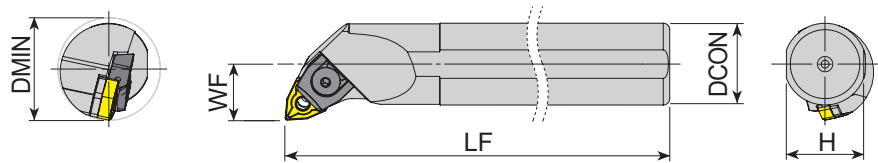
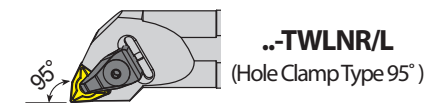


Turning - Holder - Internal
Internal Holders for WN** Insert



: p. 75 unit:mm

Series		Designation	EDP 2700..		DMIN	DCON	H	WF	LF	Insert
	X		R	L						
	X	S25S - TWLNR/L 06	1090	1091	32	25	23	17	250	WN0604
		S32T - TWLNR/L 06	1092	1093	40	32	30	22	300	
	●	A40T - TWLNR/L 08	1062	-	50	40	37.5	27	300	WN0804
		A50U - TWLNR/L 08	1063	-	63	50	47	35	350	
	X	S25S - TWLNR/L 08	1094	1095	32	25	23	17	250	
		S32T - TWLNR/L 08	1096	1097	40	32	30	22	300	
		S40U - TWLNR/L 08	1098	1099	50	40	37.5	27	350	
		S50V - TWLNR/L 08	1100	1101	63	50	47	35	400	



..-TWLNR/L
(Hole Clamp Type 95°)

Series	Size	Lever	Lever Screw	Clamp	Clamp Screw	Upper Ring	Lower Ring	Pin	Shim	Shim Screw	Shim Pin	Allen Key
..TWLNR/L	..06	-	-	YATK-01	YAKV-01-M5x22	YABPL-01	-	-	YAAWN-SW317	YAAV-01-M3x10	-	YAAL-03-3
	..25..08	-	-	YATK-02	YAKV-30-M6x22	YABPL-01	YAS-01	-	YAAWN-3-0001	YAAV-13-M5x8	-	YAAL-03-3
	..32~50..08	-	-	YATK-02	YAKV-30-M6x22	YABPL-01	YAS-01	-	YAAWN-3-0001	YAAV-02-M5x12	-	YAAL-03-3

Turning Inserts Overview

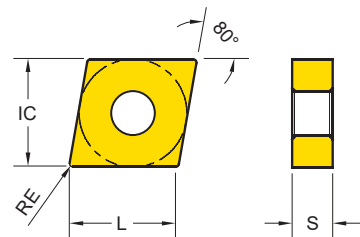
Negative Inserts

Shape	Series	Size					Page
		12	16	19			
C	CNMA	12	16	19			60
	CNMG	12	16	19			
D	DNMA	1504	1506				63
	DNMG	1504	1506				
K	KNUX	16					66
S	SNMA	12	15				67
	SNMG	12					
T	TNMA	16					69
	TNMG	16	22				
	TNUX	16					72
V	VNMA	16					73
	VNMG	16					
W	WNMA		08				75
	WNMG	06	08				

Positive Inserts

Shape	Series	Size					Page
			09	12			
C	CCGT		09	12			78
	CCMT	06	09	12			
D	DCGT		11				79
	DCMT	07	11				
R	RCMT	06	08	10	12		80
S	SCMT	09	12				81
T	TCGT		16				82
	TCMT	11	16				
V	VBMT	16					83
	VCGT / VCMT	16					84

Turning Inserts - Negative CNMG / CNMA (80° Negative)



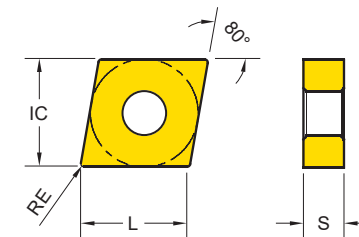
Series	L	IC	S
CN** 1204	12	12.7	4.76
CN** 1606	16	15.875	6.35
CN** 1906	19	19.05	6.35

EDP 2200.. ● : Stock item ○ : Order made item

					P05	P10	P20	P30	P20	M15	M30	M40	N20	N20
					K10	K20		M20		S10	S20	S30		
CNMA	Designation	RE	Fn (mm/rev.)	Ap (mm)	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10
..MA  Cast iron	CNMA 120404	0.4	0.15 ~ 0.5	0.5 ~ 2.5	● 0089	● 0354								
	CNMA 120408	0.8	0.15 ~ 0.5	1 ~ 3.5	● 0010	● 0355								
	CNMA 120412	1.2	0.15 ~ 0.5	1.5 ~ 5	● 0011	● 0356								
	CNMA 160612	1.2	0.15 ~ 0.5	1.5 ~ 5	● 0012	● 0357								
	CNMA 160616	1.6	0.15 ~ 0.5	2 ~ 5	● 0446	● 0447								
	CNMA 190616	1.6	0.15 ~ 1	3 ~ 10	● 0448	● 0449								
-UF  Finishing	CNMG 120404 - UF	0.4	0.05 ~ 0.25	0.5 ~ 1.5		● 0178	● 0179	● 0180	● 0003					
	CNMG 120408 - UF	0.8	0.05 ~ 0.25	1 ~ 2.5		● 0189	● 0190	● 0191						
-UL  Light Machining and Sticky Material	CNMG 120404 - UL	0.4	0.1 ~ 0.3	0.5 ~ 2		● 0358	● 0359	● 0524						
	CNMG 120408 - UL	0.8	0.1 ~ 0.3	1 ~ 3		● 0192	● 0193	● 0194						
	CNMG 120412 - UL	1.2	0.1 ~ 0.3	1.5 ~ 3.5		● 0201	● 0202	● 0203						
-UM  Medium Machining Unstable condition	CNMG 120404 - UM	0.4	0.15 ~ 0.3	0.5 ~ 1.5		● 0184	● 0185	● 0186						
	CNMG 120408 - UM	0.8	0.15 ~ 0.3	0.5 ~ 2	● 0338	● 0114	● 0100	● 0140						
	CNMG 120412 - UM	1.2	0.15 ~ 0.3	1.5 ~ 3.0		● 0525	● 0486	● 0526						

Cutting Speed			Vc (m/min.)											
ISO	VDI	Sub Group	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10		
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	220	480	170	450	180	380	150	350	120	200	-	-
	6~9	Low-Alloyed Steel	220	420	180	380	110	350	90	300	70	200	-	-
	10~11	High-Alloyed Steel	-	-	100	330	60	300	70	250	-	-	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	120	230	-	-	130	230
	14	Austenitic Stainless Steel	-	-	-	-	-	-	80	200	-	-	100	200
K	15~16	Grey Cast Iron	170	420	120	300	-	-	-	-	-	-	-	-
	17~18	Nodular Cast Iron	120	410	120	280	-	-	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	350	1200
S	31~37	Superalloys & Titanium	-	-	-	-	-	-	35	80	-	-	30	90
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	20	40

Turning Inserts - Negative CNMG / CNMA (80° Negative)



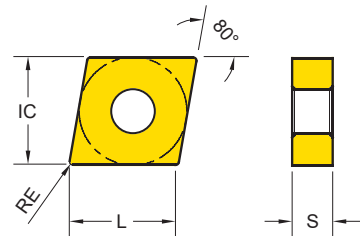
Series	L	IC	S
CN** 1204	12	12.7	4.76
CN** 1606	16	15.875	6.35
CN** 1906	19	19.05	6.35

EDP 2200.. ● : Stock item ○ : Order made item

					P05	P10	P20	P30	P20	M15	M30	M40	N20	N20
					K10	K20		M20		S10	S20	S30		
CNMA	Designation	RE	Fn	Ap	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10
CNMG			(mm/rev.)	(mm)										
-UG  Medium Machining at stable condition	CNMG 120404 - UG	0.4	0.2 ~ 0.4	0.5 ~ 2		● 0181	● 0182	● 0183						
	CNMG 120408 - UG	0.8	0.2 ~ 0.4	1 ~ 3	● 0337	● 0113	● 0099	● 0139	● 0001					
	CNMG 120412 - UG	1.2	0.2 ~ 0.4	1.5 ~ 4	● 0685	● 0198	● 0199	● 0200						
	CNMG 160608 - UG	0.8	0.20 ~ 0.40	1.5 ~ 5.0				● 0749						
	CNMG 160612 - UG	1.2	0.2 ~ 0.4	1.5 ~ 5		● 0530	● 0508	● 0531						
	CNMG 160616 - UG	1.6	0.2 ~ 0.4	1.8 ~ 5		● 0534	● 0510	● 0535						
	CNMG 190608 - UG	0.8	0.20 ~ 0.50	3.0 ~ 7.0		● 0801	● 0802	● 0803						
-UC  Cast iron and Medium roughing	CNMG 120404 - UC	0.4	0.2 ~ 0.4	0.5 ~ 2.5	● 0096	● 0115	● 0101	● 0116						
	CNMG 120408 - UC	0.8	0.2 ~ 0.4	1 ~ 4	● 0062	● 0117	● 0102	● 0118						
	CNMG 120412 - UC	1.2	0.2 ~ 0.4	1.5 ~ 4.5	● 0088	● 0119	● 0103	● 0120						
-UR  Roughing	CNMG 120408 - UR	0.8	0.3 ~ 0.5	1 ~ 4		● 0195	● 0196	● 0197						
	CNMG 120412 - UR	1.2	0.3 ~ 0.5	1.5 ~ 5		● 0204	● 0205	● 0206	● 0004					
	CNMG 120416 - UR	1.6	0.3 ~ 0.5	2 ~ 5		● 0707	● 0623							
	CNMG 160612 - UR	1.2	0.3 ~ 0.5	1.5 ~ 5		● 0532	● 0509	● 0533						
	CNMG 160616 - UR	1.6	0.3 ~ 0.5	2 ~ 5	● 0676	● 0536	● 0511	● 0537						
	CNMG 190608 - UR	0.8	0.3 ~ 0.8	3.0 ~ 9.0		● 0804	● 0805	● 0806						
	CNMG 190612 - UR	1.2	0.3 ~ 0.8	3 ~ 9	● 0450	● 0451	● 0698	● 0699						
	CNMG 190616 - UR	1.6	0.3 ~ 0.8	3.0 ~ 9.0	● 0480	● 0481	● 0734	● 0735						

