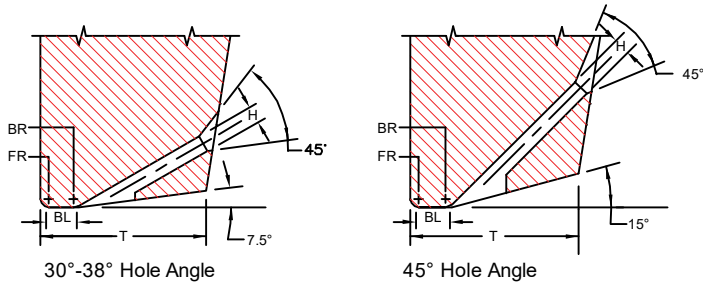


# SERIES AN & AN-V

SMALL WIRE & LARGE WIRE

FOR AUTOMATIC BONDERS

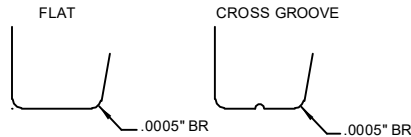


FOR AN-V SERIES (VERTICAL FEED)

FOR AN SERIES

Available Vertical Hole Ø marked with X

|      | TD    |      | TDF   |      | For Vertical Hole |
|------|-------|------|-------|------|-------------------|
|      | in.   | mm   | in.   | mm   |                   |
| 1/16 | .0624 | 1.59 | .0460 | 1.17 |                   |
| 1/16 | .0624 | 1.59 | .0590 | 1.50 | X                 |
|      | .0784 | 1.99 | .0630 | 1.60 |                   |
|      | .0784 | 1.99 | .0720 | 1.83 | X                 |
| 3/32 | .0937 | 2.38 | .0880 | 2.24 | X                 |
|      | .1180 | 3.00 | .0985 | 2.50 |                   |
| 1/8  | .1249 | 3.17 | .0937 | 2.38 |                   |
| 1/8  | .1249 | 3.17 | .1180 | 3.00 |                   |



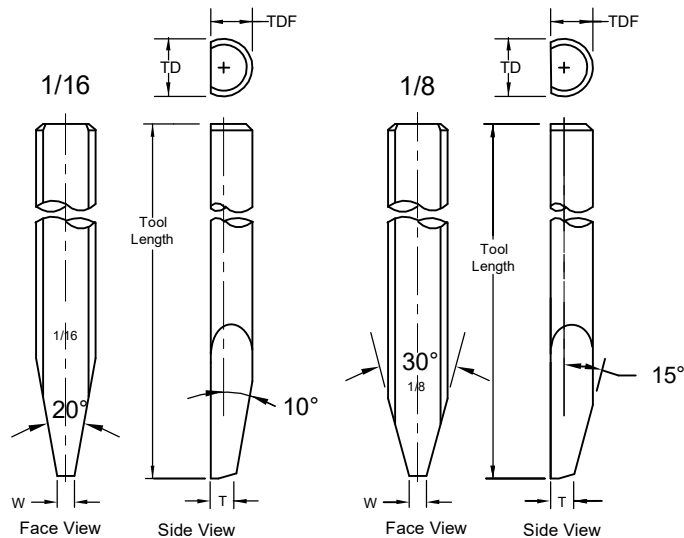
We recommend a .0005" back radius and a cross groove or a flat bond foot when ordering tools for gold wire thermosonic bonding. For more gold wire application information see Tech Tip

## AN-SERIES SMALL WIRE

.0005" through .0020" wireØ

## AN-SERIES LARGE WIRE

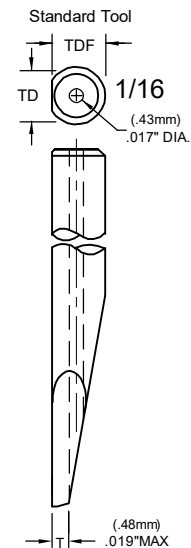
For wire diameters .0030" through .0160"



