
 NANOLOY PCLNL2525-M12

 NANOLOY SVJBL2525-M16

NANOLOY ●●●●

ISO

TURNING INSERT

Turning insert for ISO S,M group

“N-IT” SERIES

Nano ultrafine powder technology & optimal geometry
for aerospace and automobile parts machining

Turning insert for ISO S,M group

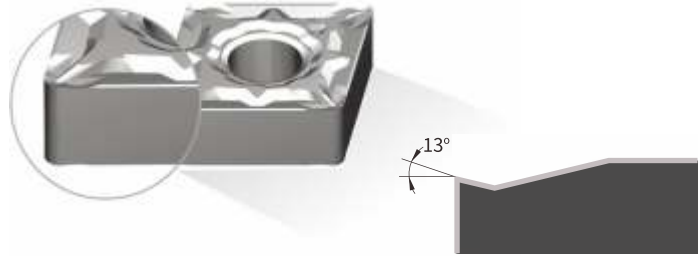
1. Excellent hardness and wear resistance
2. Designed for ISO S,M group (Prevent built up edge and burrs)
3. Various geometries from finishing to roughing

GEOMETRY FEATURE

F11 Chip Breaker

Features

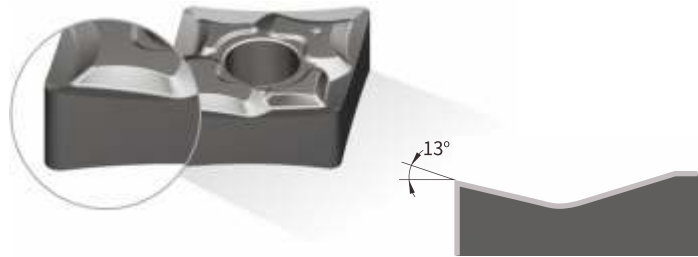
- Prevents B.U.E with sharp edge.
- High rake angle applied in side cutting edge.
- Optimized in finishing ISO S,M group.



7FM Chip Breaker

Features

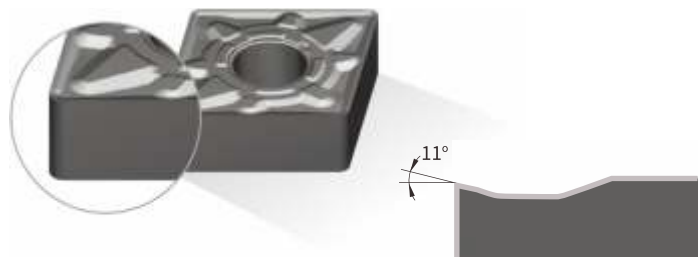
- Waved cutting edge.
- Guaranteed high quality surface roughness.
- Optimized in semi - finishing ISO S,M group.



M11 Chip Breaker

Features

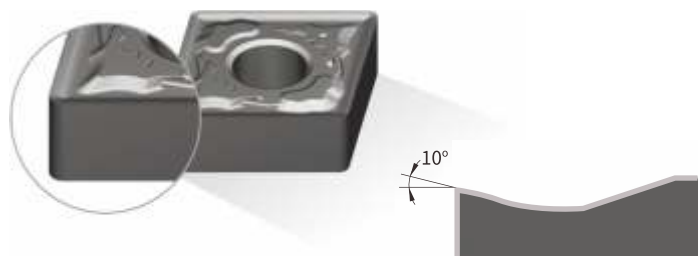
- Stable chip evacuation.
- Applied variable land for crater wear resistance.
- Prevents B.U.E with sharp edge.
- Optimized in medium machining ISO S,M group.



M22 Chip Breaker

Features

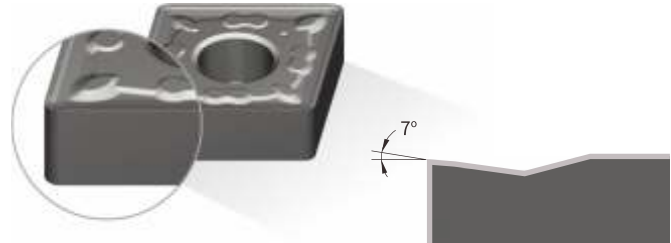
- Sharp cutting edge & low cutting force.
- Stable chip evacuation.
- Guaranteed high quality surface roughness.
- Optimized in medium machining ISO S,M group.



R11 Chip Breaker

Features

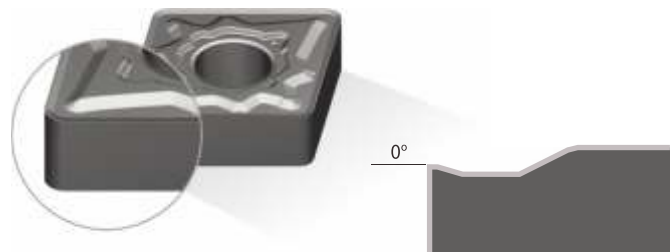
- Excellent for cutting edge strength.
- Designed for deep depth of cut.
- Optimized in roughing ISO S,M group.



R21 Chip Breaker

Features

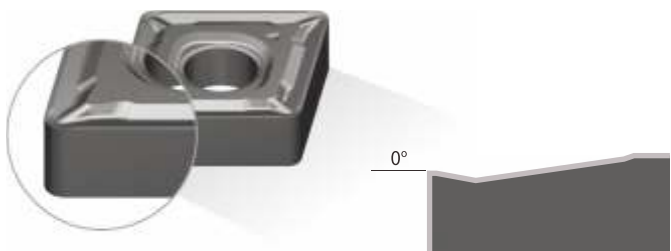
- Excellent for cutting edge strength.
- Designed for deep depth of cut.
- Optimized in universal roughing machining.



