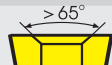
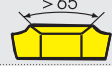
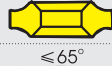
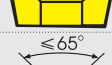
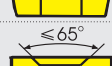
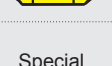
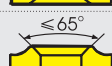
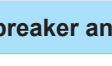
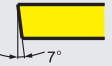
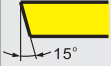
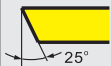
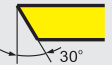
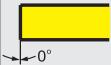
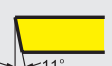


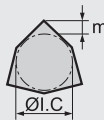
Insert shape/Code		
		
A	B	C
		
D	E	H
		
K	L	M
		
O	P	R
		
S	T	T
		Others
V	W	Z
Insert shape		

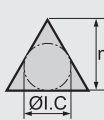
Metric							
Code	With/Without hole	With/Without chipbreaker	Section plane of insert	Code	With/Without hole	With/Without chipbreaker	Section plane of insert
B	With	Without		N	Without	Without	
H	With	Single-side		R	Without	Single-side	
C	With	Without		F	Without	Double-side	
J	With	Double-side		A	With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

T N M G

Clearance angle of main cutting edge			
Code	Clearance angle	Code	Clearance angle
A		B	
C		D	
E		F	
G		N	
P		O	Other clearance angles

Tolerance







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

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

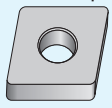
Nose radius	
Code	Nose radius (mm)
0	0.2
1	0.4
2	0.8
3	1.2
4	1.6
5	2.0
6	2.4

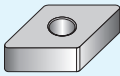
Nose radius code	
Code	Nose radius (mm)
00	No radius
02	0.2
04	0.4
08	0.8
12	1.2
16	1.6
20	2.0
24	2.4
32	3.2
X	Others
Diameter of insert (Metric)	
Round insert	

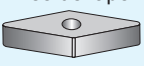
Chipbreaker code		
DF	DM	DR
		
HF	HM	HR
		
EF	EM	ER
		
NF	NM	SF
		
PM	HR	WGF
		

Metric and inch comparison table of negative inserts

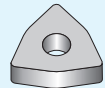
General
turningMetric and inch comparison table
of general turning inserts

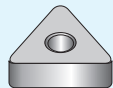
C-type negative angle	(ISO)	(Inch)	Chipbreaker
Insert shape 	090304	321	
	090308	322	-DF
	120404	431	-WGF
	120408	432	-SF
	120412	433	-EF
	120416	434	-NF
	160608	542	-WGM
	160612	543	-PM
	160616	544	-DM
	190608	642	-EM
	190612	643	-NM
	190616	644	-DR
	190624	646	-ER
	250724	856	-LR
	250732	858	-HPR
	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
	150416	434	-PM
	150424	441	-DM
	150604	441	-EM
	150608	442	-NM
	150612	443	-DR
	150616	444	-ER
	190608	542	-LR
	190612	543	-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	

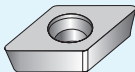
W-type negative angle	(ISO)	(Inch)	Chipbreaker
Insert shape 	06T304	3(2.5)1	-DF
	06T308	3(2.5)2	-WGF
	06T312	3(2.5)3	-SF
	060404	331	-EF
	060408	332	-NF
	060412	333	-WGM
	080404	431	-PM
	080408	432	-DM
	080412	433	-EM
			-NM
			-DR
			-SNR

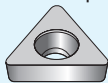
T-type negative angle	(ISO)	(Inch)	Chipbreaker
Insert shape 	110304	221	-DF
	110308	222	-WGF
	160404	331	-SF
	160408	332	-EF
	160412	333	-WGM
	220404	431	-PM
	220408	432	-DM
	220412	433	-EM
	220416	434	-DR
	270608	542	-ER
	270612	543	-LR
	270616	544	-SNR

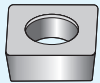
S-type negative angle	(ISO)	(Inch)	Chipbreaker
Insert shape 	090304	321	
	090308	322	
	090312	323	
	120404	431	-DF
	120408	432	-SF
	120412	433	-EF
	120416	434	-PM
	150608	542	-DM
	150612	543	-EM
	150616	544	-NM
	190412	633	-DR
	190424	636	-ER
	190612	643	-LR
	190616	644	-HPR
	250724	856	-SNR
	250732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

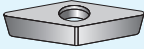
Metric and inch comparison table of positive insert

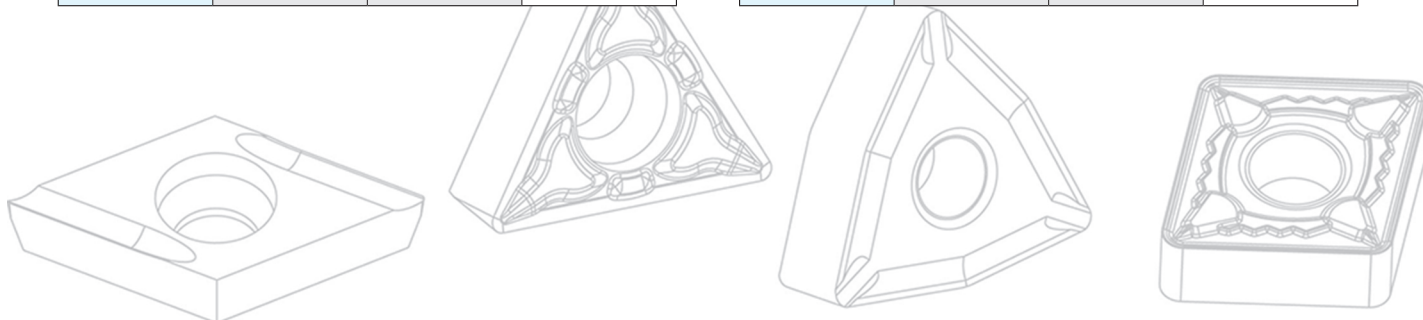
C-type positive angle	(ISO)	(Inch)	Chipbreaker
Insert shape 	060202	2(1.5)0	-USF
	060204	2(1.5)1	-SF
	060208	2(1.5)2	-HF
	09T302	3(2.5)0	-EF
	09T304	3(2.5)1	-HM
	09T308	3(2.5)2	-EM
	120404	431	-HR
	120408	432	-LH
	120412	433	-LC

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	-LH
			-LC

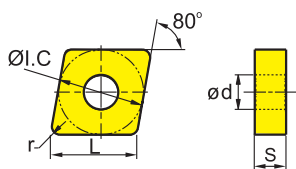
T-type positive angle	(ISO)	(Inch)	Chipbreaker
Insert shape 	06T102	1.2(1.2)0	-USF -SF -HF -EF -HM -EM -HR -LH -LC
	06T104	1.2(1.2)1	
	06T108	1.2(1.2)2	
	090202	1.8(1.5)0	
	090204	1.8(1.5)1	
	090208	1.8(1.5)2	
	110202	2(1.5)0	
	110204	2(1.5)1	
	110208	2(1.5)2	
	110302	220	
	110304	221	
	110308	222	
	16T302	3(2.5)0	
	16T304	3(2.5)1	
	16T308	3(2.5)2	
	16T312	3(2.5)3	
	160400	330	
	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	-HF -EF -HM -EM -HR -LH -LC
	09T302	3(2.5)0	
	09T304	3(2.5)1	
	09T308	3(2.5)2	
	120404	431	
	120408	432	
	120412	433	
	150404	531	
	150408	532	
	150412	533	
	190408	632	
	190412	633	
	190416	634	

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



CN ☐ ☐ (Negative inserts)



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

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

A 10x10 grid of 100 empty squares for drawing.

