

MaxiMet™ and KenCut™ A-Series

High-Performance Aluminum
Roughing and Finishing

Materials

N

Applications



Face Milling



Shoulder Milling



Trochoidal Milling



Slotting: Square End



Plunge Milling



Pocketing



Helical Milling



Plunge Milling:
Ball Nose



Ramping



Side/Shoulder Milling:
Slotting: Square End



Center-cutting design enables plunging, slotting, and profiling applications in any type of aluminum workpiece materials. Designed to deliver exceptional chip evacuation and generate the highest floor-to-wall straightness.

KenCut AL & ALR

Roughers with cord profile available.

Multiple corner radii and extended neck configurations available as standard.

KenCut AQ

Ideal for roughing and finishing operations, all tools are minimum quantity lubrication (MQL) ready. The sharp cutting edges and low-friction rake surfaces guarantee high-quality surface finishes.

KenCut™ AL & ALR



One-, two-, and three-fluted roughers and finishers for a variety of aluminum applications.

MaxiMet™



The MaxiMet solid end mill series provides exceptional metal removal rates and combines roughing and finishing operations in any aluminum plunging, slotting, and profiling application.

KenCut AQ



PCD tools for high-speed aluminum machining reduce machining time drastically, providing up to 10 times higher productivity compared to solid carbide solutions.

MaxiMet

Unequal three-flute spacing reduces vibrations and provides chatter-free machining.

1 x D slotting capability and side milling capability up to 0,5 x D radial and 1,5 x D axial engagement result in fewer tool passes and increased productivity.

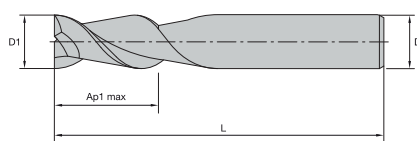
Suitable for MQL (minimum quantity lubrication).

Exceptional wall-to-floor perpendicularity in thin-wall applications.

MaxiMet™ • Square End • 2 Flutes • Plain Shank • Metric

● first choice

○ alternate choice



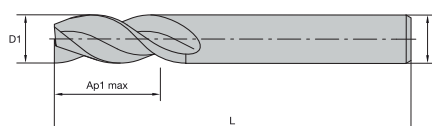
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order number	catalogue number	D1	D	Ap1 max	L	K600
3637552	ABDF0150A2AS	1,50	3,00	6,00	38,00	●
3637553	ABDF0200A2AS	2,00	3,00	8,00	38,00	●
3637554	ABDF0250A2AS	2,50	3,00	9,00	38,00	●
3637555	ABDF0300A2AS	3,00	3,00	12,00	38,00	●
3637556	ABDF0400A2AS	4,00	4,00	12,00	50,00	●
3637557	ABDF0500A2AS	5,00	6,00	14,00	50,00	●
3637558	ABDF0600A2AS	6,00	6,00	16,00	50,00	●
3637559	ABDF0800A2AS	8,00	8,00	20,00	63,00	●
3637560	ABDF1000A2AS	10,00	10,00	22,00	76,00	●
3637561	ABDF1200A2AS	12,00	12,00	25,00	76,00	●
3637562	ABDF1400A2AS	14,00	14,00	32,00	83,00	●
3637563	ABDF1600A2AS	16,00	16,00	32,00	89,00	●
3637564	ABDF1800A2AS	18,00	18,00	38,00	100,00	●
3637565	ABDF2000A2AS	20,00	20,00	38,00	104,00	●

MaxiMet • Square End • 3 Flutes • Plain Shank • Metric

● first choice

○ alternate choice



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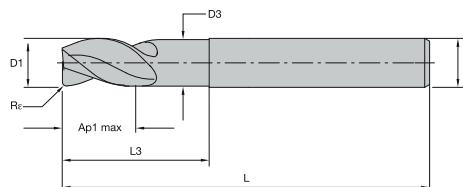
order number	catalogue number	D1	D	Ap1 max	L	K600
3637429	ABDE0300A3AS	3,00	3,00	12,00	38,00	●
3637430	ABDE0400A3AS	4,00	4,00	12,00	50,00	●
3637431	ABDE0500A3AS	5,00	5,00	14,00	50,00	●
3637432	ABDE0600A3AS	6,00	6,00	16,00	50,00	●
3637463	ABDE0800A3AS	8,00	8,00	20,00	63,00	●
3637464	ABDE1000A3AS	10,00	10,00	22,00	76,00	●
3637465	ABDE1200A3AS	12,00	12,00	25,00	76,00	●
3637466	ABDE1400A3AS	14,00	14,00	32,00	83,00	●
3637467	ABDE1600A3AS	16,00	16,00	32,00	89,00	●
3637468	ABDE1800A3AS	18,00	18,00	38,00	100,00	●
3637469	ABDE2000A3AS	20,00	20,00	38,00	104,00	●

