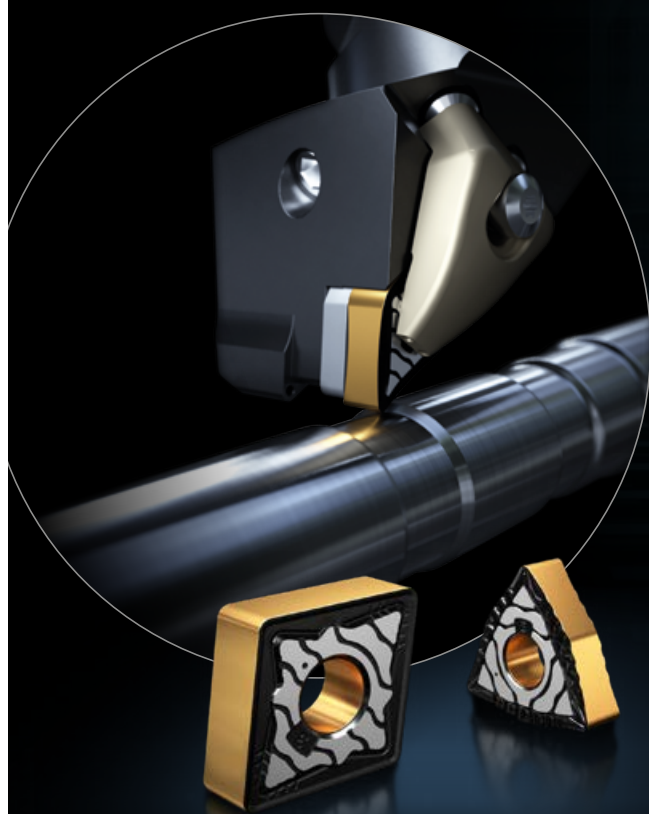


# Tiger-tec® Gold

## Turning takes time. A tool lifetime.





## ISO turning – Indexable inserts

|                                |                                                       |    |
|--------------------------------|-------------------------------------------------------|----|
| Product description            | Tiger-tec® Gold turning grades WPP10G, WPP20G, WPP30G | 4  |
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# Powerful in steel and against wear.

## THE GEOMETRY

- Negative geometries: FW5, FP5/MP3, MS3, MW5, MP5, MU5/RM5, RP5, RP7/HU3, HU5, HU7
- Positive geometries: FP4, FP6/MP4, MP6/RP4/HU6
- Geometries – WL25 copy turning system: FP4/MP4/MU6

## THE GRADE

- New Tiger-tec® Gold coating: Fine-columnar, highly textured MT-TiCN – resistant to flank face wear
- Multilayer MT-TiCN structure improves the elastic property of the crystals
- Highly textured  $\text{Al}_2\text{O}_3$  – for greater resistance to crater wear
- Multi-stage post-treatment for a smooth rake face, reduced friction and improved toughness

## THE APPLICATION

### WPP10G

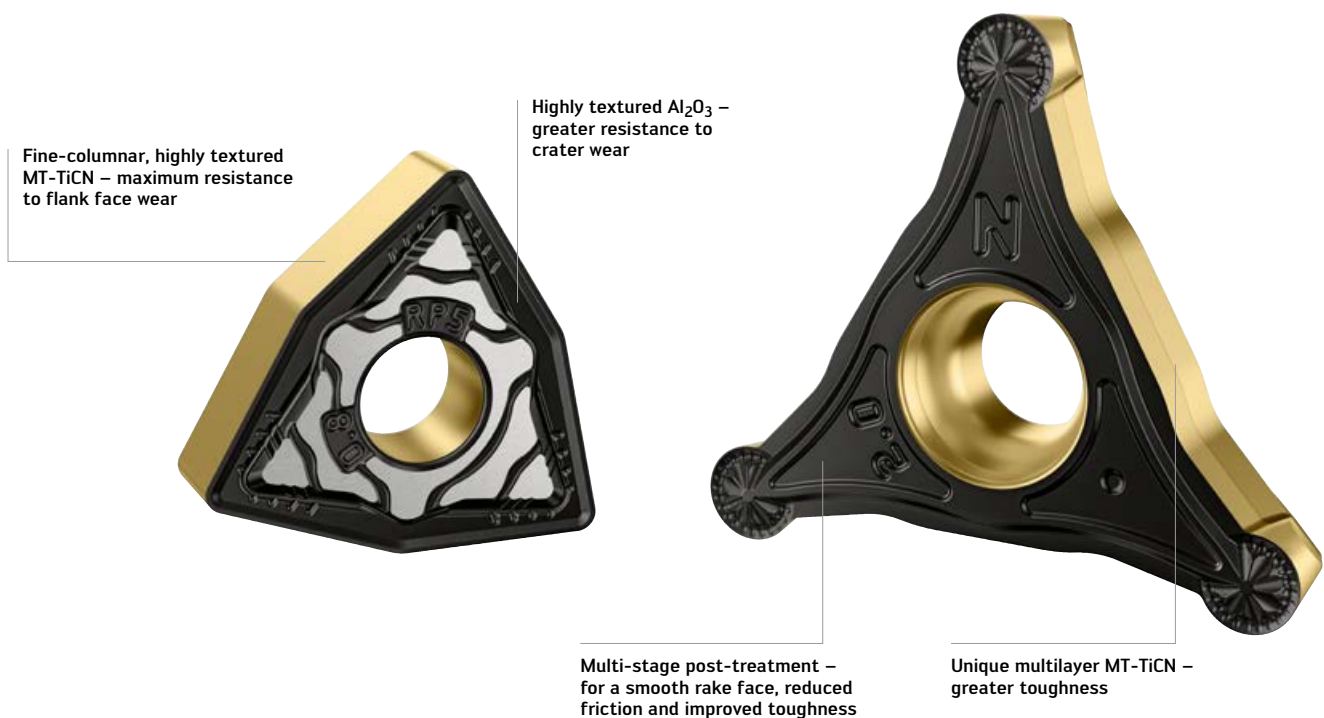
- Wear-resistant for continuous cutting and slightly interrupted cuts
- Primary application: Steel ISO P10;  
Secondary application: Cast iron ISO K20

### WPP20G

- Universal grade with long tool life and high level of process reliability for approx. 50% of all applications
- Primary application: Steel ISO P20;  
Secondary application: Cast iron ISO K30

### WPP30G

- Tough grade for interrupted cuts, unstable or unfavourable conditions
- Primary application: Steel ISO P30;  
Secondary application: Cast iron ISO K40 and stainless steel ISO M20



**Tiger-tec®Gold**

Tiger-tec® Gold turning inserts

Fig.: WNMG080412-RP5 WPP10G and  
WL25-RC0525N-MU6 WPP20G

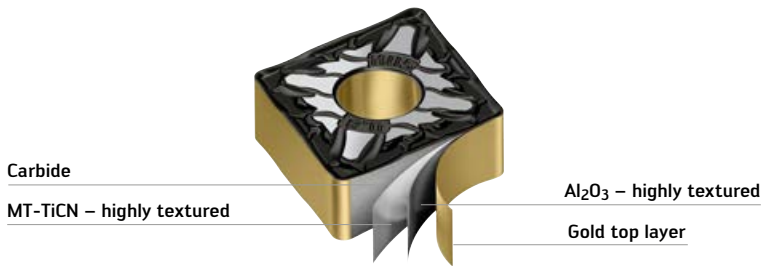
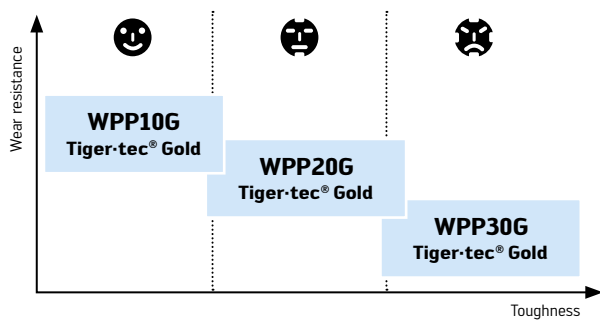
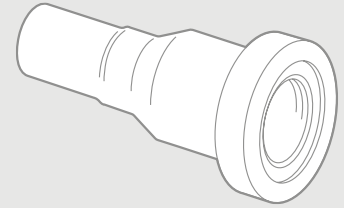


Fig.: TIG coating composition



## APPLICATION EXAMPLE

Transmission shaft –  
Internal machining, dia. 29 mm



Material: 18MnCrS5/DIN 1.8720

Tensile strength: 580 N/mm<sup>2</sup>

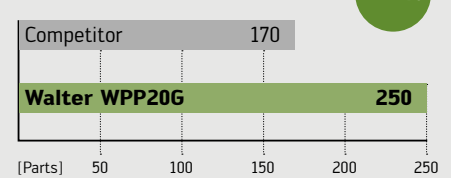
Tool: E20S-SDUCR11-R

Indexable insert: DCMT11T304-FP4 WPP20G

### Cutting data

|                   | Competitor<br>ISO P20 | Walter WPP20G<br>Tiger-tec® Gold |
|-------------------|-----------------------|----------------------------------|
| $v_c$ (m/min)     | 320                   | 320                              |
| $f$ (mm)          | 0.13                  | 0.13                             |
| $a_p$ (mm)        | 0.4                   | 0.4                              |
| Cooling           | Emulsion 15 bar       | Emulsion 15 bar                  |
| Tool life (parts) | 170                   | 250                              |

### Comparison: Tool life quantity



### Conventional TiCN



**Tiger-tec® Gold**  
MT-TiCN –  
highly textured



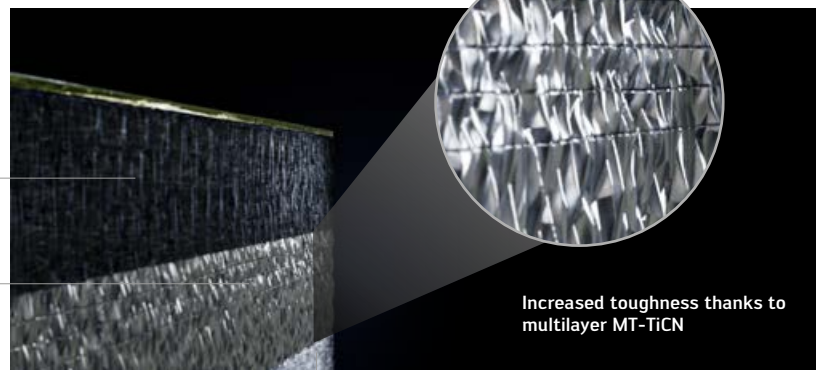
High wear resistance and  
considerable increase in  
tool life

### Tiger-tec® Gold

$\text{Al}_2\text{O}_3$  –  
highly textured

MT-TiCN –  
highly textured

Carbide

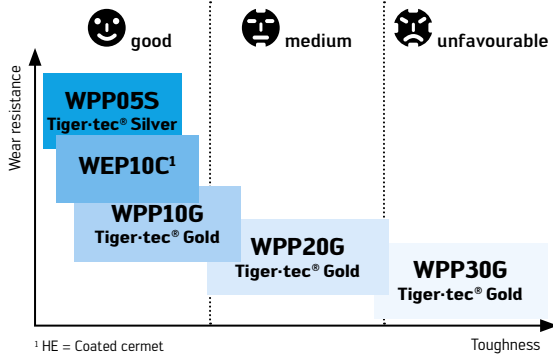


## BENEFITS FOR YOU

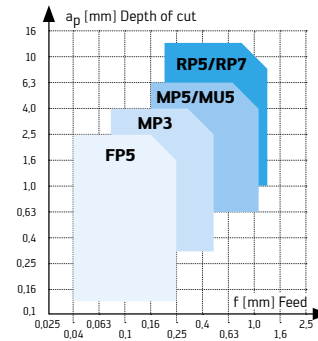
- High level of productivity and process reliability thanks to multi-stage post-treatment and unique, multilayer MT-TiCN structure
- Grades and benchmark geometries for short chips with versatile application
- High level of cost-efficiency due to highly textured Tiger-tec® Gold coating – average tool life increase of around 50%

## Product range overview of indexable inserts for ISO turning: Carbide – Grades and Geometries

### Machining steel ISO P

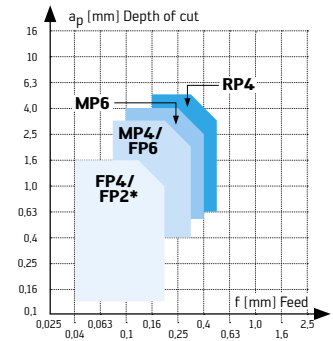


### Negative basic shape double-sided



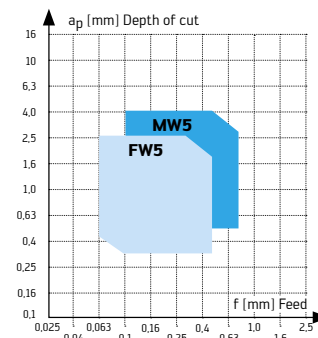
MP5: For universal machining  
MU5: Easy-cutting – for ISO P and ISO M  
RP5: For universal machining  
RP7: For interrupted cuts, cast skin/forged skin

### Positive basic shape

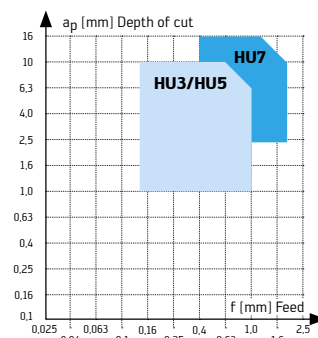


MP4: For universal machining, copy turning  
FP6: For semi-finishing operations  
\* Fully ground circumference

### Wiper



### Negative basic shape single-sided



HU3: For universal machining  
HU5: Easy-cutting

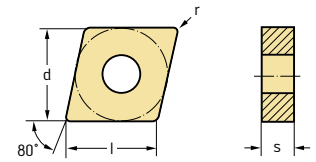
WALTER SELECT

Optimum indexable insert for → Good = 😊 → Average = 😐 → Poor = ☹️ machining conditions

