



TURNING

General Turning Inserts

General turning inserts code key

General turning

General turning inserts code key

Insert shape/Code		
A	B	C
D	E	H
K	L	M
O	P	R
S	T	T
V	W	Others Z

Insert shape

Metric							
Code	With/Without hole	With/Without chipbreaker	Section plane of insert	Code	With/Without hole	With/Without chipbreaker	Section plane of insert
B	With	Without		N	Without	Without	
H	With	Single-side		R	Without	Single-side	
C	With	Without		F	Without	Double-side	
J	With	Double-side		A	With	Without	
W	With	Without		M	With	Single-side	
T	With	Single-side		G	With	Double-side	
Q	With	Without		X	---	---	Special
U	With	Double-side					

Chipbreaker and clamping system

T N M G

Clearance angle of main cutting edge			
Code	Clearance angle	Code	Clearance angle
A	3°	B	5°
C	7°	D	15°
E	20°	F	25°
G	30°	N	0°
P	11°	O	Other clearance angles

Tolerance											
Code	Nose height m Tolerance(mm)	Inscribed circle IC Tolerance(mm)	Thickness S Tolerance(mm)	(Reference) Details of M-level tolerance (Identified by shape)							
				● Nose height tolerance(mm)							
	Inscribed circle	Regular triangle	Square	Diamond with 80°	Diamond with 55°	Diamond with 35°	Round				
A	±0.005	±0.025	±0.025	6.35	±0.08	±0.08	±0.08	±0.11	±0.16	---	
F	±0.005	±0.013	±0.025	9.525	±0.08	±0.08	±0.08	±0.11	±0.16	---	
C	±0.013	±0.025	±0.025	12.7	±0.13	±0.13	±0.13	±0.15	---	---	
H	±0.013	±0.013	±0.025	15.875	±0.15	±0.15	±0.15	±0.18	---	---	
E	±0.025	±0.025	±0.025	19.05	±0.15	±0.15	±0.15	±0.18	---	---	
G	±0.025	±0.025	±0.13	25.4	---	±0.18	---	---	---	---	
J	±0.005	±0.05-±0.13	±0.025	● Tolerance of inscribed circle IC(mm)							
	Inscribed circle	Regular triangle	Square	Diamond with 80°	Diamond with 55°	Diamond with 35°	Round				
K	±0.013	±0.05-±0.13	±0.025	6.35	±0.05	±0.05	±0.05	±0.05	±0.05	---	
L	±0.025	±0.05-±0.13	±0.025	9.525	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	
M	±0.08-±0.18	±0.05-±0.13	±0.13	12.7	±0.08	±0.08	±0.08	±0.08	---	±0.08	
N	±0.08-±0.18	±0.05-±0.13	±0.025	15.875	±0.10	±0.10	±0.10	±0.10	±0.10	---	
U	±0.13-±0.38	±0.08-±0.25	±0.13	19.05	±0.10	±0.10	±0.10	±0.10	±0.10	---	
				25.4	---	±0.13	---	---	---	±0.13	

General turning inserts code key

Diameter of IC	Insert shape							
	C	D	R	S	T	V	W	K
3.97					06			
5.0			05					
5.56					09			
6.0			06					
6.35	06	07			11	11		
8.0			08					
9.525	09	11	09	09	16	16	06	16
10.0			10					
12.0			12					
12.7	12	15	12	12	22	22	08	
15.875	16		15	15	27			
16.0		19	16					
19.05	19		19	19	33			
20.0			20					
25.0	25	25	25					
25.4			25	25				
31.75			31					
32			32					

Length of cutting edge

Thickness is defined as the height from the bottom of insert to the highest part of cutting edge

Code	Insert thickness(mm)
00	0.79
T0	0.99
01	1.59
T1	1.98
02	2.38
T2	2.58
03	3.18
T3	3.97
04	4.76
T4	4.96
05	5.96
T5	5.95
06	6.35
T6	6.75
07	7.94
09	9.52
T9	9.72
11	11.11
12	12.70

Insert thickness

22 04 08 - DM (ISO)
4 3 2 (inch)

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

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

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

Nose radius code	
Code	Nose radius (mm)
00	No radius
02	0.2
04	0.4
08	0.8
12	1.2
16	1.6
20	2.0
24	2.4
32	3.2
X	Others


Diameter of insert (Metric) Round insert


Chipbreaker code		
DF	DM	DR
HF	HM	HR
EF	EM	ER
NF	NM	SF
PM	SNR	



Metric and inch comparison table for negative inserts


General turning Metric-inch comparison table for general turning inserts


C-type negative angle	(ISO)	(Inch)	Chipbreaker
Insert shape 	090304	321	
	090308	322	-XF
	120404	431	-XM
	120408	432	-DF
	120412	433	-SF
	120416	434	-EF
	160608	542	-NF
	160612	543	-PM
	160616	544	-DM
	190608	642	-EM
	190612	643	-NM
	190616	644	-DR
	190624	646	-ER
	250724	856	-LR
	250732	858	-HDR
	250924	866	-HPR
	250932	868	-SNR


D-type negative angle	(ISO)	(Inch)	Chipbreaker
Insert shape 	110404	331	-XF
	110408	332	-XM
	110412	333	-EF
	150404	431	-DF
	150408	432	-SF
	150412	433	-NF
	150604	441	-PM
	150608	442	-DM
	150612	443	-EM
	150616	444	-NM
	190608	542	-DR
	190612	543	-ER

V-type negative angle	(ISO)	(Inch)	Chipbreaker
Insert shape 	160404	331	-XF -XM
	160408	332	-DF -EF
	160412	333	-SF -NF
			-PM -DM
			-EM -NM
			-SNR -NGF

R-type negative angle	(ISO)	(Inch)	Chipbreaker
Insert shape 	120400	43	


W-type negative angle	(ISO)	(Inch)	Chipbreaker	
Insert shape 	06T304	3(2.5)1	-XF	
	06T308	3(2.5)2	-XM	
	06T312	3(2.5)3	-DF	
	060404	331	-SF	
	060408	332	-EF	
	060412	333	-NF	
	080404	431	-PM	
	080408	432	-DM	
	080412	433	-EM	
				-NM
				-DR
			-SNR	


T-type negative angle	(ISO)	(Inch)	Chipbreaker
Insert shape 	110304	221	
	110308	222	-XF
	160404	331	-XM
	160408	332	-DF
	160412	333	-SF
	220404	431	-EF
	220408	432	-PM
	220412	433	-DM
	220416	434	-EM
	270608	542	-DR
	270612	543	-ER
	270616	544	-LR
			-SNR


S-type negative angle	(ISO)	(Inch)	Chipbreaker
Insert shape 	090304	321	
	090308	322	-XF
	090312	323	-XM
	120404	431	-DF
	120408	432	-SF
	120412	433	-EF
	120416	434	-NF
	150608	542	-PM
	150612	543	-DM
	150616	544	-EM
	190412	633	-NM
	190424	636	-DR
	190612	643	-ER
	190616	644	-LR
	250724	856	-HDR
	250732	858	-HPR
	250924	866	-SNR
	250932	868	


Metric-inch comparison table for general turning inserts


Metric and inch comparison table for positive insert

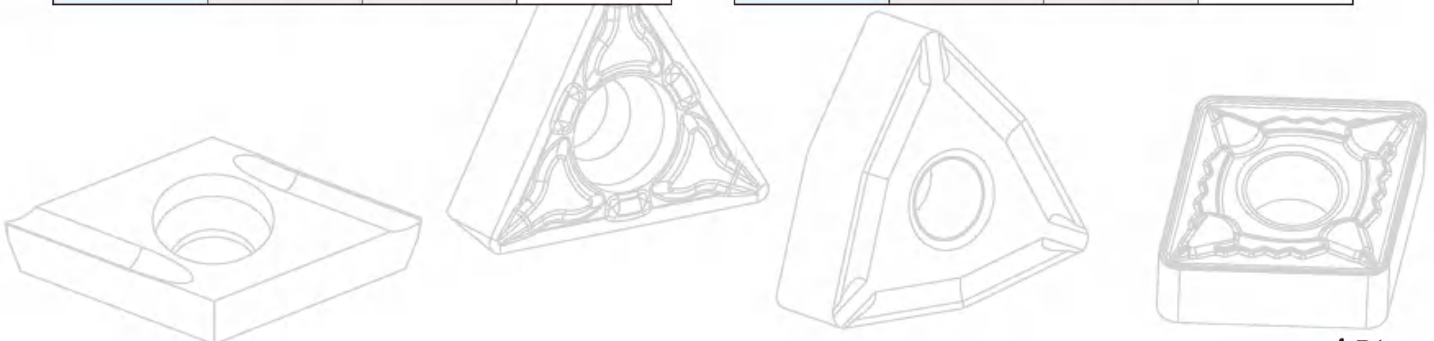
C-type positive angle	(ISO)	(Inch)	Chipbreaker
Insert shape 	060202	2(1.5)0	-XF
	060204	2(1.5)1	-XM
	060208	2(1.5)2	-SF
	09T302	3(2.5)0	-HF
	09T304	3(2.5)1	-EF
	09T308	3(2.5)2	-HM
	120404	431	-EM
	120408	432	-HR
	120412	433	-LH

D-type positive angle	(ISO)	(Inch)	Chipbreaker
Insert shape 	070202	2(1.5)0	-XF
	070204	2(1.5)1	-XM
	070208	2(1.5)2	-SF
	11T302	3(2.5)0	-HF
	11T304	3(2.5)1	-EF
	11T308	3(2.5)2	-HM
	11T312	3(2.5)3	-EM
			-LH
			-LC

T-type positive angle	(ISO)	(Inch)	Chipbreaker
Insert shape 	06T102	1.2(1.2)0	
	06T104	1.2(1.2)1	
	06T108	1.2(1.2)2	
	090202	1.8(1.5)0	
	090204	1.8(1.5)1	
	090208	1.8(1.5)2	
	110202	2(1.5)0	
	110204	2(1.5)1	-XF
	110208	2(1.5)2	-XM
	110302	220	-SF
	110304	221	-HF
	110308	222	-EF
	16T302	3(2.5)0	-HM
	16T304	3(2.5)1	-EM
	16T308	3(2.5)2	-HR
	16T312	3(2.5)3	-LH
	160400	330	-LC
	220408	432	
	220412	433	
	220416	434	
	270408	532	
	270412	533	
	330612	643	
	330616	644	

S-type positive angle	(ISO)	(Inch)	Chipbreaker
Insert shape 	060204	2(1.5)1	
	09T302	3(2.5)0	
	09T304	3(2.5)1	-XF
	09T308	3(2.5)2	-XM
	120404	431	-HF
	120408	432	-EF
	120412	433	-HM
	150404	531	-EM
	150408	532	-HR
	150412	533	-LH
	190408	632	-LC
	190412	633	
	190416	634	

V-type positive angle	(ISO)	(Inch)	Chipbreaker
Insert shape 	110202	2(1.5)0	
	110204	2(1.5)1	-XF
	110208	2(1.5)2	-XM
	110302	220	-SF
	110304	221	-HF
	110308	222	-NF
	160402	330	-LH
	160404	331	-LC
	160408	332	-NGF
	160412	333	



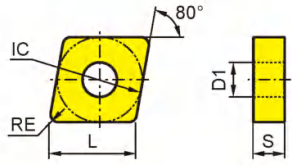
General turning

Metric-inch comparison table for general turning inserts

TURNING General Turning Inserts





Cemented carbide and cermet inserts

CN □ □ (Negative inserts)



Workpiece material	Steel (P)	Stainless steel (M)	Cast iron (K)	Non-ferrous metal (N)	Heat resistant alloy, Ti alloy (S)
P Steel	☺☺☺☺☺☺☺☺☺☺	☺☺☺☺☺☺☺☺☺☺	☺☺☺☺☺☺☺☺☺☺	☺☺☺☺☺☺☺☺☺☺	☺☺☺☺☺☺☺☺☺☺
M Stainless steel	☺☺☺☺☺☺☺☺☺☺	☺☺☺☺☺☺☺☺☺☺	☺☺☺☺☺☺☺☺☺☺	☺☺☺☺☺☺☺☺☺☺	☺☺☺☺☺☺☺☺☺☺
K Cast iron	☺☺☺☺☺☺☺☺☺☺	☺☺☺☺☺☺☺☺☺☺	☺☺☺☺☺☺☺☺☺☺	☺☺☺☺☺☺☺☺☺☺	☺☺☺☺☺☺☺☺☺☺
N Non-ferrous metal	☺☺☺☺☺☺☺☺☺☺	☺☺☺☺☺☺☺☺☺☺	☺☺☺☺☺☺☺☺☺☺	☺☺☺☺☺☺☺☺☺☺	☺☺☺☺☺☺☺☺☺☺
S Heat resistant alloy, Ti alloy	☺☺☺☺☺☺☺☺☺☺	☺☺☺☺☺☺☺☺☺☺	☺☺☺☺☺☺☺☺☺☺	☺☺☺☺☺☺☺☺☺☺	☺☺☺☺☺☺☺☺☺☺

☺ Good working condition ☺ Normal working condition ☺ Bad working condition

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																						
		L	IC	S	D1	RE	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBH053	YBM153	YBM215	YBM253	YBS103	YBD052	YBD102	YBD152	Cermet	Cermet coated carbide	Cemented carbide	
 For finishing	CNMG120404-XF	12.9	12.7	4.76	5.16	0.4	★	★																					
	CNMG120408-XF	12.9	12.7	4.76	5.16	0.8	★	★																					
	CNMG120412-XF	12.9	12.7	4.76	5.16	1.2	★	★																					
 For finishing	CNMG090304-DF	9.7	9.525	3.18	3.81	0.4							○																
	CNMG090308-DF	9.7	9.525	3.18	3.81	0.8								○															
	CNMG120404-DF	12.9	12.7	4.76	5.16	0.4			★	★					○											○			
	CNMG120408-DF	12.9	12.7	4.76	5.16	0.8			★	★					○											●			
	CNMG120412-DF	12.9	12.7	4.76	5.16	1.2			★	○																			
 For finishing	CNMG090304-SF	9.7	9.525	3.18	3.81	0.4							○													○			
	CNMG090308-SF	9.7	9.525	3.18	3.81	0.8																				○	★		
	CNMG120404-SF	12.9	12.7	4.76	5.16	0.4													★								★		
	CNMG120408-SF	12.9	12.7	4.76	5.16	0.8													★								★		
	CNMG120412-SF	12.9	12.7	4.76	5.16	1.2																				○			
 For finishing	CNMG090304-EF	9.7	9.525	3.18	3.81	0.4							●	★					★	○									
	CNMG090308-EF	9.7	9.525	3.18	3.81	0.8								○	★				★	○									
	CNMG120404-EF	12.9	12.7	4.76	5.16	0.4								●	★				★	★									
	CNMG120408-EF	12.9	12.7	4.76	5.16	0.8								●	●	★			★	★									
	CNMG120412-EF	12.9	12.7	4.76	5.16	1.2									○	★			★	★									

★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

Applicable tool



Page A136



A142



A143



A154



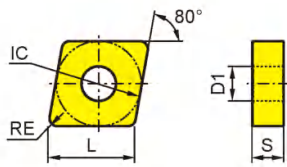
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A194

Cemented carbide and cermet inserts

CN (Negative inserts)



😊 Good working condition 😐 Normal working condition 😞 Bad working condition

Workpiece material
P Steel
M Stainless steel
K Cast iron
N Non-ferrous metal
S Heat resistant alloy, Ti alloy

Material	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBH053	YBM153	YBM215	YBM253	YBS103	YBD052	YBD102	YBD152	YNG151	YNG151C	YD101	YD201
Steel (P)	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
Stainless steel (M)	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
Cast iron (K)	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
Non-ferrous metal (N)	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
Heat resistant alloy, Ti alloy (S)	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																									
		L	IC	S	D1	RE	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBH053	YBM153	YBM215	YBM253	YBS103	YBD052	YBD102	YBD152	Cermet	Coated cermet	Cemented carbide				
XM For semi-finishing	CNMG120404-XM	12.9	12.7	4.76	5.16	0.4	★	★																								
	CNMG120408-XM	12.9	12.7	4.76	5.16	0.8	★	★																								
	CNMG120412-XM	12.9	12.7	4.76	5.16	1.2	★	★																								
	CNMG120416-XM	12.9	12.7	4.76	5.16	1.6	★	★																								
	CNMG160608-XM	16.1	15.875	6.35	6.35	0.8	★	★																								
	CNMG160612-XM	16.1	15.875	6.35	6.35	1.2	★	★																								
	CNMG160616-XM	16.1	15.875	6.35	6.35	1.6	★	★																								
	CNMG190608-XM	19.3	19.05	6.35	7.97	0.8	★	★																								
	CNMG190612-XM	19.3	19.05	6.35	7.97	1.2	★	★																								
	CNMG190616-XM	19.3	19.05	6.35	7.97	1.6	★	★																								
DM For semi-finishing	CNMG090304-DM	9.7	9.525	3.18	3.81	0.4			○	○																						
	CNMG090308-DM	9.7	9.525	3.18	3.81	0.8			○																							
	CNMG120404-DM	12.9	12.7	4.76	5.16	0.4	★	★				●	○												●							
	CNMG120408-DM	12.9	12.7	4.76	5.16	0.8	★	★				●	●												●							
	CNMG120412-DM	12.9	12.7	4.76	5.16	1.2	★	★				○													●							
	CNMG120416-DM	12.9	12.7	4.76	5.16	1.6			○																○							
	CNMG160608-DM	16.1	15.875	6.35	6.35	0.8	★	★																	●							
	CNMG160612-DM	16.1	15.875	6.35	6.35	1.2			○	★															○							
	CNMG160616-DM	16.1	15.875	6.35	6.35	1.6			★	○															○							
	CNMG190608-DM	19.3	19.05	6.35	7.94	0.8			○	○															○							
	CNMG190612-DM	19.3	19.05	6.35	7.94	1.2			★	★															○							
	CNMG190616-DM	19.3	19.05	6.35	7.94	1.6				★															○							

