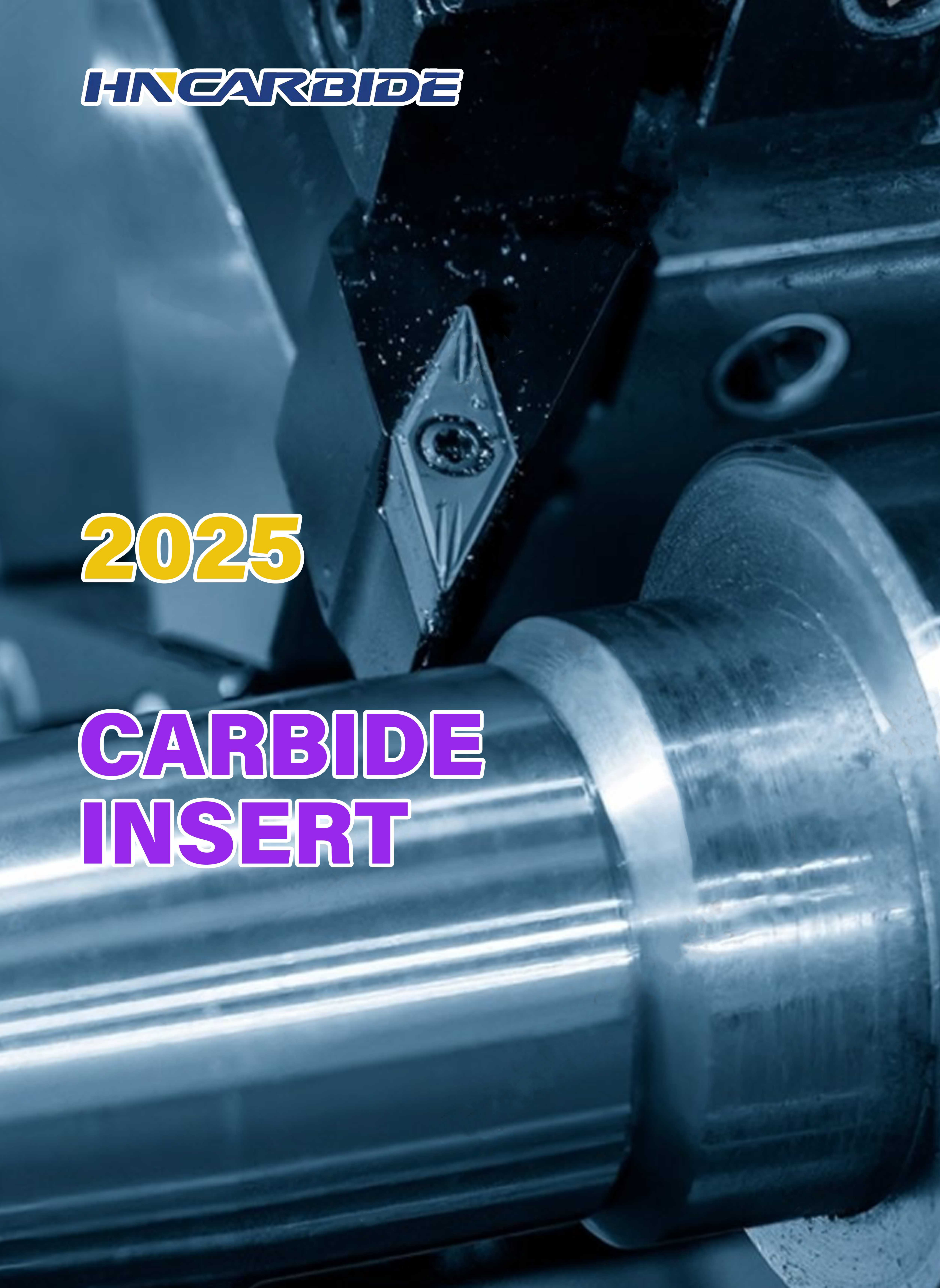


HNCARBIDE

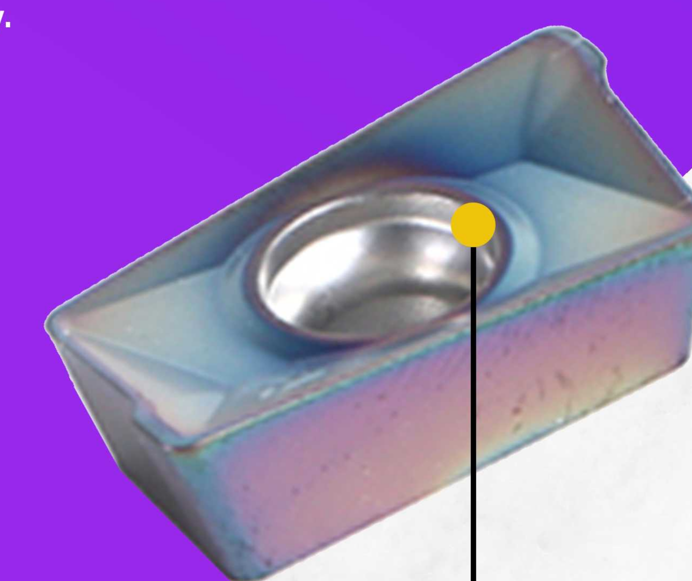
2025

CARBIDE INSERT

DETAIL DISPLAY

Optimized Heat Treatment Process

Advanced heat treatment technology ensures the drill bits maintain excellent hardness and wear resistance even under high temperatures, enhancing machining efficiency.



Versatile Application

Suitable for a wide range of materials, including hard alloys, stainless steel, aluminum alloys, and more, meeting diverse industrial demands.

High Hardness & Wear Resistance

Made from premium tungsten carbide material, offering exceptional hardness and wear resistance, ideal for machining tough materials, and extending tool life.

Precision Cutting, Stable Performance

Designed for precision, ensuring accurate drilling with minimal error, reducing rework and improving efficiency.