[illegible]

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

Applicable tool

DCLNR/L
Kr:95°



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PCBNR/L
Kr:75°



A161

PCLNR/L
Kr:95°



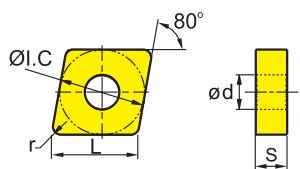
A162

PCLNR/L
Kr:95°



A202

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

[illegible]

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermel	Coated Cermel	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
NF  For finishing	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							○	★																			○	
WGM  For finishing Wiper	CNMG120408-WGM	12.9	12.7	4.76	5.16	0.8				★					★											★								
	CNMG120412-WGM	12.9	12.7	4.76	5.16	1.2					★					★											★							
PM  For semi-finishing	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		●	★	●	○	●															○							

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

DCLNR/L Kr:95°	PCBNR/L Kr:75°	PCLNR/L Kr:95°	PCLNR/L Kr:95°
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A162

A202

Insert code key

A50–A51

Grade selection reference

A19/A36–A47

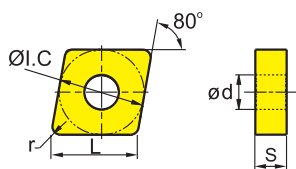
Chipbreaker selection reference

A22–A35

Recommended cutting parameters

A230–A232

CN ☐ ☐ (Negative inserts)



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

Workpiece material	Color
P Steel	Blue
M Stainless steel	Yellow
K Cast iron	Red
N Non-ferrous metal	Green
S Heat resistant alloy, Ti alloy	Orange

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

[illegible]

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

Applicable tool



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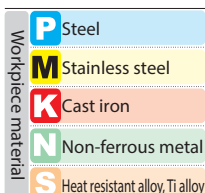
A162



A202

General turning

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

[illegible]

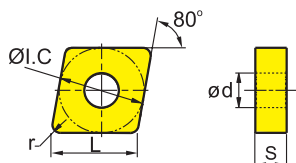
★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

A202

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

[illegible]

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

Applicable tool

DCLNR/L
Kr:95°



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PCBNR/L
Kr:75°



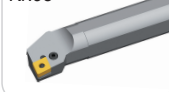
A161

PCLNR/L
Kr:95°



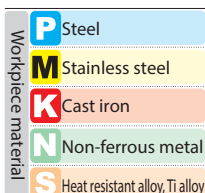
A162

PCLNR/L
Kr:95°



A202

😊 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
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																		○	★	★							

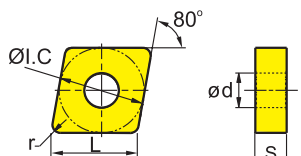
★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

DCLNR/L Kr:95°	PCBNR/L Kr:75°	PCLNR/L Kr:95°	PCLNR/L Kr:95°
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A202

Recommended cutting parameters

CN ☐ ☐ (Negative inserts)



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

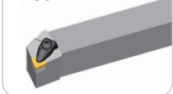
Workpiece material	Color
P Steel	Blue
M Stainless steel	Yellow
K Cast iron	Red
N Non-ferrous metal	Green
S Heat resistant alloy, Ti alloy	Orange

[illegible][illegible]

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

Applicable tool

DCLNR/L
Kr:95°



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PCBNR/L
Kr:75°



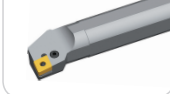
A161

PCLNR/L
Kr:95°



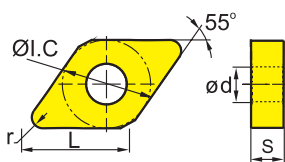
A162

PCLNR/L
Kr:95°



A202

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



Workpiece material	Color
P Steel	Blue
M Stainless steel	Yellow
K Cast iron	Red
N Non-ferrous metal	Green
S Heat resistant alloy, Ti alloy	Orange

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermert	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
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

DDJNR/L Kr:93°	PDJNR/L Kr:93°	PDPNN Kr:62°30'	PDPNR/L Kr:62°30'	PDUNR/L Kr:93°
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A164

A203

A204

Insert code key

A50–A51

Grade selection reference

A19/A36–A47

Chipbreaker selection reference

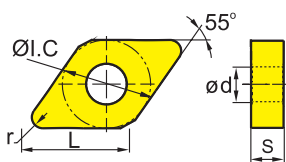
A22–A35

Recommended cutting parameters

A230–A232

DN ☐ ☐ (Negative inserts)

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



Workpiece material	Color
P Steel	Blue
M Stainless steel	Yellow
K Cast iron	Red
N Non-ferrous metal	Green
S Heat resistant alloy, Ti alloy	Orange

[illegible]

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

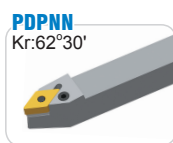
Applicable tool



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A164



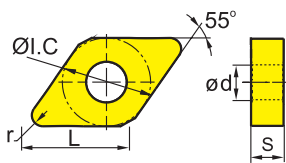
A203



A204

Cemented carbide and cermet inserts

DN ☐ ☐ (Negative inserts)



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

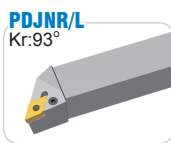
[illegible][illegible]

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

Applicable tool



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A163



A164



A203



A204

Insert code key

A50–A51

Grade selection reference

A19/A36–A47

Chipbreaker selection reference

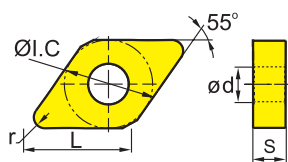
A22–A35

Recommended cutting parameters

A230–A232

DN ☐ ☐ (Negative inserts)

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



Workpiece material	
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																Cermetal	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
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

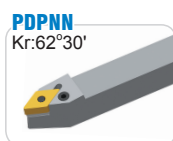
Applicable tool



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A163



A164



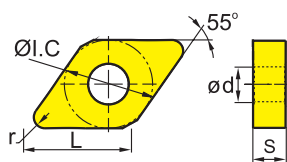
A203



A204

General turning

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

[illegible][illegible]

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

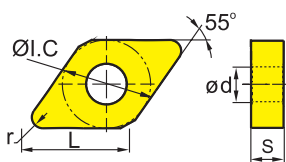
DDJNR/L Kr:93°	PDJNR/L Kr:93°	PDPNN Kr:62°30'	PDPNR/L Kr:62°30'	PDUNR/L Kr:93°
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A204

Recommended cutting parameters **A230-A232**

DN ☐ ☐ (Negative inserts)

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



Workpiece material	Color
P Steel	Blue
M Stainless steel	Yellow
K Cast iron	Red
N Non-ferrous metal	Green
S Heat resistant alloy, Ti alloy	Orange

A 10x10 grid with various smiley face emojis placed in different cells, representing a sparse matrix. The emojis include happy, neutral, sad, and surprised faces, distributed across the grid.

