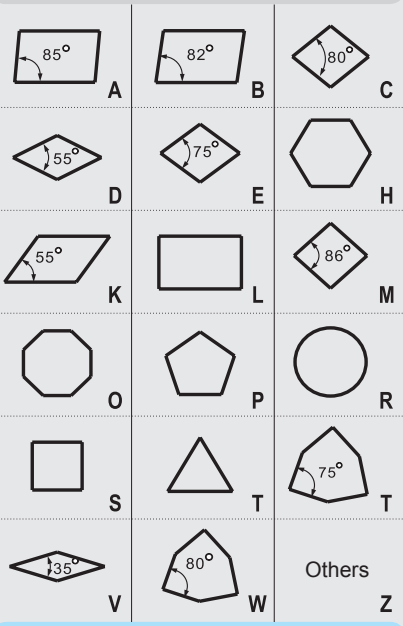
General turning inserts code key

Insert shape/Code



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	>65°	N	Without	Without	
H	With	Single-side	>65°	R	Without	Single-side	
C	With	Without	>65°	F	Without	Double-side	
J	With	Double-side	>65°	A	With	Without	
W	With	Without	≤65°	M	With	Single-side	
T	With	Single-side	≤65°	G	With	Double-side	
Q	With	Without	≤65°	X	---	---	Special
U	With	Double-side	≤65°				

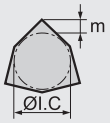
Chipbreaker and clamping system

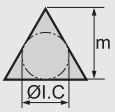
T N M G

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 ØI.C Tolerance(mm)	Thickness S Tolerance(mm)
A	±0.005	±0.025	±0.025
F	±0.005	±0.013	±0.025
C	±0.013	±0.025	±0.025
H	±0.013	±0.013	±0.025
E	±0.025	±0.025	±0.025
G	±0.025	±0.025	±0.13
J	±0.005	±0.05-±0.13	±0.025
K	±0.013	±0.05-±0.13	±0.025
L	±0.025	±0.05-±0.13	±0.025
M	±0.08-±0.18	±0.05-±0.13	±0.13
N	±0.08-±0.18	±0.05-±0.13	±0.025
U	±0.13-±0.38	±0.08-±0.25	±0.13

(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
6.35	±0.08	±0.08	±0.08	±0.11	±0.16	---
9.525	±0.08	±0.08	±0.08	±0.11	±0.16	---
12.7	±0.13	±0.13	±0.13	±0.15	---	---
15.875	±0.15	±0.15	±0.15	±0.18	---	---
19.05	±0.15	±0.15	±0.15	±0.18	---	---
25.4	---	±0.18	---	---	---	---

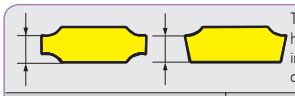
● Tolerance of inscribed circle ØI.C(mm)

Inscribed circle	Regular triangle	Square	Diamond with 80°	Diamond with 55°	Diamond with 35°	Round
6.35	±0.05	±0.05	±0.05	±0.05	±0.05	---
9.525	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05
12.7	±0.08	±0.08	±0.08	±0.08	---	±0.08
15.875	±0.10	±0.10	±0.10	±0.10	---	±0.10
19.05	±0.10	±0.10	±0.10	±0.10	---	±0.10
25.4	---	±0.13	---	---	---	±0.13

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

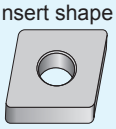
Nose radius code

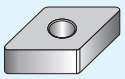
Code	Nose radius (mm)
00	No radius
02	0.2
04	0.4
08	0.8
12	1.2
16	1.6
20	2.0
24	2.4
32	3.2
X	Others
Diameter of insert (Metric)	Round insert

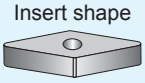
Chipbreaker code

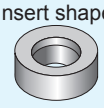
DF	DM	DR
HF	HM	HR
EF	EM	ER
NF	NM	SF
PM	HR	WGF

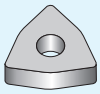
Metric and inch comparison table of negative inserts

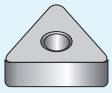
C-type negative angle	(ISO)	(Inch)	Chipbreaker
Insert shape 	090304	321	
	090308	322	-DF
	120404	431	-WGF
	120408	432	-SF
	120412	433	-EF
	120416	434	-NF
	160608	542	-WGM
	160612	543	-PM
	160616	544	-DM
	190608	642	-EM
	190612	643	-NM
	190616	644	-DR
	190624	646	-ER
	250724	856	-LR
	250732	858	-HPR
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

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

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

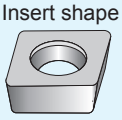
R-type negative angle	(ISO)	(Inch)	Chipbreaker
Insert shape 	120400	43	

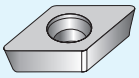
W-type negative angle	(ISO)	(Inch)	Chipbreaker
Insert shape 	06T304	3(2.5)1	-DF
	06T308	3(2.5)2	-WGF
	06T312	3(2.5)3	-SF
	060404	331	-EF
	060408	332	-NF
	060412	333	-WGM
	080404	431	-PM
	080408	432	-DM
	080412	433	-EM
			-NM
			-DR
			-SNR

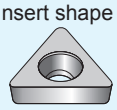
T-type negative angle	(ISO)	(Inch)	Chipbreaker
Insert shape 	110304	221	-DF
	110308	222	-WGF
	160404	331	-SF
	160408	332	-EF
	160412	333	-WGM
	220404	431	-PM
	220408	432	-DM
	220412	433	-EM
	220416	434	-DR
	270608	542	-ER
	270612	543	-LR
	270616	544	-SNR

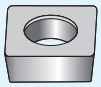
S-type negative angle	(ISO)	(Inch)	Chipbreaker
Insert shape 	090304	321	
	090308	322	
	090312	323	
	120404	431	-DF
	120408	432	-SF
	120412	433	-EF
	120416	434	-PM
	150608	542	-DM
	150612	543	-EM
	150616	544	-NM
	190412	633	-DR
	190424	636	-ER
	190612	643	-LR
	190616	644	-HPR
	250724	856	-SNR
	250732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

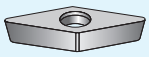
Metric and inch comparison table of positive insert

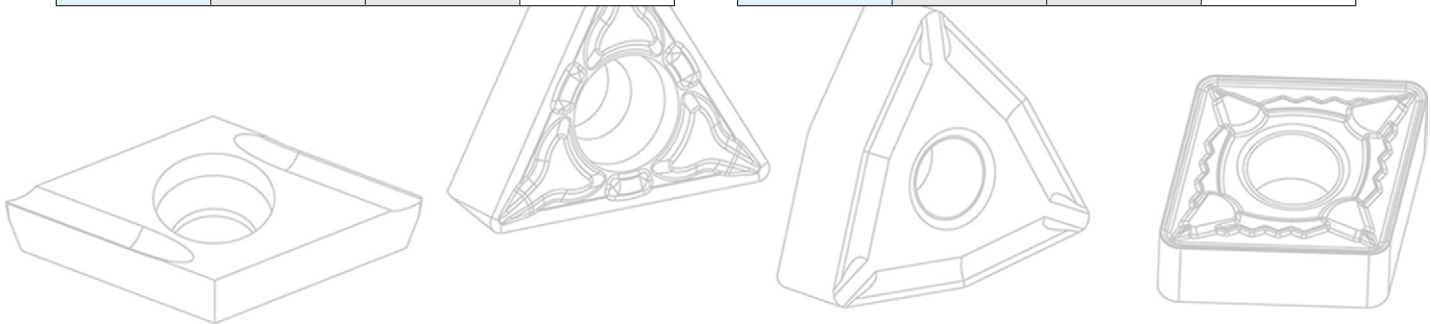
C-type positive angle	(ISO)	(Inch)	Chipbreaker
Insert shape 	060202	2(1.5)0	-USF
	060204	2(1.5)1	-SF
	060208	2(1.5)2	-HF
	09T302	3(2.5)0	-EF
	09T304	3(2.5)1	-HM
	09T308	3(2.5)2	-EM
	120404	431	-HR
	120408	432	-LH
	120412	433	-LC

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

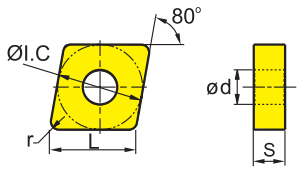
T-type positive angle	(ISO)	(Inch)	Chipbreaker
Insert shape 	06T102	1.2(1.2)0	
	06T104	1.2(1.2)1	
	06T108	1.2(1.2)2	
	090202	1.8(1.5)0	
	090204	1.8(1.5)1	
	090208	1.8(1.5)2	
	110202	2(1.5)0	
	110204	2(1.5)1	
	110208	2(1.5)2	-USF
	110302	220	-SF
	110304	221	-HF
	110308	222	-EF
	16T302	3(2.5)0	-HM
	16T304	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	
	09T308	3(2.5) 2	-HF
	120404	431	-EF
	120408	432	-HM
	120412	433	-EM
	150404	531	-HR
	150408	532	-LH
	150412	533	-LC
	190408	632	
	190412	633	
	190416	634	

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



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

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
DF	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		★	●	★	○				○						○						●					
For finishing	CNMG120412-DF	12.9	12.7	4.76	5.16	1.2		★	○	○											○											
WGF	CNMG120404-WGF	12.9	12.7	4.76	5.16	0.4		★												★			★									
	CNMG120408-WGF	12.9	12.7	4.76	5.16	0.8		★												★			★									
For finishing Wiper																																
SF	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							○															★				
For finishing	CNMG120412-SF	12.9	12.7	4.76	5.16	1.2							○														○					
EF	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							●		●	★				★												
For finishing	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

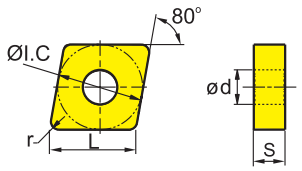

DCLNR/L
Kr:95°
Page A154


PCBNR/L
Kr:75°
A161


PCLNR/L
Kr:95°
A162


PCLNR/L
Kr:95°
A202

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

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
NF	CNEG120404-NF	12.9	12.7	4.76	5.16	0.4							●	★																		○	
	CNEG120408-NF	12.9	12.7	4.76	5.16	0.8							○	★																		○	
	CNEG120412-NF	12.9	12.7	4.76	5.16	1.2							○	★																		○	
For finishing																																	
WGM	CNMG120408-WGM	12.9	12.7	4.76	5.16	0.8				★						★									★								
	CNMG120412-WGM	12.9	12.7	4.76	5.16	1.2				★						★									★								
For finishing Wiper																																	
PM	CNMG090304-PM	9.7	9.525	3.18	3.81	0.4		★	●	○																							
	CNMG090308-PM	9.7	9.525	3.18	3.81	0.8		○	●	○															★								
	CNMG120404-PM	12.9	12.7	4.76	5.16	0.4		★	●	★	○													★	★	○								
	CNMG120408-PM	12.9	12.7	4.76	5.16	0.8	●	★	●	★	●													★	★	★								
	CNMG120412-PM	12.9	12.7	4.76	5.16	1.2		○	●	★	●													★	★	★								
	CNMG120416-PM	12.9	12.7	4.76	5.16	1.6		★	●	○	●													★	○									
	CNMG160608-PM	16.1	15.875	6.35	6.35	0.8	●	○	●	○	○													○	○									
	CNMG160612-PM	16.1	15.875	6.35	6.35	1.2	●	○	●	○	●													★	○									
	CNMG160616-PM	16.1	15.875	6.35	6.35	1.6			●	○														○	○									
	CNMG190608-PM	19.3	19.05	6.35	7.94	0.8		★	●	○	○														★									
	CNMG190612-PM	19.3	19.05	6.35	7.94	1.2		★	●	★	●													○	★									
	CNMG190616-PM	19.3	19.05	6.35	7.94	1.6	●	★	●	○	●													○										
For semi-finishing																																	

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

Applicable tool

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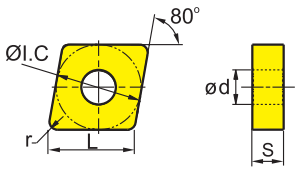
A161

A162

A202

Insert code key A50–A51
Grade selection reference A19/A36–A47
Chipbreaker selection reference A22–A35
Recommended cutting parameters A230–A232

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

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
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			●	★	○										○											
EM For semi-finishing	CNMG120404-EM	12.9	12.7	4.76	5.16	0.4									●	★						★										
	CNMG120408-EM	12.9	12.7	4.76	5.16	0.8									●	★						★										
	CNMG120412-EM	12.9	12.7	4.76	5.16	1.2									●	★						★										
	CNMG160608-EM	16.1	15.875	6.35	6.35	0.8							○		○	★						★										
	CNMG160612-EM	16.1	15.875	6.35	6.35	1.2									○	★						★										
	CNMG160616-EM	16.1	15.875	6.35	6.35	1.6									○	★						★										

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

Applicable tool

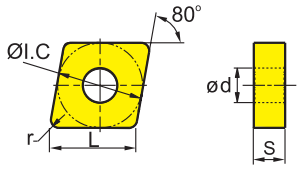

DCLNR/L
Kr:95°
Page A154


PCBNR/L
Kr:75°
A161


PCLNR/L
Kr:95°
A162


PCLNR/L
Kr:95°
A202

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

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
NM	CNMG120404-NM	12.9	12.7	4.76	5.16	0.4							○	★																		○	
	CNMG120408-NM	12.9	12.7	4.76	5.16	0.8							●	★																		○	
For semi-finishing	CNMG120412-NM	12.9	12.7	4.76	5.16	1.2							○	★																		○	
LR	CNMM120408-LR	12.9	12.7	4.76	5.16	0.8				★																							
	CNMM120412-LR	12.9	12.7	4.76	5.16	1.2				★																							
Light-load roughing	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				★																							

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

Applicable tool

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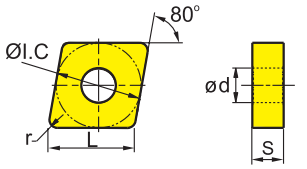
Insert code key A50–A51
Grade selection reference A19/A36–A47
Chipbreaker selection reference A22–A35
Recommended cutting parameters A230–A232

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

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
DR For light 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	○	●	○	●																						
DR 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		○	★	○																						
ER 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															★											
ER 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				★											★											
SNR 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

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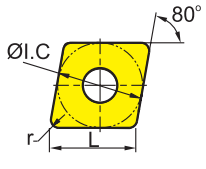
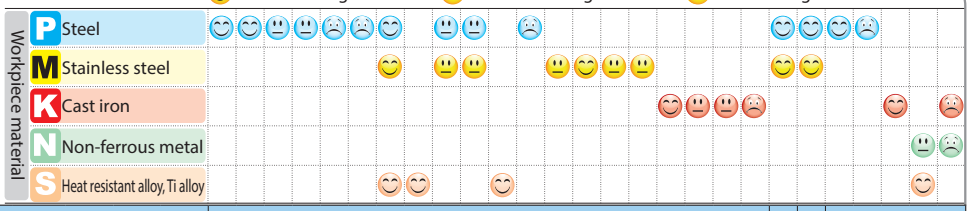
CN□□ (Negative inserts)



