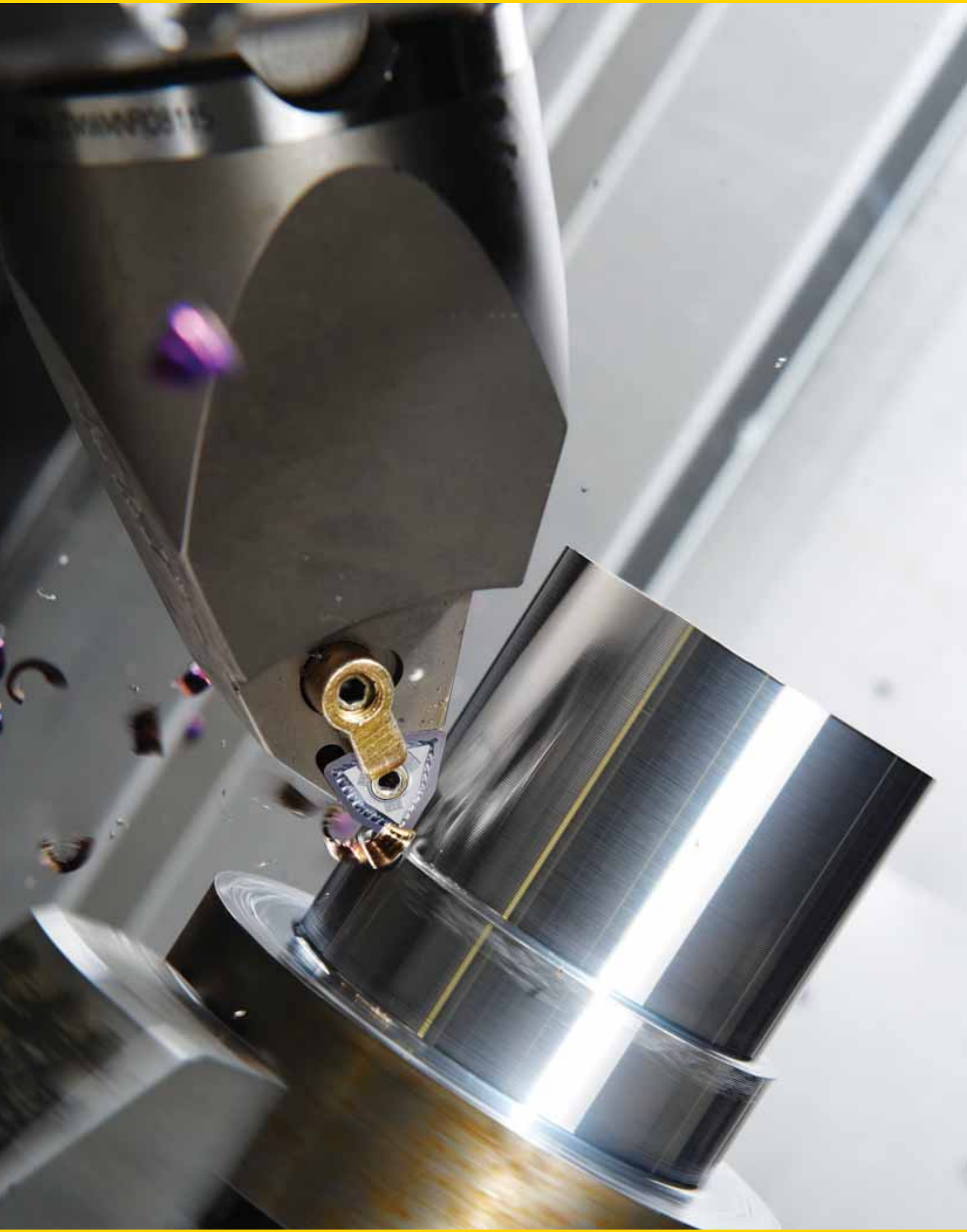


ISO/ANSI Inserts

Inserts for Every Turning Operation

Kennametal, the trusted innovator in metalcutting technology, offers a complete range of indexable inserts for general turning operations. From roughing to finishing, Kennametal has the correct insert.

Plus, Kennametal offers the next generation in tooling with Beyond™. Harnessing advanced science and exceptional experience, our Beyond inserts deliver unparalleled levels of productivity, efficiency, dependability, and profitability.

Features and Benefits

Up to 30% Higher Productivity and Profitability

- Achieve higher metal removal rates (speed, feed, and depth of cut).
- Gain longer tool life.

Versatility

- Products can be applied across a wide range of applications.
- Can be used in low- to high-speed applications.

Reliability

- Deliver uniform wear for predictable tool life.
- Achieve reduced depth-of-cut notching.
- Virtually eliminate chip flow damage.

Complete Portfolio

- The Beyond product portfolio can be used in a complete range of steel, cast iron, and stainless steel ISO turning workpieces.

Technical Details • Features

Post-Coat Treatment

- Improves edge toughness.
- Long predictable tool life.
- Reduces depth-of-cut notching.
- Wide range of applications.
- Reduces stresses.
- Reduces microchipping.
- Improves coating adhesion.

Fine-Grained Alumina Layer

- Provides coating integrity at elevated speeds.
- Higher productivity and dependability at high cutting temperatures.

Micro-Polished Edges

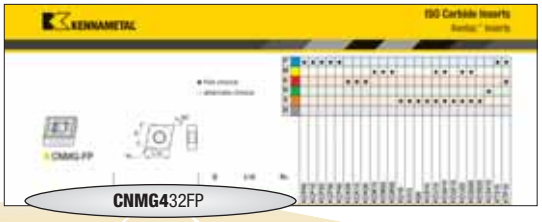
- Improves edge toughness.
- Provides smooth outer surface to reduce forces, friction, and workpiece sticking.

Post-Coat Grinding — Bottom

- Provides secure seating surface.

How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



C — Insert Shape

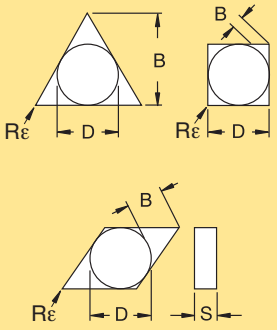
H	Hexagon	120°
O	Octagon	135°
P	Pentagon	108°
R	Round	—
S	Square	90°
T	Triangular	60°
C	Rhomboid	80°
D		55°
E		75°
M		86°
V		35°
W	Trigon	80° with enlarged corner angles
L	Rectangular	90°
A	Parallelogram	85°
B		82°
N/K		55°

N — Insert Clearance Angle

A	3°
B	5°
C	7°
D	15°
E	20°
F	25°
G	30°
N	0°
P	11°
O	Indicated for other clearance angles requiring descriptions.

M — Tolerance Class

Tolerances apply prior to edge prep and coating



D = Theoretical diameter of the insert inscribed circle
S = Thickness
B = See figures below

G — Insert Features

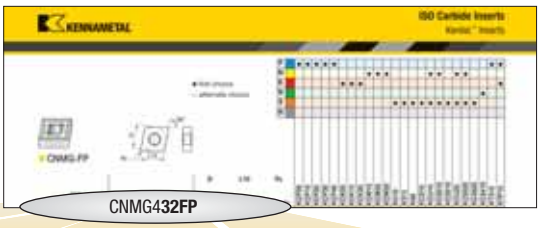
N	
R	
F	
A	
M	
G	
W	
T	
Q	
U	
B	
H	
C	
J	
X	Special Design

4 — Size

		Code for inch cutting edge length "L10"						
	"D"							
inch	inch	C	D	R	S	T	V	W
1.2 (5)	5/32	S4	04	03	03	06	–	–
1.5 (6)	3/16	04	05	04	04	08	08	S3
1.8 (7)	7/32	05	06	05	05	09	09	03
–	.236	–	–	06	–	–	–	–
2	1/4	06	07	06	06	11	11	04
2.5	5/16	08	09	07	07	13	13	05
–	.315	–	–	08	–	–	–	–
3	3/8	09	11	09	09	16	16	06
–	.394	–	–	10	–	–	–	–
3.5	7/16	11	13	11	11	19	19	07
–	.472	–	–	12	–	–	–	–
4	1/2	12	15	12	12	22	22	08
4.5	9/16	14	17	14	14	24	24	09
5	5/8	16	19	15	15	27	27	10
–	.630	–	–	16	–	–	–	–
5.5	11/16	17	21	17	17	30	30	11
6	3/4	19	23	19	19	33	33	13
–	.787	–	–	20	–	–	–	–
7	7/8	22	27	22	22	38	38	15
–	.984	–	–	25	–	–	–	–
8	1	25	31	25	25	44	44	17
10	1-1/4	32	38	31	31	54	54	21
–	1.260	–	–	32	–	–	–	–

tolerance class	tolerance on "D"	tolerance on "B"	tolerance on "S"
C	±.0010"	±.0005"	±.001"
H	±.0005"	±.0005"	±.001"
E	±.0010"	±.0010"	±.001"
G	±.0010"	±.0010"	±.005"
M	See tables on the next page		±.005"
U	See tables on the next page		±.005"

By referencing this easy-to-use guide, you can identify the correct product to meet your needs.



3 — Thickness S

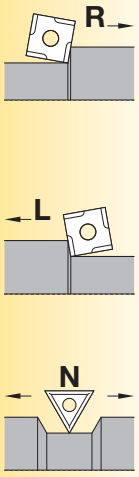
symbol inch	thickness inch
.5 (1)	1/32
.6	.040
1 (2)	1/16
1.2	5.64
1.5 (3)	3/32
2	1/8
2.5	5/32
3	3/16
3.5	7/32
4	1/4
5	5/16
6	3/8
7	7/16
18	1/2

2 — Corner Radius "Rε"

symbol inch	corner radius inch
X0	.0015
0	.004
.5	.008
1	1/64
2	1/32
3	3/64
4	1/16
5	5/64
6	3/32
7	7/64
8	1/8
–	round insert
–	

Hand of Insert *(optional)*

R = Right hand
L = Left hand
N = Neutral



Cutting Edge *(optional)*

F Sharp
E Rounded
T Chamfered
S Chamfered and Rounded
K Double-Chamfered
P Double-Chamfered and Rounded

FP — Chipbreaker *(optional)*

F = Sharp
FF = Fine Finishing
FN = Finishing Negative
MN = Medium Negative
RN = Roughing Negative
UN = Universal Medium
FP = Finishing Positive
MP = Medium Positive
RP = Roughing Positive
RM = Roughing Medium
RH = Roughing Heavy
FW = Finishing Wiper
MW = Medium Wiper
FS = Finishing Sharp
MS = Medium Sharp
RW = Roughing Wiper
HP = High Positive
UP = Universal Positive
K = Light-Feed Chip Control
UF = Ultra-Fine Finishing
LF = Light Finishing
MF = Medium Finishing
E = Hone Only
T = Negative Land
S = Negative Land Plus Hone
MP-K = Medium Positive
MG-P = Medium Positive

"D" inch	± Tolerance on "D" Class M Tolerance Shapes S, T, C, R, & W inch	Class M Tolerance Shape D inch	Class U Tolerance Shape V inch	Class U Tolerance Shapes S, T, & C inch
5/32	.002	–	–	–
3/16	.002	–	–	.003
7/32	.002	.002	.002	.003
1/4	.002	.002	.002	.003
5/16	.002	.002	.002	.003
3/8	.002	.002	.002	.003
7/16	.003	.003	.003	.005
1/2	.003	.003	.003	.005
9/16	.003	.003	.003	.005
5/8	.004	.004	.004	.007
11/16	.004	.004	.004	.007
3/4	.004	.004	.004	.007
7/8	.005	–	–	.010
1	.005	–	–	.010
1 1/4	.006	–	–	.010

"D" inch	± Tolerance on "B" Class M Tolerance Shapes S, T, C, R, & W inch	Class M Tolerance Shape D inch	Class U Tolerance Shape V inch	Class U Tolerance Shapes S, T, & C inch
5/32	.003	–	–	–
3/16	.003	–	–	.005
7/32	.003	.004	–	.005
1/4	.003	.004	–	.005
5/16	.003	.004	–	.005
3/8	.003	.004	.007	.005
7/16	.005	.006	–	–
1/2	.005	.006	.010	.008
9/16	.005	.006	–	–
5/8	.006	.007	–	.011
11/16	.006	.007	–	.011
3/4	.006	.007	–	.011
7/8	.006	–	–	.015
1	.007	–	–	.015
1 1/4	.008	–	–	.015

A system of grades, geometries, and application guidelines to provide optimal solutions for your metalcutting needs. It's easy to determine which Kennametal chip-control cutting tool will work best in your specific workpiece materials and applications!

Grade • Beyond™

K	C	P	M	25	A
Brand	Insert Material	Primary Workpiece Material (ISO 513)	Secondary Workpiece Material *(optional)*	Application Range	Future Upgrades *(optional)*

K = Kennametal

Blank = Carbide, uncoated
C = Carbide, coated
T = Cermet
Y = Ceramic
D = PCD
B = PCBN
S = Steel

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous Materials
S	High-Temp Alloys
H	Hardened Materials

U = Universal Machining

Hardest

5	fine finishing
10	finishing
15, 20	medium to roughing
25, 30, 35	roughing
40, 45, 50	heaviest roughing

Toughest

A = Generation 1
B = Generation 2
C = Generation 3
etc.

NOTE: Application range does not apply to PCBN grades.

Grade • Kenna Perfect™

K	C	9	2	25
		Coating Type	Material Group	Wear Application Range/Toughness Range

9 = CVD (Chemical Vapor Deposition)
5 = PVD (Physical Vapor Deposition)

1 =	P	Steel
2 =	M	Stainless Steel
3 =	K	Cast Iron
4 =	N	Non-Ferrous Materials
5 =	S	High-Temp Alloys
6 =	H	Hardened Materials

0 = Universal Machining

Hardest

10	highly wear resistant
to	
50	extremely tough

Toughest

NOTE: Application range does not apply to PCBN grades.

Positive Inserts

Screw-On Inserts

- Screw-On inserts are your first choice for I.D. turning of all materials and O.D. turning on small to medium lathes.
- Available in flat-top and chip-control geometries with both molded and ground peripheries. Suitable for all workpiece materials.

See pages:
Carbide: B88–B115
Superhard: B187–B197

Kendex™ and V-Bottom Inserts

- Kendex positive and V-bottom inserts are your first choice for productive machining of high-temperature alloys on medium to large lathes.
- Available in flat-top geometries with ground periphery.

See pages:
Carbide: B84–B87
Ceramic: B128–B130
Superhard: B185–B186

See pages B128–B129 for V-bottom product listing.

Top Notch™ Profiling Inserts

- First choice for high-production profiling.
- Unique insert clamping design offers superior rigidity.
- Available in chip-control geometries with both molded and ground peripheries. Suitable for all workpiece materials.

See pages F43–F48 for product listing.

K-Lock™ Inserts

- K-Lock inserts are ideal for deep grooving and profiling.
- A unique insert clamping system allows for unimpeded chip flow.
- Available in molded and ground peripheries.

See page F61 for product listing.

Negative Inserts

Kenloc™ Inserts

- Kenloc inserts are your first choice for general machining of all materials on medium to large lathes.
- Kenloc inserts offer the best economy for high metal removal rates.
- Available in flat-top and chip-control geometries with both molded and ground peripheries. Suitable for all workpiece materials.

See pages:
Carbide: B40–B83
Ceramic: B118–B121
Superhard: B187–B197

Kendex Inserts

- Ceramic Kendex inserts are a great choice for productive machining of high-temp alloys.
- Kendex negative rake inserts are also recommended for the machining of hardened materials and cast irons.
- Available in flat-top geometries with molded and ground peripheries.
- Wide selection of standard toolholders are offered.

See pages B122–B127 for product listing.

Top Notch Turning Inserts

- Ceramic Top Notch Turning inserts are your first choice for high-speed roughing and finishing of cast iron parts.
- Available in flat-top geometries with molded and ground peripheries.

See pages B122–B127 for product listing.

Insert Selection System

How to Use

Kennametal's three-step insert selection system makes choosing and applying the most productive tool as easy as 1, 2, 3. Tool recommendations are based on six workpiece material groups, optimizing selection accuracy.

Example:
Six workpiece material groups

Step 1 • Select the insert geometry

Given: depths of cut = .040" (1mm)
feed = .016 IPR (0,4mm)
Unknown: insert geometry
Solution: -MN

Step 2 • Select the grade

Given: cutting conditions:
lightly interrupted cut 
Geometry: -MN
Unknown: grade
Solution: KCP25

Step 3 • Select the cutting speed

Given: grade KCP25
cutting conditions 
AISI 1010
Unknown: cutting speed
Solution: 925 SFM (280 m/min)

Need help in selecting a product?
Additional information can be obtained by contacting Kennametal's Customer Application Support Team.
Go to www.kennametal.com for your country's phone number.

Step 1 • Select the insert geometry

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous Materials
S	High-Temp Alloys
H	Hardened Materials

beyond

Negative Inserts

-RN

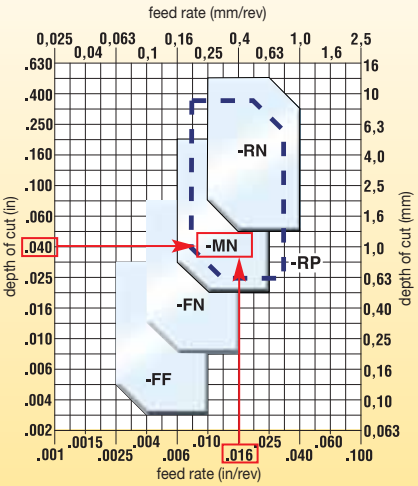
-RP* (positive)

Roughing

-FN Finishing

-MN Medium Machining

-FF Fine Finishing



*-RP – Supplemental geometry for high-strength materials

Step 2 • Select the grade

cutting condition	-FF	-FN	-MN	-RN	-RP	-11	-UF	-LF	-FP	-MF	-MP
heavily interrupted cut	KCP10	KCP25	KCP30	KCP30/KCP40	KCP30/KCP40	—	KC5010/KCP25	KCP25	KCU25/KCP25	KCP40	KCM25
lightly interrupted cut	KCP10	KCP25	KCP25	KCP30/KCP40	KCP30/KCP40	—	KC5010/KCP25	KCP25	KCP25	KCP25	KCP25
varying depth of cut, casting, or forging skin	KCP05/KT315	KCP10	KCP10	KCP30/KCP40	KCP30/KCP40	KT315	KCP10	KCP10	KCP10	KCP10	KCP10

Step 3 • Selecting the cutting speed

Low-Carbon (<0,3% C) and Free-Machining Steel — **speed — m/min (SFM)** — **starting conditions**

material group	grade	135 (450)	180 (600)	225 (800)	275 (900)	320 (1050)	360 (1200)	410 (1350)	455 (1500)	495 (1650)	m/min	SFM
P1	KCP05/KTP10										435	1450
	KCP10										395	1320
	KCP25										275	925
	KCP30/KCP40										210	700

New Beyond™ Material Group Selection Guide:

To optimize speed recommendations, Beyond material subgroups have been added to each of the six workpiece material groups.

material	material group ISO code	number of material subgroups
steel	P	1–6
stainless steel	M	1–3
cast iron	K	1–3
non-ferrous materials	N	1–8
high-temp alloys	S	1–4
hardened materials	H	1

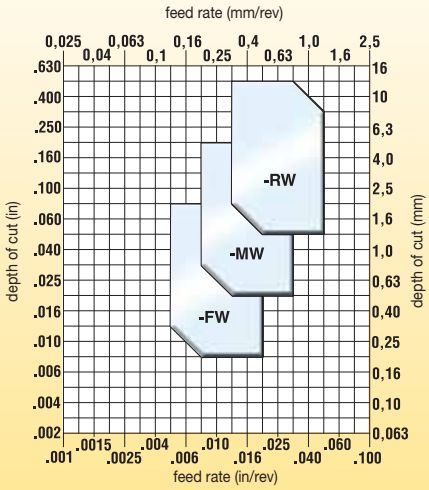
Step 1 • Select the insert geometry

Negative Wiper Inserts

-RW
Rough Wiper

-MW
Medium Wiper

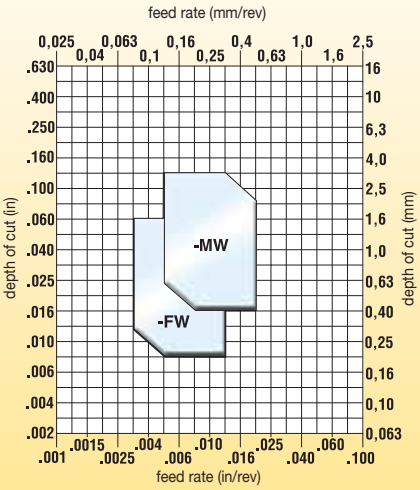
-FW
Finishing Wiper



Positive Wiper Inserts

-MW
Medium Wiper

-FW
Finishing Wiper



Step 2 • Select the grade

cutting condition		Negative Insert Geometry -FW	-MW	-RW	Positive Insert Geometry -FW	-MW
heavily interrupted cut		–	–	KCP25	–	KCP25
lightly interrupted cut		KCP10	KCP25	KCP25	KCP25	KCP25
varying depth of cut, casting, or forging skin		KCP05/KT315	KCP10	KCP10	KCP10/KCK20	KCP10/KCK20
smooth cut, pre-turned surface		KCP05/KT315	KCP05	KCP10	KCP10/KT315	KT315/KT315

Step 1 • Select the insert geometry

Negative Inserts

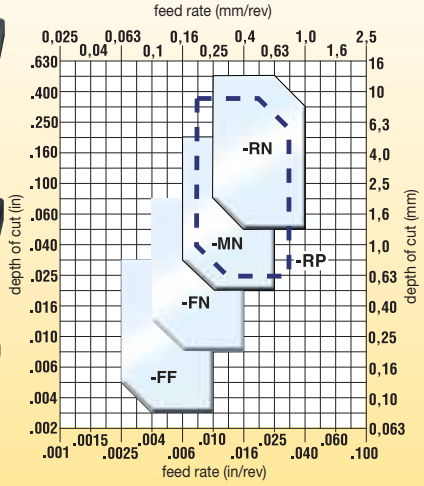
-RN

-RP*
(positive)
Roughing

-FN
Finishing

-MN
Medium
Machining

-FF
Fine Finishing



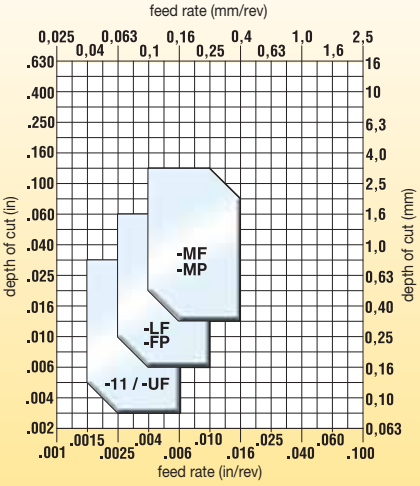
*-RP – Supplemental geometry for high-strength materials

Positive Inserts

-MF -MP
Positive
Medium Machining

-LF -FP
Positive
Finishing

-11 -UF
Fine Finishing



Step 2 • Select the grade

cutting condition		-FF	-FN	-MN	-RN	-RP	-11	-UF	-LF	-FP	-MF	-MP
heavily interrupted cut		KCP10	KCP25	KCP30	KCP30/KCP40	KCP30/KCP40	—	KC5010/KCP25	KCP25	KCU25/KCP25	KCP40	KCM25
lightly interrupted cut		KCP10	KCP25	KCP25	KCP30/KCP40	KCP30/KCP40	—	KC5010/KCP25	KCP25	KCP25	KCP25	KCP25
varying depth of cut, casting, or forging skin		KCP05/KT315	KCP10	KCP10	KCP30/KCP40	KCP30/KCP40	KT315	KCP10	KCP10	KCP10	KCP10	KCP10
smooth cut, pre-turned surface		KCP05/KT315	KCP05	KCP05	KCP30/KCP40	KCP30/KCP40	KT315	KCP05	KCP05/KT315	KCP05/KTP10	KCP05	KCP05

Step 3 • Select the cutting speed

Low-Carbon (<0.3% C) and Free-Machining Steel — speed — m/min (SFM) — starting conditions

material group	grade	135 (450)	180 (600)	225 (800)	275 (900)	320 (1050)	360 (1200)	410 (1350)	455 (1500)	495 (1650)	m/min	SFM
P0/P1	KCP05/KTP10							◁▷			435	1450
	KCP10							◁▷			395	1320
	KCP25				◁▷						275	925
	KCP30/KCP40		◁▷								210	700
	KT315								◁▷		440	1450
	KCU10/KC5010			◁▷							280	925

Medium- and High-Carbon Steels (>0.3% C) — speed — m/min (SFM) — starting conditions

material group	grade	135 (450)	180 (600)	225 (800)	275 (900)	320 (1050)	360 (1200)	410 (1350)	455 (1500)	495 (1650)	m/min	SFM
P2	KCP05/KTP10				◁▷						240	800
	KCP10				◁▷						265	880
	KCP25			◁▷							195	650
	KCP30/KCP40		◁▷								150	500
	KT315				◁▷						270	880
	KCU10/KC5010	◁▷									200	650

Alloy Steels and Tool Steels (≤330 HB) (≤35 HRC) — speed — m/min (SFM) — starting conditions

material group	grade	135 (450)	180 (600)	225 (800)	275 (900)	320 (1050)	360 (1200)	410 (1350)	455 (1500)	495 (1650)	m/min	SFM
P3	KCP05/KTP10		◁▷								205	680
	KCP10		◁▷								190	630
	KCP25			◁▷							155	510
	KCP30/KCP40	◁▷									120	400
	KT315			◁▷							210	680
	KCU10/KC5010		◁▷								155	510

Alloy Steels and Tool Steels (340–450 HB) (36–48 HRC) — speed — m/min (SFM) — starting conditions

material group	grade	60 (200)	90 (300)	120 (400)	150 (500)	180 (600)	210 (700)	240 (800)	270 (900)	300 (1000)	m/min	SFM
P4	KCP05/KTP10				◁▷						160	530
	KCP10				◁▷						145	480
	KCP25			◁▷							105	360
	KCP30/KCP40		◁▷								95	325
	KT315				◁▷						210	530
	KCU10/KC5010			◁▷							110	360

Ferritic, Martensitic, and PH Stainless Steels (≤330 HB) (≤35 HRC) — speed — m/min (SFM) — starting conditions

material group	grade	120 (400)	150 (500)	180 (600)	210 (700)	240 (800)	270 (900)	300 (1000)	330 (1100)	360 (1200)	m/min	SFM
P5	KCP05/KTP10					◁▷					240	800
	KCP10				◁▷						215	720
	KCP25				◁▷						195	650
	KCP30/KCP40		◁▷								135	450
	KT315					◁▷					250	800
	KCU10/KC5010				◁▷						200	660

Ferritic, Martensitic, and PH Stainless Steels (340–450 HB) (36–48 HRC) — speed — m/min (SFM) — starting conditions

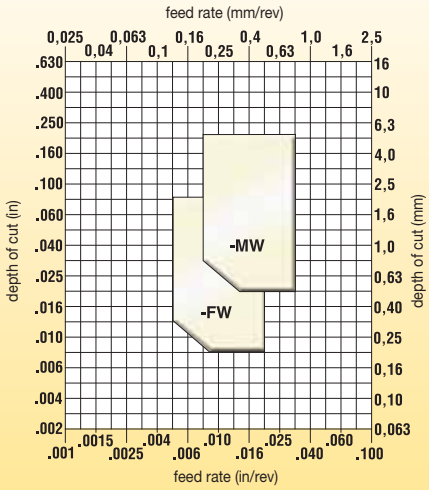
material group	grade	105 (350)	135 (450)	165 (550)	195 (650)	225 (750)	255 (850)	285 (950)	315 (1050)	345 (1150)	m/min	SFM
P6	KCP05/KTP10				◁▷						200	660
	KCP10				◁▷						180	600
	KCP25			◁▷							150	500
	KCP30/KCP40	◁▷									105	350
	KT315				◁▷						200	660
	KCU10/KC5010			◁▷							150	500

Step 1 • Select the insert geometry

Negative Wiper Inserts

-MW
Medium Wiper

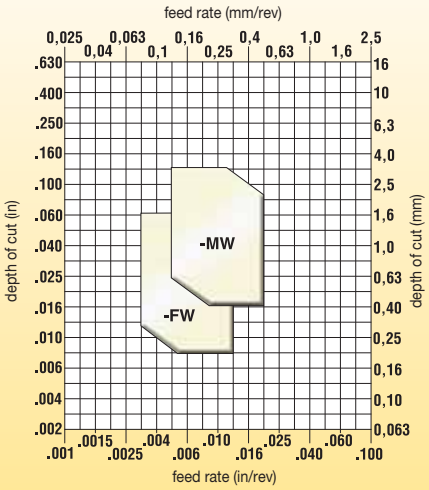
-FW
Finishing Wiper



Positive Wiper Inserts

-MW
Medium Wiper

-FW
Finishing Wiper



Step 2 • Select the grade

cutting condition		Negative Insert Geometry -FW	Negative Insert Geometry -MW	Positive Insert Geometry -FW	Positive Insert Geometry -MW
heavily interrupted cut		—	—	—	—
lightly interrupted cut		KCM15	KCM25	KCM15	KCM15
varying depth of cut, casting, or forging skin		KCM15/KCU10/KC5010	KCM15	KCU10/KC5010	KCU10/KC5010
smooth cut, pre-turned surface		KCM15/KT315	KCM15	KT315	KT315

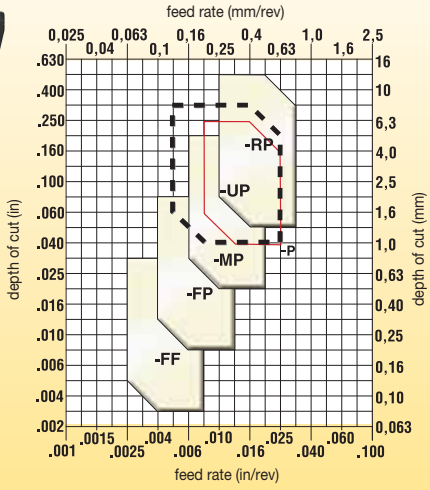
Step 1 • Select the insert geometry

Negative Inserts

-RP -P
Roughing

-MP -UP
Medium Machining

-FP -FF
Finishing

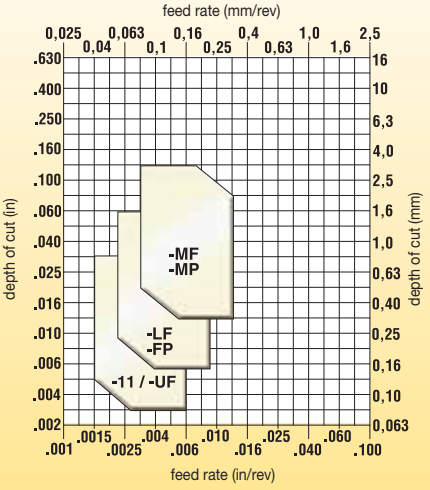


Positive Inserts

-MP
Medium Machining

-LF ..GT-LF
Finishing

-11 -UF
Fine Finishing



Step 2 • Select the grade

cutting condition		Negative Insert Geometry -FF	-FP	-MP/-UP	-P/-RP
heavily interrupted cut		KCU10/KC5010	KCM15	KCM35	KCM35
lightly interrupted cut		KCU10/KC5010	KCM15	KCM25	KCM25
varying depth of cut, casting, or forging skin		KT315	KCM15/KC5010	KCM15	KCM15/KCM25
smooth cut, pre-turned surface		KT315	KCM15/KT315	KCM15/KU10	KCU10

(continued)

Step 2 • Select the grade *(continued)*

cutting condition	Positive Insert Geometry -11	-UF	-LF	-MP/-MF	-FP
heavily interrupted cut	—	KCU25/KC5025	KCM35	KCM25	KCU25/KCM25
lightly interrupted cut	—	KCU10/KC5010	KCM25	KCM25	KCM15
varying depth of cut, casting, or forging skin	KT315	—	KCM15/KCU10	KCM15	KCU10
smooth cut, pre-turned surface	KT315	—	KCM15/KT315	KCM15	KTP10

Step 3 • Select the cutting speed

Austenitic Stainless Steel — speed — m/min (SFM) — starting conditions ◁▷

material group	grade	90 (300)	135 (450)	180 (600)	225 (800)	270 (900)	315 (1050)	360 (1200)	405 (1350)	450 (1500)	m/min	SFM
M1	KCM15			◁▷							180	600
	KCM25			◁▷							150	500
	KCM35		◁▷								120	400
	KT315				◁▷						230	750
	KCU10/KC5010				◁▷						215	700
	KCU25/KC5025			◁▷							180	550

Austenitic Stainless Steel — speed — m/min (SFM) — starting conditions ◁▷

material group	grade	90 (300)	135 (450)	180 (600)	225 (800)	270 (900)	315 (1050)	360 (1200)	405 (1350)	450 (1500)	m/min	SFM
M2	KCM15			◁▷							165	550
	KCM25		◁▷								140	450
	KCM35	◁▷									105	350
	KT315				◁▷						215	700
	KCU10/KC5010			◁▷							200	650
	KCU25/KC5025		◁▷								165	500

Austenitic Stainless Steel: Duplex (Ferritic and Austenitic Mixture) — speed — m/min (SFM) — starting conditions ◁▷

material group	grade	90 (300)	135 (450)	180 (600)	225 (800)	270 (900)	315 (1050)	360 (1200)	405 (1350)	450 (1500)	m/min	SFM
M3	KCM15		◁▷								150	500
	KCM25		◁▷								120	400
	KCM35	◁▷									90	300
	KT315			◁▷							200	650
	KCU10/KC5010			◁▷							185	600
	KCU25/KC5025		◁▷								150	450

Step 1 • Select the insert geometry

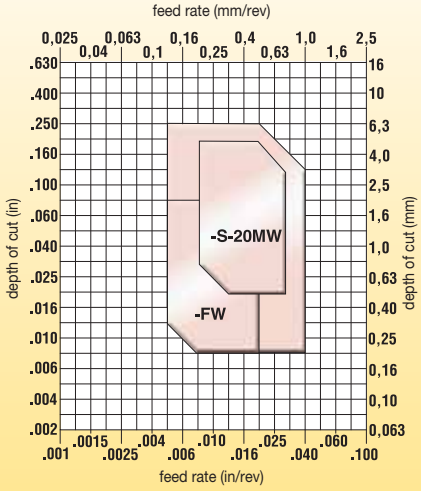
Negative Wiper Inserts

-MW -S...MW

Medium Wiper

-FW -FW -T-20FW

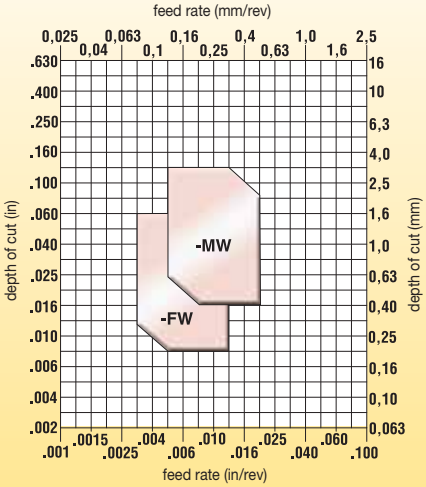
-FW -T-20FW Finishing Wiper



Positive Wiper Inserts

..MW Medium Wiper

-FW Finishing Wiper



Step 2 • Select the grade

Gray Iron

cutting condition		Negative Insert Geometry -FW	-T-20FW	-S...MW...	Positive Insert Geometry -FW	-MW
heavily interrupted cut		—	KY3500	KB1345	—	KCK20
lightly interrupted cut		KCK15	KY3500	KB1345	KCK20	KCK20
varying depth of cut, casting, or forging skin		KCK05/KT315	KYK10	KB1345	KCK20	KCK20
smooth cut, pre-turned surface		KCK05/KT315	KYK25	KB1345	KCK20/KT315	KT315/KCK20

Ductile Iron

cutting condition		Negative Insert Geometry -FW	-T-20FW-	Positive Insert Geometry -FW	-MW
heavily interrupted cut		—	—	—	—
lightly interrupted cut		KCK15	KY3500	KCK20	KCK20
varying depth of cut casting, or forging skin		KCK05/KT315	KYK10	KCK20	KCK20
smooth cut, pre-turned surface		KCK05/KT315	KYK25	KCK20/KT315	KCK20/KT315

Step 3 • Select the cutting speed

Gray Cast Iron — speed — m/min (SFM) — starting conditions ◁▷

material group	grade	60 (200)	150 (500)	240 (800)	330 (1100)	420 (1400)	510 (1700)	600 (2000)	690 (2300)	780 (2600)	m/min	SFM
K1	KCK05				◁▷						450	1500
	KCK15				◁▷						360	1200
	KCK20				◁▷						300	1000
	KT315				◁▷						275	900

Ductile, Compacted Graphite, and Malleable Cast Irons (<80 KSI tensile strength) — speed — m/min (SFM) — starting conditions ◁▷

material group	grade	60 (200)	150 (500)	240 (800)	330 (1100)	420 (1400)	510 (1700)	600 (2000)	690 (2300)	780 (2600)	m/min	SFM
K2	KCK05				◁▷						360	1200
	KCK15				◁▷						270	900
	KCK20				◁▷						240	800
	KT315				◁▷						275	900

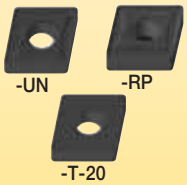
Ductile, Compacted Graphite, and Malleable Cast Irons (>80 KSI tensile strength) — speed — m/min (SFM) — starting conditions ◁▷

material group	grade	60 (200)	150 (500)	240 (800)	330 (1100)	420 (1400)	510 (1700)	600 (2000)	690 (2300)	780 (2600)	m/min	SFM
K3	KCK05			◁▷							240	800
	KCK15			◁▷							215	725
	KCK20			◁▷							210	700
	KT315			◁▷							230	750

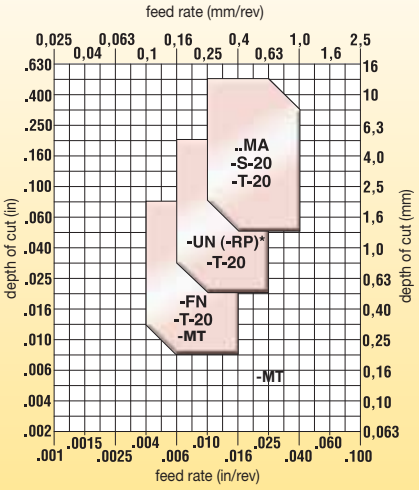
Step 1 • Select the insert geometry

Negative Inserts

-S-20
Roughing



-T-20
Medium Machining

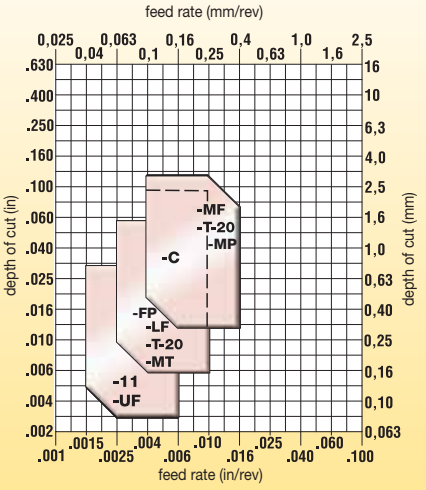


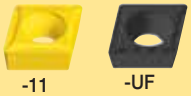
Finishing

Positive Inserts

Medium Machining

Finishing





Fine Finishing

* Geometry can be used in medium machining operations to reduce tool pressure in high-strength metals.

Step 2 • Select the grade

Carbide Grades

Gray Iron

	Negative Insert Geometry			Positive Insert Geometry				
cutting condition	**-FN**	**-UN(-RP)**	**-MA**	**-LF**	**-FP**	**-MF**	**-MP**	**-MW**
heavily interrupted cut	KCK15	KCK20	KCK20	KCK20	KCK20	KCK20	KCK20	KCK20
lightly interrupted cut	KCK15	KCK20	KCK20	KCK20	KCK20	KCK20	KCK20	KCK20
varying depth of cut, casting, or forging skin	KCK05/KT315	KCK15	KCK15	KCK15	KCK20	KCK15	KCK20	KCK20
smooth cut, pre-turned surface	KCK05/KT315	KCK05	KCK05	KCK05	KCK20	KCK15	KCK20	KCK20

Ductile Iron

	Negative Insert Geometry		
cutting condition	**-FN**	**-UN(-RP)**	**-MA**
heavily interrupted cut	KCK15	KCK20	KCK20
lightly interrupted cut	KCK15	KCK20	KCK20
varying depth of cut, casting, or forging skin	KCK05/KT315	KCK15	KCK15
smooth cut, pre-turned surface	KCK05/KT315	KCK05	KCK05

	Positive Insert Geometry					
cutting condition	**-11/-UF**	**-LF**	**-MF**	**-FP**	**-MP**	**-MW**
heavily interrupted cut	—	KCK20	KCK20	KCK20	KCK20	KCK20
lightly interrupted cut	KCU10/KC5010	KCK20	KCK20	KCK20	KCK20	KCK20
varying depth of cut, casting, or forging skin	KCU10/KC5010	KCK15	KCK15	KCK20	KCK20	KCK20
smooth cut, pre-turned surface	KT315	KCU10/KC5010	KCK15	KCK20	KCK20	KCK20

(continued)

Step 2 • Select the grade *(continued)*

Ceramic and PCBN Grades

Gray Iron

Negative Insert Geometry

cutting condition	-T-20 Finishing	MT	-T-20 Medium	-T-20 Roughing	-S20
heavily interrupted cut	KY3500	KCK20	KY3500	KY3500	KB1340
lightly interrupted cut	KY3500	KB1345	KYK10	KY3500	KB1340
varying depth of cut, casting, or forging skin	KYK10	KB1345	KYK10	KYK10	KB1340
smooth cut, pre-turned surface	KYK25	KB1345	KYK25	KYK25	KB1340

Positive Insert Geometry

cutting condition	-T-20 Fine Finishing	-T-20 Medium	MT	C
heavily interrupted cut	—	KY3500	KB1630/KB1345	KB1630/KB1345
lightly interrupted cut	—	KY3500	KB1630/KB1345	KB1630/KB1345
varying depth of cut, casting, or forging skin	KY3500	KY3500	KB1630/KB1345	KB1630/KB1345
smooth cut, pre-turned surface	KY3500	KY3500	KB1630/KB1345	KB1630/KB1345

Ductile Iron

	Negative Insert Geometry			Positive Insert Geometry		
cutting condition	-T-20 Finishing	-T-20 Medium	-T-20 Roughing	-T-20 Fine Finishing	-T-20 Finishing	-T-20 Medium
heavily interrupted cut	—	KY3500	KY3500	—	KY3500	KY3500
lightly interrupted cut	—	KYK25	KYK25	—	KYK25	KYK25
varying depth of cut, casting, or forging skin	KYK25	KYK25	KYK25	KYK25	KYK25	KYK25
smooth cut, pre-turned surface	KYK25	KYK25	KYK25	KYK25	KYK25	KYK25

Step 3 • Select the cutting speed (Optimal speed depends on casting quality and disposition.)