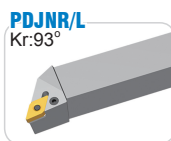
Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermel	Coated cermel	Cemented carbide								
		L	Ø.L.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM251	YBM253			YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YC10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

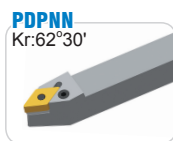
Applicable tool



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A164

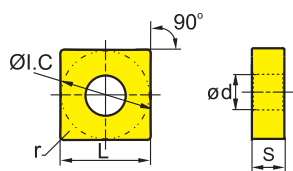


A203



A204

😊 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																Cernmet	Coated cermet	Cemented carbide								
		L	Ø.I.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
DF  For finishing	SNMG090304-DF	9.525	9.525	3.18	3.81	0.4	○																										
	SNMG090308-DF	9.525	9.525	3.18	3.81	0.8	○																										
	SNMG120404-DF	12.7	12.7	4.76	5.16	0.4	○																										
	SNMG120408-DF	12.7	12.7	4.76	5.16	0.8	○	●	○																		○						
	SNMG120412-DF	12.7	12.7	4.76	5.16	1.2	○		○																								
EF  For finishing	SNMG090304-EF	9.525	9.525	3.18	3.81	0.4								○	★				★														
	SNMG090308-EF	9.525	9.525	3.18	3.81	0.8									○	★				★													
	SNMG090312-EF	9.525	9.525	3.18	3.81	1.2									○	★				★													
	SNMG120404-EF	12.7	12.7	4.76	5.16	0.4									●	★				★													
	SNMG120408-EF	12.7	12.7	4.76	5.16	0.8									●	★				★													
	SNMG120412-EF	12.7	12.7	4.76	5.16	1.2									○	★				★													
	SNMG150608-EF	15.875	15.875	6.35	6.35	0.8									○	★				★													
	SNMG150612-EF	15.875	15.875	6.35	6.35	1.2									○	★				★													
SF  For finishing	SNMG090304-SF	9.525	9.525	3.18	3.81	0.4							○													○	★						
	SNMG090308-SF	9.525	9.525	3.18	3.81	0.8								○													○	★					
	SNMG120404-SF	12.7	12.7	4.76	5.16	0.4								○													○	★					
	SNMG120408-SF	12.7	12.7	4.76	5.16	0.8								○													○	★					
	SNMG120412-SF	12.7	12.7	4.76	5.16	1.2								○													○						
	SNMG150608-SF	15.875	15.875	6.35	6.35	0.8								○													○						

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

DSBNR/L Kr:75°	PSBNR/L Kr:75°	PSDNN Kr:45°	PSKNR/L Kr:75°	PSSNR/L Kr:45°	PSKNR/L Kr:75°
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A205

Insert code key

A50–A51

Grade selection reference

A19/A36–A47

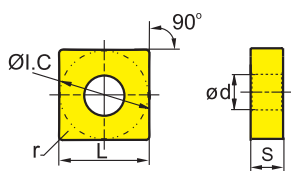
Chipbreaker selection reference

A22–A35

Recommended cutting parameters

A230–A232

SN ☐ ☐ (Negative inserts)



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

Workpiece material	Color
P Steel	Blue
M Stainless steel	Yellow
K Cast iron	Red
N Non-ferrous metal	Green
S Heat resistant alloy, Ti alloy	Orange

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
 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			●	○																							
 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



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A166



A167

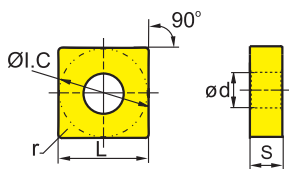


A168



A205

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

[illegible][illegible]

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

DSBNR/L Kr:75°	PSBNR/L Kr:75°	PSDNN Kr:45°	PSKNR/L Kr:75°	PSSNR/L Kr:45°	PSKNR/L Kr:75°
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A166

A167

A168

A205

Insert code key

A50–A51

Grade selection reference

A19/A36–A47

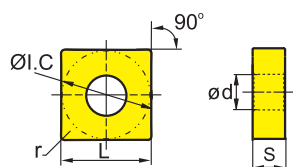
Chipbreaker selection reference

A22–A35

Recommended cutting parameters

A230–A232

SN ☐ ☐ (Negative inserts)



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

Workpiece material	Tool material
P Steel	High speed steel
M Stainless steel	Coated high speed steel
K Cast iron	Cast iron
N Non-ferrous metal	Aluminum nitride
S Heat resistant alloy, Ti alloy	Aluminum nitride

A 10x10 grid of 100 empty squares for drawing.

[illegible]

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

Applicable tool



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A165



A166



A167

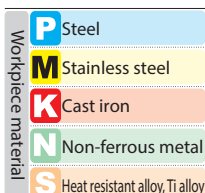


A168



A205

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



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

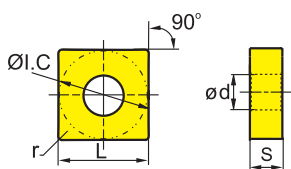
PSKNR/L
Kr:75°

A205

Recommended cutting parameters

A230–A232

SN ☐ ☐ (Negative inserts)



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

[illegible]

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

Applicable tool



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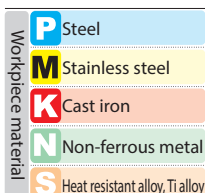


A168



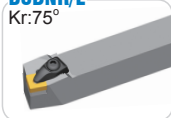
A205

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

[illegible]

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

DSBNR/L
Kr:75°



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A166



A167



A168



A205

Insert code key

A50–A51

Grade selection reference

A19/A36–A47

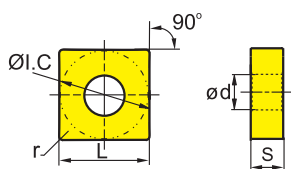
Chipbreaker selection reference

A22–A35

Recommended cutting parameters

A230–A232

SN ☐ ☐ (Negative inserts)



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

Workpiece material	Color
P Steel	Blue
M Stainless steel	Yellow
K Cast iron	Red
N Non-ferrous metal	Green
S Heat resistant alloy, Ti alloy	Orange

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermel	Coated cermel	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
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



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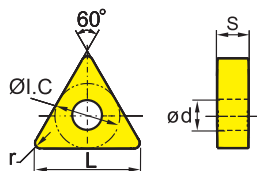
A168



