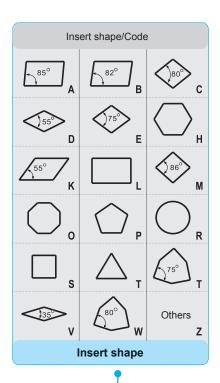
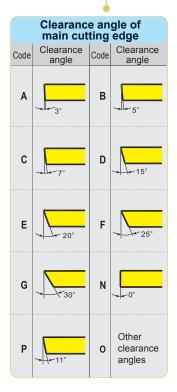
### General turning inserts code key



	Metric							
Code	With/Without hole	With/Without chipbreaker	Section plane of insert	Code	With/Without hole	With/Without chipbreaker	Section plane of insert	
В	With	Without	>65°	N	Without	Without		
н	With	Single-side	>65°	R	Without	Single-side		
С	With	Without	>65°	F	Without	Double-side		
J	With	Double-side	>65°	Α	With	Without		
w	With	Without	<u>≤65°</u>	М	With	Single-side		
Т	With	Single-side	≤65°	G	With	Double-side		
Q	With	Without	≤65°	х			Special	
U	With	Double-side	<u>≤65°</u>					
		Chip	breaker and	clam	ping sy	/stem		





	Tolerance									
		m ØI.C		m ØI.C				_S,		
Code	Nose height m Tolerance(mm)	Inscribed circle ØI.C Tolerance(mm)	THICKIICSS O	shape)	ence) De			toleranc	e (Ident	ified by
Α	±0.005	±0.025	±0.025		Regular triangle			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	
С	±0.013	±0.025	±0.025	9.525	±0.08	±0.08	±0.08	±0.11	±0.16	
Н	±0.013	±0.013	±0.025	12.7	±0.13	±0.13	±0.13	±0.15		
Е	±0.025	±0.025	±0.025	15.875 19.05	±0.15	±0.15	±0.15	±0.18		
G	±0.025	±0.025	±0.13	25.4		±0.18				
J	±0.005	±0.05-±0.13	±0.025	<ul><li>Toler</li></ul>	ance of i	inscribed	d circle Ø	JI.C(mm)	)	
				Inscribed circle	Regular triangle	Square	Diamond with 80°	Diamond with 55°	Diamond with 35°	Round
K	±0.013	±0.05-±0.13	±0.025	6.35	±0.05	±0.05	±0.05	±0.05	±0.05	
L	±0.025	±0.05-±0.13	±0.025	9.525	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05
М	±0.08-±0.18	±0.05-±0.13	±0.13	12.7	±0.08	±0.08	±0.08	±0.08		±0.08
N	±0.08-±0.18	±0.05-±0.13	±0.025	15.875	±0.10	±0.10	±0.10	±0.10		±0.10
				19.05	±0.10	±0.10	±0.10	±0.10		±0.10
U	±0.13-±0.38	±0.08-±0.25	±0.13	25.4		±0.13				±0.13

### General turning inserts code key

			Insert shape							
Diameter of	С	D	R	S	Т	V	W	K		
IC										
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							
		Leng	th of c	utting	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			
Т6	6.75			
07	7.94			
09	9.52			
Т9	9.72			
11	11.11			
12	12.70			
Insert th	Insert thickness			



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			

Thi	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	8.0				
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			
х	Others			
Diameter of insert (Metric)	Round insert			

Chipbreaker code					
DF	DM	DR			
-	9	0			
HF	НМ	HR			
0	0	0			
EF	EM	ER			
	(I)	0			
NF	NM	SF			
PM	WGF	SNR			
-	0.				

Metric and inch comparison table of general turning inserts

### Metric and inch comparison table of negative inserts

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

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

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

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

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

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

S-type negative angle	(ISO)	(Inch)	Chipbreaker
	090304	321	
	090308	322	
	090312	323	5.5
	120404	431	-DF
	120408	432	-SF
	120412	433	-EF
	120416	434	-PM
	150608	542	-DM
Insert shape	150612	543	-EM
	150616	544	-NM
	190412	633	-DR
	190424	636	-ER
	190612	643	-LR
	190616	644	-HDR
	250724	856	-HPR -SNR
	250732	858	-9INK
	250924	866	
	250932	868	

Metric and inch comparison table of general turning inserts

### Metric and inch comparison table of positive insert

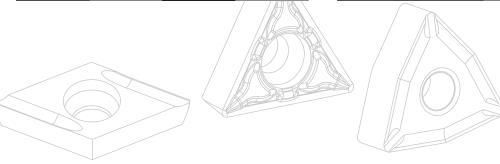
C-type positive angle	(ISO)	(Inch)	Chipbreaker
	060202	2(1.5)0	-USF
	060204	2(1.5)1	-SF
	060208	2(1.5)2	-HF
Insert shape	09T302	3(2.5)0	-EF
	09T304	3(2.5)1	-HM
	09T308	3(2.5)2	-EM
	120404	431	-HR
	120408	432	-LH
	120412	433	-LC

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

T-type positive angle	(ISO)	(Inch)	Chipbreaker
	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	ПОЕ
	110208	2(1.5)2	-USF
	110302	220	-SF
	110304	221	-HF -EF
Insert shape	110308	222	-EF -HM
	16T302	3(2.5)0	-FIM
	16T304	3(2.5)1	-Livi -HR
	16T308	3(2.5)2	-LH
	16T312	3(2.5)3	-LC
	160400	330	-LO
	220408	432	
	220412	433	
	220416	434	
	270408	532	
	270412	533	
	330612	643	
	330616	644	

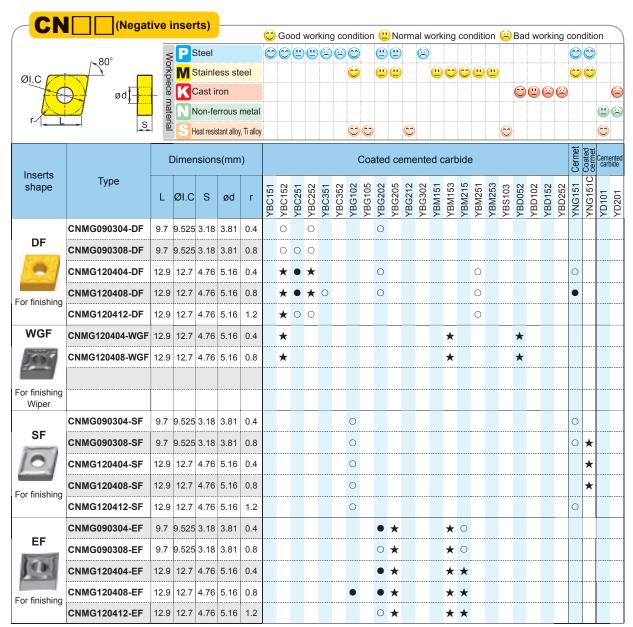
S-type positive angle	(ISO)	(Inch)	Chipbreaker
	060204	2(1.5)1	
	09T302	3(2.5)0	
	09T304	3(2.5)1	
	09T308	3(2.5) 2	-HF
	120404	431	-EF
Insert shape	120408	432	-HM
	120412	433	-EM
	150404	531	-HR
	150408	532	-LH
	150412	533	-LC
	190408	632	
	190412	633	
	190416	634	

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





#### Cemented carbide and cermet inserts



Available grade (always stock available) ★Recommended grade (always stock available)



### Cemented carbide and cermet inserts

CN	(Negati	ve i	inser	ts)			<u></u>	God	od v	worl	king	g co	ndi	ition	n (	No	orma	al w	ork	ing	con	diti	on	<u></u>	Bac	d wc		— ng ເ	— con		on
	~80°	<b>\{</b>	Ps	Steel			0	0	<u>(</u>	<u>"</u>	(2)	(3)	0	)	e	) (1)		(3)											0	0	
ØI.C		orkpie	<b>M</b> S	Stainle	ess ste	eel							0	)	<u>@</u>	<u>)</u>			<u>•</u>	0	0	<u> </u>	<u> </u>						0	0	)
	ød]	эсе т	K	Cast ir	on																				0	<u>@</u>	0	(2)			8
r-	s	Workpiece material	N	lon-fe	rrous I	netal																									<b>(1)</b>
·	·   <del></del>	<u> </u>	SH	eat resist	tant alloy	, Ti alloy							<u></u>	0			<u></u>							<u></u>							0
Inserts		ا	Dime	nsion	s(mm	1)								Coa	ate	d ce	eme	nte	ed c	arb	ide								Cerme		Cemented carbide
shape	Туре	L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM215	YBM251	YBM253	YBS103	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YD101 YD201
NF	CNEG120404-NF	12.9	12.7	4.76	5.16	0.4								*	Ť																0
Yay	CNEG120408-NF	12.9	12.7	4.76	5.16	0.8							0	*																<b>†</b>	0
	CNEG120412-NF	12.9	12.7	4.76	5.16	1.2							0	*																	0
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																													ļ		
	CNMG090304-PM	9.7	9.525	3.18	3.81	0.4		*	•	0																					
	CNMG090308-PM	9.7	9.525	3.18	3.81	0.8		0	•	0																	*				
	CNMG120404-PM	12.9	12.7	4.76	5.16	0.4		*	•	*	0															*	*	0			
	CNMG120408-PM	12.9	12.7	4.76	5.16	0.8	•	*	•	*	•															*	*	*			
PM	CNMG120412-PM	12.9	12.7	4.76	5.16	1.2	ļ	0	•	*	•															*	*	*			
-	CNMG120416-PM	12.9	12.7	4.76	5.16	1.6		*	•	0	•															*	0				
For com:	CNMG160608-PM	16.1	15.875	6.35	6.35	0.8	•	0	•	0	0															0	0				
For semi- finishing	CNMG160612-PM	16.1	15.875	6.35	6.35	1.2	•	0	•	0	•															*	0				
	CNMG160616-PM	16.1	15.875	6.35	6.35	1.6			•	0																0	0			ļ	
	CNMG190608-PM	19.3	19.05	6.35	7.94	0.8		*	•	0	0																*				
	CNMG190612-PM	19.3	19.05	6.35	7.94	1.2		*	•	*	•															0	*			ļ	
	CNMG190616-PM	19.3	19.05	6.35	7.94	1.6	•	*	•	0	•															0					

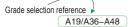


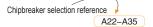
Available grade (always stock available)