Gray Cast Iron — speed — m/min (SFM) — starting conditions

material group	grade	60 (200)	180 (600)	305 (1000)	430 (1400)	550 (1800)	675 (2200)	800 (2600)	920 (3000)	1040 (3400)	1160 (3800)	m/min	SFM
K1	KT315											275	900
	KB1340/KB1345											760	2500
	KYK25											760	2500
	KY3500											760	2500
	KYK10											760	2500
	KCK05											450	1500
	KCK15											360	1200
	KCK20											300	1000

Ductile, Compacted Graphite, and Malleable Cast Irons (<600 MPa tensile strength) — speed — m/min (SFM) — starting conditions

material group	grade	90 (300)	135 (450)	180 (600)	225 (750)	275 (900)	320 (1050)	360 (1200)	410 (1350)	460 (1500)	500 (1650)	550 (1800)	600 (1950)	m/min	SFM
K2	KT315													275	900
	KCU10/KC5010													200	650
	KYK25													430	1400
	KY3500													365	1200
	KYK10													365	1200
	KCK05													360	1200
	KCK15													270	900
	KCK20													240	800

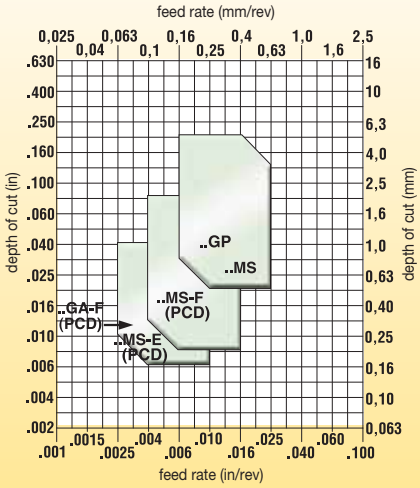
Ductile, Malleable, and Austempered Cast Irons (>600 MPa tensile strength) — speed — m/min (SFM) — starting conditions

material group	grade	90 (300)	135 (450)	180 (600)	225 (750)	275 (900)	320 (1050)	360 (1200)	410 (1350)	460 (1500)	500 (1650)	550 (1800)	600 (1950)	m/min	SFM
K3	KT315													230	750
	KCU10/KC5010													150	500
	KYK25													365	1200
	KCK05													240	800
	KCK15													215	725
	KCK20													210	700

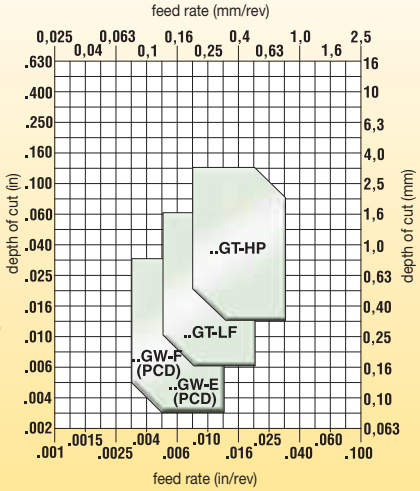
Step 1 • Select the insert geometry

beyond

Negative Wiper Inserts



Positive Wiper Inserts



Step 2 • Select the grade

		Negative Insert Geometry					Positive Insert Geometry			
cutting condition		..GA-E (PCD)	..MS-E (PCD)	..GA-F (PCD)	..GP	..MS	..GW-E (PCD)	..GW-F (PCD)	..GT-LF	..GT-HP
heavily interrupted cut		—	—	KD1400	KC5410/K313	KC5410	—	KD1400	—	KC5410
lightly interrupted cut		KD1405	KD1405	KD1400	KC5410/K313	KC5410	KD1405	KD1400	KC5410	KC5410
varying depth of cut, casting, or forging skin		KD1405	KD1405	KD1425	KC5410/K313	KC5410	KD1405	KD1425	KC5410	KC5410
smooth cut, pre-turned surface		KD1405	KD1405	KD1425	KC5410/K313	KC5410	KD1405	KD1425	KC5410	KC5410

Step 3 • Select the cutting speed

Low-Silicon Aluminum Alloys
(hypoeutectic <12.2% Si) and Magnesium Alloys

speed — m/min (SFM)

starting conditions ◁▷

material group	grade	250 (800)	500 (1600)	750 (2400)	1000 (3200)	1250 (4000)	1500 (4800)	1750 (5600)	2000 (6400)	2250 (7200)	2500 (8000)	m/min	SFM
N2	KC5410		◁▷									550	1800
	KD1400			◁▷								765	2500

High-Silicon Aluminum Alloys
(hypereutectic >12.2% Si) and Magnesium Alloys

speed — m/min (SFM)

starting conditions ◁▷

material group	grade	250 (800)	500 (1600)	750 (2400)	1000 (3200)	m/min	SFM
N3	KD1405		◁▷			580	2000
	KD1425			◁▷		520	1700

Additional Cutting Speed Recommendations for Miscellaneous Workpiece Materials

Copper-, Brass-, Zinc-Based on a Machinability Index Range of 70–100 — speed — m/min (SFM) — starting conditions ◁▷

material group	grade	250 (800)	500 (1600)	750 (2400)	1000 (3200)	m/min	SFM
N4	KD1400/ KD1405		◁▷			520	1700
	KD1425		◁▷			500	1600
	KC5410	◁▷				275	900
	K313	◁▷				260	850

Nylon, Plastics, Rubbers, Phenolics, Resins, Fiberglass, and Glass — speed — m/min (SFM) — starting conditions ◁▷

material group	grade	250 (800)	500 (1600)	750 (2400)	1000 (3200)	m/min	SFM
N5	KD1400/ KD1405		◁▷			400	1300
	KD1425	◁▷				365	1200
	KC5410	◁▷				170	550

Carbon and Graphite Composites: Brush Alloys, Kevlar, and Graphite (280–400 HB) (30–43 HRC) — speed — m/min (SFM) — starting conditions ◁▷

material group	grade	250 (800)	500 (1600)	750 (2400)	1000 (3200)	m/min	SFM
N6	KD1400/ KD1405			◁▷		760	2500
	KC5410	◁▷				200	650

MMCs (Aluminum-Based Metal Matrix Composites) — speed — m/min (SFM) — starting conditions ◁▷

material group	grade	250 (800)	500 (1600)	750 (2400)	1000 (3200)	m/min	SFM
N7	KD1405		◁▷			460	1500
	KD1400		◁▷			365	1200

Tin Alloys, Cast: ASTM 823, Alloys 1, 2, 3, 11 — speed — m/min (SFM) — starting conditions ◁▷

material group	grade	250 (800)	500 (1600)	750 (2400)	1000 (3200)	m/min	SFM
N	KC5410	◁▷				215	700
	K313	◁▷				180	600

Step 1 • Select the insert geometry

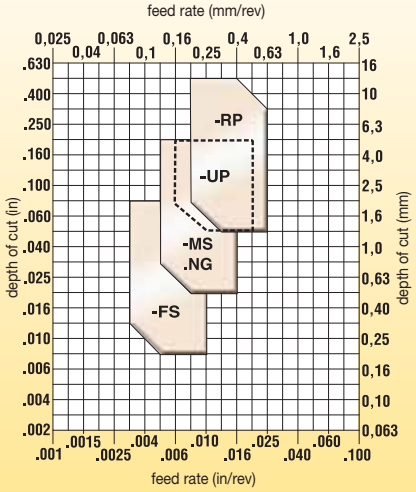
Negative Inserts

-RP
Roughing

-MS .NG

-UP
Medium Machining

-FS
Finishing

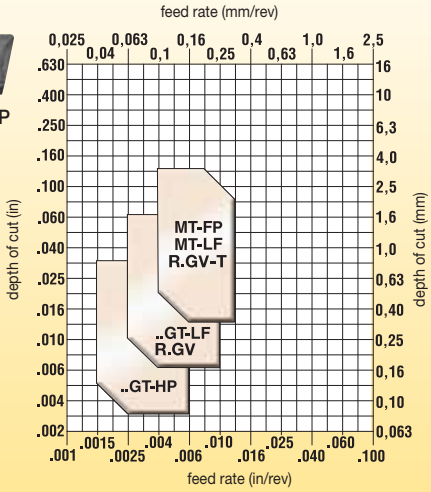


Positive Inserts

MT-LF R.GV-T MT-FP
Medium Machining

..GT-LF R.GV

..GT-HP
Fine Finishing



Step 2 • Select the grade

	Negative Insert Geometry				
cutting condition	**-FS**	**.NG**	**-MS**	**-UP**	**-RP**
heavily interrupted cut	KCU25/KC5525	—	KCU25/KC5525	KCM35	KCM25/KCM35
lightly interrupted cut	KCU10/KC5510	KYS30/KY1540	KCU25/KC5525	KCM25	KCM15KC5525
varying depth of cut, casting, or forging skin	KCU10/KC5510	KYS30/KY1540/ KYS25/KY4300	KCU10/KC5510	KCM15	KCU25/KC5525
smooth cut, pre-turned surface	KCU10/KC5510/ K313	KYS25/KY4300	KCU10/KC5510 K313	KCU10/KC5510	KCU10/KC5510

	Positive Insert Geometry					
cutting condition	**-FP**	**..GT-HP**	**MT-LF**	**R.GV-T**	**..GT-LF**	**R.GV**
heavily interrupted cut	KCU25	—	KCU25/KC5025	—	KCU25/KC5025	—
lightly interrupted cut	KCU25	KCU25/KC5025	KCU25/KC5025	KYS30/KY1540	KCU25/KC5025	KYS30/KY1540
varying depth of cut, casting, or forging skin	KCU10/KU10	KCU10/KC5510	KCU10/KC5510	KYS30/KY1540/ KYS25/KY4300	KCU10/KC5510	KYS30/KY1540/ KYS25/KY4300
smooth cut, pre-turned surface	KCU10/KU10	KCU10/KC5510 K313	KCU10/KC5510 K313	KYS25/KY4300	KCU10/KC5510 K313	KYS25/KY4300

Step 3 • Select the cutting speed

Iron-Based, Heat-Resistant Alloys (135–320 HB) (≤34 HRC) — speed — m/min (SFM) — starting conditions

material group	grade	15 (50)	45 (150)	75 (250)	105 (350)	140 (450)	170 (550)	200 (650)	230 (750)	260 (850)	290 (950)	310 (1050)	350 (1150)	380 (1250)	m/min	SFM
S1	K313/KU10		◁▷												30	100
	KCU10/KC5510/KC5010			◁▷											55	180
	KCU25/KC5525/KC5025		◁▷												40	125
	KYS25/KY4300							◁▷							200	650
	KYS30/KY1540						◁▷								170	550
	KCM15			◁▷											55	180
	KCM25/KCM35		◁▷												40	125

Cobalt-Based, Heat-Resistant Alloys (150–425 HB) (≤45 HRC) — speed — m/min (SFM) — starting conditions

material group	grade	15 (50)	45 (150)	75 (250)	105 (350)	140 (450)	170 (550)	200 (650)	230 (750)	260 (850)	290 (950)	310 (1050)	350 (1150)	380 (1250)	m/min	SFM
S2	K313/KU10		◁▷												35	110
	KC5510/KC5010			◁▷											60	195
	KC5525/KC5025		◁▷												30	100
	KYS25/KY4300							◁▷							220	720
	KYS30/KY1540						◁▷								185	600
	KCM15			◁▷											60	195
	KCM25/KCM35		◁▷												30	100

Nickel-Based, Heat-Resistant Alloys (140–475 HB) (≤48 HRC) — speed — m/min (SFM) — starting conditions

material group	grade	15 (50)	45 (150)	75 (250)	105 (350)	140 (450)	170 (550)	200 (650)	230 (750)	260 (850)	290 (950)	310 (1050)	350 (1150)	380 (1250)	m/min	SFM
S3	K313/KU10		◁▷												40	125
	KCU10/KC5510/KC5010			◁▷											70	225
	KCU25/KC5525/KC5025		◁▷												40	125
	KYS25/KY4300							◁▷							250	820
	KYS30/KY1540							◁▷							215	700
	KCM15			◁▷											70	225
	KCM25/KCM35		◁▷												40	125

Titanium and Titanium Alloys (110–450 HB) (≤48 HRC) — speed — m/min (SFM) — starting conditions

material group	grade	15 (50)	45 (150)	75 (250)	105 (350)	140 (450)	170 (550)	200 (650)	230 (750)	260 (850)	290 (950)	310 (1050)	350 (1150)	380 (1250)	m/min	SFM
S4	K313/KU10		◁▷												45	150
	KC5510/KC5010/KC9225			◁▷											70	225
	KC5525/KC50225/KC9240		◁▷												55	175
	KCM15			◁▷											70	225
	KCM25/KCM35			◁▷											55	175

Step 1 • Select the insert geometry

Negative Wiper Inserts

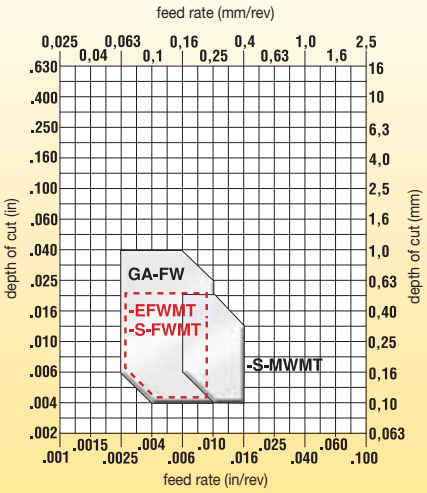
-S..MWMT
(multitipped)
Medium Wiper

-EFWMT
(multitipped)

-S..FWMT
(multitipped)

GA-FW

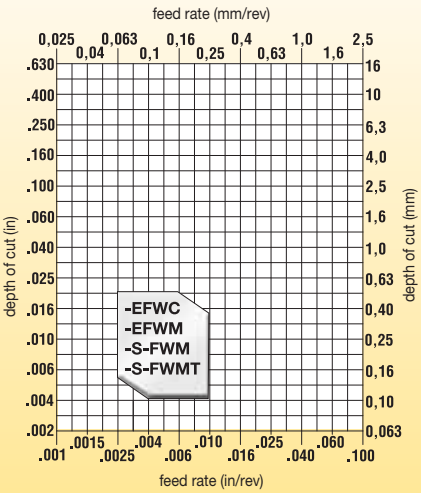
Finishing Wiper



Positive Wiper Inserts

-EFWC (full face)
-EFWM (single tipped)
Finishing Wiper

-S..FWM
(single tipped)
-S..FWMT
(multitipped)
Fine Finishing Wiper



Step 2 • Select the grade

cutting condition		Negative Insert Geometry GA-FW	-S..FWMT	-EFWMT	Positive Insert Geometry -S..FWM -S..FWMT	-EFWC -EFWM
heavily interrupted cut		—	KB5630	KB1625	—	—	—
lightly interrupted cut		—	KB1610/KB5610	KB5625	KB5610	KB1610	KB5610
varying depth of cut, casting, or forging skin		KY4400	KB1610/KB5610	KB1610/KB5610	KB5610	KB1610	KB5610
smooth cut, pre-turned surface		KY4400	KB5610	KB5610	KB5610	KB5610	KB5610

Step 1 • Select the insert geometry

Negative Inserts

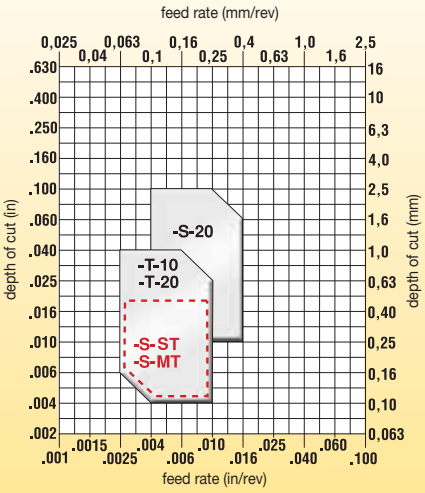
-S-20
Medium Machining

-S..ST (single tipped)
-S..MT (multitipped)
Finishing

-T..10
-T.20

-T.10
-T.20

Fine Finishing



Positive Inserts

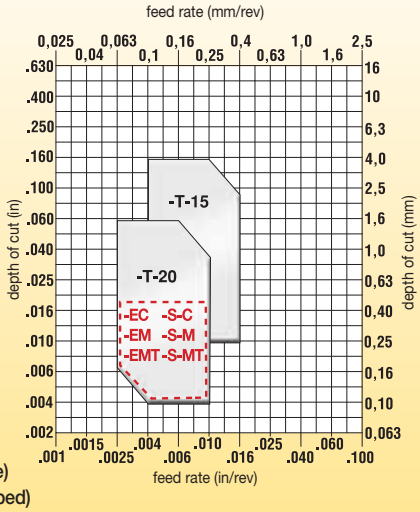
-T-15
Medium Machining

-EC (full-face)
-EM (single tipped)
-EMT (multitipped)
Finishing

-T-20

-S....C (full face)
-S....M (single tipped)
-S....MT (multitipped)

Fine Finishing



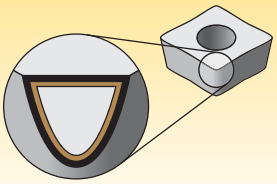
Step 2 • Select the grade

cutting condition		Negative Insert Geometry -T.10 -T.20	-S..ST -S..MT	-S-20	Positive Insert Geometry -S..C/-S..M -S..MT	-T-20	-EC/-EM -EMT	-T-15
heavily interrupted cut		—	KB1630/KB5630	KB1340	KB1630/KB5630	—	KB1630/KB5630	—
lightly interrupted cut		—	KB1625/KB5625	KB1340	KB1625/KB5625	KY4400	KB1625/KB5625	KY1615
varying depth of cut, casting, or forging skin		KY1615/KY4400	KB1625/KB5625	—	KB1625/KB5625	KY4400	KB1625/KB5625	KY1615
smooth cut, pre-turned surface		KY1615/KY4400	KB1610/KB5610	—	KB1610/KB5610	KY4400	KB1610/KB5610	KY1615

Step 3 • Select the cutting speed

speed — m/min (SFM) | starting conditions ◁▷

material group	grade	15 (50)	45 (150)	75 (250)	110 (350)	140 (450)	170 (550)	200 (650)	230 (750)	260 (850)	m/min	SFM
H1	KY4400					◁▷					135	450
	KY1615				◁▷						100	325
	KB1610					◁▷					140	460
	KB1625				◁▷						110	360
	KB1630			◁▷							90	295
	KB5610					◁▷					150	490
	KB5625				◁▷						120	400
	KB5630			◁▷							105	345

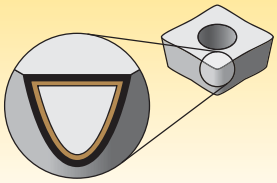


Coatings provide high-speed capability and are engineered for finishing to heavy roughing.

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous Materials
S	High-Temp Alloys
H	Hardened Materials

wear resistance ⟷ toughness

	Coating	Grade Description	05 10 15 20 25 30 35 40 45
Uncoated Carbide Grades	**KU10** C3	**Composition:** A hard, low binder content, WC/Co fine-grain grade. **Application:** The KU10 grade has excellent abrasion resistance for machining cast irons, austenitic stainless steels, non-ferrous metals, non-metals, and most high-temperature alloys. Use as a general-purpose grade for non-ferrous materials. beyond	M K N S
	K313 C3–C4	**Composition:** A hard, low binder content, unalloyed WC/Co fine-grain grade. **Application:** Exceptional edge wear resistance combined with very high strength for machining titanium, cast irons, austenitic stainless steels, non-ferrous metals, non-metals, and most high-temp alloys. Superior thermal deformation and depth-of-cut notch resistance. The grain structure is well controlled for minimal pits and flaws, which contributes to long, reliable service.	M K N S
	K68 C3	**Composition:** A hard, low binder content, alloyed grade WC/Co fine-grain grade. **Application:** The K68 grade has excellent abrasion resistance for machining cast irons, austenitic stainless steels, non-ferrous metals, non-metals, and as an alternative to the K313 grade on most high-temperature alloys. Use as a general-purpose grade for non-ferrous materials.	M K N S
PVD-Coated Carbide Grades	**KCU10** C3–C4	**Composition:** An advanced multilayer PVD coating over a very deformation-resistant unalloyed carbide substrate. The new and improved coating improves edge stability with wide range speed and feed capabilities. **Application:** The KCU10 grade is ideal for finishing to general machining of most workpiece materials at a wide range of speed and feed capabilities. Excellent for machining most steels, stainless steels, cast irons, non-ferrous materials, and super alloys with improved edge toughness and higher cutting speed/feed capability. beyond	P M K N S H
	KCU25 C2, C6	**Composition:** An advanced PVD grade with hard AlTiN coating and fine-grain unalloyed substrate. The new and improved coating improves edge stability with wide range speed and feed capabilities. **Application:** The KCU25 grade is ideal for general machining of most steels, stainless steels, high-temp alloys, titanium, irons, and non-ferrous materials in a wide range of speeds and feeds with improved edge toughness for interrupted cut and high feed rates. beyond	P M K N S
	KC5010 C3–C4	**Composition:** An advanced PVD AlTin coating over a very deformation-resistant unalloyed carbide substrate. The new and improved coating enables speeds to be increased by 50–100%. **Application:** The KC5010 grade is ideal for finishing to general machining of most workpiece materials at higher speeds. Excellent for machining most steels, stainless steels, cast irons, non-ferrous materials, and super alloys under stable conditions. It also performs well machining hardened and short chipping materials.	P M K N S H



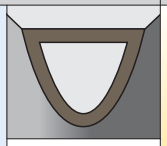
Coatings provide high-speed capability and are engineered for finishing to heavy roughing.

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous Materials
S	High-Temp Alloys
H	Hardened Materials

wear resistance ⟷ toughness

PVD-Coated Carbide Grades

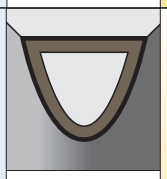
KC5025



C2, C6

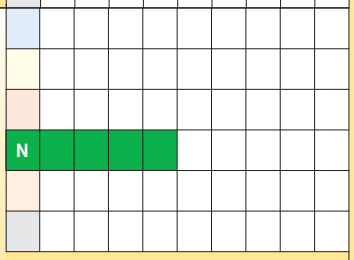
Composition: An advanced PVD-AlTin-coated grade with a tough, fine-grain unalloyed substrate.
Application: For general-purpose machining of most steels, stainless steels, high-temp alloys, titanium, irons, and non-ferrous materials. Speeds may vary from low to medium and will handle interruptions and high feed rates.

KC5410

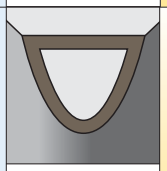


C3–C4

Composition: A PVD TiB_2 coating over a very deformation-resistant unalloyed substrate.
Application: Designed for roughing, semi-finishing, and finishing of free machining (hypoeutectic <12.2% Si) aluminum, aluminum alloys, and magnesium alloys. The TiB_2 coating is harder than TiN and TiAlN coatings and has an extremely smooth surface, resulting in reduced surface friction, speedy chip flow, and outstanding wear resistance. Built-up edge is prevented because this coating has a very low affinity for aluminum. The substrate is unalloyed and fine grained and offers sharp edges, smooth surfaces, and excellent thermal deformation resistance and edge integrity. Inserts with a ground periphery are polished before coating and have a sharp edge. Molded inserts have a light hone.

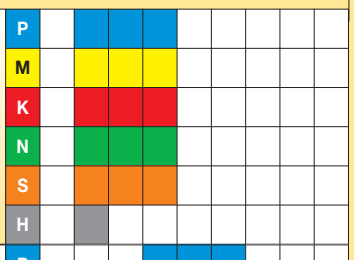


KC5510

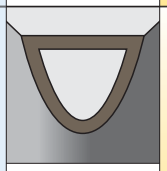


C3–C4

Composition: An advanced PVD AlTin-coated fine-grain tungsten carbide grade.
Application: The KC5510 grade is specifically engineered for the productive machining of high-temp alloys. The fine-grain tungsten carbide 6% cobalt substrate has excellent toughness and deformation resistance while the advanced PVD coating enables metalcutting speeds double those of conventional PVD-coated cutting tools.

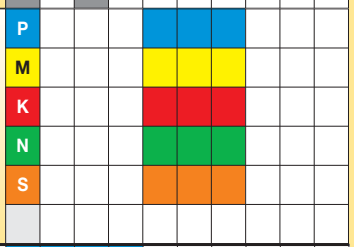


KC5525



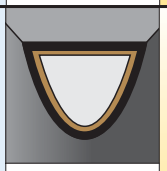
C2–C6

Composition: Advanced PVD AlTin-coated fine-grain high-cobalt carbide grade.
Application: The KC5525 grade utilizes the same advanced PVD coating as the KC5510 grade in conjunction with a fine-grained tungsten carbide 10% cobalt substrate. The higher cobalt enables added security in interrupted cuts while the fine-grained WC maintains hardness-resisting deformation at higher speeds. Designed for medium to heavy interruptions in high-temp alloys.



CVD-Coated Carbide Grades

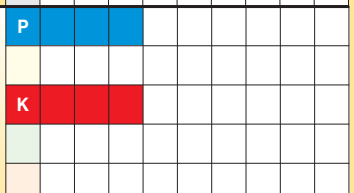
KCP05



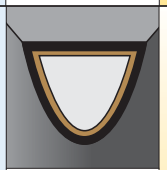
C3–C4

Composition: An innovative, highly deformation-resistant, cobalt-enriched substrate with a specially designed, adherent MTCVD-TiCN-Al_2O_3 coating.
Application: For finishing to semi-finishing of most steels, ferritic, martensitic, and PH stainless steels and cast irons. Provides excellent combination of deformation resistance and insert edge strength. The new coating combined with a state-of-the-art post-coat treatment provides high-productivity with long predictable tool life and superior workpiece surface finish.

beyond



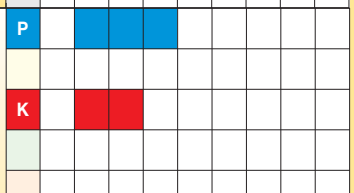
KCP10

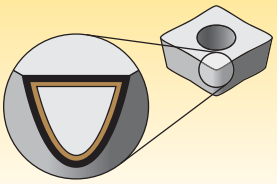


C3, C7

Composition: A specially engineered cobalt-enriched carbide grade with thick MTCVD-TiCN-Al_2O_3 coating for maximum wear resistance.
Application: An excellent finishing to medium machining grade for a variety of workpiece materials, including most steels, ferritic, martensitic, and PH stainless steels, and cast irons. The cobalt-enriched substrate offers a balanced combination of deformation resistance and edge toughness, while the thick coating layers offer outstanding abrasion resistance and crater wear resistance for high-speed machining. Smooth coating provides resistance to edge build-up and microchipping and produces excellent surface finishes.

beyond





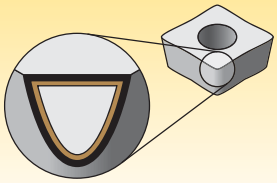
Coatings provide high-speed capability and are engineered for finishing to heavy roughing.

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous Materials
S	High-Temp Alloys
H	Hardened Materials

wear resistance ⟷ toughness

CVD-Coated Carbide Grades

Coating	Grade Description	05 10 15 20 25 30 35 40 45
KCP25 C2–C3, C6–C7	**Composition:** A tough cobalt-enriched carbide grade with a newly designed multilayer MTCVD-TiCN-Al_2O_3 coating with superior interlayer adhesion. **Application:** Best general-purpose turning grade for most steels and ferritic and martensitic stainless steels. The substrate design ensures adequate deformation resistance with excellent insert edge strength. Coating layers offer good wear resistance over a wide range of machining conditions and the post-coat treatment minimizes microchipping and improves coating adhesion to substrate leading to long tool life and improved workpiece finishes. beyond	P, K
KCP30 C5–C6	**Composition:** A newly engineered, tough cobalt-enriched carbide grade with an advanced multilayer TiN-MT-TiCN-Al_2O_3 coating. **Application:** For medium to rough machining of all carbon, alloy, and stainless steels. The substrate design provides superior insert strength that is required for this application, and the multilayer coating adds wear resistance to the insert resulting in long tool life. beyond	P
KCP40 C5–C6	**Composition:** A tough carbide grade with a moderately thick TiN-MT-TiCN-Al_2O_3 coating. **Application:** For heavy roughing of carbon, alloy, and stainless steels. The substrate-coating combination provides unbelievable toughness and operational security allowing high metal removal rates even in most demanding interrupted cuts. beyond	P, M
KCK05 C3–C4	**Composition:** A multilayered coating with moderately thick MTCVD TiCN-Al_2O_3 layers over a highly deformation-resistant carbide substrate. **Application:** Designed for high-speed machining of gray and ductile irons. The substrate and coating architecture together with CW5 post-coat treatment ensure a tremendous tool life advantage, especially when cutting higher tensile strength ductile and gray irons where workpiece size consistency and reliability of tool life are critical. Excellent both in straight and varied depths of cut. beyond	P, K
KCK15 C3–C4	**Composition:** A multilayered coating with thick MTCVD TiCN-Al_2O_3 layers applied over a carbide substrate specifically engineered for cast irons. **Application:** Delivers consistent performance in high-speed machining of gray and ductile irons. The substrate design permits the insert to stay in the cut for a long time at high speeds with minimum deformation. The thick CVD coating and post-coat treatment provide superior wear resistance ensuring long and consistent tool life. Can be applied both in straight and lightly interrupted cuts. beyond	P, K
KCK20 C2–C3	**Composition:** A specially toughened MTCVD-TICN-Al_2O_3 coating over a wear-resistant substrate. **Application:** The KCK20 grade is specifically engineered to maximize coating adhesion and edge strength making this grade ideal in wet interrupted cutting of gray and ductile irons. It can be used in a wide range of applications from finishing to roughing to maximize productivity wherever strength and reliability are needed. beyond	P, K

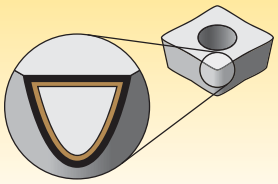


Coatings provide high-speed capability and are engineered for finishing to heavy roughing.

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous Materials
S	High-Temp Alloys
H	Hardened Materials

wear resistance ⟷ toughness

	Coating	Grade Description	05	10	15	20	25	30	35	40	45
CVD-Coated Carbide Grades	KCM15 C2–C3	**Composition:** A multilayer MTCVD-TiCN-Al_2O_3 coated carbide grade. **Application:** An excellent finishing to medium machining grade for austenitic stainless steels at higher speeds and covers a broad range of steel applications in the P20–25 range. KCM15 grade in combination with unique geometries have been designed to resist depth-of-cut notching and minimize burr formation. The post-coat treatment reduces coating stresses, improves coating adhesion, minimizes microchipping and edge build-up, and improves workpiece finish. beyond									
	KCM25 C1–C2	**Composition:** A multilayer CVD coating comprised of TiN-MT-TiCN-Al_2O_3 layers over a tough, cobalt-enriched carbide substrate. **Application:** This CVD-coated grade is designed for general-purpose machining of austenitic stainless steels at moderate speeds and feeds. KCM25 inserts offer an extraordinary combination of toughness, built-up edge resistance, and wear resistance in stainless steel applications. beyond									
	KCM35 C1–C2	**Composition:** A multilayer TiN-MT-TiCN-Al_2O_3 CVD coating over a super-tough substrate. **Application:** The KCM35 grade is engineered to take on the most brutal cast stainless steel machining applications. The substrate withstands heavy interruptions, while the coating provides the wear resistance needed for long tool life. The polished surface resists edge build-up, even at slow cutting speeds. KCM35 grade is available in insert sizes and geometries appropriate for heavy feeds and large depths of cut. beyond									
PVD-Coated Cermet Grades	KT315 C3, C7	**Composition:** A multilayer PVD-TiN/TiCN/TiN-coated cermet turning grade. **Application:** Ideal for high-speed finishing to medium machining of most carbon and alloy steels and stainless steels. Performs very well in cast and ductile iron applications, too. Provides long and consistent tool life and will produce excellent workpiece finishes.									
	KTP10 C3, C7	**Composition:** A multilayer, PVD-TiN/TiCN/TiN-coated cermet turning grade. **Application:** Ideal for high-speed finishing to medium machining of most carbon and alloy steels and stainless steels. Performs very well in cast and ductile iron applications, too. Provides long and consistent tool life and will produce excellent workpiece finishes.									

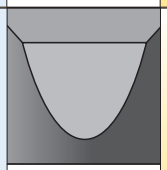
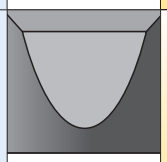
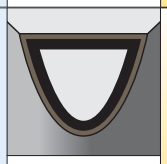


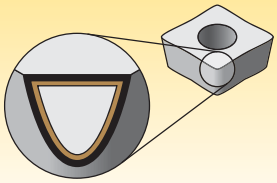
Coatings provide high-speed capability and are engineered for finishing to heavy roughing.

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous Materials
S	High-Temp Alloys
H	Hardened Materials

wear resistance ⟷ toughness

Ceramic Grades

Coating	Grade Description	05	10	15	20	25	30	35	40	45
KYS25  C4	**Composition:** SiAlON ceramic with a multi-layered alumina-TiCN CVD coating. **Application:** Compliments the KYS30 grade when machining high-temp and nickel-based alloys and cast materials with high Brinell hardness. This advanced CVD coating provides excellent chemical and depth-of-cut notch resistance compared to whisker ceramics. beyond									
KYS30  C4	**Composition:** Latest and most advanced sialon material developed. **Application:** Combines excellent wear properties, fracture toughness, and thermal shock resistance for general-purpose to finish machining of high-temp alloys. Provides superior depth-of-cut notch resistance compared to whisker ceramics. beyond									
KYK10  —	**Composition:** An advanced sialon ceramic grade. **Application:** Provides maximum wear resistance. Use for high-speed continuous turning of gray cast iron, including through scale. beyond									
KYK25  C3	**Composition:** Pure silicon nitride ceramic with an alumina CVD coating. **Application:** Excellent combination of toughness and edge wear resistance. Used for general-purpose machining of gray, ductile, or nodular cast irons. beyond									

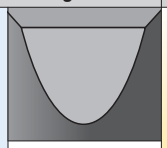
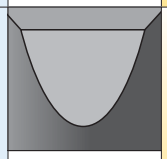
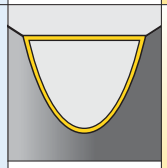


Coatings provide high-speed capability and are engineered for finishing to heavy roughing.

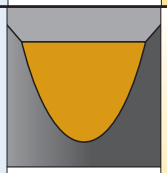
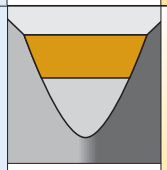
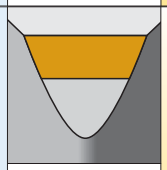
P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous Materials
S	High-Temp Alloys
H	Hardened Materials

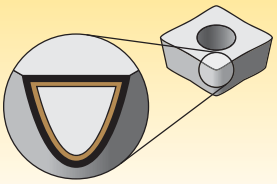
wear resistance ⟷ toughness

Ceramic Grades

Coating	Grade	Grade Description	05	10	15	20	25	30	35	40	45
 C4	KY4300	**Composition:** Whisker ceramic with a matrix of Al_2O_3 + SiCW. **Application:** The SiC whiskers embedded in the micro structure give this ceramic excellent toughness for cutting high-temp alloys and cast materials with high Brinell hardness.									
 C2	KY3500	**Composition:** Pure silicon nitride grade. **Application:** Maximum toughness. Used at high-feed rates for rough machining of gray cast iron, including machining through interruptions.									
 C4, C8	KY4400	**Composition:** A PVD TiN coating over an aluminum oxide and titanium carbonitride composite ceramic (Al_2O_3/TiCN). **Application:** Used for finish turning of hardened steels and irons (greater than 45 HRC). Where possible, use under dry conditions in smooth or varied depths of cut. Can also be applied in finish turning of nickel alloys, cobalt alloys, and powder metals.									

PCBN – Polycrystalline Cubic Born Nitride Grades

Coating	Grade	Grade Description	05	10	15	20	25	30	35	40	45
 —	KB1340	**Composition:** A high CBN content, solid PCBN insert having multiple cutting edges. **Application:** Applied in roughing to finishing of fully pearlitic gray cast iron, chilled irons, high-chrome alloyed steels, sintered powdered metals, and heavy cuts in hardened steels (>45 HRC). Also use for finishing chilled cast iron and fully pearlitic cast iron. The solid PCBN insert offers better security and shock resistance compared to tipped PCBN inserts, while also enabling deeper depth-of-cut capabilities.									
 —	KB1345	**Composition:** A high CBN content, PCBN tip brazed onto a carbide insert. **Application:** Applied in roughing to finishing of fully pearlitic gray cast iron, chilled irons, high-chrome alloyed steels, sintered powdered metals, and heavy cuts in hardened steels (>45 HRC). Also use for finishing chilled cast iron and fully pearlitic cast iron. The tipped PCBN insert is available in a wide range of insert styles including positive rake geometries that are ideally suited for boring applications.									
 —	KB1610	**Composition:** A low CBN content, PCBN tip brazed onto a carbide insert. **Application:** Designed for precision finishing in smooth cuts on hardened steels (>45 HRC) where optimal surface finish is needed. Use on bearing steel, hot and cold work tool steels, high-speed steels, die steels, case hardened steels, carburized and nitrided irons, and some hard coatings. Do not apply on soft steel.									

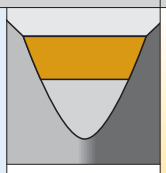
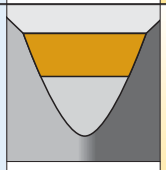
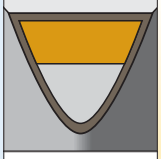
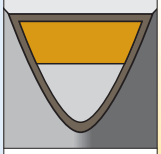
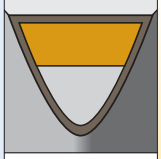


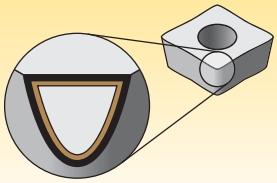
Coatings provide high-speed capability and are engineered for finishing to heavy roughing.

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous Materials
S	High-Temp Alloys
H	Hardened Materials

wear resistance ⟷ toughness

PCBN – Polycrystalline Cubic Born Nitride Grades

Coating	Grade Description	05	10	15	20	25	30	35	40	45
KB1625  —	**Composition:** A medium CBN content, PCBN tip brazed onto a carbide insert. **Application:** Designed for roughing to finishing of hardened steels (>45 HRC) where optimal surface finish is needed. It can be used in continuous to interrupted cutting of bearing steel, hot and cold work tool steels, high-speed steels, die steels, case-hardened steels, carburized and nitrided irons, and some hard coatings.									
KB1630  —	**Composition:** A high CBN content, PCBN tip brazed onto a carbide insert. **Application:** Designed for roughing to finishing in interrupted cuts on hardened steels (>45 HRC). It can also be applied on gray cast iron, chilled irons, high-chrome alloyed steels and sintered powdered metals. The tipped PCBN insert is available in a wide range of insert styles, including positive rake geometries, that are ideally suited for boring applications.									
KB5610  C4, C8	**Composition:** A low content PCBN grade with a PVD TiAlN coating for added wear resistance. **Application:** Designed for the precision machining of hardened steels (>45 HRC). The PVD coating offers improved wear resistance and excellent surface finish capabilities. It can be very effectively applied on bearing steels, hot and cold work tool steels, high-speed steels, die steels, case-hardened steels, carburized and nitrided irons, and some hard coatings. Available in a multitip format with a tremendous breadth of edge preps, insert styles, and wiper geometries.									
KB5625  C4, C8	**Composition:** A PVD TiAlN coating over a medium content, PCBN tip brazed onto a carbide insert. **Application:** Designed for roughing to finishing of hardened steels (>45 HRC). Use on bearing steel, hot and cold work tool steels, high-speed steels, die steels, case-hardened steels, carburized and nitrided irons, and some hard coatings.									
KB5630  C4, C8	**Composition:** A high content PCBN grade with a PVD AlTiN coating for added wear resistance. **Application:** Designed for roughing to finishing in hardened steels (>45 HRC), abrasive workpiece materials such as sintered valve seat materials, powder metallurgy tool steels, and hard high-alloy cast irons. The PVD coating provides resistance to crater wear and increased resistance to chipping. The tipped PCBN insert is available in a wide range of insert styles, including positive rake geometries, that are ideally suited for boring applications.									



Coatings provide high-speed capability and are engineered for finishing to heavy roughing.