158–159	160	115–117	164

MaxiMet™ • Radiused • 3 Flutes • Necked • Plain Shank • Metric

● first choice

○ alternate choice



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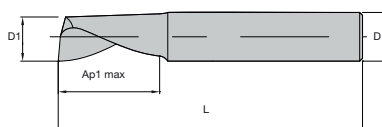
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3637389	ABDE0600A3ARA	6,00	6,00	5,40	9,00	18,00	63,00	0,20	●
3637390	ABDE0600A3ARB	6,00	6,00	5,40	9,00	18,00	63,00	0,50	●
3637391	ABDE0600A3ARC	6,00	6,00	5,40	9,00	18,00	63,00	1,00	●
3637392	ABDE0800A3ARA	8,00	8,00	7,20	12,00	24,00	76,00	0,20	●
3637413	ABDE0800A3ARB	8,00	8,00	7,20	12,00	24,00	76,00	0,50	●
3637414	ABDE0800A3ARC	8,00	8,00	7,20	12,00	24,00	76,00	1,00	●
5414455	ABDE1000A3ARG	10,00	10,00	9,50	15,00	30,00	76,00	1,00	●
5414456	ABDE1000A3ARK	10,00	10,00	9,50	15,00	30,00	76,00	2,00	●
5414458	ABDE1000A3ARN	10,00	10,00	9,50	15,00	30,00	76,00	4,00	●
3637415	ABDE1000A3ARA	10,00	10,00	9,00	15,00	30,00	89,00	0,20	●
3637416	ABDE1000A3ARB	10,00	10,00	9,00	15,00	30,00	89,00	0,50	●
3637417	ABDE1000A3ARC	10,00	10,00	9,00	15,00	30,00	89,00	1,50	●
5414459	ABDE1200A3ARG	12,00	12,00	11,50	18,00	36,00	83,00	1,00	●
5414470	ABDE1200A3ARK	12,00	12,00	11,50	18,00	36,00	83,00	2,00	●
5414471	ABDE1200A3ARM	12,00	12,00	11,50	18,00	36,00	83,00	3,00	●
5414473	ABDE1200A3ARN	12,00	12,00	11,50	18,00	36,00	83,00	4,00	●
3637419	ABDE1200A3ARB	12,00	12,00	10,80	18,00	36,00	100,00	0,50	●
6066131	ABDE1200A3ARL	12,00	12,00	11,50	18,00	36,00	100,00	2,50	●
3637420	ABDE1200A3ARC	12,00	12,00	10,80	18,00	36,00	100,00	1,50	●
3637418	ABDE1200A3ARA	12,00	12,00	10,80	18,00	36,00	100,00	0,20	●
5414474	ABDE1600A3ARM	16,00	16,00	15,00	24,00	48,00	100,00	3,00	●
5414475	ABDE1600A3ARN	16,00	16,00	15,00	24,00	48,00	100,00	4,00	●
3637423	ABDE1600A3ARC	16,00	16,00	14,40	24,00	48,00	110,00	1,00	●
3637424	ABDE1600A3ARD	16,00	16,00	14,40	24,00	48,00	110,00	2,00	●
6066132	ABDE1600A3ARL	16,00	16,00	15,00	24,00	48,00	110,00	2,50	●
3637421	ABDE1600A3ARA	16,00	16,00	14,40	24,00	48,00	110,00	0,20	●
3637422	ABDE1600A3ARB	16,00	16,00	14,40	24,00	48,00	110,00	0,50	●
5414477	ABDE2000A3ARK	20,00	20,00	19,00	30,00	60,00	115,00	2,00	●
5414478	ABDE2000A3ARM	20,00	20,00	19,00	30,00	60,00	115,00	3,00	●
3637427	ABDE2000A3ARC	20,00	20,00	18,80	30,00	60,00	125,00	1,50	●
3637428	ABDE2000A3ARD	20,00	20,00	18,80	30,00	60,00	125,00	4,00	●
3637425	ABDE2000A3ARA	20,00	20,00	18,80	30,00	60,00	125,00	0,20	●
3637426	ABDE2000A3ARB	20,00	20,00	18,80	30,00	60,00	125,00	0,50	●
5414479	ABDE2500A3ARE	25,00	25,00	24,00	37,50	75,00	135,00	0,50	●

158-159	160	115-117	164

KenCut™ AL • F1AA-WS-M • Square End • 1 Flute • Plain Shank • Metric

● first choice

○ alternate choice



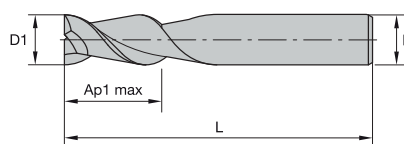
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order number	catalogue number	D1	D	Ap1 max	L	K600
2433330	F1AA0200AWS30	2,00	2,00	10,00	40,00	●
2433331	F1AA0300AWS30	3,00	3,00	10,00	40,00	●
2433332	F1AA0400AWS30	4,00	4,00	14,00	50,00	●
2433343	F1AA0500AWS30	5,00	5,00	16,00	60,00	●
2433344	F1AA0600AWS30	6,00	6,00	20,00	60,00	●
2433345	F1AA0800AWM30	8,00	8,00	25,00	75,00	●
2433346	F1AA1000AWM30	10,00	10,00	25,00	75,00	●
2433347	F1AA1200AWM30	12,00	12,00	25,00	75,00	●

KenCut AL • F2AA-ADL45 • Square End • 2 Flutes • Plain Shank • Metric

● first choice

○ alternate choice

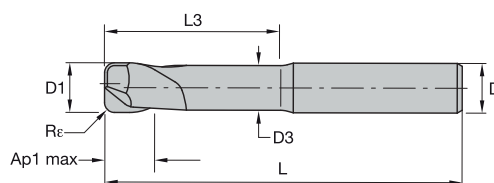


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order number	catalogue number	D1	D	Ap1 max	L	K600
1199807	F2AA0400ADL45	4,00	6,00	8,00	57,00	●
1199808	F2AA0500ADL45	5,00	6,00	10,00	57,00	●
1199811	F2AA0600ADL45	6,00	6,00	10,00	57,00	●
1199812	F2AA0800ADL45	8,00	8,00	16,00	63,00	●
1199815	F2AA1000ADL45	10,00	10,00	19,00	72,00	●
1199816	F2AA1200ADL45	12,00	12,00	22,00	83,00	●
1199819	F2AA1400ADL45	14,00	14,00	22,00	83,00	●
1199820	F2AA1600ADL45	16,00	16,00	26,00	92,00	●
1199824	F2AA2000ADL45	20,00	20,00	32,00	104,00	●

