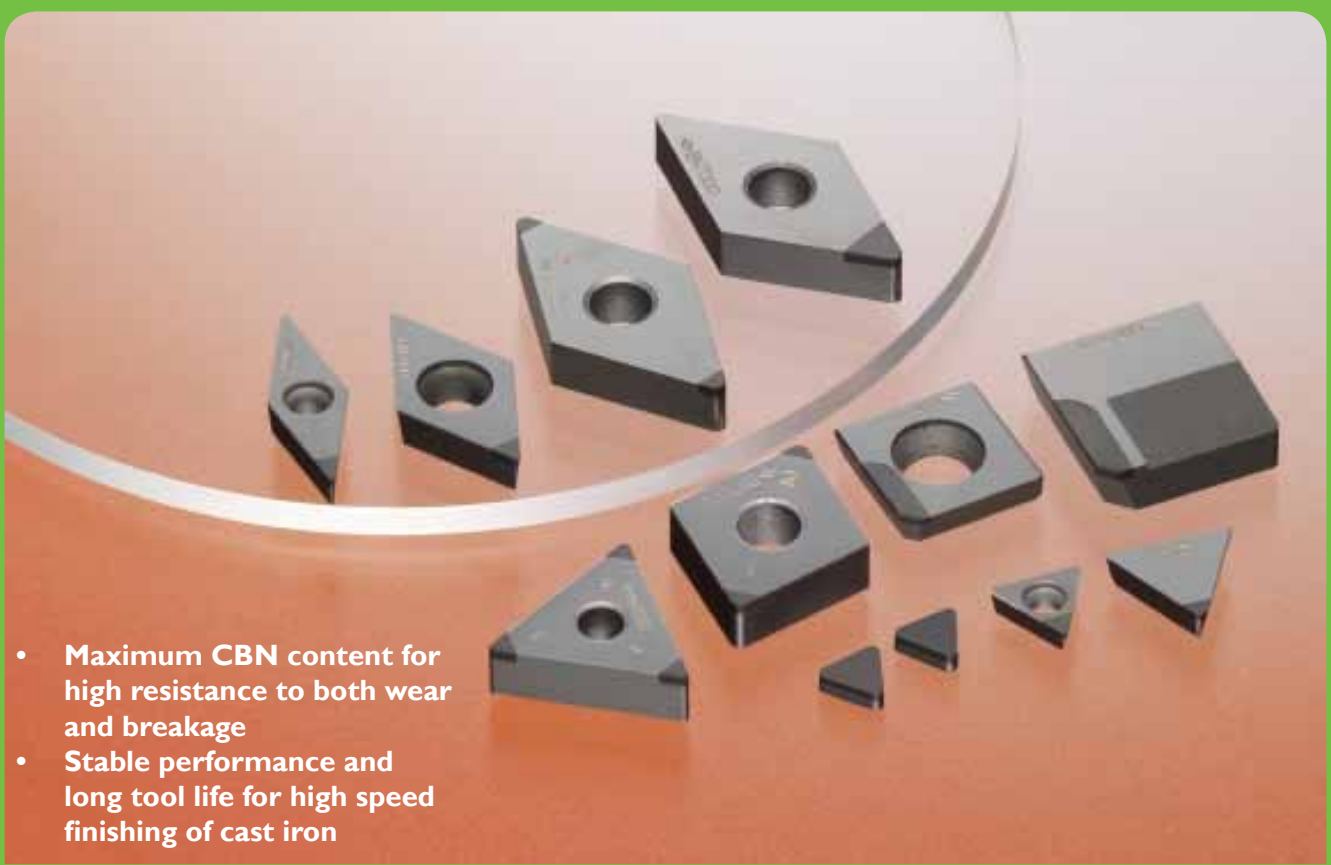




SUMITOMO

CARBIDE - CBN - DIAMOND

BN7000



- Maximum CBN content for high resistance to both wear and breakage
- Stable performance and long tool life for high speed finishing of cast iron

