END MILLS

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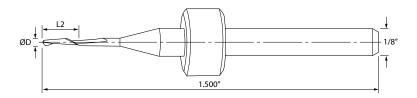
Single Flute Flexible Laminates End Mills

Diameter Range

0.0312" ~ 0.1250"



Single flute end mill designed for routing or milling printed circuit boards, plexiglass, soft materials, or soft metals.



STANDARD Flute Length (Inch)







			Dimens	ions (in)			
Part Number	Stock	End Mill Size	Cutting Diameter	Flute Length	Helix Angle	End Style	
			ØD	L2		,	
1500.0312.150D	•	1/32"	0.0312	0.1500	30°	Drill Point	
1500.0625.200D	•	1/16"	0.0625	0.2000	30°	Drill Point	
1500.0625.250	•	1/16"	0.0625	0.2500	30°	Square	
1500.0938.375	•	3/32"	0.0938	0.3700	30°	Square	
1500.1250.400	•	1/8"	0.1250	0.4000	30°	Square	



Additional diameters and special ring colors available upon request.

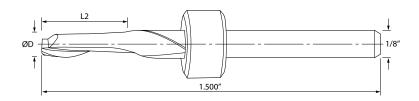


For recommended cutting conditions please visit: www.kyoceraprecisiontools.com/pcb/speeds-feeds

Single Flute Flexible Laminates End Mills

Diameter Range

0.80mm ~ 2.00mm



End Mill

Size

0.80mm

1.00mm

1.20mm

1.60mm

2.00mm

STANDARD Flute Length (Metric)

Stock

Part Number

1560.0315.094

1560.0394.118

1560.0472.142

1560.0630.189

1560.0787.236



Dimensions (mm)

Flute Length

L2

2.39

3.00

3.61

4.80

6.00

Cutting Diameter

ØD

0.800

1.000

1.200

1.600

2.000





	\odot
Helix Angle	
30°	
30°	
30°	
30°	

30°

Single flute end mill designed for routing or milling flexible printed circuit boards, plexiglass, or soft materials.

END MILLS

C

Part Numbers above include rings set at 0.800" - For Ringless Part Number, replace series "." with "-" (XXX-XXXX.XXXX) Additional diameters and special ring colors available upon request.



For recommended cutting conditions please visit: $\underline{www.kyoceraprecision tools.com/pcb/speeds-feeds}$

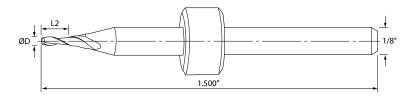
Two Flute Square End Mills

Diameter Range

0.0312" ~ 0.1250"



Two flute end mill designed for routing or milling printed circuit boards, plexiglass, soft materials, or soft metals.



STANDARD Flute Length (Inch)







			Dimens	ions (in)	
Part Number	Stock	End Mill Size	Cutting Diameter	Flute Length	Helix Angle
			ØD	L2	
1600.0312.120	•	1/32"	0.0312	0.1200	30°
1600.0500.200	•	0.0500"	0.0500	0.2000	30°
1600.0625.250	•	1/16"	0.0625	0.2500	30°
1600.0938.390	•	3/32"	0.0938	0.3900	30°
1600.1250.500	•	1/8"	0.1250	0.5000	30°



Part Numbers above include rings set at 0.800" - For Ringless Part Number, replace series "." with "-" (XXX-XXXX.XXXX) Additional diameters and special ring colors available upon request.

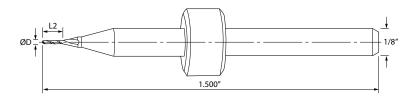


For recommended cutting conditions please visit: www.kyoceraprecisiontools.com/pcb/speeds-feeds

Two Flute

Square End Mills

Diameter Range 0.30mm ~ 3.00mm







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END MILLS

Two flute end mill designed for routing or milling printed circuit boards, plexiglass, soft materials, or soft metals.

STANDARD Flute Length (Metric)

			Dimensi	Dimensions (mm)		
Part Number Stock	Stock	End Mill Size	Cutting Diameter	Flute Length	Helix Angle	
			ØD	L2		
1600.0118.045	•	0.30mm	0.300	1.14	30°	
1600.0150.050	•	0.38mm	0.380	1.27	30°	
1600.0157.079	•	0.40mm	0.400	2.00	30°	
1600.0177.079	•	0.45mm	0.450	2.00	30°	
1600.0197.079	•	0.50mm	0.500	2.00	30°	
1600.0197.118	•	0.50mm	0.500	3.00	30°	
1600.0236.079	•	0.60mm	0.600	2.00	30°	
1600.0276.120	•	0.70mm	0.700	3.05	30°	
1600.0315.120	•	0.80mm	0.800	3.05	30°	
1600.0315.157	•	0.80mm	0.800	4.00	30°	
1600.0354.120	•	0.90mm	0.900	3.05	30°	
1600.0394.120	•	1.00mm	1.000	3.05	30°	
1600.0394.200	•	1.00mm	1.000	5.08	30°	
1600.0472.138	•	1.20mm	1.200	3.50	30°	
1600.0472.210	•	1.20mm	1.200	5.33	30°	
1600.0551.195	•	1.40mm	1.400	4.95	30°	
1600.0630.250	•	1.60mm	1.600	6.35	30°	
1600.0630.315	•	1.60mm	1.600	8.00	30°	
1600.0787.340	•	2.00mm	2.000	8.64	30°	
1600.0945.390	•	2.40mm	2.400	9.91	30°	
1600.1181.500	•	3.00mm	3.000	12.70	30°	

Part Numbers above include rings set at 0.800" - For Ringless Part Number, replace series "." with "-" (XXX-XXXX.XXXX) Additional diameters and special ring colors available upon request.