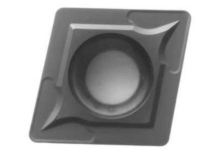
C

Carbide Inserts

CONTENTS

CARBIDE INSERTS OVERVIEW

Positive Insert

CCMT* | D01


DCMT11* | D01


DCMT07* | D01

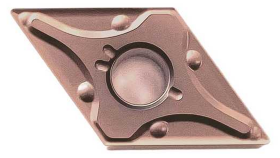

SCMT* | D02


TCMT* | D02


VBMT* | D02


Negative Insert

CNMG*-MA | D03


DNMG*-MA | A02


SNMG*-MA | D03


TNMG*-MA | D04


VNMG*-MA | D05


WNMG*-MA | D05


CNMG*-GM | D03


DNMG*-GM | D04


SNMG*-GM | D03


TNMG*-GM | D04


VNMG*-GM | D05


WNMG*-GM | D05


CNMG*-TM | D03


DNMG*-TM | D04


SNMG*-TM | D03


TNMG*-TM | D04


VNMG*-TM | D05


WNMG*-TM | D05

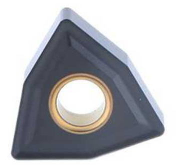

CNMG*-CK | D03


DNMG*-CK | D04


SNMG*-CK | D03


TNMG*-CK | D04

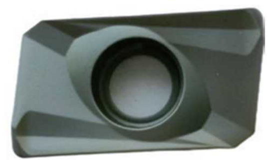

VNMG*-CK | D05

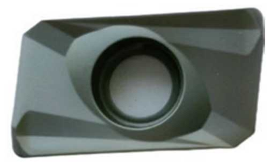

WNMG*-CK | D05


Square shoulder milling

APMT1135-DL | D06


APMT1604-DL | D06


APMT1135-H2 | D06


APMT1604-H2 | D06


APMT1135-M2 | D06


APMT1604-M2 | D06


Profile milling

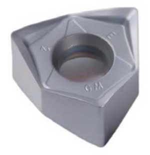
RPMT1204MO | D06


RPMT10T3MO | D06


RPMW1003 | D06


RPMT1204-DL | D06


High feed milling

WNMU080608EN-GM | D07


LNMU0303ZER-DZ | D07


SNMU1206XTN | D07


BLMP0603R-M | D07


U Drill milling

WCMX*- U | D08


SPMG*-DG | D08


Parting and Grooving

MGHN* | D09


Threading

60° ISO metric thread-IR | D11


60° ISO metric thread-ER | D11


General pitch thread | D12

55° Whit worth thread | D12

Milling Insert Identification System

Insert Shape		
85° A	82° B	80° C
55° D	75° E	H
55° K	L	86° M
O	P	R
S	T	75° T
35° V	80° W	Others Z

Chip-breaker and Clamping System

Code	Hole	Chip-breaker	Section Plane	Code	Hole	Chip-breaker	Section Plane
B	With	Without	>65°	N	Without	Without	
H	With	Single-Side	>65°	R	With	Single-Side	
C	With	Without	>65°	F	Without	Double-Side	
J	With	Double-side	>65°	A	Without	Without	
W	With	Without	≤65°	M	With	Single-Side	
T	With	Single-Side	≤65°	G	With	Double-Side	
Q	With	Without	≤65°	X	—	---	Special
U	With	Double-side	≤65°				

C N M G

Clearance angle of main cutting edge

Code	Clearance angle	Code	Clearance angle
A	3°	B	5°
C	7°	D	15°
E	20°	F	25°
G	30°	N	0°
P	11°	O	Others

Tolerance (mm)

m ΦD m ΦD S

Code	Nose height Tolerance(m)	Inscribed circle(ΦD)	Thickness Tolerance(s)
A	±0.005	±0.025	±0.025
F	±0.005	±0.013	±0.025
C	±0.013	±0.025	±0.025
H	±0.013	±0.013	±0.025
E	±0.025	±0.025	±0.025
G	±0.025	±0.025	±0.13
J	±0.005	±0.05-±0.13	±0.025
K	±0.013	±0.05-±0.13	±0.025
L	±0.025	±0.05-±0.13	±0.025
M	±0.08-±0.18	±0.05-±0.13	±0.13
N	±0.08-±0.18	±0.05-±0.13	±0.025
U	±0.13-±0.38	±0.08-±0.25	±0.13

- M-level tolerance(Idertified by shape)
- Tolerance of tool tip height (mm)

Inscribed circle	Regular triangle	Square	Rhombus with80°	Rhombus with55°	Rhombus with35°	Round
6.35	±0.08	±0.08	±0.08	±0.11	±0.16	---
9.525	±0.08	±0.08	±0.08	±0.11	±0.16	---
12.7	±0.13	±0.13	±0.13	±0.15	---	---
15.875	±0.15	±0.15	±0.15	±0.18	---	---
19.05	±0.15	±0.15	±0.15	±0.18	---	---
25.4	---	±0.18	---	---	---	---

- Inscribed circle(ΦD)Tolerance

Inscribed circle	Regular triangle	Square	Rhombus with80°	Rhombus with55°	Rhombus with35°	Round
6.35	±0.05	±0.05	±0.05	±0.05	±0.05	---
9.525	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05
12.7	±0.08	±0.08	±0.08	±0.08	---	±0.08
15.875	±0.10	±0.10	±0.10	±0.10	---	±0.10
19.05	±0.10	±0.10	±0.10	±0.10	---	±0.10
25.4	---	±0.13	---	---	---	±0.13

Milling Insert Identification System

Length of Cutting Edge

Diameter of IC(mm)	C	D	R	S	T	V	W	K
32.00			32					
31.75			31					
25.40			25	25				
25.00	25	25	25					
20.00			20					
19.05	19		19	19	33			
16.00		19	16					
15.875	16		15	16	27			
12.70	12	15	12		22	22	22	
12.00			12					
10.00			10					
9.525	09	11	09	19	16	16	06	16
8.00			08					
6.35	06	07			11	11		
6.00			06					
5.56					09			
5.50			05					
3.97					06			

Insert Shape

Insert Thickness

Code	Thickness(mm)
12	12.70
10	11.11
T9	9.72
09	9.52
07	7.94
T6	6.75
06	6.35
T5	5.95
05	5.56
T4	4.96
04	4.76
T3	3.97
03	3.18
T2	2.58
02	2.38
T1	1.98
01	1.59
T0	0.99
00	0.79

12 04 08 - GF (ISO)

4 3 2 (inch)

Inscribed Circle

Code	Diameter Of IC(mm)
2	6.35
3	9.525
4	12.7
5	15.875
6	19.05
8	25.4

Thickness

Code	Thickness (mm)
2	3.18
3	4.76
4	6.35
5	7.94
6	9.52

Nose Radius

Code	Nose Radius (mm)
0	0.2
1	0.4
2	0.8
3	1.2
4	1.6
5	2.0
6	2.4

Nose Radius Code

Code	Nose Radius (mm)
00	No Radius
02	0.2
04	0.4
08	0.8
12	1.2
16	1.6
20	2.0
24	2.4
32	3.2
X	Ohers
Diameter of Inserts (Meric)	Round Inserts

Chip-Breaker Code

Milling Insert Identification System

A P M T

Insert Shape

85° A	82° B	80° C
55° D	75° E	H
55° K	L	86° M
O	P	R
S	T	75° T
35° V	80° W	Others Z

Chip-breaker and Clamping System

Code	Hole	Chip-breaker	Section Plane	Code	Hole	Chip-breaker	Section Plane
B	With	Without	>65°	N	Without	Without	
H	With	Single-Side	>65°	R	With	Single-Side	
C	With	Without	>65°	F	Without	Double-Side	
J	With	Double-side	>65°	A	Without	Without	
W	With	Without	≤65°	M	With	Single-Side	
T	With	Single-Side	≤65°	G	With	Double-Side	
Q	With	Without	≤65°	X	—	---	Special
U	With	Double-side	≤65°				

Clearance angle of main cutting edge

Code	Clearance angle	Code	Clearance angle
A	3°	B	5°
C	7°	D	15°
E	20°	F	25°
G	30°	N	0°
P	11°	O	Others