M51 Chip Breaker

Features

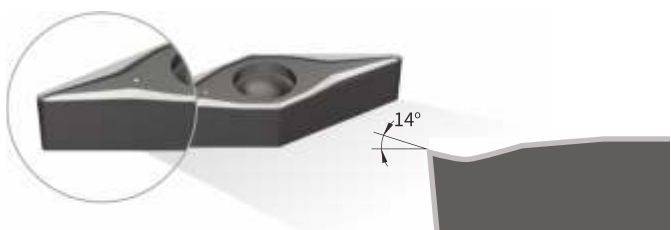
- Low cutting force.
- Excellent chip evacuation at low feed, depth of cut.
- Optimized in universal medium machining.













2FM Chip Breaker

Features

- Prevents B.U.E with sharp edge.
- Guaranteed high quality surface roughness at finishing.
- Optimized in finishing ISO S,M group.



TYPE OF APPLICATION AREA

Chip Breaker	Corner section	Recommended cutting condition										Features
		ap (mm)										
		0.7	1.4	2.1	2.8	3.5	4.2	4.9	5.6	6.3		
feed (mm/rev)												
0.07	0.14	0.21	0.28	0.35	0.42	0.49	0.56	0.63				
 F11 Finishing		0.1 ~ 1.5				0.12 ~ 0.32						<ul style="list-style-type: none"> Prevents B.U.E with sharp edge Stable chip evacuation
 M11 Medium					1.2 ~ 4.5	0.12 ~ 0.45						<ul style="list-style-type: none"> Stable chip evacuation Applied variable land for crater wear resistance
 M22 Medium				0.5 ~ 3.0		0.10 ~ 0.30						<ul style="list-style-type: none"> Sharp cutting edge & low cutting force Guaranteed high quality surface roughness
 M51 Medium				0.7 ~ 3.5		0.25 ~ 0.50						<ul style="list-style-type: none"> Low cutting force Excellent chip evacuation at low feed, depth of cut
 R11 Roughing							2.4 ~ 6.0	0.18 ~ 0.48				<ul style="list-style-type: none"> Excellent for cutting edge strength Designed for deep depth of cut

M Stainless steel

Roughing: R11

Medium: M22, M11, M51

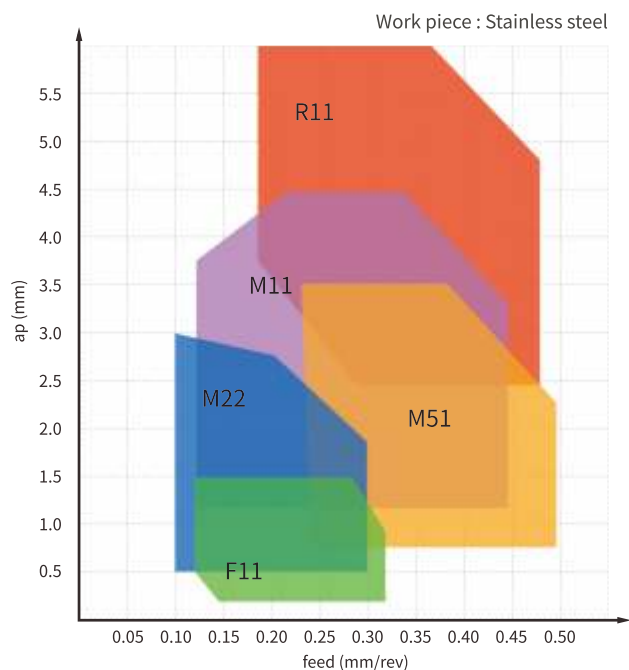
Finishing: F11

S HRSA




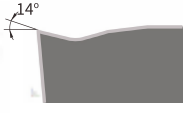






Roughing: R21, R11

Medium: M22, M11

Finishing: F11




TYPE OF APPLICATION AREA

Chip Breaker	Corner section	Recommended cutting condition										Features			
		ap (mm)													
		0.4	0.8	1.2	1.6	2.0	2.4	2.8	3.2	3.6					
feed (mm/rev)															
0.04	0.08	0.12	0.16	0.20	0.24	0.28	0.32	0.36							
 F11 Finishing		0.13 ~ 1.8			0.10 ~ 0.20										<ul style="list-style-type: none"> Prevents B.U.E with sharp edge Stable chip evacuation
 2FM Semi finishing		0.5 ~ 2.0			0.08 ~ 0.20										<ul style="list-style-type: none"> Prevents B.U.E with sharp edge Guaranteed high quality surface roughness at finishing
 M11 Medium		0.35 ~ 2.2			0.12 ~ 0.24										<ul style="list-style-type: none"> Stable chip evacuation Applied variable land for crater wear resistance
 M51 Medium		0.4 ~ 2.5			0.10 ~ 0.22										<ul style="list-style-type: none"> Low cutting force Excellent chip evacuation at low feed, depth of cut
 R11 Roughing		1.2 ~ 3.0			0.14 ~ 0.28										<ul style="list-style-type: none"> Excellent for cutting edge strength Designed for deep depth of cut


