



# Product Index

2019

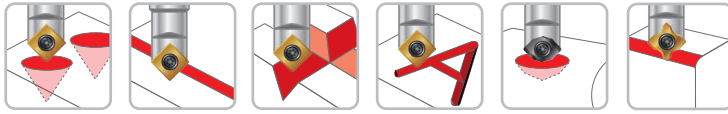


# NC Spot Drill

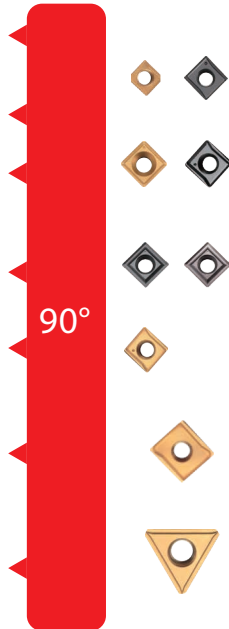
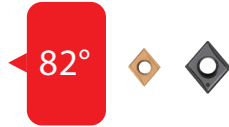


**One tool will perform multiple applications.**

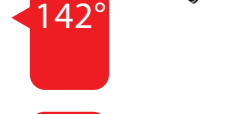
- Suitable for spotting, chamfering, grooving and engraving.
- 60°/ 82°/ 90°/ 100°/ 120°/ 142°/ 145° for different applications.
- Increase cutting speed with coated carbide inserts.
- Long tool life!



## NC Spot Drill-CT



## NC Spot Drill-CT



## Corner Rounding-RC

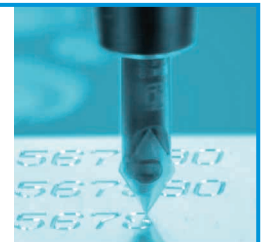


# Engraving 30° / 45° / 60° / 90°

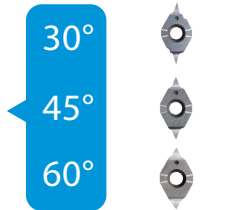


**Engraving tools with indexable carbide inserts.**

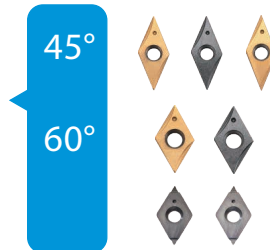
- Multi-side grinding, excellent repeatability.
- No need to reset tool length after an insert change.
- No resharping required.



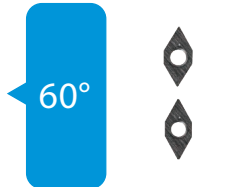
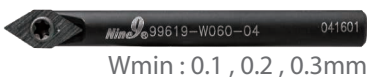
## Engraving Tools-X



## Engraving Tools-V



## Engraving Tools-W



## Engraving Tools-SW



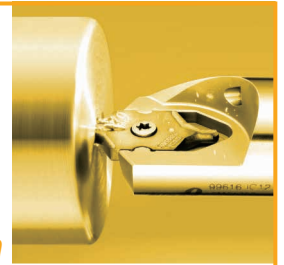
# Indexable Center Drill « i-Center »



**Long Tool Life ! No need tool length resetting.**

- Excellent repeatability by insert type within 0.02mm in radial direction.
- Reduce set up and center drilling time.
- Coolant can be supplied through the center of the holder.

**Pilot dia. 1~10mm**



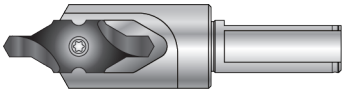
## Weldon Shank



## Cylindrical Shank with Pre-balanced



## Double Flat Shank



## Square Shank 25x25 Right / Left Hand



◀ Ø1.0~Ø10



DIN332 Form R



DIN332 Form A



DIN332 Form A+B



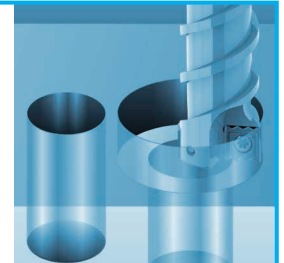
ANSI 60°

# NC Helix Drill



**Ideal for automation production. Excellent swarf removal.**

- For rough milling, drilling & slotting.
- Cut materials by Helical interpolation.
- Serrated cutting edge minimizes cutting chips.
- Reduce your tool inventory. Just four tools for drilling Ø13~Ø65mm.



## Cylindrical Shank

External coolant



~3xDc

## Side Lock Shank

Internal coolant



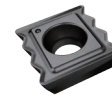
~2xDc

## Screw Fit Cutter

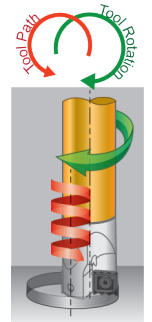
Internal coolant



~8xDc



NC5072  
NC2032

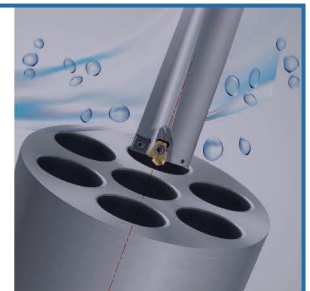


# Super Power Drill



**A truly straight hole can be expected.**

- With patented center pilot insert which aids accurate and steady deep hole drilling.
- Indexable drills with carbide center pilot insert, better surface, straightness, and roundness.
- Good finished surface. It is possible to reduce your boring process.



up to 12xD



Ø19  
s  
Ø40

3xD



Ø10  
s  
Ø30

4xD



Ø16  
s  
Ø30



Center Pilot Insert

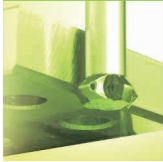


Periphery Insert

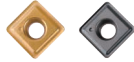
# Chamfer Mill

**Front and Back Chamfering.  
Ultra high speed & feed rate.**

- Smallest Indexable counter sink diameter Ø7mm.
- For 90° counter sink, 45° circular chamfering, contour chamfering and face milling.
- For front and back chamfering, eliminates 2nd operation or de-burring time.



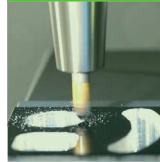
45°



# NC Deburring

**Insert has 6 flutes,  
6 times higher feed rate.**

- Ideal for fine hole deburring.
- Indexable type, high precision ground carbide insert.
- Retain exceptional positional accuracy of the deburring depth and diameter.



60°  
90°



# Power Mill

**Indexable milling cutter 10mm.  
Higher wear resistance!**

- Patented Dual Relief Angle Insert!
- Precision ground insert performs efficient repeatability and excellent accuracy.
- Special geometry design helps the strength of cutting edge in shoulder milling operation.



## A Series - Shoulder Face Mills



Ø10  
s  
Ø25



## C Series - Torus Radius Mills



Ø10  
s  
Ø26



## R Series - Round Insert Mills



Ø16  
s  
Ø35



# Boring Tool

**Easy adjustment ! No backlash!  
G6.3 / 10,000 r.p.m.**

- Eccentric mechanism boring bars.
- Adjusting range : ± 0.1mm.
- Ø5mm~Ø50mm boring bars are interchangeable.
- Ideal for small hole boring with excellent accuracy.



## Fine Finishing Tool



Ø4.9  
s  
Ø25.5



## Balanced High Speed Boring Bar



Ø5  
s  
Ø50



## Direct Adjusting Boring Bar



Ø14  
s  
Ø50

