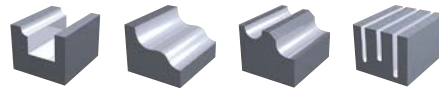


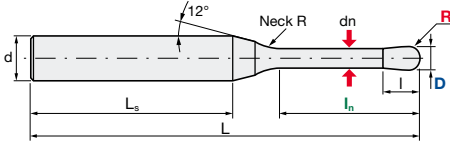


D-EPDB | Epoch HD Coated Deep Ball End Mill

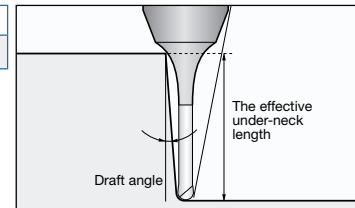
HD Diamond Coating	V max High Speed	Roughing	Finishing	No. of Teeth 2
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A (D0.1–D4)



Helix Angle	d Tol.
30°	h5



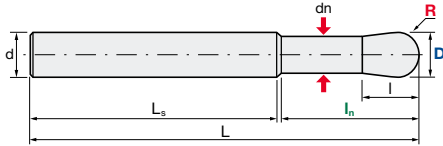
Size												Effective Underneck Using Length by Draft Angle																																
ID Code	Item Code	Z	D	R	I _n	I	dn	L _s	NeckR	L	d	Type	0.5°	1°	1.5°	2°	3°																											
DC077	D-EPDB-2001-0.2	2	0.1	0.05	0.2	0.15	0.08	35.63		45	4	A	0.35	0.37	0.39	0.41	0.44																											
DC078	D-EPDB-2001-0.5				0.67								0.70	0.73	0.76	0.81																												
DC079	D-EPDB-2002-0.5		0.2	0.1	0.5	0.3	0.17	40.56		1			50	4	A	0.70	0.72	0.75	0.77	0.82																								
DC080	D-EPDB-2002-1				1.22											1.26	1.30	1.33	1.39																									
DC081	D-EPDB-2002-1.5		1.5	0.3	0.17	40.06		39.56		1						50	4	A	1.74	1.79	1.84	1.88	2.05																					
DC082	D-EPDB-2003-1		1																1.31	1.38	1.43	1.49	1.59																					
DC083	D-EPDB-2003-2		2	0.3	0.15	1	0.45	0.27	40.30										50	4	A	2.36	2.46	2.55	2.62	2.76																		
DC084	D-EPDB-2003-3		3			3.41																3.53	3.64	3.73	4.02																			
DC085	D-EPDB-2004-1		1	0.4	0.2	1	0.6	0.37	40.53													50	4	A	1.31	1.37	1.43	1.48	1.58															
DC086	D-EPDB-2004-2		2			2.36																			2.46	2.54	2.62	2.75																
DC087	D-EPDB-2004-4		4	0.4	0.2	2	0.6	0.37	39.53																50	4	A	4.45	4.59	4.71	4.83	5.33												
DC088	D-EPDB-2004-6		6			6.52																						6.70	6.89	7.22	7.99													
DC089	D-EPDB-2005-1		1	0.5	0.25	1	0.75	0.47	40.77																			50	4	A	1.31	1.37	1.42	1.47	1.57									
DC090	D-EPDB-2005-2		2			2.36																									2.45	2.54	2.61	2.75										
DC091	D-EPDB-2005-4		4	0.5	0.25	2	0.75	0.47	39.77																						50	4	A	4.45	4.59	4.71	4.82	5.32						