Good working condition Normal working condition Bad working condition

Workpiece material



Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
HPR  For heavy machining	CNMM190616-HPR	19.5	19.05	6.35	7.94	1.6				★		○																			
	CNMM250924-HPR	25.19	25.4	9.525	9.12	2.4				★		○																			
Without chipbreaker 	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																○	★	★							

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

Applicable tool

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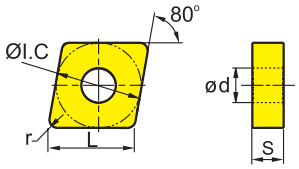
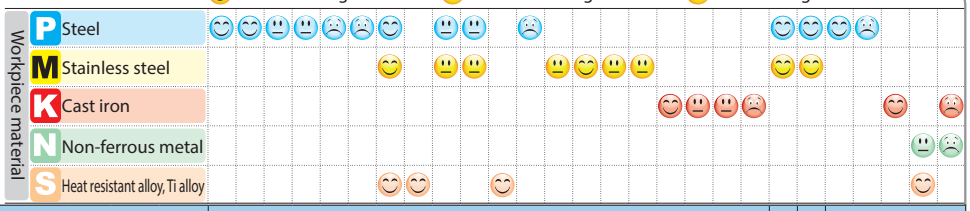
Insert code key A50–A51
Grade selection reference A19/A36–A47
Chipbreaker selection reference A22–A35
Recommended cutting parameters A230–A232

CN□□ (Negative inserts)



Good working condition Normal working condition Bad working condition



Inserts shape	Type	Dimensions(mm)					Coated cemented carbide															Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
All round	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	○		○		○																						
All round	CNMM120404	12.9	12.7	4.76	5.16	0.4	○																										
	CNMM120408	12.9	12.7	4.76	5.16	0.8	○		○																								
	CNMM120412	12.9	12.7	4.76	5.16	1.2	○																						○	○			
	CNMM190608	19.3	19.05	6.35	7.94	0.8					○																		○				
	CNMM190612	19.3	19.05	6.35	7.94	1.2			○		○																						
	CNMM190616	19.3	19.05	6.35	7.94	1.6			○																								
	CNMM190624	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

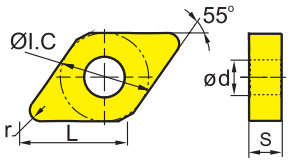

DCLNR/L
Kr:95°
Page A154


PCBNR/L
Kr:75°
A161

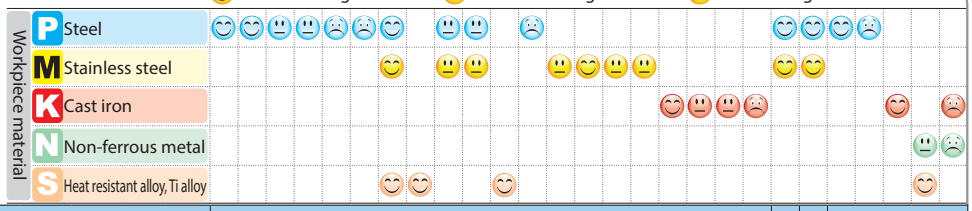

PCLNR/L
Kr:95°
A162


PCLNR/L
Kr:95°
A202

DN□□ (Negative inserts)



Good working condition Normal working condition Bad working condition



Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
DF For finishing	DNMG110404-DF	11.6	9.525	4.76	3.81	0.4		○	●	○																●						
	DNMG110408-DF	11.6	9.525	4.76	3.81	0.8		○	○	○																						
	DNMG110412-DF	11.6	9.525	4.76	3.81	1.2		○	○																							
	DNMG150404-DF	15.5	12.7	4.76	5.16	0.4		★	●	★																						
	DNMG150408-DF	15.5	12.7	4.76	5.16	0.8		★	●	★																						
	DNMG150412-DF	15.5	12.7	4.76	5.16	1.2		○		○																						
	DNMG150604-DF	15.5	12.7	6.35	5.16	0.4	●	★	●	★											○											
	DNMG150608-DF	15.5	12.7	6.35	5.16	0.8		★	●	○																						
	DNMG150612-DF	15.5	12.7	6.35	5.16	1.2			○																							
WGF For finishing Wiper	DNMX110404-WGF	11.6	9.525	4.76	3.81	0.4		★												★			★									
	DNMX110408-WGF	11.6	9.525	4.76	3.81	0.8		★												★			★									
	DNMX150404-WGF	15.5	12.7	4.76	5.16	0.4		★												★			★									
	DNMX150408-WGF	15.5	12.7	4.761	5.16	0.8		★												★			★									
	DNMX150604-WGF	15.5	12.7	6.35	5.16	0.4		★												★			★									
	DNMX150608-WGF	15.5	12.7	6.35	5.16	0.8		★												★			★									

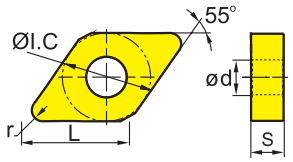
★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

Applicable tool

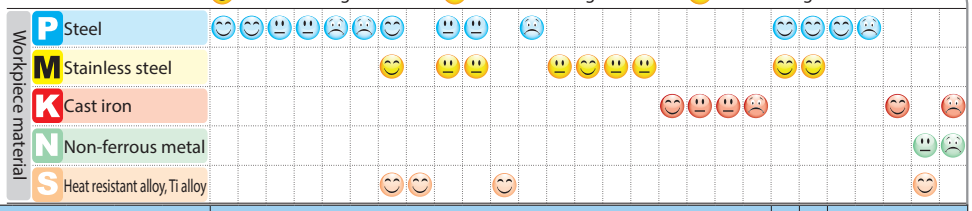
Page A155 A163 A164 A203 A204

Insert code key A50–A51
Grade selection reference A19/A36–A47
Chipbreaker selection reference A22–A35
Recommended cutting parameters A230–A232

DN□□ (Negative inserts)



Good working condition Normal working condition Bad working condition

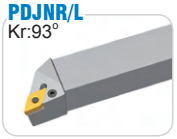


Inserts shape	Type	Dimensions(mm)					Coated cemented carbide															Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
SF	DNMG110404-SF	11.6	9.525	4.76	3.81	0.4							○														○	★					
	DNMG150404-SF	15.5	12.7	4.76	5.16	0.4							○														○	★					
	DNMG150408-SF	15.5	12.7	4.76	5.16	0.8							○														○	★					
	DNMG150604-SF	15.5	12.7	6.35	5.16	0.4							○														○	★					
For finishing	DNMG150608-SF	15.5	12.7	6.35	5.16	0.8							○														○	★					
EF	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									●	★				★													
For finishing	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									○	★				★													
NF	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							●	★																		○	
For finishing	DNEG150608-NF	15.5	12.7	6.35	5.16	0.8							●	★																		○	
NGF	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							○	●			○																
For finishing	DNEG150612-NGF	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


DDJNR/L
Kr:93°
Page A155

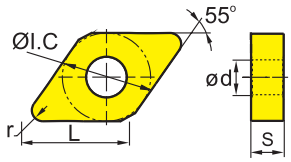

PDJNR/L
Kr:93°
A163


PDPNN
Kr:62°30'
A164


PDPNR/L
Kr:62°30'
A203

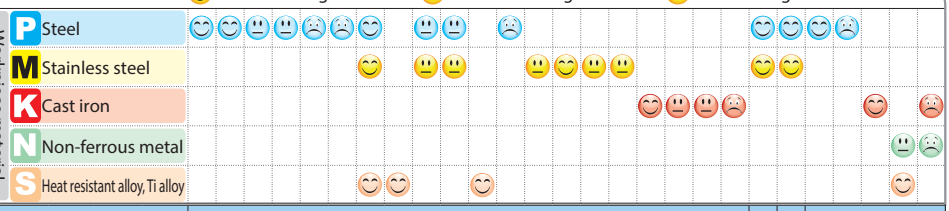

PDUNR/L
Kr:93°
A204

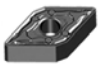
DN□□ (Negative inserts)



Good working condition Normal working condition Bad working condition

Workpiece material



Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
WGM  For semi-finishing Wiper	DNMX150408-WGM	15.5	12.7	4.76	5.16	0.8				★					★									★							
	DNMX150412-WGM	15.5	12.7	4.76	5.161	1.2				★					★									★							
	DNMX150608-WGM	15.5	12.7	6.35	5.16	0.8				★					★									★							
	DNMX150612-WGM	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			○	○																						

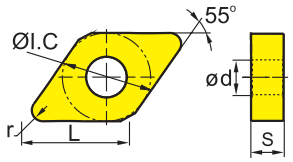
★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

Applicable tool

Page A155 A163 A164 A203 A204

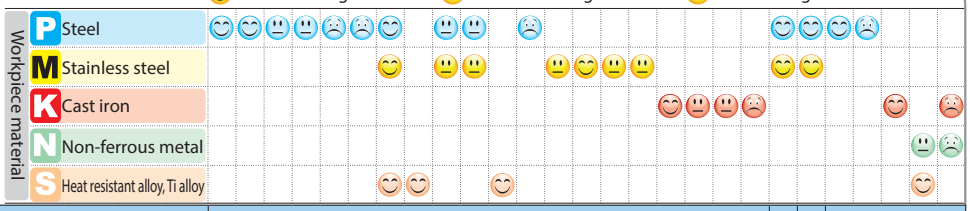
Insert code key A50–A51
Grade selection reference A19/A36–A47
Chipbreaker selection reference A22–A35
Recommended cutting parameters A230–A232

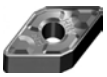
DN□□ (Negative inserts)



Good working condition Normal working condition Bad working condition

Workpiece material

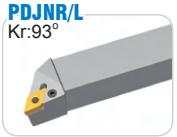


Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
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	○	○	○																							
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									○	★						★										
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


DDJNR/L
Kr:93°
Page A155

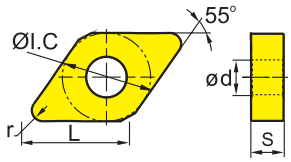

PDJNR/L
Kr:93°
A163


PDPNN
Kr:62°30'
A164

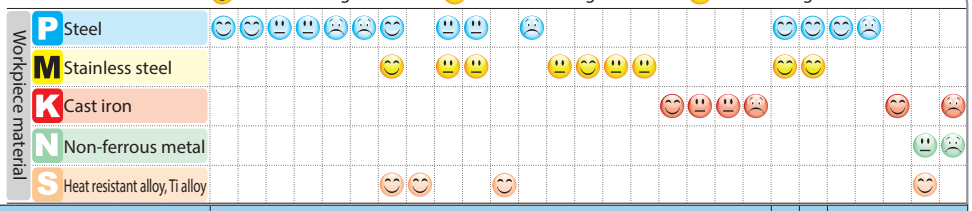

PDPNR/L
Kr:62°30'
A203


PDUNR/L
Kr:93°
A204

DN□□ (Negative inserts)



Good working condition Normal working condition Bad working condition



Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
LR	DNMM150608-LR	15.5	12.7	6.35	5.16	0.8				★																						
	DNMM150612-LR	15.5	12.7	6.35	5.16	1.2				★																						
	DNMM150616-LR	15.5	12.7	6.35	5.16	1.6				★																						
Light-load roughing																																
DR	DNMG150408-DR	15.5	12.7	4.76	5.16	0.8				○																						
	DNMG150412-DR	15.5	12.7	4.76	5.16	1.2				○		●																				
	DNMG150416-DR	15.5	12.7	4.76	5.16	1.6				○	○																					
	DNMG150608-DR	15.5	12.7	6.35	5.16	0.8		★	○	○	○													●	●							
	DNMG150612-DR	15.5	12.7	6.35	5.16	1.2		○	●	★	○													○	●							
	DNMG150616-DR	15.5	12.7	6.35	5.16	1.6					○														○							
For light roughing																																
DR	DNMM150608-DR	15.5	12.7	6.35	5.16	0.8		○	○																							
	DNMM150612-DR	15.5	12.7	6.35	5.16	1.2		○	●																							
	DNMM150616-DR	15.5	12.7	6.35	5.16	1.6					○																					
For roughing																																
ER	DNMG150608-ER	15.5	12.7	6.35	5.16	0.8																★										
	DNMG150612-ER	15.5	12.7	6.35	5.16	1.2																★										
For roughing																																
ER	DNMM150608-ER	15.5	12.7	6.35	5.16	0.8																★										
	DNMM150612-ER	15.5	12.7	6.35	5.16	1.2																★										
For roughing																																
SNR	DNMG150608-SNR	15.5	12.7	6.35	5.16	0.8							○	●		○																
	DNMG150612-SNR	15.5	12.7	6.35	5.16	1.2							○	●		○																
For roughing																																

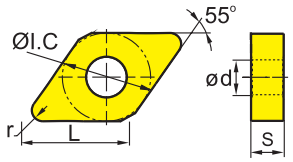
★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

Applicable tool

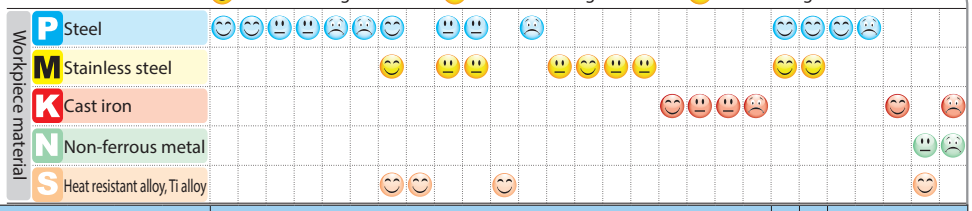
Page A155 A163 A164 A203 A204

Insert code key A50–A51
Grade selection reference A19/A36–A47
Chipbreaker selection reference A22–A35
Recommended cutting parameters A230–A232

DN□□ (Negative inserts)



Good working condition Normal working condition Bad working condition



Inserts shape	Type	Dimensions(mm)					Coated cemented carbide															Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
All round	**DNMG150604**	15.5	12.7	6.35	5.16	0.4			○																							
	DNMG150608	15.5	12.7	6.35	5.16	0.8			○																							
	DNMG150612	15.5	12.7	6.35	5.16	1.2			○																							
	DNMG150616	15.5	12.7	6.35	5.16	1.6			○																							
	DNMG190608	19.3	15.875	6.35	7.94	0.8			○																							
	DNMG190612	19.3	15.875	6.35	7.94	1.2			○		○																		○				
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