OMake-to-order



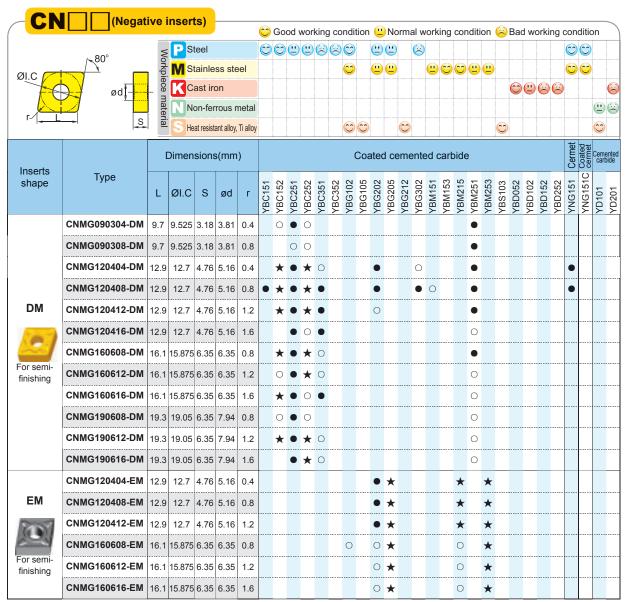








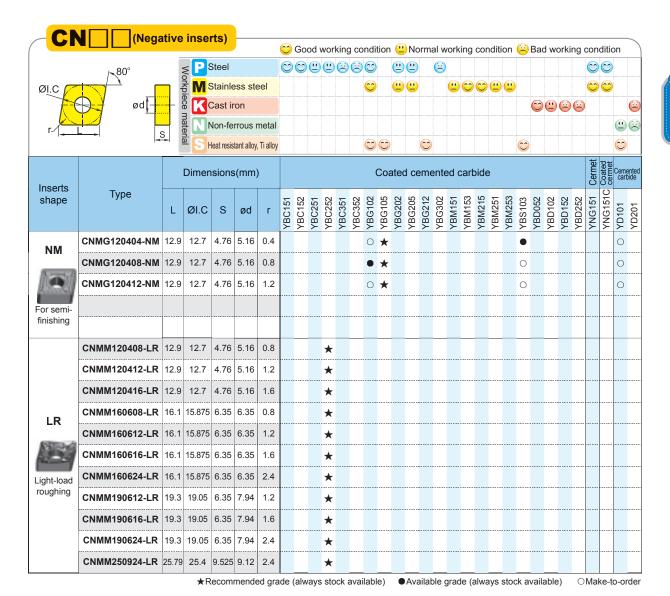
#### Cemented carbide and cermet inserts





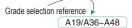
Available grade (always stock available)

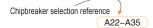


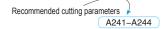


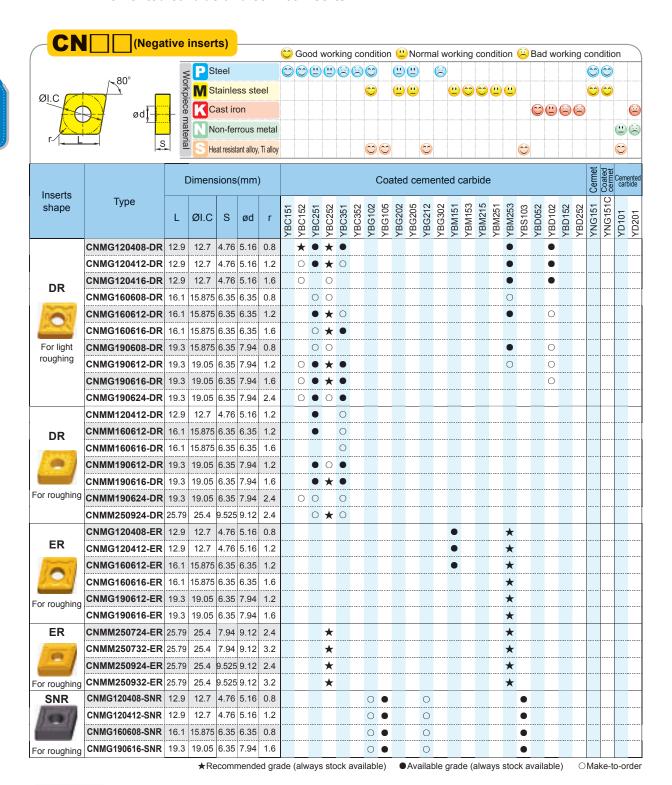




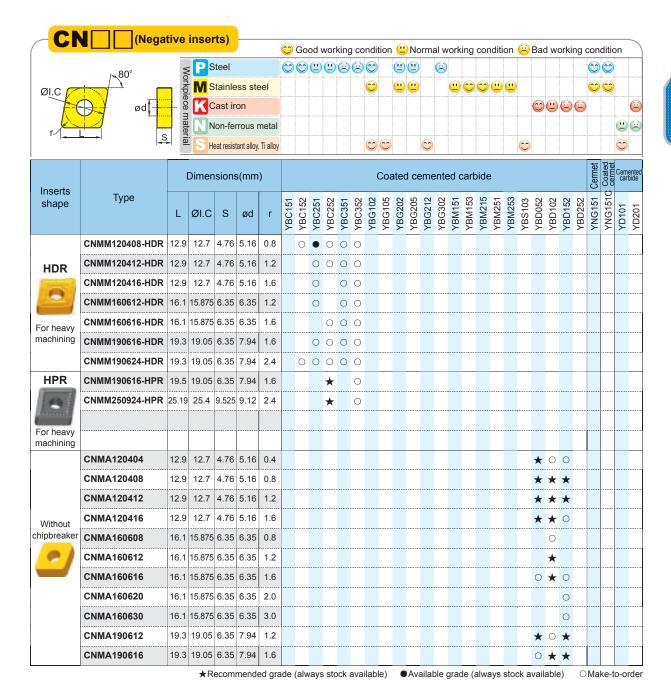








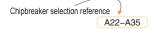


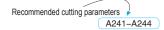


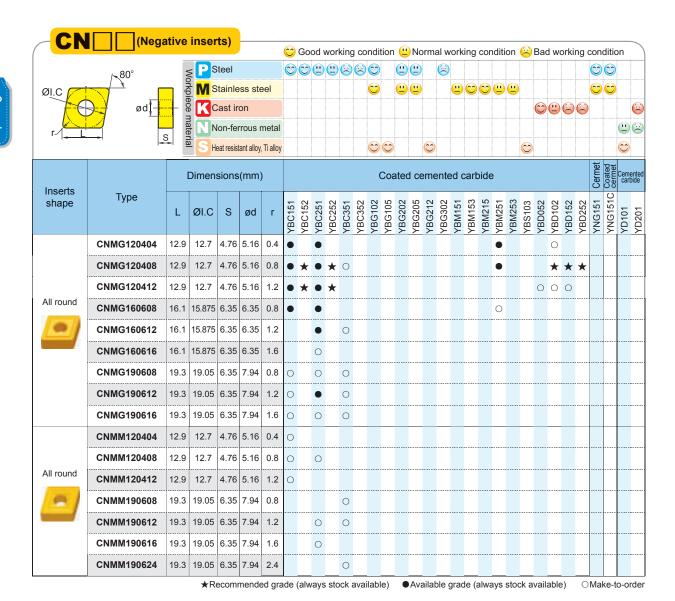






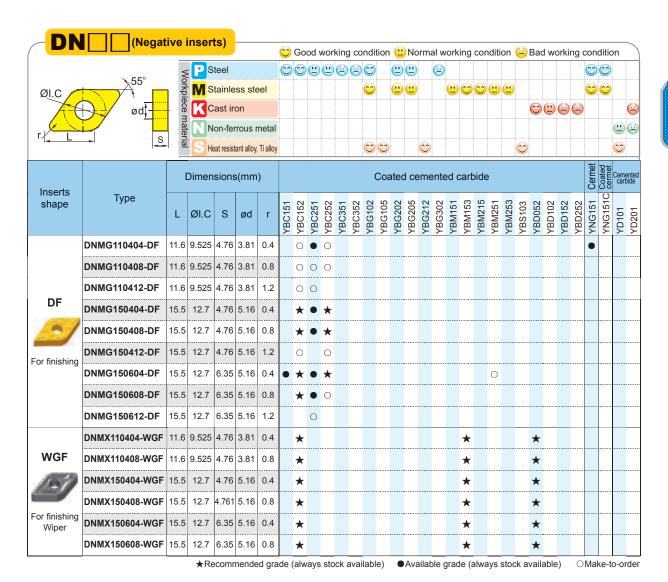








#### Cemented carbide and cermet inserts





Insert code key A50-A51

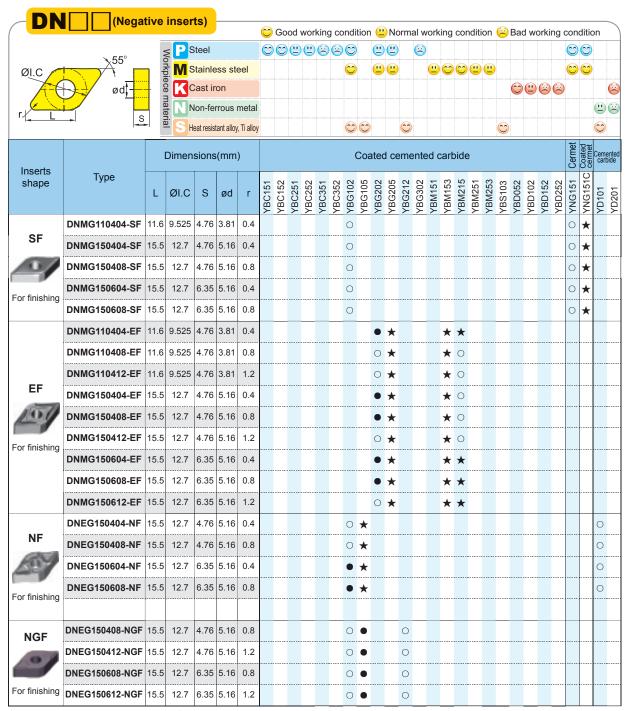
Grade selection reference A19/A36–A48

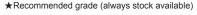
Chipbreaker selection reference A22–A35

Recommended cutting parameters

A241–A244

#### Cemented carbide and cermet inserts





Available grade (always stock available)



