# 2015 PRODUCT CATALOG

## METRIC (mm)




MICHIGAN DEBURRING TOOL




Michigan Deburring Tool • www.mideburring.com • mideburr@aol.com • 810-227-1000

## Modular Deburring Tools for Small Holes (1.45mm to 6.45mm)

- Simple to use
- Eliminates pre-sets
- Customs available
- Lower cost per hole
- In-machine adjustments
- Quick change components

## AutoLock Deburring Tools for Larger Holes (6.4mm to 26.0mm)

- Simple to use
- Smooth operation
- Exceptional wear resistance
- Lower Cost Per Hole
- In-machine adjustments

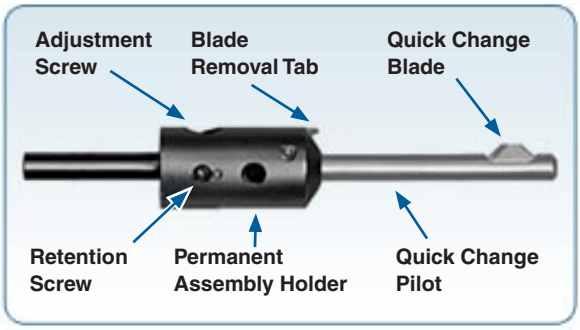
## Contents – 2015 Product Catalog (Metric)

# Deburring Tools to Fit Any Application

Michigan Deburring is committed to excellence, efficiency and cost-effective solutions for your hole deburring needs.

## Modular Deburring Tools

Our patented, three-piece Modular Deburring Tools for small holes provide great solutions for high volume hole deburring applications. By combining a Permanent Assembly Holder with replaceable Pilots and Blades, these tools offer both toughness and value to the user. Because the workings of the tool are designed into the Assembly Holder, replacement components are much simpler, quicker to install and less expensive.




The unique Modular Deburring Tools design also allows for simple tool customization for applications where optimum performance cannot be met with standard tooling. Both Pilots and Blades are easily customized to best suit application requirements, and, at a fraction of the cost of the competition.

## Autolock Deburring Tools

Our two-piece AutoLock Tools for larger holes offer the same great value as our original modular design. Precision designed and built, these tools offer new, unique features and benefits.

An Ion Nitride surface treatment, combined with a second wear resistant treatment, provides a smoother operation and exceptional wear resistance. As with our Modular Tools, the AutoLock screw serves to adjust and remove the blade while keeping it steady during usage.

# Standard Modular Deburring Tool Selection, Range A-C

## Tool Range A - For holes 1.45mm to 1.75mm


Blade Range BA

| HOLE RANGE (mm) | | FULL ASSEMBLY | COMPONENTS | | |
|---|---|---|---|---|---|
| Min. | Max. | Tool Number (Add Blade Suffix) | Holder Number | Pilot Number | Blade Number (Add Blade Suffix) |
| 1.45 | 1.55 | TA-0570-(_____) | HA-0570 | P-0570 | BA(_____) |
| 1.60 | 1.65 | TA-0625-(_____) | HA-0625 | P-0625 | BA(_____) |
| 1.70 | 1.75 | TA-0670-(_____) | HA-0670 | P-0670 | BA(_____) |

## Tool Range B - For holes 1.80mm to 1.95mm


Blade Range BB

| HOLE RANGE (mm) | | FULL ASSEMBLY | COMPONENTS | | |
|---|---|---|---|---|---|
| Min. | Max. | Tool Number (Add Blade Suffix) | Holder Number | Pilot Number | Blade Number (Add Blade Suffix) |
| 1.80 | 1.80 | TB-0700-(_____) | HB-0700 | P-0700 | BB(_____) |
| 1.85 | 1.90 | TB-0730-(_____) | HB-0730 | P-0730 | BB(_____) |
| 1.95 | 1.95 | TB-0760-(_____) | HB-0760 | P-0760 | BB(_____) |