M Stainless steel


Roughing 


Medium 

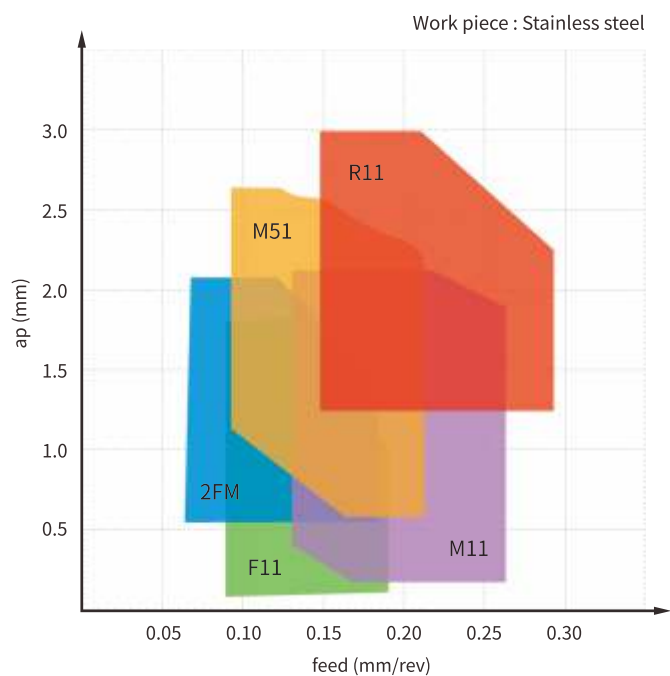
Finishing 

S HRSA

Roughing 

Medium 

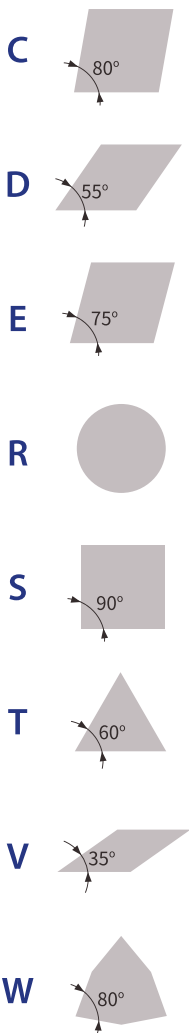
Finishing 



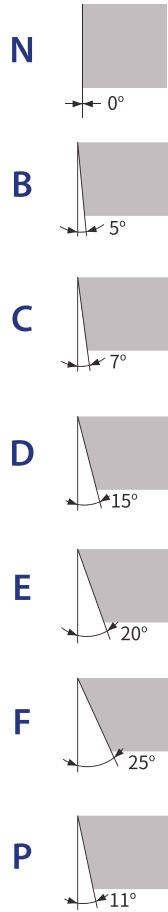
ISO TURNING INSERT NUMBERING SYSTEM



1 Insert Shape



2 Relief angle

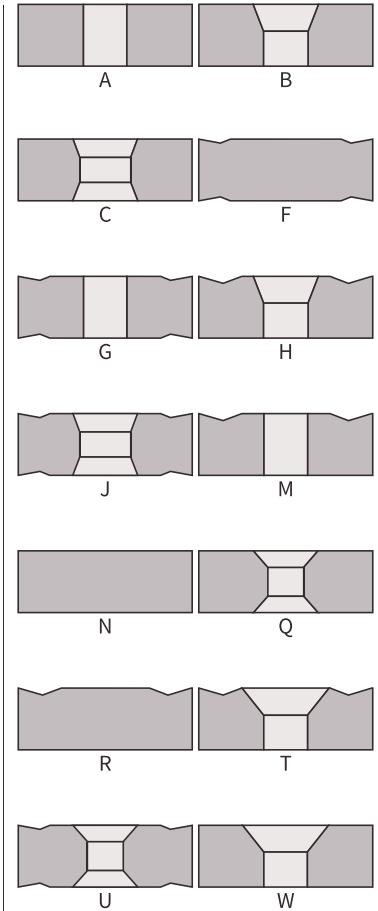


3 Tolerance

	d	m	t
A	±0.025	±0.005	±0.025
C	±0.025	±0.013	±0.025
E	±0.025	±0.025	±0.025
F	±0.013	±0.005	±0.025
G	±0.025	±0.025	±0.130
H	±0.013	±0.013	±0.025
J	±0.05~0.15	±0.005	±0.025
K	±0.05~0.15	±0.013	±0.025
L	±0.05~0.15	±0.025	±0.025
M	±0.05~0.15	±0.130	±0.127
N	±0.05~0.15	±0.025	±0.025
U	±0.08~0.25	±0.130	±0.127

Unit (mm)

4 Cross Section shape



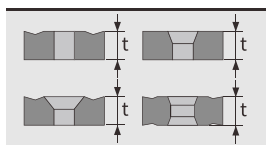
SPECIAL
X

12 5	04 6	08 7	M11 8
I.C, cutting edge length	Height of cutting edge	Nose R	Chip Breaker

5 I.C, cutting edge length


IC*d* (mm)	C	D	R	S	T	V	W
3.97	S4	4	3	3	6	-	-
4.76	4	5	4	4	8	8	S3
5.56	5	6	5	5	9	9	3
6	-	-	6	-	-	-	-
6.35	6	7	6	6	11	11	4
7.94	8	9	7	7	13	13	5
8	-	-	8	-	-	-	-
9.525	9	11	9	9	16	16	6
10	-	-	10	-	-	-	-
11.11	11	13	11	11	19	19	7
12	-	-	12	-	-	-	-
12.7	12	15	12	12	22	22	8
14.29	14	17	14	14	24	24	9
15.875	16	19	15	15	27	27	10
16	-	-	16	-	-	-	-
17.46	17	21	17	17	30	30	11
19.05	19	23	19	19	33	33	13
20	-	-	20	-	-	-	-
22.225	22	27	22	22	38	38	15
25	-	-	25	-	-	-	-
25.4	25	31	25	25	44	44	17
31.75	32	38	31	31	54	54	21
32	-	-	32	-	-	-	-