★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

Applicable tool

DCLNR/L
KAPR:95°



PCBNR/L
KAPR:75°



PCLNR/L
KAPR:95°



MCBNR/L
KAPR:75°



MCLNR/L
KAPR:95°

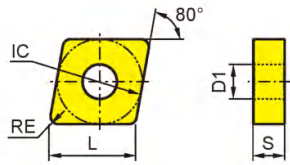


PCLNR/L
KAPR:95°



Cemented carbide and cermet inserts

CN (Negative inserts)



😊 Good working condition 😐 Normal working condition 😞 Bad working condition

Workpiece material	Working Condition																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
P Steel	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
M Stainless steel	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
K Cast iron																	
N Non-ferrous metal																	
S Heat resistant alloy, Ti alloy																	

General turning

Cemented carbide and cermet inserts

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide															Cermet	Coated cermet	Cemented carbide				
		L	IC	S	D1	RE	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBH053	YBM153	YBM215	YBM253				YBS103	YBD052	YBD102	YBD152
																			YNG151	YNG151C	YD101				YD201			
LR Light-load roughing	CNMM120408-LR	12.9	12.7	4.76	5.16	0.8		★																				
	CNMM120412-LR	12.9	12.7	4.76	5.16	1.2		★																				
	CNMM120416-LR	12.9	12.7	4.76	5.16	1.6		★																				
	CNMM160608-LR	16.1	15.875	6.35	6.35	0.8		★																				
	CNMM160612-LR	16.1	15.875	6.35	6.35	1.2		★																				
	CNMM160616-LR	16.1	15.875	6.35	6.35	1.6		★																				
	CNMM160624-LR	16.1	15.875	6.35	6.35	2.4		★																				
	CNMM190612-LR	19.3	19.05	6.35	7.94	1.2		★																				
	CNMM190616-LR	19.3	19.05	6.35	7.94	1.6		★																				
	CNMM190624-LR	19.3	19.05	6.35	7.94	2.4		★																				
	CNMM250924-LR	25.79	25.4	9.525	9.12	2.4		★																				
DR Light-load roughing	CNMG120408-DR	12.9	12.7	4.76	5.16	0.8	★	★										●	●									
	CNMG120412-DR	12.9	12.7	4.76	5.16	1.2	○	★											●	●								
	CNMG120416-DR	12.9	12.7	4.76	5.16	1.6	○	○												●	●							
	CNMG160608-DR	16.1	15.875	6.35	6.35	0.8		○												○								
	CNMG160612-DR	16.1	15.875	6.35	6.35	1.2		★												●		○						
	CNMG160616-DR	16.1	15.875	6.35	6.35	1.6		★																				
	CNMG190608-DR	19.3	15.875	6.35	7.94	0.8		○													●		○					
	CNMG190612-DR	19.3	19.05	6.35	7.94	1.2		○	★												○		○					
	CNMG190616-DR	19.3	19.05	6.35	7.94	1.6		○	★														○					
	CNMG190624-DR	19.3	19.05	6.35	7.94	2.4		○	○																			

★Recommended grade (always stock available) ●Available grade (always stock available) ○Make-to-order

Applicable tool



Page A136



A142



A143



A154

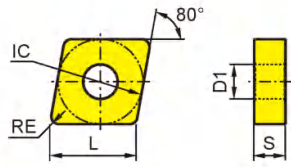


A155







A194

CN [][] (Negative inserts)



😊 Good working condition 😐 Normal working condition 😞 Bad working condition

Workpiece material	P Steel	M Stainless steel	K Cast iron	N Non-ferrous metal	S Heat resistant alloy, Ti alloy
P Steel	😊😊😊😊😊😊😊😊😊😊				
M Stainless steel		😊😊😊😊😊😊😊😊😊😊			
K Cast iron			😊😊😊😊😊😊😊😊😊😊		
N Non-ferrous metal				😊😊😊😊😊😊😊😊😊😊	
S Heat resistant alloy, Ti alloy					😊😊😊😊😊😊😊😊😊😊

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide											Cermet	Coated cermet	Cemented carbide												
		L	IC	S	D1	RE	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302				YBH053	YBM153	YBM215	YBM253	YBS103	YBD052	YBD102	YBD152	YNG151	YNG151C	YD101	YD201
 For roughing	CNMM120412-DR	12.9	12.7	4.76	5.16	1.2																										
	CNMM160612-DR	16.1	15.875	6.35	6.35	1.2																										
	CNMM160616-DR	16.1	15.875	6.35	6.35	1.6																										
	CNMM190612-DR	19.3	19.05	6.35	7.94	1.2																										
	CNMM190616-DR	19.3	19.05	6.35	7.94	1.6																										
	CNMM190624-DR	19.3	19.05	6.35	7.94	2.4																										
CNMM250924-DR	25.79	25.4	9.525	9.12	2.4																											
 For roughing	CNMG120408-ER	12.9	12.7	4.76	5.16	0.8																										
	CNMG120412-ER	12.9	12.7	4.76	5.16	1.2																										
	CNMG160612-ER	16.1	15.875	6.35	6.35	1.2																										
	CNMG160616-ER	16.1	15.875	6.35	6.35	1.6																										
	CNMG190612-ER	19.3	19.05	6.35	7.94	1.2																										
	CNMG190616-ER	19.3	19.05	6.35	7.94	1.6																										
 For roughing	CNMM250724-ER	25.79	25.4	7.94	9.12	2.4																										
	CNMM250732-ER	25.79	25.4	7.94	9.12	3.2																										
	CNMM250924-ER	25.79	25.4	9.525	9.12	2.4																										
	CNMM250932-ER	25.79	25.4	9.525	9.12	3.2																										
 For roughing	CNMG120408-SNR	12.9	12.7	4.76	5.16	0.8							○●																			
	CNMG120412-SNR	12.9	12.7	4.76	5.16	1.2							○●																			
	CNMG160608-SNR	16.1	15.875	6.35	6.35	0.8							○●																			
	CNMG190616-SNR	19.3	19.05	6.35	7.94	1.6							○●																			

★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

Applicable tool



Page A136



A142



A143



A154



A155



A194

Insert code key

A48-A49

Grade selection reference

A21/A38-A45

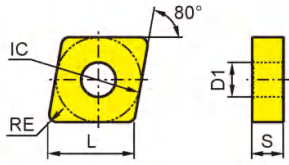
Chipbreaker selection reference

A24-A37

Recommended cutting parameters

A222-A224

CN (Negative inserts)



😊 Good working condition 😐 Normal working condition ☹️ Bad working condition

Workpiece material	Steel	Stainless steel	Cast iron	Non-ferrous metal	Heat resistant alloy, Ti alloy
P	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊
M	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊
K	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊
N	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊
S	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide												Cermet	Cemented carbide																				
		L	IC	S	D1	RE	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBH053			YBM153	YBM215	YBM251	YBM253	YBS103	YBD052	YBD102	YBD152	YNG151	YNG151C	YD101	YD201								
	CNMA120404	12.9	12.7	4.76	5.16	0.4																			★	○	○													
	CNMA120408	12.9	12.7	4.76	5.16	0.8																				★	★	★												
	CNMA120412	12.9	12.7	4.76	5.16	1.2																				★	★	★												
	CNMA120416	12.9	12.7	4.76	5.16	1.6																				★	★	○												
	CNMA160608	16.1	15.875	6.35	6.35	0.8																					○													
	CNMA160612	16.1	15.875	6.35	6.35	1.2																					★													
	CNMA160616	16.1	15.875	6.35	6.35	1.6																				○	★	○												
	CNMA160620	16.1	15.875	6.35	6.35	2.0																						○												
	CNMA160630	16.1	15.875	6.35	6.35	3.0																						○												
	CNMA190612	19.3	19.05	6.35	7.94	1.2																					★	○	★											
	CNMA190616	19.3	19.05	6.35	7.94	1.6																					○	★	★											
	CNMG120404	12.9	12.7	4.76	5.16	0.4																				●		○												
	CNMG120408	12.9	12.7	4.76	5.16	0.8		★	★																	●		★	★											
	CNMG120412	12.9	12.7	4.76	5.16	1.2		★	★																			○	○	○										
	CNMG160608	16.1	15.875	6.35	6.35	0.8																				○														
	CNMG160612	16.1	15.875	6.35	6.35	1.2																						○												
	CNMG160616	16.1	15.875	6.35	6.35	1.6																						○												
	CNMG190608	19.3	19.05	6.35	7.94	0.8																						○												
	CNMG190612	19.3	19.05	6.35	7.94	1.2																						○												
CNMG190616	19.3	19.05	6.35	7.94	1.6																						○													

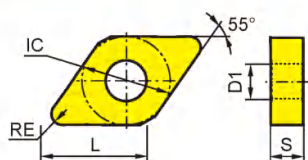
★Recommended grade (always stock available) ●Available grade (always stock available) ○Make-to-order

Applicable tool



Insert code key → A48-A49 Grade selection reference → A21/A38-A45 Chipbreaker selection reference → A24-A37 Recommended cutting parameters → A222-A224

DN (Negative inserts)



😊 Good working condition 😐 Normal working condition ☹ Bad working condition

P	Steel
M	Stainless steel
K	Cast iron
N	Non-ferrous metal
S	Heat resistant alloy, Ti alloy

P	Steel	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
M	Stainless steel	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
K	Cast iron																								
N	Non-ferrous metal																								
S	Heat resistant alloy, Ti alloy	😊	😊																						

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermet	Coated cermet	Cemented carbide															
		L	IC	S	D1	RE	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YB9315	YB9320	YBH053	YBM153	YBM215	YBM253	YBS103				YBD052	YBD102	YBD152												
EF For finishing	DNMG110404-EF	11.6	9.525	4.76	3.81	0.4										● ★			★ ★																					
	DNMG110408-EF	11.6	9.525	4.76	3.81	0.8										○ ★			★ ○																					
	DNMG110412-EF	11.6	9.525	4.76	3.81	1.2										○ ★			★ ○																					
	DNMG150404-EF	15.5	12.7	4.76	5.16	0.4										● ★			★ ○																					
	DNMG150408-EF	15.5	12.7	4.76	5.16	0.8										● ★			★ ○																					
	DNMG150412-EF	15.5	12.7	4.76	5.16	1.2										○ ★			★ ○																					
	DNMG150604-EF	15.5	12.7	6.35	5.16	0.4										● ★			★ ★																					
	DNMG150608-EF	15.5	12.7	6.35	5.16	0.8										● ★			★ ★																					
	DNMG150612-EF	15.5	12.7	6.35	5.16	1.2										○ ★			★ ★																					
ADF For finishing	DNMG110408-ADF	11.6	9.525	4.76	3.81	0.8												★ ★																						
	DNMG150404-ADF	15.5	12.7	4.76	5.16	0.4												★ ★																						
	DNMG150408-ADF	15.5	12.7	4.76	5.16	0.8												★ ★																						
	DNMG150412-ADF	15.5	12.7	4.76	5.16	1.2												★ ★																						
	DNMG150604-ADF	15.5	12.7	6.35	5.16	0.4												★ ★																						
	DNMG150608-ADF	15.5	12.7	6.35	5.16	0.8												★ ★																						
	DNMG150612-ADF	15.5	12.7	6.35	5.16	1.2												★ ★																						
NF For finishing	DNEG150404-NF	15.5	12.7	4.76	5.16	0.4										○ ★																					○			
	DNEG150408-NF	15.5	12.7	4.76	5.16	0.8										○ ★																					○			
	DNEG150604-NF	15.5	12.7	6.35	5.16	0.4										● ★					★																○			
	DNEG150608-NF	15.5	12.7	6.35	5.16	0.8										● ★																						○		

★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

Applicable tool



Page A137 A144 A145 A156 A157 A195 A196

Insert code key

A48-A49

Grade selection reference

A21/A38-A45

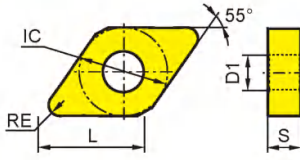
Chipbreaker selection reference

A24-A37

Recommended cutting parameters

A222-A224

DN (Negative inserts)



😊 Good working condition 😐 Normal working condition 😞 Bad working condition

P Steel	😊 😐 😐 😐 😐 😐 😐 😐 😐 😐 😐 😐 😐 😐 😐 😐 😐 😐 😐 😐
M Stainless steel	😊 😐
K Cast iron	😊 😐
N Non-ferrous metal	😊 😐
S Heat resistant alloy, Ti alloy	😊 😐

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide															Cermet	Coated cermet	Cemented carbide												
		L	IC	S	D1	RE	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBH053	YBM153	YBM215	YBM251				YBM253	YBS103	YBD052	YBD102	YBD152	YNG151	YNG151C	YD101	YD201			
NGF For finishing	DNEG150408-NGF	15.5	12.7	4.76	5.16	0.8						○ ●			○																					
	DNEG150412-NGF	15.5	12.7	4.76	5.16	1.2						○ ●			○																					
	DNEG150608-NGF	15.5	12.7	6.35	5.16	0.8						○ ●			○																					
	DNEG150612-NGF	15.5	12.7	6.35	5.16	1.2						○ ●			○																					
PM For semi-finishing	DNMG110404-PM	11.6	9.525	4.76	3.81	0.4		● ○																												
	DNMG110408-PM	11.6	9.525	4.76	3.81	0.8		● ○																				★ ○								
	DNMG110412-PM	11.6	9.525	4.76	3.81	1.2								○																						
	DNMG150404-PM	15.5	12.7	4.76	5.16	0.4		● ○																												
	DNMG150408-PM	15.5	12.7	4.76	5.16	0.8		● ○																					★ ★							
	DNMG150412-PM	15.5	12.7	4.76	5.16	1.2						○																	○ ★							
	DNMG150416-PM	15.5	12.7	4.76	5.16	1.6						○																								
	DNMG150604-PM	15.5	12.7	6.35	5.16	0.4		● ○																					★ ★							
	DNMG150608-PM	15.5	12.7	6.35	5.16	0.8		○ ★																					★ ★							
	DNMG150612-PM	15.5	12.7	6.35	5.16	1.2		★ ★																					★ ○							
DNMG150616-PM	15.5	12.7	6.35	5.16	1.6						○																									

★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

Applicable tool



Page A137

A144

A145

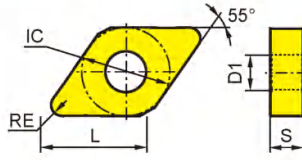
A156

A157

A195

A196

DN (Negative inserts)



😊 Good working condition 😐 Normal working condition 😞 Bad working condition

Workpiece material	Steel	Stainless steel	Cast iron	Non-ferrous metal	Heat resistant alloy, Ti alloy
P	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊
M	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊
K	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊
N	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊
S	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊

General turning

Cemented carbide and cermet inserts

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide												Cermet	Cermet coated carbide	Cemented carbide																	
		L	IC	S	D1	RE	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBH053				YBM153	YBM215	YBM253	YBS103	YBD052	YBD102	YBD152	YNG151	YNG151C	YD101	YD201						
XM For semi-finishing	DNMG110404-XM	11.6	9.525	4.76	3.18	0.4	★	★																														
	DNMG110408-XM	11.6	9.525	4.76	3.18	0.8	★	★																														
	DNMG110412-XM	11.6	9.525	4.76	3.18	1.2	★	★																														
	DNMG150404-XM	15.5	12.7	4.76	5.16	0.4	★	★																														
	DNMG150408-XM	15.5	12.7	4.76	5.16	0.8	★	★																														
	DNMG150412-XM	15.5	12.7	4.76	5.16	1.2	★	★																														
	DNMG150604-XM	15.5	12.7	6.35	5.16	0.4	★	★																														
	DNMG150608-XM	15.5	12.7	6.35	5.16	0.8	★	★																														
	DNMG150612-XM	15.5	12.7	6.35	5.16	1.2	★	★																														
	DNMG150616-XM	15.5	12.7	6.35	5.16	1.6	★	★																														
DM For semi-finishing	DNMG110404-DM	11.6	9.525	4.76	3.81	0.4		●	○																													
	DNMG110408-DM	11.6	9.525	4.76	3.81	0.8		★	★																													
	DNMG110412-DM	11.6	9.525	4.76	3.81	1.2		○	○																													
	DNMG150404-DM	15.5	12.7	4.76	5.16	0.4		○	★																	○												
	DNMG150408-DM	15.5	12.7	4.76	5.16	0.8		★	★																	●												
	DNMG150412-DM	15.5	12.7	4.76	5.16	1.2		★	★																													
	DNMG150416-DM	15.5	12.7	4.76	5.16	1.6			○																													
	DNMG150604-DM	15.5	12.7	6.35	5.16	0.4		★	★																	●		●										
	DNMG150608-DM	15.5	12.7	6.35	5.16	0.8		★	★																	●												
	DNMG150612-DM	15.5	12.7	6.35	5.16	1.2		●	★																													
DNMG150616-DM	15.5	12.7	6.35	5.16	1.6		○	○																														