Applicable tool


DDJNR/L Kr:93°
Page A155

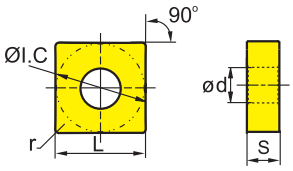

PDJNR/L Kr:93°
A163


PDPNN Kr:62°30'
A164


PDPNR/L Kr:62°30'
A203

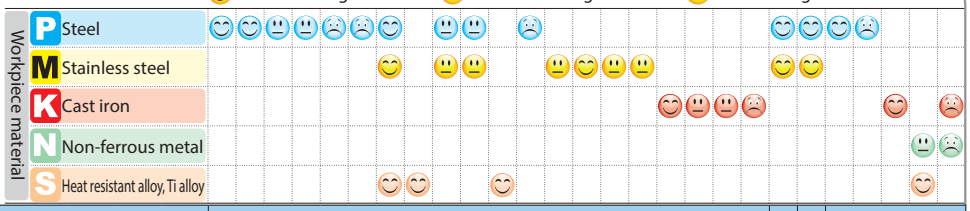

PDUNR/L Kr:93°
A204

SN□□ (Negative inserts)



Good working condition Normal working condition Bad working condition

Workpiece material



Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
DF	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	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									○	★				★											
SF	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							○													○					

For finishing

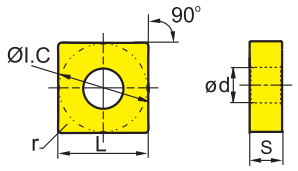
★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

Applicable tool

Page A156 A165 A166 A167 A168 A205

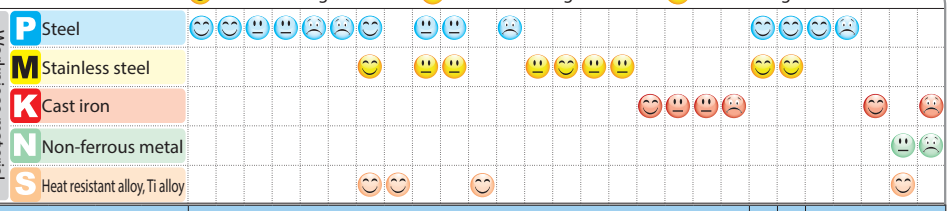
Insert code key A50–A51
Grade selection reference A19/A36–A47
Chipbreaker selection reference A22–A35
Recommended cutting parameters A230–A232

SN□□ (Negative inserts)



Good working condition Normal working condition Bad working condition

Workpiece material



Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
PM  For semi-finishing	SNMG090304-PM	9.525	9.525	3.18	3.81	0.4		○	●	○																						
	SNMG090308-PM	9.525	9.525	3.18	3.81	0.8		○	●	○	○												○									
	SNMG090312-PM	9.525	9.525	3.18	3.81	1.2		○		○																						
	SNMG120404-PM	12.7	12.7	4.76	5.16	0.4		○	●	○	○												○									
	SNMG120408-PM	12.7	12.7	4.76	5.16	0.8		●	●	○	●												★	★	★							
	SNMG120412-PM	12.7	12.7	4.76	5.16	1.2		●	●	○	○												★	★	★							
	SNMG120416-PM	12.7	12.7	4.76	5.16	1.6			●	○	○													○								
	SNMG150608-PM	15.875	15.875	6.35	6.35	0.8				○																						
	SNMG150612-PM	15.875	15.875	6.35	6.35	1.2		●	●	○													○	●								
	SNMG190616-PM	19.05	19.05	6.35	7.94	1.6			●	○																						
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				○																						

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

Applicable tool


DSBNR/L Kr:75° Page A156


PSBNR/L Kr:75° A165

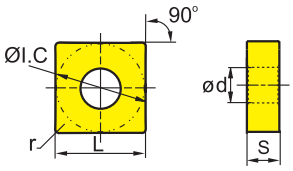

PSDNN Kr:45° A166


PSKNR/L Kr:75° A167


PSSNR/L Kr:45° A168


PSKNR/L Kr:75° A205

SN□□ (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	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
EM	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									○	★						★										
For semi-finishing	SNMG150612-EM	15.875	15.875	6.35	6.35	1.2									●	★						★										
	SNMG150616-EM	15.875	15.875	6.35	6.35	1.6									○	★						★										
NM	SNMG120408-NM	12.7	12.7	4.76	5.16	0.8							●	★																	○	
	SNMG120412-NM	12.7	12.7	4.76	5.16	1.2							○	★																	○	
For semi-finishing																																
LR	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				★																						
Light-load roughing	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				★																						

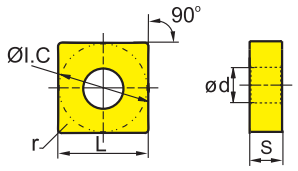
★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

Applicable tool

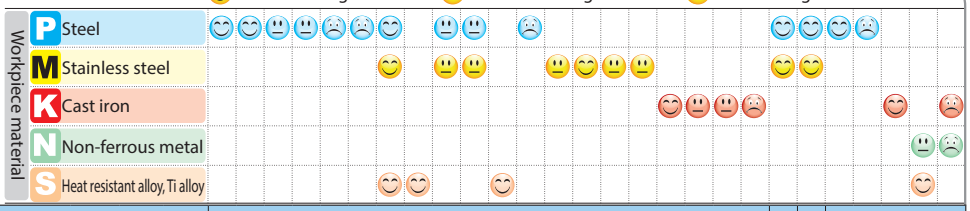
Page A156 A165 A166 A167 A168 A205

Insert code key A50–A51
Grade selection reference A19/A36–A47
Chipbreaker selection reference A22–A35
Recommended cutting parameters A230–A232

SN□□ (Negative inserts)



Good working condition Normal working condition Bad working condition



Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
DR  For light 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			●	○	○	●																				
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					○																					

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

Applicable tool


DSBNR/L Kr:75° — Page A156


PSBNR/L Kr:75° — A165

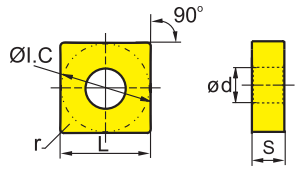

PSDNN Kr:45° — A166


PSKNR/L Kr:75° — A167

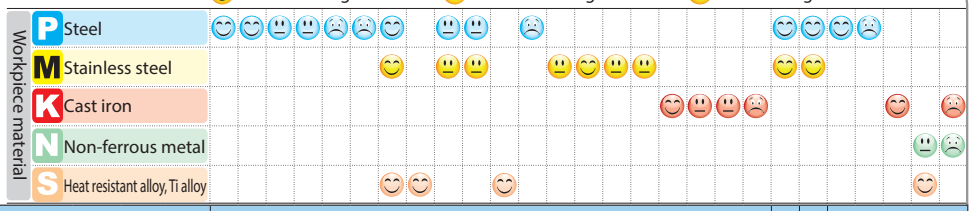

PSSNR/L Kr:45° — A168


PSKNR/L Kr:75° — A205

SN□□ (Negative inserts)



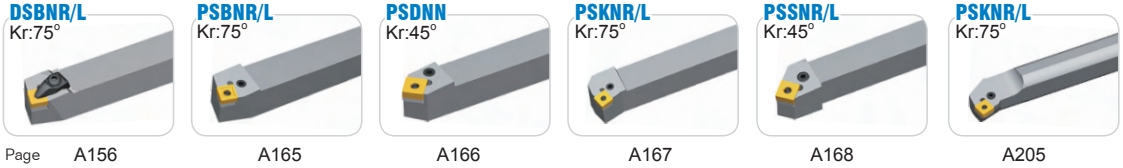
Good working condition　Normal working condition　Bad working condition



Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
DR	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			●		○																					
For roughing	SNMM250924-DR	25.4	25.4	9.525	9.12	2.4			●	★	●																					
ER	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																★										
For roughing	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

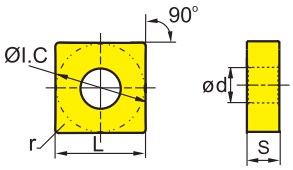
Applicable tool



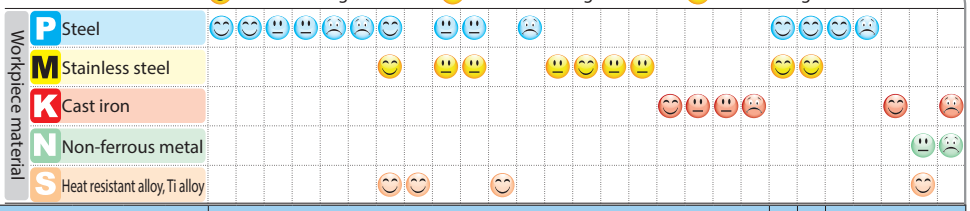
Page　A156　A165　A166　A167　A168　A205

Insert code key A50–A51　Grade selection reference A19/A36–A47　Chipbreaker selection reference A22–A35　Recommended cutting parameters A230–A232

SN□□ (Negative inserts)



Good working condition Normal working condition Bad working condition



Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
ER	SNMM250724-ER	25.4	25.4	7.94	9.12	2.4				●												★										
	SNMM250732-ER	25.4	25.4	7.94	9.12	3.2				●												★										
	SNMM250924-ER	25.4	25.4	9.525	9.12	2.4				●												★										
For roughing	SNMM250932-ER	25.4	25.4	9.525	9.12	3.2				●												★										
SNR	SNMG120408-SNR	12.7	12.7	4.76	5.16	0.8							○	●			○															
																																
For roughing																																
HPR	SNMM190616-HPR	19.5	19.05	6.35	7.94	1.6				★		○																				
	SNMM250924-HPR	25.4	25.4	9.525	9.12	2.4				★		○																				
For heavy machining																																

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

Applicable tool

Page A156

A165

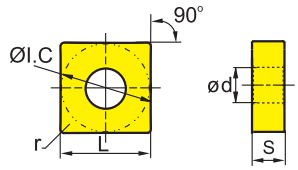
A166

A167

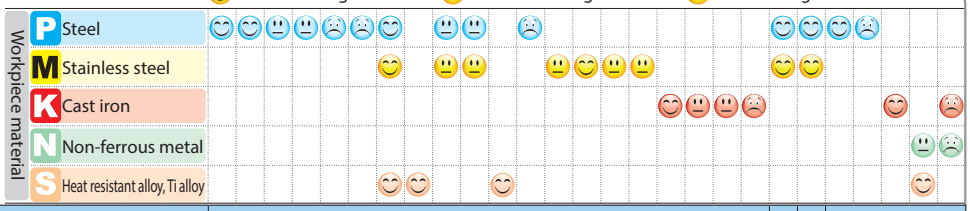
A168

A205

SN□□ (Negative inserts)



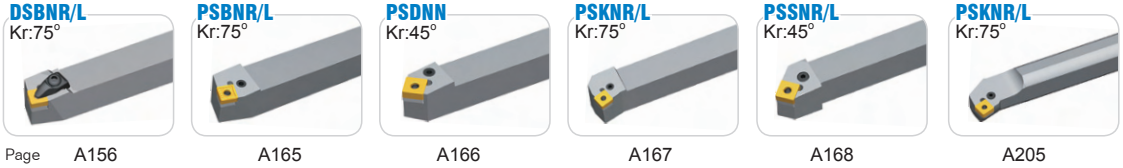
Good working condition Normal working condition Bad working condition



Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
All round	SNMG090304	9.525	9.525	3.18	3.81	0.4			○																						
	SNMG090308	9.525	9.525	3.18	3.81	0.8			○		○																					
	SNMG120404	12.7	12.7	4.76	5.16	0.4			●																						
	SNMG120408	12.7	12.7	4.76	5.16	0.8	○		●		○										●				○							
	SNMG120412	12.7	12.7	4.76	5.16	1.2			○	○	●																					
	SNMG120416	12.7	12.7	4.76	5.16	1.6	○		○																							
	SNMG150608	15.875	15.875	6.35	6.35	0.8			○																							
	SNMG150612	15.875	15.875	6.35	6.35	1.2	○		●																							
	SNMG190612	19.05	19.05	6.35	7.94	1.2	○		●		○																					
	SNMG190616	19.05	19.05	6.35	7.94	1.6	○		●																							
	SNMG250724	25.4	25.4	7.94	9.12	2.4	○		○		●																					
	SNMG250924	25.4	25.4	9.525	9.12	2.4			○		●																					
All round	SNMM090304	9.525	9.525	3.18	3.81	0.4																										○
	SNMM090308	9.525	9.525	3.18	3.81	0.8			○																							
	SNMM120408	12.7	12.7	4.76	5.16	0.8	○																									
	SNMM120412	12.7	12.7	4.76	5.16	1.2			○																							
	SNMM120416	12.7	12.7	4.76	5.16	1.6			○																							

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

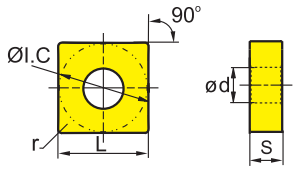
Applicable tool



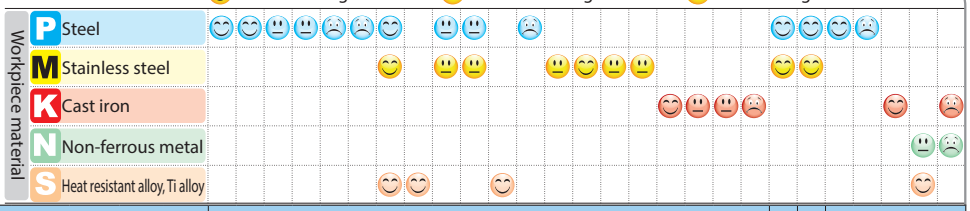
Page A156 A165 A166 A167 A168 A205

Insert code key A50–A51
Grade selection reference A19/A36–A47
Chipbreaker selection reference A22–A35
Recommended cutting parameters A230–A232

SN□□ (Negative inserts)



Good working condition Normal working condition Bad working condition



Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
All round	SNMM190608	19.05	19.05	6.35	7.94	0.8			○																							
	SNMM190612	19.05	19.05	6.35	7.94	1.2			○																							
	SNMM190616	19.05	19.05	6.35	7.94	1.6																							●			
	SNMM250724	25.4	25.4	7.94	9.12	2.4			●		●																					
	SNMM250924	25.4	25.4	9.525	9.12	2.4					○																					
Without chipbreaker	SNMA090304	9.525	9.525	3.18	3.81	0.4																			○							
	SNMA090308	9.525	9.525	3.18	3.81	0.8																	○	○								
	SNMA120404	12.7	12.7	4.76	5.16	0.4																	○									
	SNMA120408	12.7	12.7	4.76	5.16	0.8																	○	★	★					○		●
	SNMA120416	12.7	12.7	4.76	5.16	1.6																	○	○	★							
	SNMA150608	15.875	15.875	6.35	6.35	0.8																										
	SNMA150612	15.875	15.875	6.35	6.35	1.2																			★					●		
	SNMA190612	19.05	19.05	6.35	7.94	1.2																	○	○	★							
	SNMA190616	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