Tolerance (mm)

m ΦD m ΦD S

Code	Nose height Tolerance(m)	Inscribed circle(ΦD)	Thickness Tolerance(s)
A	±0.005	±0.025	±0.025
F	±0.005	±0.013	±0.025
C	±0.013	±0.025	±0.025
H	±0.013	±0.013	±0.025
E	±0.025	±0.025	±0.025
G	±0.025	±0.025	±0.13
J	±0.005	±0.05-±0.13	±0.025
K	±0.013	±0.05-±0.13	±0.025
L	±0.025	±0.05-±0.13	±0.025
M	±0.08-±0.18	±0.05-±0.13	±0.13
N	±0.08-±0.18	±0.05-±0.13	±0.025
U	±0.13-±0.38	±0.08-±0.25	±0.13

◆ M-level tolerance(Idertifled by shape)
◆ Tolerance of tool tip height (mm)

Inscribed circle	Regular triangle	Square	Rhombus with80°	Rhombus with55°	Rhombus with35°	Round
6.35	±0.08	±0.08	±0.08	±0.11	±0.16	---
9.525	±0.08	±0.08	±0.08	±0.11	±0.16	---
12.7	±0.13	±0.13	±0.13	±0.15	---	---
15.875	±0.15	±0.15	±0.15	±0.18	---	---
19.05	±0.15	±0.15	±0.15	±0.18	---	---
25.4	---	±0.18	---	---	---	---

◆ Inscribed circle(ΦD)Tolerance

Inscribed circle	Regular triangle	Square	Rhombus with80°	Rhombus with55°	Rhombus with35°	Round
6.35	±0.05	±0.05	±0.05	±0.05	±0.05	---
9.525	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05
12.7	±0.08	±0.08	±0.08	±0.08	---	±0.08
15.875	±0.10	±0.10	±0.10	±0.10	---	±0.10
19.05	±0.10	±0.10	±0.10	±0.10	---	±0.10
25.4	---	±0.13	---	---	---	±0.13

Milling Insert Identification System

16 04 PD E R - H2

Length of Cutting Edge

Diameter of IC(mm)	Insert Shape C	D	R	S	T	V	W	K
32.00			32					
31.75			31					
25.40			25	25				
25.00	25	25	25					
20.00			20					
19.05	19		19	19	33			
16.00		19	16					
15.875	16		15	16	27			
12.70	12	15	12		22	22	22	
12.00			12					
10.00			10					
9.525	09	11	09	19	16	16	06	16
8.00			08					
6.35	06	07			11	11		
6.00			06					
5.56					09			
5.50			05					
3.97					06			

Insert Thickness

Code	Thickness(mm)
12	12.70
10	11.11
T9	9.72
09	9.52
07	7.94
T6	6.75
06	6.35
T5	5.95
05	5.56
T4	4.96
04	4.76
T3	3.97
03	3.18
T2	2.58
02	2.38
T1	1.98
01	1.59
T0	0.99
00	0.79

Wiper

	Kr		α°
A	45°	A	3°
D	60°	B	5°
E	75°	C	7°
F	85°	D	15°
P	90°	E	20°
Z	others	F	25°
		G	30°
		N	0°
		P	11°
		Z	others

Chamfer

	α°	b	
F	0-5°	0-0.10	K(or no mark)
	1-10°	1-0.15	
E	2-15°	2-0.20	P
	3-20°	3-0.25	
T	4-25°	4-0.30	W
	5-30°	5-0.35	
S	1-10°	6-0.40	Q
	1-10°	7-0.45	

Chip-breaker Code

Cutting Direction

Code	Direction
R	Right
L	Left
N	Double side

A B C D

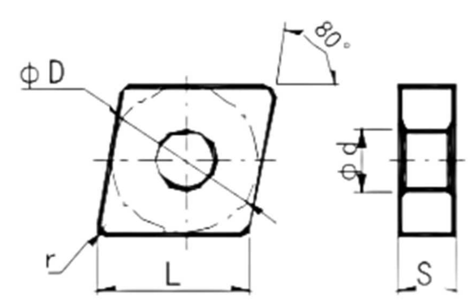
TURNING

Turning Inserts

Grade	Coating Type	Coating Color	Application
HN8225	PVD	Black	Suitable for processing mild steel and some stainless steel, around HRC35
HN15TF	PVD	Bronze	Suitable for processing mainly stainless steel, some steel parts, around HRC25-HRC40
HN8325	PVD	DLC	Suitable for general steel parts and stainless steel, around HRC40-HRC50
HN9025	CVD	Double	It is specially used for processing steel parts and hard modulation parts (around HRC35-HRC50)
HN9225	CVD	Black	Process steel parts mold steel (around HRC35-HRC50) ,equivalent to 85% of the performance of ZCC-YBC252
HN9125	CVD	Yellow	Process mild steel and low carbon steel (around HRC25-HRC40) ,equivalent to 85% of the performance of ZCC-YBC251

POSITIVE INSERT

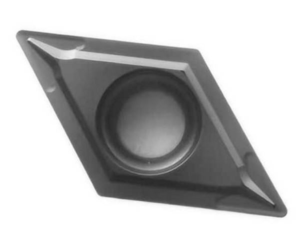
80° CC** With Hole

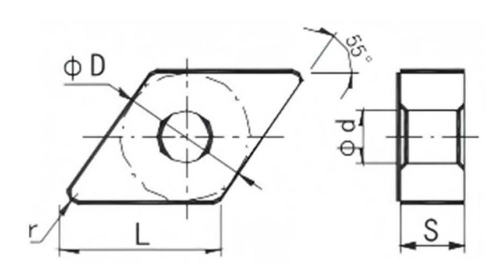


●Most Suitable ○Suitable

Description	Specificiation/mm					PVD Coating P			PVD Coating M			CVD Coating P			CVD Coating K
	L	D	S	ϕd	r	HN8225	HN15TF	HN8325	HN8225	HN15TF	HN8325	HN9025	HN9125	HN9225	HN9225
CCMT060204-SL	6.4	6.35	2.38	2.8	0.4	●	○	●	○	●	●				
CCMT060208-SL	6.4	6.35	2.38	2.8	0.8	●	○	●	○	●	●				
CCMT09T304-SL	9.7	9.53	3.97	4.4	0.4	●	○	●	○	●	●				
CCMT09T308-SL	9.7	9.53	3.97	4.4	0.8	●	○	●	○	●	●				
CCMT120404-SL	12.9	12.70	4.76	5.6	0.4	●	○	●	○	●	●				
CCMT120408-SL	12.9	12.70	4.76	5.6	0.8	●	○	●	○	●	●				

