



Micro Spot Drill >>>

90° / 120° / 142°

0.1 & 0.2mm

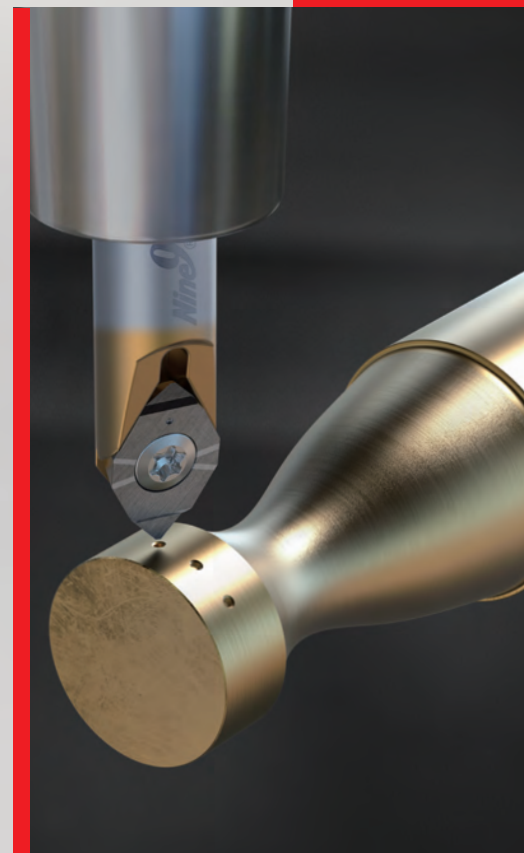
It produces a consistent surface for micro drill successfully to enter the workpiece.

P M K N H

► One Holder Supports The Entire X060 Series Insert.



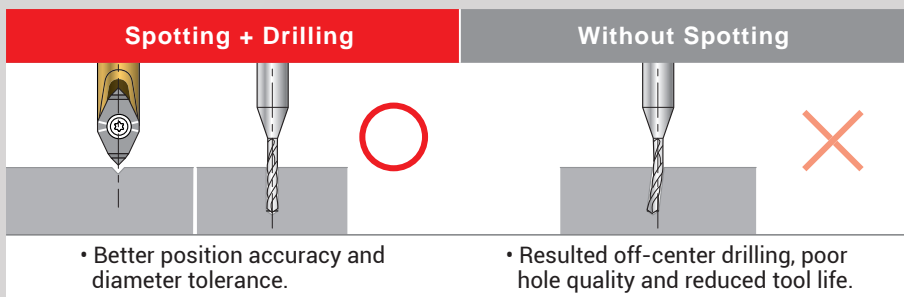
* Most of hole size in Swiss type lathe or small milling machine is between 0.2-1mm.



Features >

► Each Insert Has 2 Cutting Edges.

- Micro spot drill geometries are designed to optimize rigidity and accuracy with a point angle to guide micro drill towards the hole's center line.
- Carbide insert can stand very long tool life.
- It produces a consistent surface for micro drill to enter the workpiece especially for round, angled or curved surfaces.



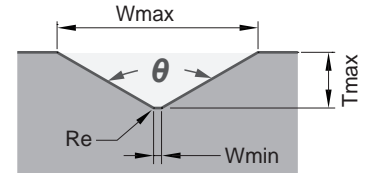
0.1 and 0.2_{mm} Micro Spot Drill 90°, 120° & 142°

90°
120°
142°



▶ Inserts >>

- NC2032:** • For all kinds of steel from < HRC 40, carbon steel, alloy steel, and cast iron.
- NC2035:** • ALDURA coating, reduces heat and tool wear.
• For steel with heat treatment up to HRC 50.
- XP9001:** • For non-ferrous metal, aluminum, brass, copper, plastic, acrylic.

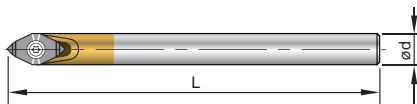


Angle ±0.5	Code	Parts No.	Coating	Grade	Dimensions			Wmin.	Wmax.	Tmax.			
					L	S	Re						
90°	01X0082	NC2032	TiAlN	K20F	6	2.05	0.02	0.1	1.1	0.5			
	01X0221	X060A90W010R	NC2035								ALDURA		
	01X0220	XP9001	Uncoated										
90°	01X0207	NC2032	TiAlN	K20F			6	2.05	0.04	0.2	2.2	1.0	
	01X0208	*X060A90W020R	NC2035										ALDURA
	01X0209	XP9001	Uncoated										
120°	01X0222	X060A120W010R	NC2032	TiAlN	K20F	0.02			0.1	2.53	0.7		
142°	01X0223	X060A142W010R	NC2032	TiAlN		0.02			0.1	2.42	0.4		

* X060A90W020R is also good for engraving.

▶ Holder >>

- One holder supports the entire X060 series of carbide inserts.
- XL (100mm length) is only for Al, Al-alloy cutting, unbalanced <0.6gm.



Code	Parts No.	Shank	Ød	L	Screw	Key
69X001	00-99619-X060-06	Steel	6	40	*NS-22044 0.9Nm	NK-T7
69X002	00-99619-X060-06L	Carbide	6	60		
69X003	00-99619-X060-06LS	Steel	6	60		
69X004	00-99619-X060-06XL	Carbide	6	100		
69X005	00-99619-X060-08	Steel	8	60		

*Torque screwdriver is recommended.

▶ Cutting Data >>

Workpiece Material	S (r.p.m)	f (mm/rev.)			Grade of Insert
		X060A90W010R	X060A90W020R	X060A120W010R X060A142W010R	
P Carbon steel	8000 ~ 40000	0.002 ~ 0.012	0.002 ~ 0.015	0.002 ~ 0.015	NC2032
Alloy steel		0.002 ~ 0.010	0.002 ~ 0.010	0.002 ~ 0.010	NC2032, NC2035
M Stainless steel		0.002 ~ 0.008	0.002 ~ 0.010	0.002 ~ 0.010	NC2032
K Cast Iron		0.002 ~ 0.010	0.002 ~ 0.010	0.002 ~ 0.010	NC2032
N Non-ferrous metal		0.002 ~ 0.015	0.002 ~ 0.020	-	XP9001
H Hardened steel < HRC50		0.002 ~ 0.006	0.002 ~ 0.006	-	NC2035