A205

General turning

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

[illegible]

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide															Cermetal	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
 DF For finishing	TNMG160404-DF	16.5	9.525	4.76	3.81	0.4	★	●	★												○						●							
	TNMG160408-DF	16.5	9.525	4.76	3.81	0.8	★	○	★																		●							
	TNMG160412-DF	16.5	9.525	4.76	3.81	1.2	○	○	○																									
	TNMG220408-DF	22	12.7	4.76	5.16	0.8	★	○	○																									
	TNMG220412-DF	22	12.7	4.76	5.16	1.2	○																											
 WGF For finishing Wiper	TNMX160404-WGF	16.5	9.525	4.76	3.81	0.4	★													★			★											
	TNMX160408-WGF	16.5	9.525	4.76	3.81	0.8	★													★			★											
 SF For finishing	TNMG110304-SF	11	6.35	3.18	2.26	0.4							○														○	★						
	TNMG160404-SF	16.5	9.525	4.76	3.81	0.4							○														○	★						
	TNMG160408-SF	16.5	9.525	4.76	3.81	0.8							○														○	★						
	TNMG220408-SF	22	12.7	4.76	5.16	0.8							○														○	★						
	TNMG220412-SF	22	12.7	4.76	5.16	1.2							○														○	★						

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

DTGNR/L Kr:91°	PTFNRL/L Kr:90°	PTTNR/L Kr:60°	PTGNR/L Kr:90°	PTFNRL/L Kr:90°
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A170

A171

A206

Insert code key

A50–A51

Grade selection reference

A19/A36–A47

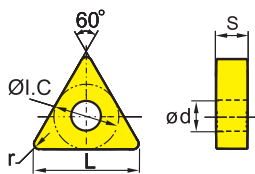
Chipbreaker selection reference

A22–A35

Recommended cutting parameters

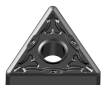
A230–A232

TN (Negative inserts)



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

Workpiece material	Tool material
P Steel	High speed steel
M Stainless steel	Cermet
K Cast iron	Cermet
N Non-ferrous metal	Aluminum nitride
S Heat resistant alloy, Ti alloy	Cermet

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide															Cermel 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
 For finishing	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									○	★				★													
 For semi-finishing Wiper	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	TNMG110304-PM	11	6.35	3.18	2.26	0.4	★	●	○																								
	TNMG110308-PM	11	6.35	3.18	2.26	0.8	★	○	○																								
	TNMG160404-PM	16.5	9.525	4.76	3.81	0.4	★	●	★																★	★							
	TNMG160408-PM	16.5	9.525	4.76	3.81	0.8	★	●	★	●		○													★	★	★						
	TNMG160412-PM	16.5	9.525	4.76	3.81	1.2	★	●	○	○															★	★	○						
	TNMG220408-PM	22	12.7	4.76	5.16	0.8	★	●	○	●															★	○	○						
	TNMG220412-PM	22	12.7	4.76	5.16	1.2	●	★	●	○	○														○	○							
	TNMG220416-PM	22	12.7	4.76	5.16	1.6			○	○																○							

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

Applicable tool



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A170

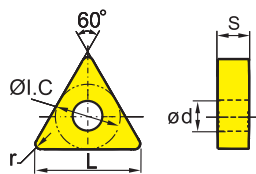


A171



A206

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

[illegible][illegible]

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

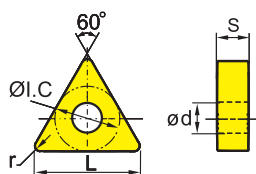
DTGNR/L Kr:91°	PTFNR/L Kr:90°	PTTNR/L Kr:60°	PTGNR/L Kr:90°	PTFNR/L Kr:90°
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A206

Recommended cutting parameters

A230–A232

TN (Negative inserts)



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

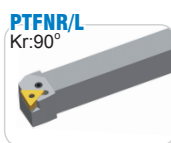
Workpiece material	Color
P Steel	Blue
M Stainless steel	Yellow
K Cast iron	Red
N Non-ferrous metal	Green
S Heat resistant alloy, Ti alloy	Orange

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

[illegible]

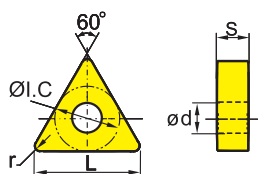
★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

Applicable tool



General turning

😊 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

[illegible]

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

DTGNR/L Kr:91°	PTFNR/L Kr:90°	PTTNR/L Kr:60°	PTGNR/L Kr:90°	PTFNR/L Kr:90°
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A170

A171

A206

Insert code key

A50–A51

Grade selection reference

A19/A36–A47

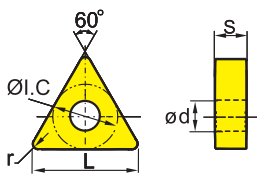
Chipbreaker selection reference

A22–A35

Recommended cutting parameters

A230–A232

TN (Negative inserts)



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

Workpiece material	Color
P Steel	Blue
M Stainless steel	Yellow
K Cast iron	Red
N Non-ferrous metal	Green
S Heat resistant alloy, Ti alloy	Orange

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermel	Coated cermel	Cemented carbide								
		L	Ø.L.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
 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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A169



A170

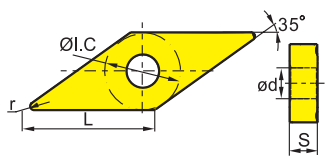


A171



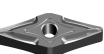
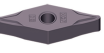
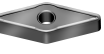
A206

VN (Negative inserts)



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

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

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																	Cermet YNG151	Coated cermet YNG151C	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	YC10	YC40	YD051	YD101
 For finishing	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							○														○					

★ 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°



A159

Insert code key

A50-A51

Grade selection reference

A19/A36-A47

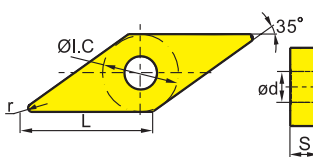
Chipbreaker selection reference

A22-A35

Recommended cutting parameters

A230-A232

VN (Negative inserts)



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

Workpiece material	Color
P Steel	Blue
M Stainless steel	Yellow
K Cast iron	Red
N Non-ferrous metal	Green
S Heat resistant alloy, Ti alloy	Orange

A 10x10 grid with various emojis placed in specific cells. The emojis include happy, sad, neutral, and surprised faces, as well as a green alien-like face. The grid is used for a logic puzzle.

[illegible]

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

Applicable tool

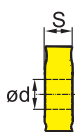
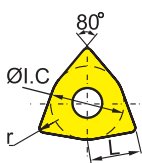


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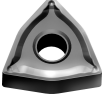


A159

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



Workpiece material	Color
P Steel	Blue
M Stainless steel	Yellow
K Cast iron	Red
N Non-ferrous metal	Green
S Heat resistant alloy, Ti alloy	Orange

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermetal	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
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

Three types of end connections for the DWLNR/L, PWNLR/L, and PWNLR/L Kr:95° cables. Each connection is shown in a separate box, highlighting the different mounting options available for these cables.

