

Advanced Engineering

MINIATURE

ADVANCED
TH60+
NANO-PVD COATING

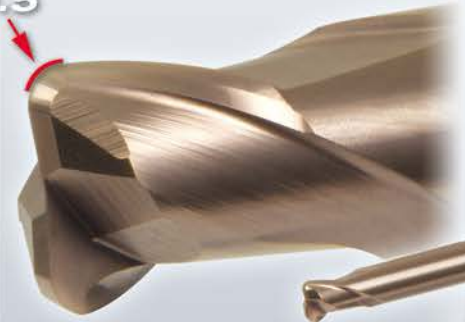
MMC Hitachi Tool

No. 440.2

EPDRE Epoch Deep Radius **Evolution**

For Higher Efficiency & Higher Precision Deep Milling
Micro Grain Solid Carbide End Mill

CR
0.05
0.1
0.2
0.3
0.5



Intermediate sizes:

0.9 mm
1.25 mm
1.75 mm
2.5 mm

• D 0.2 ~ 6 mm

• l_n 2xD ~ 20xD

• 151 Sizes

• Higher cutting performance

• New developed compound neck shape

MINIATURE
Carbide End Mills - Nano PVD Coated

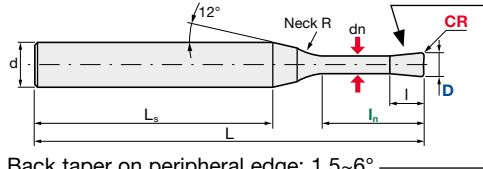
MMC Hitachi Tool Engineering Europe GmbH
www.high-speed-cutting.com

Ultra Micro Grain Solid Carbide End Mill

EPDRE-ATH | Epoch Deep Radius Evolution ATH

V max High Speed		HRC 70		No. of Teeth 2	
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A (D0.2–D5.0)

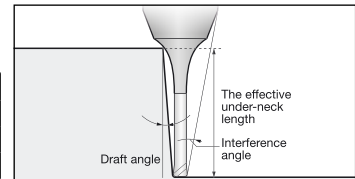


Back taper on peripheral edge: 1.5–6°

※ Back Draft is not available for Diameters 4–6 mm

Carbide Micro Grain	TH60+ Nano-PVD Coating	Rake Angle Positive
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Helix angle	30°
CR	± 0.005 mm
D	(0/-0.01 mm)
d	h5