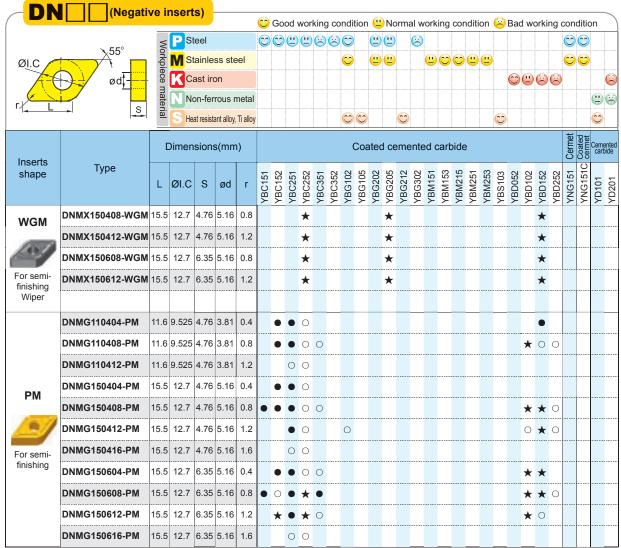








#### Cemented carbide and cermet inserts

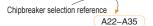


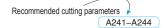
★Recommended grade (always stock available) ●Available grade (always stock available) ○Make-to-order

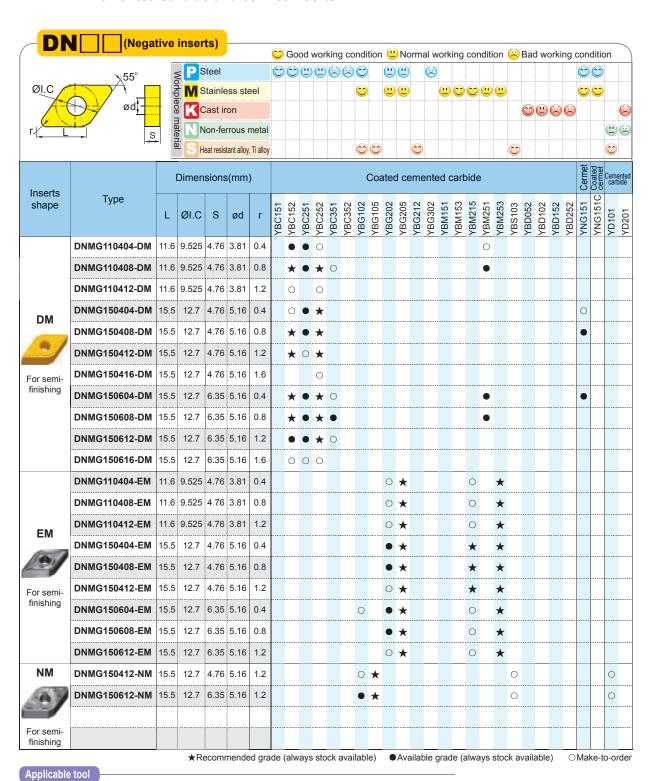












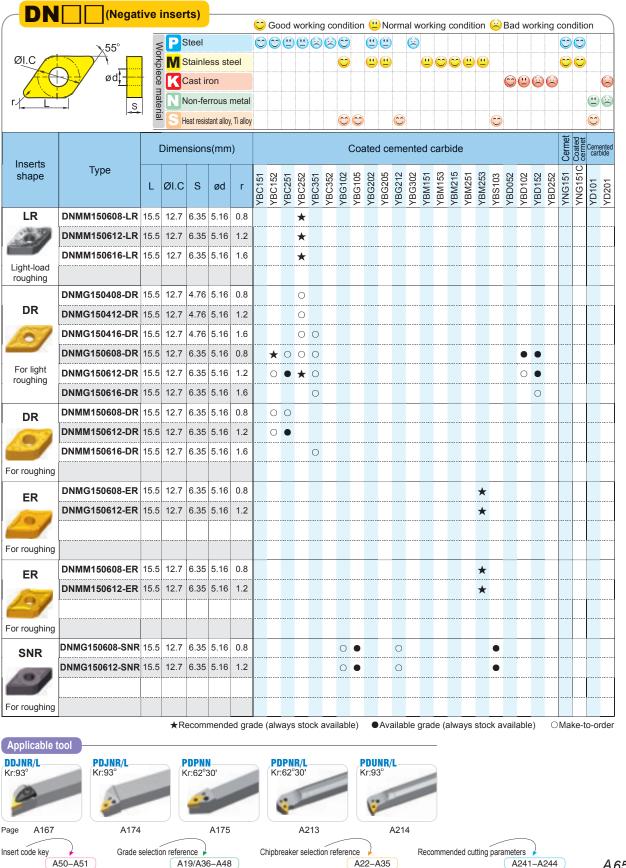




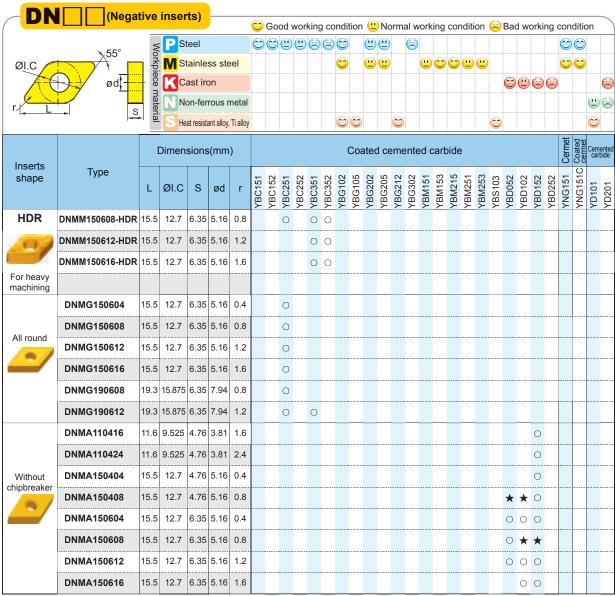


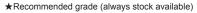






### Cemented carbide and cermet inserts





Available grade (always stock available)

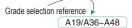


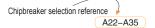
### Cemented carbide and cermet inserts

SI	(Neg	ative	inser	ts)			<u></u>	God	od v	wor	kind	1 CO	ndit	tion	<u>•</u>	Nor	mal	wo	rkin	q c	ond	tion	<u> </u>	Bac	—— d wc		— ng (	—	——	on .
ØI.C	90°		/orkpiece	Steel Stainle	ess ste	eel						8			<b>(</b>		-	9			<b>)</b> (				<u></u>			0	0	@
r		S	ene		rrous i								0	0		(	<u></u>						0							(1) (2) (3)
Incorto		[	Dimens	sions(	(mm)								(	Coa	ited	l cei	mer	itec	l ca	rbio	de							Cermet	Coated	Cemente carbide
Inserts shape	Туре	L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBMISI	20 INIO 1	YBM251	YBM253	YBS103	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YD101
DF	SNMG090304-DF	9.525	9.525	3.18	3.81	0.4		0				Ĺ		_																
TOTAL ST	SNMG090308-DF	9.525	9.525	3.18	3.81	0.8		0																						
F. 11.5	SNMG120404-DF	12.7	12.7	4.76	5.16	0.4		0																						
For finishing	SNMG120408-DF	12.7	12.7	4.76	5.16	0.8		0	•	0																		0		
For linishing	SNMG120412-DF	12.7	12.7	4.76	5.16	1.2		0		0																			Ш	
	SNMG090304-EF	9.525	9.525	3.18	3.81	0.4									0	*			*	r (	)									
	SNMG090308-EF	9.525	9.525	3.18	3.81	0.8									0	*			¥	r (	)								<b> </b>	
EF	SNMG090312-EF	9.525	9.525	3.18	3.81	1.2									0	*			¥	r (	)								<u> </u>	
(40)	SNMG120404-EF	12.7	12.7	4.76	5.16	0.4									•	*			¥	7	t								L	
A THEORY	SNMG120408-EF	12.7	12.7	4.76	5.16	0.8									•	*			*	7	t								L	
For finishing	SNMG120412-EF	12.7	12.7	4.76	5.16	1.2									0	*			¥	7	ł .								ļ	
	SNMG150608-EF	15.875	15.875	6.35	6.35	8.0									0	*			4	r (	)								ļ	
	SNMG150612-EF	15.875	15.875	6.35	6.35	1.2									0	*			*	r (	)									
	SNMG090304-SF	9.525	9.525	3.18	3.81	0.4							0															0	*	
SF	SNMG090308-SF	9.525	9.525	3.18	3.81	0.8							0															0	*	
(0)	SNMG120404-SF	12.7	12.7	4.76	5.16	0.4							0															0	*	
	SNMG120408-SF	12.7	12.7	4.76	5.16	0.8							0															0	*	
For finishing	SNMG120412-SF	12.7	12.7	4.76	5.16	1.2							0															0	ļ	
	SNMG150608-SF	15.875	15.875	6.35	6.35	0.8							0															0		

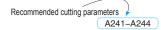




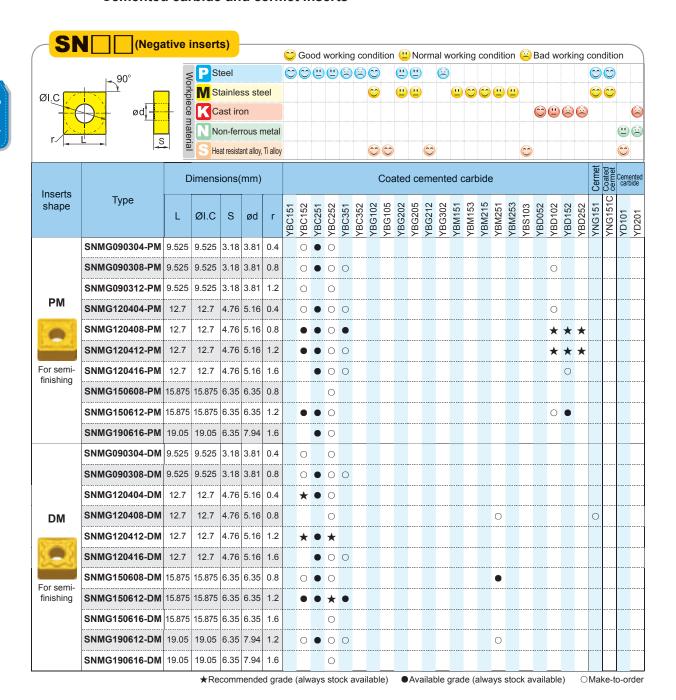




★Recommended grade (always stock available) ●Available grade (always stock available)

