

A

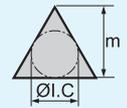
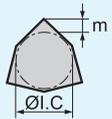
Insert shape		
		Others Z

Major cutting edge Clearance angle	
	Other clearance angles O

Chip-breaker and/or fixing type		
		Special design X

T N M G

Tolerances, inch



Letter Symbol	Tolerances in inches			Inscribed circle diameter	Tolerances for M		Tolerances for d																			
	m	s	d		Class M	Class U	Class M.J.K.L	Class U																		
A	±0.0002	±0.001	±0.0010	0.250	±0.003	±0.005	±0.002	±0.003																		
F	±0.0002	±0.001	±0.0005	0.375	±0.003	±0.005	±0.002	±0.003																		
C	±0.0005	±0.001	±0.0010	0.500	±0.005	±0.008	±0.003	±0.005																		
H	±0.0005	±0.001	±0.0005	0.625	±0.006	±0.011	±0.004	±0.007																		
E	±0.0010	±0.001	±0.0010	0.750	±0.006	±0.011	±0.004	±0.007																		
G	±0.0010	±0.005	±0.0010	1.000	±0.007	±0.015	±0.005	±0.010																		
J	±0.0002	±0.01	±0.002	Insert shape D <table border="1"> <thead> <tr> <th>Inscribed circle diameter</th> <th>Tolerances for M</th> <th>Tolerances for M</th> </tr> </thead> <tbody> <tr> <td>±0.250</td> <td>±0.004</td> <td>±0.002</td> </tr> <tr> <td>±0.375</td> <td>±0.004</td> <td>±0.002</td> </tr> <tr> <td>±0.500</td> <td>±0.006</td> <td>±0.003</td> </tr> <tr> <td>±0.625</td> <td>±0.007</td> <td>±0.004</td> </tr> <tr> <td>±0.750</td> <td>±0.007</td> <td>±0.004</td> </tr> </tbody> </table>					Inscribed circle diameter	Tolerances for M	Tolerances for M	±0.250	±0.004	±0.002	±0.375	±0.004	±0.002	±0.500	±0.006	±0.003	±0.625	±0.007	±0.004	±0.750	±0.007	±0.004
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Inscribed circle diameter

Code(inch)	2	3	4	5	6	8
Inscribed circle diameter(inch)	0.250	0.375	0.500	0.625	0.750	1.000

Nose radius

Code(inch)	0	1	2	3	4	5	6
Nose acircle (inch)	0.008	0.016	0.031	0.047	0.063	0.079	0.094

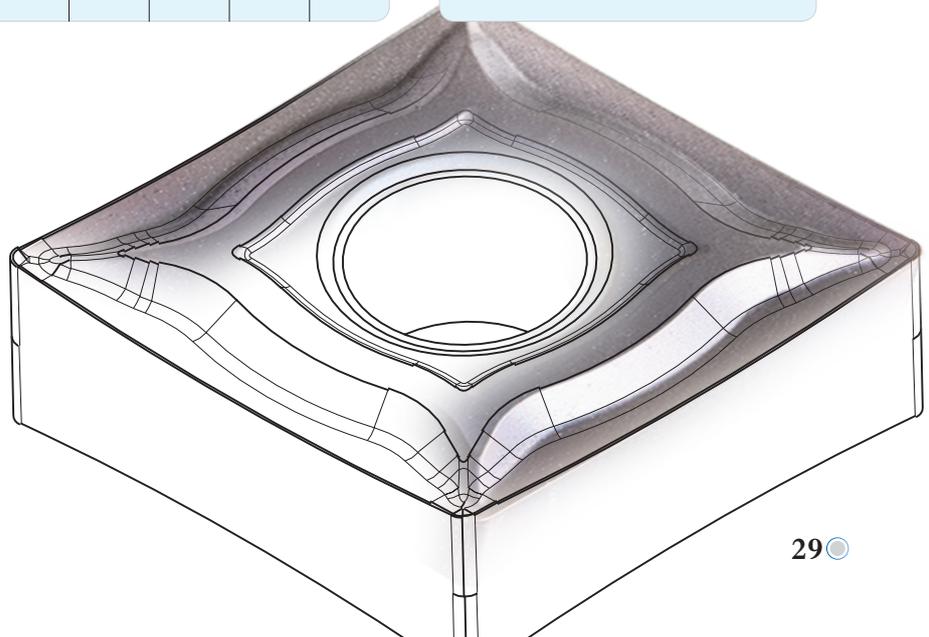
4 3 2 - DM

Insert thickness

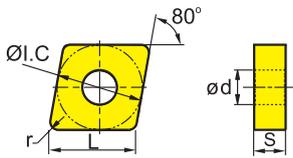
Code(inch)	2	3	4	5	6
Inscribed radius diameter(inch)	0.125	0.187	0.250	0.313	0.375

Chip-breakers code

Position 10 indicates the cutting properties & chip-breakers of inserts



CN (Negative inserts)



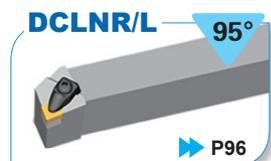
😊 Good working conditions 😊 General working conditions ☹️ Adverse working conditions

Workpiece material	Steel	Stainless steel	Cast iron	Ferrite materials	Heat-resistant steel
P	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
M	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
K	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
N	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
S	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊



Inserts shape	Type	Dimensions (inch)					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	YBM215	YBM151	YBM251	YBM253	YBS103	YBD052				YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YD101	YD201					
PM  Semi-finishing	CNMG321-PM	0.382	0.375	0.125	0.150	0.016	●	●	○																														
	CNMG322-PM	0.382	0.375	0.125	0.150	0.031	○	●	○																	●													
	CNMG431-PM	0.508	0.500	0.187	0.203	0.031	●	●	●	○															●	●	○												
	CNMG432-PM	0.508	0.500	0.187	0.203	0.031	●	●	●	●															●	●	●												
	CNMG433-PM	0.508	0.500	0.187	0.203	0.047	○	●	●	●															●	●	●												
	CNMG434-PM	0.508	0.500	0.187	0.203	0.063	●	●	○	●															●	○													
	CNMG542-PM	0.634	0.625	0.250	0.250	0.031	●	○	●	○															○	○													
	CNMG543-PM	0.634	0.625	0.250	0.250	0.047	●	○	●	○	●														●	○													
	CNMG544-PM	0.634	0.625	0.250	0.250	0.063			●	○															○	○													
	CNMG642-PM	0.760	0.750	0.250	0.313	0.031		●	●	○																●													
	CNMG643-PM	0.760	0.750	0.250	0.313	0.047		●	●	●	●														○	○	●												
	CNMG644-PM	0.760	0.750	0.250	0.313	0.063	●	●	●	○	●														○														
	DM  Semi-finishing	CNMG321-DM	0.382	0.375	0.125	0.150	0.016	○	●	○																													
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CNMG431-DM		0.508	0.500	0.187	0.203	0.016		●	●	●	○				●																								
CNMG432-DM		0.508	0.500	0.187	0.203	0.031	●	●	●	●	●				●										○	●													
CNMG433-DM		0.508	0.500	0.187	0.203	0.047		●	●	●	●																												
CNMG434-DM		0.508	0.500	0.187	0.203	0.063			●	○	●																												
CNMG542-DM		0.634	0.625	0.250	0.250	0.031		●	●	●	○															●													
CNMG543-DM		0.634	0.625	0.250	0.250	0.047		○	●	●	○															○													
CNMG544-DM		0.634	0.625	0.250	0.250	0.063		●	●	○	●															○													
CNMG642-DM		0.760	0.750	0.250	0.313	0.031		○	●	○																													
CNMG643-DM		0.760	0.750	0.250	0.313	0.047		●	●	●	○															○													
CNMG644-DM		0.760	0.750	0.250	0.313	0.063			●	●	○																												

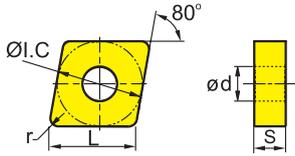
● Always stock available ○ Produce according to order



Applicable tool

CN □ □

(Negative inserts)

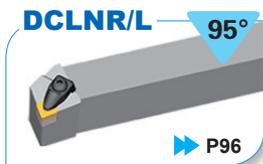


😊 Good working conditions 😊 General working conditions 😞 Adverse working conditions

Workpiece material	Steel (P)						Stainless steel (M)						Cast iron (K)						Ferrite materials (N)						Heat-resistant steel (S)					
P	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
M							😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
K													😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
N																		😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	
S													😊	😊										😊	😊					

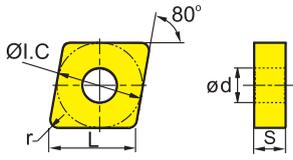
Inserts shape	Type	Dimensions (inch)					Coated cemented carbide															Cermet	Coated cermet	Cemented carbide								
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBM215	YBM151	YBM251	YBM253				YBS103	YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C
WGM Semi-finishing	CNMG432-WGM	0.508	0.500	0.187	0.203	0.031				●						●										●						
	CNMG433-WGM	0.508	0.500	0.187	0.203	0.047				●																●						
EM Semi-finishing	CNMG431-EM	0.508	0.500	0.187	0.203	0.016									●	●					●											
	CNMG432-EM	0.508	0.500	0.187	0.203	0.031									●	●					●											
	CNMG433-EM	0.508	0.500	0.187	0.203	0.047									●	●					●											
	CNMG542-EM	0.634	0.625	0.250	0.250	0.031						○				○	●					●										
	CNMG543-EM	0.634	0.625	0.250	0.250	0.047									○	●						●										
	CNMG544-EM	0.634	0.625	0.250	0.250	0.063									○	●						●										
NM Semi-finishing	CNMG431-NM	0.508	0.500	0.187	0.203	0.016									○							○									○	
	CNMG432-NM	0.508	0.500	0.187	0.203	0.031									●							○									○	
	CNMG433-NM	0.508	0.500	0.187	0.203	0.047									○							○									○	
DR Roughing	CNMG432-DR	0.508	0.500	0.187	0.203	0.031	●	●	●	●	●										●			●								
	CNMG433-DR	0.508	0.500	0.187	0.203	0.047	○	●	●	○												●			●							
	CNMG434-DR	0.508	0.500	0.187	0.203	0.063	○			○												●			●							
	CNMG542-DR	0.634	0.625	0.250	0.250	0.031				○	○											○										
	CNMG543-DR	0.634	0.625	0.250	0.250	0.047				●	●	○										●				○						
	CNMG544-DR	0.634	0.625	0.250	0.250	0.063				○	●	●										●										
	CNMG642-DR	0.760	0.750	0.250	0.250	0.031				○	○											●				○						
	CNMG643-DR	0.760	0.750	0.250	0.313	0.047	○	●	●	●	●	●										○				○						
	CNMG644-DR	0.760	0.750	0.250	0.313	0.063	○	●	●	●	●	●										○				○						
	CNMG646-DR	0.760	0.750	0.250	0.313	0.094	○	●	○	●												○				○						

● Always stock available ○ Produce according to order



Applicable tool

CN □□ (Negative inserts)



☺ Good working conditions ☹ General working conditions ☹ Adverse working conditions

