

## COUNTERSINKS & TECHNICAL DIAGRAMS & COMBINED DRILLS



Type 82-AG - Piloted



Type 82-AG - Pilotless



Type 90-AG - Deburring

### Type 82-AG - Piloted Type 82-AG - Pilotless Type 90-AG - Deburring

Type 82-AG Chatter proof™ - Countersinks  
Type 90-AG Chatter proof™ - Deburring Tools

Special Hi-Molybdenum tool steel, gold surface treated for maximum lubricity.

**These high performance, flute-less tools are:**

- Free cutting - for ease of use.
- Designed for fast stock removal.
- Chatter proof - for a micro smooth finish.
- Available in a wide selection of styles.
- Recommended for smooth finishes on metal, plastic and wood applications.
- Made in the U.S.A.

### TYPE 82-AG 82° PILOTED COUNTERSINK

| Part No. | Size    | Style | Screw Size | Shank Diameter |      |          | Overall Length | D       | E     | F | No. per/pack |
|----------|---------|-------|------------|----------------|------|----------|----------------|---------|-------|---|--------------|
|          |         |       |            | A              | B    | C        |                |         |       |   |              |
| 67010    | CS1/4   | 1     | 1/4"       | 1/4"           | 3/8" | 2"       | 33/64"         | 1"      | 5/32" | 1 |              |
| 67020    | CS1/4A  | 1     | 1/4"       | 17/64"         | 3/8" | 2"       | 33/64"         | 1"      | 5/32" | 1 |              |
| 67030    | CS5/16  | 1     | 5/16"      | 5/16"          | 3/8" | 2-3/16"  | 41/64"         | 1-3/16" | 5/32" | 1 |              |
| 67040    | CS5/16A | 1     | 5/16"      | 21/64"         | 3/8" | 2-3/16"  | 41/64"         | 1-3/16" | 5/32" | 1 |              |
| 67050    | CS3/8   | 1     | 3/8"       | 3/8"           | 1/2" | 2-5/8"   | 49/64"         | 1-3/8"  | 5/32" | 1 |              |
| 67060    | CS3/8A  | 1     | 3/8"       | 25/64"         | 1/2" | 2-5/8"   | 49/64"         | 1-3/8"  | 5/32" | 1 |              |
| 67070    | CS7/16  | 1     | 7/16"      | 7/16"          | 1/2" | 2-3/4"   | 53/64"         | 1-1/2"  | 7/32" | 1 |              |
| 67080    | CS7/16A | 1     | 7/16"      | 29/64"         | 1/2" | 2-3/4"   | 53/64"         | 1-1/2"  | 7/32" | 1 |              |
| 67090    | CS1/2   | 1     | 1/2"       | 1/2"           | 1/2" | 2-13/16" | 15/16"         | 1-9/16" | 1/4"  | 1 |              |
| 67100    | CS1/2A  | 1     | 1/2"       | 33/64"         | 1/2" | 2-13/16" | 15/16"         | 1-9/16" | 1/4"  | 1 |              |

See left for technical diagram.

### TYPE 82-AG 82° PILOT LESS COUNTERSINK

| Part No. | Size   | Style | Diameter of Cut |          | Screw Size | Shank Diameter B | Overall Length C | D      | E       | No. per/pack |
|----------|--------|-------|-----------------|----------|------------|------------------|------------------|--------|---------|--------------|
|          |        |       | Min             | Max      |            |                  |                  |        |         |              |
| 67110    | CS073  | 3     | 5/64"           | 15/64"   | ---        | 1/4"             | 1-3/4"           | ---    | ---     | 1            |
| 67120    | CS3/16 | 2     | 3/16"           | 17/32"   | ---        | 1/4"             | 1-15/16"         | 9/16"  | 1"      | 1            |
| 67130    | CS307  | 2     | 5/16"           | 25/32"   | ---        | 1/2"             | 2-5/8"           | 13/16" | 1-3/8"  | 1            |
| 67140    | CS307A | 2     | 5/16"           | 25/32"   | ---        | 1/4"             | 2-1/16"          | 13/16" | 1-1/4"  | 1            |
| 67150    | CS431  | 2     | 7/16"           | 7/8"     | ---        | 1/2"             | 2-13/16"         | 1-1/8" | 1-9/16" | 1            |
| 67160    | CS1/2B | 2     | 1/2"            | 1-15/32" | ---        | 1/2"             | 3-1/2"           | 1-1/2" | 2-1/8"  | 1            |
| 67170    | CS55   | 2     | 1/8"            | 17/64"   | No. 4      | 1/4"             | 1-1/2"           | 17/64" | 5/8"    | 1            |
| 67180    | CS65   | 2     | 1/8"            | 19/64"   | No. 6      | 1/4"             | 1-1/2"           | 19/64" | 5/8"    | 1            |
| 67190    | CS85   | 2     | 1/8"            | 11/32"   | No. 8      | 1/4"             | 1-5/8"           | 11/32" | 3/4"    | 1            |
| 67200    | CS105  | 2     | 9/64"           | 25/64"   | No. 10     | 1/4"             | 1-5/8"           | 25/64" | 3/4"    | 1            |

See left for technical diagram.