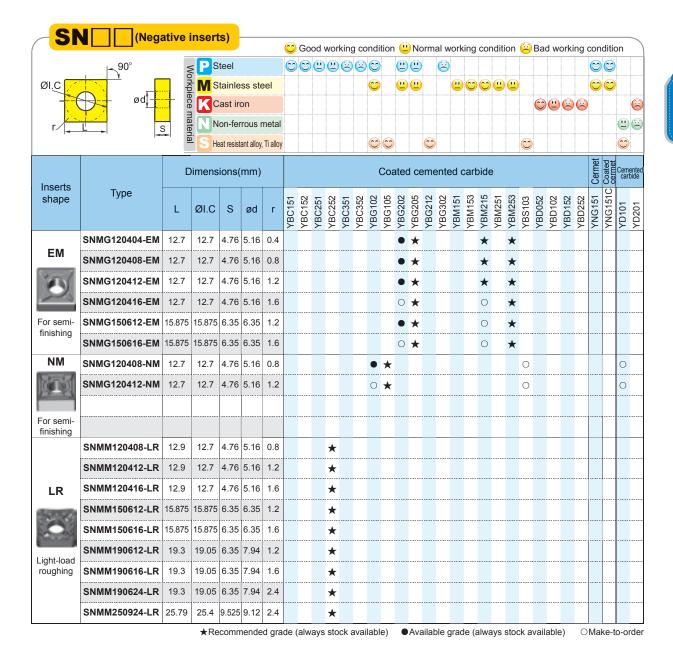


○Make-to-order





#### Cemented carbide and cermet inserts





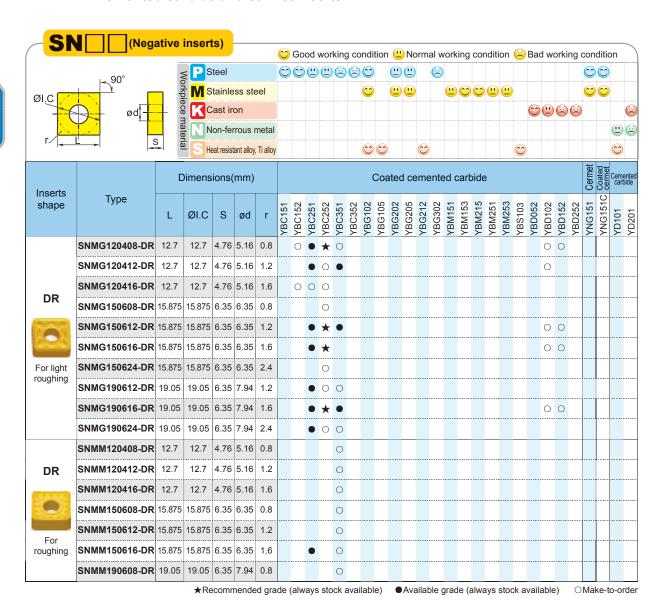
Insert code key
A50-A51

Grade selection reference A19/A36–A48

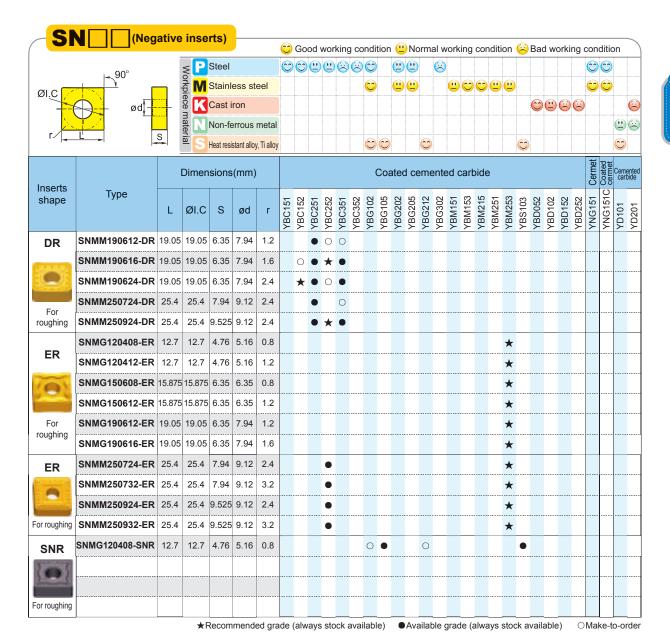
Chipbreaker selection reference A22–A35

Recommended cutting parameters

A241–A244



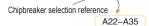


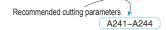




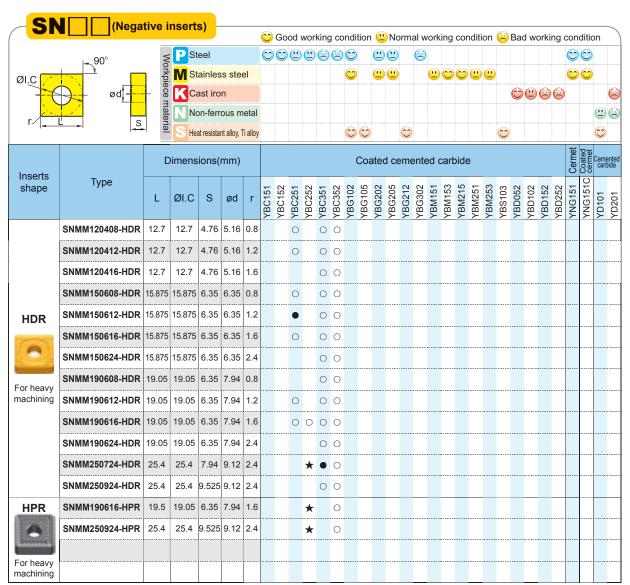








#### Cemented carbide and cermet inserts

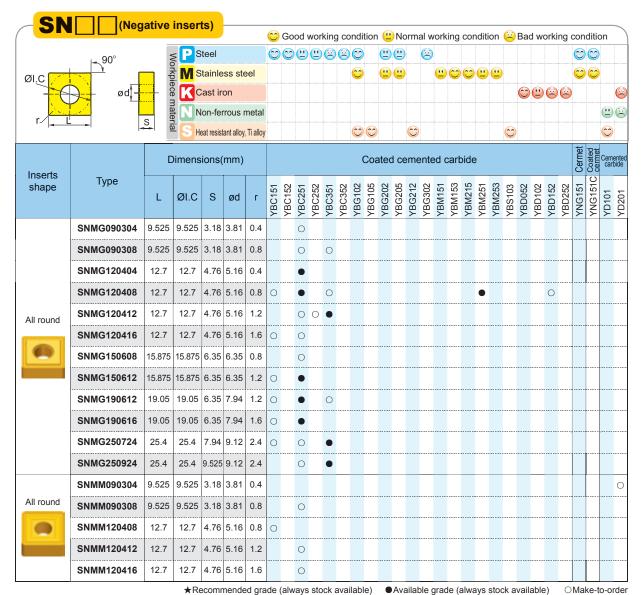


★Recommended grade (always stock available)

Available grade (always stock available)



