

TAB and Magnetic Head Bonding Tools



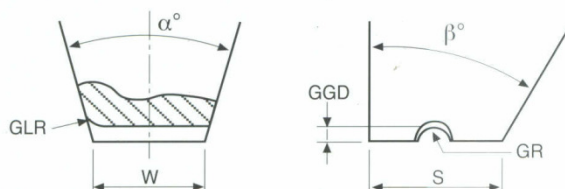
- ISO 9001 Certified
- Precision & Repeatability
- Custom-made Tools
- High-quality Materials

MP Micro Point Pro

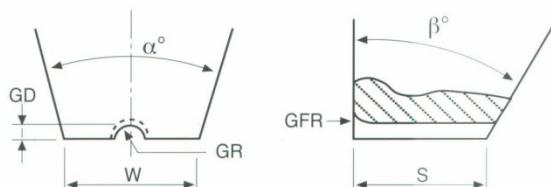
Bonding Tool – Grooved Tip

Model 4510G

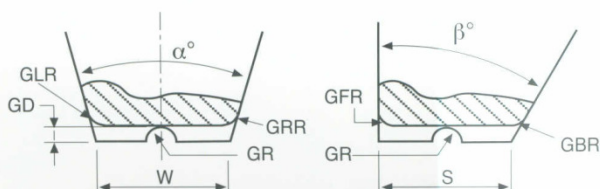
Tip Options



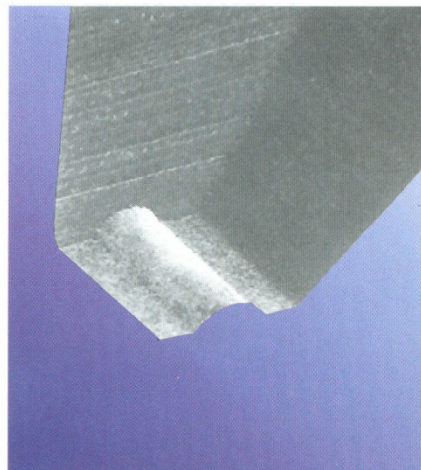
Model 45100
Cross groove



Model 45101
Inline groove



Model 45102
Cross & Inline



Mostly used in "twisted wires" bonding, outer lead TAB and magnetic head bonding.

How to Order

Use pg. 8 for General Options

45100 }
45101 } - WWW - M L S - R P A
45102 }
Wire dia.
Material
Length
Surface Finish
Radius Location
Fine Pitch Option
Tool Angle

General Information

GR = 0.6 x wire dia.
GD = 0.3 x wire dia.
W = 3 x wire dia.
S = 3 x wire dia.
R = 0.5 x wire dia.

Note:

R refers to the radius in the groove (LR, RR, FR, BR)
Tolerance ± 0.0003 "

GR, GD – Tolerance ± 0.0001 "
W, S – Tolerance ± 0.0002 "