Cutting Speed			Vc (m/min.)											
ISO	VDI	Sub Group	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10		
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	220	480	170	450	180	380	150	350	120	200	-	-
	6~9	Low-Alloyed Steel	220	420	180	380	110	350	90	300	70	200	-	-
	10~11	High-Alloyed Steel	-	-	100	330	60	300	70	250	-	-	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	120	230	-	-	130	230
	14	Austenitic Stainless Steel	-	-	-	-	-	-	80	200	-	-	100	200
K	15~16	Grey Cast Iron	170	420	120	300	-	-	-	-	-	-	-	-
	17~18	Nodular Cast Iron	120	410	120	280	-	-	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	350	1200
S	31~37	Superalloys & Titanium	-	-	-	-	-	-	35	80	-	-	30	90
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	20	40

Turning Inserts - Negative CNMG / CNMA (80° Negative)



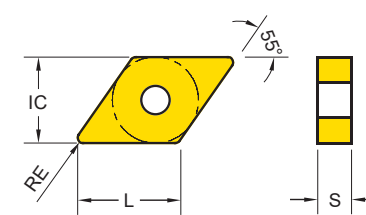
Series	L	IC	S
CN** 1204	12	12.7	4.76
CN** 1606	16	15.875	6.35
CN** 1906	19	19.05	6.35

EDP 2200.. ● : Stock item ○ : Order made item

	CNMA CNMG	Designation	RE	Fn (mm/rev.)	Ap (mm)	P05 K10	P10 K20	P20	P30 M20	P20	M15 S10	M30 S20	M40 S30	N20	N20
						YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10
-MF		CNMG 120404 - MF	0.4	0.07 ~ 0.3	0.2 ~ 1.5						●	●			
		CNMG 120408 - MF	0.8	0.07 ~ 0.3	0.2 ~ 1.5						●	●	●		
-MM		CNMG 120404 - MM	0.4	0.2 ~ 0.35	0.5 ~ 3						●	●			
		CNMG 120408 - MM	0.8	0.2 ~ 0.35	1 ~ 3.5			●	●	●	●	●	●		
		CNMG 120412 - MM	1.2	0.2 ~ 0.35	1.5 ~ 3.5				●	●	●	●	●		
-MR		CNMG 120408 - MR	0.8	0.3 ~ 0.55	1.2 ~ 5.5				●		●	●	●		
		CNMG 120412 - MR	1.2	0.3 ~ 0.55	1.5 ~ 5.5				●		●	●	●		
-KR		CNMG 120408 - KR	0.8	0.30 ~ 0.60	1.0 ~ 5.0	●									
		CNMG 120412 - KR	1.2	0.30 ~ 0.60	1.5 ~ 5.0	●									

Cutting Speed			Vc (m/min.)																			
ISO	VDI	Sub Group	YG1001		YG3010		YG3020		YG3030		YG801		YG211		YG213		YG214		YG100		YG10	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	220	480	170	450	180	380	150	350	120	200	-	-	-	-	-	-	-	-	-	-
	6~9	Low-Alloyed Steel	220	420	180	380	110	350	90	300	70	200	-	-	-	-	-	-	-	-	-	-
	10~11	High-Alloyed Steel	-	-	100	330	60	300	70	250	-	-	-	-	-	-	-	-	-	-	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	120	230	-	-	130	230	110	180	80	150	-	-	-	-
	14	Austenitic Stainless Steel	-	-	-	-	-	-	80	200	-	-	100	200	40	130	30	120	-	-	-	-
K	15~16	Grey Cast Iron	170	420	120	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	17~18	Nodular Cast Iron	120	410	120	280	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	350	1200	250	800	
S	31~37	Superalloys & Titanium	-	-	-	-	-	-	35	80	-	-	30	90	20	40	20	40	-	-	-	-
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Turning Inserts - Negative DNMG / DNMA (55° Negative)



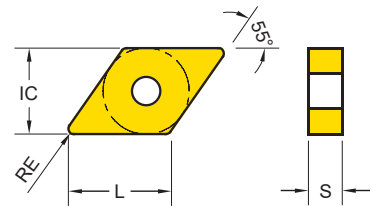
Series	L	IC	S
DN** 1504	14	12.7	4.76
DN** 1506	14	12.7	6.35

EDP 2200.. ● : Stock item ○ : Order made item

	DNMA DNMG	Designation	RE	Fn (mm/rev.)	Ap (mm)	P05 K10	P10 K20	P20	P30 M20	P20	M15 S10	M30 S20	M40 S30	N20	N20
						YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10
..MA		DNMA 150408	0.8	0.15 ~ 0.5	1 ~ 3	●	●								
		DNMA 150412	1.2	0.15 ~ 0.5	1.5 ~ 4	●	●								
		DNMA 150608	0.8	0.15 ~ 0.5	1 ~ 3	●									
		DNMA 150612	1.2	0.15 ~ 0.5	1.5 ~ 4	●									
-UF		DNMG 150404 - UF	0.4	0.05 ~ 0.25	0.5 ~ 1.5		●	●	●	●					
		DNMG 150604 - UF	0.4	0.05 ~ 0.25	1 ~ 2		●	●	●	●					
		DNMG 150608 - UF	0.8	0.05 ~ 0.25	1.5 ~ 3.5		●	●	●						
-UL		DNMG 150404 - UL	0.4	0.10 ~ 0.3	0.5 ~ 3.0		●	●	●						
		DNMG 150408 - UL	0.8	0.10 ~ 0.3	1.0 ~ 3.0		●	●	●						
		DNMG 150412 - UL	1.2	0.10 ~ 0.3	1.5 ~ 3.0		●	●							
		DNMG 150604 - UL	0.4	0.1 ~ 0.3	0.5 ~ 2		●	●							
		DNMG 150608 - UL	0.8	0.1 ~ 0.3	1.5 ~ 3		●	●	●						
		DNMG 150612 - UL	1.2	0.10 ~ 0.3	1.5 ~ 3.0		●	●							
-UM		DNMG 150408 - UM	0.8	0.15 ~ 0.3	1.0 ~ 3.0		●	●	●						
		DNMG 150412 - UM	1.2	0.15 ~ 0.3	1.5 ~ 4		●	●	●						
		DNMG 150608 - UM	0.8	0.15 ~ 0.3	0.5 ~ 2		●	●	●						
		DNMG 150612 - UM	1.2	0.15 ~ 0.3	1.5 ~ 3.0		●	●							

Cutting Speed			Vc (m/min.)																			
ISO	VDI	Sub Group	YG1001		YG3010		YG3020		YG3030		YG801		YG211		YG213		YG214		YG100		YG10	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	220	480	170	450	180	380	150	350	120	200	-	-	-	-	-	-	-	-	-	-
	6~9	Low-Alloyed Steel	220	420	180	380	110	350	90	300	70	200	-	-	-	-	-	-	-	-	-	-
	10~11	High-Alloyed Steel	-	-	100	330	60	300	70	250	-	-	-	-	-	-	-	-	-	-	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	120	230	-	-	130	230	110	180	80	150	-	-	-	-
	14	Austenitic Stainless Steel	-	-	-	-	-	-	80	200	-	-	100	200	40	130	30	120	-	-	-	-
K	15~16	Grey Cast Iron	170	420	120	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	17~18	Nodular Cast Iron	120	410	120	280	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	350	1200	250	800
S	31~37	Superalloys & Titanium	-	-	-	-	-	-	35	80	-	-	30	90	20	40	20	40	-	-	-	-
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Turning Inserts - Negative DNMG / DNMA (55° Negative)



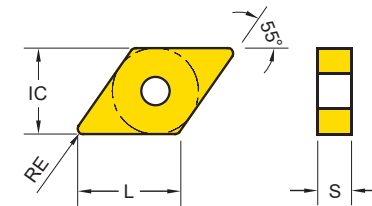
Series	L	IC	S
DN** 1504	14	12.7	4.76
DN** 1506	14	12.7	6.35

EDP 2200.. ● : Stock item ○ : Order made item

DNMA DNMG	Designation	RE	Fn (mm/rev.)	Ap (mm)	P05	P10	P20	P30	P20	M15	M30	M40	N20	N20
					K10	K20	M20	S10	S20	S30	N20	N20	N20	N20
-UG Medium Machining at stable condition	DNMG 150404 - UG	0.4	0.2~0.4	0.5~3.0			●							
	DNMG 150408 - UG	0.8	0.2~0.4	1~2.5	●	●	●	●	●					
	DNMG 150412 - UG	1.2	0.2~0.4	1.5~3	●		●	●						
	DNMG 150604 - UG	0.4	0.2~0.4	0.5~2			●	●	●					
	DNMG 150608 - UG	0.8	0.2~0.4	1~3	●	●	●	●	●					
	DNMG 150612 - UG	1.2	0.2~0.4	1.5~3.5	●	●	●	●	●					
-UC Cast iron and Medium roughing	DNMG 150408 - UC	0.8	0.2~0.4	1~3	●	●	●	●						
	DNMG 150412 - UC	1.2	0.2~0.4	1.5~3.5	●	●	●	●						
	DNMG 150608 - UC	0.8	0.2~0.4	1~3	●	●	●	●						
	DNMG 150612 - UC	1.2	0.2~0.4	1.5~3.5	●	●	●	●						
-UR Roughing	DNMG 150408 - UR	0.8	0.3~0.5	1~3.5		●								
	DNMG 150412 - UR	1.2	0.3~0.5	1.5~4		●								
	DNMG 150608 - UR	0.8	0.3~0.5	1.0~5.0	●	●	●							
	DNMG 150612 - UR	1.2	0.3~0.5	1.5~4	●	●	●	●						

Cutting Speed			Vc (m/min.)											
ISO	VDI	Sub Group	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10		
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	220	480	170	450	180	380	150	350	120	200	-	-
	6~9	Low-Alloyed Steel	220	420	180	380	110	350	90	300	70	200	-	-
	10~11	High-Alloyed Steel	-	-	100	330	60	300	70	250	-	-	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	120	230	-	-	130	230
	14	Austenitic Stainless Steel	-	-	-	-	-	-	80	200	-	-	100	200
K	15~16	Grey Cast Iron	170	420	120	300	-	-	-	-	-	-	-	-
	17~18	Nodular Cast Iron	120	410	120	280	-	-	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	350	1200
S	31~37	Superalloys & Titanium	-	-	-	-	-	-	35	80	-	-	30	90
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	-	-