DSBNR/L Kr:75° — Page A156


PSBNR/L Kr:75° — A165

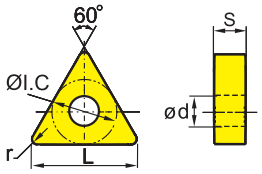

PSDNN Kr:45° — A166


PSKNR/L Kr:75° — A167

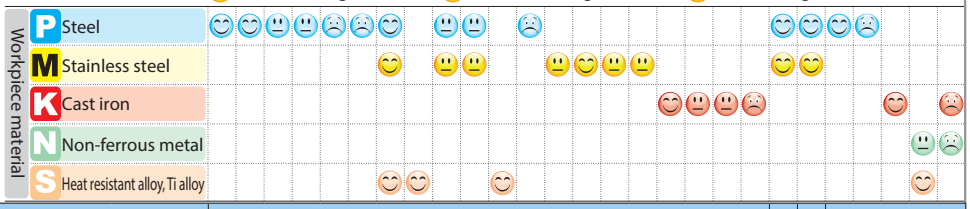

PSSNR/L Kr:45° — A168


PSKNR/L Kr:75° — A205

TN□□ (Negative inserts)



Good working condition Normal working condition Bad working condition



Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
DF	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		★	○	○																							
For finishing	TNMG220412-DF	22	12.7	4.76	5.16	1.2		○																									
WGF	TNMX160404-WGF	16.5	9.525	4.76	3.81	0.4		★												★			★										
	TNMX160408-WGF	16.5	9.525	4.76	3.81	0.8		★												★			★										
For finishing Wiper																																	
SF	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							○														○	★					
For finishing	TNMG220412-SF	22	12.7	4.76	5.16	1.2							○														○	★					

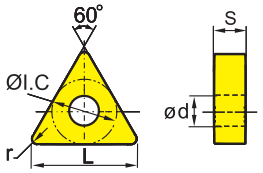
★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

Applicable tool

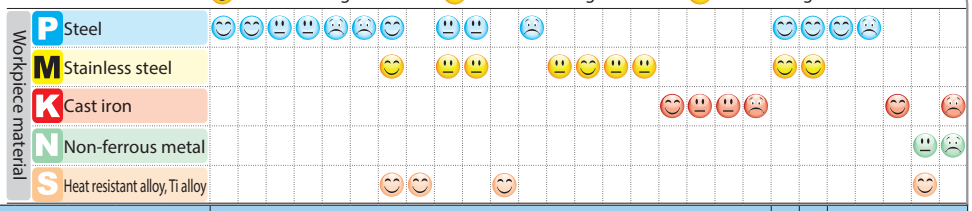
Page A157 A169 A170 A171 A206

Insert code key A50–A51
Grade selection reference A19/A36–A47
Chipbreaker selection reference A22–A35
Recommended cutting parameters A230–A232

TN□□ (Negative inserts)



Good working condition Normal working condition Bad working condition



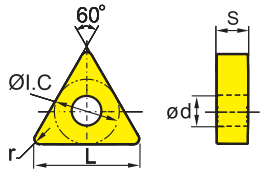
Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
EF	TNMG110304-EF	11	6.35	3.18	2.26	0.4									○	★				★													
	TNMG110308-EF	11	6.35	3.18	2.26	0.8									○	★				★													
	TNMG160404-EF	16.5	9.525	4.76	3.81	0.4									●	★				★													
	TNMG160408-EF	16.5	9.525	4.76	3.81	0.8									●	★				★													
	TNMG160412-EF	16.5	9.525	4.76	3.81	1.2									○	★				★													
	TNMG220404-EF	22	12.7	4.76	5.16	0.4									○	★				★													
	TNMG220408-EF	22	12.7	4.76	5.16	0.8									○	★				★													
	TNMG220412-EF	22	12.7	4.76	5.16	1.2									○	★				★													
WGM	TNMX160408-WGM	16.5	9.525	4.76	3.81	0.8				★						★									★								
	TNMX160412-WGM	16.5	9.525	4.76	3.81	1.2				★						★									★								
For semi-finishing Wiper																																	
PM	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	★	●	○	○														★	★	○							
For semi-finishing	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			○	○															○								

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

Applicable tool

Page A157 A169 A170 A171 A206

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

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
DM	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	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									○	★						★											
LR	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				★																							

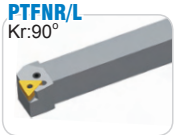
For semi-finishing

For semi-finishing

Light-load roughing

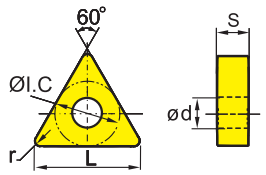
★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

Applicable tool

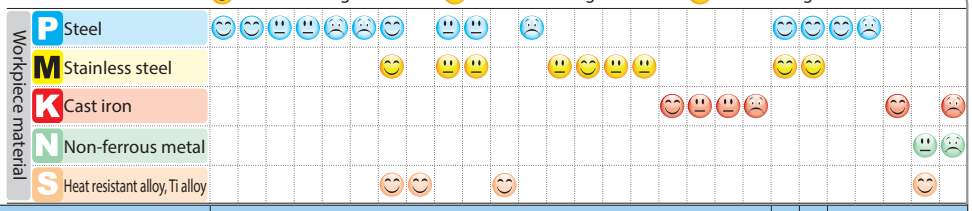
DTGNR/L Kr:91°	PTFNR/L Kr:90°	PTTNR/L Kr:60°	PTGNR/L Kr:90°	PTFNR/L Kr:90°
				
Page A157	A169	A170	A171	A206

Insert code key A50–A51
Grade selection reference A19/A36–A47
Chipbreaker selection reference A22–A35
Recommended cutting parameters A230–A232

TN□□ (Negative inserts)



Good working condition Normal working condition Bad working condition



Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
DR For light 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					○																					
DR 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					○																					
ER 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																★										
SNR 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


DTGNR/L
Kr:91°
Page A157

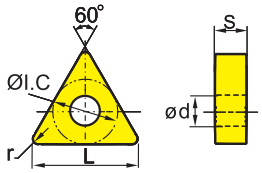

PTFNR/L
Kr:90°
A169


PTTNR/L
Kr:60°
A170

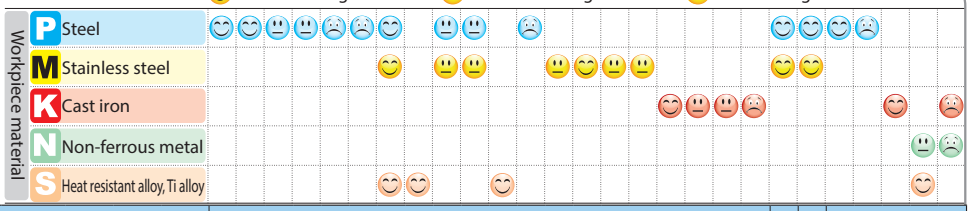

PTGNR/L
Kr:90°
A171


PTFNR/L
Kr:90°
A206

TN□□ (Negative inserts)



Good working condition Normal working condition Bad working condition



Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
All round 	TNMG110308	11	6.35	3.18	2.28	0.8																										
	TNMG160404	16.5	9.525	4.76	3.81	0.4	○		●																							
	TNMG160408	16.5	9.525	4.76	3.81	0.8	●	○	●																							
	TNMG160412	16.5	9.525	4.76	3.81	1.2	●		●	○											○											
	TNMG220404	22	12.7	4.76	5.16	0.4	○		●		○																					
	TNMG220408	22	12.7	4.76	5.16	0.8	○		●		○										○								○			
	TNMG220412	22	12.7	4.76	5.16	1.2	●		●		○																		○			
	TNMG220416	22	12.7	4.76	5.16	1.6																										
	TNMG270612	27.5	15.875	6.35	6.35	1.2			●		●																			○		
	TNMG270616	27.5	15.878	6.35	6.35	1.6			○		○																					
	TNMG330916	33	19.05	9.525	7.94	1.6					●																					
	TNMG330924	33	19.05	9.525	7.94	2.4	○		○		●																					

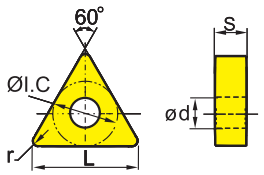
★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

Applicable tool

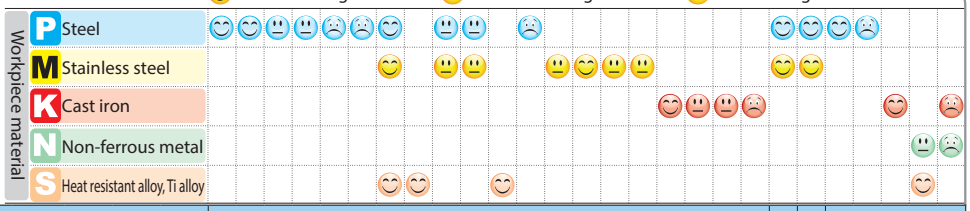
Page A157 A169 A170 A171 A206

Insert code key A50–A51
Grade selection reference A19/A36–A47
Chipbreaker selection reference A22–A35
Recommended cutting parameters A230–A232

TN□□ (Negative inserts)



Good working condition Normal working condition Bad working condition



Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
All round 	**TNMM160404**	16.5	9.525	4.76	3.81	0.4			○																							
	TNMM160408	16.5	9.525	4.76	3.81	0.8					○																						
	TNMM160412	16.5	9.525	4.76	3.81	1.2	○		○																				○				
	TNMM220408	22	12.7	4.76	5.16	0.8			○																								
	TNMM220412	22	12.7	4.76	5.16	1.2			●		○										○												
	TNMM220416	22	12.7	4.76	5.16	1.6					○																						
	TNMM270616	27.5	15.875	6.35	6.35	1.6			●		○																						
Without chipbreaker 	**TNMA160404**	16.5	9.525	4.76	3.81	0.4																	○	★	★								
	TNMA160408	16.5	9.525	4.76	3.81	0.8	○																★	★	★					○		○
	TNMA160412	16.5	9.525	4.76	3.81	1.2																	★	○	○								
	TNMA160416	16.5	9.525	4.76	3.81	1.6																											
	TNMA220404	22	12.7	4.76	5.16	0.4																	○	○	○								
	TNMA220408	22	12.7	4.76	5.16	0.8																	○	○	○								
	TNMA270616	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

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Page A169

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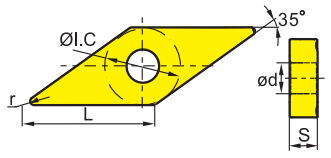
Page A206

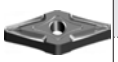
VN□□ (Negative inserts)



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	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
DF	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																																
EF	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																																
NF	VNEG160404-NF	16.6	9.525	4.76	3.81	0.4							○	★																		○
	VNEG160408-NF	16.6	9.525	4.76	3.81	0.8							○	★																		○
For finishing																																
NGF	VNEG160408-NGF	16.6	9.525	4.76	4.76	0.8							○	●			○															
	VNEG160412-NGF	16.6	9.525	4.76	4.76	1.2							○	●			○															
For finishing																																
SF	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 finishing																																

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

Applicable tool

DVVNN Kr:72°30'

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DVJNR/L Kr:93°

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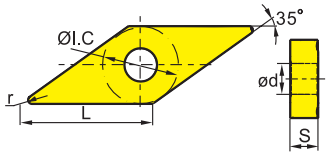
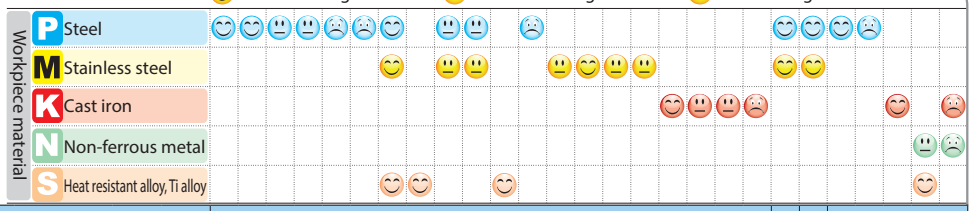
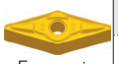
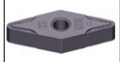
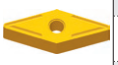
Insert code key A50–A51
Grade selection reference A19/A36–A47
Chipbreaker selection reference A22–A35
Recommended cutting parameters A230–A232

VN□□ (Negative inserts)



Good working condition Normal working condition Bad working condition



Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																	Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
PM	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																																	
DM	VNMG160408-DM	16.6	9.525	4.76	3.81	0.8		★	●	★	○										○												
	VNMG160412-DM	16.6	9.525	4.76	3.81	1.2		○	○	○											○												
For semi-finishing																																	
EM	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																																	
NM	VNMG160412-NM	16.6	9.525	4.76	3.81	1.2							○	★																		○	
																																	
For semi-finishing																																	
SNR	VNMG160408-SNR	16.6	9.525	4.76	4.76	0.8							○	●			○																
	VNMG160412-SNR	16.6	9.525	4.76	4.76	1.2							○	●			○																
For roughing																																	
All round	VNMG160404	16.6	9.525	4.76	3.81	0.4	○		○																								
	VNMG160408	16.6	9.525	4.76	3.81	0.8	●		●																								

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

Applicable tool

DVVNN
Kr:72°30'

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DVJNR/L
Kr:93°

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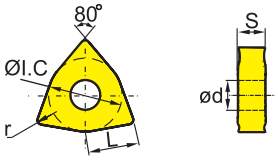
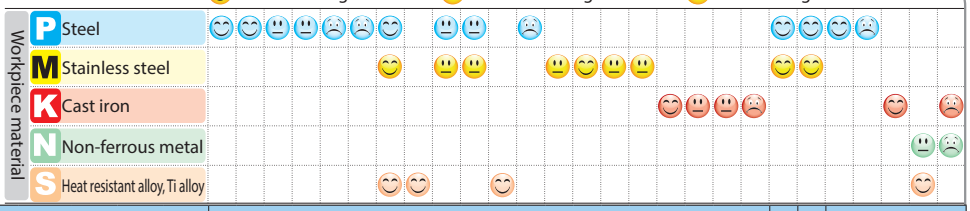
WN□□ (Negative inserts)



