

NO NEED TO CHOOSE NINE9 DOES IT ALL!



Cat. No. 11.a



NC Spot Drills
Corner Rounding Cutters
& Engraving Tools

We Focus:

- Higher efficiency
- Long tool life
- Position accuracy
- Total cycle time

Multifunctional Cutting Tool

- Universal, Easy handling and Material saving!
- One holder to cover so many different applications!

Now and Future



Traditional



A new concept of drilling !

■ **0.5xD of spotting.**

“The high performance solid carbide drill or HSS drill with web thinning do not need any centering!”

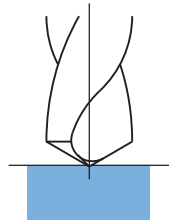
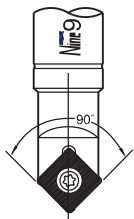
“Drilling from solid!” most of the drills manufacturers and suppliers quote that.

However, if you applied NC Spot Drill to drill a spot which is half of the drilling diameter, you can look forward to the following benefits.

■ **Benefits:**

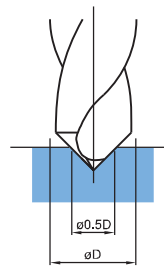
- Higher feed rate of drill!
Why? Because the drill is guided at the strongest part of cutting edge.
- Better center position of drill!
Why? Because the spotting is done by single cutting edge which is out of center, and similar to boring operation.
- Increase the tool life of drill!

Without Spotting



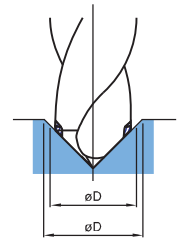
Less positional accuracy of drill, and diameter tolerance.
Lower feed rate.
Unstable tool life.

0.5xD Spotting



Best result!
Higher speed and feed rate.
More accuracy of positioning and diameter tolerance.

Larger Spotting



Longer spotting time!
Guided at the weakest corner of drill.
Shorter tool life.

Mini Spotting

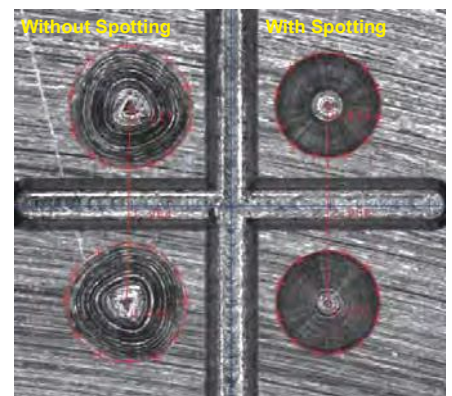
■ The application of the engraving insert as a spotting drill for the minor size of drill.

■ **Benefits:**

- Best positioning accuracy!
- Better surface with spotting by NC Spot drill in advance.

■ **Working example of spotting:**

Spindle speed: 3000-25000 r.p.m.
Feed rate: 0.01-0.02 mm/rev.
Tool : 99616-10-02SW



NC Spot Drill with Patented indexable carbide insert.

High Efficiency! Low Cost!

CNC Lathes, CNC Turning Centers and Machining Centers.

One tool will perform multiple applications.

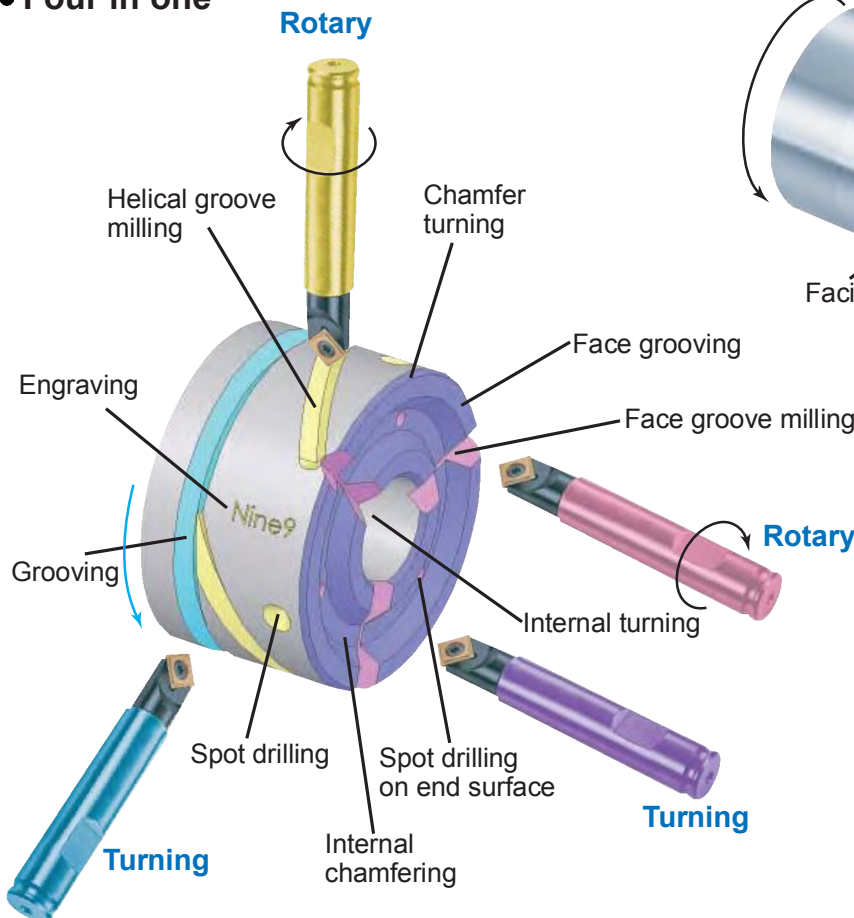
- Long tool life.
- Each insert has four cutting edges.
- Suitable for spotting, chamfering, grooving and engraving.
- **45° / 60° / 82° / 90° / 100° / 120° / 142°** angle for different applications.
- Increase cutting speed with coated carbide inserts.