158-159	160	115-117	164

KenCut™ AL • F2AA-WMLX • Square End • 2 Flutes • Plain Shank • Metric



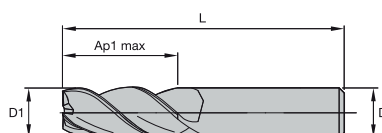
● first choice

○ alternate choice

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order number	catalogue number	D1	D	D3	Ap1 max	L3	L	Re	K600
2445703	F2AA0600AWM45R050	6,00	6,00	5,80	9,00	18,00	63,00	0,50	●
2445704	F2AA0600AWM45R100	6,00	6,00	5,80	9,00	18,00	63,00	1,00	●
2445705	F2AA0800AWM45R050	8,00	8,00	7,80	12,00	24,00	68,00	0,50	●
2430467	F2AA1000AWL45R050	10,00	10,00	9,50	15,00	30,00	76,00	0,50	●
2430507	F2AA1000AWL45R200	10,00	10,00	9,50	15,00	30,00	76,00	2,00	●
2430517	F2AA1000AWL45R300	10,00	10,00	9,50	15,00	30,00	76,00	3,00	●
2430468	F2AA1200AWL45R050	12,00	12,00	11,50	18,00	36,00	84,00	0,50	●
2430518	F2AA1200AWL45R300	12,00	12,00	11,50	18,00	36,00	84,00	3,00	●
2430513	F2AA1200AWL45R400	12,00	12,00	11,50	18,00	36,00	84,00	4,00	●
2430469	F2AA1600AWX45R050	16,00	16,00	15,00	24,00	48,00	100,00	0,50	●
2430509	F2AA1600AWX45R200	16,00	16,00	15,00	24,00	48,00	100,00	2,00	●
2430514	F2AA1600AWX45R400	16,00	16,00	15,00	24,00	48,00	100,00	4,00	●
2430470	F2AA2000AWX45R050	20,00	20,00	19,00	30,00	60,00	115,00	0,50	●
2430515	F2AA2000AWX45R400	20,00	20,00	19,00	30,00	60,00	115,00	4,00	●
2430471	F2AA2500AWX45R050	25,00	25,00	24,00	37,50	75,00	135,00	0,50	●

KenCut AL • F3AA-AWSL45 • Square End • 3 Flutes • Plain Shank • Metric



● first choice

○ alternate choice

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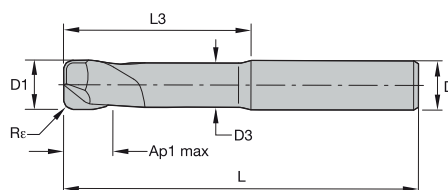
order number	catalogue number	D1	D	Ap1 max	L	K600
1805750	F3AA0300AWS45	3,00	3,00	12,00	38,00	●
1805929	F3AA0400AWS45	4,00	4,00	12,00	50,00	●
1805930	F3AA0500AWS45	5,00	6,00	14,00	50,00	●
1805931	F3AA0600AWS45	6,00	6,00	16,00	50,00	●
1805932	F3AA0800AWM45	8,00	8,00	20,00	63,00	●
1805983	F3AA1000AWL45	10,00	10,00	22,00	76,00	●
1805984	F3AA1200AWL45	12,00	12,00	25,00	76,00	●
1805985	F3AA1400AWL45	14,00	14,00	32,00	83,00	●
1805986	F3AA1600AWL45	16,00	16,00	32,00	89,00	●
1805987	F3AA1800AWL45	18,00	18,00	38,00	100,00	●
1805988	F3AA2000AWX45	20,00	20,00	38,00	104,00	●

158-159	160	115-117	164

KenCut™ AL • F3AA-WSMLX • Radiused • 3 Flutes • Extended Neck • Plain Shank • Metric

● first choice

○ alternate choice



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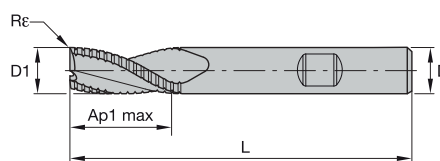
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2445707	F3AA0600AWM45R050	6,00	6,00	5,80	9,00	18,00	63,00	0,50	●
2445708	F3AA0600AWM45R100	6,00	6,00	5,80	9,00	18,00	63,00	1,00	●
2445709	F3AA0800AWM45R050	8,00	8,00	7,80	12,00	24,00	68,00	0,50	●
2445710	F3AA0800AWM45R100	8,00	8,00	7,80	12,00	24,00	68,00	1,00	●
2404945	F3AA1000AWL45R050	10,00	10,00	9,50	15,00	30,00	76,00	0,50	●
2404950	F3AA1000AWL45R100	10,00	10,00	9,50	15,00	30,00	76,00	1,00	●
2406115	F3AA1000AWL45R200	10,00	10,00	9,50	15,00	30,00	76,00	2,00	●
2429642	F3AA1000AWL45R300	10,00	10,00	9,50	15,00	30,00	76,00	3,00	●
2404951	F3AA1200AWL45R100	12,00	12,00	11,50	18,00	36,00	83,00	1,00	●
2406116	F3AA1200AWL45R200	12,00	12,00	11,50	18,00	36,00	83,00	2,00	●
2429673	F3AA1200AWL45R300	12,00	12,00	11,50	18,00	36,00	83,00	3,00	●
2406121	F3AA1200AWL45R400	12,00	12,00	11,50	18,00	36,00	83,00	4,00	●
2404946	F3AA1200AWL45R050	12,00	12,00	11,50	18,00	36,00	84,00	0,50	●
2404947	F3AA1600AWX45R050	16,00	16,00	15,00	24,00	48,00	100,00	0,50	●
2404952	F3AA1600AWX45R100	16,00	16,00	15,00	24,00	48,00	100,00	1,00	●
2406117	F3AA1600AWX45R200	16,00	16,00	15,00	24,00	48,00	100,00	2,00	●
2429674	F3AA1600AWX45R300	16,00	16,00	15,00	24,00	48,00	100,00	3,00	●
2406122	F3AA1600AWX45R400	16,00	16,00	15,00	24,00	48,00	100,00	4,00	●
2404948	F3AA2000AWX45R050	20,00	20,00	19,00	30,00	60,00	115,00	0,50	●
2406113	F3AA2000AWX45R100	20,00	20,00	19,00	30,00	60,00	115,00	1,00	●
2406118	F3AA2000AWX45R200	20,00	20,00	19,00	30,00	60,00	115,00	2,00	●
2429675	F3AA2000AWX45R300	20,00	20,00	19,00	30,00	60,00	115,00	3,00	●
2404949	F3AA2500AWX45R050	25,00	25,00	24,00	37,50	75,00	135,00	0,50	●
2406114	F3AA2500AWX45R100	25,00	25,00	24,00	37,50	75,00	135,00	1,00	●
2406119	F3AA2500AWX45R200	25,00	25,00	24,00	37,50	75,00	135,00	2,00	●