6 Height of cutting edge



1	1.59
T1	1.98
2	2.38
T2	2.76
3	3.18
T3	3.97
4	4.76
5	5.56
6	6.35
7	7.94
9	9.52

7 Nose R



01	0.1
02	0.2
04	0.4
08	0.8
12	1.2
16	1.6
20	2.0
24	2.4
32	3.2

8 Chip breaker

▼ Negative type

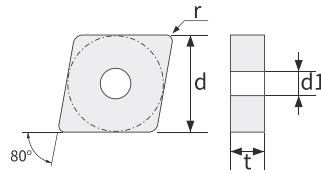


▼ Positive type











ISO TURNING INSERT SERIES

80° Rhombic (C) Negative

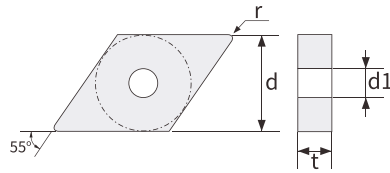


Size	Dimension (mm)		
	d	t	d1
09	9.525	3.18	3.81
12	12.7	4.76	5.16
16	15.875	6.35	6.35
19	19.05	6.35	7.93






Insert shape		Designation	Feed (mm/rev)	Ap (mm)	NV3005	NV3025	NV3045	NV3065	
Finishing									CNMG
Medium		CNMG	120408-M11 120412-M11 120416-M11 160612-M11	0.12~0.36 0.12~0.45 0.12~0.50 0.10~0.40	0.6~4.5 0.6~4.5 0.6~4.5 2.3~4.5	○ ○ ○ ○	● ● ● ●	○ ○ ○ ○	○ ○ ○ ○
Medium		CNMG	120404-M22 120408-M22 120412-M22 160612-M22 190608-M22 190612-M22 190616-M22	0.10~0.22 0.12~0.30 0.12~0.40 0.15~0.40 0.20~0.50 0.20~0.50 0.20~0.50	0.5~3.0 0.5~3.0 0.5~3.5 2.5~5.0 3.0~5.5 3.0~6.0 3.0~6.5	○ ○ ○ ○ ○ ○ ○	● ● ● ● ● ● ●	○ ○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○ ○
Semi Finishing		CNMG	090308-M51	0.25~0.40	1.2~4.0	○	●	○	○
Roughing		CNMG	120408-R11 120412-R11 120416-R11 190612-R11 190616-R11	0.18~0.48 0.18~0.48 0.18~0.50 0.18~0.45 0.18~0.55	2.4~6.0 2.4~6.0 2.4~6.0 2.4~8.0 2.4~8.0	○ ○ ○ ○ ○	● ● ● ● ●	○ ○ ○ ○ ○	○ ○ ○ ○ ○
Roughing		CNMG	120408-R21 120412-R21 190616-R21	0.12~0.35 0.18~0.45 0.30~0.60	0.7~3.8 0.7~3.8 1.0~9.0	○ ○ ○	● ● ●	○ ○ ○	○ ○ ○
Roughing		CNMG	120408-1RM 190612-1RM	0.18~0.48 0.18~0.45	2.4~6.0 2.4~8.0	○ ○	● ●	○ ○	○ ○
Finishing		CNGG	120402-7FM 120404-7FM 120408-7FM	0.08~0.14 0.08~0.20 0.08~0.40	0.3~3.0 0.3~3.0 0.3~3.0	○ ○ ○	● ● ●	○ ○ ○	○ ○ ○

● Stock item

55° Rhombic (D) Negative




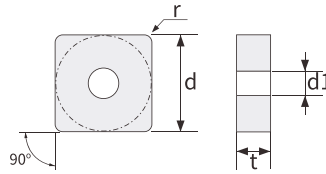
Size	Dimension (mm)		
	d	t	d1
11	9.525	3.18~4.76	3.81
15	12.7	4.76~6.35	5.16