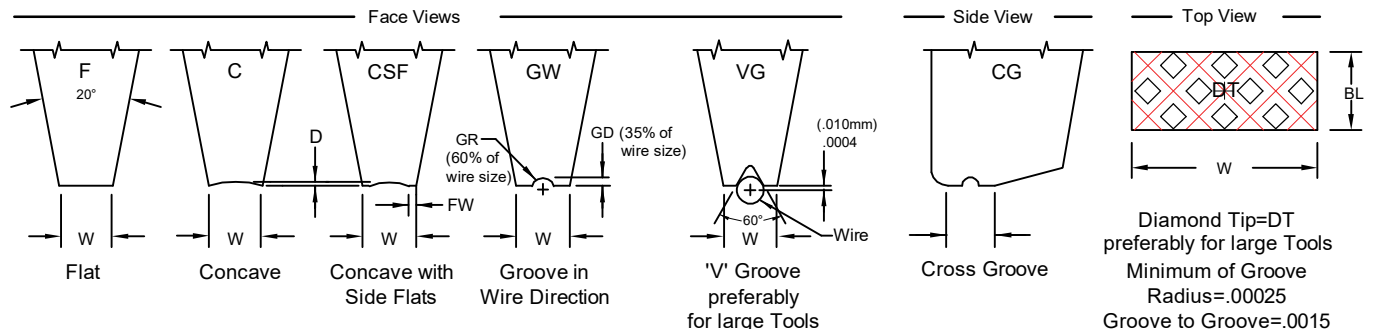
Standard: Ø 1/16, 45° Hole Angle

## AN-V SERIES VERTICAL FEED DEEP ACCESS

.0005" through .0020" wireØ



Standard: Ø 1/16 45° Hole Angle



# SERIES AN & AN-V

## SMALL WIRE & LARGE WIRE

ORDERING INFORMATION  
SMALL & LARGE WIRE BONDING WEDGES  
FOR GOLD AND ALUMINUM WIRE

SAMPLE PART NUMBER: **M-AN-O-X-1/16-1-45-CG-2020-M-\***

SYMBOL EXPLANATION: 1 2 3 4 5 6 7 8 9 10 11

- MATERIAL:**
    - M = Ceramic
    - C = Tungsten Carbide
    - T = Titanium
    - All other: See Material Selection Guide
  - SERIES:** AN
  - WIRE FEED:** O = Standard Feed  
V = Vertical Feed
  - FRONT/BACK RADIUS:** See Radius Option Chart  
\*For special Radius sizes insert an X Please specify FR/BR
  - SHANK DIA.:** Please Specify Diameter
  - TOOL LENGTH:** Please Specify Length
  - HOLE ANGLE:** for AN (30°, 38°, 45°)  
for AN-V (45°)
- (11) See Tool Option
- (10) FOOT FINISH:  
M = Matte finish (FR, BR, & Bond Flat)  
P = Polish finish (FR, BR, & Bond Flat)  
MP= Polish finish (FR, BR), and Matte finish (Bond Flat)
- (9) TOOL SIZE: See Standard Chart
- (8) FOOT TYPE:  
F = Flat  
C = Concave  
CSF = Concave with Side Flats (CSF not available with ceramic tools)  
CG = Cross Groove  
GW = Groove in wire direction (Please specify wire size)  
DT = Diamond Tip (Please specify Ribbon size)  
VG = V Groove (Please specify wire size)

\*NOTE: Please specify for either guillotine cut or tension break.

On V-groove tools the bond length (BL) is the same as the foot length (FL).

For special sizes or dimensions insert an (X) in the appropriate position of the part number then specify what (X) equals.

Example: M-AN-O-X-1/16-3/4-45-CG-2020-M (X) FR=.0012, BR=.0007

| RADIUS<br>OPTION<br>CHART | OPTION LETTER   |     | A     | B     | C     | D     | E     | F     | G     | H     | I     | J     | K     | L     | M     | N     |
|---------------------------|-----------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|                           | FRONT<br>RADIUS | in. | .0005 | .0005 | .0010 | .0010 | .0010 | .0015 | .0015 | .0015 | .0015 | .0020 | .0020 | .0020 | .0020 | .0020 |
|                           | BACK<br>RADIUS  | in. | 0     | .0005 | 0     | .0005 | .0010 | 0     | .0005 | .0010 | .0015 | 0     | .0005 | .0010 | .0015 | .0020 |

For Vertical Feed: Tmax. for Dia. 1/16 = .0190 and for A8D: Tmax=.0243, Supplies only to Standard size Ø1/16, larger tool Ø are different.

