

DIE BONDING TOOLS

MPP's longstanding relationship with our customers, coupled with advanced engineering, design capabilities, and manufacturing know-how, allows us to provide our customers with a wide range of tools that position MPP as a leading designer and manufacturer of Die Bonding Tools.

Micro Point Pro offers a large selection of Die Bonding Tool designs for various application types from a wide range of materials custom designed for your unique assembly process and suitable for all Die Bonding machine models.

MPP OFFERS OUR CUSTOMERS



Best quality products with precise fine dimensions and excellent repeatability



Flexible Capacity to support customer demand



A comprehensive solution to bring the best cost of ownership



Short Lead Time to satisfy the fast moving microelectronics industry's challenges



MPP's Available Models of Die Bonding Tools



Die Collets

For high accuracy in die positioning, minimal contact between the die and the attachment tool, and a strong grip.

Die Collets Design Considerations

- Die Width x Die Length x Die Thickness
- Die engagement
- Interference considerations
- Vertical relief
- Machine type
- Open Collet - should be used when there is a limited clearance between the die and other components as well as when the die surface is uneven
- Close Collet - should be used when there is no clearance constraint between the die and other components.

Super Polish Solutions

- For sensitive die
- For large and small die sizes
- For a better yield due to less die edge breakage.
- MPP provides Roughness Average (Ra) of MIRROR Finish up to 0.05 μm (N4 grade)

Die Ejector Pins

MPP ejector pins are designed and manufactured for various needle shapes with different radius sizes.

- For small die applications - use sub-micron grade carbide that resists tip chipping
- For larger die or for non-piercing ejection - recommend wear-resistant carbide and an enlarged radius to reduce micro-cracking

Pick-Up Tools

Mainly used to prevent chipping, achieve accurate die positioning, and for cold temperature process.

Main Pick-Up Tools Options

- Suitable for a large range of die sizes (0.1mm - 70mm).
- Wide variation of material types, such as: plastics, ceramics, carbides, and metal based.
- The tools can work in as low as room temperature and as high as 480°C.
- MPP Offers different Electro Static Discharge ESD safe materials upon request.

Pick-Up Tools Design Considerations

- Die Width x Die Length x Die Thickness
- Material Selection:
 - Ceramics - Alumina (Al_2O_3), Zirconia (ZrO_2)
 - Carbides - Tungsten Carbide (WC)
 - Plastic - Vespel, Delrin, PEEK, PEEK ESD, POM-H, Teflon, Other
 - Metals - Stainless Steel, High-Speed Steel, Brass, Copper, Aluminum
- Tip Dimensions & Configuration:
 - Square dies > Round Pick-Up Tool Tip
 - Rectangular Tip > Rectangular Pick-Up Tool Tip
 - Machine type - MPP provides a wide selection of Pick Up tools to fit all types of machines in the market

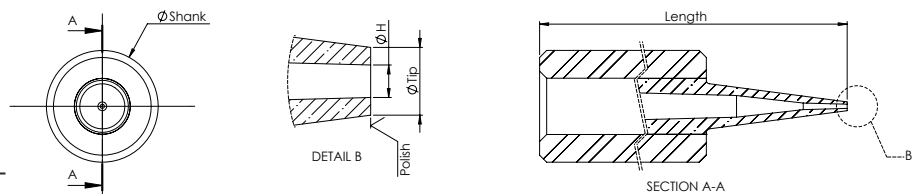
MPP also provides Die Shear tools, Stamping tools and Spanking tools, as part of our wide array of Die Bonding tools.

MPP's technical experts are ready to support you with customized solutions for all application challenges

For more information please visit our website, www.mpptools.com

or contact us directly at sales@mpptools.com

Pick-Up Tools



Die Collets