55° DC** With Hole





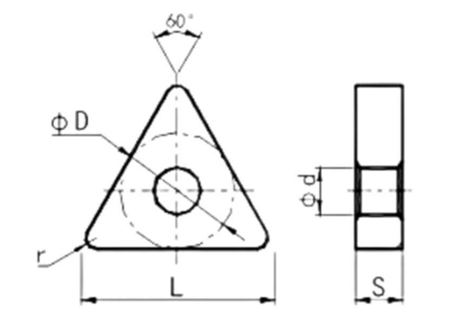
●Most Suitable ○Suitable

Description	Specificiation/mm					PVD Coating P			PVD Coating M			CVD Coating P			CVD Coating K
	L	D	S	ϕd	r	HN8225	HN15TF	HN8325	HN8225	HN15TF	HN8325	HN9025	HN9125	HN9225	HN9225
DCMT070202-MV	7.8	6.35	2.38	2.8	0.2	●	○	●	○	●	●				
DCMT070204-MV	7.8	6.35	2.38	2.8	0.4	●	○	●	○	●	●				
DCMT070208-MV	7.8	6.35	2.38	2.8	0.8	●	○	●	○	●	●				
DCMT11T304-MV	11.6	9.53	3.97	4.4	0.4	●	○	●	○	●	●				
DCMT11T308-MV	11.6	9.53	3.97	4.4	0.8	●	○	●	○	●	●				

TURNING

Turning Inserts

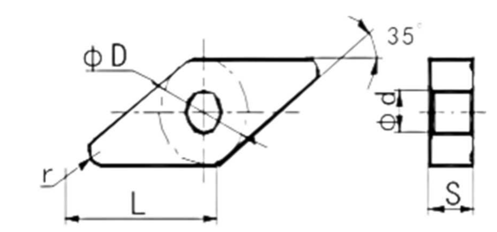
60° TC** With Hole



●Most Suitable ○Suitable

Description	Specificiation/mm					PVD Coating P			PVD Coating M			CVD Coating P			CVD Coating K
	L	D	S	ϕd	r	HN8225	HN15TF	HN8325	HN8225	HN15TF	HN8325	HN9025	HN9125	HN9225	HN9225
TCMT110202-SL	11.0	6.35	2.38	2.8	0.2	●	○	●	○	●	●				
TCMT110204-SL	11.0	6.35	2.38	2.8	0.4	●	○	●	○	●	●				
TCMT110208-SL	11.0	6.35	2.38	2.8	0.8	●	○	●	○	●	●				
TCMT16T304-SL	16.5	9.53	3.97	4.4	0.4	●	○	●	○	●	●				
TCMT16T308-SL	16.5	9.53	3.97	4.4	0.8	●	○	●	○	●	●				

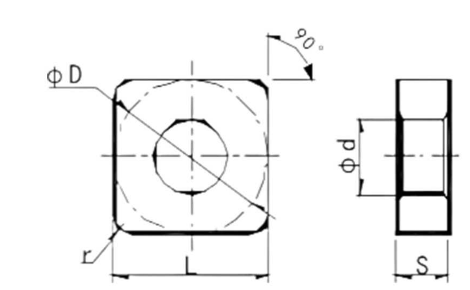
35° VB** With Hole



●Most Suitable ○Suitable

Description	Specificiation/mm					PVD Coating P			PVD Coating M			CVD Coating P			CVD Coating K
	L	D	S	ϕd	r	HN8225	HN15TF	HN8325	HN8225	HN15TF	HN8325	HN9025	HN9125	HN9225	HN9225
VBMT160404-MV	16.5	9.53	4.76	4.4	0.4	●	○	●	○	●	●				
VBMT160408-MV	16.5	9.53	4.76	4.4	0.8	●	○	●	○	●	●				
VBMT160412-MV	16.5	9.53	4.76	4.4	1.2	●	○	●	○	●	●				

90° SC** With Hole



●Most Suitable ○Suitable

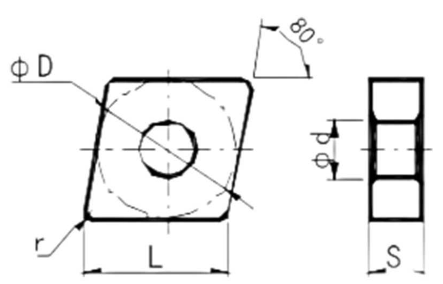
Description	Specificiation/mm					PVD Coating P			PVD Coating M			CVD Coating P			CVD Coating K
	L	D	S	ϕd	r	HN8225	HN15TF	HN8325	HN8225	HN15TF	HN8325	HN9025	HN9125	HN9225	HN9225
SCMT09T304-MV	9.5	9.53	3.97	4.4	0.4	●	○	●	○	●	●				
SCMT09T308--MV	9.5	9.53	3.97	4.4	0.8	●	○	●	○	●	●				

TURNING

Turning Inserts

NEGATIVE INSERT

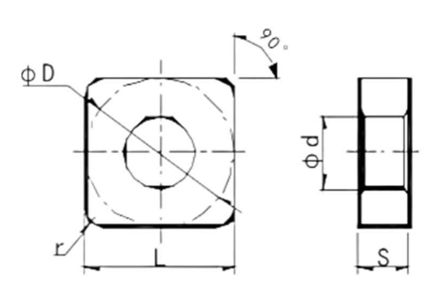
80° CN** With Hole

●Most Suitable ○Suitable

Description	L	D	S	ϕd	r	PVD Coating P HN8225	PVD Coating P HN15TF	PVD Coating P HN8325	PVD Coating M HN8225	PVD Coating M HN15TF	PVD Coating M HN8325	CVD Coating P HN9025	CVD Coating P HN9125	CVD Coating P HN9225	CVD Coating K HN9225	CVD Coating K HN9025
CNMG120404-MA	12.9	12.7	4.76	5.16	0.4	●	○	●	○	●	●					
CNMG120408-MA	12.9	12.7	4.76	5.16	0.8	●	○	●	○	●	●					
CNMG120412-MA	12.9	12.7	4.76	5.16	1.2	●	○	●	○	●	●					
CNMG120404-TM	12.9	12.7	4.76	5.16	0.4								●	●		
CNMG120408-TM	12.9	12.7	4.76	5.16	0.8								●	●		
CNMG120412-TM	12.9	12.7	4.76	5.16	1.2								●	●		
CNMG120404-GM	12.9	12.7	4.76	5.16	0.4								●	●		
CNMG120408-GM	12.9	12.7	4.76	5.16	0.8								●	●		
CNMG120412-GM	12.9	12.7	4.76	5.16	1.2								●	●		
CNMG120404-CK	12.9	12.7	4.76	5.16	0.4										●	●
CNMG120408-CK	12.9	12.7	4.76	5.16	0.8										●	●

90° SN** With Hole

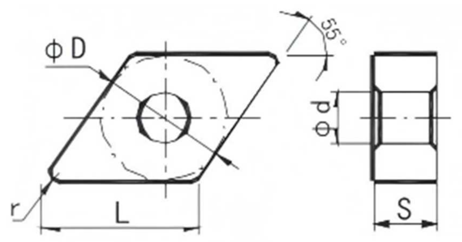
●Most Suitable ○Suitable

Description	L	D	S	ϕd	r	PVD Coating P HN8225	PVD Coating P HN15TF	PVD Coating P HN8325	PVD Coating M HN8225	PVD Coating M HN15TF	PVD Coating M HN8325	CVD Coating P HN9025	CVD Coating P HN9125	CVD Coating P HN9225	CVD Coating K HN9225	CVD Coating K HN9025
SNMG120404-MA	12.7	12.7	4.76	5.16	0.4	●	○	●	○	●	●					
SNMG120408-MA	12.7	12.7	4.76	5.16	0.8	●	○	●	○	●	●					
SNMG120412-MA	12.7	12.7	4.76	5.16	1.2	●	○	●	○	●	●					
SNMG120404-TM	12.7	12.7	4.76	5.16	0.4								●	●		
SNMG120408-TM	12.7	12.7	4.76	5.16	0.8								●	●		
SNMG120412-TM	12.7	12.7	4.76	5.16	1.2								●	●		
SNMG120404-GM	12.7	12.7	4.76	5.16	0.4								●	●		
SNMG120408-GM	12.7	12.7	4.76	5.16	0.8								●	●		
SNMG120412-GM	12.7	12.7	4.76	5.16	1.2								●	●		
SNMG120404-CK	12.7	12.7	4.76	5.16	0.4										●	●
SNMG120408-CK	12.7	12.7	4.76	5.16	0.8										●	●

