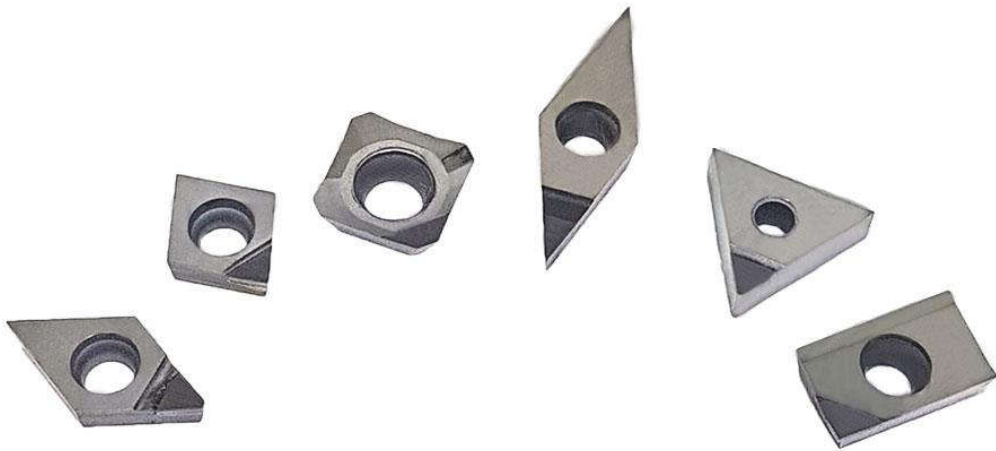
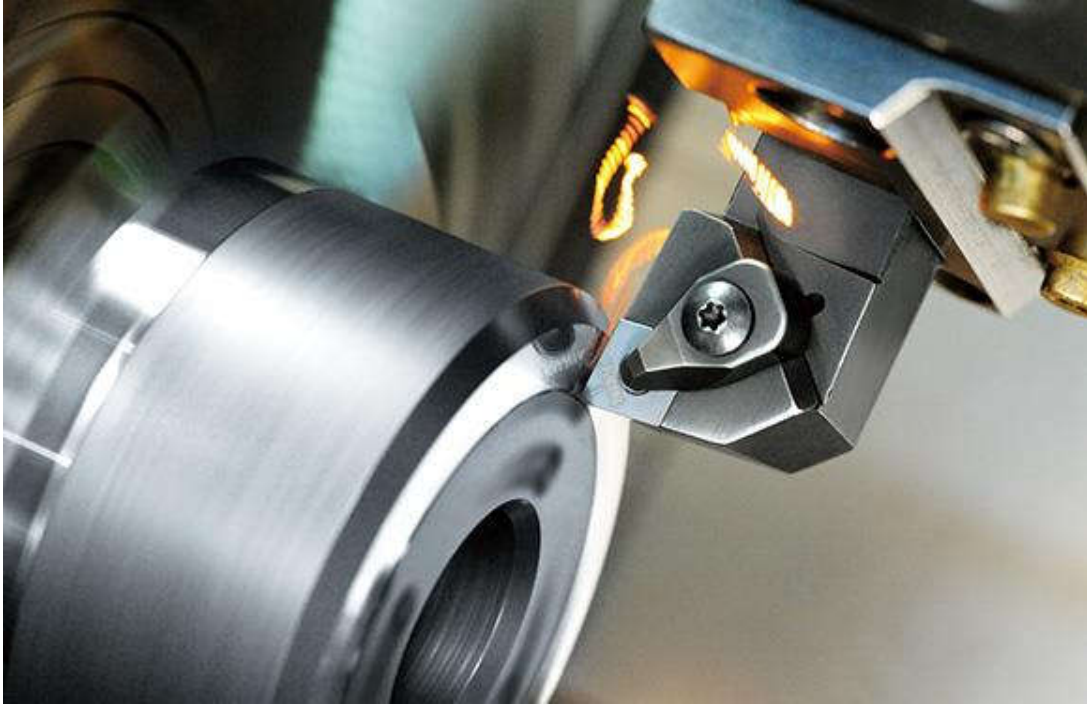
















