

A Complete High-Performance Turning Portfolio •

WIDIA™ Victory™

Specifically engineered multilayer coating provides high-speed capability for finishing to roughing operations. New geometries enhance chip control for better tool life and superior surface finishes.



Victory

- Market-leading technology.
- Longer tool life.
- Higher productivity through increased speed capability.

Steel and Stainless Steel Grades

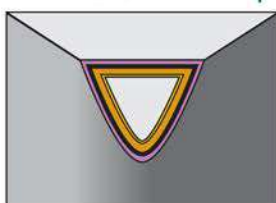
- Reduced cycle times — high speed and feed capability.
- Long tool life — new multilayer coating provides better wear resistance.
- Proven seating — smooth and secure seating surface.
- Outer layer is bronze-colored for easier wear detection.

Post-coat treatment

- Improves edge toughness.
- Long, predictable tool life.
- Reduces depth-of-cut notching.
- Wide range of applications.

New geometry
identification system.

MT-CVD/CVD-TiN-TiCN-
Al₂O₃-ZrCN



Improved edge toughness

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

Post-coat grinding

- Provides secure seating surface.

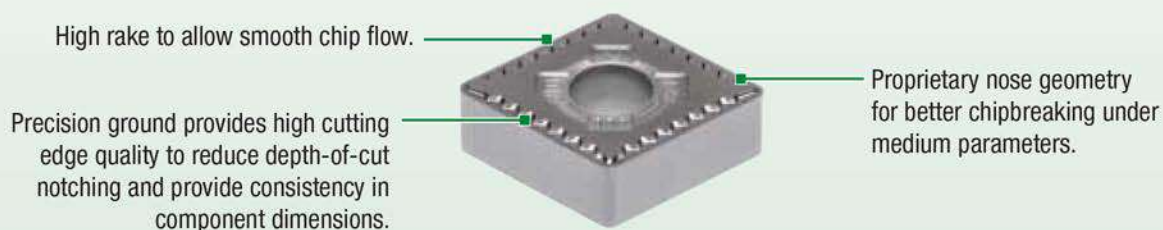
Alpha alumina layer

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

New WIDIA™ Victory™ grades and geometries are designed to offer better tool life and surface finishes.

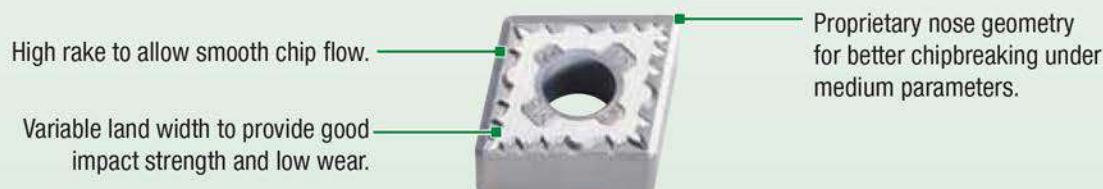
..GG-FS Geometry

- All ..GG-FS inserts are G tolerance inserts. This is a critical feature in some applications, especially the aerospace industry.
- Reduced cycle times — high speed and feed capability.
- Reduced cutting forces — improved dimensional control and reduced deflections.
- New chip forming elements — better chip control.
- Long tool life — new multilayer coating provides better wear resistance.
- Proven seating — smooth and secure seating surface.



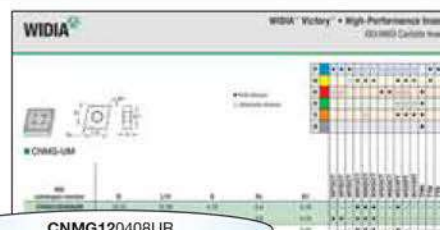
..MG-MS Geometry

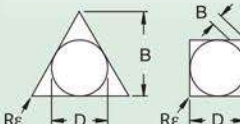
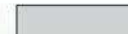
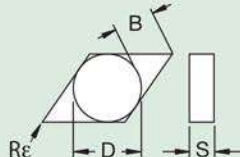
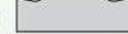
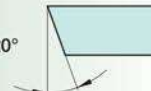
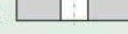
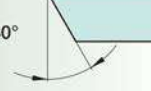
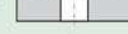
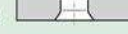
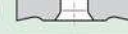
- High positive rake angle delivers improved tool life by reducing cutting forces and built-up edge when machining high-temp alloys.
- Improved chip control and reduced crater wear due to proprietary chipbreakers with varying shapes and distances.
- Reduced thermal wear and cracking due to near sharp cutting edge with optimised edge treatment.
- Improved chipbreaking at various depths of cut due to variable land width, which improves impact strength.
- All MG-MS inserts are moulded, which supports increased tool life due to the elimination of grinding stress.



How Do Catalogue Numbers Work?

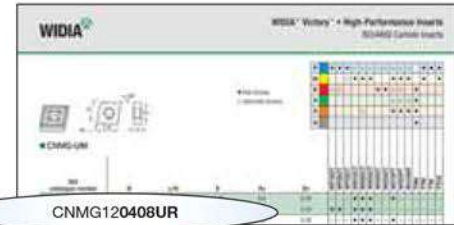
Each character in our catalogue number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



C	N	M	G	12																																																																																																																																																																																																																								
Insert Shape	Insert Clearance Angle	Tolerance Class	Insert Features	Size																																																																																																																																																																																																																								
H Hexagon 120° 	A 3° 	Tolerances apply prior to edge prep and coating 	N 	Code for mm cutting edge length "L10" <table><tr><th>"D"</th><th>mm</th><th>C</th><th>D</th><th>R</th><th>S</th><th>T</th><th>V</th><th>W</th></tr><tr><td>3,97</td><td>S4</td><td>04</td><td>03</td><td>03</td><td>06</td><td>—</td><td>—</td><td>—</td></tr><tr><td>4,76</td><td>04</td><td>05</td><td>04</td><td>04</td><td>08</td><td>08</td><td>S3</td><td>—</td></tr><tr><td>5,56</td><td>05</td><td>06</td><td>05</td><td>05</td><td>09</td><td>09</td><td>03</td><td>—</td></tr><tr><td>6,00</td><td>—</td><td>—</td><td>06</td><td>—</td><td>—</td><td>—</td><td>—</td><td>—</td></tr><tr><td>6,35</td><td>06</td><td>07</td><td>06</td><td>06</td><td>11</td><td>11</td><td>04</td><td>—</td></tr><tr><td>7,94</td><td>08</td><td>09</td><td>07</td><td>07</td><td>13</td><td>13</td><td>05</td><td>—</td></tr><tr><td>8,00</td><td>—</td><td>—</td><td>08</td><td>—</td><td>—</td><td>—</td><td>—</td><td>—</td></tr><tr><td>9,52</td><td>09</td><td>11</td><td>09</td><td>09</td><td>16</td><td>16</td><td>06</td><td>—</td></tr><tr><td>10,00</td><td>—</td><td>—</td><td>10</td><td>—</td><td>—</td><td>—</td><td>—</td><td>—</td></tr><tr><td>11,11</td><td>11</td><td>13</td><td>11</td><td>11</td><td>19</td><td>19</td><td>07</td><td>—</td></tr><tr><td>12,00</td><td>—</td><td>—</td><td>12</td><td>—</td><td>—</td><td>—</td><td>—</td><td>—</td></tr><tr><td>12,70</td><td>12</td><td>15</td><td>12</td><td>12</td><td>22</td><td>22</td><td>08</td><td>—</td></tr><tr><td>14,29</td><td>14</td><td>17</td><td>14</td><td>14</td><td>24</td><td>24</td><td>09</td><td>—</td></tr><tr><td>15,88</td><td>16</td><td>19</td><td>15</td><td>15</td><td>27</td><td>27</td><td>10</td><td>—</td></tr><tr><td>16,00</td><td>—</td><td>—</td><td>16</td><td>—</td><td>—</td><td>—</td><td>—</td><td>—</td></tr><tr><td>17,46</td><td>17</td><td>21</td><td>17</td><td>17</td><td>30</td><td>30</td><td>11</td><td>—</td></tr><tr><td>19,05</td><td>19</td><td>23</td><td>19</td><td>19</td><td>33</td><td>33</td><td>13</td><td>—</td></tr><tr><td>20,00</td><td>—</td><td>—</td><td>20</td><td>—</td><td>—</td><td>—</td><td>—</td><td>—</td></tr><tr><td>22,22</td><td>22</td><td>27</td><td>22</td><td>22</td><td>38</td><td>38</td><td>15</td><td>—</td></tr><tr><td>25,00</td><td>—</td><td>—</td><td>25</td><td>—</td><td>—</td><td>—</td><td>—</td><td>—</td></tr><tr><td>25,40</td><td>25</td><td>31</td><td>25</td><td>25</td><td>44</td><td>44</td><td>17</td><td>—</td></tr><tr><td>31,75</td><td>32</td><td>38</td><td>31</td><td>31</td><td>54</td><td>54</td><td>21</td><td>—</td></tr><tr><td>32,00</td><td>—</td><td>—</td><td>32</td><td>—</td><td>—</td><td>—</td><td>—</td><td>—</td></tr></table>	"D"	mm	C	D	R	S	T	V	W	3,97	S4	04	03	03	06	—	—	—	4,76	04	05	04	04	08	08	S3	—	5,56	05	06	05	05	09	09	03	—	6,00	—	—	06	—	—	—	—	—	6,35	06	07	06	06	11	11	04	—	7,94	08	09	07	07	13	13	05	—	8,00	—	—	08	—	—	—	—	—	9,52	09	11	09	09	16	16	06	—	10,00	—	—	10	—	—	—	—	—	11,11	11	13	11	11	19	19	07	—	12,00	—	—	12	—	—	—	—	—	12,70	12	15	12	12	22	22	08	—	14,29	14	17	14	14	24	24	09	—	15,88	16	19	15	15	27	27	10	—	16,00	—	—	16	—	—	—	—	—	17,46	17	21	17	17	30	30	11	—	19,05	19	23	19	19	33	33	13	—	20,00	—	—	20	—	—	—	—	—	22,22	22	27	22	22	38	38	15	—	25,00	—	—	25	—	—	—	—	—	25,40	25	31	25	25	44	44	17	—	31,75	32	38	31	31	54	54	21	—	32,00	—	—	32	—	—	—	—	—
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P Pentagon 108° 	C 7° 		F 																																																																																																																																																																																																																									
R Round — 	D 15° 		A 																																																																																																																																																																																																																									
S Square 90° 	E 20° 		M 																																																																																																																																																																																																																									
T Triangular 60° 	F 25° 		G 																																																																																																																																																																																																																									
C Rhomboid 80° 	G 30° 	D = Theoretical diameter of the insert inscribed circle S = Thickness B = See figures below	W 																																																																																																																																																																																																																									
D 55°			T 																																																																																																																																																																																																																									
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A Parallelogram 85° 	O Indicated for other clearance angles requiring descriptions.		J 																																																																																																																																																																																																																									
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N/K 55°			V																																																																																																																																																																																																																									

tolerance class	tolerance on "D"	tolerance on "B"	tolerance on "S"
C	±0,025	±0,013	±0,025
H	±0,013	±0,013	±0,025
E	±0,025	±0,025	±0,025
G	±0,025	±0,025	±0,013
M	See tables on next page		±0,013
U	See tables on next page		±0,013

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



04

Thickness
S

symbol	thickness
mm	mm
—	0,79
T0	1,00
01	1,59
T1	1,98
02	2,38
03	3,18
T3	3,97
04	4,76
05	5,56
06	6,35
07	7,94
9	9,52
11	11,11
12	12,70

08

Corner
Radius "R_c"

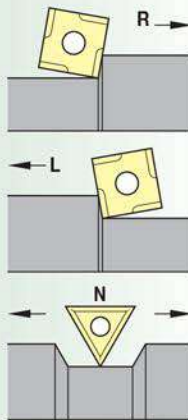
symbol	corner radius
mm	mm
X0	0,04
01	0,1
02	0,2
04	0,4
08	0,8
12	1,2
16	1,6
20	2,0
24	2,4
28	2,8
32	3,2
00	round insert
M0	
—	

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

UR

Chipbreaker
(optional)

13	= Railroad Light
CT	= Copy Turning
FF	= Fine Finishing
FP	= Finish Positive
FW	= Finish Wiper
ML	= Medium Light
MR	= Medium Roughing
MW	= Medium Wiper
RH	= Roughing Heavy
T	= Negative Land
UF	= Universal Finishing
UM	= Universal Medium
UR	= Universal Roughing
.NMP	= Sharp Medium
MP	= Medium Positive
FS	= Finishing High-Temp(S)
MS	= Medium High-Temp(S)
MU	= Medium Universal
SR	= Super Roughing
65	= Heavy Roughing

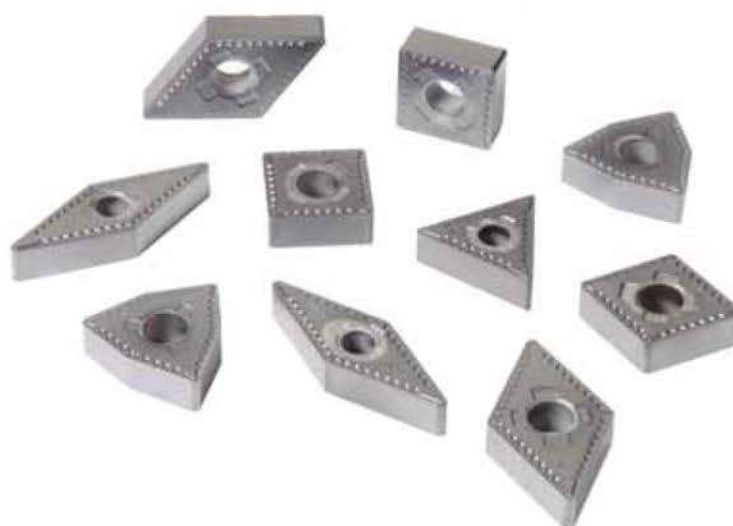
"D"	± Tolerance on "D"				"D"	± Tolerance on "B"			
	Class M Tolerance			Class U Tolerance		Class M Tolerance			Class U Tolerance
	Shapes S, T, C, R, & W	Shape D	Shape V	Shapes S, T, & C		Shapes S, T, C, R, & W	Shape D	Shape V	Shapes S, T, & C
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
3,97	0,05	—	—	—	3,97	0,08	—	—	—
4,76	0,05	—	—	0,08	4,76	0,08	—	—	0,13
5,56	0,05	0,05	0,05	0,08	5,56	0,08	0,11	—	0,13
6,35	0,05	0,05	0,05	0,08	6,35	0,08	0,11	—	0,13
7,94	0,05	0,05	0,05	0,08	7,94	0,08	0,11	—	0,13
9,52	0,05	0,05	0,05	0,08	9,52	0,08	0,11	0,18	0,13
11,11	0,08	0,08	0,08	0,13	11,11	0,13	0,15	—	—
12,70	0,08	0,08	0,08	0,13	12,70	0,13	0,15	0,25	0,20
14,29	0,08	0,08	0,08	0,13	14,29	0,13	0,15	—	—
15,88	0,10	0,10	0,10	0,18	15,88	0,15	0,18	—	0,27
17,46	0,10	0,10	0,10	0,18	17,46	0,15	0,18	—	0,27
19,05	0,10	0,10	0,10	0,18	19,05	0,15	0,18	—	0,27
22,22	0,13	—	—	0,25	22,22	0,15	—	—	0,38
25,40	0,13	—	—	0,25	25,40	0,18	—	—	0,38
31,75	0,15	—	—	0,25	31,75	0,20	—	—	0,38

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

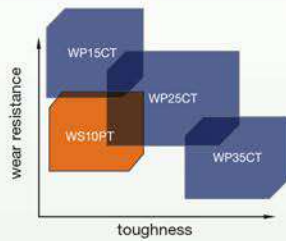


W	P	15	C	T
Brand	Primary Workpiece Material	Application Range*	Insert Material	Application
	P Steel M Stainless Steel K Cast Iron N Non-Ferrous S High-Temp Alloys H Hardened Materials U Universal Machining	05 = fine finishing 10 = finishing 15 = { 20 = { medium to roughing 25 = { 30 = { roughing 35 = { 40 = { 45 = { heaviest roughing 50 = {	H = Uncoated Carbide C = Carbide + CVD P = Carbide + PVD T = Cermet Y = Ceramics D = Diamond B = PcBN S = HSS E = HSS-E M = HSS-E-PM	T = Turning M = Milling H = Holemaking D = Solid Drills E = Solid End Mills G = Taps R = Reamer V = Thread Mills

*Samples shown are based on turning and will differ within applications

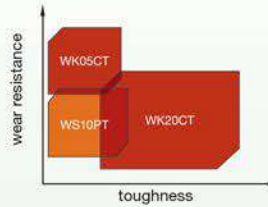


Victory Toughness/Wear Resistance



WP Grades for Steel

- Three grades and seven primary geometries for use in roughing to finishing operations.
- Increase cutting speed and/or feed rate to gain productivity.



WK Grades for Cast Iron

- Three grades across 12 geometries for use in roughing to finishing operations.
- Very good balance of wear resistance and toughness for long predictable tool life. Flat top geometry for machining cast iron. For finishing to roughing applications.



WM Grades for Stainless Steel

- Two grades to cover all of your cast iron turning operations.
- Increase cutting speed and/or feed rate by up to 30% over similar competitive grades.



WS Grades for High-Temp Alloys

- Two grades for use in roughing to finishing operations.
- Very good wear resistance for longer tool life.
- One uncoated grade for use in titanium.

Positive and Negative Inserts

Positive Inserts



- Screw-on inserts are the first choice for I.D. turning of all materials and O.D. turning on small to medium lathes.
- Suitable for all workpiece materials.

Negative Inserts



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

Ceramic Inserts



- Ceramic inserts are a great choice for productive machining of high-temp alloys.
- Negative rake inserts are also recommended for the machining of hardened materials and cast irons.
- Available in flat-top geometries with moulded and ground peripheries.

PcBN and PCD Inserts



- PcBN can be used for machining steels with a hardness higher than 48 HRC.
- PcBN inserts can also be used for productivity improvements in machining cast irons and high-temp alloys.
- PCD inserts are used for machining non-ferrous materials.

Insert Selection System

How to Use

The WIDIA 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, optimising selection accuracy.

Example:

Six workpiece material groups

■ Step 1 • Select the insert geometry

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



■ Step 2 • Select the grade

Given: cutting conditions:
lightly interrupted cut 
Geometry: -RH
Unknown: grade
Solution: WP25CT™



■ Step 3 • Select the cutting speed

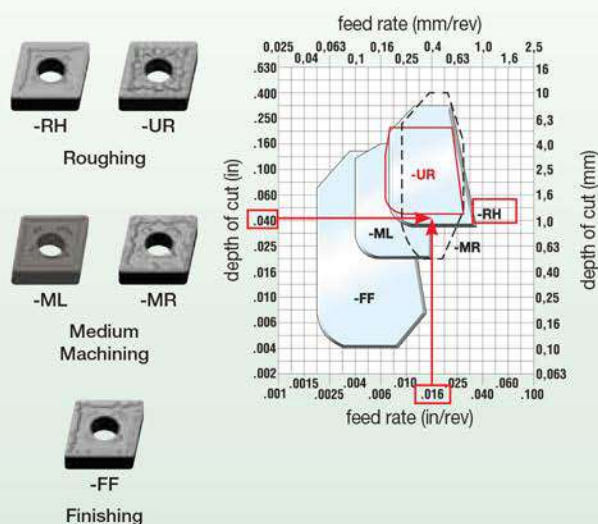
Given: grade WP35CT™ 
cutting conditions
material CK15
Unknown: cutting speed
Solution: 210 m/min

Need help in selecting a product?