Insert Shape		Designation	Feed (mm/rev)	Ap (mm)	NV3005	NV3025	NV3045	NV3065	
Finishing		DNMG	110404-F11	0.06~0.24	0.12~1.0	○	●	○	○
			150404-F11	0.06~0.24	0.12~1.2	○	●	○	○
			150408-F11	0.12~0.32	0.12~1.2	○	●	○	○
			150604-F11	0.06~0.24	0.12~1.2	○	●	○	○
			150608-F11	0.12~0.32	0.12~1.2	○	●	○	○
Finishing		DNMG	150404-9FN	0.10~0.25	0.5~2.5	○	●	○	○
			150408-9FN	0.15~0.30	0.5~2.5	○	●	○	○
			150604-9FN	0.10~0.25	0.5~2.5	○	●	○	○
			150608-9FN	0.15~0.30	0.5~2.5	○	●	○	○
Medium		DNMG	110408-M11	0.12~0.40	0.6~3.0	○	●	○	○
			150408-M11	0.18~0.30	0.3~2.0	○	●	○	○
			150412-M11	0.12~0.45	0.6~4.0	○	●	○	○
			150608-M11	0.12~0.40	0.6~4.0	○	●	○	○
			150612-M11	0.12~0.45	0.6~4.0	○	●	○	○
Medium		DNMG	150404-M22	0.12~0.25	0.3~2.0	○	●	○	○
			150408-M22	0.18~0.30	0.3~2.0	○	●	○	○
			150412-M22	0.25~0.40	0.3~2.0	○	●	○	○
			150416-M22	0.30~0.45	0.3~2.5	○	●	○	○
			150604-M22	0.12~0.25	0.3~2.2	○	●	○	○
			150608-M22	0.18~0.30	0.3~2.2	○	●	○	○
			150612-M22	0.25~0.40	0.3~2.2	○	●	○	○
			150416-M22	0.30~0.45	0.3~2.5	○	●	○	○
Roughing		DNMG	150412-R11	0.18~0.45	2.4~4.5	○	●	○	○
			150416-R11	0.18~0.45	2.4~4.5	○	●	○	○
			150608-R11	0.15~0.60	2.0~6.0	○	●	○	○
			150612-R11	0.18~0.45	2.4~4.5	○	●	○	○
			150616-R11	0.18~0.45	2.4~4.5	○	●	○	○
				0.15~0.60	2.0~6.0	○	●	○	○






● Stock item

ISO TURNING INSERT SERIES

90° Square (S) Negative 

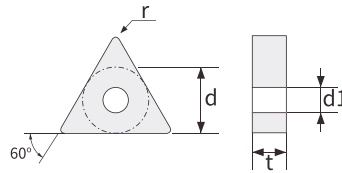


Size	Dimension (mm)		
	d	t	d1
09	9.525	3.18	3.81
12	12.7	3.18~4.76	5.16
15	15.875	4.76~6.35	6.35
19	19.05	4.76~6.35	7.93






Insert shape		Designation	Feed (mm/rev)	Ap (mm)	NV3005	NV3025	NV3045	NV3065
Finishing	 F11							
Medium	 M11	SNMG	120408-M11 120412-M11 120416-M11 190612-M11 190616-M11	0.12~0.36 0.12~0.45 0.12~0.48 0.15~0.60 0.15~0.63	0.6~5.0 0.6~5.0 0.6~5.0 0.5~8.0 0.5~8.0	○ ● ○ ○	○ ● ○ ○	○ ● ○ ○
Semi Finishing	 M51	SNMG	090308-M51	0.25~0.40	1.2~4.0	○ ● ○ ○		
Roughing	 R11	SNMG	120408-R11 120412-R11 150612-R11 150616-R11 190612-R11 190616-R11 190624-R11	0.18~0.44 0.40~0.60 0.15~0.60 0.15~0.70 0.18~0.48 0.25~0.55 0.30~0.90	2.4~6.0 2.5~5.5 2.0~8.0 2.0~8.0 2.4~5.5 2.4~8.0 2.5~9.0	○ ● ○ ○	○ ● ○ ○	○ ● ○ ○
Roughing	 R21	SNMG	190616-R21	0.30~0.50	1.0~9.0	○ ● ○ ○		

● Stock item

60° Triangular (T) Negative




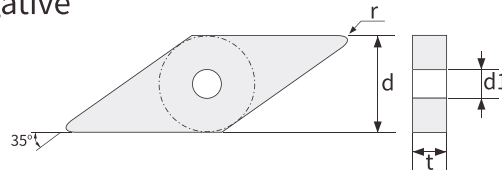
Size	Dimension (mm)		
	d	t	d1
16	9.525	3.18~4.76	3.81
22	12.7	4.76	5.16

Insert shape		Designation	Feed (mm/rev)	Ap (mm)	NV3005	NV3025	NV3045	NV3065
Finishing								
		160404-F11	0.06~0.24	0.12~1.2	○	●	○	○
		160408-F11	0.12~0.32	0.12~1.2	○	●	○	○
Medium		TNMG						
		160408-M11	0.14~0.35	0.5~3.0	○	●	○	○
		160412-M11	0.16~0.50	0.6~4.0	○	●	○	○
		220412-M11	0.1~0.5	0.5~6.0	○	●	○	○
		220416-M11	0.1~0.55	0.5~6.0	○	●	○	○
Medium		TNMG						
		160404-M22	0.10~0.22	0.3~2.5	○	●	○	○
		160408-M22	0.15~0.30	0.3~2.5	○	●	○	○
		160412-M22	0.20~0.40	0.3~2.5	○	●	○	○
		220408-M22	0.2~0.5	0.3~4.0	○	●	○	○
		220412-M22	0.2~0.5	0.3~4.0	○	●	○	○
Medium		TNMG						
		160412-M31	0.22~0.50	1.0~4.5	○	●	○	○
Roughing		TNMG						
		160408-R11	0.18~0.44	2.4~4.3	○	●	○	○
		160412-R11	0.18~0.45	2.4~4.3	○	●	○	○
		220412-R11	0.15~0.50	2.0~7.0	○	●	○	○
		220416-R11	0.15~0.60	2.0~7.0	○	●	○	○