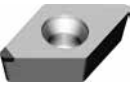



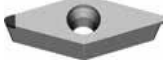


# CBN-PCD TURNING INSERT

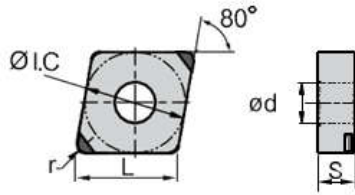
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|                  | Insert Shape<br><i>Schneidplattenform</i>   | Type<br><i>Typ</i> | Grade <i>Sorte</i> |       |       |       |
|------------------|---|--------------------|--------------------|-------|-------|-------|
|                  |   |                    | BN200              | BN201 | BN202 | BN203 |
| Negative Insert  |    | CNGA120404-2       | ○                  | ○     | ○     | ○     |
|                  |   | CNGA120408-2       | ○                  | ○     | ○     | ○     |
|                  |   | CNGA120412-2       | ○                  | ○     | ○     | ○     |
|                  |   | CNGA120408-2W      | ○                  | ○     |       |       |
|                  |   | CNGA120412-2W      | ○                  | ○     |       |       |
|                  |    | DNGA150604-2       | ○                  | ○     | ○     | ○     |
|                  |   | DNGA150608-2       | ○                  | ○     | ●     | ○     |
|                  |   | DNGA150612-2       | ○                  | ●     | ○     |       |
|                  |    | SNGA120408-2       | ○                  | ○     | ○     | ○     |
|                  |   | SNGA120412-2       | ○                  | ○     | ○     | ○     |
|                  |    | TNGA160404-3       | ○                  | ○     |       |       |
|                  |   | TNGA160408-3       | ○                  | ○     | ○     | ○     |
|                  |   | TNGA160412-3       | ○                  | ○     | ○     | ○     |
|                  |    | VNGA160404-2       | ○                  | ●     |       |       |
|                  |   | VNGA160408-2       | ○                  | ○     |       |       |
|                  |  | WNGA080404-3       | ○                  | ○     | ○     |       |
|                  |   | WNGA080408-3       | ○                  | ○     | ○     |       |
|                  |   | WNGA080412-3       | ○                  | ○     | ○     | ○     |
| Positive Inserts |  | CCGW060204-1       | ○                  | ○     |       |       |
|                  |   | CCGW060208-1       |                    | ○     |       |       |
|                  |   | CCGW09T304-2       | ○                  | ○     | ○     | ○     |
|                  |   | CCGW09T308-2       | ○                  | ○     | ○     | ○     |
|                  |   | CCGW120404-2       | ○                  | ○     | ○     |       |
|                  |   | CCGW120408-2       | ○                  | ○     | ○     |       |
|                  |  | DCGW070202-1       | ○                  | ●     |       |       |
|                  |   | DCGW070204-1       | ○                  | ●     |       |       |
|                  |   | DCGW070208-1       | ○                  | ●     |       |       |
|                  |   | DCGW11T304-2       | ○                  | ○     | ○     | ○     |
|                  |   | DCGW11T308-2       | ○                  | ●     | ○     | ○     |
|                  |  | TCGW110204-1       | ○                  | ○     | ○     | ○     |
|                  |   | TCGW110208-1       | ○                  | ○     | ○     |       |
|                  |   | TCGW16T304-3       | ○                  | ○     | ○     | ○     |
|                  |   | TCGW16T308-3       | ○                  | ○     | ○     | ○     |
|                  |  | VBGW160404-2       | ○                  | ○     |       | ○     |
|                  |   |                    | ○                  | ○     |       | ○     |
|                  |  | VCGW160404-2       | ○                  | ○     |       | ○     |
| VCGW160408-2     |   | ○                  | ○                  |       | ○     |       |

# PCD

| Insert Shape<br><i>Schneidplattenform</i>   | Type<br><i>Typ</i> | Grade<br><i>Sorte</i> |
|---|--------------------|-----------------------|
|   |                    | CN300                 |
|    | CCGT060202**       | ●                     |
|   | CCGT060204**       | ●                     |
|   | CCGT09T304**       | ●                     |
|   | CCGT09T308**       | ○                     |
|   | CCGT120404**       | ●                     |
|   | CCGT120408**       | ○                     |
|    | CCGW060202**       | ●                     |
|   | CCGW060204**       | ●                     |
|   | CCGW09T304**       | ●                     |
|   | CCGW09T308**       | ●                     |
|   | CCGW120404**       | ●                     |
|   | CCGW120408**       | ●                     |
|    | DCGT070202**       | ●                     |
|   | DCGT070204**       | ●                     |
|   | DCGT11T302**       | ●                     |
|   | DCGT11T304**       | ●                     |
|   | DCGT11T308**       | ●                     |
|   | DCGW070202**       | ●                     |
|   | DCGW070204**       | ●                     |
|   | DCGW070208**       | ●                     |
|   | DCGW11T302**       | ●                     |
|   | DCGW11T304**       | ●                     |
|   | DCGW11T308**       | ●                     |
|  | TCGT110202**       | ○                     |
|   | TCGT110204**       | ○                     |
|   | TCGT110208**       | ○                     |
|   | TCGT16T304**       | ○                     |
|   | TCGT16T308**       | ○                     |
|  | TCGW110208**       | ○                     |
|   | TCGW16T302**       | ○                     |
|   | TCGW16T304**       | ○                     |
|   | TCGW16T308**       | ○                     |
|  | VBGT160402**       | ○                     |
|   | VBGT160404**       | ○                     |
|   | VBGT160408**       | ○                     |
|  | VBGW160404**       | ●                     |
|   | VBGW160408**       | ●                     |
|  | VCGT160402**       | ○                     |
|   | VCGT160404**       | ●                     |
|   | VCGT160408**       | ●                     |
|  | VCGW160404**       | ●                     |
|   | VCGW160408**       | ●                     |



