



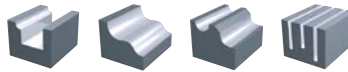
EPDBE-ATH | Epoch Deep Ball Evolution ATH

V max
High Speed

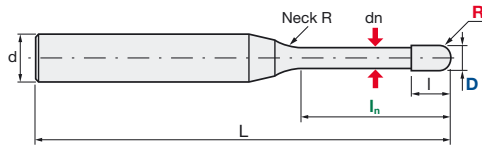


HRC
69

No. of Teeth
2



A (D0.1–D5.0)

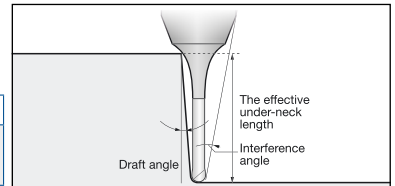


Carbide
Micro Grain

TH60+
Nano-PVD Coating

Rake Angle
Negative

Helix Angle	R Tol. [mm]	d Tol.
30°	R0.05~R0.25: +/-0.003 R0.3~R3: +/-0.005	h5



		Size									
ID Code	Item Code	Z	R	D	In	l	dn	L	d	Neck R	
EP911	EPDBE-2001-0.2-ATH	2	0.05	0.1	0.2	0.08	0.08	45	4	1	
EP912	EPDBE-2001-0.3-ATH				0.3						
EP913	EPDBE-2001-0.5-ATH				0.5						
EP914	EPDBE-2002-0.5-ATH		0.1	0.2	0.5	0.15	0.17				
EP915	EPDBE-2002-0.75-ATH				0.75						
EP916	EPDBE-2002-1-ATH				1						
EP917	EPDBE-2002-1.25-ATH				1.25						
EP918	EPDBE-2002-1.5-ATH				1.5						
EP919	EPDBE-2002-2-ATH				2						
EP920	EPDBE-2002-2.5-ATH		2.5								
EP921	EPDBE-2002-3-ATH		3								
EP922	EPDBE-2003-0.5-ATH		0.15	0.3	0.5	0.25	0.27				
EP923	EPDBE-2003-0.75-ATH	0.75									
EP924	EPDBE-2003-1-ATH	1									
EP925	EPDBE-2003-1.25-ATH	1.25									
EP926	EPDBE-2003-1.5-ATH	1.5									
EP927	EPDBE-2003-2-ATH	2									
EP928	EPDBE-2003-2.5-ATH	2.5									
EP929	EPDBE-2003-3-ATH	3									
EP930	EPDBE-2004-0.75-ATH	0.2	0.4	0.75	0.3	0.37					
EP931	EPDBE-2004-1-ATH			1							
EP932	EPDBE-2004-1.5-ATH			1.5							
EP933	EPDBE-2004-2-ATH			2							
EP934	EPDBE-2004-2.5-ATH			2.5							
EP935	EPDBE-2004-3-ATH			3							
EP936	EPDBE-2004-3.5-ATH			3.5							
EP937	EPDBE-2004-4-ATH			4							
EP938	EPDBE-2004-4.5-ATH	4.5									
EP939	EPDBE-2005-1-ATH	0.25	0.5	1	0.35	0.47					
EP940	EPDBE-2005-1.5-ATH			1.5							
EP941	EPDBE-2005-2-ATH			2							
EP942	EPDBE-2005-2.5-ATH			2.5							
EP943	EPDBE-2005-3-ATH			3							
EP944	EPDBE-2005-4-ATH			4							
EP945	EPDBE-2005-5-ATH			5							
EP946	EPDBE-2005-5.5-ATH			5.5							
EP947	EPDBE-2005-6-ATH	6									
EP948	EPDBE-2005-8-ATH	8									
EP949	EPDBE-2006-1-ATH	0.3	0.6	1	0.4	0.57					
EP950	EPDBE-2006-2-ATH			2							
EP951	EPDBE-2006-2.5-ATH			2.5							
EP952	EPDBE-2006-3-ATH			3							
EP953	EPDBE-2006-3.5-ATH			3.5							

