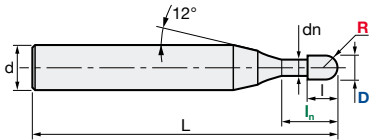
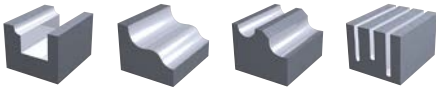
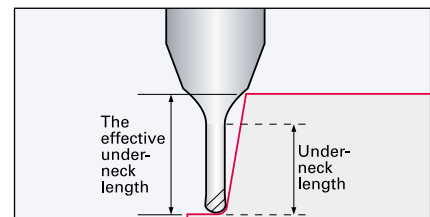
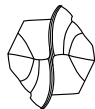


**CBN-EP SB | Epoch CBN Ball End Mill**

<b>CBN</b> Cubic Boron Nitride	<b>V max</b> High Speed	<b>▽</b> Roughing	<b>▽▽</b> Semi-Finishing	<b>▽▽▽</b> Finishing	<b>▽▽▽▽</b> Super-Finishing	<b>HRC</b> 72	<b>No. of Teeth</b> 2	<b>Rake Angle</b> Negative
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R Tol. [mm]	d Tol.
<b>+/- 0.005</b>	<b>h4</b>



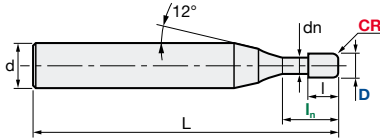
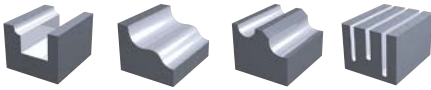
ID Code	Item Code	Size								Effective Underneck Using Length by Draft Angle				
		Z	D	R	$I_n$	l	dn	L	d	0.5°	1°	1.5°	2°	3°
CB001	<b>CBN-EP SB-2002-0.5-F</b>	2	0.2	0.1	0.5	0.12	0.18	50	4	0.67	0.70	0.72	0.75	0.80
CB002	<b>CBN-EP SB-2002-1-F</b>				1					1.19	1.24	1.28	1.32	1.38
CB003	<b>CBN-EP SB-2003-0.75-F</b>				0.75					0.95	0.99	1.02	1.05	1.10
CB004	<b>CBN-EP SB-2003-1.5-F</b>		0.3	0.15	1.5	0.18	0.27			1.73	1.79	1.83	1.88	2.03
CB005	<b>CBN-EP SB-2004-1-F</b>				1					1.21	1.25	1.29	1.32	1.38
CB006	<b>CBN-EP SB-2004-2-F</b>		0.4	0.2	2	0.24	0.37			2.25	2.31	2.37	2.43	2.68
CB007	<b>CBN-EP SB-2005-1.5-F</b>				1.5					1.73	1.78	1.83	1.87	2.00
CB008	<b>CBN-EP SB-2005-3-⊙</b>		0.5	0.25	3	0.3	0.47			3.28	3.36	3.46	3.62	3.99
CB009	<b>CBN-EP SB-2006-1.5-F</b>				1.5					1.73	1.78	1.82	1.86	1.98
CB010	<b>CBN-EP SB-2006-3-F</b>		0.6	0.3	3	0.36	0.57			3.28	3.36	3.46	3.61	3.97
CB011	<b>CBN-EP SB-2008-2.5-F</b>				2.5					2.76	2.83	2.89	2.99	3.28
CB012	<b>CBN-EP SB-2008-5-⊙</b>		0.8	0.4	5	0.48	0.77			5.33	5.48	5.72	5.99	6.60
CB014	<b>CBN-EP SB-2010-2.5-F</b>				2.5					2.77	2.84	2.89	3.00	3.28
CB015	<b>CBN-EP SB-2010-5-F</b>				5					5.34	5.50	5.74	5.99	6.60
CB013	<b>CBN-EP SB-2010-10-⊙</b>		1	0.5	10	0.6	0.96			10.50	10.95	11.44	11.98	13.23
CB017	<b>CBN-EP SB-2015-5-F</b>				5					5.36	5.53	5.75	6.00	6.58
CB016	<b>CBN-EP SB-2015-10-⊙</b>				10					10.54	10.98	11.46	11.98	13.22
CB020	<b>CBN-EP SB-2020-5-F</b>		1.5	0.75	5	0.9	1.44			5.38	5.56	5.77	6.01	6.56
CB018	<b>CBN-EP SB-2020-10-F</b>				10					10.58	11.01	11.48	11.99	13.20
CB019	<b>CBN-EP SB-2020-20-⊙</b>	20			21.00			21.90	22.88	23.96	x			