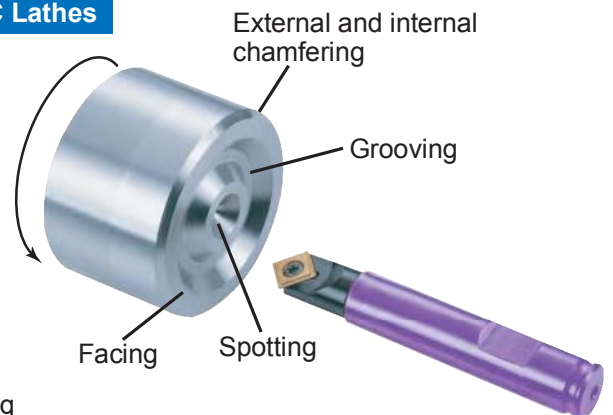
■ ALL IN ONE !!

Turning Center

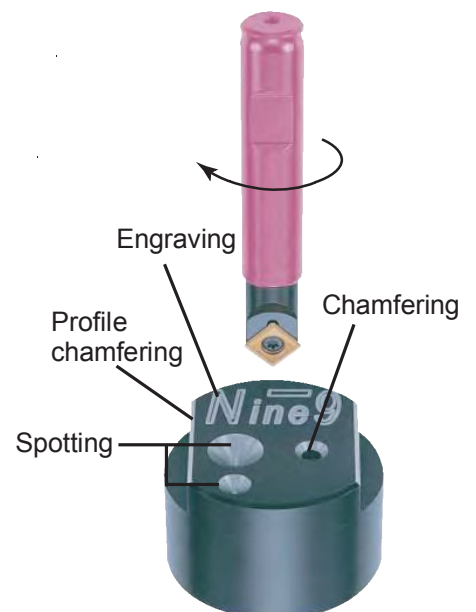
- Four in one



CNC Lathes



Machining Center



Engraving Tools





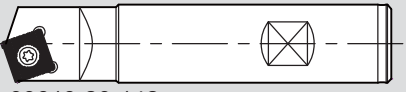

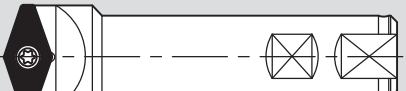

Angle	Holder	Inserts	D min.	D max.	Spotting	Chamfering	Grooving	Engraving	Drilling	Page
New 45°	 99619-V045	 V04506T1W	0.45	2.1	O			●		P5
New 60°	 99619-V060	 V06006T1W	0.45	2.7	O			●		P5
	 99616-10...SW	 N9MT080201W-60	0.25	1.1	O			●		P10
90°	 99616-10...SW	 N9MT080201W	0.25	2.0	O			●		P10
	 99616-06-6	 N9MT05T1	1	6	●			●		P14

*Open circle = suitable application, Filled circle = preferred application.





NC Spot Drill

60°	 99616-14...P60	 N9MT11T3P60	2	6.2	●	●		●		P11
	 99616-13V	 V9MT12T3	2	13	●	●	●	●		P12
82°	 99619-V082-3/8	 V0820802	2	9	●	●	●	●		P13
	 99619-V082-5/8	 V08212T3	2	14	●	●	●	●		P13
90°	 99616-06-6	 N9MT05T1	1	6	●	●		●		P14
	 99616-10...	 N9MT0802	2	10	●	●	●	●		P15
	 99616-14...	 N9MT11T3	3	14	●	●	●	●		P17
	 99616-14-M8	 N9MT11T3	3	14	●	●	●	●		P17
	 99616-22	 N9MT1704	3	22	●	●	●	●		P19
	 99616-25-CT28	 TCMT2204	4	25	●	●		●		P20
	 99616-25-CT28	 TCMT2204	4	25	●	●		●		P20

NC Spot Drill



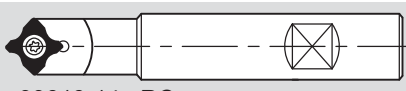

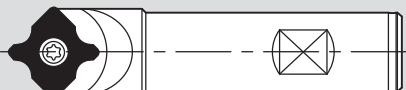

Angle	Holder	Inserts	D min.	D max.	Spotting	Chamfering	Grooving	Engraving	Drilling	Page
New 100°	 99616-20-100		4	16	●	●				P21
		N9MT11T3CT2T-H								
120°	 99616-20-120		4	17	●	●				P21
		N9MT11T3CT2T-H								
142°	 99616-20-142		4	18	●	●				P21
		N9MT11T3CT2T-H								
New 142°	 99619-V142		2	32	●	●				P7
		V1421604								

Large Chamfering

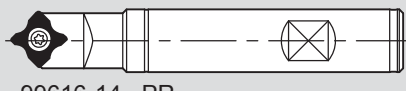

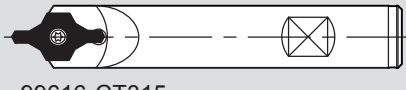

 99616-18		6	18		●					P23
	N9MT11T308LA									
 99616-28		16	28		●	*				P23
	N9MT11T308LA									

*Side grooving

Corner Rounding

 99616-16-25R		R1.0	R3.0		●					P24
	N9MT11T3R (4 cutting edges)									
 99616-14...RC		R1.0	R3.0		●					P25
	N9MT11T3RC (2 cutting edges)									
New  99616-22...RC		R4.0	R6.0		●					P26
	N9MT1704RC (2 cutting edges)									

Center Drilling

 99616-14...PR		2.0	3.15						●	P27
	N9MT11T3PR *Similar to DIN 332 R									
New  99616-CT315		2.78	3.15						●	P8
	N9MT1103CT *DIN 332 A / DIN 332 B									

Special Application

P34



... Special requests are welcomed.