Size												Actual Effective Length in Incline angles				
ID Code	Item Code	Z	D	CR	ln	l	dn	Ls	L	d	Neck R	0.5°	1°	1.5°	2°	3°
EP793	EPDRE-2002-0.5-005-ATH	2	0.2	0.05	0.5	0.15	0.17	40.56	50	4	1	0.70	0.73	0.75	0.78	0.82
EP795	EPDRE-2002-1-005-ATH				1			40.06				1.22	1.26	1.30	1.34	1.40
EP794	EPDRE-2002-1.5-005-ATH				1.5			39.56				1.74	1.79	1.84	1.89	2.06
EP796	EPDRE-2002-2-005-ATH				2			39.06				2.25	2.32	2.38	2.46	2.73
EP797	EPDRE-2003-1-005-ATH				1			40.30				1.32	1.39	1.45	1.50	1.61
EP798	EPDRE-2003-2-005-ATH				2			39.30				2.37	2.47	2.56	2.64	2.77
EP799	EPDRE-2003-3-005-ATH		3	38.30	3.41	3.54	3.65	3.74	4.05							
EP800	EPDRE-2004-1-005-ATH		1	39.59	1.32	1.39	1.45	1.50	1.61							
EP802	EPDRE-2004-2-005-ATH		2	39.53	2.37	2.47	2.56	2.64	2.77							
EP804	EPDRE-2004-3-005-ATH		3	38.53	3.41	3.54	3.65	3.74	4.05							
EP806	EPDRE-2004-4-005-ATH		4	37.53	4.45	4.60	4.72	4.86	5.38							
EP801	EPDRE-2004-1-01-ATH		1	40.53	1.31	1.38	1.44	1.50	1.60							
EP803	EPDRE-2004-2-01-ATH		2	39.53	2.37	2.47	2.55	2.63	2.77							
EP805	EPDRE-2004-3-01-ATH		3	38.53	3.41	3.54	3.64	3.74	4.04							
EP807	EPDRE-2004-4-01-ATH		4	37.53	4.45	4.60	4.72	4.85	5.37							
EP808	EPDRE-2005-1-005-ATH		1	40.77	1.32	1.39	1.45	1.50	1.61							
EP810	EPDRE-2005-2-005-ATH		2	39.77	2.37	2.47	2.56	2.64	2.77							
EP812	EPDRE-2005-3-005-ATH		3	38.77	3.41	3.54	3.65	3.74	4.05							
EP814	EPDRE-2005-4-005-ATH		4	37.77	4.45	4.60	4.72	4.86	5.38							
EP816	EPDRE-2005-5-005-ATH		5	36.77	5.49	5.66	5.79	6.05	6.71							
EP818	EPDRE-2005-6-005-ATH		6	35.77	6.53	6.71	6.91	7.25	8.04							
EP809	EPDRE-2005-1-01-ATH		1	40.77	1.31	1.38	1.44	1.50	1.60							
EP811	EPDRE-2005-2-01-ATH		2	39.77	2.37	2.47	2.55	2.63	2.77							
EP813	EPDRE-2005-3-01-ATH		3	38.77	3.41	3.54	3.64	3.74	4.04							
EP815	EPDRE-2005-4-01-ATH	4	37.77	4.45	4.60	4.72	4.85	5.37								
EP817	EPDRE-2005-5-01-ATH	5	36.77	5.49	5.66	5.79	6.04	6.69								
EP819	EPDRE-2005-6-01-ATH	6	35.77	6.52	6.71	6.90	7.24	8.02								
EP821	EPDRE-2006-2-01-ATH	2	40.00	2.53	2.69	2.82	2.95	3.17								
EP822	EPDRE-2006-4-01-ATH	4	38.00	4.65	4.88	5.06	5.23	5.51								
EP823	EPDRE-2006-6-01-ATH	6	36.00	6.76	7.03	7.25	7.44	8.02								
EP824	EPDRE-2006-8-01-ATH	8	34.00	8.85	9.16	9.41	9.63	10.67								
EP820	EPDRE-2006-10-01-ATH	10	32.00	10.92	11.27	11.55	12.03	13.33								
EP825	EPDRE-2007-4-01-ATH	4	38.24	4.65	4.88	5.06	5.23	5.51								
EP826	EPDRE-2007-6-01-ATH	6	36.24	6.76	7.03	7.25	7.44	8.02								
EP831	EPDRE-2008-2-01-ATH	2	40.47	2.53	2.69	2.82	2.95	3.17								
EP833	EPDRE-2008-4-01-ATH	4	38.47	4.65	4.88	5.06	5.23	5.51								
EP835	EPDRE-2008-6-01-ATH	6	36.47	6.76	7.03	7.25	7.44	8.02								
EP837	EPDRE-2008-8-01-ATH	8	34.47	8.85	9.16	9.41	9.63	10.67								
EP827	EPDRE-2008-10-01-ATH	10	32.47	10.92	11.27	11.55	12.03	13.33								
EP829	EPDRE-2008-12-01-ATH	12	30.47	13.00	13.38	13.75	14.42	15.98								
EP832	EPDRE-2008-2-02-ATH	2	40.47	2.53	2.68	2.81	2.93	3.15								
EP834	EPDRE-2008-4-02-ATH	4	38.47	4.65	4.87	5.05	5.21	5.50								
EP836	EPDRE-2008-6-02-ATH	6	36.47	6.75	7.02	7.24	7.43	7.99								