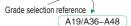
### Cemented carbide and cermet inserts





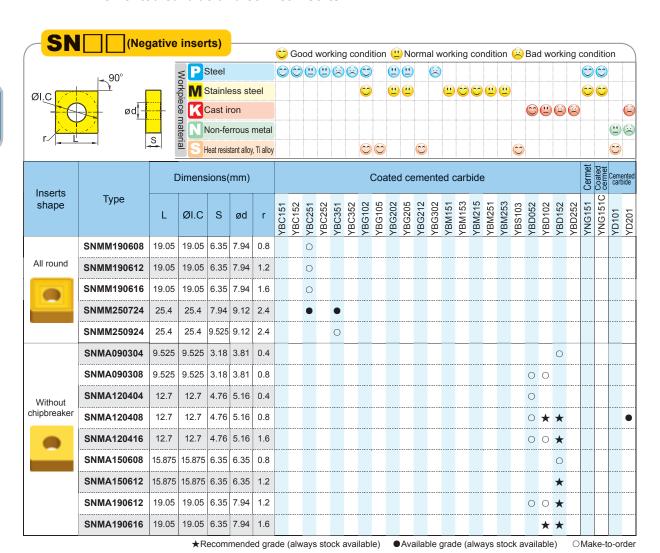




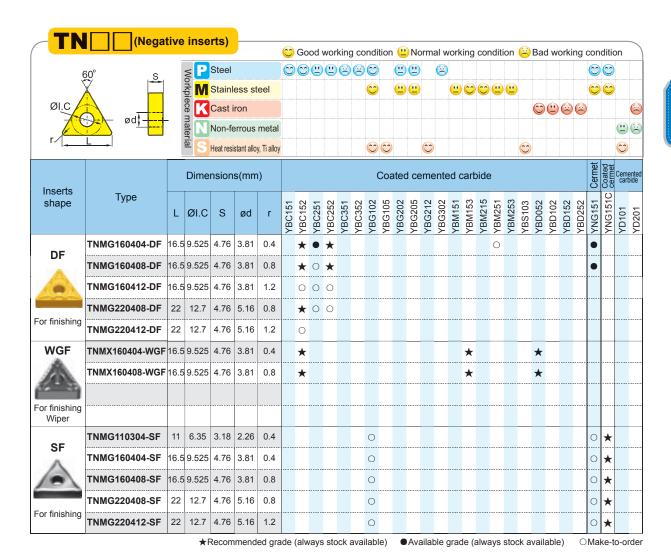


Chipbreaker selection reference A22–A35

Recommended cutting parameters A241–A244



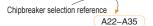


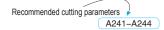


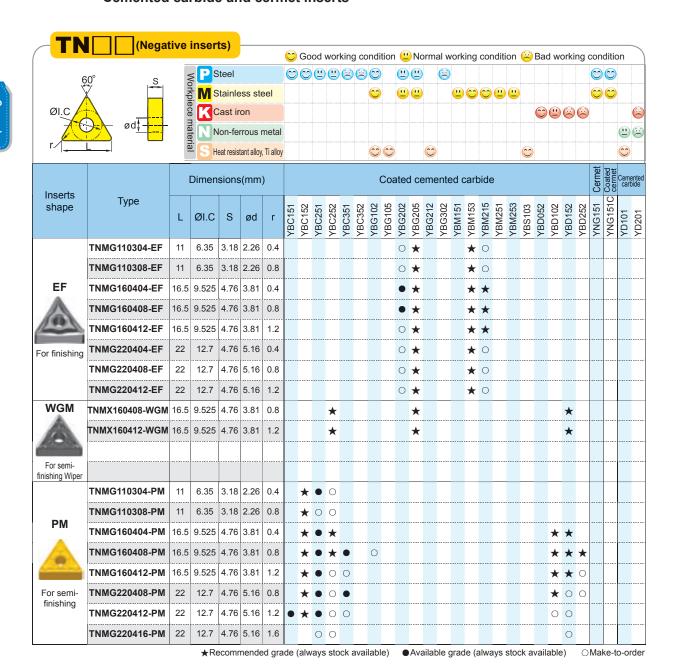




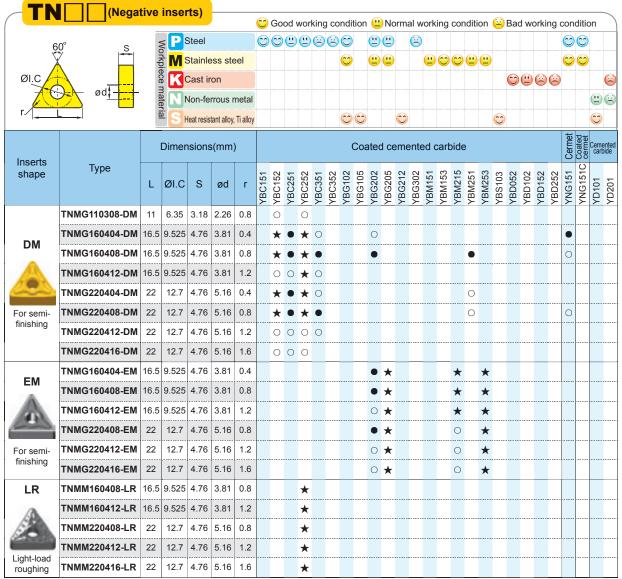








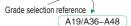


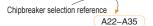


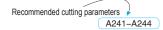


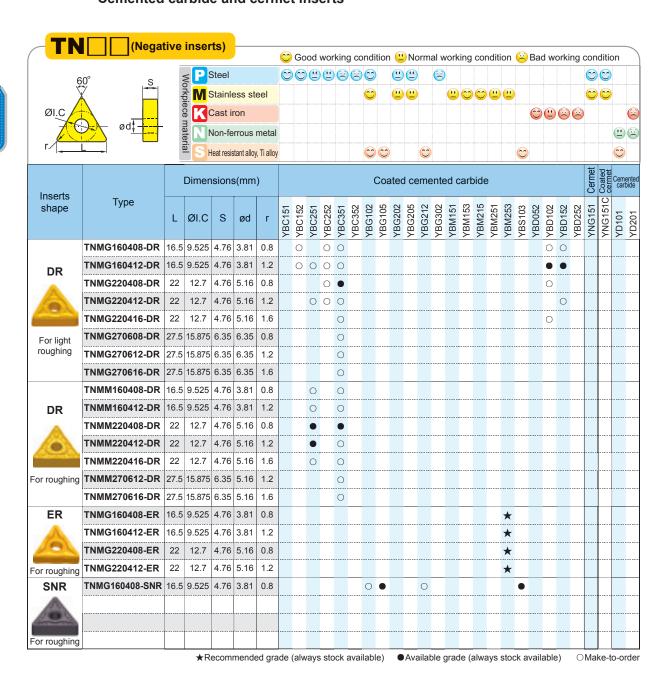












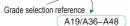


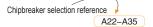
TN	(Nega	tive	inser	ts)			<u></u>	Go	od v	wor	king	g cc	ndi	tion	ո <u>(</u>	) No	orm	al v	/ork	king	cor	nditi	on	<u> </u>	Bad	d wc		— ng ເ			on
	60° s		PS	Steel			0	0	<u>"</u>	<u>@</u>	(2)		0		œ	<u>(</u>	)	8											0	0	
	X	ואַלוּכוּ	M S	Stainle		eel							0		<u>"</u>	) <u>(                                   </u>	)		<u>•</u>	0	0	<u> </u>	<u> </u>							0	
ØI.C	ød	_ =		Cast in	on																				0	<u>@</u>	(2)	<u>(2)</u>			(2
r.		Workproce Haterial	Phonis Co.	lon-fe																											<u>@</u> @
	<del></del> -		_ <u>5 H</u>	eat resis	tant alloy	, Ti alloy							0	0	)		0							0					<b>*</b>	- -	0
lt.			Dimen	sions	(mm	)							(	Coa	ate	d ce	eme	ente	ed (	carl	oide	)							Cerm	Coated	Cemente carbide
Inserts shape	Туре	L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	/BG105	YBG202	YBG205	/BG212	YBG302	YBM151	YBM153	YBM215	YBM251	YBM253	YBS103	YBD052	YBD102	YBD152	YBD252	YNG151	()	YD101
	TNMM160408-HDR	16.5	9.525	4.76	3.81	0.8					0																_				
	TNMM160412-HDR	16.5	9.525	4.76	3.81	1.2					0	0																			
HDR	TNMM220408-HDR	22	12.7	4.76	5.16	0.8					0	0				******															
-	TNMM220412-HDR	22	12.7	4.76	5.16	1.2					0	0																			
	TNMM220416-HDR	22	12.7	4.76	5.16	1.6					0	0																			
For heavy machining	TNMM270612-HDR	27.5	15.875	6.35	6.35	1.2					0	0																			
	TNMM270616-HDR	27.5	15.875	6.35	6.35	1.6					0	0																	ļ		
	TNMM270624-HDR	27.5	15.875	6.35	6.35	2.4					0	0																			
	TNMG110308	11	6.35	3.18	2.26	0.8	ļ		0																						
	TNMG160404	16.5	9.525	4.76	3.81	0.4	0		•																						
	TNMG160408	16.5		ļ		0.8	•	0																					ļ		
	TNMG160412	16.5		ļ		1.2	•		•	0												0							ļ		
All round	TNMG220404	22	12.7		5.16	0.4	0		•		0																				
-	TNMG220408 TNMG220412	22	12.7	ļ	5.16 5.16	0.8	0		•		0											0									
	TNMG220412	22	12.7		5.16	1.2	•		•		0																				
	TNMG270612	27.5	15.875	ļ		1.0	ļ		•		•																				
	TNMG270616	27.5		ļ		1.6			0		0																				
	TNMG330916	33	19.05	ļ		1.6	ļ				•																				
	TNMG330924	33	19.05				0		0		•																				
				,_,			Ĺ																							L	

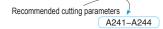


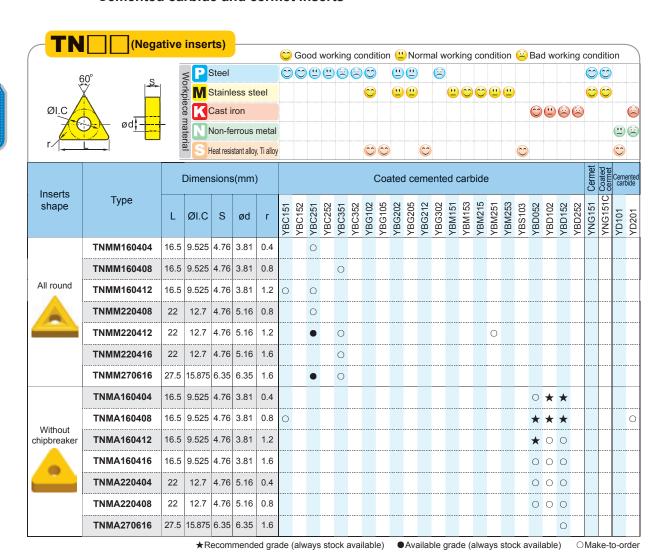






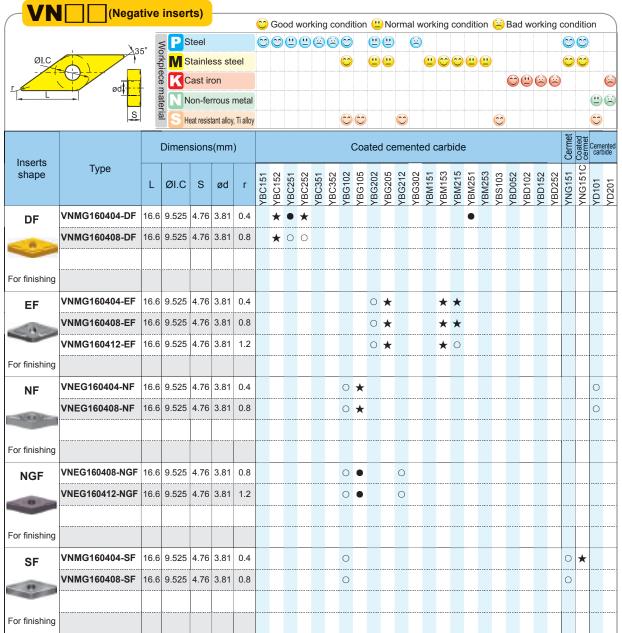


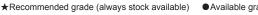






#### Cemented carbide and cermet inserts



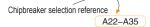


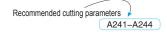
Available grade (always stock available)