Good working condition Normal working condition Bad working condition

Workpiece material



Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
DF For finishing	WNMG06T304-DF	6.5	9.525	3.97	3.81	0.4		★																								
	WNMG06T308-DF	6.5	9.525	3.97	3.81	0.8		★		★																						
	WNMG06T312-DF	6.5	9.525	3.97	3.81	1.2		★		★																						
	WNMG060404-DF	6.5	9.525	4.76	3.81	0.4		★	●	★											○											
	WNMG060408-DF	6.5	9.525	4.76	3.81	0.8		★	●	★											●											
	WNMG060412-DF	6.5	9.525	4.76	3.81	1.2		★	●	○											○											
	WNMG080404-DF	8.7	12.7	4.76	5.16	0.4		★	●	○											○											
	WNMG080408-DF	8.7	12.7	4.76	5.16	0.8		★	●	★											●											
	WNMG080412-DF	8.7	12.7	4.76	5.16	1.2		○	○	○																						
WGF For finishing Wiper	WNMG060404-WGF	6.5	9.525	4.76	3.81	0.4		★												★			★									
	WNMG060408-WGF	6.5	9.525	4.76	3.81	0.8		★												★			★									
	WNMG080404-WGF	8.7	12.7	4.76	5.16	0.4		★												★			★									
	WNMG080408-WGF	8.7	12.7	4.76	5.16	0.8		★												★			★									
SF For finishing	WNMG06T304-SF	6.5	9.525	3.97	3.81	0.4							○														○	★				
	WNMG06T308-SF	6.5	9.525	3.97	3.81	0.8							○														○					
	WNMG06T312-SF	6.5	9.525	3.97	3.81	1.2							○														○					
	WNMG060404-SF	6.5	9.525	4.76	3.81	0.4							○														○	★				
	WNMG060408-SF	6.5	9.525	4.76	3.81	0.8							○														○	★				
	WNMG080404-SF	8.7	12.7	4.76	5.16	0.4							○														○	★				
	WNMG080408-SF	8.7	12.7	4.76	5.16	0.8							○														○	★				
	WNMG080412-SF	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

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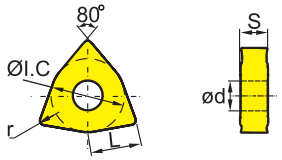
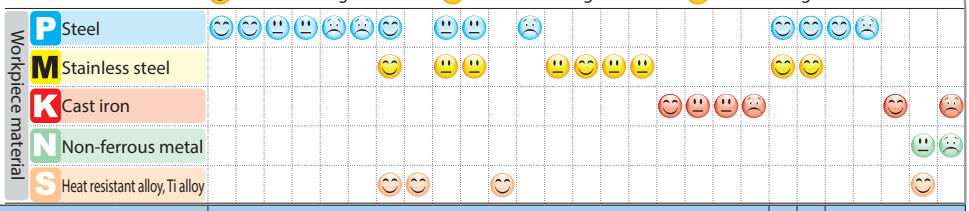
Insert code key A50–A51
Grade selection reference A19/A36–A47
Chipbreaker selection reference A22–A35
Recommended cutting parameters A230–A232

WN□□ (Negative inserts)



Good working condition Normal working condition Bad working condition



Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
EF 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							○		●	★				★												
NF 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							○	★																		○
WGM For semi-finishing Wiper	WNMG060408-WGM	6.5	9.525	4.76	3.81	0.8				★						★									★							
	WNMG060412-WGM	6.5	9.525	4.76	3.81	1.2				★						★									★							
	WNMG080408-WGM	8.7	12.7	4.76	5.16	0.8				★						★									★							
	WNMG080412-WGM	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

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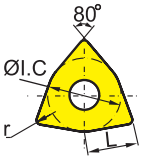
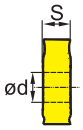
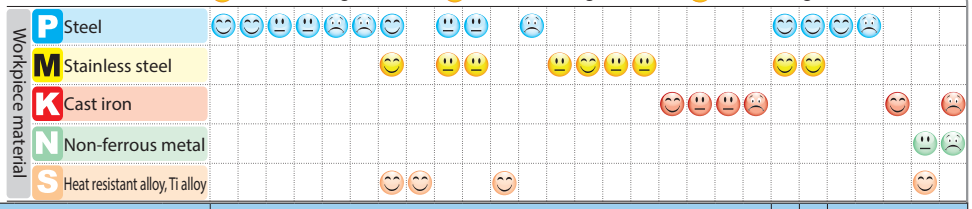
WN□□ (Negative inserts)





Good working condition Normal working condition Bad working condition

Workpiece material



Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
PM	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				○																						
DM	WNMG06T304-DM	6.5	9.525	3.97	3.81	0.4				○																						
	WNMG06T308-DM	6.5	9.525	3.97	3.81	0.8			○	○																						
	WNMG06T312-DM	6.5	9.525	3.97	3.81	1.2				○																						
	WNMG060408-DM	6.5	9.525	4.76	3.81	0.8		★	●	★	●										●											
	WNMG060412-DM	6.5	9.525	4.76	3.81	1.2			○	○																						
	WNMG080404-DM	8.7	12.7	4.76	5.16	0.4		★	●	★	○				○						○											
	WNMG080408-DM	8.7	12.7	4.76	5.16	0.8		★	●	★	●										○											
	WNMG080412-DM	8.7	12.7	4.76	5.16	1.2		★	●	★											○											
	WNMG080416-DM	8.7	12.7	4.76	5.16	1.6				○																						
EM	WNMG06T304-EM	6.5	9.525	3.97	3.81	0.4									○	★						★										
	WNMG06T308-EM	6.5	9.525	3.97	3.81	0.8									○	★						★										
	WNMG06T312-EM	6.5	9.525	3.97	3.81	1.2									○	★						★										
	WNMG060404-EM	6.5	9.525	4.76	3.81	0.4									○	★						★										
	WNMG060408-EM	6.5	9.525	4.76	3.81	0.8									●	★						★										
	WNMG080404-EM	8.7	12.7	4.76	5.16	0.4									●	★						★										
	WNMG080408-EM	8.7	12.7	4.76	5.16	0.8									●	★						★										
	WNMG080412-EM	8.7	12.7	4.76	5.16	1.2									●	★						★										

For semi-finishing

For semi-finishing

For semi-finishing

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

Applicable tool

DWLNR/L Kr:95°

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PWLNR/L Kr:95°

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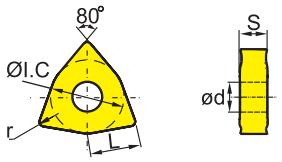
PWLNR/L Kr:95°

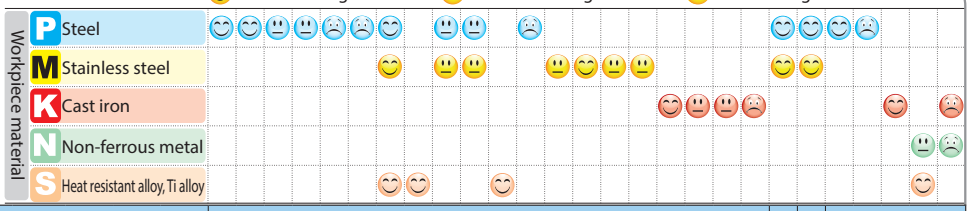
A207

Insert code key A50–A51
Grade selection reference A19/A36–A47
Chipbreaker selection reference A22–A35
Recommended cutting parameters A230–A232

WN□□ (Negative inserts)



Good working condition Normal working condition Bad working condition



Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
NM	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 semi-finishing																																	
DR	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		○	○	★	○	●												●	●								
For roughing	WNMG080416-DR	8.7	12.7	4.76	5.16	1.6				○														○	○								
SNR	WNMG080408-SNR	8.7	12.7	4.76	5.16	0.8							○	●			○																
	WNMG080412-SNR	8.7	12.7	4.76	5.16	1.2							○	●			○																
For roughing																																	
Without chipbreaker	WNMA06T308	6.5	9.525	3.97	3.81	0.8																	○										
	WNMA060404	6.5	9.525	4.76	3.81	0.4																			○								
	WNMA060408	6.5	9.525	4.76	3.81	0.8																	★	○	○								
	WNMA060412	6.5	9.525	4.76	3.81	1.2																			○								
	WNMA080404	8.7	12.7	4.76	5.16	0.4																		○									
	WNMA080408	8.7	12.7	4.76	5.16	0.8																	★	★	★								
	WNMA080412	8.7	12.7	4.76	5.16	1.2																	★	★	★								
	WNMA080416	8.7	12.7	4.76	5.16	1.6																			★								

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

Applicable tool

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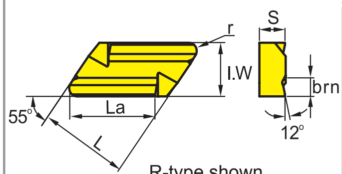
KN□□ (Negative inserts)



R-type shown

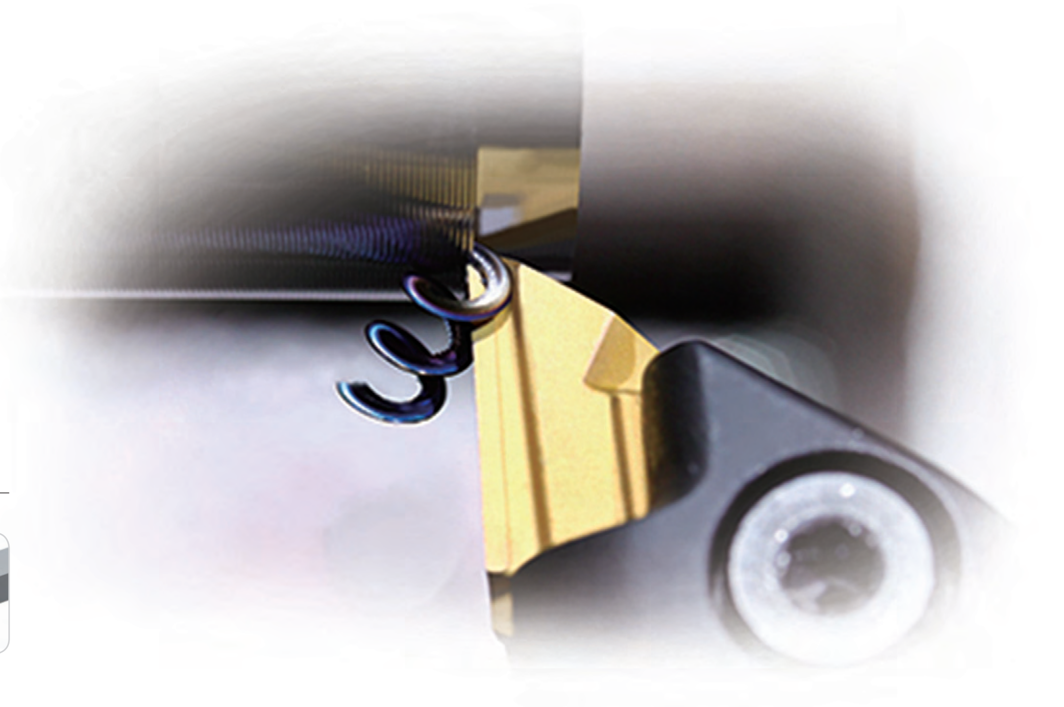
Good working condition / Normal working condition / Bad working condition

Workpiece material	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
P Steel	Good	Good	Normal	Normal	Bad	Bad	Good		Normal	Normal		Bad									Good	Good	Good	Bad			
M Stainless steel							Good		Normal	Normal			Normal	Good	Normal	Normal					Good	Good					
K Cast iron																	Good	Normal	Normal	Bad					Good		Bad
N Non-ferrous metal																										Normal	Bad
S Heat resistant alloy, Ti alloy							Good	Good			Good															Good	

Inserts shape	Type	Dimensions(mm) La	L	I.W	S	brn	r	Coated cemented carbide YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	Cermet YNG151	Coated cermet YNG151C	Cemented carbide YC10	YC40	YD051	YD101	YD201
 Profile turning	KNUX160405L11	16	16.15	9.525	4.76	2.2	0.5	○		●	★	○										●								○				
	KNUX160410L11	16	16.15	9.525	4.76	2.2	1.0			●												○												
	KNUX160405L12	16	16.15	9.525	4.76	2.2	0.5	○		●												○												
	KNUX160410L12	16	16.15	9.525	4.76	2.2	1.0	○	○	●												○								○				
	KNUX160415L12	16	16.15	9.525	4.76	2.2	1.5			○																								
	KNUX160405R11	16	16.15	9.525	4.76	2.2	0.5	●		●	○	●										●								●				
	KNUX160410R11	16	16.15	9.525	4.76	2.2	1.0	○		●												○								○				
	KNUX160405R12	16	16.15	9.525	4.76	2.2	0.5	●		●												○												
	KNUX160410R12	16	16.15	9.525	4.76	2.2	1.0	○	○	●		○										○								●				
	KNUX160415R12	16	16.15	9.525	4.76	2.2	1.5			○																								

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

Note: KNUX160405L11
Chipbreaker code: 11→Declining chipbreaker 12→Straight chipbreaker



Applicable tool

CKJNR/L
Kr:93°

CKNNR/L
Kr:63°

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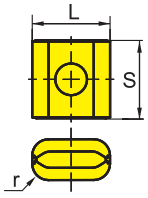
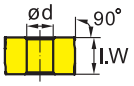
Insert code key A50–A51
Grade selection reference A19/A36–A47
Chipbreaker selection reference A22–A35
Recommended cutting parameters A230–A232

Heavy turning(Negative inserts)





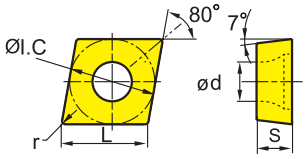
Good working condition Normal working condition Bad working condition

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	l.W	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
 Inserts for train wheel hub	**175.32-191940-22**	19.05	10	19.05	6.35	4.0	●		●																							
	175.32-191940-227	19.05	10	19.05	7.2	4.0			●																							
 Inserts for train wheel hub	**175.32-191940-24**	19.05	10	19.05	6.35	4.0	○		●																							
	175.32-301940-24	30	10	19.05	6.35	4.0	○		●																							
 Inserts for train wheel hub	**175.32-191940-25**	19.05	10	19.05	6.35	4.0			●																							
 Inserts for train wheel hub	**175.32-191940-28**	19.05	10	19.05	6.35	4.0	●	★	●	○																						

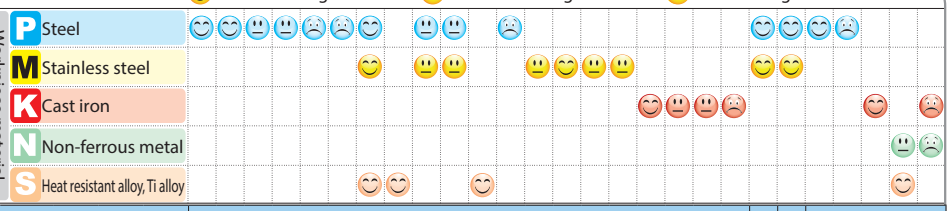
★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

CC□□ (Positive inserts)



