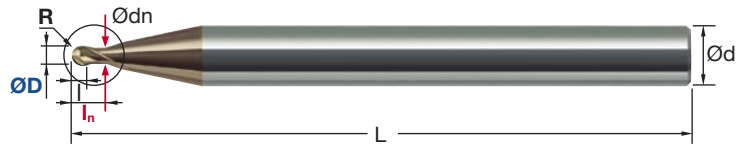
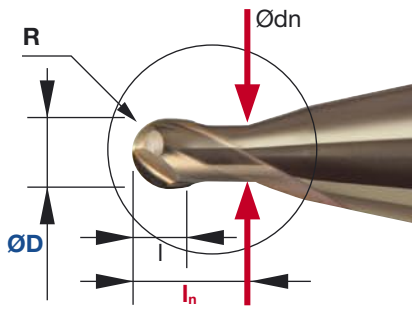


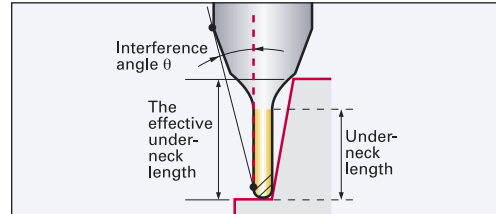
Ultra Micro Grain Carbide End Mill

EPSB | Epoch Super Hard Ball



Carbide	TH45+	Rake Angle
Ultra Micro Grain	Nano-PVD Coating	Positive

R	-0.007/+0.003
Ød	h4



		Size										
ID Code	Item Code	Stock	Z	R	ØD	ln	l	dn	L	Ød	Neck R	
MM001	EPSB-2001N	■	2	0.05	0.1	-	0.08	-	45	4	1	
MM022	EPSB-2001-0.3N	■	2	0.05	0.1	0.3	0.08	0.08	45	4	1	
MM002	EPSB-2002N	■	2	0.1	0.2	-	0.15	-	45	4	1	
MM023	EPSB-2002-0.6N	■	2	0.1	0.2	0.6	0.15	0.17	45	4	1	
MM003	EPSB-2003N	■	2	0.15	0.3	-	0.25	-	45	4	2	
MM024	EPSB-2003-0.9N	■	2	0.15	0.3	0.9	0.25	0.27	45	4	2	
MM004	EPSB-2004N	■	2	0.2	0.4	-	0.3	-	45	4	2	
MM025	EPSB-2004-1.2N	■	2	0.2	0.4	1.2	0.3	0.37	45	4	2	
MM005	EPSB-2005N	■	2	0.25	0.5	-	0.35	-	45	4	2	
MM026	EPSB-2005-1.5N	■	2	0.25	0.5	1.5	0.35	0.47	45	4	2	
MM006	EPSB-2006N	■	2	0.3	0.6	-	0.4	-	45	4	4	
MM027	EPSB-2006-1.8N	■	2	0.3	0.6	1.8	0.4	0.57	45	4	4	
MM007	EPSB-2008N	■	2	0.4	0.8	-	0.5	-	45	4	4	
MM028	EPSB-2008-2.4N	■	2	0.4	0.8	2.4	0.5	0.77	45	4	4	
MM008	EPSB-2010N	■	2	0.5	1	1.5	0.8	0.96	45	6	4	
MM029	EPSB-2010-3N	■	2	0.5	1	3	0.8	0.96	45	6	4	
MM009	EPSB-2012N	■	2	0.6	1.2	1.8	1.1	1.15	45	6	4	
MM030	EPSB-2012-3.6N	■	2	0.6	1.2	3.6	1.1	1.15	45	6	4	
MM010	EPSB-2015N	■	2	0.75	1.5	2.25	1.35	1.44	45	6	4	
MM031	EPSB-2015-4.5N	■	2	0.75	1.5	4.5	1.35	1.44	45	6	4	
MM011	EPSB-2020N	■	2	1	2	3	1.7	1.92	45	6	4	
MM032	EPSB-2020-6N	■	2	1	2	6	1.7	1.92	45	6	4	

The effective under-neck length for the various draft angles

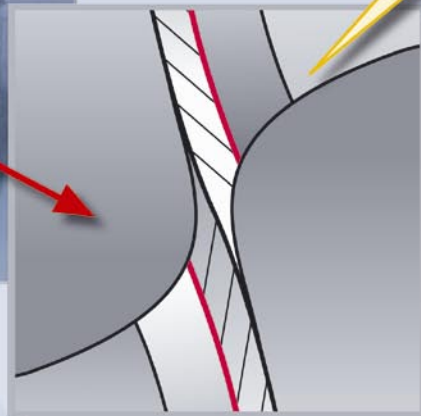
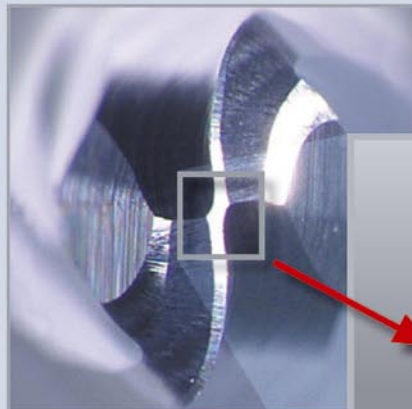
0.5°	1°	2°	3°	Interference angle θ
0.08				11.87
0.46	0.48	0.53	0.57	11.64
0.15				11.74
0.80	0.83	0.88	0.93	11.30
0.25				11.61
1.21	1.27	1.37	1.47	11.00
0.30				11.47
1.52	1.59	1.71	1.82	10.69
0.35				11.33
1.83	1.91	2.05	2.17	10.39
0.40				11.18
2.30	2.44	2.68	2.88	10.08
0.50				10.88
2.94	3.10	3.36	3.59	9.47
2.01	2.12	2.31	2.49	11.00
3.61	3.78	4.06	4.30	9.88
2.36	2.47	2.68	2.86	10.78
4.27	4.45	4.75	5.01	9.46
2.87	2.99	3.20	3.40	10.43
5.24	5.44	5.76	6.04	8.84
3.71	3.84	4.07	4.29	9.78
6.84	7.07	7.43	7.89	7.81

■ = Stock | Germany

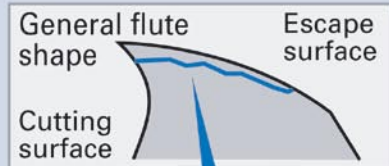
If the workpiece has draft angle, the interference length will be longer than the under-neck length. Please refer to the effective under-neck length for the various draft angles. In addition, the angle at which the tool will interfere with the workpiece is shown as the "interference angle θ", and should also be referred to.

THE EFFECT OF FLUTE SHAPE, MATERIAL AND COATING:

DOUBLE-FACE EFFECT OF NEW SHAPE PREVENTS SHAPE FROM DETERIORATING



By creating two faces on the escape surface, the first surface has the effect of stopping wear.



Direction of wear progress