Workpiece material	P Steel	M Stainless steel	K Cast iron	N Ferrite materials	S Heat-resistant steel
P Steel	☺☺☺☺☺☺☺☺☺☺	☹☹☹☹☹☹☹☹☹☹	☹☹☹☹☹☹☹☹☹☹	☹☹☹☹☹☹☹☹☹☹	☹☹☹☹☹☹☹☹☹☹
M Stainless steel	☹☹☹☹☹☹☹☹☹☹	☹☹☹☹☹☹☹☹☹☹	☹☹☹☹☹☹☹☹☹☹	☹☹☹☹☹☹☹☹☹☹	☹☹☹☹☹☹☹☹☹☹
K Cast iron	☹☹☹☹☹☹☹☹☹☹	☹☹☹☹☹☹☹☹☹☹	☹☹☹☹☹☹☹☹☹☹	☹☹☹☹☹☹☹☹☹☹	☹☹☹☹☹☹☹☹☹☹
N Ferrite materials	☹☹☹☹☹☹☹☹☹☹	☹☹☹☹☹☹☹☹☹☹	☹☹☹☹☹☹☹☹☹☹	☹☹☹☹☹☹☹☹☹☹	☹☹☹☹☹☹☹☹☹☹
S Heat-resistant steel	☹☹☹☹☹☹☹☹☹☹	☹☹☹☹☹☹☹☹☹☹	☹☹☹☹☹☹☹☹☹☹	☹☹☹☹☹☹☹☹☹☹	☹☹☹☹☹☹☹☹☹☹



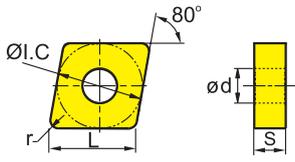
Inserts shape	Type	Dimensions(inch)					Coated cemented carbide																Cermet	Coated Cermet	Cemented carbide														
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBM215	YBM151	YBM251	YBM253	YBS103				YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YD101	YD201					
DR Roughing	CNMM433-DR	0.508	0.500	0.187	0.203	0.047			●	○																													
	CNMM543-DR	0.634	0.625	0.250	0.250	0.047			●	○																													
	CNMM544-DR	0.634	0.625	0.250	0.250	0.063					○																												
	CNMM643-DR	0.760	0.750	0.250	0.313	0.047			●	○	●																												
	CNMM644-DR	0.760	0.750	0.250	0.313	0.063			●	●	●																												
	CNMM646-DR	0.760	0.750	0.250	0.313	0.094			○	○	○																												
	CNMM866-DR	1.015	1.000	0.375	0.359	0.094				○	●	○																											
SNR Roughing	CNMG432-SNR	0.508	0.500	0.187	0.203	0.031								○	●																								
	CNMG433-SNR	0.508	0.500	0.187	0.203	0.047								○	●																								
	CNMG542-SNR	0.634	0.625	0.250	0.250	0.031								○	●																								
	CNMG544-SNR	0.634	0.625	0.250	0.250	0.063								○	●																								
	CNMG644-SNR	0.760	0.750	0.250	0.313	0.063								○	●																								
ER Roughing	CNMG432-ER	0.508	0.500	0.187	0.203	0.031														●	●																		
	CNMG433-ER	0.508	0.500	0.187	0.203	0.047														●	●																		
	CNMG543-ER	0.634	0.625	0.250	0.250	0.047														●	●																		
	CNMG544-ER	0.634	0.625	0.250	0.250	0.063															●	●																	
	CNMG644-ER	0.760	0.750	0.250	0.313	0.063															●	●																	
ER Roughing	CNMM856-ER	1.015	1.000	0.313	0.359	0.094				●											●	●																	
	CNMM858-ER	1.015	1.000	0.313	0.359	0.126				●												●	●																
	CNMM866-ER	1.015	1.000	0.375	0.359	0.094				●												●	●																
	CNMM868-ER	1.015	1.000	0.375	0.359	0.126				●												●	●																

● Always stock available ○ Produce according to order



Applicable tool

CN (Negative inserts)

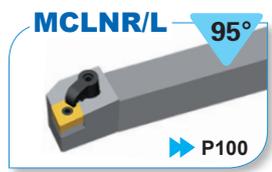
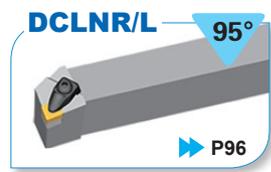


😊 Good working conditions 😐 General working conditions 😞 Adverse working conditions

Workpiece material	Steel (P)	Stainless steel (M)	Cast iron (K)	Ferrite materials (N)	Heat-resistant steel (S)
P Steel	😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊
M Stainless steel	😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊
K Cast iron	😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊
N Ferrite materials	😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊
S Heat-resistant steel	😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊

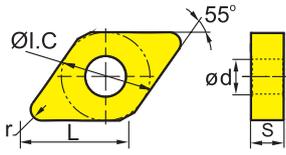
Inserts shape	Type	Dimensions (inch)					Coated cemented carbide																	Cermets	Coated Cermets	Cemented carbide																		
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBM215	YBM151	YBM251	YBM253	YBS103	YBD052				YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YD101	YD201										
Without chipbreaker (flat top)	CNMA431	0.508	0.500	0.187	0.203	0.016																		●	○	○	○																	
	CNMA432	0.508	0.500	0.187	0.203	0.031																			●	●	●	●																
	CNMA433	0.508	0.500	0.187	0.203	0.047																				●	●	●	●															
	CNMA434	0.508	0.500	0.187	0.203	0.063																				●	●		○															
	CNMA542	0.634	0.625	0.250	0.250	0.031																						○	○															
	CNMA543	0.634	0.625	0.250	0.250	0.047																							○	○														
	CNMA544	0.634	0.625	0.250	0.250	0.063																								○	○													
	CNMA545	0.634	0.625	0.250	0.250	0.079																																						
	CNMA548	0.634	0.625	0.250	0.250	0.118																																						
	CNMA643	0.760	0.750	0.250	0.313	0.047																																						
	CNMA644	0.760	0.750	0.250	0.313	0.063																																						
Conventional chipbreaker	CNMG431	0.508	0.500	0.187	0.203	0.016	●			●																○		○	○															
	CNMG432	0.508	0.500	0.187	0.203	0.031	●	●	●	●	○																○		○	○														
	CNMG433	0.508	0.500	0.187	0.203	0.047	●	●	●	●																	○	○		○														
	CNMG542	0.634	0.625	0.250	0.250	0.031	●		●																			○		○														
	CNMG543	0.634	0.625	0.250	0.250	0.047			●		○																		○															
	CNMG544	0.634	0.625	0.250	0.250	0.063					○																																	
	CNMG642	0.760	0.750	0.250	0.313	0.031	○				○																																	
	CNMG643	0.760	0.750	0.250	0.313	0.047	○				●																																	
	CNMG644	0.760	0.750	0.250	0.313	0.063	○				○																																	

● Always stock available ○ Produce according to order



Applicable tool

DN (Negative inserts)

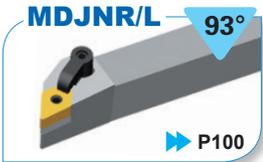
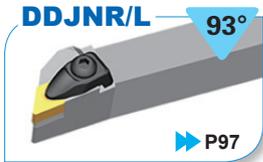


😊 Good working conditions 😐 General working conditions 😞 Adverse working conditions

Workpiece material	Steel	Stainless steel	Cast iron	Ferrite materials	Heat-resistant steel
P	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊
M	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊
K	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊
N	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊
S	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊

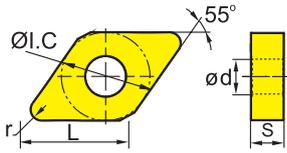
Inserts shape	Type	Dimensions (inch)					Coated cemented carbide															Cermets	Coated Cermets	Cemented carbide										
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBM215	YBM151	YBM251	YBM253				YBS103	YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YD101	YD201
EF Finishing	DNMG331-EF	0.457	0.375	0.187	0.150	0.016									●	●	○																	
	DNMG332-EF	0.457	0.375	0.187	0.150	0.031									○	●	○																	
	DNMG333-EF	0.457	0.375	0.187	0.150	0.047									○	●	○																	
	DNMG431-EF	0.610	0.500	0.187	0.203	0.016									●	●	○																	
	DNMG432-EF	0.610	0.500	0.187	0.203	0.031									●	●	○																	
	DNMG433-EF	0.610	0.500	0.187	0.203	0.047									○	●	○																	
	DNMG441-EF	0.610	0.500	0.250	0.203	0.016									●	●	○																	
	DNMG442-EF	0.610	0.500	0.250	0.203	0.031									●	●	○																	
	DNMG443-EF	0.610	0.500	0.250	0.203	0.047									○	●	○																	
NF Finishing	DNEG431-NF	0.610	0.500	0.187	0.203	0.016								○																				
	DNEG432-NF	0.610	0.500	0.187	0.203	0.031								○																				
	DNEG441-NF	0.610	0.500	0.250	0.203	0.016									●																			
	DNMG442-NF	0.610	0.500	0.250	0.203	0.031									●																			
NGF Finishing	DNEG432-NGF	0.610	0.500	0.187	0.203	0.031								○	●		○																	
	DNEG433-NGF	0.610	0.500	0.187	0.203	0.047								○	●		○																	
	DNEG442-NGF	0.610	0.500	0.250	0.203	0.031								○	●		○																	
	DNEG443-NGF	0.610	0.500	0.250	0.203	0.047								○	●		○																	
	DNEG443-NGF	0.610	0.500	0.250	0.203	0.047								○	●		○																	

● Always stock available ○ Produce according to order



Applicable tool

DN (Negative inserts)

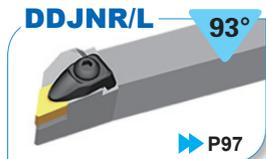


😊 Good working conditions 😊 General working conditions 😞 Adverse working conditions

Workpiece material	Steel	Stainless steel	Cast iron	Ferrite materials	Heat-resistant steel
P	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊
M		😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊
K			😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊
N				😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊
S					😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊

Inserts shape	Type	Dimensions(inch)					Coated cemented carbide														Cermets	Coated Cermets	Cemented carbide															
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBM215	YBM151	YBM251				YBM253	YBS103	YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YD101	YD201				
DM Semi-finishing	DNMG331-DM	0.457	0.375	0.187	0.150	0.016	●	●	○																													
	DNMG332-DM	0.457	0.375	0.187	0.150	0.031	●	●	○																													
	DNMG333-DM	0.457	0.375	0.187	0.150	0.047	○	○																														
	DNMG431-DM	0.610	0.500	0.187	0.203	0.016	○	●	○																													
	DNMG432-DM	0.610	0.500	0.187	0.203	0.031	●	●	○																													
	DNMG433-DM	0.610	0.500	0.187	0.203	0.047	●	○	○																													
	DNMG434-DM	0.610	0.500	0.187	0.203	0.063			○																													
	DNMG441-DM	0.610	0.500	0.250	0.203	0.016	●	●	○																													
	DNMG442-DM	0.610	0.500	0.250	0.203	0.031	●	●	○																													
	DNMG443-DM	0.610	0.500	0.250	0.203	0.047	●	○	○																													
	DNMG444-DM	0.610	0.500	0.250	0.203	0.063	○	○	○																													
	EM Semi-finishing	DNMG331-EM	0.457	0.375	0.187	0.150	0.016																															
DNMG332-EM		0.457	0.375	0.187	0.150	0.031																																
DNMG333-EM		0.457	0.375	0.187	0.150	0.047																																
DNMG431-EM		0.610	0.500	0.187	0.203	0.016																																
DNMG432-EM		0.610	0.500	0.187	0.203	0.031																																
DNMG433-EM		0.610	0.500	0.187	0.203	0.047																																
DNMG441-EM		0.610	0.500	0.250	0.203	0.016																																
DNMG442-EM		0.610	0.500	0.250	0.203	0.031																																
DNMG443-EM		0.610	0.500	0.250	0.203	0.047																																
DNMG444-EM		0.610	0.500	0.250	0.203	0.063																																

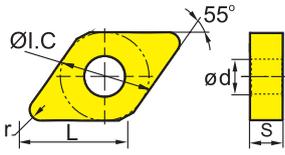
● Always stock available ○ Produce according to order



Applicable tool

DN (Negative inserts)

😊 Good working conditions 😊 General working conditions ☹️ Adverse working conditions

