



# CATALOG

GTS-Precision Tools  
PCBN Tool Product Manual



T C C G W 12  
Table 0 Table 1 Table 2 Table 3 Table 4 Table 5

02 04 W D 00 1  
Table 6 Table 7 Table 8 Table 9 Table 10 Table 11

CBN Insert model

1-Insert Shape

| Mark | Blade Shape       |  |
|------|-------------------|--|
| C    | Lozenge           |  |
| D    |                   |  |
| V    |                   |  |
| S    | Square            |  |
| T    | Positive Triangle |  |
| R    | Rotundity         |  |
| W    | Iso-Angle Hexagon |  |

2-Back Corner

| Mark | The Back Corner |
|------|-----------------|
| B    |                 |
| C    |                 |
| N    |                 |
| P    |                 |
| O    | Other           |

The band indicates that there are also cases where 10 degrees are used

0-Overall

| Mark | Overall    |
|------|------------|
| T    | One-on-one |
|      | Welded     |
| Z    | Composite  |

4-Hole Type

| Mark | Hole Type                              |  |
|------|--|--|
| N    | No holes                               |  |
| A    | Cylinder holes                         |  |
| B    | One-sided inclination cylinder hole    |  |
| W    |  |  |
| T    |  |  |
| C    | Double-sided inclination cylinder hole |  |
| Q    |  |  |
| X    | Special                                |  |

3-Tip Height Allows Tolerances

| Mark | High Tip Allows Tolerances | The Inner Cut Circle Allows Tolerances | The Thickness Allows Tolerances |
|------|----------------------------|--|---------------------------------|
| A    | ±0.005                     | ±0.025                                 | ±0.025                          |
| F    | ±0.005                     | ±0.013                                 | ±0.025                          |
| C    | ±0.013                     | ±0.025                                 | ±0.025                          |
| H    | ±0.013                     | ±0.013                                 | ±0.025                          |
| E    | ±0.025                     | ±0.025                                 | ±0.025                          |
| G    | ±0.025                     | ±0.025                                 | ±0.13                           |
| M    | ±0.08~±0.2                 | ±0.05~±0.15                            | ±0.13                           |

6-Thickness

| Mark | Thickness |
|------|-----------|
| 01   | 1.59      |
| 02   | 2.38      |
| T2   | 2.78      |
| 03   | 3.18      |
| T3   | 3.97      |
| 04   | 4.76      |
| 05   | 5.56      |
| 06   | 6.35      |
| 07   | 7.94      |
| 09   | 9.52      |

5-Cut Round

| Shape | Mark | Long Cutting Edge | Inscribed Circle | Shape  | Mark | Long Cutting Edge | Inscribed Circle | Shape  | Mark   | Long Cutting Edge | Inscribed Circle |      |        |        |
|-------|------|-------------------|------------------|--------|------|-------------------|------------------|--------|--------|-------------------|------------------|------|--------|--------|
|       | C    | 05                | 5.64             | 5.56   |      | S                 | 05               | 5.56   | 5.56   |                   | R                | 08   | 8      | 8      |
|       |      | 06                | 6.4              | 6.35   |      |                   | 06               | 6.35   | 6.35   |                   |                  | 10   | 10     | 10     |
|       |      | 08                | 8                | 7.94   |      |                   | 08               | 7.94   | 7.94   |                   |                  | 12   | 12     | 12     |
|       |      | 09                | 9.7              | 9.525  |      |                   | 09               | 9.525  | 9.525  |                   |                  | 12   | 12.7   | 12.7   |
|       |      | 12                | 12.9             | 12.7   |      |                   | 12               | 12.7   | 12.7   |                   |                  | 15   | 15.875 | 15.875 |
|       |      | 16                | 16.1             | 15.875 |      |                   | 15               | 15.875 | 15.875 |                   |                  | 16   | 16     | 16     |
|       |      | 19                | 19.3             | 19.05  |      |                   | 19               | 19.05  | 19.05  |                   |                  | 19   | 19.05  | 19.05  |
|       | D    | 07                | 7.7              | 6.35   |      | T                 | 06               | 6.9    | 3.97   |                   | W                | 04   | 4.3    | 6.35   |
|       |      | 09                | 9.7              | 7.94   |      |                   | 08               | 8.2    | 4.76   |                   |                  | 05   | 5.4    | 7.94   |
|       |      | 11                | 11.6             | 9.525  |      |                   | 09               | 9.6    | 5.56   |                   |                  | 06   | 6.5    | 9.525  |
|       |      | 15                | 15.5             | 12.7   |      |                   | 11               | 11     | 6.35   |                   |                  | 08   | 8.7    | 12.7   |
|       | V    | 08                | 8.3              | 4.76   |      |                   |                  |        |        |                   | 10               | 10.9 | 15.875 |        |
|       |      | 09                | 9.7              | 5.56   |      |                   |                  |        |        |                   |                  |      |        |        |
|       |      | 11                | 11.1             | 6.35   |      |                   |                  |        |        |                   |                  |      |        |        |
|       |      | 16                | 16.6             | 9.525  |      |                   |                  |        |        |                   |                  |      |        |        |