Page A160

A172

A207

Insert code key

A50–A51

Grade selection reference

A19/A36–A47

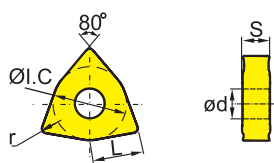
Chipbreaker selection reference

A22–A35

Recommended cutting parameters

A230-A232

WN ☐ ☐ (Negative inserts)



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

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

[illegible]

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

Applicable tool



Page A160



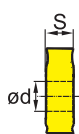
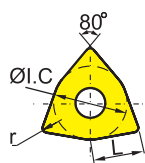
A172



A207

General turning

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



Workpiece material	Color
P Steel	Blue
M Stainless steel	Yellow
K Cast iron	Red
N Non-ferrous metal	Green
S Heat resistant alloy, Ti alloy	Orange

Cemented carbide and cermet inserts

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

Three types of end connections for the DWLNR/L, PWNLR/L, and PWNLR/L Kr:95° cables. Each connection is shown in a separate box, featuring a grey cable body and a yellow and black connector.

Page A160

A172

A207

Insert code key

A50–A51

Grade selection reference

A19/A36–A47

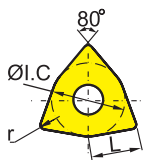
Chipbreaker selection reference

A22–A35

Recommended cutting parameters

A230–A232

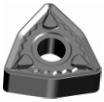
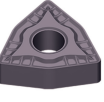
WN ☐ ☐ (Negative inserts)



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

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

[illegible]

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermetal	Coated cermet	Cemented carbide								
		L	Øl.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
 For semi-finishing	WNMG080408-NM	8.7	12.7	4.76	5.16	0.8							○	★																			○
	WNMG080412-NM	8.7	12.7	4.76	5.16	1.2							○	★																		○	
 For roughing	WNMG060408-DR	6.5	9.525	4.76	3.81	0.8		○	○	○														○									
	WNMG060412-DR	6.5	9.525	4.76	3.81	1.2				○	○	○												○	○								
	WNMG080408-DR	8.7	12.7	4.76	5.16	0.8		○	○	★	○	●												●	●								
	WNMG080412-DR	8.7	12.7	4.76	5.16	1.2		○	○	★	○	●												●	●								
	WNMG080416-DR	8.7	12.7	4.76	5.16	1.6					○														○	○							
 For roughing	WNMG080408-SNR	8.7	12.7	4.76	5.16	0.8							○	●			○																
	WNMG080412-SNR	8.7	12.7	4.76	5.16	1.2							○	●			○																
 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

DWLNR/L
Kr:95°



Page A160

PWLNR/L
Kr:95°



A172

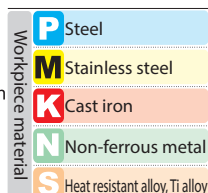
PWLNR/L
Kr:95°



A207

General turning

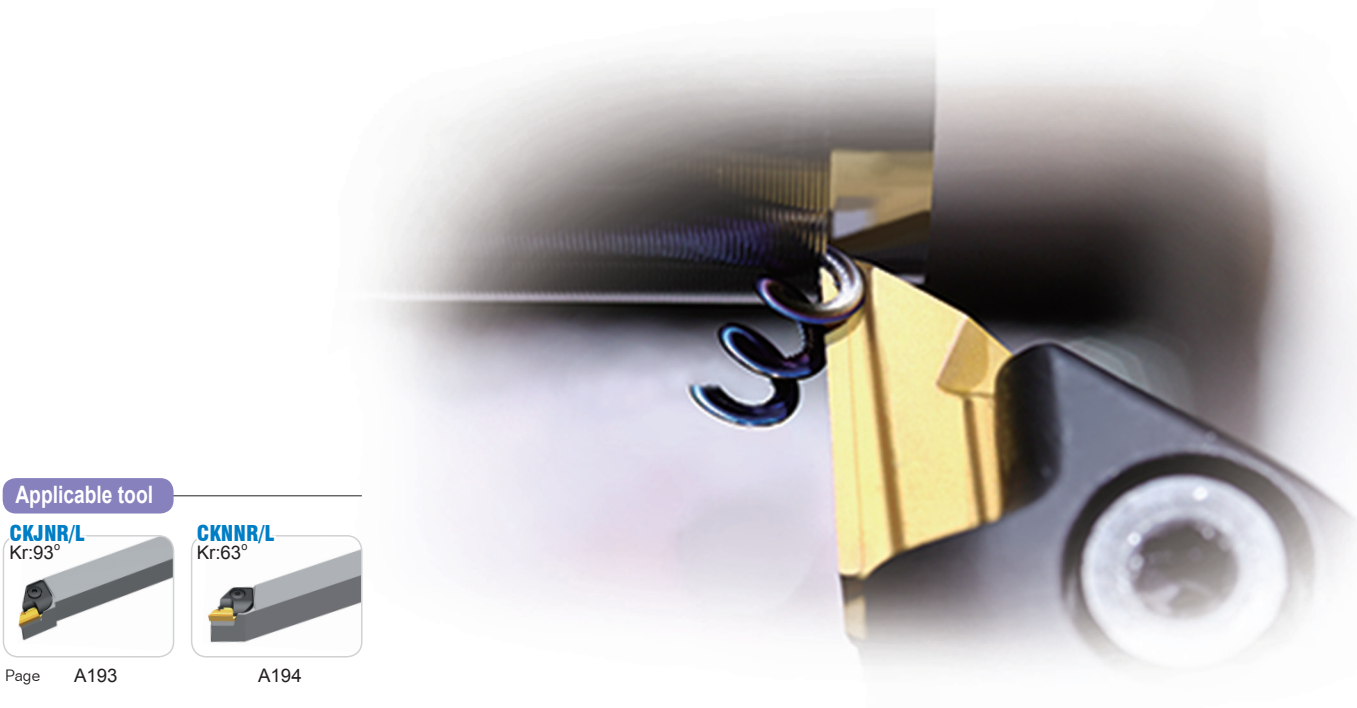
😊 Good working condition 😐 Normal working condition 😞 Bad working condition



Cemented carbide and cermet inserts

Note: KNUX160405L11

Chipbreaker code: 11→Declining chipbreaker 12→Straight chipbreaker



CKJNR/L
Kr:93°

CKNNR/L
Kr:63°



A194

Insert code key

A50–A51

Grade selection reference

A19/A36–A47

Chipbreaker selection reference

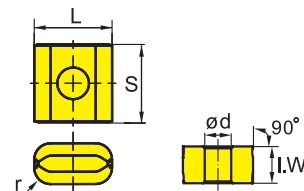
A22–A35

Recommended cutting parameters

A230–A232

Heavy turning(Negative inserts)

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



Workpiece material	Color
P Steel	Blue
M Stainless steel	Yellow
K Cast iron	Red
N Non-ferrous metal	Green
S Heat resistant alloy, Ti alloy	Orange