S Surface Finish

0 - Polished
1 - Matte
2 - Heavy matte
9 - Special

R Groove Radius Location

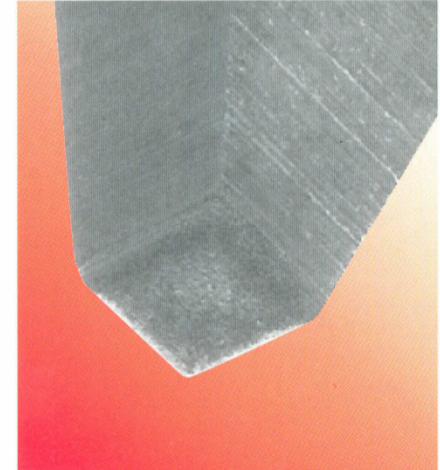
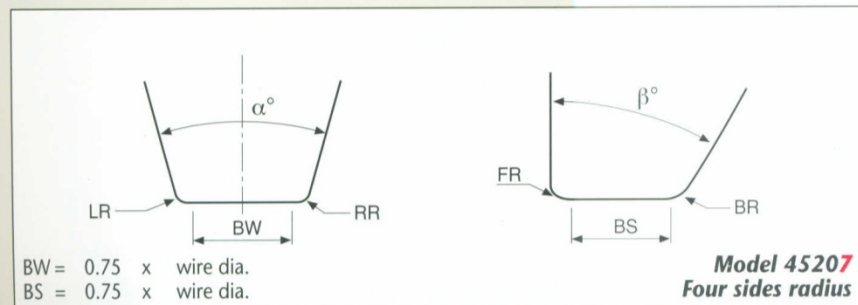
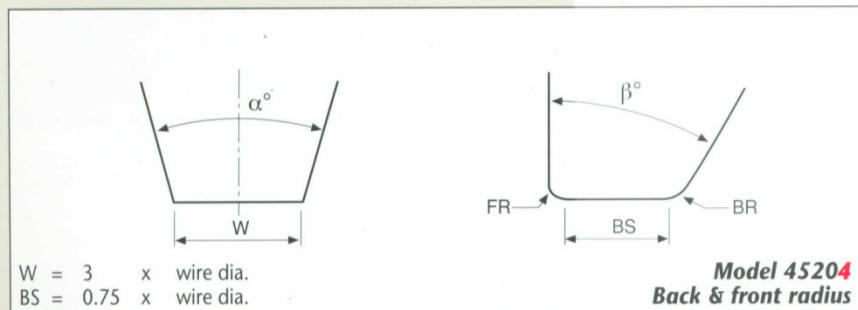
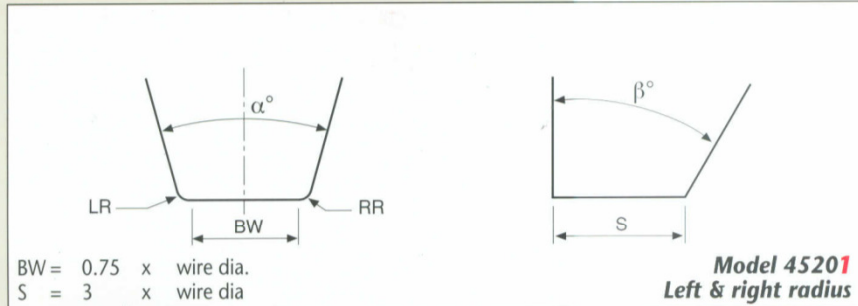
1 - Left (GLR)
2 - Right (GRR)
3 - Front (GFR)
4 - Back (GBR)
5 - All sides
6 - No radius
9 - Special

Metric dimensions are approximate. All specifications are subject to change without notice.

Bonding Tool – Flat Face Tip

Model 4520**F**

Tip Options



How to Order

Use pg. 8 for General Options

4520**F** – **WWWW** – **M** **L** **S** – **0** **P** **A**

Flat option
 Wire dia.
 Material
 Length
 Surface finish
 Fine Pitch Option
 Tool Angle

General Information

$R = 0.5 \times \text{wire dia.}$

Note:

R refers to LR, RR, FR, BR

Tolerance $\pm 0.001"$

BW, S, W, BS – Tolerance $\pm 0.002"$

F Flat Option

- 0 - No radius
- 1 - Left & right radius (LR+RR)
- 2 - Left radius (LR)
- 3 - Right radius (RR)
- 4 - Front & back radius (FR+BR)
- 5 - Front radius (FR)
- 6 - Back radius (BR)
- 7 - Four side (FR, BR, RR, LR)
- 9 - Special