<b>F</b> Fine Type	≤ 5x D
<b>⊙</b> Strong Type	> 5x D

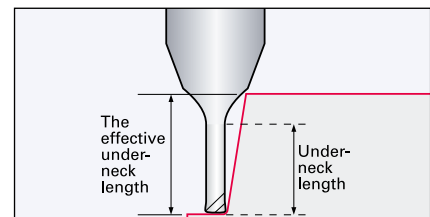
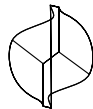
x = no contact

**CBN-EP SR | Epoch CBN Radius End Mill**

<b>CBN</b> Cubic Boron Nitride	<b>V max</b> High Speed	<b>▽</b> Roughing	<b>▽▽</b> Semi-Finishing	<b>▽▽▽</b> Finishing	<b>▽▽▽▽</b> Super-Finishing	<b>HRC</b> 72	<b>No. of Teeth</b> 2	<b>Rake Angle</b> Negative
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R Tol. [mm]	d Tol.
<b>+/- 0.005</b>	<b>h4</b>



ID Code	Item Code	Size								Effective Underneck Using Length by Draft Angle				
		Z	D	CR	$l_n$	l	dn	L	d	0.5°	1°	1.5°	2°	3°
CB021	<b>CBN-EP SR-2002-0.5-005</b>	2	0.2	0.05	0.5	0.07	0.18	50	4	0.67	0.70	0.73	0.76	0.81
CB022	<b>CBN-EP SR-2002-1-005</b>				1					1.19	1.24	1.28	1.32	1.39
CB023	<b>CBN-EP SR-2003-0.75-005</b>		0.3	0.05	0.75	0.11	0.27			0.96	0.99	1.03	1.06	1.12
CB024	<b>CBN-EP SR-2003-1.5-005</b>				1.5					1.74	1.79	1.84	1.89	2.06
CB025	<b>CBN-EP SR-2004-1-005</b>		0.4	0.05	1	0.14	0.37			1.22	1.26	1.30	1.34	1.40
CB026	<b>CBN-EP SR-2004-2-005</b>				2					2.25	2.32	2.38	2.46	2.73
CB027	<b>CBN-EP SR-2005-1.5-01</b>		0.5	0.05	1.5	0.18	0.47			1.74	1.79	1.84	1.88	2.05
CB028	<b>CBN-EP SR-2005-3-01</b>				3					3.28	3.37	3.48	3.65	4.04
CB029	<b>CBN-EP SR-2006-1.5-01</b>		0.6	0.1	1.5	0.21	0.57			1.74	1.79	1.84	1.88	2.05
CB030	<b>CBN-EP SR-2006-3-01</b>				3					3.28	3.37	3.48	3.65	4.04
CB031	<b>CBN-EP SR-2008-2.5-01</b>		0.8	0.1	2.5	0.28	0.77			2.77	2.84	2.91	3.05	3.37
CB032	<b>CBN-EP SR-2008-5-01</b>				5					5.34	5.51	5.76	6.04	6.69
CB034	<b>CBN-EP SR-2010-2.5-02</b>		1	0.2	2.5	0.35	0.96			2.78	2.85	2.93	3.06	3.37
CB035	<b>CBN-EP SR-2010-5-02</b>				5					5.35	5.53	5.78	6.05	6.69
CB033	<b>CBN-EP SR-2010-10-02</b>				10					10.51	10.97	11.48	12.03	13.33
CB037	<b>CBN-EP SR-2015-5-02</b>				5					5.38	5.58	5.83	6.11	6.75
CB036	<b>CBN-EP SR-2015-10-02</b>		1.5	0.2	10	0.53	1.44			10.56	11.03	11.53	12.09	13.39
CB040	<b>CBN-EP SR-2020-5-02</b>				5					5.40	5.63	5.88	6.16	6.82
CB038	<b>CBN-EP SR-2020-10-02</b>				10					10.61	11.08	11.59	12.15	13.45
CB039	<b>CBN-EP SR-2020-20-02</b>		2	0.2	20	0.7	1.92			21.04	21.97	22.99	24.11	x

x = no contact