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous Materials
S	High-Temp Alloys
H	Hardened Materials

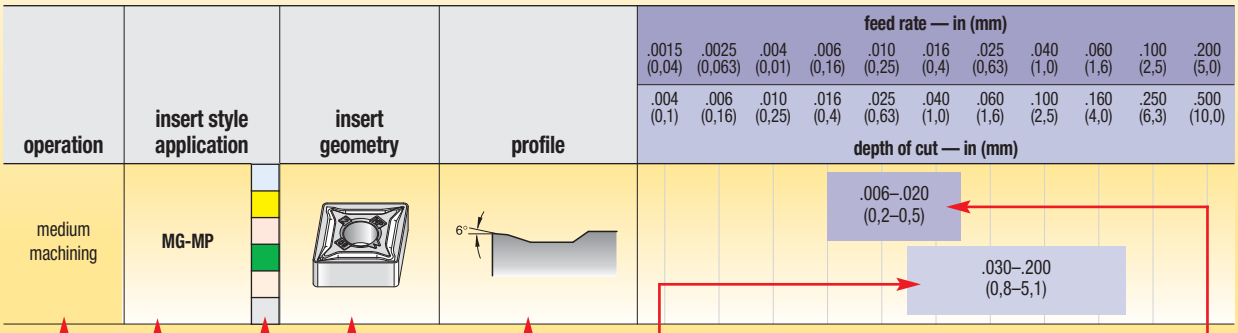
wear resistance ⟷ toughness

PCD – Polycrystalline Diamond Grades

Coating	Grade Description	05	10	15	20	25	30	35	40	45
KD1400	**Composition:** An ultra-fine-grain, polycrystalline diamond (PCD) tip brazed onto a carbide substrate. **Application:** Designed for general-purpose turning of primarily non-ferrous materials. It can be applied over a wide range of continuous to interrupted cuts where superior surface finish is needed. Use on low to medium silicon-content aluminum alloys, non-metallics, copper, and brass- and zinc-based alloys. The ultra-fine-grain diamond particle size enables superior surface finishes while ensuring the best mechanical shock resistance of any PCD cutting tool.	N, S								
KD1405	**Composition:** A pure CVD-deposited diamond-sheet tool brazed directly to a carbide substrate. **Application:** KD1405 is Kennametal's most abrasion-resistant tool material for non-ferrous and non-metallic materials. Best applied when abrasion resistance is the desired benefit.	N, S								
KD1425	**Composition:** A multimodal PCD grade with a range of grain sizes brazed onto a carbide substrate. **Application:** Engineered for extreme abrasion resistance, combined with good edge strength for demanding applications. An ideal choice for high-silicon aluminum alloys, bi-metallic (AL/GCI) materials, MMC, carbon-fiber reinforced plastics, and other abrasive non-metallic materials.	N								

Select the geometry — based on feed rate and depth of cut

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous Materials
S	High-Temp Alloys
H	Hardened Materials



Feed Rate Range —
for best results, use the center 60% of the range

Pictorial View of Insert

Depth-of-Cut Range —
for all inserts in the program, select smaller inserts for lighter cuts and larger inserts for heavy cuts

Chipbreaker Geometry —
section is through nose radius of insert

Primary Workpiece Material Group

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous Materials
S	High-Temp Alloys
H	Hardened Materials

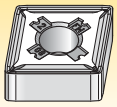
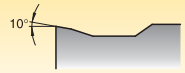
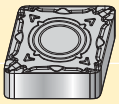
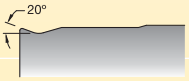
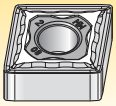
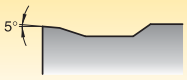
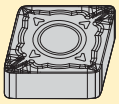
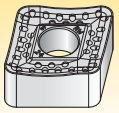
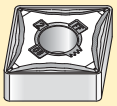
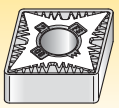
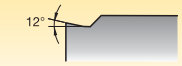
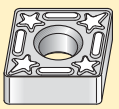
Chip Control Geometry Designation —
example: MG-MP = CNMG-432MP

Machining Operation —
for what the insert geometry is designed

NOTE: For detailed grade and geometry recommendations, reference the Kennametal Beyond™ Selection System on pages B8–B23.

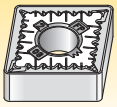
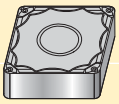
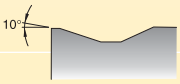
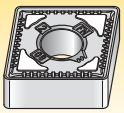
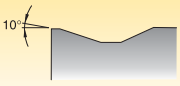
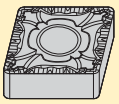
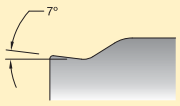
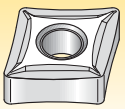
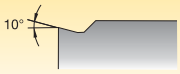
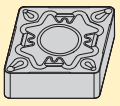
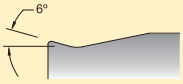
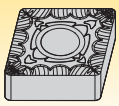
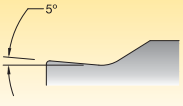
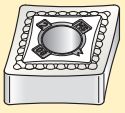
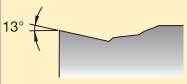
Select the geometry — based on feed rate and depth of cut

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous Materials
S	High-Temp Alloys
H	Hardened Materials

operation	insert style application	insert geometry	profile	feed rate — in (mm) / depth of cut — in (mm)
wiper finishing	**MG-FW**			.008–.016 (0,2–0,4); .010–.080 (0,3–2,0)
	MG-FW1			.004–.016 (0,1–1,5); .004–.060 (0,1–1,5)
wiper medium machining	**MG-MW**			.012–.024 (0,3–0,6); .030–.200 (0,8–5,1)
	MG-MW1			.006–.020 (0,15–0,5); .020–.119 (0,5–3)
wiper roughing	**MM-RW**			.010–.050 (0,3–1,3); .050–.500 (1,3–12,7)
fine finishing	**MG-FF**			.002–.010 (0,1–0,3); .003–.080 (0,1–2,0)
finishing sharp	**GG-FS** precision ground			.003–.010 (0,07–0,25); .008–.080 (0,20–2,0)
finishing	**GG-LF** precision ground			.005–.020 (0,1–0,5); .020–.120 (0,5–3,0)

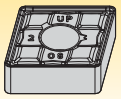
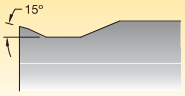
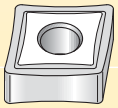
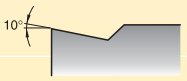
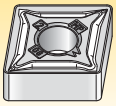
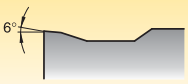
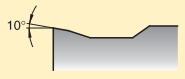
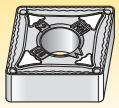
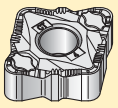
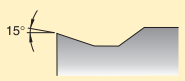
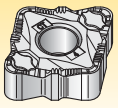
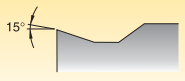
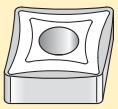
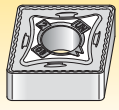
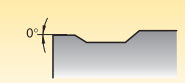
Select the geometry — based on feed rate and depth of cut

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous Materials
S	High-Temp Alloys
H	Hardened Materials

operation	insert style application	insert geometry	profile	feed rate — in (mm) / depth of cut — in (mm)
finishing	MG-FP			.004–.012 (0,1–0,3) / .010–.100 (0,3–2,5)
	MG-FH			.002–.010 (0,05–0,25) / .010–.040 (0,25–1)
	MG-FN			.005–.012 (0,1–0,3) / .010–.100 (0,3–2,5)
	MG-FX			.003–.009 (0,07–0,22) / .008–.040 (0,2–1)
	MP-K			.004–.012 (0,1–0,3) / .008–.100 (0,2–2,5)
medium machining	MG-MH			.006–.020 (0,15–0,5) / .012–.079 (0,3–2)
	MG-MX			.006–.014 (0,15–0,35) / .020–.060 (0,5–1,5)
medium sharp	MG-MS			.005–.014 (0,12–0,35) / .030–.200 (0,76–5,0)

Select the geometry — based on feed rate and depth of cut

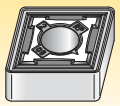
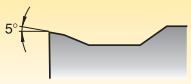
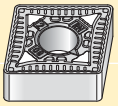
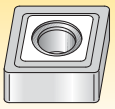
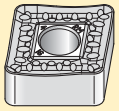
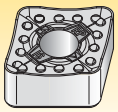
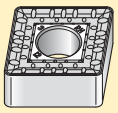
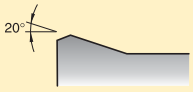
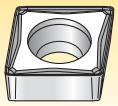
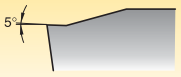
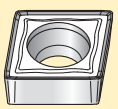
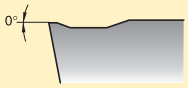
P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous Materials
S	High-Temp Alloys
H	Hardened Materials

operation	insert style application	insert geometry	profile	feed rate — in (mm) / depth of cut — in (mm)
				.0015 (0,04) .0025 (0,063) .004 (0,01) .006 (0,16) .010 (0,25) .016 (0,4) .025 (0,63) .040 (1,0) .060 (1,6) .100 (2,5) .200 (5,0)
				.004 (0,1) .006 (0,16) .010 (0,25) .016 (0,4) .025 (0,63) .040 (1,0) .060 (1,6) .100 (2,5) .160 (4,0) .250 (6,3) .500 (10,0)
medium machining	**MG-UP**			.008–.025 (0,2–0,6); .040–.250 (1–6,4)
	__GP*			.012–.020 (0,1–0,35); .060–.125 (0,5–3,2)
	MG-MP			.006–.020 (0,2–0,5); .030–.200 (0,8–5,1)
	MG-P			.006–.020 (0,15–0,5); .030–.200 (0,75–5,0)
	MG-MN			.006–.020 (0,2–0,5); .020–.200 (0,5–5,1)
	MG-CT O.D. turning			.005–.020 (0,13–0,5); .040–.115 (1,0–3,0)
	MG-CT outward facing			.010–.020 (0,25–0,5); .010–.040 (0,25–1,0)
	-MS single sided			.006–.015 (0,2–0,4); .025–.090 (0,6–2,3)
	MG-UN			.008–.020 (0,2–0,5); .030–.150 (0,8–3,8)

*35° and 55° geometries are single sided.

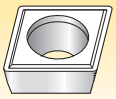
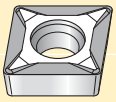
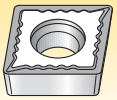
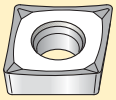
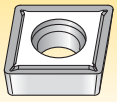
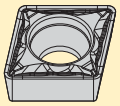
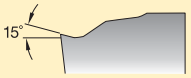
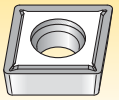
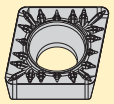
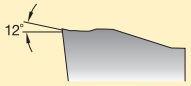
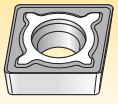
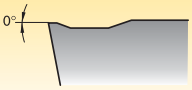
Select the geometry — based on feed rate and depth of cut

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous Materials
S	High-Temp Alloys
H	Hardened Materials

operation	insert style application	insert geometry	profile	feed rate — in (mm) / depth of cut — in (mm)
roughing	**MG-RP**			.008–.025 (0,2–0,6); .045–.250 (1,1–6,4)
	MG-RN			.010–.025 (0,3–0,63); .045–.250 (1,1–5,7)
heavy roughing	**MG**			.012–.030 (0,3–0,8); .045–.225 (1,1–5,7)
	MM-RM single sided			.010–.040 (0,3–1,0); .050–.500 (1,3–12,7)
	MM-RP			.008–.030 (0,2–1,0); .050–.400 (1,3–10,0)
	MM-RH single sided			.015–.050 (0,4–1,3); .050–.500 (1,3–12,7)
wiper finishing	**MT-FW**			.003–.013 (0,1–0,3); .008–.060 (0,2–1,5)
wiper, medium finishing	**MT-MW**			.005–.020 (0,1–0,5); .016–.130 (0,4–3,3)

Select the geometry — based on feed rate and depth of cut

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous Materials
S	High-Temp Alloys
H	Hardened Materials

operation	insert style application	insert geometry	profile	feed rate — in (mm) / depth of cut — in (mm)
				.0015 (0,04) .0025 (0,063) .004 (0,01) .006 (0,16) .010 (0,25) .016 (0,4) .025 (0,63) .040 (1,0) .060 (1,6) .100 (2,5) .200 (5,0)
				.004 (0,1) .006 (0,16) .010 (0,25) .016 (0,4) .025 (0,63) .040 (1,0) .060 (1,6) .100 (2,5) .160 (4,0) .250 (6,3) .500 (10,0)
fine finishing	__GM precision ground			.002–.008 (0,1–0,2) / .008–.040 (0,2–1,0)
	MT-11			.003–.010 (0,1–0,3) / .008–.050 (0,2–1,3)
	.MT-UF			.002–.010 (0,1–0,3) / .005–.050 (0,1–1,3)
finishing	GT-HP precision ground			.007–.015 (0,2–0,4) / .025–.090 (0,6–2,3)
	GT-LF precision ground			.007–.015 (0,2–0,4) / .030–.090 (0,8–2,3)
	MT-FP			.0025–.010 (0,063–0,25) / .006–.060 (0,16–1,6)
	MT-LF			.007–.015 (0,2–0,4) / .030–.090 (0,8–2,3)
medium machining	MT-MP			.004–.016 (0,01–0,4) / .016–.130 (0,4–2,3)
	MT-MF			.009–.017 (0,2–0,4) / .045–.090 (1,1–2,3)

Carbide Inserts

Primary Application

Kennametal offers a complete portfolio of ISO-/ANSI-style inserts. Positive, negative, CVD, PVD, or uncoated, we have the insert to help increase productivity and achieve greater savings.

Plus, our carbide insert line contains Beyond™ technology. Beyond inserts offer you greater versatility, reliability, and up to 30% higher productivity.

Beyond™ CVD Grades

- Higher productivity and profitability — up to 300% higher.
- Lower cutting forces — Increase speeds and reduce cycle time.
- Extended tool life.
- Predictable tool life / Uniform wear.
- Resists chip flow damage.
- Consistent surface finish.
- Products can be applied across a wide range of applications.
- Use it in low speed to high speed applications.
- For finish to rough turning of steel, cast iron, stainless steel, and high temp alloy turning.

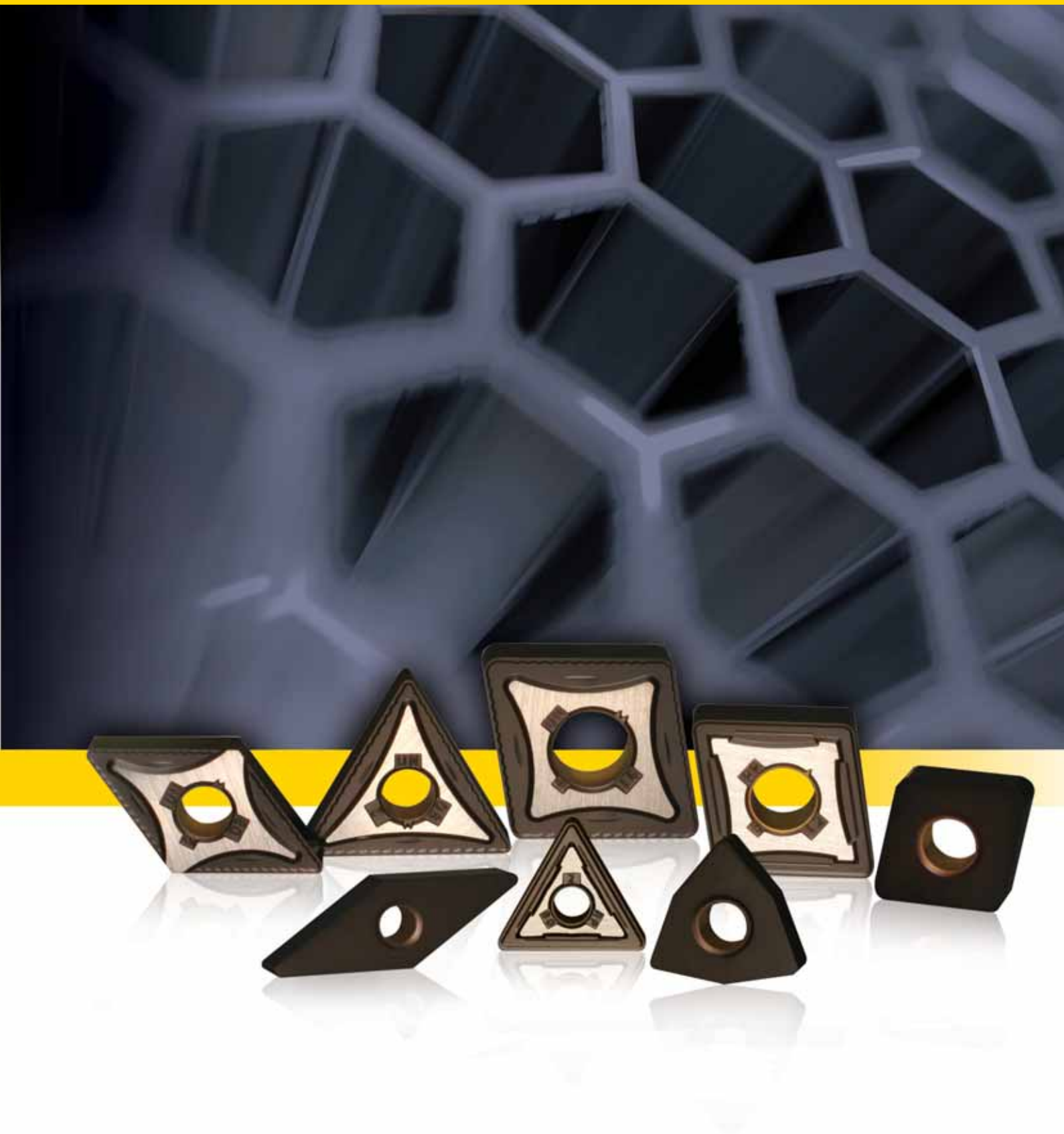
Beyond™ PVD Grades

KCU10™

- PVD-coated grade with superior wear resistance at elevated temperatures, allowing higher metal cutting speeds.
- For use in all materials, especially stainless steels and high-temp alloys.
- Improved depth-of-cut notch resistance
- Increase speed by 20–30% or feed by 10–15%.
- Use in finishing to medium applications.

KCU25™

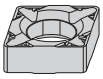
- PVD-coated grade with superior edge toughness and excellent wear resistance. Medium to roughing applications.
- Use in all materials.
- Increase speed, feed, and depth of cut by 10–20%.

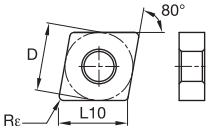


● first choice
○ alternate choice

	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
P	●	●	●	●	●											●	●		●	●			●	●
M									●	●	●					●	●		●	●				
K						●	●	●																●
N																						●		
S												●	●	●	●	●	●	●	●	●	●			
H																								

CNGG-FBB

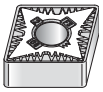


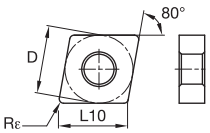


beyond BLAST™

ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
CNGG120404FBB	CNGG431FBB	12,70	1/2	12,90	.508	0,4	1/64
CNGG120408FBB	CNGG432FBB	12,70	1/2	12,90	.508	0,8	1/32

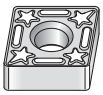
CNGG-FS

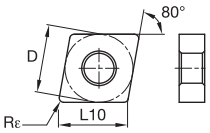




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
CNGG120401FS	CNGG430FS	12,70	1/2	12,90	.508	0,1	.004
CNGG120402FS	CNGG4305FS	12,70	1/2	12,90	.508	0,2	.008
CNGG120404FS	CNGG431FS	12,70	1/2	12,90	.508	0,4	1/64
CNGG120408FS	CNGG432FS	12,70	1/2	12,90	.508	0,8	1/32
CNGG120412FS	CNGG433FS	12,70	1/2	12,90	.508	1,2	3/64

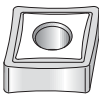
CNGG-LF

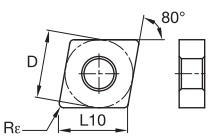




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
CNGG120401LF	CNGG430LF	12,70	1/2	12,90	.508	0,1	.004
CNGG120402LF	CNGG4305LF	12,70	1/2	12,90	.508	0,2	.008
CNGG120404LF	CNGG431LF	12,70	1/2	12,90	.508	0,4	1/64
CNGG120408LF	CNGG432LF	12,70	1/2	12,90	.508	0,8	1/32
CNGG120412LF	CNGG433LF	12,70	1/2	12,90	.508	1,2	3/64
CNGG160608LF	CNGG542LF	15,88	5/8	16,12	.635	0,8	1/32
CNGG160612LF	CNGG543LF	15,88	5/8	16,12	.635	1,2	3/64

CNGP

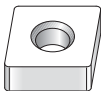


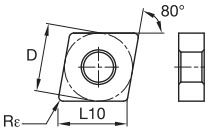


ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
CNGP120401	CNGP430	12,70	1/2	12,90	.508	0,1	.004
CNGP120402	CNGP4305	12,70	1/2	12,90	.508	0,2	.008
CNGP120404	CNGP431	12,70	1/2	12,90	.508	0,4	1/64
CNGP120408	CNGP432	12,70	1/2	12,90	.508	0,8	1/32
CNGP120412	CNGP433	12,70	1/2	12,90	.508	1,2	3/64
CNGP120416	CNGP434	12,70	1/2	12,90	.508	1,6	1/16

● first choice
○ alternate choice

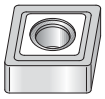
CNMA

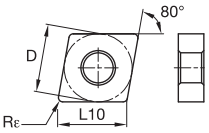




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
CNMA120404	**CNMA431**	12,70	1/2	12,90	.508	0,4	1/64						●	●	●															
CNMA120408	**CNMA432**	12,70	1/2	12,90	.508	0,8	1/32						●	●	●					●	●									
CNMA120412	**CNMA433**	12,70	1/2	12,90	.508	1,2	3/64						●	●	●					●										
CNMA120416	**CNMA434**	12,70	1/2	12,90	.508	1,6	1/16						●	●	●															
CNMA160608	**CNMA542**	15,88	5/8	16,12	.635	0,8	1/32							●	●															
CNMA160612	**CNMA543**	15,88	5/8	16,12	.635	1,2	3/64						●	●	●															
CNMA160616	**CNMA544**	15,88	5/8	16,12	.635	1,6	1/16						●	●	●															
CNMA190608	**CNMA642**	19,05	3/4	19,34	.762	0,8	1/32						●		●															
CNMA190612	**CNMA643**	19,05	3/4	19,34	.762	1,2	3/64						●	●	●							●								
CNMA190616	**CNMA644**	19,05	3/4	19,34	.762	1,6	1/16						●		●							●								

CNMG





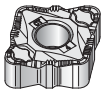
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
CNMG120404B	**CNMG431**	12,70	1/2	12,90	.508	0,4	1/64														●									
CNMG120408	**CNMG432**	12,70	1/2	12,90	.508	0,8	1/32													●	●									
CNMG120412	**CNMG433**	12,70	1/2	12,90	.508	1,2	3/64														●									
CNMG160612	**CNMG543**	15,88	5/8	16,12	.635	1,2	3/64														●									
CNMG190608	**CNMG642**	19,05	3/4	19,34	.762	0,8	1/32			●		●									●									
CNMG190612	**CNMG643**	19,05	3/4	19,34	.762	1,2	3/64			●		●									●		●	●						
CNMG190616	**CNMG644**	19,05	3/4	19,34	.762	1,6	1/16			●		●												●						
CNMG250924	**CNMG866**	25,40	1	25,79	1.015	2,4	3/32			●		●												●						

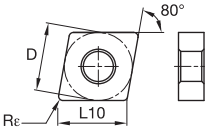
C2–C70 | C72–C118 | C119–C129 | C130–C161 | B10–B23 | B24–B31 | B32–B37

● first choice
○ alternate choice

P	● ● ● ● ●
M	● ● ● ● ●
K	● ● ● ●
N	●
S	● ● ● ● ● ● ● ●
H	

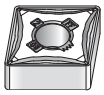
CNMG-CT

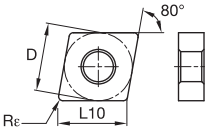




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
CNMG120408CT	CNMG432CT	12,70	1/2	12,90	.508	0,8	1/32	●	●	●													●	●					●	
CNMG120412CT	CNMG433CT	12,70	1/2	12,90	.508	1,2	3/64	●	●	●																				
CNMG120416CT	CNMG434CT	12,70	1/2	12,90	.508	1,6	1/16		●																					

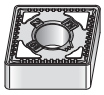
CNMG-FF

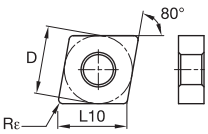




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
CNMG090304FF	CNMG321FF	9,53	3/8	9,67	.381	0,4	1/64		●														●	●					●	
CNMG090308FF	CNMG322FF	9,53	3/8	9,67	.381	0,8	1/32		●														●	●						
CNMG120404FF	CNMG431FF	12,70	1/2	12,90	.508	0,4	1/64	●	●														●	●					●	
CNMG120408FF	CNMG432FF	12,70	1/2	12,90	.508	0,8	1/32	●	●														●	●					●	

CNMG-FN

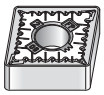


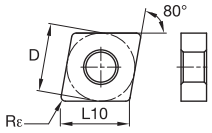


ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
CNMG090304FN	CNMG321FN	9,53	3/8	9,67	.381	0,4	1/64		●				●																●	
CNMG090308FN	CNMG322FN	9,53	3/8	9,67	.381	0,8	1/32		●				●																●	
CNMG120402FN	CNMG4305FN	12,70	1/2	12,90	.508	0,2	.008																●	●					●	
CNMG120404FN	CNMG431FN	12,70	1/2	12,90	.508	0,4	1/64	●	●	●			●																●	
CNMG120408FN	CNMG432FN	12,70	1/2	12,90	.508	0,8	1/32	●	●	●			●																●	
CNMG120412FN	CNMG433FN	12,70	1/2	12,90	.508	1,2	3/64	●	●	●			●																●	
CNMG120416FN	CNMG434FN	12,70	1/2	12,90	.508	1,6	1/16		●	●			●																	

● first choice
○ alternate choice

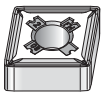
CNMG-FP

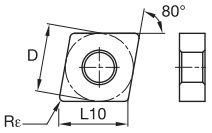




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
CNMG120404FP	CNMG431FP	12,70	1/2	12,90	.508	0,4	1/64		●							●							●	●					●	
CNMG120408FP	CNMG432FP	12,70	1/2	12,90	.508	0,8	1/32		●	●						●							●	●					●	
CNMG120412FP	CNMG433FP	12,70	1/2	12,90	.508	1,2	3/64									●							●	●						

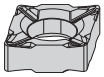
CNMG-FW

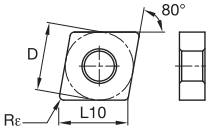




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
CNMG120404FW	CNMG431FW	12,70	1/2	12,90	.508	0,4	1/64	●	●														●	●					●	
CNMG120408FW	CNMG432FW	12,70	1/2	12,90	.508	0,8	1/32	●	●														●	●					●	
CNMG120412FW	CNMG433FW	12,70	1/2	12,90	.508	1,2	3/64	●	●														●	●					●	

CNMG-MBB





beyond BLAST™

ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
CNMG120404MBB	CNMG431MBB	12,70	1/2	12,90	.508	0,4	1/64												●				●							
CNMG120408MBB	CNMG432MBB	12,70	1/2	12,90	.508	0,8	1/32												●				●							


C2–C70


C72–C118


C119–C129


C130–C161

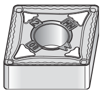
B10–B23

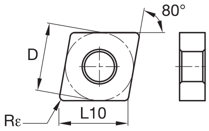

B24–B31


B32–B37

● first choice
○ alternate choice

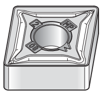
	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
P	●	●	●	●	●																		●	●
M									●	●	●					●	●		●	●				
K						●	●	●																●
N																						●		
S												●	●	●	●	●	●	●	●	●	●			
H																								

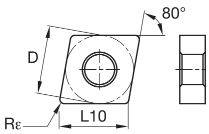




CNMG-MN

ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
CNMG090304MN	CNMG321MN	9,53	3/8	9,67	.381	0,4	1/64		●	●	●																				
CNMG090308MN	CNMG322MN	9,53	3/8	9,67	.381	0,8	1/32		●	●	●																				
CNMG090312MN	CNMG323MN	9,53	3/8	9,67	.381	1,2	3/64			●																					
CNMG120404MN	CNMG431MN	12,70	1/2	12,90	.508	0,4	1/64	●	●	●	●																				
CNMG120408MN	CNMG432MN	12,70	1/2	12,90	.508	0,8	1/32	●	●	●	●	●																			
CNMG120412MN	CNMG433MN	12,70	1/2	12,90	.508	1,2	3/64	●	●	●	●	●																			
CNMG120416MN	CNMG434MN	12,70	1/2	12,90	.508	1,6	1/16		●	●																					
CNMG160608MN	CNMG542MN	15,88	5/8	16,12	.635	0,8	1/32		●	●	●																				
CNMG160612MN	CNMG543MN	15,88	5/8	16,12	.635	1,2	3/64	●	●	●	●																				
CNMG160616MN	CNMG544MN	15,88	5/8	16,12	.635	1,6	1/16		●	●																					
CNMG190608MN	CNMG642MN	19,05	3/4	19,34	.762	0,8	1/32		●	●	●																				
CNMG190612MN	CNMG643MN	19,05	3/4	19,34	.762	1,2	3/64		●	●	●	●																			
CNMG190616MN	CNMG644MN	19,05	3/4	19,34	.762	1,6	1/16		●	●	●																				



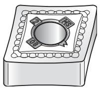
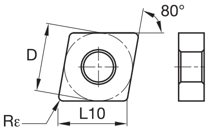


CNMG-MP

ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
CNMG090308MP	CNMG322MP	9,53	3/8	9,67	.381	0,8	1/32									●	●						●	●							
CNMG120404MP	CNMG431MP	12,70	1/2	12,90	.508	0,4	1/64									●	●	●					●	●							
CNMG120408MP	CNMG432MP	12,70	1/2	12,90	.508	0,8	1/32		●	●						●	●	●					●	●		●	●				
CNMG120412MP	CNMG433MP	12,70	1/2	12,90	.508	1,2	3/64		●	●						●	●	●					●	●		●	●				
CNMG120416MP	CNMG434MP	12,70	1/2	12,90	.508	1,6	1/16									●	●						●	●							
CNMG160608MP	CNMG542MP	15,88	5/8	16,12	.635	0,8	1/32									●	●	●					●	●							
CNMG160612MP	CNMG543MP	15,88	5/8	16,12	.635	1,2	3/64									●	●	●					●	●		●	●				
CNMG160616MP	CNMG544MP	15,88	5/8	16,12	.635	1,6	1/16										●	●					●	●							
CNMG190608MP	CNMG642MP	19,05	3/4	19,34	.762	0,8	1/32									●	●						●	●							
CNMG190612MP	CNMG643MP	19,05	3/4	19,34	.762	1,2	3/64									●	●	●					●	●		●	●				
CNMG190616MP	CNMG644MP	19,05	3/4	19,34	.762	1,6	1/16									●	●						●	●							

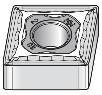
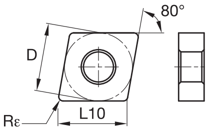
● first choice
○ alternate choice

	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
P	●	●	●	●	●																		●	●
M									●	●	●					●	●		●	●				
K						●	●	●																●
N																						●		
S												●	●	●	●	●	●	●	●	●	●			
H																								

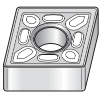
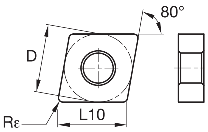
CNMG-MS

ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	K313	KCU10	KC5510	KCU25	KC5525
CNMG120401MS	CNMG430MS	12,70	1/2	12,90	.508	0,1	.004		●	●	●	●
CNMG120402MS	CNMG4305MS	12,70	1/2	12,90	.508	0,2	.008	●	●	●	●	●
CNMG120404MS	CNMG431MS	12,70	1/2	12,90	.508	0,4	1/64	●	●	●	●	●
CNMG120408MS	CNMG432MS	12,70	1/2	12,90	.508	0,8	1/32	●	●	●	●	●
CNMG120412MS	CNMG433MS	12,70	1/2	12,90	.508	1,2	3/64	●	●	●	●	●
CNMG120416MS	CNMG434MS	12,70	1/2	12,90	.508	1,6	1/16		●	●	●	●
CNMG160608MS	CNMG542MS	15,88	5/8	16,12	.635	0,8	1/32		●	●	●	●
CNMG160612MS	CNMG543MS	15,88	5/8	16,12	.635	1,2	3/64	●	●	●	●	●
CNMG190608MS	CNMG642MS	19,05	3/4	19,34	.762	0,8	1/32		●	●	●	●
CNMG190612MS	CNMG643MS	19,05	3/4	19,34	.762	1,2	3/64	●	●	●	●	●
CNMG190616MS	CNMG644MS	19,05	3/4	19,34	.762	1,6	1/16		●	●	●	●

CNMG-MW

ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25
CNMG120408MW	CNMG432MW	12,70	1/2	12,90	.508	0,8	1/32	●	●	●
CNMG120412MW	CNMG433MW	12,70	1/2	12,90	.508	1,2	3/64	●	●	●

CNMG-P

ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	K313	KCU10	KC5010	KC5410
CNMG120404P	CNMG431P	12,70	1/2	12,90	.508	0,4	1/64	●	●	●	
CNMG120408P	CNMG432P	12,70	1/2	12,90	.508	0,8	1/32	●	●	●	●
CNMG120412P	CNMG433P	12,70	1/2	12,90	.508	1,2	3/64	●	●	●	
CNMG120416P	CNMG434P	12,70	1/2	12,90	.508	1,6	1/16	●	●	●	
CNMG190612P	CNMG643P	19,05	3/4	19,34	.762	1,2	3/64		●	●	

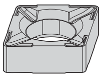
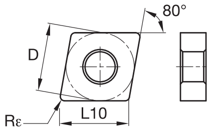
C2–C70 | C72–C118 | C119–C129 | C130–C161 | B10–B23 | B24–B31 | B32–B37

Inserts

● first choice
○ alternate choice

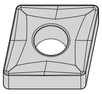
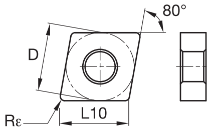
beyond BLAST™

	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
P	●	●	●	●	●																		●	●
M									●	●	●					●	●		●	●				
K						●	●	●																●
N																						●		
S												●	●	●	●	●	●	●	●	●	●			
H																								

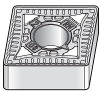
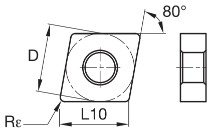
CNMG-RBB

ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
CNMG120408RBB	CNMG432RBB	12,70	1/2	12,90	.508	0,8	1/32												●				●								

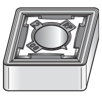
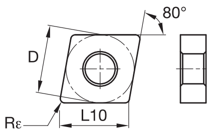
CNMG-RM

ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
CNMG190612RM	CNMG643RM	19,05	3/4	19,34	.762	1,2	3/64			●		●											●								
CNMG190616RM	CNMG644RM	19,05	3/4	19,34	.762	1,6	1/16			●	●	●											●								
CNMG250924RM	CNMG866RM	25,40	1	25,79	1.015	2,4	3/32			●	●	●											●								

CNMG-RN

ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
CNMG120408RN	CNMG432RN	12,70	1/2	12,90	.508	0,8	1/32	●	●	●	●	●																			
CNMG120412RN	CNMG433RN	12,70	1/2	12,90	.508	1,2	3/64	●	●	●	●	●																			
CNMG120416RN	CNMG434RN	12,70	1/2	12,90	.508	1,6	1/16	●	●	●	●	●																			
CNMG160608RN	CNMG542RN	15,88	5/8	16,12	.635	0,8	1/32		●	●	●																				
CNMG160612RN	CNMG543RN	15,88	5/8	16,12	.635	1,2	3/64		●	●	●	●																			
CNMG160616RN	CNMG544RN	15,88	5/8	16,12	.635	1,6	1/16		●	●		●																			
CNMG190608RN	CNMG642RN	19,05	3/4	19,34	.762	0,8	1/32		●	●		●																			
CNMG190612RN	CNMG643RN	19,05	3/4	19,34	.762	1,2	3/64		●	●	●	●																			
CNMG190616RN	CNMG644RN	19,05	3/4	19,34	.762	1,6	1/16		●	●	●	●																			
CNMG190624RN	CNMG646RN	19,05	3/4	19,34	.762	2,4	3/32		●	●	●																				

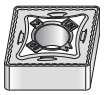
CNMG-RP

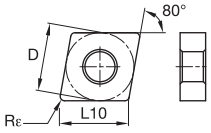
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
CNMG120404RP	CNMG431RP	12,70	1/2	12,90	.508	0,4	1/64		●	●					●	●	●						●	●	●	●		●			
CNMG120408RP	CNMG432RP	12,70	1/2	12,90	.508	0,8	1/32	●	●	●	●	●	●	●	●	●	●	●					●	●	●	●	●	●			
CNMG120412RP	CNMG433RP	12,70	1/2	12,90	.508	1,2	3/64	●	●	●	●	●	●	●	●	●	●	●					●	●	●	●	●	●			
CNMG120416RP	CNMG434RP	12,70	1/2	12,90	.508	1,6	1/16		●	●				●	●	●	●	●					●	●	●	●		●			
CNMG160608RP	CNMG542RP	15,88	5/8	16,12	.635	0,8	1/32		●	●					●	●							●	●	●	●		●			
CNMG160612RP	CNMG543RP	15,88	5/8	16,12	.635	1,2	3/64		●	●	●	●	●	●	●	●	●	●					●	●	●	●	●	●			
CNMG160616RP	CNMG544RP	15,88	5/8	16,12	.635	1,6	1/16		●	●	●				●		●						●	●		●		●			
CNMG190612RP	CNMG643RP	19,05	3/4	19,34	.762	1,2	3/64		●	●	●	●	●	●	●	●	●	●					●	●	●	●	●	●			
CNMG190616RP	CNMG644RP	19,05	3/4	19,34	.762	1,6	1/16		●	●	●	●			●	●	●	●					●	●	●	●		●			

● first choice
○ alternate choice

		KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
P		●	●	●	●	●																		●	●
M										●	●	●					●	●		●	●				
K							●	●	●																●
N																							●		
S													●	●	●	●	●	●	●	●	●	●			
H																									

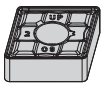
CNMG-UN

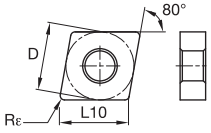




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
CNMG120404UN	CNMG431UN	12,70	1/2	12,90	.508	0,4	1/64
CNMG120408UN	CNMG432UN	12,70	1/2	12,90	.508	0,8	1/32
CNMG120412UN	CNMG433UN	12,70	1/2	12,90	.508	1,2	3/64
CNMG120416UN	CNMG434UN	12,70	1/2	12,90	.508	1,6	1/16
CNMG160608UN	CNMG542UN	15,88	5/8	16,12	.635	0,8	1/32
CNMG160612UN	CNMG543UN	15,88	5/8	16,12	.635	1,2	3/64
CNMG160616UN	CNMG544UN	15,88	5/8	16,12	.635	1,6	1/16
CNMG190608UN	CNMG642UN	19,05	3/4	19,34	.762	0,8	1/32
CNMG190612UN	CNMG643UN	19,05	3/4	19,34	.762	1,2	3/64
CNMG190616UN	CNMG644UN	19,05	3/4	19,34	.762	1,6	1/16

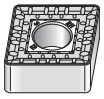
CNMG-UP

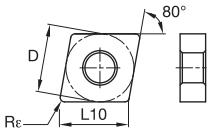




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
CNMG120404UP	CNMG431UP	12,70	1/2	12,90	.508	0,4	1/64
CNMG120408UP	CNMG432UP	12,70	1/2	12,90	.508	0,8	1/32
CNMG120412UP	CNMG433UP	12,70	1/2	12,90	.508	1,2	3/64
CNMG160608UP	CNMG542UP	15,88	5/8	16,12	.635	0,8	1/32
CNMG160612UP	CNMG543UP	15,88	5/8	16,12	.635	1,2	3/64
CNMG190608UP	CNMG642UP	19,05	3/4	19,34	.762	0,8	1/32
CNMG190612UP	CNMG643UP	19,05	3/4	19,34	.762	1,2	3/64
CNMG190616UP	CNMG644UP	19,05	3/4	19,34	.762	1,6	1/16

CNMM-RH





ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
CNMM190612RH	CNMM643RH	19,05	3/4	19,34	.762	1,2	3/64
CNMM190616RH	CNMM644RH	19,05	3/4	19,34	.762	1,6	1/16
CNMM190624RH	CNMM646RH	19,05	3/4	19,34	.762	2,4	3/32
CNMM250924RH	CNMM866RH	25,40	1	25,79	1.015	2,4	3/32


C2–C70


C72–C118


C119–C129


C130–C161

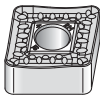
B10–B23

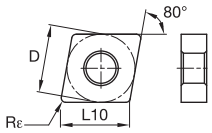

B24–B31


B32–B37

● first choice
○ alternate choice

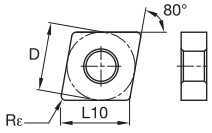
CNMM-RM





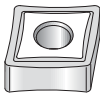
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
CNMM120408RM	CNMM432RM	12,70	1/2	12,90	.508	0,8	1/32		●	●	●																			
CNMM120412RM	CNMM433RM	12,70	1/2	12,90	.508	1,2	3/64		●	●	●	●																		
CNMM120416RM	CNMM434RM	12,70	1/2	12,90	.508	1,6	1/16			●		●																		
CNMM160612RM	CNMM543RM	15,88	5/8	16,12	.635	1,2	3/64		●	●	●																			
CNMM160616RM	CNMM544RM	15,88	5/8	16,12	.635	1,6	1/16		●	●	●																			
CNMM160624RM	CNMM546RM	15,88	5/8	16,12	.635	2,4	3/32		●	●																				
CNMM190612RM	CNMM643RM	19,05	3/4	19,34	.762	1,2	3/64		●	●	●	●																		
CNMM190616RM	CNMM644RM	19,05	3/4	19,34	.762	1,6	1/16		●	●	●	●																		
CNMM190624RM	CNMM646RM	19,05	3/4	19,34	.762	2,4	3/32			●	●																			
CNMM250924RM	CNMM866RM	25,40	1	25,79	1.015	2,4	3/32		●	●	●	●																		

