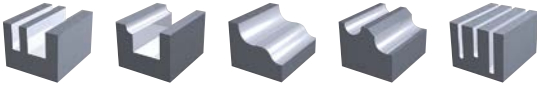


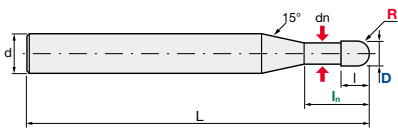


HPBS | Hyper Ball Short

V max High Speed	▽▽ Semi-Finishing	▽▽▽ Finishing	HRC 65	Rib. Miniature	No. of Teeth 2
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A



B



Carbide Micro Grain	C Century Coating	Rake Angle Positive
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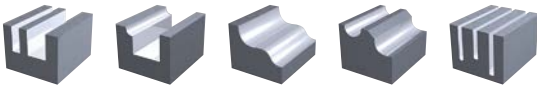
Helix Angle	R Tol. [mm]	d Tol.
30°	+/- 0.007	0/-0.005mm

ID Code	Item Code	Z	R	D	I _n	I	dn	L	d	Type
CC132	HPBS-2010C	2	0.5	1	2	1.3	0.95	50	6	A
CC133	HPBS-2020C		1	2	3.5	2.5	1.95			
CC134	HPBS-2030C		1.5	3	5	4	2.9			
CC135	HPBS-2040C		2	4	6	5	3.9			
CC136	HPBS-2050C		2.5	5	7	6	4.9			
CC137	HPBS-2060C		3	6	9	7.5	5.9			B

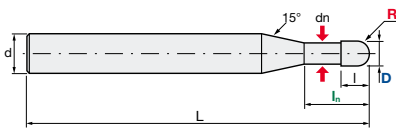


HYPB | Hyper Ball

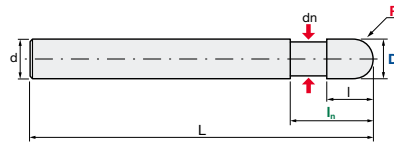
V max High Speed	▽▽ Semi-Finishing	▽▽▽ Finishing	HRC 65	Rib. Miniature	No. of Teeth 2
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A



B



Carbide Micro Grain	C Century Coating	Rake Angle Positive
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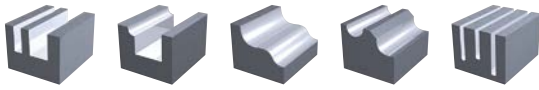
Helix Angle	R Tol. [mm]	d Tol.
30°	+/- 0.007	0/-0.005mm

ID Code	Item Code	Z	R	D	l _n	l	dn	L	d	Type
CC086	HYPB-2002C	2	0.1	0.2	-	0.3	-	50	6	A
CC087	HYPB-2003C		0.15	0.3		0.4				
CC026	HYPB-2004C		0.2	0.4	0.5					
CC088	HYPB-2005C		0.25	0.5	1.6	0.6	0.45			
CC027	HYPB-2006C		0.3	0.6	1.7	0.7	0.55			
CC089	HYPB-2008C		0.4	0.8	2.5	1	0.75			
CC028	HYPB-2010C		0.5	1	3.3	1.3	0.95			
CC090	HYPB-2012C		0.6	1.2	3.5	1.5	1.15			
CC091	HYPB-2014C		0.7	1.4	3.8	1.8	1.35			
CC029	HYPB-2015C		0.75	1.5	4.9	1.9	1.45			
CC092	HYPB-2016C		0.8	1.6	5	2	1.55			
CC093	HYPB-2018C		0.9	1.8	5.3	2.3	1.75			
CC030	HYPB-2020C		1	2	5.5	2.5	1.95			
CC094	HYPB-2025C		1.25	2.5	6	3	2.4			
CC031	HYPB-2030C		1.5	3	8	4	2.9			
CC095	HYPB-2035C		1.75	3.5	8.5	4.5	3.4			
CC032	HYPB-2040C		2	4	10	5	3.9			
CC033	HYPB-2050C		2.5	5	11	6	4.9			
CC034	HYPB-2060C		3	6	12.5	7.5	5.9			

