



KENNAMETAL

MaxiMet™ Solid Carbide End Mill for Roughing and Finishing of Aluminum

Catalog Number: ABDF0500J2AS

Order Number: 3660426

[View Product Family](#)

Quantity

- +

MaxiMet™ Solid Carbide End Mill for Roughing and Finishing of Aluminum

- MaxiMet™ solid carbide end mills are very effective in thin wall applications.
- Centre cutting for plunging and ramping operations.
- Wiper facet, unique end gash, and unique flute geometry provide optimum surface finishes.
- *Made-to-order standard item.
- Standard pricing, manufacturing lead time, and minimum order quantity applies.

KENNAMETAL



Order Number: 3660426

Grade: K600

D1: 1/2

Ap1 max: 1 1/4

Z U: 2



Catalog Number: ABDF0500J2AS

Adapter Style Machine Side: Straight-Cylindrical

D: 1/2

L: 3

Configure: CSENMILL

Application



Materials



Feeds and Speeds

Inch Metric

Machine

Machine: None

Turns/Spindle: None

Cutting Parameters

Material: AISI - 6061

Operation: Slotting Side Milling

Axial Depth of Cut (ap) [in]: 0.013 to 1.25, current: 0.75

Radial Width Of Cut (ae) [in]: 0.005 to 0.15, current: 0.15

Cutting Speed (Vc) [ft/min]: 1822.689 to 5468.066, current: 3645.378

Feed Per Tooth (fz) [in]: 0.00116 to 0.0062, current: 0.00317

Catalog Number	A8DF0500J2AS	
Order Number	3660426	
Grade	K600	
Feed Per Tooth (fz)	0.00317	in
Cutting Speed (Vc)	3141.6	ft/min
Feed Rate (Vf)	152.16	in/min
Spindle Speed (n)	24000	rev/min
Material Removal Rate (MRR)	4.10071	in ³ /min
Feed per Revolution	0.00634	in/rev
Number of Effective Inserts / Flutes	2	
Power at Tool (Pcut)	2.00156	hp
Torque at Tool (Tcut)	0.43802	ft-lb
Max Chip Thickness (hx)	0.00162	in
Working Diameter (Dw)	0.5	in



Recommendation

Default OK

Millalyzer | Millalyzer (lophostrix.com)

Operation

Material: **AlMg1SiCu, 6061-T6**

Operation type: **straight shoulder**

Climb/down-milling Conventional/up-milling

Axial engagement [AP]: 0.770 in

Radial engagement [AE]: 0.0350 in

Spindle speed [N]: 24000 rpm

Cutting speed [VC]: 3141.59 ft/min

Linear feed [VF]: 152.0 in/min

Feed per tooth [FZ]: 3.17 thou

Uncut chip [HEX]: 1.62 thou

Select tool: **Kenametal ABDF0500J2AS**

Description: Flat D12.70 2F L31.8 45° (N)

Tool stiffness: 78.37 lbf/thou

Exposed length: 1.772 in

Lubrication: Dry - Air Blast

Edit tool... **Solve**

Forces **Simulation**

MRR: 4.10 in³/min

Specific work: 187 ksi

Heat load: 8.15 hp/in

Shear temperature: 500 °F

Tool stress: 9 ksi

Peak transverse: 23.8 lbf

Peak axial: 7.8 lbf

Peak feed: 14.2 lbf

Peak in-plane: 27.7 lbf

Mean transverse: -23.3 lbf

Mean axial: -7.6 lbf

Mean feed: 13.9 lbf (4.0 W)

Tolerance: 0.01, -0.58 thou

Power: 1441.9 W

Torque: 5.073 lbf-in

Tool life: 482.6 ft, 38:05, 156.062 in³

Status: OK