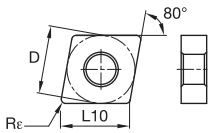
CNMM-RP



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
CNMM120408RP	CNMM432RP	12,70	1/2	12,90	.508	0,8	1/32	●	●	●	●	●				●	●													
CNMM120412RP	CNMM433RP	12,70	1/2	12,90	.508	1,2	3/64	●	●	●	●	●				●	●	●												
CNMM120416RP	CNMM434RP	12,70	1/2	12,90	.508	1,6	1/16		●	●	●	●				●														
CNMM160608RP	CNMM542RP	15,88	5/8	16,12	.635	0,8	1/32			●		●																		
CNMM160612RP	CNMM543RP	15,88	5/8	16,12	.635	1,2	3/64	●	●	●	●	●				●	●	●												
CNMM160616RP	CNMM544RP	15,88	5/8	16,12	.635	1,6	1/16	●	●	●	●	●				●	●													
CNMM190612RP	CNMM643RP	19,05	3/4	19,34	.762	1,2	3/64		●	●	●	●				●	●													
CNMM190616RP	CNMM644RP	19,05	3/4	19,34	.762	1,6	1/16		●	●	●	●				●	●	●												
CNMM190624RP	CNMM646RP	19,05	3/4	19,34	.762	2,4	3/32		●	●						●														
CNMM250924RP	CNMM866RP	25,40	1	25,79	1.015	2,4	3/32			●		●																		

CNMP

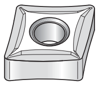


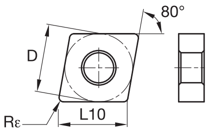


ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
CNMP120404	CNMP431	12,70	1/2	12,90	.508	0,4	1/64													●	●								●	
CNMP120408	CNMP432	12,70	1/2	12,90	.508	0,8	1/32													●	●								●	
CNMP120412	CNMP433	12,70	1/2	12,90	.508	1,2	3/64														●									
CNMP160608	CNMP542	15,88	5/8	16,12	.635	0,8	1/32														●									
CNMP160612	CNMP543	15,88	5/8	16,12	.635	1,2	3/64														●								●	
CNMP190608	CNMP642	19,05	3/4	19,34	.762	0,8	1/32														●									
CNMP190612	CNMP643	19,05	3/4	19,34	.762	1,2	3/64													●	●								●	

● first choice
○ alternate choice

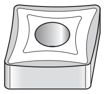
	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
P	●	●	●	●	●																		●	●
M									●	●	●					●	●		●	●				
K						●	●	●																●
N																						●		
S												●	●	●	●	●	●	●	●	●	●			
H																								

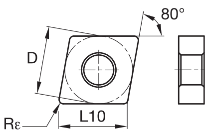




CNMP-K

ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
CNMP120404K	CNMP431K	12,70	1/2	12,90	.508	0,4	1/64			●																					
CNMP120408K	CNMP432K	12,70	1/2	12,90	.508	0,8	1/32		●	●																					
CNMP120412K	CNMP433K	12,70	1/2	12,90	.508	1,2	3/64			●																					





CNMS

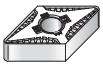
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
CNMS120408	CNMS432	12,70	1/2	12,90	.508	0,8	1/32														●								●		
CNMS160608	CNMS542	15,88	5/8	16,12	.635	0,8	1/32														●								●		
CNMS190608	CNMS642	19,05	3/4	19,34	.762	0,8	1/32														●								●		
CNMS190612	CNMS643	19,05	3/4	19,34	.762	1,2	3/64														●										

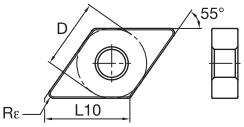

C2–C70 | C72–C118 | C119–C129 | C130–C161 | B10–B23 | B24–B31 | B32–B37

● first choice
○ alternate choice

	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
P	●	●	●	●	●																	●		●
M									●	●	●					●	●		●	●				
K						●	●	●																●
N																						●		
S												●	●	●	●	●	●	●	●	●	●			
H																								

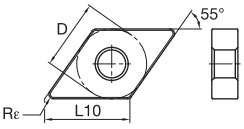
DNGG-FS





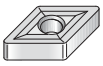
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
DNGG110402FS	DNGG3305FS	9,52	3/8	11,63	.458	0,2	.008
DNGG110404FS	DNGG331FS	9,52	3/8	11,63	.458	0,4	1/64
DNGG110408FS	DNGG332FS	9,52	3/8	11,63	.458	0,8	1/32
DNGG150401FS	DNGG430FS	12,70	1/2	15,50	.610	0,1	.004
DNGG150402FS	DNGG4305FS	12,70	1/2	15,50	.610	0,2	.008
DNGG150604FS	DNGG441FS	12,70	1/2	15,50	.610	0,4	1/64
DNGG150404FS	DNGG431FS	12,70	1/2	15,50	.610	0,4	1/64
DNGG150608FS	DNGG442FS	12,70	1/2	15,50	.610	0,8	1/32
DNGG150408FS	DNGG432FS	12,70	1/2	15,50	.610	0,8	1/32
DNGG150412FS	DNGG433FS	12,70	1/2	15,50	.610	1,2	3/64
DNGG150416FS	DNGG434FS	12,70	1/2	15,50	.610	1,6	1/16

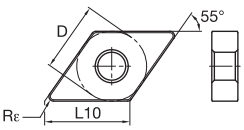
DNGG-LF



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
DNGG150402LF	DNGG4305LF	12,70	1/2	15,50	.610	0,2	.008
DNGG150404LF	DNGG431LF	12,70	1/2	15,50	.610	0,4	1/64
DNGG150408LF	DNGG432LF	12,70	1/2	15,50	.610	0,8	1/32

DNGP

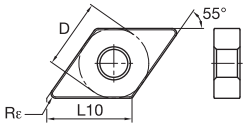




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
DNGP150401	DNGP430	12,70	1/2	15,50	.610	0,1	.004
DNGP150402	DNGP4305	12,70	1/2	15,50	.610	0,2	.008
DNGP150404	DNGP431	12,70	1/2	15,50	.610	0,4	1/64
DNGP150408	DNGP432	12,70	1/2	15,50	.610	0,8	1/32
DNGP150604	DNGP441	12,70	1/2	15,50	.610	0,4	1/64
DNGP150608	DNGP442	12,70	1/2	15,50	.610	0,8	1/32
DNGP150612	DNGP443	12,70	1/2	15,50	.610	1,2	3/64

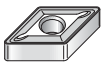
● first choice
○ alternate choice

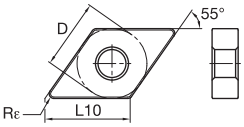
DNMA



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
DNMA110408	**DNMA332**	9,53	3/8	11,63	.458	0,8	1/32						●		●															
DNMA110412	**DNMA333**	9,53	3/8	11,63	.458	1,2	3/64								●															
DNMA150408	**DNMA432**	12,70	1/2	15,50	.610	0,8	1/32						●	●	●															
DNMA150412	**DNMA433**	12,70	1/2	15,50	.610	1,2	3/64						●	●	●															
DNMA150416	**DNMA434**	12,70	1/2	15,50	.610	1,6	1/16								●															
DNMA150608	**DNMA442**	12,70	1/2	15,50	.610	0,8	1/32						●	●	●															
DNMA150612	**DNMA443**	12,70	1/2	15,50	.610	1,2	3/64						●	●	●															
DNMA150616	**DNMA444**	12,70	1/2	15,50	.610	1,6	1/16								●															

DNMG





ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
DNMG150404B	**DNMG431**	12,70	1/2	15,50	.610	0,4	1/64														●									
DNMG150408B	**DNMG432**	12,70	1/2	15,50	.610	0,8	1/32													●	●									
DNMG150412B	**DNMG433**	12,70	1/2	15,50	.610	1,2	3/64														●									
DNMG150608B	**DNMG442**	12,70	1/2	15,50	.610	0,8	1/32													●										


C2–C70


C72–C118


C119–C129


C130–C161

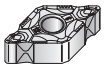
B10–B23

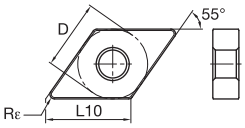

B24–B31


B32–B37

● first choice
○ alternate choice

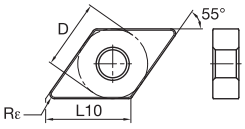
DNMG-CT





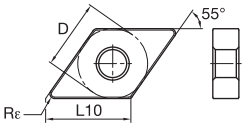
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
DNMG110404CT	DNMG331CT	9,53	3/8	11,63	.458	0,4	1/64																	●						
DNMG110408CT	DNMG332CT	9,53	3/8	11,63	.458	0,8	1/32	●	●															●						
DNMG150404CT	DNMG431CT	12,70	1/2	15,50	.610	0,4	1/64	●	●	●													●	●						
DNMG150408CT	DNMG432CT	12,70	1/2	15,50	.610	0,8	1/32	●	●	●													●	●						
DNMG150412CT	DNMG433CT	12,70	1/2	15,50	.610	1,2	3/64		●														●	●						
DNMG150604CT	DNMG441CT	12,70	1/2	15,50	.610	0,3	.013		●															●						
DNMG150608CT	DNMG442CT	12,70	1/2	15,50	.610	0,7	.029	●	●	●													●	●						
DNMG150612CT	DNMG443CT	12,70	1/2	15,50	.610	1,1	.045	●	●	●													●	●						

DNMG-FF



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
DNMG110404FF	DNMG331FF	9,53	3/8	11,63	.458	0,4	1/64	●	●														●	●					●	
DNMG110408FF	DNMG332FF	9,53	3/8	11,63	.458	0,8	1/32	●	●														●	●					●	
DNMG150404FF	DNMG431FF	12,70	1/2	15,50	.610	0,4	1/64	●	●														●	●					●	
DNMG150408FF	DNMG432FF	12,70	1/2	15,50	.610	0,8	1/32	●	●														●	●					●	
DNMG150604FF	DNMG441FF	12,70	1/2	15,50	.610	0,4	1/64	●	●														●	●					●	
DNMG150608FF	DNMG442FF	12,70	1/2	15,50	.610	0,8	1/32	●	●														●	●					●	

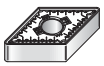
DNMG-FN

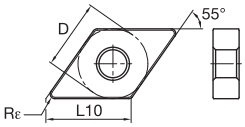


ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
DNMG110404FN	DNMG331FN	9,53	3/8	11,63	.458	0,4	1/64	●	●	●			●																	●	
DNMG110408FN	DNMG332FN	9,53	3/8	11,63	.458	0,8	1/32	●	●	●			●																	●	
DNMG110412FN	DNMG333FN	9,53	3/8	11,63	.458	1,2	3/64	●	●																					●	
DNMG150404FN	DNMG431FN	12,70	1/2	15,50	.610	0,4	1/64	●	●	●			●																	●	
DNMG150408FN	DNMG432FN	12,70	1/2	15,50	.610	0,8	1/32	●	●	●			●																	●	
DNMG150412FN	DNMG433FN	12,70	1/2	15,50	.610	1,2	3/64	●	●				●																	●	
DNMG150604FN	DNMG441FN	12,70	1/2	15,50	.610	0,4	1/64	●	●	●			●																	●	
DNMG150608FN	DNMG442FN	12,70	1/2	15,50	.610	0,8	1/32	●	●	●			●																	●	
DNMG150612FN	DNMG443FN	12,70	1/2	15,50	.610	1,2	3/64	●	●	●			●																	●	

● first choice
○ alternate choice

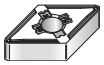
DNMG-FP

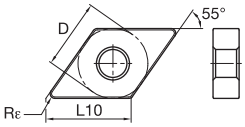




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
DNMG110404FP	DNMG331FP	9,53	3/8	11,63	.458	0,4	1/64									●							●	●					●	
DNMG110408FP	DNMG332FP	9,53	3/8	11,63	.458	0,8	1/32		●							●							●	●					●	
DNMG150404FP	DNMG431FP	12,70	1/2	15,50	.610	0,4	1/64									●							●	●					●	
DNMG150408FP	DNMG432FP	12,70	1/2	15,50	.610	0,8	1/32		●	●						●							●	●					●	
DNMG150412FP	DNMG433FP	12,70	1/2	15,50	.610	1,2	3/64									●							●	●						
DNMG150604FP	DNMG441FP	12,70	1/2	15,50	.610	0,4	1/64									●							●	●					●	
DNMG150608FP	DNMG442FP	12,70	1/2	15,50	.610	0,8	1/32		●	●						●							●	●					●	
DNMG150612FP	DNMG443FP	12,70	1/2	15,50	.610	1,2	3/64									●							●	●					●	

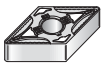
DNMG-FW

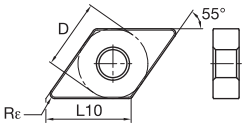




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
DNMG110404FW	DNMG331FW	9,53	3/8	11,63	.458	0,4	1/64	●	●														●	●					●	
DNMG110408FW	DNMG332FW	9,53	3/8	11,63	.458	0,8	1/32	●	●															●					●	
DNMG150404FW	DNMG431FW	12,70	1/2	15,50	.610	0,4	1/64		●														●	●					●	
DNMG150408FW	DNMG432FW	12,70	1/2	15,50	.610	0,4	.016	●	●														●	●					●	
DNMG150604FW	DNMG441FW	12,70	1/2	15,50	.610	0,4	1/64	●	●														●	●					●	
DNMG150608FW	DNMG442FW	12,70	1/2	15,50	.610	0,4	.016	●	●														●	●					●	

DNMG-MN





ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
DNMG110404MN	DNMG331MN	9,53	3/8	11,63	.458	0,4	1/64	●	●	●	●																			
DNMG110408MN	DNMG332MN	9,53	3/8	11,63	.458	0,8	1/32	●	●	●	●																			
DNMG110412MN	DNMG333MN	9,53	3/8	11,63	.458	1,2	3/64		●	●																				
DNMG150404MN	DNMG431MN	12,70	1/2	15,50	.610	0,4	1/64	●	●	●	●																			
DNMG150408MN	DNMG432MN	12,70	1/2	15,50	.610	0,8	1/32	●	●	●	●	●																		
DNMG150412MN	DNMG433MN	12,70	1/2	15,50	.610	1,2	3/64	●	●	●		●																		
DNMG150416MN	DNMG434MN	12,70	1/2	15,50	.610	1,6	1/16		●	●																				
DNMG150604MN	DNMG441MN	12,70	1/2	15,50	.610	0,4	1/64	●	●	●	●																			
DNMG150608MN	DNMG442MN	12,70	1/2	15,50	.610	0,8	1/32	●	●	●	●	●																		
DNMG150612MN	DNMG443MN	12,70	1/2	15,50	.610	1,2	3/64	●	●	●		●																		
DNMG150616MN	DNMG444MN	12,70	1/2	15,50	.610	1,6	1/16		●																					
DNMG190612MN	DNMG543MN	15,88	5/8	19,38	.763	1,2	3/64		●		●																			


C2–C70


C72–C118


C119–C129


C130–C161

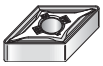
B10–B23

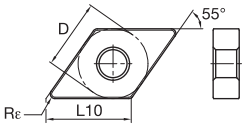

B24–B31


B32–B37

● first choice
○ alternate choice

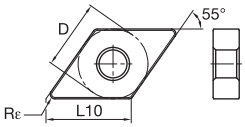
DNMG-MP





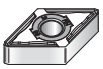
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
DNMG110408MP	DNMG332MP	9,53	3/8	11,63	.458	0,8	1/32									●	●						●	●							
DNMG110412MP	DNMG333MP	9,53	3/8	11,63	.458	1,2	3/64									●	●							●							
DNMG150404MP	DNMG431MP	12,70	1/2	15,50	.610	0,4	1/64									●	●	●					●	●							
DNMG150408MP	DNMG432MP	12,70	1/2	15,50	.610	0,8	1/32		●	●						●	●	●					●	●							
DNMG150412MP	DNMG433MP	12,70	1/2	15,50	.610	1,2	3/64									●	●						●	●							
DNMG150604MP	DNMG441MP	12,70	1/2	15,50	.610	0,4	1/64									●	●	●					●	●							
DNMG150608MP	DNMG442MP	12,70	1/2	15,50	.610	0,8	1/32		●	●						●	●	●					●	●		●	●				
DNMG150612MP	DNMG443MP	12,70	1/2	15,50	.610	1,2	3/64		●							●	●						●	●		●	●				

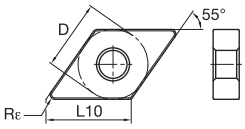
DNMG-MS



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
DNMG110408MS	DNMG332MS	9,53	3/8	11,63	.458	0,8	1/32													●			●		●	●		●			
DNMG150401MS	DNMG430MS	12,70	1/2	15,50	.610	0,1	.004													●			●		●						
DNMG150402MS	DNMG4305MS	12,70	1/2	15,50	.610	0,2	.008																●		●	●		●			
DNMG150404MS	DNMG431MS	12,70	1/2	15,50	.610	0,4	1/64													●			●		●	●		●			
DNMG150604MS	DNMG441MS	12,70	1/2	15,50	.610	0,4	1/64													●			●		●	●		●			
DNMG150608MS	DNMG442MS	12,70	1/2	15,50	.610	0,8	1/32													●			●		●	●		●			
DNMG150408MS	DNMG432MS	12,70	1/2	15,50	.610	0,8	1/32													●			●		●	●		●			
DNMG150412MS	DNMG433MS	12,70	1/2	15,50	.610	1,2	3/64																●		●	●		●			
DNMG150612MS	DNMG443MS	12,70	1/2	15,50	.610	1,2	3/64													●			●		●	●		●			

DNMG-MW

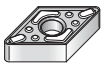


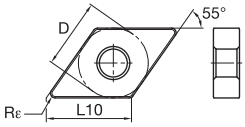


ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
DNMG150408MW	DNMG432MW	12,70	1/2	15,50	.610	0,4	1/64	●	●	●																				
DNMG150412MW	DNMG433MW	12,70	1/2	15,50	.610	1,2	3/64	●	●	●																				
DNMG150608MW	DNMG442MW	12,70	1/2	15,50	.610	0,4	1/64	●	●	●																				
DNMG150612MW	DNMG443MW	12,70	1/2	15,50	.610	1,2	3/64	●	●	●																				

● first choice
○ alternate choice

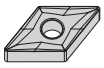
DNMG-P

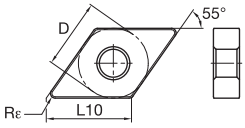




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
DNMG150404P	DNMG431P	12,70	1/2	15,50	.610	0,4	1/64																●	●							
DNMG150408P	DNMG432P	12,70	1/2	15,50	.610	0,8	1/32													●			●	●							
DNMG150604P	DNMG441P	12,70	1/2	15,50	.610	0,4	1/64																	●							
DNMG150608P	DNMG442P	12,70	1/2	15,50	.610	0,8	1/32																●	●							

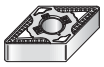
DNMG-RM

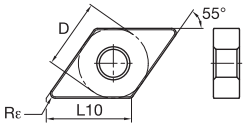




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
DNMG190608RM	DNMG542RM	15,88	5/8	19,38	.763	0,8	1/32			●														●						
DNMG190612RM	DNMG543RM	15,88	5/8	19,38	.763	1,2	3/64			●														●						

DNMG-RN





ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
DNMG150408RN	DNMG432RN	12,70	1/2	15,50	.610	0,8	1/32		●	●	●	●																		
DNMG150412RN	DNMG433RN	12,70	1/2	15,50	.610	1,2	3/64		●	●	●																			
DNMG150416RN	DNMG434RN	12,70	1/2	15,50	.610	1,6	1/16		●	●																				
DNMG150608RN	DNMG442RN	12,70	1/2	15,50	.610	0,8	1/32	●	●	●	●	●																		
DNMG150612RN	DNMG443RN	12,70	1/2	15,50	.610	1,2	3/64	●	●	●	●	●																		
DNMG150616RN	DNMG444RN	12,70	1/2	15,50	.610	1,6	1/16		●	●	●	●																		
DNMG190608RN	DNMG542RN	15,88	5/8	19,38	.763	0,8	1/32		●	●	●																			
DNMG190612RN	DNMG543RN	15,88	5/8	19,38	.763	1,2	3/64		●	●	●																			


C2–C70


C72–C118


C119–C129


C130–C161

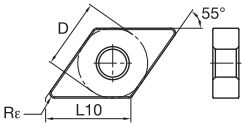
B10–B23


B24–B31


B32–B37

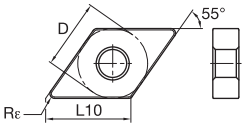
● first choice
○ alternate choice

DNMG-RP

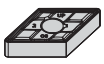


ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
DNMG110408RP	DNMG332RP	9,53	3/8	11,63	.458	0,8	1/32		●	●					●	●							●	●	●	●		●			
DNMG110412RP	DNMG333RP	9,53	3/8	11,63	.458	1,2	3/64		●	●					●	●															
DNMG150408RP	DNMG432RP	12,70	1/2	15,50	.610	0,8	1/32		●	●	●	●	●	●	●	●	●	●					●	●	●	●		●			
DNMG150412RP	DNMG433RP	12,70	1/2	15,50	.610	1,2	3/64	●	●	●	●	●		●	●		●	●					●	●	●	●		●			
DNMG150416RP	DNMG434RP	12,70	1/2	15,50	.610	1,6	1/16								●								●	●	●						
DNMG150608RP	DNMG442RP	12,70	1/2	15,50	.610	0,8	1/32	●	●	●	●	●	●	●	●	●	●	●					●	●	●	●	●	●			
DNMG150612RP	DNMG443RP	12,70	1/2	15,50	.610	1,2	3/64	●	●	●	●	●	●	●	●	●	●	●					●	●		●		●			
DNMG150616RP	DNMG444RP	12,70	1/2	15,50	.610	1,6	1/16		●	●	●				●									●		●		●			

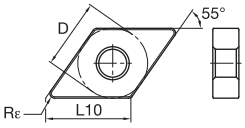
DNMG-UN



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
DNMG110408UN	DNMG332UN	9,53	3/8	11,63	.458	0,8	1/32						●	●	●															
DNMG110412UN	DNMG333UN	9,53	3/8	11,63	.458	1,2	3/64						●	●	●															
DNMG150408UN	DNMG432UN	12,70	1/2	15,50	.610	0,8	1/32							●	●															
DNMG150412UN	DNMG433UN	12,70	1/2	15,50	.610	1,2	3/64						●	●	●															
DNMG150416UN	DNMG434UN	12,70	1/2	15,50	.610	1,6	1/16							●	●															
DNMG150608UN	DNMG442UN	12,70	1/2	15,50	.610	0,8	1/32						●	●	●															
DNMG150612UN	DNMG443UN	12,70	1/2	15,50	.610	1,2	3/64						●	●	●															
DNMG150616UN	DNMG444UN	12,70	1/2	15,50	.610	1,6	1/16							●	●															



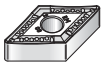
DNMG-UP

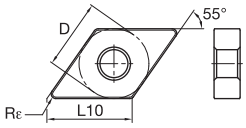


ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
DNMG110408UP	DNMG332UP	9,53	3/8	11,63	.458	0,8	1/32									●	●						●	●						
DNMG110412UP	DNMG333UP	9,53	3/8	11,63	.458	1,2	3/64									●	●							●						
DNMG150404UP	DNMG431UP	12,70	1/2	15,50	.610	0,4	1/64									●	●						●	●						
DNMG150408UP	DNMG432UP	12,70	1/2	15,50	.610	0,8	1/32									●	●	●					●	●						
DNMG150412UP	DNMG433UP	12,70	1/2	15,50	.610	1,2	3/64									●	●	●					●	●						
DNMG150604UP	DNMG441UP	12,70	1/2	15,50	.610	0,4	1/64									●	●							●						
DNMG150608UP	DNMG442UP	12,70	1/2	15,50	.610	0,8	1/32									●	●	●					●	●						
DNMG150612UP	DNMG443UP	12,70	1/2	15,50	.610	1,2	3/64									●	●	●						●						

● first choice
○ alternate choice

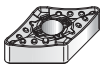
DNMM-RM

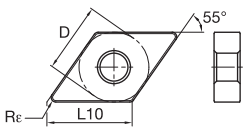




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
DNMM150408RM	**DNMM432RM**	12,70	1/2	15,50	.610	0,8	1/32			●																				
DNMM150412RM	**DNMM433RM**	12,70	1/2	15,50	.610	1,2	3/64			●																				
DNMM150608RM	**DNMM442RM**	12,70	1/2	15,50	.610	0,8	1/32		●	●	●																			
DNMM150612RM	**DNMM443RM**	12,70	1/2	15,50	.610	1,2	3/64		●	●	●	●																		
DNMM150616RM	**DNMM444RM**	12,70	1/2	15,50	.610	1,6	1/16		●	●																				

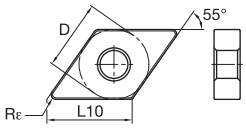
DNMM-RP





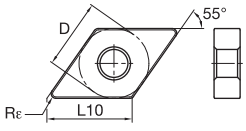
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
DNMM150608RP	**DNMM442RP**	12,70	1/2	15,50	.610	0,8	1/32		●	●							●													
DNMM150612RP	**DNMM443RP**	12,70	1/2	15,50	.610	1,2	3/64		●	●							●													
DNMM150616RP	**DNMM444RP**	12,70	1/2	15,50	.610	1,6	1/16		●	●																				

DNMP



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
DNMP150404	**DNMP431**	12,70	1/2	15,50	.610	0,4	1/64													●	●									
DNMP150408	**DNMP432**	12,70	1/2	15,50	.610	0,8	1/32													●	●									
DNMP150412	**DNMP433**	12,70	1/2	15,50	.610	1,2	3/64														●									

DNMP-K



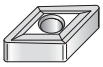
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
DNMP110408K	**DNMP332K**	9,53	3/8	11,63	.458	0,8	1/32		●																					
DNMP150404K	**DNMP431K**	12,70	1/2	15,50	.610	0,4	1/64			●											●									
DNMP150408K	**DNMP432K**	12,70	1/2	15,50	.610	0,8	1/32		●	●											●									
DNMP150412K	**DNMP433K**	12,70	1/2	15,50	.610	1,2	3/64			●																				
DNMP190608K	**DNMP542K**	15,88	5/8	19,38	.763	0,8	1/32													●										

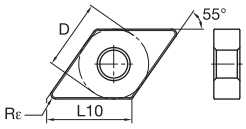
C2–C70 | C72–C118 | C119–C129 | C130–C161 | B10–B23 | B24–B31 | B32–B37

● first choice
○ alternate choice

		KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
P		●	●	●	●	●																	●		●
M										●	●	●					●	●		●	●				
K							●	●	●																●
N																							●		
S													●	●	●	●	●	●	●	●	●	●			
H																									

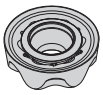
DNMS

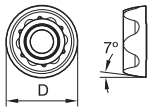




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
DNMS150408	DNMS432	12,70	1/2	15,50	.610	0,8	1/32

RCGX-LF

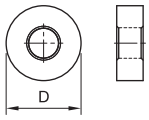




beyond BLAST™

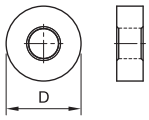
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
RCGX190600ELF	RCGX64ELF	19,05	3/4	–	–	–	–

RNMA



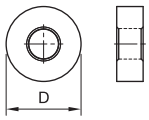
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
RNMA090300	RNMA32	9,53	3/8	–	–	–	–
RNMA120400	RNMA43	12,70	1/2	–	–	–	–
RNMA150600	RNMA54	15,88	5/8	–	–	–	–
RNMA190600	RNMA64	19,05	3/4	–	–	–	–
RNMA250900	RNMA86	25,40	1	–	–	–	–

RNMG



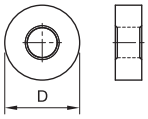
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
RNMG190600	RNMG64	19,05	3/4	–	–	–	–
RNMG250900	RNMG86	25,40	1	–	–	–	–

RNMG-RN



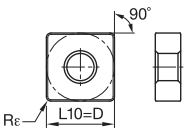
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
RNMG090300RN	RNMG32RN	9,53	3/8	–	–	–	–
RNMG120400RN	RNMG43RN	12,70	1/2	–	–	–	–
RNMG150600RN	RNMG54RN	15,88	5/8	–	–	–	–
RNMG190600RN	RNMG64RN	19,05	3/4	–	–	–	–
RNMG250900RN	RNMG86RN	25,40	1	–	–	–	–

● first choice
○ alternate choice



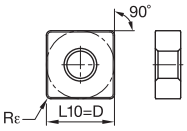
RNMG-UN

ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
RNMG120400UN	RNMG43UN	12,70	1/2	–	–	–	–						●	●	●																



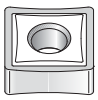
SNGG-FS

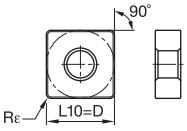
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
SNGG090308FS	SNGG322FS	9,53	3/8	9,53	.375	0,8	1/32																●			●					
SNGG120408FS	SNGG432FS	12,70	1/2	12,70	.500	0,8	1/32																●		●						



SNGG-LF

ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
SNGG090308LF	SNGG322LF	9,53	3/8	9,53	.375	0,8	1/32													●			●	●							
SNGG120408LF	SNGG432LF	12,70	1/2	12,70	.500	0,8	1/32													●				●							
SNGG150612LF	SNGG543LF	15,88	5/8	15,88	.625	1,2	3/64																	●							





SNGP

ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
SNGP120404	SNGP431	12,70	1/2	12,70	.500	0,4	1/64																●	●					●		
SNGP120408	SNGP432	12,70	1/2	12,70	.500	0,8	1/32																●	●					●		


C2–C70


C72–C118


C119–C129


C130–C161

beyond
B10–B23

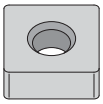

B24–B31

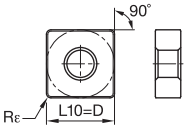

B32–B37

● first choice
○ alternate choice

	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
P	●	●	●	●	●																		●	●
M									●	●	●					●	●		●	●				
K						●	●	●																●
N																						●		
S												●	●	●	●	●	●	●	●	●	●			
H																								

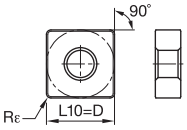
SNMA





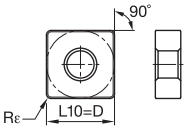
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
SNMA120408	SNMA432	12,70	1/2	12,70	.500	0,8	1/32
SNMA120412	SNMA433	12,70	1/2	12,70	.500	1,2	3/64
SNMA120416	SNMA434	12,70	1/2	12,70	.500	1,6	1/16
SNMA150612	SNMA543	15,88	5/8	15,88	.625	1,2	3/64
SNMA150616	SNMA544	15,88	5/8	15,88	.625	1,6	1/16
SNMA190612	SNMA643	19,05	3/4	19,05	.750	1,2	3/64
SNMA190616	SNMA644	19,05	3/4	19,05	.750	1,6	1/16

SNMG



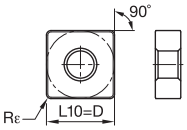
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
SNMG120408	SNMG432	12,70	1/2	12,70	.500	0,8	1/32
SNMG120412	SNMG433	12,70	1/2	12,70	.500	1,2	3/64
SNMG120416B	SNMG434	12,70	1/2	12,70	.500	1,6	1/16
SNMG190612	SNMG643	19,05	3/4	19,05	.750	1,2	3/64
SNMG190616B	SNMG644	19,05	3/4	19,05	.750	1,6	1/16
SNMG250924	SNMG866	25,40	1	25,40	1.000	2,4	3/32

SNMG-FF



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
SNMG090304FF	SNMG321FF	9,53	3/8	9,53	.375	0,4	1/64
SNMG090308FF	SNMG322FF	9,53	3/8	9,53	.375	0,8	1/32
SNMG120404FF	SNMG431FF	12,70	1/2	12,70	.500	0,4	1/64
SNMG120408FF	SNMG432FF	12,70	1/2	12,70	.500	0,8	1/32

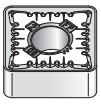
SNMG-FN

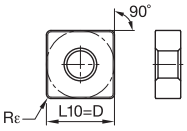


ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
SNMG090304FN	SNMG321FN	9,53	3/8	9,53	.375	0,4	1/64
SNMG090308FN	SNMG322FN	9,53	3/8	9,53	.375	0,8	1/32
SNMG120404FN	SNMG431FN	12,70	1/2	12,70	.500	0,4	1/64
SNMG120408FN	SNMG432FN	12,70	1/2	12,70	.500	0,8	1/32
SNMG120412FN	SNMG433FN	12,70	1/2	12,70	.500	1,2	3/64
SNMG120416FN	SNMG434FN	12,70	1/2	12,70	.500	1,6	1/16

● first choice
○ alternate choice

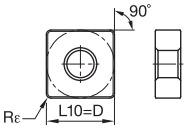
SNMG-FP





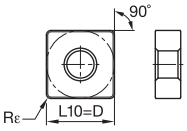
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
SNMG120404FP	SNMG431FP	12,70	1/2	12,70	.500	0,4	1/64									●							●	●						
SNMG120408FP	SNMG432FP	12,70	1/2	12,70	.500	0,8	1/32									●							●	●					●	
SNMG120412FP	SNMG433FP	12,70	1/2	12,70	.500	1,2	3/64									●							●	●						

SNMG-FW



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
SNMG120408FW	SNMG432FW	12,70	1/2	12,70	.500	0,8	1/32	●	●																				●	
SNMG120412FW	SNMG433FW	12,70	1/2	12,70	.500	1,2	3/64	●	●																				●	

SNMG-MN



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
SNMG090304MN	SNMG321MN	9,53	3/8	9,53	.375	0,4	1/64			●																				
SNMG090308MN	SNMG322MN	9,53	3/8	9,53	.375	0,8	1/32		●	●	●																			
SNMG090312MN	SNMG323MN	9,53	3/8	9,53	.375	1,2	3/64		●	●																				
SNMG120404MN	SNMG431MN	12,70	1/2	12,70	.500	0,4	1/64		●	●	●																			
SNMG120408MN	SNMG432MN	12,70	1/2	12,70	.500	0,8	1/32		●	●	●	●																		
SNMG120412MN	SNMG433MN	12,70	1/2	12,70	.500	1,2	3/64		●	●	●	●																		
SNMG120416MN	SNMG434MN	12,70	1/2	12,70	.500	1,6	1/16		●	●																				
SNMG150612MN	SNMG543MN	15,88	5/8	15,88	.625	1,2	3/64		●	●		●																		
SNMG150616MN	SNMG544MN	15,88	5/8	15,88	.625	1,6	1/16			●																				
SNMG190612MN	SNMG643MN	19,05	3/4	19,05	.750	1,2	3/64		●	●		●																		
SNMG190616MN	SNMG644MN	19,05	3/4	19,05	.750	1,6	1/16			●																				


C2–C70


C72–C118


C119–C129


C130–C161

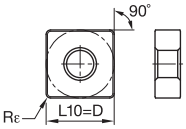
B10–B23


B24–B31


B32–B37

● first choice
○ alternate choice

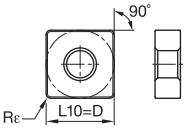
SNMG-MP



P	●	●	●	●	●																		●	●
M									●	●	●					●	●		●	●				
K						●	●	●																●
N																						●		
S												●	●	●	●	●	●	●	●	●	●			
H																								

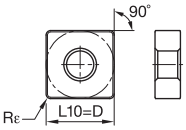
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
SNMG120408MP	SNMG432MP	12,70	1/2	12,70	.500	0,8	1/32									●	●	●					●	●							
SNMG120412MP	SNMG433MP	12,70	1/2	12,70	.500	1,2	3/64									●	●	●					●	●		●	●				
SNMG120416MP	SNMG434MP	12,70	1/2	12,70	.500	1,6	1/16										●	●					●	●							
SNMG150608MP	SNMG542MP	15,88	5/8	15,88	.625	0,8	1/32									●	●														
SNMG150612MP	SNMG543MP	15,88	5/8	15,88	.625	1,2	3/64									●	●						●	●							
SNMG150616MP	SNMG544MP	15,88	5/8	15,88	.625	1,6	1/16										●						●	●							
SNMG190612MP	SNMG643MP	19,05	3/4	19,05	.750	1,2	3/64									●	●	●					●	●							
SNMG190616MP	SNMG644MP	19,05	3/4	19,05	.750	1,6	1/16										●	●					●	●							

SNMG-MS



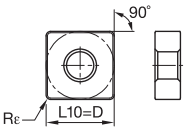
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
SNMG120408MS	SNMG432MS	12,70	1/2	12,70	.500	0,8	1/32													●			●		●	●		●			
SNMG120412MS	SNMG433MS	12,70	1/2	12,70	.500	1,2	3/64																●		●	●		●			
SNMG150608MS	SNMG542MS	15,88	5/8	15,88	.625	0,8	1/32																			●		●			
SNMG150612MS	SNMG543MS	15,88	5/8	15,88	.625	1,2	3/64																			●		●			
SNMG190612MS	SNMG643MS	19,05	3/4	19,05	.750	1,2	3/64																●		●	●		●			

SNMG-MW



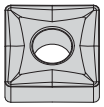
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
SNMG120408MW	SNMG432MW	12,70	1/2	12,70	.500	0,8	1/32		●	●																					
SNMG120412MW	SNMG433MW	12,70	1/2	12,70	.500	1,2	3/64		●	●																					

SNMG-P

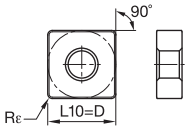


ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
SNMG120408P	SNMG432P	12,70	1/2	12,70	.500	0,8	1/32																●	●							
SNMG120412P	SNMG433P	12,70	1/2	12,70	.500	1,2	3/64																●	●							

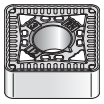
● first choice
○ alternate choice



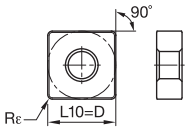
SNMG-RM



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
P								●	●	●	●	●																		●	●
M																●	●	●					●	●		●	●				
K													●	●	●																	●
N																														●		
S																			●	●	●	●	●	●	●	●	●				
H																																
SNMG190612RM	SNMG643RM	19,05	3/4	19,05	.750	1,2	3/64			●		●											●								
SNMG190616RM	SNMG644RM	19,05	3/4	19,05	.750	1,6	1/16			●	●	●											●								
SNMG250924RM	SNMG866RM	25,40	1	25,40	1.000	2,4	3/32			●		●												●							

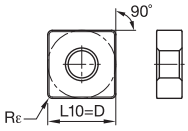


SNMG-RN



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
SNMG090412RN	SNMG333RN	9,53	3/8	9,53	.375	1,2	3/64		●																						
SNMG120408RN	SNMG432RN	12,70	1/2	12,70	.500	0,8	1/32		●	●	●	●																			
SNMG120412RN	SNMG433RN	12,70	1/2	12,70	.500	1,2	3/64		●	●	●	●																			
SNMG120416RN	SNMG434RN	12,70	1/2	12,70	.500	1,6	1/16		●	●	●	●																			
SNMG150608RN	SNMG542RN	15,88	5/8	15,88	.625	0,8	1/32		●	●																					
SNMG150612RN	SNMG543RN	15,88	5/8	15,88	.625	1,2	3/64		●	●	●	●																			
SNMG150616RN	SNMG544RN	15,88	5/8	15,88	.625	1,6	1/16		●	●	●	●																			
SNMG190608RN	SNMG642RN	19,05	3/4	19,05	.750	0,8	1/32			●	●																				
SNMG190612RN	SNMG643RN	19,05	3/4	19,05	.750	1,2	3/64		●	●	●	●																			
SNMG190616RN	SNMG644RN	19,05	3/4	19,05	.750	1,6	1/16		●	●	●	●																			
SNMG190624RN	SNMG646RN	19,05	3/4	19,05	.750	2,4	3/32			●	●																				
SNMG250924RN	SNMG866RN	25,40	1	25,40	1.000	2,4	3/32				●																				

SNMG-RP



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
SNMG120408RP	SNMG432RP	12,70	1/2	12,70	.500	0,8	1/32	●	●	●	●	●	●	●	●	●	●	●					●	●	●	●		●			
SNMG120412RP	SNMG433RP	12,70	1/2	12,70	.500	1,2	3/64	●	●	●	●	●	●	●	●	●	●	●					●	●	●	●	●	●			
SNMG120416RP	SNMG434RP	12,70	1/2	12,70	.500	1,6	1/16		●						●								●		●			●			
SNMG150612RP	SNMG543RP	15,88	5/8	15,88	.625	1,2	3/64		●	●	●	●		●		●	●	●					●	●		●			●			
SNMG150616RP	SNMG544RP	15,88	5/8	15,88	.625	1,6	1/16		●	●	●				●	●	●									●		●			
SNMG190612RP	SNMG643RP	19,05	3/4	19,05	.750	1,2	3/64		●	●	●	●			●	●	●	●					●	●	●	●	●	●			
SNMG190616RP	SNMG644RP	19,05	3/4	19,05	.750	1,6	1/16		●	●		●			●		●	●					●	●	●	●		●			


C2–C70


C72–C118


C119–C129


C130–C161

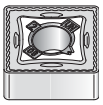
B10–B23

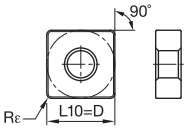

B24–B31


B32–B37

● first choice
○ alternate choice

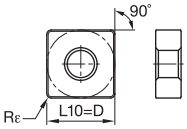
SNMG-UN





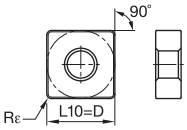
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
SNMG120408UN	SNMG432UN	12,70	1/2	12,70	.500	0,8	1/32						●	●	●															
SNMG120412UN	SNMG433UN	12,70	1/2	12,70	.500	1,2	3/64						●	●	●															
SNMG120416UN	SNMG434UN	12,70	1/2	12,70	.500	1,6	1/16						●	●	●															
SNMG150612UN	SNMG543UN	15,88	5/8	15,88	.625	1,2	3/64						●	●	●															
SNMG150616UN	SNMG544UN	15,88	5/8	15,88	.625	1,6	1/16						●	●	●															
SNMG190612UN	SNMG643UN	19,05	3/4	19,05	.750	1,2	3/64						●	●	●															
SNMG190616UN	SNMG644UN	19,05	3/4	19,05	.750	1,6	1/16						●	●	●															

SNMG-UP



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
SNMG120408UP	SNMG432UP	12,70	1/2	12,70	.500	0,8	1/32									●	●	●						●							
SNMG120412UP	SNMG433UP	12,70	1/2	12,70	.500	1,2	3/64									●	●	●						●							
SNMG120416UP	SNMG434UP	12,70	1/2	12,70	.500	1,6	1/16									●	●	●													
SNMG150612UP	SNMG543UP	15,88	5/8	15,88	.625	1,2	3/64									●	●	●					●	●							
SNMG190612UP	SNMG643UP	19,05	3/4	19,05	.750	1,2	3/64									●	●	●													