★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

Applicable tool



Page A137

A144

A145

A156

A157

A195

A196

Insert code key

A48-A49

Grade selection reference

A21/A38-A45

Chipbreaker selection reference

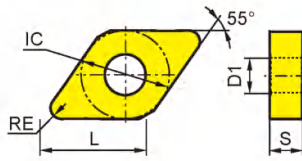
A24-A37

Recommended cutting parameters

A222-A224

Cemented carbide and cermet inserts

DN (Negative inserts)



😊 Good working condition 😐 Normal working condition 😞 Bad working condition

Workpiece material	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YBG205H	YB9315	YBG302	YBH053	YBM153	YBM215	YBM253	YBS103	YBD052	YBD102	YBD152	YNG151	YNG151C	YD101	YD201
P Steel	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
M Stainless steel						😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
K Cast iron																						😊	😊	😊
N Non-ferrous metal																						😊	😊	😊
S Heat resistant alloy, Ti alloy																						😊	😊	😊

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																						
		L	IC	S	D1	RE	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YBG205H	YB9315	YBG302	YBH053	YBM153	YBM215	YBM253	YBS103	YBD052	YBD102	YBD152	Cermet	Coated cermet	Cemented carbide
EM For semi-finishing	DNMG110404-EM	11.6	9.525	4.76	3.81	0.4									○	★													
	DNMG110408-EM	11.6	9.525	4.76	3.81	0.8									○	★													
	DNMG110412-EM	11.6	9.525	4.76	3.81	1.2									○	★													
	DNMG150404-EM	15.5	12.7	4.76	5.16	0.4										●	★	★					★	★					
	DNMG150408-EM	15.5	12.7	4.76	5.16	0.8										●	★	★					★	★					
	DNMG150412-EM	15.5	12.7	4.76	5.16	1.2										○	★						★	★					
	DNMG150604-EM	15.5	12.7	6.35	5.16	0.4						○				●	★						○	★					
	DNMG150608-EM	15.5	12.7	6.35	5.16	0.8											●	★						○	★				
	DNMG150612-EM	15.5	12.7	6.35	5.16	1.2											○	★						○	★				
EG For semi-finishing	DNMG150404-EG	15.5	12.7	4.76	5.16	0.4											★												
	DNMG150408-EG	15.5	12.7	4.76	5.16	0.8												★											
	DNMG150604-EG	15.5	12.7	6.35	5.16	0.4													★										
	DNMG150608-EG	15.5	12.7	6.35	5.16	0.8														★									
	DNMG150612-EG	15.5	12.7	6.35	5.16	1.2															★								
NM For semi-finishing	DNMG150412-NM	15.5	12.7	4.76	5.16	1.2									○	★												○	
	DNMG150612-NM	15.5	12.7	6.35	5.16	1.2										●	★							○				○	

★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

Applicable tool



Page A137

A144

A145

A156

A157

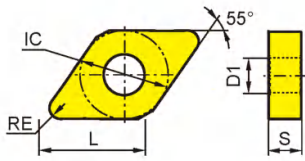
A195

A196



Cemented carbide and cermet inserts

DN (Negative inserts)



😊 Good working condition 😐 Normal working condition 😞 Bad working condition

Workpiece material	P Steel	M Stainless steel	K Cast iron	N Non-ferrous metal	S Heat resistant alloy, Ti alloy
P Steel	😊😊😊😊😊😊😊😊😊😊				
M Stainless steel		😊😊😊😊😊😊😊😊😊😊			
K Cast iron			😊😊😊😊😊😊😊😊😊😊		
N Non-ferrous metal				😊😊😊😊😊😊😊😊😊😊	
S Heat resistant alloy, Ti alloy					😊😊😊😊😊😊😊😊😊😊

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide												Cermet	Coated cermet	Cemented carbide															
		L	IC	S	D1	RE	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBH053				YBM153	YBM215	YBM251	YBM253	YBS103	YBD052	YBD102	YBD152							
Without chipbreaker 	DNMA110416	11.6	9.525	4.76	3.81	1.6																														
	DNMA110424	11.6	9.525	4.76	3.81	2.4																														
	DNMA150404	15.5	12.7	4.76	5.16	0.4																														
	DNMA150408	15.5	12.7	4.76	5.16	0.8																														
	DNMA150604	15.5	12.7	6.35	5.16	0.4																														
	DNMA150608	15.5	12.7	6.35	5.16	0.8																														
	DNMA150612	15.5	12.7	6.35	5.16	1.2																														
	DNMA150616	15.5	12.7	6.35	5.16	1.6																														

★Recommended grade (always stock available) ●Available grade (always stock available) ○Make-to-order

General turning

Cemented carbide and cermet inserts

Applicable tool



Page A137



A144



A145



A156



A157



A195



A196

Insert code key → A48-A49

Grade selection reference → A21/A38-A45

Chipbreaker selection reference → A24-A37

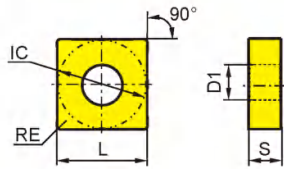
Recommended cutting parameters → A222-A224



General Turning Inserts

Cemented carbide and cermet inserts

SN (Negative inserts)



😊 Good working condition 😐 Normal working condition 😞 Bad working condition

Workpiece material	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBH053	YBM153	YBM215	YBM251	YBM253	YBS103	YBD052	YBD102	YBD152	YNG151	YNG151C	YD101	YD201
P Steel	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
M Stainless steel	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
K Cast iron	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
N Non-ferrous metal	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
S Heat resistant alloy, Ti alloy	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																						
		L	IC	S	D1	RE	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBH053	YBM153	YBM215	YBM251	YBM253	YBS103	YBD052	YBD102	YBD152	Cermet	Coated cermet	Cemented carbide
XF For finishing	SNMG120404-XF	12.7	12.7	4.76	5.16	0.4	★	★																					
	SNMG120408-XF	12.7	12.7	4.76	5.16	0.8	★	★																					
	SNMG120412-XF	12.7	12.7	4.76	5.16	1.2	★	★																					
DF For finishing	SNMG090304-DF	9.525	9.525	3.18	3.81	0.4			○																				
	SNMG090308-DF	9.525	9.525	3.18	3.81	0.8			○																				
	SNMG120404-DF	12.7	12.7	4.76	5.16	0.4			○																				
	SNMG120408-DF	12.7	12.7	4.76	5.16	0.8			○	○																	○		
	SNMG120412-DF	12.7	12.7	4.76	5.16	1.2			○	○																			
EF For finishing	SNMG090304-EF	9.525	9.525	3.18	3.81	0.4						○	★			★	○												
	SNMG090308-EF	9.525	9.525	3.18	3.81	0.8						○	★			★	○												
	SNMG090312-EF	9.525	9.525	3.18	3.81	1.2						○	★			★	○												
	SNMG120404-EF	12.7	12.7	4.76	5.16	0.4						●	★			★	★												
	SNMG120408-EF	12.7	12.7	4.76	5.16	0.8						●	★			★	★												
	SNMG120412-EF	12.7	12.7	4.76	5.16	1.2						○	★			★	★												
	SNMG150608-EF	15.875	15.875	6.35	6.35	0.8						○	★			★	○												
	SNMG150612-EF	15.875	15.875	6.35	6.35	1.2						○	★			★	○												

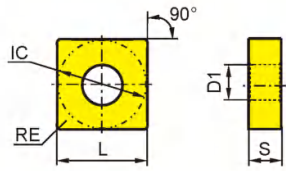
★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

Applicable tool

DSB NR/L KAPR:75° Page A138	PSB NR/L KAPR:75° A146	PSD NN KAPR:45° A147	PSK NR/L KAPR:75° A148	PSS NR/L KAPR:45° A149	MSB NR/L KAPR:75° A158	MSR NR/L KAPR:75° A159
MSK NR/L KAPR:75° Page A160	MSD NN KAPR:45° A161	PSK NR/L KAPR:75° A197				

Cemented carbide and cermet inserts

SN (Negative inserts)



Workpiece material	Good working condition	Normal working condition	Bad working condition
P Steel	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊
M Stainless steel	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊
K Cast iron	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊
N Non-ferrous metal	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊
S Heat resistant alloy, Ti alloy	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide													Cermet	Coated cermet	Cemented carbide									
		L	IC	S	D1	RE	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YB9315	YB9320	YBH053	YBM153				YBM215	YBM251	YBM253	YBS103	YBD052	YBD102	YBD152	YNG151	YNG151C
ADF For finishing	SNMG120404-ADF	12.7	12.7	4.76	5.16	0.4																									
	SNMG120408-ADF	12.7	12.7	4.76	5.16	0.8																									
	SNMG120412-ADF	12.7	12.7	4.76	5.16	1.2																									
SF For finishing	SNMG090304-SF	9.525	9.525	3.18	3.81	0.4																									○★
	SNMG090308-SF	9.525	9.525	3.18	3.81	0.8																									○★
	SNMG120404-SF	12.7	12.7	4.76	5.16	0.4																									○★
	SNMG120408-SF	12.7	12.7	4.76	5.16	0.8																									○★
	SNMG120412-SF	12.7	12.7	4.76	5.16	1.2																									○
SNMG150608-SF	15.875	15.875	6.35	6.35	0.8																									○	

★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

Applicable tool

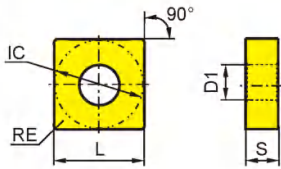


Insert code key: **A48-A49**
 Grade selection reference: **A21/A38-A45**
 Chipbreaker selection reference: **A24-A37**
 Recommended cutting parameters: **A222-A224**

General turning



Cemented carbide and cermet inserts

SN (Negative inserts)



😊 Good working condition 😐 Normal working condition ☹️ Bad working condition

P	Steel	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
M	Stainless steel			😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
K	Cast iron															
N	Non-ferrous metal															
S	Heat resistant alloy, Ti alloy	😊	😊									😊				

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide											Cermet	Coated cermet	Cemented carbide									
		L	IC	S	D1	RE	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YBG205H	YBG212				YBG302	YBH053	YBM215	YBM253	YBS103	YBD052	YBD102	YBD152	YNG151
DM  For semi-finishing	SNMG090304-DM	9.525	9.525	3.18	3.81	0.4		○	○																				
	SNMG090308-DM	9.525	9.525	3.18	3.81	0.8		○	○																				
	SNMG120404-DM	12.7	12.7	4.76	5.16	0.4		★	○																				
	SNMG120408-DM	12.7	12.7	4.76	5.16	0.8			○												○					○			
	SNMG120412-DM	12.7	12.7	4.76	5.16	1.2		★	★																				
	SNMG120416-DM	12.7	12.7	4.76	5.16	1.6			○																				
	SNMG150608-DM	15.875	15.875	6.35	6.35	0.8		○	○												●								
	SNMG150612-DM	15.875	15.875	6.35	6.35	1.2		●	★																				
	SNMG150616-DM	15.875	15.875	6.35	6.35	1.6			○																				
	SNMG190612-DM	19.05	19.05	6.35	7.94	1.2		○	○														○						
SNMG190616-DM	19.05	19.05	6.35	7.94	1.6			○																					
EM  For semi-finishing	SNMG120404-EM	12.7	12.7	4.76	5.16	0.4						●	★				★	★											
	SNMG120408-EM	12.7	12.7	4.76	5.16	0.8						●	★				★	★											
	SNMG120412-EM	12.7	12.7	4.76	5.16	1.2						●	★				★	★											
	SNMG120416-EM	12.7	12.7	4.76	5.16	1.6						○	★				○	★											
	SNMG150612-EM	15.875	15.875	6.35	6.35	1.2						●	★				○	★											
	SNMG150616-EM	15.875	15.875	6.35	6.35	1.6						○	★	★			○	★											

★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

Applicable tool

DSBNR/L
KAPR:75°



Page A138

PSBNR/L
KAPR:75°



A146

PSDNN
KAPR:45°



A147

PSKNR/L
KAPR:75°



A148

PSSNR/L
KAPR:45°



A149

MSBNR/L
KAPR:75°



A158

MSRNR/L
KAPR:75°



A159

MSKNR/L
KAPR:75°



Page A160

MSDNN
KAPR:45°



A161

PSKNR/L
KAPR:75°



A197

Insert code key

A48-A49

Grade selection reference

A21/A38-A45

Chipbreaker selection reference

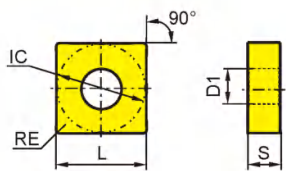
A24-A37

Recommended cutting parameters

A222-A224

Cemented carbide and cermet inserts

SN (Negative inserts)



😊 Good working condition 😐 Normal working condition 😞 Bad working condition

Workpiece material	Steel	Stainless steel	Cast iron	Non-ferrous metal	Heat resistant alloy, Ti alloy
P	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊
M	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊
K	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊
N	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊
S	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide															Cermet	Coated cermet	Cemented carbide														
		L	IC	S	D1	RE	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YB9315	YBG302	YBH053	YBM153	YBM215	YBM251				YBM253	YBS103	YBD052	YBD102	YBD152	YNG151	YNG151C	YD101	YD201					
EG For semi-finishing	SNMG120404-EG	12.7	12.7	4.76	5.16	0.4																																
	SNMG120408-EG	12.7	12.7	4.76	5.16	0.8											★																					
	SNMG120412-EG	12.7	12.7	4.76	5.16	1.2												★																				
NM For semi-finishing	SNMG120408-NM	12.7	12.7	4.76	5.16	0.8												● ★																			○	
	SNMG120412-NM	12.7	12.7	4.76	5.16	1.2												○ ★																			○	
LR Light-load roughing	SNMM120408-LR	12.9	12.7	4.76	5.16	0.8												★																				
	SNMM120412-LR	12.9	12.7	4.76	5.16	1.2													★																			
	SNMM120416-LR	12.9	12.7	4.76	5.16	1.6														★																		
	SNMM150612-LR	15.875	15.875	6.35	6.35	1.2															★																	
	SNMM150616-LR	15.875	15.875	6.35	6.35	1.6																★																
	SNMM190612-LR	19.3	19.05	6.35	7.94	1.2																	★															
	SNMM190616-LR	19.3	19.05	6.35	7.94	1.6																		★														
	SNMM190624-LR	19.3	19.05	6.35	7.94	2.4																		★														
SNMM250924-LR	25.79	25.4	9.525	9.12	2.4																			★														

★Recommended grade (always stock available) ●Available grade (always stock available) ○Make-to-order

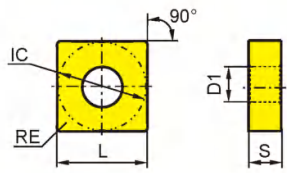
Applicable tool

DSB NR/L KAPR:75° Page A138	PSB NR/L KAPR:75° Page A146	PSD NN KAPR:45° Page A147	PSK NR/L KAPR:75° Page A148	PSS NR/L KAPR:45° Page A149	MSB NR/L KAPR:75° Page A158	MSR NR/L KAPR:75° Page A159
MSK NR/L KAPR:75° Page A160	MSD NN KAPR:45° Page A161	PSK NR/L KAPR:75° Page A197				



Cemented carbide and cermet inserts

SN (Negative inserts)



😊 Good working condition 😐 Normal working condition 😞 Bad working condition

Workpiece material	Working condition																								
	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBH053	YBM153	YBM215	YBM251	YBM253	YBS103	YBD052	YBD102	YBD152	YNG151	YNG151C	YD101	YD201	
P Steel	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
M Stainless steel																									
K Cast iron																									
N Non-ferrous metal																									
S Heat resistant alloy, Ti alloy																									

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																	Cermet	Coated cermet	Cemented carbide						
		L	IC	S	D1	RE	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBH053	YBM153	YBM215	YBM251	YBM253	YBS103				YBD052	YBD102	YBD152	YNG151	YNG151C	YD101
 DR Light-load roughing	SNMG120408-DR	12.7	12.7	4.76	5.16	0.8		○	★																							
	SNMG120412-DR	12.7	12.7	4.76	5.16	1.2			○																	○						
	SNMG120416-DR	12.7	12.7	4.76	5.16	1.6			○	○																						
	SNMG150608-DR	15.875	15.875	6.35	6.35	0.8				○																						
	SNMG150612-DR	15.875	15.875	6.35	6.35	1.2					★														○	○						
	SNMG150616-DR	15.875	15.875	6.35	6.35	1.6					★														○	○						
	SNMG150624-DR	15.875	15.875	6.35	6.35	2.4				○																						
	SNMG190612-DR	19.05	19.05	6.35	7.94	1.2					○																					
	SNMG190616-DR	19.05	19.05	6.35	7.94	1.6					★														○	○						
	SNMG190624-DR	19.05	19.05	6.35	7.94	2.4					○																					

★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

General turning

Cemented carbide and cermet inserts

Applicable tool



Page A138

A146

A147

A148

A149

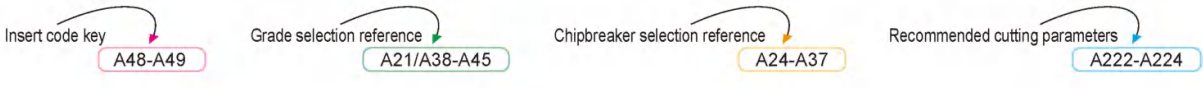
A158

A159

Page A160

A161

A197

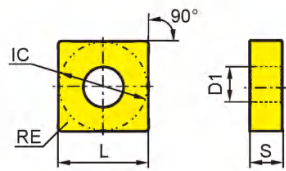




TURNING General Turning Inserts



Cemented carbide and cermet inserts

SN (Negative inserts)



