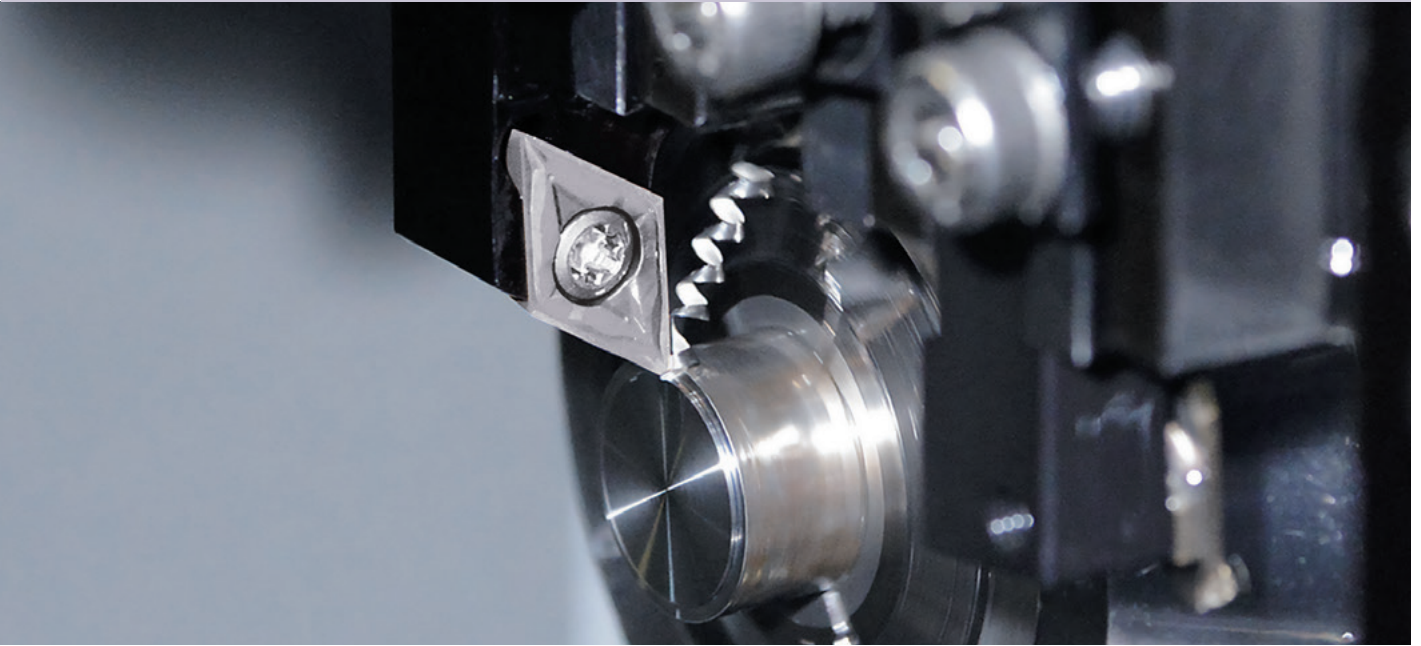
For small diameter parts | Materials for processing Ni-based alloys



Class S "dedicated" material, finally born



Specialized for
Ni base 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

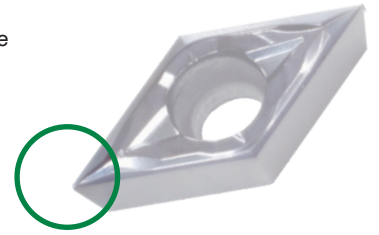
NTK650

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

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

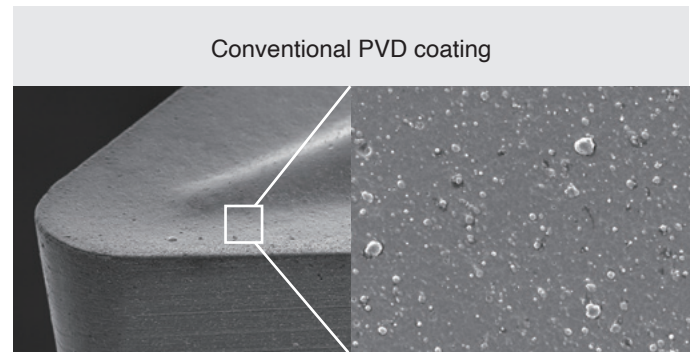
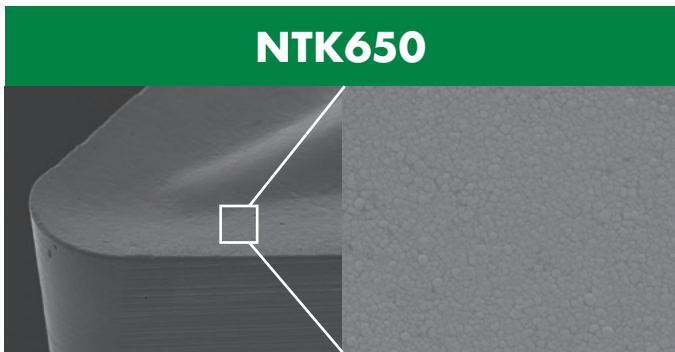
Features

- **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
- **TiAlN 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