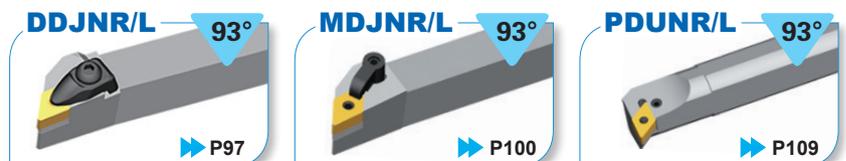
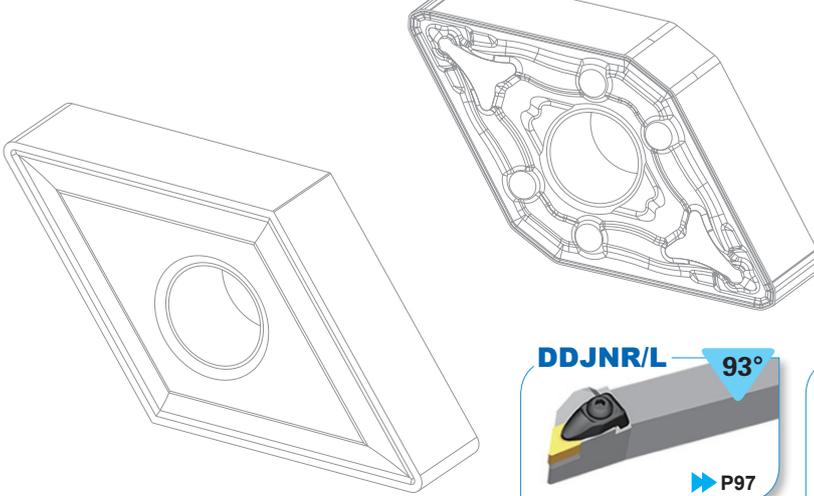


Workpiece material	P Steel	M Stainless steel	K Cast iron	N Ferrite materials	S Heat-resistant steel
Steel	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊
Stainless steel	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊
Cast iron	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊
Ferrite materials	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊
Heat-resistant steel	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊

A

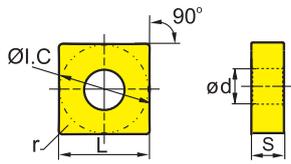
Inserts shape	Type	Dimensions(inch)					Coated cemented carbide														Cermets	Coated Cermets	Cemented carbide											
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBM215	YBM151	YBM251				YBM253	YBS103	YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YD101	YD201
 Roughing	DNMM442-ER	0.610	0.500	0.250	0.203	0.031															●													
	DNMM443-ER	0.610	0.500	0.250	0.203	0.047															●													
 Roughing	DNMG442-SNR	0.610	0.500	0.250	0.203	0.031						○	●			○						○												
	DNMG443-SNR	0.610	0.500	0.250	0.203	0.047						○	●			○						○												
 Conventional chipbreaker	DNMG441	0.610	0.500	0.250	0.203	0.016																												
	DNMG442	0.610	0.500	0.250	0.203	0.031							○																					
	DNMG443	0.610	0.500	0.250	0.203	0.047																												
	DNMG444	0.610	0.500	0.250	0.203	0.063																												
	DNMG542	0.760	0.625	0.250	0.203	0.031																												
 Without chipbreaker (flat top)	DNMA431	0.610	0.500	0.187	0.203	0.016																						○						
	DNMA432	0.610	0.500	0.187	0.203	0.031																												
	DNMA441	0.610	0.500	0.250	0.203	0.016																												
	DNMA442	0.610	0.500	0.250	0.203	0.031																		○	○	○	○							
	DNMA443	0.610	0.500	0.250	0.203	0.047																	○	○	○	○								
	DNMA444	0.610	0.500	0.250	0.203	0.063																		○	○	○								

● Always stock available ○ Produce according to order



Applicable tool

SN (Negative inserts)



Workpiece material	Good working conditions ☺			General working conditions ☹			Adverse working conditions ☹			
	P	M	K	N	S	P	M	K	N	S
P Steel	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺
M Stainless steel						☺	☺	☺	☺	☺
K Cast iron						☺	☺	☺	☺	☺
N Ferrite materials									☺	☺
S Heat-resistant steel										☺



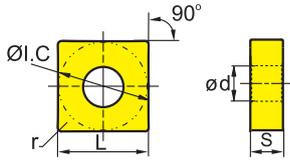
Inserts shape	Type	Dimensions (inch)					Coated cemented carbide													Cemented carbide												
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBM215	YBM151		YBM251	YBM253	YBS103	YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	Coated Cermet YNG151C	YD101	YD201
 Finishing	SNMG432-DF	0.500	0.500	0.187	0.203	0.031																										
	SNMG433-DF	0.500	0.500	0.187	0.203	0.047																										
 Finishing	SNMG321-EF	0.375	0.375	0.125	0.150	0.016										○																
	SNMG322-EF	0.375	0.375	0.125	0.150	0.031										○																
	SNMG323-EF	0.375	0.375	0.125	0.150	0.047										○																
	SNMG431-EF	0.500	0.500	0.187	0.203	0.016										●	●		○													
	SNMG432-EF	0.500	0.500	0.187	0.203	0.031										●	●		○													
	SNMG433-EF	0.500	0.500	0.187	0.203	0.047										○	●		○													
	SNMG542-EF	0.625	0.625	0.250	0.250	0.031										○	●		○													
SNMG543-EF	0.625	0.625	0.250	0.250	0.047										○	●		○														
 Finishing	SNMG321-SF	0.375	0.375	0.125	0.150	0.016										○												○	●			
	SNMG322-SF	0.375	0.375	0.125	0.150	0.031										○													○	●		
	SNMG431-SF	0.500	0.500	0.187	0.203	0.016										○													○	●		
	SNMG432-SF	0.500	0.500	0.187	0.203	0.031										○													○	●		
	SNMG433-SF	0.500	0.500	0.187	0.203	0.047										○													○	●		
SNMG542-SF	0.625	0.625	0.250	0.250	0.031										○													○				
 Semi-finishing	SNMG321-PM	0.375	0.375	0.125	0.150	0.016				○	●	○																				
	SNMG322-PM	0.375	0.375	0.125	0.150	0.031				○	●	○	○											○								
	SNMG323-PM	0.375	0.375	0.125	0.150	0.047				○	●	○	○																			
	SNMG431-PM	0.500	0.500	0.187	0.203	0.016				○	●	○	○												○							
	SNMG432-PM	0.500	0.500	0.187	0.203	0.031				○	●	○	○											○								
	SNMG433-PM	0.500	0.500	0.187	0.203	0.047				○	●	○	○											○								
	SNMG434-PM	0.500	0.500	0.187	0.203	0.063				○	●	○	○											○								
	SNMG542-PM	0.625	0.625	0.250	0.250	0.031				○	●	○	○											○								
SNMG543-PM	0.625	0.625	0.250	0.250	0.047				○	●	○	○											○									
SNMG644-PM	0.750	0.750	0.250	0.313	0.063				○	●	○	○											○									

● Always stock available ○ Produce according to order



Applicable tool

SN □ □ (Negative inserts)

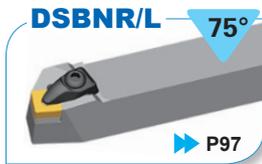


😊 Good working conditions 😊 General working conditions 😞 Adverse working conditions

Workpiece material	Steel	Stainless steel	Cast iron	Ferrite materials	Heat-resistant steel
P	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊
M	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊
K	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊
N	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊
S	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊

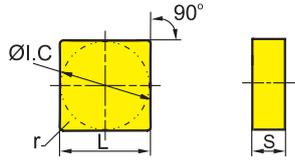
Inserts shape	Type	Dimensions(inch)					Coated cemented carbide																								
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBM215	YBM151	YBM251	YBM253	YBS103	YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	Coated Cermet YNG151C	Cemented carbide YD101	YD201
DM Semi-finishing	SNMG321-DM	0.375	0.375	0.125	0.150	0.016		○																							
	SNMG322-DM	0.375	0.375	0.125	0.150	0.031		○	●	○																					
	SNMG431-DM	0.500	0.500	0.187	0.203	0.016		●	●	○																					
	SNMG432-DM	0.500	0.500	0.187	0.203	0.031				○											○										
	SNMG433-DM	0.500	0.500	0.187	0.203	0.047		●	●	●																					
	SNMG434-DM	0.500	0.500	0.187	0.203	0.063			●	○	○																				
	SNMG542-DM	0.625	0.625	0.250	0.250	0.031		○	●	○										●											
	SNMG543-DM	0.625	0.625	0.250	0.250	0.047		●	●	●																					
	SNMG544-DM	0.625	0.625	0.250	0.250	0.063				○																					
	SNMG643-DM	0.750	0.750	0.250	0.313	0.047		○	●	○	○																				
	SNMG644-DM	0.750	0.750	0.250	0.313	0.063				○																					
EM Semi-finishing	SNMG431-EM	0.500	0.500	0.187	0.203	0.016									●	●		○		●											
	SNMG432-EM	0.500	0.500	0.187	0.203	0.031									●	●		○		●											
	SNMG433-EM	0.500	0.500	0.187	0.203	0.047									●	●		○		●											
	SNMG434-EM	0.500	0.500	0.187	0.203	0.063									○	●		○		●											
	SNMG543-EM	0.625	0.625	0.250	0.250	0.047									●	●		○		●											
	SNMG544-EM	0.625	0.625	0.250	0.250	0.063									○	●		○		●											
NM Semi-finishing	SNMG432-NM	0.500	0.500	0.187	0.203	0.031							●										○								

● Always stock available ○ Produce according to order



Applicable tool

SN (Negative inserts)

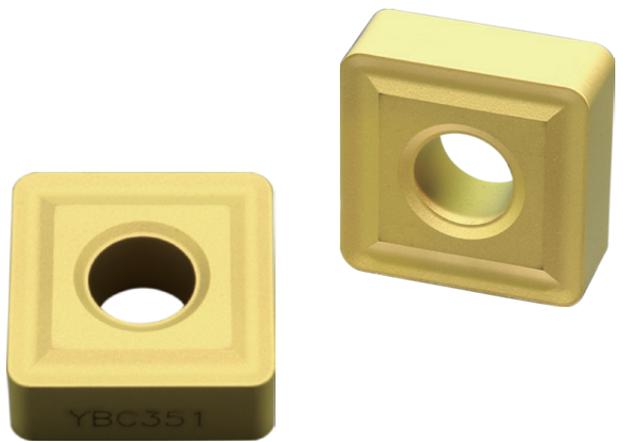


😊 Good working conditions 😐 General working conditions 😞 Adverse working conditions

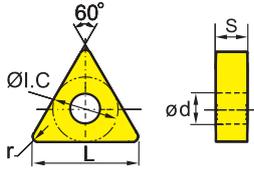
Workpiece material	Steel	Stainless steel	Cast iron	Ferrite materials	Heat-resistant steel
P	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊
M	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊
K	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊
N	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊
S	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊

Inserts shape	Type	Dimensions(inch)				Coated cemented carbide																	Cermets	Coated Cermets	Cemented carbide							
		L	ØI.C	S	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBM215	YBM151	YBM251	YBM253	YBS103	YBD052				YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YD101
 Without chipbreaker (flat top)	SNGN322	0.375	0.375	0.125	0.031																											
	SNGN432	0.500	0.500	0.187	0.031																											
	SNGN532	0.625	0.625	0.187	0.031																											
	SNGN633	0.750	0.750	0.187	0.047	○	○		○																							
	SNUN321	0.375	0.375	0.125	0.016																			○								
	SNUN322	0.375	0.375	0.125	0.031																											
	SNUN432	0.500	0.500	0.187	0.031																											
	SNUN433	0.500	0.500	0.187	0.047																			○								
	SNUN532	0.625	0.625	0.187	0.031																											
	SNUN533	0.625	0.625	0.187	0.047																											
	SNUN633	0.750	0.750	0.187	0.047																											
	SNUN636	0.750	0.750	0.187	0.094																											
	SNUN856	1.000	1.000	0.313	0.094					○																						
	SNUN866	1.000	1.000	0.375	0.094																											