Actual Effective Length in Incline angles					
0.5°	1°	1.5°	2°	3°	
0.35	0.37	0.39	0.41	0.44	1
0.46	0.48	0.5	0.52	0.57	
0.67	0.7	0.73	0.76	0.81	
0.7	0.72	0.75	0.77	0.82	
0.96	0.99	1.02	1.05	1.11	
1.22	1.26	1.3	1.33	1.39	
1.48	1.52	1.57	1.61	1.72	
1.74	1.79	1.84	1.88	2.05	
2.25	2.32	2.37	2.45	2.71	
2.77	2.84	2.91	3.05	3.37	
3.28	3.37	3.48	3.65	4.04	
0.78	0.82	0.86	0.9	0.98	
1.05	1.1	1.15	1.2	1.29	
1.31	1.38	1.43	1.49	1.59	
1.58	1.65	1.72	1.78	1.89	
1.84	1.92	1.99	2.06	2.18	
2.36	2.46	2.55	2.62	2.76	
2.89	3	3.1	3.18	3.36	
3.41	3.53	3.64	3.73	4.02	
1.04	1.09	1.14	1.19	1.28	4
1.31	1.37	1.43	1.48	1.58	
1.84	1.92	1.99	2.06	2.17	
2.36	2.46	2.54	2.62	2.75	
2.89	3	3.09	3.18	3.34	
3.41	3.53	3.63	3.73	4.01	
3.93	4.06	4.18	4.27	4.67	
4.45	4.59	4.71	4.83	5.33	
4.97	5.12	5.25	5.43	6	
1.31	1.37	1.42	1.47	1.57	4
1.83	1.91	1.98	2.05	2.17	
2.36	2.45	2.54	2.61	2.75	
2.88	2.99	3.09	3.17	3.33	
3.41	3.53	3.63	3.72	3.99	
4.45	4.59	4.71	4.82	5.32	
5.48	5.65	5.78	6.01	6.65	
6	6.17	6.31	6.61	7.31	
6.52	6.7	6.88	7.21	7.97	
8.58	8.79	9.16	9.6	10.63	
1.44	1.54	1.63	1.71	1.88	4
2.52	2.66	2.79	2.91	3.13	
3.05	3.22	3.36	3.49	3.73	
3.58	3.77	3.93	4.07	4.32	
4.12	4.32	4.49	4.64	4.91	



