



Shank
Ø12
Ø16

Shank
Ø1/2"
Ø5/8"

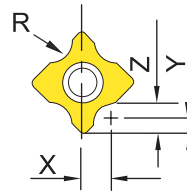
Inserts

Features:

- Higher cutting speed and feed rate.
- Various corner radius inserts can fit on same holder.
- Combination corner rounding and 45° chamfering application on same insert.
- Carbide insert can stand very long tool life.

N9MT11T3RCXX-NC40 :

- Submicron carbide insert, K20F, TiN coated, universal design for all kind of materials.
- Inserts are CNC ground for precision radius location.
- Each insert has two cutting edges.



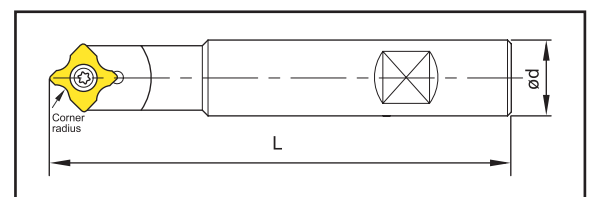
Code	Insert Code	Grade	Coating	Corner radius(R)	offset			Dimensions	
					X	Y	Z	L	S
014209	N9MT11T3RC10-NC40	K20F	TiN	1.0	2.75	1.5	2.5	11.11	3.97
014210	N9MT11T3RC15-NC40	K20F	TiN	1.5	3.25	1.5	3	11.11	3.97
014211	N9MT11T3RC20-NC40	K20F	TiN	2.0	3.75	1.5	3.5	11.11	3.97
014212	N9MT11T3RC25-NC40	K20F	TiN	2.5	4.25	1.5	4	11.11	3.97
014213	N9MT11T3RC30-NC40	K20F	TiN	3.0	4.75	1.4	4.4	11.11	3.97
014214	N9MT11T3RC1/64"-NC40	K20F	TiN	1/64	0.086"	0.059"	0.0747"	0.437"	0.156"
014215	N9MT11T3RC1/32"-NC40	K20F	TiN	1/32	0.101"	0.059"	0.090"	0.437"	0.156"
014216	N9MT11T3RC1/16"-NC40	K20F	TiN	1/16	0.133"	0.059"	0.122"	0.437"	0.156"
014217	N9MT11T3RC3/32"-NC40	K20F	TiN	3/32	0.164"	0.059"	0.153"	0.437"	0.156"
014218	N9MT11T3RC 1/8"-NC40	K20F	TiN	1/8	0.199"	0.055"	0.180"	0.437"	0.156"

HOLDERS

Features:

- For corner rounding using NC Spot Drill shank.
- Good for small work pieces.
- 45° degree chamfering is available by using straight position of cutting edge.

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		
614001	00-99616-14-1/2"	1/2"	4"		
614002	00-99616-14-5/8"	5/8"	4"		





Shank
Ø20

Shank
Ø25

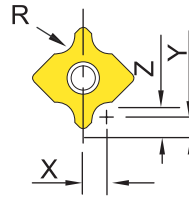
Inserts

Features:

- Higher cutting speed and feed rate.
- Various corner radius inserts can fit on same holder.
- Combination corner rounding and 45° chamfering application on same insert.
- Carbide insert can stand very long tool life.

N9MT1704RCXX-NC2071 :

- Submicron carbide insert, K20F, TiN coated, universal design for all kind of materials.
- Inserts are CNC ground for precision radius location.
- Each insert has two cutting edges.



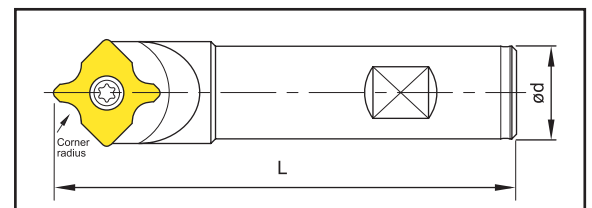
Code	Insert Code	Grade	Coating	Corner radius(R)	offset			Dimensions		
					X	Y	Z			
016202	N9MT1704RC40-NC2071	K20F	TiN	4.0	2.15	2	6		L	S
016203	N9MT1704RC50-NC2071	K20F	TiN	5.0	2.10	2	7		17	4.76
016204	N9MT1704RC60-NC2071	K20F	TiN	6.0	2.10	2	8		17	4.76

HOLDERS

Features:

- For corner rounding using NC Spot Drill shank.
- Good for small work pieces, which need large corner rounding.
- 45° degree chamfering is available by using straight position of cutting edge.

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		





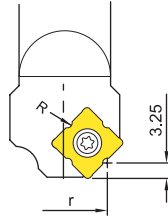
Inserts

Features:

- Various corner radius inserts can fit on same holder.
- Carbide insert can stand very long tool life.

N9MT11T3RXX-NC40 :

- Carbide insert, P35, TiN coated, for steel and cast iron, general purpose.
- Inserts are CNC ground for precision radius location.
- Each insert has four cutting edges.