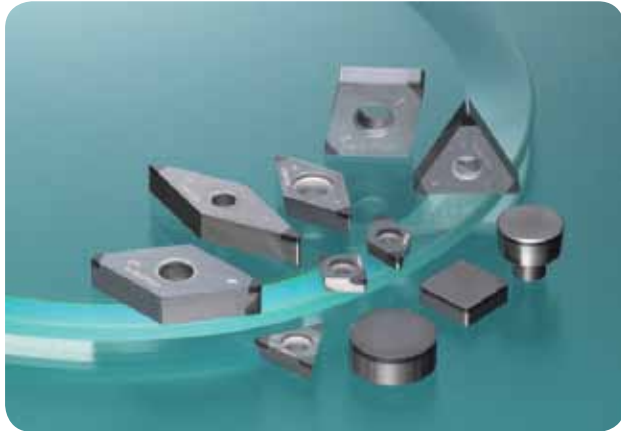
High Performance Turning Systems

CBN grade for machining of cast iron and ferrous powdered metal



BN7000

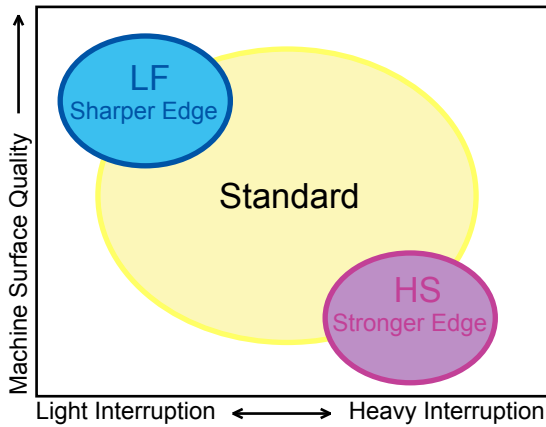
for cast iron machining



Features & Benefits

- CBN particles are densely sintered for the maximum CBN content possible resulting in high wear and breakage resistance
- The strength of CBN particles provides excellent chipping resistance, ensures stable performance and long tool life in high-efficiency machining of cast iron
- Excellent wear and thermal crack resistance in high speed machining of grey cast iron
- Optimize cast iron applications with three different edge preparations: Standard, LF (Sharper) and HS (Stronger)

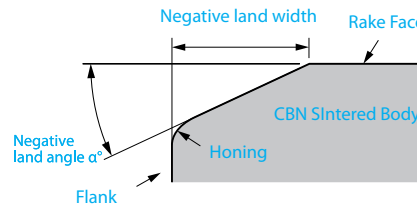
Edge Preparation



Edge Preparation Performance Range:

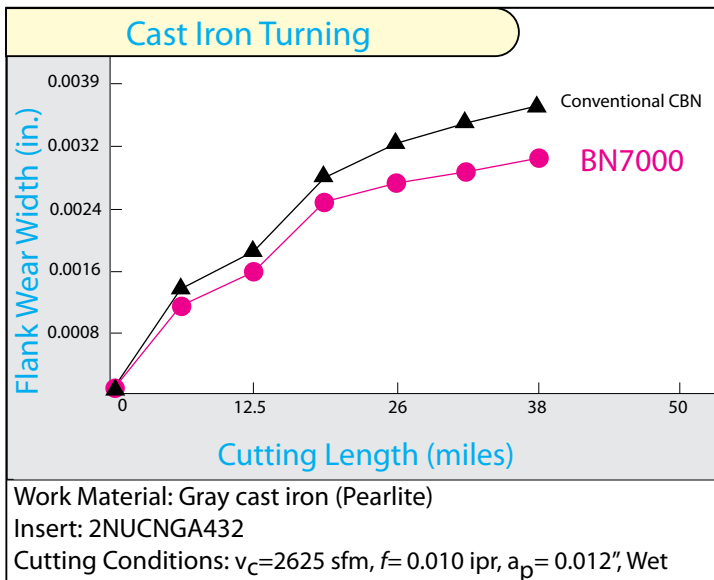
LF Type: Extra sharp edge that is able to provide a high quality machined surface.

HS Type: Extra tough edge for heavy interrupted machining applications.


