# Negative rhombic 80°

## CNMG / CNMM

### Tiger-tec® Gold



#### Cutting inserts

|                                                                                     | Designation    | l<br>mm | r<br>mm | f<br>mm   | a <sub>p</sub><br>mm | P      |    |        |        |    |
|-------------------------------------------------------------------------------------|----------------|---------|---------|-----------|----------------------|--------|----|--------|--------|----|
|                                                                                     |                |         |         |           |                      | WPP05S | HC | WPP10G | WPP20G | HE |
|    | CNMG090304-FP5 | 9,67    | 0,4     | 0,04–0,20 | 0,1–1,5              |        |    |        |        |    |
|                                                                                     | CNMG090308-FP5 | 9,67    | 0,8     | 0,08–0,25 | 0,2–2,0              |        |    |        |        |    |
|                                                                                     | CNMG120402-FP5 | 12,9    | 0,2     | 0,04–0,12 | 0,1–0,5              |        |    |        |        |    |
|                                                                                     | CNMG120404-FP5 | 12,9    | 0,4     | 0,04–0,20 | 0,1–1,5              |        |    |        |        |    |
|                                                                                     | CNMG120408-FP5 | 12,9    | 0,8     | 0,08–0,25 | 0,2–2,0              |        |    |        |        |    |
|                                                                                     | CNMG120412-FP5 | 12,9    | 1,2     | 0,10–0,25 | 0,5–2,5              |        |    |        |        |    |
|    | CNMG120404-FW5 | 12,9    | 0,4     | 0,10–0,40 | 0,3–3,0              |        |    |        |        |    |
|                                                                                     | CNMG120408-FW5 | 12,9    | 0,8     | 0,15–0,60 | 0,4–3,0              |        |    |        |        |    |
| <b>Wiper</b>                                                                        |                |         |         |           |                      |        |    |        |        |    |
|    | CNMG090304-MP3 | 9,67    | 0,4     | 0,06–0,20 | 0,3–2,2              |        |    |        |        |    |
|                                                                                     | CNMG090308-MP3 | 9,67    | 0,8     | 0,10–0,28 | 0,6–3,0              |        |    |        |        |    |
|                                                                                     | CNMG120404-MP3 | 12,9    | 0,4     | 0,08–0,22 | 0,3–2,5              |        |    |        |        |    |
|                                                                                     | CNMG120408-MP3 | 12,9    | 0,8     | 0,12–0,32 | 0,6–3,2              |        |    |        |        |    |
|                                                                                     | CNMG120412-MP3 | 12,9    | 1,2     | 0,16–0,40 | 0,8–3,5              |        |    |        |        |    |
|  | CNMG120404-MP5 | 12,9    | 0,4     | 0,16–0,25 | 0,5–4,0              |        |    |        |        |    |
|                                                                                     | CNMG120408-MP5 | 12,9    | 0,8     | 0,18–0,40 | 0,6–5,0              |        |    |        |        |    |
|                                                                                     | CNMG120412-MP5 | 12,9    | 1,2     | 0,20–0,45 | 1,0–5,0              |        |    |        |        |    |
|                                                                                     | CNMG120416-MP5 | 12,9    | 1,6     | 0,25–0,50 | 1,2–5,0              |        |    |        |        |    |
|                                                                                     | CNMG160608-MP5 | 16,12   | 0,8     | 0,25–0,40 | 0,8–7,0              |        |    |        |        |    |
|                                                                                     | CNMG160612-MP5 | 16,12   | 1,2     | 0,30–0,50 | 1,0–7,0              |        |    |        |        |    |
|                                                                                     | CNMG160616-MP5 | 16,12   | 1,6     | 0,35–0,55 | 1,2–7,0              |        |    |        |        |    |
|  | CNMG120404-MS3 | 12,9    | 0,4     | 0,12–0,25 | 0,6–3,0              |        |    |        |        |    |
|                                                                                     | CNMG120408-MS3 | 12,9    | 0,8     | 0,15–0,30 | 0,8–3,0              |        |    |        |        |    |
|                                                                                     | CNMG120412-MS3 | 12,9    | 1,2     | 0,15–0,40 | 1,0–3,5              |        |    |        |        |    |
|  | CNMG120404-MU5 | 12,9    | 0,4     | 0,15–0,30 | 0,5–4,0              |        |    |        |        |    |
|                                                                                     | CNMG120408-MU5 | 12,9    | 0,8     | 0,15–0,40 | 0,6–5,0              |        |    |        |        |    |
|                                                                                     | CNMG120412-MU5 | 12,9    | 1,2     | 0,20–0,50 | 1,0–5,0              |        |    |        |        |    |
|                                                                                     | CNMG120416-MU5 | 12,9    | 1,6     | 0,25–0,55 | 1,2–5,0              |        |    |        |        |    |
|                                                                                     | CNMG160612-MU5 | 16,12   | 1,2     | 0,30–0,55 | 1,0–7,0              |        |    |        |        |    |
|                                                                                     | CNMG160616-MU5 | 16,12   | 1,6     | 0,35–0,55 | 1,2–7,0              |        |    |        |        |    |
|  | CNMG120408-MW5 | 12,9    | 0,8     | 0,20–0,65 | 0,8–4,0              |        |    |        |        |    |
|                                                                                     | CNMG120412-MW5 | 12,9    | 1,2     | 0,25–0,70 | 1,5–4,0              |        |    |        |        |    |
| <b>Wiper</b>                                                                        |                |         |         |           |                      |        |    |        |        |    |
|  | CNMG120408-RM5 | 12,9    | 0,8     | 0,20–0,40 | 1,2–5,0              |        |    |        |        |    |
|                                                                                     | CNMG120412-RM5 | 12,9    | 1,2     | 0,25–0,50 | 1,5–5,0              |        |    |        |        |    |
|  | CNMG120408-RP5 | 12,9    | 0,8     | 0,20–0,40 | 0,8–6,0              |        |    |        |        |    |
|                                                                                     | CNMG120412-RP5 | 12,9    | 1,2     | 0,25–0,60 | 1,0–6,0              |        |    |        |        |    |
|                                                                                     | CNMG120416-RP5 | 12,9    | 1,6     | 0,35–0,70 | 1,6–6,0              |        |    |        |        |    |
|                                                                                     | CNMG160608-RP5 | 16,12   | 0,8     | 0,25–0,50 | 1,0–8,0              |        |    |        |        |    |
|                                                                                     | CNMG160612-RP5 | 16,12   | 1,2     | 0,35–0,65 | 1,2–8,0              |        |    |        |        |    |
|                                                                                     | CNMG160616-RP5 | 16,12   | 1,6     | 0,40–0,70 | 1,6–8,0              |        |    |        |        |    |
|                                                                                     | CNMG160624-RP5 | 16,12   | 2,4     | 0,40–0,90 | 2,0–8,0              |        |    |        |        |    |
|                                                                                     | CNMG190608-RP5 | 19,34   | 0,8     | 0,25–0,50 | 1,0–10,0             |        |    |        |        |    |
|                                                                                     | CNMG190612-RP5 | 19,34   | 1,2     | 0,30–0,70 | 1,2–10,0             |        |    |        |        |    |

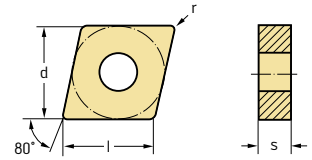
See the ISO 1832 designation key for dimensions

HC = Coated carbide  
HE = Coated cermet  
HW = Uncoated carbide

# Negative rhombic 80°

CNMG / CNMM

Tiger-tec® Gold



## Cutting inserts

|                                                                                     | Designation    | l<br>mm | r<br>mm | f<br>mm   | a <sub>p</sub><br>mm | P      |    |        |        |        |
|-------------------------------------------------------------------------------------|----------------|---------|---------|-----------|----------------------|--------|----|--------|--------|--------|
|                                                                                     |                |         |         |           |                      | WPP05S | HC | WPP10G | WPP20G | WPP30G |
|    | CNMG190616-RP5 | 19,34   | 1,6     | 0,35–0,80 | 1,6–10,0             |        |    |        |        |        |
|                                                                                     | CNMG190624-RP5 | 19,34   | 2,4     | 0,45–1,00 | 2,0–10,0             |        |    |        |        |        |
|                                                                                     | CNMG250924-RP5 | 25,79   | 2,4     | 0,45–1,20 | 2,0–12,0             |        |    |        |        |        |
|    | CNMG120408-RP7 | 12,9    | 0,8     | 0,18–0,40 | 0,8–5,0              |        |    |        |        |        |
|                                                                                     | CNMG120412-RP7 | 12,9    | 1,2     | 0,25–0,50 | 1,2–5,0              |        |    |        |        |        |
|                                                                                     | CNMG120416-RP7 | 12,9    | 1,6     | 0,35–0,50 | 1,5–5,0              |        |    |        |        |        |
|                                                                                     | CNMG160608-RP7 | 16,12   | 0,8     | 0,30–0,50 | 0,8–6,0              |        |    |        |        |        |
|                                                                                     | CNMG160612-RP7 | 16,12   | 1,2     | 0,35–0,60 | 1,2–6,0              |        |    |        |        |        |
|                                                                                     | CNMG160616-RP7 | 16,12   | 1,6     | 0,40–0,60 | 1,5–6,0              |        |    |        |        |        |
|                                                                                     | CNMG190612-RP7 | 19,34   | 1,2     | 0,35–0,60 | 1,2–7,0              |        |    |        |        |        |
|                                                                                     | CNMG190616-RP7 | 19,34   | 1,6     | 0,35–0,75 | 1,5–7,0              |        |    |        |        |        |
|                                                                                     | CNMG250924-RP7 | 25,79   | 2,4     | 0,45–1,00 | 3,0–9,0              |        |    |        |        |        |
|   | CNMM120408-HU3 | 12,9    | 0,8     | 0,30–0,50 | 0,8–7,0              |        |    |        |        |        |
|                                                                                     | CNMM120412-HU3 | 12,9    | 1,2     | 0,35–0,70 | 1,2–7,0              |        |    |        |        |        |
|                                                                                     | CNMM120416-HU3 | 12,9    | 1,6     | 0,40–0,80 | 1,6–7,0              |        |    |        |        |        |
|                                                                                     | CNMM160612-HU3 | 16,12   | 1,2     | 0,35–0,70 | 1,2–9,0              |        |    |        |        |        |
|                                                                                     | CNMM160616-HU3 | 16,12   | 1,6     | 0,40–0,90 | 1,6–9,0              |        |    |        |        |        |
|                                                                                     | CNMM160624-HU3 | 16,12   | 2,4     | 0,45–1,00 | 2,4–9,0              |        |    |        |        |        |
|                                                                                     | CNMM190612-HU3 | 19,34   | 1,2     | 0,35–0,70 | 1,2–10,0             |        |    |        |        |        |
|                                                                                     | CNMM190616-HU3 | 19,34   | 1,6     | 0,40–0,90 | 1,6–10,0             |        |    |        |        |        |
|                                                                                     | CNMM190624-HU3 | 19,34   | 2,4     | 0,45–1,10 | 2,4–10,0             |        |    |        |        |        |
|  | CNMM250924-HU3 | 25,79   | 2,4     | 0,45–1,20 | 2,4–12,0             |        |    |        |        |        |
|                                                                                     | CNMM120408-HU5 | 12,9    | 0,8     | 0,25–0,55 | 1,0–7,0              |        |    |        |        |        |
|                                                                                     | CNMM120412-HU5 | 12,9    | 1,2     | 0,30–0,70 | 1,5–7,0              |        |    |        |        |        |
|                                                                                     | CNMM160612-HU5 | 16,12   | 1,2     | 0,35–0,70 | 1,5–9,0              |        |    |        |        |        |
|                                                                                     | CNMM160616-HU5 | 16,12   | 1,6     | 0,40–0,80 | 2,0–9,0              |        |    |        |        |        |
|                                                                                     | CNMM190612-HU5 | 19,34   | 1,2     | 0,35–0,70 | 1,5–10,0             |        |    |        |        |        |
|                                                                                     | CNMM190616-HU5 | 19,34   | 1,6     | 0,40–0,90 | 2,0–10,0             |        |    |        |        |        |
|  | CNMM190624-HU5 | 19,34   | 2,4     | 0,45–1,00 | 2,0–10,0             |        |    |        |        |        |
|                                                                                     | CNMM120412-HU7 | 12,9    | 1,2     | 0,40–0,80 | 1,5–8,0              |        |    |        |        |        |
|                                                                                     | CNMM160612-HU7 | 16,12   | 1,2     | 0,50–0,90 | 2,0–10,0             |        |    |        |        |        |
|                                                                                     | CNMM160616-HU7 | 16,12   | 1,6     | 0,50–1,10 | 2,0–10,0             |        |    |        |        |        |
|                                                                                     | CNMM160624-HU7 | 16,12   | 2,4     | 0,50–1,30 | 2,0–10,0             |        |    |        |        |        |
|                                                                                     | CNMM190612-HU7 | 19,34   | 1,2     | 0,50–0,90 | 2,0–13,0             |        |    |        |        |        |
|                                                                                     | CNMM190616-HU7 | 19,34   | 1,6     | 0,50–1,10 | 2,0–13,0             |        |    |        |        |        |
|  | CNMM250924-HU7 | 25,79   | 2,4     | 0,60–1,60 | 3,0–17,0             |        |    |        |        |        |

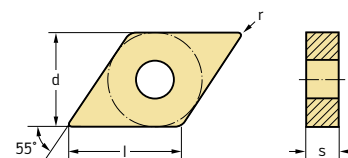
See the ISO 1832 designation key for dimensions