S Surface Finish

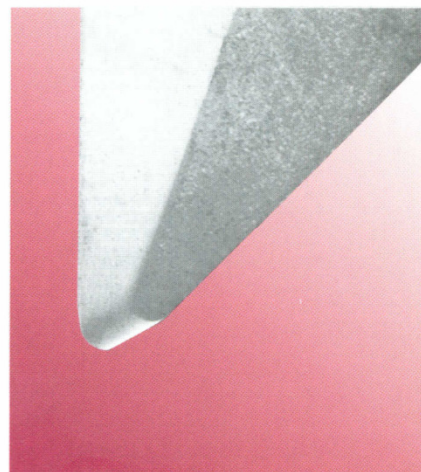
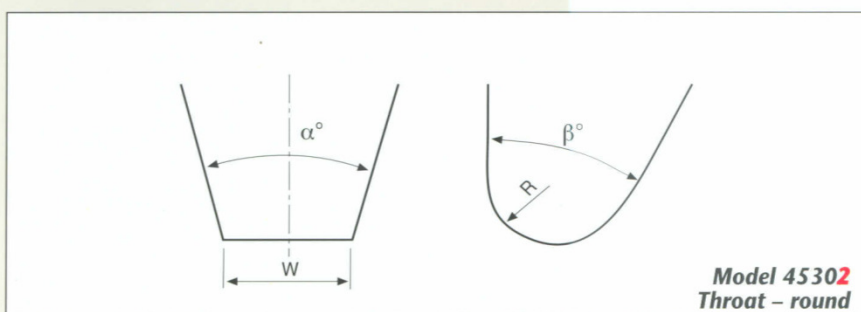
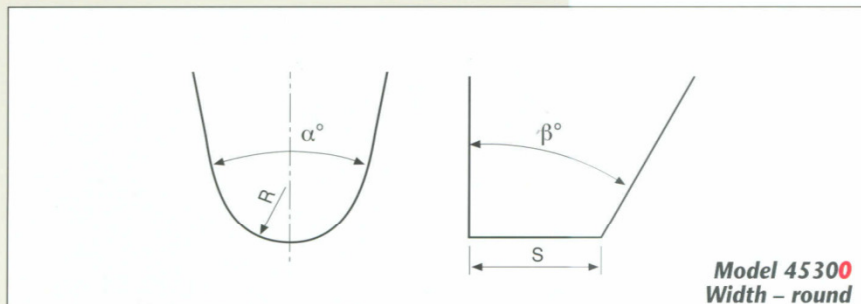
- 0 - Polished
- 1 - Matte
- 2 - Heavy matte
- 3 - Matte + polished radius
- 4 - Heavy matte + polished radius
- 9 - Special

Metric dimensions are approximate. All specifications are subject to change without notice.

Bonding Tool – Round Tip

Model 4530**R**

Tip Options



Model 45304 – round width and round throat

This model is a combined option of the **45300** and the **45302** models above

General Information

R = 1 x wire dia.
S = 3 x wire dia.
W = 3 x wire dia.

Note:
R,S,W Tolerance $\pm .0002''$

Surface Finish

0 - Polished
1 - Matte
2 - Heavy matte
9 - Special

How to Order

Use pg. 8 for General Options

45300
45302
45304 } - **WWWW** - **M** **L** **S** - **0** **P** **A**

Wire dia.
Material
Length
Surface Finish
Fine Pitch Option
Tool Angle

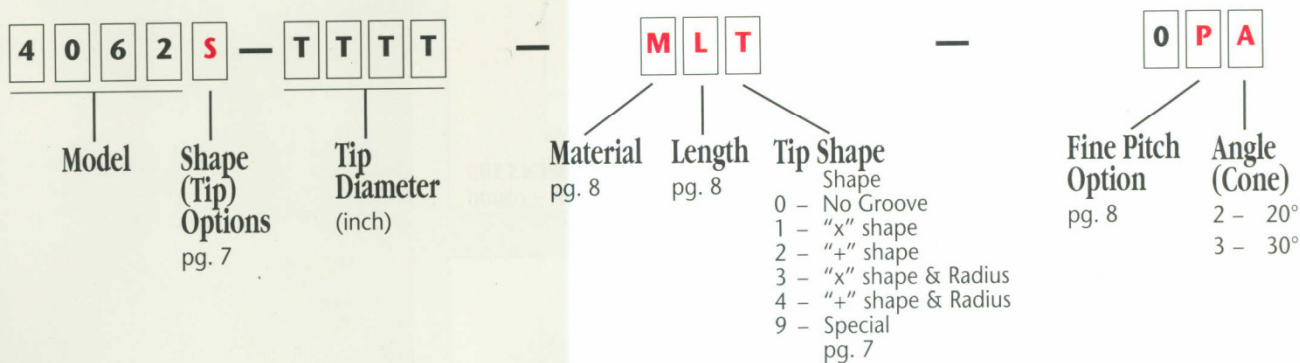
Metric dimensions are approximate. All specifications are subject to change without notice.