## Tool Range C - For holes 2.00mm to 2.35mm


Blade Range BC

| HOLE RANGE (mm) | | FULL ASSEMBLY | COMPONENTS | | |
|---|---|---|---|---|---|
| Min. | Max. | Tool Number (Add Blade Suffix) | Holder Number | Pilot Number | Blade Number (Add Blade Suffix) |
| 2.00 | 2.05 | TC-0785-(_____) | HC-0785 | P-0785 | BC(_____) |
| 2.10 | 2.15 | TC-0820-(_____) | HC-0820 | P-0820 | BC(_____) |
| 2.20 | 2.25 | TC-0860-(_____) | HC-0860 | P-0860 | BC(_____) |
| 2.30 | 2.35 | TC-0890-(_____) | HC-0890 | P-0890 | BC(_____) |

## Tool Ranges A-C – Blade Suffix & Configuration

**R = Rear Cut Only**

**S = Standard Neutral Rake**

| Blade Suffix | Front Angle | Rear Angle | Rake Feature |
|---|---|---|---|
| **5252S** | **52°** Standard front cut | **52°** Standard rear cut | **S** Neutral rake |
| **R52S** | **R** Rear cut only | **52°** Standard rear cut | **S** Neutral rake |

1. Unless otherwise noted, tool ranges A-C are assembled with blade suffix 5252S.

2. Other configurations available as custom.

# Standard Modular Deburring Tool Selection, Range D-E

## Tool Range D - For holes 2.40mm to 3.15mm


Blade Range BD

| HOLE RANGE (mm) | | FULL ASSEMBLY | COMPONENTS | | |
|---|---|---|---|---|---|
| Min. | Max. | Tool Number (Add Blade Suffix) | Holder Number | Pilot Number | Blade Number (Add Blade Suffix) |
| 2.40 | 2.45 | TD-0935-(_____) | HD-0935 | P-0935 | BD(_____) |
| 2.50 | 2.55 | TD-0980-(_____) | HD-0980 | P-0980 | BD(_____) |
| 2.60 | 2.70 | TD-1040-(_____) | HD-1040 | P-1040 | BD(_____) |
| 2.75 | 2.85 | TD-1090-(_____) | HD-1090 | P-1090 | BD(_____) |
| 2.90 | 2.95 | TD-1130-(_____) | HD-1130 | P-1130 | BD(_____) |
| 3.00 | 3.05 | TD-1180-(_____) | HD-1180 | P-1180 | BD(_____) |
| 3.10 | 3.15 | TD-1200-(_____) | HD-1200 | P-1200 | BD(_____) |

## Tool Range E - For holes 3.20mm to 3.95mm


Blade Range BE

| HOLE RANGE (mm) | | FULL ASSEMBLY | COMPONENTS | | |
|---|---|---|---|---|---|
| Min. | Max. | Tool Number (Add Blade Suffix) | Holder Number | Pilot Number | Blade Number (Add Blade Suffix) |
| 3.20 | 3.25 | TE-1250-(_____) | HE-1250 | P-1250 | BE(_____) |
| 3.30 | 3.45 | TE-1300-(_____) | HE-1300 | P-1300 | BE(_____) |
| 3.50 | 3.55 | TE-1360-(_____) | HE-1360 | P-1360 | BE(_____) |
| 3.60 | 3.65 | TE-1405-(_____) | HE-1405 | P-1405 | BE(_____) |
| 3.70 | 3.85 | TE-1470-(_____) | HE-1470 | P-1470 | BE(_____) |
| 3.90 | 3.95 | TE-1520-(_____) | HE-1520 | P-1520 | BE(_____) |