7-Tip Arc

| Mark | Knife Tip Arc  |
|------|----------------|
| 00   | 0              |
| 01   | 0.1            |
| 02   | 0.2            |
| 04   | 0.4            |
| 08   | 0.8            |
| 10   | 1              |
| 12   | 1.2            |
| 16   | 1.6            |
| 24   | 2.4            |
| M O  | Round (metric) |

8-Inverted Width

| The Width of the Inverted Edge |           |
|--------------------------------|-----------|
| Mark                           | Size (mm) |
| U                              | 0.1       |
| V                              | 0.15      |
| W                              | 0.2       |
| X                              | 0.25      |
| Y                              | 0.3       |
| Z                              | 0.35      |

9-Invert Angle

| Inverted Angle |       |
|----------------|-------|
| Mark           | Angle |
| B              | 5°    |
| P              | 10°   |
| D              | 15°   |
| E              | 20°   |
| F              | 25°   |
| G              | 30°   |

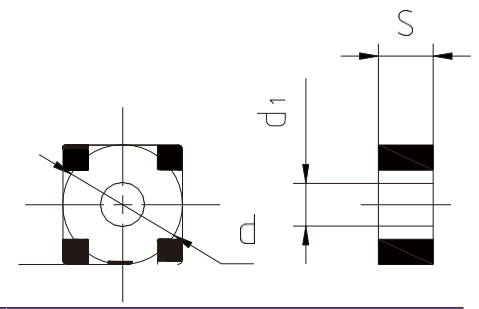
10-Passivation

| Mark | Size  |
|------|-------|
| 05   | 0.005 |
| 10   | 0.01  |
| 15   | 0.015 |
| 20   | 0.02  |
| 25   | 0.025 |

11-Number of Heads

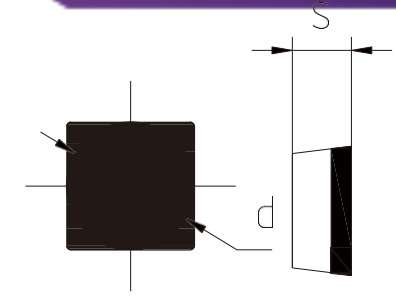
| Mark | Number of Heads |
|------|-----------------|
| 1    | 1               |
| 2    | 2               |
| 3    | 3               |
| 4    | 4               |
| 6    | 6               |
| 8    | 8               |

### CBN Tip Eight Blade



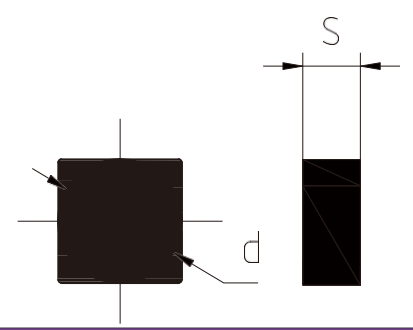
| Model            | Size |      |                | Material |      |      |      |
|------------------|------|------|----------------|----------|------|------|------|
|                  | d    | S    | d <sub>1</sub> | GT96S    | GT90 | GT70 | GT50 |
| SNGA120404VE10-8 | 12.7 | 4.76 | 5.16           | ●        | ●    | ●    | ●    |
| SNGA120404WE10-8 |      |      |                | ●        | ●    | ●    | ●    |
| SNGA120408VE10-8 | 12.7 | 4.76 | 5.16           | ●        | ●    | ●    | ●    |
| SNGA120408WE10-8 |      |      |                | ●        | ●    | ●    | ●    |
| SNGA120412VE10-8 | 12.7 | 4.76 | 5.16           | ●        | ●    | ●    | ●    |
| SNGA120412WE10-8 |      |      |                | ●        | ●    | ●    | ●    |