EPDBE-ATH | Epoch Deep Ball Evolution ATH

ID Code	Item Code	Size								Actual Effective Length in Incline angles												
		Z	R	D	I _n	l	dn	L	d	Neck R	0.5°	1°	1.5°	2°	3°							
EP954	EPDBE-2006-4-ATH	2	0.3	0.6	4	0.4	0.57	50	4	4	4.64	4.86	5.04	5.2	5.48							
EP955	EPDBE-2006-4.5-ATH				4.5						5.17	5.4	5.59	5.76	6.06							
EP956	EPDBE-2006-5-ATH				5						5.7	5.94	6.14	6.32	6.63							
EP957	EPDBE-2006-5.5-ATH				5.5						6.22	6.48	6.69	6.87	7.29							
EP958	EPDBE-2006-6-ATH				6						6.75	7.02	7.23	7.42	7.96							
EP959	EPDBE-2006-7-ATH				7						7.79	8.08	8.32	8.52	9.28							
EP960	EPDBE-2006-8-ATH				8						8.84	9.15	9.4	9.61	10.61							
EP961	EPDBE-2006-9-ATH				9						9.88	10.21	10.47	10.79	11.94							
EP962	EPDBE-2006-10-ATH				10						10.92	11.26	11.54	11.99	13.27							
EP963	EPDBE-2006-12-ATH				12						12.99	13.37	13.72	14.38	15.92							
EP964	EPDBE-2007-2-ATH				2						0.35	0.7	0.45	0.67	50	4	4	2.52	2.66	2.79	2.9	3.12
EP965	EPDBE-2007-4-ATH																	4	4.64	4.86	5.04	5.2
EP966	EPDBE-2007-6-ATH	6	6.74	7.01		7.23	7.42	7.94														
EP967	EPDBE-2007-8-ATH	2	0.4	0.8	0.5	0.77	50	4	4	8.83	9.14	9.39	9.61	10.6								
EP968	EPDBE-2008-2-ATH									2	2.51	2.65	2.78	2.89	3.11							
EP969	EPDBE-2008-4-ATH									4	4.64	4.85	5.03	5.19	5.47							
EP970	EPDBE-2008-5-ATH	2	0.45	0.9	0.6	0.87	50	4	4	5.69	5.93	6.13	6.31	6.61								
EP971	EPDBE-2008-6-ATH									6	6.74	7.01	7.23	7.41	7.92							
EP972	EPDBE-2008-8-ATH									8	8.83	9.14	9.39	9.6	10.58							
EP973	EPDBE-2008-10-ATH	2	0.5	1	0.8	0.96	50	4	4	10.91	11.26	11.53	11.97	13.23								
EP974	EPDBE-2009-2-ATH									2	2.51	2.65	2.77	2.89	3.1							
EP975	EPDBE-2009-4-ATH									4	4.64	4.85	5.03	5.18	5.46							
EP976	EPDBE-2009-6-ATH	2	0.55	1.1	1	1.05	50	4	4	6.74	7	7.22	7.41	7.91								
EP977	EPDBE-2009-8-ATH									8	8.83	9.14	9.38	9.6	10.56							
EP978	EPDBE-2010-2-ATH									2	2.54	2.67	2.79	2.9	3.11							
EP979	EPDBE-2010-3-ATH	2	0.6	1.2	1.1	1.15	50	4	4	3.61	3.78	3.93	4.06	4.3								
EP980	EPDBE-2010-4-ATH									4	4.66	4.87	5.04	5.2	5.47							
EP981	EPDBE-2010-5-ATH									5	5.72	5.95	6.14	6.31	6.61							
EP982	EPDBE-2010-6-ATH	2	0.7	1.4	1.3	1.34	50	4	4	6.76	7.02	7.23	7.42	7.92								
EP983	EPDBE-2010-7-ATH									7	7.81	8.09	8.32	8.52	9.25							
EP984	EPDBE-2010-8-ATH									8	8.85	9.15	9.4	9.61	10.58							
EP985	EPDBE-2010-9-ATH	2	0.75	1.5	1.35	1.44	50	4	4	9.89	10.21	10.47	10.78	11.91								