DC092	D-EPDB-2005-6		6			6.52																												6.70	6.88	7.21	7.97							
DC093	D-EPDB-2005-8		8	0.5	0.25	4	0.75	0.47	37.77																									50	4	A	8.58	8.79	9.16	9.60	10.63			
DC094	D-EPDB-2005-10		10			10.64																															10.94	11.45	12.00	13.28				
DC095	D-EPDB-2006-2		2	0.6	0.3	2	0.9	0.57	40.00																												50	4	A	2.52	2.66	2.79	2.91	3.13
DC096	D-EPDB-2006-4		4			4.64																																		4.86	5.04	5.20	5.48	
DC097	D-EPDB-2006-6	6	0.6	0.3	4	0.9	0.57	38.00		50	4	A																												6.75	7.02	7.23	7.42	7.96
DC098	D-EPDB-2006-10	10			10.92																																			11.26	11.54	11.99	13.27	
DC099	D-EPDB-2008-2	2	0.8	0.4	2	1.2	0.77	40.47					50	4	A																									2.51	2.65	2.78	2.89	3.11
DC100	D-EPDB-2008-4	4			4.64																																			4.85	5.03	5.19	5.47	
DC101	D-EPDB-2008-6	6	0.8	0.4	4	1.2	0.77	36.47								50	4	A																						6.74	7.01	7.23	7.41	7.92
DC102	D-EPDB-2008-8	8			8.83																																			9.14	9.39	9.60	10.58	
DC103	D-EPDB-2008-12	12	0.8	0.4	6	1.2	0.77	34.47											50	4	A																			12.99	13.36	13.71	14.36	15.89
DC104	D-EPDB-2008-16	16			17.12																																			17.55	18.27	19.15	21.20	
DC001	D-EPDB-2010-5	5	1	0.5	5	1.5	0.95	47.94														60	6	A																5.74	5.97	6.16	6.33	6.63
DC002	D-EPDB-2010-10	10			10.95																																			11.28	11.55	12.01	13.26	
DC123	D-EPDB-2010-15	15	1	0.5	6	1.5	0.95	37.94																	60	6	A													16.39	16.90	17.31	17.99	19.90
DC003	D-EPDB-2010-20	20			21.56																																			22.16	22.87	23.97	26.54	
DC124	D-EPDB-2010-25	25	1	0.5	8	1.5	0.95	32.94																				60	6	A										26.72	27.38	28.57	29.95	-
DC124	D-EPDB-2010-25	25			26.72																																			27.38	28.57	29.95	-	
DC004	D-EPDB-2010-30	30	1	0.5	10	1.5	0.95	42.94																							80	6	A							31.86	32.76	34.27	35.94	-
DC004	D-EPDB-2010-30	30			31.86																																			32.76	34.27	35.94	-	