Engraving Tool V045 / V060



Our Claim:

This is a revolutionary new concept of engraving tools with indexable carbide inserts. They offer you the ability to produce HIGH QUALITY ENGRAVING in most 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

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 (0.003") / rev. apply to aluminum;
0.05mm (0.002") / rev. apply to stainless steel.
Reduces engraving cycle time!

■ Economical

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

■ Applications

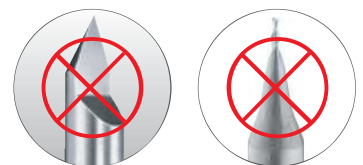
Universal for marking number and almost any character.
45° , 60° engraving inserts which can be used for marking serial numbers ; product codes ; dial scales ; signs ; logo outlines and almost any character which can be created by the NC programming system.

Now & Future



Engraving
45°/60°

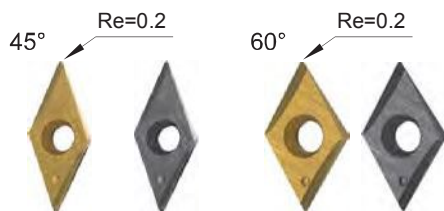
Yesterday



Low feedrate !

Indexable Engraving Tool

45°, 60°

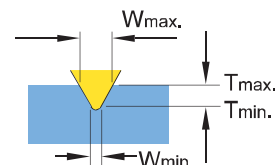


Inserts

- Feature:**
- 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.



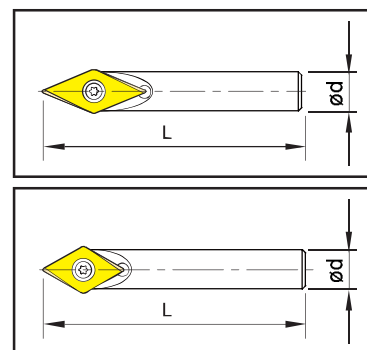
Code	Parts No.	Angle	Grade	Coating	Diagram	Dimensions			Wmin.	Wmax.	Tmax.
						L	S	Re			
0104501	V04506T1W06-2071	45°	K20F	TiN		6.35	2.0	0.2	0.4	2.1	2.0
0104502	V04506T1W06-2032			TiAlN							
0106001	V06006T1W06-2071	60°	K20F	TiN		6.35	2.0	0.2	0.5	2.7	2.0
0106002	V06006T1W06-2032			TiAlN							

• Other sizes also available upon request.

HOLDERS

Code	Parts No.	ød	L	Screw	Key
691001	00-99619-V045-06	6	40	NS-22044 0.8Nm	NK-T7
692001	00-99619-V060-06	6	40		

• DC slim chuck for extended length, see page 37.



Starter Kit

Code	Parts No.	Shank ø	Angle	Insert included	Content
691201-4501	00-99619-V045-03K-71	6	45°	V04506T1W06-2071	1 x holder 1 x T7 Key 3 x inserts
691201-4502	00-99619-V045-03K-32			V04506T1W06-2032	
692202-6001	00-99619-V060-03K-71		60°	V06006T1W06-2071	
692202-6002	00-99619-V060-03K-32			V06006T1W06-2032	





NC Spot Drill 142°

New

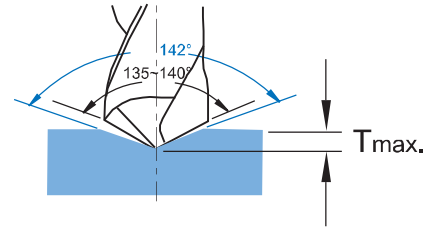


Inserts

Feature:

- For spotting before drilling by 135° - 140° point angle high performance drill.
- 142 degree indexable spotting drills. Maximum diameter up to 32mm.

- NC2071:**
- K20F grade, TiN coated, high positive geometry, fully ground cutting edge and relief angle.
 - Each insert has 2 cutting edges.
 - Universal grade for all unhardened steel and cast iron.



Code	Parts No.	Grade	Coating	Diagram	Dimensions			Dmax.	Tmax.
					L	S	Re		
0114201	V1420803-NC2071	K20F	TiN		8	2.38	0.8	16	2.8
0114211	V1421604-NC2071	K20F	TiN		14	4.76	1.2	32	5.5



V1420803-NC2071



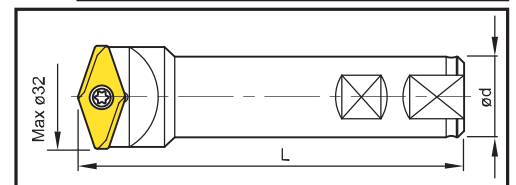
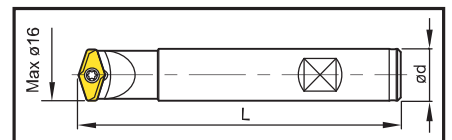
V1421604-NC2071

HOLDERS

Feature:

- Using spotting first may increase higher speed and feed rate of the after drills.
- Saving total machining time !
- Longer tool life of the after drills. Money saving !
- Higher accuracy of positioning and diameter tolerance !

Code	Parts No.	Insert Type	ød	L	Screw	Key
696001	00-99619-V142-16	V1420803-NC2071	16	100	NS-30072	NK-T9
696002	00-99619-V142-32	V1421604-NC2071	25	120	NS-50125	NK-T20





Indexable Center Drill



New



Form A



Form B



High feedrate !
Economical !



Expensive !



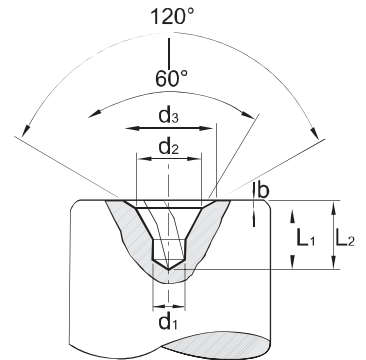
Low feedrate !