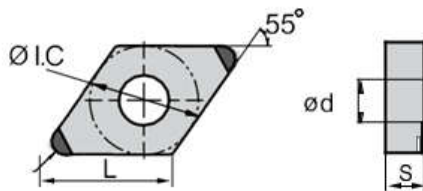
**H** Hardened material

**K** Cast iron

**N** Non-ferrite material

| Type                 | Grades |       |       |       |       | Dimensions (mm) |      |      |     |                |
|----------------------|--------|-------|-------|-------|-------|-----------------|------|------|-----|----------------|
|                      | ISO    | BN200 | BN201 | BN202 | CN300 | BN203           | S    | IC   | r   | d <sub>t</sub> |
| <b>CNGA120404-2</b>  | ◆ ◆    |       |       |       |       |                 | 4.76 | 12.7 | 0.4 | 5.16           |
| <b>CNGA120408-2</b>  | ◆ ◆    |       |       |       |       |                 | 4.76 | 12.7 | 0.8 | 5.16           |
| <b>CNGA120412-2</b>  | ◆ ◆    |       |       |       |       |                 | 4.76 | 12.7 | 1.2 | 5.16           |
| <b>CNGA120408-2W</b> | ◆ ◆    |       |       |       |       |                 | 4.76 | 12.7 | 0.8 | 5.16           |
| <b>CNGA120412-2W</b> | ◆ ◆    |       |       |       |       |                 | 4.76 | 12.7 | 1.2 | 5.16           |

# DNGA



**H** Hardened material

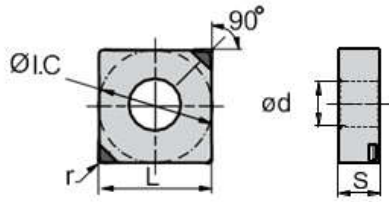
**K** Cast iron

**N** Non-ferrite material

| Type                | Grades |       |       |       |       | Dimensions (mm) |      |      |     |                |
|---------------------|--------|-------|-------|-------|-------|-----------------|------|------|-----|----------------|
|                     | ISO    | BN200 | BN201 | BN202 | CN300 | BN203           | S    | IC   | r   | d <sub>t</sub> |
| <b>DNGA150604-2</b> | ◆ ◆    |       |       |       |       |                 | 6.35 | 12.7 | 0.4 | 5.16           |
| <b>DNGA150608-2</b> | ◆ ◆    |       |       |       |       |                 | 6.35 | 12.7 | 0.8 | 5.16           |
| <b>DNGA150612-2</b> | ◆ ◆    |       |       |       |       |                 | 6.35 | 12.7 | 1.2 | 5.16           |
| <b>DNGA150404-2</b> | ◆ ◆    |       |       |       |       |                 | 4.76 | 12.7 | 0.4 | 5.16           |
| <b>DNGA150408-2</b> | ◆ ◆    |       |       |       |       |                 | 4.76 | 12.7 | 0.8 | 5.16           |
| <b>DNGA150412-2</b> | ◆ ◆    |       |       |       |       |                 | 4.76 | 12.7 | 1.2 | 5.16           |

## Star Guide Key to Recommended Tools

| Material Designations |                  |          |                  |          |                   |          |                   |
|-----------------------|------------------|----------|------------------|----------|-------------------|----------|-------------------|
| <b>P</b>              | Unalloyed Steels | <b>M</b> | Stainless Steels | <b>K</b> | Cast Irons        | <b>S</b> | High Temp. Alloys |
| <b>P</b>              | Alloyed Steels   | <b>M</b> | PH Stainless     | <b>N</b> | Aluminum & Alloys | <b>H</b> | Hard Materials    |



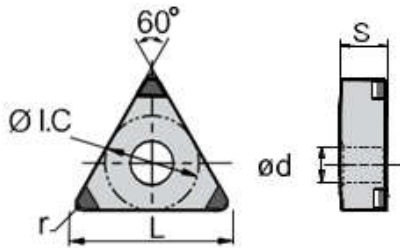
**H** Hardened material

**K** Cast iron

**N** Non-ferrite material

| Type                | Grades |       |       |       |       | Dimensions (mm) |      |     |                |
|---------------------|--------|-------|-------|-------|-------|-----------------|------|-----|----------------|
|                     | BN200  | BN201 | BN202 | CN300 | BN203 | S               | IC   | r   | d <sub>1</sub> |
| ISO                 |        |       |       |       |       |                 |      |     |                |
| <b>SNGA120404-2</b> | ◆ ◆    |       |       |       |       | 4.76            | 12.7 | 0.4 | 4.76           |
| <b>SNGA120408-2</b> | ◆ ◆    |       |       |       |       | 4.76            | 12.7 | 0.8 | 4.76           |
| <b>SNGA120412-2</b> | ◆ ◆    |       |       |       |       | 4.76            | 12.7 | 1.2 | 4.76           |
| <b>SNGA120404-4</b> | ◆ ◆    |       |       |       |       | 4.76            | 12.7 | 0.4 | 4.76           |
| <b>SNGA120408-4</b> | ◆ ◆    |       |       |       |       | 4.76            | 12.7 | 0.8 | 4.76           |
| <b>SNGA120412-4</b> | ◆ ◆    |       |       |       |       | 4.76            | 12.7 | 1.2 | 4.76           |