158-159	160	115-117	164

KenCut™ ALR • F3BA-WSMLX • Radiused • 3 Flutes • Weldon® Shank • Metric

● first choice

○ alternate choice



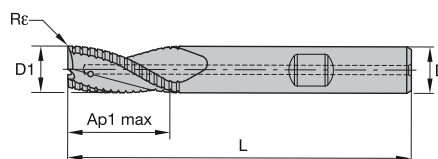
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order number	catalogue number	D1	D	Ap1 max	L	Rε	K600
1805808	F3BA0600BWS40	6,00	6,00	13,00	57,00	0,25	●
1807047	F3BA0800BWM40	8,00	8,00	16,00	63,00	0,25	●
1807048	F3BA1000BWM40	10,00	10,00	22,00	72,00	0,50	●
1807049	F3BA1200BWL40	12,00	12,00	26,00	83,00	0,50	●
1807050	F3BA1600BWL40	16,00	16,00	32,00	92,00	1,00	●
1807051	F3BA2000BWX40	20,00	20,00	38,00	104,00	1,00	●
1807052	F3BA2500BWX40	25,00	25,00	45,00	121,00	1,50	●

KenCut ALR • F3BA-WSMLX • Radiused • 3 Flutes • Internal Coolant • Weldon Shank • Metric

● first choice

○ alternate choice

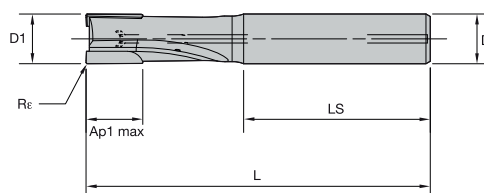


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order number	catalogue number	D1	D	Ap1 max	L	Rε	K600
1805825	F3BA0800BWM40C160	8,00	8,00	16,00	63,00	0,25	●
1807346	F3BA1000BWM40C220	10,00	10,00	22,00	72,00	0,50	●
1807347	F3BA1200BWL40C260	12,00	12,00	26,00	83,00	0,50	●
1807348	F3BA1600BWL40C320	16,00	16,00	32,00	92,00	1,00	●
1807349	F3BA2000BWX40C380	20,00	20,00	38,00	104,00	1,00	●
1807350	F3BA2500BWX40C450	25,00	25,00	45,00	121,00	1,50	●

158–159	160	115–117	164

KenCut™ AQ • ALCB • Radiused • 2 Flutes • 1 x D • Internal Coolant • Plain Shank • Metric



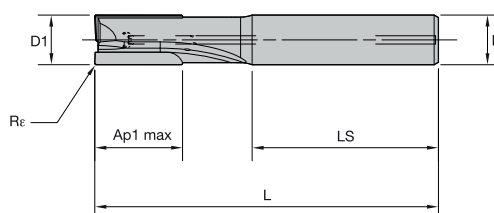
● first choice

○ alternate choice

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order number	catalogue number	D1	D	Ap1 max	L	LS	Re	KD1410
6752771	ALCB2RA0600N006HAR020IM	6,00	6,00	6,00	57,00	36,00	0,20	●
6752772	ALCB2RA0800N008HAR020IM	8,00	8,00	8,00	63,00	36,00	0,20	●
6752773	ALCB2RA1000N010HAR020IM	10,00	10,00	10,00	76,00	40,00	0,20	●
6752774	ALCB2RA1200N012HAR030IM	12,00	12,00	12,00	83,00	45,00	0,30	●
6752775	ALCB2RA1600N016HAR030IM	16,00	16,00	16,00	95,00	48,00	0,30	●
6752776	ALCB2RA2000N020HAR030IM	20,00	20,00	20,00	108,00	50,00	0,30	●

KenCut AQ • ALCC • Radiused • 2 Flutes • 1,5 x D • Internal Coolant • Plain Shank • Metric