Single Point TAB Tool – Coned Shape

Models 40621 to 40629

Table I – How to Order Models 40621 – 40629

For these tools the Part Number is a 15 digit number divided into four sections, as detailed below:

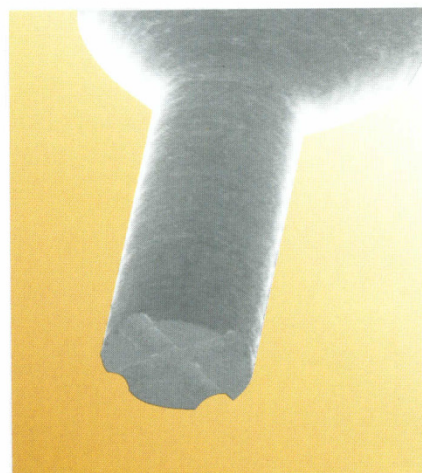


Notes: For all P/N surface finish matt

Table II – Cross Dimensions

Model Number	Protruding Round Cross		Cross Grooves		Protruding "V" Cross
	inch/ μ m		inch/ μ m		inch/ μ m
	GR $\pm .0001/\pm 2.5$	GD $\pm .0002/\pm 5$	GR $\pm .0001/\pm 2.5$	GD $\pm .0001/\pm 2.5$	GD $\pm .0001/\pm 2.5$
40621-XXXX-XXX	.0003/8	.0005/13	–	–	–
40623-XXXX-XXX	.0003/8	*.0003/8	–	–	–
40624-XXXX-XXX	–	–	.0005/13	.0005/13	–
40625-XXXX-XXX	.0005/13	.0005/13	–	–	–
40627-XXXX-XXX	–	–	–	–	.0005/13
40629-XXXX-XXX	–	–	–	–	.0003/8

* For P/N 40623 GD $\pm .0001/\pm 2.5$



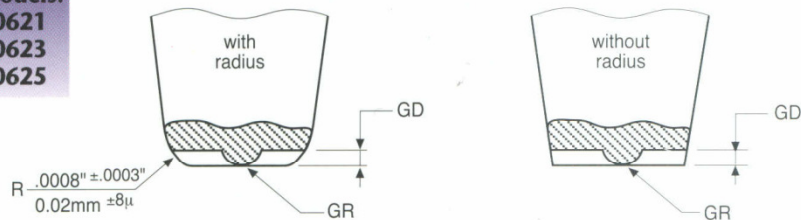
Metric dimensions are approximate. All specifications are subject to change without notice.

