

E144-4.0X / 5.0X / 6.0X

Multipurpose End Mills

UMG
CarbideAITiXN
X

Type of Operation



Code No. E144-4.0X-Dc

Dc	Lc	L	d	AITiXN
$0_{-0.02}$	mm	mm	h6	E144-4.0X
3	12	50	6	●
4	16	55	6	●
5	20	60	6	●
6	24	65	6	●
8	32	90	8	●
10	40	100	10	●
12	48	110	12	●
14	56	140	16	●
16	64	140	16	●
20	80	160	20	●

Work Material

P	H	M	K	N	S
●	●	●	●	○	○

P Steel

H <38HRC
Hardened SteelH <48HRC
Hardened Steel

M Stainless Steel

K Cast Iron

S Titanium

S Nickel

S High Temp Alloys

Feature of product:

Multipurpose End Mills for Finishing- 4 Flutes · Long Type
Effectively decrease the vibration by various helix geometry and unequal flutes designs.

Big chip breaker is designed to reach high removal rate for various work materials.

Obviously improving tool life with Nano multilayer coating AITiCrN.

Bigger helix design is for better finishing machining.

Suitable for different kinds of materials in finishing.




Code No. E144-5.0X-Dc

Dc	Lc	L	d	AITiXN
$0_{-0.02}$	mm	mm	h6	E144-5.0X
3	15	55	6	●
4	20	60	6	●
5	25	65	6	●
6	30	75	6	●
8	40	90	8	●
10	50	100	10	●
12	60	110	12	●
14	70	140	16	●
16	80	160	16	●
20	100	200	20	●


Code No. E144-6.0X-Dc

Dc	Lc	L	d	AITiXN
$0_{-0.02}$	mm	mm	h6	E144-6.0X
3	18	70	6	●
4	24	70	6	●
5	30	80	6	●
6	36	80	6	●
8	48	100	8	●
10	60	110	10	●
12	72	120	12	●
16	96	160	16	●
20	120	200	20	●


E141-4.OX / Side Milling

Work Material		GR.1 Carbon Steel		GR.2 Low-alloyed Steel (~24HRC)		GR.3 Hi-alloyed Steel (~30HRC)		GR.4 Hardened Steel (30~38HRC)		GR.5 Hardened Steel (38~48HRC)		GR.8 Stainless Steel	
Vc m/min		100~120		100~120		100~120		65~80		55~70		55~70	
Code No.	Dc	RPM (min-1)	Feed (mm/min)	RPM (min-1)	Feed (mm/min)	RPM (min-1)	Feed (mm/min)	RPM (min-1)	Feed (mm/min)	RPM (min-1)	Feed (mm/min)	RPM (min-1)	Feed (mm/min)
E144-4.OX-3	3	11,000	618	11,000	618	11,000	618	8,500	285	5,900	199	6,800	228
E144-4.OX-4	4	8,300	659	8,300	659	8,300	659	6,400	304	4,500	213	5,100	243
E144-4.OX-5	5	6,600	669	6,600	669	6,600	669	5,100	323	3,600	227	4,100	258
E144-4.OX-6	6	5,500	680	5,500	680	5,500	680	4,200	342	3,000	239	3,400	265
E144-4.OX-8	8	4,200	699	4,200	699	4,200	699	3,200	355	2,200	241	2,600	284
E144-4.OX-10	10	3,300	689	3,300	689	3,300	689	2,600	366	1,800	240	2,000	282
E144-4.OX-12	12	2,800	633	2,800	633	2,800	633	2,200	337	1,500	220	1,700	271
E144-4.OX-14	14	2,400	538	2,400	538	2,400	538	1,800	283	1,300	194	1,400	222
E144-4.OX-16	16	2,100	466	2,100	466	2,100	466	1,600	269	1,100	188	1,300	219
E144-4.OX-20	20	1,660	454	1,660	454	1,660	454	1,270	256	890	172	1,020	201
(mm) 		ap:3.0D		ap:3.0D		ap:3.0D		ap:3.0D		ap:3.0D		ap:3.0D	
		ae:0.05D		ae:0.05D		ae:0.05D		ae:0.05D		ae:0.05D		ae:0.05D	