Inserts

Feature:

- Very high cutting speed and feed rate.
- Center drilling with indexable insert saves pre-setting time of tool change.
- Create center holes similar to DIN 332 Form A and DIN 332 Form B.
(Match USA standard #3 & #4 Combined drills & Countersink) .
- Carbide inserts provide for very long tool life.

- NC2071:**
- K20F grade, TiN coated, high positive ground cutting edge.
 - Universal grade for carbon steel, alloy steel, stainless steel and casting iron.
 - Each insert has 2 cutting edges.



Code	Parts No.	Grade	Coating	Dimensions					
				d1	d2	d3	b	L1 (min.)	L2 (min.)
018201	N9MT1103CT278-NC2071	K20F	TiN	7/64"	0.264"	0.472"	0.029"	0.275"	0.304"
018203	N9MT1103CT318-NC2071	K20F	TiN	3.15 (1/8")	6.7 (0.264")	10 (0.394")	0.9 (0.035")	5.9 (0.232")	6.8 (0.268")

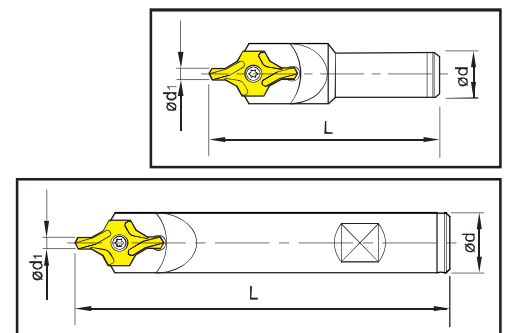


NC2071

- NC2032 grade for non-Ferrous metals are available on request.

HOLDERS

Code	Parts No.	ød	L	Screw	key
608001	00-99616-CT315-12	12	64	NS-30072 2.0 Nm	NK-T9
608002	00-99616-CT315-16	16	100	NS-30072 2.0 Nm	NK-T9
618002	00-99616-5/8-CT1/8	5/8"	4"	NS-30072 2.0 Nm	NK-T9



Cutting Data

- Tool center alignment is critical, center height adjusting sleeve is available on request.

Workpiece material	Vc (m/min.)	f (mm/rev.)
Carbon Steel	80~150	0.03~0.05
Alloy steel	80~150	0.03~0.05
Stainless Steel	65~120	0.02~0.04

- Base RPM on d1.

- Available shank diameter-Ø5, Ø6, Ø10, Ø12, Ø16, Ø20mm, Ø3/8", Ø1/2", Ø5/8", Ø3/4", M5, M6, M8
- Inserts are interchangeable.



Center Drilling



Spotting, Engraving



Engraving 60°/90°



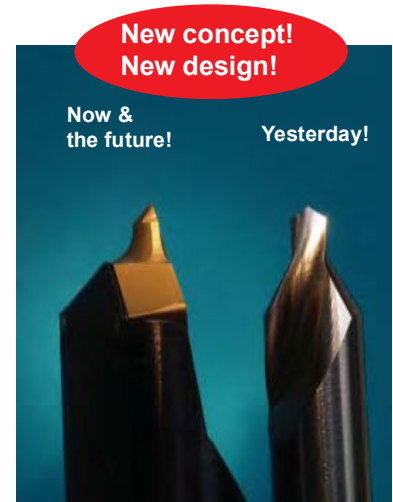
Centering, Turning



Spotting, Chamfering Grooving



Chamfering Corner Rounding

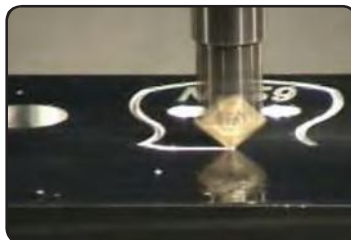


For Centering
Replace HSS center drill
with Carbide Insert
Increase cutting speed by 30 times

Application Example:



- 45° and 60° Engraving Tools.



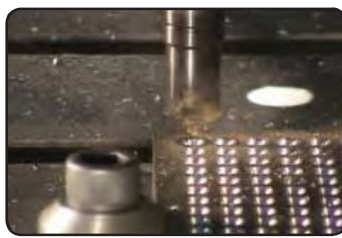
- Spotting, Grooving, Engraving on Machining Center.



- Turning, Chamfering, Facing on CNC Lathes.



- Cut a Serrated Workpiece.
- Single Pass Each Direction.



- Centering on Machining Center by PR Insert.



- Contour Chamfering on Machining Center.



Inserts

Features:

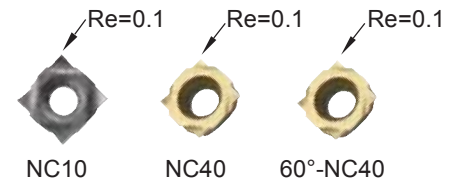
- 90° Indexable engraving insert with 4 cutting edges.
- No resharping required.
- For marking all types of work pieces.



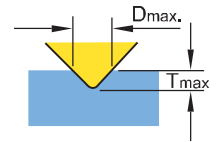
N9MT080201W-NC10 : • Submicron carbide insert, TiAlN coated, for Al, Al-alloy, hardened steel 40-50°, Stainless steel.

N9MT080201W-NC40 : • Submicron carbide insert, TiN coated, for all unhardened steel and cast iron, general purpose.

N9MT080201W-60-NC40 : • Submicron carbide insert, TiN coated, very positive angle for 60° engraving for all kind of steel and cast iron.