● Always stock available ○ Produce according to order



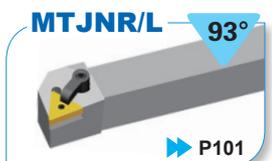
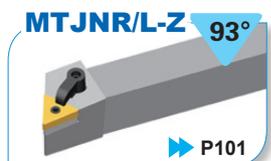
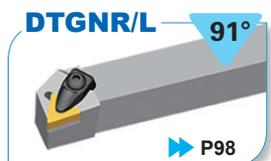
TN (Negative inserts)



Workpiece material	Good working conditions	General working conditions	Adverse working conditions
P Steel	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
M Stainless steel	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
K Cast iron	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
N Ferrite materials	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
S Heat-resistant steel	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊

Inserts shape	Type	Dimensions (inch)					Coated cemented carbide																Cermets	Cemented carbide													
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBM215	YBM151	YBM251	YBM253	YBS103			YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YD101	YD201				
DF Finishing	TNMG331-DF	0.650	0.375	0.187	0.150	0.016	●	●	●											○												●					
	TNMG332-DF	0.650	0.375	0.187	0.150	0.031	●	○	●																						●						
	TNMG333-DF	0.650	0.375	0.187	0.150	0.047	○	○	○																												
	TNMG432-DF	0.866	0.500	0.187	0.203	0.031	●	○	○												○																
WGF Finishing	TNMX331-WGF	0.650	0.375	0.187	0.150	0.016	●																														
	TNMX332-WGF	0.650	0.375	0.187	0.150	0.031	●																														
SF Finishing	TNMG221-SF	0.433	0.250	0.125	0.089	0.016																												○	●		
	TNMG331-SF	0.650	0.375	0.187	0.150	0.016																												○	●		
	TNMG332-SF	0.650	0.375	0.187	0.150	0.031																												○	●		
	TNMG432-SF	0.866	0.500	0.187	0.203	0.031																												○	●		
	TNMG433-SF	0.866	0.500	0.187	0.203	0.047																												○	●		
EF Finishing	TNMG221-EF	0.433	0.250	0.125	0.089	0.016										○	●																				
	TNMG222-EF	0.433	0.250	0.125	0.089	0.031										○	●																				
	TNMG331-EF	0.650	0.375	0.187	0.150	0.016											●	●		○																	
	TNMG332-EF	0.650	0.375	0.187	0.150	0.031											●	●		○																	
	TNMG333-EF	0.650	0.375	0.187	0.150	0.047											○	●		○																	
	TNMG431-EF	0.866	0.500	0.187	0.203	0.016											○	●		○																	
	TNMG432-EF	0.866	0.500	0.187	0.203	0.031											○	●		○																	
	TNMG433-EF	0.866	0.500	0.187	0.203	0.047											○	●		○																	

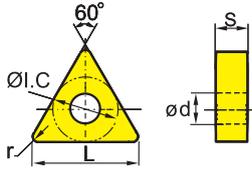
● Always stock available ○ Produce according to order



Applicable tool

TN

(Negative inserts)

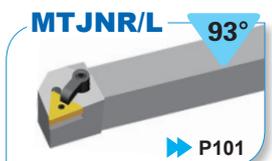
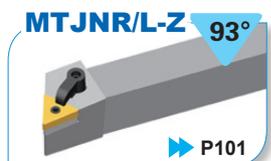
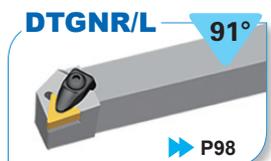


😊 Good working conditions 😊 General working conditions 😞 Adverse working conditions

Workpiece material	Steel	Stainless steel	Cast iron	Ferrite materials	Heat-resistant steel
P	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
M	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
K	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
N	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
S	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊

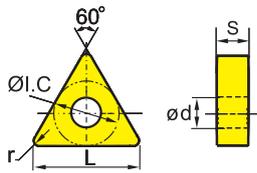
Inserts shape	Type	Dimensions (inch)					Coated cemented carbide														Cermet	Coated Cermet	Cemented carbide															
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBM215	YBM151	YBM251				YBM253	YBS103	YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YD101	YD201				
WGM 	TNMX332-WGM	0.650	0.375	0.187	0.150	0.031				●						●																						
	TNMX333-WGM	0.650	0.375	0.187	0.150	0.047				●																												
PM 	TNMG221-PM	0.433	0.250	0.125	0.089	0.016	●	●	○																													
	TNMG222-PM	0.433	0.250	0.125	0.089	0.031	●	○	○																													
	TNMG331-PM	0.650	0.375	0.187	0.150	0.016	●	●	●																													
	TNMG332-PM	0.650	0.375	0.187	0.150	0.031	●	●	●	●																												
	TNMG333-PM	0.650	0.375	0.187	0.150	0.047	●	●	○	○																												
	TNMG432-PM	0.866	0.500	0.187	0.203	0.031	●	●	○	●																												
	TNMG433-PM	0.866	0.500	0.187	0.203	0.047	●	●	●	○	○																											
	TNMG434-PM	0.866	0.500	0.187	0.203	0.063			○	○																												
DM 	TNMG222-DM	0.433	0.250	0.125	0.089	0.031	○		○																													
	TNMG331-DM	0.650	0.375	0.187	0.150	0.016	●	●	●	○																												
	TNMG332-DM	0.650	0.375	0.187	0.150	0.031	●	●	●	●																												
	TNMG333-DM	0.650	0.375	0.187	0.150	0.047	○	○	●	○																												
	TNMG431-DM	0.866	0.500	0.187	0.203	0.016	●	●	●	○																												
	TNMG432-DM	0.866	0.500	0.187	0.203	0.031	●	●	●	●																												
	TNMG433-DM	0.866	0.500	0.187	0.203	0.047	○	○	○	○																												
	TNMG434-DM	0.866	0.500	0.187	0.203	0.063	○	○	○	○																												

● Always stock available ○ Produce according to order



Applicable tool

TN (Negative inserts)



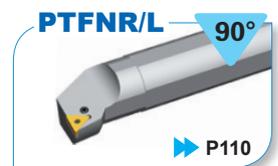
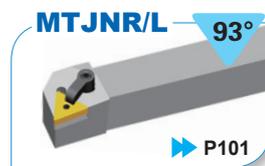
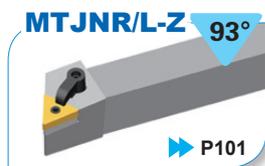
😊 Good working conditions 😊 General working conditions 😞 Adverse working conditions

Workpiece material	😊 Good working conditions	😊 General working conditions	😊 Adverse working conditions
P Steel	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
M Stainless steel		😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
K Cast iron		😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
N Ferrite materials			😊😊😊😊😊😊😊😊😊😊
S Heat-resistant steel	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	



Inserts shape	Type	Dimensions (inch)						Coated cemented carbide																								
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBM215	YBM151	YBM251	YBM253	YBS103	YBD052	YBD102	YBD151	YBD152	YBD252	Cermet	Coated Cermet	Cemented carbide		
EM Semi-finishing	TNMG331-EM	0.650	0.375	0.187	0.150	0.016									●	●		○														
	TNMG332-EM	0.650	0.375	0.187	0.150	0.031									●	●		○														
	TNMG333-EM	0.650	0.375	0.187	0.150	0.047									○	●		○														
	TNMG432-EM	0.866	0.500	0.187	0.203	0.031									●	●		○														
	TNMG433-EM	0.866	0.500	0.187	0.203	0.047									○	●		○														
	TNMG434-EM	0.866	0.500	0.187	0.203	0.063									○	●		○														
DR Roughing	TNMG332-DR	0.650	0.375	0.187	0.150	0.031		○		○	○														○		○					
	TNMG333-DR	0.650	0.375	0.187	0.150	0.047		○	○	○	○																					
	TNMG432-DR	0.866	0.500	0.187	0.203	0.031				○	●														○							
	TNMG433-DR	0.866	0.500	0.187	0.203	0.047				○	○	○															○					
	TNMG434-DR	0.866	0.500	0.187	0.203	0.063					○	○													○							
	TNMG542-DR	1.083	0.625	0.250	0.250	0.031					○	○																				
	TNMG543-DR	1.083	0.625	0.250	0.250	0.047					○	○																				
	TNMG544-DR	1.083	0.625	0.250	0.250	0.063					○	○																				
DR Roughing	TNMM332-DR	0.650	0.375	0.187	0.150	0.031				○	○																					
	TNMM333-DR	0.650	0.375	0.187	0.150	0.047				○	○																					
	TNMM433-DR	0.866	0.500	0.187	0.203	0.047				●	●																					
	TNMM432-DR	0.866	0.500	0.187	0.203	0.031				●	○																					
	TNMM434-DR	0.866	0.500	0.187	0.203	0.063				○	○																					
	TNMM533-DR	1.083	0.625	0.187	0.250	0.047					○	○																				
	TNMM534-DR	1.083	0.625	0.187	0.250	0.063					○	○																				
ER Roughing	TNMG332-ER	0.650	0.375	0.187	0.150	0.031																										
	TNMG333-ER	0.650	0.375	0.187	0.150	0.047																										
	TNMG432-ER	0.866	0.500	0.187	0.203	0.031																										
	TNMG433-ER	0.866	0.500	0.187	0.203	0.047																										

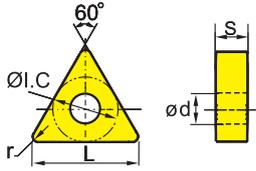
● Always stock available ○ Produce according to order



Applicable tool

TN

(Negative inserts)

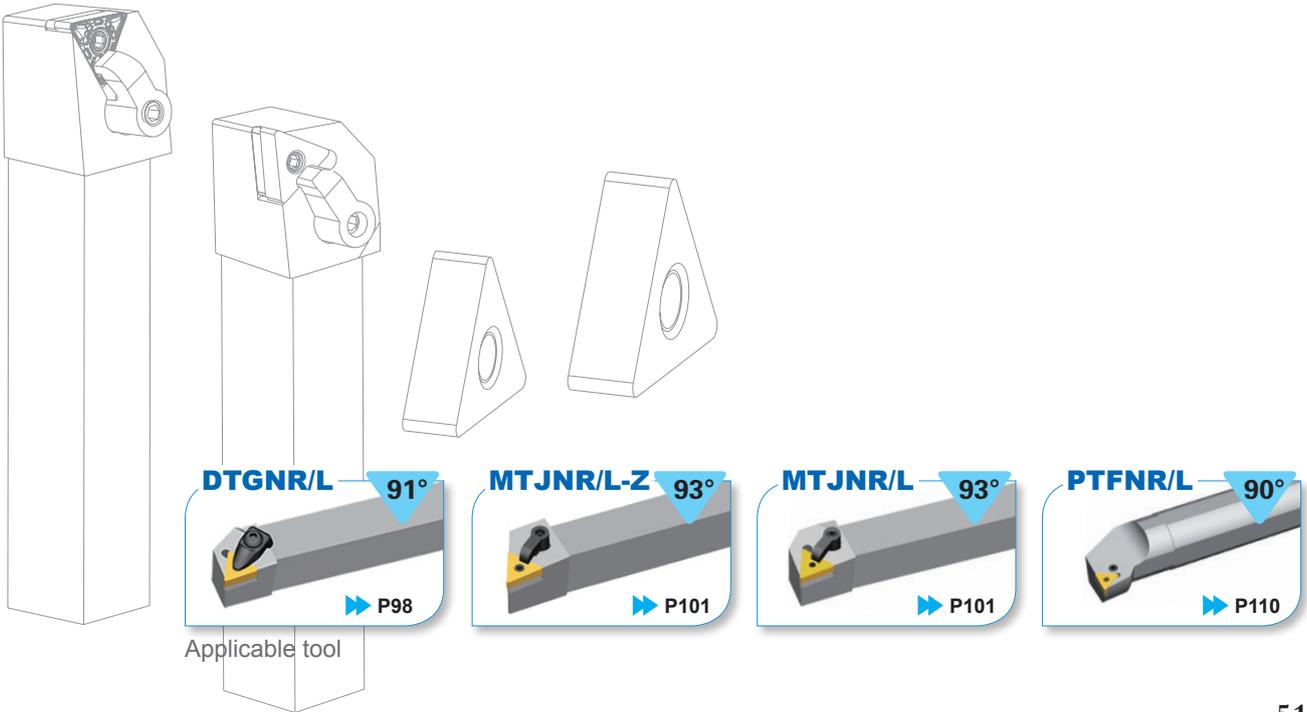


😊 Good working conditions 😊 General working conditions 😞 Adverse working conditions