| STANDARD CHART AN SMALL WIRE: FOR WIRE DIAMETERS .0005" THROUGH .0020" |        |     |        |     |        |      |           |      |        |      |        |      |                           |     |
|------------------------------------------------------------------------|--------|-----|--------|-----|--------|------|-----------|------|--------|------|--------|------|---------------------------|-----|
| TS                                                                     | H      |     | BL     |     | D      |      | T(30°38°) |      | T(45°) |      | W      |      | SUGGESTED WD              |     |
| Units                                                                  | in.    | μ   | in.    | μ   | in.    | μ    | in.       | μ    | in.    | μ    | in.    | μ    | in.                       | μ   |
| Tolerance                                                              | ±.0002 | ±5  | ±.0002 | ±5  | -.0001 | -2.5 | ±.0005    | ±13  | ±.0005 | ±13  | ±.0005 | ±13  |                           |     |
| 1505                                                                   | .0015  | 38  | .0005  | 13  | .0002  | 5    | .0140     | 356  | .0110  | 279  | .0025  | 64   | .0005<br>through<br>.0007 | 13  |
| 1507                                                                   | .0015  | 38  | .0007  | 18  | .0002  | 5    | .0140     | 356  | .0110  | 279  | .0025  | 64   |                           |     |
| 1510                                                                   | .0015  | 38  | .0010  | 25  | .0002  | 5    | .0140     | 356  | .0120  | 305  | .0025  | 64   |                           |     |
| 1513                                                                   | .0015  | 38  | .0013  | 33  | .0002  | 5    | .0140     | 356  | .0120  | 305  | .0025  | 64   |                           |     |
| 1515                                                                   | .0015  | 38  | .0015  | 38  | .0002  | 5    | .0150     | 381  | .0120  | 305  | .0025  | 64   |                           |     |
| 1520                                                                   | .0015  | 38  | .0020  | 51  | .0002  | 5    | .0150     | 381  | .0130  | 330  | .0025  | 64   |                           |     |
| Tolerance                                                              | ±.0002 | ±5  | ±.0002 | ±5  | -.0001 | -2.5 | 0.0005    | 12.7 | ±.0005 | ±13  | ±.0002 | ±5   | .0007<br>through<br>.0010 | 18  |
| 2010                                                                   | .0020  | 51  | .0010  | 25  | .0002  | 5    | .0160     | 406  | .0120  | 305  | *.0040 | 102  |                           |     |
| 2015                                                                   | .0020  | 51  | .0015  | 38  | .0002  | 5    | .0160     | 406  | .0130  | 330  | .0040  | 102  |                           |     |
| 2020                                                                   | .0020  | 51  | .0020  | 51  | .0002  | 5    | .0170     | 432  | .0140  | 356  | .0040  | 102  |                           |     |
| 2025                                                                   | .0020  | 51  | .0025  | 64  | .0002  | 5    | .0170     | 432  | .0140  | 356  | .0040  | 102  |                           |     |
| 2030                                                                   | .0020  | 51  | .0030  | 76  | .0002  | 5    | .0170     | 432  | .0150  | 381  | .0040  | 102  |                           |     |
| 2520                                                                   | .0025  | 64  | .0020  | 51  | .0002  | 5    | .0170     | 432  | .0150  | 381  | .0040  | 102  | .0013                     | 33  |
| 2525                                                                   | .0025  | 64  | .0025  | 64  | .0002  | 5    | .0170     | 432  | .0160  | 406  | .0040  | 102  |                           |     |
| 2530                                                                   | .0025  | 64  | .0030  | 76  | .0002  | 5    | .0180     | 457  | .0160  | 406  | .0050  | 127  |                           |     |
| 2535                                                                   | .0025  | 64  | .0035  | 89  | .0002  | 5    | .0180     | 457  | .0170  | 432  | .0050  | 127  |                           |     |
| 2540                                                                   | .0025  | 64  | .0040  | 102 | .0002  | 5    | .0180     | 457  | .0170  | 432  | .0050  | 127  |                           |     |
| 3020                                                                   | .0030  | 76  | .0020  | 51  | .0003  | 8    | .0180     | 457  | .0170  | 432  | .0050  | 127  | .0015                     | 38  |
| 3025                                                                   | .0030  | 76  | .0025  | 64  | .0003  | 8    | .0200     | 508  | .0170  | 432  | .0050  | 127  |                           |     |