EP986	EPDBE-2010-10-ATH									10	10.93	11.27	11.54	11.98	13.23							
EP987	EPDBE-2010-12-ATH									12	13	13.37	13.72	14.37	15.89							
EP988	EPDBE-2010-13-ATH	2	0.8	1.6	1.4	1.54	50	4	4	14.04	14.42	14.86	15.57	17.21								
EP989	EPDBE-2010-14-ATH									14	15.07	15.47	16	16.76	18.54							
EP990	EPDBE-2010-16-ATH									16	17.13	17.56	18.28	19.16	21.2							
EP991	EPDBE-2010-18-ATH	2	0.85	1.8	1.5	1.63	50	4	4	19.19	19.66	20.56	21.55	23.85								
EP992	EPDBE-2010-20-ATH									20	21.25	21.84	22.84	23.94	26.51							
EP993	EPDBE-2011-2-ATH									2	2.58	2.7	2.81	2.92	3.12							
EP994	EPDBE-2011-4-ATH	2	0.6	1.2	1.1	1.15	50	4	4	4.69	4.89	5.06	5.21	5.48								
EP995	EPDBE-2011-6-ATH									6	6.79	7.04	7.25	7.43	7.94							
EP996	EPDBE-2011-8-ATH									8	8.87	9.17	9.41	9.61	10.59							
EP997	EPDBE-2011-10-ATH	2	0.65	1.3	1.2	1.24	50	4	4	10.95	11.28	11.55	12	13.25								
EP998	EPDBE-2012-4-ATH									4	4.69	4.88	5.05	5.2	5.47							
EP999	EPDBE-2012-8-ATH									8	8.87	9.16	9.4	9.61	10.58							
EP1000	EPDBE-2012-10-ATH	2	0.7	1.4	1.3	1.34	50	4	4	10.95	11.28	11.54	11.99	13.23								
EP1001	EPDBE-2012-12-ATH									12	13.02	13.38	13.73	14.38	15.89							
EP1002	EPDBE-2014-8-ATH									8	8.89	9.18	9.41	9.61	10.58							
EP1003	EPDBE-2014-12-ATH	2	0.75	1.5	1.35	1.44	50	4	4	13.04	13.39	13.74	14.39	15.89								
EP1004	EPDBE-2014-16-ATH									16	17.16	17.57	18.31	19.17	21.2							
EP1005	EPDBE-2015-4-ATH									4	4.71	4.89	5.06	5.2	5.46							
EP1006	EPDBE-2015-6-ATH	2	0.8	1.6	1.4	1.54	50	4	4	6.81	7.04	7.25	7.42	7.91								
EP1007	EPDBE-2015-8-ATH									8	8.89	9.17	9.41	9.61	10.56							
EP1008	EPDBE-2015-10-ATH									10	10.96	11.29	11.55	11.98	13.22							
EP1009	EPDBE-2015-12-ATH	2	0.85	1.8	1.5	1.63	50	4	4	13.03	13.39	13.74	14.38	15.87								
EP1010	EPDBE-2015-14-ATH									14	15.1	15.48	16.02	16.77	18.52							
EP1011	EPDBE-2015-16-ATH									16	17.16	17.57	18.3	19.16	21.18							
EP1012	EPDBE-2015-18-ATH	2	0.9	2.0	1.6	1.73	50	4	4	19.22	19.69	20.58	21.56	23.83								
EP1013	EPDBE-2015-20-ATH									20	21.27	21.87	22.86	23.95	x							
EP1014	EPDBE-2016-8-ATH									8	8.89	9.17	9.4	9.6	10.55							
EP1015	EPDBE-2016-12-ATH	2	0.95	2.2	1.7	1.83	50	4	4	13.03	13.39	13.73	14.37	15.85								
EP1016	EPDBE-2016-16-ATH									16	17.16	17.57	18.29	19.15	21.16							
EP1017	EPDBE-2016-20-ATH									20	21.27	21.87	22.86	23.94	x							