Single Point TAB Tool – Cone Shape

Models 40621 to 40629

Tip Options – Select from Table I

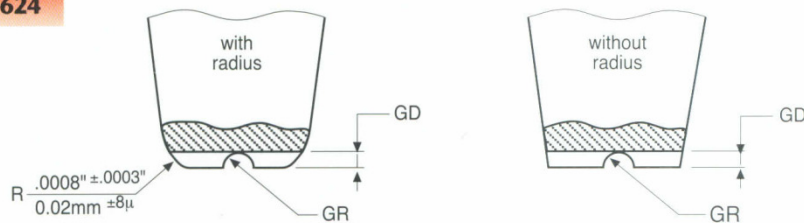
Models:
40621
40623
40625



For protruding cross dimensions see Table II on pg. 6

Protruding cross

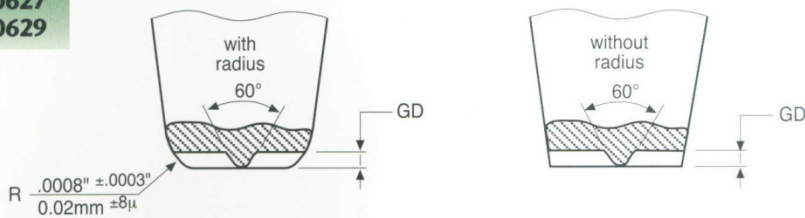
Models:
40624



For cross grooves dimensions see Table II on pg. 6

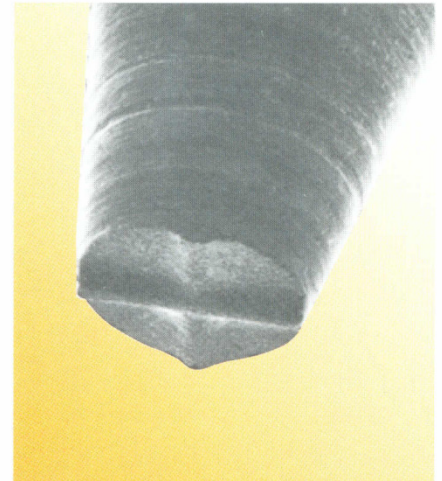
Cross grooves

Models:
40627
40629



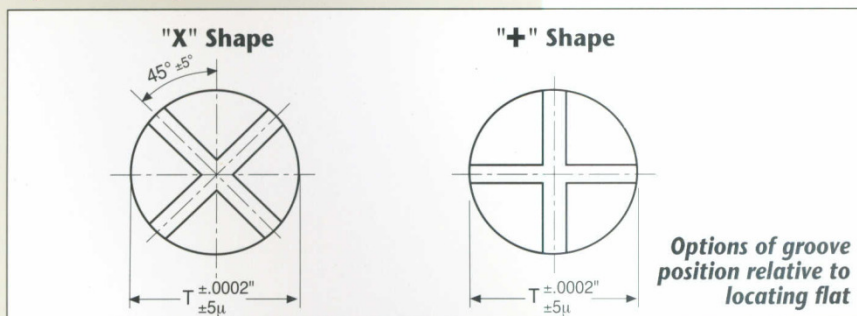
For protruding "V" cross dimensions see Table II on pg. 6

Protruding "V" cross

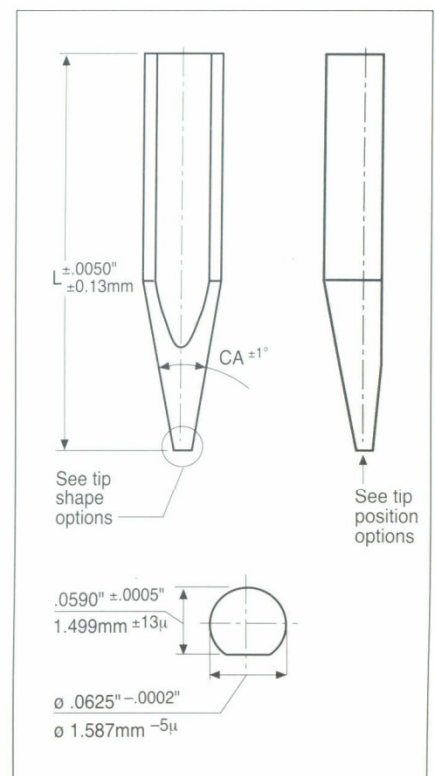


The benefits of single point TAB compared to gang TAB. Low cost and high flexibility – ideal for medium and small runs.