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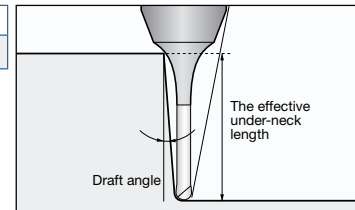


D-EPDB | Epoch HD Coated Deep Ball End Mill

B (D6-D10)



Helix Angle	d Tol.
30°	h5



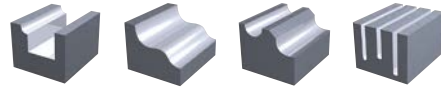
Size												Effective Underneck Using Length by Draft Angle								
ID Code	Item Code	Z	D	R	In	l	dn	Ls	NeckR	L	d	Type	0.5°	1°	1.5°	2°	3°			
DC125	D-EPDB-2015-5	2	1.5	0.75	5	2.25	1.4	49.12	4	60	60	A	5.86	6.05	6.22	6.38	6.70			
DC126	D-EPDB-2015-10				10			44.12					11.04	11.35	11.60	12.10	13.34			
DC005	D-EPDB-2015-15				15			39.12					16.20	16.58	17.27	18.08	19.98			
DC127	D-EPDB-2015-20				20			34.12					21.65	22.21	22.97	24.06	-			
DC006	D-EPDB-2015-30				30			44.12					31.93	32.87	34.37	36.03	-			
DC128	D-EPDB-2020-5		2	1	5	3	1.9	50.30	4	60	60		A	5.85	6.04	6.20	6.35	6.62		
DC007	D-EPDB-2020-10				10			45.30						11.04	11.33	11.58	12.05	13.26		
DC129	D-EPDB-2020-15				15			40.30						16.19	16.57	17.23	18.03	19.90		
DC008	D-EPDB-2020-20				20			35.30						21.32	21.95	22.93	24.02	-		
DC009	D-EPDB-2020-30				30			45.30						31.93	32.85	34.34	-	-		
DC010	D-EPDB-2020-40		40	35.30	42.17	43.74	-	-	-											
DC130	D-EPDB-2030-10		3	1.5	10	4.5	2.9	42.94	4	60	60			A	11.02	11.31	11.55	11.95	13.10	
DC131	D-EPDB-2030-20				20			32.94							21.31	21.91	22.87	23.92	26.37	
DC011	D-EPDB-2030-30				30			42.94							31.54	32.80	34.27	35.88	-	
DC132	D-EPDB-2030-40				40			32.94							42.16	43.70	45.68	-	-	
DC012	D-EPDB-2030-60				60			32.94							62.75	65.49	-	-	-	
DC133	D-EPDB-2040-10		4	2	10	8	3.8	45.30	4	60	60				A	11.18	11.43	11.66	12.14	13.25
DC134	D-EPDB-2040-20				20			35.30								21.44	22.12	23.06	24.10	-
DC135	D-EPDB-2040-30				30			45.30								31.68	33.01	34.47	-	-
DC013	D-EPDB-2040-40				40			35.30								42.11	43.91	-	-	-
DC014	D-EPDB-2040-80	80			45.30			83.83				-				-	-	-		
DC015	D-EPDB-2060-20	6	3	20	12	5.7	100.00	-	120	120	B	-				-	-	-	-	
DC136	D-EPDB-2060-40			40			80.00					-				-	-	-		
DC016	D-EPDB-2060-60			60			60.00					-				-	-	-		
DC017	D-EPDB-2080-25	8	4	25	16	7.6	115.00	-	140	8		B				-	-	-	-	-
DC018	D-EPDB-2080-80			80			60.00						-			-	-	-		
DC019	D-EPDB-2100-30			30			120.00						-			-	-	-		
DC020	D-EPDB-2100-100	100	50.00	-	-	-	-													

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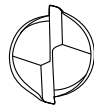
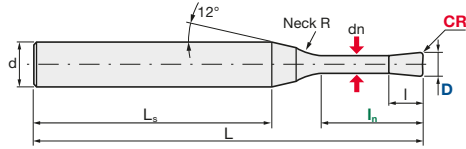


D-EPDR | Epoch HD Coated Deep Radius End Mill

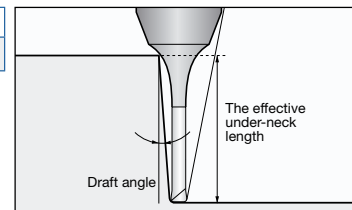
HD Diamond Coating	V max High Speed			No. of Teeth 2	No. of Teeth 4
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A (D0.1-D4)