Workpiece material	Steel	Stainless steel	Cast iron	Ferrite materials	Heat-resistant steel
P	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊
M	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊
K	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊
N	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊
S	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊

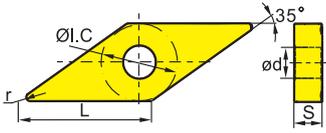
Inserts shape	Type	Dimensions(inch)					Coated cemented carbide																Cermet	Coated Cermet	Cemented carbide														
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBM215	YBM151	YBM251	YBM253	YBS103				YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YD101	YD201					
Conventional chipbreaker	TNMM331	0.650	0.375	0.187	0.150	0.016				○																													
	TNMM332	0.650	0.375	0.187	0.150	0.031					○																												
	TNMM333	0.650	0.375	0.187	0.150	0.047	○																																
	TNMM432	0.866	0.500	0.187	0.203	0.031					○																												
	TNMM433	0.866	0.500	0.187	0.203	0.047						●		○																									
	TNMM434	0.866	0.500	0.187	0.203	0.063								○																									
	TNMM544	1.083	0.625	0.250	0.250	0.063						●		○																									
Without chipbreaker (flat top)	TNMA331	0.650	0.375	0.187	0.150	0.016																		○	●	●	●												
	TNMA332	0.650	0.375	0.187	0.150	0.031	○																	●	●	●	●											○	
	TNMA333	0.650	0.375	0.187	0.150	0.047																		●	○		○												
	TNMA334	0.650	0.375	0.187	0.150	0.063																					○												
	TNMA431	0.866	0.500	0.187	0.203	0.016																		○	○	○	○												
	TNMA432	0.866	0.500	0.187	0.203	0.031																			○	○	○	○											
	TNMA544	1.083	0.625	0.250	0.250	0.063																						○											

● Always stock available ○ Produce according to order



VN □□ (Negative inserts)

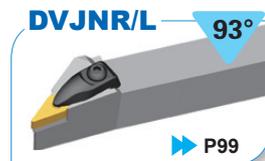
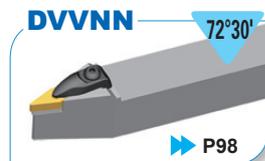
😊 Good working conditions 😊 General working conditions 😞 Adverse working conditions



Workpiece material	P Steel	M Stainless steel	K Cast iron	N Ferrite materials	S Heat-resistant steel
P Steel	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊
M Stainless steel	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊
K Cast iron	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊
N Ferrite materials	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊
S Heat-resistant steel	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊

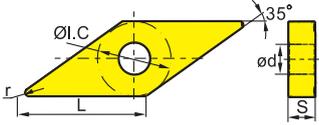
Inserts shape	Type	Dimensions (inch)					Coated cemented carbide																Cemented carbide								
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBM215	YBM151	YBM251	YBM253	YBS103		YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	Coated Cermet YNG151C	YD101
DF Finishing	VNMG331-DF	0.654	0.375	0.187	0.150	0.016	●	●	●											●											
	VNMG332-DF	0.654	0.375	0.187	0.150	0.031	●	○	○																						
EF Finishing	VNMG331-EF	0.654	0.375	0.187	0.150	0.016								○	●		○														
	VNMG332-EF	0.654	0.375	0.187	0.150	0.031								○	●		○														
	VNMG333-EF	0.654	0.375	0.187	0.150	0.047								○	●		○														
NF Finishing	VNEG331-NF	0.654	0.375	0.187	0.150	0.016							○																		○
	VNEG332-NF	0.654	0.375	0.187	0.150	0.031							○																		○
NGF Finishing	VNEG332-NGF	0.654	0.375	0.187	0.150	0.016							○	●		○															
	VNEG333-NGF	0.654	0.375	0.187	0.150	0.031							○	●		○															
SF Finishing	VNMG331-SF	0.654	0.375	0.187	0.150	0.016							○														○	●			
	VNMG332-SF	0.654	0.375	0.187	0.150	0.031							○														○				

● Always stock available ○ Produce according to order



Applicable tool

VN □□ (Negative inserts)

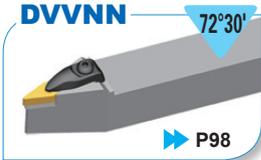


😊 Good working conditions 😊 General working conditions 😞 Adverse working conditions

Workpiece material	Steel	Stainless steel	Cast iron	Ferrite materials	Heat-resistant steel
P	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
M	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
K	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
N	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
S	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊

Inserts shape	Type	Dimensions (inch)					Coated cemented carbide													Cemented carbide											
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBM215	YBM151		YBM251	YBM253	YBS103	YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	Coated Cermet YNG151C	Cemented carbide YD101
Semi-finishing	VNMG331-PM	0.654	0.375	0.187	0.150	0.016	●	●	○	○																					
	VNMG332-PM	0.654	0.375	0.187	0.150	0.031	●	●	○														●	●	○						
	VNMG333-PM	0.654	0.375	0.187	0.150	0.047			○	○														○	○						
Semi-finishing	VNMG332-DM	0.654	0.375	0.187	0.150	0.031	●	●	●	○										○											
	VNMG333-DM	0.654	0.375	0.187	0.150	0.047	○	○	○											○											
Semi-finishing	VNMG331-EM	0.654	0.375	0.187	0.150	0.016								●	●					●											
	VNMG332-EM	0.654	0.375	0.187	0.150	0.031								●	●					●											
Semi-finishing	VNMG333-NM	0.654	0.375	0.187	0.150	0.047						○										○								○	
Roughing	VNMG332-SNR	0.654	0.375	0.187	0.150	0.031							○	●		○					○										
	VNMG333-SNR	0.654	0.375	0.187	0.150	0.047								○	●		○				○										
Conventional chipbreaker	VNMG331	0.654	0.375	0.187	0.150	0.016	○	○																	●						
	VNMG332	0.654	0.375	0.187	0.150	0.031	●	●																	●						

● Always stock available ○ Produce according to order



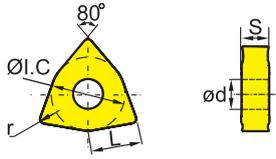
Applicable tool

Turning

General turning inserts

WN

(Negative inserts)



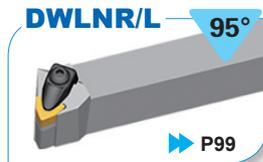
😊 Good working conditions 😐 General working conditions 😞 Adverse working conditions

Workpiece material	Steel	Stainless steel	Cast iron	Ferrite materials	Heat-resistant steel
P	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊
M	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊
K	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊
N	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊
S	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊

A

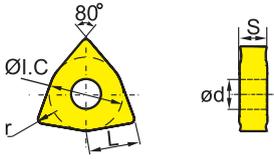
Inserts shape	Type	Dimensions (inch)					Coated cemented carbide																Coated cermet	Cemented carbide								
		L	Øl.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBM215	YBM151	YBM251	YBM253	YBS103	YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	Coated cermet YNG151C	YD101	YD201	
<p>DF</p> <p>Finishing</p>	WNMG3(2.5)1-DF	0.256	0.375	0.156	0.150	0.016	●																									
	WNMG3(2.5)2-DF	0.256	0.375	0.156	0.150	0.031	●		●																							
	WNMG3(2.5)3-DF	0.256	0.375	0.156	0.150	0.047	●		●																							
	WNMG331-DF	0.256	0.375	0.187	0.150	0.016	●	●	●												○											
	WNMG332-DF	0.256	0.375	0.187	0.150	0.031	●	●	●													●										
	WNMG333-DF	0.256	0.375	0.187	0.150	0.047	●	○	○													○										
	WNMG431-DF	0.343	0.500	0.187	0.203	0.016	●	●	○													○										
	WNMG432-DF	0.343	0.500	0.187	0.203	0.031	●	●	●													●										
	WNMG433-DF	0.343	0.500	0.187	0.203	0.047	○	○	○	○																						
<p>WGF</p> <p>Finishing</p>	WNMG331-WGF	0.256	0.375	0.187	0.150	0.016	●															●										
	WNMG332-WGF	0.256	0.375	0.187	0.150	0.031	●															●										
	WNMG431-WGF	0.343	0.500	0.187	0.203	0.016	●															●										
	WNMG432-WGF	0.343	0.500	0.187	0.203	0.031	●															●										
<p>SF</p> <p>Finishing</p>	WNMG3(2.5)1-SF	0.256	0.375	0.156	0.150	0.016						○																○	●			
	WNMG3(2.5)2-SF	0.256	0.375	0.156	0.150	0.031						○																○	●			
	WNMG3(2.5)3-SF	0.256	0.375	0.156	0.150	0.047						○																○	●			
	WNMG331-SF	0.256	0.375	0.187	0.150	0.016						○																○	●			
	WNMG332-SF	0.256	0.375	0.187	0.150	0.031						○																○	●			
	WNMG431-SF	0.343	0.500	0.187	0.203	0.016						○																○	●			
	WNMG432-SF	0.343	0.500	0.187	0.203	0.031						○																○	●			
	WNMG433-SF	0.343	0.500	0.187	0.203	0.047						○																○	●			

● Always stock available ○ Produce according to order



Applicable tool

WN (Negative inserts)



☺ Good working conditions 😐 General working conditions ☹ Adverse working conditions

Workpiece material	Good working conditions												General working conditions						Adverse working conditions					
	P Steel	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	
M Stainless steel																					☺	☺		
K Cast iron																					☺	☺		
N Ferrite materials																					☺	☺		
S Heat-resistant steel																					☺	☺		

Inserts shape	Type	Dimensions (inch)					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	YBM215	YBM151	YBM251	YBM253	YBS103				YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YD101	YD201
NF 	WNEG431-NF	0.343	0.500	0.187	0.203	0.016																												
	WNEG432-NF	0.343	0.500	0.187	0.203	0.031							○																					
EF 	WNMG3(2.5)1-EF	0.256	0.375	0.156	0.150	0.016									○	●			○															
	WNMG3(2.5)2-EF	0.256	0.375	0.156	0.150	0.031									○	●			○															
	WNMG3(2.5)3-EF	0.256	0.375	0.156	0.150	0.047									○	●			○															
	WNMG331-EF	0.256	0.375	0.187	0.150	0.016									●	●			○															
	WNMG332-EF	0.256	0.375	0.187	0.150	0.031									●	●			○															
	WNMG431-EF	0.343	0.500	0.187	0.203	0.016									●	●			○															
	WNMG432-EF	0.343	0.500	0.187	0.203	0.031									●	●			○															
WGM 	WNMG332-WGM	0.256	0.375	0.187	0.150	0.031										●										●								
	WNMG333-WGM	0.256	0.375	0.187	0.150	0.047										●										●								
	WNMG432-WGM	0.343	0.500	0.187	0.203	0.031										●										●								
	WNMG433-WGM	0.343	0.500	0.187	0.203	0.047										●										●								
DM 	WNMG3(2.5)1-DM	0.256	0.375	0.156	0.150	0.016			○	○																								
	WNMG3(2.5)2-DM	0.256	0.375	0.156	0.150	0.031			○	○																								
	WNMG3(2.5)3-DM	0.256	0.375	0.156	0.150	0.047				○	○																							
	WNMG332-DM	0.256	0.375	0.187	0.150	0.031		●	●	●	●								●															
	WNMG333-DM	0.256	0.375	0.187	0.150	0.047				○	○																							
	WNMG431-DM	0.343	0.500	0.187	0.203	0.016		●	●	●	○					○																		
	WNMG432-DM	0.343	0.500	0.187	0.203	0.031		●	●	●	●																							
	WNMG433-DM	0.343	0.500	0.187	0.203	0.047		●	●	●																								
WNMG434-DM	0.343	0.500	0.187	0.203	0.063				○	○																								