Turning Inserts - Negative DNMG / DNMA (55° Negative)



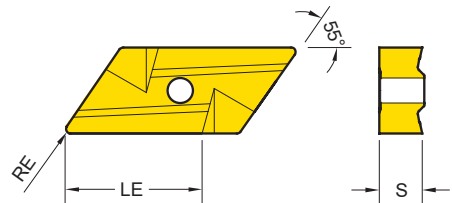
Series	L	IC	S
DN** 1504	14	12.7	4.76
DN** 1506	14	12.7	6.35

EDP 2200.. ● : Stock item ○ : Order made item

DNMA DNMG	Designation	RE	Fn (mm/rev.)	Ap (mm)	P05	P10	P20	P30	P20	M15	M30	M40	N20	N20
					K10	K20	M20	S10	S20	S30	N20	N20	N20	N20
-MF Stainless steel Finishing	DNMG 150404 - MF	0.4	0.07~0.3	0.2~1.5										
	DNMG 150408 - MF	0.8	0.07~0.3	0.2~1.5			●							
	DNMG 150604 - MF	0.4	0.07~0.3	0.2~1.5						●				
	DNMG 150608 - MF	0.8	0.07~0.3	0.2~1.5						●				
-MM Stainless steel Medium	DNMG 150404 - MM	0.4	0.2~0.35	0.5~3			●			●	●			
	DNMG 150408 - MM	0.8	0.2~0.35	1~3.5			●			●	●			
	DNMG 150412 - MM	1.2	0.2~.35	1.5~3.5			●			●	●			
	DNMG 150604 - MM	0.4	0.2~0.35	0.5~3			●			●	●			
	DNMG 150608 - MM	0.8	0.2~0.35	1~3.5			●			●	●			
	DNMG 150612 - MM	1.2	0.2~0.35	1.5~3.5			●			●	●			
-MR Stainless steel Roughing	DNMG 150408 - MR	0.8	0.3~0.55	2.0~5.5						●	●			
	DNMG 150412 - MR	1.2	0.3~0.55	2.0~5.5						●	●			
	DNMG 150608 - MR	0.8	0.3~0.55	2.0~5.5						●	●			
	DNMG 150612 - MR	1.2	0.3~0.55	2.0~5.5						●	●			

Cutting Speed			Vc (m/min.)											
ISO	VDI	Sub Group	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10		
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	220	480	170	450	180	380	150	350	120	200	-	-
	6~9	Low-Alloyed Steel	220	420	180	380	110	350	90	300	70	200	-	-
	10~11	High-Alloyed Steel	-	-	100	330	60	300	70	250	-	-	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	120	230	-	-	130	230
	14	Austenitic Stainless Steel	-	-	-	-	-	-	80	200	-	-	100	200
K	15~16	Grey Cast Iron	170	420	120	300	-	-	-	-	-	-	-	-
	17~18	Nodular Cast Iron	120	410	120	280	-	-	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	350	1200
S	31~37	Superalloys & Titanium	-	-	-	-	-	-	35	80	-	-	30	90
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	-	-

Turning Inserts - Negative
KNUX (55° - 2 Corners Single Side)



Series	LE	S
KN** 1604	15	4.76

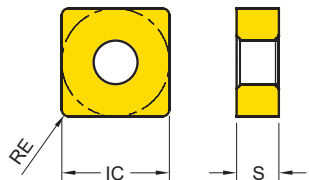
EDP 2200..

● : Stock item ○ : Order made item

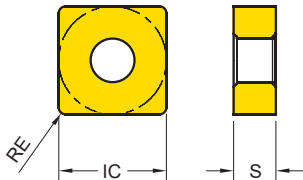
KNUX		Designation	RE	Fn (mm/rev.)	Ap (mm)	EDP 2200..									
						P05 K10	P10 K20	P20	P30 M20	P20	M15 S10	M30 S20	M40 S30	N20	N20
						YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10
..UX Left		KNUX 160405 L	0.5	0.1 ~ 0.4	0.5 ~ 6	●	●	●	●	●					
						0249	0250	0251	0079						
..UX Right		KNUX 160405 R	0.5	0.1 ~ 0.4	0.5 ~ 6	●	●	●	●	●					
						0252	0253	0254	0080						

Cutting Speed			Vc (m/min.)															
ISO	VDI	Sub Group	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10						
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max		
P	1~5	Non-Alloyed Steel	220	480	170	450	180	380	150	350	120	200	-	-	-	-	-	-
	6~9	Low-Alloyed Steel	220	420	180	380	110	350	90	300	70	200	-	-	-	-	-	-
	10~11	High-Alloyed Steel	-	-	100	330	60	300	70	250	-	-	-	-	-	-	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	120	230	-	-	130	230	110	180	80	150
	14	Austenitic Stainless Steel	-	-	-	-	-	-	80	200	-	-	100	200	40	130	30	120
K	15~16	Grey Cast Iron	170	420	120	300	-	-	-	-	-	-	-	-	-	-	-	-
	17~18	Nodular Cast Iron	120	410	120	280	-	-	-	-	-	-	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	350	1200
S	31~37	Superalloys & Titanium	-	-	-	-	-	-	35	80	-	-	30	90	20	40	20	40
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Turning Inserts - Negative
SNMG / SNMA (90° Negative)



		Series		IC	S
		SN** 1204		12.7	4.76
		SN** 1506		15.875	6.35

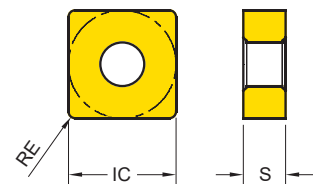


EDP 2200..										● : Stock item ○ : Order made item				
		P05	P10	P20	P30	P20	M15	M30	M40	N20	N20			
		K10	K20		M20		S10	S20	S30					
SNMA	Designation	RE	Fn (mm/rev.)	Ap (mm)	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10
..MA  Cast iron	SNMA 120408	0.8	0.15~0.5	1~3.5	● 0027									
	SNMA 120412	1.2	0.15~0.5	1.5~5	● 0028									
	SNMA 150612	1.2	0.15~0.5	1.5~5	● 0729									
-UF  Finishing	SNMG 120404 - UF	0.4	0.05~0.25	0.5~1.5					● 0029					
-UL  Light Machining and sticky material	SNMG 120404 - UL	0.4	0.10~0.30	0.5~3.0			● 0747							
	SNMG 120408 - UL	0.8	0.1~0.3	1~3		● 0389	● 0390	● 0391						
-UM  For Medium & Unstable conditions	SNMG 120408 - UM	0.8	0.15~0.30	1.0~3.0		● 0739	● 0784	● 0740						
-UG  Medium Machining at stable condition	SNMG 120408 - UG	0.8	0.2~0.4	1~3		● 0141	● 0142	● 0143	● 0030					
	SNMG 120412 - UG	1.2	0.2~0.4	1.5~4		● 0258	● 0259	● 0260						
	SNMG 120416 - UG	1.6	0.2~0.40	2.0~3.0		● 0744								
-UC  Cast iron and Medium roughing	SNMG 120408 - UC	0.8	0.2~0.4	1~4	● 0073	● 0125	● 0106	● 0126						
	SNMG 120412 - UC	1.2	0.2~0.4	1.5~4.5	● 0074			● 0128						

Cutting Speed			Vc (m/min.)																			
ISO	VDI	Sub Group	YG1001		YG3010		YG3020		YG3030		YG801		YG211		YG213		YG214		YG100		YG10	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	220	480	170	450	180	380	150	350	120	200	-	-	-	-	-	-	-	-	-	-
	6~9	Low-Alloyed Steel	220	420	180	380	110	350	90	300	70	200	-	-	-	-	-	-	-	-	-	-
	10~11	High-Alloyed Steel	-	-	100	330	60	300	70	250	-	-	-	-	-	-	-	-	-	-	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	120	230	-	-	130	230	110	180	80	150	-	-	-	-
	14	Austenitic Stainless Steel	-	-	-	-	-	-	80	200	-	-	100	200	40	130	30	120	-	-	-	-
K	15~16	Grey Cast Iron	170	420	120	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	17~18	Nodular Cast Iron	120	410	120	280	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	350	1200	250	800
S	31~37	Superalloys & Titanium	-	-	-	-	-	-	35	80	-	-	30	90	20	40	20	40	-	-	-	-
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Turning Inserts - Negative

SNMG / SNMA (90° Negative)



Series	IC	S
SN** 1204	12.7	4.76

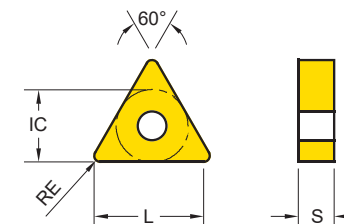
EDP 2200.. ● : Stock item ○ : Order made item

	Designation	RE	Fn (mm/rev.)	Ap (mm)	P05	P10	P20	P30	P20	M15	M30	M40	N20	N20
					K10	K20	M20	S10	S20	S30	N20	N20	N20	N20
SNMA SNMG					YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10
-UR Roughing	SNMG 120408 - UR	0.8	0.3 ~ 0.5	1 ~ 4.5		● 0392	● 0393	● 0394						
	SNMG 120412 - UR	1.2	0.3 ~ 0.5	1.5 ~ 5			● 0262	● 0263	● 0031					
-MF Stainless steel Finishing	SNMG 120408 - MF	0.8	0.07 ~ 0.3	0.2 ~ 1.5				● 0818	● 0653	● 0654	● 0817			
	SNMG 120412 - MF	1.2	0.07 ~ 0.3	0.2 ~ 1.5				● 0821	● 0655	● 0656	● 0820			
-MM Stainless steel Medium	SNMG 120408 - MM	0.8	0.2 ~ 0.35	1 ~ 3.5					● 0555	● 0556				
	SNMG 120412 - MM	1.2	0.2 ~ 0.35	1.5 ~ 3.5					● 0565	● 0566				
-MR Stainless steel Roughing	SNMG 120408 - MR	0.8	0.3 ~ 0.55	0.15 ~ 5.5					● 0657	● 0658	● 0819			
	SNMG 120412 - MR	1.2	0.3 ~ 0.55	0.15 ~ 5.5			● 0823		● 0659	● 0660	● 0822			
-KR Cast Iron Heavy Roughing	SNMG 120416 - KR	1.6	0.30 ~ 0.60	2.0 ~ 5.0		● 0730								