😊 Good working condition 🟡 Normal working condition 😞 Bad working condition

Workpiece material	Applicable Grades																								
	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBH053	YBM153	YBM215	YBM251	YBM253	YBS103	YBD052	YBD102	YBD152	YNG151	YNG151C	YD101	YD201	
P Steel	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
M Stainless steel			😊				😊							😊	😊	😊	😊	😊	😊	😊	😊	😊			
K Cast iron																			😊	😊	😊			😊	😊
N Non-ferrous metal																							😊	😊	😊
S Heat resistant alloy, Ti alloy																		😊							

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																									
		L	IC	S	D1	RE	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBH053	YBM153	YBM215	YBM251	YBM253	YBS103	YBD052	YBD102	YBD152	Cermet	Coated cermet	Cemented carbide			
DR  For roughing	SNMM120408-DR	12.7	12.7	4.76	5.16	0.8																										
	SNMM120412-DR	12.7	12.7	4.76	5.16	1.2																										
	SNMM120416-DR	12.7	12.7	4.76	5.16	1.6																										
	SNMM150608-DR	15.875	15.875	6.35	6.35	0.8																										
	SNMM150612-DR	15.875	15.875	6.35	6.35	1.2																										
	SNMM150616-DR	15.875	15.875	6.35	6.35	1.6																										
	SNMM190608-DR	19.05	19.05	6.35	7.94	0.8																										
	SNMM190612-DR	19.05	19.05	6.35	7.94	1.2																										
	SNMM190616-DR	19.05	19.05	6.35	7.94	1.6																										
	SNMM190624-DR	19.05	19.05	6.35	7.94	2.4																										
	SNMM250724-DR	25.4	25.4	7.94	9.12	2.4																										
SNMM250924-DR	25.4	25.4	9.525	9.12	2.4																											
ER  For roughing	SNMG120408-ER	12.7	12.7	4.76	5.16	0.8																										
	SNMG120412-ER	12.7	12.7	4.76	5.16	1.2																										
	SNMG150608-ER	15.875	15.875	6.35	6.35	0.8																										
	SNMG150612-ER	15.875	15.875	6.35	6.35	1.2																										
	SNMG190612-ER	19.05	19.05	6.35	7.94	1.2																										
	SNMG190616-ER	19.05	19.05	6.35	7.94	1.6																										

★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

Applicable tool



Page A138



A146



A147



A148



A149



A158



A159



Page A160



A161



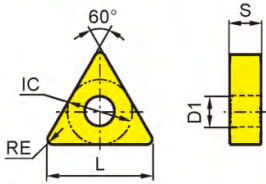
A197



General Turning Inserts

Cemented carbide and cermet inserts

TN (Negative inserts)



Good working condition Normal working condition Bad working condition

Workpiece material	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBH053	YBM153	YBM215	YBM251	YBM253	YBS103	YBD052	YBD102	YBD152	Cermet YNG151	Coated cermet YNG151C	Cemented carbide YD101	Cemented carbide YD201
P Steel																								
M Stainless steel																								
K Cast iron																								
N Non-ferrous metal																								
S Heat resistant alloy, Ti alloy																								

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																														
		L	IC	S	D1	RE	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBH053	YBM153	YBM215	YBM251	YBM253	YBS103	YBD052	YBD102	YBD152	Cermet YNG151	Coated cermet YNG151C	Cemented carbide YD101	Cemented carbide YD201							
 For finishing	TNMG160404-XF	16.5	9.525	4.76	3.81	0.4	★	★																													
	TNMG160408-XF	16.5	9.525	4.76	3.81	0.8	★	★																													
 For finishing	TNMG160404-DF	16.5	9.525	4.76	3.81	0.4		★	★																			●									
	TNMG160408-DF	16.5	9.525	4.76	3.81	0.8		★	★																			●									
	TNMG160412-DF	16.5	9.525	4.76	3.81	1.2		○	○																												
	TNMG220408-DF	22	12.7	4.76	5.16	0.8		★	○																												
	TNMG220412-DF	22	12.7	4.76	5.16	1.2		○																													
 For finishing	TNMG110304-SF	11	6.35	3.18	2.26	0.4									○													○	★								
	TNMG160404-SF	16.5	9.525	4.76	3.81	0.4									○													○	★								
	TNMG160408-SF	16.5	9.525	4.76	3.81	0.8									○													○	★								
	TNMG220408-SF	22	12.7	4.76	5.16	0.8									○														○	★							
	TNMG220412-SF	22	12.7	4.76	5.16	1.2									○														○	★							

★Recommended grade (always stock available) ●Available grade (always stock available) ○Make-to-order

Applicable tool



Page A139



A150



A151



A152



A162



A163



A164



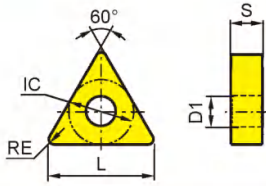
Page A165



A198

Cemented carbide and cermet inserts

TN (Negative inserts)



😊 Good working condition 😊 Normal working condition 😞 Bad working condition

Workpiece material	P Steel	M Stainless steel	K Cast iron	N Non-ferrous metal	S Heat resistant alloy, Ti alloy
P Steel	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
M Stainless steel	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
K Cast iron	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
N Non-ferrous metal	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
S Heat resistant alloy, Ti alloy	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊

General turning
Cemented carbide and cermet inserts

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide														Cermet	Coated cermet	Cemented carbide																	
		L	IC	S	D1	RE	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBH053	YBM153	YBM215				YBM251	YBM253	YBS103	YBD052	YBD102	YBD152	YNG151	YNG151C	YD101	YD201							
PM For semi-finishing	TNMG110304-PM	11	6.35	3.18	2.26	0.4		★	○																															
	TNMG110308-PM	11	6.35	3.18	2.26	0.8		★	○																															
	TNMG160404-PM	16.5	9.525	4.76	3.81	0.4		★	★																	★	★													
	TNMG160408-PM	16.5	9.525	4.76	3.81	0.8		★	★	○																★	★													
	TNMG160412-PM	16.5	9.525	4.76	3.81	1.2		★	○																★	★														
	TNMG220408-PM	22	12.7	4.76	5.16	0.8		★	○																★	○														
	TNMG220412-PM	22	12.7	4.76	5.16	1.2		★	○																	○	○													
	TNMG220416-PM	22	12.7	4.76	5.16	1.6				○																	○													
XM For semi-finishing	TNMG160404-XM	16.5	9.525	4.76	3.81	0.4	★	★																																
	TNMG160408-XM	16.5	9.525	4.76	3.81	0.8	★	★																																
	TNMG160412-XM	16.5	9.525	4.76	3.81	1.2	★	★																																
	TNMG160416-XM	16.5	9.525	4.76	3.81	1.6	★	★																																
	TNMG220408-XM	22	12.7	4.76	5.16	0.8	★	★																																
	TNMG220412-XM	22	12.7	4.76	5.16	1.2	★	★																																
	TNMG220416-XM	22	12.7	4.76	5.16	1.6	★	★																																

★Recommended grade (always stock available) ●Available grade (always stock available) ○Make-to-order

Applicable tool



Page A139



A150



A151



A152



A162



A163



A164



Page A165

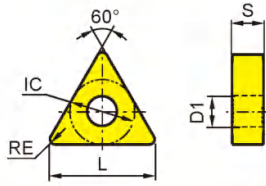


A198



Cemented carbide and cermet inserts

TN (Negative inserts)



Workpiece material

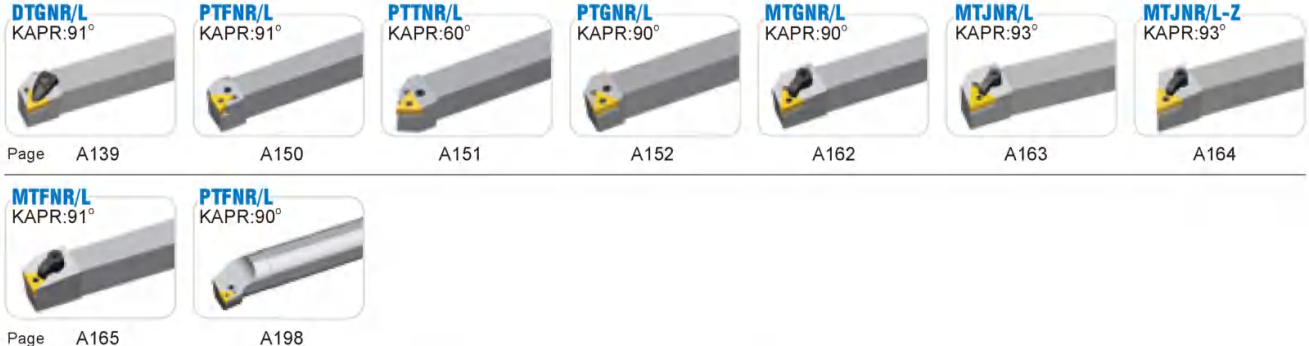
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P Steel	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
M Stainless steel	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
K Cast iron	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
N Non-ferrous metal	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
S Heat resistant alloy, Ti alloy	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊

😊 Good working condition 😊 Normal working condition 😞 Bad working condition

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																						
		L	IC	S	D1	RE	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YBG205H	YB9315	YBG302	YBH053	YBM215	YBM253	YBS103	YBD052	YBD102	YBD152	Cermet	Cermet coated carbide	Cemented carbide	
DM For semi-finishing	TNMG110308-DM	11	6.35	3.18	2.26	0.8		○	○																				
	TNMG160404-DM	16.5	9.525	4.76	3.81	0.4	★	★			○															●			
	TNMG160408-DM	16.5	9.525	4.76	3.81	0.8	★	★			●															○			
	TNMG160412-DM	16.5	9.525	4.76	3.81	1.2		○	★																				
	TNMG220404-DM	22	12.7	4.76	5.16	0.4	★	★																			○		
	TNMG220408-DM	22	12.7	4.76	5.16	0.8	★	★																			○		
	TNMG220412-DM	22	12.7	4.76	5.16	1.2		○	○																				
	TNMG220416-DM	22	12.7	4.76	5.16	1.6		○	○																				
EM For semi-finishing	TNMG160404-EM	16.5	9.525	4.76	3.81	0.4						●	★	★				★		★									
	TNMG160408-EM	16.5	9.525	4.76	3.81	0.8						●	★	★				★		★									
	TNMG160412-EM	16.5	9.525	4.76	3.81	1.2						○	★					★		★									
	TNMG220408-EM	22	12.7	4.76	5.16	0.8						●	★						○		★								
	TNMG220412-EM	22	12.7	4.76	5.16	1.2						○	★						○		★								
	TNMG220416-EM	22	12.7	4.76	5.16	1.6						○	★						○		★								
EG For semi-finishing	TNMG160404-EG	16.5	9.525	4.76	3.81	0.4																							
	TNMG160408-EG	16.5	9.525	4.76	3.81	0.8																							
	TNMG160412-EG	16.5	9.525	4.76	3.81	1.2																							

★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

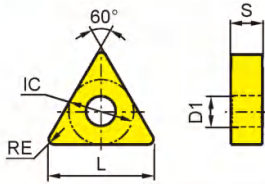
Applicable tool





Cemented carbide and cermet inserts

TN (Negative inserts)



😊 Good working condition 😐 Normal working condition 😞 Bad working condition

Workpiece material	P Steel	M Stainless steel	K Cast iron	N Non-ferrous metal	S Heat resistant alloy, Ti alloy
	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊

General turning

Cemented carbide and cermet inserts

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide											Cermet	Coated cermet	Cemented carbide													
		L	IC	S	D1	RE	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YB9315	YBG302				YBH053	YBM153	YBM215	YBM251	YBM253	YBS103	YBD052	YBD102	YBD152	YNG151	YNG151C	YD101	YD201
EH For semi-finishing	TNMG160408-EH	16.5	9.525	4.76	3.81	0.8										★																	
LR Light-load roughing	TNMM160408-LR	16.5	9.525	4.76	3.81	0.8											★																
	TNMM160412-LR	16.5	9.525	4.76	3.81	1.2												★															
	TNMM220408-LR	22	12.7	4.76	5.16	0.8													★														
	TNMM220412-LR	22	12.7	4.76	5.16	1.2														★													
	TNMM220416-LR	22	12.7	4.76	5.16	1.6															★												
DR Light-load roughing	TNMG160408-DR	16.5	9.525	4.76	3.81	0.8																											
	TNMG160412-DR	16.5	9.525	4.76	3.81	1.2																							○	○			
	TNMG220408-DR	22	12.7	4.76	5.16	0.8																											
	TNMG220412-DR	22	12.7	4.76	5.16	1.2																											
	TNMG220416-DR	22	12.7	4.76	5.16	1.6																											
	TNMG270608-DR	27.5	15.875	6.35	6.35	0.8																											
	TNMG270612-DR	27.5	15.875	6.35	6.35	1.2																											
	TNMG270616-DR	27.5	15.875	6.35	6.35	1.6																											

★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

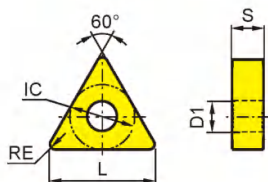
Applicable tool

 DTGNR/L KAPR:91° Page A139	 PTFNR/L KAPR:91° Page A150	 PTTNR/L KAPR:60° Page A151	 PTGNR/L KAPR:90° Page A152	 MTGNR/L KAPR:90° Page A162	 MTJNR/L KAPR:93° Page A163	 MTJNR/L-Z KAPR:93° Page A164
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 MTFNR/L KAPR:91° Page A165	 PTFNR/L KAPR:90° Page A198
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Cemented carbide and cermet inserts

TN (Negative inserts)



😊 Good working condition 😊 Normal working condition 😞 Bad working condition

Workpiece material	Steel	Stainless steel	Cast iron	Non-ferrous metal	Heat resistant alloy, Ti alloy
P	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
M	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
K	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
N	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
S	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide											Cermet	Coated cermet	Cemented carbide																
		L	IC	S	D1	RE	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBH053	YBM153	YBM215	YBM253	YBS103	YBD052	YBD102	YBD152	YNG151	YNG151C	YD101	YD201							
 For roughing	TNMM160408-DR	16.5	9.525	4.76	3.81	0.8																														
	TNMM160412-DR	16.5	9.525	4.76	3.81	1.2				○																										
	TNMM220408-DR	22	12.7	4.76	5.16	0.8																														
	TNMM220412-DR	22	12.7	4.76	5.16	1.2																														
	TNMM220416-DR	22	12.7	4.76	5.16	1.6																														
	TNMM270612-DR	27.5	15.875	6.35	5.16	1.2																														
	TNMM270616-DR	27.5	15.875	6.35	5.16	1.6																														
 For roughing	TNMG160408-ER	16.5	9.525	4.76	3.81	0.8																														
	TNMG160412-ER	16.5	9.525	4.76	3.81	1.2																★														
	TNMG220408-ER	22	12.7	4.76	5.16	0.8																	★													
	TNMG220412-ER	22	12.7	4.76	5.16	1.2																	★													
 For roughing	TNMG160408-SNR	16.5	9.525	4.76	3.81	0.8					○	●			○								★													

★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

Applicable tool



Page A139 A150 A151 A152 A162 A163 A164

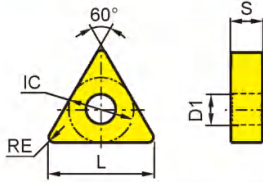


Page A165 A198

Insert code key → **A48-A49** Grade selection reference → **A21/A38-A45** Chipbreaker selection reference → **A24-A37** Recommended cutting parameters → **A222-A224**

Cemented carbide and cermet inserts

TN (Negative inserts)



😊 Good working condition 😐 Normal working condition 😞 Bad working condition

Workpiece material	Steel	Stainless steel	Cast iron	Non-ferrous metal	Heat resistant alloy, Ti alloy
P	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊
M	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊
K	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊
N	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊
S	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																												
		L	IC	S	D1	RE	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBH053	YBM153	YBM215	YBM251	YBM253	YBS103	YBD052	YBD102	YBD152C	Cermet YNG151	Coated cermet YNG151C	Cemented carbide YD101	Cemented carbide YD201					
HDR For heavy machining	TNMM160408-HDR	16.5	9.525	4.76	3.81	0.8																													
	TNMM160412-HDR	16.5	9.525	4.76	3.81	1.2																													
	TNMM220408-HDR	22	12.7	4.76	5.16	0.8																													
	TNMM220412-HDR	22	12.7	4.76	5.16	1.2																													
	TNMM220416-HDR	22	12.7	4.76	5.16	1.6																													
	TNMM270612-HDR	27.5	15.875	6.35	6.35	1.2																													
	TNMM270616-HDR	27.5	15.875	6.35	6.35	1.6																													
	TNMM270624-HDR	27.5	15.875	6.35	6.35	2.4																													
TC 	TNMG160404-TC	16.5	9.525	4.76	3.81	0.4																					★								
	TNMG160408-TC	16.5	9.525	4.76	3.81	0.8																						★							
	TNMG160412-TC	16.5	9.525	4.76	3.81	1.2																						★							
	TNMG220412-TC	22	12.7	4.76	5.16	1.2																							★						
	TNMG220416-TC	22	12.7	4.76	5.16	1.6																							★						
Without chipbreaker 	TNMA 160404	16.5	9.525	4.76	3.81	0.4																					○	★	★						
	TNMA 160408	16.5	9.525	4.76	3.81	0.8																						★	★	★				○	
	TNMA 160412	16.5	9.525	4.76	3.81	1.2																						★	○	○					
	TNMA 160416	16.5	9.525	4.76	3.81	1.6																						○	○	○					
	TNMA 220404	22	12.7	4.76	5.16	0.4																							○	○	○				
	TNMA 220408	22	12.7	4.76	5.16	0.8																							○	○	○				
	TNMA 270616	27.5	15.875	6.35	6.35	1.6																							○						