## Tool Ranges D & E – Blade Suffix & Configuration

**R = Rear Cut Only**

**S = Standard Neutral Rake**
Recommended for high carbon, alloy, cast iron

**P = Positive Rake**
Recommended for stainless, low carbon, aluminum

| Blade Suffix | Front Angle | Rear Angle | Rake Feature |
|---|---|---|---|
| **4545P** | **45°** Standard front cut | **45°** Standard rear cut | **P** Positive rake |
| **4560P** | **45°** Standard front cut | **60°** Aggressive rear cut | **P** Positive rake |
| **6060P** | **60°** Aggressive front cut | **60°** Aggressive rear cut | **P** Positive rake |
| **R45P** | **R** Rear cut only | **45°** Standard rear cut | **P** Positive rake |
| **R60P** | **R** Rear cut only | **60°** Aggressive rear cut | **P** Positive rake |
| **4545S** | **45°** Standard front cut | **45°** Standard rear cut | **S** Neutral rake |
| **4560S** | **45°** Standard front cut | **60°** Aggressive rear cut | **S** Neutral rake |
| **6060S** | **60°** Aggressive front cut | **60°** Aggressive rear cut | **S** Neutral rake |
| **R45S** | **R** Rear cut only | **45°** Standard rear cut | **S** Neutral rake |
| **R60S** | **R** Rear cut only | **60°** Aggressive rear cut | **S** Neutral rake |

1. Unless otherwise noted, tool ranges D & E are assembled with blade suffix 4545P.

2. Other configurations available as custom.



MICHIGAN DEBURRING TOOL
www.mideburring.com • mideburr@aol.com • 810-227-1000

# Standard Modular Deburring Tool Selection, Range F-G

## Tool Range F - For holes 4.00mm to 4.75mm


Blade Range BF

| HOLE RANGE (mm) | | FULL ASSEMBLY | COMPONENTS | | |
|---|---|---|---|---|---|
| Min. | Max. | Tool Number (Add Blade Suffix) | Holder Number | Pilot Number | Blade Number (Add Blade Suffix) |
| 4.00 | 4.15 | TF-1560-(_____) | HF-1560 | P-1560 | BF(_____) |
| 4.20 | 4.35 | TF-1660-(_____) | HF-1660 | P-1660 | BF(_____) |
| 4.40 | 4.45 | TF-1715-(_____) | HF-1715 | P-1715 | BF(_____) |
| 4.50 | 4.55 | TF-1770-(_____) | HF-1770 | P-1770 | BF(_____) |
| 4.60 | 4.75 | TF-1820-(_____) | HF-1820 | P-1820 | BF(_____) |

## Tool Range G - For holes 4.80mm to 6.45mm


Blade Range BG

| HOLE RANGE (mm) | | FULL ASSEMBLY | COMPONENTS | | |
|---|---|---|---|---|---|
| Min. | Max. | Tool Number (Add Blade Suffix) | Holder Number | Pilot Number | Blade Number (Add Blade Suffix) |
| 4.80 | 4.95 | TG-1875-(_____) | HG-1875 | P-1875 | BG(_____) |
| 5.00 | 5.15 | TG-1935-(_____) | HG-1935 | P-1935 | BG(_____) |
| 5.20 | 5.25 | TG-2030-(_____) | HG-2030 | P-2030 | BG(_____) |
| 5.30 | 5.45 | TG-2090-(_____) | HG-2090 | P-2090 | BG(_____) |
| 5.50 | 5.55 | TG-2130-(_____) | HG-2130 | P-2130 | BG(_____) |
| 5.60 | 5.75 | TG-2185-(_____) | HG-2185 | P-2185 | BG(_____) |
| 5.80 | 5.95 | TG-2280-(_____) | HG-2280 | P-2280 | BG(_____) |
| 6.00 | 6.15 | TG-2360-(_____) | HG-2360 | P-2360 | BG(_____) |
| 6.20 | 6.35 | TG-2420-(_____) | HG-2420 | P-2420 | BG(_____) |
| 6.40 | 6.45 | TG-2500-(_____) | HG-2500 | P-2500 | BG(_____) |