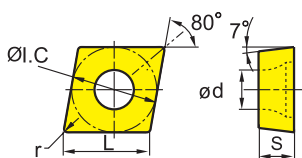
General turning

Cemented carbide and cermet inserts

[illegible]

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

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

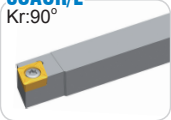


Workpiece material	Material
P	Steel
M	Stainless steel
K	Cast iron
N	Non-ferrous metal
S	Heat resistant alloy, Ti alloy

[illegible]

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

SCACR/L
Kr:90°



Page A173



A174



A208



A222



A223

Insert code key

A50–A51

Grade selection reference

A19/A36–A47

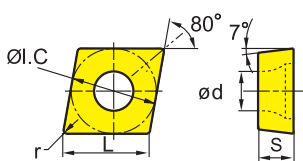
Chipbreaker selection reference

A22–A35

Recommended cutting parameters

A230–A232

CC (Positive inserts)



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

Workpiece material	Tool material
P Steel	High speed steel
M Stainless steel	Cermet
K Cast iron	Cermet
N Non-ferrous metal	Aluminum nitride
S Heat resistant alloy, Ti alloy	Cermet

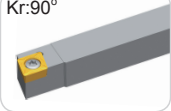
😊 Good working condition 😐 Normal working condition 😞 Bad working condition

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide															Cermetal	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
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

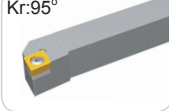
Applicable tool

SCACR/L
Kr:90°



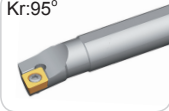
Page A173

SCLCR/L
Kr:95°



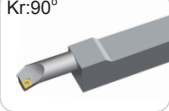
A174

SCLCR/L
Kr:95°



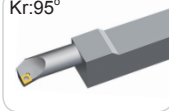
A208

SCFCR
Kr:90°



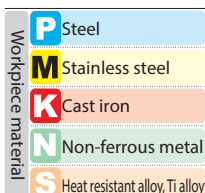
A222

SCLCR
Kr:95°



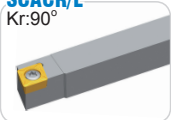
A223

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

[illegible]

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

SCACR/L
Kr:90°



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A174



A208



A222



A223

Insert code key

A50–A51

Grade selection reference

A19/A36–A47

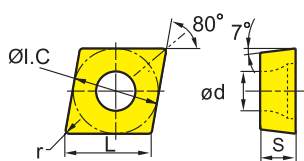
Chipbreaker selection reference

A22–A35

Recommended cutting parameters

A230–A232

CC (Positive inserts)



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

Workpiece material	Color
P Steel	Blue
M Stainless steel	Yellow
K Cast iron	Red
N Non-ferrous metal	Green
S Heat resistant alloy, Ti alloy	Orange

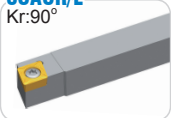
A 10x10 grid with various emojis placed in specific cells. The emojis include blue sad faces, yellow sad faces, yellow happy faces, orange sad faces, orange happy faces, red sad faces, green sad faces, and orange happy faces.

[illegible]

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

Applicable tool

SCACR/L
Kr:90°



Page A173

SCLCR/L
Kr:95°



A174

SCLCR/L
Kr:95°



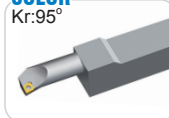
A208

SCFCR
Kr:90°



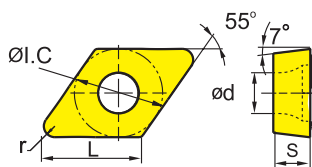
A222

SCLCR
Kr:95°



A223

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



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

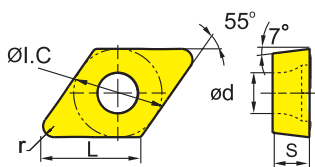
SDACR/L Kr:90°	SDJCR/L Kr:93°	SDNCN Kr:62°30'	SDQCR/L Kr:107°30'	SDUCR/L Kr:93°	SDZCR/L Kr:95°
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A211

Recommended cutting parameters

DC (Positive inserts)

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



Workpiece material	Color
P Steel	Blue
M Stainless steel	Yellow
K Cast iron	Red
N Non-ferrous metal	Green
S Heat resistant alloy, Ti alloy	Orange

[illegible]

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

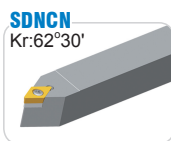
Applicable tool



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A176



A177



A209

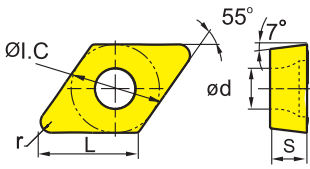


A210



A211

DC (Positive inserts)



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

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

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide															Cermet	Coated Cermet	Cemented carbide										
		L	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  For roughing	DCMT11T304-HR	11.6	9.525	3.97	4.4	0.4		○	●	○	○										○			○	●									
	DCMT11T308-HR	11.6	9.525	3.97	4.4	0.8		●	●	★	○										○		○	●	●					○				
	DCMT11T312-HR	11.6	9.525	3.97	4.4	1.2		○	●																									
LC  For Al machining	DCGX070201-LC	7.8	6.35	2.38	2.8	0.1																										★		
	DCGX070202-LC	7.8	6.35	2.38	2.8	0.2																										★		
	DCGX070204-LC	7.8	6.35	2.38	2.8	0.4																										★		
	DCGX11T304-LC	11.6	9.525	3.97	4.4	0.4																										★		
	DCGX11T308-LC	11.6	9.525	3.97	4.4	0.8																										★		
LH  For Al machining	DCGX070202-LH	7.8	6.35	2.38	2.8	0.2																									★			
	DCGX070204-LH	7.8	6.35	2.38	2.8	0.4																									★	○		
	DCGX11T302-LH	11.6	9.525	3.97	4.4	0.2																									★	○		
	DCGX11T304-LH	11.6	9.525	3.97	4.4	0.4																									★	●		
	DCGX11T308-LH	11.6	9.525	3.97	4.4	0.8																									★			
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

General turning

Cemented carbide and cermet inserts

Applicable tool

SDACR/L
Kr:90°



Page A175

SDJCR/L
Kr:93°



A176

SDNCN
Kr:62°30'



A177

SDQCR/L
Kr:107°30'



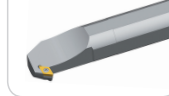
A209

SDUCR/L
Kr:93°



A210

SDZCR/L
Kr:95°



A211

Insert code key

A50-A51

Grade selection reference

A19/A36-A47

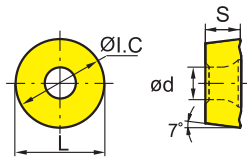
Chipbreaker selection reference

A22-A35

Recommended cutting parameters

A230-A232

RC (Positive inserts)