Cutting Speed			Vc (m/min.)											
ISO	VDI	Sub Group	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10		
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	220	480	170	450	180	380	150	350	120	200	-	-
	6~9	Low-Alloyed Steel	220	420	180	380	110	350	90	300	70	200	-	-
	10~11	High-Alloyed Steel	-	-	100	330	60	300	70	250	-	-	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	120	230	-	-	130	230
	14	Austenitic Stainless Steel	-	-	-	-	-	-	80	200	-	-	100	200
K	15~16	Grey Cast Iron	170	420	120	300	-	-	-	-	-	-	-	-
	17~18	Nodular Cast Iron	120	410	120	280	-	-	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	350	1200
S	31~37	Superalloys & Titanium	-	-	-	-	-	-	35	80	-	-	30	90
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	-	-

Turning Inserts - Negative

TNMG / TNMA (60° Negative)



Series	L	IC	S
TN** 1604	15.7	9.525	4.76
TN** 2204	22	12.7	4.76

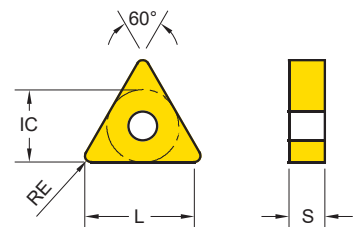
EDP 2200.. ● : Stock item ○ : Order made item

	Designation	RE	Fn (mm/rev.)	Ap (mm)	P05	P10	P20	P30	P20	M15	M30	M40	N20	N20
					K10	K20	M20	S10	S20	S30	N20	N20	N20	N20
..MA Cast iron	TNMA 160408	0.8	0.15 ~ 0.5	1 ~ 3	● 0035									
	TNMA 160412	1.2	0.15 ~ 0.5	1.5 ~ 4	● 0036									
-UF Finishing	TNMG 160404 - UF	0.4	0.05 ~ 0.25	1 ~ 2		● 0270	● 0271	● 0272	● 0039					
	TNMG 160408 - UF	0.8	0.05 ~ 0.25	1.5 ~ 3.5		● 0276	● 0277	● 0278						
	TNMG 160412 - UF	1.2	0.05 ~ 0.25	1.5 ~ 3.5		● 0721	● 0588							
	TNMG 220404 - UF	0.4	0.1 ~ 0.35	1 ~ 4		● 0407			● 0042					
-UL Light Machining and sticky material	TNMG 160408 - UL	0.8	0.1 ~ 0.3	1 ~ 3		● 0279	● 0280	● 0281						
	TNMG 160412 - UL	1.2	0.1 ~ 0.3	1.5 ~ 3.5			● 0621							
-UM Medium Machining Unstable condition	TNMG 160408 - UM	0.8	0.15 ~ 0.3	0.5 ~ 2		● 0282	● 0283	● 0284						
	TNMG 160412 - UM	1.2	0.15 ~ 0.3	1.5 ~ 3	● 0596	● 0597	● 0586	● 0710						

Cutting Speed			Vc (m/min.)											
ISO	VDI	Sub Group	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10		
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	220	480	170	450	180	380	150	350	120	200	-	-
	6~9	Low-Alloyed Steel	220	420	180	380	110	350	90	300	70	200	-	-
	10~11	High-Alloyed Steel	-	-	100	330	60	300	70	250	-	-	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	120	230	-	-	130	230
	14	Austenitic Stainless Steel	-	-	-	-	-	-	80	200	-	-	100	200
K	15~16	Grey Cast Iron	170	420	120	300	-	-	-	-	-	-	-	-
	17~18	Nodular Cast Iron	120	410	120	280	-	-	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	350	1200
S	31~37	Superalloys & Titanium	-	-	-	-	-	-	35	80	-	-	30	90
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	-	-

Turning Inserts - Negative

TNMG / TNMA (60° Negative)



Series	L	IC	S
TN** 1604	15.7	9.525	4.76
TN** 2204	22	12.7	4.76

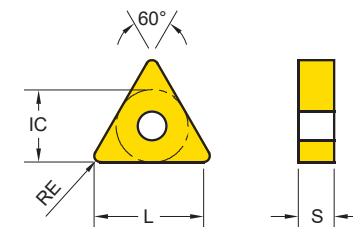
EDP 2200.. ● : Stock item ○ : Order made item

						P05	P10	P20	P30	P20	M15	M30	M40	N20	N20	
						K10	K20		M20		S10	S20	S30			
TNMA TNMG		Designation	RE	Fn (mm/rev.)	Ap (mm)	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10	
-UG	 Medium Machining at Stable condition	TNMG 160404 - UG	0.4	0.2~0.4	0.5~2	● 0458	● 0273	● 0274	● 0275							
		TNMG 160408 - UG	0.8	0.2~0.4	1~3	● 0459	● 0144	● 0145	● 0146	● 0037						
		TNMG 160412 - UG	1.2	0.2~0.4	1.5~3	● 0605	● 0606	● 0587								
		TNMG 220408 - UG	0.8	0.25~0.6	1~4		● 0285	● 0286	● 0287	● 0040						
-UC	 Cast iron and Medium roughing	TNMG 160404 - UC	0.4	0.2~0.4	0.5~2.5	● 0399	● 0400	● 0401	● 0402							
		TNMG 160408 - UC	0.8	0.2~0.4	1~3	● 0075	● 0129	● 0108	● 0130							
		TNMG 160412 - UC	1.2	0.2~0.4	1.5~3.5	● 0076			● 0132							
-UR	 Roughing	TNMG 160408 - UR	0.8	0.30~0.50	1.0~5.0	● 0680	● 0669	● 0670								
		TNMG 160412 - UR	1.2	0.3~0.5	1.5~3	● 0602	● 0404	● 0405	● 0406	● 0038						
		TNMG 220412 - UR	1.2	0.30~0.65	1.5~4	● 0408	● 0409	● 0410	● 0411	● 0041						
		TNMG 220416 - UR	1.6	0.3~0.65	2~4	● 0460	● 0461	● 0696	● 0711							

Cutting Speed			Vc (m/min.)											
ISO	VDI	Sub Group	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10		
			Min Max	Min Max	Min Max	Min Max	Min Max	Min Max	Min Max	Min Max	Min Max	Min Max	Min Max	
P	1~5	Non-Alloyed Steel	220 480	170 450	180 380	150 350	120 200	- -	- -	- -	- -	- -		
	6~9	Low-Alloyed Steel	220 420	180 380	110 350	90 300	70 200	- -	- -	- -	- -	- -		
	10~11	High-Alloyed Steel	- -	100 330	60 300	70 250	- -	- -	- -	- -	- -	- -		
M	12~13	Ferritic & Martensitic	- -	- -	- -	120 230	- -	130 230	110 180	80 150	- -	- -		
	14	Austenitic Stainless Steel	- -	- -	- -	80 200	- -	100 200	40 130	30 120	- -	- -		
K	15~16	Grey Cast Iron	170 420	120 300	- -	- -	- -	- -	- -	- -	- -	- -		
	17~18	Nodular Cast Iron	120 410	120 280	- -	- -	- -	- -	- -	- -	- -	- -		
N	21~30	Non-Ferrous Metals (Al)	- -	- -	- -	- -	- -	- -	- -	- -	350 1200	250 800		
S	31~37	Superalloys & Titanium	- -	- -	- -	35 80	- -	30 90	20 40	20 40	- -	- -		
H	38~41	Hard Materials	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -		

Turning Inserts - Negative

TNMG / TNMA (60° Negative)



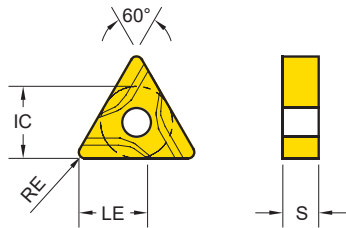
Series	L	IC	S
TN** 1604	15.7	9.525	4.76
TN** 2204	22	12.7	4.76

EDP 2200.. ● : Stock item ○ : Order made item

						P05	P10	P20	P30	P20	M15	M30	M40	N20	N20	
						K10	K20		M20		S10	S20	S30			
TNMA TNMG		Designation	RE	Fn (mm/rev.)	Ap (mm)	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10	
-MF		TNMG 160404 - MF	0.4	0.05 ~ 0.3	0.2 ~ 1.5						● 0824	● 0775				
		TNMG 160408 - MF	0.8	0.05 ~ 0.3	0.15 ~ 1.5						● 0589	● 0776	● 0825			
Stainless steel Finishing																
-MM		TNMG 160404 - MM	0.4	0.2 ~ 0.35	0.5 ~ 3						● 0567	● 0568				
		TNMG 160408 - MM	0.8	0.15 ~ 0.3	1 ~ 3.5						● 0569	● 0570				
		TNMG 160412 - MM	1.2	0.15 ~ 0.3	1.5 ~ 3.5						● 0611	● 0603				
Stainless steel Medium																
-MR		TNMG 160408 - MR	0.8	0.30 ~ 0.55	2.0 ~ 5.5						● 0826		● 0726			
		TNMG 160412 - MR	1.2	0.30 ~ 0.55	2.0 ~ 5.5							● 0827	● 0828			
Stainless steel Roughing																

Cutting Speed			Vc (m/min.)													
ISO	VDI	Sub Group	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10				
			Min Max	Min Max	Min Max	Min Max	Min Max	Min Max	Min Max	Min Max	Min Max	Min Max	Min Max			
P	1~5	Non-Alloyed Steel	220 480	170 450	180 380	150 350	120 200	- -	- -	- -	- -	- -				
	6~9	Low-Alloyed Steel	220 420	180 380	110 350	90 300	70 200	- -	- -	- -	- -	- -				
	10~11	High-Alloyed Steel	- -	100 330	60 300	70 250	- -	- -	- -	- -	- -	- -				
M	12~13	Ferritic & Martensitic	- -	- -	- -	120 230	- -	130 230	110 180	80 150	- -	- -				
	14	Austenitic Stainless Steel	- -	- -	- -	80 200	- -	100 200	40 130	30 120	- -	- -				
K	15~16	Grey Cast Iron	170 420	120 300	- -	- -	- -	- -	- -	- -	- -	- -				
	17~18	Nodular Cast Iron	120 410	120 280	- -	- -	- -	- -	- -	- -	- -	- -				
N	21~30	Non-Ferrous Metals (Al)	- -	- -	- -	- -	- -	- -	- -	- -	350 1200	250 800				
S	31~37	Superalloys & Titanium	- -	- -	- -	35 80	- -	30 90	20 40	20 40	- -	- -				
H	38~41	Hard Materials	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -				