## Tool Ranges F & G – Blade Suffix & Configuration

**R = Rear Cut Only**

**S = Standard Neutral Rake**
Recommended for high carbon, alloy, cast iron

**P = Positive Rake**
Recommended for stainless, low carbon, aluminum

| Blade Suffix | Front Angle | Rear Angle | Rake Feature |
|---|---|---|---|
| **4545P** | **45°** Standard front cut | **45°** Standard rear cut | **P** Positive rake |
| **4560P** | **45°** Standard front cut | **60°** Aggressive rear cut | **P** Positive rake |
| **6060P** | **60°** Aggressive front cut | **60°** Aggressive rear cut | **P** Positive rake |
| **R45P** | **R** Rear cut only | **45°** Standard rear cut | **P** Positive rake |
| **R60P** | **R** Rear cut only | **60°** Aggressive rear cut | **P** Positive rake |
| **4545S** | **45°** Standard front cut | **45°** Standard rear cut | **S** Neutral rake |
| **4560S** | **45°** Standard front cut | **60°** Aggressive rear cut | **S** Neutral rake |
| **6060S** | **60°** Aggressive front cut | **60°** Aggressive rear cut | **S** Neutral rake |
| **R45S** | **R** Rear cut only | **45°** Standard rear cut | **S** Neutral rake |
| **R60S** | **R** Rear cut only | **60°** Aggressive rear cut | **S** Neutral rake |

1. Unless otherwise noted, tool ranges F & G are assembled with blade suffix 4545P.

2. Other configurations available as custom.

# Standard AutoLock Deburring Tool Selection, Range H & J*

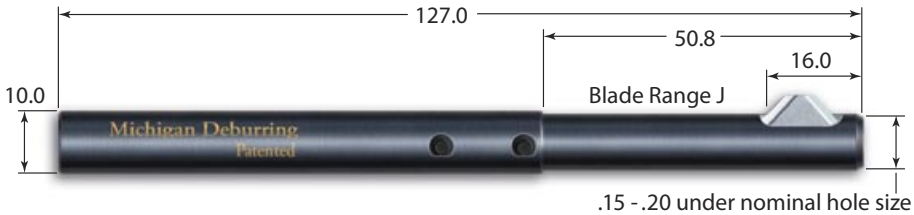
*More Tool Range J sizes shown on p. 8-9

## Tool Range H - For holes 6.4mm to 8.2mm


.15 - .20 under nominal hole size

| HOLE RANGE (mm) | | | TOOL NUMBER | BLADE NUMBER |
|---|---|---|---|---|
| Nominal | Min. | Max. | (Add Blade Suffix) | (Add Blade Suffix) |
| **6.5** | 6.4 | 6.9 | TH-249-065-(_____) | BH(_____) |
| **7.0** | 6.9 | 7.4 | TH-269-070-(_____) | BH(_____) |
| **7.5** | 7.4 | 7.9 | TH-288-075-(_____) | BH(_____) |
| **8.0** | 7.9 | 8.2 | TH-308-080-(_____) | BH(_____) |

## Tool Range J* - For holes 8.2mm to 10.2mm




.15 - .20 under nominal hole size

| HOLE RANGE (mm) | | | TOOL NUMBER | BLADE NUMBER |
|---|---|---|---|---|
| Nominal | Min. | Max. | (Add Blade Suffix) | (Add Blade Suffix) |
| **8.3** | 8.2 | 8.4 | TJ-320-083-(_____) | BJ(_____) |
| **8.5** | 8.4 | 8.6 | TJ-328-085-(_____) | BJ(_____) |
| **8.7** | 8.6 | 8.9 | TJ-336-087-(_____) | BJ(_____) |
| **9.0** | 8.9 | 9.4 | TJ-347-090-(_____) | BJ(_____) |
| **9.5** | 9.4 | 9.9 | TJ-367-095-(_____) | BJ(_____) |
| **10.0** | 9.9 | 10.2 | TJ-387-100-(_____) | BJ(_____) |

