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KENNAMETAL®

MASTER CATALOG 2018

VOLUME TWO | **ROTATING** TOOLS

HOLEMAKING | TAPPING | SOLID END MILLING | INDEXABLE MILLING

DUO-λOCK® MaxiMet™

High-Performance Modular Solid Carbide End Mills

Primary Application

The MaxiMet system provides extraordinary metal removal rates by combining roughing and finishing operations with any aluminum plunging, slotting, and profiling application. Its proprietary flute geometry is designed for high stiffness and improved chip evacuation to generate exceptional wall-to-floor perpendicularity, even in thin-wall applications. To ensure a superior floor surface finish, the MaxiMet front geometry is equipped with a wiper facet grind.

- Only one tool needed for roughing and finishing operations.
- Slotting depths up to 1 x D and side milling up to 0.5 x D radial and 1.5 x D axial engagement.
- Unequal flute spacing for chatter-free performance with 3-flute series.
- Multiple corner radii and extended neck configurations available as standard.

Features and Benefits

Advanced Technology

- Increase output with fewer tool changes and higher metal removal rates.
- No specific tools necessary for roughing and finishing.
- Fewer passes due to 1 x D slotting capability.
- Perfect for MQL (minimum quantity lubrication) methods.

Tailored Grades

- K600 uncoated grade for longest tool life in aluminum and other non-ferrous materials.

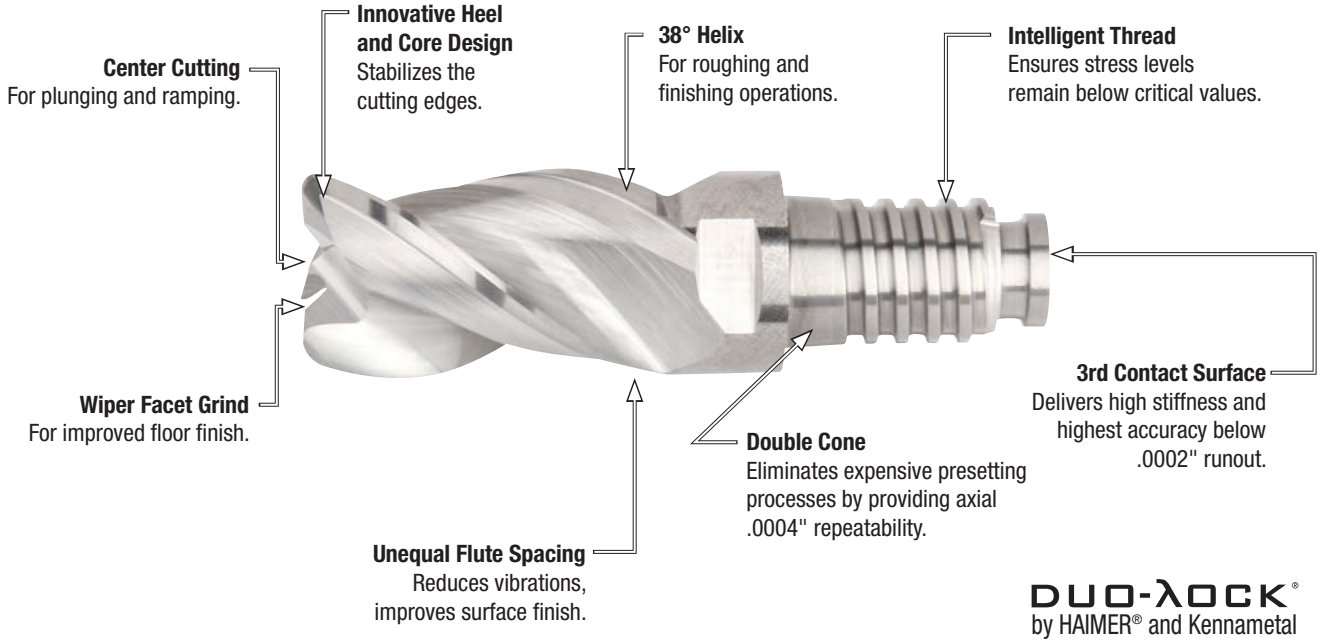
Customization

- Intermediate diameters are available between 3/8–1 1/4".