SNMM-RH

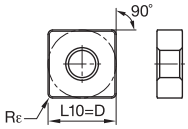


ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
SNMM190612RH	SNMM643RH	19,05	3/4	19,05	.750	1,2	3/64		●	●	●																			
SNMM190616RH	SNMM644RH	19,05	3/4	19,05	.750	1,6	1/16		●	●	●	●																		
SNMM190624RH	SNMM646RH	19,05	3/4	19,05	.750	2,4	3/32		●	●	●	●																		
SNMM250724RH	SNMM856RH	25,40	1	25,40	1.000	2,4	3/32		●	●	●	●																		
SNMM250732RH	SNMM858RH	25,40	1	25,40	1.000	3,2	1/8				●																			
SNMM250924RH	SNMM866RH	25,40	1	25,40	1.000	2,4	3/32		●	●	●	●																		

● first choice
○ alternate choice

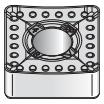
		KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
P		●	●	●	●	●																		●	●
M										●	●	●					●	●		●	●				
K							●	●	●																●
N																							●		
S													●	●	●	●	●	●	●	●	●	●			
H																									

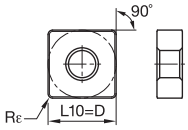
SNMM-RM



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
SNMM120408RM	SNMM432RM	12,70	1/2	12,70	.500	0,8	1/32
SNMM120412RM	SNMM433RM	12,70	1/2	12,70	.500	1,2	3/64
SNMM120416RM	SNMM434RM	12,70	1/2	12,70	.500	1,6	1/16
SNMM150612RM	SNMM543RM	15,88	5/8	15,88	.625	1,2	3/64
SNMM150616RM	SNMM544RM	15,88	5/8	15,88	.625	1,6	1/16
SNMM190612RM	SNMM643RM	19,05	3/4	19,05	.750	1,2	3/64
SNMM190616RM	SNMM644RM	19,05	3/4	19,05	.750	1,6	1/16
SNMM190624RM	SNMM646RM	19,05	3/4	19,05	.750	2,4	3/32
SNMM250724RM	SNMM856RM	25,40	1	25,40	1.000	2,4	3/32
SNMM250924RM	SNMM866RM	25,40	1	25,40	1.000	2,4	3/32

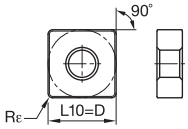
SNMM-RP





ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
SNMM120408RP	SNMM432RP	12,70	1/2	12,70	.500	0,8	1/32
SNMM120412RP	SNMM433RP	12,70	1/2	12,70	.500	1,2	3/64
SNMM150612RP	SNMM543RP	15,88	5/8	15,88	.625	1,2	3/64
SNMM150616RP	SNMM544RP	15,88	5/8	15,88	.625	1,6	1/16
SNMM190612RP	SNMM643RP	19,05	3/4	19,05	.750	1,2	3/64
SNMM190616RP	SNMM644RP	19,05	3/4	19,05	.750	1,6	1/16
SNMM190624RP	SNMM646RP	19,05	3/4	19,05	.750	2,4	3/32
SNMM250724RP	SNMM856RP	25,40	1	25,40	1.000	2,4	3/32
SNMM250924RP	SNMM866RP	25,40	1	25,40	1.000	2,4	3/32

SNMP



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
SNMP120408	SNMP432	12,70	1/2	12,70	.500	0,8	1/32
SNMP150612	SNMP543	15,88	5/8	15,88	.625	1,2	3/64
SNMP190612	SNMP643	19,05	3/4	19,05	.750	1,2	3/64


C2–C70


C72–C118


C119–C129


C130–C161

beyond
B10–B23


B24–B31

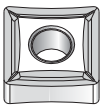

B32–B37

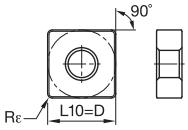
Inserts

● first choice
○ alternate choice

		KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
P		●	●	●	●	●																	●		●
M										●	●	●					●	●		●	●				
K							●	●	●																●
N																							●		
S													●	●	●	●	●	●	●	●	●	●			
H																									

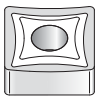
■ SNMP-K

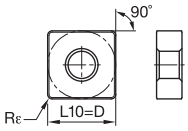




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
SNMP120408K	SNMP432K	12,70	1/2	12,70	.500	0,8	1/32

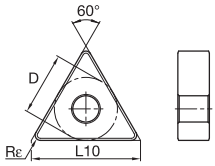
■ SNMS





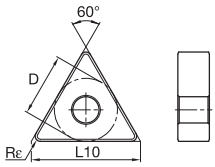
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
SNMS120408	SNMS432	12,70	1/2	12,70	.500	0,8	1/32
SNMS120412	SNMS433	12,70	1/2	12,70	.500	1,2	3/64
SNMS190612	SNMS643	19,05	3/4	19,05	.750	1,2	3/64

■ TNGG-FS



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
TNGG160402FS	TNGG3305FS	9,53	3/8	16,50	.650	0,2	.008
TNGG160404FS	TNGG331FS	9,53	3/8	16,50	.650	0,4	1/64
TNGG160408FS	TNGG332FS	9,53	3/8	16,50	.650	0,8	1/32
TNGG220408FS	TNGG432FS	12,70	1/2	22,00	.866	0,8	1/32

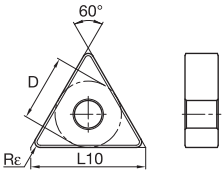
■ TNGG-LF



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
TNGG160402LF	TNGG3305LF	9,53	3/8	16,50	.650	0,2	.008
TNGG160404LF	TNGG331LF	9,53	3/8	16,50	.650	0,4	1/64
TNGG160408LF	TNGG332LF	9,53	3/8	16,50	.650	0,8	1/32

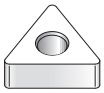
● first choice
○ alternate choice

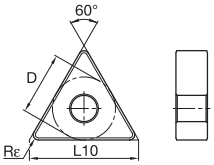
TNGP



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
TNGP160402	TNGP3305	9,53	3/8	16,50	.650	0,2	.008																●	●				●			
TNGP160404	TNGP331	9,53	3/8	16,50	.650	0,4	1/64																●	●				●			
TNGP160408	TNGP332	9,53	3/8	16,50	.650	0,8	1/32																●	●				●			

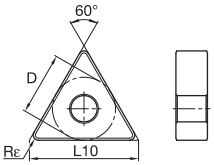
TNMA





ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
TNMA160408	TNMA332	9,53	3/8	16,50	.650	0,8	1/32						●	●	●						●										
TNMA160412	TNMA333	9,53	3/8	16,50	.650	1,2	3/64						●	●	●																
TNMA160416	TNMA334	9,53	3/8	16,50	.650	1,6	1/16							●	●																
TNMA220408	TNMA432	12,70	1/2	22,00	.866	0,8	1/32						●	●	●						●										
TNMA220412	TNMA433	12,70	1/2	22,00	.866	1,2	3/64						●	●	●						●										
TNMA220416	TNMA434	12,70	1/2	22,00	.866	1,6	1/16							●	●																
TNMA270616	TNMA544	15,88	5/8	27,50	1.083	1,6	1/16							●	●						●										

TNMG



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
TNMG160408B	TNMG332	9,53	3/8	16,50	.650	0,8	1/32														●										
TNMG160412	TNMG333	9,53	3/8	16,50	.650	1,2	3/64														●										
TNMG220408	TNMG432	12,70	1/2	22,00	.866	0,8	1/32														●										
TNMG220412	TNMG433	12,70	1/2	22,00	.866	1,2	3/64														●										
TNMG220416	TNMG434	12,70	1/2	22,00	.866	1,6	1/16														●										
TNMG330924	TNMG666	19,05	3/4	33,00	1.299	2,4	3/32			●		●												●							


C2–C70


C72–C118


C119–C129


C130–C161

B10–B23

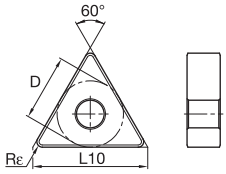

B24–B31


B32–B37

Inserts

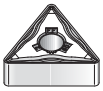
● first choice
○ alternate choice

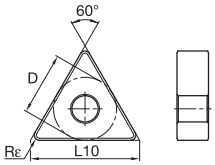
TNMG-CT



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
TNMG220408CT	TNMG432CT	12,70	1/2	22,00	.866	0,8	1/32		●															●						
TNMG220412CT	TNMG433CT	12,70	1/2	22,00	.866	1,2	3/64	●	●															●						

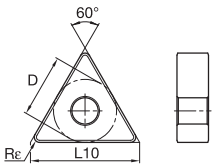
TNMG-FF





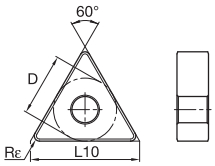
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
TNMG110304FF	TNMG221FF	6,35	1/4	11,00	.433	0,4	1/64																●	●						
TNMG110308FF	TNMG222FF	6,35	1/4	11,00	.433	0,8	1/32																	●						
TNMG160404FF	TNMG331FF	9,53	3/8	16,50	.650	0,4	1/64	●	●															●					●	
TNMG160408FF	TNMG332FF	9,53	3/8	16,50	.650	0,8	1/32	●	●															●					●	

TNMG-FN



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
TNMG110304FN	TNMG221FN	6,35	1/4	11,00	.433	0,4	1/64		●	●			●																●	
TNMG110308FN	TNMG222FN	6,35	1/4	11,00	.433	0,8	1/32		●	●			●																●	
TNMG160404FN	TNMG331FN	9,53	3/8	16,50	.650	0,4	1/64	●	●	●			●																●	
TNMG160408FN	TNMG332FN	9,53	3/8	16,50	.650	0,8	1/32	●	●	●			●																●	
TNMG160412FN	TNMG333FN	9,53	3/8	16,50	.650	1,2	3/64	●	●	●			●																●	
TNMG220404FN	TNMG431FN	12,70	1/2	22,00	.866	0,4	1/64		●	●			●																●	
TNMG220408FN	TNMG432FN	12,70	1/2	22,00	.866	0,8	1/32	●	●	●																			●	
TNMG220412FN	TNMG433FN	12,70	1/2	22,00	.866	1,2	3/64		●	●																				

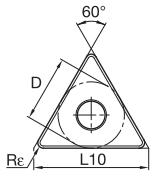
TNMG-FP



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
TNMG160404FP	TNMG331FP	9,53	3/8	16,50	.650	0,4	1/64		●							●							●	●					●	
TNMG160408FP	TNMG332FP	9,53	3/8	16,50	.650	0,8	1/32		●							●							●	●					●	
TNMG160412FP	TNMG333FP	9,53	3/8	16,50	.650	1,2	3/64									●							●	●						
TNMG220404FP	TNMG431FP	12,70	1/2	22,00	.866	0,4	1/64									●							●	●					●	
TNMG220408FP	TNMG432FP	12,70	1/2	22,00	.866	0,8	1/32									●							●	●					●	

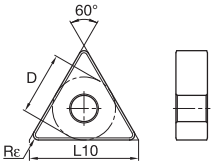
● first choice
○ alternate choice

TNMG-FW



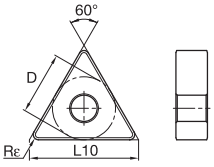
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
TNMG160404FW	TNMG331FW	9,53	3/8	16,50	.650	0,4	1/64	●	●														●	●					●	
TNMG160408FW	TNMG332FW	9,53	3/8	16,50	.650	0,8	1/32	●	●														●	●					●	
TNMG160412FW	TNMG333FW	9,53	3/8	16,50	.650	1,2	3/64	●	●															●					●	

TNMG-MN



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
TNMG160404MN	TNMG331MN	9,53	3/8	16,50	.650	0,4	1/64	●	●	●	●																			
TNMG160408MN	TNMG332MN	9,53	3/8	16,50	.650	0,8	1/32	●	●	●	●																			
TNMG160412MN	TNMG333MN	9,53	3/8	16,50	.650	1,2	3/64	●	●	●	●	●																		
TNMG220404MN	TNMG431MN	12,70	1/2	22,00	.866	0,4	1/64		●	●	●																			
TNMG220408MN	TNMG432MN	12,70	1/2	22,00	.866	0,8	1/32		●	●	●	●																		
TNMG220412MN	TNMG433MN	12,70	1/2	22,00	.866	1,2	3/64		●	●	●	●																		
TNMG220416MN	TNMG434MN	12,70	1/2	22,00	.866	1,6	1/16			●																				

TNMG-MP



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
TNMG160404MP	TNMG331MP	9,53	3/8	16,50	.650	0,4	1/64			●						●	●	●					●	●						
TNMG160408MP	TNMG332MP	9,53	3/8	16,50	.650	0,8	1/32		●	●						●	●	●					●	●						
TNMG160412MP	TNMG333MP	9,53	3/8	16,50	.650	1,2	3/64									●	●						●	●						
TNMG220408MP	TNMG432MP	12,70	1/2	22,00	.866	0,8	1/32									●	●						●	●						
TNMG220412MP	TNMG433MP	12,70	1/2	22,00	.866	1,2	3/64									●	●						●	●						
TNMG220416MP	TNMG434MP	12,70	1/2	22,00	.866	1,6	1/16										●						●	●						


C2–C70


C72–C118


C119–C129


C130–C161

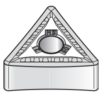
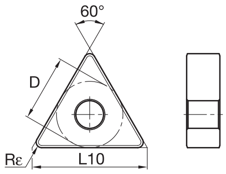
B10–B23


B24–B31


B32–B37

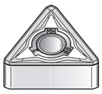
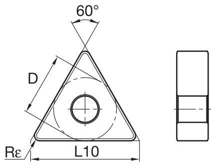
● first choice
○ alternate choice

	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
P	●	●	●	●	●																		●	●
M									●	●	●					●	●		●	●				
K						●	●	●																●
N																						●		
S												●	●	●	●	●	●	●	●	●	●			
H																								

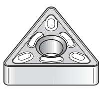
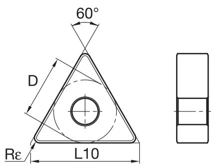
TNMG-MS

ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
TNMG160402MS	TNMG3305MS	9,53	3/8	16,50	.650	0,2	.008																●		●	●		●			
TNMG160404MS	TNMG331MS	9,53	3/8	16,50	.650	0,4	1/64													●			●		●	●		●			
TNMG160408MS	TNMG332MS	9,53	3/8	16,50	.650	0,8	1/32																●		●	●		●			
TNMG220404MS	TNMG431MS	12,70	1/2	22,00	.866	0,4	1/64																●		●	●		●			
TNMG220408MS	TNMG432MS	12,70	1/2	22,00	.866	0,8	1/32													●			●		●	●		●			
TNMG220412MS	TNMG433MS	12,70	1/2	22,00	.866	1,2	3/64													●			●		●	●		●			
TNMG270608MS	TNMG542MS	15,88	5/8	27,50	1.083	0,8	1/32													●						●		●			
TNMG270616MS	TNMG544MS	15,88	5/8	27,50	1.083	1,6	1/16													●											

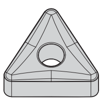
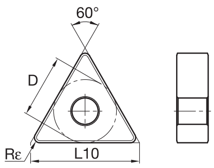
TNMG-MW

ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
TNMG160408MW	TNMG332MW	9,53	3/8	16,50	.650	0,8	1/32	●	●	●																					
TNMG160412MW	TNMG333MW	9,53	3/8	16,50	.650	1,2	3/64	●	●	●																					

TNMG-P

ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
TNMG160404P	TNMG331P	9,53	3/8	16,50	.650	0,4	1/64																●	●							
TNMG160408P	TNMG332P	9,53	3/8	16,50	.650	0,8	1/32													●			●	●							
TNMG220404P	TNMG431P	12,70	1/2	22,00	.866	0,4	1/64																●	●							
TNMG220408P	TNMG432P	12,70	1/2	22,00	.866	0,8	1/32																●	●							
TNMG220412P	TNMG433P	12,70	1/2	22,00	.866	1,2	3/64																●	●					●		

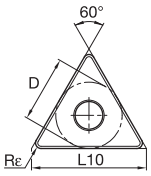



TNMG-RM

ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
TNMG330924RM	TNMG666RM	19,05	3/4	32,99	1.299	2,4	3/32			●	●												●								

● first choice
○ alternate choice

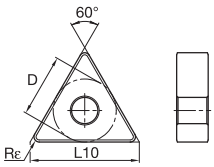
TNMG-RN

	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
P	●	●	●	●	●											●	●		●	●			●	●
M									●	●	●					●	●							
K						●	●	●																●
N																						●		
S												●	●	●	●	●	●	●	●	●	●			
H																								

ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
TNMG160408RN	TNMG332RN	9,53	3/8	16,50	.650	0,8	1/32
TNMG160412RN	TNMG333RN	9,53	3/8	16,50	.650	1,2	3/64
TNMG220408RN	TNMG432RN	12,70	1/2	22,00	.866	0,8	1/32
TNMG220412RN	TNMG433RN	12,70	1/2	22,00	.866	1,2	3/64
TNMG220416RN	TNMG434RN	12,70	1/2	22,00	.866	1,6	1/16
TNMG270608RN	TNMG542RN	15,88	5/8	27,50	1.083	0,8	1/32
TNMG270612RN	TNMG543RN	15,88	5/8	27,50	1.083	1,2	3/64
TNMG270616RN	TNMG544RN	15,88	5/8	27,50	1.083	1,6	1/16
TNMG330924RN	TNMG666RN	19,05	3/4	33,00	1.299	2,4	3/32

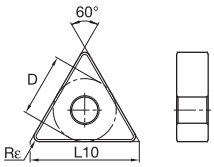
TNMG-RP

	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
P	●	●	●	●		●	●	●	●	●						●	●	●	●		●			
M	●	●	●					●		●	●										●			
K		●						●		●							●							
N																								
S		●	●	●	●		●	●	●	●						●	●	●	●		●			
H			●	●	●		●	●	●	●	●					●	●	●	●		●			

ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
TNMG160408RP	TNMG332RP	9,53	3/8	16,50	.650	0,8	1/32
TNMG160412RP	TNMG333RP	9,53	3/8	16,50	.650	1,2	3/64
TNMG160416RP	TNMG334RP	9,53	3/8	16,50	.650	1,6	1/16
TNMG220408RP	TNMG432RP	12,70	1/2	22,00	.866	0,8	1/32
TNMG220412RP	TNMG433RP	12,70	1/2	22,00	.866	1,2	3/64
TNMG220416RP	TNMG434RP	12,70	1/2	22,00	.866	1,6	1/16
TNMG220432RP	TNMG438RP	12,70	1/2	22,00	.866	3,2	1/8
TNMG270612RP	TNMG543RP	15,88	5/8	27,50	1.083	1,2	3/64
TNMG270616RP	TNMG544RP	15,88	5/8	27,50	1.083	1,6	1/16
TNMG330924RP	TNMG666RP	19,05	3/4	33,00	1.299	2,4	3/32

TNMG-UN

	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
P						●	●	●																
M																								
K						●	●	●																
N																								
S																								
H						●	●	●																

ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
TNMG160408UN	TNMG332UN	9,53	3/8	16,50	.650	0,8	1/32
TNMG160412UN	TNMG333UN	9,53	3/8	16,50	.650	1,2	3/64
TNMG160416UN	TNMG334UN	9,53	3/8	16,50	.650	1,6	1/16
TNMG220408UN	TNMG432UN	12,70	1/2	22,00	.866	0,8	1/32
TNMG220412UN	TNMG433UN	12,70	1/2	22,00	.866	1,2	3/64
TNMG220416UN	TNMG434UN	12,70	1/2	22,00	.866	1,6	1/16


C2–C70

C72–C118

C119–C129

C130–C161
beyond
B10–B23

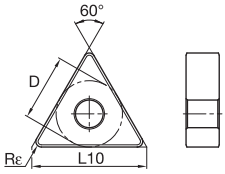
B24–B31

B32–B37

● first choice
○ alternate choice

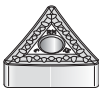
	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
P	●	●	●	●	●																		●	●
M									●	●	●					●	●		●	●				
K						●	●	●																●
N																						●		
S												●	●	●	●	●	●	●	●	●	●			
H																								

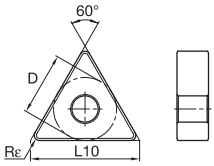
TNMG-UP



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
TNMG160404UP	TNMG331UP	9,53	3/8	16,50	.650	0,4	1/64
TNMG160408UP	TNMG332UP	9,53	3/8	16,50	.650	0,8	1/32
TNMG160412UP	TNMG333UP	9,53	3/8	16,50	.650	1,2	3/64
TNMG220408UP	TNMG432UP	12,70	1/2	22,00	.866	0,8	1/32
TNMG220412UP	TNMG433UP	12,70	1/2	22,00	.866	1,2	3/64

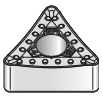
TNMM-RM

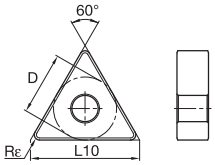




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
TNMM160408RM	TNMM332RM	9,53	3/8	16,50	.650	0,8	1/32
TNMM160412RM	TNMM333RM	9,53	3/8	16,50	.650	1,2	3/64
TNMM220408RM	TNMM432RM	12,70	1/2	22,00	.866	0,8	1/32
TNMM220412RM	TNMM433RM	12,70	1/2	22,00	.866	1,2	3/64
TNMM220416RM	TNMM434RM	12,70	1/2	22,00	.866	1,6	1/16
TNMM270612RM	TNMM543RM	15,88	5/8	27,50	1.083	1,2	3/64
TNMM270616RM	TNMM544RM	15,88	5/8	27,50	1.083	1,6	1/16

TNMM-RP

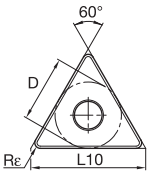




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
TNMM160408RP	TNMM332RP	9,53	3/8	16,50	.650	0,8	1/32
TNMM160412RP	TNMM333RP	9,53	3/8	16,50	.650	1,2	3/64
TNMM220408RP	TNMM432RP	12,70	1/2	22,00	.866	0,8	1/32
TNMM220412RP	TNMM433RP	12,70	1/2	22,00	.866	1,2	3/64
TNMM220416RP	TNMM434RP	12,70	1/2	22,00	.866	1,6	1/16
TNMM270616RP	TNMM544RP	15,88	5/8	27,50	1.083	1,6	1/16

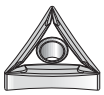
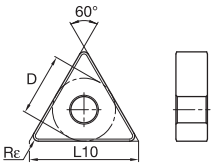
● first choice
○ alternate choice

TNMP

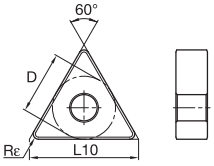
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
TNMP160404	TNMP331	9,53	3/8	16,50	.650	0,4	1/64													●	●									
TNMP160408	TNMP332	9,53	3/8	16,50	.650	0,8	1/32													●	●									
TNMP160416	TNMP334	9,53	3/8	16,50	.650	1,6	1/16														●									
TNMP220404	TNMP431	12,70	1/2	22,00	.866	0,4	1/64														●									
TNMP220408	TNMP432	12,70	1/2	22,00	.866	0,8	1/32													●	●								●	
TNMP220412	TNMP433	12,70	1/2	22,00	.866	1,2	3/64														●									
TNMP220416	TNMP434	12,70	1/2	22,00	.866	1,6	1/16														●									
TNMP220424	TNMP436	12,70	1/2	22,00	.866	2,4	3/32														●									

TNMP-K

ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
TNMP160404K	TNMP331K	9,53	3/8	16,50	.650	0,4	1/64			●																				
TNMP160408K	TNMP332K	9,53	3/8	16,50	.650	0,8	1/32		●	●																				
TNMP220408K	TNMP432K	12,70	1/2	22,00	.866	0,8	1/32			●																				

TNMS

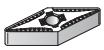



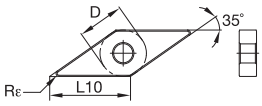
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
TNMS160404	TNMS331	9,53	3/8	16,50	.650	0,4	1/64														●								●	
TNMS160408	TNMS332	9,53	3/8	16,50	.650	0,8	1/32														●								●	
TNMS220404	TNMS431	12,70	1/2	22,00	.866	0,4	1/64														●								●	
TNMS220408	TNMS432	12,70	1/2	22,00	.866	0,8	1/32														●								●	
TNMS220412	TNMS433	12,70	1/2	22,00	.866	1,2	3/64														●									
TNMS270608	TNMS542	15,88	5/8	27,50	1.083	0,8	1/32														●								●	

C2–C70 | C72–C118 | C119–C129 | C130–C161 | B10–B23 | B24–B31 | B32–B37

● first choice
○ alternate choice

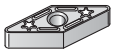
VNGG-FS

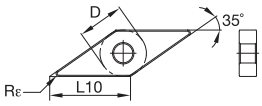




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
VNGG160401FS	VNGG330FS	9,53	3/8	16,61	.654	0,1	.004																●		●	●		●			
VNGG160402FS	VNGG3305FS	9,53	3/8	16,61	.654	0,2	.008																●		●	●		●			
VNGG160404FS	VNGG331FS	9,53	3/8	16,61	.654	0,4	1/64													●			●		●	●		●			
VNGG160408FS	VNGG332FS	9,53	3/8	16,61	.654	0,8	1/32													●			●		●	●		●			
VNGG160412FS	VNGG333FS	9,53	3/8	16,61	.654	1,2	3/64																●								

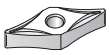
VNGG-LF

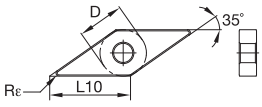




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
VNGG160402LF	VNGG3305LF	9,53	3/8	16,61	.654	0,2	.008													●			●	●							
VNGG160404LF	VNGG331LF	9,53	3/8	16,61	.654	0,4	1/64													●			●	●							
VNGG160408LF	VNGG332LF	9,53	3/8	16,61	.654	0,8	1/32													●			●	●							
VNGG220408LF	VNGG432LF	12,70	1/2	22,14	.872	0,8	1/32																●	●							

VNGP

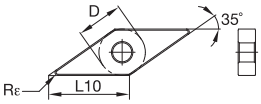




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
VNGP160401	VNGP330	9,53	3/8	16,61	.654	0,1	.004													●			●	●					●		
VNGP160402	VNGP3305	9,53	3/8	16,61	.654	0,2	.008																●	●					●		
VNGP220404	VNGP431	12,70	1/2	22,14	.872	0,4	1/64																●	●							
VNGP220408	VNGP432	12,70	1/2	22,14	.872	0,8	1/32													●	●		●	●							
VNGP220412	VNGP433	12,70	1/2	22,14	.872	1,2	3/64														●										

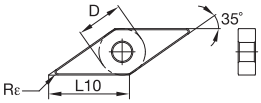
● first choice
○ alternate choice

VNGP-K



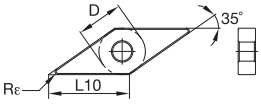
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
VNGP160404K	VNGP331K	9,53	3/8	16,61	.654	0,4	1/64													●										
VNGP160408K	VNGP332K	9,53	3/8	16,61	.654	0,8	1/32													●										

VNMA



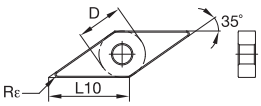
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
VNMA160408	VNMA332	9,53	3/8	16,61	.654	0,8	1/32						●	●	●															

VNMG



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
VNMG160408	VNMG332	9,53	3/8	16,61	.654	0,8	1/32														●									
VNMG160412	VNMG333	9,53	3/8	16,61	.654	1,2	3/64														●									
VNMG220408	VNMG432	12,70	1/2	22,14	.872	0,8	1/32														●									
VNMG220412	VNMG433	12,70	1/2	22,14	.872	1,2	3/64														●									

VNMG-FF



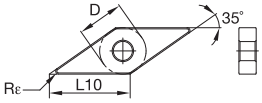
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
VNMG160404FF	VNMG331FF	9,53	3/8	16,61	.654	0,4	1/64	●	●														●	●					●	
VNMG160408FF	VNMG332FF	9,53	3/8	16,61	.654	0,8	1/32	●	●														●	●					●	

C2–C70 | C72–C118 | C119–C129 | C130–C161 | B10–B23 | B24–B31 | B32–B37

● first choice
○ alternate choice

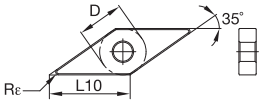
		KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
P		●	●	●	●	●																		●	●
M										●	●	●					●	●		●	●				
K							●	●	●																●
N																							●		
S													●	●	●	●	●	●	●	●	●	●			
H																									

VNMG-FN



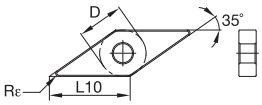
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
VNMG160404FN	VNMG331FN	9,53	3/8	16,61	.654	0,4	1/64
VNMG160408FN	VNMG332FN	9,53	3/8	16,61	.654	0,8	1/32

VNMG-FP



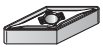
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
VNMG160404FP	VNMG331FP	9,53	3/8	16,61	.654	0,4	1/64
VNMG160408FP	VNMG332FP	9,53	3/8	16,61	.654	0,8	1/32

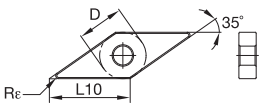
VNMG-MN



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
VNMG160404MN	VNMG331MN	9,53	3/8	16,61	.654	0,4	1/64
VNMG160408MN	VNMG332MN	9,53	3/8	16,61	.654	0,8	1/32
VNMG160412MN	VNMG333MN	9,53	3/8	16,61	.654	1,2	3/64

VNMG-MP

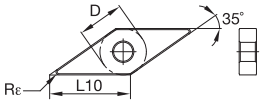




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
VNMG160404MP	VNMG331MP	9,53	3/8	16,61	.654	0,4	1/64
VNMG160408MP	VNMG332MP	9,53	3/8	16,61	.654	0,8	1/32
VNMG160412MP	VNMG333MP	9,53	3/8	16,61	.654	1,2	3/64

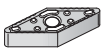
● first choice
○ alternate choice

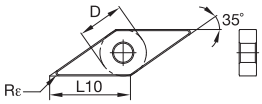
VNMG-MS



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
VNMG160401MS	VNMG330MS	9,53	3/8	16,61	.654	0,1	.004													●			●		●	●		●			
VNMG160402MS	VNMG3305MS	9,53	3/8	16,61	.654	0,2	.008													●			●		●	●		●			
VNMG160404MS	VNMG331MS	9,53	3/8	16,61	.654	0,4	1/64													●			●		●	●		●			
VNMG160408MS	VNMG332MS	9,53	3/8	16,61	.654	0,8	1/32													●			●		●	●		●			
VNMG220404MS	VNMG431MS	12,70	1/2	22,14	.872	0,4	1/64																●		●	●		●			
VNMG220408MS	VNMG432MS	12,70	1/2	22,14	.872	0,8	1/32																●		●	●		●			

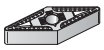
VNMG-P

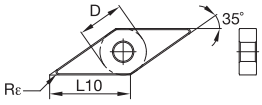




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
VNMG160404P	VNMG331P	9,53	3/8	16,61	.654	0,4	1/64													●			●	●							
VNMG160408P	VNMG332P	9,53	3/8	16,61	.654	0,8	1/32													●			●	●							

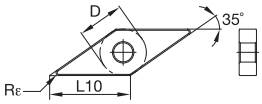
VNMG-RN





ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
VNMG160408RN	VNMG332RN	9,53	3/8	16,61	.654	0,8	1/32		●	●																				
VNMG160412RN	VNMG333RN	9,53	3/8	16,61	.654	1,2	3/64		●	●																				
VNMG220408RN	VNMG432RN	12,70	1/2	22,14	.872	0,8	1/32		●	●	●	●																		
VNMG220412RN	VNMG433RN	12,70	1/2	22,14	.872	1,2	3/64		●	●	●																			

VNMG-RP



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
VNMG160408RP	VNMG332RP	9,53	3/8	16,61	.654	0,8	1/32		●	●				●	●	●							●	●	●	●		●			
VNMG160412RP	VNMG333RP	9,53	3/8	16,61	.654	1,2	3/64		●	●			●	●	●	●	●						●	●	●	●		●			


C2–C70


C72–C118


C119–C129


C130–C161

B10–B23

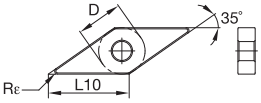

B24–B31


B32–B37

● first choice
○ alternate choice

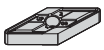
	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
P	●	●	●	●	●																	●	●	
M									●	●	●					●	●		●	●				
K						●	●	●																●
N																						●		
S												●	●	●	●	●	●	●	●	●	●			
H																								

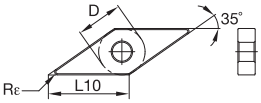
VNMG-UN



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
VNMG160404UN	VNMG331UN	9,53	3/8	16,61	.654	0,4	1/64
VNMG160408UN	VNMG332UN	9,53	3/8	16,61	.654	0,8	1/32

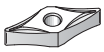
VNMG-UP

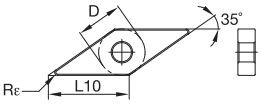




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
VNMG160404UP	VNMG331UP	9,53	3/8	16,61	.654	0,4	1/64
VNMG160408UP	VNMG332UP	9,53	3/8	16,61	.654	0,8	1/32
VNMG160412UP	VNMG333UP	9,53	3/8	16,61	.654	1,2	3/64

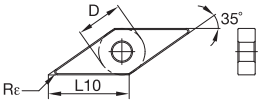
VNMP





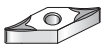
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
VNMP160404	VNMP331	9,53	3/8	16,61	.654	0,4	1/64
VNMP160408	VNMP332	9,53	3/8	16,61	.654	0,8	1/32

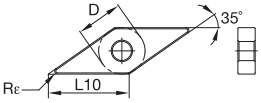
VNMP-K



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
VNMP160404K	VNMP331K	9,53	3/8	16,61	.654	0,4	1/64
VNMP160408K	VNMP332K	9,53	3/8	16,61	.654	0,8	1/32

VNMS



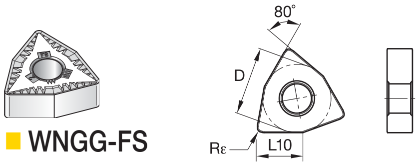


ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
VNMS160404	VNMS331	9,53	3/8	16,61	.654	0,4	1/64
VNMS160408	VNMS332	9,53	3/8	16,61	.654	0,8	1/32

Inserts

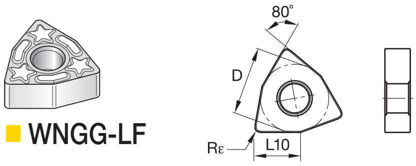
● first choice
○ alternate choice

	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
P	●	●	●	●	●																		●	●
M									●	●	●					●	●		●	●				
K						●	●	●																●
N																						●		
S												●	●	●	●	●	●	●	●	●	●			
H																								



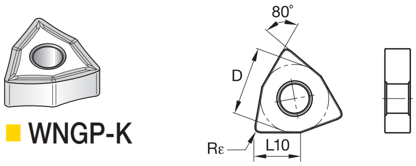
WNGG-FS

ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
WNGG080404FS	WNGG431FS	12,70	1/2	8,69	.342	0,4	1/64																●		●						
WNGG080408FS	WNGG432FS	12,70	1/2	8,69	.342	0,8	1/32																●		●						



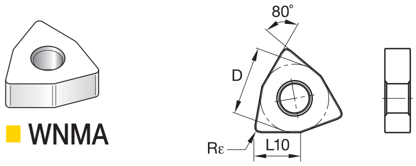
WNGG-LF

ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
WNGG080401LF	WNGG430LF	12,70	1/2	8,69	.342	0,1	.004																●	●							
WNGG080402LF	WNGG4305LF	12,70	1/2	8,69	.342	0,2	.008																●	●							
WNGG080404LF	WNGG431LF	12,70	1/2	8,69	.342	0,4	1/64																●	●							
WNGG080408LF	WNGG432LF	12,70	1/2	8,69	.342	0,8	1/32																●	●							



WNGP-K

ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
WNGP080408K	WNGP432K	12,70	1/2	8,69	.342	0,8	1/32																						●		



WNMA

ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
WNMA060408	WNMA332	9,53	3/8	6,52	.257	0,8	1/32						●	●	●																
WNMA060412	WNMA333	9,53	3/8	6,52	.257	1,2	3/64							●	●																
WNMA080408	WNMA432	12,70	1/2	8,69	.342	0,8	1/32						●	●	●																
WNMA080412	WNMA433	12,70	1/2	8,69	.342	1,2	3/64						●	●	●																
WNMA080416	WNMA434	12,70	1/2	8,69	.342	1,6	1/16						●	●	●																

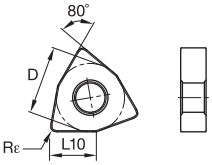
C2–C70 | C72–C118 | C119–C129 | C130–C161 | B10–B23 | B24–B31 | B32–B37

Inserts

● first choice
○ alternate choice

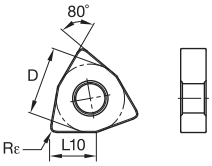
		KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
P		●	●	●	●	●																		●	●
M										●	●	●				●	●			●	●				
K							●	●	●																●
N																							●		
S													●	●	●	●	●	●	●	●	●	●			
H																									

WNMG-FF



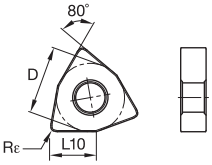
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
WNMG060404FF	WNMG331FF	9,53	3/8	6,52	.257	0,4	1/64
WNMG060408FF	WNMG332FF	9,53	3/8	6,52	.257	0,8	1/32
WNMG080404FF	WNMG431FF	12,70	1/2	8,69	.342	0,4	1/64
WNMG080408FF	WNMG432FF	12,70	1/2	8,69	.342	0,8	1/32

WNMG-FN



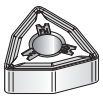
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
WNMG060404FN	WNMG331FN	9,53	3/8	6,52	.257	0,4	1/64
WNMG060408FN	WNMG332FN	9,53	3/8	6,52	.257	0,8	1/32
WNMG080404FN	WNMG431FN	12,70	1/2	8,69	.342	0,4	1/64
WNMG080408FN	WNMG432FN	12,70	1/2	8,69	.342	0,8	1/32
WNMG080412FN	WNMG433FN	12,70	1/2	8,69	.342	1,2	3/64

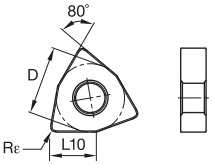
WNMG-FP



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
WNMG060404FP	WNMG331FP	9,53	3/8	6,52	.257	0,4	1/64
WNMG060408FP	WNMG332FP	9,53	3/8	6,52	.257	0,8	1/32
WNMG080404FP	WNMG431FP	12,70	1/2	8,69	.342	0,4	1/64
WNMG080408FP	WNMG432FP	12,70	1/2	8,69	.342	0,8	1/32
WNMG080412FP	WNMG433FP	12,70	1/2	8,69	.342	1,2	3/64

WNMG-FW

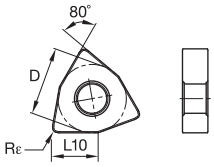




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
WNMG060404FW	WNMG331FW	9,53	3/8	6,52	.257	0,4	1/64
WNMG060408FW	WNMG332FW	9,53	3/8	6,52	.257	0,8	1/32
WNMG060412FW	WNMG333FW	9,53	3/8	6,52	.257	1,2	3/64
WNMG080404FW	WNMG431FW	12,70	1/2	8,69	.342	0,4	1/64
WNMG080408FW	WNMG432FW	12,70	1/2	8,69	.342	0,8	1/32
WNMG080412FW	WNMG433FW	12,70	1/2	8,69	.342	1,2	3/64

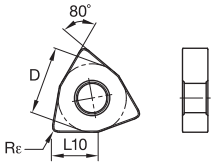
● first choice
○ alternate choice

WNMG-MN

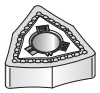
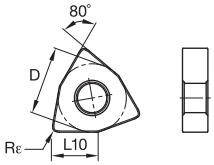
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
WNMG060404MN	WNMG331MN	9,53	3/8	6,52	.257	0,4	1/64		●	●													●	●						
WNMG060408MN	WNMG332MN	9,53	3/8	6,52	.257	0,8	1/32		●	●	●												●	●						
WNMG060412MN	WNMG333MN	9,53	3/8	6,52	.257	1,2	3/64		●	●																				
WNMG080408MN	WNMG432MN	12,70	1/2	8,69	.342	0,8	1/32	●	●	●	●	●																		
WNMG080412MN	WNMG433MN	12,70	1/2	8,69	.342	1,2	3/64	●	●	●		●																		
WNMG080416MN	WNMG434MN	12,70	1/2	8,69	.342	1,6	1/16			●																				

WNMG-MP

ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
WNMG060404MP	WNMG331MP	9,53	3/8	6,52	.257	0,4	1/64									●	●						●	●						
WNMG060408MP	WNMG332MP	9,53	3/8	6,52	.257	0,8	1/32		●	●						●	●	●					●	●						
WNMG060412MP	WNMG333MP	9,53	3/8	6,52	.257	1,2	3/64										●													
WNMG080408MP	WNMG432MP	12,70	1/2	8,69	.342	0,8	1/32		●	●						●	●	●					●	●						
WNMG080412MP	WNMG433MP	12,70	1/2	8,69	.342	1,2	3/64		●							●	●	●					●	●						

WNMG-MS

ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
WNMG060408MS	WNMG332MS	9,53	3/8	6,52	.257	0,8	1/32													●			●		●	●		●		
WNMG080401MS	WNMG430MS	12,70	1/2	8,69	.342	0,1	.004																●		●					
WNMG080402MS	WNMG4305MS	12,70	1/2	8,69	.342	0,2	.008																●		●	●		●		
WNMG080404MS	WNMG431MS	12,70	1/2	8,69	.342	0,4	1/64													●			●		●	●		●		
WNMG080408MS	WNMG432MS	12,70	1/2	8,69	.342	0,8	1/32													●			●		●	●		●		


C2–C70

C72–C118

C119–C129

C130–C161


B10–B23

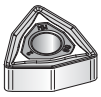
B24–B31

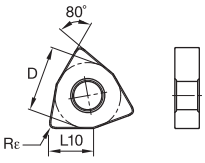
B32–B37

● first choice
○ alternate choice

		KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
P		●	●	●	●	●																		●	●
M										●	●	●					●	●		●	●				
K							●	●	●																●
N																							●		
S													●	●	●	●	●	●	●	●	●	●			
H																									