● Stock item

ISO TURNING INSERT SERIES

35° Rhombic (V) Negative 

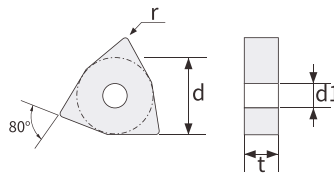


Size	Dimension (mm)		
	d	t	d1
16	9.525	4.76	3.81







Insert shape		Designation	Feed (mm/rev)	Ap (mm)	NV3005	NV3025	NV3045	NV3065
Finishing					VNMG	160404-F11	0.06~0.24	0.12~1.2
		VNMG	160408-F11	0.18~0.40	0.40~3.5	○	●	○
		VNMG						
Finishing		VNMG	160412-F21	0.12~0.25	0.40~2.0	○	●	○
		VNMG						
		VNMG						
Medium		VNMG	160404-M11	0.12~0.32	0.48~3.2	○	●	○
		VNMG	160408-M11	0.12~0.36	0.60~3.2	○	●	○
		VNMG						
Medium		VNMG	160404-M22	0.10~0.20	0.10~1.7	○	●	○
		VNMG	160408-M22	0.10~0.20	0.30~1.5	○	●	○
		VNMG	160412-M22	0.10~0.25	0.50~2.0	○	●	○

● Stock item

80° Trigon (W) Negative ○



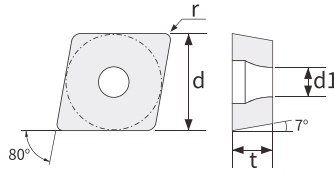
Size	Dimension (mm)		
	d	t	d1
06	9.525	4.76	3.81
08	12.7	4.76	5.16

Insert shape		Designation	Feed (mm/rev)	Ap (mm)	NV3005	NV3025	NV3045	NV3065	
Finishing		WNMG	060404-F11	0.12~0.25	0.60~2.0	○	●	○	○
			060408-F11	0.18~0.40	0.60~2.0	○	●	○	○
			080404-F11	0.12~0.25	0.60~1.6	○	●	○	○
			080408-F11	0.12~0.32	0.12~1.2	○	●	○	○
			080412-F11	0.12~0.45	0.12~1.2	○	●	○	○
Medium		WNMG	060408-M11	0.12~0.36	0.60~2.5	○	●	○	○
			080404-M11	0.10~0.30	0.12~1.2	○	●	○	○
			080408-M11	0.10~0.33	0.12~1.2	○	●	○	○
			080412-M11	0.12~0.45	0.60~3.2	○	●	○	○
Medium		WNMG	080408-M21	0.15~0.30	0.30~2.5	○	●	○	○
Medium		WNMG	080408-M22	0.12~0.30	0.50~3.0	○	●	○	○
			080412-M22	0.15~0.40	0.50~3.0	○	●	○	○
Roughing		WNMG	080408-R11	0.18~0.35	2.40~3.2	○	●	○	○
			080412-R11	0.18~0.48	2.40~3.2	○	●	○	○
Roughing		WNMG	080408-R21	0.12~0.35	0.60~3.5	○	●	○	○
			080412-R21	0.12~0.40	0.60~3.5	○	●	○	○





● Stock item

ISO TURNING INSERT SERIES

80° Rhombic (C) Positive
Relief angle 7°

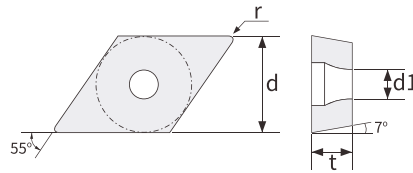


Size	Dimension (mm)		
	d	t	d1
06	6.35	2.38	2.8
09	9.525	3.97	4.4
12	12.7	4.76	5.5

Insert shape		Designation	Feed (mm/rev)	Ap (mm)	NV3005	NV3025	NV3045	NV3065
Finishing								
		060204-F11	0.06~0.15	0.12~1.35	○	●	○	○
		060208-F11	0.08~0.18	0.16~1.35	○	●	○	○
		09T302-F11	0.05~0.12	0.10~1.60	○	●	○	○
		09T304-F11	0.07~0.18	0.13~1.60	○	●	○	○
		09T308-F11	0.10~0.24	0.18~1.60	○	●	○	○
		120402-F11	0.06~0.20	0.17~1.92	○	●	○	○
		120404-F11	0.08~0.22	0.17~1.92	○	●	○	○
Semi Finishing		09T308-2GF	0.08~0.25	0.20~1.20	○	●	○	○
Medium		060204-M11	0.07~0.15	0.24~1.92	○	●	○	○
		060208-M11	0.10~0.18	0.28~1.92	○	●	○	○
		09T304-M11	0.10~0.20	0.30~2.50	○	●	○	○
		09T308-M11	0.12~0.25	0.60~2.50	○	●	○	○
		120402-M11	0.11~0.22	0.35~3.00	○	●	○	○
		120404-M11	0.11~0.22	0.35~3.00	○	●	○	○
		120408-M11	0.15~0.30	0.50~3.00	○	●	○	○
Semi Finishing		060202-M51	0.02~0.10	0.12~1.30	○	●	○	○
		060204-M51	0.10~0.25	0.40~1.60	○	●	○	○
		09T302-M51	0.03~0.10	0.08~1.30	○	●	○	○
		09T304-M51	0.10~0.20	0.40~2.00	○	●	○	○
		09T308-M51	0.14~0.30	0.60~2.40	○	●	○	○
		120404-M51	0.10~0.20	0.40~3.50	○	●	○	○

● Stock item

55° Rhombic (D) Positive Relief angle 7°



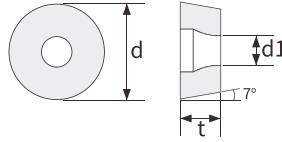
Size	Dimension (mm)		
	d	t	d1
07	6.35	2.38	2.8
11	9.525	3.97	4.4