★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

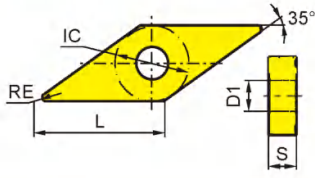
Applicable tool

DTG NR/L KAPR: 91° 	PTF NR/L KAPR: 91° 	PTT NR/L KAPR: 60° 	PTG NR/L KAPR: 90° 	MTG NR/L KAPR: 90° 	MTJ NR/L KAPR: 93° 	MTJ NR/L-Z KAPR: 93°
Page A139	A150	A151	A152	A162	A163	A164

MTF NR/L KAPR: 91° 	PTF NR/L KAPR: 90°
Page A165	A198

Cemented carbide and cermet inserts

VN (Negative inserts)



☺ Good working condition ☹ Normal working condition ☹☹ Bad working condition

- Workpiece material
- P Steel
 - M Stainless steel
 - K Cast iron
 - N Non-ferrous metal
 - S Heat resistant alloy, Ti alloy

P Steel	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺
M Stainless steel	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺
K Cast iron																					
N Non-ferrous metal																					
S Heat resistant alloy, Ti alloy																					

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																					
		L	IC	S	D1	RE	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YB9315	YB9320	YBH053	YBM153	YBM215	YBM253	YBS103	YBD052	YBD102	YBD152	Cermet	Coated cermet	Cemented carbide
 For finishing	VNMG160404-XF	16.6	9.525	4.76	3.81	0.4	★	★																				
	VNMG160408-XF	16.6	9.525	4.76	3.81	0.8	★	★																				
	VNMG160412-XF	16.6	9.525	4.76	3.81	1.2	★	★																				
 For finishing	VNMG160404-DF	16.6	9.525	4.76	3.81	0.4					★	★									●							
	VNMG160408-DF	16.6	9.525	4.76	3.81	0.8					★	○																
 For finishing	VNMG160404-EF	16.6	9.525	4.76	3.81	0.4								○	★			★	★									
	VNMG160408-EF	16.6	9.525	4.76	3.81	0.8								○	★			★	★									
	VNMG160412-EF	16.6	9.525	4.76	3.81	1.2								○	★			★	○									
 For finishing	VNMG160404-ADF	16.6	9.525	4.76	3.81	0.4												★	★									
	VNMG160408-ADF	16.6	9.525	4.76	3.81	0.8												★	★									
 For finishing	VNEG160404-NF	16.6	9.525	4.76	3.81	0.4																★						○
	VNEG160408-NF	16.6	9.525	4.76	3.81	0.8																						○

★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

General turning

Cemented carbide and cermet inserts

Applicable tool



Page A140 A140 A166 A167

Insert code key
A48-A49

Grade selection reference
A21/A38-A45

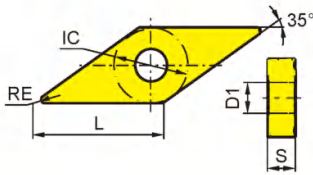
Chipbreaker selection reference
A24-A37

Recommended cutting parameters
A222-A224



Cemented carbide and cermet inserts

VN (Negative inserts)



😊 Good working condition 😬 Normal working condition 😞 Bad working condition

Workpiece material	Steel	Inconel	Aluminum	Titanium	Copper	Brass	Stainless steel	Cast iron	Non-ferrous metal	Heat resistant alloy, Ti alloy
P	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
M	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
K	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
N	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
S	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide												Cermet	Coated cermet	Cemented carbide								
		L	IC	S	D1	RE	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBH053				YBM153	YBM215	YBM253	YBS103	YBD052	YBD102	YBD152	YNG151
 For finishing	VNEG160408-NGF	16.6	9.525	4.76	3.81	0.8						●	●																
	VNEG160412-NGF	16.6	9.525	4.76	3.81	1.2						●	●																
 For finishing	VNMG160404-SF	16.6	9.525	4.76	3.81	0.4						○				★									○		★		
	VNMG160408-SF	16.6	9.525	4.76	3.81	0.8						○				★										○			
 For semi-finishing	VNMG160404-PM	16.6	9.525	4.76	3.81	0.4	★	○																	○				
	VNMG160408-PM	16.6	9.525	4.76	3.81	0.8	★	○																★	★				
	VNMG160412-PM	16.6	9.525	4.76	3.81	1.2						○													○	○			
 For semi-finishing	VNMG160404-XM	16.6	9.525	4.76	3.81	0.4	★	★																					
	VNMG160408-XM	16.6	9.525	4.76	3.81	0.8	★	★																					
	VNMG160412-XM	16.6	9.525	4.76	3.81	1.2	★	★																					
 For semi-finishing	VNMG160408-DM	16.6	9.525	4.76	3.81	0.8	★	★													○								
	VNMG160412-DM	16.6	9.525	4.76	3.81	1.2						○	○								○								

★Recommended grade (always stock available) ●Available grade (always stock available) ○Make-to-order

Applicable tool



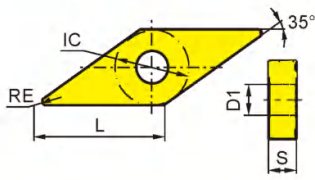
Page A140

A140

A166

A167

VN (Negative inserts)



Good working condition Normal working condition Bad working condition

Workpiece material	P Steel																				
	M Stainless steel																				
	K Cast iron																				
	N Non-ferrous metal																				
	S Heat resistant alloy, Ti alloy																				

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide												Cermet	Coated cermet	Cemented carbide												
		L	IC	S	D1	RE	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YBG205H	YB9315	YBG302				YBH053	YBM153	YBM215	YBM253	YBS103	YBD052	YBD102	YBD152C	YNG151	YNG151C	YD101	YD201
 For semi-finishing	VNMG160404-EM	16.6	9.525	4.76	3.81	0.4																											
	VNMG160408-EM	16.6	9.525	4.76	3.81	0.8							●	★	★							★	★										
 For semi-finishing	VNMG160404-EG	16.6	9.525	4.76	3.81	0.4																★											
	VNMG160408-EG	16.6	9.525	4.76	3.81	0.8																★											
 For semi-finishing	VNMG160412-NM	16.6	9.525	4.76	3.81	1.2										○	★							○									○
 For roughing	VNMG160408-SNR	16.6	9.525	4.76	3.81	0.8												○	●					★									
	VNMG160412-SNR	16.6	9.525	4.76	3.81	1.2												○	●					★									
 For roughing	VNMG160404-TC	16.6	9.525	4.76	3.81	0.4																											★
	VNMG160408-TC	16.6	9.525	4.76	3.81	0.8																											★
	VNMG160412-TC	16.6	9.525	4.76	3.81	1.2																											★

★Recommended grade (always stock available) ●Available grade (always stock available) ○Make-to-order

Applicable tool



Page A140



A140



A166



A167

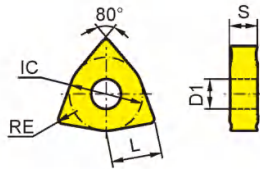
Insert code key A48-A49

Grade selection reference A21/A38-A45

Chipbreaker selection reference A24-A37

Recommended cutting parameters A222-A224

WN (Negative inserts)



☺ Good working condition ☹ Normal working condition ☹ Bad working condition

Workpiece material	Steel	Stainless steel	Cast iron	Non-ferrous metal	Heat resistant alloy, Ti alloy
P Steel	☺ ☺ ☺ ☺ ☺ ☺	☹ ☹ ☹ ☹ ☹ ☹	☹ ☹ ☹ ☹ ☹ ☹	☹ ☹ ☹ ☹ ☹ ☹	☹ ☹ ☹ ☹ ☹ ☹
M Stainless steel	☺ ☺ ☺ ☺ ☺ ☺	☺ ☺ ☺ ☺ ☺ ☺	☺ ☺ ☺ ☺ ☺ ☺	☺ ☺ ☺ ☺ ☺ ☺	☺ ☺ ☺ ☺ ☺ ☺
K Cast iron	☺ ☺ ☺ ☺ ☺ ☺	☺ ☺ ☺ ☺ ☺ ☺	☺ ☺ ☺ ☺ ☺ ☺	☺ ☺ ☺ ☺ ☺ ☺	☺ ☺ ☺ ☺ ☺ ☺
N Non-ferrous metal	☺ ☺ ☺ ☺ ☺ ☺	☺ ☺ ☺ ☺ ☺ ☺	☺ ☺ ☺ ☺ ☺ ☺	☺ ☺ ☺ ☺ ☺ ☺	☺ ☺ ☺ ☺ ☺ ☺
S Heat resistant alloy, Ti alloy	☺ ☺ ☺ ☺ ☺ ☺	☺ ☺ ☺ ☺ ☺ ☺	☺ ☺ ☺ ☺ ☺ ☺	☺ ☺ ☺ ☺ ☺ ☺	☺ ☺ ☺ ☺ ☺ ☺

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide										Cermet	Coated cermet	Cemented carbide											
		L	IC	S	D1	RE	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YBG205H				YB9315	YB9320	YBH053	YBM153	YBM215	YBM253	YBS103	YBD052	YBD102	YBD152	YNG151
 For finishing	WNMG06T304-EF	6.5	9.525	3.97	3.81	0.4																								
	WNMG06T308-EF	6.5	9.525	3.97	3.81	0.8							○ ★								★ ○									
	WNMG06T312-EF	6.5	9.525	3.97	3.81	1.2							○ ★								★ ○									
	WNMG060404-EF	6.5	9.525	4.76	3.81	0.4							● ★								★ ○									
	WNMG060408-EF	6.5	9.525	4.76	3.81	0.8							● ★								★ ○									
	WNMG080404-EF	8.7	12.7	4.76	5.16	0.4						○	● ★ ★								★ ★									
	WNMG080408-EF	8.7	12.7	4.76	5.16	0.8						○	● ★ ★								★ ★									
 For finishing	WNMG080404-ES	8.7	12.7	4.76	5.16	0.4										★														
	WNMG080408-ES	8.7	12.7	4.76	5.16	0.8										★														
 For finishing	WNMG060404-ADF	6.5	9.525	4.76	3.81	0.4										★ ★														
	WNMG060408-ADF	6.5	9.525	4.76	3.81	0.8										★ ★														
	WNMG080404-ADF	8.7	12.7	4.76	5.16	0.4										★ ★														
	WNMG080408-ADF	8.7	12.7	4.76	5.16	0.8										★ ★														
	WNMG080412-ADF	8.7	12.7	4.76	5.16	1.2										★ ★														
 For finishing	WNEG080404-NF	8.7	12.7	4.76	5.16	0.4							○ ★																○	
	WNEG080408-NF	8.7	12.7	4.76	5.16	0.8							○ ★																○	

★Recommended grade (always stock available) ●Available grade (always stock available) ○Make-to-order

Applicable tool



Page A141 A153 A168 A199

Insert code key

A48-A49

Grade selection reference

A21/A38-A45

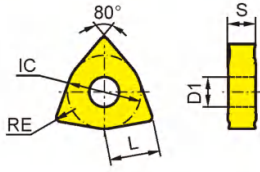
Chipbreaker selection reference

A24-A37

Recommended cutting parameters

A222-A224

WN (Negative inserts)



😊 Good working condition 😐 Normal working condition 😞 Bad working condition

Workpiece material	P Steel	M Stainless steel	K Cast iron	N Non-ferrous metal	S Heat resistant alloy, Ti alloy
Steel	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
Stainless steel	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
Cast iron	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
Non-ferrous metal	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
Heat resistant alloy, Ti alloy	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊

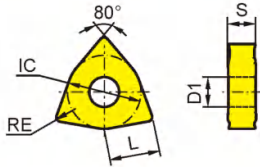
Inserts shape	Type	Dimensions(mm)					Coated cemented carbide															Cermet	Coated cermet	Cemented carbide								
		L	IC	S	D1	RE	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBH053	YBM153	YBM215	YBM251				YBM253	YBS103	YBD052	YBD102	YBD152	YNG151	YNG151C	YD101
 For semi-finishing	WNMG060408-PM	6.5	9.525	4.76	3.81	0.8		★	○																	★	★					
	WNMG060412-PM	6.5	9.525	4.76	3.81	1.2		○	○																	★	★					
	WNMG080404-PM	8.7	12.7	4.76	5.16	0.4			○	○																						
	WNMG080408-PM	8.7	12.7	4.76	5.16	0.8		★	★																		★	★				
	WNMG080412-PM	8.7	12.7	4.76	5.16	1.2		★	★																		★	★				
	WNMG080416-PM	8.7	12.7	4.76	5.16	1.6				○																○	○					
	WNMG080608-PM	8.7	12.7	6.35	5.16	0.8				○																						
 For semi-finishing	WNMG060404-XM	6.5	9.525	4.76	3.81	0.4	★	★																								
	WNMG060408-XM	6.5	9.525	4.76	3.81	0.8	★	★																								
	WNMG060412-XM	6.5	9.525	4.76	3.81	1.2	★	★																								
	WNMG080404-XM	8.7	12.7	4.76	5.16	0.4	★	★																								
	WNMG080408-XM	8.7	12.7	4.76	5.16	0.8	★	★																								
	WNMG080412-XM	8.7	12.7	4.76	5.16	1.2	★	★																								
	WNMG080416-XM	8.7	12.7	4.76	5.16	1.6	★	★																								

★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order





WN (Negative inserts)



☺ Good working condition ☹ Normal working condition ☹ Bad working condition

Workpiece material	Steel (P)	Stainless steel (M)	Cast iron (K)	Non-ferrous metal (N)	Heat resistant alloy, Ti alloy (S)
P Steel	☺	☺	☺	☺	☺
M Stainless steel	☺	☺	☺	☺	☺
K Cast iron	☺	☺	☺	☺	☺
N Non-ferrous metal	☺	☺	☺	☺	☺
S Heat resistant alloy, Ti alloy	☺	☺	☺	☺	☺

General turning

Cemented carbide and cermet inserts

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide													Cermet	Coated cermet	Cermet													
		L	IC	S	D1	RE	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YB9315	YBG302	YBH053	YBM153				YBM215	YBM251	YBM253	YBS103	YBD052	YBD102	YBD152	YNG151	YNG151C	YD101	YD201		
 For semi-finishing	WNMG080404-EH	8.7	12.7	4.76	5.16	0.4																													
	WNMG080408-EH	8.7	12.7	4.76	5.16	0.8										★																			
	WNMG080412-EH	8.7	12.7	4.76	5.16	1.2											★																		
 For semi-finishing	WNMG080408-NM	8.7	12.7	4.76	5.16	0.8							○	★										○										○	
	WNMG080412-NM	8.7	12.7	4.76	5.16	1.2							○	★										○										○	
 For roughing	WNMG060408-DR	6.5	9.525	4.76	3.81	0.8			○	○														○											
	WNMG060412-DR	6.5	9.525	4.76	3.81	1.2				○														○	○										
	WNMG080408-DR	8.7	12.7	4.76	5.16	0.8								○	★										●	●									
	WNMG080412-DR	8.7	12.7	4.76	5.16	1.2								○	★											●	●								
	WNMG080416-DR	8.7	12.7	4.76	5.16	1.6									○										○	○									
 For roughing	WNMG080408-SNR	8.7	12.7	4.76	5.16	0.8								○	●		○										★								
	WNMG080412-SNR	8.7	12.7	4.76	5.16	1.2									○	●		○										★							

★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

Applicable tool



Page A141



A153

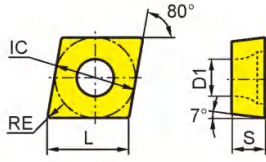


A168



A199

CC (Positive inserts)



Workpiece material	Good working condition															Normal working condition															Bad working condition														
	P	M	K	N	S	Steel					Stainless steel					Cast iron					Non-ferrous metal					Heat resistant alloy, Ti alloy																			
P	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺										
M		☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺										
K			☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺										
N				☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺										
S				☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺										