Additional information can be obtained by contacting the WIDIA Customer Application Support Team. Go to widia.com for your country's phone number.

■ Step 1 • Select the insert geometry

Negative Inserts



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

■ Step 2 • Select the grade

cutting condition		Negative Insert Geometry				Positive Insert Geometry		
		-FF	-ML	-MR	-UR	-RH	-FP	-MU
heavily interrupted cut		WP15CT	WP25CT	WP35CT/ WP25CT	WP35CT	WP35CT	WP25CT/ WS25PT	WP35CT
lightly interrupted cut		WP15CT	WP25CT	WP25CT	WP35CT	WP35CT	WP25CT	WP25CT
varying depth of cut, casting, or forging skin		WP15CT	WP15CT	WP15CT	WP25CT	WP25CT	WP15CT	WP15CT
smooth cut, pre-turned surface		WP15CT	WP15CT	WP15CT	WP25CT	WP25CT	WP15CT	WP15CT

■ Step 3 • Selecting the cutting speed

Low-Carbon (<0.3% C) and Free-Machining Steel										Starting Conditions	
material group	grade	135	180	225	275	320	360	410	455	495	m/min
P0/P1	WP15CT										395
	WP25CT										275
	WP35CT										210
	WS10PT										280

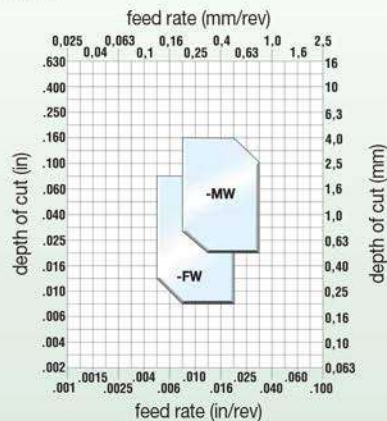
WIDIA Material Group Selection Guide:

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

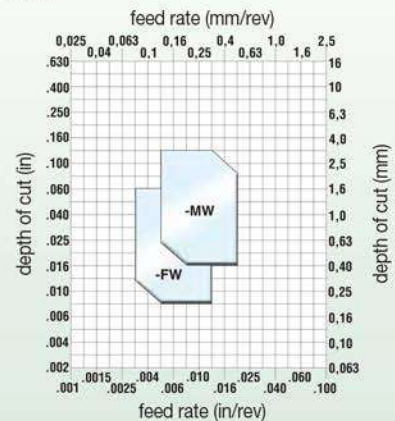
material	material group ISO code	number of material subgroups
steel	P	1-6
stainless steel	M	1-3
cast iron	K	1-3
non-ferrous materials	N	1-8
high-temp alloys	S	1-4
hardened materials	H	1

■ **Step 1 • Select the insert geometry**

Negative Wiper Inserts



Positive Wiper Inserts

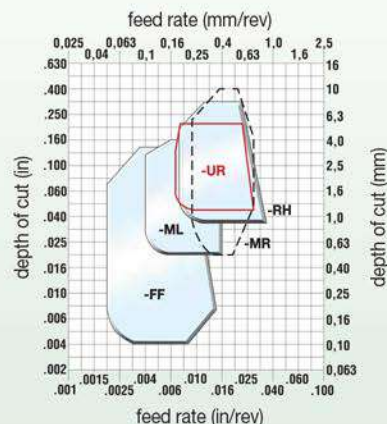


■ **Step 2 • Select the grade**

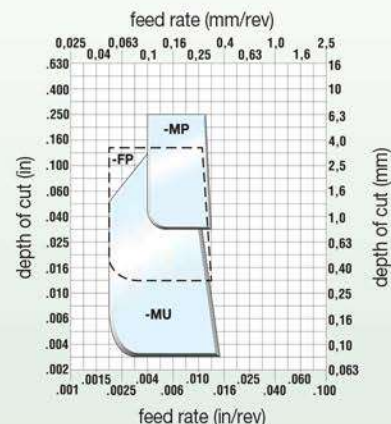
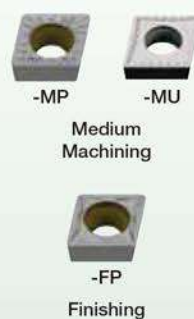
cutting condition		Negative Insert Geometry		Positive Insert Geometry	
		-FW	-MW	-FW	-MW
heavily interrupted cut		WP15CT	WP25CT	-	WP25CT
lightly interrupted cut		WP15CT	WP25CT	WP15CT	WP25CT
varying depth of cut, casting, or forging skin		WP15CT	WP15CT	WP15CT	WP15CT
smooth cut, pre-turned surface		WP15CT	WP15CT	WP15CT	WP15CT

■ **Step 1 • Select the insert geometry**

Negative Inserts



Positive Inserts



■ **Step 2 • Select the grade**

cutting condition		Negative Insert Geometry					Positive Insert Geometry		
		-FF	-ML	-MR	-UR	-RH	-FP	-MU	-MP
heavily interrupted cut		WP15CT	WP25CT	WP35CT/ WP25CT	WP35CT	WP35CT	WP25CT/ WS25PT	WP35CT	WM35CT
lightly interrupted cut		WP15CT	WP25CT	WP25CT	WP35CT	WP35CT	WP25CT	WP25CT	WP25CT
varying depth of cut, casting, or forging skin		WP15CT	WP15CT	WP15CT	WP25CT/ WP10CT	WP25CT	WP15CT	WP25CT/ WP10CT	WP15CT
smooth cut, pre-turned surface		WP15CT	WP15CT	WP15CT	WP25CT/ WP10CT	WP25CT	WP15CT	WP25CT/ WP10CT	WP15CT

(continued)

Step 3 • Select the cutting speed *(continued)*
Low-Carbon (<0.3% C) and Free-Machining Steel

speed — m/min

Starting Conditions

material group	grade	135	180	225	275	320	360	410	455	495	m/min
P0/P1	WP15CT										395
	WP25CT										275
	WP35CT										210
	WS10PT										280
	WM35CT										280

Medium- and High-Carbon Steels (<0.3% C)

speed — m/min

Starting Conditions

material group	grade	135	180	225	275	320	360	410	455	495	m/min
P2	WP15CT										265
	WP25CT										195
	WP35CT										150
	WS10PT										200
	WM35CT										200

Alloy Steels and Tool Steels (≤330 HB) (≤35 HRC)

speed — m/min

Starting Conditions

material group	grade	135	180	225	275	320	360	410	455	495	m/min
P3	WP15CT										190
	WP25CT										155
	WP35CT										120
	WS10PT										155
	WM35CT										155

Alloy steels and Tool Steels (340–450 HB) (36–48 HRC)

speed — m/min

Starting Conditions

material group	grade	60	90	120	150	180	210	240	270	300	m/min
P4	WP15CT										145
	WP25CT										105
	WP35CT										95
	WS10PT										110
	WM35CT										110

Ferritic, Martensitic, and PH Stainless Steels (≤330 HB) (≤35 HB)

speed — m/min

Starting Conditions

material group	grade	120	150	180	210	240	270	300	330	360	m/min
P5	WP15CT										215
	WP25CT										195
	WP35CT										135
	WS10PT										200

Ferritic, Martensitic, and PH Stainless Steels (340–450 HB) (36–48 HRC)

speed — m/min

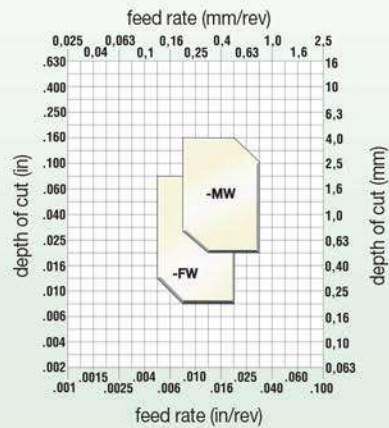
Starting Conditions

material group	grade	105	135	165	195	225	255	285	315	345	m/min
P6	WP15CT										180
	WP25CT										150
	WP35CT										105
	WS10PT										150

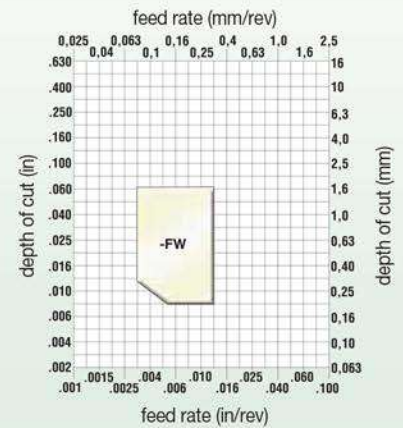
■ Step 1 • Select the insert geometry



Negative Wiper Inserts



Positive Wiper Inserts

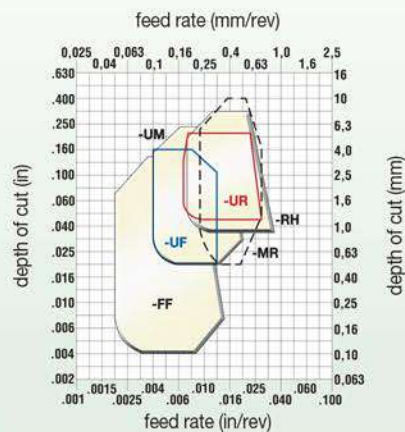
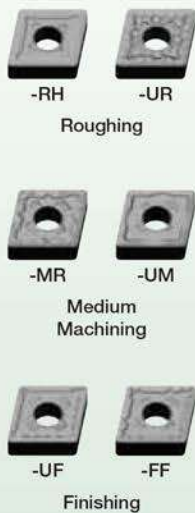


■ Step 2 • Select the grade

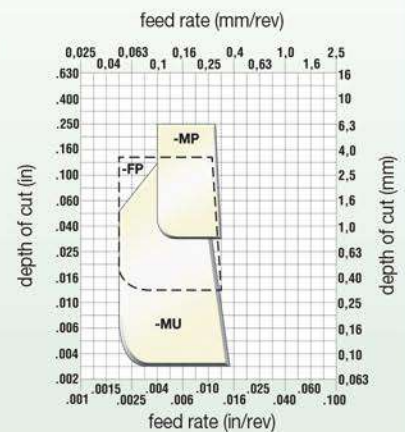
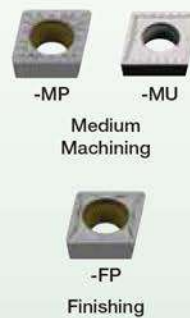
cutting condition		Negative Insert Geometry		Positive Insert Geometry
		-FW	-MW	-FW
heavily interrupted cut		WM15CT	WM15CT	WM15CT
lightly interrupted cut		WM15CT	WM25CT	WM15CT
varying depth of cut, casting, or forging skin		WM15CT	WM25CT	WM15CT
smooth cut, pre-turned surface		WM15CT	WM25CT	WM15CT

■ Step 1 • Select the insert geometry

Negative Inserts



Positive Inserts



(continued)

Step 2 • Select the grade *(continued)*

cutting condition		Negative Insert Geometry					
		-FF	-UF	-MR	-UM	-RH	-UR
heavily interrupted cut		WS10PT	WM15CT	WM35CT	WM35CT	-	WM35CT
lightly interrupted cut		WS10PT	WM15CT	WM25CT	WM25CT	WM35CT	WM35CT/ WM25CT
varying depth of cut, casting, or forging skin		WM15CT	WM15CT/ WS10PT	WM15CT	WM15CT	WM35CT	WM25CT
smooth cut, pre-turned surface		WM15CT	WM15CT	WM15CT	WM15CT	-	WM15CT

cutting condition		Positive Insert Geometry		
		-FP	-MU	-MP
heavily interrupted cut		WM25CT	WM35CT/ WS25PT	WM25CT
lightly interrupted cut		WM25CT	WM25CT/ WS10PT	WM25CT
varying depth of cut, casting, or forging skin		WM25CT/ WM15CT	WM25CT	WM25CT/ WM15CT
smooth cut, pre-turned surface		WM15CT	WM25CT	WM15CT

Step 3 • Select the cutting speed
Austenitic Stainless Steel

speed — m/min

Starting Conditions

material group	grade	90	135	180	225	270	315	200	360	405	450	m/min
M1	WM15CT											180
	WM25CT											150
	WM35CT											120
	WS10PT											215
	WS25PT											180

Austenitic Stainless Steel

speed — m/min

Starting Conditions

material group	grade	90	135	180	225	270	315	200	360	405	450	m/min
M2	WM15CT											165
	WM25CT											140
	WM35CT											105
	WS10PT											200
	WS25PT											165

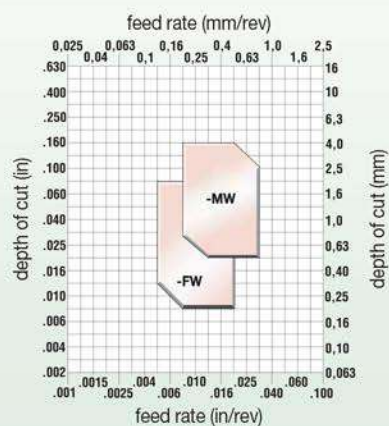
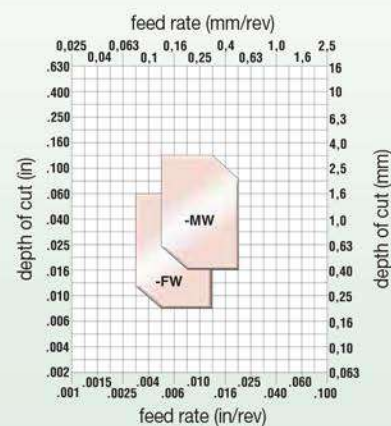
**Austenitic Stainless Steel: Duplex
(Ferritic and Austenitic Mixture)**

speed — m/min

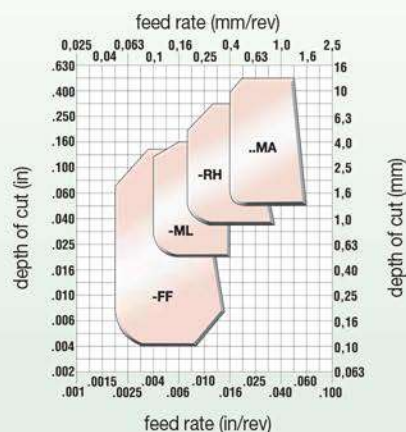
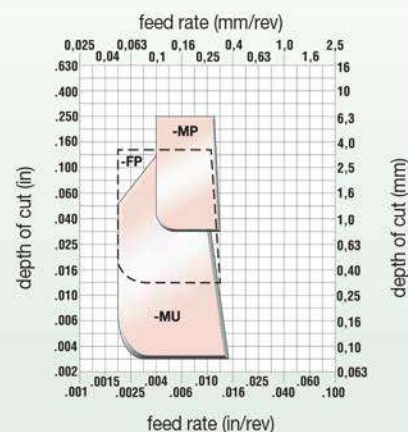
Starting Conditions

material group	grade	90	135	180	225	270	315	200	360	405	450	m/min
M3	WM15CT											150
	WM25CT											120
	WM35CT											90
	WS10PT											185
	WS25PT											150

■ Step 1 • Select the insert geometry

Negative Wiper Inserts

Positive Wiper Inserts

■ Step 2 • Select the grade

cutting condition		Negative Insert Geometry		Positive Insert Geometry	
		-FW	-MW	-FW	-MW
heavily interrupted cut		-	-	-	-
lightly interrupted cut		WK05CT	WK05CT	WK05CT	WK05CT
varying depth of cut, casting, or forging skin		WK05CT	WK05CT	WK05CT	WK05CT
smooth cut, pre-turned surface		WK05CT	WK05CT	WK05CT	WK05CT

■ Step 1 • Select the insert geometry
Negative Inserts

Positive Inserts


(continued)

Step 2 • Select the grade *(continued)*

cutting condition		Negative Insert Geometry				Positive Insert Geometry		
		-FF	-ML	-UR	..MA	-FP	-MU	-MP
heavily interrupted cut		WK20CT	WK20CT	WK20CT	WK20CT	WK20CT	WK20CT	WK20CT
lightly interrupted cut		WK20CT	WK20CT	WK20CT	WK20CT	WK20CT	WK20CT	WK20CT
varying depth of cut, casting, or forging skin		WK20CT	WK05CT	WK20CT	WK05CT	WK20CT	WK20CT	WK20CT
smooth cut, pre-turned surface		WK20CT	WK05CT	WS10PT	WK05CT	WK20CT	WK20CT/ WK05CT/ WS10PT	WK20CT

Step 3 • Select the cutting speed
Grey Cast Iron

speed – m/min

 Starting Conditions 

material group	grade	60	180	305	430	550	675	800	920	1040	1160	m/min
K1	WK05CT											450
	WK20CT											300

Ductile, Compacted Graphite, and Malleable Cast Irons
 (<600 MPa tensile strength)

speed – m/min

 Starting Conditions 

material group	grade	90	135	180	225	275	320	360	410	460	500	m/min
K2	WS10PT											200
	WK05CT											360
	WK20CT											240

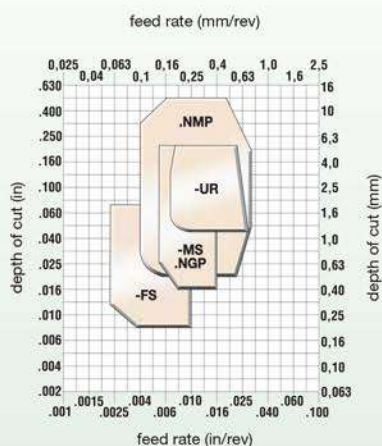
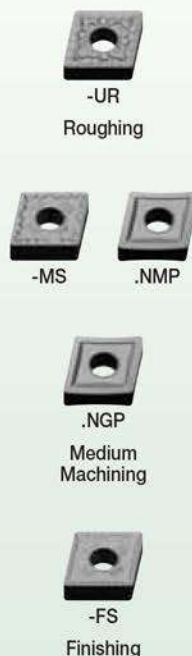
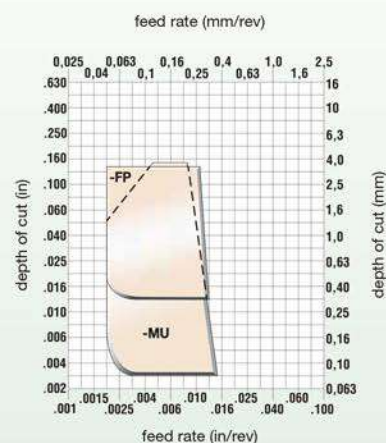
Ductile, Malleable, and Austempered Cast Irons
 (>600 MPa tensile strength)

speed – m/min

 Starting Conditions 

material group	grade	90	135	180	225	275	320	360	410	460	500	m/min
K3	WS10PT											150
	WK05CT											240
	WK20CT											210

■ Step 1 • Select the insert geometry

Negative Inserts

Positive Inserts

■ Step 2 • Select the grade

cutting condition		Negative Insert Geometry				Positive Insert Geometry	
		-FS	-NGP/-NMP	-MS	-UR	-FP	-MU
heavily interrupted cut		WS25PT	WS25PT	WS25PT	WS25PT/ WM35CT	WS25PT/ WM15CT	WS25PT
lightly interrupted cut		WS10PT	WS10PT	WS25PT	WS25PT/ WM25CT	WS25PT	WS25PT
varying depth of cut, casting, or forging skin		WS10PT	WS10PT	WS10PT	WS25PT	WS10PT	WS10PT
smooth cut, pre-turned surface		WS10PT/ WU10HT	WS10PT/ WU10HT	WS10PT	WS10PT	WS10PT	WS10PT

(continued)