Helix Angle	d Tol.
30°	h5



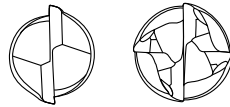
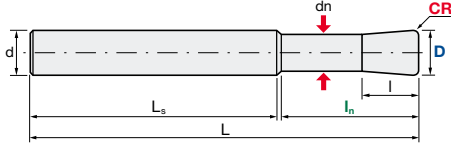
Size													Effective Underneck Using Length by Draft Angle					
ID Code	Item Code	Z	D	CR	ln	l	dn	Ls	NeckR	L	d	Type	0.5°	1°	1.5°	2°	3°	
DC049	D-EPDR-2001-0.2-001	2	0.1	0.01	0.2	0.15	0.08	35.63	1	45	4	A	0.36	0.38	0.40	0.41	0.45	
DC050	D-EPDR-2001-0.5-001				0.5			35.33					0.67	0.70	0.73	0.76	0.81	
DC051	D-EPDR-2002-0.5-002				0.2			1					40.06	0.70	0.73	0.75	0.78	0.83
DC052	D-EPDR-2002-1-002							1.5					39.56	1.22	1.26	1.30	1.34	1.41
DC053	D-EPDR-2002-1.5-002		0.3	0.02	1	0.3	0.17	40.06	2	50			1.74	1.80	1.84	1.89	2.07	
DC054	D-EPDR-2003-1-002				2			39.30					1.32	1.39	1.45	1.51	1.62	
DC055	D-EPDR-2003-2-002				3			38.30					2.37	2.47	2.56	2.64	2.78	
DC056	D-EPDR-2003-3-002				4			40.53					3.42	3.54	3.65	3.74	4.06	
DC057	D-EPDR-2004-1-002		0.4	0.05	1	0.6	0.37	40.53	4	55			1.32	1.39	1.45	1.51	1.62	
DC058	D-EPDR-2004-2-002				2			39.53					2.37	2.47	2.56	2.64	2.78	
DC059	D-EPDR-2004-4-002				4			37.53					4.46	4.60	4.73	4.86	5.39	
DC060	D-EPDR-2004-6-002				6			35.53					6.53	6.71	6.92	7.26	8.05	
DC061	D-EPDR-2005-1-005		0.5	0.05	1	0.75	0.47	40.77	2	60			1.32	1.39	1.45	1.50	1.61	
DC062	D-EPDR-2005-2-005				2			39.77					2.37	2.47	2.56	2.64	2.77	
DC063	D-EPDR-2005-4-005				4			37.77					4.45	4.60	4.72	4.86	5.38	
DC064	D-EPDR-2005-6-005				6			35.77					6.53	6.71	6.91	7.25	8.04	
DC065	D-EPDR-2005-8-005				8			33.77					8.59	8.80	9.19	9.64	10.69	
DC066	D-EPDR-2005-10-005				10			31.77					10.64	10.96	11.47	12.04	13.35	
DC067	D-EPDR-2006-2-005		0.6	0.05	2	0.9	0.57	40.00	4	80			2.54	2.69	2.83	2.95	3.18	
DC068	D-EPDR-2006-4-005				4			38.00					4.66	4.88	5.07	5.23	5.52	
DC069	D-EPDR-2006-6-005	6			36.00			6.76			7.03	7.26	7.45	8.04				
DC070	D-EPDR-2006-10-005	10			32.00			10.93			11.28	11.55	12.04	13.35				
DC071	D-EPDR-2008-2-005	0.8	0.05	2	1.2	0.77	40.47	4	80	2.54	2.69	2.83	2.95	3.18				
DC072	D-EPDR-2008-4-005			4			38.47			4.66	4.88	5.07	5.23	5.52				
DC073	D-EPDR-2008-6-005			6			36.47			6.76	7.03	7.26	7.45	8.04				
DC074	D-EPDR-2008-8-005			8			34.47			8.85	9.16	9.41	9.64	10.69				
DC075	D-EPDR-2008-12-005	1	0.1	12	1.5	0.95	30.47	6	80	13.00	13.38	13.75	14.43	16.00				
DC076	D-EPDR-2008-16-005			16			31.47			17.13	17.56	18.32	19.22	21.31				
DC105	D-EPDR-2010-5-01			5			47.94			5.76	6.00	6.20	6.37	6.76				
DC024	D-EPDR-2010-5-02			5			47.94			5.76	5.99	6.19	6.36	6.72				
DC106	D-EPDR-2010-10-01	1	0.2	10	1.5	0.95	42.94	6	80	10.79	11.31	11.58	12.08	13.39				
DC021	D-EPDR-2010-10-02			10			42.94			10.96	11.30	11.57	12.06	13.36				
DC107	D-EPDR-2010-15-01			15			37.94			16.40	16.92	17.34	18.07	20.03				
DC108	D-EPDR-2010-15-02			15			37.94			16.40	16.92	17.33	18.05	20.00				
DC109	D-EPDR-2010-20-01	1	0.2	20	1.5	0.95	32.94	6	80	21.58	22.18	22.93	24.05	26.66				
DC022	D-EPDR-2010-20-02			20			32.94			21.57	22.17	22.91	24.03	26.63				
DC023	D-EPDR-2010-30-02			30			42.94			31.87	32.79	34.32	35.99	-				