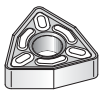
WNMG-MW

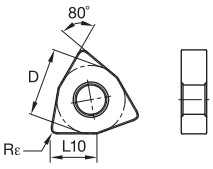




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
WNMG060408MW	WNMG332MW	9,53	3/8	6,52	.257	0,8	1/32
WNMG060412MW	WNMG333MW	9,53	3/8	6,52	.257	1,2	3/64
WNMG080408MW	WNMG432MW	12,70	1/2	8,69	.342	0,8	1/32
WNMG080412MW	WNMG433MW	12,70	1/2	8,69	.342	1,2	3/64

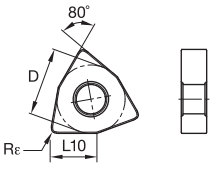
WNMG-P





ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
WNMG080404P	WNMG431P	12,70	1/2	8,69	.342	0,4	1/64
WNMG080408P	WNMG432P	12,70	1/2	8,69	.342	0,8	1/32

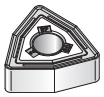
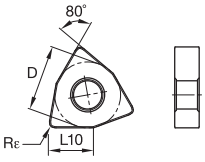
WNMG-RN



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
WNMG060408RN	WNMG332RN	9,53	3/8	6,52	.257	0,8	1/32
WNMG060412RN	WNMG333RN	9,53	3/8	6,52	.257	1,2	3/64
WNMG080408RN	WNMG432RN	12,70	1/2	8,69	.342	0,8	1/32
WNMG080412RN	WNMG433RN	12,70	1/2	8,69	.342	1,2	3/64
WNMG080416RN	WNMG434RN	12,70	1/2	8,69	.342	1,6	1/16

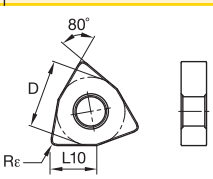
● first choice
○ alternate choice

WNMG-RP

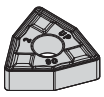
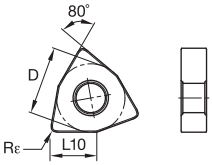
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
WNMG060408RP	WNMG332RP	9,53	3/8	6,52	.257	0,8	1/32		●	●					●	●	●						●	●	●	●		●			
WNMG060412RP	WNMG333RP	9,53	3/8	6,52	.257	1,2	3/64		●	●					●																
WNMG080408RP	WNMG432RP	12,70	1/2	8,69	.342	0,8	1/32	●	●	●	●	●	●	●	●	●	●	●					●	●	●	●		●			
WNMG080412RP	WNMG433RP	12,70	1/2	8,69	.342	1,2	3/64	●	●	●	●	●	●	●	●	●	●	●					●	●	●	●		●			
WNMG080416RP	WNMG434RP	12,70	1/2	8,69	.342	1,6	1/16	●	●	●	●				●								●		●	●		●			

WNMG-UN

ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
WNMG060404UN	WNMG331UN	9,53	3/8	6,52	.257	0,4	1/64						●	●	●																
WNMG060408UN	WNMG332UN	9,53	3/8	6,52	.257	0,8	1/32						●	●	●																
WNMG060412UN	WNMG333UN	9,53	3/8	6,52	.257	1,2	3/64						●	●	●																
WNMG080404UN	WNMG431UN	12,70	1/2	8,69	.342	0,4	1/64						●	●	●																
WNMG080408UN	WNMG432UN	12,70	1/2	8,69	.342	0,8	1/32						●	●	●																
WNMG080412UN	WNMG433UN	12,70	1/2	8,69	.342	1,2	3/64						●	●	●																
WNMG080416UN	WNMG434UN	12,70	1/2	8,69	.342	1,6	1/16							●	●																

WNMG-UP

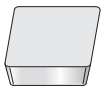



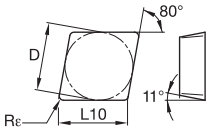
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
WNMG060408UP	WNMG332UP	9,53	3/8	6,52	.257	0,8	1/32									●	●							●							
WNMG080408UP	WNMG432UP	12,70	1/2	8,69	.342	0,8	1/32									●	●	●					●	●							
WNMG080412UP	WNMG433UP	12,70	1/2	8,69	.342	1,2	3/64									●	●	●					●	●							

C2–C70 | C72–C118 | C119–C129 | C130–C161 | B10–B23 | B24–B31 | B32–B37

● first choice
○ alternate choice

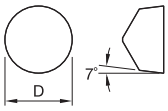
CPG





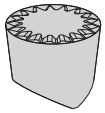
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
P								●	●	●	●	●																		●	●
M																●	●	●					●	●		●	●				
K													●	●	●																●
N																													●		
S																			●	●	●	●	●	●	●	●	●				
H																															
CPGN120304	CPG421	12,70	1/2	12,90	.508	0,4	1/64													●	●		●							
CPGN120308	CPG422	12,70	1/2	12,90	.508	0,8	1/32													●	●		●							

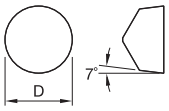
RCGV



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
RCGV060400	RCGV23	6,35	1/4	–	–	–	–													●			●	●						
RCGV090700	RCGV35	9,53	3/8	–	–	–	–													●			●	●						
RCGV120700	RCGV45	12,70	1/2	–	–	–	–													●			●	●						

RCGV-MP

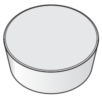
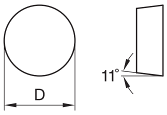




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
RCGX060400MP	RCGV23MP	6,35	1/4	–	–	–	–															●								
RCGX090700MP	RCGV35MP	9,53	3/8	–	–	–	–															●								
RCGX120700MP	RCGV45MP	12,70	1/2	–	–	–	–															●								

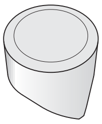
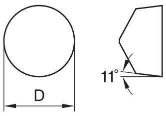
● first choice
○ alternate choice

ISO	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
P	●	●	●	●	●																		●	●
M									●	●	●					●	●		●	●				
K						●	●	●																●
N																						●		
S												●	●	●	●	●	●	●	●	●	●			
H																								

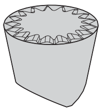
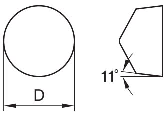
RPG

ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
RPGN120300	RPG42	12,70	1/2	—	—	—	—													●											

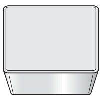
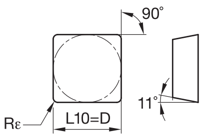
RPGV

ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
RPGV060400	RPGV23	6,35	1/4	—	—	—	—																		●						
RPGV090700	RPGV35	9,53	3/8	—	—	—	—													●				●	●						
RPGV120700	RPGV45	12,70	1/2	—	—	—	—																		●						

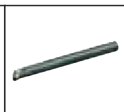
RPGV-MP

ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
RPGX060400MP	RPGV23MP	6,35	1/4	—	—	—	—															●									
RPGX090700MP	RPGV35MP	9,53	3/8	—	—	—	—															●									
RPGV120700MP	RPGV45MP	12,70	1/2	—	—	—	—															●			●						

SPG

ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
SPGN090304	SPG321	9,53	3/8	9,53	.375	0,4	1/64														●		●	●							
SPGN090308	SPG322	9,53	3/8	9,53	.375	0,8	1/32													●	●		●	●							
SPGN090312	SPG323	9,53	3/8	9,53	.375	1,2	3/64														●		●	●							
SPGN120304	SPG421	12,70	1/2	12,70	.500	0,4	1/64													●	●		●	●							
SPGN120308	SPG422	12,70	1/2	12,70	.500	0,8	1/32													●	●		●	●							
SPGN120312	SPG423	12,70	1/2	12,70	.500	1,2	3/64														●		●	●							
SPGN120316	SPG424	12,70	1/2	12,70	.500	1,6	1/16														●		●	●							
SPGN120412	SPG433	12,70	1/2	12,70	.500	1,2	3/64														●		●	●							
SPGN190408	SPG632	19,05	3/4	19,05	.750	0,8	1/32														●										
SPGN190412	SPG633	19,05	3/4	19,05	.750	1,2	3/64													●	●		●	●							
SPGN190416	SPG634	19,05	3/4	19,05	.750	1,6	1/16														●										


C2–C70

C72–C118

C119–C129

C130–C161
beyond
B10–B23

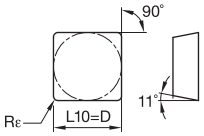
B24–B31

B32–B37

● first choice
○ alternate choice

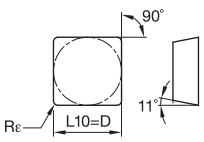
	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
P	●	●	●	●	●																		●	●
M									●	●	●					●	●		●	●				
K						●	●	●																●
N																						●		
S												●	●	●	●	●	●	●	●	●	●			
H																								

SPGR–K



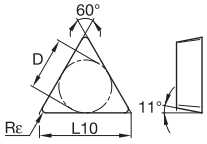
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
SPGR090308K	SPGF322	9,53	3/8	9,53	.375	0,8	1/32
SPGR120308K	SPGF422	12,70	1/2	12,70	.500	0,8	1/32

SPUN



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
SPUN120304	SPU421	12,70	1/2	12,70	.500	0,4	1/64
SPUN120308	SPU422	12,70	1/2	12,70	.500	0,8	1/32
SPUN120312	SPU423	12,70	1/2	12,70	.500	1,2	3/64
SPUN190412	SPU633	19,05	3/4	19,05	.750	1,2	3/64

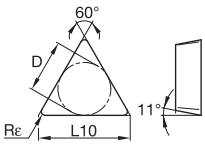
TPGN



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
TPGN060104	TPGE521	3,97	5/32	6,88	.271	0,4	1/64
TPGN110304	TPG221	6,35	1/4	11,00	.433	0,4	1/64
TPGN110308	TPG222	6,35	1/4	11,00	.433	0,8	1/32
TPGN160302	TPG3205	9,53	3/8	16,50	.650	0,2	.008
TPGN160304	TPG321	9,53	3/8	16,50	.650	0,4	1/64
TPGN160308	TPG322	9,53	3/8	16,50	.650	0,8	1/32
TPGN160312	TPG323	9,53	3/8	16,50	.650	1,2	3/64
TPGN160316	TPG324	9,53	3/8	16,50	.650	1,6	1/16
TPGN220404	TPG431	12,70	1/2	22,00	.866	0,4	1/64
TPGN220408	TPG432	12,70	1/2	22,00	.866	0,8	1/32
TPGN220412	TPG433	12,70	1/2	22,00	.866	1,2	3/64
TPGN220416	TPG434	12,70	1/2	22,00	.866	1,6	1/16
TPGN220432	TPG438	12,70	1/2	22,00	.866	3,2	1/8

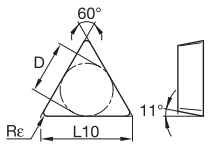
● first choice
○ alternate choice

TPGR–K



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
P								●	●	●	●	●																		●	●
M																●	●	●					●	●		●	●				
K													●	●	●																●
N																													●		
S																			●	●	●	●	●	●	●	●	●	●			
H																															
TPGR110304K	TPGF221	6,35	1/4	11,00	.433	0,4	1/64																●	●							
TPGR110308K	TPGF222	6,35	1/4	11,00	.433	0,8	1/32																●	●							
TPGR160304K	TPGF321	9,53	3/8	16,50	.650	0,4	1/64														●		●	●							
TPGR160308K	TPGF322	9,53	3/8	16,50	.650	0,8	1/32																●	●							
TPGR220404K	TPGF431	12,70	1/2	22,00	.866	0,4	1/64														●		●	●							
TPGR220408K	TPGF432	12,70	1/2	22,00	.866	0,8	1/32																●	●							

TPUN



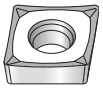
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
TPUN110304	TPU221	6,35	1/4	11,00	.433	0,4	1/64
TPUN110308	TPU222	6,35	1/4	11,00	.433	0,8	1/32
TPUN160304	TPU321	9,53	3/8	16,50	.650	0,4	1/64
TPUN160308	TPU322	9,53	3/8	16,50	.650	0,8	1/32
TPUN220408	TPU432	12,70	1/2	22,00	.866	0,8	1/32
TPUN220412	TPU433	12,70	1/2	22,00	.866	1,2	3/64

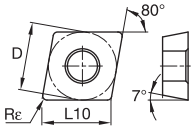
						
C2–C70	C72–C118	C119–C129	C130–C161	B10–B23	B24–B31	B32–B37

● first choice
○ alternate choice

		KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
P		●	●	●	●	●																		●	●
M										●	●	●					●	●		●	●				
K							●	●	●																●
N																							●		
S													●	●	●	●	●	●	●	●	●	●			
H																									

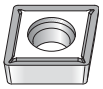
CCGT-HP

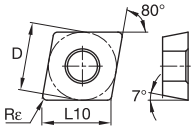




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
CCGT060202HP	CCGT21505HP	6,35	1/4	6,45	.254	0,2	.008
CCGT060204HP	CCGT2151HP	6,35	1/4	6,45	.254	0,4	1/64
CCGT060208HP	CCGT2152HP	6,35	1/4	6,45	.254	0,8	1/32
CCGT09T302HP	CCGT32505HP	9,53	3/8	9,67	.381	0,2	.008
CCGT09T304HP	CCGT3251HP	9,53	3/8	9,67	.381	0,4	1/64
CCGT09T308HP	CCGT3252HP	9,53	3/8	9,67	.381	0,8	1/32
CCGT09T316HP	CCGT3254HP	9,53	3/8	9,67	.381	1,6	1/16
CCGT120401HP	CCGT430HP	12,70	1/2	12,90	.508	0,1	.004
CCGT120402HP	CCGT4305HP	12,70	1/2	12,90	.508	0,2	.008
CCGT120404HP	CCGT431HP	12,70	1/2	12,90	.508	0,4	1/64
CCGT120408HP	CCGT432HP	12,70	1/2	12,90	.508	0,8	1/32

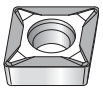
CCGT-LF

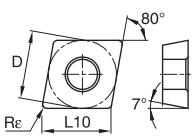




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
CCGT0602X0LF	CCGT215X0LF	6,35	1/4	6,45	.254	0,0	.0015
CCGT060201LF	CCGT2150LF	6,35	1/4	6,45	.254	0,1	.004
CCGT060202LF	CCGT21505LF	6,35	1/4	6,45	.254	0,2	.008
CCGT060204LF	CCGT2151LF	6,35	1/4	6,45	.254	0,4	1/64
CCGT060208LF	CCGT2152LF	6,35	1/4	6,45	.254	0,8	1/32
CCGT09T3X0LF	CCGT325X0LF	9,53	3/8	9,67	.381	0,0	.0015
CCGT09T301LF	CCGT3250LF	9,53	3/8	9,67	.381	0,1	.004
CCGT09T302LF	CCGT32505LF	9,53	3/8	9,67	.381	0,2	.008
CCGT09T304LF	CCGT3251LF	9,53	3/8	9,67	.381	0,4	1/64
CCGT09T308LF	CCGT3252LF	9,53	3/8	9,67	.381	0,8	1/32

CCMT-11



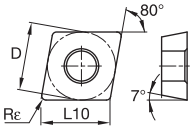


ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
CCMT06020411	CCMT215111	6,35	1/4	6,45	.254	0,4	1/64
CCMT09T30411	CCMT325111	9,53	3/8	9,67	.381	0,4	1/64
CCMT09T30811	CCMT325211	9,53	3/8	9,67	.381	0,8	1/32
CCMT12040411	CCMT43111	12,70	1/2	12,90	.508	0,4	1/64
CCMT12040811	CCMT43211	12,70	1/2	12,90	.508	0,8	1/32

● first choice
○ alternate choice

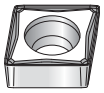
	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
P	●	●	●	●	●											●	●		●	●			●	●
M									●	●	●					●	●							
K						●	●	●																●
N																						●		
S												●	●	●	●	●	●	●	●	●	●			
H																								

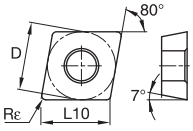
CCMT-FP



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
CCMT060202FP	CCMT21505FP	6,35	1/4	6,45	.254	0,2	.008
CCMT060204FP	CCMT2151FP	6,35	1/4	6,45	.254	0,4	1/64
CCMT060208FP	CCMT2152FP	6,35	1/4	6,45	.254	0,8	1/32
CCMT09T302FP	CCMT32505FP	9,53	3/8	9,67	.381	0,2	.008
CCMT09T304FP	CCMT3251FP	9,53	3/8	9,67	.381	0,4	1/64
CCMT09T308FP	CCMT3252FP	9,53	3/8	9,67	.381	0,8	1/32
CCMT120404FP	CCMT431FP	12,70	1/2	12,90	.508	0,4	1/64
CCMT120408FP	CCMT432FP	12,70	1/2	12,90	.508	0,8	1/32
CCMT120412FP	CCMT433FP	12,70	1/2	12,90	.508	1,2	3/64

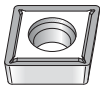
CCMT-FW

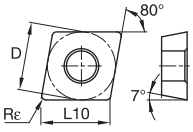




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
CCMT060202FW	CCMT21505FW	6,35	1/4	6,45	.254	0,2	.008
CCMT060204FW	CCMT2151FW	6,35	1/4	6,45	.254	0,4	1/64
CCMT060208FW	CCMT2152FW	6,35	1/4	6,45	.254	0,8	1/32
CCMT09T304FW	CCMT3251FW	9,53	3/8	9,67	.381	0,4	1/64
CCMT09T308FW	CCMT3252FW	9,53	3/8	9,67	.381	0,8	1/32

CCMT-LF





ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
CCMT060202LF	CCMT21505LF	6,35	1/4	6,45	.254	0,2	.008
CCMT060204LF	CCMT2151LF	6,35	1/4	6,45	.254	0,4	1/64
CCMT060208LF	CCMT2152LF	6,35	1/4	6,45	.254	0,8	1/32
CCMT09T302LF	CCMT32505LF	9,53	3/8	9,67	.381	0,2	.008
CCMT09T304LF	CCMT3251LF	9,53	3/8	9,67	.381	0,4	1/64
CCMT09T308LF	CCMT3252LF	9,53	3/8	9,67	.381	0,8	1/32
CCMT120404LF	CCMT431LF	12,70	1/2	12,90	.508	0,4	1/64
CCMT120408LF	CCMT432LF	12,70	1/2	12,90	.508	0,8	1/32
CCMT120412LF	CCMT433LF	12,70	1/2	12,90	.508	1,2	3/64


C2–C70


C72–C118


C119–C129


C130–C161

B10–B23

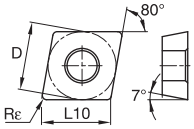

B24–B31


B32–B37

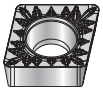
Inserts

● first choice
○ alternate choice

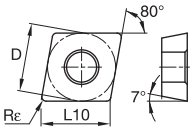
CCMT-MF



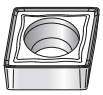
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
CCMT060204MF	CCMT2151MF	6,35	1/4	6,45	.254	0,4	1/64		●	●	●			●	●	●	●	●												
CCMT09T304MF	CCMT3251MF	9,53	3/8	9,67	.381	0,4	1/64		●	●	●			●	●	●	●	●												
CCMT09T308MF	CCMT3252MF	9,53	3/8	9,67	.381	0,8	1/32		●	●	●			●	●	●	●	●									●			
CCMT09T312MF	CCMT3253MF	9,53	3/8	9,67	.381	1,2	3/64		●	●				●	●		●													
CCMT120408MF	CCMT432MF	12,70	1/2	12,90	.508	0,8	1/32		●	●	●			●	●	●	●	●												
CCMT120412MF	CCMT433MF	12,70	1/2	12,90	.508	1,2	3/64		●	●				●	●	●	●										●			



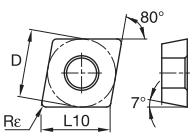
CCMT-MP



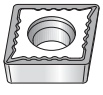
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
CCMT060204MP	CCMT2151MP	6,35	1/4	6,45	.254	0,4	1/64		●	●					●	●	●						●							
CCMT09T304MP	CCMT3251MP	9,53	3/8	9,67	.381	0,4	1/64		●	●					●	●	●						●							
CCMT09T308MP	CCMT3252MP	9,53	3/8	9,67	.381	0,8	1/32		●	●					●	●	●						●							
CCMT09T312MP	CCMT3253MP	9,53	3/8	9,67	.381	1,2	3/64			●							●													
CCMT120408MP	CCMT432MP	12,70	1/2	12,90	.508	0,8	1/32		●	●					●	●	●						●							
CCMT120412MP	CCMT433MP	12,70	1/2	12,90	.508	1,2	3/64			●					●	●	●													



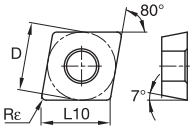
CCMT-MW



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
CCMT09T304MW	CCMT3251MW	9,53	3/8	9,67	.381	0,40	1/64			●					●								●	●					●	
CCMT09T308MW	CCMT3252MW	9,53	3/8	9,67	.381	0,80	1/32			●					●								●	●					●	
CCMT120404MW	CCMT431MW	12,70	1/2	12,90	.508	0,40	1/64			●					●								●	●					●	
CCMT120408MW	CCMT432MW	12,70	1/2	12,90	.508	0,80	1/32			●					●								●	●						

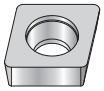


CCMT-UF

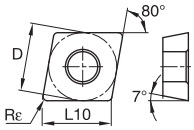


ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
CCMT060204UF	CCMT2151UF	6,35	1/4	6,45	.254	0,4	1/64	●	●	●														●						
CCMT09T302UF	CCMT32505UF	9,53	3/8	9,67	.381	0,2	.008	●	●															●						
CCMT09T304UF	CCMT3251UF	9,53	3/8	9,67	.381	0,4	1/64	●	●	●														●						
CCMT09T308UF	CCMT3252UF	9,53	3/8	9,67	.381	0,8	1/32	●	●	●														●						

● first choice
○ alternate choice

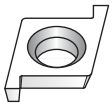


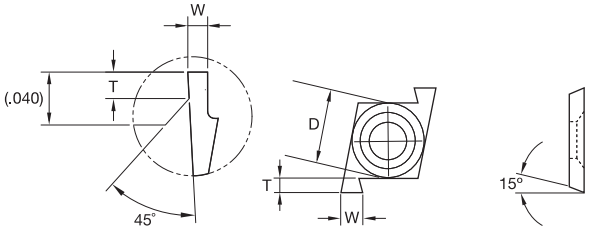
CCMW



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
CCMW060204	CCMW2151	6,35	1/4	6,45	.254	0,4	1/64								●																
CCMW09T304	CCMW3251	9,53	3/8	9,67	.381	0,4	1/64								●																
CCMW09T308	CCMW3252	9,53	3/8	9,67	.381	0,8	1/32								●																
CCMW120408	CCMW432	12,70	1/2	12,90	.508	0,8	1/32								●																
CCMW120412	CCMW433	12,70	1/2	12,90	.508	1,2	3/64								●																

CDG

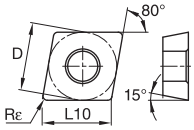




Detail of 0.015" (0,38mm) insert.

ISO catalog number	ANSI catalog number	D mm	D in	T mm	T in	W mm	W in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
	right hand																														
CDG127050R	CDG120202R	3,96	.156	0,64	.025	0,51	.020																	●							
CDG127064R	CDG120252R	3,96	.156	1,02	.040	0,64	.025																	●							
CDG127076R	CDG120302R	3,96	.156	1,02	.040	0,76	.030																●	●							
CDG127102R	CDG120402R	3,96	.156	1,02	.040	1,02	.040																●	●							

CDHB



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
CDHBS4T0S0	CDHB120601	3,97	5/32	4,03	.159	0,1	.002																	●		●	●			●	
CDHBS4T0X0	CDHB1206X0	3,97	5/32	4,03	.159	0,1	.002																●								
CDHBS4T002	CDHB120605	3,97	5/32	4,03	.159	0,2	.007													●			●	●		●	●			●	
CDHBS4T004	CDHB12061	3,97	5/32	4,03	.159	0,4	.015													●			●	●		●	●			●	


C2–C70


C72–C118


C119–C129


C130–C161

beyond
B10–B23

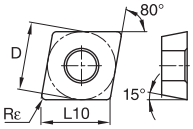

B24–B31


B32–B37

Inserts

● first choice
○ alternate choice

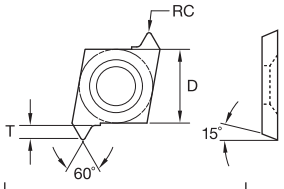
CDHH



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
	right hand																													
CDHHS4T002R	CDHH120605R	3,97	5/32	4,03	.159	0,2	.007																●	●		●	●			●	
CDHHS4T004R	CDHH12061R	3,97	5/32	4,03	.159	0,4	.015																●	●		●	●				
	left hand																													
CDHHS4T002L	CDHH120605L	3,97	5/32	4,03	.159	0,2	.007																●	●		●	●			●	
CDHHS4T004L	CDHH12061L	3,97	5/32	4,03	.159	0,4	.015																●	●		●	●				

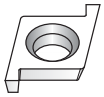
NOTE: Right-hand insert used left-hand bars. Left-hand insert used right-hand bars.

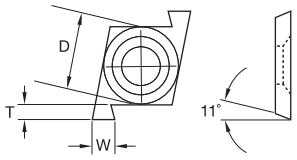
CDT



ISO catalog number	ANSI catalog number	D mm	D in	T mm	T in	RC mm	RC in
	right hand						
CDT127005R	CDT120022R	3,96	.156	0,64	.025	0,05	.002

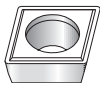
CPG

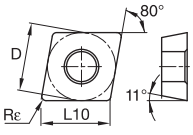




ISO catalog number	ANSI catalog number	D mm	D in	T mm	T in	W mm	W in
	right hand						
CPG190150R	CPG2062R	6,35	1/4	1,65	.065	1,52	.060
	left hand						
CPG190150L	CPG2062L	6,35	1/4	1,65	.065	1,52	.060

CPGH (T)

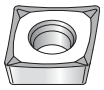


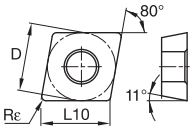


ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
CPGT060202K	CPGM21505	6,35	1/4	6,45	.254	0,2	.008													●	●									
CPGT060204K	CPGM2151	6,35	1/4	6,45	.254	0,4	1/64													●	●								●	
CPGT060208K	CPGM2152	6,35	1/4	6,45	.254	0,8	1/32													●	●									
CPGH09T301	CPGM3250	9,53	3/8	9,67	.381	0,1	.004																●	●		●	●			●	
CPGH09T302	CPGM32505	9,53	3/8	9,67	.381	0,2	.008													●	●		●	●		●	●			●	
CPGH09T304	CPGM3251	9,53	3/8	9,67	.381	0,4	1/64													●	●		●	●		●	●			●	
CPGH09T308	CPGM3252	9,53	3/8	9,67	.381	0,8	1/32													●	●		●	●		●	●		●	●	

● first choice
○ alternate choice

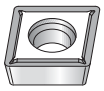
CPGT-HP

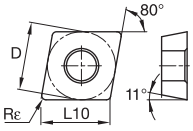




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
P								●	●	●	●	●				●	●	●					●	●		●	●			●	●
M																															
K													●	●	●																●
N																													●		
S																			●	●	●	●	●	●	●	●	●				
H																															
CPGT060202HP	CPGT21505HP	6,35	1/4	6,45	.254	0,2	.008																●	●		●	●		●		
CPGT060204HP	CPGT2151HP	6,35	1/4	6,45	.254	0,4	1/64																●	●		●	●		●		
CPGT060208HP	CPGT2152HP	6,35	1/4	6,45	.254	0,8	1/32																●	●		●	●		●		
CPGT09T302HP	CPGT32505HP	9,53	3/8	9,67	.381	0,2	.008													●			●	●		●	●		●		
CPGT09T304HP	CPGT3251HP	9,53	3/8	9,67	.381	0,4	1/64													●			●	●		●	●		●		
CPGT09T308HP	CPGT3252HP	9,53	3/8	9,67	.381	0,8	1/32													●			●	●		●	●		●		

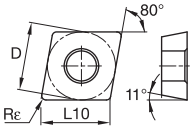
CPGT-LF





ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
CPGT060201LF	CPGT2150LF	6,35	1/4	6,45	.254	0,1	.004													●			●	●			●		●		
CPGT060202LF	CPGT21505LF	6,35	1/4	6,45	.254	0,2	.008																●	●			●		●		
CPGT060204LF	CPGT2151LF	6,35	1/4	6,45	.254	0,4	1/64													●	●		●	●			●		●		
CPGT060208LF	CPGT2152LF	6,35	1/4	6,45	.254	0,8	1/32													●			●	●			●		●		
CPGT09T302LF	CPGT32505LF	9,53	3/8	9,67	.381	0,2	.008																●	●			●		●		
CPGT09T304LF	CPGT3251LF	9,53	3/8	9,67	.381	0,4	1/64													●			●	●			●		●		
CPGT09T308LF	CPGT3252LF	9,53	3/8	9,67	.381	0,8	1/32																●	●			●		●		

CPMT-FP

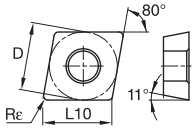


ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
CPMT050202FP	CPMT181505FP	5,56	7/32	5,65	.222	0,2	.008																●			●					
CPMT050204FP	CPMT18151FP	5,56	7/32	5,65	.222	0,4	1/64		●	●									●				●			●					
CPMT060202FP	CPMT21505FP	6,35	1/4	6,45	.254	0,2	.008		●	●							●						●			●					●
CPMT060204FP	CPMT2151FP	6,35	1/4	6,45	.254	0,4	1/64	●	●	●					●	●	●		●				●			●					●
CPMT060208FP	CPMT2152FP	6,35	1/4	6,45	.254	0,8	1/32		●	●					●	●	●						●			●					●
CPMT09T302FP	CPMT32505FP	9,53	3/8	9,67	.381	0,2	.008										●						●			●					●
CPMT09T304FP	CPMT3251FP	9,53	3/8	9,67	.381	0,4	1/64		●	●					●	●	●		●				●			●					●
CPMT09T308FP	CPMT3252FP	9,53	3/8	9,67	.381	0,8	1/32		●	●					●	●	●		●				●			●					●

C2–C70 | C72–C118 | C119–C129 | C130–C161 | B10–B23 | B24–B31 | B32–B37

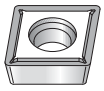
● first choice
○ alternate choice

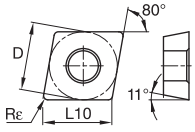
CPMT-FW



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
CPMT060202FW	CPMT21505FW	6,35	1/4	6,45	.254	0,2	.008																●	●					●	
CPMT060204FW	CPMT2151FW	6,35	1/4	6,45	.254	0,4	1/64			●					●								●	●					●	
CPMT060208FW	CPMT2152FW	6,35	1/4	6,45	.254	0,8	1/32			●					●								●	●					●	
CPMT09T304FW	CPMT3251FW	9,53	3/8	9,67	.381	0,4	1/64			●					●								●	●					●	
CPMT09T308FW	CPMT3252FW	9,53	3/8	9,67	.381	0,8	1/32			●					●								●	●					●	

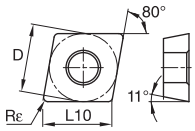
CPMT-LF





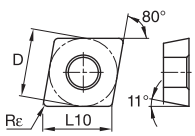
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
CPMT050202LF	CPMT181505LF	5,56	7/32	5,65	.222	0,2	.008																	●			●			
CPMT050204LF	CPMT18151LF	5,56	7/32	5,65	.222	0,4	1/64													●				●			●			●	
CPMT060202LF	CPMT21505LF	6,35	1/4	6,45	.254	0,2	.008													●				●			●			
CPMT060204LF	CPMT2151LF	6,35	1/4	6,45	.254	0,4	1/64	●	●	●	●		●	●	●	●	●			●	●			●			●			●	
CPMT060208LF	CPMT2152LF	6,35	1/4	6,45	.254	0,8	1/32	●	●	●	●		●	●	●	●	●			●				●			●			●	
CPMT09T302LF	CPMT32505LF	9,53	3/8	9,67	.381	0,2	.008													●				●			●			●	
CPMT09T304LF	CPMT3251LF	9,53	3/8	9,67	.381	0,4	1/64	●	●	●	●		●	●	●	●	●			●	●			●			●			●	
CPMT09T308LF	CPMT3252LF	9,53	3/8	9,67	.381	0,8	1/32	●	●	●	●		●	●	●	●	●			●	●			●			●			●	

CPMT-MF



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
CPMT060208MF	CPMT2152MF	6,35	1/4	6,45	.254	0,8	1/32		●	●				●	●	●	●													
CPMT09T308MF	CPMT3252MF	9,53	3/8	9,67	.381	0,8	1/32		●	●	●			●	●	●	●	●													
CPMT09T312MF	CPMT3253MF	9,53	3/8	9,67	.381	1,2	3/64		●	●					●	●	●														

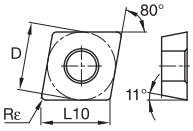
CPMT-MP



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
CPMT060208MP	CPMT2152MP	6,35	1/4	6,45	.254	0,8	1/32		●	●													●							
CPMT09T308MP	CPMT3252MP	9,53	3/8	9,67	.381	0,8	1/32		●	●					●	●	●						●								
CPMT09T312MP	CPMT3253MP	9,53	3/8	9,67	.381	1,2	3/64									●														

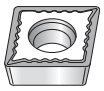
● first choice
○ alternate choice

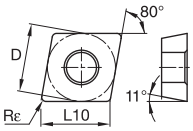
CPMT-MW



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
CPMT09T304MW	CPMT3251MW	9,53	3/8	9,67	.381	0,4	1/64			●					●								●	●						
CPMT09T308MW	CPMT3252MW	9,53	3/8	9,67	.381	0,8	1/32			●					●								●	●						●	

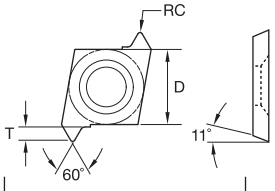
CPMT-UF





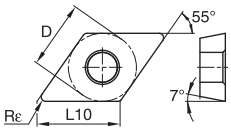
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
CPMT060204UF	CPMT2151UF	6,35	1/4	6,45	.254	0,4	1/64	●	●	●														●						
CPMT09T304UF	CPMT3251UF	9,53	3/8	9,67	.381	0,4	1/64	●	●	●														●						

CPT



ISO catalog number	ANSI catalog number	D mm	D in	T mm	T in	RC mm	RC in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
	right hand																													
CPT190013R	CPT20052R	6,35	1/4	1,65	.065	0,13	.005																●	●						
	left hand																													
CPT190013L	CPT20052L	6,35	1/4	1,65	.065	0,13	.005																●	●						

DCGT-HP



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
DCGT070202HP	DCGT21505HP	6,35	1/4	7,75	.305	0,2	.008													●			●	●		●	●		●		
DCGT070204HP	DCGT2151HP	6,35	1/4	7,75	.305	0,4	1/64													●			●	●		●	●		●		
DCGT070208HP	DCGT2152HP	6,35	1/4	7,75	.305	0,8	1/32																●	●		●	●		●		
DCGT11T302HP	DCGT32505HP	9,53	3/8	11,63	.458	0,2	.008													●			●	●		●	●		●		
DCGT11T304HP	DCGT3251HP	9,53	3/8	11,63	.458	0,4	1/64													●	●		●	●		●	●		●		
DCGT11T308HP	DCGT3252HP	9,53	3/8	11,63	.458	0,8	1/32													●	●		●	●		●	●		●		


C2–C70


C72–C118


C119–C129


C130–C161

beyond
B10–B23

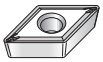

B24–B31

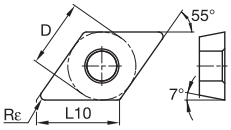

B32–B37

● first choice
○ alternate choice

		KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
P		●	●	●	●	●					●										●			●	●
M										●	●	●					●	●		●	●				
K							●	●	●																●
N																								●	
S													●	●	●	●	●	●	●	●	●	●			
H																									

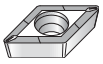
DCGT-LF

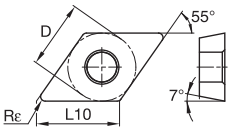




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
DCGT0702X0LF	DCGT215X0LF	6,35	1/4	7,75	.305	0,0	.0015
DCGT070201LF	DCGT2150LF	6,35	1/4	7,75	.305	0,1	.004
DCGT11T3X0LF	DCGT325X0LF	9,53	3/8	11,63	.458	0,0	.0015
DCGT11T301LF	DCGT3250LF	9,53	3/8	11,63	.458	0,1	.004
DCGT150408LF	DCGT432LF	12,70	1/2	15,50	.610	0,8	1/32

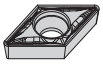
DCMT-11

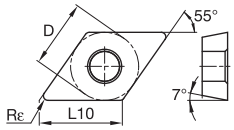




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
DCMT07020211	DCMT2150511	6,35	1/4	7,75	.305	0,2	.008
DCMT07020411	DCMT215111	6,35	1/4	7,75	.305	0,4	1/64
DCMT11T30411	DCMT325111	9,53	3/8	11,63	.458	0,4	1/64
DCMT11T30811	DCMT325211	9,53	3/8	11,63	.458	0,8	1/32

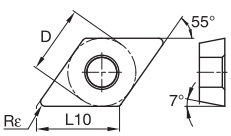
DCMT-FP





ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
DCMT070202FP	DCMT21505FP	6,35	1/4	7,75	.305	0,2	.008
DCMT070204FP	DCMT2151FP	6,35	1/4	7,75	.305	0,4	1/64
DCMT070208FP	DCMT2152FP	6,35	1/4	7,75	.305	0,8	1/32
DCMT11T302FP	DCMT32505FP	9,53	3/8	11,63	.458	0,2	.008
DCMT11T304FP	DCMT3251FP	9,53	3/8	11,63	.458	0,4	1/64
DCMT11T308FP	DCMT3252FP	9,53	3/8	11,63	.458	0,8	1/32
DCMT11T312FP	DCMT3253FP	9,53	3/8	11,63	.458	1,2	3/64
DCMT150404FP	DCMT431FP	12,70	1/2	15,50	.610	0,4	1/64
DCMT150408FP	DCMT432FP	12,70	1/2	15,50	.610	0,8	1/32

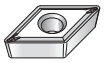
DCMT-FW

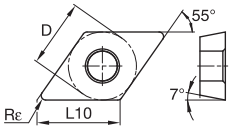


ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
DCMT11T304FW	DCMT3251FW	9,53	3/8	11,63	.458	0,2	.007
DCMT11T308FW	DCMT3252FW	9,53	3/8	11,63	.458	0,8	1/32

● first choice
○ alternate choice

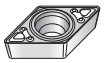
DCMT-LF

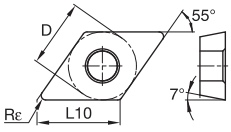




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
DCMT070202LF	DCMT21505LF	6,35	1/4	7,75	.305	0,2	.008													●				●			●				
DCMT070204LF	DCMT2151LF	6,35	1/4	7,75	.305	0,4	1/64	●	●	●	●		●		●	●	●	●		●				●			●			●	
DCMT11T302LF	DCMT32505LF	9,53	3/8	11,63	.458	0,2	.008													●				●			●			●	
DCMT11T304LF	DCMT3251LF	9,53	3/8	11,63	.458	0,4	1/64	●	●	●	●		●	●	●	●	●	●		●	●			●			●			●	
DCMT11T308LF	DCMT3252LF	9,53	3/8	11,63	.458	0,8	1/32	●	●	●	●		●	●	●	●	●	●		●			●	●			●			●	
DCMT11T312LF	DCMT3253LF	9,53	3/8	11,63	.458	1,2	3/64		●	●			●		●									●						●	
DCMT150404LF	DCMT431LF	12,70	1/2	15,50	.610	0,4	1/64		●	●					●									●			●			●	
DCMT150408LF	DCMT432LF	12,70	1/2	15,50	.610	0,8	1/32		●	●			●		●									●			●				

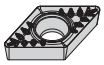
DCMT-MF

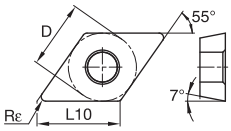




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
DCMT11T304MF	DCMT3251MF	9,53	3/8	11,63	.458	0,4	1/64
DCMT11T308MF	DCMT3252MF	9,53	3/8	11,63	.458	0,8	1/32
DCMT11T312MF	DCMT3253MF	9,53	3/8	11,63	.458	1,2	3/64

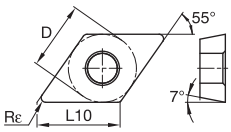
DCMT-MP





ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
DCMT11T304MP	DCMT3251MP	9,53	3/8	11,63	.458	0,4	1/64
DCMT11T308MP	DCMT3252MP	9,53	3/8	11,63	.458	0,8	1/32
DCMT11T312MP	DCMT3253MP	9,53	3/8	11,63	.458	1,2	3/64

DCMT-MW



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
DCMT11T304MW	DCMT3251MW	9,53	3/8	11,63	.458	0,4	1/64
DCMT11T308MW	DCMT3252MW	9,53	3/8	11,63	.458	0,8	1/32


C2–C70


C72–C118


C119–C129


C130–C161

beyond
B10–B23

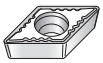

B24–B31

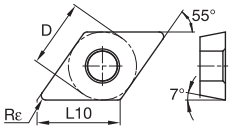

B32–B37

● first choice
○ alternate choice

	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
P	●	●	●	●	●																		●	●
M									●	●	●					●	●		●	●				
K						●	●	●																●
N																						●		
S												●	●	●	●	●	●	●	●	●	●			
H																								

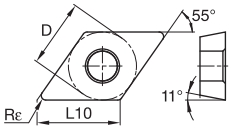
DCMT-UF





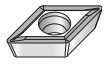
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
DCMT070204UF	DCMT2151UF	6,35	1/4	7,75	.305	0,4	1/64
DCMT11T302UF	DCMT32505UF	9,53	3/8	11,63	.458	0,2	.008
DCMT11T304UF	DCMT3251UF	9,53	3/8	11,63	.458	0,4	1/64
DCMT11T308UF	DCMT3252UF	9,53	3/8	11,63	.458	0,8	1/32

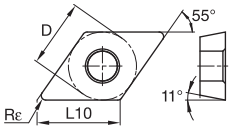
DPGT-HP



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
DPGT070202HP	DPGT21505HP	6,35	1/4	7,75	.305	0,2	.008
DPGT070204HP	DPGT2151HP	6,35	1/4	7,75	.305	0,4	1/64
DPGT070208HP	DPGT2152HP	6,35	1/4	7,75	.305	0,8	1/32
DPGT11T304HP	DPGT3251HP	9,53	3/8	11,63	.458	0,4	1/64
DPGT11T308HP	DPGT3252HP	9,53	3/8	11,63	.458	0,8	1/32