Extensive Standard Offering

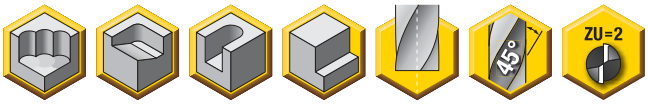
- Diameter ranges 3/8–1".
- Necked, corner radii, and square-end tips available.
- Integral adapters reduce the amount of interface for maximum accuracy. Steel extensions with Safe-Lock™ by HAIMER shanks prevent pullout.
- Cut-to-size extra-long extensions available upon request off the shelf.

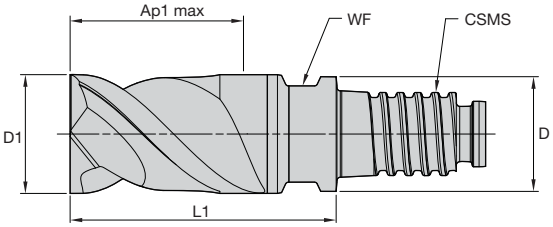
For high metal removal rates and superior surface finishes.



DUO-LOCK®
by HAIMER® and Kennametal

- Center cutting.
- Optimized for thin-wall applications.
- Wiper facet, special end gash, and flute geometry enable improved surface finishes.
- Standard items listed. Additional styles and coatings made-to-order.

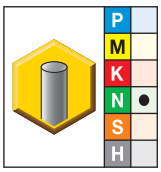




End Mill Tolerances

D1	tolerance e8
13/32–23/32"	-0,00126"/-0,00232"
23/32–1-3/16"	-0,00157"/-0,00287"

ABDF • 2 Flute • Inch



● first choice
○ alternate choice

K600	D1	D	Ap1 max	L1	CSMS system size	WF
ABDF0375Y2CU	3/8	.359	9/16	.843	DL10	.315
ABDF0500Y2CU	1/2	.480	3/4	1.126	DL12	.374
ABDF0625Y2CU	5/8	.605	15/16	1.406	DL16	.512
ABDF0750Y2CU	3/4	.730	1 1/8	1.689	DL20	.630

NOTE: For application data, please see page O30.

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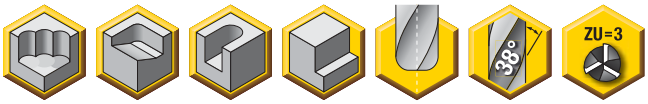
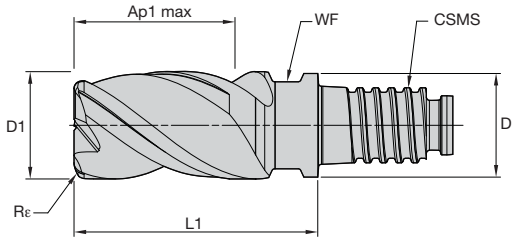
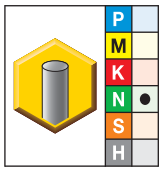




End Mill Tolerances

D1	tolerance e8
13/32–23/32"	-0,00126"/-0,00232"
23/32–1-3/16"	-0,00157"/-0,00287"

ABDE • 3 Flute • Inch

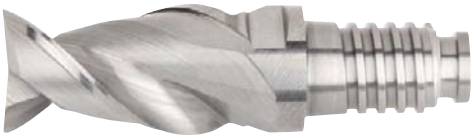


● first choice
○ alternate choice

K600	D1	D	Ap1 max	L1	CSMS system size	WF	Rε
ABDE0375Y3CQA	3/8	.359	9/16	.843	DL10	.315	.015
ABDE0375Y3CQB	3/8	.359	9/16	.843	DL10	.315	.030
ABDE0375Y3CQC	3/8	.359	9/16	.843	DL10	.315	.060
ABDE0375Y3CQD	3/8	.359	9/16	.843	DL10	.315	.090
ABDE0500Y3CQA	1/2	.480	3/4	1.126	DL12	.374	.015
ABDE0500Y3CQB	1/2	.480	3/4	1.126	DL12	.374	.030
ABDE0500Y3CQC	1/2	.480	3/4	1.126	DL12	.374	.060
ABDE0500Y3CQD	1/2	.480	3/4	1.126	DL12	.374	.090
ABDE0500Y3CQE	1/2	.480	3/4	1.126	DL12	.374	.120
ABDE0625Y3CQA	5/8	.605	15/16	1.406	DL16	.512	.015
ABDE0625Y3CQB	5/8	.605	15/16	1.406	DL16	.512	.030
ABDE0625Y3CQC	5/8	.605	15/16	1.406	DL16	.512	.060
ABDE0625Y3CQD	5/8	.605	15/16	1.406	DL16	.512	.090
ABDE0625Y3CQE	5/8	.605	15/16	1.406	DL16	.512	.120
ABDE0750Y3CQB	3/4	.730	1 1/8	1.689	DL20	.630	.030
ABDE0750Y3CQC	3/4	.730	1 1/8	1.689	DL20	.630	.060
ABDE0750Y3CQD	3/4	.730	1 1/8	1.689	DL20	.630	.090
ABDE0750Y3CQE	3/4	.730	1 1/8	1.689	DL20	.630	.120
ABDE1000Y3CQB	1	.961	1 1/2	2.252	DL25	.827	.030
ABDE1000Y3CQC	1	.961	1 1/2	2.252	DL25	.827	.060
ABDE1000Y3CQD	1	.961	1 1/2	2.252	DL25	.827	.090
ABDE1000Y3CQE	1	.961	1 1/2	2.252	DL25	.827	.120
ABDE1000Y3CQF	1	.961	1 1/2	2.252	DL25	.827	.250