For recommended cutting conditions please visit: www.kyoceraprecisiontools.com/pcb/speeds-feeds

B5

Two Flute

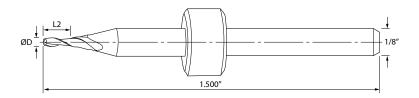
Square Flexible Laminates End Mills

Diameter Range

0.80mm



Two flute end mill designed for routing or milling flexible printed circuit boards, plexiglass, or soft materials.



STANDARD Flute Length (Metric)









			Dimensio	ons (mm)	
Part Number	Stock	End Mill Size	Cutting Diameter	Flute Length	Helix Angle
		ØD	L2	J.	
1660.0315.093	•	0.80mm	0.800	2.36	30°
1660.0630.295	•	1.60mm	1.600	7.50	16°



Additional diameters and special ring colors available upon request.

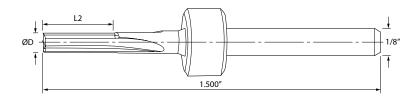


For recommended cutting conditions please visit: www.kyoceraprecisiontools.com/pcb/speeds-feeds

Three Flute Zero Helix End Mills

Diameter Range

0.80mm ~ 2.40mm



STANDARD Flute Length (Metric)







100

END MILLS

Three flute zero helix cutter designed for side routing printed circuit boards, gold tab connectors, soft materials, or soft metals.

			Dimension	ons (mm)	
Part Number	Stock	End Mill Size	Cutting Diameter	Flute Length	Helix Angle
			ØD	L2	
1730.0315.120	•	0.80mm	0.800	3.05	0°
1730.0630.315	•	1.60mm	1.600	8.00	0°
1730.0945.394	•	2.40mm	2.400	10.00	0°

Part Numbers above include rings set at 0.800" - For Ringless Part Number, replace series "." with "-" (XXX-XXXX.XXXX) Additional diameters and special ring colors available upon request.

> (U.S.) **1.888.848.9266** (International) 001.714.428.3655

Visit us online at ${\bf KyoceraPrecisionTools.com}$



For recommended cutting conditions please visit: www.kyoceraprecisiontools.com/pcb/speeds-feeds



Designed for Ultra-fine Edge Finish

When flawless edges are required

Great for soft PCB laminate materials and metals

Capable of surface milling and plunging

Smooth edges and cleanly cut fibers

Does not require use of entry material



Series 1735

Soft Laminate and Fine Metal Edge End Mill

Series 1735 End Mills designed to provide an ultra-fine edge finish on soft PCB laminate materials and metals that require flawless edges. End Style allows surface milling and plunging.

Flex products, Aramid reinforced materials, PTFE, most soft materials, and gold fingers are prime examples of the challenges posed to PCB Fabrication Departments worldwide. In some cases, parameters can be adjusted with standard tools to address the rough edges, raised burrs, and/or fibers. There are, however, cases that require special tools and methods. Specific to these cases, Kyocera Precision Tools introduces an upgrade to the 1730 design with surface milling and plunging capabilities.

In addition, these tools generally eliminate the requirement of entry material that is sometimes needed on this type of work when using conventional cutters.

* This product requires specific processes and operating parameters.

For optimal results, please contact a Kyocera Precision Tools field engineer.

Material: PTFE



Material: Gold Tabs/Connectors



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Three Flute

Square Flexible Laminates End Mills

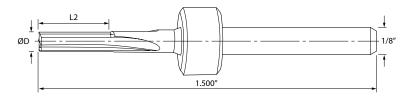
Diameter Range

0.1250"

0.80mm ~ 2.40mm



Three flute zero helix end mill designed for side routing or milling printed circuit boards, gold tab connectors, soft materials, or soft metals.



STANDARD Flute Length (Inch)







			Dimens	ions (in)	
Part Number	Stock	End Mill Size	Cutting Diameter	Flute Length	Helix Angle
			ØD	L2	
1735.1250.500	•	0.1250"	0.1250	0.5000	0°

STANDARD Flute Length (Metric)







			Dimensio	ons (mm)	
Part Number	Stock	End Mill Size	Cutting Diameter	Flute Length	Helix Angle
			ØD	L2	
1735.0315.138	•	0.80mm	0.800	3.50	0°
1735.0630.315	•	1.60mm	1.600	8.00	0°
1735.0945.315	•	2.40mm	2.400	8.00	0°



Additional diameters and special ring colors available upon request.



For recommended cutting conditions please visit: www.kyoceraprecisiontools.com/pcb/speeds-feeds

B10

Four Flute

Square End Mills

Part Number

1800.0625.200

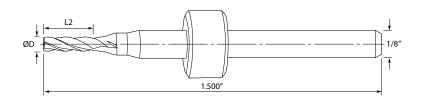
1800.0938.438

1800.1250.500

STANDARD Flute Length (Inch)

Stock

Diameter Range 0.0625" ~ 0.1250"



End Mill

Size

1/16"

3/32"

1/8"

30° (A)

Dimensions (in)

Flute Length

L2

0.2000

0.4380

0.5000

Cutting Diameter

ØD

0.0625

0.0938

0.1250





٩		4
	Helix Angle	
	30°	
	30°	
	30°	

Four flute end mill designed for routing or milling printed circuit boards.

Additional diameters and special ring colors available upon request.



For recommended cutting conditions please visit: $\underline{www.kyoceraprecision tools.com/pcb/speeds-feeds}$

KYOCERa.



END MILLS