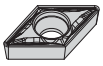
DPGT-LF

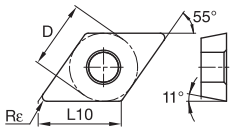




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
DPGT070201LF	DPGT2150LF	6,35	1/4	7,75	.305	0,1	.004
DPGT070202LF	DPGT21505LF	6,35	1/4	7,75	.305	0,2	.008
DPGT070204LF	DPGT2151LF	6,35	1/4	7,75	.305	0,4	1/64
DPGT11T301LF	DPGT3250LF	9,53	3/8	11,63	.458	0,1	.004
DPGT11T302LF	DPGT32505LF	9,53	3/8	11,63	.458	0,2	.008
DPGT11T304LF	DPGT3251LF	9,53	3/8	11,63	.458	0,4	1/64
DPGT11T308LF	DPGT3252LF	9,53	3/8	11,63	.458	0,8	1/32

DPMT-FP

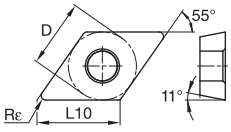




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
DPMT070202FP	DPMT21505FP	6,35	1/4	7,75	.305	0,2	.008
DPMT070204FP	DPMT2151FP	6,35	1/4	7,75	.305	0,4	1/64
DPMT070208FP	DPMT2152FP	6,35	1/4	7,75	.305	0,8	1/32
DPMT11T302FP	DPMT32505FP	9,53	3/8	11,63	.458	0,2	.008
DPMT11T304FP	DPMT3251FP	9,53	3/8	11,63	.458	0,4	1/64
DPMT11T308FP	DPMT3252FP	9,53	3/8	11,63	.458	0,8	1/32

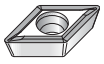
● first choice
○ alternate choice

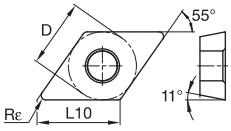
DPMT-FW



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
DPMT070204FW	DPMT2151FW	6,35	1/4	7,75	.305	0,4	1/64			●					●									●							
DPMT070208FW	DPMT2152FW	6,35	1/4	7,75	.305	0,8	1/32			●					●								●	●							
DPMT11T304FW	DPMT3251FW	9,53	3/8	11,63	.458	0,2	.007			●																					
DPMT11T308FW	DPMT3252FW	9,53	3/8	11,63	.458	0,8	1/32			●					●																

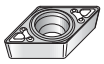
DPMT-LF

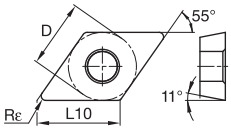




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
DPMT070202LF	DPMT21505LF	6,35	1/4	7,75	.305	0,2	.008																	●			●				
DPMT070204LF	DPMT2151LF	6,35	1/4	7,75	.305	0,4	1/64		●	●	●		●		●	●	●							●			●			●	
DPMT11T302LF	DPMT32505LF	9,53	3/8	11,63	.458	0,2	.008																	●			●			●	
DPMT11T304LF	DPMT3251LF	9,53	3/8	11,63	.458	0,4	1/64	●	●	●	●		●		●	●	●							●			●			●	
DPMT11T308LF	DPMT3252LF	9,53	3/8	11,63	.458	0,8	1/32	●	●	●	●		●		●	●	●							●			●				

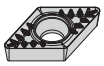
DPMT-MF

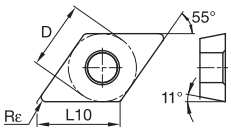




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
DPMT11T308MF	DPMT3252MF	9,53	3/8	11,63	.458	0,8	1/32		●	●				●	●	●	●	●													

DPMT-MP





ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
DPMT11T308MP	DPMT3252MP	9,53	3/8	11,63	.458	0,8	1/32			●					●								●								


C2–C70

C72–C118

C119–C129

C130–C161


B10–B23

B24–B31

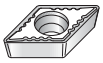
B32–B37

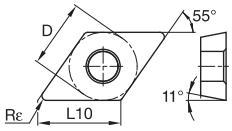
Inserts

● first choice
○ alternate choice

	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
P	●	●	●	●	●																		●	●
M									●	●	●					●	●		●	●				
K						●	●	●																●
N																						●		
S												●	●	●	●	●	●	●	●	●	●			
H																								

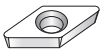
DPMT-UF

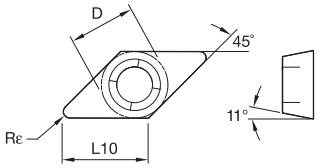




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
DPMT070204UF	DPMT2151UF	6,35	1/4	7,75	.305	0,4	1/64
DPMT11T304UF	DPMT3251UF	9,53	3/8	11,63	.458	0,4	1/64
DPMT11T308UF	DPMT3252UF	9,53	3/8	11,63	.458	0,8	1/32

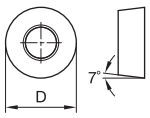
GPCD





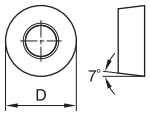
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
GPCD050102	GPCD505	3,97	5/32	5,61	.221	0,2	.007
GPCD050104	GPCD51	3,97	5/32	5,61	.221	0,4	.015

RCGH



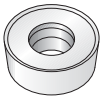
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
RCGH120400	RCGH43	12,70	1/2	—	—	—	—

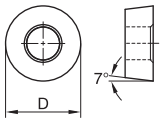
RCGH-MP



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
RCGH09T300MP	RCGH325MP	9,53	3/8	—	—	—	—
RCGH120400MP	RCGH43MP	12,70	1/2	—	—	—	—

RCGT-HP

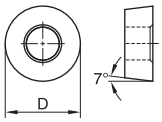




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
RCGT0803M0HP	RCGT0803M0HP	8,00	.315	—	—	—	—
RCGT10T3M0HP	RCGT10T3M0HP	10,00	.394	—	—	—	—
RCGT1204M0HP	RCGT1204M0HP	12,00	.472	—	—	—	—

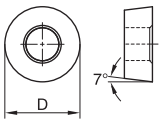
● first choice
○ alternate choice

RCGT-MS

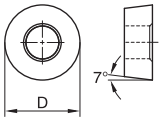
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
RCGT0803M0MS	RCGT0803M0MS	8,00	.315	–	–	–	–																●	●		●	●				
RCGT1204M0MS	RCGT1204M0MS	12,00	.472	–	–	–	–																●	●		●	●				
RCGT1606M0MS	RCGT1606M0MS	16,00	.630	–	–	–	–																●	●		●	●				
RCGX1003M0MS	RCGX1003M0MS	10,00	.394	–	–	–	–																	●		●	●				

RCGT-RP

ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
RCGT0803M0RP	RCGT0803M0RP	8,00	.3150	–	–	–	–			●	●																				
RCGT1204M0RP	RCGT1204M0RP	12,00	.4724	–	–	–	–			●																					
RCGX1003M0RP	RCGX1003M0RP	10,00	.3937	–	–	–	–			●																					
RCMT1204M0RP	RCMT1204M0RP	12,00	.4724	–	–	–	–		●	●				●	●																
RCMT1606M0RP	RCMT1606M0RP	16,00	.6299	–	–	–	–		●	●				●																	
RCMT2006M0RP	RCMT2006M0RP	20,00	.7874	–	–	–	–			●					●		●														
RCMX1003M0RP	RCMX1003M0RP	10,00	.3937	–	–	–	–		●	●	●																				
RCMX2507M0RP	RCMX2507M0RP	25,00	.9844	–	–	–	–			●	●																				
RCMX3209M0RP	RCMX3209M0RP	32,00	1.2598	–	–	–	–			●																					

RCMT

ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
RCMT0602M0	RCMT0602M0	6,00	.236	–	–	–	–			●	●				●		●			●	●		●	●							
RCMT0803M0	RCMT0803M0	8,00	.315	–	–	–	–			●	●				●		●			●			●	●							
RCMT10T3M0	RCMT10T3M0	10,00	.394	–	–	–	–			●	●				●		●			●			●	●							
RCMT1204M0	RCMT1204M0	12,00	.472	–	–	–	–				●				●		●			●			●	●							
RCMT1605M0	RCMT1605M0	16,00	.630	–	–	–	–			●					●		●			●			●	●							
RCMT2006M0	RCMT2006M0	20,00	.787	–	–	–	–			●	●				●		●			●	●		●	●							
RCMT060200	RCMT215	6,35	1/4	–	–	–	–			●							●						●	●							
RCMT09T300	RCMT325	9,53	3/8	–	–	–	–			●					●		●			●			●	●					●		
RCMT120400	RCMT43	12,70	1/2	–	–	–	–								●		●														

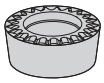
C2–C70 | C72–C118 | C119–C129 | C130–C161 | B10–B23 | B24–B31 | B32–B37

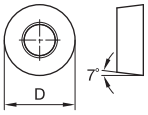
Inserts

● first choice
○ alternate choice

	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
P	●	●	●	●	●										●								●	●
M									●	●	●					●	●		●	●				
K						●	●	●																●
N																						●		
S												●	●	●	●	●	●	●	●	●	●			
H																								

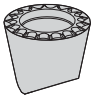
RCMT-MP

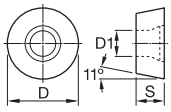




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
RCMT0602M0MP	RCMT0602M0MP	6,00	.236	–	–	–	–
RCMT0803M0MP	RCMT0803M0MP	8,00	.315	–	–	–	–
RCMT10T3M0MP	RCMT10T3M0MP	10,00	.394	–	–	–	–
RCMT1204M0MP	RCMT1204M0MP	12,00	.472	–	–	–	–
RCMT1606M0MP	RCMT1606M0MP	16,00	.630	–	–	–	–
RCMT060200MP	RCMT215MP	6,35	1/4	–	–	–	–
RCMT120400MP	RCMT43MP	12,70	1/2	–	–	–	–

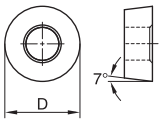
RPGT-MP





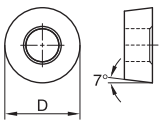
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
RPGT060400MP	RPGT23MP	6,35	1/4	–	–	–	–
RPGT090700MP	RPGT35MP	9,53	3/8	–	–	–	–
RPGT120700MP	RPGT45MP	12,70	1/2	–	–	–	–

RCMT-RH



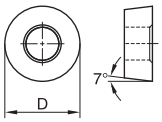
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
RCMT2006M0RH	RCMT2006M0RH	20,00	.7874	–	–	–	–
RCMX2507M0RH	RCMX2507M0RH	25,00	.9844	–	–	–	–
RCMX3209M0RH	RCMX3209M0RH	32,00	1.2598	–	–	–	–

RCMT-RM



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
RCMT2006M0RM	RCMT2006M0RM	20,00	.787	–	–	–	–

RCMT-RP

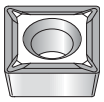


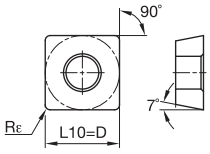
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
RCGT0803M0RP	RCGT0803M0RP	8,00	.3150	–	–	–	–
RCMT1204M0RP	RCMT1204M0RP	12,00	.4724	–	–	–	–
RCMT1606M0RP	RCMT1606M0RP	16,00	.6299	–	–	–	–
RCMT2006M0RP	RCMT2006M0RP	20,00	.7874	–	–	–	–
RCMX1003M0RP	RCMX1003M0RP	10,00	.3937	–	–	–	–
RCMX2507M0RP	RCMX2507M0RP	25,00	.9844	–	–	–	–
RCMX3209M0RP	RCMX3209M0RP	32,00	1.2598	–	–	–	–

● first choice
○ alternate choice

	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
P	●	●	●	●	●											●	●		●	●			●	●
M									●	●	●					●	●		●	●				
K						●	●	●																●
N																						●		
S												●	●	●	●	●	●	●	●	●	●			
H																								

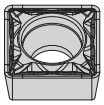
SCMT-11

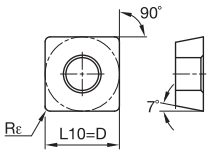




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
SCMT09T30411	SCMT325111	9,53	3/8	9,53	.375	0,4	1/64
SCMT09T30811	SCMT325211	9,53	3/8	9,53	.375	0,8	1/32
SCMT12040411	SCMT43111	12,70	1/2	12,70	.500	0,4	1/64
SCMT12040811	SCMT43211	12,70	1/2	12,70	.500	0,8	1/32

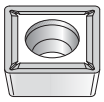
SCMT-FP

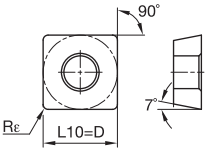




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
SCMT09T304FP	SCMT3251FP	9,53	3/8	9,53	.375	0,4	1/64
SCMT09T308FP	SCMT3252FP	9,53	3/8	9,53	.375	0,8	1/32
SCMT120404FP	SCMT431FP	12,70	1/2	12,70	.500	0,4	1/64
SCMT120408FP	SCMT432FP	12,70	1/2	12,70	.500	0,8	1/32
SCMT120412FP	SCMT433FP	12,70	1/2	12,70	.500	1,2	3/64

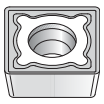
SCMT-LF

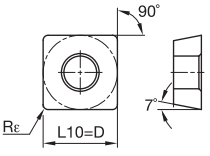




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
SCMT09T304LF	SCMT3251LF	9,53	3/8	9,53	.375	0,4	1/64
SCMT09T308LF	SCMT3252LF	9,53	3/8	9,53	.375	0,8	1/32
SCMT120404LF	SCMT431LF	12,70	1/2	12,70	.500	0,4	1/64
SCMT120408LF	SCMT432LF	12,70	1/2	12,70	.500	0,8	1/32
SCMT120412LF	SCMT433LF	12,70	1/2	12,70	.500	1,2	3/64

SCMT-MF





ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
SCMT09T308MF	SCMT3252MF	9,53	3/8	9,53	.375	0,8	1/32
SCMT120408MF	SCMT432MF	12,70	1/2	12,70	.500	0,8	1/32
SCMT120412MF	SCMT433MF	12,70	1/2	12,70	.500	1,2	3/64


C2–C70


C72–C118


C119–C129


C130–C161

beyond
B10–B23

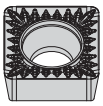

B24–B31

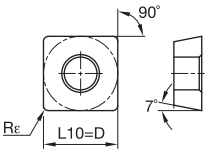

B32–B37

● first choice
○ alternate choice

	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
P	●	●	●	●	●																		●	●
M									●	●	●					●	●		●	●				
K						●	●	●																●
N																						●		
S												●	●	●	●	●	●	●	●	●	●			
H																								

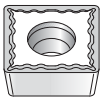
SCMT-MP

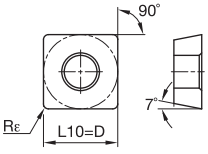




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
SCMT09T304MP	SCMT3251MP	9,53	3/8	9,53	.375	0,4	1/64
SCMT09T308MP	SCMT3252MP	9,53	3/8	9,53	.375	0,8	1/32
SCMT120404MP	SCMT431MP	12,70	1/2	12,70	.500	0,4	1/64
SCMT120408MP	SCMT432MP	12,70	1/2	12,70	.500	0,8	1/32
SCMT120412MP	SCMT433MP	12,70	1/2	12,70	.500	1,2	3/64

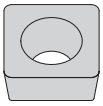
SCMT-UF

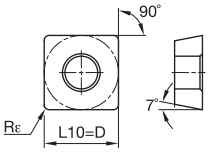




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
SCMT09T308UF	SCMT3252UF	9,53	3/8	9,53	.375	0,8	1/32

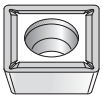
SCMW

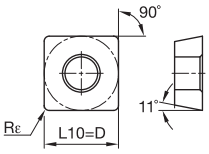




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
SCMW09T304	SCMW3251	9,53	3/8	9,53	.375	0,4	1/64
SCMW09T308	SCMW3252	9,53	3/8	9,53	.375	0,8	1/32
SCMW120408	SCMW432	12,70	1/2	12,70	.500	0,8	1/32
SCMW120412	SCMW433	12,70	1/2	12,70	.500	1,2	3/64

SPGH



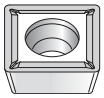


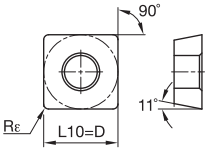
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
SPGH070208	SPGH25152	7,94	5/16	7,00	.276	0,8	1/32
SPGH090308	SPGH322	9,53	3/8	9,53	.375	0,8	1/32

● first choice
○ alternate choice

P	● ● ● ● ●
M	● ● ●
K	● ● ●
N	●
S	● ● ● ● ● ● ● ● ●
H	

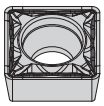
SPGT-LF

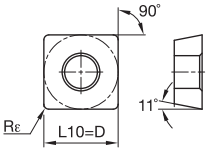




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
SPGT09T304LF	SPGT3251LF	9,53	3/8	9,53	.375	0,4	1/64																●	●			●		●		
SPGT09T308LF	SPGT3252LF	9,53	3/8	9,53	.375	0,8	1/32																●	●			●		●		

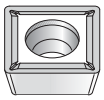
SPMT-FP

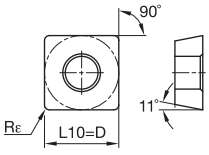




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
SPMT09T304FP	SPMT3251FP	9,53	3/8	9,53	.375	0,4	1/64		●	●					●		●						●			●				
SPMT09T308FP	SPMT3252FP	9,53	3/8	9,53	.375	0,8	1/32	●	●	●					●				●				●			●				●

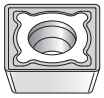
SPMT-LF

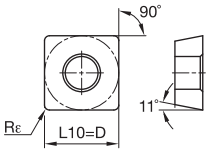




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
SPMT09T304LF	SPMT3251LF	9,53	3/8	9,53	.375	0,4	1/64		●	●					●									●			●			●	
SPMT09T308LF	SPMT3252LF	9,53	3/8	9,53	.375	0,8	1/32		●	●			●	●	●						●			●			●			●	

SPMT-MF





ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
SPMT09T308MF	SPMT3252MF	9,53	3/8	9,53	.375	0,8	1/32		●	●				●	●	●	●														
SPMT120408MF	SPMT432MF	12,70	1/2	12,70	.500	0,8	1/32		●	●	●			●	●	●	●														


C2–C70


C72–C118


C119–C129


C130–C161

beyond
B10–B23

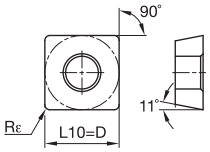

B24–B31


B32–B37

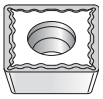
Inserts

● first choice
○ alternate choice

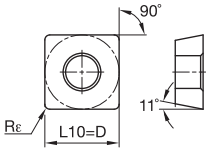
SPMT-MP



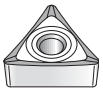
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
SPMT09T308MP	SPMT3252MP	9,53	3/8	9,53	.375	0,8	1/32			●					●	●							●							
SPMT120408MP	SPMT432MP	12,70	1/2	12,70	.500	0,8	1/32			●					●								●							



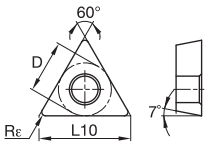
SPMT-UF



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
SPMT09T304UF	SPMT3251UF	9,53	3/8	9,53	.375	0,4	1/64		●															●						

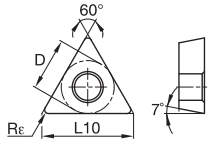


TCGT-HP



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
TCGT110202HP	TCGT21505HP	6,35	1/4	11,00	.433	0,2	.008													●			●	●		●	●		●		
TCGT110204HP	TCGT2151HP	6,35	1/4	11,00	.433	0,4	1/64													●			●	●		●	●		●		
TCGT110208HP	TCGT2152HP	6,35	1/4	11,00	.433	0,8	1/32																●	●		●	●		●		
TCGT16T302HP	TCGT32505HP	9,53	3/8	16,50	.650	0,2	.008																●	●		●	●				
TCGT16T304HP	TCGT3251HP	9,53	3/8	16,50	.650	0,4	1/64													●			●	●		●	●		●		
TCGT16T308HP	TCGT3252HP	9,53	3/8	16,50	.650	0,8	1/32													●			●	●		●	●		●		

TCGT-LF

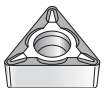


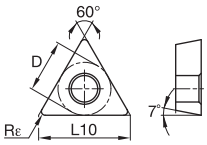
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
TCGT1102X0LF	TCGT215X0LF	6,35	1/4	11,00	.433	0,0	.0015																				●			
TCGT110201LF	TCGT2150LF	6,35	1/4	11,00	.433	0,1	.004																●	●			●			
TCGT110204LF	TCGT2151LF	6,35	1/4	11,00	.433	0,4	1/64																●	●			●			
TCGT16T301LF	TCGT3250LF	9,53	3/8	16,50	.650	0,1	.004																	●			●			
TCGT16T302LF	TCGT32505LF	9,53	3/8	16,50	.650	0,2	.008																●	●						
TCGT16T304LF	TCGT3251LF	9,53	3/8	16,50	.650	0,4	1/64																●	●			●		●	
TCGT16T308LF	TCGT3252LF	9,53	3/8	16,50	.650	0,8	1/32																●	●						

● first choice
○ alternate choice

		KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
P		●	●	●	●	●																		●	●
M										●	●	●					●	●		●	●				
K							●	●	●																●
N																							●		
S													●	●	●	●	●	●	●	●	●	●			
H																									

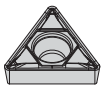
TCMT-11

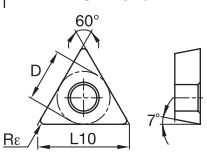




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
TCMT11020411	TCMT215111	6,35	1/4	11,00	.433	0,4	1/64
TCMT16T30411	TCMT325111	9,53	3/8	16,50	.650	0,4	1/64
TCMT16T30811	TCMT325211	9,53	3/8	16,50	.650	0,8	1/32

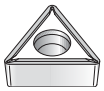
TCMT-FP

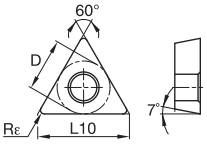




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
TCMT090204FP	TCMT18151FP	5,56	7/32	9,63	.379	0,4	1/64
TCMT090208FP	TCMT18152FP	5,56	7/32	9,63	.379	0,8	1/32
TCMT110202FP	TCMT21505FP	6,35	1/4	11,00	.433	0,2	.008
TCMT110204FP	TCMT2151FP	6,35	1/4	11,00	.433	0,4	1/64
TCMT110208FP	TCMT2152FP	6,35	1/4	11,00	.433	0,8	1/32
TCMT110304FP	TCMT221FP	6,35	1/4	11,00	.433	0,4	1/64
TCMT110308FP	TCMT222FP	6,35	1/4	11,00	.433	0,8	1/32
TCMT110312FP	TCMT223FP	6,35	1/4	11,00	.433	1,2	3/64
TCMT16T302FP	TCMT32505FP	9,53	3/8	16,50	.650	0,2	.008
TCMT16T304FP	TCMT3251FP	9,53	3/8	16,50	.650	0,4	1/64
TCMT16T308FP	TCMT3252FP	9,53	3/8	16,50	.650	0,8	1/32
TCMT16T312FP	TCMT3253FP	9,53	3/8	16,50	.650	1,2	3/64
TCMT220408FP	TCMT432FP	12,70	1/2	22,00	.866	0,8	1/32

TCMT-LF





ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
TCMT110202LF	TCMT21505LF	6,35	1/4	11,00	.433	0,2	.008
TCMT110204LF	TCMT2151LF	6,35	1/4	11,00	.433	0,4	1/64
TCMT110208LF	TCMT2152LF	6,35	1/4	11,00	.433	0,8	1/32
TCMT16T302LF	TCMT32505LF	9,53	3/8	16,50	.650	0,2	.008
TCMT16T304LF	TCMT3251LF	9,53	3/8	16,50	.650	0,4	1/64
TCMT16T308LF	TCMT3252LF	9,53	3/8	16,50	.650	0,8	1/32
TCMT16T312LF	TCMT3253LF	9,53	3/8	16,50	.650	1,2	3/64
TCMT220408LF	TCMT432LF	12,70	1/2	22,00	.866	0,8	1/32


C2–C70


C72–C118


C119–C129


C130–C161

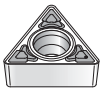
B10–B23

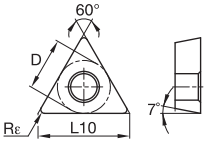

B24–B31


B32–B37

● first choice
○ alternate choice

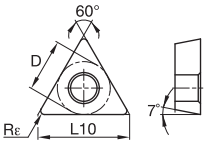
TCMT-MF





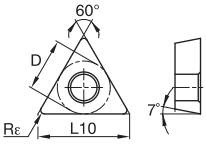
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
TCMT110208MF	TCMT2152MF	6,35	1/4	11,00	.433	0,8	1/32		●	●				●	●	●	●													
TCMT16T308MF	TCMT3252MF	9,53	3/8	16,50	.650	0,8	1/32		●	●	●			●	●	●	●	●												
TCMT16T312MF	TCMT3253MF	9,53	3/8	16,50	.650	1,2	3/64		●	●				●	●		●	●												

TCMT-MP



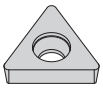
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
TCMT110208MP	TCMT2152MP	6,35	1/4	11,00	.433	0,8	1/32			●					●								●							
TCMT16T304MP	TCMT3251MP	9,53	3/8	16,50	.650	0,4	1/64			●					●	●	●						●							
TCMT16T308MP	TCMT3252MP	9,53	3/8	16,50	.650	0,8	1/32		●	●					●	●	●						●							
TCMT16T312MP	TCMT3253MP	9,53	3/8	16,50	.650	1,2	3/64			●					●		●													

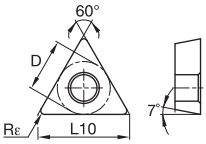
TCMT-UF



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
TCMT110204UF	TCMT2151UF	6,35	1/4	11,00	.433	0,4	1/64		●	●														●						
TCMT110208UF	TCMT2152UF	6,35	1/4	11,00	.433	0,8	1/32		●	●														●						
TCMT16T308UF	TCMT3252UF	9,53	3/8	16,50	.650	0,8	1/32		●	●														●						

TCMW



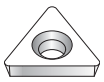


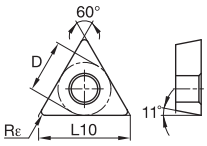
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
TCMW16T304	TCMW3251	9,53	3/8	16,50	.650	0,4	1/64								●															
TCMW16T308	TCMW3252	9,53	3/8	16,50	.650	0,8	1/32								●															

● first choice
○ alternate choice

	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
P	●	●	●	●	●											●	●		●	●			●	●
M									●	●	●					●	●		●	●				
K						●	●	●																●
N																						●		
S												●	●	●	●	●	●	●	●	●	●			
H																								

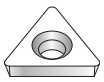
TPCB

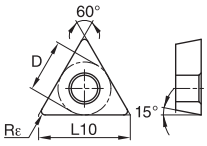




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
TPCB160302	TD6P05	9,53	3/8	16,50	.650	0,2	.007
TPCB160304	TD6P1	9,53	3/8	16,50	.650	0,4	1/64
TPCB160308	TD6P2	9,53	3/8	16,50	.650	0,8	.031
TD6P	TD6P	9,53	3/8	16,50	.650	0,8	1/32

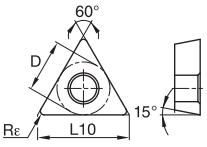
TDHB





ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
TDHB07T12S0	TDHB12807501	4,06	.160	7,04	.277	0,1	.002
TDHB07T1202	TDHB12807505	4,06	.160	7,04	.277	0,2	.007
TDHB07T1204	TDHB1280751	4,06	.160	7,04	.277	0,4	1/64
TDHB07T1208	TDHB1280752	4,06	.160	7,04	.277	0,8	1/32

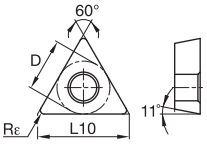
TDHH



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
	right hand						
TDHH07T1202R	TDHH12807505R	4,06	.160	7,04	.277	0,2	.007
TDHH07T1204R	TDHH1280751R	4,06	.160	7,04	.277	0,4	1/64
	left hand						
TDHH07T1202L	TDHH12807505L	4,06	.160	7,04	.277	0,2	.007
TDHH07T1204L	TDHH1280751L	4,06	.160	7,04	.277	0,4	1/64

NOTE: Right-hand insert used left-hand bars. Left-hand insert used right-hand bars.

TPCG



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
TPCG110202L	TPCG2205L	6,35	1/4	11,00	.433	0,2	.007
TPCG110204L	TPCG221L	6,35	1/4	11,00	.433	0,4	.15
TPCG110208L	TPCG222L	6,35	1/4	11,00	.433	0,8	.31


C2–C70


C72–C118


C119–C129


C130–C161

B10–B23

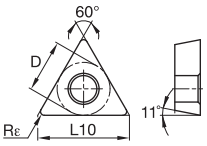

B24–B31


B32–B37

● first choice
○ alternate choice

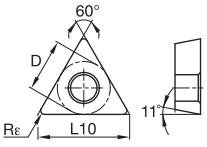
		KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
P		●	●	●	●	●																		●	●
M										●	●	●					●	●		●	●				
K							●	●	●																●
N																							●		
S													●	●	●	●	●	●	●	●	●	●			
H																									

TPCH



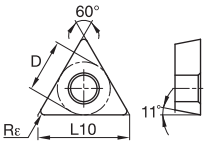
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
TPCH110202	TPCH2205	6,50	.256	11,26	.443	0,2	.007
TPCH110204	TPCH221	6,50	.256	11,26	.443	0,4	.015

TPGH



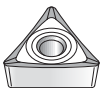
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
TPGH160304	TPGH321	9,53	3/8	16,50	.650	0,4	1/64
TPGH160308	TPGH322	9,53	3/8	16,50	.650	0,8	1/32

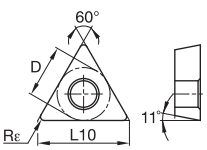
TPGM



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
TPGT110204K	TPGM2151	6,35	1/4	11,00	.433	0,4	1/64
TPGT110208K	TPGM2152	6,35	1/4	11,00	.433	0,8	1/32
TPGH16T304	TPGM3251	9,53	3/8	16,50	.650	0,4	1/64

TPGT-HP

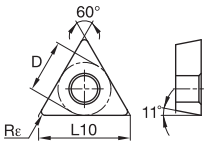




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
TPGT110202HP	TPGT21505HP	6,35	1/4	11,00	.433	0,2	.008
TPGT110204HP	TPGT2151HP	6,35	1/4	11,00	.433	0,4	1/64
TPGT110208HP	TPGT2152HP	6,35	1/4	11,00	.433	0,8	1/32
TPGT16T302HP	TPGT32505HP	9,53	3/8	16,50	.650	0,2	.008
TPGT16T304HP	TPGT3251HP	9,53	3/8	16,50	.650	0,4	1/64
TPGT16T308HP	TPGT3252HP	9,53	3/8	16,50	.650	0,8	1/32

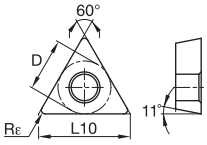
● first choice
○ alternate choice

TPGT-LF



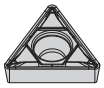
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
TPGT090202LF	TPGT181505LF	5,56	7/32	9,63	.379	0,2	.008																●	●			●		●		
TPGT090204LF	TPGT18151LF	5,56	7/32	9,63	.379	0,4	1/64																●	●			●		●		
TPGT110201LF	TPGT2150LF	6,35	1/4	11,00	.433	0,1	.004																●	●			●				
TPGT110202LF	TPGT21505LF	6,35	1/4	11,00	.433	0,2	.008																●	●			●		●		
TPGT110204LF	TPGT2151LF	6,35	1/4	11,00	.433	0,4	1/64																●	●			●		●		
TPGT110208LF	TPGT2152LF	6,35	1/4	11,00	.433	0,8	1/32																●	●			●		●		
TPGT16T304LF	TPGT3251LF	9,53	3/8	16,50	.650	0,4	1/64																●	●			●		●		
TPGT16T308LF	TPGT3252LF	9,53	3/8	16,50	.650	0,8	1/32																●	●			●		●		

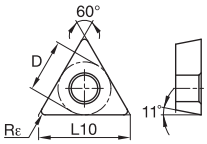
TPHB



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
TPHB110202	TPHB21505	6,35	1/4	11,00	.433	0,2	.007																●								
TPHB160304	TPHB321	9,53	3/8	16,50	.650	0,4	.015																●								

TPMT-FP





ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
TPMT090204FP	TPMT18151FP	5,56	7/32	9,63	.379	0,4	1/64																●								
TPMT090208FP	TPMT18152FP	5,56	7/32	9,63	.379	0,8	1/32		●	●						●	●		●				●			●					●
TPMT110202FP	TPMT21505FP	6,35	1/4	11,00	.433	0,2	.008																●			●					
TPMT110204FP	TPMT2151FP	6,35	1/4	11,00	.433	0,4	1/64		●	●					●	●	●		●				●			●					
TPMT110208FP	TPMT2152FP	6,35	1/4	11,00	.433	0,8	1/32		●	●					●	●	●						●								●
TPMT110304FP	TPMT221FP	6,35	1/4	11,00	.433	0,4	1/64																●			●					
TPMT110308FP	TPMT222FP	6,35	1/4	11,00	.433	0,8	1/32																●								
TPMT16T304FP	TPMT3251FP	9,53	3/8	16,50	.650	0,4	1/64		●	●					●		●						●			●					●
TPMT16T308FP	TPMT3252FP	9,53	3/8	16,50	.650	0,8	1/32	●	●	●					●		●						●			●					●
TPMT16T312FP	TPMT3253FP	9,53	3/8	16,50	.650	1,2	3/64																●								●
TPMT220408FP	TPMT432FP	12,70	1/2	22,00	.866	0,8	1/32			●													●								


C2–C70


C72–C118


C119–C129


C130–C161

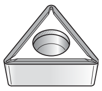
beyond
B10–B23

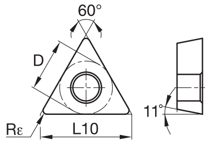

B24–B31


B32–B37

● first choice
○ alternate choice

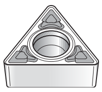
		KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
P		●	●	●	●	●																		●	●
M										●	●	●					●	●		●	●				
K							●	●	●																●
N																							●		
S													●	●	●	●	●	●	●	●	●	●			
H																									

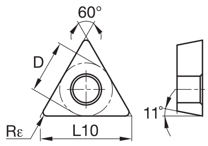




TPMT-LF

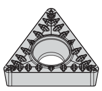
ISO catalog number	ANSI catalog number	D in	D mm	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
TPMT090202LF	TPMT181505LF	7/32	5,560	9,63	.379	0,2	.008																	●			●			●	
TPMT090204LF	TPMT18151LF	7/32	5,560	9,63	.379	0,4	1/64	●	●	●			●	●		●	●			●	●			●			●			●	
TPMT110202LF	TPMT21505LF	1/4	6,350	11,00	.433	0,2	.008																	●			●			●	
TPMT110204LF	TPMT2151LF	1/4	6,350	11,00	.433	0,4	1/64	●	●	●			●	●	●	●	●			●	●			●			●			●	
TPMT110208LF	TPMT2152LF	1/4	6,350	11,00	.433	0,8	1/32	●	●	●			●	●	●	●	●							●			●			●	
TPMT16T304LF	TPMT3251LF	3/8	9,525	16,50	.650	0,4	1/64		●	●			●	●	●	●	●							●			●			●	
TPMT16T308LF	TPMT3252LF	3/8	9,525	16,50	.650	0,8	1/32	●	●	●			●	●	●	●	●	●						●			●			●	
TPMT16T312LF	TPMT3253LF	3/8	9,525	16,50	.650	1,2	3/64						●											●						●	
TPMT220408LF	TPMT432LF	1/2	12,700	22,00	.866	0,8	1/32						●		●									●			●				

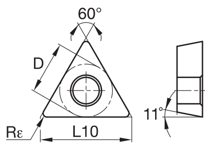




TPMT-MF

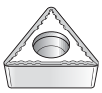
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
TPMT110208MF	TPMT2152MF	6,35	1/4	11,00	.433	0,8	1/32		●	●				●	●		●														
TPMT16T308MF	TPMT3252MF	9,53	3/8	16,50	.650	0,8	1/32		●	●	●			●	●	●	●														
TPMT16T312MF	TPMT3253MF	9,53	3/8	16,50	.650	1,2	3/64			●				●	●		●														

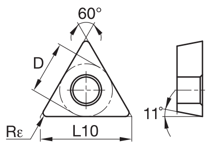




TPMT-MP

ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
TPMT110208MP	TPMT2152MP	6,35	1/4	11,00	.433	0,8	1/32			●													●								
TPMT16T308MP	TPMT3252MP	9,53	3/8	16,50	.650	0,8	1/32			●					●																
TPMT16T312MP	TPMT3253MP	9,53	3/8	16,50	.650	1,2	3/64			●					●																

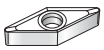




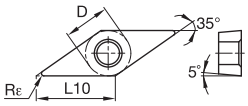
TPMT-UF

ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
TPMT110202UF	TPMT21505UF	6,35	1/4	11,00	.433	0,2	.008	●																●							
TPMT110204UF	TPMT2151UF	6,35	1/4	11,00	.433	0,4	1/64	●	●															●							
TPMT16T304UF	TPMT3251UF	9,53	3/8	16,50	.650	0,4	1/64		●															●							
TPMT16T308UF	TPMT3252UF	9,53	3/8	16,50	.650	0,8	1/32		●															●							

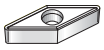
● first choice
○ alternate choice



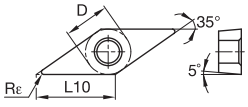
VBGT-HP



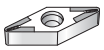
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
VBGT110302HP	VBGT2205HP	6,35	1/4	11,07	.436	0,2	.008																●	●		●	●		●		
VBGT110304HP	VBGT221HP	6,35	1/4	11,07	.436	0,4	1/64																●	●		●	●		●		
VBGT160404HP	VBGT331HP	9,53	3/8	16,61	.654	0,4	1/64													●	●		●	●		●	●		●		
VBGT160408HP	VBGT332HP	9,53	3/8	16,61	.654	0,8	1/32													●	●		●	●		●	●		●		



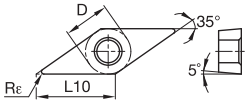
VBGT-LF



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
VBGT1103X0LF	VBGT22X0LF	6,35	1/4	11,07	.436	0,0	.0015																				●				
VBGT110301LF	VBGT220LF	6,35	1/4	11,07	.436	0,1	.004																●	●			●		●		
VBGT110302LF	VBGT2205LF	6,35	1/4	11,07	.436	0,2	.008														●		●	●			●		●		
VBGT110304LF	VBGT221LF	6,35	1/4	11,07	.436	0,4	1/64													●			●	●			●		●		
VBGT1604X0LF	VBGT33X0LF	9,53	3/8	16,61	.654	0,0	.0015																				●				
VBGT160401LF	VBGT330LF	9,53	3/8	16,61	.654	0,1	.004																●	●			●		●		
VBGT160402LF	VBGT3305LF	9,53	3/8	16,61	.654	0,2	.008													●			●	●			●		●		
VBGT160404LF	VBGT331LF	9,53	3/8	16,61	.654	0,4	1/64													●			●	●			●		●		



VBMT-11



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
VBMT11030211	VBMT220511	6,35	1/4	11,07	.436	0,2	.008																							●	
VBMT11030411	VBMT22111	6,35	1/4	11,07	.436	0,4	1/64																							●	
VBMT16040411	VBMT33111	9,53	3/8	16,61	.654	0,4	1/64																							●	
VBMT16040811	VBMT33211	9,53	3/8	16,61	.654	0,8	1/32																							●	


C2–C70

C72–C118

C119–C129

C130–C161


B10–B23

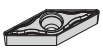
B24–B31

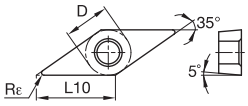
B32–B37

Inserts

● first choice
○ alternate choice

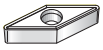
VBMT-FP

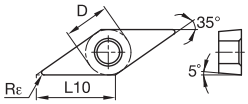




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
VBMT110302FP	VBMT2205FP	6,35	1/4	11,07	.436	0,2	.008			●													●							
VBMT110304FP	VBMT221FP	6,35	1/4	11,07	.436	0,4	1/64		●	●						●	●		●				●			●				●
VBMT110308FP	VBMT222FP	6,35	1/4	11,07	.436	0,8	1/32			●						●	●		●				●			●				
VBMT160402FP	VBMT3305FP	9,53	3/8	16,61	.654	0,2	.008			●							●		●				●			●				●
VBMT160404FP	VBMT331FP	9,53	3/8	16,61	.654	0,4	1/64	●	●	●					●	●	●		●				●			●				●
VBMT160408FP	VBMT332FP	9,53	3/8	16,61	.654	0,8	1/32	●	●	●					●	●	●		●				●			●				●
VBMT160412FP	VBMT333FP	9,53	3/8	16,61	.654	1,2	3/64			●																				

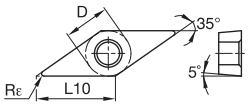
VBMT-LF





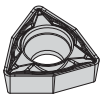
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
VBMT110302LF	VBMT2205LF	6,35	1/4	11,07	.436	0,2	.008													●				●						●	
VBMT110304LF	VBMT221LF	6,35	1/4	11,07	.436	0,4	1/64	●	●	●	●		●		●	●	●			●				●			●			●	
VBMT110308LF	VBMT222LF	6,35	1/4	11,07	.436	0,8	1/32	●	●	●	●		●		●		●			●				●			●			●	
VBMT160402LF	VBMT3305LF	9,53	3/8	16,61	.654	0,2	.008													●	●			●			●			●	
VBMT160404LF	VBMT331LF	9,53	3/8	16,61	.654	0,4	1/64	●	●	●	●		●	●	●	●	●	●		●	●			●			●			●	
VBMT160408LF	VBMT332LF	9,53	3/8	16,61	.654	0,8	1/32	●	●	●	●		●	●	●	●	●	●		●	●			●			●			●	
VBMT160412LF	VBMT333LF	9,53	3/8	16,61	.654	1,2	3/64						●		●																

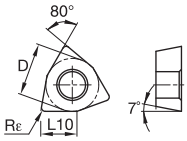
VBMT-MP



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
VBMT160404MP	VBMT331MP	9,53	3/8	16,61	.654	0,4	1/64			●					●		●													
VBMT160408MP	VBMT332MP	9,53	3/8	16,61	.654	0,8	1/32			●					●		●													

WCMT-FP

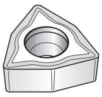
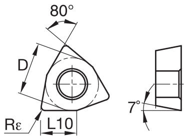




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
WCMT040204FP	WCMT2151FP	6,35	1/4	4,34	.171	0,4	1/64																●			●				
WCMT06T308FP	WCMT3252FP	9,53	3/8	6,52	.257	0,8	1/32			●													●							

● first choice
○ alternate choice

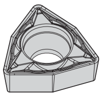
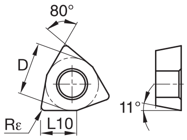
	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
P	●	●	●	●	●																		●	●
M									●	●	●					●	●		●	●				
K						●	●	●																●
N																						●		
S												●	●	●	●	●	●	●	●	●	●			
H																								

WCMT-LF

ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
WCMT040204LF	WCMT2151LF	6,35	1/4	4,34	.171	0,4	1/64
WCMT06T308LF	WCMT3252LF	9,53	3/8	6,52	.257	0,8	1/32

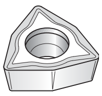
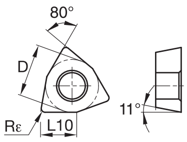
ISO catalog number	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
WCMT040204LF																	●			●				
WCMT06T308LF																	●			●			●	

WPMT-FP

ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
WPMTS3T104FP	WPMT15121FP	4,76	3/16	3,25	.128	0,4	1/64
WPMT040204FP	WPMT2151FP	6,35	1/4	4,34	.171	0,4	1/64
WPMT06T304FP	WPMT3251FP	9,53	3/8	6,52	.257	0,4	1/64
WPMT06T308FP	WPMT3252FP	9,53	3/8	6,52	.257	0,8	1/32

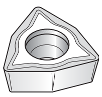
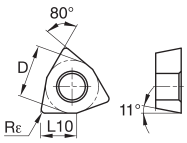
ISO catalog number	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
WPMTS3T104FP			●													●								
WPMT040204FP			●							●						●								
WPMT06T304FP		●							●	●						●								
WPMT06T308FP		●	●							●						●								

WPGT-UF

ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
WPGTS30101UF	WPGT1510UF	4,76	3/16	3,26	.128	0,1	.004
WPGTS30102UF	WPGT15105UF	4,76	3/16	3,26	.128	0,2	.008
WPGT040202UF	WPGT21505UF	6,35	1/4	4,34	.171	0,2	.008

ISO catalog number	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
WPGTS30101UF																●	●							
WPGTS30102UF																●	●							
WPGT040202UF																●								

WPMT-LF

ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
WPMTS3T104LF	WPMT15121LF	4,76	3/16	3,25	.128	0,4	1/64
WPMT040204LF	WPMT2151LF	6,35	1/4	4,34	.171	0,4	1/64
WPMT06T304LF	WPMT3251LF	9,53	3/8	6,52	.257	0,4	1/64
WPMT06T308LF	WPMT3252LF	9,53	3/8	6,52	.257	0,8	1/32

ISO catalog number	KCP05	KCP10	KCP25	KCP30	KCP40	KCK05	KCK15	KCK20	KCM15	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KC5010	KC5510	KCU25	KC5025	KC5525	KC5410	KT315	KTP10
WPMTS3T104LF																	●			●				
WPMT040204LF		●				●		●									●			●				
WPMT06T304LF		●	●					●	●	●							●							
WPMT06T308LF		●	●			●		●	●	●							●			●				


C2–C70


C72–C118


C119–C129


C130–C161

beyond
B10–B23


B24–B31


B32–B37

Ceramic Inserts

Primary Application

Kennametal's advanced materials, utilizing Beyond™ technology, offer greater wear resistance and toughness, depending on the job.