TURNING

Turning Inserts

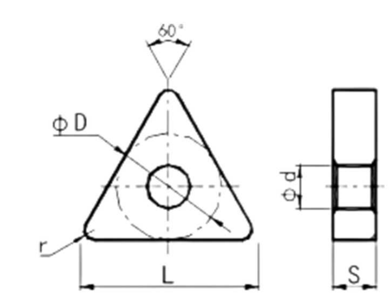
55° DN** With Hole

●Most Suitable ○Suitable

Description	L	D	S	ϕd	r	PVD Coating P HN8225	PVD Coating P HN15TF	PVD Coating P HN8325	PVD Coating M HN8225	PVD Coating M HN15TF	PVD Coating M HN8325	CVD Coating P HN9025	CVD Coating P HN9125	CVD Coating P HN9225	CVD Coating K HN9225	CVD Coating K HN9025
DNMG150404-MA	15.5	12.7	4.76	5.16	0.4	●	○	●	○	●	●					
DNMG150408-MA	15.5	12.7	4.76	5.16	0.8	●	○	●	○	●	●					
DNMG150412-MA	15.5	12.7	4.76	5.16	1.2	●	○	●	○	●	●					
DNMG150604-MA	15.5	12.7	6.35	5.16	0.4	●	○	●	○	●	●					
DNMG150608-MA	15.5	12.7	6.35	5.16	0.8	●	○	●	○	●	●					
DNMG150612-MA	15.5	12.7	6.35	5.16	1.2	●	○	●	○	●	●					
DNMG150404-TM	15.5	12.7	4.76	5.16	0.4								●	●		
DNMG150408-TM	15.5	12.7	4.76	5.16	0.8								●	●		
DNMG150412-TM	15.5	12.7	4.76	5.16	1.2								●	●		
DNMG150604-TM	15.5	12.7	6.35	5.16	0.4								●	●		
DNMG150608-TM	15.5	12.7	6.35	5.16	0.8								●	●		
DNMG150612-TM	15.5	12.7	6.35	5.16	1.2								●	●		
DNMG150404-GM	15.5	12.7	4.76	5.16	0.4								●	●		
DNMG150408-GM	15.5	12.7	4.76	5.16	0.8								●	●		
DNMG150412-GM	15.5	12.7	4.76	5.16	1.2								●	●		
DNMG150604-GM	15.5	12.7	6.35	5.16	0.4								●	●		
DNMG150608-GM	15.5	12.7	6.35	5.16	0.8								●	●		
DNMG150612-GM	15.5	12.7	6.35	5.16	1.2								●	●		
DNMG150404-CK	15.5	12.7	4.76	5.16	0.4										●	●
DNMG150408-CK	15.5	12.7	4.76	5.16	0.8										●	●
DNMG150604-CK	15.5	12.7	6.35	5.16	0.4										●	●
DNMG150608-CK	15.5	12.7	6.35	5.16	0.8										●	●

60° TN** With Hole

●Most Suitable ○Suitable

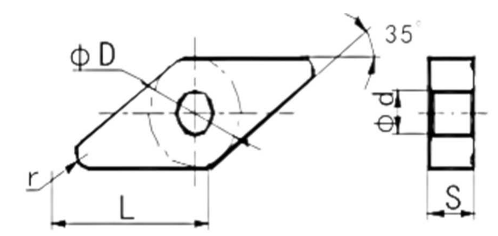
Description	L	D	S	ϕd	r	PVD Coating P HN8225	PVD Coating P HN15TF	PVD Coating P HN8325	PVD Coating M HN8225	PVD Coating M HN15TF	PVD Coating M HN8325	CVD Coating P HN9025	CVD Coating P HN9125	CVD Coating P HN9225	CVD Coating K HN9225	CVD Coating K HN9025
TNMG160404-MA	16.5	9.5	4.76	3.81	0.4	●	○	●	○	●	●					
TNMG160408-MA	16.5	9.5	4.76	3.81	0.8	●	○	●	○	●	●					
TNMG160412-MA	16.5	9.5	4.76	3.81	1.2	●	○	●	○	●	●					
TNMG160404-TM	16.5	9.5	4.76	3.81	0.4								●	●		
TNMG160408-TM	16.5	9.5	4.76	3.81	0.8								●	●		
TNMG160412-TM	16.5	9.5	4.76	3.81	1.2								●	●		
TNMG160404-GM	16.5	9.5	4.76	3.81	0.4								●	●		
TNMG160408-GM	16.5	9.5	4.76	3.81	0.8								●	●		
TNMG160412-GM	16.5	9.5	4.76	3.81	1.2								●	●		
TNMG160404-CK	16.5	9.5	4.76	3.81	0.4										●	●
TNMG160408-CK	16.5	9.5	4.76	3.81	0.8										●	●

TURNING

Turning Inserts

NEGATIVE INSERT

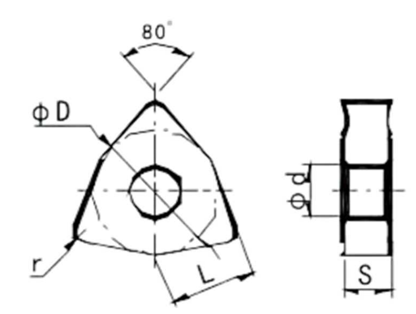
35° VN** With Hole



●Most Suitable ○Suitable

Description	Specificiation/mm					PVD Coating						CVD Coating				
						P			M			P			K	
	L	D	S	ϕd	r	HN8225	HN15TF	HN8325	HN8225	HN15TF	HN8325	HN9025	HN9125	HN9225	HN9225	HN9025
VNMG160404-MA	16.6	9.5	4.76	3.81	0.4	●	○	●	○	●	●					
VNMG160408-MA	16.6	9.5	4.76	3.81	0.8	●	○	●	○	●	●					
VNMG160412-MA	16.6	9.5	4.76	3.81	1.2	●	○	●	○	●	●					
VNMG160404-TM	16.6	9.5	4.76	3.81	0.4								●	●		
VNMG160408-TM	16.6	9.5	4.76	3.81	0.8								●	●		
VNMG160412-TM	16.6	9.5	4.76	3.81	1.2								●	●		
VNMG160404-GM	16.6	9.5	4.76	3.81	0.4								●	●		
VNMG160408-GM	16.6	9.5	4.76	3.81	0.8								●	●		
VNMG160412-GM	16.6	9.5	4.76	3.81	1.2								●	●		
VNMG160404-CK	16.6	9.5	4.76	3.81	0.4										●	●
VNMG160408-CK	16.6	9.5	4.76	3.81	0.8										●	●