● first choice

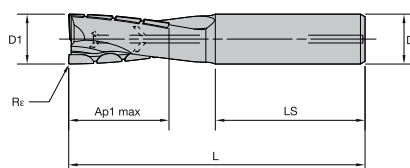
○ alternate choice

P	
M	
K	
N	●
S	
H	

order number	catalogue number	D1	D	Ap1 max	L	LS	Re	KD1410
6752777	ALCC2RA0600N010HAR020IM	6,00	6,00	10,00	57,00	36,00	0,20	●
6752778	ALCC2RA0800N015HAR020IM	8,00	8,00	15,00	63,00	36,00	0,20	●
6752779	ALCC2RA1000N015HAR020IM	10,00	10,00	15,00	76,00	40,00	0,20	●
6752780	ALCC2RA1200N020HAR030IM	12,00	12,00	20,00	83,00	45,00	0,30	●
6752791	ALCC2RA1600N025HAR030IM	16,00	16,00	25,00	95,00	48,00	0,30	●
6752792	ALCC2RA20600N028HAR030IM	20,00	20,00	28,00	108,00	50,00	0,30	●

158-159	160	115-117	164

KenCut™ AQ • ALCR • Radiused • 2 Flutes • 2 x D • Internal Coolant • Plain Shank • Metric



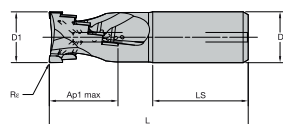
● first choice

○ alternate choice

P	
M	
K	
N	●
S	
H	

order number	catalogue number	D1	D	Ap1 max	L	LS	Re		KD1410
6752793	ALCR2RA1200N024HAR030IM	12,00	12,00	24,00	83,00	45,00	0,30	●	
6752794	ALCR2RA1600N032HAR030IM	16,00	16,00	32,00	95,00	48,00	0,30	●	
6752795	ALCR2RA2000N040HAR030IM	20,00	20,00	40,00	108,00	50,00	0,30	●	

KenCut AQ • ALSR • Radiused • 2–3 Flutes • 1,25 x D • Helical • Internal Coolant • Plain Shank • Metric



● first choice

○ alternate choice

P	
M	
K	
N	●
S	
H	

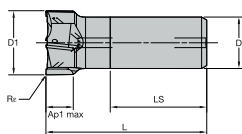
order number	catalogue number	D1	D	Ap1 max	L	LS	Re	Z U	KD1410
6752800	ALSR2RA2500N032HAR040IM	25,00	25,00	32,00	115,00	56,00	0,40	2	●
6752811	ALSR2RA3200N040HAR040IM	32,00	32,00	40,00	125,00	60,00	0,40	2	●
6752812	ALSR2RA4000N050HAR040IM	40,00	32,00	40,00	125,00	60,00	0,40	3	●

158–159	160	115–117	164

KenCut™ AQ • ALSB • Radiused • 4–5 Flutes • 1,25 x D • Internal Coolant • Plain Shank • Metric

● first choice

○ alternate choice



P	
M	
K	
N	●
S	
H	

order number	catalogue number	D1	D	Ap1 max	L	LS	Rε	Z U	KD1410
6752796	ALSB4RA2500N015HAR040IM	25,00	25,00	15,00	100,00	56,00	0,40	4	●
6752797	ALSB4RA3200N015HAR040IM	32,00	32,00	15,00	100,00	60,00	0,40	4	●
6752798	ALSB4RA4000N015HAR040IM	40,00	32,00	15,00	100,00	60,00	0,40	4	●
6752799	ALSB5RA5000N015HAR040IM	50,00	32,00	15,00	100,00	60,00	0,40	5	●

MaxiMet™ • ABDE... • Extended Neck • Application Data • Metric



Material Group					K600		Feed per Tooth — fz information is for side milling (A). For slotting (B), reduce fz by 20%.						
	A		B	Cutting Speed — vc m/min			D1 — Diameter						
	ap	ae	ap	min	max	mm	6,0	8,0	10,0	12,0	16,0	20,0	
N	1	1 x D	0,5 x D	1,0 x D	500	2000	fz	0,060	0,080	0,100	0,120	0,160	0,200
	2	1 x D	0,5 x D	1,0 x D	500	1500	fz	0,054	0,072	0,090	0,108	0,144	0,180
	3	1 x D	0,5 x D	1,0 x D	500	1500	fz	0,042	0,056	0,070	0,084	0,112	0,140
	4	1 x D	0,5 x D	1,0 x D	400	750	fz	0,042	0,056	0,070	0,084	0,112	0,140
	5	1 x D	0,5 x D	1,0 x D	250	1000	fz	0,054	0,072	0,090	0,108	0,144	0,180

NOTE: Those guidelines may require variations to achieve optimum results. For better surface finish, reduce feed per tooth.

For cutting aluminum with high silicon, TiCN coating is recommended.

Ap for milling machine with ceramic bearings spindle, multiply by 0,5.

Above parameters are based on ideal conditions. For smaller taper machining centers, please adjust parameters accordingly on >12mm diameter.

For tools with reach >3 x D, reduce Fz by 20%.

For tools with reach >5 x D, reduce Fz by 30%.

For tools with reach >10 x D, reduce Vc and Fz by 30%.