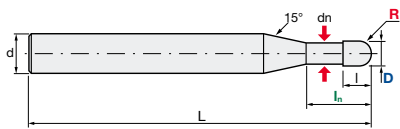


HPBLN | Hyper Ball Long Neck

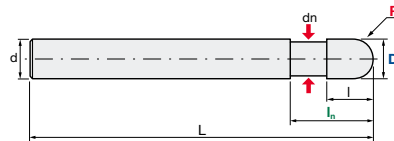
V max High Speed	▽▽ Semi-Finishing	▽▽▽ Finishing	HRC 65	Rib. Miniature	No. of Teeth 2
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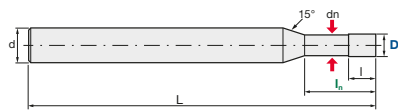
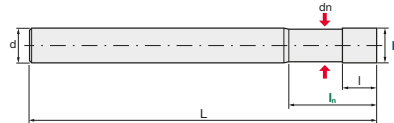
Carbide Micro Grain	C Century Coating	Rake Angle Positive
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Helix Angle	R Tol. [mm]	d Tol.
30°	+/- 0.007	0/-0.005mm

ID Code	Item Code	Z	R	D	l _n	l	dn	L	d	Type
CC138	HPBLN-2005C	2	0.25	0.5	2.5	0.6	0.45	60	6	A
CC139	HPBLN-2006C		0.3	0.6	3	0.7	0.55			
CC140	HPBLN-2008C		0.4	0.8	4	1	0.75			
CC141	HPBLN-2010C		0.5	1	5	1.3	0.95			
CC142	HPBLN-2012C		0.6	1.2	6	1.5	1.15			
CC143	HPBLN-2014C		0.7	1.4	7	1.8	1.35			
CC144	HPBLN-2015C		0.75	1.5	7.5	1.9	1.45			
CC145	HPBLN-2016C		0.8	1.6	8	2	1.55			
CC146	HPBLN-2018C		0.9	1.8	9	2.3	1.75			
CC147	HPBLN-2020C		1	2	10	2.5	1.95			
CC148	HPBLN-2025C		1.25	2.5	12.5	3	2.4			
CC149	HPBLN-2030C		1.5	3	15	4	2.9			
CC150	HPBLN-2035C		1.75	3.5	17.5	4.5	3.4			
CC151	HPBLN-2040C		2	4	20	5	3.9			
CC152	HPBLN-2050C		2.5	5	25	6	4.9			
CC153	HPBLN-2060C	3	6	30	7.5	5.9	80	B		

HYPS | Hyper Square

V max High Speed	▽▽▽ Finishing	HRC 65	▬▬▬ Rib. Miniature	No. of Teeth 2
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Carbide Micro Grain	C Century Coating	Rake Angle Positive
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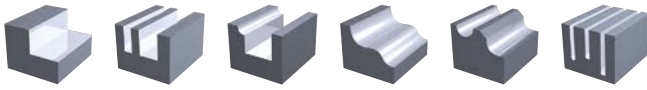
Helix Angle	D Tol. [mm]	d Tol.
30°	0/-0.015	0/-0.005mm

ID Code	Item Code	Z	D	l_n	l	dn	L	d	Type
CC096	HYPS-2002C	2	0.2	-	0.3	-	50	6	A
CC035	HYPS-2003C		0.3						
CC097	HYPS-2004C		0.4						
CC036	HYPS-2005C		0.5	1.6	0.6	0.45			
CC037	HYPS-2006C		0.6	1.7	0.7	0.55			
CC098	HYPS-2008C		0.8	2.5	1	0.75			
CC038	HYPS-2010C		1	3.3	1.3	0.95			
CC099	HYPS-2012C		1.2	3.5	1.5	1.15			
CC100	HYPS-2014C		1.4	3.8	1.8	1.35			
CC039	HYPS-2015C		1.5	4.9	1.9	1.45			
CC101	HYPS-2016C		1.6	5	2	1.55			
CC102	HYPS-2018C		1.8	5.3	2.3	1.75			
CC040	HYPS-2020C		2	5.5	2.5	1.95			
CC103	HYPS-2025C		2.5	6	3	2.4			
CC104	HYPS-2030C		3	8	4	2.9			
CC105	HYPS-2035C		3.5	8.5	4.5	3.4			
CC106	HYPS-2040C		4	10	5	3.9			
CC107	HYPS-2050C		5	11	6	4.9			
CC108	HYPS-2060C	6	12.5	7.5	5.9	B			