### TYPE 90-AG 90° DEBURRING TOOLS

| Part No. | Size    | Style | Diameter of Cut |          | Shank Diameter B | Overall Length C | D      | E       | No. per/pack |
|----------|---------|-------|-----------------|----------|------------------|------------------|--------|---------|--------------|
|          |         |       | Min             | Max      |                  |                  |        |         |              |
| 67210    | DB1/64  | 3     | 1/64"           | 11/64"   | 3/16"            | 1-1/2"           | ---    | ---     | 1            |
| 67220    | DB1/16  | 3     | 1/16"           | 11/64"   | 3/16"            | 1-1/2"           | ---    | ---     | 1            |
| 67230    | DB1/8   | 3     | 1/8"            | 15/64"   | 1/4"             | 1-3/4"           | ---    | ---     | 1            |
| 67240    | DB5/32  | 2     | 5/32"           | 13/32"   | 1/4"             | 1-11/16"         | 7/16"  | 13/16"  | 1            |
| 67250    | DB3/16  | 2     | 3/16"           | 17/32"   | 1/4"             | 1-7/8"           | 9/16"  | 1"      | 1            |
| 67260    | DB5/16  | 2     | 5/16"           | 25/32"   | 1/2"             | 2-19/32"         | 13/16" | 1-3/8"  | 1            |
| 67270    | DB5/16C | 2     | 5/16"           | 25/32"   | 1/4"             | 2-1/32"          | 13/16" | 1-5/32" | 1            |
| 67280    | DB9/16  | 2     | 9/16"           | 1-3/32"  | 1/2"             | 2-13/16"         | 1-1/8" | 1-9/16" | 1            |
| 67290    | DB1/2   | 2     | 1/2"            | 1-15/32" | 1/2"             | 3-1/2"           | 1-1/2" | 2-1/8"  | 1            |

See left for technical diagram.

# Specialty Tools

## COMBINED DRILLS, COUNTERSINK SETS & 6-FLUTE COUNTERSINK TOOL

### TYPE 82-AG & TYPE 90-AG SETS

| Part#                   | Description of Sizes                                                                  |
|-------------------------|---------------------------------------------------------------------------------------|
| <b>SP-4CS</b><br>10440  | 82-AG C/S sizes:<br>CS5S, CS6S, CS8S, CS10S                                           |
| <b>SP-4ACS</b><br>10442 | 82-AG C/S sizes:<br>CS6S, CS8S, CS10S, CS3/16                                         |
| <b>SP-6DB</b><br>10450  | 90-AG D/B sizes:<br>DB1/16, DB1/8, DB5/32,<br>DB3/16, DB5/16 & DB9/16                 |
| <b>SP-9CS</b><br>10443  | 82-AG C/S sizes:<br>CS5S, CS6S, CS8S, CS10S, CS1/4,<br>CS5/16, CS3/8, CS7/16, & CS1/2 |



## COMBINED DRILLS & COUNTERSINK

### Type 296 -Plain

Drill ends are of equal diameter. The included angle is 60°.



### TYPE 296 PLAIN COUNTERSINKS

| Part# | Size | Dia. of Body Inches | Dia. & Length of drills | Overall Length Inches | No. per/Pack |
|-------|------|---------------------|-------------------------|-----------------------|--------------|
| 26760 | 00   | 1/8                 | .025x.030               | 1-7/32                | 5            |
| 26770 | 0    | 1/8                 | 1/32x.038               | 1-7/32                | 5            |
| 26780 | 1    | 1/8                 | 3/64x3/64               | 1-1/4                 | 5            |
| 26790 | 2    | 3/16                | 5/64x5/64               | 1-7/8                 | 5            |
| 26800 | 3    | 1/4                 | 7/64x7/64               | 2                     | 5            |
| 26810 | 4    | 5/16                | 1/8x1/8                 | 2-1/8                 | 5            |
| 26820 | 5    | 7/16                | 3/16x3/16               | 2-3/4                 | 5            |
| 26830 | 6    | 1/2                 | 7/32x7/32               | 3                     | 5            |
| 26840 | 7    | 5/8                 | 1/4x1/4                 | 3-1/4                 | 1            |
| 26850 | 8    | 3/4                 | 5/16x5/16               | 3-1/2                 | 1            |