| 3030                                                                   | .0030  | 76  | .0030  | 76  | .0003  | 8    | .0200     | 508  | .0180  | 457  | .0050  | 127  |                           |     |
| 3035                                                                   | .0030  | 76  | .0035  | 89  | .0003  | 8    | .0210     | 533  | .0180  | 457  | .0050  | 127  |                           |     |
| 3040                                                                   | .0030  | 76  | .0040  | 102 | .0003  | 8    | .0210     | 533  | .0180  | 457  | .0050  | 127  |                           |     |
| 3525                                                                   | .0035  | 89  | .0025  | 64  | .0003  | 8    | .0220     | 559  | .0190  | 483  | .0060  | 152  | .0020                     | 51  |
| 3530                                                                   | .0035  | 89  | .0030  | 76  | .0003  | 8    | .0220     | 559  | .0200  | 508  | .0060  | 152  |                           |     |
| 3535                                                                   | .0035  | 89  | .0035  | 89  | .0003  | 8    | .0230     | 584  | .0200  | 508  | .0060  | 152  |                           |     |
| 3540                                                                   | .0035  | 89  | .0040  | 102 | .0003  | 8    | .0230     | 584  | .0210  | 533  | .0060  | 152  |                           |     |
| 3545                                                                   | .0035  | 89  | .0045  | 114 | .0003  | 8    | .0240     | 610  | .0210  | 533  | .0060  | 152  |                           |     |
| 3550                                                                   | .0035  | 89  | .0050  | 127 | .0003  | 8    | .0240     | 610  | .0210  | 533  | .0060  | 152  |                           |     |
| STANDARD CHART AN LARGE WIRE: FOR WIRE DIAMETERS .0030" THROUGH .0160" |        |     |        |     |        |      |           |      |        |      |        |      |                           |     |
| TS                                                                     | H      |     | BL     |     | D      |      | T(30°38°) |      | T(45°) |      | W      |      | SUGGESTED WD              |     |
| Units                                                                  | in.    | μ   | in.    | μ   | in.    | μ    | in.       | μ    | in.    | μ    | in.    | μ    | in.                       | μ   |
| Tolerance                                                              | ±.0005 | ±13 | ±.0005 | ±13 | -.0001 | -2.5 | ±.0010    | ±25  | ±.0010 | ±25  | ±.0010 | ±25  |                           |     |
| 4560                                                                   | .0045  | 114 | .0060  | 152 | .0006  | 15   | .0340     | 864  | .0310  | 787  | .0075  | 191  | .0030                     | 76  |
| 6008                                                                   | .0060  | 152 | .0080  | 203 | .0008  | 20   | .0390     | 991  | .0340  | 864  | .0100  | 254  | .0040                     | 102 |
| 7510                                                                   | .0075  | 191 | .0100  | 254 | .0010  | 25   | .0450     | 1143 | .0410  | 1041 | .0125  | 318  | .0050                     | 127 |
| 0912                                                                   | .0090  | 229 | .0120  | 305 | .0012  | 30   | .0520     | 1321 | .0490  | 1245 | .0150  | 381  | .0060                     | 152 |
| Tolerance                                                              | ±.0005 | ±13 | ±.0010 | ±25 | ±.0002 | ±5   | ±.0010    | ±25  | ±.0010 | ±25  | ±.0010 | ±25  |                           |     |
| 01014                                                                  | .0105  | 267 | .0140  | 356 | .0014  | 36   | .0650     | 1651 | .0540  | 1372 | .0175  | 445  | .0070                     | 178 |
| 01215                                                                  | .0120  | 305 | .0150  | 381 | .0016  | 41   | .0680     | 1727 | .0560  | 1422 | .0200  | 508  | .0080                     | 203 |
| 01518                                                                  | .0150  | 381 | .0180  | 457 | .0020  | 51   | .0720     | 1829 | .0640  | 1626 | .0250  | 635  | .0100                     | 254 |
| 01820                                                                  | .0180  | 457 | .0200  | 508 | .0024  | 61   | .0900     | 2286 | .0800  | 2032 | .0300  | 762  | .0120                     | 305 |
| 02122                                                                  | .0210  | 533 | .0220  | 559 | .0028  | 71   | .0980     | 2489 | .0820  | 2083 | .0350  | 889  | .0140                     | 356 |
| 02424                                                                  | .0240  | 610 | .0240  | 610 | .0032  | 81   | .1100     | 2794 | .0930  | 2362 | .0400  | 1016 | .0160                     | 406 |

\*Other sizes available upon request \*All dimensions and tolerances are for reference only  
TOOL SIZE=TS, WIRE DIAMETER =WD, "T" To be determined according to the size of FR and BR and Hole Bore Length