# TNGA



**H** Hardened material

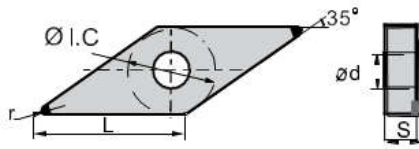
**K** Cast iron

**N** Non-ferrite material

| Type                 | Grades |       |       |       |       | Dimensions (mm) |       |     |                |
|----------------------|--------|-------|-------|-------|-------|-----------------|-------|-----|----------------|
|                      | BN200  | BN201 | BN202 | CN300 | BN203 | S               | IC    | r   | d <sub>1</sub> |
| ISO                  |        |       |       |       |       |                 |       |     |                |
| <b>TNGA160404-3</b>  | ◆ ◆    |       |       |       |       | 4.76            | 9.525 | 0.4 | 3.81           |
| <b>TNGA160408-3</b>  | ◆ ◆    |       |       |       |       | 4.76            | 9.525 | 0.8 | 3.81           |
| <b>TNGA1604012-3</b> | ◆ ◆    |       |       |       |       | 4.76            | 9.525 | 1.2 | 3.81           |
| <b>TNGA160404-6</b>  | ◆ ◆    |       |       |       |       | 4.76            | 9.525 | 0.4 | 3.81           |
| <b>TNGA160408-6</b>  | ◆ ◆    |       |       |       |       | 4.76            | 9.525 | 0.8 | 3.81           |
| <b>TNGA1604012-6</b> | ◆ ◆    |       |       |       |       | 4.76            | 9.525 | 1.2 | 3.81           |

## Star Guide Key to Recommended Tools

| Material Designations |                  |          |                  |          |                   |          |                   |
|-----------------------|------------------|----------|------------------|----------|-------------------|----------|-------------------|
| <b>P</b>              | Unalloyed Steels | <b>M</b> | Stainless Steels | <b>K</b> | Cast Irons        | <b>S</b> | High Temp. Alloys |
| <b>P</b>              | Alloyed Steels   | <b>M</b> | PH Stainless     | <b>N</b> | Aluminum & Alloys | <b>H</b> | Hard Materials    |



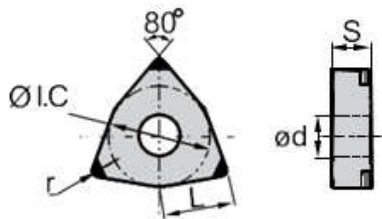
**H** Hardened material

**K** Cast iron

**N** Non-ferrite material

| Type         | Grades |       |       |       |       | Dimensions (mm) |      |       |     |                |
|--------------|--------|-------|-------|-------|-------|-----------------|------|-------|-----|----------------|
|              | ISO    | BN200 | BN201 | BN202 | CN300 | BN203           | S    | IC    | r   | d <sub>t</sub> |
| VNGA160404-2 | ◆ ◆    |       |       |       |       |                 | 4.76 | 9.525 | 0.4 | 3.81           |
| VNGA160408-2 | ◆ ◆    |       |       |       |       |                 | 4.76 | 9.625 | 0.8 | 3.81           |
| VNGA160404-4 | ◆ ◆    |       |       |       |       |                 | 4.76 | 9.525 | 0.4 | 3.81           |
| VNGA160408-4 | ◆ ◆    |       |       |       |       |                 | 4.76 | 9.625 | 0.8 | 3.81           |

# WNGA



**H** Hardened material

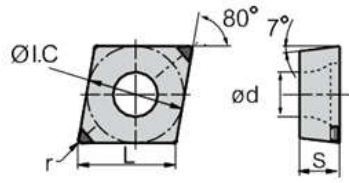
**K** Cast iron

**N** Non-ferrite material

| Type         | Grades |       |       |       |       | Dimensions (mm) |      |      |     |                |
|--------------|--------|-------|-------|-------|-------|-----------------|------|------|-----|----------------|
|              | ISO    | BN200 | BN201 | BN202 | CN300 | BN203           | S    | IC   | r   | d <sub>t</sub> |
| WNGA080404-3 | ◆ ◆    |       |       |       |       |                 | 4.76 | 12.7 | 0.4 | 4.76           |
| WNGA060408-3 | ◆ ◆    |       |       |       |       |                 | 4.76 | 12.7 | 0.8 | 4.76           |
| WNGA080812-3 | ◆ ◆    |       |       |       |       |                 | 4.76 | 12.7 | 1.2 | 4.76           |
| WNGA080404-6 | ◆ ◆    |       |       |       |       |                 | 4.76 | 12.7 | 0.4 | 4.76           |
| WNGA060408-6 | ◆ ◆    |       |       |       |       |                 | 4.76 | 12.7 | 0.8 | 4.76           |
| WNGA080812-6 | ◆ ◆    |       |       |       |       |                 | 4.76 | 12.7 | 1.2 | 4.76           |