KYK ceramic inserts are the first choice for high speed, continuous, and lightly interrupted turning applications in cast iron materials. Benefits include improved fracture toughness, better wear resistance, and extended application range. Combining KYK10™ and CVD-coated KYK25™ with our other ceramic grades for cast iron, Kennametal provides a complete, high-performance ceramic portfolio that can reduce machining cycle times and lower manufacturing costs.

KYS ceramic inserts are the first choice for high-speed applications in high-temp alloys. The multilayer coating offers enhanced chemical wear resistance versus uncoated grades. A superior sialon ceramic substrate provides excellent depth of cut notching resistance versus whisker-reinforced ceramics.

Features and Benefits

KYK10

- Improved wear resistance and toughness with 20% longer tool life than current KY1310™.
- Best suited for continuous turning of cast iron materials and in lightly interrupted cuts.
- Available in Kenloc,™ Kendex,™ and Top Notch™ turning insert styles.

KYK25

- 12 micron thick coating provides excellent wear resistance and pre-coat treatment allows for very consistent tool life and performance in cast iron applications.
- Up to 30% longer tool life vs. competitors' CVD-coated ceramic grades.
- Available in Kenloc, Kendex, and Top Notch turning insert styles.

KY3500™

- The industry standard for high-speed turning.
- Excellent for roughing to finishing operations in wet or dry cuts with speeds up to 3,400 SFM.
- Performs well in difficult interrupted cuts in ductile or malleable cast iron (<70 KSI tensile strength) at speeds of 900–1,600 SFM.

KYS25™

- Excellent surface finish, lower cutting forces, higher speeds.
- Advanced CVD coating provides excellent chemical and depth-of-cut notch resistance.

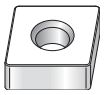
KYS30™

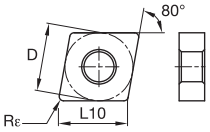
- Long, consistent tool life.
- Excellent toughness and depth-of-cut notch resistance.
- Performs in a wide variety of machining conditions, including interrupted cuts and applications involving scale.

● first choice
○ alternate choice

P	
M	
K	
N	
S	
H	

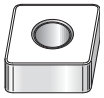
CNGA

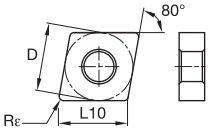




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KYS25	KYS30	KY4300	KYK10	KYK25	KY3500	KY4400
CNGA120404E	CNGA431	12,70	1/2	12,90	.508	0,4	1/64							●
CNGA120408E	CNGA432E	12,70	1/2	12,90	.508	0,8	1/32	●	●					
CNGA120408T01020	CNGA432T0420	12,70	1/2	12,90	.508	0,8	1/32	●	●	●				
CNGA120408T02020	CNGA432T0820	12,70	1/2	12,90	.508	0,8	1/32				●	●	●	
CNGA120412E	CNGA433	12,70	1/2	12,90	.508	1,2	3/64							●
CNGA120412E	CNGA433E	12,70	1/2	12,90	.508	1,2	3/64	●	●					
CNGA120412T01020	CNGA433T0420	12,70	1/2	12,90	.508	1,2	3/64	●	●					●
CNGA120412T02020	CNGA433T0820	12,70	1/2	12,90	.508	1,2	3/64				●	●	●	
CNGA120416E	CNGA434E	12,70	1/2	12,90	.508	1,6	1/16	●	●					
CNGA120416T01020	CNGA434T0420	12,70	1/2	12,90	.508	1,6	1/16							●
CNGA120416T02020	CNGA434T0820	12,70	1/2	12,90	.508	1,6	1/16				●	●	●	
CNGA160612T01020	CNGA543T0420	15,88	5/8	16,12	.635	1,2	3/64							●
CNGA160612T02020	CNGA543T0820	15,88	5/8	16,12	.635	1,2	3/64					●	●	
CNGA160616T02020	CNGA544T0820	15,88	5/8	16,12	.635	1,6	1/16					●	●	
CNGA190612T01020	CNGA643T0420	19,05	3/4	19,34	.762	1,2	3/64	●	●					
CNGA190612T02020	CNGA643T0820	19,05	3/4	19,34	.762	1,2	3/64			●		●	●	
CNGA190616T01020	CNGA644T0420	19,05	3/4	19,34	.762	1,6	1/16							●
CNGA190616T02020	CNGA644T0820	19,05	3/4	19,34	.762	1,6	1/16					●	●	

CNGA-FW



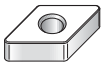


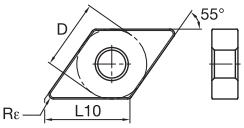
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
CNGA120404EFW	CNGA431FW	12,70	1/2	12,90	.508	0,4	1/64
CNGA120408EFW	CNGA432FW	12,70	1/2	12,90	.508	0,8	1/32
CNGA120408T01020FW	CNGA432T0420FW	12,70	1/2	12,90	.508	0,8	1/32
CNGA120412EFW	CNGA433FW	12,70	1/2	12,90	.508	1,2	3/64
CNGA120412T01020FW	CNGA433T0420FW	12,70	1/2	12,90	.508	1,2	3/64
CNGA120412T02020FW	CNGA433T0820FW	12,70	1/2	12,90	.508	1,2	3/64
CNGA120416T01020FW	CNGA434T0420FW	12,70	1/2	12,90	.508	1,6	1/16

● first choice
○ alternate choice

	KYS25	KYS30	KY4300	KYK10	KYK25	KY3500	KY4400
P							
M							
K				●	●	●	
N							
S	●	●	●				
H	○		●				●

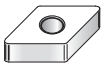
DNGA

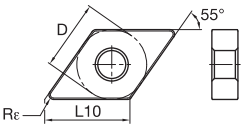




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KYS25	KYS30	KY4300	KYK10	KYK25	KY3500	KY4400
DNGA150404E	DNGA431	12,70	1/2	15,50	.610	0,4	1/64							●
DNGA150404T01020	DNGA431T0420	12,70	1/2	15,50	.610	0,4	1/64							●
DNGA150408E	DNGA432	12,70	1/2	15,50	.610	0,8	1/32							●
DNGA150408T01020	DNGA432T0420	12,70	1/2	15,50	.610	0,8	1/32	●	●	●				●
DNGA150408T02020	DNGA432T0820	12,70	1/2	15,50	.610	0,8	1/32				●	●	●	
DNGA150412T01020	DNGA433T0420	12,70	1/2	15,50	.610	1,2	3/64	●	●					●
DNGA150412T02020	DNGA433T0820	12,70	1/2	15,50	.610	1,2	3/64				●	●	●	
DNGA150416T01020	DNGA434T0420	12,70	1/2	15,50	.610	1,6	1/16							●
DNGA150416T02020	DNGA434T0820	12,70	1/2	15,50	.610	1,6	1/16				●	●	●	
DNGA150424T01020	DNGA436T0420	12,70	1/2	15,50	.610	2,4	3/32			●				
DNGA150608T01020	DNGA442T0420	12,70	1/2	15,50	.610	0,8	1/32							●
DNGA150608T02020	DNGA442T0820	12,70	1/2	15,50	.610	0,8	1/32						●	
DNGA150612T01020	DNGA443T0420	12,70	1/2	15,50	.610	1,2	3/64							●
DNGA150612T02020	DNGA443T0820	12,70	1/2	15,50	.610	1,2	3/64						●	
DNGA150616T01020	DNGA444T0420	12,70	1/2	15,50	.610	1,6	1/16							●
DNGA150616T02020	DNGA444T0820	12,70	1/2	15,50	.610	1,6	1/16						●	

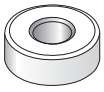
DNGA-FW

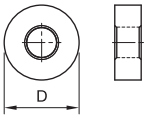




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KYS25	KYS30	KY4300	KYK10	KYK25	KY3500	KY4400
DNGA150408EFW	DNGA432FW	12,70	1/2	15,50	.610	0,8	1/32							●
DNGA150412EFW	DNGA433FW	12,70	1/2	15,50	.610	1,2	3/64							●

RNGA





ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KYS25	KYS30	KY4300	KYK10	KYK25	KY3500	KY4400
RNGA120400T01525	RNGA43T0625	12,70	1/2	–	–	–	–							●


C2–C70


C72–C118


C119–C129


C130–C161

B10–B23

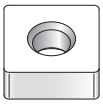

B24–B31

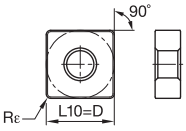

B32–B37

● first choice
○ alternate choice

P	
M	
K	
N	
S	
H	

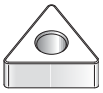
SNGA

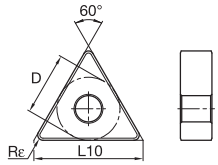




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KYS25	KYS30	KY4300	KYK10	KYK25	KY3500	KY4400
SNGA120408T01020	SNGA432T0420	12,70	1/2	12,70	.500	0,8	1/32							●
SNGA120408T02020	SNGA432T0820	12,70	1/2	12,70	.500	0,8	1/32				●	●	●	
SNGA120412T01020	SNGA433T0420	12,70	1/2	12,70	.500	1,2	3/64	●	●					●
SNGA120412T02020	SNGA433T0820	12,70	1/2	12,70	.500	1,2	3/64				●	●	●	
SNGA120416T01020	SNGA434T0420	12,70	1/2	12,70	.500	1,6	1/16							●
SNGA120416T02020	SNGA434T0820	12,70	1/2	12,70	.500	1,6	1/16					●	●	
SNGA150612T02020	SNGA543T	15,88	5/8	15,88	.625	1,2	3/64						●	
SNGA150612T02020	SNGA543T0820	15,88	5/8	15,88	.625	1,2	3/64					●		
SNGA150616T02020	SNGA544T	15,88	5/8	15,88	.625	1,6	1/16						●	
SNGA190612T02020	SNGA643T0820	19,05	3/4	19,05	.750	1,2	3/64						●	
SNGA190616T02020	SNGA644T0820	19,05	3/4	19,05	.750	1,6	1/16						●	

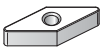
TNGA

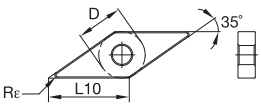




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KYS25	KYS30	KY4300	KYK10	KYK25	KY3500	KY4400
TNGA160404E	TNGA331	9,53	3/8	16,50	.650	0,4	1/64							●
TNGA160404T01020	TNGA331T0420	9,53	3/8	16,50	.650	0,4	1/64							●
TNGA160408E	TNGA332	9,53	3/8	16,50	.650	0,8	1/32							●
TNGA160408T01020	TNGA332T0420	9,53	3/8	16,50	.650	0,8	1/32							●
TNGA160408T02020	TNGA332T0820	9,53	3/8	16,50	.650	0,8	1/32				●		●	
TNGA160412T01020	TNGA333T0420	9,53	3/8	16,50	.650	1,2	3/64							●
TNGA160412T02020	TNGA333T0820	9,53	3/8	16,50	.650	1,2	3/64						●	
TNGA160416T02020	TNGA334T0820	9,53	3/8	16,50	.650	1,6	1/16					●	●	
TNGA220408T01020	TNGA432T0420	12,70	1/2	22,00	.866	0,8	1/32							●
TNGA220412T01020	TNGA433T0420	12,70	1/2	22,00	.866	1,2	3/64							●
TNGA220412T02020	TNGA433T0820	12,70	1/2	22,00	.866	1,2	3/64					●		
TNGA220416T02020	TNGA434T	12,70	1/2	22,00	.866	1,6	1/16						●	

VNGA



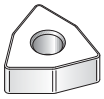


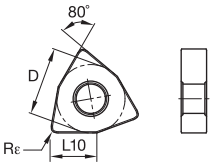
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KYS25	KYS30	KY4300	KYK10	KYK25	KY3500	KY4400
VNGA160404T01020	VNGA331T0420	9,53	3/8	16,61	.654	0,4	1/64							●
VNGA160408T01020	VNGA332T0420	9,53	3/8	16,61	.654	0,8	1/32							●
VNGA160408T02020	VNGA332T0820	9,53	3/8	16,61	.654	0,8	1/32						●	
VNGA220408T02020	VNGA432T0820	12,70	1/2	22,14	.872	0,8	1/32					●		

● first choice
○ alternate choice

	KYS25	KYS30	KY4300	KYK10	KYK25	KY3500	KY4400
P							
M							
K				●	●	●	
N							
S	●	●	●				
H	○		●				●

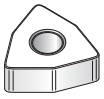
WNGA

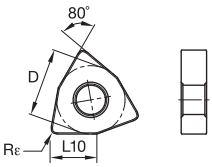




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KYS25	KYS30	KY4300	KYK10	KYK25	KY3500	KY4400
WNGA080404T01020	WNGA431T0420	12,70	1/2	8,69	.342	0,4	1/64							●
WNGA080408EFW	WNGA432FW	12,70	1/2	8,69	.342	0,8	1/32							●
WNGA080408T01020	WNGA432T0420	12,70	1/2	8,69	.342	0,8	1/32		●					●
WNGA080408T01020FW	WNGA432T0420FW	12,70	1/2	8,69	.342	0,8	1/32						●	
WNGA080408T02020	WNGA432T0820	12,70	1/2	8,69	.342	0,8	1/32					●	●	
WNGA080412EFW	WNGA433FW	12,70	1/2	8,69	.342	1,2	3/64							●
WNGA080412T01020	WNGA433T0420	12,70	1/2	8,69	.342	1,2	3/64							●
WNGA080412T01020FW	WNGA433T0420FW	12,70	1/2	8,69	.342	1,2	3/64						●	
WNGA080412T02020	WNGA433T0820	12,70	1/2	8,69	.342	1,2	3/64				●	●	●	
WNGA080416T01020	WNGA434T0420	12,70	1/2	8,69	.342	1,6	1/16		●					
WNGA080416T02020	WNGA434T0820	12,70	1/2	8,69	.342	1,6	1/16					●	●	

WNGA-FW





ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KYS25	KYS30	KY4300	KYK10	KYK25	KY3500	KY4400
WNGA080408EFW	WNGA432FW	12,70	1/2	8,69	.342	0,8	1/32							●
WNGA080408T01020FW	WNGA432T0420FW	12,70	1/2	8,69	.342	0,8	1/32						●	
WNGA080412EFW	WNGA433FW	12,70	1/2	8,69	.342	1,2	3/64							●
WNGA080412T01020FW	WNGA433T0420FW	12,70	1/2	8,69	.342	1,2	3/64						●	


C2–C70


C72–C118


C119–C129


C130–C161

beyond
B10–B23

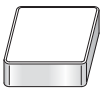

B24–B31

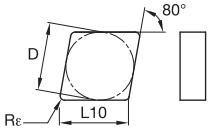

B32–B37

● first choice
○ alternate choice

		KYS25	KYS30	KY4300	KYK10	KYK25	KY3500	KY4400
P								
M								
K					●	●	●	
N								
S		●	●	●				
H		○		●				●

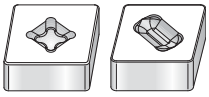
CNG

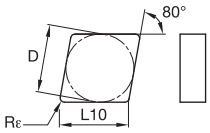




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
CNGN120404T01020	CNG431T0420	12,70	1/2	12,90	.508	0,4	1/64
CNGN120408T01020	CNG432T0420	12,70	1/2	12,90	.508	0,8	1/32
CNGN120408T02020	CNG432T0820	12,70	1/2	12,90	.508	0,8	1/32
CNGN120412E	CNG433E	12,70	1/2	12,90	.508	1,2	3/64
CNGN120412T01020	CNG433T0420	12,70	1/2	12,90	.508	1,2	3/64
CNGN120412T02020	CNG433T0820	12,70	1/2	12,90	.508	1,2	3/64
CNGN120416E	CNG434E	12,70	1/2	12,90	.508	1,6	1/16
CNGN120416T01020	CNG434T0420	12,70	1/2	12,90	.508	1,6	1/16
CNGN120416T02020	CNG434T0820	12,70	1/2	12,90	.508	1,6	1/16
CNGN120708T01020	CNG452T0420	12,70	1/2	12,90	.508	0,8	1/32
CNGN120712T01020	CNG453T0420	12,70	1/2	12,90	.508	1,2	3/64
CNGN120712T02020	CNG453T0820	12,70	1/2	12,90	.508	1,2	3/64
CNGN120716T01020	CNG454T0420	12,70	1/2	12,90	.508	1,6	1/16
CNGN120716T02020	CNG454T0820	12,70	1/2	12,90	.508	1,6	1/16
CNGN160412T02020	CNG533T0820	15,88	5/8	16,12	.635	1,2	3/64
CNGN160716T02020	CNG554T0820	15,88	5/8	16,12	.635	1,6	1/16

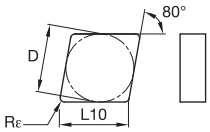
CNGX





ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
CNGX120708T01020	CNGX452T0420	12,70	1/2	12,90	.508	0,8	1/32
CNGX120708T02020	CNGX452T0820	12,70	1/2	12,90	.508	0,8	1/32
CNGX120712E	CNGX453E	12,70	1/2	12,90	.508	1,2	3/64
CNGX120712T01020	CNGX453T0420	12,70	1/2	12,90	.508	1,2	3/64
CNGX120712T02020	CNGX453T0820	12,70	1/2	12,90	.508	1,2	3/64
CNGX120716E	CNGX454E	12,70	1/2	12,90	.508	1,6	1/16
CNGX120716T02020	CNGX454T0820	12,70	1/2	12,90	.508	1,6	1/16
CNGX160716T02020	CNGX554T0820	15,88	5/8	16,12	.635	1,6	1/16

CNGX-FW

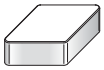


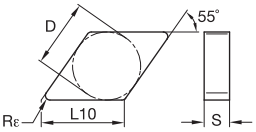
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
CNGX120708T01020FW	CNGX452T0420FW	12,70	1/2	12,90	.508	0,8	1/32
CNGX120712T01020FW	CNGX453T0420FW	12,70	1/2	12,90	.508	1,2	3/64
CNGX120716T01020FW	CNGX454T0420FW	12,70	1/2	12,90	.508	1,6	1/16

● first choice
○ alternate choice

	KYS25	KYS30	KY4300	KYK10	KYK25	KY3500	KY4400
P					●	●	●
M							
K				●	●	●	
N							
S	●	●	●				
H	○		●				●

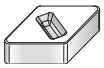
DNGN

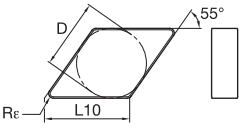




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KYS25	KYS30	KY4300	KYK10	KYK25	KY3500	KY4400
DNGN150412T01020	DNG433T0420	12,70	1/2	15,50	.610	1,2	3/64							●
DNGN150704T01020	DNG451T0420	12,70	1/2	15,50	.610	0,4	1/64							●
DNGN150708T01020	DNG452T0420	12,70	1/2	15,50	.610	0,8	1/32			●				●
DNGN150712T01020	DNG453T0420	12,70	1/2	15,50	.610	1,2	3/64			●				●
DNGN150716T01020	DNG454T0420	12,70	1/2	15,50	.610	1,6	1/16			●				●

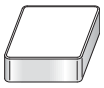
DNGX

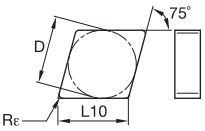




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KYS25	KYS30	KY4300	KYK10	KYK25	KY3500	KY4400
DNGX120708T02020	DNGX120708T02020	10,00	.3937	12,21	.481	0,8	1/32						●	
DNGX120712T02020	DNGX120712T02020	10,00	.3937	12,21	.481	1,2	3/64					●	●	
DNGX120716T02020	DNGX120716T02020	10,00	.3937	12,21	.481	1,6	1/16					●	●	
DNGX150708T01020	DNGX452T0420	12,70	1/2	15,50	.610	0,8	1/32	●	●					
DNGX150708T02020	DNGX452T0420	12,70	1/2	15,50	.610	0,8	1/32				●		●	
DNGX150712T01020	DNGX453T0420	12,70	1/2	15,50	.610	1,2	3/64	●	●					
DNGX150712T02020	DNGX453T0820	12,70	1/2	15,50	.610	1,2	3/64					●	●	
DNGX150716T01020	DNGX454T0420	12,70	1/2	15,50	.610	1,6	1/16	●	●					
DNGX150716T02020	DNGX454T0820	12,70	1/2	15,50	.610	1,6	1/16						●	

ENG





ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KYS25	KYS30	KY4300	KYK10	KYK25	KY3500	KY4400
ENGN130412T02020	ENG433T0820	12,70	1/2	13,15	.518	1,2	3/64						●	
ENGN130708T01020	ENG452T0420	12,70	1/2	13,15	.518	0,8	1/32			●				
ENGN130712T01020	ENG453T0420	12,70	1/2	13,15	.518	1,2	3/64			●				
ENGN130712T02020	ENG453T0820	12,70	1/2	13,15	.518	1,2	3/64						●	
ENGN130716T02020	ENG454T0820	12,70	1/2	13,15	.518	1,6	1/16						●	


C2–C70


C72–C118


C119–C129


C130–C161

B10–B23

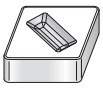

B24–B31

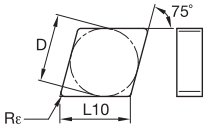

B32–B37

● first choice
○ alternate choice

P														
M														
K										●	●	●		
N														
S								●	●	●				
H								○		●				●

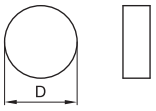
ENGX





ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KYS25	KYS30	KY4300	KYK10	KYK25	KY3500	KY4400
ENGX130716T02020	ENGX454T0820	12,70	1/2	13,15	.518	1,6	1/16						●	

RNGN

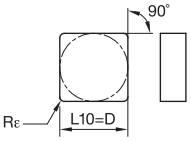


ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KYS25	KYS30	KY4300	KYK10	KYK25	KY3500	KY4400
RNGN090300T01020	RNG32T0420	9,53	3/8	–	–	–	–			●				
RNGN090400T00520	RNG33T0220	9,53	3/8	–	–	–	–			●				
RNGN120300T01020	RNG42T0420	12,70	1/2	–	–	–	–							●
RNGN120400E	RNG43E	12,70	1/2	–	–	–	–	●	●					
RNGN120400T01020	RNG43T0420	12,70	1/2	–	–	–	–	●	●	●				●
RNGN120400T02020	RNG43T0820	12,70	1/2	–	–	–	–				●	●	●	
RNGN120700E	RNG45E	12,70	1/2	–	–	–	–	●	●	●				
RNGN120700T00520	RNG45T0220	12,70	1/2	–	–	–	–			●				
RNGN120700T00525	RNG45T0225	12,70	1/2	–	–	–	–		●					
RNGN120700T01020	RNG45T0420	12,70	1/2	–	–	–	–	●	●	●				●
RNGN120700T01025	RNG45T0425	12,70	1/2	–	–	–	–	●	●	●				
RNGN120700T02020	RNG45T0820	12,70	1/2	–	–	–	–				●	●	●	
RNGN120700T10015	RNG45T4015	12,70	1/2	–	–	–	–			●				
RNGN120700T15015	RNG45T6015	12,70	1/2	–	–	–	–			●				
RNGN150700T02020	RNG55T0820	15,88	5/8	–	–	–	–						●	
RNGN150700T20015	RNG55T8015	15,88	5/8	–	–	–	–			●				
RNGN190700E	RNG65E	19,05	3/4	–	–	–	–	●	●					
RNGN190700T01020	RNG65T0420	19,05	3/4	–	–	–	–	●	●					
RNGN190700T20015	RNG65T8015	19,05	3/4	–	–	–	–			●				
RNGN250700T01020	RNG85T0420	25,40	1	–	–	–	–		●					
RNGN250700T20015	RNG85T8015	25,40	1	–	–	–	–			●				
RNGN250900E	RNG86E	25,40	1	–	–	–	–		●					

● first choice
○ alternate choice

		KYS25	KYS30	KY4300	KYK10	KYK25	KY3500	KY4400
P						●	●	
M								
K					●	●	●	
N								
S		●	●	●				
H		○		●				●

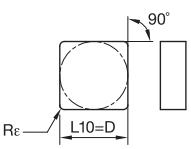
SNGN



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
SNGN090308T01020	SNG322T0420	9,53	3/8	9,53	.375	0,8	1/32
SNGN090308T02020	SNG322T0820	9,53	3/8	9,53	.375	0,8	1/32
SNGN090312T01020	SNG323T0420	9,53	3/8	9,53	.375	1,2	3/64
SNGN120408T01020	SNG432T0420	12,70	1/2	12,70	.500	0,8	1/32
SNGN120408T02020	SNG432T0820	12,70	1/2	12,70	.500	0,8	1/32
SNGN120412T01020	SNG433T0420	12,70	1/2	12,70	.500	1,2	3/64
SNGN120412T02020	SNG433T0820	12,70	1/2	12,70	.500	1,2	3/64
SNGN120416T01020	SNG434T0420	12,70	1/2	12,70	.500	1,6	1/16
SNGN120416T02020	SNG434T0820	12,70	1/2	12,70	.500	1,6	1/16
SNGN120424T02020	SNG436T0820	12,70	1/2	12,70	.500	2,4	3/32
SNGN120432T02020	SNG438T0820	12,70	1/2	12,70	.500	3,2	1/8
SNGN120704T01020	SNG451T0420	12,70	1/2	12,70	.500	0,4	1/64
SNGN120708T01020	SNG452T0420	12,70	1/2	12,70	.500	0,8	1/32
SNGN120712T01020	SNG453T0420	12,70	1/2	12,70	.500	1,2	3/64
SNGN120712T02020	SNG453T0820	12,70	1/2	12,70	.500	1,2	3/64
SNGN120716T01020	SNG454T0420	12,70	1/2	12,70	.500	1,6	1/16
SNGN120716T02020	SNG454T0820	12,70	1/2	12,70	.500	1,6	1/16
SNGN120720T05020	SNG455T2020	12,70	1/2	12,70	.500	2,0	5/64
SNGN150712T02020	SNG553T0820	15,88	5/8	15,88	.625	1,2	3/64
SNGN190412T02020	SNG633T0820	19,05	3/4	19,05	.750	1,2	3/64
SNGN190416T02020	SNG634T0820	19,05	3/4	19,05	.750	1,6	1/16
SNGN190616E	SNG644E	19,05	3/4	19,05	.750	1,6	1/16
SNGN190616T01020	SNG644T0420	19,05	3/4	19,05	.750	1,6	1/16
SNGN190716T20015	SNG654T8015	19,05	3/4	19,05	.750	1,6	1/16
SNGN190720T10015	SNG655T4015	19,05	3/4	19,05	.750	2,0	5/64
SNGN190724E	SNG656E	19,05	3/4	19,05	.750	2,4	3/32
SNGN190724T20015	SNG656T8015	19,05	3/4	19,05	.750	2,4	3/32

ISO catalog number	ANSI catalog number	KYS25	KYS30	KY4300	KYK10	KYK25	KY3500	KY4400
SNGN120708T01020	SNG452T0420	●						
SNGN120708T02020	SNG452T0820						●	
SNGN120712T01020	SNG453T0420	●	●					
SNGN120712T02020	SNG453T0820				●	●	●	
SNGN120716T01020	SNG454T0420	●	●					
SNGN120716T02020	SNG454T0820				●	●	●	
SNGN150712T02020	SNG553T0820					●	●	
SNGN150716T02020	SNG554T0820				●	●	●	
SNGN150724T02020	SNG556T0820						●	

SNGX



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
SNGX120708T01020	SNGX452T0420	12,70	1/2	12,70	.500	0,8	1/32
SNGX120708T02020	SNGX452T0820	12,70	1/2	12,70	.500	0,8	1/32
SNGX120712T01020	SNGX453T0420	12,70	1/2	12,70	.500	1,2	3/64
SNGX120712T02020	SNGX453T0820	12,70	1/2	12,70	.500	1,2	3/64
SNGX120716T01020	SNGX454T0420	12,70	1/2	12,70	.500	1,6	1/16
SNGX120716T02020	SNGX454T0820	12,70	1/2	12,70	.500	1,6	1/16
SNGX150712T02020	SNGX553T0820	15,88	5/8	15,88	.625	1,2	3/64
SNGX150716T02020	SNGX554T0820	15,88	5/8	15,88	.625	1,6	1/16
SNGX150724T02020	SNGX556T0820	15,88	5/8	15,88	.625	2,4	3/32


C2–C70


C72–C118


C119–C129


C130–C161

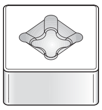
B10–B23


B24–B31

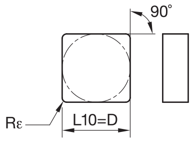

B32–B37

● first choice
○ alternate choice

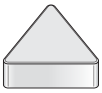
		KYS25	KYS30	KY4300	KYK10	KYK25	KY3500	KY4400
P								
M								
K					●	●	●	
N								
S		●	●	●				
H		○		●				●



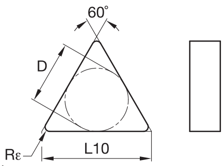
SNGX-FW



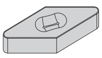
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KYS25	KYS30	KY4300	KYK10	KYK25	KY3500	KY4400
SNGX120712T01020FW	SNGX453T0420FW	12,70	1/2	12,70	.500	1,2	3/64				●		●	



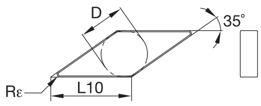
TNG



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KYS25	KYS30	KY4300	KYK10	KYK25	KY3500	KY4400
TNGN110308T01020	TNG222T0420	6,35	1/4	11,00	.433	0,8	1/32							●
TNGN160408T01020	TNG332T0420	9,53	3/8	16,50	.650	0,8	1/32			●				●
TNGN160408T02020	TNG332T0820	9,53	3/8	16,50	.650	0,8	1/32						●	
TNGN160708T01020	TNG352T0420	9,53	3/8	16,50	.650	0,8	1/32			●				●
TNGN160412T01020	TNG333T0420	9,53	3/8	16,50	.650	1,2	3/64			●				●
TNGN160412T02020	TNG333T0820	9,53	3/8	16,50	.650	1,2	3/64						●	
TNGN160712T01020	TNG353T0420	9,53	3/8	16,50	.650	1,2	3/64							●
TNGN220408T01020	TNG432T0420	12,70	1/2	22,00	.866	0,8	1/32							●
TNGN220408T02020	TNG432T0820	12,70	1/2	22,00	.866	0,8	1/32						●	
TNGN220412T01020	TNG433T0420	12,70	1/2	22,00	.866	1,2	3/64	●	●					
TNGN220416T01020	TNG434T0420	12,70	1/2	22,00	.866	1,6	1/16	●	●					
TNGN220416T02020	TNG434T0820	12,70	1/2	22,00	.866	1,6	1/16					●	●	



VNGX

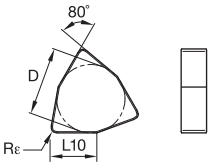


ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KYS25	KYS30	KY4300	KYK10	KYK25	KY3500	KY4400
VNGX160712T02020	VNGX353T0820	9,53	3/8	16,61	.654	1,2	3/64						●	
VNGX160716T02020	VNGX354T0820	9,53	3/8	16,61	.654	1,6	1/16						●	

● first choice
○ alternate choice

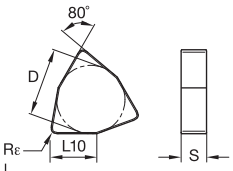
		KYS25	KYS30	KY4300	KYK10	KYK25	KY3500	KY4400
P								
M								
K					●	●	●	
N								
S		●	●	●				
H		○		●				●

WNGX



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
WNGX080708T02020	WNGX452T0820	12,70	1/2	8,69	.342	0,8	1/32
WNGX080712T02020	WNGX453T0820	12,70	1/2	8,69	.342	1,2	3/64
WNGX080716T02020	WNGX454T0820	12,70	1/2	8,69	.342	1,6	1/16

WNGX-FW



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
WNGX080708T01020FW	WNGX452T0420FW	12,70	1/2	8,69	.342	0,8	1/32
WNGX080712T01020FW	WNGX453T0420FW	12,70	1/2	8,69	.342	1,2	3/64
WNGX080716T01020FW	WNGX454T0420FW	12,70	1/2	8,69	.342	1,6	1/16


C2–C70


C72–C118


C119–C129


C130–C161

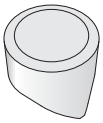
B10–B23

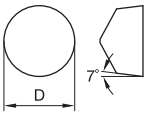

B24–B31


B32–B37

● first choice
○ alternate choice

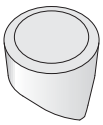
RCG

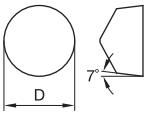




ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KYS25	KYS30	KY4300	KYK10	KYK25	KY3500	KY4400
RCGX060400E	RCGV23E	6,35	1/4	–	–	–	–	●	●					
RCGX060400T01020	RCGV23T0420	6,35	1/4	–	–	–	–			●				
RCGX090700E	RCGV35E	9,53	3/8	–	–	–	–	●	●					
RCGX090700T00525	RCGV35T0225	9,53	3/8	–	–	–	–		●					
RCGX090700T01020	RCGV35T0420	9,53	3/8	–	–	–	–	●	●	●				●
RCGX120700E	RCGV45	12,70	1/2	–	–	–	–						●	
RCGX120700E	RCGV45E	12,70	1/2	–	–	–	–	●	●					
RCGX120700S20015	RCGV45S8015	12,70	1/2	–	–	–	–							●
RCGX120700T01020	RCGV45T0420	12,70	1/2	–	–	–	–	●	●	●				●
RCGX120700T01025	RCGV45T0425	12,70	1/2	–	–	–	–	●	●	●				
RCGX151000T20015	RCGV565T8015	15,88	5/8	–	–	–	–			●				
RCGX191000T20015	RCGV665T8015	19,05	3/4	–	–	–	–			●				
RCGX251200T20015	RCGV88T8015	25,40	1	–	–	–	–			●				

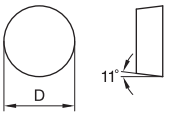
RCGV-T





ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
RCGX060600T00520	RCGV24T0220	6,35	1/4	–	–	–	–

RPGN

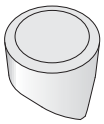


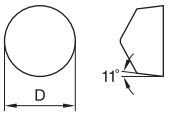
ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in
RPGN060200E	RPG2150E	6,35	1/4	–	–	–	–
RPGN090300E	RPG32E	9,53	3/8	–	–	–	–
RPGN090300T00520	RPG32T0220	9,53	3/8	–	–	–	–
RPGN090300T01020	RPG32T0420	9,53	3/8	–	–	–	–
RPGN120400E	RPG43E	12,70	1/2	–	–	–	–
RPGN120400T01020	RPG43T0420	12,70	1/2	–	–	–	–

● first choice
○ alternate choice

	KYS25	KYS30	KY4300	KYK10	KYK25	KY3500	KY4400
P	●	●	●				
M	○		●				
K				●	●	●	
N							
S	●	●	●				
H			●				●

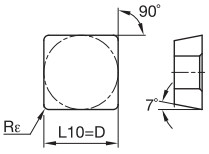
■ RPGX





ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KYS25	KYS30	KY4300	KYK10	KYK25	KY3500	KY4400
RPGX060400T00520	RPGV23T0220	6,35	1/4	–	–	–	–			●				
RPGX060400T01020	RPGV23T0420	6,35	1/4	–	–	–	–			●				
RPGX090700E	RPGV35E	9,53	3/8	–	–	–	–	●	●					
RPGX090700T00520	RPGV35T0220	9,53	3/8	–	–	–	–			●				
RPGX090700T01020	RPGV35T0420	9,53	3/8	–	–	–	–	●	●	●				
RPGX120700E	RPGV45E	12,70	1/2	–	–	–	–	●	●					
RPGX120700T00520	RPGV45T0220	12,70	1/2	–	–	–	–			●				
RPGX120700T01020	RPGV45T0420	12,70	1/2	–	–	–	–	●	●	●				

■ SCG-FW



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KYS25	KYS30	KY4300	KYK10	KYK25	KY3500	KY4400
SCGN090408EFW	SCG332EFW	9,53	3/8	9,53	.375	0,8	1/32				●			
SCGN090408EFW	SCG332FW	9,53	3/8	9,53	.375	0,8	1/32						●	


C2–C70


C72–C118


C119–C129


C130–C161

beyond
B10–B23

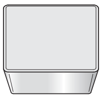

B24–B31


B32–B37

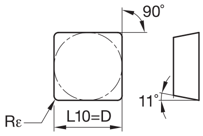
Inserts

● first choice
○ alternate choice

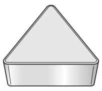
	KYS25	KYS30	KY4300	KYK10	KYK25	KY3500	KY4400
P							
M							
K				●	●	●	
N							
S	●	●	●				
H	○		●				●



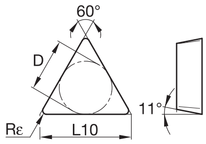
SPGN



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KYS25	KYS30	KY4300	KYK10	KYK25	KY3500	KY4400
SPGN090308T01020	SPG322T0420	9,53	3/8	9,53	.375	0,8	1/32							●
SPGN120308T01020	SPG422T0420	12,70	1/2	12,70	.500	0,8	1/32							●



TPGN



ISO catalog number	ANSI catalog number	D mm	D in	L10 mm	L10 in	Rε mm	Rε in	KYS25	KYS30	KY4300	KYK10	KYK25	KY3500	KY4400
TPGN110304T01020	TPG221T0420	6,35	1/4	11,00	.433	0,4	1/64							●
TPGN110308T00520	TPG222T0220	6,35	1/4	11,00	.433	0,8	1/32			●				
TPGN110308T01020	TPG222T0420	6,35	1/4	11,00	.433	0,8	1/32							●
TPGN160304T01020	TPG321T0420	9,53	3/8	16,50	.650	0,4	1/64							●
TPGN160308T00520	TPG322T0220	9,53	3/8	16,50	.650	0,8	1/32			●				
TPGN160308T01020	TPG322T0420	9,53	3/8	16,50	.650	0,8	1/32							●
TPGN160308T02020	TPG322T0820	9,53	3/8	16,50	.650	0,8	1/32				●		●	
TPGN160312T01020	TPG323T0420	9,53	3/8	16,50	.650	1,2	3/64							●
TPGN160312T02020	TPG323T0820	9,53	3/8	16,50	.650	1,2	3/64				●		●	
TPGN220408T02020	TPG432T0820	12,70	1/2	22,00	.866	0,8	1/32				●		●	
TPGN220412T02020	TPG433T0820	12,70	1/2	22,00	.866	1,2	3/64						●	

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KYK25:
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KYS25:
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