			
158–159	160	115–117	164

MaxiMet™ • ABDE-ABDF • Extended Neck • Application Data • Metric



MaxiMet ABDE



MaxiMet ABDF

Material Group				ABDE... • ABDF...		Feed per Tooth — fz information is for side milling (A). For slotting (B), reduce fz by 20%.																	
		A		B	Cutting Speed — vc m/min			D1 — Diameter															
		ap	ae	ap	min	max	mm	1,5	2,0	3,0	4,0	6,0	8,0	10,0	12,0	14,0	16,0	18,0	20,0	25,0			
N	1	1,5 x D	0,5 x D	1,0 x D	500	2000	fz	0,014	0,018	0,027	0,036	0,054	0,072	0,090	0,108	0,126	0,144	0,162	0,180	0,225			
	2	1,5 x D	0,5 x D	1,0 x D	500	1500	fz	0,012	0,016	0,024	0,032	0,049	0,065	0,081	0,097	0,113	0,130	0,146	0,162	0,203			
	3	1,5 x D	0,5 x D	1,0 x D	500	1500	fz	0,009	0,013	0,019	0,025	0,038	0,050	0,063	0,076	0,088	0,101	0,113	0,126	0,158			
	4	1,5 x D	0,5 x D	1,0 x D	400	750	fz	0,009	0,013	0,019	0,025	0,038	0,050	0,063	0,076	0,088	0,101	0,113	0,126	0,158			
	5	1,5 x D	0,5 x D	1,0 x D	250	1000	fz	0,012	0,016	0,024	0,032	0,049	0,065	0,081	0,097	0,113	0,130	0,146	0,162	0,203			

KenCut™ AL • F1AA...WS-WM • Application Data • Metric



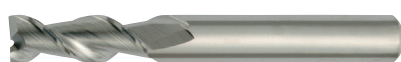
Material Group				K600		Feed per Tooth — fz information is for side milling (A). For slotting (B), reduce fz by 20%.									
		A		B	Cutting Speed — vc m/min			D1 — Diameter							
		ap	ae	ap	min	max	mm	2,0	3,0	4,0	5,0	6,0	8,0	10,0	12,0
N	1	1,2 x D	0,5 x D	1,0 x D	500	2000	fz	0,014	0,021	0,028	0,035	0,042	0,056	0,070	0,084
	2	1,2 x D	0,5 x D	1,0 x D	500	1500	fz	0,013	0,019	0,025	0,032	0,038	0,050	0,063	0,076
	3	1,2 x D	0,5 x D	1,0 x D	500	1500	fz	0,010	0,015	0,020	0,025	0,029	0,039	0,049	0,059
	4	1,2 x D	0,5 x D	1,0 x D	400	750	fz	0,010	0,015	0,020	0,025	0,029	0,039	0,049	0,059
	5	1,2 x D	0,5 x D	1,0 x D	250	1000	fz	0,013	0,019	0,025	0,032	0,038	0,050	0,063	0,076

NOTE: Ap for milling machine with ceramic bearings spindle, multiply by 0,5.

For better surface finish, reduce feed per tooth.

Above parameters are based on ideal conditions. For smaller taper machining centers, please adjust parameters accordingly on >12mm diameter.

KenCut™ AL • F3BA-F3AA-F2AA • Application Data • Metric



KenCut AL – F2AA..ADL



KenCut AL – F3AA..AWS/L45



KenCut AL – F2AA..WM-WL-WX



KenCut AL – F3AA..WSMLX



KenCut AL – F3BA..WS-WM-WL-WX

Material Group				F3BA-F3AA-F2AA		Feed per Tooth — fz information is for side milling (A). For slotting (B), reduce fz by 20%.														
		A		B	Cutting Speed — vc m/min			D1 — Diameter												
		ap	ae	ap	min	max	mm	1,5	2,0	3,0	4,0	6,0	8,0	10,0	12,0	14,0	16,0	18,0	20,0	25,0
N	1	1,5 x D	0,5 x D	1,0 x D	500	2000	fz	0,014	0,018	0,027	0,036	0,054	0,072	0,090	0,108	0,126	0,144	0,162	0,180	0,225
	2	1,5 x D	0,5 x D	1,0 x D	500	1500	fz	0,012	0,016	0,024	0,032	0,049	0,065	0,081	0,097	0,113	0,130	0,146	0,162	0,203
	3	1,5 x D	0,5 x D	1,0 x D	500	1500	fz	0,009	0,013	0,019	0,025	0,038	0,050	0,063	0,076	0,088	0,101	0,113	0,126	0,158
	4	1,5 x D	0,5 x D	1,0 x D	400	750	fz	0,009	0,013	0,019	0,025	0,038	0,050	0,063	0,076	0,088	0,101	0,113	0,126	0,158
	5	1,5 x D	0,5 x D	1,0 x D	250	1000	fz	0,012	0,016	0,024	0,032	0,049	0,065	0,081	0,097	0,113	0,130	0,146	0,162	0,203

KenCut AL • F3BA...DL4... • Application Data • Metric



Material Group						K600		Feed per Tooth — fz information is for side milling (A). For slotting (B), reduce fz by 20%.						
		A		B										
		ap	ae	ap	min	max	mm	6,0	8,0	10,0	12,0	16,0	18,0	20,0
N	1	1,0 x D	0,5 x D	1,0 x D	500	2000	fz	0,078	0,104	0,130	0,156	0,208	0,234	0,260
	2	1,0 x D	0,5 x D	1,0 x D	500	1500	fz	0,070	0,094	0,117	0,140	0,187	0,211	0,234
	3	1,0 x D	0,5 x D	1,0 x D	500	1500	fz	0,055	0,073	0,091	0,109	0,146	0,164	0,182
	4	1,0 x D	0,5 x D	1,0 x D	400	750	fz	0,055	0,073	0,091	0,109	0,146	0,164	0,182
	5	1,0 x D	0,5 x D	1,0 x D	250	1000	fz	0,070	0,094	0,117	0,140	0,187	0,211	0,234

NOTE: Those guidelines may require variations to achieve optimum results. For better surface finish, reduce feed per tooth.

Above parameters are based on ideal conditions. For smaller taper machining centers, please adjust parameters accordingly on >12mm diameter.

For cutting aluminum with high silicon, TiCN coating is recommended.

Ap for milling machine with ceramic bearings spindle, multiply by 0,5.

Side milling applications — for longest reach (L3) tools, reduce Ae by 30%.