Ultra Micro Grain Solid Carbide End Mill

EPDRE-ATH | Epoch Deep Radius Evolution ATH

ID Code	Item Code	Z	Size								Actual Effective Length in Incline angles								
			D	CR	I _n	l	dn	L _s	L	d	Neck R	0.5°	1°	1.5°	2°	3°			
EP838	EPDRE-2008-8-02-ATH	2	0.8	0.2	8	0.5	0.77	34.47	50	4	4	8.84	9.15	9.40	9.62	10.64			
EP828	EPDRE-2008-10-02-ATH				10							10.92	11.27	11.54	12.01	13.30			
EP830	EPDRE-2008-12-02-ATH				12							12.99	13.37	13.73	14.40	15.95			
EP839	EPDRE-2009-4-02-ATH				4							4.65	4.87	5.05	5.21	5.50			
EP840	EPDRE-2009-8-02-ATH		8	8.84	9.15	9.40	9.62	10.64											
EP1236	EPDRE-2010-2-01-ATH		1	0.9	2	0.6	0.87	40.94	50			2.64	2.78	2.90	3.01	3.23			
EP1239	EPDRE-2010-4-01-ATH				4							4.74	4.95	5.12	5.28	5.55			
EP1242	EPDRE-2010-6-01-ATH				6							6.83	7.09	7.30	7.49	8.11			
EP1245	EPDRE-2010-8-01-ATH				8							8.91	9.21	9.45	9.72	10.77			
EP841	EPDRE-2010-10-01-ATH				10							10.99	11.32	11.59	12.11	13.42			
EP1227	EPDRE-2010-12-01-ATH				12							13.06	13.42	13.83	14.50	16.08			
EP1230	EPDRE-2010-16-01-ATH				16							17.18	17.60	18.39	19.29	21.39			
EP1233	EPDRE-2010-20-01-ATH				20							21.29	21.93	22.95	24.08	26.70			
EP1237	EPDRE-2010-2-02-ATH				2							2.63	2.77	2.89	3.00	3.21			
EP1240	EPDRE-2010-4-02-ATH				4							4.74	4.94	5.11	5.27	5.54			
EP1243	EPDRE-2010-6-02-ATH				6							6.83	7.08	7.29	7.48	8.08			
EP1246	EPDRE-2010-8-02-ATH				8							8.91	9.20	9.45	9.70	10.74			
EP842	EPDRE-2010-10-02-ATH				10							10.98	11.32	11.58	12.09	13.39			
EP1228	EPDRE-2010-12-02-ATH				12							13.05	13.42	13.81	14.48	16.05			
EP1231	EPDRE-2010-16-02-ATH				16							17.18	17.59	18.38	19.27	21.35			
EP1234	EPDRE-2010-20-02-ATH				20							21.29	21.92	22.94	24.06	26.66			
EP1238	EPDRE-2010-2-03-ATH				2							2.63	2.76	2.87	2.98	3.19			
EP1241	EPDRE-2010-4-03-ATH				4							4.73	4.93	5.10	5.25	5.53			
EP1244	EPDRE-2010-6-03-ATH				6							6.82	7.07	7.28	7.47	8.05			
EP1247	EPDRE-2010-8-03-ATH				8							8.91	9.20	9.44	9.68	10.70			
EP1226	EPDRE-2010-10-03-ATH		10	10.98	11.31	11.58	12.07	13.36											
EP1229	EPDRE-2010-12-03-ATH		12	13.05	13.41	13.80	14.46	16.01											
EP1232	EPDRE-2010-16-03-ATH		16	17.17	17.59	18.36	19.25	21.32											
EP1235	EPDRE-2010-20-03-ATH		20	21.28	21.91	22.92	24.04	26.63											
EP1251	EPDRE-20125-5-02-ATH		1.25	0.2	5	1.15	1.18	38.53	50			5.81	6.03	6.22	6.39	6.79			
EP1248	EPDRE-20125-10-02-ATH				10							11.00	11.33	11.59	12.12	13.42			