### CBN Full Top



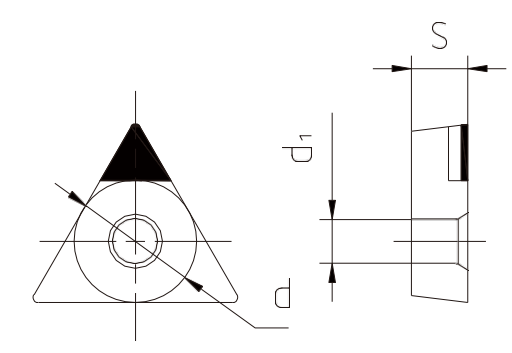
| Model             | Size  |      | Material |      |      |      |
|-------------------|-------|------|----------|------|------|------|
|                   | d     | S    | GT96S    | GT90 | GT70 | GT50 |
| ZSPGN090308VE05-4 | 9.525 | 3.18 | ●        | ●    | ●    | ●    |
| ZSPGN090308WE05-4 |       |      | ●        | ●    | ●    | ●    |
| ZSPGN090312VE05-4 | 9.525 | 3.18 | ●        | ●    | ●    | ●    |
| ZSPGN090312WE05-4 |       |      | ●        | ●    | ●    | ●    |

### CBN Solid Insert



| Model             | Size  |      | Material |      |      |      |
|-------------------|-------|------|----------|------|------|------|
|                   | d     | S    | GT96S    | GT90 | GT70 | GT50 |
| TSNGN090308WE15-8 | 9.525 | 3.18 | ●        | ●    | ●    | ●    |
| TSNGN090308WF15-8 |       |      | ●        | ●    | ●    | ●    |
| TSNGN090308XE15-8 |       |      | ●        | ●    | ●    | ●    |
| TSNGN090308XF15-8 |       |      | ●        | ●    | ●    | ●    |
| TSNGN090312WE15-8 | 9.525 | 3.18 | ●        | ●    | ●    | ●    |
| TSNGN090312WF15-8 |       |      | ●        | ●    | ●    | ●    |
| TSNGN090312XE15-8 |       |      | ●        | ●    | ●    | ●    |
| TSNGN090312XF15-8 |       |      | ●        | ●    | ●    | ●    |
| TSNGN120408WE15-8 | 12.7  | 4.76 | ●        | ●    | ●    | ●    |
| TSNGN120408WF15-8 |       |      | ●        | ●    | ●    | ●    |
| TSNGN120408XE15-8 |       |      | ●        | ●    | ●    | ●    |
| TSNGN120408XF15-8 |       |      | ●        | ●    | ●    | ●    |
| TSNGN120412WE15-8 | 12.7  | 4.76 | ●        | ●    | ●    | ●    |
| TSNGN120412WF15-8 |       |      | ●        | ●    | ●    | ●    |
| TSNGN120412XE15-8 |       |      | ●        | ●    | ●    | ●    |
| TSNGN120412XF15-8 |       |      | ●        | ●    | ●    | ●    |

### CBN Tip Single Edge



| Model            | Size |      |                | Material |      |      |      |
|------------------|------|------|----------------|----------|------|------|------|
|                  | d    | S    | d <sub>1</sub> | GT96S    | GT90 | GT70 | GT50 |
| TCGW090204VD05-1 | 5.56 | 2.38 | 2.5            | ●        | ●    | ●    | ●    |
| TCGW090204WD05-1 |      |      |                | ●        | ●    | ●    | ●    |
| TCGW090208VD05-1 | 5.56 | 2.38 | 2.5            | ●        | ●    | ●    | ●    |
| TCGW090208WD05-1 |      |      |                | ●        | ●    | ●    | ●    |
| TCGW110204VD05-1 | 6.35 | 2.38 | 2.8            | ●        | ●    | ●    | ●    |
| TCGW110204WD05-1 |      |      |                | ●        | ●    | ●    | ●    |
| TCGW110208VD05-1 | 6.35 | 2.38 | 2.8            | ●        | ●    | ●    | ●    |
| TCGW110208WD05-1 |      |      |                | ●        | ●    | ●    | ●    |