HC = Coated carbide  
HE = Coated cermet  
HW = Uncoated carbide

# Negative rhombic 55°

DNMG / DNMM

Tiger-tec® Gold



## Cutting inserts

|                                                                                            | Designation    | r<br>mm | f<br>mm   | a <sub>p</sub><br>mm | P      |        |        |        |        |
|--------------------------------------------------------------------------------------------|----------------|---------|-----------|----------------------|--------|--------|--------|--------|--------|
|                                                                                            |                |         |           |                      | WPP05S | WPP10G | WPP20G | WPP30G | WEP10C |
|           | DNMG110402-FP5 | 0,2     | 0,04–0,12 | 0,1–0,5              |        | ☺      | ☺      | ☺      | ☺      |
|                                                                                            | DNMG110404-FP5 | 0,4     | 0,04–0,20 | 0,1–1,5              |        | ☺      | ☺      | ☺      | ☺      |
|                                                                                            | DNMG110408-FP5 | 0,8     | 0,08–0,25 | 0,2–2,0              |        | ☺      | ☺      | ☺      | ☺      |
|                                                                                            | DNMG110412-FP5 | 1,2     | 0,10–0,25 | 0,5–2,5              |        | ☺      | ☺      | ☺      |        |
|                                                                                            | DNMG150404-FP5 | 0,4     | 0,05–0,20 | 0,1–1,5              |        | ☺      | ☺      | ☺      | ☺      |
|                                                                                            | DNMG150408-FP5 | 0,8     | 0,08–0,25 | 0,2–2,0              |        | ☺      | ☺      | ☺      | ☺      |
|                                                                                            | DNMG150412-FP5 | 1,2     | 0,10–0,25 | 0,5–2,5              |        | ☺      | ☺      | ☺      | ☺      |
|                                                                                            | DNMG150604-FP5 | 0,4     | 0,05–0,20 | 0,1–1,5              |        | ☺      | ☺      | ☺      | ☺      |
|                                                                                            | DNMG150608-FP5 | 0,8     | 0,08–0,25 | 0,2–2,0              |        | ☺      | ☺      | ☺      | ☺      |
| <br>Wiper | DNMG110404-FW5 | 0,4     | 0,10–0,35 | 0,3–2,0              |        | ☺      | ☺      |        |        |
|                                                                                            | DNMG110408-FW5 | 0,8     | 0,15–0,50 | 0,4–2,0              |        | ☺      | ☺      |        |        |
|                                                                                            | DNMG150404-FW5 | 0,4     | 0,10–0,40 | 0,3–3,0              |        | ☺      |        |        |        |
|                                                                                            | DNMG150408-FW5 | 0,8     | 0,15–0,50 | 0,4–3,0              |        | ☺      |        |        |        |
|                                                                                            | DNMG150604-FW5 | 0,4     | 0,10–0,40 | 0,3–3,0              |        | ☺      | ☺      |        |        |
|                                                                                            | DNMG150608-FW5 | 0,8     | 0,15–0,50 | 0,4–3,0              |        | ☺      | ☺      |        |        |
|         | DNMG110404-MP3 | 0,4     | 0,08–0,22 | 0,3–2,2              |        | ☺      | ☺      |        |        |
|                                                                                            | DNMG110408-MP3 | 0,8     | 0,12–0,32 | 0,6–3,0              | ☺      | ☺      | ☺      | ☺      |        |
|                                                                                            | DNMG110412-MP3 | 1,2     | 0,16–0,40 | 0,8–3,2              |        | ☺      | ☺      |        |        |
|                                                                                            | DNMG150404-MP3 | 0,4     | 0,08–0,22 | 0,3–2,5              |        | ☺      | ☺      |        |        |
|                                                                                            | DNMG150408-MP3 | 0,8     | 0,12–0,32 | 0,6–3,2              | ☺      | ☺      | ☺      | ☺      |        |
|                                                                                            | DNMG150412-MP3 | 1,2     | 0,16–0,40 | 0,8–3,5              | ☺      | ☺      | ☺      | ☺      |        |
|                                                                                            | DNMG150604-MP3 | 0,4     | 0,08–0,22 | 0,3–2,5              |        | ☺      | ☺      | ☺      |        |
|                                                                                            | DNMG150608-MP3 | 0,8     | 0,12–0,32 | 0,6–3,2              | ☺      | ☺      | ☺      | ☺      |        |
|         | DNMG110404-MP5 | 0,4     | 0,16–0,25 | 0,5–4,0              |        | ☺      | ☺      | ☺      |        |
|                                                                                            | DNMG110408-MP5 | 0,8     | 0,18–0,35 | 0,6–4,0              |        | ☺      | ☺      | ☺      |        |
|                                                                                            | DNMG110412-MP5 | 1,2     | 0,20–0,40 | 1,0–4,0              |        | ☺      | ☺      | ☺      |        |
|                                                                                            | DNMG150404-MP5 | 0,4     | 0,16–0,25 | 0,5–4,0              |        | ☺      | ☺      | ☺      |        |
|                                                                                            | DNMG150408-MP5 | 0,8     | 0,18–0,35 | 0,6–5,0              |        | ☺      | ☺      | ☺      |        |
|                                                                                            | DNMG150412-MP5 | 1,2     | 0,20–0,40 | 1,0–5,0              | ☺      | ☺      | ☺      | ☺      |        |
|                                                                                            | DNMG150604-MP5 | 0,4     | 0,16–0,25 | 0,5–4,0              |        | ☺      | ☺      | ☺      |        |
|                                                                                            | DNMG150608-MP5 | 0,8     | 0,18–0,35 | 0,6–5,0              | ☺      | ☺      | ☺      | ☺      |        |
|                                                                                            | DNMG150612-MP5 | 1,2     | 0,20–0,40 | 1,0–5,0              | ☺      | ☺      | ☺      | ☺      |        |
|         | DNMG110408-MS3 | 0,8     | 0,12–0,30 | 0,8–2,5              |        |        | ☺      |        |        |
|                                                                                            | DNMG150608-MS3 | 0,8     | 0,15–0,30 | 0,8–2,5              |        |        | ☺      |        |        |
|         | DNMG110408-MU5 | 0,8     | 0,18–0,35 | 0,6–4,0              |        | ☺      | ☺      |        |        |
|                                                                                            | DNMG150408-MU5 | 0,8     | 0,18–0,35 | 0,6–5,0              |        | ☺      | ☺      |        |        |
|                                                                                            | DNMG150608-MU5 | 0,8     | 0,18–0,35 | 0,6–5,0              | ☺      | ☺      | ☺      |        |        |
|                                                                                            | DNMG150612-MU5 | 1,2     | 0,20–0,45 | 1,0–5,0              | ☺      | ☺      | ☺      |        |        |
|                                                                                            | DNMG150616-MU5 | 1,6     | 0,25–0,50 | 1,2–5,0              |        | ☺      | ☺      |        |        |

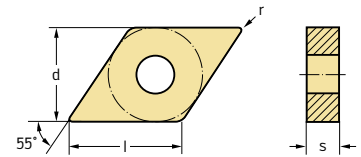
See the ISO 1832 designation key for dimensions

HE = Coated cermet  
HC = Coated carbide

## Negative rhombic 55°

DNMG / DNMM

Tiger-tec® Gold



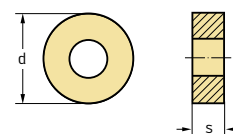
### Cutting inserts

|                                                                                            | Designation    | r<br>mm | f<br>mm   | a <sub>p</sub><br>mm | P      |    |   |   |    |
|--------------------------------------------------------------------------------------------|----------------|---------|-----------|----------------------|--------|----|---|---|----|
|                                                                                            |                |         |           |                      | WPP05S | HC |   |   | HE |
| <br>Wiper | DNMG110408-MW5 | 0,8     | 0,15–0,50 | 0,8–3,0              |        | ⊗  | ⊗ |   |    |
|                                                                                            | DNMG110412-MW5 | 1,2     | 0,20–0,60 | 1,5–3,0              |        | ⊗  | ⊗ |   |    |
|                                                                                            | DNMG150408-MW5 | 0,8     | 0,15–0,55 | 0,8–4,0              |        | ⊗  |   |   |    |
|                                                                                            | DNMG150412-MW5 | 1,2     | 0,20–0,65 | 1,5–4,0              |        | ⊗  |   |   |    |
|                                                                                            | DNMG150608-MW5 | 0,8     | 0,15–0,55 | 1,5–4,0              | ⊗      | ⊗  | ⊗ |   |    |
|                                                                                            | DNMG150612-MW5 | 1,2     | 0,20–0,65 | 1,5–4,0              | ⊗      | ⊗  | ⊗ |   |    |
|           | DNMG110408-RP5 | 0,8     | 0,18–0,35 | 0,8–4,0              |        | ⊗  | ⊗ | ⊗ |    |
|                                                                                            | DNMG110412-RP5 | 1,2     | 0,20–0,40 | 1,0–4,0              |        | ⊗  | ⊗ | ⊗ |    |
|                                                                                            | DNMG150408-RP5 | 0,8     | 0,18–0,35 | 0,8–5,0              | ⊗      | ⊗  | ⊗ | ⊗ |    |
|                                                                                            | DNMG150412-RP5 | 1,2     | 0,20–0,40 | 1,0–5,0              |        | ⊗  | ⊗ | ⊗ |    |
|                                                                                            | DNMG150608-RP5 | 0,8     | 0,15–0,35 | 0,8–5,0              | ⊗      | ⊗  | ⊗ | ⊗ |    |
|                                                                                            | DNMG150612-RP5 | 1,2     | 0,20–0,55 | 1,0–5,0              | ⊗      | ⊗  | ⊗ | ⊗ |    |
|          | DNMG150616-RP5 | 1,6     | 0,25–0,65 | 1,6–5,0              | ⊗      | ⊗  | ⊗ | ⊗ |    |
|                                                                                            | DNMM150608-HU3 | 0,8     | 0,25–0,45 | 0,8–5,0              |        | ⊗  | ⊗ | ⊗ |    |
|                                                                                            | DNMM150612-HU3 | 1,2     | 0,30–0,50 | 1,2–5,0              |        | ⊗  | ⊗ | ⊗ |    |
|         | DNMM150616-HU3 | 1,6     | 0,35–0,60 | 1,6–5,0              |        | ⊗  | ⊗ |   |    |
|                                                                                            | DNMM150608-HU5 | 0,8     | 0,25–0,45 | 1,0–5,0              |        |    | ⊗ |   |    |
|                                                                                            | DNMM150612-HU5 | 1,2     | 0,30–0,50 | 1,5–5,0              |        |    | ⊗ |   |    |

See the ISO 1832 designation key for dimensions

HE = Coated cermet  
HC = Coated carbide

## Negative round RNMG Tiger-tec® Gold



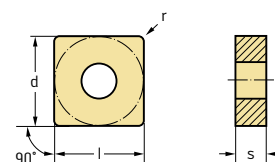
### Cutting inserts

|                                                                                   | Designation    | d<br>mm | f<br>mm   | a <sub>p</sub><br>mm | P<br>HC<br>WPP20G                                                                   |
|-----------------------------------------------------------------------------------|----------------|---------|-----------|----------------------|-------------------------------------------------------------------------------------|
|                                                                                   |                |         |           |                      |                                                                                     |
|  | RNMG120400-RP5 | 12,7    | 0,20–0,60 | 1,2–5,0              |  |

See the ISO 1832 designation key for dimensions

HC = Coated carbide  
HW = Uncoated carbide

## Negative square SNMG / SNMM Tiger-tec® Gold



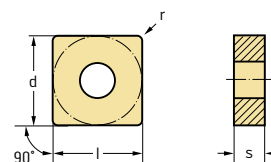
### Cutting inserts

|                                                                                     | Designation    | r<br>mm | f<br>mm   | a <sub>p</sub><br>mm | P<br>HC                                                                               |                                                                                       |                                                                                       |                                                                                       |
|-------------------------------------------------------------------------------------|----------------|---------|-----------|----------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|                                                                                     |                |         |           |                      | WPP05S                                                                                | WPP10G                                                                                | WPP20G                                                                                | WPP30G                                                                                |
|  | SNMG090308-FP5 | 0,8     | 0,06–0,20 | 0,2–1,5              |  |  |  |                                                                                       |
|                                                                                     | SNMG120404-FP5 | 0,4     | 0,04–0,22 | 0,1–1,8              |  |  |  |                                                                                       |
|                                                                                     | SNMG120408-FP5 | 0,8     | 0,08–0,25 | 0,2–2,0              |  |  |  |                                                                                       |
|                                                                                     | SNMG120412-FP5 | 1,2     | 0,10–0,25 | 0,5–2,5              |  |  |  |                                                                                       |
|  | SNMG090308-MP3 | 0,8     | 0,10–0,32 | 0,6–3,0              |  |  |  |                                                                                       |
|                                                                                     | SNMG120404-MP3 | 0,4     | 0,08–0,25 | 0,3–2,5              |  |  |  |                                                                                       |
|                                                                                     | SNMG120408-MP3 | 0,8     | 0,12–0,35 | 0,6–3,2              |  |  |  |  |
|                                                                                     | SNMG120412-MP3 | 1,2     | 0,16–0,40 | 0,8–3,5              |  |  |  |                                                                                       |
|  | SNMG090308-MP5 | 0,8     | 0,14–0,32 | 0,6–3,0              |  |  |  |                                                                                       |
|                                                                                     | SNMG120408-MP5 | 0,8     | 0,18–0,40 | 0,6–5,0              |  |  |  |  |
|                                                                                     | SNMG120412-MP5 | 1,2     | 0,20–0,45 | 1,0–5,0              |  |  |  |  |
|                                                                                     | SNMG120416-MP5 | 1,6     | 0,25–0,50 | 1,2–5,0              |  |  |  |                                                                                       |
|                                                                                     | SNMG150608-MP5 | 0,8     | 0,25–0,50 | 0,8–8,0              |  |  |  |                                                                                       |
|                                                                                     | SNMG150612-MP5 | 1,2     | 0,30–0,50 | 1,0–8,0              |  |  |  |  |
|  | SNMG150616-MP5 | 1,6     | 0,35–0,55 | 1,2–8,0              |  |  |  |                                                                                       |
|                                                                                     | SNMG120408-MU5 | 0,8     | 0,18–0,45 | 0,6–5,0              |  |  |  |                                                                                       |