## Star Guide Key to Recommended Tools

| Material Designations |                  |          |                  |          |                   |          |                   |
|-----------------------|------------------|----------|------------------|----------|-------------------|----------|-------------------|
| <b>P</b>              | Unalloyed Steels | <b>M</b> | Stainless Steels | <b>K</b> | Cast Irons        | <b>S</b> | High Temp. Alloys |
| <b>P</b>              | Alloyed Steels   | <b>M</b> | PH Stainless     | <b>N</b> | Aluminum & Alloys | <b>H</b> | Hard Materials    |



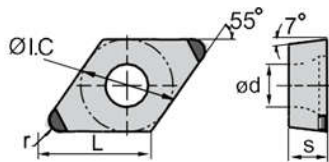
**H** Hardened material

**K** Cast iron

**N** Non-ferrite material

| Type                | Grades |       |       |       |       | Dimensions (mm) |      |       |     |                |
|---------------------|--------|-------|-------|-------|-------|-----------------|------|-------|-----|----------------|
|                     | ISO    | BN200 | BN201 | BN202 | CN300 | BN203           | S    | IC    | r   | d <sub>t</sub> |
| <b>CCGW060204-1</b> | ◆ ◆    |       |       |       |       |                 | 2.38 | 6.35  | 0.4 | 2.8            |
| <b>CCGW060208-1</b> | ◆ ◆    |       |       |       |       |                 | 2.38 | 6.35  | 0.8 | 2.8            |
| <b>CCGW09T304-2</b> | ◆ ◆    |       |       |       |       |                 | 3.97 | 9.525 | 0.4 | 4.4            |
| <b>CCGW09T308-2</b> | ◆ ◆    |       |       |       |       |                 | 3.97 | 9.525 | 0.8 | 4.4            |
| <b>CCGW120404-2</b> | ◆ ◆    |       |       |       |       |                 | 4.76 | 12.7  | 0.4 | 5.5            |
| <b>CCGW120408-2</b> | ◆ ◆    |       |       |       |       |                 | 4.76 | 12.7  | 0.8 | 5.5            |

# DCGW



**H** Hardened material

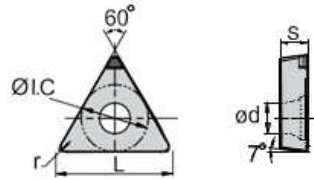
**K** Cast iron

**N** Non-ferrite material

| Type                | Grades |       |       |       |       | Dimensions (mm) |      |       |     |                |
|---------------------|--------|-------|-------|-------|-------|-----------------|------|-------|-----|----------------|
|                     | ISO    | BN200 | BN201 | BN202 | CN300 | BN203           | S    | IC    | r   | d <sub>t</sub> |
| <b>DCGW070204-1</b> | ◆ ◆    |       |       |       |       |                 | 2.38 | 6.35  | 0.4 | 2.8            |
| <b>DCGW070208-1</b> | ◆ ◆    |       |       |       |       |                 | 2.38 | 6.35  | 0.8 | 2.8            |
| <b>DCGW11T304-2</b> | ◆ ◆    |       |       |       |       |                 | 3.97 | 9.525 | 0.4 | 3.97           |
| <b>DCGW11T308-2</b> | ◆ ◆    |       |       |       |       |                 | 3.97 | 9.525 | 0.8 | 3.97           |

## Star Guide Key to Recommended Tools

| Material Designations |                  |          |                  |          |                   |          |                   |
|-----------------------|------------------|----------|------------------|----------|-------------------|----------|-------------------|
| <b>P</b>              | Unalloyed Steels | <b>M</b> | Stainless Steels | <b>K</b> | Cast Irons        | <b>S</b> | High Temp. Alloys |
| <b>P</b>              | Alloyed Steels   | <b>M</b> | PH Stainless     | <b>N</b> | Aluminum & Alloys | <b>H</b> | Hard Materials    |



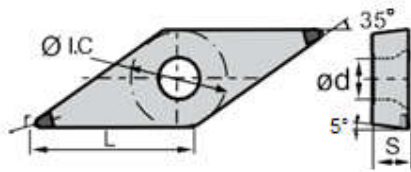
**H** Hardened material

**K** Cast iron

**N** Non-ferrite material

| Type         | Grades |       |       |       |       | Dimensions (mm) |       |     |                |
|--------------|--------|-------|-------|-------|-------|-----------------|-------|-----|----------------|
|              | BN200  | BN201 | BN202 | CN300 | BN203 | S               | IC    | r   | d <sub>t</sub> |
| ISO          |        |       |       |       |       |                 |       |     |                |
| TCGW110204-1 | ◆ ◆    |       |       |       |       | 2.38            | 5.56  | 0.4 | 2.5            |
| TCGW110208-1 | ◆ ◆    |       |       |       |       | 2.38            | 5.56  | 0.8 | 2.5            |
| TCGW16T304-3 | ◆ ◆    |       |       |       |       | 3.97            | 9.525 | 0.4 | 4.4            |
| TCGW16T308-3 | ◆ ◆    |       |       |       |       | 3.97            | 9.525 | 0.8 | 4.4            |