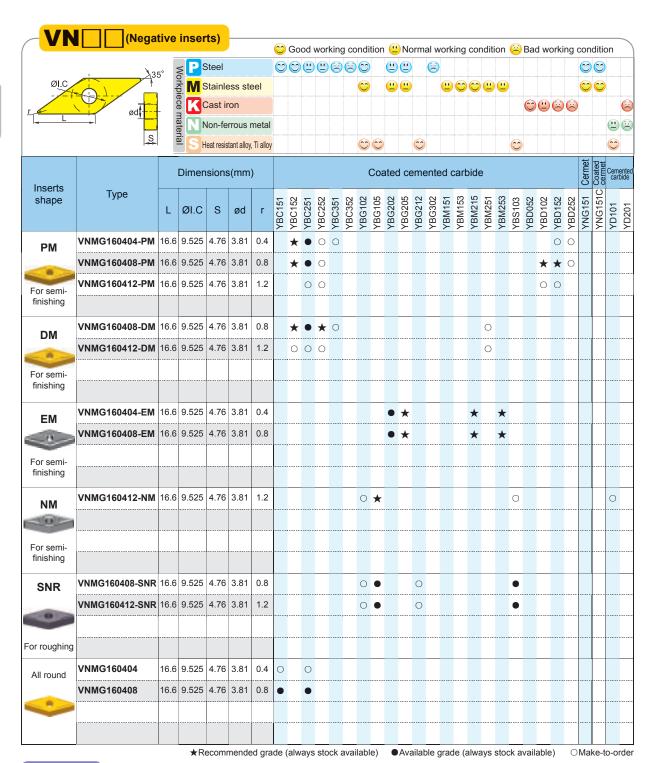
OMake-to-order











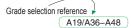


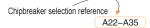
### Cemented carbide and cermet inserts

W	(Nega	tive	inse	rts)			<u></u>	God	nd v	vorl	king	L CO	ndit	tion	<u>(11</u>	No	orma	al w	/ork	ina	cor	ditio	on	<u> </u>	Rac	l wc		na c	con	—	on.
	80° -	V V C	Ps	iteel			$\sim$		-	_	(A)		_		<b>(</b>		711116	(a)		ui ig	001		011		Dac		71 (1)	_	0		
		יי אַכוּמ	Stainless steel										0		<u>•</u>	<u> </u>			<u> </u>	0	0	<u> </u>	<u> </u>						0	0	
ØI.C	ød	9	Cast iron																						0	<u>@</u>	0	<u>(2)</u>			(2)
r		AACIADIGCG IIIatgi al	NN	lon-fei																											<u>-</u>
			Heat resistant alloy, 11 alloy										<u>ဗ</u>	0			<u></u>							<u></u>					ti.	ਰ⊭	0
Inserts shape		Dimensions(mm)					Coated cemented carbide															Cermet	Cemented carbide								
	Туре	L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	/BC351	YBC352	YBG102	/BG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM215	YBM251	/BM253	YBS103	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YD101 YD201
	WNMG06T304-DF	6.5	9.525	3.97	3.81	0.4		*		_		_	_	_	_									_	_	_	_				
	WNMG06T308-DF	6.5	9.525	3.97	3.81	0.8		*		*																					
DE	WNMG06T312-DF	6.5	9.525	3.97	3.81	1.2		*		*																					
DF	WNMG060404-DF	6.5	9.525	4.76	3.81	0.4		*	•	*												0									
	WNMG060408-DF	6.5	9.525	4.76	3.81	0.8		*	•	*												•									
	WNMG060412-DF	6.5	9.525	4.76	3.81	1.2		*	•	0												0									
For finishing	WNMG080404-DF	8.7	12.7	4.76	5.16	0.4		*	•	0												0									
	WNMG080408-DF	8.7	12.7	4.76	5.16	0.8		*	•	*												•									
	WNMG080412-DF	8.7	12.7	4.76	5.16	1.2		0	0	0																					
WGF	WNMG060404-WGF	6.5	9.525	4.76	3.81	0.4		*												*					*						
6	WNMG060408-WGF	6.5	9.525	4.76	3.81	0.8		*												*					*						
For freighter	WNMG080404-WGF	8.7	12.7	4.76	5.16	0.4		*												*					*						
For finishing Wiper	WNMG080408-WGF	8.7	12.7	4.76	5.16	8.0		*												*					*						
	WNMG06T304-SF	6.5	9.525	3.97	3.81	0.4							0																0	*	ļ
SF	WNMG06T308-SF	6.5	9.525	3.97	3.81	0.8							0																0		ļ
^	WNMG06T312-SF	6.5			3.81	1.2							0																0		<b></b>
101	WNMG060404-SF	6.5	9.525		3.81	0.4							0													0	*	ļ			
For finishing	WNMG060408-SF	6.5	9.525		3.81	0.8							0																0	*	
. or initiality	WNMG080404-SF	8.7	12.7	4.76	5.16	0.4							0																0	*	
	WNMG080408-SF	8.7	12.7	4.76	5.16	0.8							0																0	*	
	WNMG080412-SF	8.7	12.7	4.76	5.16	1.2							0																0		

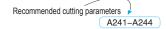




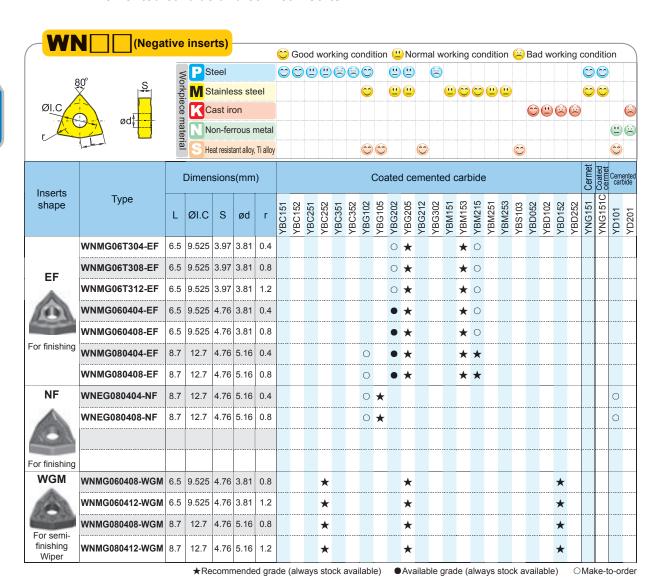




★Recommended grade (always stock available) ●Available grade (always stock available)



OMake-to-order





### Cemented carbide and cermet inserts

-WI	(Nega	tive	inse	rts)			<u></u>	God	od v	worl	king	g co	ndi	tion		No	orma	al w	orki	ing	con	ditio	on .	<u> </u>	Bac	d wo	orki	ng (	— con		on
ØI C	80° S		Ps Ms	tainle	ss steel		_	0			_				<b>(</b>	<u></u>		(2)			<b>©</b>								00	000	
	ød	AACHADICCC III alcollar	NN She		rous r								0	0	9		0							0	0		<b>(</b>	6			
			Dimensions(mm)										(	Coa	atec	d ce	eme	nte	d c	arb	ide								Cermet	Coated	Cemented carbide
PM For semi-finishing  EM	Туре	L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM215	YBM251	YBM253	YBS103	YBD052	YBD102	YBD152	YBD252		YNG151C	YD101 YD201
	WNMG060408-PM	6.5	9.525	4.76	3.81	0.8				0	0															*					
PM	WNMG060412-PM	6.5	9.525	4.76	3.81	1.2		0		0																*	*				
	WNMG080404-PM	8.7	12.7	4.76	5.16	0.4		0	•	0	0																				
	WNMG080408-PM	8.7	12.7	4.76	5.16	8.0		*	•	*	•															*	*	*			
For comi	WNMG080412-PM	8.7	12.7	4.76	5.16	1.2		*	•	*	•															*	*	*			
	WNMG080416-PM	8.7	12.7	4.76	5.16	1.6				0																0	0				
	WNMG080608-PM	8.7	12.7	6.35	5.16	0.8				0																					
	WNMG06T304-DM	6.5	9.525	3.97	3.81	0.4				0																					
	WNMG06T308-DM	6.5	9.525	3.97	3.81	0.8			0	0																					
DM	WNMG06T312-DM	6.5	9.525	3.97	3.81	1.2				0																					
	WNMG060408-DM	6.5	9.525	4.76	3.81	0.8		*	•	*	•											•									
	WNMG060412-DM	6.5	9.525	4.76	3.81	1.2			0	0																					
E	WNMG080404-DM	8.7	12.7	4.76	5.16	0.4		*	•	*	0				0							0									
	WNMG080408-DM	8.7	12.7	4.76	5.16	0.8		*	•	*	•											0									
	WNMG080412-DM	8.7	12.7	4.76	5.16	1.2		*	•	*												0									
	WNMG080416-DM	8.7	12.7	4.76	5.16	1.6				0																					
	WNMG06T304-EM	6.5	9.525	3.97	3.81	0.4									0	*					0		*								
	WNMG06T308-EM	6.5	9.525	3.97	3.81	0.8									0	*					0		*								
EM	WNMG06T312-EM	6.5	9.525	3.97	3.81	1.2									0	*					0		*								
	WNMG060404-EM	6.5	9.525	4.76	3.81	0.4									0	*					0		*								
	WNMG060408-EM	6.5	9.525	4.76	3.81	0.8									•	*					0		*								
For semi-	WNMG080404-EM	8.7	12.7	4.76	5.16	0.4									•	*					*		*						1		
finishing	WNMG080408-EM	8.7	12.7	4.76	5.16	0.8									•	*					*		*								
	WNMG080412-EM	8.7	12.7	4.76	5.16	1.2									•	*					*		*								