● Always stock available ○ Produce according to order



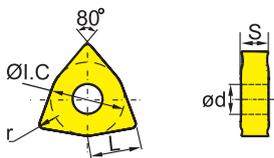
Applicable tool

Turning

General turning inserts

WN (Negative inserts)

😊 Good working conditions 😊 General working conditions 😞 Adverse working conditions



Workpiece material	Working conditions																			
	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
P Steel	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
M Stainless steel	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
K Cast iron	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
N Ferrite materials	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
S Heat-resistant steel	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊

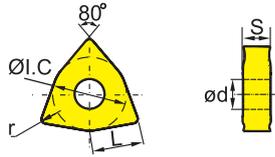
Inserts shape	Type	Dimensions (inch)					Coated cemented carbide															Cermet	Coated Cermet	Cemented carbide									
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBM215	YBM151	YBM251	YBM253				YBS103	YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YD101
 Semi-finishing	WNMG332-PM	0.256	0.375	0.187	0.150	0.031	●	●	○	○																							
	WNMG333-PM	0.256	0.375	0.187	0.150	0.047	○		○																								
	WNMG431-PM	0.343	0.500	0.187	0.203	0.016	○	●	○	○																							
	WNMG432-PM	0.343	0.500	0.187	0.203	0.031	●	●	●	○																							
	WNMG433-PM	0.343	0.500	0.187	0.203	0.047	●	●	●	○																							
	WNMG434-PM	0.343	0.500	0.187	0.203	0.063				○																							
	WNMG442-PM	0.343	0.500	0.250	0.203	0.031				○																							
 Semi-finishing	WNMG3(2.5)1-EM	0.256	0.375	0.156	0.150	0.016									○	●																	
	WNMG3(2.5)2-EM	0.256	0.375	0.156	0.150	0.031									○	●																	
	WNMG3(2.5)3-EM	0.256	0.375	0.156	0.150	0.047									○	●																	
	WNMG331-EM	0.256	0.375	0.187	0.150	0.016									○	●																	
	WNMG332-EM	0.256	0.375	0.187	0.150	0.031									●	●		○															
	WNMG431-EM	0.343	0.500	0.187	0.203	0.016									●	●		○															
	WNMG432-EM	0.343	0.500	0.187	0.203	0.031									●	●		○															
WNMG433-EM	0.343	0.500	0.187	0.203	0.047									●	●		○																
 Semi-finishing	WNMG431-NM	0.343	0.500	0.187	0.203	0.016								○																			
	WNMG432-NM	0.343	0.500	0.187	0.203	0.031								○																			○
	WNMG433-NM	0.343	0.500	0.187	0.203	0.047								○																			○

● Always stock available ○ Produce according to order



Applicable tool

WN (Negative inserts)

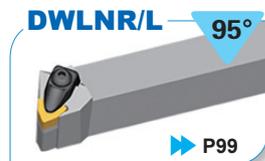


😊 Good working conditions 😊 General working conditions 😞 Adverse working conditions

Workpiece material	Steel (P)	Stainless steel (M)	Cast iron (K)	Ferrite materials (N)	Heat-resistant steel (S)
Steel (P)	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊
Stainless steel (M)	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊
Cast iron (K)	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊
Ferrite materials (N)	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊
Heat-resistant steel (S)	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊

Inserts shape	Type	Dimensions (inch)					Coated cemented carbide														Cemented carbide	Cermet	Coated Cermet																
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBM215	YBM151	YBM251				YBM253	YBS103	YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YD101	YD201					
 Roughing	WNMG332-DR	0.256	0.375	0.187	0.150	0.031		○	○	○																													
	WNMG333-DR	0.256	0.375	0.187	0.150	0.047			○	○																													
	WNMG432-DR	0.343	0.500	0.187	0.203	0.031			○	○	●	○	●																										
	WNMG433-DR	0.343	0.500	0.187	0.203	0.047			○	○	●	○	●																										
	WNMG434-DR	0.343	0.500	0.187	0.203	0.063					○																												
 Roughing	WNMG432-SNR	0.343	0.500	0.187	0.203	0.031							○	●			○																						
	WNMG433-SNR	0.343	0.500	0.187	0.203	0.047							○	●			○																						
 Without chipbreaker (flat top)	WNMA3(2.5)2	0.256	0.375	0.156	0.150	0.031																			○														
	WNMA331	0.256	0.375	0.187	0.150	0.016																																	
	WNMA332	0.256	0.375	0.187	0.150	0.031																																	
	WNMA333	0.256	0.375	0.187	0.150	0.047																																	
	WNMA431	0.343	0.500	0.187	0.203	0.016																																	
	WNMA432	0.343	0.500	0.187	0.203	0.031																																	
	WNMA433	0.343	0.500	0.187	0.203	0.047																																	
	WNMA434	0.343	0.500	0.187	0.203	0.063																																	

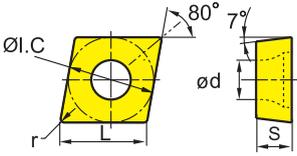
● Always stock available ○ Produce according to order



Applicable tool

CC

(Positive inserts)



😊 Good working conditions 😊 General working conditions ☹ Adverse working conditions

Workpiece material	P Steel	M Stainless steel	K Cast iron	N Ferrite materials	S Heat-resistant steel
P Steel	😊😊😊😊😊😊😊😊😊😊	😊😊			
M Stainless steel		😊😊😊😊😊😊😊😊😊😊			
K Cast iron			😊😊😊😊😊😊😊😊😊😊		
N Ferrite materials				😊😊😊😊😊😊😊😊😊😊	
S Heat-resistant steel					😊😊😊😊😊😊😊😊😊😊

Inserts shape	Type	Dimensions(inch)					Coated cemented carbide																									
		L	øI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBM215	YBM151	YBM251	YBM253	YBS103	YBD052	YBD102	YBD151	YBD152	YBD252	Cermet YNG151	Coated Cermet YNG151C	Cemented carbide YD101	YD201	
SF  Precision machining	CCGT2(1.5)0-SF	0.252	0.250	0.094	0.110	0.008																										
	CCGT2(1.5)1-SF	0.252	0.250	0.094	0.110	0.016																										
	CCGT3(2.5)1-SF	0.382	0.375	0.156	0.173	0.016																										
HF  Finishing	CCMT2(1.5)0-HF	0.252	0.250	0.094	0.110	0.008		●	●	●					●														○		○	
	CCMT2(1.5)1-HF	0.252	0.250	0.094	0.110	0.016		●	●	○	○				●											●			○		●	
	CCMT2(1.5)2-HF	0.252	0.250	0.094	0.110	0.031		●	●		○				●					○									○		○	
	CCMT3(2.5)0-HF	0.382	0.375	0.156	0.173	0.008				●	○					●																○
	CCMT3(2.5)1-HF	0.382	0.375	0.156	0.173	0.016		●	●	●	○					●														○		○
	CCMT3(2.5)2-HF	0.382	0.375	0.156	0.173	0.031		●	●	○	○					●				○									○		○	○
	CCMT431-HF	0.508	0.500	0.187	0.219	0.016		●	○	●	○																					
	CCMT432-HF	0.508	0.500	0.187	0.219	0.031			○																							
EF  Finishing	CCMT2(1.5)0-EF	0.252	0.250	0.094	0.110	0.008										●	●		○													
	CCMT2(1.5)1-EF	0.252	0.250	0.094	0.110	0.016											●	●		○												
	CCMT3(2.5)0-EF	0.382	0.375	0.156	0.173	0.008																										
	CCMT3(2.5)1-EF	0.382	0.375	0.156	0.173	0.016																										
	CCMT3(2.5)2-EF	0.382	0.375	0.156	0.173	0.031																										
	CCMT431-EF	0.508	0.500	0.187	0.219	0.016																										
HM  Semi-finishing	CCMT2(1.5)1-HM	0.252	0.250	0.094	0.110	0.016		●	●	●	○					●			○	●												
	CCMT2(1.5)2-HM	0.252	0.250	0.094	0.110	0.031		●	●	○	○					●			○	○												
	CCMT3(2.5)1-HM	0.382	0.375	0.156	0.173	0.016		●	●	●	●										○	●										
	CCMT3(2.5)2-HM	0.382	0.375	0.156	0.173	0.031		●	●	●	●											○	●									
	CCMT431-HM	0.508	0.500	0.187	0.219	0.016		●	●	○	○											○	○									
	CCMT432-HM	0.508	0.500	0.187	0.219	0.031		●	●	●	●											○	○									
	CCMT433-HM	0.508	0.500	0.187	0.219	0.047			○	○																						

● Always stock available ○ Produce according to order

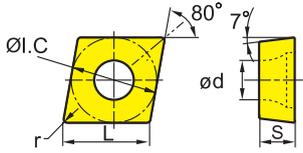


External turning



Internal turning

CC (Positive inserts)



😊 Good working conditions 😊 General working conditions ☹️ Adverse working conditions

Workpiece material	Working Conditions																			
P Steel	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊		😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊		😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊		😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊
M Stainless steel				😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊		😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊
K Cast iron																			😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊
N Ferrite materials																				😊😊😊😊😊😊😊😊
S Heat-resistant steel																				😊😊😊😊😊😊😊😊

Inserts shape	Type	Dimensions (inch)					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	YBM215	YBM151	YBM251	YBM253				YBS103	YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YD101	YD201	
EM Semi-finishing	CCMT2(1.5)1-EM	0.252	0.250	0.094	0.110	0.016									●	●		○			●														
	CCMT2(1.5)2-EM	0.252	0.250	0.094	0.110	0.031									●	●		○			●														
	CCMT3(2.5)1-EM	0.382	0.375	0.156	0.173	0.016									●	●		○			●														
	CCMT3(2.5)2-EM	0.382	0.375	0.156	0.173	0.031									●	●		○			●														
	CCMT431-EM	0.508	0.500	0.187	0.219	0.016									●	●		○			●														
	CCMT432-EM	0.508	0.500	0.187	0.219	0.031									●	●		○			●														
	CCMT433-EM	0.508	0.500	0.187	0.219	0.047									●	●		○			●														
HR Roughing	CCMT2(1.5)1-HR	0.252	0.250	0.094	0.110	0.016	○	●	○	○					○																				
	CCMT2(1.5)2-HR	0.252	0.250	0.094	0.110	0.031	○	●	●											○						●									
	CCMT3(2.5)1-HR	0.382	0.375	0.156	0.173	0.016		●	●	○					○																				
	CCMT3(2.5)2-HR	0.382	0.375	0.156	0.173	0.031	●	●	●	●											●			●	●	●									
	CCMT432-HR	0.508	0.500	0.187	0.219	0.031	●	●	●	●					○						○			●	●	●	●							●	●
	CCMT433-HR	0.508	0.500	0.187	0.219	0.047	○	○		○											○				●		○								
LC Machining of Aluminum	CCGX2(1.5)0-LC	0.252	0.250	0.094	0.110	0.008																												●	
	CCGX2(1.5)1-LC	0.252	0.250	0.094	0.110	0.016																												●	
	CCGX3(2.5)0-LC	0.382	0.375	0.156	0.173	0.008																												●	
	CCGX3(2.5)1-LC	0.382	0.375	0.156	0.173	0.016																												●	
	CCGX3(2.5)2-LC	0.382	0.375	0.156	0.173	0.031																												●	
	CCGX431-LC	0.508	0.500	0.187	0.219	0.016																												●	
	CCGX432-LC	0.508	0.500	0.187	0.219	0.031																												●	
LH Machining of Aluminum alloy	CCGX2(1.5)0-LH	0.252	0.250	0.094	0.110	0.008																											●		
	CCGX2(1.5)1-LH	0.252	0.250	0.094	0.110	0.016																											●		
	CCGX2(1.5)2-LH	0.252	0.250	0.094	0.110	0.031																											●		
	CCGX3(2.5)0-LH	0.382	0.375	0.156	0.173	0.008																												●	
	CCGX3(2.5)1-LH	0.382	0.375	0.156	0.173	0.016																												●	
	CCGX3(2.5)2-LH	0.382	0.375	0.156	0.173	0.031																												●	
	CCGX430-LH	0.508	0.500	0.187	0.219	0.008																											○		
	CCGX431-LH	0.508	0.500	0.187	0.219	0.016																												●	
	CCGX432-LH	0.508	0.500	0.187	0.219	0.031																												●	