Slot milling applications — for longest reach (L3) tools, reduce Ae by 30%.

KenCut™ ALR • F3BA...BWS/M/L/X40... • Application Data • Metric



Material Group					K600		Feed per Tooth — fz information is for side milling (A). For slotting (B), reduce fz by 20%.								
	A		B		Cutting Speed — vc m/min		D1 — Diameter								
	ap	ae	ap		min	max	mm	6,0	8,0	10,0	12,0	16,0	18,0	20,0	25,0
N	1	1,5 x D	0,5 x D	1,0 x D	500	2000	fz	0,072	0,096	0,120	0,144	0,192	0,216	0,240	0,300
	2	1,5 x D	0,5 x D	1,0 x D	500	1500	fz	0,065	0,086	0,108	0,130	0,173	0,194	0,216	0,270
	3	1,5 x D	0,5 x D	1,0 x D	500	1500	fz	0,050	0,067	0,084	0,101	0,134	0,151	0,168	0,210
	4	1,5 x D	0,5 x D	1,0 x D	400	750	fz	0,050	0,067	0,084	0,101	0,134	0,151	0,168	0,210
	5	1,5 x D	0,5 x D	1,0 x D	250	1000	fz	0,065	0,086	0,108	0,130	0,173	0,194	0,216	0,270

NOTE: Ap for milling machine with ceramic bearings spindle, multiply by 0,5.

For better surface finish, reduce feed per tooth.

Above parameters are based on ideal conditions. For smaller taper machining centers, please adjust parameters accordingly on >12mm diameter.

KenCut ALR • F3BA..BWM/L/X40C.. • Application Data • Metric



Material Group					K600		Feed per Tooth — fz information is for side milling (A). For slotting (B), reduce fz by 20%.								
	A		B		Cutting Speed — vc m/min		D1 — Diameter								
	ap	ae	ap		min	max	mm	6,0	8,0	10,0	12,0	16,0	18,0	20,0	25,0
N	1	1,5 x D	0,5 x D	1,25 x D	500	2000	fz	0,072	0,096	0,120	0,144	0,192	0,216	0,240	0,300
	2	1,5 x D	0,5 x D	1,25 x D	500	1500	fz	0,065	0,086	0,108	0,130	0,173	0,194	0,216	0,270
	3	1,5 x D	0,5 x D	1,25 x D	500	1500	fz	0,050	0,067	0,084	0,101	0,134	0,151	0,168	0,210
	4	1,5 x D	0,5 x D	1,25 x D	400	750	fz	0,050	0,067	0,084	0,101	0,134	0,151	0,168	0,210
	5	1,5 x D	0,5 x D	1,25 x D	250	1000	fz	0,065	0,086	0,108	0,130	0,173	0,194	0,216	0,270

NOTE: Ap for milling machine with ceramic bearings spindle, multiply by 0,5.

For better surface finish, reduce feed per tooth.

Above parameters are based on ideal conditions. For smaller taper machining centers, please adjust parameters accordingly on >12mm diameter.

MaxiMet & KenCut AL/ALR-Series • Adjustment Factor for Feed and Speed Calculation • Metric

	Ae/D	2%	4%	5%	8%	10%	12%	20%	30%	40%	50%	100%
Speed factor	Kv	2,1—3,6	1,6—3	1,6—2,5	1,6	1,4	1,38	1,3	1,2	1,1	1	0,9
Feed factor	KFz	3,58	2,56	2,3	1,84	1,67	1,54	1,25	1,09	1,02	1	1

NOTE: For an Ae/D ratio of 5% or less there is a range given for speed factor Kv, which allows the user to either be more conservative at the lower value or more aggressive with the higher value.

This can also be considered based on the machinability of the material, from difficult to free cutting.

These calculations are for roughing/semi-finishing cuts when used with the recommended base Fz.

For light finishing cuts requiring improved surface quality it is recommended to reduce the base Fz approximately 50% and then apply these factors.

To calculate application specific cutting data, please use Kv coefficient table to the right for adaptation of cutting speed and KFz for feed respectively.

$$Vc_{new} = Vc \cdot Kv$$

$$Fz_{new} = IPT \cdot KFz$$

Calculation example:

Application: D1 = 20mm;
N2 material group (Maximet ABDE);
Ae 2,0mm (Ae = 10% of D1)
Cutting data recommendation: 1500m/min;
Fz = 0,180mm/z
Adjustment coefficients: Ae = 2,0mm equals 10%;
Kv = 1,4; KFz = 1,67

Final cutting data recommendation:

Vc new = 1500 * 1,4 = 2100mm/min
Fz new = 0,180 * 1,67 = 0,301mm/z

KenCut™ AQ • ALCB • Application Data • Metric



Material Group			KD1410				Recommended feed per tooth (fz = mm/th) for side milling (A). For slotting (B), reduce fz by 20%.							
	A		B	Cutting Speed — vc m/min				D1 — Diameter						
	ap	ae	ap	min		max	mm	6,0	8,0	10,0	12,0	16,0	20,0	
N	1	1 x D	0,25 x D	0,5 x D	200	—	3000	Fz	0,070	0,080	0,090	0,140	0,160	0,160
	2	1 x D	0,25 x D	0,5 x D	200	—	3000	Fz	0,070	0,080	0,090	0,140	0,160	0,160
	3	1 x D	0,25 x D	0,5 x D	180	—	1400	Fz	0,060	0,070	0,080	0,120	0,140	0,140
	4	1 x D	0,25 x D	0,5 x D	200	—	800	Fz	0,060	0,070	0,080	0,100	0,120	0,120
	5	1 x D	0,25 x D	0,5 x D	200	—	1000	Fz	0,050	0,060	0,070	0,090	0,100	0,100
	6	1 x D	0,25 x D	0,5 x D	150	—	800	Fz	0,040	0,050	0,060	0,060	0,080	0,080
	7	1 x D	0,25 x D	0,5 x D	250	—	500	Fz	0,040	0,050	0,060	0,060	0,080	0,080