See the ISO 1832 designation key for dimensions

HC = Coated carbide

# Negative square SNMG / SNMM Tiger-tec® Gold



## Cutting inserts

|                                                                                     | Designation    | r<br>mm | f<br>mm   | a <sub>p</sub><br>mm | P      |        |        |        |
|-------------------------------------------------------------------------------------|----------------|---------|-----------|----------------------|--------|--------|--------|--------|
|                                                                                     |                |         |           |                      | HC     |        |        |        |
|                                                                                     |                |         |           |                      | WPP05S | WPP10G | WPP20G | WPP30G |
|    | SNMG120408-RP5 | 0,8     | 0,20–0,55 | 0,8–6,0              |        | ⊗      | ⊗      | ⊗      |
|                                                                                     | SNMG120412-RP5 | 1,2     | 0,25–0,65 | 1,0–6,0              | ⊗      | ⊗      | ⊗      | ⊗      |
|                                                                                     | SNMG120416-RP5 | 1,6     | 0,35–0,75 | 1,6–6,0              |        | ⊗      | ⊗      | ⊗      |
|                                                                                     | SNMG150612-RP5 | 1,2     | 0,25–0,70 | 1,2–8,0              | ⊗      | ⊗      | ⊗      | ⊗      |
|                                                                                     | SNMG150616-RP5 | 1,6     | 0,35–0,80 | 1,6–8,0              | ⊗      | ⊗      | ⊗      | ⊗      |
|                                                                                     | SNMG190612-RP5 | 1,2     | 0,30–0,70 | 1,2–10,0             |        | ⊗      | ⊗      | ⊗      |
|                                                                                     | SNMG190616-RP5 | 1,6     | 0,35–0,80 | 1,6–10,0             |        |        | ⊗      | ⊗      |
|                                                                                     | SNMG190624-RP5 | 2,4     | 0,44–1,20 | 2,0–10,0             |        |        | ⊗      |        |
|    | SNMG250924-RP5 | 2,4     | 0,55–1,20 | 2,5–12,0             |        |        | ⊗      | ⊗      |
|                                                                                     | SNMG120408-RP7 | 0,8     | 0,25–0,45 | 0,8–5,0              |        |        | ⊗      | ⊗      |
|                                                                                     | SNMG120412-RP7 | 1,2     | 0,30–0,50 | 1,2–5,0              |        |        | ⊗      | ⊗      |
|                                                                                     | SNMG120416-RP7 | 1,6     | 0,35–0,60 | 1,5–5,0              |        | ⊗      | ⊗      | ⊗      |
|                                                                                     | SNMG150612-RP7 | 1,2     | 0,35–0,60 | 1,2–6,0              |        | ⊗      | ⊗      | ⊗      |
|                                                                                     | SNMG150616-RP7 | 1,6     | 0,40–0,70 | 1,5–6,0              |        | ⊗      | ⊗      | ⊗      |
|                                                                                     | SNMG190612-RP7 | 1,2     | 0,35–0,60 | 1,2–7,0              |        |        | ⊗      | ⊗      |
|                                                                                     | SNMG190616-RP7 | 1,6     | 0,40–0,70 | 1,5–7,0              |        | ⊗      | ⊗      | ⊗      |
|  | SNMG190624-RP7 | 2,4     | 0,40–0,80 | 2,5–7,0              |        |        | ⊗      | ⊗      |
|                                                                                     | SNMG250924-RP7 | 2,4     | 0,55–1,00 | 3,0–10,0             |        |        | ⊗      |        |
|                                                                                     | SNMM120408-HU3 | 0,8     | 0,30–0,50 | 0,8–7,0              |        |        | ⊗      | ⊗      |
|                                                                                     | SNMM120412-HU3 | 1,2     | 0,35–0,70 | 1,2–7,0              |        |        | ⊗      |        |
|                                                                                     | SNMM120416-HU3 | 1,6     | 0,40–0,90 | 1,6–7,0              |        | ⊗      | ⊗      |        |
|                                                                                     | SNMM150612-HU3 | 1,2     | 0,35–0,75 | 1,2–9,0              |        |        | ⊗      |        |
|                                                                                     | SNMM150616-HU3 | 1,6     | 0,40–0,90 | 1,6–9,0              |        | ⊗      | ⊗      |        |
|                                                                                     | SNMM150624-HU3 | 2,4     | 0,45–1,10 | 2,0–9,0              |        |        | ⊗      |        |
|  | SNMM190612-HU3 | 1,2     | 0,35–0,75 | 1,2–10,0             |        | ⊗      | ⊗      | ⊗      |
|                                                                                     | SNMM190616-HU3 | 1,6     | 0,40–1,00 | 1,6–10,0             |        | ⊗      | ⊗      | ⊗      |
|                                                                                     | SNMM190624-HU3 | 2,4     | 0,45–1,20 | 2,0–10,0             |        |        | ⊗      |        |
|                                                                                     | SNMM250724-HU3 | 2,4     | 0,55–1,20 | 2,5–12,0             |        |        | ⊗      |        |
|                                                                                     | SNMM250916-HU3 | 1,6     | 0,45–1,00 | 1,6–12,0             |        |        | ⊗      |        |
|                                                                                     | SNMM250924-HU3 | 2,4     | 0,55–1,20 | 2,5–12,0             |        |        | ⊗      |        |
|                                                                                     | SNMM120412-HU5 | 1,2     | 0,30–0,70 | 1,5–7,0              |        |        | ⊗      |        |
|                                                                                     | SNMM150612-HU5 | 1,2     | 0,35–0,70 | 1,5–9,0              |        |        | ⊗      |        |
|  | SNMM190612-HU5 | 1,2     | 0,35–0,80 | 1,5–10,0             |        |        | ⊗      |        |
|                                                                                     | SNMM190616-HU5 | 1,6     | 0,40–1,00 | 2,0–10,0             |        |        | ⊗      |        |
|                                                                                     | SNMM190624-HU5 | 2,4     | 0,45–1,10 | 2,0–10,0             |        |        | ⊗      |        |
|                                                                                     | SNMM250924-HU5 | 2,4     | 0,50–1,20 | 2,5–12,0             |        |        | ⊗      |        |
|                                                                                     | SNMM150616-HU7 | 1,6     | 0,45–1,00 | 2,0–12,0             |        | ⊗      | ⊗      |        |
|                                                                                     | SNMM150624-HU7 | 2,4     | 0,50–1,40 | 2,5–12,0             |        | ⊗      | ⊗      |        |
|                                                                                     | SNMM190612-HU7 | 1,2     | 0,50–1,00 | 2,0–13,0             |        |        | ⊗      | ⊗      |
|                                                                                     | SNMM190616-HU7 | 1,6     | 0,50–1,10 | 2,5–13,0             |        |        | ⊗      | ⊗      |
|  | SNMM190624-HU7 | 2,4     | 0,60–1,60 | 3,0–13,0             |        | ⊗      | ⊗      | ⊗      |
|                                                                                     | SNMM250716-HU7 | 1,6     | 0,50–1,10 | 2,5–17,0             |        |        | ⊗      |        |
|                                                                                     | SNMM250724-HU7 | 2,4     | 0,60–1,60 | 3,0–17,0             |        |        | ⊗      | ⊗      |
|                                                                                     | SNMM250924-HU7 | 2,4     | 0,60–1,60 | 3,0–17,0             |        | ⊗      | ⊗      | ⊗      |

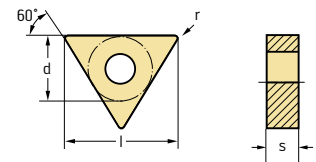
See the ISO 1832 designation key for dimensions

HC = Coated carbide

# Negative triangular 60°

## TNMG / TNMM

### Tiger-tec® Gold



#### Cutting inserts

|                                                                                     | Designation    | r<br>mm | f<br>mm   | a <sub>p</sub><br>mm | P      |    |   |    |   |
|-------------------------------------------------------------------------------------|----------------|---------|-----------|----------------------|--------|----|---|----|---|
|                                                                                     |                |         |           |                      | WPP05S | HC |   | HE |   |
|    | TNMG110304-FP5 | 0,4     | 0,04–0,15 | 0,1–1,2              | ☺      | ☺  |   |    |   |
|                                                                                     | TNMG110308-FP5 | 0,8     | 0,08–0,20 | 0,2–1,5              | ☺      | ☺  |   |    |   |
|                                                                                     | TNMG160404-FP5 | 0,4     | 0,04–0,20 | 0,1–1,5              | ☺      | ☺  | ☺ |    | ☺ |
|                                                                                     | TNMG160408-FP5 | 0,8     | 0,08–0,25 | 0,2–2,0              | ☺      | ☺  | ☺ |    | ☺ |
|                                                                                     | TNMG160412-FP5 | 1,2     | 0,10–0,25 | 0,5–2,5              | ☺      | ☺  | ☺ |    |   |
|    | TNMG160404-FW5 | 0,4     | 0,10–0,40 | 0,3–3,0              | ☺      | ☺  |   |    |   |
|                                                                                     | TNMG160408-FW5 | 0,8     | 0,15–0,50 | 0,4–3,0              | ☺      | ☺  |   |    |   |
| <b>Wiper</b>                                                                        |                |         |           |                      |        |    |   |    |   |
|    | TNMG110304-MP3 | 0,4     | 0,06–0,18 | 0,3–2,0              | ☺      | ☺  |   |    |   |
|                                                                                     | TNMG110308-MP3 | 0,8     | 0,10–0,25 | 0,6–2,2              | ☺      | ☺  |   |    |   |
|                                                                                     | TNMG160304-MP3 | 0,4     | 0,08–0,22 | 0,3–2,2              |        | ☺  |   |    |   |
|                                                                                     | TNMG160404-MP3 | 0,4     | 0,08–0,22 | 0,3–2,2              | ☺      | ☺  | ☺ |    |   |
|                                                                                     | TNMG160408-MP3 | 0,8     | 0,12–0,32 | 0,6–3,0              | ☺      | ☺  | ☺ |    |   |
|                                                                                     | TNMG160412-MP3 | 1,2     | 0,16–0,40 | 0,8–3,2              | ☺      | ☺  | ☺ |    |   |
|                                                                                     | TNMG220408-MP3 | 0,8     | 0,12–0,32 | 0,6–3,2              | ☺      | ☺  | ☺ |    |   |
|                                                                                     | TNMG220412-MP3 | 1,2     | 0,16–0,40 | 0,8–3,5              | ☺      | ☺  |   |    |   |
|  | TNMG160308-MP5 | 0,8     | 0,18–0,35 | 0,6–4,0              |        | ☺  |   |    |   |
|                                                                                     | TNMG160404-MP5 | 0,4     | 0,16–0,25 | 0,5–4,0              |        | ☺  | ☺ | ☺  |   |
|                                                                                     | TNMG160408-MP5 | 0,8     | 0,18–0,35 | 0,6–4,0              | ☺      | ☺  | ☺ | ☺  |   |
|                                                                                     | TNMG160412-MP5 | 1,2     | 0,20–0,40 | 1,0–4,0              |        | ☺  | ☺ | ☺  |   |
|                                                                                     | TNMG220404-MP5 | 0,4     | 0,16–0,25 | 0,7–4,0              |        | ☺  | ☺ |    |   |
|                                                                                     | TNMG220408-MP5 | 0,8     | 0,18–0,35 | 0,8–5,0              |        | ☺  | ☺ | ☺  |   |
|                                                                                     | TNMG220412-MP5 | 1,2     | 0,20–0,40 | 1,0–5,0              |        | ☺  | ☺ | ☺  |   |
|                                                                                     | TNMG220416-MP5 | 1,6     | 0,25–0,45 | 1,2–5,0              |        | ☺  | ☺ |    |   |
|                                                                                     | TNMG270608-MP5 | 0,8     | 0,25–0,45 | 0,8–7,0              |        | ☺  |   |    |   |
|                                                                                     | TNMG270612-MP5 | 1,2     | 0,30–0,50 | 1,0–7,0              |        | ☺  | ☺ | ☺  |   |
|  | TNMG160404-MS3 | 0,4     | 0,12–0,25 | 0,6–3,0              |        | ☺  |   |    |   |
|                                                                                     | TNMG160408-MS3 | 0,8     | 0,15–0,30 | 0,8–3,0              |        | ☺  |   |    |   |
|                                                                                     | TNMG220404-MS3 | 0,4     | 0,12–0,25 | 0,6–3,0              |        | ☺  |   |    |   |
|                                                                                     | TNMG220408-MS3 | 0,8     | 0,15–0,30 | 0,8–3,0              |        | ☺  |   |    |   |
|  | TNMG160404-MU5 | 0,4     | 0,15–0,30 | 0,5–4,0              |        | ☺  | ☺ |    |   |
|                                                                                     | TNMG160408-MU5 | 0,8     | 0,18–0,35 | 0,6–4,0              |        | ☺  | ☺ |    |   |
|                                                                                     | TNMG160412-MU5 | 1,2     | 0,20–0,45 | 1,0–4,0              |        | ☺  | ☺ |    |   |
|  | TNMG160408-MW5 | 0,8     | 0,15–0,55 | 0,8–4,0              |        | ☺  | ☺ |    |   |
|                                                                                     | TNMG160412-MW5 | 1,2     | 0,20–0,65 | 1,5–4,0              |        | ☺  | ☺ |    |   |
| <b>Wiper</b>                                                                        |                |         |           |                      |        |    |   |    |   |
|  | TNMG160408-RP5 | 0,8     | 0,20–0,40 | 0,8–5,0              | ☺      | ☺  | ☺ | ☺  |   |
|                                                                                     | TNMG160412-RP5 | 1,2     | 0,25–0,55 | 1,0–5,0              |        | ☺  | ☺ | ☺  |   |
|                                                                                     | TNMG220408-RP5 | 0,8     | 0,20–0,45 | 0,8–7,0              |        | ☺  | ☺ | ☺  |   |
|                                                                                     | TNMG220412-RP5 | 1,2     | 0,25–0,60 | 1,0–7,0              |        | ☺  | ☺ | ☺  |   |
|                                                                                     | TNMG220416-RP5 | 1,6     | 0,35–0,70 | 1,6–7,0              | ☺      | ☺  | ☺ | ☺  |   |
|                                                                                     | TNMG270612-RP5 | 1,2     | 0,30–0,70 | 1,6–10,0             |        | ☺  | ☺ | ☺  |   |
|                                                                                     | TNMG270616-RP5 | 1,6     | 0,35–0,80 | 2,0–10,0             |        |    | ☺ | ☺  |   |
|                                                                                     | TNMG330924-RP5 | 2,4     | 0,45–1,20 | 2,5–13,0             |        |    | ☺ | ☺  |   |