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide															Cermet	Cermet Coated carbide	Cemented carbide							
		L	IC	S	D1	RE	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBH053	YBM153	YBM215	YBM251				YBM253	YBS103	YBD052	YBD102	YBD152		
SF For extra finishing	CCGT060202-SF	6.4	6.35	2.38	2.8	0.2						○															○	○			
	CCGT060204-SF	6.4	6.35	2.38	2.8	0.4						○					★										○	○			
	CCGT09T304-SF	9.7	9.525	3.97	4.4	0.4						○					★										○	★			
XF For finishing	CCMT060202-XF	6.4	6.35	2.38	2.8	0.2	★	★																							
	CCMT060204-XF	6.4	6.35	2.38	2.8	0.4	★	★																							
	CCMT060208-XF	6.4	6.35	2.38	2.8	0.8	★	★																							
	CCMT09T302-XF	9.7	9.525	3.97	4.4	0.2	★	★																							
	CCMT09T304-XF	9.7	9.525	3.97	4.4	0.4	★	★																							
	CCMT09T308-XF	9.7	9.525	3.97	4.4	0.8	★	★																							
HF For finishing	CCMT060202-HF	6.4	6.35	2.38	2.8	0.2		★	★			●													○				○		
	CCMT060204-HF	6.4	6.35	2.38	2.8	0.4		★	○			●													●	●			●		
	CCMT060208-HF	6.4	6.35	2.38	2.8	0.8		★				●								○					●						
	CCMT09T302-HF	9.7	9.525	3.97	4.4	0.2							○				●								●				○		
	CCMT09T304-HF	9.7	9.525	3.97	4.4	0.4		★	★				●												●	●	○		○		
	CCMT09T308-HF	9.7	9.525	3.97	4.4	0.8		★	○				●								○		○	○	●	○	○		○		
	CCMT120404-HF	12.9	12.7	4.76	5.56	0.4																			●	○					
	CCMT120408-HF	12.9	12.7	4.76	5.56	0.8																			○						

★Recommended grade (always stock available) ●Available grade (always stock available) ○Make-to-order

Applicable tool



Page A196 A170 A200 A214 A215

Insert code key

A48-A49

Grade selection reference

A21/A38-A45

Chipbreaker selection reference

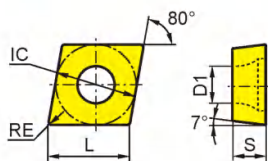
A24-A37

Recommended cutting parameters

A222-A224




Cemented carbide and cermet inserts

CC  (Positive inserts)



 Good working condition  Normal working condition  Bad working condition

Workpiece material	Steel	Stainless steel	Cast iron	Non-ferrous metal	Heat resistant alloy, Ti alloy
P	☺☺☺☺☺☺	☺☺☺☺☺☺	☺☺☺☺☺☺	☺☺☺☺☺☺	☺☺☺☺☺☺
M	☺☺☺☺☺☺	☺☺☺☺☺☺	☺☺☺☺☺☺	☺☺☺☺☺☺	☺☺☺☺☺☺
K	☺☺☺☺☺☺	☺☺☺☺☺☺	☺☺☺☺☺☺	☺☺☺☺☺☺	☺☺☺☺☺☺
N	☺☺☺☺☺☺	☺☺☺☺☺☺	☺☺☺☺☺☺	☺☺☺☺☺☺	☺☺☺☺☺☺
S	☺☺☺☺☺☺	☺☺☺☺☺☺	☺☺☺☺☺☺	☺☺☺☺☺☺	☺☺☺☺☺☺

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide														Cermet	Coated cermet	Cemented carbide							
		L	IC	S	D1	RE	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YBG205H	YB9315	YB9320	YBH053	YBM153				YBM215	YBM253	YBS103	YBD052	YBD102	YBD152	YNG151
EF  For finishing	CCMT060202-EF	6.4	6.35	2.38	2.8	0.2							○	●	★							★	○							
	CCMT060204-EF	6.4	6.35	2.38	2.8	0.4						○	●	★	★							★	○							
	CCMT09T302-EF	9.7	9.525	3.97	4.4	0.2						○	●	★								★	○							
	CCMT09T304-EF	9.7	9.525	3.97	4.4	0.4						○	●	★	★							★	★							
	CCMT09T308-EF	9.7	9.525	3.97	4.4	0.8						○	●	★								○	★							
	CCMT120404-EF	12.9	12.7	4.76	5.56	0.4						○	●	★								★	○							
	CCMT120408-EF	12.9	12.7	4.76	5.56	0.8						○	●	★								○	○							
AHF  For finishing	CCMT060204-AHF	6.4	6.35	2.38	2.8	0.4															★	★								
	CCMT060208-AHF	6.4	6.35	2.38	2.8	0.8																★	★							
	CCMT09T304-AHF	9.7	9.525	3.97	4.4	0.4																★	★							
	CCMT09T308-AHF	9.7	9.525	3.97	4.4	0.8																★	★							
	CCMT120404-AHF	12.9	12.7	4.76	5.56	0.4																★	★							
	CCMT120408-AHF	12.9	12.7	4.76	5.56	0.8																★	★							
XM  For semi-finishing	CCMT09T304-XM	9.7	9.525	3.97	4.4	0.4	★	★																						
	CCMT09T308-XM	9.7	9.525	3.97	4.4	0.8	★	★																						
	CCMT09T312-XM	9.7	9.525	3.97	4.4	1.2	★	★																						
	CCMT120404-XM	12.7	12.7	4.76	5.56	0.4	★	★																						
	CCMT120408-XM	12.7	12.7	4.76	5.56	0.8	★	★																						
	CCMT120412-XM	12.7	12.7	4.76	5.56	1.2	★	★																						

★Recommended grade (always stock available) ●Available grade (always stock available) ○Make-to-order

Applicable tool

SCACR/L
KAPR:90°



Page A196

SCLCR/L
KAPR:95°



A170

SCLCR/L
KAPR:95°



A200

SCFCR/L
KAPR:90°



A214

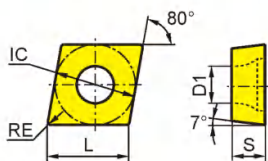
SCLCR/L
KAPR:95°



A215




Cemented carbide and cermet inserts

CC  (Positive inserts)



Good working condition Normal working condition Bad working condition

Workpiece material	Good working condition	Normal working condition	Bad working condition
P Steel			
M Stainless steel			
K Cast iron			
N Non-ferrous metal			
S Heat resistant alloy, Ti alloy			

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide															Cermet	Cermet coated cemented carbide	Cemented carbide					
		L	IC	S	D1	RE	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YBG205H	YB9315	YBG302	YBH053	YBM215	YBM253				YBS103	YBD052	YBD102	YBD152	YNG151
HM  For semi-finishing	CCMT060204-HM	6.4	6.35	2.38	2.8	0.4			★	★													●						
	CCMT060208-HM	6.4	6.35	2.38	2.8	0.8			★	○														●	○	○			
	CCMT09T304-HM	9.7	9.525	3.97	4.4	0.4			★	★													●						
	CCMT09T308-HM	9.7	9.525	3.97	4.4	0.8			★	★													●						
	CCMT120404-HM	12.9	12.7	4.76	5.56	0.4			★	○																○	○		
	CCMT120408-HM	12.9	12.7	4.76	5.56	0.8			★	★														●					
	CCMT120412-HM	12.9	12.7	4.76	5.56	1.2					○															○			
EM  For semi-finishing	CCMT060204-EM	6.4	6.35	2.38	2.8	0.4										●	★	★			○	★							
	CCMT060208-EM	6.4	6.35	2.38	2.8	0.8											●	★	★			○	★						
	CCMT09T304-EM	9.7	9.525	3.97	4.4	0.4											●	★	★			★	★						
	CCMT09T308-EM	9.7	9.525	3.97	4.4	0.8											●	★	★			★	★						
	CCMT120404-EM	12.9	12.7	4.76	5.56	0.4											●	★	★			○	★						
	CCMT120408-EM	12.9	12.7	4.76	5.56	0.8											●	★	★			○	★						
	CCMT120412-EM	12.9	12.7	4.76	5.56	1.2											●	★				○	★						
EG  For semi-finishing	CCMT060204-EG	6.4	6.35	2.38	2.8	0.4																★							
	CCMT060208-EG	6.4	6.35	2.38	2.8	0.8																★							
	CCMT09T304-EG	9.7	9.525	3.97	4.4	0.4																★							
	CCMT09T308-EG	9.7	9.525	3.97	4.4	0.8																★							

★Recommended grade (always stock available) ●Available grade (always stock available) ○Make-to-order

General turning

Cemented carbide and cermet inserts

Applicable tool



Page A196

A170

A200

A214

A215

Insert code key A48-A49

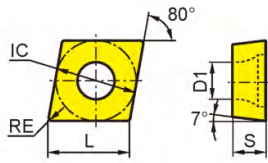
Grade selection reference A21/A38-A45



Chipbreaker selection reference A24-A37


























Recommended cutting parameters A222-A224



Cemented carbide and cermet inserts

CC (Positive inserts)



 Good working condition  Normal working condition  Bad working condition

Workpiece material	P Steel	M Stainless steel	K Cast iron	N Non-ferrous metal	S Heat resistant alloy, Ti alloy
P Steel					
M Stainless steel					
K Cast iron					
N Non-ferrous metal					
S Heat resistant alloy, Ti alloy					

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide												Cermet	Coated cermet	Cemented carbide																
		L	IC	S	D1	RE	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBH053				YBM153	YBM215	YBM251	YBM253	YBS103	YBD052	YBD102	YBD152C	YNG151	YNG151C	YD101	YD201				
 For roughing	CCMT060204-HR	6.4	6.35	2.38	2.8	0.4			○	○																											
	CCMT060208-HR	6.4	6.35	2.38	2.8	0.8			○																												
	CCMT09T304-HR	9.7	9.525	3.97	4.4	0.4								○																							
	CCMT09T308-HR	9.7	9.525	3.97	4.4	0.8																															
	CCMT120408-HR	12.9	12.7	4.76	5.56	0.8																															
	CCMT120412-HR	12.9	12.7	4.76	5.56	1.2																															
	CCMT060204-TC	6.4	6.35	2.38	2.8	0.4																															
	CCMT09T304-TC	9.7	9.525	3.97	4.4	0.4																															
	CCMT09T308-TC	9.7	9.525	3.97	4.4	0.8																															
	CCMT120404-TC	12.9	12.7	4.76	5.56	0.4																															
	CCMT120408-TC	12.9	12.7	4.76	5.56	0.8																															

★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

Applicable tool



Page A196



A170



A200



A214

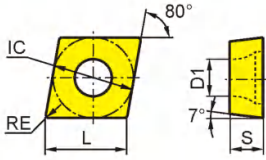


A215



Cemented carbide and cermet inserts

CC (Positive inserts)



😊 Good working condition 😐 Normal working condition 😞 Bad working condition

Workpiece material	Steel	Stainless steel	Cast iron	Non-ferrous metal	Heat resistant alloy, Ti alloy
P	😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊	😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊	😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊	😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊	😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊
M		😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊	😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊	😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊	😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊
K			😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊	😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊	😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊
N				😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊	😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊
S				😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊	😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊 😊

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																							
		L	IC	S	D1	RE	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBH053	YBM153	YBM215	YBM253	YBS103	YBD052	YBD102	YBD152	Cermet	Cermet coated carbide	Cemented carbide		
LC For Al machining	CCGX060202-LC	6.4	6.35	2.38	2.8	0.2																								★
	CCGX060204-LC	6.4	6.35	2.38	2.8	0.4																								★
	CCGX09T302-LC	9.7	9.525	3.97	4.4	0.2																								★
	CCGX09T304-LC	9.7	9.525	3.97	4.4	0.4																								★
	CCGX09T308-LC	9.7	9.525	3.97	4.4	0.8																								★
	CCGX120404-LC	12.9	12.7	4.76	5.5	0.4																								★
	CCGX120408-LC	12.9	12.7	4.76	5.5	0.8																								★
LH For Al machining	CCGX060202-LH	6.4	6.35	2.38	2.8	0.2																							★	
	CCGX060204-LH	6.4	6.35	2.38	2.8	0.4																							★ ●	
	CCGX060208-LH	6.4	6.35	2.38	2.8	0.8																							★	
	CCGX09T302-LH	9.7	9.525	3.97	4.4	0.2																							★	
	CCGX09T304-LH	9.7	9.525	3.97	4.4	0.4																							★ ●	
	CCGX09T308-LH	9.7	9.525	3.97	4.4	0.8																							★	
	CCGX120402-LH	12.9	12.7	4.76	5.56	0.2																							○	
	CCGX120404-LH	12.9	12.7	4.76	5.56	0.4																							★	
	CCGX120408-LH	12.9	12.7	4.76	5.56	0.8																							★	
	CCGX120412-LH	12.9	12.7	4.76	5.56	1.2																							○	

★Recommended grade (always stock available) ●Available grade (always stock available) ○Make-to-order

General turning

Cemented carbide and cermet inserts

Applicable tool



Page A196 A170 A200 A214 A215

Insert code key

A48-A49

Grade selection reference

A21/A38-A45

Chipbreaker selection reference

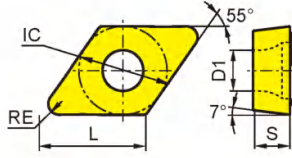
A24-A37

Recommended cutting parameters

A222-A224

Cemented carbide and cermet inserts

DC □ □ (Positive inserts)



😊 Good working condition 😐 Normal working condition ☹ Bad working condition

Workpiece material	P Steel	M Stainless steel	K Cast iron	N Non-ferrous metal	S Heat resistant alloy, Ti alloy
P Steel	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊				
M Stainless steel	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊
K Cast iron			😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊
N Non-ferrous metal				😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊
S Heat resistant alloy, Ti alloy				😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide														Cermet	Coated cermet	Cemented carbide								
		L	IC	S	D1	RE	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YBG205H	YB9315	YB9320	YBH053	YBM153				YBM215	YBM253	YBS103	YBD052	YBD102	YBD152	YNG151	YNG151C
 For finishing	DCMT070202-EF	7.8	6.35	2.38	2.8	0.2							○	●	★						★	○									
	DCMT070204-EF	7.8	6.35	2.38	2.8	0.4							○	●	★						★	○									
	DCMT11T302-EF	11.6	9.525	3.97	4.4	0.2							○	●	★						★	○									
	DCMT11T304-EF	11.6	9.525	3.97	4.4	0.4							○	●	★	★					★	○									
	DCMT11T308-EF	11.6	9.525	3.97	4.4	0.8							○	●	★						○	○									
 For finishing	DCMT070204-AHF	7.8	6.35	2.38	2.8	0.4										★	★														
	DCMT070208-AHF	7.8	6.35	2.38	2.8	0.8										★	★														
	DCMT11T302-AHF	11.6	9.525	3.97	4.4	0.2											★	★													
	DCMT11T304-AHF	11.6	9.525	3.97	4.4	0.4											★	★			★										
	DCMT11T308-AHF	11.6	9.525	3.97	4.4	0.8											★	★					★								
 For semi-finishing	DCMT070204-XM	7.8	6.35	2.38	2.8	0.4	★	★																							
	DCMT070208-XM	7.8	6.35	2.38	2.8	0.8	★	★																							
	DCMT11T304-XM	11.6	9.525	3.97	4.4	0.4	★	★																							
	DCMT11T308-XM	11.6	9.525	3.97	4.4	0.8	★	★																							
	DCMT11T312-XM	11.6	9.525	3.97	4.4	1.2	★	★																							

★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

General turning

Cemented carbide and cermet inserts

Applicable tool



Page A171



A172



A173



A201



A202



A203

Insert code key
A48-A49

Grade selection reference
A21/A38-A45

Chipbreaker selection reference
A24-A37

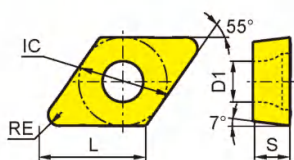
Recommended cutting parameters
A222-A224



General Turning Inserts

Cemented carbide and cermet inserts

DC (Positive inserts)



😊 Good working condition 🟡 Normal working condition 😞 Bad working condition

Workpiece material	P Steel	M Stainless steel	K Cast iron	N Non-ferrous metal	S Heat resistant alloy, Ti alloy
P Steel	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊
M Stainless steel	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊
K Cast iron	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊
N Non-ferrous metal	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊
S Heat resistant alloy, Ti alloy	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊

General turning

Cemented carbide and cermet inserts

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide														Cermet	Coated cermet	Cemented carbide												
		L	IC	S	D1	RE	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YBG205H	YBG212	YBG302	YBH053	YBM215				YBM251	YBM253	YBS103	YBD052	YBD102	YBD152	YNG151	YNG151C	YD101	YD201		
HM For semi-finishing	DCMT070204-HM	7.8	6.35	2.38	2.8	0.4	★	★																											
	DCMT070208-HM	7.8	6.35	2.38	2.8	0.8	★	★																											
	DCMT11T304-HM	11.6	9.525	3.97	4.4	0.4	★	★																											
	DCMT11T308-HM	11.6	9.525	3.97	4.4	0.8	★	★																											
	DCMT11T312-HM	11.6	9.525	3.97	4.4	1.2																													
EM For semi-finishing	DCMT070204-EM	7.8	6.35	2.38	2.8	0.4								●	★	★																			
	DCMT070208-EM	7.8	6.35	2.38	2.8	0.8										●	★																		
	DCMT11T304-EM	11.6	9.525	3.97	4.4	0.4																													
	DCMT11T308-EM	11.6	9.525	3.97	4.4	0.8																													
HR For roughing	DCMT11T304-HR	11.6	9.525	3.97	4.4	0.4																													
	DCMT11T308-HR	11.6	9.525	3.97	4.4	0.8																													
	DCMT11T312-HR	11.6	9.525	3.97	4.4	1.2																													

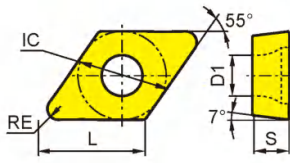
★Recommended grade (always stock available) ●Available grade (always stock available) ○Make-to-order

Applicable tool



Page A171 A172 A173 A201 A202 A203

DC □ □ (Positive inserts)