NOTE: For application data, please see page O30.

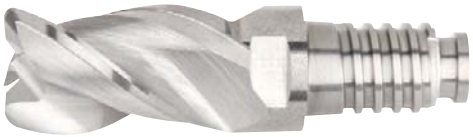
MaxiMet • ABDF • Wiper Facet



Material Group		Side Milling (A) and Slotting (B)			short			medium			long			Recommended feed per tooth (IPT = inch/th) for side milling (A). For slotting (B), reduce IPT by 20%.				
		A		B	adapter reach									D1 — Diameter				
					K600			K600			K600							
					Cutting Speed — vc SFM			Cutting Speed — vc SFM			Cutting Speed — vc SFM			frac.	3/8	1/2	5/8	3/4
		ap	ae	ap	min		max	min		max	min		max	dec.	.3750	.5000	.6250	.7500
N	1	1.5 x D	0.3 x D	1.0 x D	1640	–	6560	1312	–	3936	984	–	3936	IPT	.0029	.0038	.0048	.0057
	2	1.5 x D	0.3 x D	1.0 x D	1640	–	4920	1312	–	2952	984	–	2952	IPT	.0023	.0031	.0038	.0046
	3	1.5 x D	0.3 x D	1.0 x D	1640	–	4920	1312	–	2952	984	–	2952	IPT	.0020	.0027	.0033	.0040
	4	1.5 x D	0.3 x D	1.0 x D	1310	–	2460	1048	–	1476	786	–	1476	IPT	.0020	.0027	.0033	.0040
	5	1.5 x D	0.3 x D	1.0 x D	820	–	3280	656	–	1968	492	–	1968	IPT	.0026	.0034	.0043	.0052

NOTE: Ap for spindle with ceramic bearings multiply by 0.5.
For better surface finish reduce feed per tooth.
Above parameters are based on ideal conditions. Please adjust parameters according to system stability.
For side milling with Ap bigger than 1 x D reduce Fz by 20%!
Cylindrical shanks not recommended for full slotting.

MaxiMet • ABDE • Wiper Facet • Unequal Flute Spacing



Material Group		Side Milling (A) and Slotting (B)			short			medium			long			Recommended feed per tooth (IPT = inch/th) for side milling (A). For slotting (B), reduce IPT by 20%.				
		A		B	adapter reach									D1 — Diameter				
					K600			K600			K600							
					Cutting Speed — vc SFM			Cutting Speed — vc SFM			Cutting Speed — vc SFM			frac.	3/8	1/2	5/8	3/4
		ap	ae	ap	min		max	min		max	min		max	dec.	.3750	.5000	.6250	.7500
N	1	1.5 x D	0.3 x D	1.0 x D	1640	–	6560	1312	–	3936	984	–	3936	IPT	.0029	.0038	.0048	.0057
	2	1.5 x D	0.3 x D	1.0 x D	1640	–	4920	1312	–	2952	984	–	2952	IPT	.0023	.0031	.0038	.0046
	3	1.5 x D	0.3 x D	1.0 x D	1640	–	4920	1312	–	2952	984	–	2952	IPT	.0020	.0027	.0033	.0040
	4	1.5 x D	0.3 x D	1.0 x D	1310	–	2460	1048	–	1476	786	–	1476	IPT	.0020	.0027	.0033	.0040
	5	1.5 x D	0.3 x D	1.0 x D	820	–	3280	656	–	1968	492	–	1968	IPT	.0026	.0034	.0043	.0052

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