Tip Position Options



Options of groove position relative to locating flat



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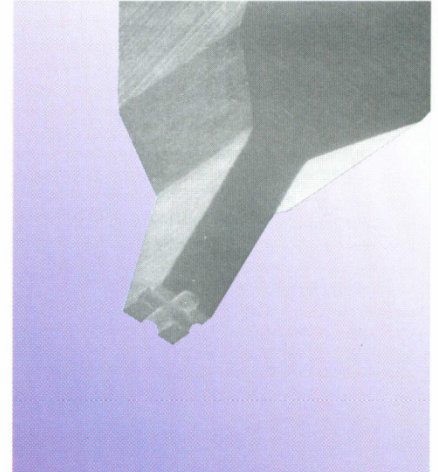
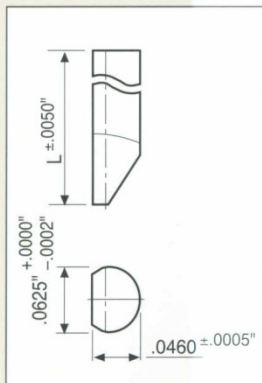
General Options

M Material

- 1 - Tungsten carbide
- 2 - Titanium carbide
- 3 - Alumina (40624-XXXX-320 & 40624-XXXX-330 only)

L Tool Length (inch/mm)

- 2 - .375" / 9.52
- 3 - .437" / 11.10
- 5 - .750" / 19.05
- 6 - .828" / 21.03
- 7 - 1.000" / 25.40
- 0 - 1.078" / 27.38
- 9 - Special

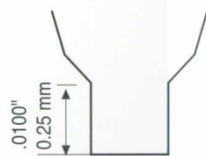


Vertical side relief is useful for fine pitch leads, for floating finger leads on TAB applications, as well as for difficult access applications.

P Fine Pitch Options

- 0 - No vertical relief
- 2 - 2 side vertical relief
- 4 - 4 side vertical relief
- 8 - Round vertical relief
- 9 - Special

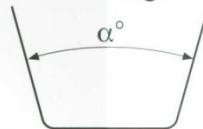
Vertical Relief



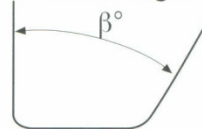
A Width & Throat Angle

- 1 - $\alpha = 20^\circ$ & $\beta = 10^\circ$
- 2 - $\alpha = 20^\circ$ & $\beta = 30^\circ$
- 3 - $\alpha = 30^\circ$ & $\beta = 10^\circ$
- 4 - $\alpha = 30^\circ$ & $\beta = 30^\circ$
- 9 - special

Width angle



Throat angle



Metric dimensions are approximate. All specifications are subject to change without notice.

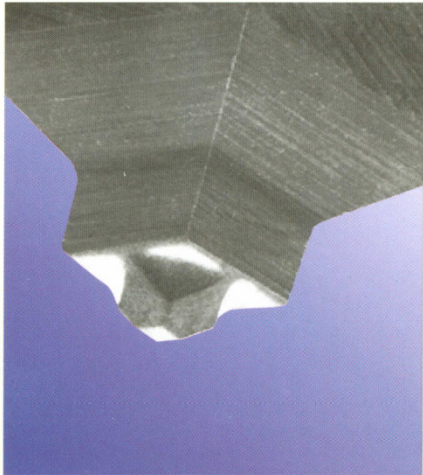
Customized for Your Needs



Protruding Cross Tool



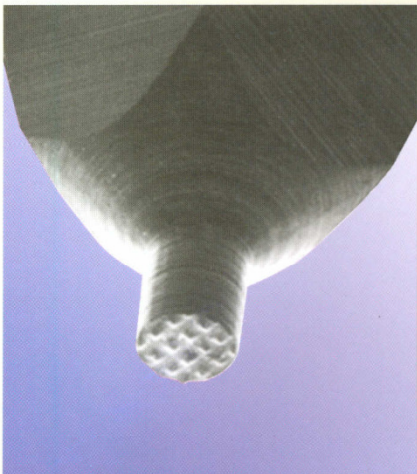
Fountain Tool



Tower Tool



Cross Grooves Tool



Grid Tool

Additional tip shape and groove dimensions available on request. All specifications are subject to change without notice.

TAB and Magnetic Head Bonding Tools



- ISO 9001 Certified
- Precision & Repeatability
- Custom-made Tools
- High-quality Materials

MP Micro Point Pro