■ Step 3 • Select the cutting speed *(continued)*
Iron-Based, Heat-Resistant Alloys
 (135–320 HB) (≤34 HRC)

material group	grade	speed – m/min										Starting Conditions
		15	45	75	105	140	170	200	230	290	310	m/min
S1	WU10HT		◊									30
	WS10PT			◊								55
	WS25PT		◊									40
	WM15CT			◊								55
	WM25CT/WM35CT		◊									40

Cobalt-Based, Heat-Resistant Alloys (150–425 HB) (≤45 HRC)

material group	grade	speed – m/min										Starting Conditions
		15	45	75	105	140	170	200	230	290	310	m/min
S2	WU10HT		◊									35
	WS10PT			◊								60
	WS25PT		◊									30
	WM15CT			◊								60
	WM25CT/WM35CT		◊									30

Nickel-Based, Heat-Resistant Alloys
 (140–475 HB) (≤48 HRC)

material group	grade	speed – m/min										Starting Conditions
		15	45	75	105	140	170	200	230	290	310	m/min
S3	WU10HT		◊									40
	WS10PT			◊								70
	WS25PT		◊									40
	WM15CT			◊								70
	WM25CT/WM35CT		◊									40

Titanium and Titanium Alloys (110–450 HB) (≤48 HRC)

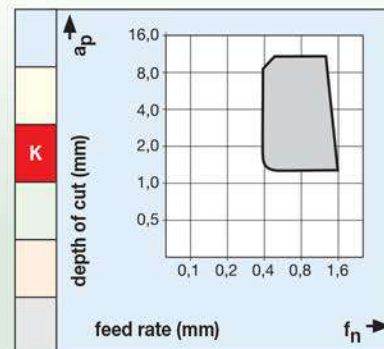
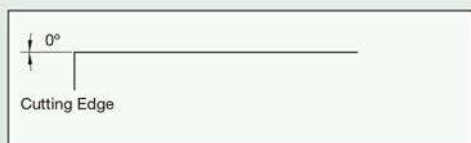
material group	grade	speed – m/min										Starting Conditions
		15	45	75	105	140	170	200	230	290	310	m/min
S4	WU10HT		◊									45
	WM15CT			◊								70
	WM25CT/WM35CT		◊									55

Negative Inserts

..MA



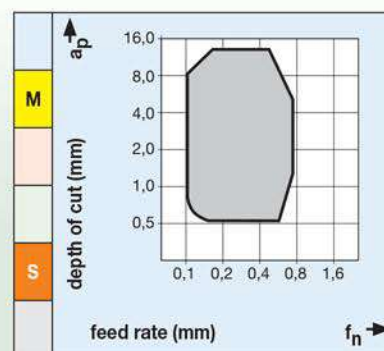
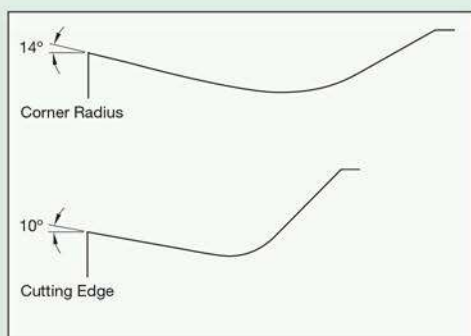
Flat top geometry for machining cast iron. For finishing to roughing applications.



.NMP



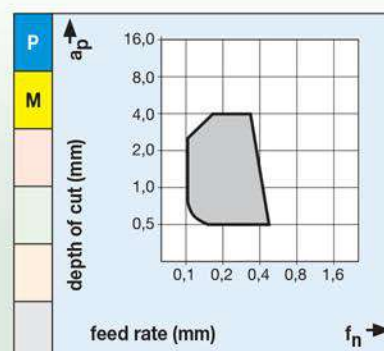
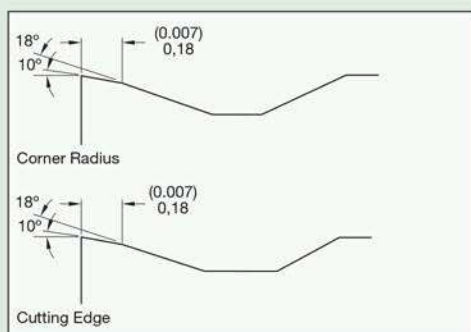
For medium-duty machining of tough work materials, such as chrome- and nickel-based alloys. Minimises tendency for materials to adhere to insert.



4



Semi-finishing geometry for light- to medium-duty steel machining. Reduced back forces result from adjusted inclination angle. Well-suited for positive, vibration-prone parts.



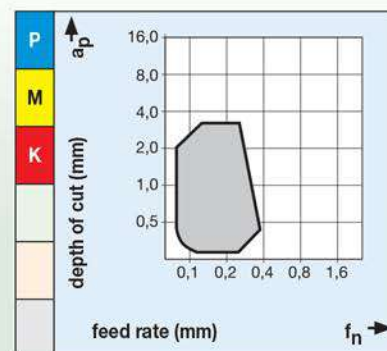
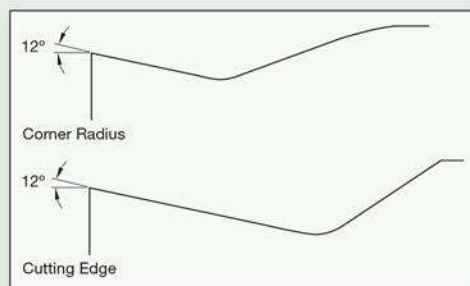
(continued)

■ **Negative Inserts** *(continued)*

22



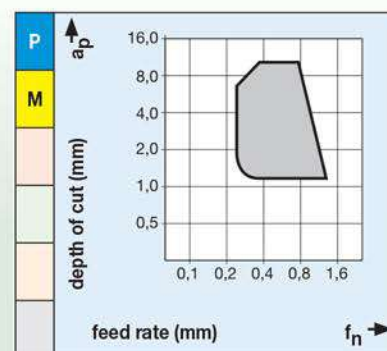
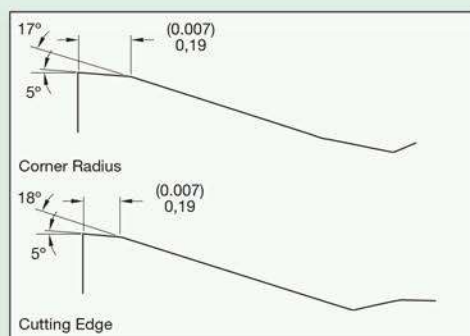
For finish turning, producing smooth, accurate surfaces. Very good chip control, especially at low depths of cut.



65



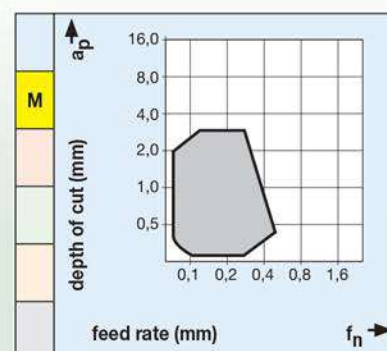
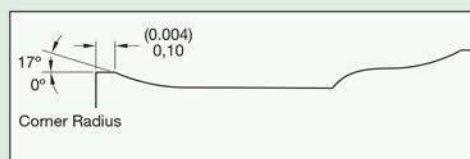
Rough-turning geometry with chip control extending to the medium-duty range. Positive rake angle lowers cutting forces, reducing power requirements. Used on low-tensile and stainless steels.



CT



Designed for outward copy turning. Where other geometries produce long chips, the unique distribution of the cut results in good chip control.



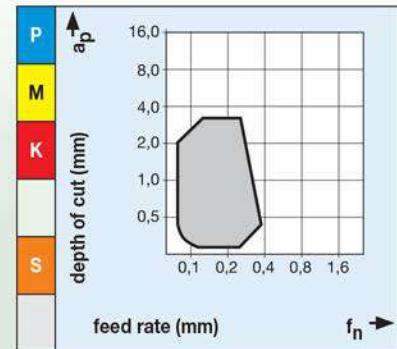
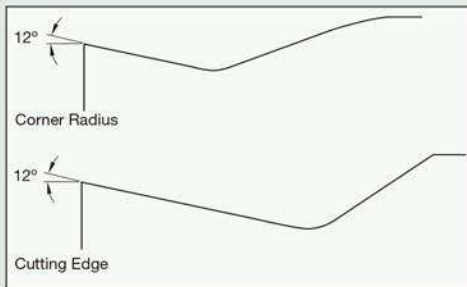
(continued)

■ **Negative Inserts** *(continued)*

FF



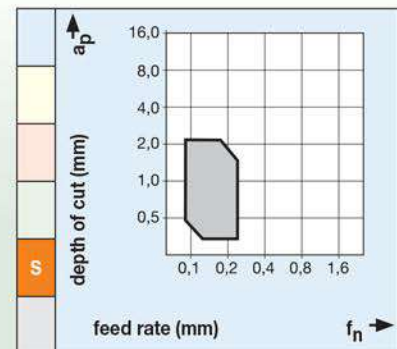
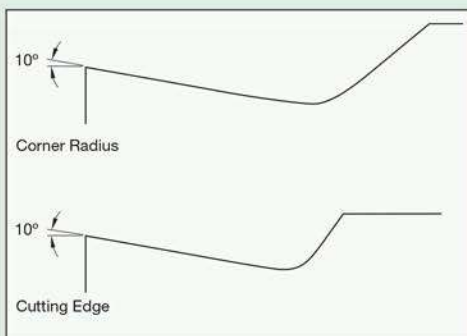
For finish turning, producing smooth, accurate surfaces.
Very good chip control, especially at low depths of cut.



FS



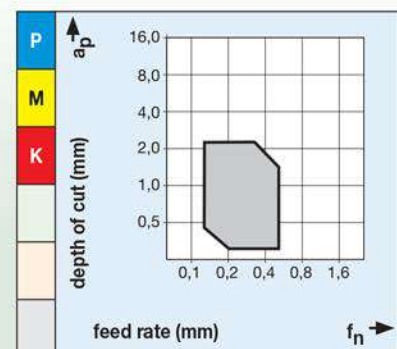
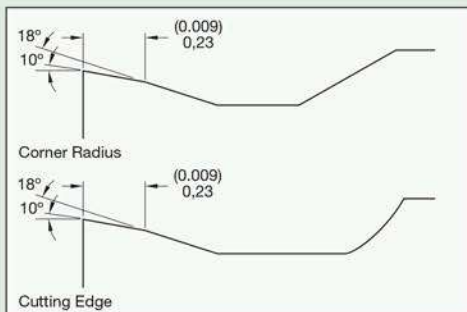
For finishing applications. Ground periphery with positive cutting edge ideally suited for high-temp alloys. Micro finished edge on the ground periphery adds just a slight hone for improved edge integrity and reliability.



FW



Wiper geometry for finishing when good surface finish is needed using high feed rates.
First choice for high-performance finishing.



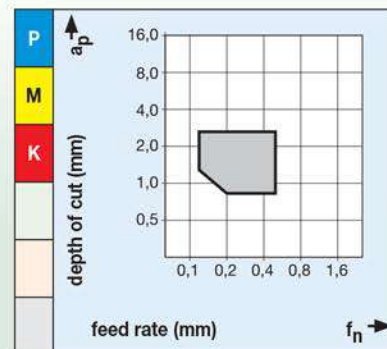
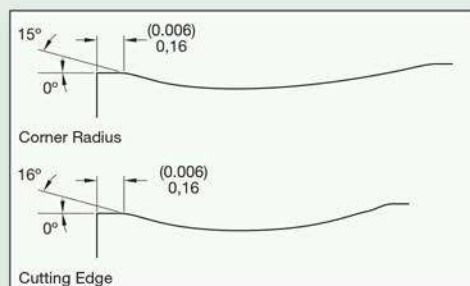
(continued)

■ **Negative Inserts** *(continued)*

MG



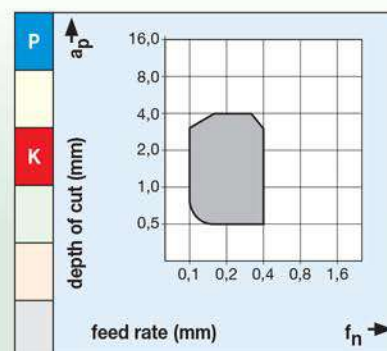
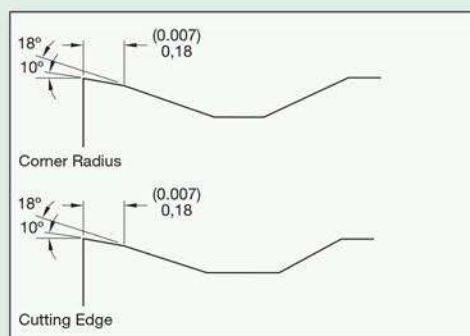
For light machining to light roughing.



ML



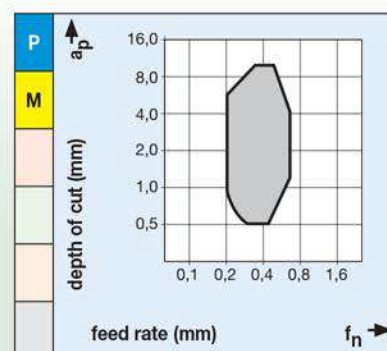
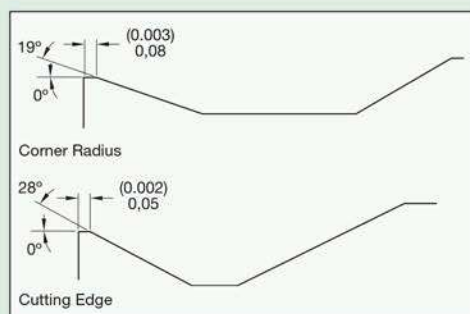
For finishing to medium machining with a negative, stable cutting edge.



MR



For medium to light roughing of steels, difficult-to-machine high-alloy titanium, and aluminium materials. High strength to deal with heavy chip deformation.



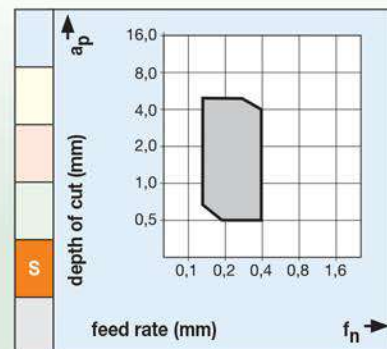
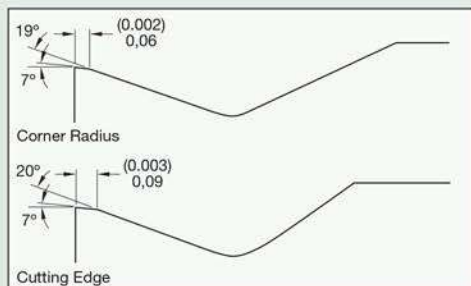
(continued)

■ Negative Inserts *(continued)*

MS



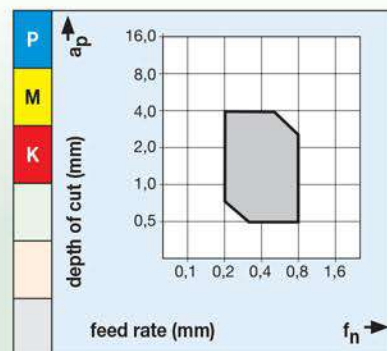
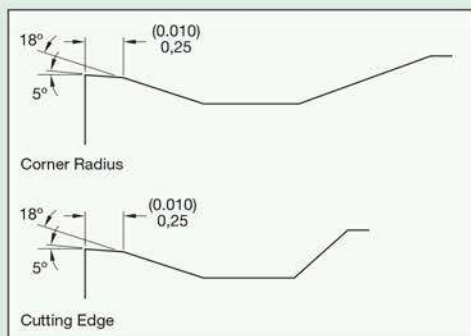
For medium machining in high-temp materials. Utilises a micro-finished edge preparation to increase edge toughness.



MW



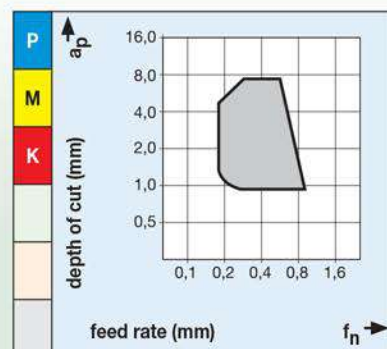
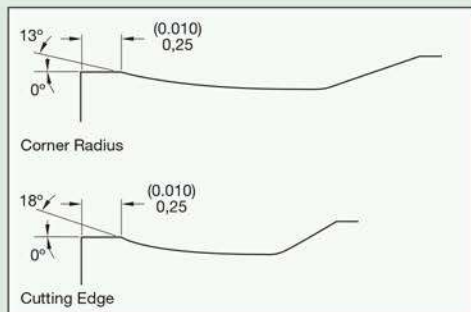
Wiper geometry for light to medium turning with high feed rates. Feed twice as high as with edges with full corner radii to produce same surface finish.



RH



For medium-duty to roughing. Outstanding chip control. High edge strength for interrupted cuts, forging skin, or scale. Preferred for all cast iron, such as grey, malleable, and nodular.



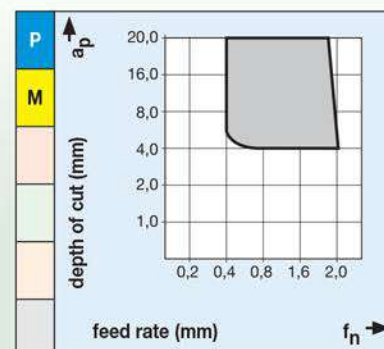
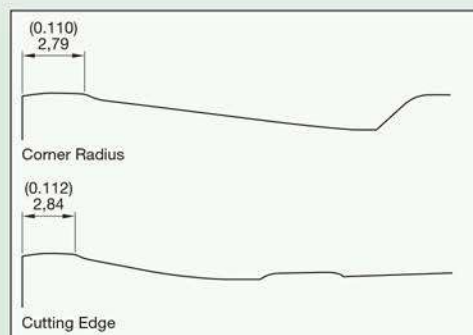
(continued)

■ Negative Inserts *(continued)*

SR



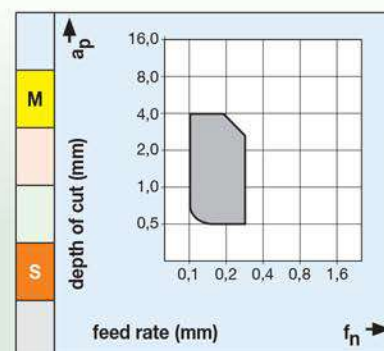
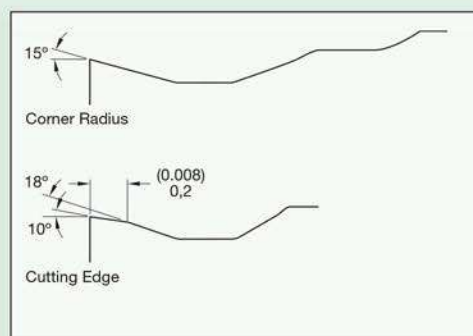
A super roughing geometry. The SR has a strong cutting edge to support high cutting loads in roughing applications. Can produce high metal removal rates.



UF



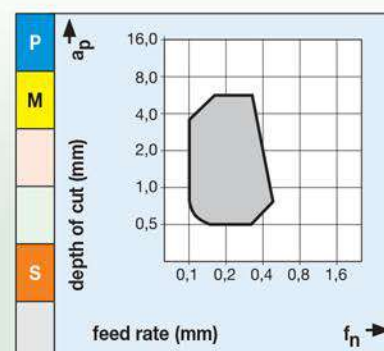
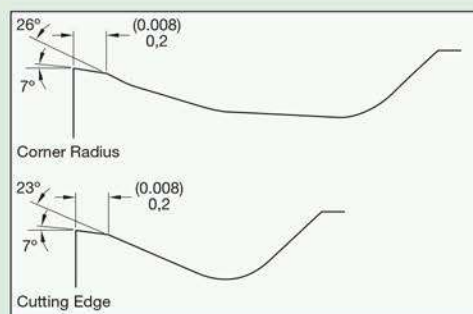
For finishing with a positive cutting edge for reduced cutting forces and superior surface quality.