Turning Inserts - Negative
TNUX (60° Negative)

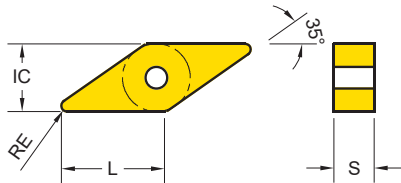


Series	LE	IC	S
TN** 1604	9.4	9.525	4.76

TNUX		Designation	RE	Fn (mm/rev.)	Ap (mm)	EDP 2200..									
						P05 K10	P10 K20	P20	P30 M20	P20	M15 S10	M30 S20	M40 S30	N20	N20
..UX Left		TNUX 160404 L	0.4	0.1 ~ 0.3	0.5 ~ 4		●	●			●				
		TNUX 160408 L	0.8	0.1 ~ 0.4	0.5 ~ 6		●	●	●	●	●				
							0412	0413		0043					
..UX Right		TNUX 160404 R	0.4	0.1 ~ 0.3	0.5 ~ 4		●	●		●					
		TNUX 160408 R	0.8	0.1 ~ 0.4	0.5 ~ 6		●	●	●	●					
							0288	0289		0044					

Cutting Speed			Vc (m/min.)											
ISO	VDI	Sub Group	YG1001 Min Max	YG3010 Min Max	YG3020 Min Max	YG3030 Min Max	YG801 Min Max	YG211 Min Max	YG213 Min Max	YG214 Min Max	YG100 Min Max	YG10 Min Max		
P	1~5	Non-Alloyed Steel	220 480	170 450	180 380	150 350	120 200	- -	- -	- -	- -	- -	- -	- -
	6~9	Low-Alloyed Steel	220 420	180 380	110 350	90 300	70 200	- -	- -	- -	- -	- -	- -	- -
	10~11	High-Alloyed Steel	- -	100 330	60 300	70 250	- -	- -	- -	- -	- -	- -	- -	- -
M	12~13	Ferritic & Martensitic	- -	- -	- -	120 230	- -	130 230	110 180	80 150	- -	- -	- -	- -
	14	Austenitic Stainless Steel	- -	- -	- -	80 200	- -	100 200	40 130	30 120	- -	- -	- -	- -
K	15~16	Grey Cast Iron	170 420	120 300	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	17~18	Nodular Cast Iron	120 410	120 280	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
N	21~30	Non-Ferrous Metals (Al)	- -	- -	- -	- -	- -	- -	- -	- -	350 1200	250 800	- -	- -
S	31~37	Superalloys & Titanium	- -	- -	- -	35 80	- -	30 90	20 40	20 40	- -	- -	- -	- -
H	38~41	Hard Materials	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -

Turning Inserts - Negative
VNMG / VNMA (35° Negative)

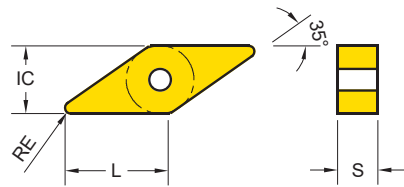


Series	L	IC	S
VN** 1604	15.8	9.525	4.76

VNMA VNMG		Designation	RE	Fn (mm/rev.)	Ap (mm)	EDP 2200..									
						P05 K10	P10 K20	P20	P30 M20	P20	M15 S10	M30 S20	M40 S30	N20	N20
..MA Cast iron		VNMA 160408	0.8	0.15 ~ 0.5	1 ~ 3		●								
							0162								
-UF Finishing		VNMG 160404 - UF	0.4	0.05 ~ 0.25	0.5 ~ 2		●	●	●	●					
		VNMG 160408 - UF	0.8	0.05 ~ 0.25	1 ~ 2.5		●	●	●	●					
-UL Medium Machining and sticky material		VNMG 160408 - UL	0.8	0.10 ~ 0.30	1 ~ 2.5		●	●							
							0428	0429							
-UM Medium Machining Unstable condition		VNMG 160412 - UM	1.2	0.15 ~ 0.3	1.5 ~ 3		●	●							
							0736	0737							
-UG Medium Machining at stable condition		VNMG 160408 - UG	0.8	0.2 ~ 0.4	1 ~ 3		●	●	●	●	●				
							0462	0312	0313	0314	0050				

Cutting Speed			Vc (m/min.)											
ISO	VDI	Sub Group	YG1001 Min Max	YG3010 Min Max	YG3020 Min Max	YG3030 Min Max	YG801 Min Max	YG211 Min Max	YG213 Min Max	YG214 Min Max	YG100 Min Max	YG10 Min Max		
P	1~5	Non-Alloyed Steel	220 480	170 450	180 380	150 350	120 200	- -	- -	- -	- -	- -	- -	- -
	6~9	Low-Alloyed Steel	220 420	180 380	110 350	90 300	70 200	- -	- -	- -	- -	- -	- -	- -
	10~11	High-Alloyed Steel	- -	100 330	60 300	70 250	- -	- -	- -	- -	- -	- -	- -	- -
M	12~13	Ferritic & Martensitic	- -	- -	- -	120 230	- -	130 230	110 180	80 150	- -	- -	- -	- -
	14	Austenitic Stainless Steel	- -	- -	- -	80 200	- -	100 200	40 130	30 120	- -	- -	- -	- -
K	15~16	Grey Cast Iron	170 420	120 300	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	17~18	Nodular Cast Iron	120 410	120 280	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
N	21~30	Non-Ferrous Metals (Al)	- -	- -	- -	- -	- -	- -	- -	- -	350 1200	250 800	- -	- -
S	31~37	Superalloys & Titanium	- -	- -	- -	35 80	- -	30 90	20 40	20 40	- -	- -	- -	- -
H	38~41	Hard Materials	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -

Turning Inserts - Negative VNMG (35° Negative)



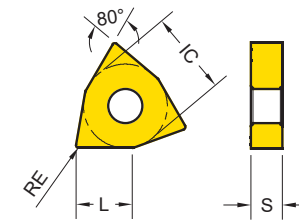
Series	L	IC	S
VN** 1604	15.8	9.525	4.76

EDP 2200.. ● : Stock item ○ : Order made item

					P05	P10	P20	P30	P20	M15	M30	M40	N20	N20
					K10	K20		M20		S10	S20	S30		
VNMG					YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10
-UC	 Cast iron and Medium roughing	VNMG 160404 - UC	0.4	0.2 ~ 0.4	0.5 ~ 2.5		● 0423							
		VNMG 160408 - UC	0.8	0.2 ~ 0.4	1 ~ 3	● 0094	● 0424	● 0425	● 0426					
-UR	 Roughing	VNMG 160412 - UR	1.2	0.3 ~ 0.5	1.2 ~ 3		● 0430	● 0431	● 0432	● 0051				
-MF	 Stainless steel Finishing	VNMG 160408 - MF	0.8	0.05 ~ 0.3	0.2 ~ 1.5			● 0830		● 0829				
-MM	 Stainless steel Medium	VNMG 160404 - MM	0.4	0.2 ~ 0.35	0.5 ~ 3.5					● 0661	● 0662			
		VNMG 160408 - MM	0.8	0.2 ~ 0.35	0.5 ~ 3.5					● 0663	● 0664			
-MR	 Stainless steel Roughing	VNMG 160408 -MR	0.8	0.30 ~ 0.55	2.0 ~ 5.5			● 0832			● 0831			

Cutting Speed			Vc (m/min.)																			
ISO	VDI	Sub Group	YG1001		YG3010		YG3020		YG3030		YG801		YG211		YG213		YG214		YG100		YG10	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	220	480	170	450	180	380	150	350	120	200	-	-	-	-	-	-	-	-	-	-
	6~9	Low-Alloyed Steel	220	420	180	380	110	350	90	300	70	200	-	-	-	-	-	-	-	-	-	
	10~11	High-Alloyed Steel	-	-	100	330	60	300	70	250	-	-	-	-	-	-	-	-	-	-	-	
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	120	230	-	-	130	230	110	180	80	150	-	-	-	-
	14	Austenitic Stainless Steel	-	-	-	-	-	-	80	200	-	-	100	200	40	130	30	120	-	-	-	-
K	15~16	Grey Cast Iron	170	420	120	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	17~18	Nodular Cast Iron	120	410	120	280	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	350	1200	250	800	
S	31~37	Superalloys & Titanium	-	-	-	-	-	-	35	80	-	-	30	90	20	40	20	40	-	-	-	-
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Turning Inserts - Negative WNMG / WNMA (80° Trigonal Negative)



Series	L	IC	S
WN** 0604	5.7	9.525	4.76
WN** 0804	7.8	12.7	4.76

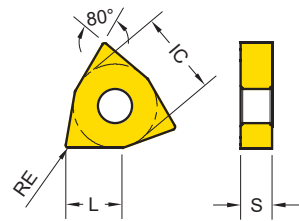
EDP 2200.. ● : Stock item ○ : Order made item