Edge Type	α	W (in)	Honing
Standard	15°	0.005	No
LF	0° (No Negative Land)		
HS	25°	0.005	Yes

Machined Surface Comparison



Recommended Running Conditions

Material Name	V_c (sfm)	f (ipr)	a_p (inch)
Grey Cast Iron	1640 - 6560	0.04 - 0.20	≤ 0.039
Alloy Cast Iron	660 - 2620	0.04 - 0.16	≤ 0.019
Ductile Cast Iron	260 - 660	0.04 - 0.16	≤ 0.024
Sintered Alloy	160 - 410	0.01 - 0.08	0.002 - 0.020

Single Cornered Full Tip Negative (With hole)							
Appearance	Product Code	Stock	Dimensions				
			IC	Thickness	Nose Radius	Hole Size	Max DOC
	CMMA42	●	0.500	0.1875	0.001	0.2031	0.063
	CMMA43	●	0.500	0.1875	0.040	0.2031	0.063
	DNMA42	●	0.500	0.1875	0.001	0.2031	0.063
	DNMA43	●	0.500	0.1875	0.040	0.2031	0.063
	SMMA42	●	0.500	0.1875	0.001	0.2031	0.063
	SMMA43	●	0.500	0.1875	0.040	0.2031	0.063
	VMA421	●	0.375	0.1875	0.016	0.100	0.063
	VMA432	●	0.375	0.1875	0.001	0.100	0.063
Single Cornered Full Tip Positive (Without hole)							
	TFG221	●	0.250	0.125	0.016	-	0.063
	TFG222	●	0.250	0.125	0.001	-	0.063
	TFG223	●	0.375	0.125	0.001	-	0.063
	TFG224	●	0.375	0.125	0.040	-	0.063
Single Cornered Mini-tip Negative (With hole)							
	WUMMA321	●	0.375	0.1875	0.016	0.100	0.015
Single Cornered Mini-tip Positive (With hole)							
	MUTGA221	●	0.250	0.125	0.016	0.100	0.015
	MUTGCG335	●	0.094	0.094	0.008	0.000	0.015
	MUTGCG421	●	0.094	0.094	0.016	0.000	0.015
Full Top Negative (Without hole)							
	RNG228	●	0.375	0.125	-	-	0.063
	RNG428	●	0.500	0.1875	-	-	0.063
Full Top Positive (Without hole)							
	RCG2102	●	0.250	0.200	-	-	0.063
	RCG2103	●	0.375	0.200	-	-	0.063
	RCG2104	●	0.500	0.212	-	-	0.063
	TFG2318	●	0.156	0.0625	0.016	-	0.063
Inserts for BNZ Holders							
	MJZMG221	●	0.188	0.0625	0.016	0.000	0.015
Inserts for BRC Cutter							
	RD403701M07	●	0.375	0.070	-	-	0.033
	RD403702M07	●	0.375	0.094	-	-	0.033
Inserts for FMU Cutter							
	SNGM1201A07R	●	0.500	0.125	-	-	0.033
Multi Cornered Mini-tip Negative (With hole)							
	2MUCGA421	●	0.500	0.1875	0.016	0.2031	0.015
	2MUCGA421H5	●	0.500	0.1875	0.016	0.2031	0.015
	2MUCGA431LF	●	0.500	0.1875	0.016	0.2031	0.015
	2MUCGA432	●	0.500	0.1875	0.001	0.2031	0.015
	2MUCGA432H5	●	0.500	0.1875	0.001	0.2031	0.015
	2MUCGA432LF	●	0.500	0.1875	0.001	0.2031	0.015
	2MUCGA433	●	0.500	0.1875	0.040	0.2031	0.015
	2MUCGA434	●	0.500	0.1875	0.016	0.2031	0.015
	2MUCNGA421	●	0.500	0.1875	0.016	0.2031	0.015
	2MUCNGA421LF	●	0.500	0.1875	0.016	0.2031	0.015
	2MUCNGA432	●	0.500	0.1875	0.001	0.2031	0.015
	2MUCNGA432H5	●	0.500	0.1875	0.001	0.2031	0.015
	2MUCNGA432LF	●	0.500	0.1875	0.001	0.2031	0.015
	2MUCNGA433	●	0.500	0.1875	0.040	0.2031	0.015
	2MUCNGA434	●	0.500	0.1875	0.016	0.2031	0.015
	2MUCNGA435	●	0.500	0.1875	0.040	0.2031	0.015