😊 Good working condition 😐 Normal working condition 😞 Bad working condition

Workpiece material
P Steel
M Stainless steel
K Cast iron
N Non-ferrous metal
S Heat resistant alloy, Ti alloy

Steel (P)	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
Stainless steel (M)			😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
Cast iron (K)																	😊	😊	😊	😊
Non-ferrous metal (N)																				😊
Heat resistant alloy, Ti alloy (S)			😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																							
		L	IC	S	D1	RE	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBH053	YBM153	YBM215	YBM251	YBM253	YBS103	YBD052	YBD102	YBD152	Cermet	Cermet Coated carbide	Cemented carbide	
LC For Al machining	DCGX070201-LC	7.8	6.35	2.38	2.8	0.1																								★
	DCGX070202-LC	7.8	6.35	2.38	2.8	0.2																								★
	DCGX070204-LC	7.8	6.35	2.38	2.8	0.4																								★
	DCGX11T304-LC	11.6	9.525	3.97	4.4	0.4																								★
	DCGX11T308-LC	11.6	9.525	3.97	4.4	0.8																								★
LH For Al machining	DCGX070202-LH	7.8	6.35	2.38	2.8	0.2																							★	
	DCGX070204-LH	7.8	6.35	2.38	2.8	0.4																							★ ○	
	DCGX11T302-LH	11.6	9.525	3.97	4.4	0.2																							★ ○	
	DCGX11T304-LH	11.6	9.525	3.97	4.4	0.4																							★ ●	
	DCGX11T308-LH	11.6	9.525	3.97	4.4	0.8																							★	

★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

General turning

Cemented carbide and cermet inserts

Applicable tool

SDACR/L
KAPR:90°



Page A171

SDJCR/L
KAPR:93°



A172

SDNCR
KAPR:62°30'



A173

SDQCR/L
KAPR:107°30'



A201

SDUCR/L
KAPR:93°



A202

SDZCR/L
KAPR:93°



A203

Insert code key

A48-A49

Grade selection reference

A21/A38-A45

Chipbreaker selection reference

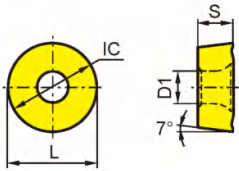
A24-A37

Recommended cutting parameters

A222-A224

Cemented carbide and cermet inserts

RC (Positive inserts)



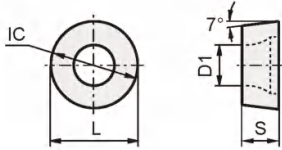
😊 Good working condition 😐 Normal working condition 😞 Bad working condition

Workpiece material	P Steel	M Stainless steel	K Cast iron	N Non-ferrous metal	S Heat resistant alloy, Ti alloy
	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐

Coated cemented carbide	Cermet	Cermet	Cermet
YBC103	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐
YBC203	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐
YBC152	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐
YBC252	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐
YBC352	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐
YBG102	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐
YBG105	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐
YBG202	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐
YBG205	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐
YBG212	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐
YBG302	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐
YBH053	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐
YBM153	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐
YBM215	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐
YBM251	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐
YBM253	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐
YBS103	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐
YBD052	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐
YBD102	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐
YBD152	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐
YNG151	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐
YNG151C	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐
YD101	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐
YD201	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐

Inserts shape	Type	Dimensions(mm)				Coated cemented carbide														Cermet	Cermet	Cermet																
		L	IC	S	D1	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBH053	YBM153	YBM215				YBM251	YBM253	YBS103	YBD052	YBD102	YBD152	YNG151	YNG151C	YD101	YD201						
	RCGT1204MO	12	12	4.76	4.4																																	
	RCMT0803MO	8.0	8.0	3.18	3.36																																	
	RCMT10T3MO	10	10	3.97	4.4																																	
	RCMT1204MO	12	12	4.76	4.4																																	
	RCMT1606MO	16	16	6.35	5.5																																	

★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order



😊 Good working condition 😐 Normal working condition 😞 Bad working condition

Workpiece material	P Steel	M Stainless steel	K Cast iron	N Non-ferrous metal	S Heat resistant alloy, Ti alloy
	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐

Coated cemented carbide	Cermet	Cermet	Cermet
YBC103	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐
YBC203	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐
YBC152	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐
YBC252	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐
YBC352	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐
YBG102	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐
YBG105	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐
YBG202	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐
YBG205	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐
YBG212	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐
YBG302	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐
YBH053	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐
YBM153	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐
YBM215	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐
YBM251	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐
YBM253	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐
YBS103	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐
YBD052	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐
YBD102	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐
YBD152	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐
YNG151	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐
YNG151C	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐
YD101	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐
YD201	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐	😊 😐 😐 😐 😐 😐

Inserts shape	Type	Dimensions(mm)				Coated cemented carbide														Cermet	Cermet	Cermet															
		L	IC	S	D1	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBH053	YBM153	YBM215				YBM251	YBM253	YBS103	YBD052	YBD102	YBD152	YNG151	YNG151C	YD101	YD201					
LH For Al machining	RCGX0803MO-LH	8.0	8.0	3.18	3.36																																

★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

Applicable tool

SRDCN



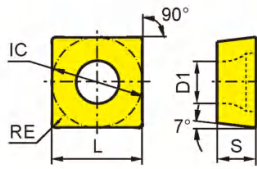
Page A186

SRGCR/L



A187

SC □ □ (Positive inserts)



☺ Good working condition 😐 Normal working condition ☹ Bad working condition

Workpiece material	Steel	Stainless steel	Cast iron	Non-ferrous metal	Heat resistant alloy, Ti alloy
P	☺☺☺☺☺☺☺☺☺☺	☺☺☺☺☺☺☺☺☺☺	☺☺☺☺☺☺☺☺☺☺	☺☺☺☺☺☺☺☺☺☺	☺☺☺☺☺☺☺☺☺☺
M	☺☺☺☺☺☺☺☺☺☺	☺☺☺☺☺☺☺☺☺☺	☺☺☺☺☺☺☺☺☺☺	☺☺☺☺☺☺☺☺☺☺	☺☺☺☺☺☺☺☺☺☺
K	☺☺☺☺☺☺☺☺☺☺	☺☺☺☺☺☺☺☺☺☺	☺☺☺☺☺☺☺☺☺☺	☺☺☺☺☺☺☺☺☺☺	☺☺☺☺☺☺☺☺☺☺
N	☺☺☺☺☺☺☺☺☺☺	☺☺☺☺☺☺☺☺☺☺	☺☺☺☺☺☺☺☺☺☺	☺☺☺☺☺☺☺☺☺☺	☺☺☺☺☺☺☺☺☺☺
S	☺☺☺☺☺☺☺☺☺☺	☺☺☺☺☺☺☺☺☺☺	☺☺☺☺☺☺☺☺☺☺	☺☺☺☺☺☺☺☺☺☺	☺☺☺☺☺☺☺☺☺☺

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide													Cermet	Coated cermet	Cemented carbide									
		L	IC	S	D1	RE	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YB9315	YB9320	YBH053	YBM153				YBM215	YBM251	YBM253	YBS103	YBD052	YBD102	YBD152	YNG151	YNG151C
 For finishing	SCMT09T304-XF	9.525	9.525	3.97	4.4	0.4	★	★																							
	SCMT09T308-XF	9.525	9.525	3.97	4.4	0.8	★	★																							
 For finishing	SCMT09T302-HF	9.525	9.525	3.97	4.4	0.2		○					○																		
	SCMT09T304-HF	9.525	9.525	3.97	4.4	0.4		●	○																						
	SCMT09T308-HF	9.525	9.525	3.97	4.4	0.8		●					○												○						○
 For finishing	SCMT09T302-EF	9.525	9.525	3.97	4.4	0.2				○	●	★			★	○															
	SCMT09T304-EF	9.525	9.525	3.97	4.4	0.4				○	●	★			★	○															
	SCMT09T308-EF	9.525	9.525	3.97	4.4	0.8				○	●	★			○	○															
 For finishing	SCMT09T304-AHF	9.525	9.525	3.97	4.4	0.4																									
	SCMT09T308-AHF	9.525	9.525	3.97	4.4	0.8																									

★Recommended grade (always stock available) ●Available grade (always stock available) ○Make-to-order

Applicable tool



Page A179

A180

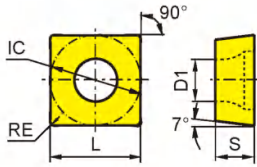
A181

A182

A204

Cemented carbide and cermet inserts

SC □ □ (Positive inserts)



😊 Good working condition 😐 Normal working condition 😞 Bad working condition

P Steel
M Stainless steel
K Cast iron
N Non-ferrous metal
S Heat resistant alloy, Ti alloy

Workpiece material	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YBG205H	YBG212	YBG302	YBH053	YBM215	YBM253	YBS103	YBD052	YBD102	YBD152	YNG151	YNG151C	YD101	YD201
P Steel	😊😊	😊😊	😊😊	😊😊	😊😊	😊😊	😊😊	😊😊	😊😊	😊😊	😊😊	😊😊	😊😊	😊😊	😊😊	😊😊	😊😊	😊😊	😊😊	😊😊	😊😊	😊😊	😊😊
M Stainless steel			😊😊	😊😊	😊😊	😊😊	😊😊	😊😊	😊😊	😊😊					😊😊	😊😊			😊😊	😊😊			
K Cast iron																							😊😊
N Non-ferrous metal																						😊😊	😊😊
S Heat resistant alloy, Ti alloy	😊😊	😊😊																			😊😊		😊😊

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																					
		L	IC	S	D1	RE	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YBG205H	YBG212	YBG302	YBH053	YBM215	YBM253	YBS103	YBD052	YBD102	YBD152	Cermet	Coated cermet	Cemented carbide
XM For semi-finishing	SCMT09T304-XM	9.525	9.525	3.97	4.4	0.4	★	★																				
	SCMT09T308-XM	9.525	9.525	3.97	4.4	0.8	★	★																				
	SCMT09T312-XM	9.525	9.525	3.97	4.4	1.2	★	★																				
	SCMT120408-XM	12.7	12.7	4.76	5.56	0.8	★	★																				
	SCMT120412-XM	12.7	12.7	4.76	5.56	1.2	★	★																				
HM For semi-finishing	SCMT09T304-HM	9.525	9.525	3.97	4.4	0.4		○																				
	SCMT09T308-HM	9.525	9.525	3.97	4.4	0.8		●	○			○																
	SCMT120404-HM	12.7	12.7	4.76	5.56	0.4		○																				
	SCMT120408-HM	12.7	12.7	4.76	5.56	0.8		●	○	●	○											●						
	SCMT120412-HM	12.7	12.7	4.76	5.56	1.2		○														○						
EM For semi-finishing	SCMT09T304-EM	9.525	9.525	3.97	4.4	0.4									●	★			○	★								
	SCMT09T308-EM	9.525	9.525	3.97	4.4	0.8									●	★	★		○	★								
	SCMT120404-EM	12.7	12.7	4.76	5.56	0.4									●	★			○	★								
	SCMT120408-EM	12.7	12.7	4.76	5.56	0.8									●	★	★		○	★								
	SCMT120412-EM	12.7	12.7	4.76	5.56	1.2									●	★			○	★								

★Recommended grade (always stock available) ●Available grade (always stock available) ○Make-to-order

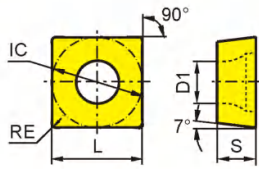
Applicable tool

SSBCR/L KAPR:75° 	SSDCN KAPR:45° 	SSKCR/L KAPR:75° 	SSSCR/L KAPR:45° 	SSKCR/L KAPR:75°
Page A179	A180	A181	A182	A204

Insert code key A48-A49	Grade selection reference A21/A38-A45	Chipbreaker selection reference A24-A37	Recommended cutting parameters A222-A224
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SC (Positive inserts)

Good working condition Normal working condition Bad working condition



Workpiece material	P Steel	M Stainless steel	K Cast iron	N Non-ferrous metal	S Heat resistant alloy, Ti alloy

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide												Cermet	Cermet coated carbide	Cemented carbide												
		L	IC	S	D1	RE	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBH053				YBM153	YBM215	YBM251	YBM253	YBS103	YBD052	YBD102	YBD152	YNG151	YNG151C	YD101	YD201
LC For Al machining	SCGX09T304-LC	9.525	9.525	3.97	4.4	0.4																											★
	SCGX09T308-LC	9.525	9.525	3.97	4.4	0.8																											★
	SCGX120408-LC	12.7	12.7	4.76	5.5	0.8																											★
LH For Al machining	SCGX09T302-LH	9.525	9.525	3.97	4.4	0.2																											○
	SCGX09T304-LH	9.525	9.525	3.97	4.4	0.4																											○
	SCGX09T308-LH	9.525	9.525	3.97	4.4	0.8																											★
	SCGX120404-LH	12.7	12.7	4.76	5.56	0.4																											○
HR For roughing	SCMT09T304-HR	9.525	9.525	3.97	4.4	0.4		★			●																						○
	SCMT09T308-HR	9.525	9.525	3.97	4.4	0.8		★																									●
	SCMT09T312-HR	9.525	9.525	3.97	4.4	1.2		★																									●
	SCMT120404-HR	12.7	12.7	4.76	5.56	0.4			○																								○
	SCMT120408-HR	12.7	12.7	4.76	5.56	0.8		★	○			○																					○
SCMT120412-HR	12.7	12.7	4.76	5.56	1.2			○																									○

★Recommended grade (always stock available) ●Available grade (always stock available) ○Make-to-order

Applicable tool



Page A179

A180

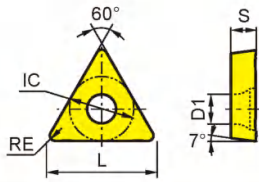
A181

A182

A204

Cemented carbide and cermet inserts

TC (Positive inserts)



☺ Good working condition ☹ Normal working condition ☹ Bad working condition

Workpiece material	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YBG205H	YBG212	YBG302	YBH053	YBM153	YBM215	YBM251	YBS103	YBD052	YBD102	YBD152	YNG151	YNG151C	YD101	YD201
P Steel	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺
M Stainless steel			☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺
K Cast iron																		☺	☺	☺	☺	☺	☺	☺
N Non-ferrous metal																							☺	☺
S Heat resistant alloy, Ti alloy																							☺	☺

General turning

Cemented carbide and cermet inserts

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																														
		L	IC	S	D1	RE	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YBG205H	YBG212	YBG302	YBH053	YBM153	YBM215	YBM251	YBS103	YBD052	YBD102	YBD152	Cermet	Coated cermet	Cemented carbide								
HF For finishing	TCMT06T104-HF	6.4	3.97	1.98	2.2	0.4		○																													
	TCMT06T108-HF	6.4	3.97	1.98	2.2	0.8		○																													
	TCMT090202-HF	9.6	5.56	2.38	2.5	0.2			★																												
	TCMT090204-HF	9.6	5.56	2.38	2.5	0.4			★																												
	TCMT090208-HF	9.6	5.56	2.38	2.5	0.8																															
	TCMT110202-HF	11	6.35	2.38	2.8	0.2																															
	TCMT110204-HF	11	6.35	2.38	2.8	0.4			★ ★																												
	TCMT110208-HF	11	6.35	2.38	2.8	0.8			○ ○																												
	TCMT16T302-HF	16.5	9.525	3.97	4.4	0.2			○																												
	TCMT16T304-HF	16.5	9.525	3.97	4.4	0.4			●																												
	TCMT16T308-HF	16.5	9.525	3.97	4.4	0.8			○																												
EF For finishing	TCMT090202-EF	9.6	5.56	2.38	2.5	0.2					○	●	★																								
	TCMT090204-EF	9.6	5.56	2.38	2.5	0.4					○	●	★																								
	TCMT110202-EF	11	6.35	2.38	2.8	0.2					○	●	★																								
	TCMT110204-EF	11	6.35	2.38	2.8	0.4					○	●	★ ★																								
	TCMT110208-EF	11	6.35	2.38	2.8	0.8					○	●	★																								
	TCMT16T304-EF	16.5	9.525	3.97	4.4	0.4					○	●	★																								
	TCMT16T308-EF	16.5	9.525	3.97	4.4	0.8					○	●	★																								

★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

Applicable tool



Page A183

A184

A185

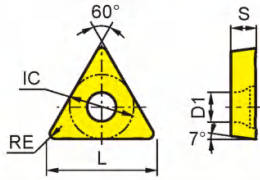
A205






General Turning Inserts



Cemented carbide and cermet inserts

TC (Positive inserts)



 Good working condition  Normal working condition  Bad working condition

Workpiece material	P Steel	M Stainless steel	K Cast iron	N Non-ferrous metal	S Heat resistant alloy, Ti alloy
P Steel					
M Stainless steel					
K Cast iron					
N Non-ferrous metal					
S Heat resistant alloy, Ti alloy					