UM



For medium-duty turning operations. Soft-cutting chipbreaker. Used in applications producing varying chip sections, such as profile or copy turning. Good dimensional accuracy. For soft steel materials and stainless steels.



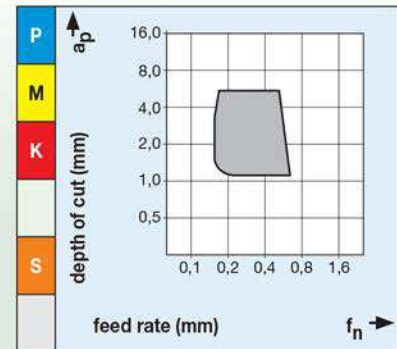
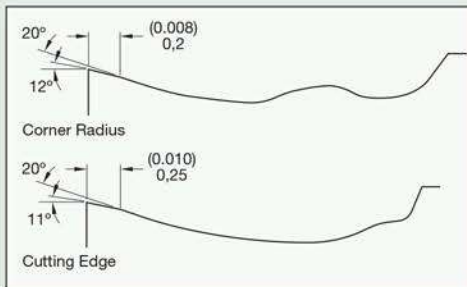
(continued)

■ Negative Inserts *(continued)*

UR



Roughing geometry with smooth chip forming and improved coolant flow for increased tool life. Positive geometry reduces cutting forces and improves depth-of-cut notching resistance. Ideally suitable for stainless steel applications and for smooth machining of steel.

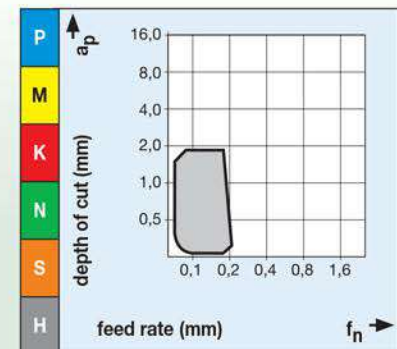
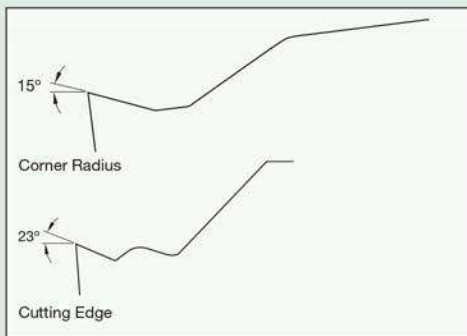


■ Positive Inserts

2



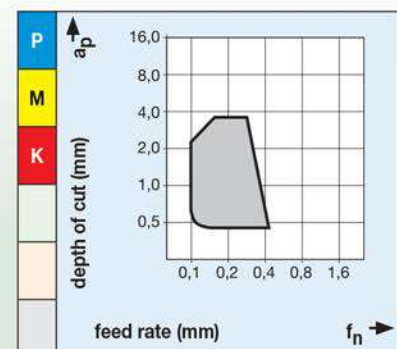
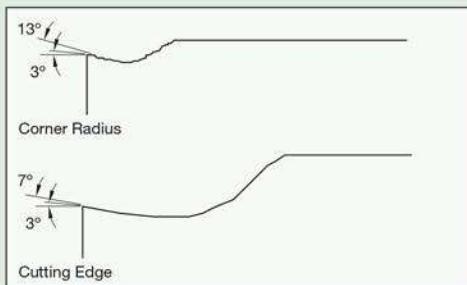
Sharp edge for finish machining. Good chip control with very small chip sections. High dimensional accuracy and smooth surface finishes. Inserts with .008" corner radius precision-ground on all sides.



41



Preferred for light- to medium-duty machining. Low cutting forces and reduced power requirements due to positive rake angle. Good chip control over a wide range. Also used on short-chipping cast iron.



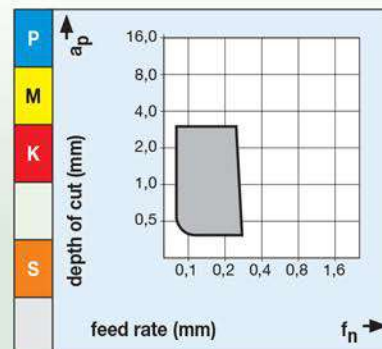
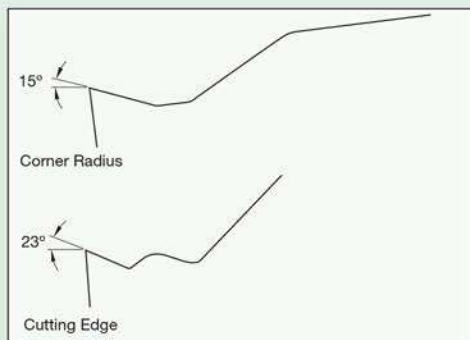
(continued)

■ **Positive Inserts** *(continued)*

FP



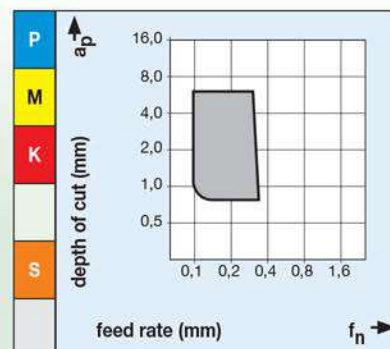
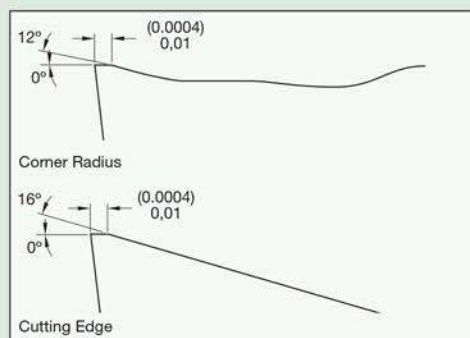
For finishing to medium turning operations with optimal chip control over a wide range of cutting conditions and workpiece materials.



MP



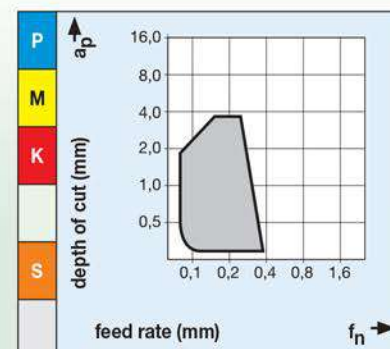
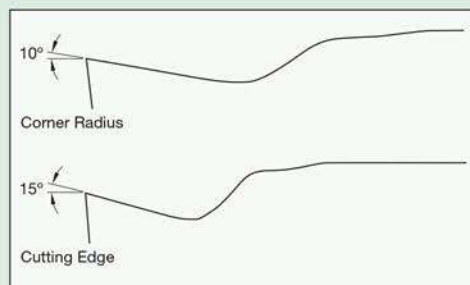
For medium to rough turning with reduced cutting forces and improved chip control for high feed rates. Suitable for high metal removal rates and spindling applications.

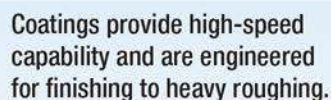


MU



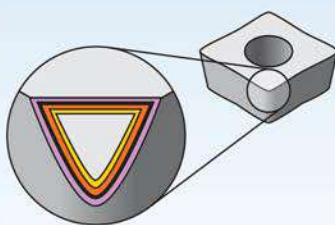
A medium universal geometry with a soft cutting action due to its positive geometry. Has a versatile application range and is suited for turning unstable components and for boring applications.





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

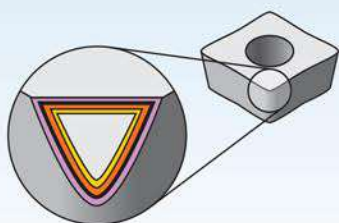
[illegible]



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

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

[illegible]



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

P	Steel
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H	Hardened Materials

		wear resistance ← → toughness										
Coating		Grade Description										

NOVO KNOWS CAD/CAM

With the addition of NOVO™ to your team, your CAD/CAM capabilities become much more accurate, streamlined, and productive.

Before NOVO: The programmer would be in their CAD/CAM software, programming a part. Using the outdated method of finding a tool in a catalogue, and then manually inputting the tooling information from the catalogue into the CAD/CAM software.

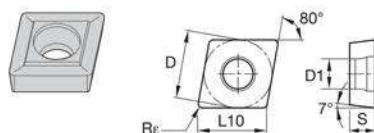
The concern is that assumptions are made, and only partial tooling information is entered.

With NOVO: The powerful digital intelligence of NOVO not only helps the programmer find the right tool for the metalcutting job, but also automatically integrates all the tooling data into a complete CAD/CAM solution. The integration of all the tooling data increases the viability of the part being programmed, and is delivered quickly — saving you time.

NOVO can ensure you have the right tools on your machines, in the right sequence. Resulting in flawless execution that accelerates every job, and maximises every shift. widia.com/novo



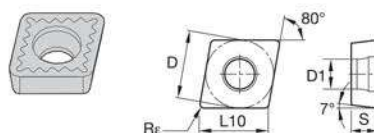
Inserts



- first choice
- alternate choice

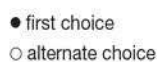
[illegible]

■ CCMT

[illegible]

■ CCMT-2

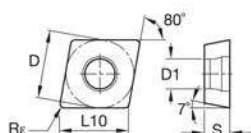
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[illegible]

inserts

ISO catalogue number	D	L10	S	Re	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TT15
CCMT060202FP	6,35	6,45	2,38	0,2	2,80	4169857	4170140	-	-	4168778	4168778	-	-	-	-	-	-	-	-	-
CCMT060204FP	6,35	6,45	2,38	0,4	2,80	4169858	4170141	-	4168738	4168779	-	-	4170032	5684337	5684340	-	-	-	-	-
CCMT060208FP	6,35	6,45	2,38	0,8	2,80	4169859	4170142	-	4168739	4168780	-	-	4170083	5684342	5684344	-	-	-	-	-
CCMT09T302FP	9,53	9,67	3,97	0,2	4,40	-	4170293	-	-	4168781	-	-	-	-	-	-	-	-	-	-
CCMT09T304FP	9,53	9,67	3,97	0,4	4,40	4169860	4170294	-	4168740	4168782	-	-	4170084	5684341	5684343	-	-	-	-	-
CCMT09T308FP	9,53	9,67	3,97	0,8	4,40	4169861	4170295	-	4168741	4168783	-	-	4170085	-	5684338	-	-	-	-	-
CCMT120404FP	12,70	12,90	4,76	0,4	5,50	4169862	4170296	-	4168742	4168784	-	-	4170086	-	-	-	-	-	-	-
CCMT120408FP	12,70	12,90	4,76	0,8	5,50	4169993	4170297	-	4168763	4168785	-	-	4170087	-	-	-	-	-	-	-
CCMT120412FP	12,70	12,90	4,76	1,2	5,50	4169994	4170298	-	4168786	-	-	-	4170088	-	-	-	-	-	-	-

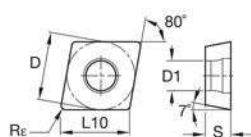




- first choice
- alternate choice

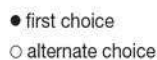
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■ CCMT-FW

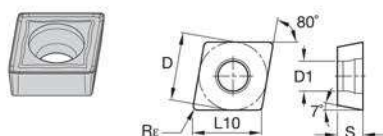
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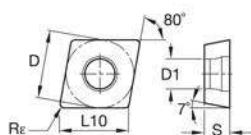
■ CCMT-MP

[illegible]

[illegible]

ISO catalogue number	D	L10	S	Re	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TT15
CCMT060208MU	6,35	6,45	2,38	0,8	2,80	■	■	■	■	5623159	■	■	5623158	■	■	■	■	■	■	■
CCMT090304MU	9,53	9,67	3,18	0,4	4,40	■	5623420	■	■	5623421	■	■	■	■	■	■	■	■	■	■
CCMT090308MU	9,53	9,67	3,18	0,8	4,40	■	5623425	5623424	■	■	■	■	■	■	■	■	■	■	■	■
CCMT09T304MU	9,53	9,67	3,97	0,4	4,40	5623431	5623430	■	■	5623427	■	5623429	5623432	5623428	5623426	■	■	■	■	■
CCMT09T308MU	9,53	9,67	3,97	0,8	4,40	5623440	5623436	5623439	■	5623435	■	■	5623433	5623438	5623437	■	■	■	■	■
CCMT120408MU	12,70	12,90	4,76	0,8	5,50	5623443	■	■	■	5623442	■	■	5623441	■	5623444	■	■	■	■	■

[illegible]

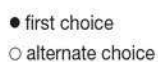


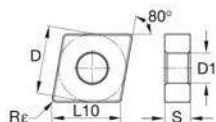
- first choice
- alternate choice

CCMW

[illegible]

ISO catalogue number	D	L10	S	Re	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TT15
CCMW060202	6,35	6,45	2,38	0,2	2,80												2031733			
CCMW060204	6,35	6,45	2,38	0,4	2,80							4170464	4170368				2027507			
CCMW090302	9,53	9,67	3,18	0,2	4,40												2031734			
CCMW090304	9,53	9,67	3,18	0,4	4,40							4170465	4170369				2027509			
CCMW090308	9,53	9,67	3,18	0,8	4,40							4170466	4170370							
CCMW09T304	9,53	9,67	3,97	0,4	4,40							4170467	4170371				2027511			
CCMW09T308	9,53	9,67	3,97	0,8	4,40							4170468	4170372				2027512			
CCMW120404	12,70	12,90	4,76	0,4	5,50							4170469	4170373				2027524			
CCMW120408	12,70	12,90	4,76	0,8	5,50							4170470	4170374				2027525			

[illegible]

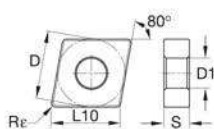


- first choice
- alternate choice

[illegible]

CNMA

ISO catalogue number	D	L10	S	Re	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TT15
CNMA120404	12,70	12,90	4,76	0,4	5,16							4171595	4171595							
CNMA120408	12,70	12,90	4,76	0,8	5,16							4171596	4171596							
CNMA120412	12,70	12,90	4,76	1,2	5,16							4171597	4171597							
CNMA120416	12,70	12,90	4,76	1,6	5,16							4171598	4171598							
CNMA160608	15,88	16,12	6,35	0,8	6,35								4171867							
CNMA160612	15,88	16,12	6,35	1,2	6,35							4171599	4171599							
CNMA160616	15,88	16,12	6,35	1,6	6,35							4171600	4171600							
CNMA190608	19,05	19,34	6,35	0,8	7,93							4171601	4171601							
CNMA190612	19,05	19,34	6,35	1,2	7,93							4171602	4171602							
CNMA190616	19,05	19,34	6,35	1,6	7,93							4171633	4171633							



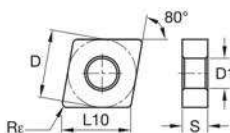
Inserts

[illegible]

Technical drawing of a square plate with a circular hole. The drawing shows a top view and a side view. The top view is a square with side length D and a circular hole with diameter $L10$. The hole is centered, and the distance from the hole's edge to the square's edge is $R8$. The side view shows the plate's thickness S and a dimension $D1$ related to the hole's depth. An angle of 80° is indicated between the top surface and the side face.

ISO
catalogue number

CNMG12040422



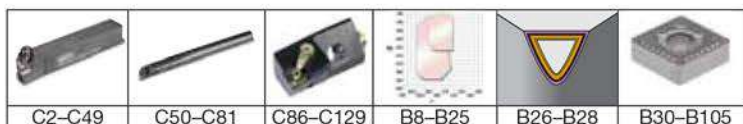
ISO
catalogue number

CNMG120404FF

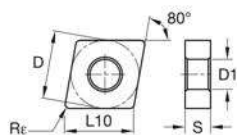
CNMG120408FF

CNMG120412FF

4171027	4171026	4171025	WP15CT
-	-	-	WP25CT
-	-	-	WP35CT
-	-	-	WM15CT
4172347	4172346	4172345	WM25CT
-	-	-	WM35CT
-	-	-	WK05CT
4171320	4171319	4171318	WK20CT
-	5684272	5684271	WS10PT
-	-	-	WS25PT
-	-	-	WU10HT
-	-	-	THM
-	-	-	TTM
-	-	-	TTR
-	-	-	TT15



Inserts

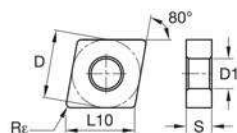


- first choice
- alternate choice

■ CNMG-FW

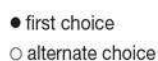
ISO catalogue number	D	L10	S	R _ε	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TT45
CNMG120404FW	12,70	12,90	4,76	0,4	5,16	■	■	■	4171755	4172702	■	4171680	■	■	■	■	■	■	■	■
CNMG120408FW	12,70	12,90	4,76	0,8	5,16	5623480	■	■	4171756	4173103	■	4171681	■	■	■	■	■	■	■	■
CNMG120412FW	12,70	12,90	4,76	1,2	5,16	5623481	■	■	4171757	4173104	■	4171683	■	■	■	■	■	■	■	■

ISO catalogue number	D	L10	S	R _ε	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TT45
CNMG120404ML	12,70	12,90	4,76	0,4	5,16	4171059	4170458	■	■	■	■	4171657	4171390	■	■	■	■	■	■	■
CNMG120408ML	12,70	12,90	4,76	0,8	5,16	4171060	4170459	■	■	■	■	4171658	4171391	■	■	■	■	■	■	■
CNMG120412ML	12,70	12,90	4,76	1,2	5,16	4171348	4170460	■	■	■	■	4171659	4171392	■	■	■	■	■	■	■
CNMG120416ML	12,70	12,90	4,76	1,6	5,16	5684346	■	■	■	■	■	4171393	■	■	■	■	■	■	■	■



■ CNMG-ML

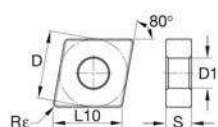
[illegible]

[illegible]

Inserts

ISO catalogue number	D	L10	S	Rε	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TT15
CNMG120404MR	12,70	12,90	4,76	0,4	5,16	4171130	4170546	4170043	■	■	■	■	■	■	■	■	■	■	■	■
CNMG120408MR	12,70	12,90	4,76	0,8	5,16	4171131	4170547	4170044	■	4172955	4173120	■	■	■	■	■	■	■	■	■
CNMG120412MR	12,70	12,90	4,76	1,2	5,16	4171132	4170548	4170045	■	4172956	4173121	■	■	■	■	■	■	■	■	■
CNMG120416MR	12,70	12,90	4,76	1,6	5,16	4171133	5684353	■	■	4172957	4173122	■	■	■	■	■	■	■	■	■
CNMG160608MR	15,88	16,12	6,35	0,8	6,35	4171134	4170549	■	■	4172958	4173133	■	■	■	■	■	■	■	■	■
CNMG160612MR	15,88	16,12	6,35	1,2	6,35	4171135	4170550	4170046	■	4172959	4173134	■	■	■	■	■	■	■	■	■
CNMG160616MR	15,88	16,12	6,35	1,6	6,35	4171136	4170551	4170047	■	4172960	4173135	■	■	■	■	■	■	■	■	■
CNMG190612MR	19,05	19,34	6,35	1,2	7,93	4171137	4170552	4170048	■	4172961	4173136	■	■	■	■	■	■	■	■	■
CNMG190616MR	19,05	19,34	6,35	1,6	7,93	4171138	4170563	4170049	■	4172962	4173137	■	■	■	■	■	■	■	■	■