# VBGW



**H** Hardened material

**K** Cast iron

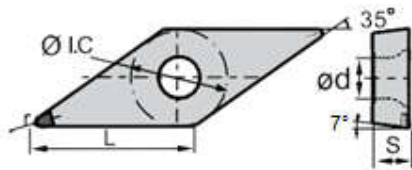
**N** Non-ferrite material

| Type         | Grades |       |       |       |       | Dimensions (mm) |       |     |                |
|--------------|--------|-------|-------|-------|-------|-----------------|-------|-----|----------------|
|              | BN200  | BN201 | BN202 | CN300 | BN203 | S               | IC    | r   | d <sub>t</sub> |
| ISO          |        |       |       |       |       |                 |       |     |                |
| VBGW160404-1 | ◆ ◆    |       |       |       |       | 4.76            | 9.525 | 0.4 | 4.4            |
| VBGW160408-1 | ◆ ◆    |       |       |       |       | 4.76            | 9.525 | 0.8 | 4.4            |
| VBGW160404-2 | ◆ ◆    |       |       |       |       | 4.76            | 9.525 | 0.4 | 4.4            |
| VBGW160408-2 | ◆ ◆    |       |       |       |       | 4.76            | 9.525 | 0.8 | 4.4            |

## Star Guide Key to Recommended Tools

| Material Designations |                  |          |                  |          |                   |          |                   |
|-----------------------|------------------|----------|------------------|----------|-------------------|----------|-------------------|
| <b>P</b>              | Unalloyed Steels | <b>M</b> | Stainless Steels | <b>K</b> | Cast Irons        | <b>S</b> | High Temp. Alloys |
| <b>P</b>              | Alloyed Steels   | <b>M</b> | PH Stainless     | <b>N</b> | Aluminum & Alloys | <b>H</b> | Hard Materials    |





**H** Hardened material

**K** Cast iron

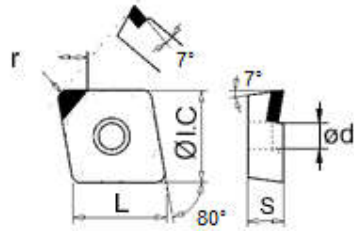
**N** Non-ferrite material

| Type         | Grades |       |       |       |       | Dimensions (mm) |      |       |     |     |
|--------------|--------|-------|-------|-------|-------|-----------------|------|-------|-----|-----|
|              | ISO    | BN200 | BN201 | BN202 | CN300 | BN203           | S    | IC    | r   | d1  |
| VCGW160404-1 | ◆ ◆    |       |       |       |       |                 | 4.76 | 9.525 | 0.4 | 4.4 |
| VCGW160408-1 | ◆ ◆    |       |       |       |       |                 | 4.76 | 9.525 | 0.8 | 4.4 |
| VCGW160404-2 | ◆ ◆    |       |       |       |       |                 | 4.76 | 9.525 | 0.4 | 4.4 |
| VCGW160408-2 | ◆ ◆    |       |       |       |       |                 | 4.76 | 9.525 | 0.8 | 4.4 |

## Star Guide Key to Recommended Tools

| Material Designations |                  |          |                  |          |                   |                            |
|-----------------------|------------------|----------|------------------|----------|-------------------|----------------------------|
| <b>P</b>              | Unalloyed Steels | <b>M</b> | Stainless Steels | <b>K</b> | Cast Irons        | <b>S</b> High Temp. Alloys |
| <b>P</b>              | Alloyed Steels   | <b>M</b> | PH Stainless     | <b>N</b> | Aluminum & Alloys | <b>H</b> Hard Materials    |





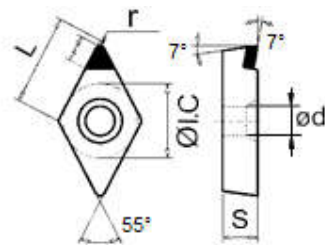
**H** Hardened material

**K** Cast iron

**N** Non-ferrite material

| Type         | Grades |       |       |       |       | Dimensions (mm) |       |     |      |
|--------------|--------|-------|-------|-------|-------|-----------------|-------|-----|------|
|              | BN200  | BN201 | BN202 | CN300 | BN203 | S               | IC    | r   | d1   |
| ISO          |        |       |       |       |       |                 |       |     |      |
| CCGT060202** |        |       |       | ◆     |       | 2,38            | 6,35  | 0,2 | 2,8  |
| CCGT060204** |        |       |       | ◆     |       | 2,38            | 6,35  | 0,4 | 2,8  |
| CCGT09T304** |        |       |       | ◆     |       | 3,97            | 9,525 | 0,4 | 4,4  |
| CCGT09T308** |        |       |       | ◆     |       | 3,97            | 9,525 | 0,8 | 4,4  |
| CCGT120404** |        |       |       | ◆     |       | 4,76            | 12,7  | 0,4 | 5,56 |
| CCGT120408** |        |       |       | ◆     |       | 4,76            | 12,7  | 0,8 | 5,56 |