EP1249	EPDRE-20125-15-02-ATH				15							16.16	16.56	17.26	18.10	20.06			
EP1250	EPDRE-20125-20-02-ATH				20							21.30	21.95	22.97	24.09	x			
EP1258	EPDRE-2015-4-02-ATH				4							4.79	4.98	5.15	5.30	5.57			
EP1260	EPDRE-2015-6-02-ATH				6							6.88	7.12	7.32	7.50	8.14			
EP1262	EPDRE-2015-8-02-ATH				8							8.95	9.24	9.47	9.75	10.80			
EP1252	EPDRE-2015-12-02-ATH				12							13.09	13.44	13.87	14.54	16.11			
EP1254	EPDRE-2015-15-02-ATH				15							16.18	16.58	17.29	18.13	20.09			
EP1256	EPDRE-2015-20-02-ATH				20							21.32	21.97	22.99	24.11	x			
EP1259	EPDRE-2015-4-05-ATH				4							4.78	4.96	5.12	5.26	5.53			
EP1261	EPDRE-2015-6-05-ATH	6			6.86					7.10	7.30	7.48	8.05						
EP1263	EPDRE-2015-8-05-ATH	8			8.94					9.22	9.45	9.70	10.70						
EP1253	EPDRE-2015-12-05-ATH	12			13.08					13.43	13.83	14.48	16.01						
EP1255	EPDRE-2015-15-05-ATH	15			16.17					16.56	17.25	18.07	19.99						
EP1257	EPDRE-2015-20-05-ATH	20			21.31					21.95	22.95	24.06	x						
EP1267	EPDRE-20175-5-02-ATH	1.75			0.2					5	1.55	1.67	39.71	50	5.84	6.05	6.24	6.41	6.82
EP1264	EPDRE-20175-10-02-ATH									10					11.02	11.34	11.61	12.15	13.45
EP1265	EPDRE-20175-15-02-ATH									15					16.18	16.58	17.29	18.13	20.09
EP1266	EPDRE-20175-20-02-ATH									20					21.32	21.97	22.99	24.11	x
EP1278	EPDRE-2020-4-02-ATH	2	0.2	4	1.7	1.92	41.30	50	4.79	4.98	5.15	5.30	5.57						
EP1280	EPDRE-2020-6-02-ATH			6					6.88	7.12	7.32	7.50	8.14						
EP1282	EPDRE-2020-8-02-ATH			8					8.95	9.24	9.47	9.75	10.80						
EP1268	EPDRE-2020-12-02-ATH			12					13.09	13.44	13.87	14.54	16.11						
EP1270	EPDRE-2020-16-02-ATH			16					17.21	17.62	18.43	19.33	x						
EP1272	EPDRE-2020-20-02-ATH			20					21.32	21.97	22.99	24.11	x						
EP1274	EPDRE-2020-25-02-ATH			25					26.44	27.42	28.69	x	x						
EP1276	EPDRE-2020-30-02-ATH			30					31.55	32.87	34.40	x	x						
EP1279	EPDRE-2020-4-05-ATH			4					4.78	4.96	5.12	5.26	5.53						
EP1281	EPDRE-2020-6-05-ATH			6					6.86	7.10	7.30	7.48	8.05						
EP1283	EPDRE-2020-8-05-ATH			8					8.94	9.22	9.45	9.70	10.70						
EP1269	EPDRE-2020-12-05-ATH			12					13.08	13.43	13.83	14.48	16.01						
EP1271	EPDRE-2020-16-05-ATH			16					17.20	17.61	18.39	19.27	x						
EP1273	EPDRE-2020-20-05-ATH			20					21.31	21.95	22.95	24.06	x						
EP1275	EPDRE-2020-25-05-ATH			25					26.43	27.39	28.65	x	x						
EP1277	EPDRE-2020-30-05-ATH			30					31.54	32.84	34.36	x	x						