80° WN** With Hole



●Most Suitable ○Suitable

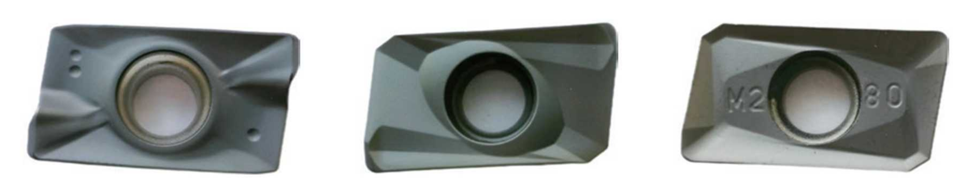
Description	Specificiation/mm					PVD Coating						CVD Coating				
						P			M			P			K	
	L	D	S	ϕd	r	HN8225	HN15TF	HN8325	HN8225	HN15TF	HN8325	HN9025	HN9125	HN9225	HN9225	HN9025
WNMG080404-MA	8.7	12.7	4.76	5.16	0.4	●	○	●	○	●	●					
WNMG080408-MA	8.7	12.7	4.76	5.16	0.8	●	○	●	○	●	●					
WNMG080412-MA	8.7	12.7	4.76	5.16	1.2	●	○	●	○	●	●					
WNMG080404-TM	8.7	12.7	4.76	5.16	0.4								●	●		
WNMG080408-TM	8.7	12.7	4.76	5.16	0.8								●	●		
WNMG080412-TM	8.7	12.7	4.76	5.16	1.2								●	●		
WNMG080404-GM	8.7	12.7	4.76	5.16	0.4								●	●		
WNMG080408-GM	8.7	12.7	4.76	5.16	0.8								●	●		
WNMG080412-GM	8.7	12.7	4.76	5.16	1.2								●	●		
WNMG080404-CK	8.7	12.7	4.76	5.16	0.4										●	●
WNMG080408-CK	8.7	12.7	4.76	5.16	0.8										●	●

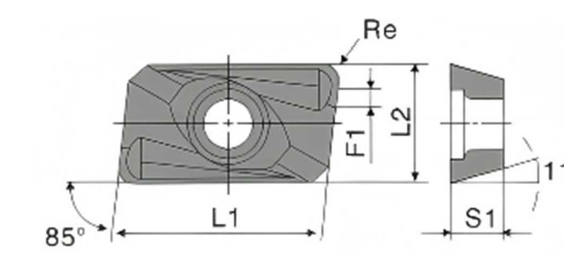
MILLING

Milling Inserts

Grade	Coating		Application
	Type	Color	
HN8225	PVD	Black	Suitable tor processing mild steel and some stainless steel,around HRC35
HN15TF	PVD	Bronze	Suitable for processing mainly stainless steel,some steel parts,around HRC25-HRC40
HN8325	PVD	DLC	Suitable tor general steel parts and stainless steel,around HRC4O-HRC50

SQUARE SHOULDER MILLING

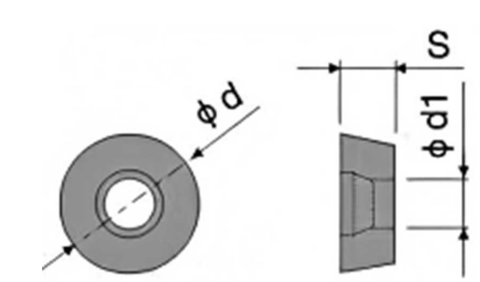




●Most Suitable ○Suitable

Description	Specificiation/mm				PVD Coating							
					P			M			K	
	L1	L2	S1	Re	HN8225	HN15TF	HN8325	HN8225	HN15TF	HN8325	HN8225	HN15TF
APMT1135-H2	11.25	6.20	3.5	0.8	●	○	●	○	●	●		
APMT1604-H2	17.25	9.25	4.76	0.8	●	○	●	○	●	●		
APMT1135-M2	11.25	6.20	3.5	0.8	●	○	●	○	●	●		
APMT1604-M2	17.25	9.25	4.76	0.8	●	○	●	○	●	●		
APMT1135-DL	11.25	6.20	3.5	0.8	●	○	●	○	●	●		
APMT1604-DL	17.25	9.25	4.76	0.8	●	○	●	○	●	●		

PROFILE MILLING



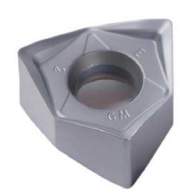
●Most Suitable ○Suitable

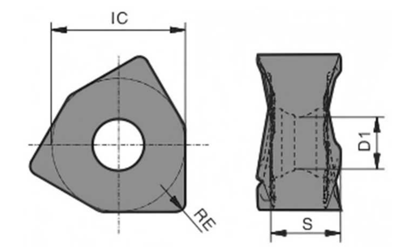
Description	Specificiation/mm			PVD Coating							
				P			M			K	
	d	S	d1	HN8225	HN15TF	HN8325	HN8225	HN15TF	HN8325	HN8225	HN15TF
RPMT10T3MO	10	3.97	4.4	●	○	●	○	●	●		
RPMT1204MO	12	4.76	4.4	●	○	●	○	●	●		
RPMW1003	10	3.18	4.4	●	○	●	○	●	●		
RPMT1204-DL	12	4.76	4.4	●	○	●	○	●	●		

MILLING

Milling Inserts

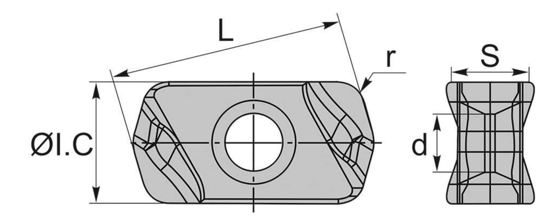
HIGH FEED MILLING





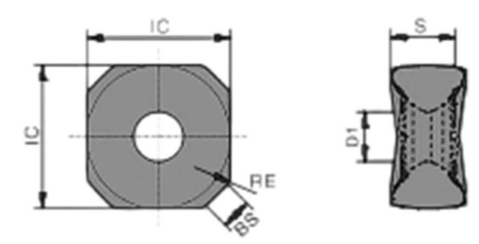
●Most Suitable ○Suitable

Description	Specification/mm				PVD Coating							
					P			M			K	
	IC	S	D1	RE	HN8225	HN15TF	HN8325	HN8225	HN15TF	HN8325	HN8225	HN15TF
WNMU080608EN-GM	12.00	6.35	4.6	0.8	●	○	●	○	●	●		