● Always stock available ○ Produce according to order



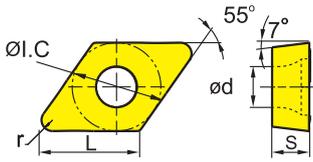
External turning



Internal turning

DC

(Positive inserts)



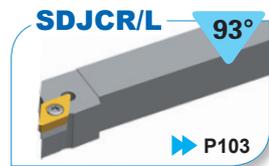
😊 Good working conditions 😊 General working conditions 😞 Adverse working conditions

Workpiece material	Working Conditions																			
	Good working conditions (😊)					General working conditions (😊)										Adverse working conditions (😞)				
P Steel	😊😊😊😊😊					😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊										😊😊😊😊😊				
M Stainless steel	😊😊😊😊😊					😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊										😊😊😊😊😊				
K Cast iron	😊😊😊😊😊					😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊										😊😊😊😊😊				
N Ferrite materials	😊😊😊😊😊					😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊										😊😊😊😊😊				
S Heat-resistant steel	😊😊😊😊😊					😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊										😊😊😊😊😊				

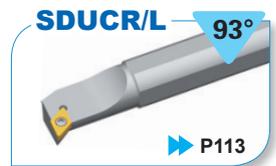


Inserts shape	Type	Dimensions (inch)					Coated cemented carbide															Cermet	Coated Cermet	Cemented carbide						
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBM215	YBM151	YBM251	YBM253	YBS103	YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YD101
 Roughing	DCMT3(2.5)1-HR	0.457	0.375	0.156	0.173	0.016	○	●	○	○										○				○		○				
	DCMT3(2.5)2-HR	0.457	0.375	0.156	0.173	0.031	●	●	●	○										○				○	●	●				
	DCMT3(2.5)3-HR	0.457	0.375	0.156	0.173	0.047	○	●																						
 Machining of Aluminum	DCGX2(1.5)0-LC	0.307	0.250	0.094	0.110	0.008																								●
	DCGX2(1.5)1-LC	0.307	0.250	0.094	0.110	0.016																								●
	DCGX3(2.5)0-LC	0.457	0.375	0.156	0.173	0.008																								●
	DCGX3(2.5)1-LC	0.457	0.375	0.156	0.173	0.016																								●
	DCGX3(2.5)2-LC	0.457	0.375	0.156	0.173	0.031																								●
 Machining of Aluminum alloy	DCGX2(1.5)0-LH	0.307	0.250	0.094	0.110	0.008																							●	
	DCGX2(1.5)1-LH	0.307	0.250	0.094	0.110	0.016																							●	○
	DCGX3(2.5)0-LH	0.457	0.375	0.156	0.173	0.008																							●	○
	DCGX3(2.5)1-LH	0.457	0.375	0.156	0.173	0.016																							●	●
	DCGX3(2.5)2-LH	0.457	0.375	0.156	0.173	0.031																							●	○

● Always stock available ○ Produce according to order



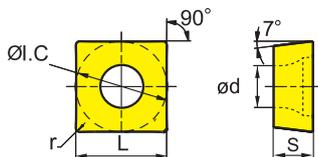
External turning



Internal turning

SC (Positive inserts)

😊 Good working conditions 😐 General working conditions ☹️ Adverse working conditions

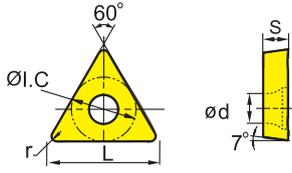


Workpiece material	P Steel	M Stainless steel	K Cast iron	N Ferrite materials	S Heat-resistant steel
	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊
	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊
	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊
	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊
	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊

Inserts shape	Type	Dimensions (inch)					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	YBM215	YBM151	YBM251				YBM253	YBS103	YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YD101	YD201		
HF  Finishing	SCMT3(2.5)0-HF	0.375	0.375	0.156	0.173	0.008	○	○																												
	SCMT3(2.5)1-HF	0.375	0.375	0.156	0.173	0.016	●	○	○						○																					
	SCMT3(2.5)2-HF	0.375	0.375	0.156	0.173	0.031	●	○							○									●	○								○			
EF  Finishing	SCMT3(2.5)0-EF	0.375	0.375	0.156	0.173	0.008						○			○	●		○																		
	SCMT3(2.5)1-EF	0.375	0.375	0.156	0.173	0.016						○			○	●		○																		
	SCMT3(2.5)2-EF	0.375	0.375	0.156	0.173	0.031						○			○	●		○																		
HM  Semi-finishing	SCMT3(2.5)1-HM	0.375	0.375	0.156	0.173	0.016	○	●										●					●	●												
	SCMT3(2.5)2-HM	0.375	0.375	0.156	0.173	0.031	●	●	○	●				○				●					●	●	○											
	SCMT431-HM	0.500	0.500	0.187	0.219	0.016	○	●		○									○						●											
	SCMT432-HM	0.500	0.500	0.187	0.219	0.031	●	●	○	○	●			○					●					●												
	SCMT433-HM	0.500	0.500	0.187	0.219	0.047	○	○											○																	
EM  Semi-finishing	SCMT3(2.5)1-EM	0.375	0.375	0.156	0.173	0.016									●	●		○				●														
	SCMT3(2.5)2-EM	0.375	0.375	0.156	0.173	0.031									●	●		○				●														
	SCMT431-EM	0.500	0.500	0.187	0.219	0.016									●	●		○				●														
	SCMT432-EM	0.500	0.500	0.187	0.219	0.031									●	●		○				●														
	SCMT433-EM	0.500	0.500	0.187	0.219	0.047									●	●		○				●														
HR  Roughing	SCMT3(2.5)1-HR	0.375	0.375	0.156	0.173	0.016	●	●		●					●																	○				
	SCMT3(2.5)2-HR	0.375	0.375	0.156	0.173	0.031	●	○		●															●	●										
	SCMT3(2.5)3-HR	0.375	0.375	0.156	0.173	0.047	●																													
	SCMT431-HR	0.500	0.500	0.187	0.219	0.016	○	●		○																										
	SCMT432-HR	0.500	0.500	0.187	0.219	0.031	●	●	○	●					○																					
	SCMT433-HR	0.500	0.500	0.187	0.219	0.047	○	○		●																										

● Always stock available ○ Produce according to order

TC (Positive inserts)



☺ Good working conditions 😊 General working conditions ☹ Adverse working conditions

Workpiece material	P Steel	☺☺☺☺☺☺☺	☺☺☺☺☺☺☺	☺☺☺☺☺☺☺
M Stainless steel		☺☺☺☺☺☺☺	☺☺☺☺☺☺☺	☺☺☺☺☺☺☺
K Cast iron		☺☺☺☺☺☺☺	☺☺☺☺☺☺☺	☺☺☺☺☺☺☺
N Ferrite materials		☺☺☺☺☺☺☺	☺☺☺☺☺☺☺	☺☺☺☺☺☺☺
S Heat-resistant steel		☺☺☺☺☺☺☺	☺☺☺☺☺☺☺	☺☺☺☺☺☺☺

Inserts shape	Type	Dimensions(inch)					Coated cemented carbide																										
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBM215	YBM151	YBM251	YBM253	YBS103	YBD052	YBD102	YBD151	YBD152	YBD252	Cermet YNG151	Coated Cermet YNG151C	Cemented carbide YD101	YD201		
 HF Finishing	TCMT1.8(1.5)0-HF	0.378	0.219	0.094	0.098	0.008		●	●											○										○	○		
	TCMT1.8(1.5)1-HF	0.378	0.219	0.094	0.098	0.016		●	●																				●		○		
	TCMT1.8(1.5)2-HF	0.378	0.219	0.094	0.098	0.031			○												○				○						○		
	TCMT2(1.5)0-HF	0.433	0.250	0.094	0.110	0.008			●						●						○												
	TCMT2(1.5)1-HF	0.433	0.250	0.094	0.110	0.016		●	●	●	●										●					●			○				
	TCMT2(1.5)2-HF	0.433	0.250	0.094	0.110	0.031		○	●	○					●						○			○							○		
	TCMT3(2.5)0-HF	0.650	0.375	0.156	0.173	0.008		○																									
	TCMT3(2.5)1-HF	0.650	0.375	0.156	0.173	0.016		●	●						○											●		●			○		
	TCMT3(2.5)2-HF	0.650	0.375	0.156	0.173	0.031		○	●																				○		○		
 EF Finishing	TCMT1.8(1.5)0-EF	0.378	0.219	0.094	0.098	0.008							○		●	●		○															
	TCMT1.8(1.5)1-EF	0.378	0.219	0.094	0.098	0.016							○		●	●		○															
	TCMT2(1.5)0-EF	0.433	0.250	0.094	0.110	0.008							○		●	●		○															
	TCMT2(1.5)1-EF	0.433	0.250	0.094	0.110	0.016							○		●	●		○															
	TCMT2(1.5)2-EF	0.433	0.250	0.094	0.110	0.031							○		●	●		○															
	TCMT3(2.5)1-EF	0.650	0.375	0.156	0.173	0.016							○		●	●		○															
	TCMT3(2.5)2-EF	0.650	0.375	0.156	0.173	0.031							○		●	●		○															
 EM Semi-finishing	TCMT1.8(1.5)1-EM	0.378	0.219	0.094	0.098	0.016									●	●		○			●												
	TCMT1.8(1.5)2-EM	0.378	0.219	0.094	0.098	0.031									●	●		○			●												
	TCMT2(1.5)1-EM	0.433	0.250	0.094	0.110	0.016									●	●		○			●												
	TCMT2(1.5)2-EM	0.433	0.250	0.094	0.110	0.031									●	●		○			●												
	TCMT2(1.5)3-EM	0.433	0.250	0.094	0.110	0.047									●	●		○			●												
	TCMT3(2.5)1-EM	0.650	0.375	0.156	0.173	0.016									●	●		○			●												
	TCMT3(2.5)2-EM	0.650	0.375	0.156	0.173	0.031									●	●		○			●												
	TCMT3(2.5)3-EM	0.650	0.375	0.156	0.173	0.047									●	●		○			●												

● Always stock available ○ Produce according to order



External turning

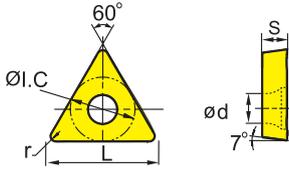


Internal turning

Turning

General turning inserts

TC □□ (Positive inserts)