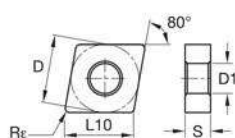


- first choice
- alternate choice

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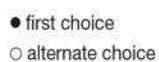
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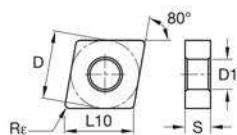
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CNMG120404MS	12,70	12,90	4,76	0,4	5,16	1	1	1	1	1	1	1	1	5908742	5908743	5908744	1	1	1	1	
CNMG120408MS	12,70	12,90	4,76	0,8	5,16	1	1	1	1	1	1	1	1	5908745	5908746	5908747	1	1	1	1	
CNMG120412MS	12,70	12,90	4,76	1,2	5,16	1	1	1	1	1	1	1	1	5908748	5908749	5908750	1	1	1	1	
CNMG120416MS	12,70	12,90	4,76	1,6	5,16	1	1	1	1	1	1	1	1	5908751	5908752	5908753	1	1	1	1	
CNMG160608MS	15,88	16,12	6,35	0,8	6,35	1	1	1	1	1	1	1	1	5908754	5908755	5908756	1	1	1	1	
CNMG160612MS	15,88	16,12	6,35	1,2	6,35	1	1	1	1	1	1	1	1	5908757	5908758	5908759	1	1	1	1	
CNMG190608MS	19,05	19,34	6,35	0,8	7,93	1	1	1	1	1	1	1	1	5908760	5908761	5908762	1	1	1	1	
CNMG190612MS	19,05	19,34	6,35	1,2	7,92	1	1	1	1	1	1	1	1	5908763	5908764	5908765	1	1	1	1	
CNMG190616MS	19,05	19,34	6,35	1,6	7,92	1	1	1	1	1	1	1	1	5908766	5908767	5908768	1	1	1	1	



■ CNMG-MW

ISO catalogue number	D	L10	S	Rε	D1																
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CNMG120408MW	12,70	12,90	4,76	0,8	5,16	I	I	I	I	4173112	I	I	4171682	I	I	I	I	I	I	I	
CNMG120412MW	12,70	12,90	4,76	1,2	5,16	I	I	I	I	4173113	I	I	4171684	I	I	I	I	I	I	I	

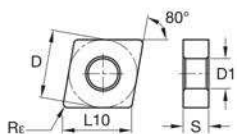
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- first choice
- alternate choice

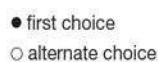
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■ CNMG-UF

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■ CNMG-UM

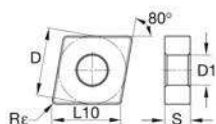
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CNMG120404UM	12,70	12,90	4,76	0,4	5,16	-	-	-	4172334	4172380	4172410	-	-	5645217	-	-	-	-	-	-
CNMG120408UM	12,70	12,90	4,76	0,8	5,16	5645250	5645219	-	4172335	4172381	4172411	-	-	-	-	-	-	-	-	-
CNMG120412UM	12,70	12,90	4,76	1,2	5,16	-	-	-	4172336	4172382	4172412	-	-	5301414	-	-	-	-	-	-



ISO catalogue number	D	L10	S	Re	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TT15
CNMG120404UR	12,70	12,90	4,76	0,4	5,16	4171022	4170500	-	4169406	4169444	4169479	-	-	5578894	5578895	-	-	-	-	-
CNMG120408UR	12,70	12,90	4,76	0,8	5,16	4171093	4170501	4169960	4169407	4169445	4169480	5680086	5680085	5301400	5301402	-	-	-	-	-
CNMG120412UR	12,70	12,90	4,76	1,2	5,16	4171094	4170502	4169961	4169408	4169446	4169481	5680087	4171419	5301413	5301416	-	-	-	-	-
CNMG120416UR	12,70	12,90	4,76	1,6	5,16	4171095	4170503	-	4169409	4169447	4169482	-	4171420	5680089	5680170	-	-	-	-	-
CNMG160608UR	15,88	16,12	6,35	0,8	6,35	4171096	4170504	-	4169410	4169448	4169483	-	4171421	5578896	5578897	-	-	-	-	-
CNMG160612UR	15,88	16,12	6,35	1,2	6,35	4171097	4170505	4169962	4169411	4169449	4169484	-	4171422	5578898	-	-	-	-	-	-
CNMG160616UR	15,88	16,12	6,35	1,6	6,35	4171098	4170506	4169963	-	4169450	4169485	-	4171423	5578900	5578901	-	-	-	-	-
CNMG190612UR	19,05	19,34	6,35	1,2	7,93	4171099	4170507	4169964	4169412	4169451	4169486	5680088	4171424	5578902	5512536	-	-	-	-	-
CNMG190616UR	19,05	19,34	6,35	1,6	7,93	4171100	4170508	4169965	4169423	4169452	4169487	-	5345183	5579234	-	-	-	-	-	-

Inserts



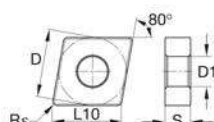


- first choice
- alternate choice

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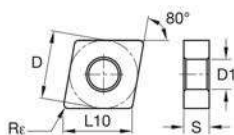
■ CNMM-65

ISO catalogue number	D	L10	S	Rε	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TT145
CNMM12040865	12,70	12,90	4,76	0,8	5,16	5698348	5698349	5698360	5698347	5698361	5698362	5698363	5698364	5698365	5698366	5698367	5698368	5698369	5698370	5698371
CNMM12041265	12,70	12,90	4,76	1,2	5,16	5698372	5698373	5698374	5698375	5698376	5698377	5698378	5698379	5698380	5698381	5698382	5698383	5698384	5698385	5698386
CNMM12041665	12,70	12,90	4,76	1,6	5,16	5698387	5698388	5698389	5698390	5698391	5698392	5698393	5698394	5698395	5698396	5698397	5698398	5698399	5698400	5698401
CNMM16060865	15,88	16,12	6,35	0,8	6,35	5698402	5698403	5698404	5698405	5698406	5698407	5698408	5698409	5698410	5698411	5698412	5698413	5698414	5698415	5698416
CNMM16061265	15,88	16,12	6,35	1,2	6,35	5698417	5698418	5698419	5698420	5698421	5698422	5698423	5698424	5698425	5698426	5698427	5698428	5698429	5698430	5698431
CNMM16061665	15,88	16,12	6,35	1,6	6,35	5698432	5698433	5698434	5698435	5698436	5698437	5698438	5698439	5698440	5698441	5698442	5698443	5698444	5698445	5698446
CNMM19061265	19,05	19,34	6,35	1,2	7,93	5698447	5698448	5698449	5698450	5698451	5698452	5698453	5698454	5698455	5698456	5698457	5698458	5698459	5698460	5698461
CNMM19061665	19,05	19,34	6,35	1,6	7,93	5698462	5698463	5698464	5698465	5698466	5698467	5698468	5698469	5698470	5698471	5698472	5698473	5698474	5698475	5698476
CNMM19062465	19,05	19,34	6,35	2,4	7,93	5698477	5698478	5698479	5698480	5698481	5698482	5698483	5698484	5698485	5698486	5698487	5698488	5698489	5698490	5698491

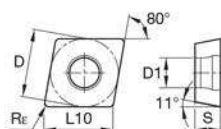


■ CNMM-SR

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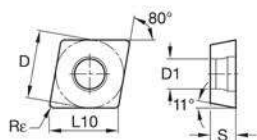
Inserts

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-	WP15CT
-	WP25CT
-	WP35CT
-	WM15CT
-	WM25CT
-	WM35CT
-	WK05CT
-	WK20CT
-	WS10PT
-	WS25PT
-	WU10HT
-	THM
-	TTM
2022082	TTT
-	TT15



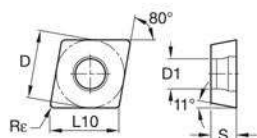
Inserts



- first choice
- alternate choice

■ CPMT-FP

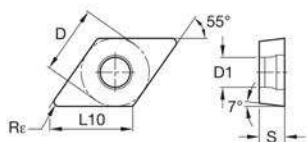
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						4170015	4170325	-	-	4168822	4168822	-	-	-	-	-	-	-	-	-
CPMT060202FP	6,35	6,45	2,38	0,2	2,80	4170016	4170326	-	-	4168812	4168823	-	-	-	-	-	-	-	-	-
CPMT060204FP	6,35	6,45	2,38	0,4	2,80	4170017	4170327	-	-	4168813	4168824	-	-	-	-	-	-	-	-	-
CPMT060208FP	6,35	6,45	2,38	0,8	2,80	4170018	4170328	-	-	4168814	4168825	-	-	-	-	-	-	-	-	-
CPMT09T302FP	9,53	9,67	3,97	0,2	4,40	4170019	4170329	-	-	4168815	4168826	-	-	-	-	-	-	-	-	-
CPMT09T304FP	9,53	9,67	3,97	0,4	4,40	4170020	4170330	-	-	4168816	4168827	-	-	-	-	-	-	-	-	-
CPMT09T308FP	9,53	9,67	3,97	0,8	4,40	4170021	4170331	-	-	4168817	4168828	-	-	-	-	-	-	-	-	-



■ CPMT-MP

ISO catalogue number	D	L10	S	R _e	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TT15
CPMT060208MP	6,35	6,45	2,38	0,8	2,80	4170255	4170257	-	-	-	-	-	-	-	-	-	-	-	-	-
CPMT09T308MP	9,53	9,67	3,97	0,8	4,40	4170256	4170258	-	4168923	4168926	-	-	4170266	-	-	-	-	-	-	-
CPMT09T312MP	9,53	9,67	3,97	1,2	4,40	-	4170259	-	4168924	-	-	-	4170267	-	-	-	-	-	-	-

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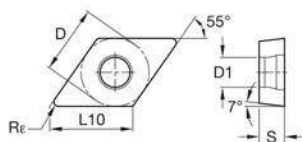
- first choice
- alternate choice

■ DCMT

ISO catalogue number	D	L10	S	Rε	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TT15
DCMT070204	6,35	7,75	2,38	0,4	2,80	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○
DCMT11T304	9,53	11,63	3,97	0,4	4,40	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○
DCMT11T308	9,53	11,63	3,97	0,8	4,40	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○
DCMT11T312	9,53	11,63	3,97	1,2	4,40	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○
DCMT150404	12,70	15,50	4,76	0,4	5,50	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○
DCMT150408	12,70	15,50	4,76	0,8	5,50	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○
DCMT150412	12,70	15,50	4,76	1,2	5,50	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○
DCMT150416	12,70	15,50	4,76	1,6	5,50	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○

Inserts



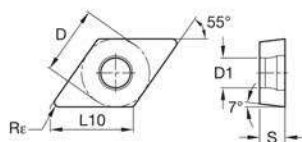


- first choice
- alternate choice

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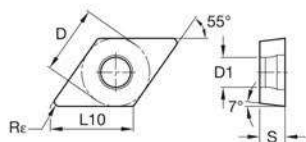
■ DCMT-FP

ISO catalogue number	D	L10	S	Rε	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TT14E
DCMT070202FP	6,35	7,75	2,38	0,2	2,80	-	4170299	-	-	4168787	-	-	-	-	-	-	-	-	-	-
DCMT070204FP	6,35	7,75	2,38	0,4	2,80	4169995	4170300	-	4168764	4168788	-	4170089	-	-	-	-	-	-	-	-
DCMT070208FP	6,35	7,75	2,38	0,8	2,80	-	4170301	-	-	4168789	-	-	-	-	-	-	-	-	-	-
DCMT11T302FP	9,53	11,63	3,97	0,2	4,40	4169996	4170302	-	-	4168790	-	-	-	-	-	-	-	-	-	-
DCMT11T304FP	9,53	11,63	3,97	0,4	4,40	4169997	4170303	-	4168765	4168791	-	4170090	-	-	-	-	-	-	-	-
DCMT11T308FP	9,53	11,63	3,97	0,8	4,40	4169998	4170304	-	4168766	4168792	-	4170091	-	-	-	-	-	-	-	-
DCMT11T312FP	9,53	11,63	3,97	1,2	4,40	4169999	4170305	-	-	-	-	-	-	-	-	-	-	-	-	-
DCMT150404FP	12,70	15,50	4,76	0,4	5,50	4170000	4170306	-	-	4168793	-	-	-	-	-	-	-	-	-	-
DCMT150408FP	12,70	15,50	4,76	0,8	5,50	4170001	4170307	-	-	4168794	-	4170092	-	-	-	-	-	-	-	-



■ DCMT-FW

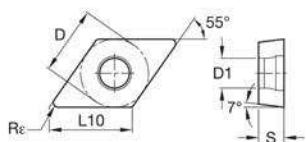
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- first choice
- alternate choice

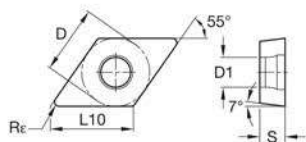
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■ DCMT-MW

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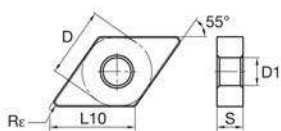
■ DCMX-18

ISO catalogue number	D	L10	S	Rε	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	TBM	TIM	TTR	TTHF
DCMX11T302R18	9,53	11,63	3,97	0,2	4,30	I	I	I	I	I	I	I	I	I	I	I	2011507	I	I	



■ DCMW

ISO catalogue number	D	L10	S	Rε	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TT14
DCMW070204	6,35	7,75	2,38	0,4	2,80	■	■	■	■	■	■	4170471	4170375	■	■	■	2027966	■	■	
DCMW11T304	9,53	11,63	3,97	0,4	4,40	■	■	■	■	■	■	4170472	4170376	■	■	■	2027967	■	■	
DCMW150408	12,70	15,50	4,76	0,8	5,50	■	■	■	■	■	■	4170473	4170377	■	■	■	2031737	■	■	



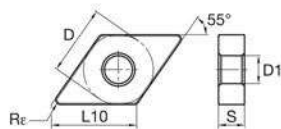
Inserts

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ISO catalogue number	D	L10	S	Re	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTR	TT15
DNGG110402FS	9,52	11,63	4,76	0,2	3,81	■	■	■	■	■	■	■	■	5548670	5538206	5549947	■	■	■
DNGG110404FS	9,52	11,63	4,76	0,4	3,81	■	■	■	■	■	■	■	■	5548671	5549948	5549947	■	■	■
DNGG110408FS	9,52	11,63	4,76	0,8	3,81	■	■	■	■	■	■	■	■	5548672	5549949	5549949	■	■	■
DNGG150401FS	12,70	15,50	4,76	0,1	5,16	■	■	■	■	■	■	■	■	5548674	5549991	5549991	■	■	■
DNGG150402FS	12,70	15,50	4,76	0,2	5,16	■	■	■	■	■	■	■	■	5548673	5549990	5549990	■	■	■
DNGG150404FS	12,70	15,50	4,76	0,4	5,16	■	■	■	■	■	■	■	■	5548675	5538207	5549992	■	■	■
DNGG150408FS	12,70	15,50	4,76	0,8	5,16	■	■	■	■	■	■	■	■	5548676	5538208	5549993	■	■	■
DNGG150412FS	12,70	15,50	4,76	1,2	5,16	■	■	■	■	■	■	■	■	5548677	5549994	5549994	■	■	■
DNGG150604FS	12,70	15,50	6,35	0,4	5,16	■	■	■	■	■	■	■	■	5548678	5538209	5549995	■	■	■
DNGG150608FS	12,70	15,50	6,35	0,8	5,16	■	■	■	■	■	■	■	■	5548679	5538230	5549996	■	■	■



Inserts

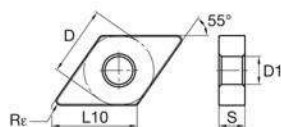


- first choice
- alternate choice

■ DNGP

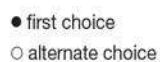
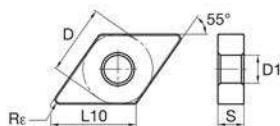
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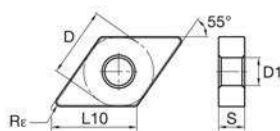
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DNGP150401	12,70	15,50	4,76	0,1	5,16	■	■	■	■	■	■	■	■	5549191	5549191	■	■	■	■	■
DNGP150402	12,70	15,50	4,76	0,2	5,16	■	■	■	■	■	■	■	■	5549192	5549192	■	■	■	■	■
DNGP150404	12,70	15,50	4,76	0,4	5,16	■	■	■	■	■	■	■	■	5549193	5549193	■	5549209	■	■	■
DNGP150408	12,70	15,50	4,76	0,8	5,16	■	■	■	■	■	■	■	■	5549194	5549194	■	5549210	■	■	■



DNMA

ISO catalogue number	D	L10	S	Rε	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TT145
DNMA110408	9,53	11,63	4,76	0,8	3,81	■	■	■	■	■	■	4171634	4171873	■	■	■	■	■	■	■
DNMA110412	9,53	11,63	4,76	1,2	3,81	■	■	■	■	■	■	■	4171874	4171875	■	■	■	■	■	■
DNMA150408	12,70	15,50	4,76	0,8	5,16	■	■	■	■	■	■	4171635	4171875	■	■	■	■	■	■	■
DNMA150412	12,70	15,50	4,76	1,2	5,16	■	■	■	■	■	■	4171636	4171876	■	■	■	■	■	■	■
DNMA150416	12,70	15,50	4,76	1,6	5,16	■	■	■	■	■	■	■	4171877	4171878	■	■	■	■	■	■
DNMA150608	12,70	15,50	6,35	0,8	5,16	■	■	■	■	■	■	4171637	4171878	■	■	■	■	■	■	■
DNMA150612	12,70	15,50	6,35	1,2	5,16	■	■	■	■	■	■	4171638	4171879	■	■	■	■	■	■	■
DNMA150616	12,70	15,50	6,35	1,6	5,16	■	■	■	■	■	■	■	4171880	4171880	■	■	■	■	■	■

[illegible][illegible][illegible]

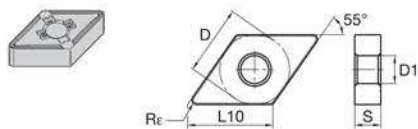


☐ alternate choice

[illegible]

■ DNMG-FF

ISO catalogue number	D	L10	S	R _e	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TT15
						4171028	-	-	-	4172348	-	-	4171321	5684273	-	-	-	-	-	-
DNMG110404FF	9,53	11,63	4,76	0,4	3,81	4171028	-	-	-	4172348	-	-	4171321	5684273	-	-	-	-	-	-
DNMG110408FF	9,53	11,63	4,76	0,8	3,81	4171029	-	-	-	4172349	-	-	4171322	-	-	-	-	-	-	-
DNMG110412FF	9,53	11,63	4,76	1,2	3,81	-	-	-	-	4172350	-	-	-	-	-	-	-	-	-	-
DNMG150404FF	12,70	15,50	4,76	0,4	5,16	4171030	-	-	-	4172351	-	-	-	5684274	-	-	-	-	-	-
DNMG150408FF	12,70	15,50	4,76	0,8	5,16	4171031	-	-	-	4172352	-	-	4171373	5684275	-	-	-	-	-	-
DNMG150412FF	12,70	15,50	4,76	1,2	5,16	-	-	-	-	-	-	-	4171374	-	-	-	-	-	-	-
DNMG150604FF	12,70	15,50	6,35	0,4	5,16	4171032	-	-	-	4172683	-	-	4171375	5684276	-	-	-	-	-	-
DNMG150608FF	12,70	15,50	6,35	0,8	5,16	4171043	-	-	-	4172684	-	-	4171376	-	-	-	-	-	-	-
DNMG150612FF	12,70	15,50	6,35	1,2	5,16	4171044	-	-	-	4172685	-	-	4171377	-	-	-	-	-	-	-



