

G-Series [Grounded Inserts]

1 Grade description

MC1020

Applicable for Carbon steel and Alloy processing under HRC50

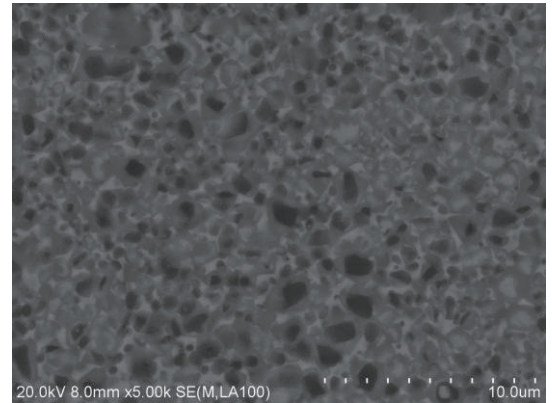
Machining range of Carbon Steel

In high Wear Resistance under processing condition $A_p 1.0-2.5\text{mm}$, $VC_{80-380\text{m}/\text{min}}$

Machining range of Alloy Steel

Fantastic processing performance under the range $A_p 1.0-2.0\text{mm}$, $VC_{80-380\text{m}/\text{min}}$

Density (g/cm ³)	6.5	Hardness (HRA)	92.4
Bending (MPa)	≥1700	Breakage (MPa*m ^{1/2})	∞



MC1020组织形貌图

2 Chipbreaker Description

Variety of chipbreaker types for your selection

N=negative P=positive

Application	Type	Breaker name	Breaker geometry & Profile	Feature	Recommended parameter
Simi-Fine	N	G (2G)		Applied to continuous & interrupted cutting of low-carbon steel & medium carbon steel	<p>碳钢、合金钢</p>
Simi-Fine	P	Y		Excellent cutting performance to get fine-finished surface	<p>碳钢、合金钢</p>
Fine	N	25R		Double-edged chip breaker is beneficial to good cutting performance of viscous material like carbon steel.	<p>碳钢、合金钢</p>
Fine	P	2W15		Wide cutting edge is applied to variety of cutting processing scene.	<p>碳钢、合金钢</p>
LOW Feed	P	1U		Under low-feed condition, even cutting depth changes, cutting would be under control, make low resistance process possible.	<p>碳钢、合金钢</p>

Application	Type	Breaker name	Breaker geometry & Profile	Feature	Recommended parameter		
Semi-Fine	N	2P		Excellent cutting performance of viscous material like carbon steel, under medium chip application.	Carbon Steel & Alloy 		
					Carbon Steel & Alloy 		
Semi-Fine	N	C		A general chip breaker applied to ordinary cutting mode.	Carbon Steel & Alloy 		
					Carbon Steel & Alloy 		
	N	H		Parallel chip breaker is good at medium & low feed cutting mode.	Carbon Steel & Alloy 		
					Carbon Steel & Alloy 		
	Fine	N	3F (F, F1)		Sharp cutting edge enable excellent cutting performance, while significantly lower cutting resistance, and effectively control cutting to make sure smooth chip removal.	Carbon Steel & Alloy 	
				P		4W	
							Carbon Steel & Alloy

3 Products Model

	Example Model	IC	S	D1
	CN_1204_	12.70	4.76	5.16

Negative-Grounded Series

Appearance	Part No.	Re	Cermet Grade					Carbide Grade					
			MC1020	MC2010	MC3015	PV1120	PV2110	PV3115	PV4112	PV4212	PV4312	PV8110	PV8210
	CNGG120402R/L-C	0.2	●			●			●		●		●
	CNGG120404R/L-C	0.4	●			●			●		●		●
	CNGG120408R/L-C	0.8	●			●			●		●		●
	CNGG120402R/L-H	0.2	●			●			●		●		●
	CNGG120404R/L-H	0.4	●			●			●		●		●
	CNGG120408R/L-H	0.8	●			●			●		●		●
	CNGG120402R/L-P	0.2	●			●			●		●		●
	CNGG120404R/L-P	0.4	●			●			●		●		●
	CNGG120408R/L-P	0.8	●			●			●		●		●
	CNGG120402R/L-S1	0.2	●						●		●		●
	CNGG120404R/L-S1	0.4	●						●		●		●
	CNGG120408R/L-S1	0.8	●						●		●		●