# DCGT



**H** Hardened material

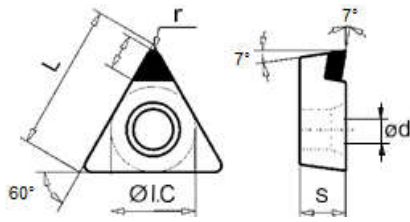
**K** Cast iron

**N** Non-ferrite material

| Type         | Grades |       |       |       |       | Dimensions (mm) |       |     |     |
|--------------|--------|-------|-------|-------|-------|-----------------|-------|-----|-----|
|              | BN200  | BN201 | BN202 | CN300 | BN203 | S               | IC    | r   | d1  |
| ISO          |        |       |       |       |       |                 |       |     |     |
| DCGT070202** |        |       |       | ◆     |       | 3,8             | 6,35  | 0,2 | 2,8 |
| DCGT070204** |        |       |       | ◆     |       | 3,8             | 6,35  | 0,4 | 2,8 |
| DCGT11T302** |        |       |       | ◆     |       | 3,97            | 9,525 | 0,2 | 4,4 |
| DCGT11T304** |        |       |       | ◆     |       | 3,97            | 9,525 | 0,4 | 4,4 |
| DCGT11T308** |        |       |       | ◆     |       | 3,97            | 9,525 | 0,8 | 4,4 |

## Star Guide Key to Recommended Tools

| Material Designations |                  |          |                  |          |                   |          |                   |
|-----------------------|------------------|----------|------------------|----------|-------------------|----------|-------------------|
| <b>P</b>              | Unalloyed Steels | <b>M</b> | Stainless Steels | <b>K</b> | Cast Irons        | <b>S</b> | High Temp. Alloys |
| <b>P</b>              | Alloyed Steels   | <b>M</b> | PH Stainless     | <b>N</b> | Aluminum & Alloys | <b>H</b> | Hard Materials    |



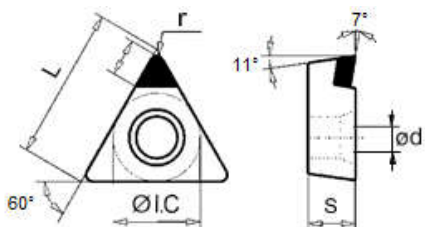
**H** Hardened material

**K** Cast iron

**N** Non-ferrite material

| Type         | Grades |       |       |       |       | Dimensions (mm) |       |     |                |
|--------------|--------|-------|-------|-------|-------|-----------------|-------|-----|----------------|
|              | BN200  | BN201 | BN202 | CN300 | BN203 | S               | IC    | r   | d <sub>1</sub> |
| ISO          |        |       |       |       |       |                 |       |     |                |
| TCGT110202** |        |       |       | ◆     |       | 2,38            | 6,35  | 0,2 | 2,8            |
| TCGT110204** |        |       |       | ◆     |       | 2,38            | 6,35  | 0,4 | 2,8            |
| TCGT110208** |        |       |       | ◆     |       | 2,38            | 6,35  | 0,8 | 2,8            |
| TCGT16T304** |        |       |       | ◆     |       | 3,97            | 9,525 | 0,4 | 4,4            |
| TCGT16T308** |        |       |       | ◆     |       | 3,97            | 9,525 | 0,8 | 4,4            |

# TPGT



**H** Hardened material

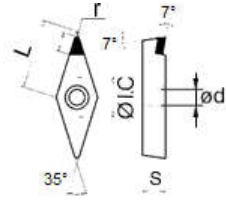
**K** Cast iron

**N** Non-ferrite material

| Type         | Grades |       |       |       |       | Dimensions (mm) |       |     |                |
|--------------|--------|-------|-------|-------|-------|-----------------|-------|-----|----------------|
|              | BN200  | BN201 | BN202 | CN300 | BN203 | S               | IC    | r   | d <sub>1</sub> |
| ISO          |        |       |       |       |       |                 |       |     |                |
| TPGT110202** |        |       |       | ◆     |       | 2,38            | 6,35  | 0,2 | 2,8            |
| TPGT110204** |        |       |       | ◆     |       | 2,38            | 6,35  | 0,4 | 2,8            |
| TPGT110208** |        |       |       | ◆     |       | 2,38            | 6,35  | 0,8 | 2,8            |
| TPGT16T304** |        |       |       | ◆     |       | 3,97            | 9,525 | 0,4 | 4,4            |
| TPGT16T308** |        |       |       | ◆     |       | 3,97            | 9,525 | 0,8 | 4,4            |
| TPGT110304** |        |       |       | ◆     |       | 3,18            | 6,35  | 0,4 | 2,8            |
| TPGT110308** |        |       |       | ◆     |       | 3,18            | 6,35  | 0,8 | 2,8            |