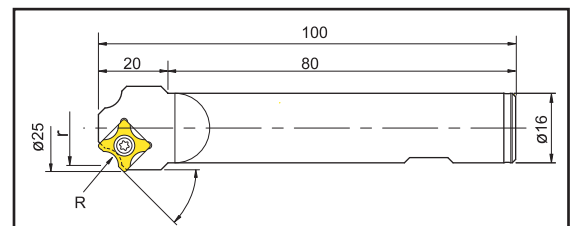
Code	Insert Code	Grade	Coating	Corner radius(R)	Tool radius offset (r)	Dimensions		
						L	S	
014404	N9MT11T3R10-NC40	P35	TiN	1.0	9.25		11.11	3.97
014405	N9MT11T3R15-NC40	P35	TiN	1.5	9.5		11.11	3.97
014406	N9MT11T3R20-NC40	P35	TiN	2.0	9.75		11.11	3.97
014407	N9MT11T3R25-NC40	P35	TiN	2.5	10		11.11	3.97
014408	N9MT11T3R30-NC40	P35	TiN	3.0	10.25		11.11	3.97

Holders

Features:

- Center of radius of each tool is dedicated.
- Tool offset can be set after measuring tool length by tool presetter or Z-Zero Setter.

Code	Parts No.	ød	L	Screw	Key
604015	00-99616-16-25R	16	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	Corner radius(R)
604115-4404	00-99616-16-25R-R10	16	100	N9MT11T3R10-NC40	1.0
604115-4405	00-99616-16-25R-R15			N9MT11T3R15-NC40	1.5
604115-4406	00-99616-16-25R-R20			N9MT11T3R20-NC40	2.0
604115-4407	00-99616-16-25R-R25			N9MT11T3R25-NC40	2.5
604115-4408	00-99616-16-25R-R30			N9MT11T3R30-NC40	3.0



N9MT-R Insert

N9MT-RC Insert

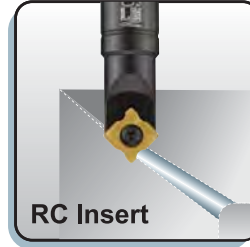
Corner Rounding Tool

Determine spindle speed and feed:

To decide running speed of the tools and feed rate, please calculate spindle speed and feed rate according to the following formula and cutting data:

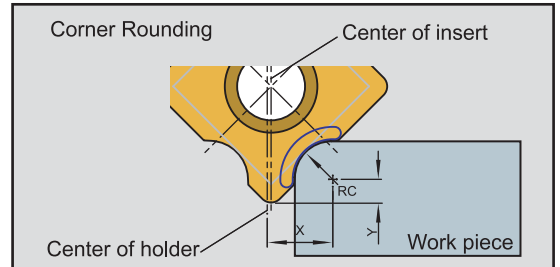
Calculate spindle speed

$d = 2 \times X$	mm	d = diameter of the tool for calculation purpose
$d = 2 \times r$	mm	X = tool radius offset (ref. page 23~24 for RC inserts)
$S = \frac{V_c \times 1000}{d \times \pi}$	r.p.m.	r = tool radius offset (ref. page 25 for R inserts)
$F = S \times f$	mm/min.	V_c = cutting speed m/min.
		S = Spindle speed
		F = Feed rate
		f = feed per rev. mm/rev.



Calculate tool length offset on machining center

$TL = TL' - Y$,	X = tool radius offset (ref. page 23~24 for RC inserts)
$H = X$ or r	r = tool radius offset (ref. page 25 for R inserts)
	Y = distance to the center of radius. (page 23~24 for RC inserts)
	TL' = tool length
	TL = tool length offset
	H = tool radius offset



Recommended cutting speed for different materials:

Corner Rounding R Insert

Workpiece material	V_c (m/min.)	f (mm/rev.)	Grade of insert
Carbon Steel	120~150	0.05~0.10	NC40
Alloy steel	100~120	0.04~0.08	NC40
High alloy steel	60~80	0.03~0.06	NC40
Hardened steel <HRC40°	60~80	0.03~0.06	NC40
Stainless steel	50~60	0.03~0.06	NC40
Gray casting iron	80~100	0.05~0.10	NC40
Aluminum, Al-alloy Si < 12%	200~250	0.05~0.10	NC40
Al-alloy Si >12%	150~200	0.05~0.10	NC40
Copper	200~250	0.05~0.10	NC40
Brass and Bronze	150~200	0.05~0.10	NC40

Corner Rounding RC Insert

Workpiece material	V_c (m/min.)	f (mm/rev.)	Grade of insert
Carbon Steel	80~150	0.05~0.10	NC40
Alloy steel	80~150	0.05~0.10	NC40
High alloy steel	80~150	0.04~0.08	NC40
Hardened steel <HRC40°	60~80	0.04~0.08	NC40
Stainless steel	60~100	0.05~0.10	NC40
Gray casting iron	80~150	0.05~0.10	NC40
Aluminum, Al-alloy Si < 12%	150~300	0.05~0.10	NC40
Al-alloy Si >12%	150~250	0.05~0.10	NC40
Copper	200~250	0.05~0.10	NC40
Brass and Bronze	150~250	0.05~0.10	NC40