## Tool Ranges H & J – Blade Suffix & Configuration

**R = Rear Cut Only**

**S = Standard Neutral Rake**
Recommended for high carbon, alloy, cast iron

**P = Positive Rake**
Recommended for stainless, low carbon, aluminum

| Blade Suffix | Front Angle | Rear Angle | Rake Feature |
|---|---|---|---|
| **4545P** | **45°** Standard front cut | **45°** Standard rear cut | **P** Positive rake |
| **4560P** | **45°** Standard front cut | **60°** Aggressive rear cut | **P** Positive rake |
| **6060P** | **60°** Aggressive front cut | **60°** Aggressive rear cut | **P** Positive rake |
| **R45P** | **R** Rear cut only | **45°** Standard rear cut | **P** Positive rake |
| **R60P** | **R** Rear cut only | **60°** Aggressive rear cut | **P** Positive rake |
| **4545S** | **45°** Standard front cut | **45°** Standard rear cut | **S** Neutral rake |
| **4560S** | **45°** Standard front cut | **60°** Aggressive rear cut | **S** Neutral rake |
| **6060S** | **60°** Aggressive front cut | **60°** Aggressive rear cut | **S** Neutral rake |
| **R45S** | **R** Rear cut only | **45°** Standard rear cut | **S** Neutral rake |
| **R60S** | **R** Rear cut only | **60°** Aggressive rear cut | **S** Neutral rake |

1. Unless otherwise noted, tool ranges H & J are assembled with blade suffix 4545P.

2. Other configurations available as custom.

# Standard AutoLock Deburring Tool Selection, Range J*

## Tool Range J* - For holes 10.2mm to 15.8mm


.15 - .20 under nominal hole size

| HOLE RANGE (mm) | | | TOOL NUMBER | BLADE NUMBER |
|---|---|---|---|---|
| Nominal | Min. | Max. | (Add Blade Suffix) | (Add Blade Suffix) |
| **10.3** | 10.2 | 10.4 | TJ-399-103-(_____) | BJ(_____) |
| **10.5** | 10.4 | 10.9 | TJ-406-105-(_____) | BJ(_____) |
| **11.0** | 10.9 | 11.4 | TJ-426-110-(_____) | BJ(_____) |
| **11.5** | 11.4 | 11.9 | TJ-446-115-(_____) | BJ(_____) |
| **12.0** | 11.9 | 12.4 | TJ-465-120-(_____) | BJ(_____) |
| **12.5** | 12.4 | 12.6 | TJ-485-125-(_____) | BJ(_____) |
| **12.7** | 12.6 | 12.9 | TJ-493-127-(_____) | BJ(_____) |
| **13.0** | 12.9 | 13.4 | TJ-505-130-(_____) | BJ(_____) |
| **13.5** | 13.4 | 13.9 | TJ-524-135-(_____) | BJ(_____) |
| **14.0** | 13.9 | 14.4 | TJ-544-140-(_____) | BJ(_____) |
| **14.5** | 14.4 | 14.9 | TJ-564-145-(_____) | BJ(_____) |
| **15.0** | 14.9 | 15.4 | TJ-584-150-(_____) | BJ(_____) |
| **15.5** | 15.4 | 15.8 | TJ-603-155-(_____) | BJ(_____) |

## Tool Range J* - For holes 15.8mm to 18.9mm


.15 - .20 under nominal hole size

| HOLE RANGE (mm) | | | TOOL NUMBER | BLADE NUMBER |
|---|---|---|---|---|
| Nominal | Min. | Max. | (Add Blade Suffix) | (Add Blade Suffix) |
| **15.9** | 15.8 | 15.9 | TJ-617-159-(_____) | BJ(_____) |
| **16.0** | 15.9 | 16.4 | TJ-623-160-(_____) | BJ(_____) |
| **16.5** | 16.4 | 16.9 | TJ-643-165-(_____) | BJ(_____) |
| **17.0** | 16.9 | 17.4 | TJ-662-170-(_____) | BJ(_____) |
| **17.5** | 17.4 | 17.9 | TJ-682-175-(_____) | BJ(_____) |
| **18.0** | 17.9 | 18.4 | TJ-702-180-(_____) | BJ(_____) |
| **18.5** | 18.4 | 18.9 | TJ-721-185-(_____) | BJ(_____) |