Ultra Micro Grain Solid Carbide End Mill

EPDRE-ATH | Epoch Deep Radius Evolution ATH

Size												Actual Effective Length in Incline angles									
ID Code	Item Code	Z	D	CR	I _n	l	dn	L _s	L	d	Neck R	0.5°	1°	1.5°	2°	3°					
EP1284	EPDRE-2025-10-02-ATH	2	2.5	0.2	10	2	2.39	36.47	50	4	4	11.08	11.39	11.67	12.23	13.55					
EP1286	EPDRE-2025-20-02-ATH				20			36.47	60			21.36	22.05	23.07	x	x					
EP1288	EPDRE-2025-30-02-ATH				30			36.47	70			31.58	32.94	x	x	x					
EP1285	EPDRE-2025-10-05-ATH			10	36.47			50	11.07			11.37	11.63	12.17	13.45						
EP1287	EPDRE-2025-20-05-ATH			20	36.47			60	21.35			22.02	23.03	x	x						
EP1289	EPDRE-2025-30-05-ATH			30	36.47			70	31.58			32.92	x	x	x						
EP1300	EPDRE-2030-8-02-ATH		3	0.2	8	2.5	2.86	39.94	55	6		4	9.07	9.33	9.55	9.92	10.99				
EP1290	EPDRE-2030-12-02-ATH				12			40.94	60				13.19	13.52	14.03	14.71	16.30				
EP1292	EPDRE-2030-16-02-ATH				16			36.94	60				17.30	17.77	18.59	19.50	21.60				
EP1294	EPDRE-2030-20-02-ATH				20			37.94	65				21.40	22.13	23.15	24.28	26.91				
EP1296	EPDRE-2030-30-02-ATH				30			37.94	75				31.62	33.02	34.56	36.25	x				
EP1298	EPDRE-2030-35-02-ATH				35			37.94	80				36.83	38.47	40.26	42.23	x				
EP1301	EPDRE-2030-8-05-ATH				8			39.94	55				9.06	9.31	9.53	9.87	10.89				
EP1291	EPDRE-2030-12-05-ATH				12			40.94	60				13.18	13.51	13.99	14.65	16.20				
EP1293	EPDRE-2030-16-05-ATH				16			36.94	60				17.29	17.74	18.55	19.44	21.51				
EP1295	EPDRE-2030-20-05-ATH				20			37.94	65				21.39	22.10	23.11	24.22	26.82				
EP1297	EPDRE-2030-30-05-ATH				30			37.94	75				31.61	32.99	34.52	36.19	x				
EP1299	EPDRE-2030-35-05-ATH				35			37.94	80				36.82	38.44	40.22	42.17	x				
EP1302	EPDRE-2040-12-05-ATH			0.5	12	3.5	3.8	43.30	60	6			4	13.28	13.58	14.15	14.82	16.39			
EP1304	EPDRE-2040-16-05-ATH				16			39.30	60					17.38	17.89	18.71	19.61	x			
EP1306	EPDRE-2040-20-05-ATH				20			40.30	65					21.47	22.25	23.27	24.39	x			
EP1308	EPDRE-2040-24-05-ATH				24			41.30	70					25.56	26.61	27.83	x	x			
EP1310	EPDRE-2040-30-05-ATH				30			40.30	75					31.75	33.15	34.68	x	x			
EP1312	EPDRE-2040-36-05-ATH				36			39.30	80					38.01	39.68	x	x	x			
EP1314	EPDRE-2040-45-05-ATH	45			40.30			90	47.39		49.49			x	x	x					
EP1303	EPDRE-2040-12-1-ATH	12			12			3.5	3.8		43.30			60	6	4	13.27	13.56	14.08	14.72	16.23
EP1305	EPDRE-2040-16-1-ATH				16						39.30			60			17.37	17.85	18.64	19.51	x
EP1307	EPDRE-2040-20-1-ATH				20						40.30			65			21.46	22.21	23.20	24.30	x
EP1309	EPDRE-2040-24-1-ATH				24						41.30			70			25.55	26.57	27.77	29.08	x
EP1311	EPDRE-2040-30-1-ATH				30						40.30			75			31.73	33.10	34.61	x	x
EP1313	EPDRE-2040-36-1-ATH		36	39.30	80	37.98	39.64			x	x	x									
EP1315	EPDRE-2040-45-1-ATH	45	40.30	90	47.37	49.44	x	x	x												
EP1316	EPDRE-2050-20-05-ATH	0.5	20	4	4.75	42.65	65	6	4	21.54	22.38	x		x	x						
EP1318	EPDRE-2050-40-05-ATH		40			42.65	85			42.30	x	x		x	x						
EP1317	EPDRE-2050-20-1-ATH		20			42.65	65			21.53	22.34	x		x	x						
EP1319	EPDRE-2050-40-1-ATH	40	42.65	85	42.28	x	x	x		x											
EP1320	EPDRE-2060-18-05-ATH	0.5	18	5	5.7	42.00	60	6		-	x	x		x	x		x				
EP1322	EPDRE-2060-24-05-ATH		24			46.00	70				x	x		x	x		x				
EP1324	EPDRE-2060-36-05-ATH		36			44.00	80				x	x		x	x		x				
EP1326	EPDRE-2060-54-05-ATH		54			46.00	100				x	x		x	x		x				
EP1321	EPDRE-2060-18-1-ATH		18			42.00	60				x	x		x	x		x				
EP1323	EPDRE-2060-24-1-ATH		24			46.00	70				x	x		x	x		x				
EP1325	EPDRE-2060-36-1-ATH	36	44.00	80	x	x	x	x			x										

Always up to date: Please check our P50 QuickFinder



www.mmc-hitachitool-eu.com/quickfinder

Product Range

Solid Carbide End Mills



Indexable Milling Tools



WHNSB Drills



Milling Chucks



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