Insert shape		Designation	Feed (mm/rev)	Ap (mm)	NV3005	NV3025	NV3045	NV3065	
Finishing									DCMT
		070204-F11	0.06~0.15	0.10~1.2	○	●	○	○	
		11T302-F11	0.05~0.12	0.10~1.6	○	●	○	○	
		11T304-F11	0.10~0.20	0.13~1.8	○	●	○	○	
		11T308-F11	0.10~0.24	0.18~1.8	○	●	○	○	
Medium		DCMT	070204-M11	0.07~0.15	0.23~1.2	○	●	○	○
			070208-M11	0.10~0.20	0.40~1.2	○	●	○	○
			11T304-M11	0.10~0.20	0.35~2.2	○	●	○	○
			11T308-M11	0.12~0.25	0.60~2.5	○	●	○	○
			11T312-M11	0.14~0.32	0.72~2.2	○	●	○	○
Roughing		DCMT	11T308-R11	0.14~0.28	1.20~3.0	○	●	○	○
			11T312-R11	0.17~0.35	1.40~3.0	○	●	○	○
Roughing		DCGT	11T304-F11	0.10~0.20	0.40~2.5	○	●	○	○
Semi Finishing		DCGT	070202-M51	0.02~0.10	0.12~1.3	○	●	○	○
			070204-M51	0.10~0.22	0.60~2.2	○	●	○	○
			11T301-M51	0.02~0.05	0.12~0.8	○	●	○	○
			11T302-M51	0.02~0.05	0.12~1.3	○	●	○	○
			11T304-M51	0.10~0.22	0.40~2.5	○	●	○	○
			11T308-M51	0.14~0.30	0.40~2.5	○	●	○	○




● Stock item

ISO TURNING INSERT SERIES

Round (R) Positive
Relief angle 7°

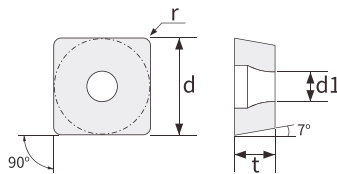


Size	Dimension (mm)		
	d	t	d1
08	8	3.18	3.35
10	10	3.18	3.6
12	12	4.76	4.2
16	16	6.35	5.2
19	19	6.35	6.5



Insert shape		Designation	Feed (mm/rev)	Ap (mm)	NV3005	NV3025	NV3045	NV3065
Medium	 M21				RCMT	1204M0-M21	0.20~0.40	0.5~4.0
Medium	 M22	RCMT	0803M0-M22	0.06~0.08	0.3~2.0	○	●	○
			10T3M0-M22	0.08~0.10	0.3~2.2	○	●	○
			1204M0-M22	0.10~0.16	0.5~3.0	○	●	○
			1606M0-M22	0.12~0.16	0.8~4.0	○	●	○
Medium	 M41	RCMT	190600-M41	0.15~0.65	2.0~8.0	○	●	○

● Stock item

Square (S) Positive
Relief angle 7°

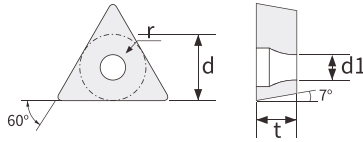


Size	Dimension (mm)		
	d	t	d1
09	9.525	3.97	4.4





Insert shape		Designation	Feed (mm/rev)	Ap (mm)	NV3005	NV3025	NV3045	NV3065
Finishing	 F11				SCMT	09T304-F11	0.07~0.18	0.13~1.6
		09T308-F11	0.10~0.24	0.18~1.6		○	●	○
Medium	 M11	SCMT	09T304-M11	0.10~0.20	0.28~2.4	○	●	○
			09T308-M11	0.12~0.24	0.60~2.4	○	●	○

● Stock item

60° Triangular (T) Positive
Relief angle 7°



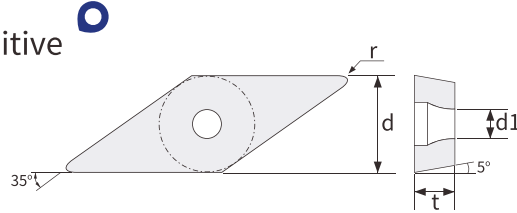
Size	Dimension (mm)		
	d	t	d1
06	3.97	1.98	2.2
09	5.56	2.38	2.5
11	6.35	2.38	2.8
16	9.525	3.97	4.4

Insert shape		Designation	Feed (mm/rev)	Ap (mm)	NV3005	NV3025	NV3045	NV3065	
Finishing									TCMT
		06T104-F11	0.06~0.15	0.10~1.20	○	●	○	○	
		06T108-F11	0.07~0.18	0.13~1.20	○	●	○	○	
		090202-F11	0.05~0.10	0.07~1.35	○	●	○	○	
		090204-F11	0.06~0.15	0.12~1.35	○	●	○	○	
		110204-F11	0.06~0.15	0.12~1.35	○	●	○	○	
		110302-F11	0.05~0.10	0.07~1.35	○	●	○	○	
		110304-F11	0.06~0.15	0.12~1.35	○	●	○	○	
		110308-F11	0.08~0.21	0.16~1.35	○	●	○	○	
		16T302-F11	0.05~0.20	0.10~1.80	○	●	○	○	
		16T304-F11	0.08~0.18	0.15~1.60	○	●	○	○	
16T308-F11	0.10~0.25	0.50~2.50	○	●	○	○			
Finishing		TCMT	16T308-F51	0.07~0.20	0.25~1.80	○	●	○	○
Medium		TCMT	090204-M11	0.07~0.15	0.23~1.80	○	●	○	○
			090208-M11	0.10~0.18	0.46~1.80	○	●	○	○
			110308-M11	0.11~0.21	0.50~2.00	○	●	○	○
			16T304-M11	0.10~0.18	0.30~2.50	○	●	○	○
			16T312-M11	0.14~0.32	0.80~2.50	○	●	○	○
Semi Finishing		TCMT	16T308-M51	0.14~0.35	0.60~3.50	○	●	○	○