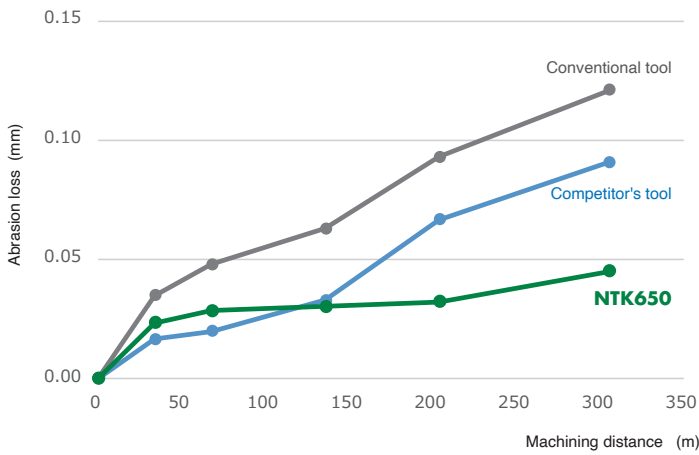
- Small diameter of Ni base alloys. (Approx. $\Phi 20$) for best performance on workpieces
- Introducing three new types of NTK's best-selling chipbreakers



Performance

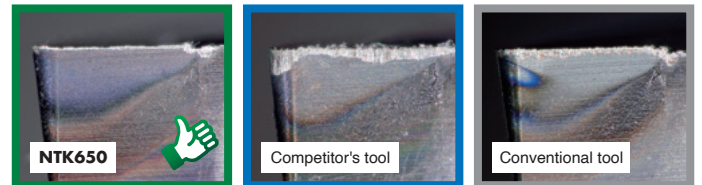
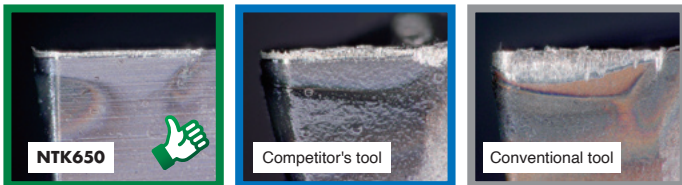
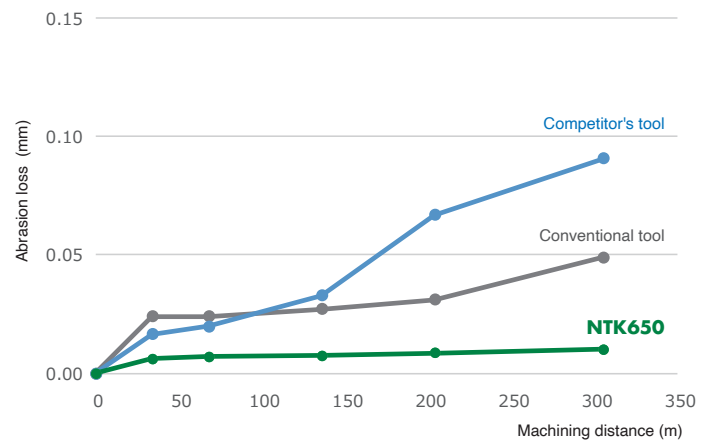
Material: Inconel 718

$V_c=50\text{m/min}$ $f=0.05\text{mm/rev}$ $a_p=1.0\text{mm}$ WET, DCGT11T302



Material: Hastelloy C22

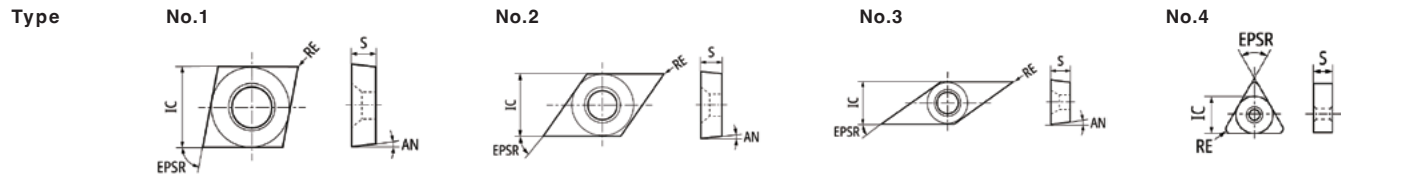
$V_c=80\text{m/min}$ $f=0.05\text{mm/rev}$ $a_p=1.0\text{mm}$ WET, DCGT11T302



Cutting conditions

Grade	Work material	Cutting parameters		
		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



Shape	Type	Product Number (Metric)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	BS mm	Carbide 650 PVD
	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	-	●
	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	-	●
	3	VCGT110301MCL	Sharp edges	35	6.35	3.18	7	0.08	-	●
	3	VCGT110302MCL	Sharp edges	35	6.35	3.18	7	0.18	-	●
	3	VCGT110304MCL	Sharp edges	35	6.35	3.18	7	0.38	-	●
	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	-	●



NTK CUTTING TOOLS JAPAN
Iwazaki, Komaki, Aichi 485-8510, Japan

● : First recommendation
○ : Second recommendation

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

CONTACT

www.ntkcuttingtools.com/jp/contact/

Sample request



YouTube Channel

www.youtube.com/NTKCUTTINGTOOLS



LINE Technical consultation @ntktech