*More Tool Range J sizes shown on p. 7 & p. 9

## Tool Range J – Blade Suffix & Configuration

**R = Rear Cut Only**

**S = Standard Neutral Rake**
Recommended for high carbon, alloy, cast iron

**P = Positive Rake**
Recommended for stainless, low carbon, aluminum

| Blade Suffix | Front Angle | Rear Angle | Rake Feature |
|---|---|---|---|
| **4545P** | **45°** Standard front cut | **45°** Standard rear cut | **P** Positive rake |
| **4560P** | **45°** Standard front cut | **60°** Aggressive rear cut | **P** Positive rake |
| **6060P** | **60°** Aggressive front cut | **60°** Aggressive rear cut | **P** Positive rake |
| **R45P** | **R** Rear cut only | **45°** Standard rear cut | **P** Positive rake |
| **R60P** | **R** Rear cut only | **60°** Aggressive rear cut | **P** Positive rake |
| **4545S** | **45°** Standard front cut | **45°** Standard rear cut | **S** Neutral rake |
| **4560S** | **45°** Standard front cut | **60°** Aggressive rear cut | **S** Neutral rake |
| **6060S** | **60°** Aggressive front cut | **60°** Aggressive rear cut | **S** Neutral rake |
| **R45S** | **R** Rear cut only | **45°** Standard rear cut | **S** Neutral rake |
| **R60S** | **R** Rear cut only | **60°** Aggressive rear cut | **S** Neutral rake |

1. Unless otherwise noted, tool range J is assembled with blade suffix 4545P.

2. Other configurations available as custom.

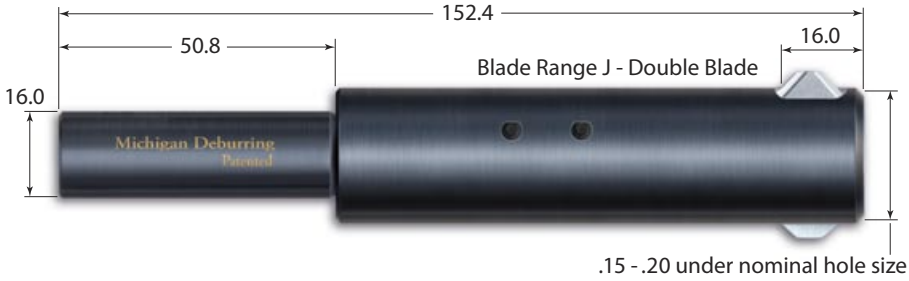


MICHIGAN DEBURRING TOOL
www.mideburring.com • mideburr@aol.com • 810-227-1000

# Standard AutoLock Deburring Tool Selection, Range J*

*More Tool Range J sizes shown on p. 7-8

## Tool Range J* - For holes 18.9mm to 26.0mm




.15 - .20 under nominal hole size

| HOLE RANGE (mm) | | | TOOL NUMBER | BLADE NUMBER |
|---|---|---|---|---|
| Nominal | Min. | Max. | (Add Blade Suffix) | (Add Blade Suffix) |
| **19.0** | 18.9 | 19.4 | TJ-741-190-(_____) | BJ(_____) |
| **19.5** | 19.4 | 19.9 | TJ-761-195-(_____) | BJ(_____) |
| **20.0** | 19.9 | 20.4 | TJ-780-200-(_____) | BJ(_____) |
| **20.5** | 20.4 | 20.9 | TJ-800-205-(_____) | BJ(_____) |
| **21.0** | 20.9 | 21.4 | TJ-820-210-(_____) | BJ(_____) |
| **21.5** | 21.4 | 21.9 | TJ-839-215-(_____) | BJ(_____) |
| **22.0** | 21.9 | 22.4 | TJ-859-220-(_____) | BJ(_____) |
| **22.5** | 22.4 | 22.9 | TJ-879-225-(_____) | BJ(_____) |
| **23.0** | 22.9 | 23.4 | TJ-899-230-(_____) | BJ(_____) |
| **23.5** | 23.4 | 23.9 | TJ-918-235-(_____) | BJ(_____) |
| **24.0** | 23.9 | 24.4 | TJ-938-240-(_____) | BJ(_____) |
| **24.5** | 24.4 | 24.9 | TJ-958-245-(_____) | BJ(_____) |
| **25.0** | 24.9 | 25.3 | TJ-977-250-(_____) | BJ(_____) |
| **25.4** | 25.3 | 26.0 | TJ-993-254-(_____) | BJ(_____) |