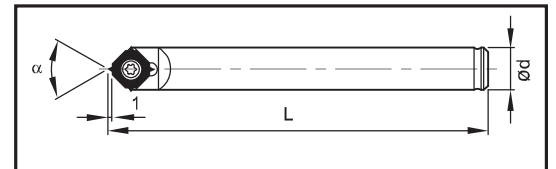


Code	Parts No.	α	Grade	Coating		Dimensions			Dmax.	Tmax.
						L	S	Re		
013404	N9MT080201W-60-NC40	60°	K20F	TiN		8	2.38	0.1	1.1	0.8
013405	N9MT080201W-NC40	90°	K20F	TiN		8	2.38	0.1	2.0	0.9
013406	N9MT080201W-NC10	90°	K20F	TiAlN		8	2.38	0.1	2.0	0.9



Holders

Code	Parts No.	ϕd	L	Screw	key
603001	00-99616-10	10	90	NS-30055 2.0 Nm	NK-T8
613001	00-99616-3/8	3/8"	90		



Single Set

- User friendly, each set is fitted with one complimentary insert.

Code	Parts No.	Shank ϕ	Total Length	Insert fitted	Dmax.	Tmax.
603101-3404	00-99616-10-02SW-60	10	90	N9MT080201W-60-NC40	1.1	0.8
603101-3405	00-99616-10-02SW			N9MT080201W-NC40	2.0	0.9
603101-3406	00-99616-10-02SWAL			N9MT080201W-NC10	2.0	0.9



Starter Package

- Selected package for starter who wants to try **Engraving Tool**.
- Included one insert on tool holder and 5 inserts in the pocket.
- Total 6 inserts are equal to 24 engraving tools.

Code	Parts No.	Shank ϕ	Insert included	Content
603201-3404	00-99616-10-ME6SW-60	10	N9MT080201W60-NC40	1 tool holder + 6 inserts + 1 key
603201-3405	00-99616-10-ME6SW	10	N9MT080201W-NC40	
603201-3406	00-99616-10-ME6SWAL	10	N9MT080201W-NC10	

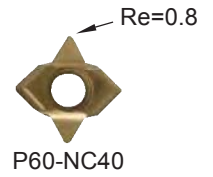




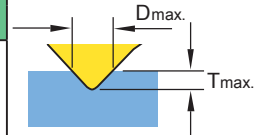
Inserts

Feature: • Fully ground spotting insert, for 60 degree spotting and engraving.

NC40: • P35 grade, TiN coated.
• Each insert has 2 cutting edges.



Code	Parts No.	Grade	Coating	Diagram	Dimensions			Dmax.	Tmax.
					L	S	Re		
014204	N9MT11T3P60-NC40	P35	TiN		11	3.97	0.8	6.2	4



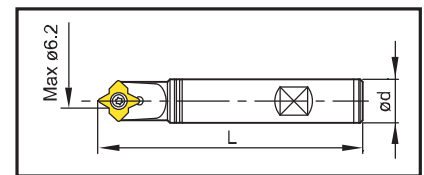
Holders

Features: • 60 degree spotting drill with indexable insert.
• Using standard NC Spot Drill shank.
• A single cutting edge design creates higher precision and position when spotting.

Applications: • For spotting, engraving, small grooving on milling machines, machining centers.
• For carbon steel, alloy steel and cast iron, general purpose.



Code	Parts No.	ød	L	Screw	key
604002	00-99616-14-12	12	100	NS-35080 2.5 Nm	NK-T15
604004	00-99616-14	16	100		





Inserts

Feature:

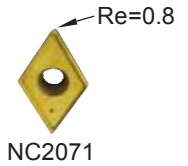
- 60 degree indexable spotting insert, Dmax 13mm.
- Special geometry with supporting edges for using in high speed machining.
- Excellent tool for grooving, save machining time !

NC2071 :

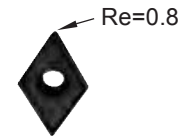
- K20F grade, TiN coated, high positive ground cutting edge and relief angle.
- Universal grade for carbon steel, alloy steel and cast iron.
- Each insert has 2 cutting edges.

NC9076 :

- High positive geometry and sharpen edge.
- DLC coated, super good for Al, Al-alloy, copper, brass and bronze.
- Perform excellent surface on non-ferrous metal.
- Each insert has 2 cutting edges.

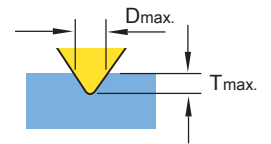


NC2071



NC9076

Code	Parts No.	Grade	Coating		Dimensions			Dmax.	Tmax.
					L	S	Re		
015201	V9MT12T3CT-NC2071	K20F	TiN		12.7	3.97	0.8	13	11.7
015202	V9MT12T3CT-NC9076	K20F	DLC						



HOLDERS

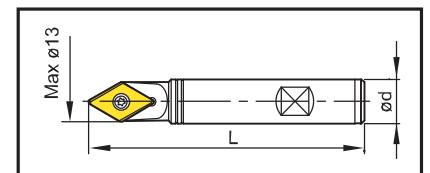
Features:

- 60 degree spotting drill with indexable insert.
- A single cutting edge creates higher precision and position when spotting.

Applications:

- Spotting, engraving, grooving and chamfering on milling machines, machining centers.
- Spotting, facing on CNC Lathes.

Code	Parts No.	ød	L	Screw	Key
605001	00-99616-13V	16	100	NS-35080 2.5 Nm	NK-T15
615001	00-99616-13V-5/8	5/8"	100	NS-35080 2.5 Nm	NK-T15



Single Set

• User friendly, each set is fitted with one complimentary insert.

Code	Parts No.	Shank ø	Total Length	Insert fitted	Dmax.	Tmax.
605101-5201	00-99616-13V-02S	16	100	V9MT12T3CT-NC2071	13	11.7
605101-5202	00-99616-13V-02SAL	16	100	V9MT12T3CT-NC9076	13	11.7





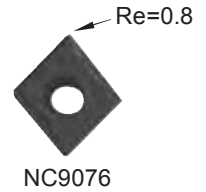
Inserts

- Feature:**
- 82 degree indexable spotting insert.
 - Match the geometry of American standard screw hole.
 - Special geometry with supporting edges for use in high speed machining.