EPDBE-ATH | Epoch Deep Ball Evolution ATH

ID Code	Item Code	Size								Actual Effective Length in Incline angles								
		Z	R	D	I _n	l	dn	L	d	Neck R	0.5°	1°	1.5°	2°	3°			
EP1018	EPDBE-2018-8-ATH	2	0.9	1.8	8	1.6	1.73	50	4		8.91	9.18	9.41	9.61	10.54			
EP1019	EPDBE-2018-12-ATH				12						13.05	13.4	13.74	14.38	15.85			
EP1020	EPDBE-2018-16-ATH				16						17.17	17.58	18.31	19.16	21.16			
EP1021	EPDBE-2018-20-ATH				20						21.28	21.88	22.87	23.95	x			
EP1022	EPDBE-2020-3-ATH		1	2	3	1.7	1.92	50			4			3.71	3.84	3.96	4.07	4.29
EP1023	EPDBE-2020-4-ATH				4									4.75	4.92	5.07	5.21	5.45
EP1024	EPDBE-2020-6-ATH				6									6.84	7.07	7.26	7.43	7.89
EP1025	EPDBE-2020-8-ATH				8									8.92	9.19	9.42	9.61	10.54
EP1026	EPDBE-2020-10-ATH				10									11	11.3	11.56	11.99	13.2
EP1027	EPDBE-2020-12-ATH				12									13.06	13.41	13.76	14.39	15.85
EP1028	EPDBE-2020-13-ATH	13			14.1				14.45	14.9				15.58	17.18			
EP1029	EPDBE-2020-14-ATH	14			15.13				15.5	16.04				16.78	18.51			
EP1030	EPDBE-2020-16-ATH	16			17.19				17.59	18.32				19.17	x			
EP1031	EPDBE-2020-18-ATH	18			19.24				19.72	20.6				21.57	x			
EP1032	EPDBE-2020-20-ATH	20	21.3	21.9	22.88	23.96	x											
EP1033	EPDBE-2020-22-ATH	22	23.35	24.08	25.16	26.35	x											
EP1034	EPDBE-2020-25-ATH	25	26.42	27.35	28.58	x	x											
EP1035	EPDBE-2020-30-ATH	30	31.53	32.8	34.29	x	x											
EP1036	EPDBE-2020-35-ATH	35	36.65	38.24	x	x	x											
EP1037	EPDBE-2020-40-ATH	40	41.86	43.69	x	x	x											
EP1038	EPDBE-2025-6-ATH	2	1.25	2.5	6	2	2.4	50	4		6.88	7.09	7.27	7.43	7.87			
EP1039	EPDBE-2025-10-ATH				10						11.03	11.32	11.56	12	13.18			
EP1040	EPDBE-2025-15-ATH				15						16.18	16.56	17.2	17.98	x			
EP1041	EPDBE-2025-20-ATH				20						21.32	21.93	22.9	x	x			
EP1042	EPDBE-2025-25-ATH		25	26.44	27.38	28.6	x	x										
EP1043	EPDBE-2025-30-ATH		30	31.55	32.82	x	x	x										
EP1044	EPDBE-2030-8-ATH		1.5	3	8	2.5	2.88	55			6			8.99	9.23	9.44	9.62	10.51
EP1045	EPDBE-2030-10-ATH				10									11.06	11.34	11.57	12.01	13.16
EP1046	EPDBE-2030-13-ATH				13									14.15	14.48	14.94	15.6	17.15
EP1047	EPDBE-2030-16-ATH				16									17.24	17.61	18.36	19.19	21.13
EP1048	EPDBE-2030-20-ATH	20			21.34				21.96	22.92				23.97	26.44			
EP1049	EPDBE-2030-25-ATH	25			26.46				27.41	28.62				29.96	x			
EP1050	EPDBE-2030-30-ATH	30			31.57				32.85	34.32				35.94	x			
EP1051	EPDBE-2030-35-ATH	35			36.72				38.3	40.03				41.92	x			
EP1052	EPDBE-2035-15-ATH	15			16.25				16.6	17.26				18.03	19.81			
EP1053	EPDBE-2035-25-ATH	25			26.49				27.46	28.67				29.99	x			
EP1054	EPDBE-2035-35-ATH	35	36.79	38.36	40.07	x	x											
EP1055	EPDBE-2035-45-ATH	45	47.22	49.25	x	x	x											
EP1056	EPDBE-2040-10-ATH	2	4	10	3	3.85	55	6			11.1	11.36	11.58	12	13.1			
EP1057	EPDBE-2040-13-ATH			13							14.19	14.5	14.95	15.59	17.08			
EP1058	EPDBE-2040-16-ATH			16							17.27	17.63	18.37	19.18	x			
EP1059	EPDBE-2040-20-ATH			20							21.37	21.99	22.93	23.96	x			
EP1060	EPDBE-2040-25-ATH			25							26.49	27.44	28.63	29.95	x			
EP1061	EPDBE-2040-30-ATH			30							31.59	32.89	34.34	x	x			
EP1062	EPDBE-2040-35-ATH			35							36.78	38.33	40.04	x	x			
EP1063	EPDBE-2040-40-ATH			40							41.99	43.78	x	x	x			
EP1064	EPDBE-2040-45-ATH			45							47.2	49.23	x	x	x			
EP1065	EPDBE-2040-50-ATH			50							52.42	54.68	x	x	x			
EP1066	EPDBE-2050-20-ATH	2.5	5	20	3.5	4.85	65	6			21.36	21.95	x	x	x			
EP1067	EPDBE-2050-25-ATH			25			26.48				27.39	x	x	x				
EP1068	EPDBE-2050-30-ATH			30			31.58				x	x	x	x				
EP1069	EPDBE-2050-40-ATH			40			41.97				x	x	x	x				
EP1070	EPDBE-2060-12-ATH	3	6	12	6	5.85	60	-			x	x	x	x	x			
EP1071	EPDBE-2060-20-ATH			20			x				x	x	x	x				
EP1072	EPDBE-2060-30-ATH			30			x				x	x	x	x				
EP1073	EPDBE-2060-50-ATH			50			x				x	x	x	x				

Cutting Conditions Schnittwerte Condizioni di taglio Condiciones de Corte Conditions de coupe Valores de corte:					
High Precision Finishing		Page 12-17	High Efficient Roughing		Page 6-11
			High Efficient Roughing (Rib Applications)		Page 18-23