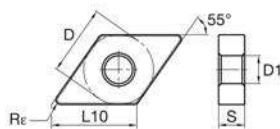
● first choice
○ alternate choice

■ DNMG-FW

ISO catalogue number	D	L10	S	Rε	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TTI15
DNMG110404FW	9,53	11,63	4,76	0,4	3,81	5623490	•	•	•	•	•	•	•	•	•	•	•	•	•	•
DNMG110408FW	9,53	11,63	4,76	0,8	3,81	5623491	•	•	•	•	•	•	•	•	•	•	•	•	•	•
DNMG150404FW	12,70	15,50	4,76	0,4	5,16	5623492	•	•	•	•	•	•	•	•	•	•	•	•	•	•
DNMG150408FW	12,70	15,50	4,76	0,4	5,16	5623493	•	•	•	•	•	•	•	•	•	•	•	•	•	•
DNMG150604FW	12,70	15,50	6,35	0,4	5,16	5623496	•	•	•	•	•	•	•	•	•	•	•	•	•	•
DNMG150608FW	12,70	15,50	6,35	0,4	5,16	5623497	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Inserts



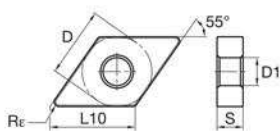


- first choice
- alternate choice

■ DNMG-ML

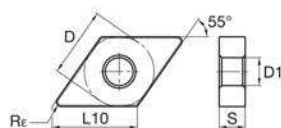
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ISO catalogue number	D	L10	S	Rε	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TT45
DNMG110404ML	9,53	11,63	4,76	0,4	3,81	4171062	4171062	4170461	■	■	■	■	4171660	4171394	■	■	■	■	■	■
DNMG110408ML	9,53	11,63	4,76	0,8	3,81	4171063	4170462	4170461	■	■	■	■	4171661	4171395	■	■	■	■	■	■
DNMG110412ML	9,53	11,63	4,76	1,2	3,81	4171064	4171064	■	■	■	■	■	■	■	■	■	■	■	■	■
DNMG150404ML	12,70	15,50	4,76	0,4	5,16	4171065	4170483	■	■	■	■	4171662	4171396	■	■	■	■	■	■	■
DNMG150408ML	12,70	15,50	4,76	0,8	5,16	4171066	4171066	4170484	■	■	■	■	4171663	4171397	■	■	■	■	■	■
DNMG150412ML	12,70	15,50	4,76	1,2	5,16	4171067	■	■	■	■	■	4171664	4171398	■	■	■	■	■	■	■
DNMG150604ML	12,70	15,50	6,35	0,4	5,16	4171068	4171068	4170485	■	■	■	■	4171665	4171399	■	■	■	■	■	■
DNMG150608ML	12,70	15,50	6,35	0,8	5,16	4171069	4170486	4170485	■	■	■	■	4171666	4171400	■	■	■	■	■	■
DNMG150612ML	12,70	15,50	6,35	1,2	5,16	4171070	4170487	■	■	■	■	■	4171667	4171401	■	■	■	■	■	■



Inserts

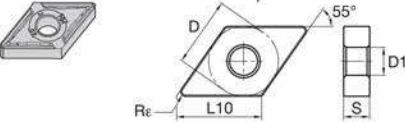
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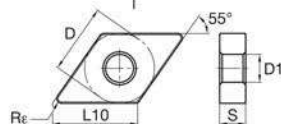


- first choice
- alternate choice

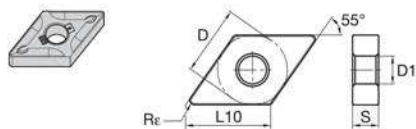
■ DNMG-MS

[illegible]

ISO catalogue number	D	L10	S	R _e	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TT15
DNMG110408MS	9,53	11,63	4,76	0,8	3,81	■	■	■	■	■	■	■	■	5908769	5908770	5908781	■	■	■	■
DNMG150404MS	12,70	15,50	4,76	0,4	5,16	■	■	■	■	■	■	■	■	5908782	5908783	5908784	■	■	■	■
DNMG150408MS	12,70	15,50	4,76	0,8	5,16	■	■	■	■	■	■	■	■	5908785	5908787	5908788	■	■	■	■
DNMG150412MS	12,70	15,50	4,76	1,2	5,16	■	■	■	■	■	■	■	■	5908789	5908790	5908791	■	■	■	■
DNMG150604MS	12,70	15,50	6,35	0,4	5,16	■	■	■	■	■	■	■	■	5908792	5908793	5908794	■	■	■	■
DNMG150608MS	12,70	15,50	6,35	0,8	5,16	■	■	■	■	■	■	■	■	5908795	5908796	5908797	■	■	■	■
DNMG150612MS	12,70	15,50	6,35	1,2	5,16	■	■	■	■	■	■	■	■	5908798	5908799	5908800	■	■	■	■
																				
■ DNMG-MW																				
ISO catalogue number	D	L10	S	R _e	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TT15
DNMG150408MW	12,70	15,50	4,76	0,4	5,16	5623494	5623495	■	■	4173114	■	4171687	■	■	■	■	■	■	■	■
DNMG150412MW	12,70	15,50	4,76	1,2	5,16	■	■	■	■	4173115	■	4171688	■	■	■	■	■	■	■	■
DNMG150608MW	12,70	15,50	6,35	0,4	5,16	5623498	5623499	■	■	4173116	■	4171691	■	■	■	■	■	■	■	■
DNMG150612MW	12,70	15,50	6,35	1,2	5,16	■	■	■	■	4173117	■	4171692	■	■	■	■	■	■	■	■



■ DNMG-MW



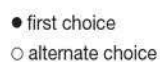
● first choice
○ alternate choice

■ DNMG-RH

ISO catalogue number	D	L10	S	Re	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TTI15
DNMG150408RH	12,70	15,50	4,76	0,8	5,16	4170989	4170989	4171524	4171707	4173045	4173045	4173045	4171912	4171912	4171912	4171912	4171912	4171912	4171912	4171912
DNMG150412RH	12,70	15,50	4,76	1,2	5,16	4170990	4171525	4171708	4171708	4173046	4173046	4173046	4171913	4171913	4171913	4171913	4171913	4171913	4171913	4171913
DNMG150608RH	12,70	15,50	6,35	0,8	5,16	4170991	4171526	4171709	4171709	4173047	4173047	4173047	4171914	4171914	4171914	4171914	4171914	4171914	4171914	4171914
DNMG150612RH	12,70	15,50	6,35	1,2	5,16	4170992	4171527	4171710	4171710	4173048	4173048	4173048	4171915	4171915	4171915	4171915	4171915	4171915	4171915	4171915
DNMG150616RH	12,70	15,50	6,35	1,6	5,16	4170993	4171528	4171711	4171711	4173049	4173049	4173049	4171916	4171916	4171916	4171916	4171916	4171916	4171916	4171916
DNMG190612RH	15,88	19,38	6,35	1,2	6,35	4170994	4171529	4171712	4171712	4173050	4173050	4173050	4171917	4171917	4171917	4171917	4171917	4171917	4171917	4171917

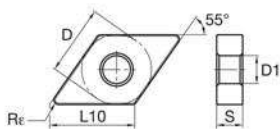
Inserts





■ DNMG-UF

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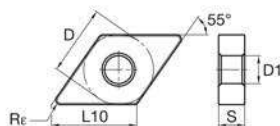


Inserts

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ISO catalogue number	D	L10	S	Re	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TT15
DNMG110404UM	9,53	11,63	4,76	0,4	3,81	■	■	■	4172337	4172383	4172413	■	■	■	■	■	■	■	■	■
DNMG110408UM	9,53	11,63	4,76	0,8	3,81	■	■	■	4172338	4172384	4172414	■	■	5645256	■	■	■	■	■	■
DNMG110412UM	9,53	11,63	4,76	1,2	3,81	■	■	■	4172339	4172385	4172415	■	■	■	■	■	■	■	■	■
DNMG150404UM	12,70	15,50	4,76	0,4	5,16	■	■	■	4172340	4172386	4172416	■	■	5645254	■	■	■	■	■	■
DNMG150408UM	12,70	15,50	4,76	0,8	5,16	■	5645260	5645261	4172341	4172387	4172417	■	■	5645251	■	■	■	■	■	■
DNMG150412UM	12,70	15,50	4,76	1,2	5,16	■	■	■	4172342	4172388	4172418	■	■	5645259	■	■	■	■	■	■
DNMG150604UM	12,70	15,50	6,35	0,4	5,16	■	■	■	4172363	4172389	4172419	■	■	5645255	■	■	■	■	■	■
DNMG150608UM	12,70	15,50	6,35	0,8	5,16	■	5645262	■	4172364	4172390	4172420	■	■	5645253	5645264	■	■	■	■	■
DNMG150612UM	12,70	15,50	6,35	1,2	5,16	■	■	■	4172365	4172391	4172421	■	■	5645258	5645257	■	■	■	■	■
DNMG150616UM	12,70	15,50	6,35	1,6	5,16	■	■	■	4172392	4172392	4172422	■	■	■	■	■	■	■	■	■



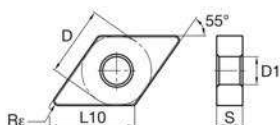


- first choice
- alternate choice

■ DNMG-UR

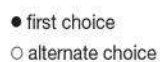
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ISO catalogue number	D	L10	S	Re	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TT145
DNMG110408UR	9,53	11,63	4,76	0,8	3,81	4171101	4170509	4169966	4169424	4169453	4169488	-	4171426	-	-	-	-	-	-	-
DNMG110412UR	9,53	11,63	4,76	1,2	3,81	4171102	4170510	-	4169425	-	-	-	4171427	-	-	-	-	-	-	-
DNMG150408UR	12,70	15,50	4,76	0,8	5,16	4171103	4170511	4169967	4169426	4169454	4169489	-	4171428	-	5579271	-	-	-	-	-
DNMG150412UR	12,70	15,50	4,76	1,2	5,16	4171104	4170512	4169968	-	4169455	4169490	-	4171429	-	5579292	-	-	-	-	-
DNMG150416UR	12,70	15,50	4,76	1,6	5,16	-	-	-	-	-	4169491	-	4171430	5680171	-	-	-	-	-	-
DNMG150608UR	12,70	15,50	6,35	0,8	5,16	4171105	4170513	4169969	4169427	4169456	4169492	-	4171431	-	5579276	-	-	-	-	-
DNMG150612UR	12,70	15,50	6,35	1,2	5,16	4171106	4170514	4169970	4169428	4169457	4169493	5680172	4171432	-	-	-	-	-	-	-
DNMG150616UR	12,70	15,50	6,35	1,6	5,16	4171107	4170515	4169971	-	-	4169494	-	4171433	-	-	-	-	-	-	-



■ DNMM-65

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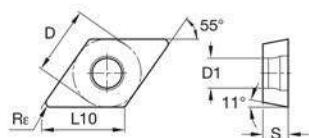
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Inserts

ISO catalogue number	D	L10	S	Re	D1	Technical specifications and standards																
						WP15CT	WP25CT	WP35CT	WN15CT	WN25CT	WN35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TT15		
DNMP150404	12,70	15,50	4,76	0,4	5,16	✓	✓	✓	4171592	4171591	4173658	4173697	✓	✓	4172484	✓	✓	✓	✓	✓	✓	✓
DNMP150408	12,70	15,50	4,76	0,8	5,16	✓	✓	✓	4171592	4173659	4173658	4173698	✓	✓	4172485	✓	✓	✓	✓	✓	✓	✓
DNMP150412	12,70	15,50	4,76	1,2	5,16	✓	✓	✓	4172133	4172133	4173660	4173699	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
DNMP150604	12,70	15,50	6,35	0,4	5,16	✓	✓	✓	4172134	4173661	4173700	4173701	✓	✓	4172486	✓	✓	✓	✓	✓	✓	✓
DNMP150608	12,70	15,50	6,35	0,8	5,16	✓	✓	✓	4172135	4173662	4173701	✓	✓	✓	4172487	4172616	✓	✓	✓	✓	✓	✓
DNMP150612	12,70	15,50	6,35	1,2	5,16	✓	✓	✓	4172136	4173663	4173702	✓	✓	✓	4172488	4172617	✓	✓	✓	✓	✓	✓

ISO catalogue number	D	L10	S	R _e	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TIM	TTR	TTI15
						4170020	4170330	-	4168816	4168828	-	-	-	-	-	-	-	-	-	-
DPMT070204FP	6,35	7,75	2,38	0,4	2,80	4170021	4170331	-	4168817	4168829	-	-	-	-	-	-	-	-	-	-
DPMT11T304FP	9,53	11,63	3,97	0,4	4,40	4170022	4170332	-	-	4168830	-	-	4170109	-	-	-	-	-	-	-
DPMT11T308FP	9,53	11,63	3,97	0,8	4,40	4170022	4170332	-	-	4168830	-	-	4170109	-	-	-	-	-	-	-



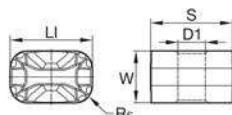


- first choice
- alternate choice

[illegible]

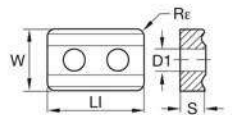
■ DPMT-MP

ISO catalogue number	D	L10	S	Rε	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TTMF
DPMT11T308MP	9,53	11,63	3,97	0,8	4,40	1	4170260	1	1	1	1	1	4170268	1	1	1	1	1	1	1



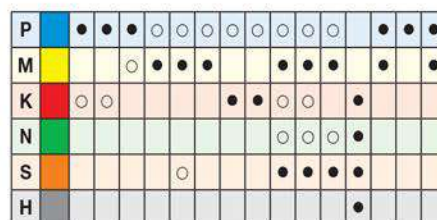
■ LNUX-13

ISO catalogue number	W	LI	S	R€	D1																		
						WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTMF				
LINUX19194013	10,00	19,05	19,05	4,0	6,35	I	I	I	I	I	I	I	I	4170966	I	I	I	I	I	I	I	I	I
LINUX30194013	12,00	30,00	19,05	4,0	6,35	I	I	I	I	I	I	I	I	4170968	I	I	I	I	I	I	I	I	I



■ LNUX-EN95

[illegible]



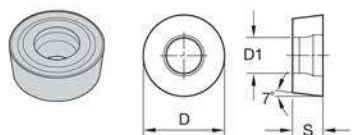
ISO catalogue number	W	LI	S	Rε	D1	WP15CT	WP26CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TT15
LINUX191940T	10,00	19,05	19,05	4,0	6,35	■	■	■	■	■	■	■	4170967	■	■	■	■	■	■	■
LINUX301940T	12,00	30,00	19,05	4,0	6,35	■	■	■	■	■	■	■	4170969	■	■	■	■	■	■	■

[illegible]

ISO catalogue number	D	S	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TH45
RCMT1606M043	16,00	6,35	5,50	-	-	-	-	-	-	-	-	-	-	-	2028170	-	-	-

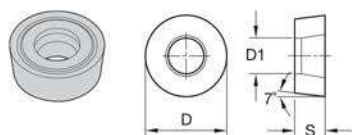


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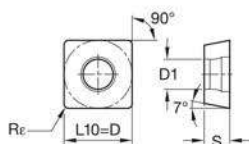
- first choice
- alternate choice

■ RCMT-T

[illegible]

■ RCMX

[illegible][illegible]

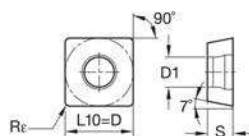


- first choice
- alternate choice

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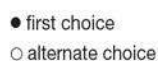
■ SCMT

ISO catalogue number	D	L10	S	Rε	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TT14E
SCMT090304	9,53	9,53	3,18	0,4	4,40	■	■	■	■	■	■	■	■	■	■	■	■	■	■	2028225
SCMT09T304	9,53	9,53	3,97	0,4	4,40	■	■	■	■	■	■	■	■	■	■	■	2028255	■	■	
SCMT09T308	9,53	9,53	3,97	0,8	4,40	■	■	■	■	■	■	■	■	■	■	■	2028270	■	■	2028272
SCMT120408	12,70	12,70	4,76	0,8	5,50	■	■	■	■	■	■	■	■	■	■	■	2028286	■	■	2028289
SCMT120412	12,70	12,70	4,76	1,2	5,50	■	■	■	■	■	■	■	■	■	■	■	2028296	■	■	2028300
SCMT150512	15,88	15,88	5,56	1,2	5,50	■	■	■	■	■	■	■	■	■	■	■	2028306	■	■	2028307



■ SCMT-FP

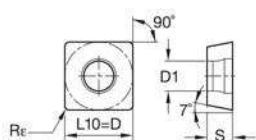
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[illegible]

Inserts



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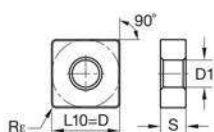


- first choice
- alternate choice

■ **SCMW**

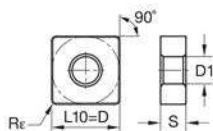
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ISO catalogue number	D	L10	S	Re	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TT145
SCMW090304	9,53	9,53	3,18	0,4	4,40	■	■	■	■	■	■	4170474	4170378	■	■	■	2028308	■	■	
SCMW09T308	9,53	9,53	3,97	0,8	4,40	■	■	■	■	■	■	4170379	4170378	■	■	■	■	■	■	
SCMW120408	12,70	12,70	4,76	0,8	5,50	■	■	■	■	■	■	4170475	4170380	■	■	■	2028310	■	■	



■ SNGG-FS

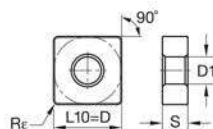
ISO catalogue number	D	L10	S	Rε	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TT4E
SNGG120408FS	12,70	12,70	4,76	0,8	5,16	■	■	■	■	■	■	■	■	5548680	■	5549997	■	■	■	■

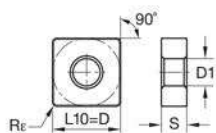


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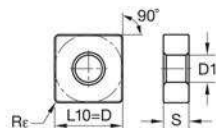
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ISO catalogue number	D	L10	S	Rε	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TIM	TTR	TT15
SNMA120408	12,70	12,70	4,76	0,8	5,16	■	■	■	■	■	■	4171640	4171882	■	■	■	2028371	■	■	■
SNMA120412	12,70	12,70	4,76	1,2	5,16	■	■	■	■	■	■	4171641	4171883	■	■	■	■	■	■	■
SNMA120416	12,70	12,70	4,76	1,6	5,16	■	■	■	■	■	■	4171642	4171884	■	■	■	■	■	■	■
SNMA150608	15,88	15,88	6,35	0,8	6,35	■	■	■	■	■	■	4171885	4171886	■	■	■	■	■	■	■
SNMA150612	15,88	15,88	6,35	1,2	6,35	■	■	■	■	■	■	4171643	4171886	■	■	■	■	■	■	■
SNMA150616	15,88	15,88	6,35	1,6	6,35	■	■	■	■	■	■	4171644	4171887	■	■	■	■	■	■	■
SNMA190612	19,05	19,05	6,35	1,2	7,93	■	■	■	■	■	■	4171645	4171888	■	■	■	■	■	■	■
SNMA190616	19,05	19,05	6,35	1,6	7,93	■	■	■	■	■	■	4171646	4171889	■	■	■	■	■	■	■

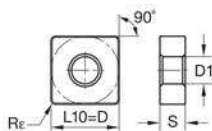
[illegible]



- first choice
- alternate choice

[illegible][illegible]