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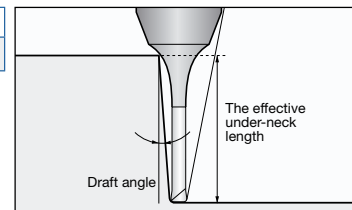


D-EPDR | Epoch HD Coated Deep Radius End Mill

B (D6-D10)



Helix Angle	d Tol.
30°	h5



Size													Effective Underneck Using Length by Draft Angle					
ID Code	Item Code	Z	D	CR	In	l	dn	Ls	NeckR	L	d	Type	0.5°	1°	1.5°	2°	3°	
DC110	D-EPDR-2015-5-02	2	1.5	0.2	5	2.25	1.4	49.12	4	60	A	5.88	6.09	6.27	6.43	6.88		
DC111	D-EPDR-2015-10-02				10			44.12				11.06	11.37	11.64	12.20	13.52		
DC025	D-EPDR-2015-15-02				15			39.12				16.21	16.60	17.34	18.19	20.15		
DC112	D-EPDR-2015-20-02				20			34.12				21.67	22.24	23.05	24.17	-		
DC026	D-EPDR-2015-30-02				30			44.12				31.95	32.92	34.45	-	-		
DC113	D-EPDR-2020-5-02		2		2	0.5	5	3	1.9	50.30		4	60	5.88	6.09	6.27	6.43	6.88
DC027	D-EPDR-2020-10-02						10			45.30				11.06	11.37	11.64	12.20	13.52
DC114	D-EPDR-2020-15-02						15			40.30				16.21	16.60	17.34	18.19	-
DC028	D-EPDR-2020-20-02						20			35.30				21.34	22.02	23.05	24.17	-
DC029	D-EPDR-2020-30-02						30			45.30				31.95	32.92	34.45	-	-
DC030	D-EPDR-2020-40-02	40	35.30	42.19	43.81		-	-	-									
DC115	D-EPDR-2030-10-02	2	3	0.5	10		4.5	2.9	42.94	4	60	11.06	11.37	11.64	12.20	13.52		
DC116	D-EPDR-2030-20-02				20				32.94			21.34	22.02	23.05	24.17	26.79		
DC031	D-EPDR-2030-30-02				30				42.94			31.57	32.92	34.45	36.14	-		
DC032	D-EPDR-2030-60-02				60				32.94			62.80	65.60	-	-	-		
DC117	D-EPDR-2040-10-05				10	65.30			11.22			11.50	11.87	12.43	13.73			
DC118	D-EPDR-2040-20-05	20	55.30		21.47	22.25	23.27	24.39	-									
DC119	D-EPDR-2040-30-05	30	45.30		31.75	33.15	34.68	-	-									
DC033	D-EPDR-2040-40-05	40	35.30		42.18	44.04	-	-	-									
DC034	D-EPDR-2040-80-05	80	45.30		83.89	-	-	-	-									
DC120	D-EPDR-2060-20-05	4	6		1	20	12	5.7	60.00	-	80	B	-	-	-	-	-	
DC121	D-EPDR-2060-40-05			40		40.00			-				-	-				
DC122	D-EPDR-2060-60-05			60		60.00			-				-	-				
DC035	D-EPDR-4060-20-10			20		100.00			-				-	-				
DC036	D-EPDR-4060-60-10			60		60.00			-				-	-				
DC037	D-EPDR-4080-25-10	4	8	1		25	16	7.6	115.00	-	140		8	-	-	-	-	-
DC038	D-EPDR-4080-80-10					80			60.00					-	-	-		
DC040	D-EPDR-4100-30-10					30			120.00					-	-	-		
DC039	D-EPDR-4100-100-10	100	50.00			-	-	-										

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