Good working condition Normal working condition Bad working condition

Workpiece material



Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
USF	CCGT09T301R-USF	9.7	9.525	3.97	4.4	0.1									○	○																	
	CCGT09T302R-USF	9.7	9.525	3.97	4.4	0.2									●	○																	
For extra finishing	CCGT09T304R-USF	9.7	9.525	3.97	4.4	0.4									○	○																	
USF	CCGT09T301L-USF	9.7	9.525	3.97	4.4	0.1									○	○																	
	CCGT09T302L-USF	9.7	9.525	3.97	4.4	0.2									●	○																	
For extra finishing	CCGT09T304L-USF	9.7	9.525	3.97	4.4	0.4									○	○																	
SF	CCGT060202-SF	6.4	6.35	2.38	2.8	0.2							○														○	○					
	CCGT060204-SF	6.4	6.35	2.38	2.8	0.4							○														○	○					
For extra finishing	CCGT09T304-SF	9.7	9.525	3.97	4.4	0.4							○														○	★					
HF	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		★	●	★	○				●									●	●		●	○					○
For finishing	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

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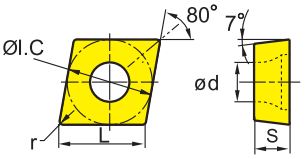
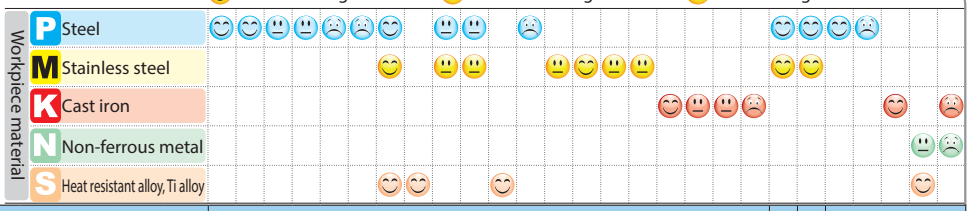
Insert code key A50–A51
Grade selection reference A19/A36–A47
Chipbreaker selection reference A22–A35
Recommended cutting parameters A230–A232

CC□□ (Positive inserts)



Good working condition Normal working condition Bad working condition



Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
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							○		●	★				○													
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									●	★						★											

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

Applicable tool


SCACR/L Kr:90°
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SCLCR/L Kr:95°
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SCLCR/L Kr:95°
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SCFCR Kr:90°
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SCLCR Kr:95°
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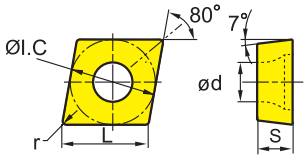
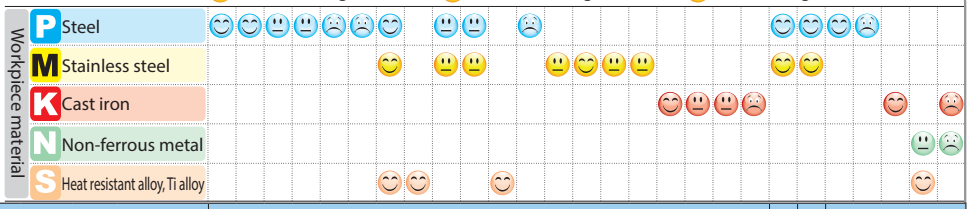
CC□□ (Positive inserts)



Good working condition Normal working condition Bad working condition



Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
HR	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		★	●	★	●										●		●	●	●				○		●	
For roughing	CCMT120408-HR	12.9	12.7	4.76	5.56	0.8		★	●		●				○						●		●	●	●				○		●	●
	CCMT120412-HR	12.9	12.7	4.76	5.56	1.2		○	●		●										○			●	○							
LC	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																									★	
For Al machining	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	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																									★	
For Al machining	CCGX09T302-LH	9.7	9.525	3.97	4.4	0.2																									★	

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

Applicable tool

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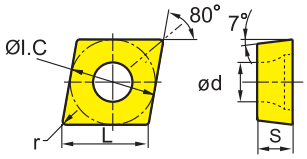
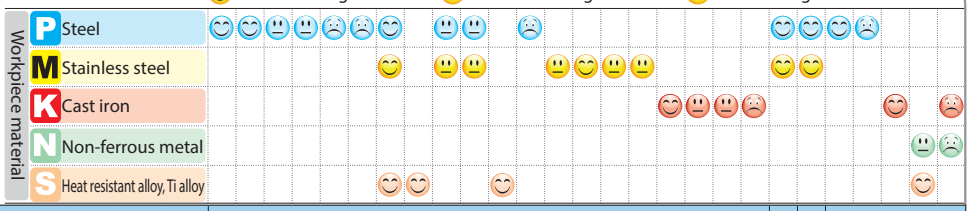
Insert code key A50–A51
Grade selection reference A19/A36–A47
Chipbreaker selection reference A22–A35
Recommended cutting parameters A230–A232

CC□□ (Positive inserts)



Good working condition Normal working condition Bad working condition



Inserts shape	Type	Dimensions(mm)					Coated cemented carbide															Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
LH  For Al machining	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																									○	
Without chipbreaker 	CCMW060204	6.4	6.35	2.38	2.8	0.4																							○	○	●	
	CCMW09T304	9.7	9.525	3.97	4.4	0.4																							○		●	●
	CCMW09T308	9.7	9.525	3.97	4.4	0.8	○																							○	○	
	CCMW120404	12.9	12.7	4.76	5.56	0.4																										●
	CCMW120408	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

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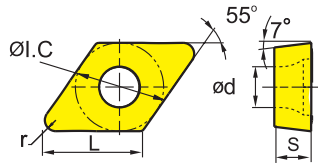
DC□□ (Positive inserts)



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

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
USF For extra finishing	DCGT0702005R-USF	7.8	6.35	2.38	2.8	0.05									●	○																	
	DCGT070201R-USF	7.8	6.35	2.38	2.8	0.1									●	○																	
	DCGT070202R-USF	7.8	6.35	2.38	2.8	0.2									●	○																	
	DCGT11T301R-USF	11.6	9.525	3.97	4.4	0.1									○	○																	
	DCGT11T302R-USF	11.6	9.525	3.97	4.4	0.2									●	○																	
USF For extra finishing	DCGT0702005L-USF	7.8	6.35	2.38	2.8	0.05									○	○																	
	DCGT070201L-USF	7.8	6.35	2.38	2.8	0.1									○	○																	
	DCGT070202L-USF	7.8	6.35	2.38	2.8	0.2									●	○																	
	DCGT11T301L-USF	11.6	9.525	3.97	4.4	0.1									○	○																	
	DCGT11T302L-USF	11.6	9.525	3.97	4.4	0.2									●	○																	
SF For extra finishing	DCGT070202-SF	7.8	6.35	2.38	2.8	0.2							○														○						
	DCGT070204-SF	7.8	6.35	2.38	2.8	0.4							○															○					
	DCGT070208-SF	7.8	6.35	2.38	2.8	0.8							○																				
	DCGT11T302-SF	11.6	9.525	3.97	4.4	0.2							○														○	○					
	DCGT11T304-SF	11.6	9.525	3.97	4.4	0.4							○															★					
	DCGT11T308-SF	11.6	9.525	3.97	4.4	0.8							○														○	○					
HF For finishing	DCMT070202-HF	7.8	6.35	2.38	2.8	0.2		★	●	○					○												○						
	DCMT070204-HF	7.8	6.35	2.38	2.8	0.4		★	●	★	○				●									○			○					●	
	DCMT070208-HF	7.8	6.35	2.38	2.8	0.8		○	○		○																						
	DCMT11T302-HF	11.6	9.525	3.97	4.4	0.2		★	●	○					●												○						○
	DCMT11T304-HF	11.6	9.525	3.97	4.4	0.4		★	●	★	○				●									○	○		●		○				○
	DCMT11T308-HF	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


SDACR/L
Kr:90°
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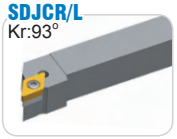
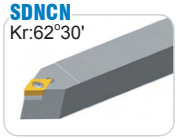

SDJCR/L
Kr:93°
A176


SDNCN
Kr:62°30'
A177

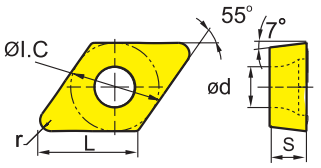

SDQCR/L
Kr:107°30'
A209


SDUCR/L
Kr:93°
A210

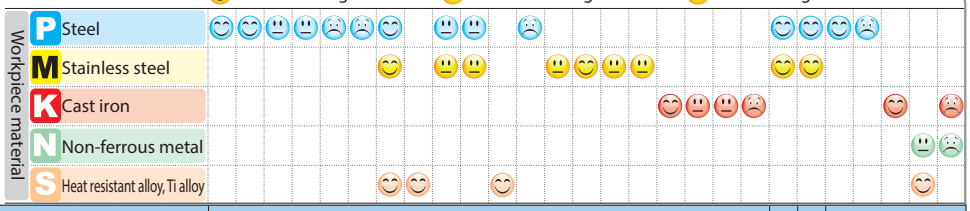

SDZCR/L
Kr:95°
A211

Insert code key A50–A51
Grade selection reference A19/A36–A47
Chipbreaker selection reference A22–A35
Recommended cutting parameters A230–A232

DC□□ (Positive inserts)



Good working condition Normal working condition Bad working condition

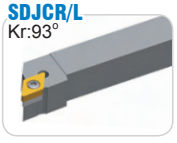


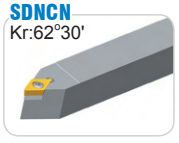
Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
EF	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							○		●	★				★													
For finishing	DCMT11T308-EF	11.6	9.525	3.97	4.4	0.8							○		●	★				○													
HM	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	●	★	●	★	○				●						●			●	●		●		○			●	○
For semi-finishing	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	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									●	★						★											
For semi-finishing	DCMT11T308-EM	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


SDACR/L Kr:90°
Page A175


SDJCR/L Kr:93°
A176

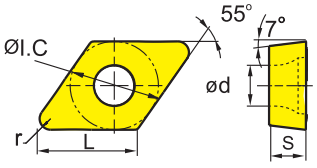

SDNCN Kr:62°30'
A177


SDQCR/L Kr:107°30'
A209


SDUCR/L Kr:93°
A210


SDZCR/L Kr:95°
A211

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

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
HR	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		○	●																							
For roughing																																
LC	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																									★	
For Al machining	DCGX11T308-LC	11.6	9.525	3.97	4.4	0.8																									★	
LH	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																									★	●
For Al machining	DCGX11T308-LH	11.6	9.525	3.97	4.4	0.8																									★	
Without chipbreaker	DCMW070204	7.8	6.35	2.38	2.8	0.4																		○								
	DCMW11T304	11.6	9.525	3.97	4.4	0.4																							○			●	
	DCMW11T308	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


SDACR/L Kr:90°
Page A175


SDJCR/L Kr:93°
A176


SDNCN Kr:62°30'
A177

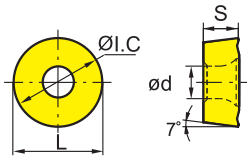

SDQCR/L Kr:107°30'
A209


SDUCR/L Kr:93°
A210


SDZCR/L Kr:95°
A211

Insert code key A50–A51
Grade selection reference A19/A36–A47
Chipbreaker selection reference A22–A35
Recommended cutting parameters A230–A232

RC□□ (Positive inserts)



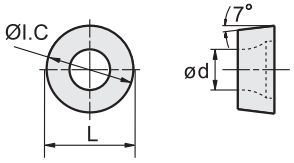
Good working condition Normal working condition Bad working condition

Workpiece material

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

Inserts shape	Type	Dimensions(mm)				Coated cemented carbide																Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	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

Inserts shape	Type	Dimensions(mm)				Coated cemented carbide																Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	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

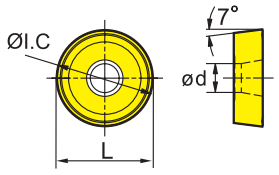
SRDCN

Page A191

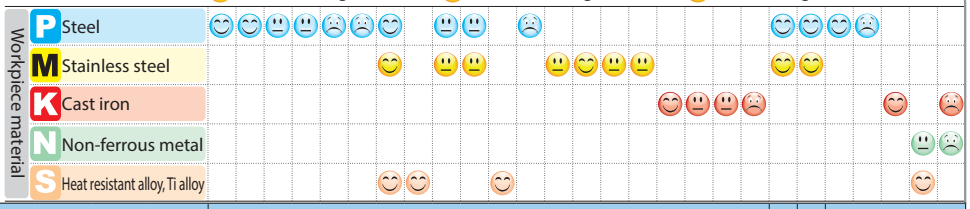
SRGCR/L

Page A192

RC□□ (Positive inserts)



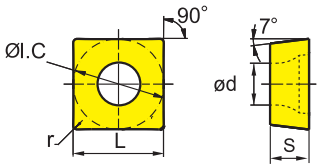
Good working condition　Normal working condition　Bad working condition



Inserts shape	Type	Dimensions(mm)				Coated cemented carbide																Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
	**RCMX0803MO**	8.0	8.0	3.18	3.36			●		○												○										
	RCMX1003MO	10	10	3.18	3.6	●		●		●																				○	○	
	RCMX1204MO	12	12	4.76	4.4	○		●																					○	●	○	●
	RCMX1606MO	16	16	6.35	5.5	●		●		○																			○	●	○	
	RCMX2006MO	20	20	6.35	6.5	○	★	●	○	○														★						●	○	●
	RCMX2507MO	25	25	7.94	7.2		★	●	○	○														○						●		
	RCMX3209MO	32	32	9.52	9.5	○	○	●	○	○													●									

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

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	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
HF	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																																
EF	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																																
HM	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		●	●	○	○		●		○						●			●					○				
For semi-finishing	SCMT120412-HM	12.7	12.7	4.76	5.56	1.2		○	○												○									○		
EM	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									●	★						★										
For semi-finishing	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
Kr:75°
Page A183

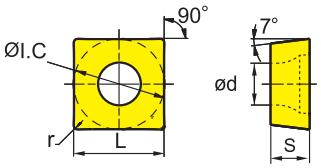

SSDCN
Kr:45°
A184


SSKCR/L
Kr:75°
A185


SSSCR/L
Kr:45°
A186

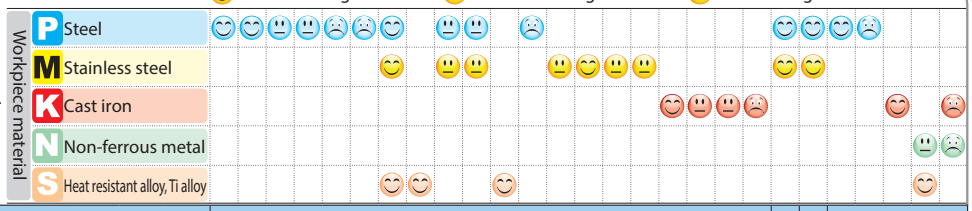

SSKCR/L
Kr:75°
A212

SC□□ (Positive inserts)