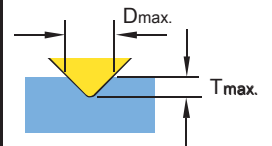
- NC2071 :**
- K20F grade, TiN coated, high positive ground cutting edge and relief angle.
 - Universal grade for carbon steel, alloy steel and cast iron.
 - Each insert has 2 cutting edges.



- NC9076 :**
- High positive geometry and sharp edge.
 - DLC coated, super good for Al, Al-alloy, copper, brass and bronze.
 - Produces excellent surface finish on non-ferrous metals.
 - Each insert has 2 cutting edges.



Code	Parts No.	Grade	Coating		Dimensions			Dmax.	Tmax.
					L	S	Re		
0108201	V0820802-NC2071	K20F	TiN		8	2.38	0.4	9	4.8
0108202	V0820802-NC9076	K20F	DLC		8	2.38	0.4	9	4.8
0108211	V08212T3-NC2071	K20F	TiN		12.7	3.97	0.8	14	7.5
0108212	V08212T3-NC9076	K20F	DLC		12.7	3.97	0.8	14	7.5

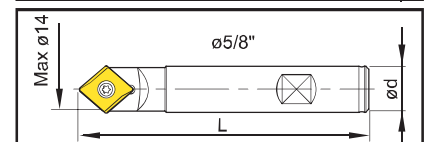
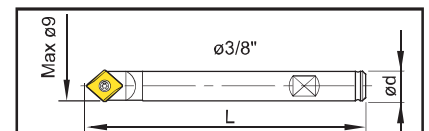


HOLDERS

- Features:**
- 82 degree spotting drill with indexable insert.
 - Special cutting edge design gives higher precision and position when spotting

- Applications:**
- Spotting, engraving, grooving and chamfering on milling machines, machining centers.
 - Spotting, facing on CNC Lathes.

Code	Parts No.	Insert type	ød	L	Screw	Key
693001	00-99619-V082-3/8	V0820802	3/8"	90	NS-30055 2.0 Nm	NK-T8
693002	00-99619-V082-5/8	V08212T3	5/8"	100	NS-35080 2.5 Nm	NK-T15



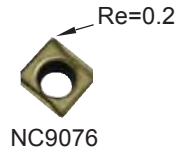


Inserts

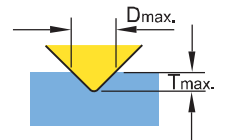
Features: Mini spotting drill with indexable insert, low cutting power required. Especially good for **Swiss type automatic lathes and CNC lathes.**

- NC2071 :**
- K20F grade, TiN coated, fully ground cutting edge and relief angle.
 - Geometry with supporting edges to stable the cutting condition on low power machine.
 - Each insert has 2 cutting edges, for carbon steel, alloy steel and cast iron.

- NC9076 :**
- High positive geometry and sharp edge.
 - DLC coated, super good for Al, Al-alloy, copper, brass and bronze.
 - Produces an excellent surface finish on non-ferrous metal.
 - Each insert has 2 cutting edges.



Code	Parts No.	Grade	Coating	Diagram	Dimensions			Dmax.	Tmax.
					L	S	Re		
011201	N9MT05T1CT-NC2071	K20F	TiN		5	1.8	0.2	6	3.5
011202	N9MT05T1CT-NC9076	K20F	DLC						



HOLDERS

Features:

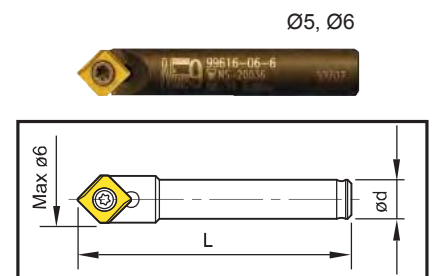
- Smallest indexable spotting drill holder.
- A single cutting edge creates higher precision and position when spotting.

Applications:

- Spotting, engraving, and chamfering on milling machines, machining centers.
- Spotting, facing on CNC Lathes.

Code	Parts No.	ød	L	Screw	key
601001	00-99616-06-6	6	35	NS-20036 0.8 Nm	NK-T6
601002	00-99616-06-5	5	35		
601003	00-99616-06-6L	6	60		

Note:601003 is carbide shank holder.





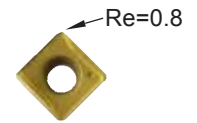
Shank
Ø10

Shank
Ø3/8"

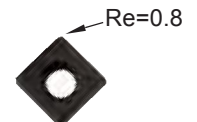
Screw
Fit
M5, M6

Inserts

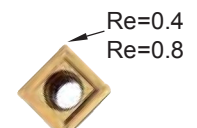
- H-NC40** : ● Best choice for spotting application.
 ● Special geometry with supporting edges for use in high speed machining.
 ● Sharp edge good for long cutting chip metals, such as low carbon steel, stainless steel and Ti, Ti-alloy.
 ● Each insert has 2 cutting edges.
- H-NC9076** : ● High positive geometry and sharp edge.
 DLC coated, super good for Al, Al-alloy, copper, brass and bronze.
 ● Produces excellent surface finish when chamfering non-ferrous metals.
 ● Each insert has 2 cutting edges.
- NC40** : ● General purpose, universal grade for all unhardened steel and cast iron.
 ● Each insert has 4 cutting edges.
- NC10** : ● High positive angle and fully ground cutting edge and relief angle.
 ● Universal grade for Al, Al-alloy, non-ferrous metal and stainless steel.
 ● Each insert has 4 cutting edges.



