

- NC Spot Drills.
- High Speed Boring Tools.
- 3D Super Drills.
- 5D~10D Super Power Drills.



Engraving...  
A long history application for marking from past centuries.  
Nowadays, you can have a better solution.

Engraving...

Nine9

  
**Jimmore International Corp.**

**Distributor:**

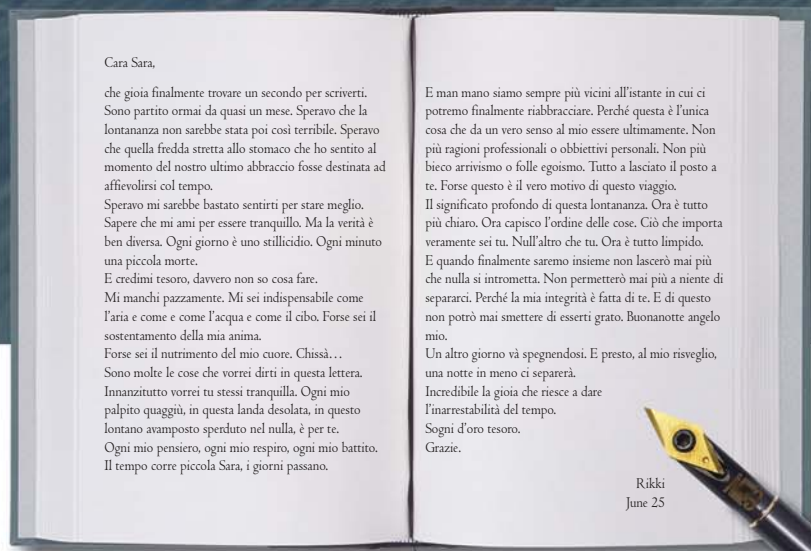
2008.07. Cat. No.: 03: 1000



**Nine9**®

**ENGRAVING**

*Engraving has had a long history over the past century.  
Now we have a NEW and BETTER solution!!*



**ENGRAVING TOOLS**  
2008-07

## We Claim:

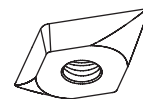
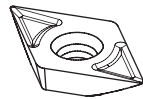
This is a revolutionary new concept of engraving tools with indexable carbide inserts. It offers you the ability to produce HIGH QUALITY ENGRAVING in all materials. The latest coated carbide grades help you to obtain higher speeds and feed rates dramatically reducing your cycle times.

## Main Features

Patent Pending!

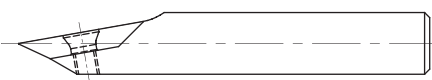
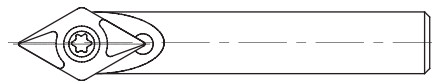
### High Positive Rake Angle

High positive rake angle Indexable insert. Suitable for engraving all types of materials, such as plastic, non-ferrous metal, aluminum, carbon steel and stainless steel.



### Multi-Side Grinding

Full peripherally ground insert to ensure efficient repeatability. It performs excellently without producing any burrs, especially in aluminum and stainless steel.



### High Speeds, High Feed Rates

Designed to run at high speed, up to 20000 rpm. Feed rate 0.08mm/rev apply to aluminum; 0.05mm/rev apply to stainless steel. Reduces engraving cycle time!

### Economical

Each indexable insert has 2 cutting edges. No sharpen required. Tool length is unchanged. No need to reset after changing insert or cutting edge. Excellent repeatability!

### Applications

Universal for marking number and almost any character. 45°, 60° engraving inserts which can be used for marking serial number ; product code ; dial scale ; sign ; logo outline and almost any character which can be created by the NC programming system.

#### Now & Future

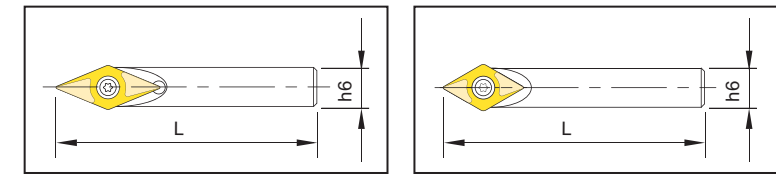


Engraving  
45°/60°

#### Yesterday



## Holder



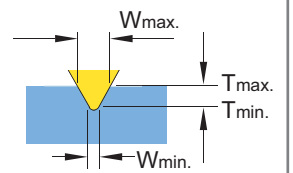
Code	Parts No.	h6	L	Screw	Key	Wmin.	Wmax.	Tmax.
691001	00-99619-V045-06	6	40	NS-22044 0.8 Nm	NK-T7	0.4	2.1	2.0
691002	00-99619-V060-06	6	40			0.5	2.7	2.0

• Other sizes also available upon request.

## Insert

**Features:**

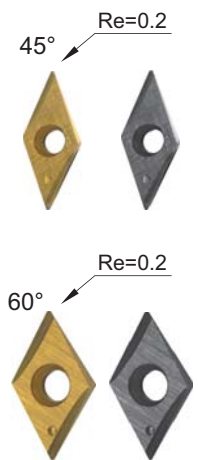
- For 45, 60 degree engraving tools.
- K20F submicron grain carbide insert, high positive rake angle and ground relief angle for universal applications.
- Each insert has 2 cutting edges.



**NC2071:** - TiN coated. Good for low carbon steel, stainless steel, non-ferrous metal and aluminum.

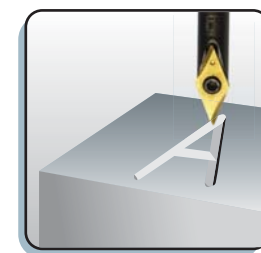
**NC2032:** - TiAlN coated. Good for all kinds of steel 30°-50° HRC, alloy steel and cast iron.

Code	Parts No.	Angle	Grade	Coating	Diagram	Dimensions		
						L	S	Re
01-04501	V04506T1W06-2071	45°	K20F	TiN		6.35	2.0	0.2
01-04502	V04506T1W06-2032			TiAlN				
01-06001	V06006T1W06-2071	60°	K20F	TiN		6.35	2.0	0.2
01-06002	V06006T1W06-2032			TiAlN				



• Other sizes also available upon request.

## Cutting Data



• Using effective cooling is recommended.

Work Material	S RPM	f (mm/rev.)	Grade of Insert
Stainless Steel	5000~20000	0.02~0.05	NC2071
Steel	< 30°HRC	0.02~0.05	NC2071
	30°-50°HRC	0.01~0.02	NC2032
Cast iron	5000~20000	0.01~0.02	NC2032
Aluminum, Non-Ferrous Metal	5000~20000	0.02~0.08	NC2071
PMMA, POM (Plastic)	5000~20000	0.02~0.08	NC2071