Good working condition Normal working condition Bad working condition

Workpiece material



Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
LC	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																									★	
For Al machining																																
LH	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																									○	
For Al machining	SCGX120408-LH	12.7	12.7	4.76	5.56	0.8																									★	
HR	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		○	●		○																					
For roughing	SCMT120408-HR	12.7	12.7	4.76	5.56	0.8		★	●	○	●				○								○	●	●							
	SCMT120412-HR	12.7	12.7	4.76	5.56	1.2		○	○		●												○	○								
All round	SCMT09T304	9.525	9.525	3.97	4.4	0.4	○		●																							
	SCMT120404	12.7	12.7	4.76	5.56	0.4			○		○																					
	SCMT120408	12.7	12.7	4.76	5.56	0.8	○		●																○							
Without chipbreaker	SCMW060204	6.35	6.35	2.38	2.8	0.4																										
	SCMW09T304	9.525	9.525	3.97	4.4	0.4																					○					
	SCMW09T308	9.525	9.525	3.97	4.4	0.8	○																									
	SCMW120408	12.7	12.7	4.76	5.56	0.8	●																									

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

Applicable tool

Page A183

A184

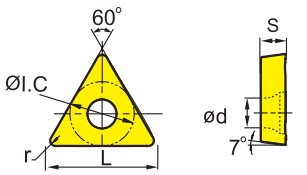
A185

A186

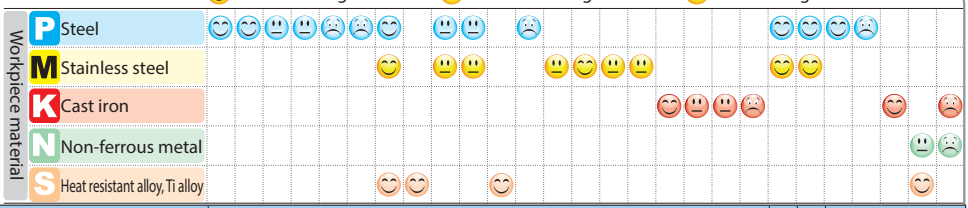
A212

Insert code key A50–A51
Grade selection reference A19/A36–A47
Chipbreaker selection reference A22–A35
Recommended cutting parameters A230–A232

TC□□ (Positive inserts)



Good working condition Normal working condition Bad working condition

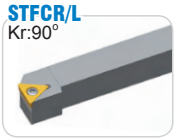


Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
USF For extra finishing	TCGT110301R-USF	11	6.35	3.18	2.8	0.1									●	○																	
	TCGT110302R-USF	11	6.35	3.18	2.8	0.2									●	○																	
USF For extra finishing	TCGT110301L-USF	11	6.35	3.18	2.8	0.1									●	○																	
	TCGT110302L-USF	11	6.35	3.18	2.8	0.2									●	○																	
SF For extra finishing	TCGT06T102-SF	6.4	3.97	1.98	2.2	0.2							○																				
	TCGT06T104-SF	6.4	3.97	1.98	2.2	0.4							○															○					
	TCGT090202-SF	9.6	5.56	2.38	2.5	0.2							○																				
	TCGT090204-SF	9.6	5.56	2.38	2.5	0.4							○															○					
	TCGT090208-SF	9.6	5.56	2.38	2.5	0.8							○																				
	TCGT110302-SF	11	6.35	3.18	2.8	0.2							○														○						
	TCGT110304-SF	11	6.35	3.18	2.8	0.4							○														○	○					
	TCGT110308-SF	11	6.35	3.18	2.8	0.8							○																				

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

Applicable tool


STACR/L Kr:90°
Page A187

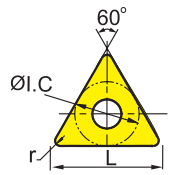

STFCR/L Kr:90°
A187

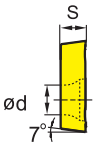

STGCR/L Kr:91°
A188


STECR/L Kr:60°
A186


STFCR/L Kr:90°
A212

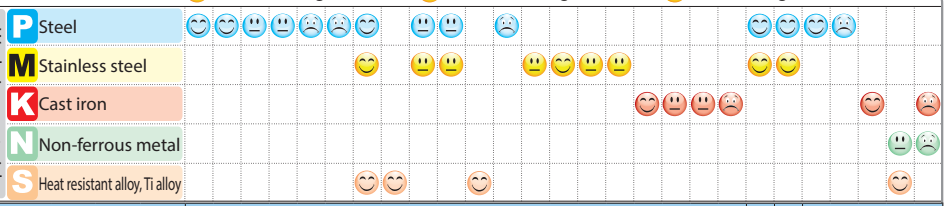
TC□□ (Positive inserts)





Good working condition Normal working condition Bad working condition

Workpiece material



Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
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		○	●																		○					○

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

Applicable tool

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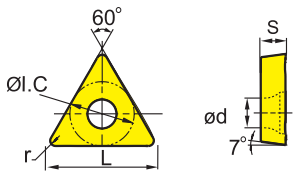
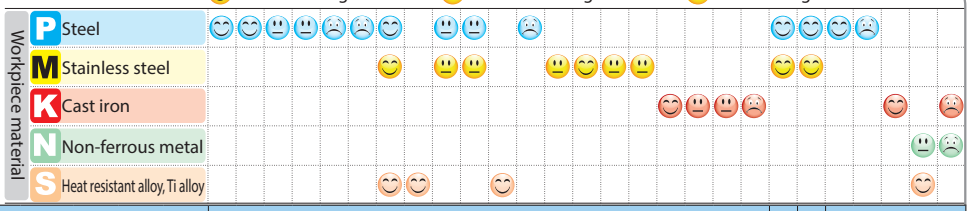
A212

Insert code key A50–A51
Grade selection reference A19/A36–A47
Chipbreaker selection reference A22–A35
Recommended cutting parameters A230–A232

TC□□ (Positive inserts)



Good working condition Normal working condition Bad working condition



Inserts shape	Type	Dimensions(mm)					Coated cemented carbide														Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
EF	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							○		● ★					○												
EM	TCMT090204-EM	9.6	5.56	2.38	2.8	0.4									● ★							★										
	TCMT090208-EM	9.6	5.56	2.38	2.8	0.8									● ★							★										
	TCMT110204-EM	11	6.35	2.38	2.8	0.4									● ★							★										
	TCMT110208-EM	11	6.35	2.38	2.8	0.8									● ★							★										
	TCMT110212-EM	11	6.35	2.38	2.8	1.2									● ★							★										
	TCMT16T304-EM	16.5	9.525	3.97	4.4	0.4									● ★							★										
	TCMT16T308-EM	16.5	9.525	3.97	4.4	0.8									● ★							★										
	TCMT16T312-EM	16.5	9.525	3.97	4.4	1.2									● ★							★										

For finishing

For semi-finishing

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

Applicable tool

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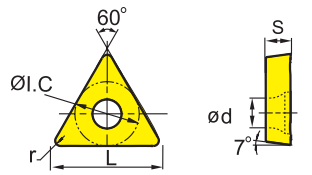
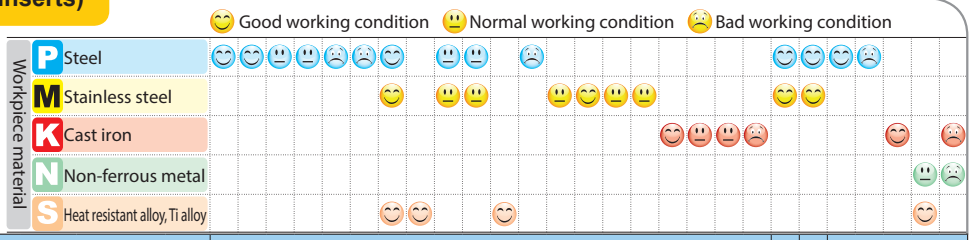
TC□□ (Positive inserts)





Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
HM	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	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	○	●		○											●											
LC	TCGX090202-LC	9.6	5.56	2.38	2.5	0.2																									★	
	TCGX090204-LC	9.6	5.56	2.38	2.5	0.4																									★	
	TCGX110202-LC	11	6.35	2.38	2.8	0.2																									★	
	TCGX110204-LC	11	6.35	2.38	2.8	0.4																									★	
	TCGX110208-LC	11	6.35	2.38	2.8	0.8																									★	
	TCGX16T304-LC	16.5	9.525	3.97	4.4	0.4																									★	
	TCGX16T308-LC	16.5	9.525	3.97	4.4	0.8																									★	

For semi-finishing

For roughing

For Al machining

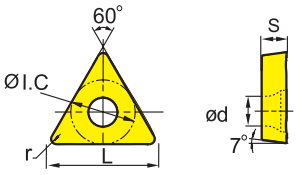
★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

Applicable tool

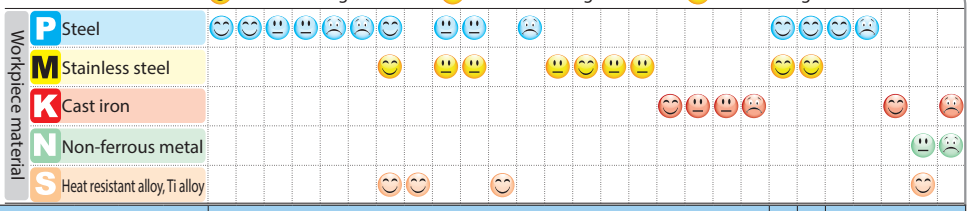
Page A187 A187 A188 A186 A212

Insert code key A50–A51
Grade selection reference A19/A36–A47
Chipbreaker selection reference A22–A35
Recommended cutting parameters A230–A232

TC□□ (Positive inserts)



Good working condition Normal working condition Bad working condition



Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
LH  For Al machining	TCGX090202-LH	9.6	5.56	2.38	2.5	0.2																								★	
	TCGX090204-LH	9.6	5.56	2.38	2.5	0.4																								★	
	TCGX110202-LH	11	6.35	2.38	2.8	0.2																								★	
	TCGX110204-LH	11	6.35	2.38	2.8	0.4																								★	
	TCGX110208-LH	11	6.35	2.38	2.8	0.8																								★	
	TCGX16T302-LH	16.5	9.525	3.97	4.4	0.2																								○	
	TCGX16T304-LH	16.5	9.525	3.97	4.4	0.4																								★	
	TCGX16T308-LH	16.5	9.525	3.97	4.4	0.8																								★	
All round 	TCMT220408	22	12.7	4.76	5.5	0.8	○		●															○					○			○
Without chipbreaker 	TCMW110204	11	6.35	2.38	2.8	0.4																							○			●	○
	TCMW16T304	16.5	9.525	3.97	4.4	0.4																							○				
	TCMW16T308	16.5	9.525	3.97	4.4	0.8																											
	TCMW16T312	16.5	9.525	3.97	4.4	1.2	○																										
	TCMW220408	22	12.7	4.76	5.5	0.8	○																		○								

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

Applicable tool


STACR/L Kr:90°
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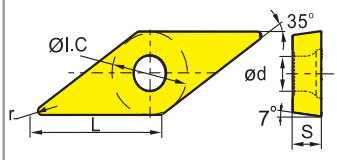
STFCR/L Kr:90°
A187


STGCR/L Kr:91°
A188


STECR/L Kr:60°
A186

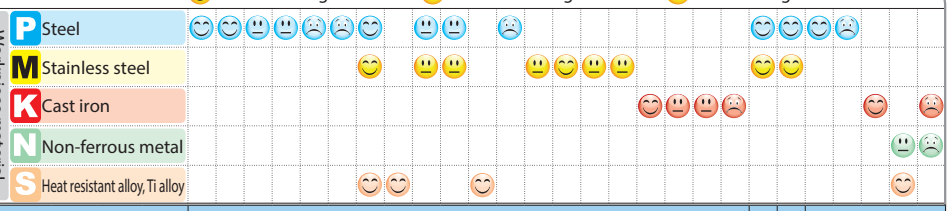

STFCR/L Kr:90°
A212

VC□□ (Positive inserts)



Good working condition Normal working condition Bad working condition

Workpiece material



Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
USF	VCGT080201R-USF	8	4.76	2.38	2.3	0.1									○	○																	
	VCGT080202R-USF	8	4.76	2.38	2.3	0.2									●	○																	
For extra finishing	VCGT110301R-USF	11	6.35	3.18	2.8	0.1									●	○																	
	VCGT110302R-USF	11	6.35	3.18	2.8	0.2									●	○																	
USF	VCGT080201L-USF	8	4.76	2.38	2.3	0.1									○	○																	
	VCGT080202L-USF	8	4.76	2.38	2.3	0.2									○	○																	
For extra finishing	VCGT110301L-USF	11	6.35	3.18	2.8	0.1									○	○																	
	VCGT110302L-USF	11	6.35	3.18	2.8	0.2									●	○																	
SF	VCGT110302-SF	11	6.35	3.18	2.8	0.2							○														○	★					
	VCGT110304-SF	11	6.35	3.18	2.8	0.4							○														○	★					
For extra finishing																																	
HF	VCGT110304-HF	11	6.35	3.18	2.8	0.4			●																								
																																	
For finishing																																	
NF	VCGT160408-NF	16.5	9.525	4.76	4.4	0.8							●	★																			
																																	
For finishing																																	
NGF	VCGT160408-NGF	16.5	9.525	4.76	4.76	0.8							○	●		○																	
																																	
For finishing																																	

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

Applicable tool

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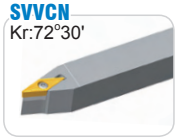
A215

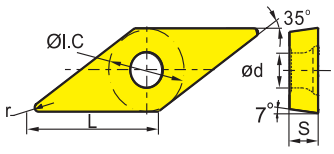


A181

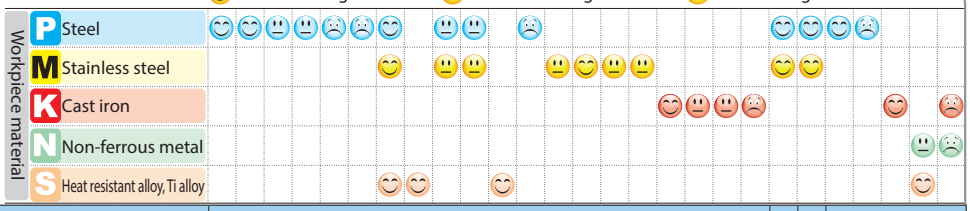
A182

Insert code key A50–A51
Grade selection reference A19/A36–A47
Chipbreaker selection reference A22–A35
Recommended cutting parameters A230–A232

VC□□ (Positive inserts)