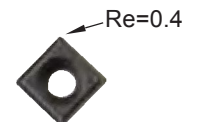
H-NC40



H-NC9076

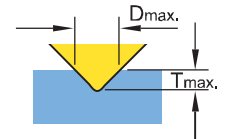


NC40



NC10

Code	Parts No.	Grade	Coating		Dimensions			Dmax.	Tmax.
					L	S	Re		
013201	N9MT0802CT2T-H-NC40	K20F	TiN		8	2.38	0.8	10	4
013202	N9MT0802CT2T-H-NC9076	K20F	DLC		8	2.38	0.8	10	4
013401	N9MT080208CT-NC40	K20F	TiN		8	2.38	0.8	10	4
013402	N9MT080204CT-NC40	K20F	TiN		8	2.38	0.4	10	4
013403	N9MT080204CT-NC10	K20F	TiAlN		8	2.38	0.4	10	4

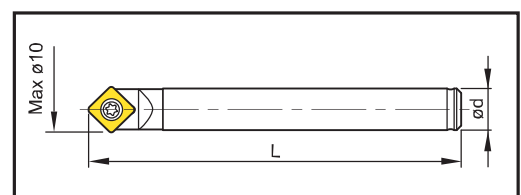
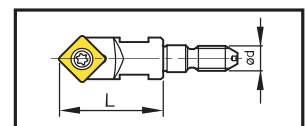


Holders

- Features:** ● Indexable spotting drill holders.
 ● Single cutting edge design gives higher precision when spotting.

- Applications:** ● Spotting, engraving, grooving and chamfering on milling machines, machining centers.
 ● Spotting, facing on CNC Lathes.

Code	Parts No.	ød	L	Screw	Key
603001	00-99616-10	10	90	NS-30055 2.0 Nm	NK-T8
603003	00-99616-10-SL10	10	90		
613001	00-99616-10-3/8	3/8"	90		
623001	00-99616-10-M5	M5	25		
623002	00-99616-10-M6	M6	25		



Note: ● 603003 with side lock flat on shank.

● Nine9 extension bar for M6 screw fit holder, see page 37.



Single Set

- User friendly, each set is fitted with one complimentary insert.

Code	Parts No.	Shank ø	Total Length	Insert fitted	Dmax.	Tmax.
603101-3401	00-99616-10-02S	10	90	N9MT080208CT-NC40	10	4
603101-3403	00-99616-10-02SAL	10	90	N9MT080204CT-NC10	10	4
603101-3201	00-99616-10-H-02S	10	90	N9MT0802CT2T-H-NC40	10	4
613101-3401	00-99616-10-3/8-02S	3/8"	3.54"	N9MT080208CT-NC40	0.394"	0.157"
613101-3403	00-99616-10-3/8-02SAL	3/8"	3.54"	N9MT080204CT-NC10	0.394"	0.157"



Starter Package-90°

- Selected package for starter who wants to try **NC Spot Drill**.
- Included one insert on tool holder and 5 inserts in the pocket.
All kits are packed by blister card.
- Total 6 inserts are equal to 24 spot drills.

Code	Parts No.	Shank ø	Insert included	Content
603201-3401	00-99616-10-ME6	10	N9MT080208CT-NC40	1 tool holder + 6 inserts + 1 key
603201-3403	00-99616-10-ME6AL	10	N9MT080204CT-NC10	
603201-3201	00-99616-10-H-ME6	10	N9MT0802CT2T-H-NC40	
613201-3401	00-99616-10-IN6	3/8"	N9MT080208CT-NC40	
613201-3403	00-99616-10-IN6AL	3/8"	N9MT080204CT-NC10	



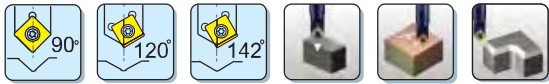
5 Pcs-Kit Package *New*

- Economy pack for larger end users.
- **Do not miss it !**

Shank	Parts No.	Contents
10	00-99616-10-05KIT	5 x tool holders + 1 key
3/8"	00-99616-3/8 PACK	



~ **Special Offer** ~



Inserts



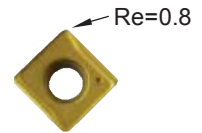
- H-NC40** :
- Best choice for spotting application.
 - Special geometry with supporting edges for use in high speed machining.
 - Sharp edge good for long cutting chip metals, such as low carbon steel, stainless steel and Ti, Ti-alloy.
 - Each insert has 2 cutting edges.

- H-NC9076** :
- High positive geometry and sharp edge same as grade H-NC40. DLC coated, super good for Al, Al-alloy, copper, brass and bronze.
 - Produces excellent surface finish when chamfering non-ferrous metals.
 - Each insert has 2 cutting edges.

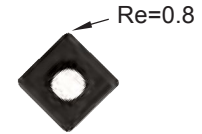
- NC40** :
- General purpose, universal grade for all unhardened steel and cast iron.
 - Each insert has 4 cutting edges.

- NC10** :
- High positive angle and fully ground cutting edge and relief angle.
 - Universal grade for Al, Al-alloy, non-ferrous metal and stainless steel.
 - Each insert has 4 cutting edges.

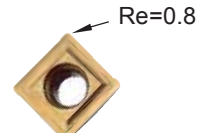
- NC60** :
- Cermet insert, fully ground cutting and relief angle, for hardened steel up to HRC55 .
 - Each insert has 4 cutting edges.