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide											Cermet	Cermet coated carbide	Cemented carbide																			
		L	IC	S	D1	RE	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302				YBH053	YBM153	YBM215	YBM251	YBM253	YBS103	YBD052	YBD102	YBD152	YNG151	YNG151C	YD101	YD201						
HM  For semi-finishing	TCMT090204-HM	9.6	5.56	2.38	2.5	0.4		★																															
	TCMT090208-HM	9.6	5.56	2.38	2.5	0.8			○																														
	TCMT110204-HM	11	6.35	2.38	2.8	0.4		★	○																														
	TCMT110208-HM	11	6.35	2.38	2.8	0.8		★																															
	TCMT16T304-HM	16.5	9.525	3.97	4.4	0.4		★	★																														
	TCMT16T308-HM	16.5	9.525	3.97	4.4	0.8		★	★																														
	TCMT16T312-HM	16.5	9.525	3.97	4.4	1.2																○																	
HR  For roughing	TCMT090204-HR	9.6	5.56	2.38	2.5	0.4			○																														
	TCMT090208-HR	9.6	5.56	2.38	2.5	0.8																																	
	TCMT110204-HR	11	6.35	2.38	2.8	0.4			○																														
	TCMT110208-HR	11	6.35	2.38	2.8	0.8			○																														
	TCMT16T304-HR	16.5	9.525	3.97	4.4	0.4			○																														
	TCMT16T308-HR	16.5	9.525	3.97	4.4	0.8																																	
	TCMT16T312-HR	16.5	9.525	3.97	4.4	1.2																																	
TCMT220408-HR	22	12.7	4.76	5.5	0.8																																		

★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

Applicable tool



Page A183

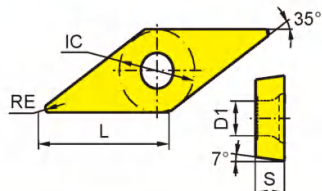
A184

A185

A205

Cemented carbide and cermet inserts

VC □ □ (Positive inserts)



☺ Good working condition ☹ Normal working condition ☹ Bad working condition

Workpiece material																		
P Steel	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺
M Stainless steel	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺
K Cast iron														☺	☺	☺	☺	☺
N Non-ferrous metal																		☺
S Heat resistant alloy, Ti alloy																		☺

General turning

Cemented carbide and cermet inserts

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide															Cermet	Coated cermet	Cemented carbide												
		L	IC	S	D1	RE	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YB9315	YB9320	YBH053	YBM153	YBM215	YBM251				YBM253	YBS103	YBD052	YBD102	YBD152	YNG151	YNG151C	YD101	YD201			
 For extra finishing	VCGT110302-SF	11	6.35	3.18	2.8	0.2																														
	VCGT110304-SF	11	6.35	3.18	2.8	0.4																														
 For finishing	VCMT110302-XF	11	6.35	3.18	2.8	0.2	★	★																												
	VCMT110304-XF	11	6.35	3.18	2.8	0.4	★	★																												
	VCMT110308-XF	11	6.35	3.18	2.8	0.8	★	★																												
	VCMT160404-XF	16.6	9.525	4.76	4.4	0.4	★	★																												
	VCMT160408-XF	16.6	9.525	4.76	4.4	0.8	★	★																												
 For finishing	VCMT160408-NF	16.5	9.525	4.76	4.4	0.8																														
 For finishing	VCMT160408-NGF	16.5	9.525	4.76	4.4	0.8																														
 For finishing	VCMT160404-AHF	16.6	9.525	4.76	4.4	0.4																														
	VCMT160408-AHF	16.6	9.525	4.76	4.4	0.8																														

★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

Applicable tool



Page A177



A178



A206

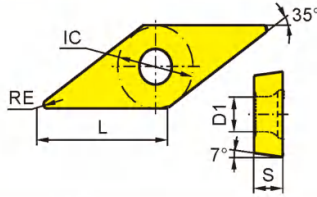


A207




Cemented carbide and cermet inserts

VC (Positive inserts)



😊 Good working condition 🙄 Normal working condition 😞 Bad working condition

Workpiece material	Steel	Stainless steel	Cast iron	Non-ferrous metal	Heat resistant alloy, Ti alloy
P	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
M	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
K	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
N	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
S	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide										Cermet	Coated cermet	Cemented carbide															
		L	IC	S	D1	RE	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212				YBG302	YBH053	YBM153	YBM215	YBM251	YBM253	YBS103	YBD052	YBD102	YBD152	YNG151	YNG151C	YD101	YD201	
 For semi-finishing	VCMT160404-XM	16.6	9.525	4.76	4.4	0.4	★	★																										
	VCMT160408-XM	16.6	9.525	4.76	4.4	0.8	★	★																										
	VCMT160412-XM	16.6	9.525	4.76	4.4	1.2	★	★																										

★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

General turning
Cemented carbide and cermet inserts



Applicable tool

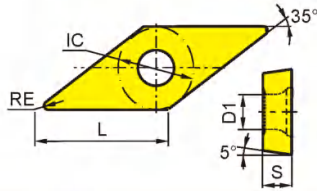
SVVCN KAPR:72°30' 	SVJCR/L KAPR:93° 	SVQCR/L KAPR:107°30' 	SVUCR/L KAPR:93° 
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Page A177 A178 A206 A207

Insert code key → **A48-A49** Grade selection reference → **A21/A38-A45** Chipbreaker selection reference → **A24-A37** Recommended cutting parameters → **A222-A224**

Cemented carbide and cermet inserts

VB (Positive inserts)



😊 Good working condition 😐 Normal working condition 😞 Bad working condition

Workpiece material
P Steel
M Stainless steel
K Cast iron
N Non-ferrous metal
S Heat resistant alloy, Ti alloy

P	Steel	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
M	Stainless steel	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
K	Cast iron	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
N	Non-ferrous metal	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
S	Heat resistant alloy, Ti alloy	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide													Cermet Coated carbide	Cemented carbide								
		L	IC	S	D1	RE	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBH053	YBM153			YBM215	YBM253	YBS103	YBD052	YBD102	YBD152	YNG151	YNG151C
	VBGT110302-SF	11	6.35	3.18	2.8	0.2																				○	○		
	VBGT110304-SF	11	6.35	3.18	2.8	0.4																					○	○	
For extra finishing																													
	VBMT110302-EF	11	6.35	3.18	2.8	0.2					○	●	★					★	○										
	VBMT110304-EF	11	6.35	3.18	2.8	0.4					○	●	★					★	○										
	VBMT110308-EF	11	6.35	3.18	2.8	0.8					○	●	★					○	○										
	VBMT160404-EF	16.5	9.525	4.76	4.4	0.4					○	●	★					★	●										
	VBMT160408-EF	16.5	9.525	4.76	4.4	0.8					○	●	★					○	●										
	VBMT110202-XF	11	6.35	2.38	2.8	0.2	★	★																					
	VBMT110204-XF	11	6.35	2.38	2.8	0.4	★	★																					
	VBMT110302-XF	11	6.35	3.18	2.8	0.2	★	★																					
	VBMT110304-XF	11	6.35	3.18	2.8	0.4	★	★																					
	VBMT160404-XF	16.5	9.525	4.76	4.4	0.4	★	★																					
	VBMT160408-XF	16.5	9.525	4.76	4.4	0.8	★	★																					
	VBMT110202-HF	11	6.35	2.38	2.8	0.2							●																
	VBMT110204-HF	11	6.35	2.38	2.8	0.4							○											○					
	VBMT110208-HF	11	6.35	2.38	2.8	0.8							○																

★Recommended grade (always stock available) ●Available grade (always stock available) ○Make-to-order

General turning

Cemented carbide and cermet inserts

Applicable tool



Page A174



A175



A176



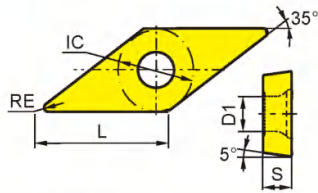
A208



A209

Insert code key → A48-A49 Grade selection reference → A21/A38-A45 Chipbreaker selection reference → A24-A37 Recommended cutting parameters → A222-A224

VB (Positive inserts)



😊 Good working condition 😬 Normal working condition 😞 Bad working condition

Workpiece material	P Steel	M Stainless steel	K Cast iron	N Non-ferrous metal	S Heat resistant alloy, Ti alloy
P Steel	😊😊😊😊😊😊😊😊😊😊				
M Stainless steel		😊😊😊😊😊😊😊😊😊😊			
K Cast iron			😊😊😊😊😊😊😊😊😊😊		
N Non-ferrous metal				😊😊😊😊😊😊😊😊😊😊	
S Heat resistant alloy, Ti alloy					😊😊😊😊😊😊😊😊😊😊

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide													Cermet	Coated cermet	Cemented carbide										
		L	IC	S	D1	RE	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YB9315	YB9320	YBH053	YBM153				YBM215	YBM251	YBM253	YBS103	YBD052	YBD102	YBD152	YNG151	YNG151C	YD101
 For finishing	VBET160404-NF	16.5	9.525	4.76	4.4	0.4						● ★																				
	VBET160408-NF	16.5	9.525	4.76	4.4	0.8						● ★																				
 For finishing	VBET160404-NGF	16.5	9.525	4.76	4.4	0.4					○ ●		○																			
	VBET160408-NGF	16.5	9.525	4.76	4.4	0.8					○ ●		○																			
	VBET160412-NGF	16.5	9.525	4.76	4.4	1.2					○ ●		○																			
 For finishing	VBMT160402-AHF	16.5	9.525	4.76	4.4	0.2											★ ★															
	VBMT160404-AHF	16.5	9.525	4.76	4.4	0.4											★ ★															
	VBMT160408-AHF	16.5	9.525	4.76	4.4	0.8											★ ★															
 For semi-finishing	VBMT110304-EM	11	6.35	3.18	2.8	0.4						● ★		○	★																	
	VBMT110308-EM	11	6.35	3.18	2.8	0.8						● ★		○	★																	
 For semi-finishing	VBMT160404-XM	16.5	9.525	4.76	4.4	0.4	★ ★																									
	VBMT160408-XM	16.5	9.525	4.76	4.4	0.8	★ ★																									
	VBMT160412-XM	16.5	9.525	4.76	4.4	1.2	★ ★																									

★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

Applicable tool

SVJBR/L
KAPR:93°



Page A174

SVABR/L
KAPR:90°



A175

SVVBN
KAPR:72°30'



A176

SVQBR/L
KAPR:107°30'



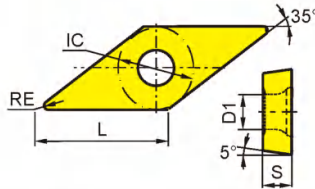
A208

SVUBR/L
KAPR:93°



A209

VB (Positive inserts)



😊 Good working condition 😐 Normal working condition 😞 Bad working condition

Workpiece material	P Steel	M Stainless steel	K Cast iron	N Non-ferrous metal	S Heat resistant alloy, Ti alloy
P Steel	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
M Stainless steel	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
K Cast iron	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
N Non-ferrous metal	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
S Heat resistant alloy, Ti alloy	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide												Cermet	Cermet Coated carbide	Cemented carbide													
		L	IC	S	D1	RE	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBH053				YBM153	YBM215	YBM251	YBM253	YBS103	YBD052	YBD102	YBD152	YNG151	YNG151C	YD101	YD201	
 For semi-finishing	VBMT160404-HM	16.5	9.525	4.76	4.4	0.4		★	★																									
	VBMT160408-HM	16.5	9.525	4.76	4.4	0.8		★	★																									
	VBMT160412-HM	16.5	9.525	4.76	4.4	1.2								○								○												
 For roughing	VBMT160404-HR	16.5	9.525	4.76	4.4	0.4		★	○																									
	VBMT160408-HR	16.5	9.525	4.76	4.4	0.8			○	○																○								
	VBMT160412-HR	16.5	9.525	4.76	4.4	1.2			○	○																								
	VBGT160408-HR	16.5	9.525	4.76	4.4	0.8			○	○																								
 For roughing	VBMT160408-SNR	16.5	9.525	4.76	4.4	0.8							○	●		○					★													
	VBMT160412-SNR	16.5	9.525	4.76	4.4	1.2							○	●		○						★												

★Recommended grade (always stock available) ●Available grade (always stock available) ○Make-to-order

General turning

Cemented carbide and cermet inserts

Applicable tool



Page A174



A175



A176



A208



A209

Insert code key **A48-A49**

Grade selection reference **A21/A38-A45**

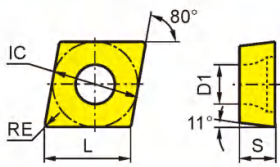
Chipbreaker selection reference **A24-A37**

Recommended cutting parameters **A222-A224**

TURNING General Turning Inserts

Cemented carbide and cermet inserts

CP (Positive inserts)



Workpiece material	P Steel	M Stainless steel	K Cast iron	N Non-ferrous metal	S Heat resistant alloy, Ti alloy
	☺☺☺☺☺☺☺☺☺☺	☺☺☺☺☺☺☺☺☺☺	☺☺☺☺☺☺☺☺☺☺	☺☺☺☺☺☺☺☺☺☺	☺☺☺☺☺☺☺☺☺☺

☺ Good working condition ☹ Normal working condition ☹☹ Bad working condition

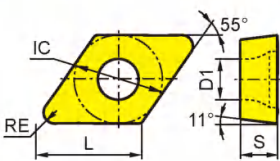
Inserts shape	Type	Dimensions(mm)					Coated cemented carbide															Cermet Coated cermet	Cemented carbide							
		L	IC	S	D1	RE	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBH053	YBM153	YBM215	YBM251			YBM253	YBS103	YBD052	YBD102	YBD152	YNG151	YNG151C
SF For extra finishing	CPGT060202-SF	6.4	6.35	2.38	2.8	0.2						○														○				
	CPGT060204-SF	6.4	6.35	2.38	2.8	0.4						○														○				
	CPGT09T304-SF	9.7	9.525	3.97	4.4	0.4						○														○	○			

★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

Applicable tool



DP (Positive inserts)



Workpiece material	P Steel	M Stainless steel	K Cast iron	N Non-ferrous metal	S Heat resistant alloy, Ti alloy
	☺☺☺☺☺☺☺☺☺☺	☺☺☺☺☺☺☺☺☺☺	☺☺☺☺☺☺☺☺☺☺	☺☺☺☺☺☺☺☺☺☺	☺☺☺☺☺☺☺☺☺☺

☺ Good working condition ☹ Normal working condition ☹☹ Bad working condition

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide															Cermet Coated cermet	Cemented carbide								
		L	IC	S	D1	RE	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBH053	YBM153	YBM215	YBM251			YBM253	YBS103	YBD052	YBD102	YBD152	YNG151	YNG151C	YD101
SF For extra finishing	DPGT070202-SF	7.8	6.35	2.38	2.8	0.2																				○	○				
	DPGT070204-SF	7.8	6.35	2.38	2.8	0.4																				○					
	DPGT070208-SF	7.8	6.35	2.38	2.8	0.8																									
	DPGT11T304-SF	11.6	9.525	3.97	4.4	0.4																					○				
	DPGT11T308-SF	11.6	9.525	3.97	4.4	0.8																									

★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

Applicable tool



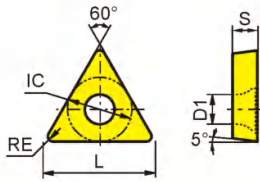
General turning

Cemented carbide and cermet inserts

General turning

Cemented carbide and cermet inserts

TB (Positive inserts)



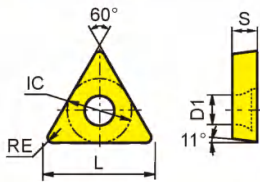
😊 Good working condition 😐 Normal working condition 😞 Bad working condition

Workpiece material	P Steel	M Stainless steel	K Cast iron	N Non-ferrous metal	S Heat resistant alloy, Ti alloy
P	😊😊😊😊😊😊😊😊😊😊😊😊				
M		😊😊😊😊😊😊😊😊😊😊😊😊			
K			😊😊😊😊😊😊😊😊😊😊😊😊		
N				😊😊😊😊😊😊😊😊😊😊😊😊	
S					😊😊😊😊😊😊😊😊😊😊😊😊

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																						
		L	IC	S	D1	RE	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBH053	YBM153	YBM215	YBM251	YBM253	YBS103	YBD052	YBD102	YBD152	Cermet	Cermet Coated cermet	Cemented carbide
For extra finishing	TBGH060102L	6.4	3.97	1.59	2.2	0.2																					★		
	TBGH060104L	6.4	3.97	1.59	2.2	0.4																							

★Recommended grade (always stock available) ●Available grade (always stock available) ○Make-to-order

TP (Positive inserts)



😊 Good working condition 😐 Normal working condition 😞 Bad working condition

Workpiece material	P Steel	M Stainless steel	K Cast iron	N Non-ferrous metal	S Heat resistant alloy, Ti alloy
P	😊😊😊😊😊😊😊😊😊😊😊😊				
M		😊😊😊😊😊😊😊😊😊😊😊😊			
K			😊😊😊😊😊😊😊😊😊😊😊😊		
N				😊😊😊😊😊😊😊😊😊😊😊😊	
S					😊😊😊😊😊😊😊😊😊😊😊😊

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																							
		L	IC	S	D1	RE	YBC103	YBC203	YBC152	YBC252	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBH053	YBM153	YBM215	YBM251	YBM253	YBS103	YBD052	YBD102	YBD152	Cermet	Cermet Coated cermet	Cemented carbide	
For extra finishing	TPGH090202L	9.6	5.56	2.38	2.8	0.2																						○		
	TPGH090204L	9.6	5.56	2.38	2.8	0.4																						●		
	TPGH110302L	11	6.35	3.18	3.18	0.2																						○		
	TPGH110304L	11	6.35	3.18	3.18	0.4																						●		

★Recommended grade (always stock available) ●Available grade (always stock available) ○Make-to-order

Insert code key
A48-A49

Grade selection reference
A21/A38-A45

Chipbreaker selection reference
A24-A37

Recommended cutting parameters
A222-A224

