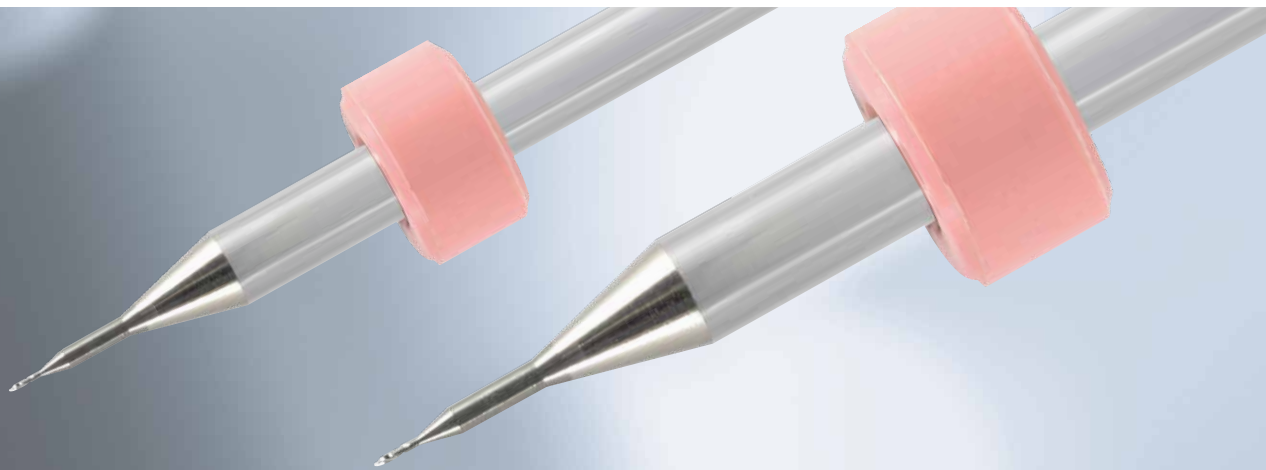




Series 102

HDI Drill Product Line



HDI / Blind Via Two Flute Tapered Non-Undercut Drills

Precise hole placement

Improved hole wall and top surface quality

Superior plating capability

Great for a Wide range of PCB applications

Series 102

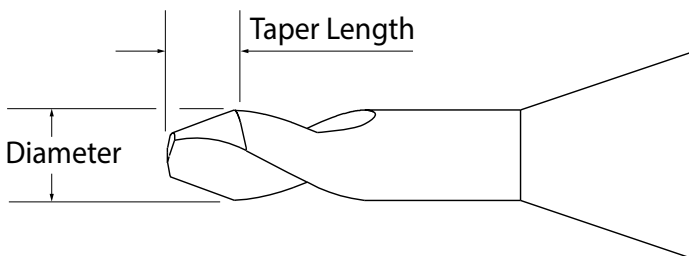
HDI Drill Product Line

Kyocera Precision Tools is committed to continuous improvement in all of its product offerings, particularly when faced with new PCB applications and materials. In order to meet these new challenges, Kyocera Precision Tools is pleased to introduce its new product to address HDI applications, Series 102 Drill product series. The new design demonstrates improved hole wall and top surface quality. Series 102 is a two flute product which has a designed side taper, promoting superior plating capability. This document details the product line developed in the Kyocera Precision Tools Development Lab in order to demonstrate to the PCB market the high performance of this new product.

Series 102 Design

Series 102 has a several design features promoting excellence in producing HDI type holes in PCB materials. The design is highlighted by:

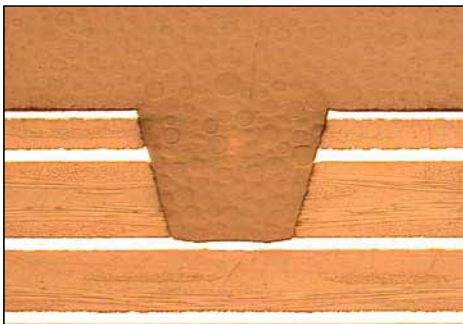
- Tapered cutting body producing a tapered hole leading to high plating reliability
- High point angle resulting in a relative flat bottom for precise hole placement and high plating integrity
- Cutting length designed to meet typical HDI demands
- Diameters available for wide range of applications



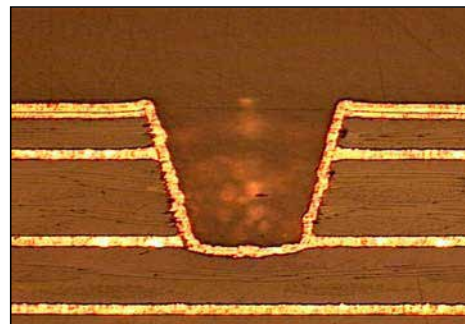
Series 102 Performance

Lab and beta site tests were conducted to ensure the product performed at an improved level that is both reliable and repeatable.

Series 102 0.25mm Drilled Hole - After Drill



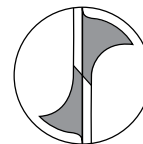
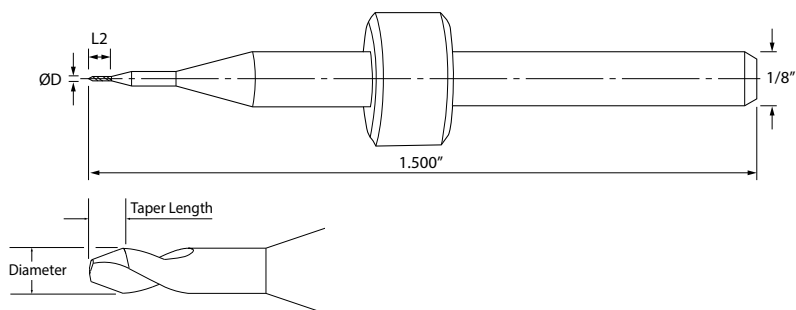
Series 102 0.25mm Drilled Hole - After Plating



Blind Via

Tapered Blind Via Non-Undercut Drills

Diameter Range
0.10mm ~ 0.70mm



4 Facet Point Geometry



Micro and small sized tapered body drills designed for HDI applications promoting superior plating capability.

STANDARD Flute Length (Metric)

Part Number	Stock	Drill Size	Dimensions (mm)				Point Angle
			Cutting Diameter	Tip Diameter	Taper Length	Flute Length	
			ØD			L2	
102.0039.030	●	0.10mm	0.100	0.041	0.08	0.40	175°
102.0050.030	●	0.13mm	0.130	0.053	0.10	0.50	175°
102.0059.030	●	0.15mm	0.150	0.064	0.12	0.60	175°
102.0079.050	●	0.20mm	0.200	0.084	0.16	0.80	175°
102.0098.050	●	0.25mm	0.250	0.104	0.20	1.00	175°
102.0118.075	●	0.30mm	0.300	0.104	0.27	1.20	175°
102.0157.075	●	0.40mm	0.400	0.137	0.36	1.60	175°
102.0177.100	●	0.45mm	0.450	0.122	0.45	1.35	175°
102.0197.100	●	0.50mm	0.500	0.137	0.50	1.50	175°
102.0217.100	●	0.55mm	0.550	0.150	0.55	1.65	175°
102.0236.100	●	0.60mm	0.600	0.163	0.60	1.80	175°
102.0256.100	●	0.65mm	0.650	0.178	0.65	1.95	175°
102.0276.125	●	0.70mm	0.700	0.191	0.70	2.10	175°



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



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