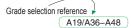


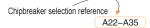
OMake-to-order

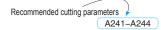


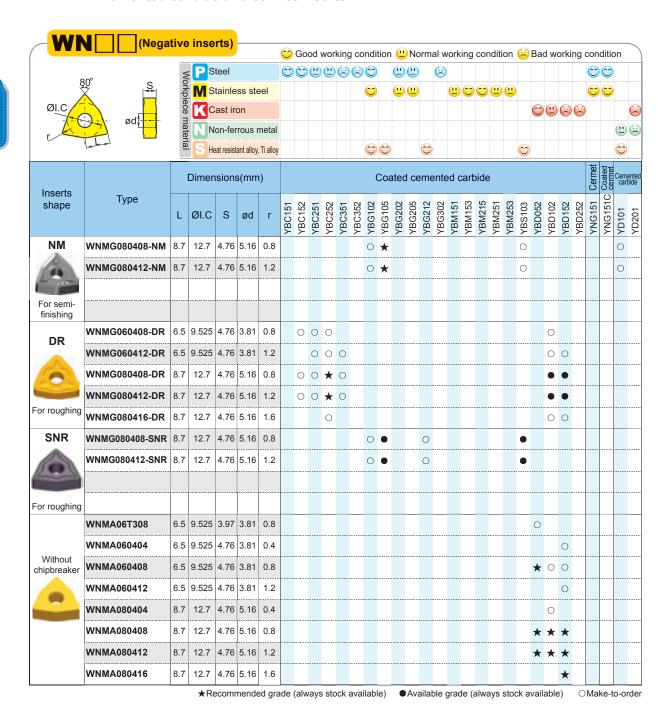






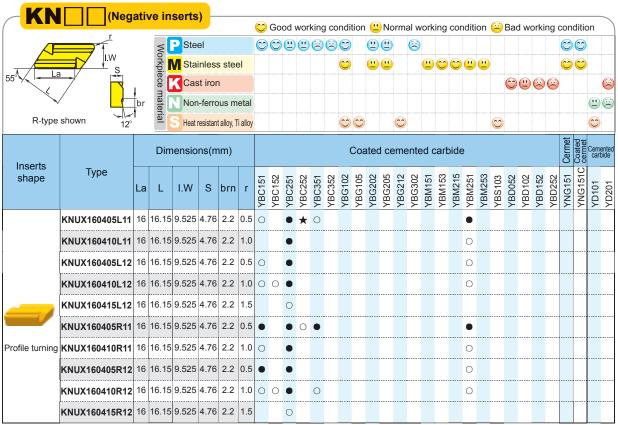








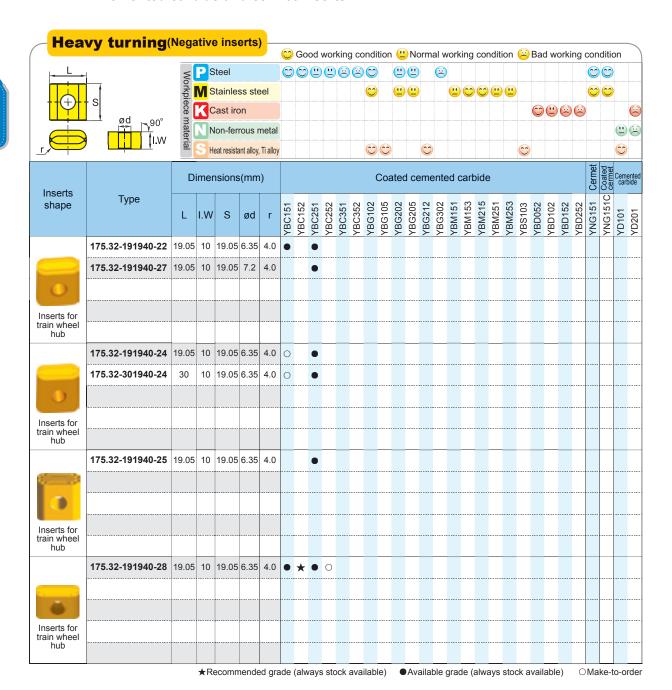
### Cemented carbide and cermet inserts



Note: KNUX160405L11 ★Recommended grade (always stock available) ◆Available grade (always stock available) ○Make-to-order

— Chipbreaker code: 11 → Declining chipbreaker 12 → Straight chipbreaker





### Cemented carbide and cermet inserts

CC	(Positi	ve i	insert	ts)			<u></u>	God	od v	vork	kina	ı co	ndit	tion	<u></u>	No	rma	al w	orki	na	con	ditio	on '	<u> </u>	Bad		rkin	na c	—	—	 on	\
ØI.C	80° 79°	WOINPIECE IIIatellal	Ms Kc Nn	teel stainle cast ire con-fer	on rous r	metal	-	0				(2)	_		<u>u</u>	<u>u</u>	-	(2)			0		<u>u</u>			<u> </u>			0	0		
Inserts shape  USF  For extra finishing  USF  For extra finishing  HF		Dimensions(mm)						Coated cemented carbide															Cermet	Coated	Cemer carbi	nted ide						
	Туре	L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM215	YBM251	YBM253	YBS103	YBD052	YBD102	YBD152	YBD252	YNG151	YNG151C	YD101	YD201
USF	CCGT09T301R-USF	9.7	9.525	3.97	4.4	0.1		_	_	_	_	_	_		0			_	_	_	_	_	<u> </u>	_	_							
-	CCGT09T302R-USF	9.7	9.525	3.97	4.4	0.2									•	0																
	CCGT09T304R-USF	9.7	9.525	3.97	4.4	0.4									0	0																
USF	CCGT09T301L-USF	9.7	9.525	3.97	4.4	0.1									0	0																
•	CCGT09T302L-USF	9.7	9.525	3.97	4.4	0.2									•	0																
	CCGT09T304L-USF	9.7	9.525	3.97	4.4	0.4									0	0																
SF	CCGT060202-SF	6.4	6.35	2.38	2.8	0.2							0																0	0		
(63)	CCGT060204-SF	6.4	6.35	2.38	2.8	0.4							0																0	0		
	CCGT09T304-SF	9.7	9.525	3.97	4.4	0.4							0																0	*		
finishing	CCMT060202-HF	6.4	6.35	2.38	2.8	0.2			_		_		_		_			_				_		_		_				$\dashv$	_	0 0 0 0
	CCMT060202-HF	6.4	6.35	2.38	2.8	0.2			•						•										· <del>-</del> -		•		0			0
	CCMT060204-HF	6.4	6.35	2.38	2.8	0.4		*	•	0	0				•							0					•		•		•	
HF	CCMT09T302-HF	9.7	9.525		4.4	0.2		^		0					_														•			0
1	CCMT09T304-HF	9.7		ļ	4.4	0.4	ļ	•	•		<u> </u>				_														•	0		
For finishing	CCMT09T308-HF	9.7	9.525	ļ	4.4	0.8		^ +		0					•							0			0	0	0		•	_		
	CCMT120404-HF	12.9		ļ		0.4	•	0														J			J	٦	•		0			_
	CCMT120408-HF	12.9			5.56	0.8		0		_																						



★Recommended grade (always stock available)

Insert code key
A50-A51

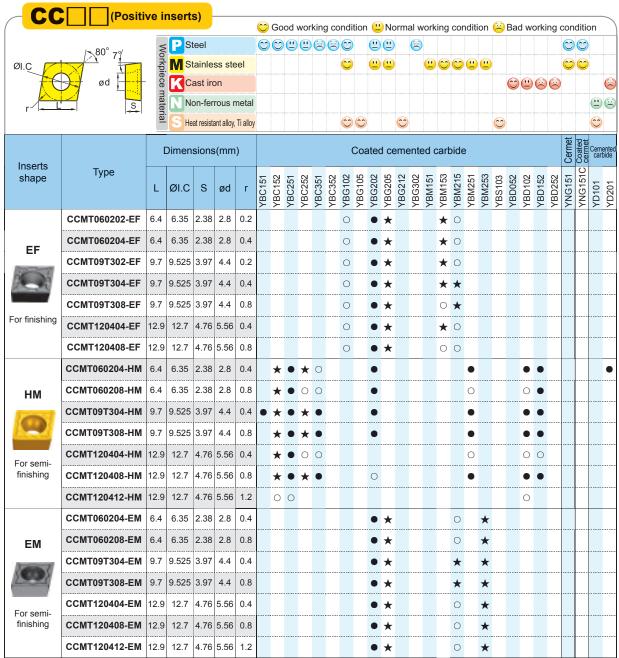
Grade selection reference A19/A36–A48

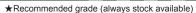
Chipbreaker selection reference A22–A35



Available grade (always stock available)

OMake-to-order





Available grade (always stock available)

OMake-to-order







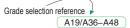
### Cemented carbide and cermet inserts

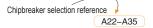
CC	(Positi	ve ir	nsert	s)			<u></u>	Go	od v	worl	kind	a cc	ndi	tion		No	orma	al w	ork	ina	con	ditio	on	<u> </u>	Bac	d wc		— na (		— ditic	 on	\
	/~ 90° ~/	<b>\leq</b>	Ps	teel			_		(2)						_	<u>"</u>		(2)		3												7
For roughing  LC  For Al machining	80° 7°	Workpiece material	Ms	ss ste	eel							0	)	<u>•</u>	<u>•</u>			<u> </u>	೦	0	<u> </u>	<u> </u>						0	0			
	ød 📗	ece n	Kc	ast ir	on																				0	<u>@</u>	(2)	<u>(2)</u>			(	2
	S	nateri	N	rous r																									<b>@</b> (	3		
		<u>a</u>	SHe	eat resist	ant alloy,	Ti alloy							0	0			<u></u>					YBM251 YBM253 YBM263 YBM263 YBM262 YBM262 YBM262 YBM262 YBM262 YBM261										
shape		Dimensions(mm)						Coated cemented carbide														Cermet	Coated	Cement carbid	ted le							
	Туре	L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBG302	YBM151	YBM153	YBM215	YBM251	rBM253	/BS103	/BD052	/BD102	/BD152	/BD252		10		YDZ01
	CCMT060204-HR	6.4	6.35	2.38	2.8	0.4	,	0	•	0					0		,	_		_	_	_	_	_	_	_	_	_				
HR	CCMT060208-HR	6.4	6.35	2.38	2.8	0.8		0	•		•											•					•					
	CCMT09T304-HR	9.7	9.525	3.97	4.4	0.4			•		0				0																	
For roughing	CCMT09T308-HR	9.7	9.525	3.97	4.4	0.8		*	•	*	•											•			•	•	•				•	
	CCMT120408-HR	12.9	12.7	4.76	5.56	0.8		*	•		•				0							•			•	•	•				• (	•
	CCMT120412-HR	12.9	12.7	4.76	5.56	1.2		0	•		•											0				•	0					
	CCGX060202-LC	6.4	6.35	2.38	2.8	0.2																									*	
1.0	CCGX060204-LC	6.4	6.35	2.38	2.8	0.4											*															
LC	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	CCGY00T308 LC 0.7 0.535	3.97	4.4	0.8	·																								*			
machining	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																									*	

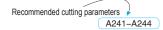
★Recommended grade (always stock available) ●Available grade (always stock available) ○Make-to-order