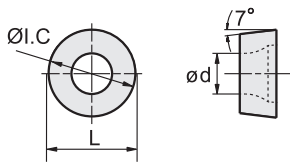


P	Steel
M	Stainless steel
K	Cast iron
N	Non-ferrous metal
S	Heat resistant alloy, Ti alloy

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

Inserts shape	Type	Dimensions(mm)				Coated cemented carbide																Cermet	Coated cermet	Cemented carbide								
		L	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



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

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

Inserts shape	Type	Dimensions(mm)				Coated cemented carbide																Cermet	Coated cermet	Cemented carbide									
		L	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

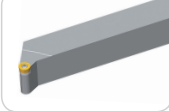
Applicable tool

SRDCN



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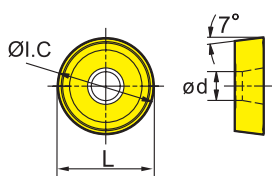
SRGCR/L



A192

General turning

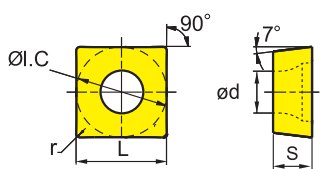
😊 Good working condition 😐 Normal working condition 😞 Bad working condition

[illegible]

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

Cemented carbide and cermet inserts

SC ☐ ☐ (Positive inserts)



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

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

A 10x10 grid of empty squares for drawing.

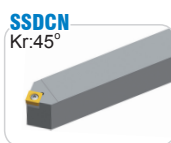
[illegible]

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

Applicable tool



Page A183



A184



A185



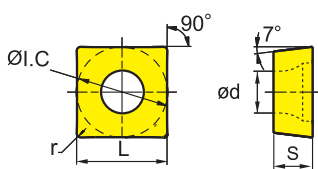
A186



A212

General turning

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



Cemented carbide and cermet inserts

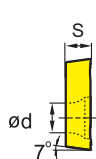
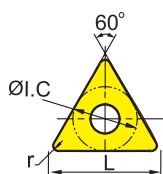
★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

SSBCR/L Kr:75°	SSDCN Kr:45°	SSKCR/L Kr:75°	SSSCR/L Kr:45°	SSKCR/L Kr:75°
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A212

Recommended cutting parameters 

TC ☐ ☐ (Positive inserts)



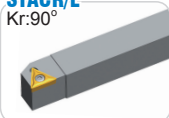
😊 Good working condition 😐 Normal working condition 😞 Bad working condition

[illegible][illegible]

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

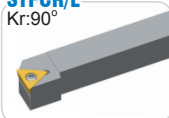
Applicable tool

STACR/L
Kr:90°



Page A187

STFCR/L
Kr:90°



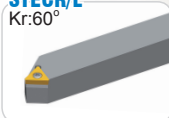
A187

STGCR/L
Kr:91°



A188

STECR/L
Kr:60°



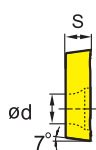
A186

STFCR/L
Kr:90°



A212

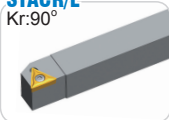
😊 Good working condition 😐 Normal working condition 😞 Bad working condition

[illegible]

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermel	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
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

STACR/L
Kr:90°



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A187



A188



A186



A212

Insert code key

A50–A51

Grade selection reference

A19/A36–A47

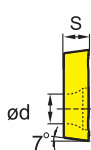
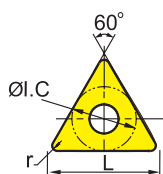
Chipbreaker selection reference

A22–A35

Recommended cutting parameters

A230–A232

TC ☐ ☐ (Positive inserts)



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

Workpiece material	Color
P Steel	Blue
M Stainless steel	Yellow
K Cast iron	Red
N Non-ferrous metal	Green
S Heat resistant alloy, Ti alloy	Orange

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

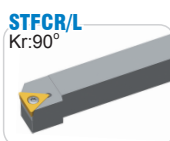
[illegible]

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

Applicable tool



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A187



A188

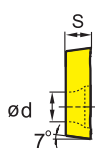
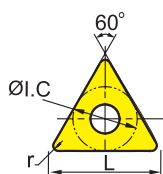


A186



A212

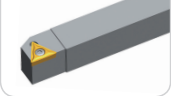
😊 Good working condition 😐 Normal working condition 😞 Bad working condition

[illegible]

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cemet	Coated cemet	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
HM  For semi-finishing	TCMT090204-HM	9.6	5.56	2.38	2.5	0.4	★	●	○												○				●								
	TCMT090208-HM	9.6	5.56	2.38	2.5	0.8	○	●		○																							
	TCMT110204-HM	11	6.35	2.38	2.8	0.4	★	●	○	○				●								●			●	●	○						
	TCMT110208-HM	11	6.35	2.38	2.8	0.8	★	●		○																●							
	TCMT16T304-HM	16.5	9.525	3.97	4.4	0.4	★	●	★	●												●			○	●							
	TCMT16T308-HM	16.5	9.525	3.97	4.4	0.8	★	●	★	●												●			●	●						○	
	TCMT16T312-HM	16.5	9.525	3.97	4.4	1.2			●		●											○											
HR  For roughing	TCMT090204-HR	9.6	5.56	2.38	2.5	0.4		○																									
	TCMT090208-HR	9.6	5.56	2.38	2.5	0.8																			○								●
	TCMT110204-HR	11	6.35	2.38	2.8	0.4			○																								
	TCMT110208-HR	11	6.35	2.38	2.8	0.8			○																								
	TCMT16T304-HR	16.5	9.525	3.97	4.4	0.4		○	●																								
	TCMT16T308-HR	16.5	9.525	3.97	4.4	0.8		●	●		●														●	●							
	TCMT16T312-HR	16.5	9.525	3.97	4.4	1.2		○	●																●	●						○	
	TCMT220408-HR	22	12.7	4.76	5.5	0.8		○	●		○											●											
LC  For Al machining	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																											★

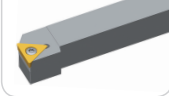
★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

STACR/L
Kr:90°



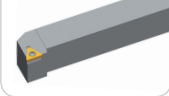
Page A187

STFCR/L
Kr:90°



A187

STGCR/L
Kr:91°



A188

STECR/L
Kr:60°



A186

STFCR/L
Kr:90°



A212

Insert code key

A50–A51

Grade selection reference

A19/A36–A47

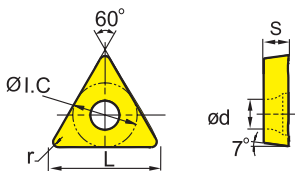
Chipbreaker selection reference

A22–A35

Recommended cutting parameters

A230–A232

TC ☐ ☐ (Positive inserts)



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

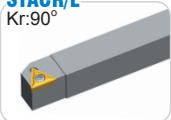
Workpiece material	Color
P Steel	Blue
M Stainless steel	Yellow
K Cast iron	Red
N Non-ferrous metal	Green
S Heat resistant alloy, Ti alloy	Orange