## Star Guide Key to Recommended Tools

| Material Designations |                  |          |                  |          |                   |          |                   |
|-----------------------|------------------|----------|------------------|----------|-------------------|----------|-------------------|
| <b>P</b>              | Unalloyed Steels | <b>M</b> | Stainless Steels | <b>K</b> | Cast Irons        | <b>S</b> | High Temp. Alloys |
| <b>P</b>              | Alloyed Steels   | <b>M</b> | PH Stainless     | <b>N</b> | Aluminum & Alloys | <b>H</b> | Hard Materials    |



**H** Hardened material

**K** Cast iron

**N** Non-ferrite material

| Type         | Grades |       |       |       |       | Dimensions (mm) |       |     |                |
|--------------|--------|-------|-------|-------|-------|-----------------|-------|-----|----------------|
|              | BN200  | BN201 | BN202 | CN300 | BN203 | S               | IC    | r   | d <sub>1</sub> |
| ISO          |        |       |       |       |       |                 |       |     |                |
| VCGT160402** |        |       |       | ◆     |       | 4.76            | 9.525 | 0.2 | 4.4            |
| VCGT160408** |        |       |       | ◆     |       | 4.76            | 9.525 | 0.4 | 4.4            |
| VCGT160408** |        |       |       | ◆     |       | 4.76            | 9.525 | 0.8 | 4.4            |

# VBGT

**H** Hardened material

**K** Cast iron

**N** Non-ferrite material

| Type         | Grades |       |       |       |       | Dimensions (mm) |       |     |                |
|--------------|--------|-------|-------|-------|-------|-----------------|-------|-----|----------------|
|              | BN200  | BN201 | BN202 | CN300 | BN203 | S               | IC    | r   | d <sub>1</sub> |
| ISO          |        |       |       |       |       |                 |       |     |                |
| VBGT160402** |        |       |       | ◆     |       | 4.76            | 9.525 | 0.2 | 4.4            |
| VBGT160408** |        |       |       | ◆     |       | 4.76            | 9.525 | 0.4 | 4.4            |
| VBGT160408** |        |       |       | ◆     |       | 4.76            | 9.525 | 0.8 | 4.4            |

## Star Guide Key to Recommended Tools

| Material Designations |                  |          |                  |          |                   |          |                   |
|-----------------------|------------------|----------|------------------|----------|-------------------|----------|-------------------|
| <b>P</b>              | Unalloyed Steels | <b>M</b> | Stainless Steels | <b>K</b> | Cast Irons        | <b>S</b> | High Temp. Alloys |
| <b>P</b>              | Alloyed Steels   | <b>M</b> | PH Stainless     | <b>N</b> | Aluminum & Alloys | <b>H</b> | Hard Materials    |

# Recommended cutting condition CBN – PCD

| Application | Grade                   | Workpiece                  | Speed (V) (m/min)                  | Feed (f) (mm/rev) | Depth (DOC) (mm) |          |
|-------------|-------------------------|----------------------------|------------------------------------|-------------------|------------------|----------|
| Turning     | BN200<br>BN201<br>BN202 | Gray Cast Iron             | Continuous cutting at high speed   | 130~250           | 0.03~0.15        | 0.03~0.2 |
|             |                         |                            | Medium and low interrupted cutting | 80~120            | 0.03~0.15        | 0.03~0.2 |
|             |                         | Steel                      | Continuous cutting at high speed   | 130~250           | 0.03~0.15        | 0.03~0.2 |
|             |                         |                            | Medium and low interrupted cutting | 80~120            | 0.03~0.15        | 0.03~0.2 |
|             | BN203                   | High interrupted cutting   | 80~110                             | 0.03~0.15         | 0.03~0.2         |          |
| Turning     | CN300                   | Copper, Bronze alloy       | ~ 1000                             | 0.05 ~ 0.2        | ~ 3              |          |
|             |                         | Aluminum alloy (4%~8% Si)  | 1000~3000                          | 0.1 ~ 0.6         | ~ 3              |          |
|             | CN300                   | Aluminum alloy (15%~18%Si) | 300 ~ 700                          | 0.1 ~ 0.4         | ~ 3              |          |
|             | CN300                   | Reinforced plastic         | ~ 1000                             | 0.1 ~ 0.3         | ~ 2              |          |

## Star Guide Key to Recommended Tools

| Material Designations |                  |   |                  |   |                   |   |                   |
|-----------------------|------------------|---|------------------|---|-------------------|---|-------------------|
| P                     | Unalloyed Steels | M | Stainless Steels | K | Cast Irons        | S | High Temp. Alloys |
| P                     | Alloyed Steels   | M | PH Stainless     | N | Aluminum & Alloys | H | Hard Materials    |