					P05	P10	P15	P20	P30	P20	M15	M30	M40	N20	N20		
					K10	K20			M20		S10	S20	S30				
WNMA	Designation	RE	Fn (mm/rev.)	Ap (mm)	YG1001	YG3010	YG3015	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10		
WNMG																	
..MA	 Cast iron	WNMA 080404	0.4	0.15 ~ 0.5	0.5 ~ 2.5	● 0052											
		WNMA 080408	0.8	0.15 ~ 0.5	1 ~ 3.5	● 0053	● 0433										
		WNMA 080412	1.2	0.15 ~ 0.5	1.5 ~ 5	● 0054	● 0434										
-UF	 Finishing	WNMG 060404 - UF	0.4	0.05 ~ 0.2	0.5 ~ 1.5	● 0435		● 0436	● 0437	● 0058							
		WNMG 080404 - UF	0.4	0.05 ~ 0.25	0.5 ~ 2	● 0315		● 0316	● 0317	● 0055							
		WNMG 080408 - UF	0.8	0.05 ~ 0.25	1 ~ 2.5	● 0321		● 0322	● 0323								
-UL	 Light Machining and sticky material	WNMG 060408 - UL	0.8	0.1 ~ 0.3	1 ~ 2.5	● 0439		● 0440	● 0441								
		WNMG 080408 - UL	0.8	0.1 ~ 0.3	1 ~ 3	● 0324		● 0325	● 0326								
-UM	 Medium Machining at unstable condition	WNMG 060404 - UM	0.4	0.15 ~ 0.30	1.0 ~ 2.5	● 0741		● 0785	● 0742								
		WNMG 060408 - UM	0.8	0.15 ~ 0.3	1 ~ 2	● 0600		● 0601									
		WNMG 080404 - UM	0.4	0.15 ~ 0.30	0.5 ~ 3.0	● 0786		● 0787	● 0788								
		WNMG 080408 - UM	0.8	0.15 ~ 0.3	1 ~ 3	● 0470	● 0327		● 0328	● 0329							
		WNMG 080412 - UM	1.2	0.15 ~ 0.3	1.5 ~ 3				● 0598	● 0712							
		WNMG 080416 - UM	1.6	0.15 ~ 0.3	2 ~ 3.5				● 0584	● 0713							

Cutting Speed			Vc (m/min.)																			
ISO	VDI	Sub Group	YG1001		YG3010		YG3020		YG3030		YG801		YG211		YG213		YG214		YG100		YG10	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	220	480	170	450	180	380	150	350	120	200	-	-	-	-	-	-	-	-	-	-
	6~9	Low-Alloyed Steel	220	420	180	380	110	350	90	300	70	200	-	-	-	-	-	-	-	-	-	-
	10~11	High-Alloyed Steel	-	-	100	330	60	300	70	250	-	-	-	-	-	-	-	-	-	-	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	120	230	-	-	130	230	110	180	80	150	-	-	-	-
	14	Austenitic Stainless Steel	-	-	-	-	-	-	80	200	-	-	100	200	40	130	30	120	-	-	-	-
K	15~16	Grey Cast Iron	170	420	120	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	17~18	Nodular Cast Iron	120	410	120	280	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	350	1200	250	800
S	31~37	Superalloys & Titanium	-	-	-	-	-	-	35	80	-	-	30	90	20	40	20	40	-	-	-	-
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Turning Inserts - Negative

WNMG / WNMA (80° Trigonal Negative)



Series	L	IC	S
WN** 0604	5.7	9.525	4.76
WN** 0804	7.8	12.7	4.76

EDP 2200.. ● : Stock item ○ : Order made item

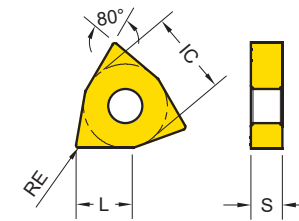
	Designation	RE	Fn (mm/rev.)	Ap (mm)	P05	P10	P15	P20	P30	P20	M15	M30	M40	N20	N20
					K10	K20			M20		S10	S20	S30		
WNMA WNMG					YG1001	YG3010	YG3015	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10
					●	●	●	●	●	●	●	●	●	●	●
					0697			0438		0059					
						0318		0319	0320						
					0463	0147	0582	0148	0149	0056					
-UG Medium Machining at stable condition	WNMG 060408 - UG	0.8	0.2~0.4	1~2.5	●										
	WNMG 080404 - UG	0.4	0.2~0.4	1.5~2.5		●		●	●						
	WNMG 080408 - UG	0.8	0.2~0.4	1~3.5	●	0147	0582	0148	0149	0056					
	WNMG 080412 - UG	1.2	0.2~0.4	1.5~3.5	●	0503		0490							
	WNMG 080416 - UG	1.6	0.2~0.4	2~4				0583							
-UC Cast iron and Medium roughing	WNMG 080404 - UC	0.4	0.25~0.4	0.5~3.5	●	0133		0110	0134						
	WNMG 080408 - UC	0.8	0.2~0.4	1~4	●	0135	0733	0111	0136						
	WNMG 080412 - UC	1.2	0.2~0.4	1.5~4.5	●	0137	0630	0112	0138						
	WNMG 080416 - UC	1.6	0.20~0.40	2.0~4.0				0743							
					0097										
-UR Roughing	WNMG 080408 - UR	0.8	0.3~0.5	1.2~5	●	0465		0471	0472						
	WNMG 080412 - UR	1.2	0.3~0.5	1.5~5	●	0442	0631	0443	0444	0057					
	WNMG 080416 - UR	1.6	0.3~0.5	2~5	●	0469		0725	0714						
					0464										
					0467										

* YG3015 = Vc 90~430 m/min

Cutting Speed			Vc (m/min.)											
ISO	VDI	Sub Group	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10		
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	220	480	170	450	180	380	150	350	120	200	-	-
	6~9	Low-Alloyed Steel	220	420	180	380	110	350	90	300	70	200	-	-
	10~11	High-Alloyed Steel	-	-	100	330	60	300	70	250	-	-	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	120	230	130	230	110	180
	14	Austenitic Stainless Steel	-	-	-	-	-	-	80	200	100	200	40	130
K	15~16	Grey Cast Iron	170	420	120	300	-	-	-	-	-	-	-	-
	17~18	Nodular Cast Iron	120	410	120	280	-	-	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	350	1200
S	31~37	Superalloys & Titanium	-	-	-	-	-	-	35	80	30	90	20	40
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	-	-

Turning Inserts - Negative

WNMG / WNMA (80° Trigonal Negative)



Series	L	IC	S
WN** 0604	5.7	9.525	4.76
WN** 0804	7.8	12.7	4.76

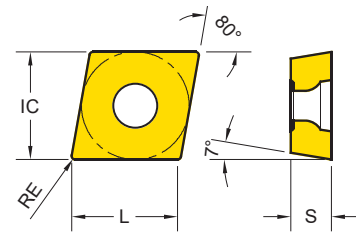
EDP 2200.. ● : Stock item ○ : Order made item

	Designation	RE	Fn (mm/rev.)	Ap (mm)	P05	P10	P15	P20	P30	P20	M15	M30	M40	N20	N20
					K10	K20			M20		S10	S20	S30		
WNMA WNMG					YG1001	YG3010	YG3015	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10
					●	●	●	●	●	●	●	●	●	●	●
					0833										
-MF Stainless steel Finishing	WNMG 060404 - MF	0.4	0.07~0.30	0.2~1.5	●										
	WNMG 080404 - MF	0.4	0.07~0.3	0.15~1.5				0834		0667	0668				
	WNMG 080408 - MF	0.8	0.07~0.3	0.2~1.5						0617	0618				
-MM Stainless steel Medium	WNMG 080404 - MM	0.4	0.2~0.35	0.5~3.5						0571	0572				
	WNMG 080408 - MM	0.8	0.2~0.35	1~3.5				0491		0497	0498				
	WNMG 080412 - MM	1.2	0.2~0.35	1.5~3.5						0612	0615				
-MR Stainless steel Roughing	WNMG 060412 - MR	1.2	0.2~0.5	1.2~4						0616					
	WNMG 080408 - MR	0.8	0.30~0.55	2.0~5.5						0619	0620	0835			
	WNMG 080412 - MR	1.2	0.30~0.55	2.0~5.5						0665	0666	0836			
-KR Cast Iron Heavy Roughing	WNMG 080408 - KR	0.8	0.30~0.60	1.0~5.0	●										
	WNMG 080412 - KR	1.2	0.30~0.60	1.5~5.0	●										
					0720										
					0522										

* YG3015 = Vc 90~430 m/min

Cutting Speed			Vc (m/min.)											
ISO	VDI	Sub Group	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10		
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	220	480	170	450	180	380	150	350	120	200	-	-
	6~9	Low-Alloyed Steel	220	420	180	380	110	350	90	300	70	200	-	-
	10~11	High-Alloyed Steel	-	-	100	330	60	300	70	250	-	-	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	120	230	130	230	110	180
	14	Austenitic Stainless Steel	-	-	-	-	-	-	80	200	100	200	40	130
K	15~16	Grey Cast Iron	170	420	120	300	-	-	-	-	-	-	-	-
	17~18	Nodular Cast Iron	120	410	120	280	-	-	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	350	1200
S	31~37	Superalloys & Titanium	-	-	-	-	-	-	35	80	30	90	20	40
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	-	-

Turning Inserts - Positive CCMT / CCGT (80° Positive)



Series	L	IC	S
CC** 0602	6.2	6.35	2.38
CC** 09T3	9.2	9.525	3.97
CC** 1204	12.4	12.7	4.76

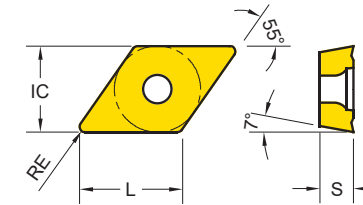
EDP 2200.. ● : Stock item ○ : Order made item

	CCGT CCMT	Designation	RE	Fn (mm/rev.)	Ap (mm)	P05	P10	P30	P20	M15	M30	M40	N20	N20
						K10	K20	M20	P20	S10	S20	S30	N20	N20
-AL 	Aluminum	CCGT 09T302 - AL	0.2	0.02 ~ 0.08	0.5 ~ 1								●	●
		CCGT 09T304 - AL	0.4	0.05 ~ 0.25	0.5 ~ 2								●	●
		CCGT 09T308 - AL	0.8	0.1 ~ 0.35	1 ~ 3								●	●
		CCGT 120402 - AL	0.2	0.04 ~ 0.15	0.1 ~ 1								●	●
		CCGT 120404 - AL	0.4	0.04 ~ 0.2	0.3 ~ 1.5								●	●
		CCGT 120408 - AL	0.8	0.04 ~ 0.2	0.6 ~ 2.5								●	●
-UF 	Finishing	CCMT 060204 - UF	0.4	0.05 ~ 0.2	0.5 ~ 1.5	●	●	●						
		CCMT 09T304 - UF	0.4	0.05 ~ 0.2	0.5 ~ 2	●	●	●						
-UG 	General	CCMT 060204 - UG	0.4	0.1 ~ 0.25	0.5 ~ 2	●	●	●	●					
		CCMT 060208 - UG	0.8	0.1 ~ 0.25	0.8 ~ 2	●	●	●	●					
		CCMT 09T304 - UG	0.4	0.15 ~ 0.3	0.5 ~ 2	●	●	●	●					
		CCMT 09T308 - UG	0.8	0.15 ~ 0.3	0.8 ~ 2.5	●	●	●	●					
		CCMT 120404 - UG	0.4	0.15 ~ 0.35	0.5 ~ 2.5	●	●	●	●					
		CCMT 120408 - UG	0.8	0.15 ~ 0.35	0.8 ~ 3.5	●	●	●	●					
		CCMT 120412 - UG	1.2	0.15 ~ 0.35	1.2 ~ 3.5	●	●	●	●					