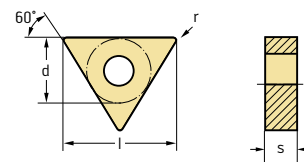
See the ISO 1832 designation key for dimensions

HC = Coated carbide  
HE = Coated cermet

# Negative triangular 60°

## TNMG / TNMM

### Tiger-tec® Gold



#### Cutting inserts

|                                                                                   | Designation    | r<br>mm | f<br>mm   | a <sub>p</sub><br>mm | P      |        |        |        |        |
|-----------------------------------------------------------------------------------|----------------|---------|-----------|----------------------|--------|--------|--------|--------|--------|
|                                                                                   |                |         |           |                      | WPP05S | WPP10G | WPP20G | WPP30G | WEP10C |
|  | TNMG270616-RP7 | 1,6     | 0,35–0,75 | 1,5–9,0              |        |        | HC     |        |        |
|                                                                                   | TNMG270624-RP7 | 2,4     | 0,55–1,00 | 3,0–9,0              |        |        | HC     |        |        |
|  | TNMM160408-HU3 | 0,8     | 0,30–0,45 | 0,8–6,0              |        |        | HC     |        |        |
|                                                                                   | TNMM160412-HU3 | 1,2     | 0,35–0,50 | 1,2–6,0              |        |        | HC     |        |        |
|                                                                                   | TNMM220408-HU3 | 0,8     | 0,30–0,50 | 0,8–7,0              |        |        | HC     | HE     |        |
|                                                                                   | TNMM220412-HU3 | 1,2     | 0,35–0,60 | 1,2–7,0              |        |        | HC     |        |        |
|                                                                                   | TNMM220416-HU3 | 1,6     | 0,40–0,80 | 1,6–7,0              |        |        | HC     |        |        |
|                                                                                   | TNMM270612-HU3 | 1,2     | 0,35–0,65 | 1,2–8,0              |        |        | HC     |        |        |
|  | TNMM270616-HU7 | 1,6     | 0,50–1,10 | 2,0–13,0             |        |        | HC     | HE     |        |

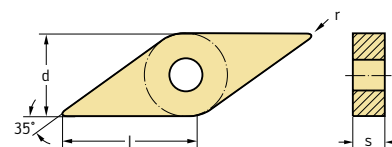
See the ISO 1832 designation key for dimensions

HC = Coated carbide  
HE = Coated cermet

# Negative rhombic 35°

VNMG

Tiger-tec® Gold



## Cutting inserts

|                                                                                   | Designation    | r<br>mm | f<br>mm   | a <sub>p</sub><br>mm | P      |    |        |        |
|-----------------------------------------------------------------------------------|----------------|---------|-----------|----------------------|--------|----|--------|--------|
|                                                                                   |                |         |           |                      | WPP10G | HC | WPP20G | WPP30G |
|  | VNMG160404-FP5 | 0,4     | 0,04–0,22 | 0,1–1,5              | ☺      | ☺  | ☺      | ☺      |
|                                                                                   | VNMG160408-FP5 | 0,8     | 0,08–0,25 | 0,2–2,0              | ☺      | ☺  | ☺      | ☺      |
|                                                                                   | VNMG160412-FP5 | 1,2     | 0,12–0,28 | 0,3–2,5              | ☺      | ☺  | ☺      | ☺      |
|  | VNMG160404-MP3 | 0,4     | 0,08–0,22 | 0,3–2,2              | ☺      | ☺  | ☺      | ☺      |
|                                                                                   | VNMG160408-MP3 | 0,8     | 0,12–0,32 | 0,6–3,0              | ☺      | ☺  | ☺      | ☺      |
|                                                                                   | VNMG160412-MP3 | 1,2     | 0,16–0,35 | 0,8–3,2              | ☺      | ☺  | ☺      | ☺      |
|  | VNMG160404-MP5 | 0,4     | 0,10–0,18 | 0,5–2,0              | ☺      | ☺  | ☺      | ☺      |
|                                                                                   | VNMG160408-MP5 | 0,8     | 0,18–0,35 | 0,6–4,0              | ☺      | ☺  | ☺      | ☺      |
|                                                                                   | VNMG160412-MP5 | 1,2     | 0,20–0,40 | 0,8–4,0              | ☺      | ☺  | ☺      | ☺      |
|                                                                                   | VNMG220408-MP5 | 0,8     | 0,18–0,35 | 0,6–4,0              | ☺      | ☺  | ☺      | ☺      |

See the ISO 1832 designation key for dimensions

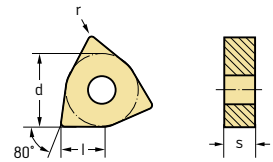
HE = Coated cermet

HC = Coated carbide

# Negative Trigon 80°

WNMG / WNMM

Tiger-tec® Gold



## Cutting inserts

|                                                                                              | Designation    | r<br>mm | f<br>mm   | a <sub>p</sub><br>mm | P      |    |   |   |    |
|----------------------------------------------------------------------------------------------|----------------|---------|-----------|----------------------|--------|----|---|---|----|
|                                                                                              |                |         |           |                      | WPP05S | HC |   |   | HE |
|             | WNMG060404-FP5 | 0,4     | 0,04–0,20 | 0,1–1,5              |        | ☺  | ☺ |   |    |
|                                                                                              | WNMG060408-FP5 | 0,8     | 0,08–0,25 | 0,2–2,0              |        | ☺  | ☺ |   |    |
|                                                                                              | WNMG080404-FP5 | 0,4     | 0,05–0,20 | 0,1–1,5              |        | ☺  | ☺ |   | ☺  |
|                                                                                              | WNMG080408-FP5 | 0,8     | 0,08–0,25 | 0,2–2,0              |        | ☺  | ☺ |   | ☺  |
|                                                                                              | WNMG080412-FP5 | 1,2     | 0,10–0,25 | 0,5–2,5              |        | ☺  | ☺ |   |    |
| <br>Wiper   | WNMG060404-FW5 | 0,4     | 0,10–0,35 | 0,3–2,0              |        | ☺  | ☺ |   |    |
|                                                                                              | WNMG060408-FW5 | 0,8     | 0,15–0,50 | 0,4–2,0              |        | ☺  | ☺ |   |    |
|                                                                                              | WNMG080404-FW5 | 0,4     | 0,10–0,40 | 0,3–3,0              |        | ☺  | ☺ |   |    |
|                                                                                              | WNMG080408-FW5 | 0,8     | 0,15–0,60 | 0,4–3,0              |        | ☺  | ☺ |   |    |
|                                                                                              | WNMG080412-FW5 | 1,2     | 0,25–0,65 | 0,6–3,0              |        | ☺  | ☺ |   |    |
|             | WNMG060404-MP3 | 0,4     | 0,08–0,22 | 0,3–2,2              |        | ☺  | ☺ |   |    |
|                                                                                              | WNMG060408-MP3 | 0,8     | 0,12–0,32 | 0,6–3,0              |        | ☺  | ☺ |   |    |
|                                                                                              | WNMG060412-MP3 | 1,2     | 0,16–0,35 | 0,8–3,2              |        |    | ☺ |   |    |
|                                                                                              | WNMG080404-MP3 | 0,4     | 0,08–0,22 | 0,3–2,5              |        |    | ☺ | ☺ |    |
|                                                                                              | WNMG080408-MP3 | 0,8     | 0,12–0,32 | 0,6–3,2              | ☺      | ☺  | ☺ | ☺ |    |
|                                                                                              | WNMG080412-MP3 | 1,2     | 0,16–0,40 | 0,8–3,5              | ☺      | ☺  | ☺ | ☺ |    |
|           | WNMG060404-MP5 | 0,4     | 0,16–0,25 | 0,5–4,0              |        | ☺  | ☺ | ☺ |    |
|                                                                                              | WNMG060408-MP5 | 0,8     | 0,18–0,35 | 0,6–4,0              | ☺      | ☺  | ☺ | ☺ |    |
|                                                                                              | WNMG060412-MP5 | 1,2     | 0,20–0,40 | 1,0–4,0              |        | ☺  | ☺ |   |    |
|                                                                                              | WNMG080404-MP5 | 0,4     | 0,16–0,25 | 0,5–4,0              |        | ☺  | ☺ | ☺ |    |
|                                                                                              | WNMG080408-MP5 | 0,8     | 0,18–0,40 | 0,6–5,0              | ☺      | ☺  | ☺ | ☺ |    |
|                                                                                              | WNMG080412-MP5 | 1,2     | 0,20–0,45 | 1,0–5,0              | ☺      | ☺  | ☺ | ☺ |    |
|                                                                                              | WNMG080416-MP5 | 1,6     | 0,25–0,50 | 1,2–5,0              |        | ☺  | ☺ |   |    |
|                                                                                              | WNMG100608-MP5 | 0,8     | 0,25–0,40 | 0,8–7,0              |        | ☺  | ☺ |   |    |
|           | WNMG100612-MP5 | 1,2     | 0,30–0,50 | 1,0–7,0              |        | ☺  | ☺ |   |    |
|                                                                                              | WNMG080408-MS3 | 0,8     | 0,15–0,30 | 0,8–3,0              |        |    | ☺ |   |    |
|           | WNMG060408-MU5 | 0,8     | 0,15–0,35 | 0,6–3,0              |        | ☺  | ☺ |   |    |
|                                                                                              | WNMG080404-MU5 | 0,4     | 0,15–0,30 | 0,5–4,0              |        | ☺  | ☺ |   |    |
|                                                                                              | WNMG080408-MU5 | 0,8     | 0,15–0,40 | 0,6–5,0              |        | ☺  | ☺ |   |    |
|                                                                                              | WNMG080412-MU5 | 1,2     | 0,20–0,50 | 1,0–5,0              | ☺      | ☺  | ☺ |   |    |
|                                                                                              | WNMG080416-MU5 | 1,6     | 0,25–0,55 | 1,2–5,0              |        | ☺  | ☺ |   |    |
| <br>Wiper | WNMG060408-MW5 | 0,8     | 0,15–0,50 | 0,8–3,0              |        | ☺  | ☺ |   |    |
|                                                                                              | WNMG060412-MW5 | 1,2     | 0,20–0,60 | 1,5–3,0              |        | ☺  | ☺ |   |    |
|                                                                                              | WNMG080408-MW5 | 0,8     | 0,20–0,65 | 0,8–4,0              | ☺      | ☺  | ☺ |   |    |
|                                                                                              | WNMG080412-MW5 | 1,2     | 0,25–0,70 | 1,5–4,0              | ☺      | ☺  | ☺ |   |    |
|           | WNMG080408-RM5 | 0,8     | 0,20–0,40 | 1,2–4,5              |        | ☺  | ☺ |   |    |

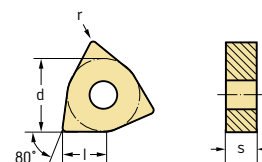
See the ISO 1832 designation key for dimensions

HC = Coated carbide  
HE = Coated cermet

# Negative Trigon 80°

## WNMG / WNMM

### Tiger-tec® Gold



#### Cutting inserts

|                                                                                    | Designation    | r<br>mm | f<br>mm   | a <sub>p</sub><br>mm | P      |        |        |        |        |
|------------------------------------------------------------------------------------|----------------|---------|-----------|----------------------|--------|--------|--------|--------|--------|
|                                                                                    |                |         |           |                      | HC     |        |        |        | HE     |
|                                                                                    |                |         |           |                      | WPP05S | WPP10G | WPP20G | WPP30G | WEP10C |
|   | WNMG060408-RP5 | 0,8     | 0,20-0,40 | 0,8-4,0              |        | ☺      | ☺      | ☺      |        |
|                                                                                    | WNMG060412-RP5 | 1,2     | 0,25-0,50 | 1,0-4,0              |        | ☺      | ☺      | ☺      |        |
|                                                                                    | WNMG080408-RP5 | 0,8     | 0,20-0,40 | 0,8-6,0              | ☺      | ☺      | ☺      | ☺      |        |
|                                                                                    | WNMG080412-RP5 | 1,2     | 0,25-0,60 | 1,0-6,0              | ☺      | ☺      | ☺      | ☺      |        |
|                                                                                    | WNMG080416-RP5 | 1,6     | 0,35-0,70 | 1,6-6,0              |        | ☺      | ☺      | ☺      |        |
|                                                                                    | WNMG100612-RP5 | 1,2     | 0,35-0,65 | 1,2-8,0              |        | ☺      | ☺      | ☺      |        |
|   | WNMG100616-RP5 | 1,6     | 0,35-0,70 | 1,6-8,0              |        | ☺      | ☺      | ☺      |        |
|                                                                                    | WNMG080408-RP7 | 0,8     | 0,18-0,40 | 0,8-5,0              |        | ☺      | ☺      | ☺      |        |
|                                                                                    | WNMG080412-RP7 | 1,2     | 0,25-0,50 | 1,2-5,0              |        | ☺      | ☺      | ☺      |        |
|                                                                                    | WNMG100608-RP7 | 0,8     | 0,30-0,50 | 0,8-6,0              |        |        | ☺      |        |        |
|                                                                                    | WNMG100612-RP7 | 1,2     | 0,35-0,60 | 1,2-6,0              |        | ☺      | ☺      | ☺      |        |
|  | WNMG100616-RP7 | 1,6     | 0,40-0,60 | 1,5-6,0              |        |        | ☺      | ☺      |        |
|                                                                                    | WNMM080412-HU3 | 1,2     | 0,35-0,60 | 1,2-6,0              |        |        | ☺      |        |        |
|                                                                                    | WNMM100612-HU3 | 1,2     | 0,35-0,70 | 1,2-8,0              |        | ☺      | ☺      |        |        |
|                                                                                    | WNMM100616-HU3 | 1,6     | 0,40-0,90 | 1,6-8,0              |        | ☺      | ☺      |        |        |