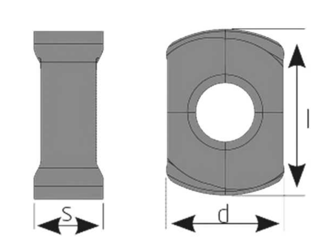
●Most Suitable ○Suitable

Description	Specification/mm				PVD Coating							
					P			M			K	
	IC	S	L	d	HN8225	HN15TF	HN8325	HN8225	HN15TF	HN8325	HN8225	HN15TF
LNMU0303ZER-DZ	6.00	4.30	11.8	2.8	●	○	●	○	●	●		



●Most Suitable ○Suitable

Description	Specification/mm				PVD Coating							
					P			M			K	
	IC	S	D1	RE	HN8225	HN15TF	HN8325	HN8225	HN15TF	HN8325	HN8225	HN15TF
SNMU1206XTN	13.40	6.00	4.6	0.8	●	○	●	○	●	●		



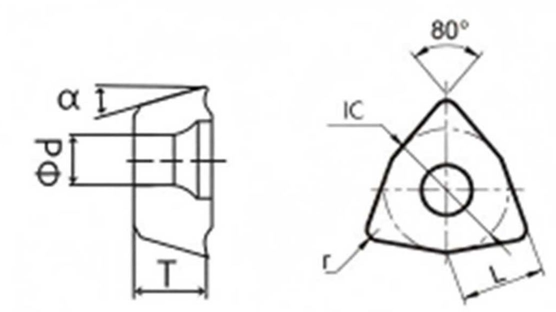
●Most Suitable ○Suitable

Description	Specification/mm				PVD Coating							
					P			M			K	
	d	S	l		HN8225	HN15TF	HN8325	HN8225	HN15TF	HN8325	HN8225	HN15TF
BLMP0603R-M	6.39	3.73	9.0		●	○	●	○	●	●		

Drilling

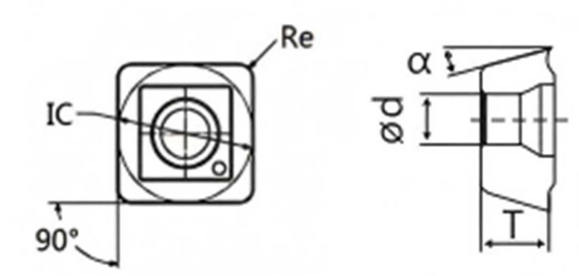
Drilling Insert

DRILLING INSERT



●Most Suitable ○Suitable

Description	Specification/mm					PVD Coating							
						P			M			K	
	IC	T	r	ϕd	α	HN8225	HN15TF	HN8325	HN8225	HN15TF	HN8325	HN8225	HN15TF
WCMX030208-U	5.56	2.38	0.8	2.8	7	●	○	●	○	●	●		
WCMX040208-U	6.35	2.38	0.8	3.0	7	●	○	●	○	●	●		
WCMT050308-U	7.94	3.18	0.8	3.4	7	●	○	●	○	●	●		
WCMT06T308-U	9.53	3.97	0.8	3.8	7	●	○	●	○	●	●		
WCMT080412-U	12.70	4.76	1.2	4.4	7	●	○	●	○	●	●		

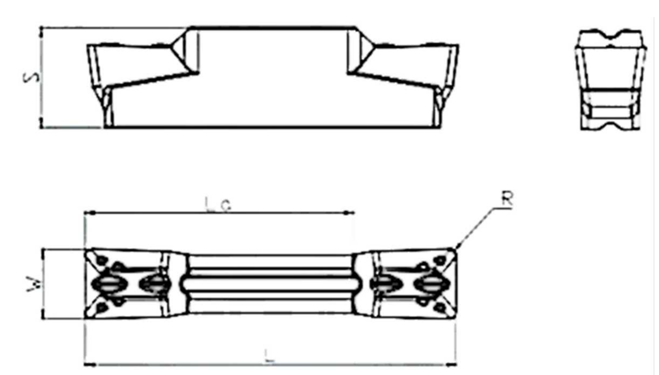


●Most Suitable ○Suitable

Description	Specification/mm					PVD Coating							
						P			M			K	
	IC	T	r	ϕd	α	HN8225	HN15TF	HN8325	HN8225	HN15TF	HN8325	HN8225	HN15TF
SPMG050204-DG	11.50	4.30	0.8	4.5	16.5	●	○	●	○	●	●		
SPMG060204-DG	9.80	4.30	0.8	4.1	17.5	●	○	●	○	●	●		
SPMG07T308-DG	7.94	3.97	0.8	2.9	15.5	●	○	●	○	●	●		
SPMG090408-DG	6.00	2.38	0.4	2.6	14	●	○	●	○	●	●		
SPMG110408-DG	5.00	2.38	0.4	2.3	14	●	○	●	○	●	●		

Featuresofchip-breaker	
M	Used forparting grooving and turning etc.Enablesit to cut lightlyand easily unobstructed chip fow and improve the surface quality.
G	Special chip-breaker design,special chip-breaker design makes the chip narrow improve the cutting fow control.

PARTING AND GROOVING INSERT



●Most Suitable ○Suitable

Description	Specification/mm				P			M			K	
	L	W	S	R	HN8225	HN15TF	HN8325	HN8225	HN15TF	HN8325	HN8225	HN15TF
MGMN150-G	16	1.5	4.0	0.15	●		●	○		●		
MGMN200-G	16	2.0	4.0	0.2	●		●	○		●		
MGMN250-M	19	2.5	4.5	0.20	●		●	○		●		
MGMN300-M	21	2.5	5.6	0.4	●		●	○		●		
MGMN400-M	21	4.0	5.8	0.40	●		●	○		●		
MGMN500-M	26	5.0	5.8	0.8	●		●	○		●		
MGMN600-M	26	6.0	5.9	0.80	●		●	○		●		
TDC2	20	2.0	3.9	0.2	●		●	○		●		
TDC3	20	3.0	4.2	0.20	●		●	○		●		
TDC4	25	4.0	4.2	0.3	●		●	○		●		
TDJ2	20	2.0	3.9	0.20	●		●	○		●		
TDJ3	20	3.0	4.2	0.2	●		●	○		●		
TDJ4	25	4.0	4.2	0.30	●		●	○		●		

Milling Insert Identification System

Z16 E R 2.0 - ISO

Insert size

L(mm)	D
8	3/16"
11	1/4"
16	3/8"
22	1/2"
27	5/8"