## Tool Range J – Blade Suffix & Configuration

**R = Rear Cut Only**

**S = Standard Neutral Rake**
Recommended for high carbon, alloy, cast iron

**P = Positive Rake**
Recommended for stainless, low carbon, aluminum

| Blade Suffix | Front Angle | Rear Angle | Rake Feature |
|---|---|---|---|
| **4545P** | **45°** Standard front cut | **45°** Standard rear cut | **P** Positive rake |
| **4560P** | **45°** Standard front cut | **60°** Aggressive rear cut | **P** Positive rake |
| **6060P** | **60°** Aggressive front cut | **60°** Aggressive rear cut | **P** Positive rake |
| **R45P** | **R** Rear cut only | **45°** Standard rear cut | **P** Positive rake |
| **R60P** | **R** Rear cut only | **60°** Aggressive rear cut | **P** Positive rake |
| **4545S** | **45°** Standard front cut | **45°** Standard rear cut | **S** Neutral rake |
| **4560S** | **45°** Standard front cut | **60°** Aggressive rear cut | **S** Neutral rake |
| **6060S** | **60°** Aggressive front cut | **60°** Aggressive rear cut | **S** Neutral rake |
| **R45S** | **R** Rear cut only | **45°** Standard rear cut | **S** Neutral rake |
| **R60S** | **R** Rear cut only | **60°** Aggressive rear cut | **S** Neutral rake |

1. Unless otherwise noted, tool range J is assembled with blade suffix 4545P.

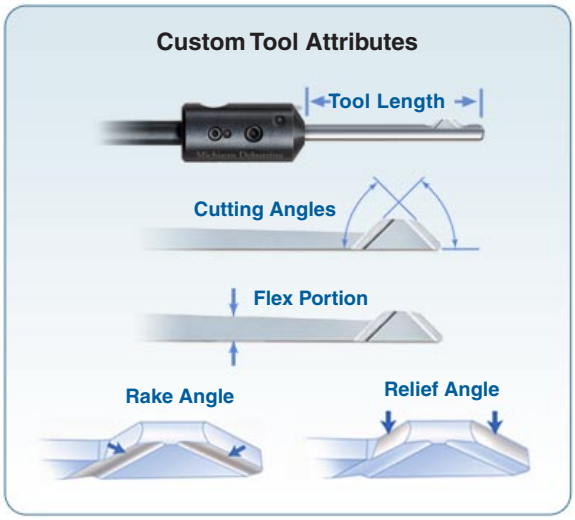
2. Other configurations available as custom.

# Are Custom Tools Right For Your Application?

While standard tools work well for a wide range of typical hole deburring needs, it is often advantageous and cost-efficient to customize a tool for your application. In some cases, customizing is necessary when workpiece requirements exceed standard tool capabilities, but many high volume or dedicated operations can also benefit from custom tooling.

After thoroughly evaluating your application, Michigan Deburring can configure custom tool attributes to optimize performance, productivity and value. In many cases, the cost of custom tools is equal to or even less than the cost of standards.

For more information or for a quotation, please contact Michigan Deburring Tool or visit us online.




## Contact Michigan Deburring Tool

### United States

**Michigan Deburring Tool**
2155 Pless Drive, Suite B • Brighton, MI 48114
Phone: 810-227-1000 • Fax: 810-227-1002
Email: mideburr@aol.com • Web: www.mideburring.com

## Michigan Deburring Tool Global Distributors

### Canada

**Toolneeds Inc.**
2-4937 Victoria Avenue N
Vineland Station, ON LOR 2E0
Canada
Phone: 905-562-4044
Email: sales@toolneeds.com

### Italy

**Tecnimetal S.r.l**
Via degli Andreani, 9
40037 Sasso Marconi (BO)
Italy
Phone: +39-051-735744
Phone: +39-051-735808
Email: info@tecnimetal-tm.com

### Japan and Asia

**Rhinos Co. Ltd**
1-8 Karakiyo-cho
Tennoji-ku
Osaka 543-0018
Japan
Phone: 81-6-6766-7770
Email: Inquiry-rhinos@rhinos.co.jp