ISO catalogue number	D	L10	S	Rε	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TT15
						4171071	4170488					4171668	4171402							
SNMG090304ML	9,53	9,53	3,18	0,4	3,81															
SNMG090308ML	9,53	9,53	3,18	0,8	3,81	4171072	4170488					4171668	4171402							
SNMG120404ML	12,70	12,70	4,76	0,4	5,16								4171403							
SNMG120408ML	12,70	12,70	4,76	0,8	5,16	4171073	4170489					4171669	4171404							
SNMG120412ML	12,70	12,70	4,76	1,2	5,16	4171074	4170490					4171670	4171405							
SNMG120416ML	12,70	12,70	4,76	1,6	5,16								4171406							

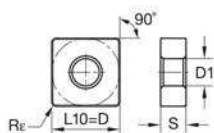


Inserts

[illegible]

ISO catalogue number	D	L10	S	Rε	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TT15
SNMG120408MS	12,70	12,70	4,76	0,8	5,16	■	■	■	■	■	■	■	■	5908847	5908848	5908849	■	■	■	■
SNMG120412MS	12,70	12,70	4,76	1,2	5,16	■	■	■	■	■	■	■	■	5908850	5908921	5908922	■	■	■	■
SNMG150612MS	15,88	15,88	6,35	1,2	6,35	■	■	■	■	■	■	■	■	5908925	5908923	5908924	■	■	■	■
SNMG190612MS	19,05	19,05	6,35	1,2	7,94	■	■	■	■	■	■	■	■	5908926	■	■	■	■	■	■

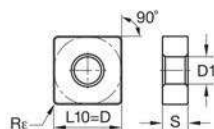




- first choice
- alternate choice

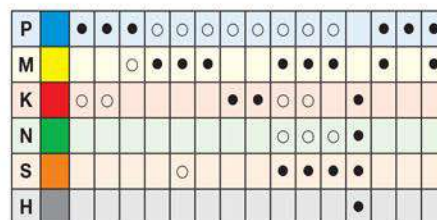
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■ SNMG-RH

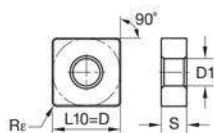
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■ SNMG-UF

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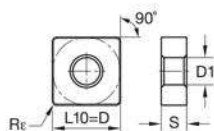


C2-C49	C50-C81	C86-C129	B8-B25	B26-B28	B30-B105



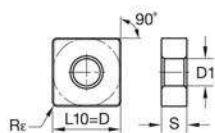
- first choice

☐ alternate choice

[illegible][illegible]

93	93	1	WP15CT		93	5696615	5696611	-	16	16	1	WP15CT	
5696680	-	WP15CT		5696617	-	5696612	5696559	-	5696557	5696554	WP25CT		
5696681	-	WP25CT				5696613			-	5696555	WP35CT		
-	-	WP35CT		-	-						WM15CT		
-	-	WM15CT		-	-						WM25CT		
5696649	5696648	WM25CT		5696616	5696614	5696610	5696558		5696556	5696553	WM35CT		
-	-	WM35CT									WK05CT		
-	-	WK05CT		-	-						WK20CT		
-	-	WK20CT									WS10PT		
-	-	WS10PT		-	-						WS25PT		
-	-	WS25PT		-	-						WU10HT		
-	-	WU10HT		-	-						THM		
-	-	THM		-	-						TTM		
-	-	TTM		-	-						TTR		
-	-	TTR		-	-						TT15		
-	-	TT15		-	-								

[illegible]



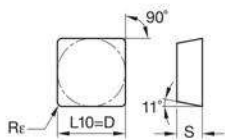
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	-	-	WP15CT
	-	-	WP25CT
	-	-	WP35CT
	-	-	WM15CT
	-	-	WM25CT
	-	-	WM35CT
	-	-	WK05CT
4170963	4170962		WK20CT
-	-	-	WS10PT
-	-	-	WS25PT
-	-	-	WU10HT
-	-	-	THM
-	-	-	TTM
-	-	-	TTR
-	-	-	TT15



Inserts

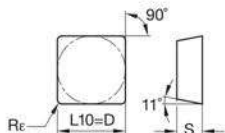


- first choice
- alternate choice

■ SPG

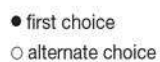
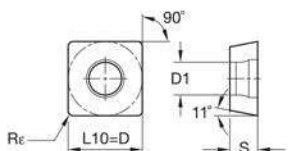
ISO catalogue number	D	L10	S	R _ε	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TT15
SPGN090308	9,53	9,53	3,18	0,8	■	■	■	■	■	■	■	4170943	■	■	■	■	■	■	■
SPGN120308	12,70	12,70	3,18	0,8	■	■	■	■	■	■	■	4170944	■	■	■	■	■	■	■
SPGN120312	12,70	12,70	3,18	1,2	■	■	■	■	■	■	■	4170945	■	■	■	■	■	■	■

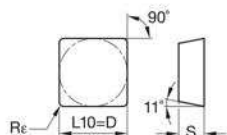
ISO catalogue number	D	L10	S	R _ε	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TT15
SPMR090308	9,53	9,53	3,18	0,8	■	■	4170650	■	■	■	■	4170946	■	■	■	■	■	■	■
SPMR120304	12,70	12,70	3,18	0,4	4170853	■	4170651	■	■	■	■	4170947	■	■	■	■	■	■	■
SPMR120308	12,70	12,70	3,18	0,8	4170854	■	4170652	■	■	■	■	4170948	■	■	■	■	■	■	■
SPMR120312	12,70	12,70	3,18	1,2	■	■	4170783	■	■	■	■	4170949	■	■	■	■	■	■	■



■ SPMR

ISO catalogue number	D	L10	S	Rε	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TT15
SPMR090308	9,53	9,53	3,18	0,8	1	1	4170650	1	1	1	1	4170946	1	1	1	1	1	1	1
SPMR120304	12,70	12,70	3,18	0,4	4170853	1	4170651	1	1	1	1	4170947	1	1	1	1	1	1	1
SPMR120308	12,70	12,70	3,18	0,8	4170854	1	4170652	1	1	1	1	4170948	1	1	1	1	1	1	1
SPMR120312	12,70	12,70	3,18	1,2	1	1	4170783	1	1	1	1	4170949	1	1	1	1	1	1	1

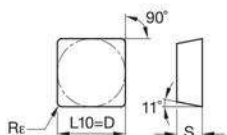
[illegible][illegible][illegible]



- first choice
- alternate choice

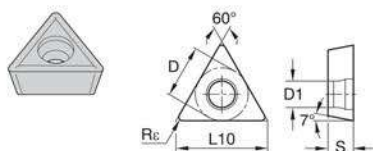
[illegible]

■ SPU

[illegible]

■ SPU-T

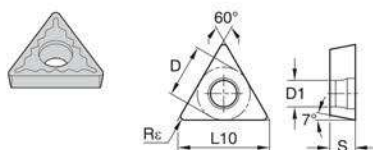
[illegible]



- first choice
- alternate choice

TCMT

ISO catalogue number	D	L10	S	Rε	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TT15
TCMT110202	6,35	11,00	2,38	0,2	2,80	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○
TCMT110204	6,35	11,00	2,38	0,4	2,80	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○
TCMT16T304	9,53	16,50	3,97	0,4	4,40	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○
TCMT16T308	9,53	16,50	3,97	0,8	4,40	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○
TCMT220408	12,70	22,00	4,76	0,8	5,50	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○

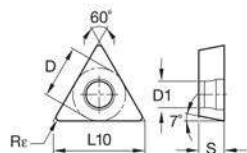


TCMT-2

ISO catalogue number	D	L10	S	Rε	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TT15
TCMT1102042	6,35	11,00	2,38	0,4	2,80	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○



Inserts

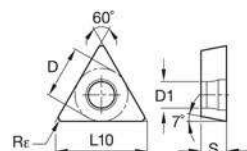


- first choice
- alternate choice

■ TCMT-FP

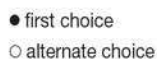
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ISO catalogue number	D	L10	S	Rε	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TT145
TCMT110202FP	6,35	11,00	2,38	0,2	2,90	•	•	•	•	4168800	•	•	•	•	•	•	•	•	•	•
TCMT110204FP	6,35	11,00	2,38	0,4	2,80	4170006	4170313	•	4168770	4168801	•	•	4170097	•	•	•	•	•	•	•
TCMT110208FP	6,35	11,00	2,38	0,8	2,80	4170007	4170314	•	4168771	4168802	•	•	4170098	•	•	•	•	•	•	•
TCMT16T304FP	9,53	16,50	3,97	0,4	4,40	4170008	4170315	•	4168772	4168803	•	•	4170099	•	•	•	•	•	•	•
TCMT16T308FP	9,53	16,50	3,97	0,8	4,40	4170009	4170316	•	4168773	4168804	•	•	4170100	•	•	•	•	•	•	•
TCMT16T312FP	9,53	16,50	3,97	1,2	4,40	4170010	•	•	4168805	4168806	•	•	4170101	•	•	•	•	•	•	•
TCMT220408FP	12,70	22,00	4,76	0,8	5,50	4170011	4170317	•	•	4168806	•	•	4170102	•	•	•	•	•	•	•



■ TCMT-MP

ISO catalogue number	D	L10	S	Rε	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TTH
						4170231	4170232	4168904	4168918	4170250	4170249									
TCMT110208MP	6,35	11,00	2,38	0,8	2,80	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
TCMT16T304MP	9,53	16,50	3,97	0,4	4,40	■	■	■	4168904	4168918	■	■	4170250	4170249	■	■	■	■	■	■
TCMT16T308MP	9,53	16,50	3,97	0,8	4,40	4170216	4170233	■	4168905	4168919	■	■	4170251	■	■	■	■	■	■	■
						4170234	■	■	4168920	■	■	4170252	■	■	■	■	■	■	■	■
TCMT16T312MP	9,53	16,50	3,97	1,2	4,40	■	■	■	■	■	■	■	4170252	■	■	■	■	■	■	■

[illegible]

TCMT-MU																				
ISO catalogue number	D	L10	S	R _e	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TT15
TCMT16T304MU	9,53	16,50	3,97	0,4	4,40	5623614	5623615	■	■	5623613	■	■	5623616	■	5623617	■	■	■	■	■
TCMT16T308MU	9,53	16,50	3,97	0,8	4,40	5623621	5623620	■	■	5623619	■	■	5623618	5623622	■	■	■	■	■	■



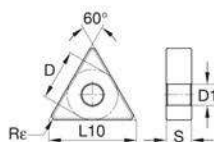
ISO catalogue number	D	L10	S	Re	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	TMM	TTR	TTH5
												4170476 4170381				4170477 4170382	2028668		
TCMW110204	6,35	11,00	2,38	0,4	2,80	■	■	■	■	■	■								
TCMW16T304	9,53	16,50	3,97	0,4	4,40	■	■	■	■	■	■						2028670		



ISO catalogue number	D	L10	S	R _e	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTT	TTH5
TNGG160404FS	9,53	16,50	4,76	0,4	3,81	■	■	■	■	■	■	■	■	5548681	5538231	5549998	■	■	■	■
TNGG220408FS	12,70	22,00	4,76	0,8	5,16	■	■	■	■	■	■	■	■	5548682	■	■	■	■	■	■



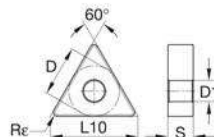
Inserts



- first choice
- alternate choice

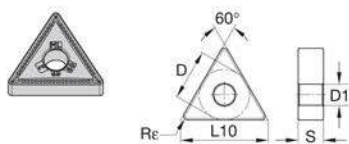
■ **TNMA**

ISO catalogue number	D	L10	S	R _e	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TT15
TNMA160408	9,53	16,50	4,76	0,8	3,81	✓	✓	✓	✓	✓	✓	4171647	4171890	✓	✓	✓	✓	✓	✓	✓
TNMA160412	9,53	16,50	4,76	1,2	3,81	✓	✓	✓	✓	✓	✓	4171648	4171891	✓	✓	✓	✓	✓	✓	✓
TNMA160416	9,53	16,50	4,76	1,6	3,81	✓	✓	✓	✓	✓	✓	4171892	4171893	✓	✓	✓	✓	✓	✓	✓
TNMA220408	12,70	22,00	4,76	0,8	5,16	✓	✓	✓	✓	✓	✓	4171649	4171893	✓	✓	✓	✓	✓	✓	✓
TNMA220412	12,70	22,00	4,76	1,2	5,16	✓	✓	✓	✓	✓	✓	4172230	4171894	✓	✓	✓	✓	✓	✓	✓
TNMA220416	12,70	22,00	4,76	1,6	5,16	✓	✓	✓	✓	✓	✓	4171651	4171895	✓	✓	✓	✓	✓	✓	✓
TNMA270616	15,88	27,50	6,35	1,6	6,35	✓	✓	✓	✓	✓	✓	4171896		✓	✓	✓	✓	✓	✓	✓



■ TNMG-FF

ISO catalogue number	D	L10	S	Re	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TT145
TNMG110304FF	6,35	11,00	3,18	0,4	2,26	■	■	■	■	■	■	■	4171383	5684331	■	■	■	■	■	■
TNMG110308FF	6,35	11,00	3,18	0,8	2,26	■	■	■	■	■	■	■	4171384	5684332	■	■	■	■	■	■
TNMG160404FF	9,53	16,50	4,76	0,4	3,81	4171050	■	■	■	4172691	■	■	4171385	■	■	■	■	■	■	■
TNMG160408FF	9,53	16,50	4,76	0,8	3,81	4171051	■	■	■	4172692	■	■	4171386	■	■	■	■	■	■	■
TNMG160412FF	9,53	16,50	4,76	1,2	3,81	4171052	■	■	■	4172693	■	■	4171387	■	■	■	■	■	■	■



- first choice
- alternate choice

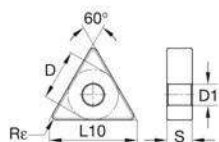
■ TNMG-ML

ISO catalogue number	D	L10	S	Re	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TTI15
TNMG110304ML	6,35	11,00	3,18	0,4	2,26	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○
TNMG110308ML	6,35	11,00	3,18	0,8	2,26	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○
TNMG160404ML	9,53	16,50	4,76	0,4	3,81	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○
TNMG160408ML	9,53	16,50	4,76	0,8	3,81	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○
TNMG160412ML	9,53	16,50	4,76	1,2	3,81	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○
TNMG220404ML	12,70	22,00	4,76	0,4	5,16	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○
TNMG220408ML	12,70	22,00	4,76	0,8	5,16	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○

Inserts



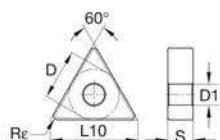
Inserts



- first choice
- alternate choice

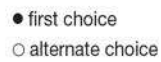
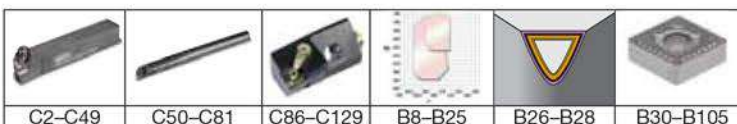
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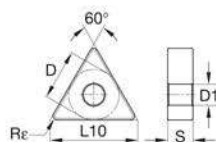
■ TNMG-MR

[illegible]

■ TNMG-MS

ISO catalogue number	D	L10	S	Rε	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TT145
TNMG160404MS	9,53	16,50	4,76	0,4	3,81	■	■	■	■	■	■	■	■	5908927	5908928	5908929	■	■	■	
TNMG160408MS	9,53	16,50	4,76	0,8	3,81	■	■	■	■	■	■	■	■	5908930	5908931	5908932	■	■	■	
TNMG220404MS	12,70	22,00	4,76	0,4	5,16	■	■	■	■	■	■	■	■	5908933	5908934	5908935	■	■	■	
TNMG220408MS	12,70	22,00	4,76	0,8	5,16	■	■	■	■	■	■	■	■	5908936	5908937	5908938	■	■	■	
TNMG220412MS	12,70	22,00	4,76	1,2	5,16	■	■	■	■	■	■	■	■	5908939	5908940	5908941	■	■	■	
TNMG270608MS	15,88	27,50	6,35	0,8	6,35	■	■	■	■	■	■	■	■	■	5908942	5908943	■	■	■	

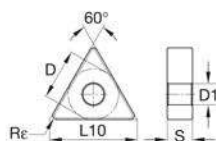
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- first choice
- alternate choice

■ TNMG-UF

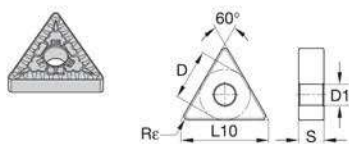
ISO catalogue number	D	L10	S	Rε	D1														
						WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS25PT	WU10HT	THM	TTM	TTR	TTT
TNMG160404UF	9,53	16,50	4,76	0,4	3,81	•	•	•	4169367	4169393	•	•	•	•	•	•	•	•	•
TNMG160408UF	9,53	16,50	4,76	0,8	3,81	5645615	•	•	4169368	4169394	•	•	•	5432606	5432605	•	•	•	•
TNMG160412UF	9,53	16,50	4,76	1,2	3,81	•	•	•	4169369	4169395	•	•	•	5645613	•	•	•	•	•
TNMG220404UF	12,70	22,00	4,76	0,4	5,16	•	•	•	4169370	4169396	•	•	•	5645612	•	•	•	•	•
TNMG220408UF	12,70	22,00	4,76	0,8	5,16	•	•	•	4169371	4169397	•	•	•	5645614	•	•	•	•	•



■ TNMG-UM

ISO catalogue number	D	L10	S	Rε	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TTM45
TNMG160404UM	9,53	16,50	4,76	0,4	3,81	■	■	■	4172369	4172396	4172426		■	■	5550226	■	■	■	■	■
TNMG160408UM	9,53	16,50	4,76	0,8	3,81	■	■	■	4172370	4172397	4172427	■	■	■	5550228	■	■	■	■	■
TNMG160412UM	9,53	16,50	4,76	1,2	3,81	■	■	■	4172371	4172398	4172428	■	■	■	■	■	■	■	■	■
TNMG160416UM	9,53	16,50	4,76	1,6	3,81	■	■	■	4172399	4172429	4172430	■	■	■	■	■	■	■	■	■
TNMG220404UM	12,70	22,00	4,76	0,4	5,16	■	■	■	4172372	4172400	4172430		■	■	■	■	■	■	■	■
TNMG220408UM	12,70	22,00	4,76	0,8	5,16	5645266	■	■	4172373	4172401	4172431	■	■	■	5645265	■	■	■	■	■
TNMG220412UM	12,70	22,00	4,76	1,2	5,16	■	■	■	4172374	4172402	■	■	■	■	5473222	■	■	■	■	■

[illegible]



- first choice
- alternate choice

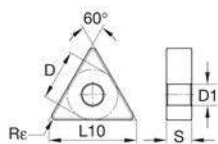
TNMG-UR

ISO catalogue number	D	L10	S	Re	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TTI15
TNMG160408UR	9,53	16,50	4,76	0,8	3,81	4171115	4170522	4170035	4169434	4169465	4169502	4171441	4171442	4171443	5680175	5579395				
TNMG160412UR	9,53	16,50	4,76	1,2	3,81	4171116	4170523		4169466	4169502	4171442	4171443	4171444	5579397	5680175					
TNMG160416UR	9,53	16,50	4,76	1,6	3,81	4171117			4169467	4169503	4171443	4171444	4171445	5579397	5680175					
TNMG220408UR	12,70	22,00	4,76	0,8	5,16	4171118	4170524	4170036	4169435	4169468	4169504	4171444	4171445	4171446	5579397	5680175				
TNMG220412UR	12,70	22,00	4,76	1,2	5,16	4171119	4170525	4170037	4169436	4169469	4169505	4171445	4171446	4171447	5579397	5680175				
TNMG220416UR	12,70	22,00	4,76	1,6	5,16	4171120	4170526		4169470	4169505	4171446	4171447	4171448	4171449	5579397	5680175				
TNMG270612UR	15,88	27,50	6,35	1,2	6,35	4171121	4170527		4169437	4169471	4169506	4171447	4171448	4171449	5579405	5680175				
TNMG270616UR	15,88	27,50	6,35	1,6	6,35	4171122	4170528		4169438	4169472	4169507	4171448	4171449	4171450	5579405	5680175				