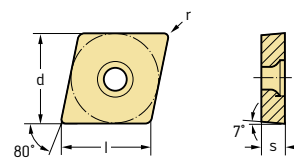
See the ISO 1832 designation key for dimensions

HC = Coated carbide  
HE = Coated cermet

# Positive rhombic 80°

## CCGT / CCMT

### Tiger-tec® Gold



#### Cutting inserts

|                                                                                     | Designation     | l<br>mm | r<br>mm | f<br>mm   | a <sub>p</sub><br>mm | P      |        |        |        |
|-------------------------------------------------------------------------------------|-----------------|---------|---------|-----------|----------------------|--------|--------|--------|--------|
|                                                                                     |                 |         |         |           |                      | WPP10G | WPP20G | WPP30G | WEP10C |
|    | CCGT060201M-FP2 | 6,45    | 0,07    | 0,02–0,06 | 0,1–1,5              |        |        |        | ☹      |
|                                                                                     | CCGT060202M-FP2 | 6,45    | 0,17    | 0,05–0,12 | 0,2–2,0              |        |        |        | ☹      |
|                                                                                     | CCGT060204M-FP2 | 6,45    | 0,37    | 0,08–0,25 | 0,2–2,5              |        |        |        | ☹      |
|                                                                                     | CCGT09T301M-FP2 | 9,67    | 0,07    | 0,02–0,06 | 0,1–1,5              |        |        |        | ☹      |
|                                                                                     | CCGT09T302M-FP2 | 9,67    | 0,17    | 0,05–0,12 | 0,2–2,0              |        |        |        | ☹      |
|                                                                                     | CCGT09T304M-FP2 | 9,67    | 0,37    | 0,08–0,25 | 0,2–2,5              |        |        |        | ☹      |
|    | CCGT09T308M-FP2 | 9,67    | 0,77    | 0,10–0,30 | 0,3–3,0              |        |        |        | ☹      |
|                                                                                     | CCGT060204-MP4  | 6,45    | 0,4     | 0,08–0,20 | 0,4–2,0              |        | ☹      |        |        |
|                                                                                     | CCGT09T304-MP4  | 9,67    | 0,4     | 0,08–0,25 | 0,4–3,0              | ☹      | ☹      |        |        |
|                                                                                     | CCGT09T308-MP4  | 9,67    | 0,8     | 0,12–0,32 | 0,5–3,0              | ☹      | ☹      |        |        |
|   | CCGT120408-MP4  | 12,9    | 0,8     | 0,12–0,32 | 0,5–3,5              | ☹      | ☹      |        |        |
|                                                                                     | CCMT060202-FP4  | 6,45    | 0,2     | 0,04–0,12 | 0,1–1,0              | ☹      | ☹      |        | ☹      |
|                                                                                     | CCMT060204-FP4  | 6,45    | 0,4     | 0,05–0,16 | 0,1–1,5              | ☹      | ☹      |        | ☹      |
|                                                                                     | CCMT060208-FP4  | 6,45    | 0,8     | 0,08–0,20 | 0,1–1,5              | ☹      | ☹      |        | ☹      |
|  | CCMT09T302-FP4  | 9,67    | 0,2     | 0,04–0,12 | 0,1–1,0              | ☹      | ☹      |        | ☹      |
|                                                                                     | CCMT09T304-FP4  | 9,67    | 0,4     | 0,05–0,16 | 0,1–1,5              | ☹      | ☹      |        | ☹      |
|                                                                                     | CCMT09T308-FP4  | 9,67    | 0,8     | 0,08–0,20 | 0,1–1,5              | ☹      | ☹      |        | ☹      |
|                                                                                     | CCMT120404-FP4  | 12,9    | 0,4     | 0,05–0,16 | 0,1–1,5              | ☹      | ☹      |        |        |
|  | CCMT120408-FP4  | 12,9    | 0,8     | 0,08–0,20 | 0,1–1,5              | ☹      | ☹      |        |        |
|                                                                                     | CCMT060204-FP6  | 6,45    | 0,4     | 0,06–0,18 | 0,3–2,0              | ☹      | ☹      |        |        |
|                                                                                     | CCMT060208-FP6  | 6,45    | 0,8     | 0,10–0,20 | 0,5–2,0              |        | ☹      |        |        |
|                                                                                     | CCMT09T304-FP6  | 9,67    | 0,4     | 0,08–0,20 | 0,3–2,0              | ☹      | ☹      |        |        |
|  | CCMT09T308-FP6  | 9,67    | 0,8     | 0,12–0,32 | 0,5–2,0              | ☹      | ☹      |        |        |
|                                                                                     | CCMT120404-FP6  | 12,9    | 0,4     | 0,10–0,25 | 0,3–2,5              |        | ☹      |        |        |
|                                                                                     | CCMT120408-FP6  | 12,9    | 0,8     | 0,12–0,32 | 0,5–2,5              |        | ☹      |        |        |
|                                                                                     | CCMT060204-MP4  | 6,45    | 0,4     | 0,08–0,20 | 0,4–2,0              | ☹      | ☹      |        |        |
|  | CCMT060208-MP4  | 6,45    | 0,8     | 0,12–0,25 | 0,5–2,0              | ☹      | ☹      |        |        |
|                                                                                     | CCMT09T304-MP4  | 9,67    | 0,4     | 0,08–0,25 | 0,4–3,0              | ☹      | ☹      |        |        |
|                                                                                     | CCMT09T308-MP4  | 9,67    | 0,8     | 0,12–0,32 | 0,5–3,0              | ☹      | ☹      |        |        |
|                                                                                     | CCMT120404-MP4  | 12,9    | 0,4     | 0,12–0,25 | 0,4–3,5              | ☹      | ☹      |        |        |
|  | CCMT120408-MP4  | 12,9    | 0,8     | 0,12–0,32 | 0,5–3,5              | ☹      | ☹      |        |        |
|                                                                                     | CCMT060204-MP6  | 6,45    | 0,4     | 0,10–0,20 | 0,4–2,5              | ☹      | ☹      | ☹      |        |
|                                                                                     | CCMT090304-MP6  | 9,67    | 0,4     | 0,10–0,25 | 0,4–3,5              |        | ☹      |        |        |
|                                                                                     | CCMT090308-MP6  | 9,67    | 0,8     | 0,15–0,32 | 0,6–3,5              |        | ☹      |        |        |
|  | CCMT09T304-MP6  | 9,67    | 0,4     | 0,08–0,25 | 0,4–3,0              | ☹      | ☹      | ☹      |        |
|                                                                                     | CCMT09T308-MP6  | 9,67    | 0,8     | 0,12–0,32 | 0,5–3,0              | ☹      | ☹      | ☹      |        |
|                                                                                     | CCMT120408-MP6  | 12,9    | 0,8     | 0,15–0,35 | 0,6–4,0              | ☹      | ☹      | ☹      |        |
|                                                                                     | CCMT160508-MP6  | 16,12   | 0,8     | 0,15–0,40 | 0,8–4,0              |        | ☹      | ☹      |        |
|  | CCMT060204-RP4  | 6,45    | 0,4     | 0,12–0,25 | 0,4–2,5              | ☹      | ☹      | ☹      |        |
|                                                                                     | CCMT060208-RP4  | 6,45    | 0,8     | 0,16–0,30 | 0,6–2,5              |        | ☹      | ☹      |        |
|                                                                                     | CCMT09T304-RP4  | 9,67    | 0,4     | 0,12–0,25 | 0,4–3,0              | ☹      | ☹      | ☹      |        |
|                                                                                     | CCMT09T308-RP4  | 9,67    | 0,8     | 0,16–0,35 | 0,6–4,0              | ☹      | ☹      | ☹      |        |
|                                                                                     | CCMT120404-RP4  | 12,9    | 0,4     | 0,12–0,30 | 0,4–4,0              | ☹      | ☹      | ☹      |        |
|                                                                                     | CCMT120408-RP4  | 12,9    | 0,8     | 0,16–0,40 | 0,6–5,0              | ☹      | ☹      | ☹      |        |
|  | CCMT120412-RP4  | 12,9    | 1,2     | 0,20–0,50 | 0,8–5,0              | ☹      | ☹      | ☹      |        |

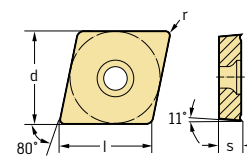
See the ISO 1832 designation key for dimensions

HE = Coated cermet  
HC = Coated carbide

# Positive rhombic 80°

CPGT / CPMT

Tiger·tec® Gold



## Cutting inserts

|                                                                                    | Designation     | l<br>mm | r<br>mm | f<br>mm   | a <sub>p</sub><br>mm | P      |        |        |
|------------------------------------------------------------------------------------|-----------------|---------|---------|-----------|----------------------|--------|--------|--------|
|                                                                                    |                 |         |         |           |                      | HC     | HE     |        |
|                                                                                    |                 |         |         |           |                      | WPP10G | WPP20G | WEP10C |
|   | CPGT050202M-FP2 | 5,64    | 0,17    | 0,05–0,12 | 0,2–2,0              |        |        | ⊗      |
|                                                                                    | CPGT050204M-FP2 | 5,64    | 0,37    | 0,08–0,20 | 0,2–2,0              |        |        | ⊗      |
|   | CPGT050204-MP4  | 5,64    | 0,4     | 0,08–0,20 | 0,4–1,5              |        | ⊗      |        |
|                                                                                    | CPGT060204-MP4  | 6,45    | 0,4     | 0,08–0,20 | 0,4–2,0              | ⊗      | ⊗      |        |
|                                                                                    | CPGT09T304-MP4  | 9,67    | 0,4     | 0,08–0,25 | 0,4–3,0              | ⊗      | ⊗      |        |
|                                                                                    | CPGT09T308-MP4  | 9,67    | 0,8     | 0,12–0,32 | 0,5–3,0              | ⊗      | ⊗      |        |
|   | CPMT050204-FP4  | 5,64    | 0,4     | 0,05–0,16 | 0,1–1,5              | ⊗      |        |        |
|                                                                                    | CPMT060204-FP4  | 6,45    | 0,4     | 0,05–0,16 | 0,1–1,5              | ⊗      |        |        |
|                                                                                    | CPMT09T304-FP4  | 9,67    | 0,4     | 0,05–0,16 | 0,1–1,5              | ⊗      |        |        |
|                                                                                    | CPMT09T308-FP4  | 9,67    | 0,8     | 0,08–0,20 | 0,1–1,5              | ⊗      |        |        |
|  | CPMT04T104-MP4  | 4,84    | 0,4     | 0,06–0,16 | 0,3–1,5              |        | ⊗      |        |
|                                                                                    | CPMT060204-MP4  | 6,45    | 0,4     | 0,08–0,20 | 0,4–2,0              |        | ⊗      |        |
|                                                                                    | CPMT060208-MP4  | 6,45    | 0,8     | 0,12–0,25 | 0,5–2,0              |        | ⊗      |        |
|                                                                                    | CPMT09T304-MP4  | 9,67    | 0,4     | 0,08–0,25 | 0,4–3,0              |        | ⊗      |        |
|                                                                                    | CPMT09T308-MP4  | 9,67    | 0,8     | 0,12–0,32 | 0,5–3,0              |        | ⊗      |        |

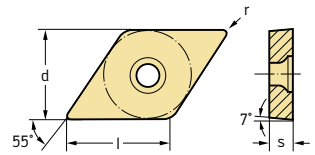
See the ISO 1832 designation key for dimensions