* YG3015 = Vc 90~430 m/min

Cutting Speed			Vc (m/min.)											
ISO	VDI	Sub Group	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10		
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	220	480	170	450	180	380	150	350	120	200	-	-
	6~9	Low-Alloyed Steel	220	420	180	380	110	350	90	300	70	200	-	-
	10~11	High-Alloyed Steel	-	-	100	330	60	300	70	250	-	-	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	120	230	-	-	130	230
	14	Austenitic Stainless Steel	-	-	-	-	-	-	80	200	-	-	100	200
K	15~16	Grey Cast Iron	170	420	120	300	-	-	-	-	-	-	-	-
	17~18	Nodular Cast Iron	120	410	120	280	-	-	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	350	1200
S	31~37	Superalloys & Titanium	-	-	-	-	-	-	35	80	-	-	30	90
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	-	-

Turning Inserts - Positive DCMT / DCGT (55° Positive)



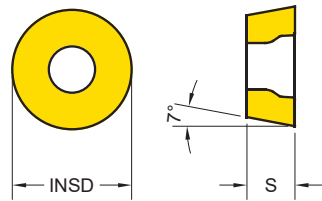
Series	L	IC	S
DC** 0702	7.5	6.35	2.38
DC** 11T3	11.2	9.525	3.97

EDP 2200.. ● : Stock item ○ : Order made item

	DCGT DCMT	Designation	RE	Fn (mm/rev.)	Ap (mm)	P05	P10	P30	P20	M15	M30	M40	N20	N20
						K10	K20	M20	P20	S10	S20	S30	N20	N20
-AL 	Aluminum	DCGT 11T302 - AL	0.2	0.02 ~ 0.08	0.5 ~ 1								●	●
		DCGT 11T304 - AL	0.4	0.05 ~ 0.25	0.5 ~ 2								●	●
		DCGT 11T308 - AL	0.8	0.1 ~ 0.3	1 ~ 2.5								●	●
-UF 	Finishing	DCMT 070204 - UF	0.4	0.05 ~ 0.2	0.5 ~ 1.5	●	●	●						
		DCMT 11T304 - UF	0.4	0.05 ~ 0.25	0.5 ~ 2	●	●	●						
		DCMT 11T308 - UF	0.8	0.05 ~ 0.25	1 ~ 2.5	●	●	●						
-UG 	General	DCMT 070204 - UG	0.4	0.1 ~ 0.25	0.5 ~ 1.5	●	●	●	●					
		DCMT 070208 - UG	0.8	0.1 ~ 0.25	0.8 ~ 1.5	●	●	●	●					
		DCMT 11T304 - UG	0.4	0.15 ~ 0.3	0.5 ~ 2	●	●	●	●					
		DCMT 11T308 - UG	0.8	0.15 ~ 0.3	0.8 ~ 2.5	●	●	●	●					

Cutting Speed			Vc (m/min.)											
ISO	VDI	Sub Group	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10		
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	220	480	170	450	180	380	150	350	120	200	-	-
	6~9	Low-Alloyed Steel	220	420	180	380	110	350	90	300	70	200	-	-
	10~11	High-Alloyed Steel	-	-	100	330	60	300	70	250	-	-	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	120	230	-	-	130	230
	14	Austenitic Stainless Steel	-	-	-	-	-	-	80	200	-	-	100	200
K	15~16	Grey Cast Iron	170	420	120	300	-	-	-	-	-	-	-	-
	17~18	Nodular Cast Iron	120	410	120	280	-	-	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	350	1200
S	31~37	Superalloys & Titanium	-	-	-	-	-	-	35	80	-	-	30	90
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	-	-

Turning Inserts - Positive
RCMT (Round Positive)

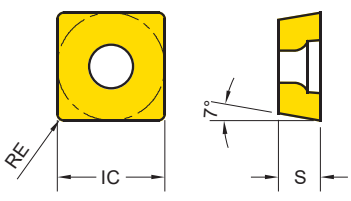


Series	INSD	S
RC** 0602	6	2.38
RC** 0803	8	3.18
RC** 10T3	10	3.97
RC** 1204	12	4.76

EDP 2200.. ● : Stock item ○ : Order made item

RCMT	Designation	RE	Fn (mm/rev.)	Ap (mm)	P05	P10	P20	P30	P20	M15	M30	M40	N20	N20
					K10	K20	M20	S10	S20	S30	N20	N20	N20	N20
 General	RCMT 0602M0	3	0.05 ~ 0.25	0.2 ~ 1.2	●	●	●	●	●	●	●	●	●	●
	RCMT 0803M0	4	0.05 ~ 0.3	0.5 ~ 1.5	●	●	●	●	●	●	●	●	●	●
	RCMT 10T3M0	5	0.1 ~ 0.35	0.5 ~ 2.5	●	●	●	●	●	●	●	●	●	●
	RCMT 1204M0	6	0.15 ~ 0.45	0.5 ~ 3	●	●	●	●	●	●	●	●	●	●

Turning Inserts - Positive
SCMT (Square Positive)



Series	IC	S
SC** 09T3	9.525	3.97
SC** 1204	12.7	4.76

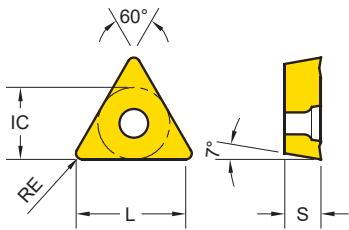
EDP 2200.. ● : Stock item ○ : Order made item

SCMT	Designation	RE	Fn (mm/rev.)	Ap (mm)	P05	P10	P20	P30	P20	M15	M30	M40	N20	N20
					K10	K20	M20	S10	S20	S30	N20	N20	N20	N20
 Finishing	SCMT 09T304 - UF	0.4	0.05 ~ 0.25	0.5 ~ 2	●	●	●	●	●	●	●	●	●	●
	SCMT 09T304 - UG	0.4	0.15 ~ 0.3	1 ~ 2.5	●	●	●	●	●	●	●	●	●	●
 General	SCMT 09T308 - UG	0.8	0.15 ~ 0.3	1 ~ 2.5	●	●	●	●	●	●	●	●	●	●
	SCMT 120408 - UG	0.8	0.15 ~ 0.35	1 ~ 3.5	●	●	●	●	●	●	●	●	●	●
					●	●	●	●	●	●	●	●	●	●

Cutting Speed			Vc (m/min.)											
ISO	VDI	Sub Group	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10		
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	220	480	170	450	180	380	150	350	120	200	-	-
	6~9	Low-Alloyed Steel	220	420	180	380	110	350	90	300	70	200	-	-
	10~11	High-Alloyed Steel	-	-	100	330	60	300	70	250	-	-	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	120	230	130	230	110	180
	14	Austenitic Stainless Steel	-	-	-	-	-	-	80	200	100	200	40	130
K	15~16	Grey Cast Iron	170	420	120	300	-	-	-	-	-	-	-	-
	17~18	Nodular Cast Iron	120	410	120	280	-	-	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	350	1200
S	31~37	Superalloys & Titanium	-	-	-	-	35	80	-	-	30	90	20	40
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	-	-

Cutting Speed			Vc (m/min.)											
ISO	VDI	Sub Group	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10		
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	220	480	170	450	180	380	150	350	120	200	-	-
	6~9	Low-Alloyed Steel	220	420	180	380	110	350	90	300	70	200	-	-
	10~11	High-Alloyed Steel	-	-	100	330	60	300	70	250	-	-	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	120	230	130	230	110	180
	14	Austenitic Stainless Steel	-	-	-	-	-	-	80	200	100	200	40	130
K	15~16	Grey Cast Iron	170	420	120	300	-	-	-	-	-	-	-	-
	17~18	Nodular Cast Iron	120	410	120	280	-	-	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	350	1200
S	31~37	Superalloys & Titanium	-	-	-	-	35	80	-	-	30	90	20	40
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	-	-

Turning Inserts - Positive
TCMT / TCGT (Triangle Positive)

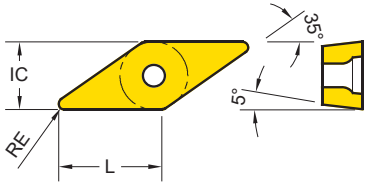


Series	L	IC	S
TC** 1102	10.3	6.35	2.38
TC** 16T3	15.6	9.525	3.97

					EDP 2200..											
					P05	P10	P20	P30	P20	M15	M30	M40	N20	N20		
					K10	K20		M20		S10	S20	S30				
TCGT TCMT	Designation	RE	Fn (mm/rev.)	Ap (mm)	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10		
-AL  Aluminum	TCGT 16T302 - AL	0.2	0.02 ~ 0.05	0.5 ~ 1									● 0343	● 0344		
	TCGT 16T304 - AL	0.4	0.05 ~ 0.25	0.5 ~ 2									● 0085	● 0334		
	TCGT 16T308 - AL	0.8	0.1 ~ 0.35	1 ~ 3									● 0086	● 0335		
-UF  Finishing	TCMT 110204 - UF	0.4	0.05 ~ 0.2	0.5 ~ 2		● 0395	● 0396									
	TCMT 16T304 - UF	0.4	0.05 ~ 0.25	0.5 ~ 3		● 0397	● 0398		● 0033							
	TCMT 16T308 - UF	0.8	0.05 ~ 0.25	0.8 ~ 3		● 0624	● 0625									
-UG  General	TCMT 110204 - UG	0.4	0.15 ~ 0.25	0.5 ~ 1.5	● 0728				● 0032							
	TCMT 110208 - UG	0.8	0.15 ~ 0.25	0.8 ~ 2		● 0485	● 0715									
	TCMT 16T304 - UG	0.4	0.15 ~ 0.3	0.5 ~ 2	● 0679	● 0267	● 0268									
	TCMT 16T308 - UG	0.8	0.15 ~ 0.3	0.8 ~ 3	● 0457	● 0156	● 0157	● 0158	● 0034							