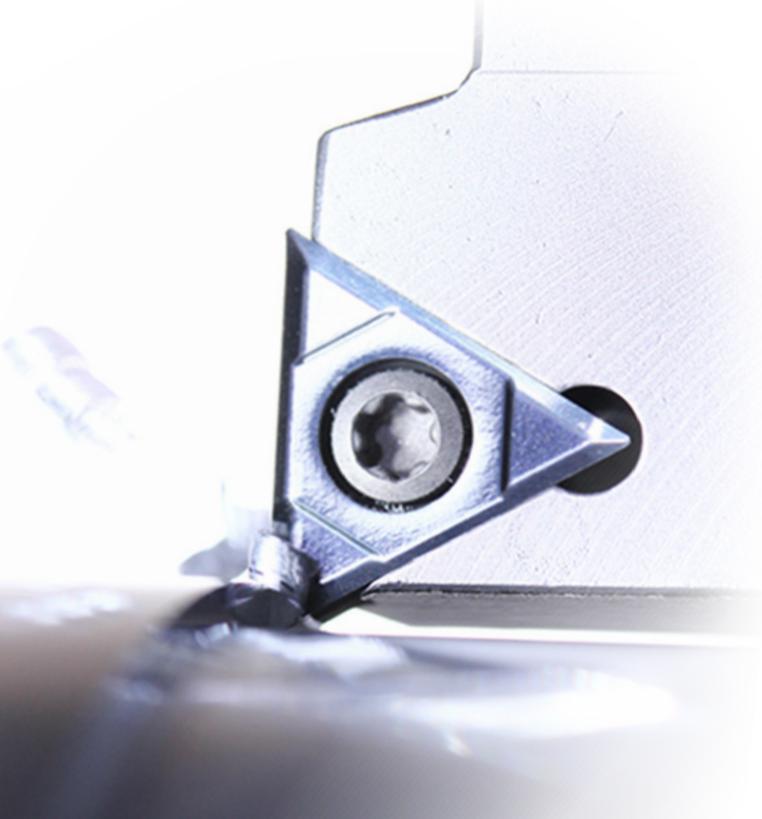


😊 Good working conditions 😊 General working conditions 😞 Adverse working conditions

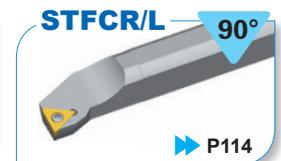
Workpiece material	Working Conditions																										
	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBM215	YBM151	YBM251	YBM253	YBS103	YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YD101	YD201		
P Steel	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
M Stainless steel																											
K Cast iron																											
N Ferrite materials																											
S Heat-resistant steel																											

Inserts shape	Type	Dimensions (inch)					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	YBM215	YBM151	YBM251	YBM253	YBS103				YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YD101	YD201				
 LH Machining of Aluminum alloy	TCGX1.8(1.5)0-LH	0.378	0.219	0.094	0.098	0.008																												●				
	TCGX1.8(1.5)1-LH	0.378	0.219	0.094	0.098	0.016																													●			
	TCGX2(1.5)0-LH	0.433	0.250	0.094	0.110	0.008																													●			
	TCGX2(1.5)1-LH	0.433	0.250	0.094	0.110	0.016																														●		
	TCGX2(1.5)2-LH	0.433	0.250	0.094	0.110	0.031																														●		
	TCGX3(2.5)0-LH	0.650	0.375	0.156	0.173	0.008																														●		
	TCGX3(2.5)1-LH	0.650	0.375	0.156	0.173	0.016																														○		
	TCGX3(2.5)2-LH	0.650	0.375	0.156	0.173	0.031																														●		
 Conventional chipbreaker	TCMT1.8(1.5)0	0.378	0.219	0.094	0.098	0.008	○	●																														
	TCMT432	0.866	0.500	0.187	0.217	0.031	○	●																													○	

● Always stock available ○ Produce according to order

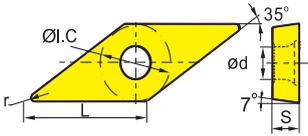


External turning



Internal turning

VC (Positive inserts)



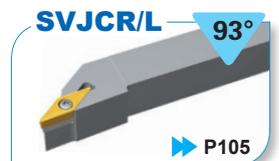
😊 Good working conditions
 😐 General working conditions
 😞 Adverse working conditions

Workpiece material	Steel	Stainless steel	Cast iron	Ferrite materials	Heat-resistant steel
P	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
M	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
K	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
N	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
S	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊

A

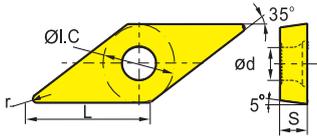
Inserts shape	Type	Dimensions (inch)					Coated cemented carbide																Cemented carbide										
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBM215	YBM151	YBM251	YBM253	YBS103		YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YD101	YD201	
 Machining of Aluminum	VCGX22(03)-LC	0.433	0.250	0.125	0.110	0.004																									●		
	VCGX220-LC	0.433	0.250	0.125	0.110	0.008																									●		
	VCGX221-LC	0.433	0.250	0.125	0.110	0.016																									●		
	VCGX222-LC	0.433	0.250	0.125	0.110	0.031																									●		
	VCGX330-LC	0.654	0.375	0.187	0.173	0.008																									●		
	VCGX331-LC	0.654	0.375	0.187	0.173	0.016																									●		
	VCGX332-LC	0.654	0.375	0.187	0.173	0.031																									●		
	VCGX333-LC	0.654	0.375	0.187	0.173	0.047																									●		
VCGX4(3.7)(7.5)-LC	0.866	0.500	0.219	0.217	0.118																									●			
 Machining of Aluminum alloy	VCGX2(1.5)1-LH	0.433	0.250	0.094	0.110	0.016																								●	●		
	VCGX220-LH	0.433	0.250	0.125	0.110	0.004																								●	●		
	VCGX220-LH	0.433	0.250	0.125	0.110	0.008																								●	●		
	VCGX221-LH	0.433	0.250	0.125	0.110	0.016																								○			
	VCGX222-LH	0.433	0.250	0.125	0.110	0.031																								●			
	VCGX330-LH	0.654	0.375	0.187	0.173	0.008																								●	○		
	VCGX331-LH	0.654	0.375	0.187	0.173	0.016																								●	○		
	VCGX332-LH	0.654	0.375	0.187	0.173	0.031																								●	●		
	VCGX333-LH	0.654	0.375	0.187	0.173	0.047																								●	●		

● Always stock available ○ Produce according to order



External turning

VB (Positive inserts)



😊 Good working conditions 😊 General working conditions 😞 Adverse working conditions

Workpiece material	Steel	Stainless steel	Cast iron	Ferrite materials	Heat-resistant steel
P Steel	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
M Stainless steel	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
K Cast iron	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
N Ferrite materials	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
S Heat-resistant steel	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊

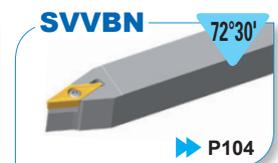


Inserts shape	Type	Dimensions(inch)					Coated cemented carbide															Cermet	Coated Cermet	Cemented carbide												
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBM215	YBM151	YBM251	YBM253				YBS103	YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YD101	YD201		
EF Finishing	VBMT220-EF	0.433	0.250	0.125	0.110	0.008								●	●																					
	VBMT221-EF	0.433	0.250	0.125	0.110	0.016							○		●	●																				
	VBMT222-EF	0.433	0.250	0.125	0.110	0.031							○		●	●																				
	VBMT331-EF	0.654	0.375	0.187	0.173	0.016									○	●	●																			
	VBMT332-EF	0.654	0.375	0.187	0.173	0.031									○	●	●																			
HF Finishing	VBMT2(1.5)0-HF	0.433	0.250	0.094	0.110	0.008			●	○					●																					
	VBMT2(1.5)1-HF	0.433	0.250	0.094	0.110	0.016			●							○										○										
	VBMT2(1.5)2-HF	0.433	0.250	0.094	0.110	0.031			●							○																				
NGF Finishing	VBET331-NGF	0.654	0.375	0.187	0.173	0.016								○	●																					
	VBET332-NGF	0.654	0.375	0.187	0.173	0.031								○	●																					
	VBET333-NGF	0.654	0.375	0.187	0.173	0.047									○	●																				
EM Semi-finishing	VBMT221-EM	0.433	0.250	0.125	0.110	0.016									●	●																				
	VBMT222-EM	0.433	0.250	0.125	0.110	0.031									●	●																				
	VBMT223-EM	0.433	0.250	0.125	0.110	0.047									●																					
	VBMT331-EM	0.654	0.375	0.187	0.173	0.016																														
	VBMT332-EM	0.654	0.375	0.187	0.173	0.031																														
HM Semi-finishing	VBMT331-HM	0.654	0.375	0.187	0.173	0.016		●	●	●					●																				○	
	VBMT332-HM	0.654	0.375	0.187	0.173	0.031		●	●	●					●																				○	
	VBMT333-HM	0.654	0.375	0.187	0.173	0.047			●							○																			○	
HR Roughing	VBMT331-HR	0.654	0.375	0.187	0.173	0.016		●	○	○	●																									
	VBMT332-HR	0.654	0.375	0.187	0.173	0.031		○	●	○	●																									
	VBMT333-HR	0.654	0.375	0.187	0.173	0.047																														
	VBGT332-HR	0.654	0.375	0.187	0.173	0.031											○																			
SNR Roughing	VBMT332-SNR	0.654	0.375	0.187	0.173	0.031								○	●																					
	VBMT333-SNR	0.654	0.375	0.187	0.173	0.047									○	●																				

● Always stock available ○ Produce according to order

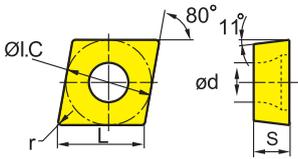


External turning



External turning

CP (Positive inserts)



😊 Good working conditions 😐 General working conditions 😞 Adverse working conditions

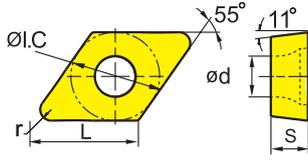
Workpiece material	Steel	Stainless steel	Cast iron	Ferrite materials	Heat-resistant steel
P	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊
M	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊
K	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊
N	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊
S	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊😊

Inserts shape	Type	Dimensions (inch)					Coated cemented carbide														Cemented carbide										
		L	ØI.C	S	ød	r	YBC151	YBC152	YBC251	YBC252	YBC351	YBC352	YBG102	YBG105	YBG202	YBG205	YBG212	YBM215	YBM151	YBM251		YBM253	YBS103	YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YD101
SF  Precision machining	CPGT2(1.5)0-SF	0.252	0.250	0.094	0.110	0.008																									
	CPGT2(1.5)1-SF	0.252	0.250	0.094	0.110	0.016							○																		
	CPGT3(2.5)1-SF	0.382	0.375	0.156	0.173	0.016								○																	

● Always stock available ○ Produce according to order

DP

(Positive inserts)



😊 Good working conditions 😊 General working conditions 😞 Adverse working conditions

Workpiece material	Steel	Stainless steel	Cast iron	Ferrite materials	Heat-resistant steel
P	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊	😊😊	😊😊	😊😊
M	😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊	😊😊	😊😊
K	😊😊	😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊	😊😊
N	😊😊	😊😊	😊😊	😊😊😊😊😊😊😊😊😊😊😊😊	😊😊
S	😊😊	😊😊	😊😊	😊😊	😊😊



Inserts shape	Type	Dimensions (inch)					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	YBM215	YBM151	YBM251	YBM253	YBS103			YBD052	YBD102	YBD151	YBD152	YBD252																						
SF  Precision machining	DPGT2(1.5)0-SF	0.307	0.250	0.094	0.110	0.008																																													
	DPGT2(1.5)1-SF	0.307	0.250	0.094	0.110	0.016																																													
	DPGT2(1.5)2-SF	0.307	0.250	0.094	0.110	0.031																																													
	DPGT3(2.5)1-SF	0.457	0.375	0.156	0.173	0.016																																													
	DPGT3(2.5)2-SF	0.457	0.375	0.156	0.173	0.031																																													

● Always stock available ○ Produce according to order