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermel	Coated Cermel	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
For AI 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°



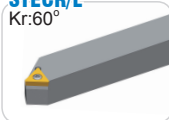
A187

STGCR/L
Kr:91°



A188

STECR/L
Kr:60°



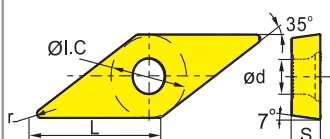
A186

STFCR/L
Kr:90°



A212

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

[illegible][illegible]

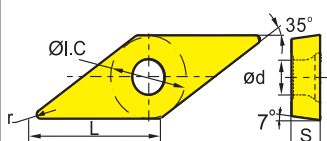
★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

A182

Recommended cutting parameters

A230–A232

VC ☐ ☐ (Positive inserts)



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

Workpiece material	Color
P Steel	Blue
M Stainless steel	Yellow
K Cast iron	Red
N Non-ferrous metal	Green
S Heat resistant alloy, Ti alloy	Orange

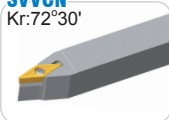
[illegible]

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

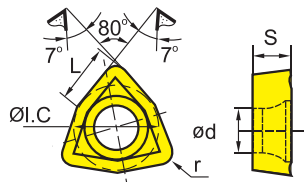
Applicable tool

SVQCR/L
Kr:107°30'SVUCR/L
Kr:93°

SVVCN
Kr:72°30'

SVJCR/L
Kr:93°

WC (Positive inserts)



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

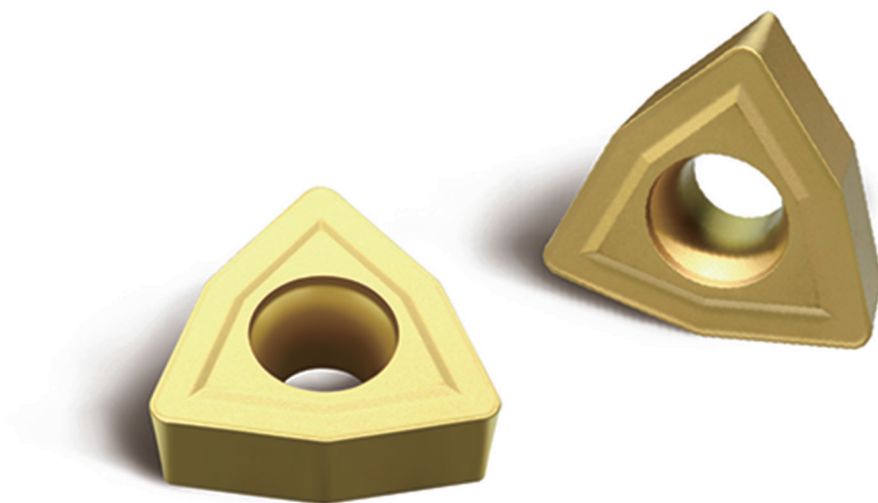
😊 Good working condition 😐 Normal working condition ☹ Bad working condition

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermet	Coated cermet	Cemented carbide								
		L	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

General turning

Cemented carbide and cermet inserts



Applicable tool

SWACR/L
Kr:90°



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Insert code key

A50-A51

Grade selection reference

A19/A36-A47

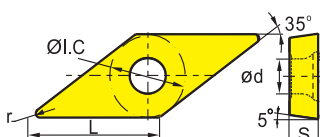
Chipbreaker selection reference

A22-A35

Recommended cutting parameters

A230-A232

A107

VB ☐ ☐ (Positive inserts)

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

Workpiece material	Color
P Steel	Blue
M Stainless steel	Yellow
K Cast iron	Red
N Non-ferrous metal	Green
S Heat resistant alloy, Ti alloy	Orange

How much do you agree?

How much do you disagree?

How much do you agree?

How much do you disagree?

[illegible]

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

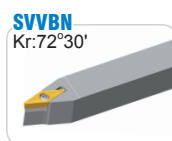
Applicable tool



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A179



A180

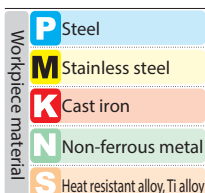


A216



A217

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

[illegible]

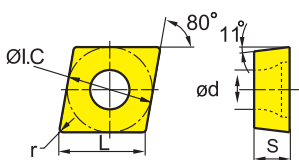
★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

SVJBR/L Kr:93°	SVABR/L Kr:90°	SVVB Kr:72°30'	SVQBR/L Kr:107°30'	SVUBR/L Kr:93°
--	--	--	--	--

A217

A230–A232

CP (Positive inserts)



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

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

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermet	Coated cermet	Cemented carbide								
		L	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

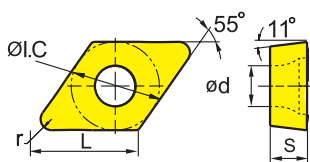
Applicable tool

SCLPR/L
Kr:95°



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DP ☐ ☐ (Positive inserts)



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

[illegible]

★ 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

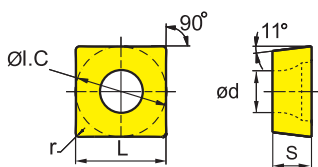
Chipbreaker selection reference

A22–A35

Recommended cutting parameters

A230–A232

SP (Positive inserts)



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

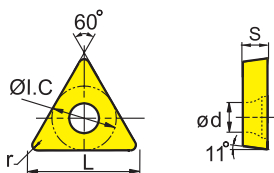
😊 Good working condition 😐 Normal working condition 😞 Bad working condition

Inserts shape	Type	Dimensions(mm)					Coated cemented carbide																Cermetal	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
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

General turning

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

[illegible]

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	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							○															○					
	TPGT110304-SF	11	6.35	3.18	2.8	0.4							○															○	○				
	TPGT110308-SF	11	6.35	3.18	2.8	0.8							○																○				
 For extra finishing	TPGH090202L	9.6	5.56	2.38	2.8	0.2							●														○						
	TPGH090204L	9.6	5.56	2.38	2.8	0.4							●															●					
	TPGH110302L	11	6.35	3.18	3.18	0.2							○															●					
	TPGH110304L	11	6.35	3.18	3.18	0.4							●															●		○			

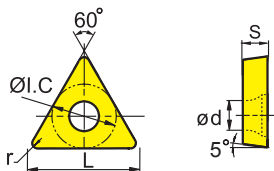
★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

STUPR/L
Kr:93°



Page A221

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

[illegible][illegible]

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

Insert code key

A50–A51

Grade selection reference

A19/A36–A47

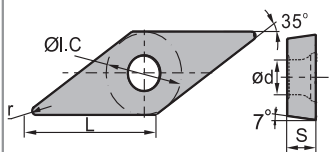
Chipbreaker selection reference

A22–A35

Recommended cutting parameters

A230–A232

VP (Positive inserts)



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

[illegible]

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