HE = Coated cermet  
HC = Coated carbide

## Positive rhombic 55°

DCGT / DCMT

Tiger-tec® Gold



### Cutting inserts

|                                                                                     | Designation      | l<br>mm | r<br>mm | f<br>mm   | a <sub>p</sub><br>mm | P      |    |        |    |
|-------------------------------------------------------------------------------------|------------------|---------|---------|-----------|----------------------|--------|----|--------|----|
|                                                                                     |                  |         |         |           |                      | WPP10G | HC | WPP30G | HE |
|    | DCGT070202M-FP2  | 7,75    | 0,17    | 0,05–0,12 | 0,2–2,0              |        |    |        | ⊗  |
|                                                                                     | DCGT070204M-FP2  | 7,75    | 0,37    | 0,08–0,25 | 0,2–2,5              |        |    |        | ⊗  |
|                                                                                     | DCGT11T3005M-FP2 | 11,63   | 0,03    | 0,01–0,04 | 0,1–1,0              |        |    |        | ⊗  |
|                                                                                     | DCGT11T301M-FP2  | 11,63   | 0,07    | 0,02–0,06 | 0,1–1,5              |        |    |        | ⊗  |
|                                                                                     | DCGT11T302M-FP2  | 11,63   | 0,17    | 0,05–0,12 | 0,2–2,0              |        |    |        | ⊗  |
|                                                                                     | DCGT11T304M-FP2  | 11,63   | 0,37    | 0,08–0,25 | 0,2–2,5              |        |    |        | ⊗  |
|                                                                                     | DCGT11T308M-FP2  | 11,63   | 0,77    | 0,10–0,30 | 0,3–3,0              |        |    |        | ⊗  |
|    | DCGT070204-MP4   | 7,75    | 0,4     | 0,08–0,20 | 0,4–2,0              |        | ⊗  |        |    |
|                                                                                     | DCGT11T304-MP4   | 11,63   | 0,4     | 0,08–0,25 | 0,4–3,0              | ⊗      | ⊗  |        |    |
|                                                                                     | DCGT11T308-MP4   | 11,63   | 0,8     | 0,12–0,32 | 0,5–3,0              | ⊗      | ⊗  |        |    |
|    | DCMT070202-FP4   | 7,75    | 0,2     | 0,04–0,12 | 0,1–1,0              | ⊗      | ⊗  |        | ⊗  |
|                                                                                     | DCMT070204-FP4   | 7,75    | 0,4     | 0,05–0,16 | 0,1–1,5              | ⊗      | ⊗  |        | ⊗  |
|                                                                                     | DCMT070208-FP4   | 7,75    | 0,8     | 0,08–0,20 | 0,1–1,5              | ⊗      | ⊗  |        | ⊗  |
|                                                                                     | DCMT11T302-FP4   | 11,63   | 0,2     | 0,04–0,12 | 0,1–1,0              | ⊗      | ⊗  |        | ⊗  |
|                                                                                     | DCMT11T304-FP4   | 11,63   | 0,4     | 0,05–0,16 | 0,1–1,5              | ⊗      | ⊗  |        | ⊗  |
|                                                                                     | DCMT11T308-FP4   | 11,63   | 0,8     | 0,08–0,20 | 0,1–1,5              | ⊗      | ⊗  |        | ⊗  |
|  | DCMT070204-FP6   | 7,75    | 0,4     | 0,06–0,18 | 0,3–2,0              | ⊗      | ⊗  |        |    |
|                                                                                     | DCMT11T304-FP6   | 11,63   | 0,4     | 0,08–0,20 | 0,3–2,0              | ⊗      | ⊗  |        |    |
|                                                                                     | DCMT11T308-FP6   | 11,63   | 0,8     | 0,10–0,25 | 0,5–2,0              | ⊗      | ⊗  |        |    |
|  | DCMT070204-MP4   | 7,75    | 0,4     | 0,08–0,20 | 0,4–2,0              | ⊗      | ⊗  |        |    |
|                                                                                     | DCMT070208-MP4   | 7,75    | 0,8     | 0,12–0,25 | 0,5–2,0              | ⊗      | ⊗  |        |    |
|                                                                                     | DCMT11T304-MP4   | 11,63   | 0,4     | 0,08–0,25 | 0,4–3,0              | ⊗      | ⊗  |        |    |
|                                                                                     | DCMT11T308-MP4   | 11,63   | 0,8     | 0,12–0,32 | 0,5–3,0              | ⊗      | ⊗  |        |    |
|                                                                                     | DCMT11T312-MP4   | 11,63   | 1,2     | 0,15–0,35 | 0,5–3,0              | ⊗      | ⊗  |        |    |
|  | DCMT11T304-MP6   | 11,63   | 0,4     | 0,10–0,25 | 0,4–3,5              | ⊗      | ⊗  | ⊗      |    |
|                                                                                     | DCMT11T308-MP6   | 11,63   | 0,8     | 0,15–0,32 | 0,6–3,5              | ⊗      | ⊗  | ⊗      |    |
|                                                                                     | DCMT150404-MP6   | 15,5    | 0,4     | 0,10–0,25 | 0,4–4,0              |        | ⊗  |        |    |
|                                                                                     | DCMT150408-MP6   | 15,5    | 0,8     | 0,12–0,36 | 0,6–4,0              |        | ⊗  | ⊗      |    |
|  | DCMT070204-RP4   | 7,75    | 0,4     | 0,12–0,20 | 0,4–2,0              | ⊗      | ⊗  | ⊗      |    |
|                                                                                     | DCMT070208-RP4   | 7,75    | 0,8     | 0,16–0,30 | 0,6–2,0              | ⊗      | ⊗  | ⊗      |    |
|                                                                                     | DCMT11T304-RP4   | 11,63   | 0,4     | 0,12–0,25 | 0,4–3,0              | ⊗      | ⊗  | ⊗      |    |
|                                                                                     | DCMT11T308-RP4   | 11,63   | 0,8     | 0,16–0,35 | 0,6–4,0              | ⊗      | ⊗  | ⊗      |    |
|                                                                                     | DCMT11T312-RP4   | 11,63   | 1,2     | 0,20–0,40 | 0,8–4,0              | ⊗      | ⊗  | ⊗      |    |

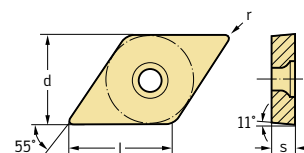
See the ISO 1832 designation key for dimensions

HE = Coated cermet  
HC = Coated carbide

## Positive rhombic 55°

DPGT / DPMT

Tiger·tec® Gold



### Cutting inserts

|                                                                                   | Designation    | l<br>mm | r<br>mm | f<br>mm   | a <sub>p</sub><br>mm | P                                                                                   |                                                                                     |
|-----------------------------------------------------------------------------------|----------------|---------|---------|-----------|----------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                                                                                   |                |         |         |           |                      | HC                                                                                  |                                                                                     |
|                                                                                   |                |         |         |           |                      | WPP10G                                                                              | WPP20G                                                                              |
|  | DPGT11T304-MP4 | 11,63   | 0,4     | 0,08–0,25 | 0,4–3,0              |  |  |
|  | DPMT070204-FP4 | 7,75    | 0,4     | 0,05–0,16 | 0,1–1,5              |  |  |
|                                                                                   | DPMT11T304-FP4 | 11,63   | 0,4     | 0,05–0,16 | 0,1–1,5              |  |  |
|                                                                                   | DPMT11T308-FP4 | 11,63   | 0,8     | 0,08–0,20 | 0,1–1,5              |  |  |
|  | DPMT070204-MP4 | 7,75    | 0,4     | 0,08–0,20 | 0,4–2,0              |  |  |
|                                                                                   | DPMT11T304-MP4 | 11,63   | 0,4     | 0,08–0,25 | 0,4–3,0              |  |  |
|                                                                                   | DPMT11T308-MP4 | 11,63   | 0,8     | 0,12–0,32 | 0,5–3,0              |  |  |

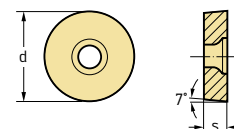
See the ISO 1832 designation key for dimensions

HC = Coated carbide

## Positive round

RCMT / RCMX

Tiger·tec® Gold



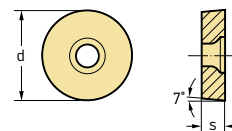
### Cutting inserts

|                                                                                     | Designation    | d<br>mm | f<br>mm   | a <sub>p</sub><br>mm | P                                                                                     |                                                                                       |                                                                                       |
|-------------------------------------------------------------------------------------|----------------|---------|-----------|----------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|                                                                                     |                |         |           |                      | HC                                                                                    |                                                                                       |                                                                                       |
|                                                                                     |                |         |           |                      | WPP10G                                                                                | WPP20G                                                                                | WPP30G                                                                                |
|  | RCMT0602M0-FP4 | 6       | 0,07–0,30 | 0,6–2,5              |  |  |  |
|                                                                                     | RCMT0803M0-FP4 | 8       | 0,08–0,30 | 0,8–3,0              |  |  |  |
|                                                                                     | RCMT10T3M0-FP4 | 10      | 0,10–0,35 | 1,0–4,0              |  |  |  |
|                                                                                     | RCMT1204M0-FP4 | 12      | 0,12–0,40 | 1,2–5,0              |  |  |  |
|  | RCMT10T3M0-HU6 | 10      | 0,12–0,80 | 1,0–4,0              |  |  |  |
|                                                                                     | RCMT1204M0-HU6 | 12      | 0,12–1,20 | 1,2–5,0              |  |  |  |
|                                                                                     | RCMT1606M0-HU6 | 16      | 0,15–1,20 | 1,6–7,0              |  |  |  |
|  | RCMT0602M0-RP4 | 6       | 0,08–0,50 | 0,6–2,5              |  |  |  |
|                                                                                     | RCMT060300-RP4 | 6,35    | 0,08–0,50 | 0,6–2,5              |  |  |  |
|                                                                                     | RCMT0803M0-RP4 | 8       | 0,10–0,60 | 0,8–3,0              |  |  |  |
|                                                                                     | RCMT09T300-RP4 | 9,525   | 0,10–0,60 | 0,8–3,0              |  |  |  |
|                                                                                     | RCMT10T3M0-RP4 | 10      | 0,12–0,80 | 1,0–4,0              |  |  |  |
|                                                                                     | RCMT120400-RP4 | 12,7    | 0,12–1,00 | 1,2–5,0              |  |  |  |
|                                                                                     | RCMT1204M0-RP4 | 12      | 0,12–1,00 | 1,2–5,0              |  |  |  |
|                                                                                     | RCMT1605M0-RP4 | 16      | 0,15–1,20 | 1,6–7,0              |  |  |  |
|                                                                                     | RCMT1606M0-RP4 | 16      | 0,15–1,20 | 1,6–7,0              |  |  |  |

See the ISO 1832 designation key for dimensions

HC = Coated carbide

## Positive round RCMT / RCMX Tiger·tec® Gold



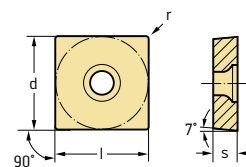
### Cutting inserts

|                                                                                   | Designation    | d<br>mm | f<br>mm   | a <sub>p</sub><br>mm | P  |        |        |
|-----------------------------------------------------------------------------------|----------------|---------|-----------|----------------------|----|--------|--------|
|                                                                                   |                |         |           |                      | HC | WPP10G | WPP20G |
|  | RCMX2006M0-HU6 | 20      | 0,25–1,40 | 2,0–9,0              | ⊗  | ⊗      | ⊗      |
|                                                                                   | RCMX2507M0-HU6 | 25      | 0,30–1,60 | 2,5–11,0             | ⊗  | ⊗      | ⊗      |
|                                                                                   | RCMX3209M0-HU6 | 32      | 0,30–1,70 | 3,2–15,0             | ⊗  | ⊗      | ⊗      |

See the ISO 1832 designation key for dimensions

HC = Coated carbide

## Positive square SCGT / SCMT Tiger·tec® Gold



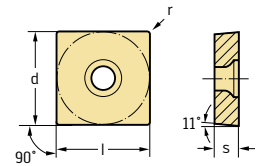
### Cutting inserts

|                                                                                     | Designation    | l<br>mm | r<br>mm | f<br>mm   | a <sub>p</sub><br>mm | P  |    |        |        |
|-------------------------------------------------------------------------------------|----------------|---------|---------|-----------|----------------------|----|----|--------|--------|
|                                                                                     |                |         |         |           |                      | HC | HE | WPP10G | WPP20G |
|  | SCGT09T304-MP4 | 9,53    | 0,4     | 0,08–0,25 | 0,4–3,0              | ⊗  | ⊗  | ⊗      | ⊗      |
|                                                                                     | SCGT09T308-MP4 | 9,53    | 0,8     | 0,12–0,32 | 0,5–3,0              | ⊗  | ⊗  | ⊗      | ⊗      |
|                                                                                     | SCGT120408-MP4 | 12,7    | 0,8     | 0,12–0,32 | 0,5–3,5              | ⊗  | ⊗  | ⊗      | ⊗      |
|  | SCMT060204-FP4 | 6,35    | 0,4     | 0,05–0,16 | 0,1–1,5              | ⊗  | ⊗  | ⊗      | ⊗      |
|                                                                                     | SCMT09T304-FP4 | 9,53    | 0,4     | 0,05–0,15 | 0,1–1,5              | ⊗  | ⊗  | ⊗      | ⊗      |
|                                                                                     | SCMT09T308-FP4 | 9,53    | 0,8     | 0,05–0,18 | 0,1–1,8              | ⊗  | ⊗  | ⊗      | ⊗      |
|                                                                                     | SCMT120404-FP4 | 12,7    | 0,4     | 0,05–0,15 | 0,1–1,5              | ⊗  | ⊗  | ⊗      | ⊗      |
|                                                                                     | SCMT120408-FP4 | 12,7    | 0,8     | 0,05–0,18 | 0,1–1,8              | ⊗  | ⊗  | ⊗      | ⊗      |
|                                                                                     | SCMT120412-FP4 | 12,7    | 1,2     | 0,12–0,32 | 0,3–1,8              | ⊗  | ⊗  | ⊗      | ⊗      |
|  | SCMT09T304-FP6 | 9,53    | 0,4     | 0,08–0,20 | 0,3–2,0              | ⊗  | ⊗  | ⊗      | ⊗      |
|                                                                                     | SCMT09T308-FP6 | 9,53    | 0,8     | 0,10–0,25 | 0,5–2,0              | ⊗  | ⊗  | ⊗      | ⊗      |
|                                                                                     | SCMT120408-FP6 | 12,7    | 0,8     | 0,12–0,32 | 0,5–2,5              | ⊗  | ⊗  | ⊗      | ⊗      |
|  | SCMT09T304-MP4 | 9,53    | 0,4     | 0,08–0,25 | 0,4–3,0              | ⊗  | ⊗  | ⊗      | ⊗      |
|                                                                                     | SCMT09T308-MP4 | 9,53    | 0,8     | 0,12–0,32 | 0,5–3,0              | ⊗  | ⊗  | ⊗      | ⊗      |
|                                                                                     | SCMT120408-MP4 | 12,7    | 0,8     | 0,12–0,32 | 0,5–3,5              | ⊗  | ⊗  | ⊗      | ⊗      |
|  | SCMT09T304-RP4 | 9,53    | 0,4     | 0,12–0,25 | 0,4–3,0              | ⊗  | ⊗  | ⊗      | ⊗      |
|                                                                                     | SCMT09T308-RP4 | 9,53    | 0,8     | 0,16–0,35 | 0,6–4,0              | ⊗  | ⊗  | ⊗      | ⊗      |
|                                                                                     | SCMT09T312-RP4 | 9,53    | 1,2     | 0,20–0,45 | 0,8–5,0              | ⊗  | ⊗  | ⊗      | ⊗      |
|                                                                                     | SCMT120404-RP4 | 12,7    | 0,4     | 0,12–0,25 | 0,4–3,0              | ⊗  | ⊗  | ⊗      | ⊗      |
|                                                                                     | SCMT120408-RP4 | 12,7    | 0,8     | 0,16–0,40 | 0,6–5,0              | ⊗  | ⊗  | ⊗      | ⊗      |
|                                                                                     | SCMT120412-RP4 | 12,7    | 1,2     | 0,20–0,50 | 0,8–5,0              | ⊗  | ⊗  | ⊗      | ⊗      |