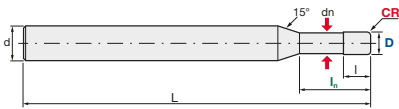


HYPS-00 | Hyper Square Corner Radius

V max High Speed	▽▽▽ Finishing	HRC 65	▬▬▬ Rib. Miniature	No. of Teeth 2
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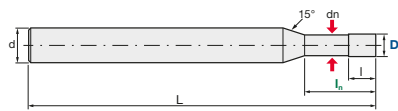
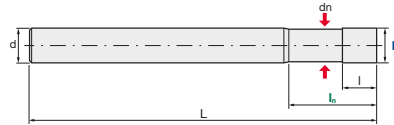
Carbide Micro Grain	C Century Coating	Rake Angle Positive
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Helix Angle	D Tol. [mm]	d Tol.
30°	0/-0.015	h5

ID Code	Item Code	Z	CR	D	I _n	I	dn	L	d	Type	
CC188	HYPS-2005-01C	2	0.1	0.5	1.6	0.6	0.45	50	6	A	
CC189	HYPS-2010-02C			1	3.3	1.3	0.95				
CC190	HYPS-2015-02C		0.2	1.5	4.9	1.9	1.45				
CC191	HYPS-2020-02C			2	5.5	2.5	1.95				
CC192	HYPS-2020-05C		0.5	0.2	2.5	6	3				2.4
CC193	HYPS-2025-02C										
CC194	HYPS-2025-05C		0.5	0.2	3	8	4				2.9
CC195	HYPS-2030-02C										
CC196	HYPS-2030-05C										

HPSLN | Hyper Square Long Neck

V max High Speed	▽▽▽ Finishing	HRC 65	▬▬▬ Rib. Miniature	No. of Teeth 2
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Carbide Micro Grain	C Century Coating	Rake Angle Positive
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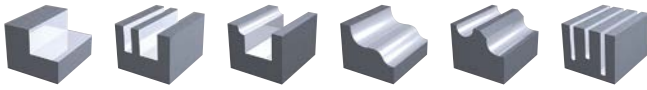
Helix Angle	D Tol. [mm]	d Tol.
30°	0/-0.015	0/-0.005mm

ID Code	Item Code	Z	D	l_n	l	dn	L	d	Type	
CC154	HPSLN-2005C	2	0.5	2.5	0.6	0.45	60	6	A	
CC155	HPSLN-2006C		0.6	3	0.7	0.55				
CC156	HPSLN-2008C		0.8	4	1	0.75				
CC157	HPSLN-2010C		1	5	1.3	0.95				
CC158	HPSLN-2012C		1.2	6	1.5	1.15				
CC159	HPSLN-2014C		1.4	7	1.8	1.35				
CC160	HPSLN-2015C		1.5	7.5	1.9	1.45				
CC161	HPSLN-2016C		1.6	8	2	1.55				
CC162	HPSLN-2018C		1.8	9	2.3	1.75				
CC163	HPSLN-2020C		2	10	2.5	1.95				
CC164	HPSLN-2025C		2.5	12.5	3	2.4				
CC165	HPSLN-2030C		3	15	4	2.9				
CC166	HPSLN-2035C		3.5	17.5	4.5	3.4				
CC167	HPSLN-2040C		4	20	5	3.9				
CC168	HPSLN-2050C		5	25	6	4.9				
CC169	HPSLN-2060C		6	30	7.5	5.9	80			B

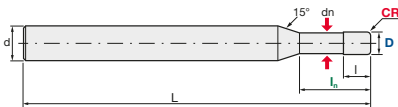


HPSLN-00 | Hyper Square Long Neck Corner Radius

V max High Speed	▽▽▽ Finishing	HRC 65	▬▬▬ Rib. Miniature	No. of Teeth 2
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Carbide Micro Grain	C Century Coating	Rake Angle Neutral
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Helix Angle	D Tol. [mm]	d Tol.
30°	0/-0.015	h5

ID Code	Item Code	Z	CR	D	I _n	l	dn	L	d	Type
CC172	HPSSLN-2005-01C	2	0.1	0.5	2.5	0.6	0.45	60	6	A
CC173	HPSSLN-2010-02C			1	5	1.3	0.95			
CC174	HPSSLN-2015-02C		1.5	7.5	1.9	1.45				
CC175	HPSSLN-2020-02C		2	0.5	10	2.5	1.95			
CC176	HPSSLN-2020-05C									
CC177	HPSSLN-2025-02C		2.5	0.5	12.5	3	2.4			
CC178	HPSSLN-2025-05C									
CC179	HPSSLN-2030-02C		3	0.5	15	4	2.9	80		
CC180	HPSSLN-2030-05C									