Multi Cornered Mini-tip Negative (With hole) - Continued							
Appearance	Product Code	Stock	Dimensions				
			IC	Thickness	Nose Radius	Hole Size	Max DOC
	2MUTGA321	●	0.375	0.1875	0.016	0.100	0.015
	2MUTGA322	●	0.375	0.1875	0.001	0.100	0.015
	2MUTGA322H5	●	0.375	0.1875	0.001	0.100	0.015
	2MUNGA321	●	0.375	0.1875	0.016	0.100	0.015
	2MUNGA322	●	0.375	0.1875	0.001	0.100	0.015
	2MUNGA322H5	●	0.375	0.1875	0.001	0.100	0.015
	2MUNGA323LF	●	0.375	0.1875	0.001	0.100	0.015
	2MUNGA323	●	0.375	0.1875	0.040	0.100	0.015
	2MUNWGA32	●	0.500	0.1875	0.001	0.2031	0.015
	2MUNWGA33	●	0.500	0.1875	0.040	0.2031	0.015
Multi Cornered Mini-tip Positive (Without hole)							
	2NUTG221	●	0.250	0.125	0.016	-	0.015
	2NUTG222	●	0.250	0.125	0.001	-	0.015
	2NUTG222	●	0.375	0.125	0.001	-	0.015
Multi Cornered Mini-tip Positive (With hole)							
	2NUCGA21.50.5	●	0.250	0.094	0.016	0.110	0.015
	2NUCGA21.51	●	0.250	0.094	0.016	0.110	0.015
	2NUCGA21.52	●	0.250	0.094	0.001	0.110	0.015
	2NUCGA22.51	●	0.375	0.156	0.016	0.1722	0.015
	2NUCGA22.52	●	0.375	0.156	0.001	0.1722	0.015
	2NUCGA4.21	●	0.500	0.1875	0.016	0.1722	0.015
	2NUCGA4.22	●	0.500	0.1875	0.001	0.1722	0.015
	2NUCPGA22.51	●	0.375	0.156	0.016	0.1722	0.015
2NUCPGA22.52	●	0.375	0.156	0.001	0.1722	0.015	
	2MUDCGA21.50.5	●	0.250	0.094	0.016	0.110	0.015
	2MUDCGA21.51	●	0.250	0.094	0.016	0.110	0.015
	2MUDCGA21.52	●	0.250	0.094	0.001	0.110	0.015
	2MUDCGA22.51	●	0.375	0.156	0.016	0.1722	0.015
	2MUDCGA22.52	●	0.375	0.156	0.001	0.1722	0.015
	2NUNGA221	●	0.250	0.125	0.016	0.134	0.015
	2NUNGA222	●	0.250	0.125	0.001	0.134	0.015
	2NUNGA221	●	0.375	0.1875	0.016	0.1722	0.015
	2NUNGA22.545	●	0.375	0.1875	0.016	0.1722	0.015
2NUNGA222	●	0.375	0.1875	0.001	0.1722	0.015	
	2NUTCGA21.51	●	0.250	0.094	0.016	0.110	0.015
	2NUTCGA21.51LF	●	0.250	0.094	0.016	0.110	0.015
	2NUTCGA21.52	●	0.250	0.094	0.001	0.110	0.015
	2NUTCGA22.51	●	0.375	0.156	0.016	0.1692	0.015
	2NUTCGA22.52	●	0.375	0.156	0.001	0.1692	0.015
	2NUTPGA21.51	●	0.250	0.094	0.016	0.110	0.015
	2NUTPGA21.52	●	0.250	0.094	0.001	0.110	0.015
	2NUTPGA22.51	●	0.375	0.156	0.016	0.1692	0.015
	2NUTPGA22.52	●	0.375	0.156	0.001	0.1692	0.015
	2NUTPGA23.5	●	0.250	0.125	0.016	0.130	0.015
	2NUTPGA23.1	●	0.250	0.125	0.016	0.130	0.015
	2NUTPGA23.2	●	0.250	0.125	0.001	0.130	0.015
	2NUTPGA23.1	●	0.375	0.1875	0.016	0.1692	0.015
2NUTPGA23.2	●	0.375	0.1875	0.001	0.1692	0.015	
Multi Cornered Mid-tip Negative (With hole)							
	2MDCNGM32	●	0.500	0.1875	0.001	0.2031	0.030
	2MDCNGM42	●	0.500	0.1875	0.001	0.2031	0.030



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