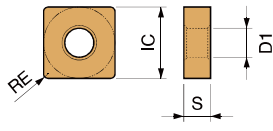
3 Products Model

	ExampleModel	IC	S	D1
	DN_1104_	9.525	4.76	3.81
	DN_1504_	12.70	4.76	5.16




Negative-Grounded Series

Appearance	Part No.	Re	Cermet Grade						Carbide Grade					
			MC1020	MC2010	MC3015	PV1120	PV2110	PV3115	PV4112	PV4212	PV4312	PV8110	PV8210	PV8310
	DNGG110402R/L-C	0.2	●			●			●		●			●
	DNGG110404R/L-C	0.4	●			●			●		●			●
	DNGG110408R/L-C	0.8	●			●			●		●			●
	DNGG110402R/L-H	0.2	●			●			●		●			●
	DNGG110404R/L-H	0.4	●			●			●		●			●
	DNGG110408R/L-H	0.8	●			●			●		●			●
	DNGG150402R/L-H	0.2	●			●			●		●			●
	DNGG150404R/L-H	0.4	●			●			●		●			●
	DNGG150408R/L-H	0.8	●			●			●		●			●
	DNGG110402R/L-S	0.2	●			●			●		●			●
	DNGG110404R/L-S	0.4	●			●			●		●			●
	DNGG110408R/L-S	0.8	●			●			●		●			●
	DNGG150402R/L-S	0.2	●			●			●		●			●
	DNGG150404R/L-S	0.4	●			●			●		●			●
	DNGG150408R/L-S	0.8	●			●			●		●			●
	DNGG150402R/L-S1	0.2	●						●		●			●
	DNGG150404R/L-S1	0.4	●						●		●			●
	DNGG150408R/L-S1	0.8	●						●		●			●

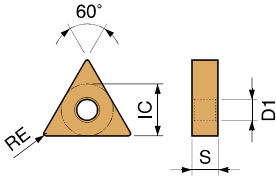
3 Products Model

	Example Model	IC	S	D1
	SN_0903_	9.525	3.18	3.81
	SN_1204_	12.70	4.76	5.16

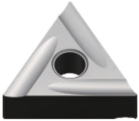





Negative-Grounded Series

Appearance	Part No.	Re	Cermet Grade						Carbide Grade					
			MC1020	MC2010	MC3015	PV1120	PV2110	PV3115	PV4112	PV4212	PV4312	PV8110	PV8210	PV8310
	SNGG090302R/L-P	0.2	●			●			●		●			●
	SNGG090304R/L-P	0.4	●			●			●		●			●
	SNGG090308R/L-P	0.8	●			●			●		●			●
	SNGG120402R/L-P	0.2	●			●			●		●			●
	SNGG120404R/L-P	0.4	●			●			●		●			●
	SNGG120408R/L-P	0.8	●			●			●		●			●
	SNGG120420R/L-2G	2.0	●			●			●		●			●
	SNGG120425R/L-2G	2.5	●			●			●		●			●
	SNGG090302R/L-C	0.2	●			●			●		●			●
	SNGG090304R/L-C	0.4	●			●			●		●			●
	SNGG090308R/L-C	0.8	●			●			●		●			●
	SNGG120402R/L-C	0.2	●			●			●		●			●
	SNGG120404R/L-C	0.4	●			●			●		●			●
	SNGG120408R/L-C	0.8	●			●			●		●			●
	SNGG120412R/L-C	1.2	●			●			●		●			●

3 Products Model

	Example Model	IC	S	D1
	TN_1604_	9.525	4.76	3.81
	TN_2204_	12.7	4.76	5.16

Negative-Grounded Series

Appearance	Part No.	Re	Cermet Grade						Carbide Grade				
			MC1020	MC2010	MC3015	PV1120	PV2110	PV3115	PV4112	PV4212	PV4312	PV8110	PV8210
	TNGG160401R/L-2P	0.1		●			●		●		●		●
	TNGG160402R/L-2P	0.2		●			●		●		●		●
	TNGG160404R/L-2P	0.4		●			●		●		●		●
	TNGG160408R/L-2P	0.8		●			●		●		●		●
	TNGG160401R/L-C	0.1	●			●		●		●		●	●
	TNGG160402R/L-C	0.2	●			●		●		●		●	●
	TNGG160404R/L-C	0.4	●			●		●		●		●	●
	TNGG160408R/L-C	0.8	●			●		●		●		●	●
	TNGG220402R/L-C	0.2	●			●		●		●		●	●
	TNGG220404R/L-C	0.4	●			●		●		●		●	●
	TNGG160401R/L-F	0.1	●			●		●		●		●	●
	TNGG160402R/L-F1	0.2	●					●		●		●	●
	TNGG160404R/L-F1	0.4	●					●		●		●	●
	TNGG160408R/L-F1	0.8	●					●		●		●	●
	TNGG160401R/L-2W	0.1	●			●		●		●		●	●
	TNGG160402R/L-2W	0.2	●			●		●		●		●	●
	TNGG160404R/L-2W	0.4	●			●		●		●		●	●
	TNGG160408R/L-2W	0.8	●			●		●		●		●	●
	TNGG160402R/L-3F	0.2	●			●		●		●		●	●
	TNGG160404R/L-3F	0.4	●			●		●		●		●	●
	TNGG160408R/L-3F	0.8	●			●		●		●		●	●
	TNGG160402R/L-25R	0.2	●			●		●		●		●	●
	TNGG160404R/L-25R	0.4	●			●		●		●		●	●