NOTE: Maximum allowed operation speed 30000 rev./min.
Maximum allowed cutting speed 3000 m/min

KenCut AQ • ALCC • Application Data • Metric



Material Group					KD1410		Recommended feed per tooth (fz = mm/th) for side milling (A). For slotting (B), reduce fz by 20%.						
	A		B		Cutting Speed — vc m/min		mm	D1 — Diameter					
	ap	ae	ap		min	max		6,0	8,0	10,0	12,0	16,0	
N	1	1,5 x D	0,15 x D	0,5 x D	200	—	3000	Fz	0,070	0,080	0,090	0,140	0,160
	2	1,5 x D	0,15 x D	0,5 x D	200	—	3000	Fz	0,070	0,080	0,090	0,140	0,160
	3	1,5 x D	0,15 x D	0,5 x D	180	—	1400	Fz	0,060	0,070	0,080	0,120	0,140
	4	1,5 x D	0,15 x D	0,5 x D	200	—	800	Fz	0,060	0,070	0,080	0,100	0,120
	5	1,5 x D	0,15 x D	0,5 x D	200	—	1000	Fz	0,050	0,060	0,070	0,090	0,100
	6	1,5 x D	0,15 x D	0,5 x D	150	—	800	Fz	0,040	0,050	0,060	0,060	0,080
	7	1,5 x D	0,15 x D	0,5 x D	250	—	500	Fz	0,040	0,050	0,060	0,060	0,080

NOTE: Maximum allowed operation speed 30000 rev./min.
Maximum allowed cutting speed 3000 m/min

KenCut AQ • ALCR • Application Data • Metric



Material Group					KD1410		Recommended feed per tooth (fz = mm/th) for side milling (A). For slotting (B), reduce fz by 20%.				
	A		B		Cutting Speed — vc m/min		mm	D1 — Diameter			
	ap	ae	ap		min	max		12,0	16,0	20,0	
N	1	2 x D	0,2 x D	0,5 x D	200	—	3000	Fz	0,140	0,160	0,160
	2	2 x D	0,2 x D	0,5 x D	200	—	3000	Fz	0,140	0,160	0,160
	3	2 x D	0,2 x D	0,5 x D	180	—	1400	Fz	0,120	0,140	0,140
	4	2 x D	0,2 x D	0,5 x D	200	—	800	Fz	0,100	0,120	0,120
	5	2 x D	0,2 x D	0,5 x D	200	—	1000	Fz	0,090	0,100	0,100
	6	2 x D	0,2 x D	0,5 x D	150	—	800	Fz	0,060	0,080	0,080
	7	2 x D	0,2 x D	0,5 x D	250	—	500	Fz	0,060	0,080	0,080

NOTE: Maximum allowed operation speed 30000 rev./min.
Maximum allowed cutting speed 3000 m/min

KenCut™ AQ • ALSB • Application Data • Metric



Material Group					KD1410			Recommended feed per tooth (fz = mm/th) for side milling (A). For slotting (B), reduce fz by 20%.				
	A		B	Cutting Speed — vc m/min				D1 — Diameter				
	ap	ae	ap	min		max	mm	25,0	32,0	40,0	50,0	
N	1	L10	0,25 x D	0,5 x L10	200	—	3000	Fz	0,180	0,200	0,200	0,220
	2	L10	0,25 x D	0,5 x L10	200	—	3000	Fz	0,180	0,200	0,200	0,220
	3	L10	0,25 x D	0,5 x L10	180	—	1400	Fz	0,160	0,180	0,180	0,200
	4	L10	0,25 x D	0,5 x L10	200	—	800	Fz	0,140	0,160	0,160	0,180
	5	L10	0,25 x D	0,5 x L10	200	—	1000	Fz	0,120	0,120	0,120	0,140
	6	L10	0,25 x D	0,5 x L10	150	—	800	Fz	0,100	0,100	0,100	0,120
	7	L10	0,25 x D	0,5 x L10	250	—	500	Fz	0,100	0,100	0,100	0,120

NOTE: Maximum allowed operation speed 30000 rev./min.
Maximum allowed cutting speed 3000 m/min

KenCut AQ • ALSR • Application Data • Metric



Material Group					KD1410			Recommended feed per tooth (fz = mm/th) for side milling (A). For slotting (B), reduce fz by 20%.			
	A		B		Cutting Speed — vc m/min			D1 — Diameter			
	ap	ae	ap		min		max	mm	25,0	32,0	40,0
N	1	1,25 x D	0,2 x D	0,25 x D	200	—	3000	Fz	0,180	0,200	0,200
	2	1,25 x D	0,2 x D	0,25 x D	200	—	3000	Fz	0,180	0,200	0,200
	3	1,25 x D	0,2 x D	0,25 x D	180	—	1400	Fz	0,160	0,180	0,180
	4	1,25 x D	0,2 x D	0,25 x D	200	—	800	Fz	0,140	0,160	0,160
	5	1,25 x D	0,2 x D	0,25 x D	200	—	1000	Fz	0,120	0,120	0,120
	6	1,25 x D	0,2 x D	0,25 x D	150	—	800	Fz	0,100	0,100	0,100
	7	1,25 x D	0,2 x D	0,25 x D	250	—	500	Fz	0,100	0,100	0,100

NOTE: Maximum allowed operation speed 30000 rev./min.
Maximum allowed cutting speed 3000 m/min