Cutting Speed			Vc (m/min.)																			
ISO	VDI	Sub Group	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10										
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max				
P	1~5	Non-Alloyed Steel	220	480	170	450	180	380	150	350	120	200	-	-	-	-	-	-	-	-		
	6~9	Low-Alloyed Steel	220	420	180	380	110	350	90	300	70	200	-	-	-	-	-	-	-	-		
	10~11	High-Alloyed Steel	-	-	100	330	60	300	70	250	-	-	-	-	-	-	-	-	-	-		
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	120	230	-	-	130	230	110	180	80	150	-	-	-	-
	14	Austenitic Stainless Steel	-	-	-	-	-	-	80	200	-	-	100	200	40	130	30	120	-	-	-	-
K	15~16	Grey Cast Iron	170	420	120	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	17~18	Nodular Cast Iron	120	410	120	280	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	350	1200	250	800
S	31~37	Superalloys & Titanium	-	-	-	-	-	-	35	80	-	-	30	90	20	40	20	40	-	-	-	-
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Turning Inserts - Positive
VBMT (35° Positive)

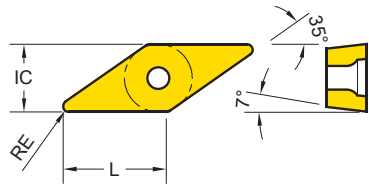


Series	L	IC	S
VB** 1604	15.8	9.525	4.76

					EDP 2200..											
					P05	P10	P20	P30	P20	M15	M30	M40	N20	N20		
					K10	K20		M20		S10	S20	S30				
VBMT	Designation	RE	Fn (mm/rev.)	Ap (mm)	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10		
-UF  Finishing	VBMT 160404 - UF	0.4	0.05 ~ 0.25	0.5 ~ 2		● 0294	● 0295									
	VBMT 160408 - UF	0.8	0.05 ~ 0.25	0.5 ~ 3		● 0300	● 0301									
-UG  General	VBMT 160404 - UG	0.4	0.15 ~ 0.30	0.5 ~ 2.5	● 0682	● 0297	● 0298		● 0047							
	VBMT 160408 - UG	0.8	0.2 ~ 0.4	1 ~ 3	● 0681	● 0303	● 0304	● 0305	● 0048							

Cutting Speed			Vc (m/min.)																			
ISO	VDI	Sub Group	YG1001		YG3010		YG3020		YG3030		YG801		YG211		YG213		YG214		YG100		YG10	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	220	480	170	450	180	380	150	350	120	200	-	-	-	-	-	-	-	-	-	-
	6~9	Low-Alloyed Steel	220	420	180	380	110	350	90	300	70	200	-	-	-	-	-	-	-	-	-	
	10~11	High-Alloyed Steel	-	-	100	330	60	300	70	250	-	-	-	-	-	-	-	-	-	-	-	
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	120	230	-	-	130	230	110	180	80	150	-	-	-	-
	14	Austenitic Stainless Steel	-	-	-	-	-	-	80	200	-	-	100	200	40	130	30	120	-	-	-	-
K	15~16	Grey Cast Iron	170	420	120	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	17~18	Nodular Cast Iron	120	410	120	280	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	350	1200	250	800	
S	31~37	Superalloys & Titanium	-	-	-	-	-	-	35	80	-	-	30	90	20	40	20	40	-	-	-	-
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

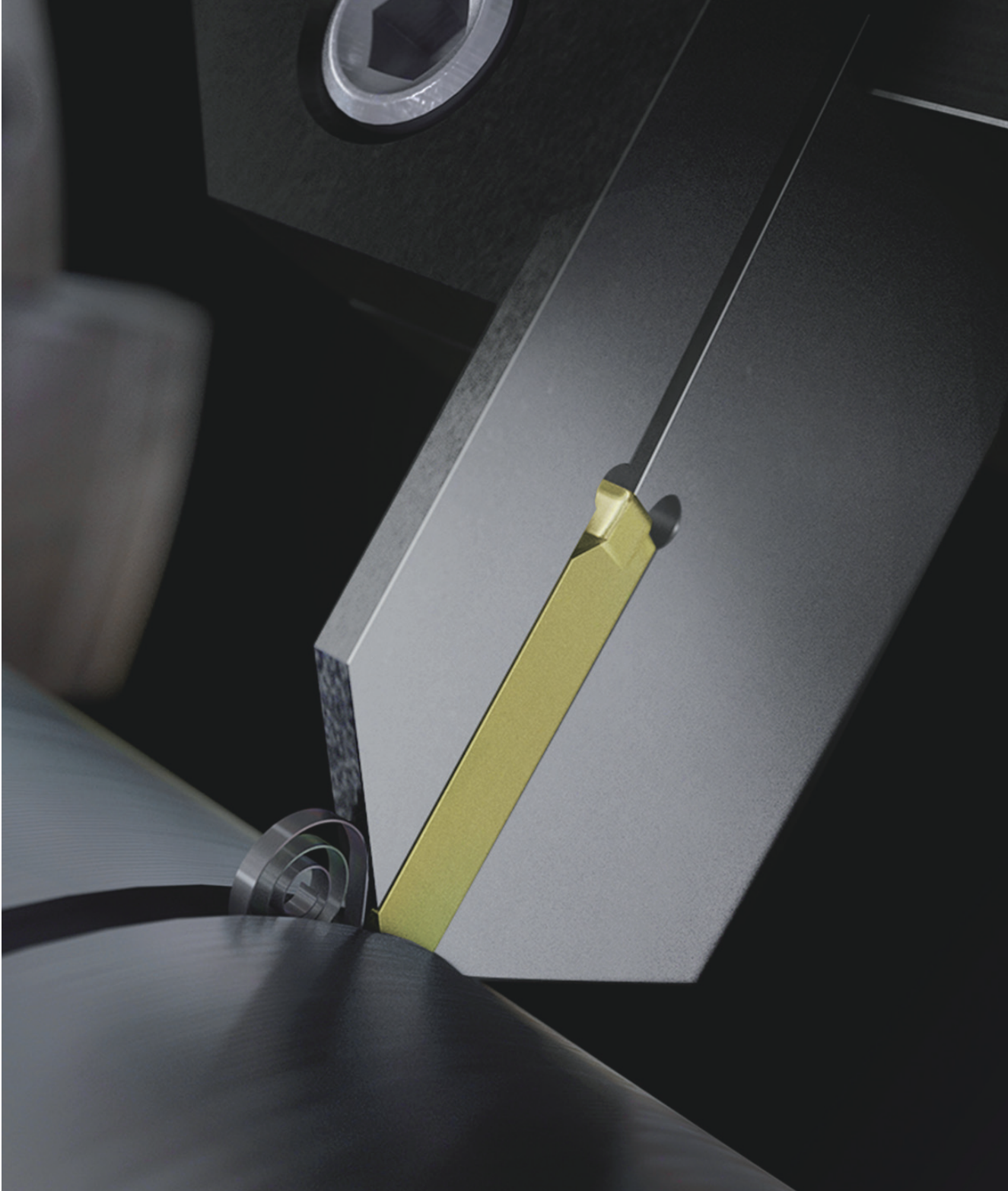
Turning Inserts - Positive
VCMT / VCGT (35° Positive)



Series	L	IC	S
VC** 1604	15.8	9.525	4.76

					EDP 2200..									
					P05	P10	P20	P30	P20	M15	M30	M40	N20	N20
					K10	K20		M20		S10	S20	S30		
VCGT	Designation	RE	Fn (mm/rev.)	Ap (mm)	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10
VCMT														
-AL  Aluminum	VCMT 160402 - AL	0.2	0.02 ~ 0.05	0.5 ~ 1									● 0417	● 0418
	VCMT 160404 - AL	0.4	0.05 ~ 0.25	0.5 ~ 2									● 0087	● 0336
	VCMT 160408 - AL	0.8	0.1 ~ 0.35	1 ~ 3									● 0419	● 0420
-UF  Finishing	VCMT 160404 - UF	0.4	0.05 ~ 0.25	0.5 ~ 3		● 0716	● 0421							
-UG  General	VCMT 160404 - UG	0.4	0.15 ~ 0.30	0.5 ~ 2.5					● 0060					
	VCMT 160408 - UG	0.8	0.15 ~ 0.30	1 ~ 3			● 0422		● 0061					

Cutting Speed			Vc (m/min.)													
ISO	VDI	Sub Group	YG1001	YG3010	YG3020	YG3030	YG801	YG211	YG213	YG214	YG100	YG10				
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	1~5	Non-Alloyed Steel	220	480	170	450	180	380	150	350	120	200	-	-	-	-
	6~9	Low-Alloyed Steel	220	420	180	380	110	350	90	300	70	200	-	-	-	-
	10~11	High-Alloyed Steel	-	-	100	330	60	300	70	250	-	-	-	-	-	-
M	12~13	Ferritic & Martensitic	-	-	-	-	-	-	120	230	-	-	130	230	110	180
	14	Austenitic Stainless Steel	-	-	-	-	-	-	80	200	-	-	100	200	40	130
K	15~16	Grey Cast Iron	170	420	120	300	-	-	-	-	-	-	-	-	-	-
	17~18	Nodular Cast Iron	120	410	120	280	-	-	-	-	-	-	-	-	-	-
N	21~30	Non-Ferrous Metals (Al)	-	-	-	-	-	-	-	-	-	-	350	1200	250	800
S	31~37	Superalloys & Titanium	-	-	-	-	35	80	-	-	30	90	20	40	20	40
H	38~41	Hard Materials	-	-	-	-	-	-	-	-	-	-	-	-	-	-



PARTING & GROOVING

Parting & Grooving Overview
Parting & Grooving Inserts (TD.)