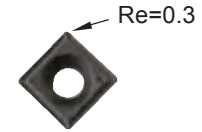
H-NC40



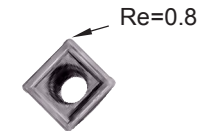
H-NC9076



NC40

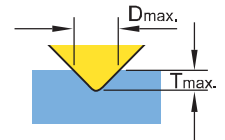


NC10



NC60

Code	Parts No.	Grade	Coating	Diagram	Dimensions			Dmax.	Tmax.
					L	S	Re		
014202	N9MT11T3CT2T-H-NC40	K20F	TiN		11	3.97	0.8	14	7
014203	N9MT11T3CT2T-H-NC9076	K20F	DLC		11	3.97	0.8	14	7
014401	N9MT11T3CT-NC40	P35	TiN		11	3.97	0.8	14	7
014402	N9MT11T3CT-NC10	K10F	TiAlN		11	3.97	0.3	14	7
014403	N9MT11T3CT-NC60	CERMET			11	3.97	0.8	14	7

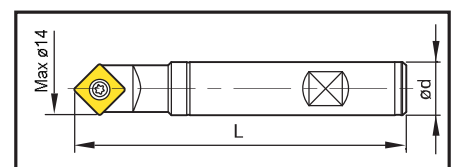
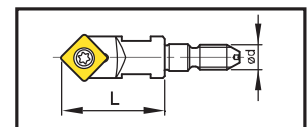


HOLDERS-90°

- Features:**
- Indexable insert spotting drill holders.
 - The most wide range application of spotting drills for milling and turning operation.
 - Holders and inserts are interchangeable.

- Applications:**
- Spotting, engraving, grooving and chamfering on milling machines, machining centers.
 - Spotting, facing, turning on CNC Lathes.

Code	Parts No.	ød	L	Screw	Key
604002	00-99616-14-12	12	100	NS-35080 2.5 Nm	NK-T15
604004	00-99616-14	16	100		
604007	00-99616-14-150L	16	150		
604009	00-99616-14-220L	20	220		
614001	00-99616-14-1/2	1/2"	4"		
614002	00-99616-14-5/8	5/8"	4"		
624001	00-99616-14-M8	M8	30		



Note: • Nine9 extension bar for M8 screw fit holder, see page 37.



Single Set-90°

- User friendly, each set is fitted with one complimentary insert.

Code	Parts No.	Shank ø	Total Length	Insert fitted	Dmax.	Tmax.
604102-4401	00-99616-14-12-02S	12	100	N9MT11T3CT-NC40	14	7
604102-4402	00-99616-14-12-02SAL			N9MT11T3CT-NC10		
604102-4202	00-99616-14-12-H-02S			N9MT11T3CT2T-H-NC40		
604104-4401	00-99616-14-02S	16	100	N9MT11T3CT-NC40	14	7
604104-4402	00-99616-14-02SAL			N9MT11T3CT-NC10		
604104-4202	00-99616-14-H-02S			N9MT11T3CT2T-H-NC40		
614101-4401	00-99616-14-1/2-02S	1/2"	4"	N9MT11T3CT-NC40	0.6"	0.275"
614101-4402	00-99616-14-1/2-02SAL			N9MT11T3CT-NC10		
614102-4401	00-99616-14-5/8-02S	5/8"	4"	N9MT11T3CT-NC40	0.6"	0.275"
614102-4402	00-99616-14-5/8-02SAL			N9MT11T3CT-NC10		



Starter Package-90°

- Selected package for starter who wants to try **NC Spot Drill**.
- Included one insert on tool holder and 5 inserts in the pocket.
All kits are packed by blister card.
- Total 6 inserts are equal to 24 spot drills.

Code	Parts No.	Shank ø	Insert included	Content
604202-4401	00-99616-14-12-ME6	12	N9MT11T3CT-NC40	1 tool holder + 6 inserts + 1 key
604202-4402	00-99616-14-12-ME6AL		N9MT11T3CT-NC10	
604204-4401	00-99616-14-ME6		N9MT11T3CT2T-H-NC40	
604204-4402	00-99616-14-ME6AL	16	N9MT11T3CT-NC40	
604204-4202	00-99616-14-H-ME6		N9MT11T3CT-NC10	
614202-4401	00-99616-14-IN6		N9MT11T3CT2T-H-NC40	
614202-4402	00-99616-14-IN6AL	5/8"	N9MT11T3CT-NC40	
			N9MT11T3CT-NC10	



5 Pcs-Kit Package New

- Economy pack for larger end users.
- **Do not miss it !**

Shank	Parts No.	Contents
16	00-99616-14-05KIT	5 x tool holders + 1 key
5/8"	00-99616-14-5/8 PACK	



~ **Special Offer** ~



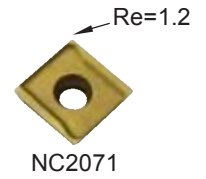
Shank
Ø20

Shank
Ø25

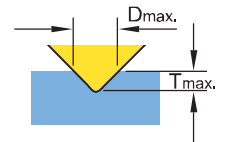
Inserts

Feature: • 90 degree indexable spot drill insert, Dmax 22mm.

- NC2071:**
- K20F grade, TiN coated, high positive geometry, fully ground cutting edge and relief angle.
 - Each insert has 2 cutting edges.
 - Universal grade for all unhardened steel and cast iron.



Code	Parts No.	Grade	Coating	Diagram	Dimensions			Dmax.	Tmax.
					L	S	Re		
016201	N9MT1704CT-NC2071	K20F	TiN		17	4.76	1.2	22	10

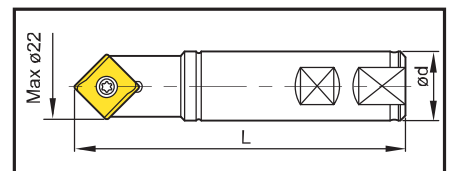


HOLDERS

- Features:**
- 90 degree spotting drill with indexable insert.
 - A single cutting edge creates higher precision and position when spotting.

- Applications:**
- Spotting, engraving, grooving and chamfering on milling machines, machining centers.
 - Spotting, facing on CNC Lathes.

Code	Parts No.	ød	L	Screw	Key
606001	00-99616-22	20	100	NS-50125 5.5 Nm	NK-T20
606002	00-99616-22-150L	25	150		



Single Set

- User friendly, each set is fitted with one complimentary insert.

Code	Parts No.	Shank ø	Total Length	Insert fitted	Dmax.	Tmax.
606101-6201	00-99616-22-02S	20	100	 N9MT1704CT-NC2071	22	10