Hand of thread

Right hand
Lefe hand

Application

External
Internal

Pitch

Full profile

mm	TPI
0.5-6.0	48-5

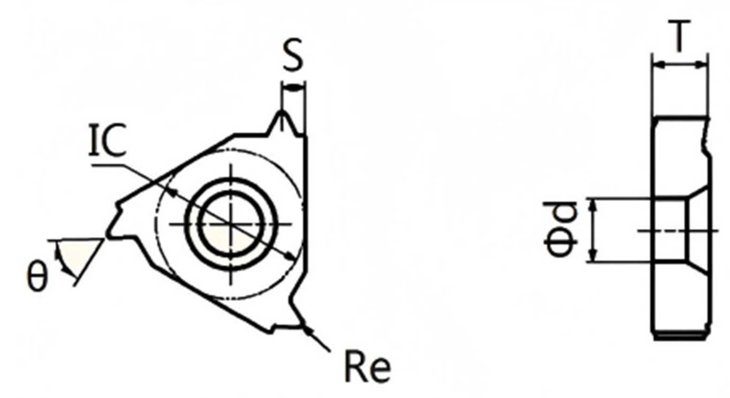
Partial profile

	mm	TPI
A	0.5-1.5	48-16
AG	0.5-3.0	48-8
G	1.75-3.0	14-8
N	3.5-5.0	7-5

Standard

60—60°
55—55°
ISO-ISO
UN-60°
UNJ-60°
W-55°
NPT-60°
NPTF-60°
BSPT-55°
ACME-29°
TR-30°
ABUT
RD

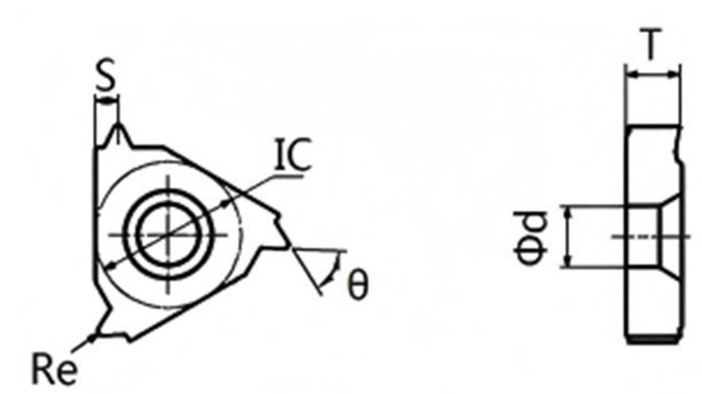
60° ISO METRIC THREAD



●Most Suitable ○Suitable

Description	Thread Pitch					PVD Coating						CVD Coating			
						P			M			P			K
		IC	T	ϕd	θ	HN8225	HN15TF	HN8325	HN8225	HN15TF	HN8325	HN9025	HN9125	HN9225	HN9225
16IR 1.0	1.0	9.53	3.52	4.00	60°	●	○		○	●					
16IR 1.25	1.25	9.53	3.52	4.00	60°	●	○		○	●					
16IR 2.0	2.0	9.53	3.52	4.00	60°	●	○		○	●					
16IR 2.5	2.50	9.53	3.52	4.00	60°	●	○		○	●					
16IR 3.0	3.0	9.53	3.52	4.00	60°	●	○		○	●					
22IR N4.0	4.00	12.70	4.65	5.00	60°	●	○		○	●					
22IR N5.0	5.0	12.70	4.65	5.00	60°	●	○		○	●					

60° ISO METRIC THREAD

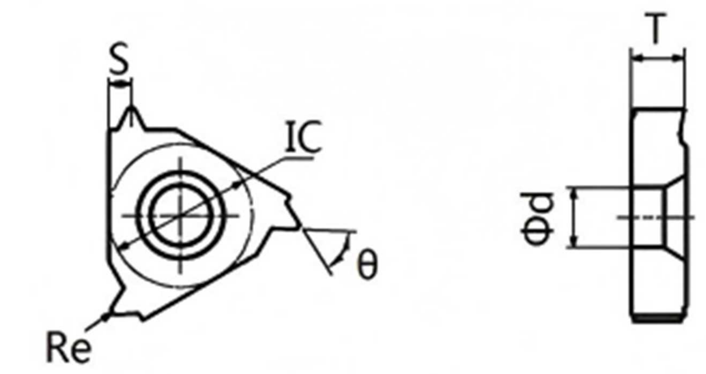


●Most Suitable ○Suitable

Description	Thread Pitch					PVD Coating						CVD Coating			
						P			M			P			K
		IC	T	ϕd	θ	HN8225	HN15TF	HN8325	HN8225	HN15TF	HN8325	HN9025	HN9125	HN9225	HN9225
16ER 1.0	1.0	9.53	3.52	4.00	60°	●	○		○	●					
16ER 1.25	1.25	9.53	3.52	4.00	60°	●	○		○	●					
16ER 2.0	2.0	9.53	3.52	4.00	60°	●	○		○	●					
16ER 2.5	2.50	9.53	3.52	4.00	60°	●	○		○	●					
16ER 3.0	3.0	9.53	3.52	4.00	60°	●	○		○	●					
22ER N4.0	4.00	12.70	4.65	5.00	60°	●	○		○	●					
22ER N5.0	5.0	12.70	4.65	5.00	60°	●	○		○	●					

Threading
Threading Insert

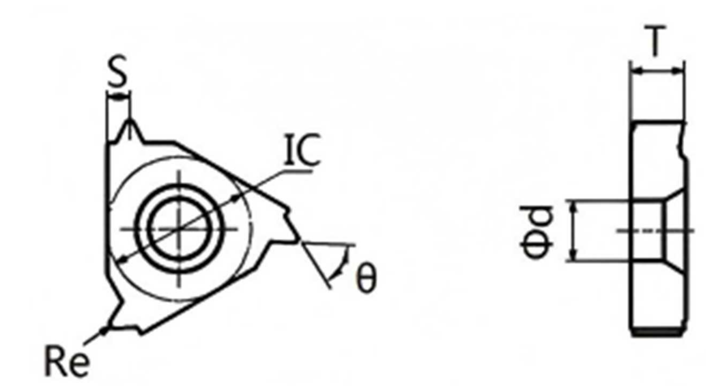
GENERAL PITCH THREAD



●Most Suitable ○Suitable

Description	Thread Pitch	Specificiation/mm						PVD Coating						CVD Coating			
								P			M			P			K
		IC	S	T	Re	ϕd	θ	HN8225	HN15TF	HN8325	HN8225	HN15TF	HN8325	HN9025	HN9125	HN9225	HN9225
16ER AG55	0.5-3.0	9.53	1.70	3.52	0.06	4	55°	●	○		○	●					
16ER AG60	0.5-3.0	9.53	1.70	3.52	0.07	4	60°	●	○		○	●					
16IR AG55	0.5-3.0	9.53	1.70	3.52	0.06	4	55°	●	○		○	●					
16IR AG60	0.5-3.0	9.53	1.70	3.52	0.08	4	60°	●	○		○	●					

55° WHIT WORTH THREAD



●Most Suitable ○Suitable

Description	Thread Pitch	Specificiation/mm						PVD Coating						CVD Coating			
								P			M			P			K
		IC	S	T	Re	ϕd	θ	HN8225	HN15TF	HN8325	HN8225	HN15TF	HN8325	HN9025	HN9125	HN9225	HN9225
16IR11W	11.0	9.53	1.50	3.52	0.30	4	55°	●	○		○	●					
16IR14W	14.0	9.53	1.20	3.52	0.23	4	55°	●	○		○	●					
16IR19W	19.0	9.53	1.00	3.52	0.17	4	55°	●	○		○	●					
16ER11W	11.0	9.53	1.50	3.52	0.30	4	55°	●	○		○	●					
16ER14W	14.0	9.53	1.20	3.52	0.23	4	55°	●	○		○	●					
16ER19W	19.0	9.53	1.00	3.52	0.17	4	55°	●	○		○	●					

A
B
C
D