### COMBINED DRILLS AND COUNTERSINK - SET

26861 5pc. Bright Finish Sizes: 1, 2, 3, 4 and 5



## 6-FLUTE 82° CHATTER-LESS HSS COUNTERSINK

### Type 83-AG

- Chatter-less 6-flute design reduces vibration
- Multiple cutting edges extend tool life.
- 82° Countersink produce the ideal profile for the majority of flat head fasteners.
- 3-Flat on shank
- Made in the USA.



Type 83-AG

4pc. Type 83-AG



### TYPE 83-AG HSS 82° COUNTERSINK

| Part# | Size   | Shank Size | # per/Pack |
|-------|--------|------------|------------|
| 67700 | 1/4"   | 1/4"       | 1          |
| 67710 | 5/16"  | 1/4"       | 1          |
| 67720 | 3/8"   | 1/4"       | 1          |
| 67730 | 1/2"   | 3/8"       | 1          |
| 67740 | 5/8"   | 3/8"       | 1          |
| 67750 | 3/4"   | 1/2"       | 1          |
| 67760 | 7/8"   | 1/2"       | 1          |
| 67770 | 1"     | 1/2"       | 1          |
| 67780 | 1-1/4" | 1/2"       | 1          |
| 67790 | 1-1/2" | 3/4"       | 1          |

### 4PC. HSS 82° COUNTERSINK SET

| Part# | Sizes                    | Shank Sizes | # per/Pack |
|-------|--------------------------|-------------|------------|
| 67800 | 1/4", 5/16", 3/8", *1/2" | 1/4", *3/8" | 1          |

## COMBINED DRILLS & COUNTERSINK

### Type 296-XL - Long Length 60°

- 60° degree countersink angle fits all standard centers.
- Used for centering work ends, where the work piece is to be revolved on machine centers.
- Made in the USA.



### TYPE 296-XL COMBINED DRILLS & COUNTERSINK

| Part# | Size    | Body Diameter | Drill Diameter | No. per/Pack |
|-------|---------|---------------|----------------|--------------|
| 08603 | 1x3     | 1/8"          | 3/64"          | 1            |
| 08613 | 1x4     | 1/8"          | 3/64"          | 1            |
| 08623 | 1x5     | 1/8"          | 3/64"          | 1            |
| 08633 | 1x6     | 1/8"          | 3/64"          | 1            |
| 08643 | 2x3     | 3/16"         | 5/64"          | 1            |
| 08653 | 2x4     | 3/16"         | 5/64"          | 1            |
| 08663 | 2x5     | 3/16"         | 5/64"          | 1            |
| 08673 | 2x6     | 3/16"         | 5/64"          | 1            |
| 08683 | 3x3     | 1/4"          | 7/64"          | 1            |
| 08693 | 3x4     | 1/4"          | 7/64"          | 1            |
| 08703 | 3x5     | 1/4"          | 7/64"          | 1            |
| 08713 | 3x6     | 1/4"          | 7/64"          | 1            |
| 08723 | 4x4     | 5/16"         | 1/8"           | 1            |
| 08733 | 4x5     | 5/16"         | 1/8"           | 1            |
| 08743 | 4x6     | 5/16"         | 1/8"           | 1            |
| 08753 | 4-1/2x4 | 3/8"          | 9/64"          | 1            |
| 08763 | 4-1/2x5 | 3/8"          | 9/64"          | 1            |
| 08773 | 4-1/2x6 | 3/8"          | 9/64"          | 1            |
| 08783 | 5x4     | 7/16"         | 3/16"          | 1            |
| 08793 | 5x5     | 7/16"         | 3/16"          | 1            |
| 08803 | 5x6     | 7/16"         | 3/16"          | 1            |
| 08813 | 6x5     | 1/2"          | 7/32"          | 1            |
| 08823 | 6x6     | 1/2"          | 7/32"          | 1            |
| 08833 | 7x6     | 5/8"          | 1/4"           | 1            |
| 08843 | 8x6     | 3/4"          | 5/16"          | 1            |

Proudly Manufactured in the U.S.A • America's Finest High Speed Steel Cutting Tools™ • Call Toll Free

with globally sourced material

1.800.328.4655