● Stock item

ISO TURNING INSERT SERIES

35° Rhombic (V) Positive
Relief angle 5°

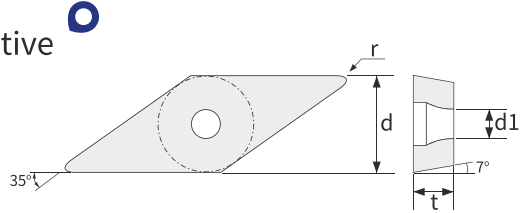


Size	Dimension (mm)		
	d	t	d1
11	6.35	3.18	2.8
12	7.5	3.18	2.8
16	9.525	4.76	4.4







Insert shape		Designation	Feed (mm/rev)	Ap (mm)	NV3005	NV3025	NV3045	NV3065	
Finishing		VBMT	110302-F11	0.05~0.10	0.07~1.35	○	●	○	○
			110304-F11	0.06~0.15	0.12~1.35	○	●	○	○
			110308-F11	0.08~0.21	0.16~1.35	○	●	○	○
			160404-F11	0.06~0.16	0.12~1.45	○	●	○	○
			160408-F11	0.08~0.22	0.17~1.45	○	●	○	○
Medium		VBMT	110304-M11	0.12~0.20	0.35~2.00	○	●	○	○
			110308-M11	0.15~0.30	0.50~2.00	○	●	○	○
			160404-M11	0.08~0.16	0.28~2.20	○	●	○	○
			160408-M11	0.11~0.22	0.54~2.20	○	●	○	○
			160412-M11	0.13~0.26	0.65~2.20	○	●	○	○
Roughing		VBMT	160412-R11	0.16~0.30	1.30~2.70	○	●	○	○
Finishing		VBGT	160404-F11	0.06~0.16	0.12~1.45	○	●	○	○
Finishing		VBGT	160404-2FM	0.05~0.12	0.20~1.60	○	●	○	○
			160408-2FM	0.08~0.25	0.20~1.60	○	●	○	○
			160412-2FM	0.10~0.30	0.20~1.60	○	●	○	○
Finishing		VBGT	120302S-9NF	0.01~0.08	0.05~0.50	○	●	○	○
			120304S-9NF	0.01~0.08	0.05~0.50	○	●	○	○
			120302K-9NF	0.01~0.08	0.05~0.50	○	●	○	○
			120304K-9NF	0.01~0.08	0.05~0.50	○	●	○	○
Semi Finishing		VBGT	110302-M51	0.10~0.20	0.40~2.50	○	●	○	○
			110304-M51	0.10~0.20	0.40~2.50	○	●	○	○
			160408-M51	0.14~0.30	0.40~3.20	○	●	○	○

● Stock item

35° Rhombic (V) Positive
Relief angle 7°



Size	Dimension (mm)		
	d	t	d1
11	6.35	3.18	2.8
12	7.5	3.18	2.8
16	9.525	4.76	4.4

Insert shape		Designation	Feed (mm/rev)	Ap (mm)	NV3005	NV3025	NV3045	NV3065
Finishing		VCMT	110304-F11	0.06~0.15	0.12~1.5	○	●	○
			160404-F11	0.06~0.16	0.12~1.5	○	●	○
			160408-F11	0.10~0.22	0.16~1.6	○	●	○
Medium		VCMT	110304-M11	0.12~0.20	0.35~2.4	○	●	○
Semi Finishing		VCMT	160404-M51	0.10~0.25	0.60~3.2	○	●	○
			160408-M51	0.14~0.35	0.60~3.2	○	●	○
Finishing		VCGT	1203005-9NF	0.01~0.03	0.05~0.5	○	●	○
			1203008-9NF	0.01~0.04	0.05~0.5	○	●	○
			120301-9NF	0.01~0.05	0.05~0.5	○	●	○
			120302S-9NF	0.01~0.08	0.05~0.5	○	●	○
			120304S-9NF	0.01~0.08	0.05~0.5	○	●	○
			120302K-9NF	0.01~0.08	0.05~0.5	○	●	○
			120304K-9NF	0.01~0.08	0.05~0.5	○	●	○
1203CF-9NF	0.10~0.08	0.05~0.5	○	●	○			
Finishing		VCGT	160404-2FM	0.05~0.12	0.20~1.6	○	●	○
			160408-2FM	0.08~0.25	0.20~1.6	○	●	○
			160412-2FM	0.10~0.30	0.20~1.6	○	●	○
Semi Finishing		VCGT	110302-M51	0.02~0.10	0.12~1.3	○	●	○
			110304-M51	0.10~0.20	0.40~2.5	○	●	○
			160402-M51	0.03~0.10	0.12~1.3	○	●	○
			160404-M51	0.10~0.25	0.40~3.2	○	●	○
			160408-M51	0.14~0.30	0.40~3.2	○	●	○

● Stock item



ISO TURNING INSERT

Meet the best NANOTECHNOLOGY