Good working condition Normal working condition Bad working condition



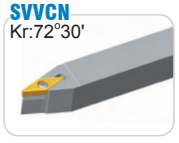
Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
LC	VCGX110301-LC	11	6.35	3.18	2.8	0.1																									★	
	VCGX110302-LC	11	6.35	3.18	2.8	0.2																									★	
	VCGX110304-LC	11	6.35	3.18	2.8	0.4																									★	
	VCGX110308-LC	11	6.35	3.18	2.8	0.8																									★	
	VCGX160404-LC	16.6	9.525	4.76	4.4	0.4																									★	
For Al machining	VCGX160408-LC	16.6	9.525	4.76	4.4	0.8																									★	
	VCGX160412-LC	16.6	9.525	4.76	4.4	1.2																									★	
	VCGX220530-LC	22	12.7	5.56	5.5	3.0																									★	
LH	VCGX110202-LH	11	6.35	2.38	2.8	0.2																									○	
	VCGX110204-LH	11	6.35	2.38	2.8	0.4																									★	
	VCGX110301-LH	11	6.35	3.18	2.8	0.1																									★	●
	VCGX110302-LH	11	6.35	3.18	2.8	0.2																									★	●
	VCGX110304-LH	11	6.35	3.18	2.8	0.4																									★	●
	VCGX110308-LH	11	6.35	3.18	2.8	0.8																									○	
For Al machining	VCGX160402-LH	16.6	9.525	4.76	4.4	0.2																									★	
	VCGX160404-LH	16.6	9.525	4.76	4.4	0.4																									★	○
	VCGX160408-LH	16.6	9.525	4.76	4.4	0.8																									★	○
	VCGX160412-LH	16.6	9.525	4.76	4.4	1.2																									★	●
	VCGX220530-LH	22	12.7	5.56	5.5	3.0																									★	●

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

Applicable tool

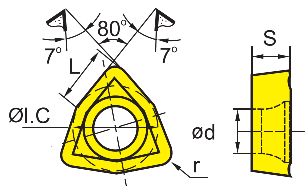

SVQCR/L
Kr:107°30'
Page A214


SVUCR/L
Kr:93°
A215


SVVCN
Kr:72°30'
A181


SVJCR/L
Kr:93°
A182

WC□□(Positive inserts)

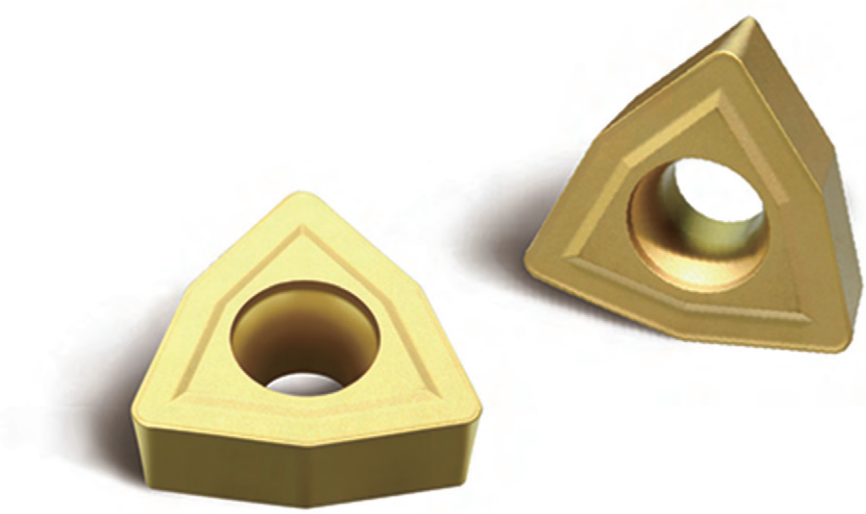


😊 Good working condition 😐 Normal working condition ☹ Bad working condition

Workpiece material	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	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	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
53 	WCMX040208R-53	4.3	6.35	2.38	3.1	0.8			●																								○
	WCMX06T308R-53	6.5	9.525	3.97	3.7	0.8	●		○																								○
	WCMX080412R-53	8.7	12.7	4.76	4.3	1.2																							○				

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



Applicable tool

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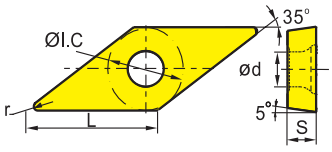
Insert code key A50–A51
Grade selection reference A19/A36–A47
Chipbreaker selection reference A22–A35
Recommended cutting parameters A230–A232

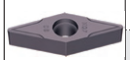
VB□□ (Positive inserts)



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

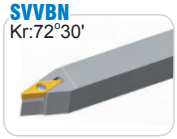
Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	Ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
SF	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																																	
EF	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							○		●	★				★													
For finishing	VBMT160408-EF	16.5	9.525	4.76	4.4	0.8							○		●	★				○													
HF	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			●						○																		
For finishing																																	
NF	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																																	
NGF	VBET160404-NGF	16.5	9.525	4.76	4.76	0.4							○	●			○																
	VBET160408-NGF	16.5	9.525	4.76	4.76	0.8							○	●			○																
	VBET160412-NGF	16.5	9.525	4.76	4.76	1.2							○	●			○																
For finishing																																	

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

Applicable tool


SVJBR/L
Kr:93°
Page A178

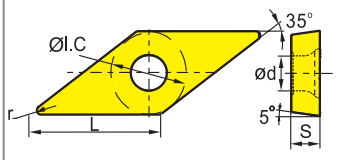

SVABR/L
Kr:90°
A179


SVVBN
Kr:72°30'
A180


SVQBR/L
Kr:107°30'
A216

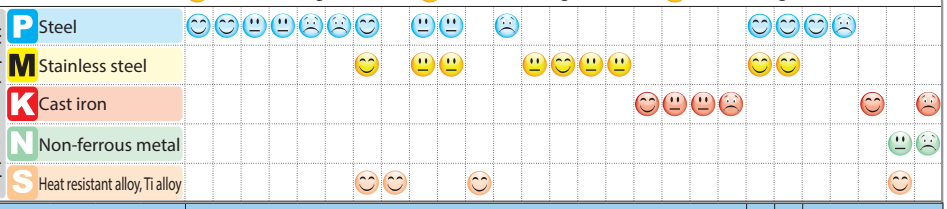

SVUBR/L
Kr:93°
A217

VB□□ (Positive inserts)



Good working condition Normal working condition Bad working condition

Workpiece material



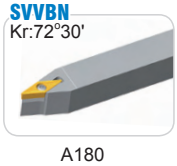
Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	Ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
EM	**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																																	
HM	**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 semi-finishing																																	
HR	**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					○																						
For roughing	**VBGT160408-HR**	16.5	9.525	4.76	4.4	0.8			○																								
SNR	**VBMT160408-SNR**	16.5	9.525	4.76	4.4	0.8							○	●			○																
	VBMT160412-SNR	16.5	9.525	4.76	4.4	1.2							○	●			○																
For finishing																																	

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

Applicable tool

Page A178

A179



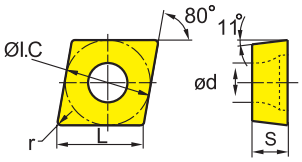
A180

A216

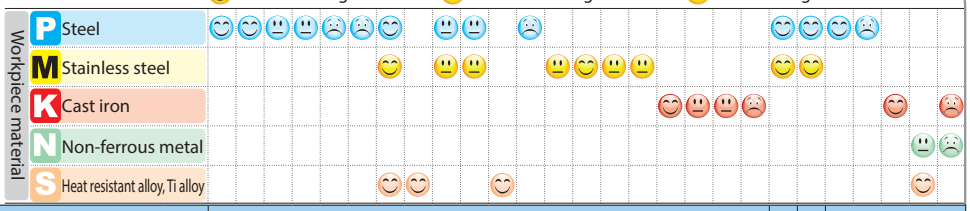
A217

Insert code key A50–A51
Grade selection reference A19/A36–A47
Chipbreaker selection reference A22–A35
Recommended cutting parameters A230–A232

CP□□ (Positive inserts)



Good working condition Normal working condition Bad working condition



Inserts shape	Type	Dimensions(mm)					Coated cemented carbide														Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
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

SCLPR/L
Kr:95°

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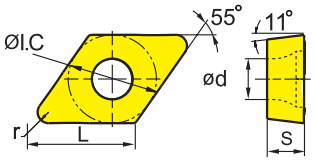
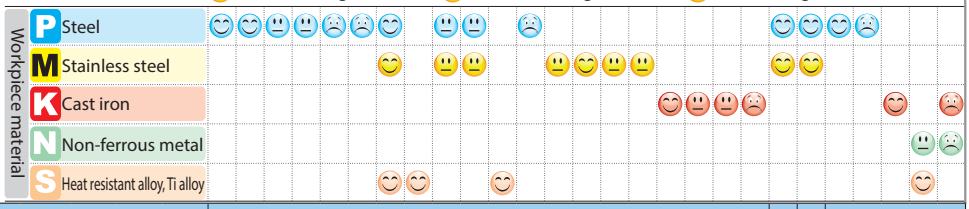
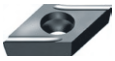
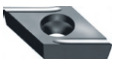
DP□□ (Positive inserts)



Good working condition Normal working condition Bad working condition

Workpiece material



Inserts shape	Type	Dimensions(mm)					Coated cemented carbide															Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
USF  For extra finishing	DPGT0702005R-USF	7.8	6.35	2.38	2.8	0.05									○	○																	
	DPGT070201R-USF	7.8	6.35	2.38	2.8	0.1									○	○																	
	DPGT11T301R-USF	11.6	9.525	3.97	4.4	0.1									●	○																	
USF  For extra finishing	DPGT0702005L-USF	7.8	6.35	2.38	2.8	0.05									○	○																	
	DPGT070201L-USF	7.8	6.35	2.38	2.8	0.1									○	○																	
	DPGT11T301L-USF	11.6	9.525	3.97	4.4	0.1									○	○																	
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

SDQPR/L Kr:107°30'

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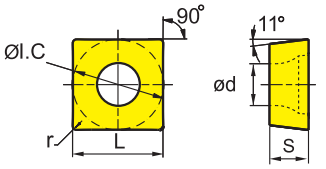
SDUPR/L Kr:93°

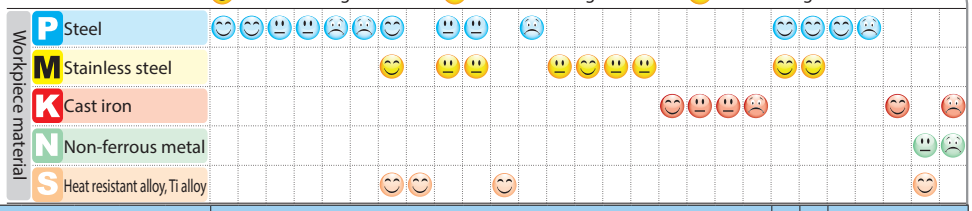
A220

Insert code key A50–A51
Grade selection reference A19/A36–A47
Chipbreaker selection reference A22–A35
Recommended cutting parameters A230–A232

SP□□ (Positive inserts)



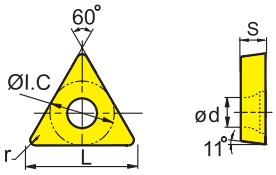
Good working condition Normal working condition Bad working condition



Inserts shape	Type	Dimensions(mm)					Coated cemented carbide															Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
Without chipbreaker 	**SPMW09T304**	9.525	9.525	3.97	4.4	0.4			○																					○	
	SPMW09T308	9.525	9.525	3.97	4.4	0.8	●																							●	
	SPMW120408	12.7	12.7	4.76	5.56	0.8																									○

★ 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

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																	Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
SF	TPGT090202-SF	9.6	5.56	2.38	2.5	0.2							○															○					
	TPGT090204-SF	9.6	5.56	2.38	2.5	0.4							○														○	★					
	TPGT090208-SF	9.6	5.56	2.38	2.5	0.8							○														○						
	TPGT110302-SF	11	6.35	3.18	2.8	0.2							○														○						
For extra finishing	TPGT110304-SF	11	6.35	3.18	2.8	0.4							○														○	○					
	TPGT110308-SF	11	6.35	3.18	2.8	0.8							○															○					
	TPGH090202L	9.6	5.56	2.38	2.8	0.2							●														○						
	TPGH090204L	9.6	5.56	2.38	2.8	0.4							●														●						
For extra finishing	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

Applicable tool

STUPR/L
Kr:93°

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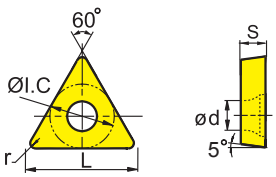
TB□□ (Positive inserts)



Good working condition Normal working condition Bad working condition

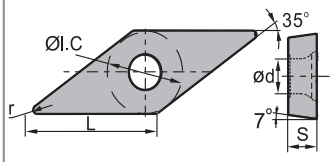
Workpiece material
- P Steel
- M Stainless steel
- K Cast iron
- N Non-ferrous metal
- S Heat resistant alloy, Ti alloy

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																	Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
	TBGH060102L	6.4	3.97	1.59	2.2	0.2							★														★						
For extra finishing	TBGH060104L	6.4	3.97	1.59	2.2	0.4							★																				

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

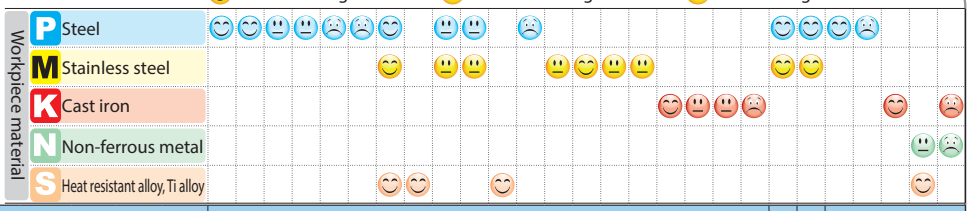
Insert code key A50–A51
Grade selection reference A19/A36–A47
Chipbreaker selection reference A22–A35
Recommended cutting parameters A230–A232

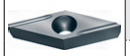
VP□□ (Positive inserts)



Good working condition Normal working condition Bad working condition

Workpiece material



Inserts shape	Type	Dimensions(mm)					Coated cemented carbide															Cermet	Coated cermet	Cemented carbide				
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
USF  For extra finishing	VPGT080201R-USF	8	4.76	2.38	2.3	0.1									○	○																	
	VPGT080202R-USF	8	4.76	2.38	2.3	0.2									○	○																	
	VPGT110301R-USF	11	6.35	3.18	2.8	0.1									●	○																	
USF  For extra finishing	VPGT080201L-USF	8	4.76	2.43	2.3	0.1									●	○																	
	VPGT080202L-USF	8	4.76	2.43	2.3	0.2									●	○																	
	VPGT110301L-USF	11	6.35	3.18	2.8	0.1									○	○																	

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