3 Products Model

	Example Model	IC	S	D1
	VN_1604_	9.525	4.76	3.81

Negative-Grounded Series

Appearance	Part No.	Re	Cermet Grade						Carbide Grade					
			MC1020	MC2010	MC3015	PV1120	PV2110	PV3115	PV4112	PV4212	PV4312	PV8110	PV8210	PV8310
	VNGG160402R/L-C	0.2	●			●			●		●			●
	VNGG160404R/L-C	0.4	●			●			●		●			●
	VNGG160408R/L-C	0.8	●			●			●		●			●
	VNGG160402R/L-H	0.2	●			●			●		●			●
	VNGG160404R/L-H	0.4	●			●			●		●			●
	VNGG160408R/L-H	0.8	●			●			●		●			●
	VNGG160402R/L-S	0.2	●			●			●		●			●
	VNGG160404R/L-S	0.4	●			●			●		●			●
	VNGG160408R/L-S	0.8	●			●			●		●			●
	VNGG160402R/L-S1	0.2	●						●		●			●
	VNGG160404R/L-S1	0.4	●						●		●			●
	VNGG160408R/L-S1	0.8	●						●		●			●

3 Products Model

	Example Model	IC	S	D1
	WN_0604_	9.525	4.76	3.81
	WN_0804_	12.70	4.76	5.16

Negative-Grounded Series

Appearance	Part No.	Re	Cermet Grade					Carbide Grade						
			MC1020	MC2010	MC3015	PV1120	PV2110	PV3115	PV4112	PV4212	PV4312	PV8110	PV8210	PV8310
	WNGG060402R/L-C	0.2	●			●			●		●			●
	WNGG060404R/L-C	0.4	●			●			●		●			●
	WNGG060408R/L-C	0.8	●			●			●		●			●
	WNGG080402R/L-C	0.2	●			●			●		●			●
	WNGG080404R/L-C	0.4	●			●			●		●			●
	WNGG080408R/L-C	0.8	●			●			●		●			●
	WNGG060402R/L-S	0.2	●			●			●		●			●
	WNGG060404R/L-S	0.4	●			●			●		●			●
	WNGG060408R/L-S	0.8	●			●			●		●			●
	WNGG060402R/L-S1	0.2	●						●		●			●
	WNGG060404R/L-S1	0.4	●						●		●			●
	WNGG060408R/L-S1	0.8	●						●		●			●
	WNGG080402R/L-S	0.2	●			●			●		●			●
	WNGG080404R/L-S	0.4	●			●			●		●			●
	WNGG080408R/L-S	0.8	●			●			●		●			●
	WNGG080402R/L-S1	0.2	●						●		●			●
	WNGG080404R/L-S1	0.4	●						●		●			●
	WNGG080408R/L-S1	0.8	●						●		●			●

3 Products Model

	Example Model	IC	S	D1
	TGF32_	9.525	3.18	4.60

Negative-Grounded Series

Appearance	Part No.	Re	CW	CDX	Cermet Grade					Carbide Grade						
					MC1020	MC2010	MC3015	PV1120	PV2110	PV3115	PV4112	PV4212	PV4312	PV8110	PV8210	PV8310
	TGF32R100-010	0.1	1.0	2.0		●	●		●	●	●		●	●		●
	TGF32R110-010	0.1	1.1	2.0		●	●		●	●	●		●	●		●
	TGF32R120-010	0.1	1.2	2.0		●	●		●	●	●		●	●		●
	TGF32R130-010	0.1	1.3	2.0		●	●		●	●	●		●	●		●
	TGF32R140-010	0.1	1.4	2.0		●	●		●	●	●		●	●		●
	TGF32R150-010	0.1	1.5	2.0		●	●		●	●	●		●	●		●
	TGF32R160-010	0.1	1.6	2.0		●	●		●	●	●		●	●		●
	TGF32R170-010	0.1	1.7	2.0		●	●		●	●	●		●	●		●
	TGF32R180-010	0.1	1.8	2.0		●	●		●	●	●		●	●		●
	TGF32R190-010	0.1	1.9	2.0		●	●		●	●	●		●	●		●
	TGF32R200-010	0.1	2.0	2.5		●	●		●	●	●		●	●		●
	TGF32R210-010	0.1	2.1	2.5		●	●		●	●	●		●	●		●
	TGF32R220-010	0.1	2.2	2.5		●	●		●	●	●		●	●		●
	TGF32R230-010	0.1	2.3	2.5		●	●		●	●	●		●	●		●
	TGF32R240-010	0.1	2.4	2.5		●	●		●	●	●		●	●		●
	TGF32R250-010	0.1	2.5	2.5		●	●		●	●	●		●	●		●
	TGF32R260-010	0.1	2.6	2.5		●	●		●	●	●		●	●		●
	TGF32R270-010	0.1	2.7	2.5		●	●		●	●	●		●	●		●
	TGF32R280-010	0.1	2.8	2.5		●	●		●	●	●		●	●		●
	TGF32R290-010	0.1	2.9	2.5		●	●		●	●	●		●	●		●
TGF32R300-010	0.1	3.0	2.5		●	●		●	●	●		●	●		●	