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

Inserts

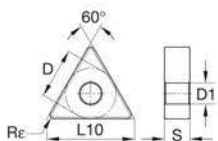




- first choice
- alternate choice

■ TNMM-65

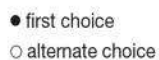
ISO catalogue number	D	L10	S	Rε	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	TMM	TTM	TTR	TTI4E
						-	-	-	-	-	-	-	-	-	-	-	-	-	-
TNMM16040865	9,53	16,50	4,76	0,8	3,81	-	5696618	5696619	-	-	-	-	-	-	-	-	-	-	-
TNMM16041265	9,53	16,50	4,76	1,2	3,81	-	-	5696620	-	-	-	-	-	-	-	-	-	-	-
TNMM22040865	12,70	22,00	4,76	0,8	5,16	-	5696621	5696622	5696623	-	-	-	-	-	-	-	-	-	-
TNMM22041265	12,70	22,00	4,76	1,2	5,16	-	-	5696625	5696626	5696624	-	-	-	-	-	-	-	-	-
TNMM22041665	12,70	22,00	4,76	1,6	5,16	5696628	5696629	-	-	5696627	-	-	-	-	-	-	-	-	-



■ TNMP

ISO catalogue number	D	L10	S	R _ε	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TT145
TNMP160404	9,53	16,50	4,76	0,4	3,81	■	■	■	4172143	4173670	4173709	■	■	4172491	■	■	■	■	■	■
TNMP160408	9,53	16,50	4,76	0,8	3,81	■	■	■	4172144	4173671	4173710	■	■	4172492	4172623	■	■	■	■	■
TNMP160412	9,53	16,50	4,76	1,2	3,81	■	■	■	4172145	4173672	4173711	■	■	4172493	4172624	■	■	■	■	■
TNMP220404	12,70	22,00	4,76	0,4	5,16	■	■	■	4172146	4173673	4173712	■	■	4172494	■	■	■	■	■	■
TNMP220408	12,70	22,00	4,76	0,8	5,16	■	■	■	4172147	4173674	4173713	■	■	4172495	4172625	■	■	■	■	■
TNMP220412	12,70	22,00	4,76	1,2	5,16	■	■	■	4172148	4173675	4173714	■	■	4172496	4172626	■	■	■	■	■

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Inserts

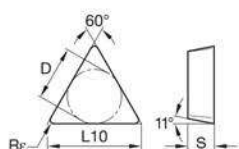
ISO catalogue number	D	L10	S	Rε	WP15CT	WP25CT	WP35CT	WP15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TT15
TNUN160408	9,53	16,50	4,76	0,8	-	-	-	-	-	-	-	4170964	-	-	-	-	-	-	-

ISO catalogue number	D	L10	S	Rε	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TT15
TPGN110308	6,35	11,00	3,18	0,8	■	■	■	■	■	■	■	4170952	■	■	■	■	■	■	■
TPGN160308	9,53	16,50	3,18	0,8	■	■	■	■	■	■	■	4170953	■	■	■	■	■	■	■

ISO catalogue number	D	L10	S	R _e	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TT15
TPGA110204	6,35	11,00	2,38	0,4	2,80	■	■	■	■	■	■	■	■	■	■	■	2015081	■	■	■
TPGA110208	6,35	11,00	2,38	0,8	2,80	■	■	■	■	■	■	■	■	■	■	■	2031786	■	■	■



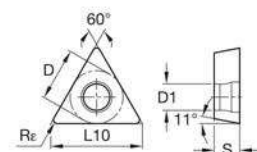
Inserts



- first choice
- alternate choice

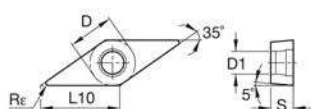
■ **TPMR**

ISO catalogue number	D	L10	S	Rε	WP15CT	WP25CT	WP35CT	WN15CT	WN25CT	WN35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TT15
TPMR110304	6,35	11,00	3,18	0,4	4170859	-	4170784	-	-	-	-	-	-	-	-	-	-	-	-
TPMR110308	6,35	11,00	3,18	0,8	4170860	-	4170785	-	-	-	-	4170954	-	-	-	-	-	-	-
TPMR160304	9,53	16,50	3,18	0,4	4170861	-	4170786	-	-	-	-	4170955	-	-	-	-	-	-	-
TPMR160308	9,53	16,50	3,18	0,8	4170862	-	4170787	-	-	-	-	4170956	-	-	-	-	-	-	-
TPMR160312	9,53	16,50	3,18	1,2	4170863	-	4170788	-	-	-	-	4170957	-	-	-	-	-	-	-



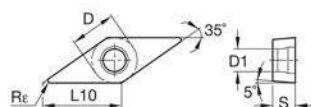
■ TPMT-FP

[illegible]



- first choice
- alternate choice

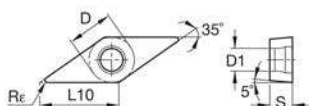
■ VBMT

[illegible]

■ VBMT-FP

ISO catalogue number	D	L10	S	Rε	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTR	TT15
VBMT110302FP	6,35	11,07	3,18	0,2	2,80	4170012	4170318	4170319	4168774	4168807									
VBMT110304FP	6,35	11,07	3,18	0,4	2,80														
VBMT110308FP	6,35	11,07	3,18	0,8	2,80	4170012	4170320	4170321	4168775	4168808									
VBMT160402FP	9,53	16,61	4,76	0,2	4,40	4170013	4170322	4170323	4168776	4168810									
VBMT160404FP	9,53	16,61	4,76	0,4	4,40	4170014	4170322	4170323	4168777	4168811									
VBMT160408FP	9,53	16,61	4,76	0,8	4,40	4170014	4170323	4170324	4168777	4168811									
VBMT160412FP	9,53	16,61	4,76	1,2	4,40	4170014	4170324	4170325	4168777	4168811									

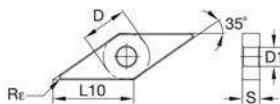
[illegible]



- first choice
- alternate choice

VBMT-MP

ISO catalogue number	D	L10	S	Rε	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TTI15
VBMT160404MP	9,53	16,61	4,76	0,4	4,40	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VBMT160408MP	9,53	16,61	4,76	0,8	4,40	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•



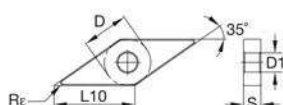
VNGG-FS

ISO catalogue number	D	L10	S	Rε	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TTI15
VNGG160401FS	9,53	16,61	4,76	0,1	3,81	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VNGG160402FS	9,53	16,61	4,76	0,2	3,81	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VNGG160404FS	9,53	16,61	4,76	0,4	3,81	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VNGG160408FS	9,53	16,61	4,76	0,8	3,81	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

P	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
K	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
N	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
S	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
H	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Inserts

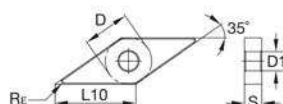




- first choice
- alternate choice

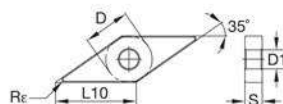
■ VNGP

ISO catalogue number	D	L10	S	Rε	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTR	TH15
VNGP160401	9,53	16,61	4,76	0,1	3,81	■	■	■	■	■	■	■	■	5549195	■	5549211	■	■	■
VNGP160402	9,53	16,61	4,76	0,2	3,81	■	■	■	■	■	■	■	■	5549196	■	■	■	■	■
VNGP220404	12,70	22,14	4,76	0,4	5,16	■	■	■	■	■	■	■	■	5549197	■	■	■	■	■
VNGP220408	12,70	22,14	4,76	0,8	5,16	■	■	■	■	■	■	■	■	5549198	■	5549212	■	■	■



■ VNMA

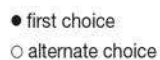
ISO catalogue number	D	L10	S	Rε	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TT15
VNMA160408	9,53	16,61	4,76	0,8	3,81	■	■	■	■	■	■	4171652	4171897	■	■	■	■	■	■



VNMG

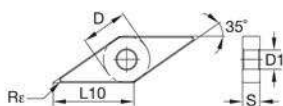
ISO catalogue number	D	L10	S	Rε	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TT15
VNMG12T304	7,14	12,45	3,97	0,4	3,60	■	■	■	■	■	■	■	■	5095163	5095164	■	■	■	■
VNMG12T308	7,14	12,45	3,97	0,8	3,65	■	■	■	■	■	■	■	4170965	5095165	5095166	■	■	■	■

[illegible]

[illegible]

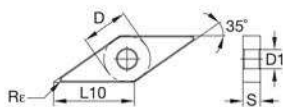
■ VNMG-FF

ISO catalogue number	D	L10	S	R _e	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TTI15
VNMG160404FF	9,53	16,61	4,76	0,4	3,81	4171053	-	-	-	4172694	-	-	-	-	-	-	-	-	-	-
VNMG160408FF	9,53	16,61	4,76	0,8	3,81	4171054	-	-	-	4172695	-	-	-	5684334	5684333	-	-	-	-	-



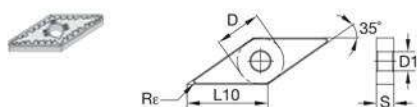
■ VNMG-ML

ISO catalogue number	D	L10	S	R _e	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TT15
VNMG160404ML	9,53	16,61	4,76	0,4	3,81	4171079	4170495	-	-	-	-	4171674	4171413	-	-	-	-	-	-	-
VNMG160408ML	9,53	16,61	4,76	0,8	3,81	4171080	4170496	-	-	-	-	4171675	4171414	-	-	-	-	-	-	-



■ VNMG-MR

[illegible]

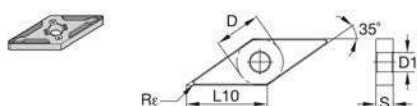


- first choice
- alternate choice

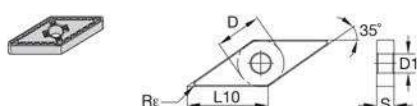
[illegible]

■ VNMG-MS

ISO catalogue number	D	L10	S	Rε	D1	WP15CT		WP25CT		WP35CT		WM15CT		WM25CT		WM35CT		WK05CT		WK20CT		WS10PT		WS25PT		WU10HT		THM	TTM	TTR	TTHF
VNMG160404MS	9,53	16,61	4,76	0,4	3,81	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	5908944	5908945	5908946	■	■	■	■	■	■	■	■
VNMG160408MS	9,53	16,61	4,76	0,8	3,81	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	5908947	5908948	5908949	■	■	■	■	■	■	■	■
VNMG220404MS	12,70	22,14	4,76	0,4	5,16	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	5908950	5908961	5908962	■	■	■	■	■	■	■	■
VNMG220408MS	12,70	22,14	4,76	0,8	5,16	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	5908963	5908964	5908965	■	■	■	■	■	■	■	■

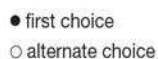


■ VNMG-RH

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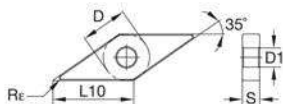
■ VNMG-UF

ISO catalogue number	D	L10	S	R _e	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TIM	TIR	TT4F
VNMG160404UF	9,53	16,61	4,76	0,4	3,81	■	■	■	4169372	4169398	■	■	■	■	■	■	■	■	■	■
VNMG160408UF	9,53	16,61	4,76	0,8	3,81	5645618	■	■	4169373	4169399	■	■	■	5645617	■	■	■	■	■	■

[illegible]

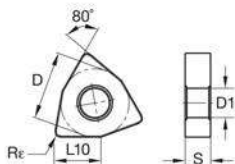
■ VNMG-UR

ISO catalogue number	D	L10	S	R _e	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TT15
VNMG160408UR	9,53	16,61	4,76	0,8	3,81	4171123	4170529	4170038	4169439	4169473	4169508	-	4171449	-	5579416	-	-	-	-	-
VNMG160412UR	9,53	16,61	4,76	1,2	3,81	4171124	4170530	-	4169440	4169474	-	-	4171450	5680176	-	-	-	-	-	-

 VNMP

ISO catalogue number	D	L10	S	Rε	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TT15
VNMP160404	9,53	16,61	4,76	0,4	3,81	■	■	■	■	■	■	■	■	4172497	■	■	■	■	■	■
VNMP160408	9,52	16,61	4,76	0,8	3,81	■	■	■	■	■	■	■	■	4172498	■	■	■	■	■	■

NOTE: DNMP-style inserts are single-sided.



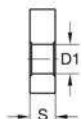
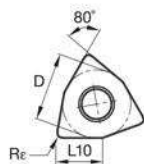
■ WNGG-FS

ISO catalogue number	D	L10	S	Rε	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TT15
WNGG080404FS	12,70	8,69	4,76	0,4	5,16	■	■	■	■	■	■	■	■	5548687	5538234	5550003	■	■	■
WNGG080408FS	12,70	8,69	4,76	0,8	5,16	■	■	■	■	■	■	■	■	5548688	5538235	5550004	■	■	■





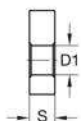
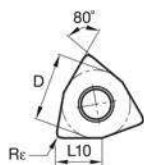
Inserts



- first choice
- alternate choice

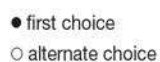
■ **WNMA**

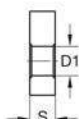
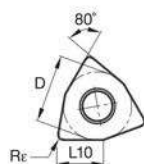
ISO catalogue number	D	L10	S	Rε	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TT14E
WNMA060408	9,53	6,52	4,76	0,8	3,81	■	■	■	■	■	■	4171653	4171898	■	■	■	■	■	■	■
WNMA060412	9,53	6,52	4,76	1,2	3,81	■	■	■	■	■	■	4171899	4171898	■	■	■	■	■	■	■
WNMA080408	12,70	8,69	4,76	0,8	5,16	■	■	■	■	■	■	4171654	4171900	■	■	■	■	■	■	■
WNMA080412	12,70	8,69	4,76	1,2	5,16	■	■	■	■	■	■	4171655	4171901	■	■	■	■	■	■	■
WNMA080416	12,70	8,69	4,76	1,6	5,16	■	■	■	■	■	■	4171656	4171902	■	■	■	■	■	■	■



■ WNMG-FF

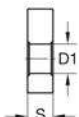
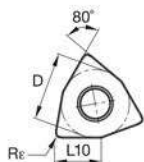
[illegible][illegible]

[illegible]



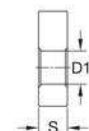
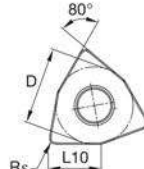
- first choice
- alternate choice

■ WNMG-MR

[illegible]

■ WNMG-MS

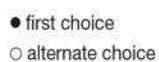
ISO catalogue number	D	L10	S	Rε	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TT145
WNMG060408MS	9,53	6,52	4,76	0,8	3,81	■	■	■	■	■	■	■	■	5908966	5908967	5908968	■	■	■	
WNMG080404MS	12,70	8,69	4,76	0,4	5,16	■	■	■	■	■	■	■	■	5908969	5908970	5908971	■	■	■	
WNMG080408MS	12,70	8,69	4,76	0,8	5,16	■	■	■	■	■	■	■	■	5908972	5908973	5908974	■	■	■	



■ WNMG-MW

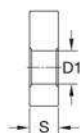
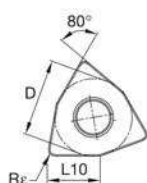
ISO catalogue number	D	L10	S	R _e	D1	WP15CT	WP25CT	WP35CT	WM15CT	WN25CT	WN35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TTI45
WNMG060408MW	9,53	6,52	4,76	0,8	3,81	5623512	5623513	-	-	-	-	-	-	-	-	-	-	-	-	-
WNMG080408MW	12,70	8,69	4,76	0,8	5,16	5623516	5623517	-	-	4173118	-	4171695	-	-	-	-	-	-	-	-
WNMG080412MW	12,70	8,69	4,76	1,2	5,16	-	-	-	-	4173119	-	4171697	-	-	-	-	-	-	-	-

[illegible]

[illegible]

ISO catalogue number	D	L10	S	Re	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TT15
WNMG060404UF	9,53	6,52	4,76	0,4	3,81	■	■	■	4169374	4169400		■	■	■	5645621	■	■	■	■	■
WNMG060408UF	9,53	6,52	4,76	0,8	3,81	■	■	■	4169375	4169401		■	■	■	5645622	■	■	■	■	■
WNMG080404UF	12,70	8,69	4,76	0,4	5,16	■	■	■	4169376	4169402		■	■	■	5645619	■	■	■	■	■
WNMG080408UF	12,70	8,69	4,76	0,8	5,16	■	■	■	4169377	4169403		■	■	■	5645623	■	■	■	■	■
WNMG080412UF	12,70	8,69	4,76	1,2	5,16	■	■	■	4169378	4169404		■	■	■	5645624	■	■	■	■	■

Inserts

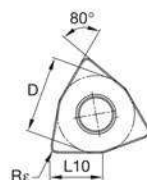


- first choice
- alternate choice

[illegible]

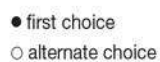
■ WNMG-UM

ISO catalogue number	D	L10	S	Rε	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TT45
WNMG060404UM	9,53	6,52	4,76	0,4	3,81	■	■	■	4172375	4172403	4172432	■	■	■	■	■	■	■	■	■
WNMG060408UM	9,53	6,52	4,76	0,8	3,81	■	■	■	4172376	4172404	4172433	■	■	■	■	■	■	■	■	■
WNMG060412UM	9,53	6,52	4,76	1,2	3,81	■	■	■	■	4172405	4172434	■	■	■	■	■	■	■	■	■
WNMG080404UM	12,70	8,69	4,76	0,4	5,16	■	■	■	4172377	4172406	4172435	■	■	■	■	■	■	■	■	■
WNMG080408UM	12,70	8,69	4,76	0,8	5,16	■	■	■	4172378	4172407	4172436	■	■	■	■	■	■	■	■	■
WNMG080412UM	12,70	8,69	4,76	1,2	5,16	■	■	■	4172379	4172408	4172437	■	■	■	■	■	■	■	■	■
WNMG080416UM	12,70	8,69	4,76	1,6	5,16	■	■	■	■	4172409	4172438	■	■	■	■	■	■	■	■	■



■ WNMG-UR

ISO catalogue number	D	L10	S	Rε	D1	WP15CT	WP25CT	WP35CT	WN15CT	WN25CT	WN35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TT145
						4171125 4171126	4170531 4170532	4170039 -	4169441 -	4169475 -	- -	- 4171452	4171451 5680178	5680177 -	- -	- -	- -	- -	- -	- -
WNMG060408UR	9,53	6,52	4,76	0,8	3,81															
WNMG060412UR	9,53	6,52	4,76	1,2	3,81															
WNMG080408UR	12,70	8,69	4,76	0,8	5,16															
WNMG080412UR	12,70	8,69	4,76	1,2	5,16															
WNMG080416UR	12,70	8,69	4,76	1,6	5,16															

[illegible]

Inserts

ISO catalogue number	D	L10	S	R _e	D1	WP15CT	WP25CT	WP35CT	WM15CT	WM25CT	WM35CT	WK05CT	WK20CT	WS10PT	WS25PT	WU10HT	THM	TTM	TTR	TT15
WNMP080408	12,70	8,69	4,76	0,8	5,16	■	■	■	■	■	■	■	■	4172499	■	■	■	■	■	■
WNMP080412	12,70	8,69	4,76	1,2	5,16	■	■	■	■	■	■	■	■	4172500	■	■	■	■	■	■

[illegible]