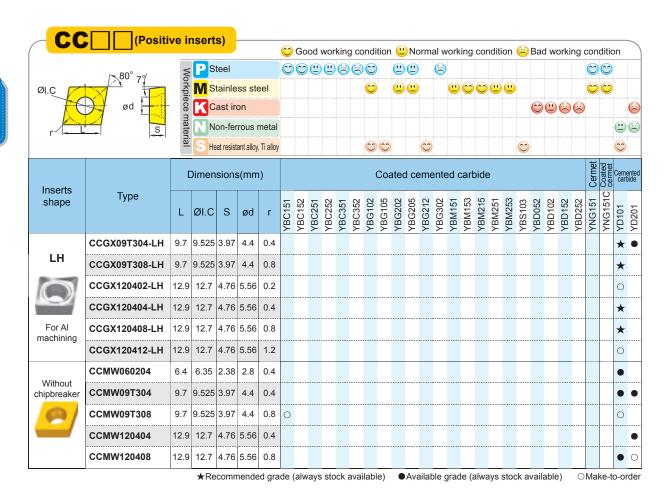




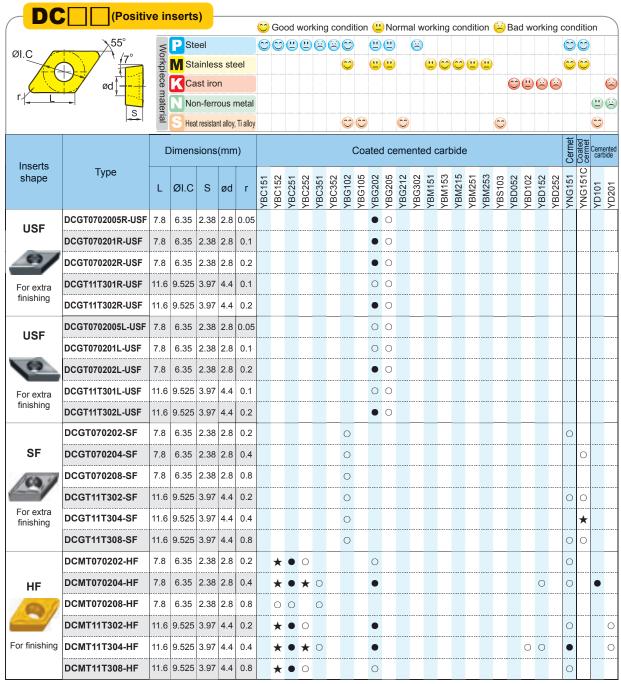








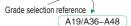


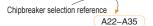


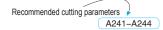


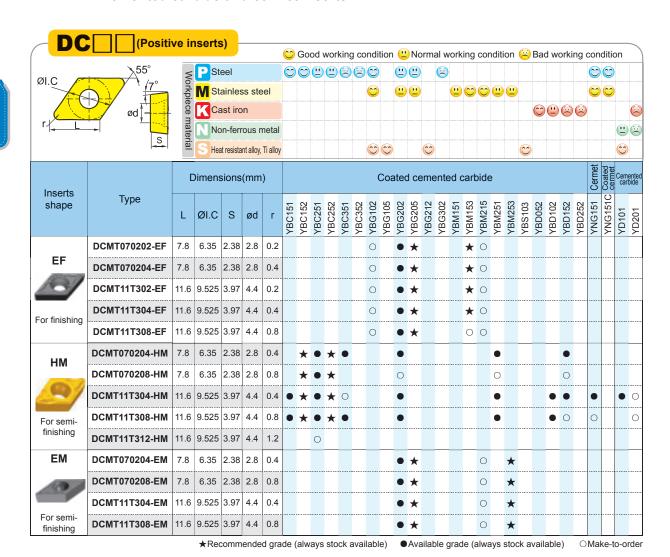




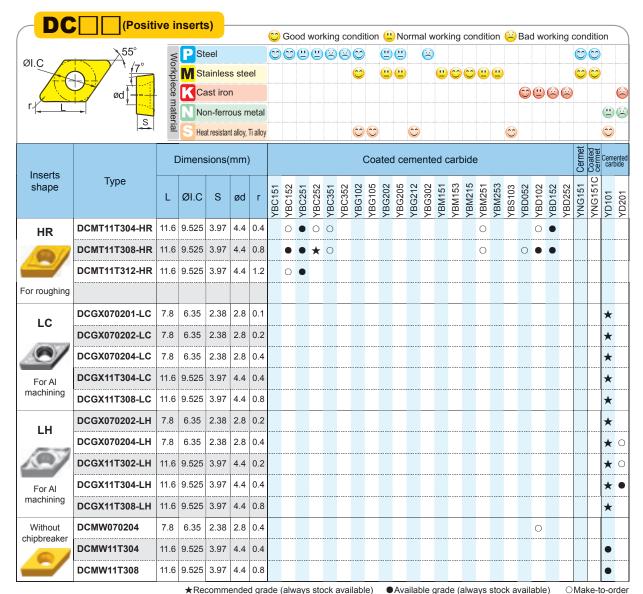






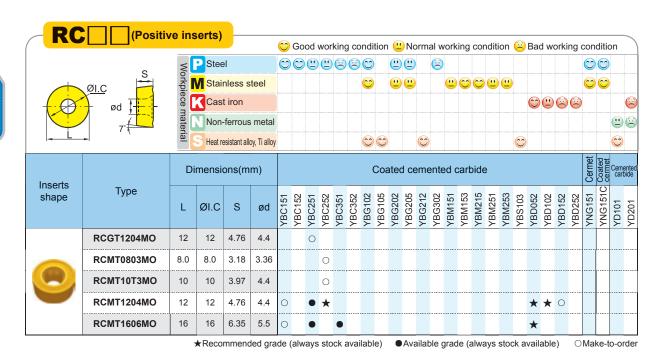


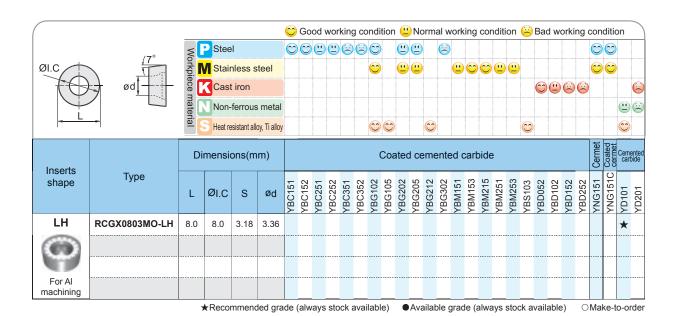






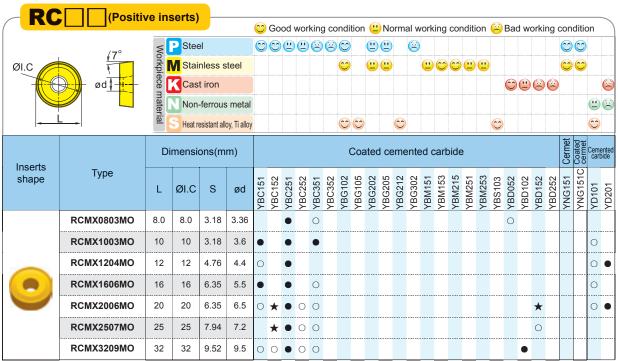








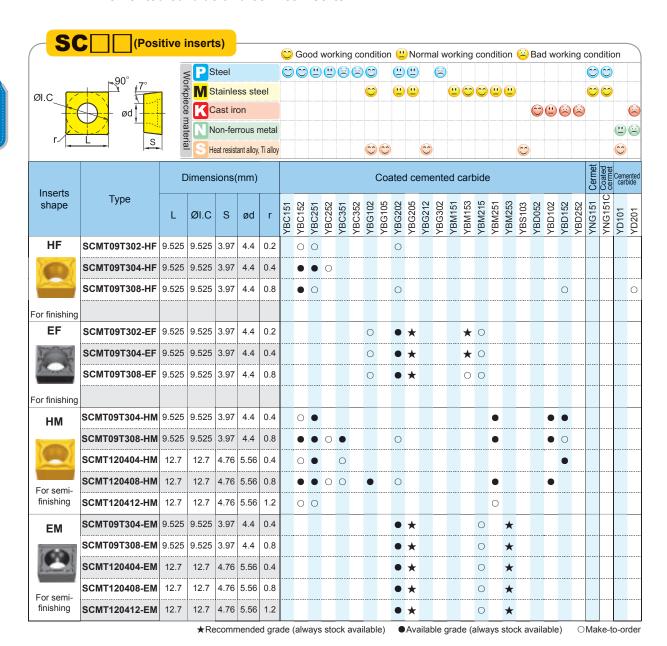
### Cemented carbide and cermet inserts



★Recommended grade (always stock available)

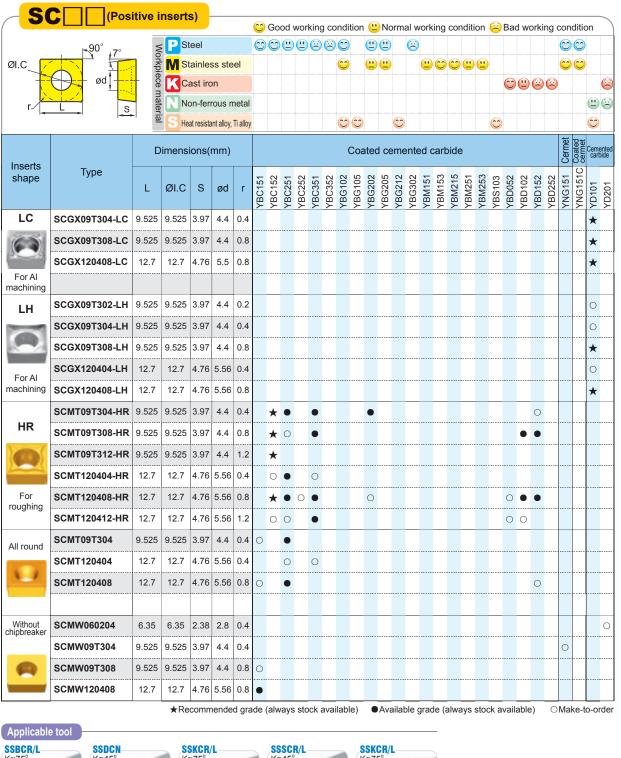
Available grade (always stock available)

Make-to-ord





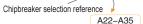
### Cemented carbide and cermet inserts

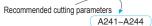




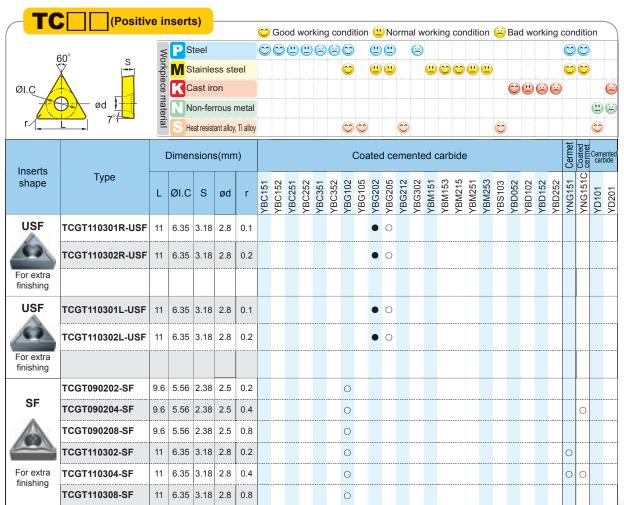
Insert code key A50–A51

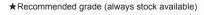
Grade selection reference A19/A36–A48





### Cemented carbide and cermet inserts





Available grade (always stock available)