E141-5.OX / Side Milling

Work Material		GR.1 Carbon Steel		GR.2 Low-alloyed Steel (~24HRC)		GR.3 Hi-alloyed Steel (~30HRC)		GR.4 Hardened Steel (30~38HRC)		GR.5 Hardened Steel (38~48HRC)		GR.8 Stainless Steel	
Vc m/min		100~120		100~120		100~120		65~80		55~70		55~70	
Code No.	Dc	RPM (min-1)	Feed (mm/min)	RPM (min-1)	Feed (mm/min)	RPM (min-1)	Feed (mm/min)	RPM (min-1)	Feed (mm/min)	RPM (min-1)	Feed (mm/min)	RPM (min-1)	Feed (mm/min)
E144-5.OX-3	3	9,700	464	9,700	464	9,700	464	7,400	214	5,200	149	6,000	171
E144-5.OX-4	4	7,300	494	7,300	494	7,300	494	5,600	228	3,900	160	4,500	183
E144-5.OX-5	5	5,800	502	5,800	502	5,800	502	4,500	243	3,200	171	3,600	193
E144-5.OX-6	6	4,800	510	4,800	510	4,800	510	3,700	256	2,600	179	2,900	199
E144-5.OX-8	8	3,600	524	3,600	524	3,600	524	2,800	266	2,000	181	2,200	213
E144-5.OX-10	10	2,900	217	2,900	217	2,900	217	2,200	274	1,500	180	1,800	212
E144-5.OX-12	12	2,500	475	2,500	475	2,500	475	1,900	253	1,300	165	1,500	203
E144-5.OX-16	16	1,800	349	1,800	349	1,800	349	1,400	202	1,000	141	1,100	165
E144-5.OX-20	20	1,450	341	1,450	341	1,450	341	1,110	192	780	129	890	151
(mm) 		ap:3.0D		ap:3.0D		ap:3.0D		ap:3.0D		ap:3.0D		ap:3.0D	
		ae:0.05D		ae:0.05D		ae:0.05D		ae:0.05D		ae:0.05D		ae:0.05D	

E141-6.OX / Side Milling

Work Material		GR.1 Carbon Steel		GR.2 Low-alloyed Steel (~24HRC)		GR.3 Hi-alloyed Steel (~30HRC)		GR.4 Hardened Steel (30~38HRC)		GR.5 Hardened Steel (38~48HRC)		GR.8 Stainless Steel	
Vc m/min		100~120		100~120		100~120		65~80		55~70		55~70	
Code No.	Dc	RPM (min-1)	Feed (mm/min)	RPM (min-1)	Feed (mm/min)	RPM (min-1)	Feed (mm/min)	RPM (min-1)	Feed (mm/min)	RPM (min-1)	Feed (mm/min)	RPM (min-1)	Feed (mm/min)
E144-6.OX-3	3	9,700	386	9,700	386	9,700	386	7,400	178	5,200	124	6,000	143
E144-6.OX-4	4	7,300	412	7,300	412	7,300	412	5,600	190	3,900	133	4,500	152
E144-6.OX-5	5	5,800	418	5,800	418	5,800	418	4,500	202	3,200	142	3,600	161
E144-6.OX-6	6	4,800	425	4,800	425	4,800	425	3,700	214	2,600	149	2,900	166
E144-6.OX-8	8	3,600	437	3,600	437	3,600	437	2,800	222	2,000	151	2,200	177
E144-6.OX-10	10	2,900	431	2,900	431	2,900	431	2,200	228	1,500	150	1,800	176
E144-6.OX-12	12	2,500	395	2,500	395	2,500	395	1,900	211	1,300	137	1,500	169
E144-6.OX-16	16	1,800	291	1,800	291	1,800	291	1,400	168	1,000	118	1,100	137
E144-6.OX-20	20	1,450	284	1,450	284	1,450	284	1,110	160	780	107	890	126
(mm) 		ap:3.0D		ap:3.0D		ap:3.0D		ap:3.0D		ap:3.0D		ap:3.0D	
		ae:0.03D		ae:0.03D		ae:0.03D		ae:0.03D		ae:0.03D		ae:0.03D	