See the ISO 1832 designation key for dimensions

HC = Coated carbide  
HE = Coated cermet

## Positive square SPMT Tiger·tec® Gold



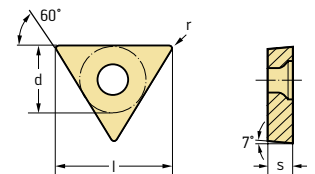
### Cutting inserts

|                                                                                   | Designation    | l<br>mm | r<br>mm | f<br>mm   | a <sub>p</sub><br>mm | P      |
|-----------------------------------------------------------------------------------|----------------|---------|---------|-----------|----------------------|--------|
|                                                                                   |                |         |         |           |                      | HC     |
|  | SPMT09T304-MP4 | 9,53    | 0,4     | 0,08–0,25 | 0,4–3,0              | WPP20G |
|                                                                                   | SPMT09T308-MP4 | 9,53    | 0,8     | 0,12–0,32 | 0,5–3,0              | WPP20G |

See the ISO 1832 designation key for dimensions

HC = Coated carbide

## Positive triangular 60° TCGT / TCMT Tiger·tec® Gold



### Cutting inserts

|                                                                                     | Designation     | l<br>mm | r<br>mm | f<br>mm   | a <sub>p</sub><br>mm | P      |    |        |    |
|-------------------------------------------------------------------------------------|-----------------|---------|---------|-----------|----------------------|--------|----|--------|----|
|                                                                                     |                 |         |         |           |                      | WPP10G | HC | WPP30G | HE |
|  | TCGT06T104M-FP2 | 6,87    | 0,37    | 0,08–0,25 | 0,2–2,0              |        |    |        | ⊕  |
|                                                                                     | TCGT090204M-FP2 | 9,62    | 0,37    | 0,08–0,25 | 0,2–2,5              |        |    |        | ⊕  |
|                                                                                     | TCGT110202M-FP2 | 11      | 0,17    | 0,05–0,12 | 0,2–2,0              |        |    |        | ⊕  |
|                                                                                     | TCGT110204M-FP2 | 11      | 0,37    | 0,08–0,25 | 0,2–2,5              |        |    |        | ⊕  |
|  | TCGT090204-MP4  | 9,62    | 0,4     | 0,08–0,20 | 0,4–2,0              | ⊕      | ⊕  |        |    |
|                                                                                     | TCGT110204-MP4  | 11      | 0,4     | 0,08–0,20 | 0,4–2,0              | ⊕      | ⊕  |        |    |
|                                                                                     | TCGT110208-MP4  | 11      | 0,8     | 0,12–0,30 | 0,5–2,0              | ⊕      | ⊕  |        |    |
|  | TCMT06T102-FP4  | 6,87    | 0,2     | 0,02–0,10 | 0,1–1,0              |        | ⊕  |        | ⊕  |
|                                                                                     | TCMT06T104-FP4  | 6,87    | 0,4     | 0,04–0,17 | 0,1–1,0              |        | ⊕  |        | ⊕  |
|                                                                                     | TCMT090202-FP4  | 9,62    | 0,2     | 0,04–0,12 | 0,1–1,0              |        | ⊕  |        | ⊕  |
|                                                                                     | TCMT090204-FP4  | 9,62    | 0,4     | 0,05–0,16 | 0,1–1,5              | ⊕      | ⊕  |        | ⊕  |
|                                                                                     | TCMT090208-FP4  | 9,62    | 0,8     | 0,08–0,20 | 0,1–1,5              | ⊕      | ⊕  |        | ⊕  |
|                                                                                     | TCMT110202-FP4  | 11      | 0,2     | 0,04–0,12 | 0,1–1,0              | ⊕      | ⊕  |        |    |
|                                                                                     | TCMT110204-FP4  | 11      | 0,4     | 0,05–0,16 | 0,1–1,5              | ⊕      | ⊕  |        | ⊕  |
|                                                                                     | TCMT110208-FP4  | 11      | 0,8     | 0,08–0,20 | 0,1–1,5              | ⊕      | ⊕  |        |    |
|                                                                                     | TCMT16T302-FP4  | 16,5    | 0,2     | 0,04–0,12 | 0,1–1,0              |        | ⊕  |        |    |
|                                                                                     | TCMT16T304-FP4  | 16,5    | 0,4     | 0,05–0,16 | 0,1–1,5              | ⊕      | ⊕  |        |    |
|                                                                                     | TCMT16T308-FP4  | 16,5    | 0,8     | 0,08–0,20 | 0,1–1,5              | ⊕      | ⊕  |        | ⊕  |
|  | TCMT110204-FP6  | 11      | 0,4     | 0,06–0,18 | 0,3–2,0              |        | ⊕  |        |    |
|                                                                                     | TCMT110208-FP6  | 11      | 0,8     | 0,10–0,20 | 0,5–2,0              |        | ⊕  |        |    |
|                                                                                     | TCMT16T304-FP6  | 16,5    | 0,4     | 0,08–0,20 | 0,3–2,0              |        | ⊕  |        |    |
|                                                                                     | TCMT16T308-FP6  | 16,5    | 0,8     | 0,10–0,25 | 0,5–2,0              |        | ⊕  |        |    |

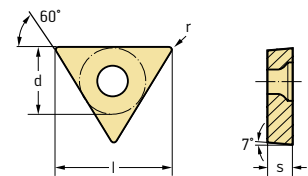
See the ISO 1832 designation key for dimensions

HE = Coated cermet  
HC = Coated carbide

## Positive triangular 60°

TCGT / TCMT

Tiger-tec® Gold



### Cutting inserts

|                                                                                    | Designation    | l<br>mm | r<br>mm | f<br>mm   | a <sub>p</sub><br>mm | P      |    |        |    |
|------------------------------------------------------------------------------------|----------------|---------|---------|-----------|----------------------|--------|----|--------|----|
|                                                                                    |                |         |         |           |                      | WPP10G | HC | WPP20G | HE |
|   | TCMT090204-MP4 | 9,62    | 0,4     | 0,08–0,20 | 0,4–2,0              |        |    |        |    |
|                                                                                    | TCMT090208-MP4 | 9,62    | 0,8     | 0,12–0,25 | 0,5–2,0              |        |    |        |    |
|                                                                                    | TCMT110204-MP4 | 11      | 0,4     | 0,08–0,20 | 0,4–2,0              |        |    |        |    |
|                                                                                    | TCMT110208-MP4 | 11      | 0,8     | 0,12–0,30 | 0,5–2,0              |        |    |        |    |
|                                                                                    | TCMT16T304-MP4 | 16,5    | 0,4     | 0,08–0,25 | 0,4–3,0              |        |    |        |    |
|                                                                                    | TCMT16T308-MP4 | 16,5    | 0,8     | 0,12–0,32 | 0,5–3,0              |        |    |        |    |
|   | TCMT220408-MP4 | 22      | 0,8     | 0,12–0,32 | 0,5–3,5              |        |    |        |    |
|                                                                                    | TCMT110204-MP6 | 11      | 0,4     | 0,10–0,20 | 0,4–2,5              |        |    |        |    |
|                                                                                    | TCMT110304-MP6 | 11      | 0,4     | 0,12–0,25 | 0,4–3,0              |        |    |        |    |
|                                                                                    | TCMT16T304-MP6 | 16,5    | 0,4     | 0,10–0,25 | 0,4–3,5              |        |    |        |    |
|  | TCMT16T308-MP6 | 16,5    | 0,8     | 0,15–0,32 | 0,6–3,5              |        |    |        |    |
|                                                                                    | TCMT090204-RP4 | 9,62    | 0,4     | 0,12–0,25 | 0,4–3,0              |        |    |        |    |
|                                                                                    | TCMT090208-RP4 | 9,62    | 0,8     | 0,16–0,30 | 0,6–3,0              |        |    |        |    |
|                                                                                    | TCMT110204-RP4 | 11      | 0,4     | 0,12–0,25 | 0,4–3,0              |        |    |        |    |
|                                                                                    | TCMT110208-RP4 | 11      | 0,8     | 0,16–0,30 | 0,6–3,0              |        |    |        |    |
|                                                                                    | TCMT16T304-RP4 | 16,5    | 0,4     | 0,12–0,25 | 0,4–3,0              |        |    |        |    |
|                                                                                    | TCMT16T308-RP4 | 16,5    | 0,8     | 0,16–0,35 | 0,6–4,0              |        |    |        |    |
|                                                                                    | TCMT16T312-RP4 | 16,5    | 1,2     | 0,20–0,40 | 0,8–4,0              |        |    |        |    |

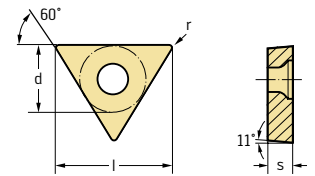
See the ISO 1832 designation key for dimensions

HE = Coated cermet  
HC = Coated carbide

# Positive triangular 60°

## TPGN / TPGT / TPMR / TPMT

### Tiger-tec® Gold



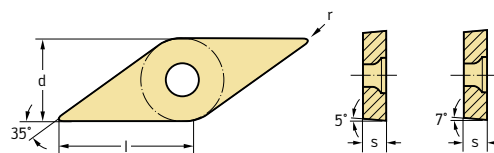
#### Cutting inserts

|                                                                                     | Designation    | l<br>mm | r<br>mm | f<br>mm   | a <sub>p</sub><br>mm | P                                                                                     |                                                                                       |
|-------------------------------------------------------------------------------------|----------------|---------|---------|-----------|----------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|                                                                                     |                |         |         |           |                      | HC                                                                                    |                                                                                       |
|                                                                                     |                |         |         |           |                      | WPP10G                                                                                | WPP20G                                                                                |
|    | TPGN160304     | 16,5    | 0,4     | 0,10–0,25 | 0,4–3,0              |    |    |
|                                                                                     | TPGN160308     | 16,5    | 0,8     | 0,12–0,30 | 0,8–3,0              |    |    |
|    | TPGT090204-MP4 | 9,62    | 0,4     | 0,08–0,20 | 0,4–2,0              |    |    |
|                                                                                     | TPGT110204-MP4 | 11      | 0,4     | 0,08–0,20 | 0,4–2,0              |    |    |
|                                                                                     | TPGT16T304-MP4 | 16,5    | 0,4     | 0,08–0,25 | 0,4–3,0              |    |    |
|                                                                                     | TPGT16T308-MP4 | 16,5    | 0,8     | 0,12–0,32 | 0,5–3,0              |    |    |
|    | TPMR110304     | 11      | 0,4     | 0,12–0,25 | 0,4–3,0              |    |    |
|                                                                                     | TPMR110308     | 11      | 0,8     | 0,12–0,25 | 0,4–3,0              |    |    |
|                                                                                     | TPMR160304     | 16,5    | 0,4     | 0,12–0,25 | 0,4–3,0              |    |    |
|                                                                                     | TPMR160308     | 16,5    | 0,8     | 0,16–0,30 | 0,6–4,0              |    |    |
|   | TPMT110204-FP4 | 11      | 0,4     | 0,05–0,16 | 0,1–1,5              |    |    |
|                                                                                     | TPMT16T304-FP4 | 16,5    | 0,4     | 0,05–0,16 | 0,1–1,5              |    |   |
|  | TPMT090204-MP4 | 9,62    | 0,4     | 0,08–0,20 | 0,4–2,0              |  |  |
|                                                                                     | TPMT110204-MP4 | 11      | 0,4     | 0,08–0,20 | 0,4–2,0              |  |  |
|                                                                                     | TPMT110208-MP4 | 11      | 0,8     | 0,12–0,30 | 0,5–2,0              |  |  |
|                                                                                     | TPMT16T304-MP4 | 16,5    | 0,4     | 0,08–0,25 | 0,4–3,0              |  |  |
|                                                                                     | TPMT16T308-MP4 | 16,5    | 0,8     | 0,12–0,32 | 0,5–3,0              |  |  |

See the ISO 1832 designation key for dimensions

HC = Coated carbide  
HW = Uncoated carbide

# Positive rhombic 35° VBMT / VCGT / VCMT Tiger-tec® Gold



## Cutting inserts

|                                                                                     | Designation      | l<br>mm | r<br>mm | f<br>mm   | a <sub>p</sub><br>mm | P      |    |        |    |
|-------------------------------------------------------------------------------------|------------------|---------|---------|-----------|----------------------|--------|----|--------|----|
|                                                                                     |                  |         |         |           |                      | WPP10G | HC | WPP30G | HE |
|    | VBMT110304-FP6   | 11,07   | 0,4     | 0,06–0,18 | 0,3–2,0              | ☞      | ☞  |        |    |
|                                                                                     | VBMT110308-FP6   | 11,07   | 0,8     | 0,10–0,20 | 0,5–2,0              | ☞      | ☞  |        |    |
|                                                                                     | VBMT160404-FP6   | 16,61   | 0,4     | 0,08–0,20 | 0,3–2,0              | ☞      | ☞  |        |    |
|                                                                                     | VBMT160406-FP6   | 16,61   | 0,6     | 0,10–0,25 | 0,4–2,0              | ☞      | ☞  |        |    |
|                                                                                     | VBMT160408-FP6   | 16,61   | 0,8     | 0,10–0,25 | 0,5–2,0              | ☞      | ☞  |        |    |
|                                                                                     | VBMT160412-FP6   | 16,61   | 1,2     | 0,12–0,30 | 0,6–2,0              | ☞      | ☞  |        |    |
|    | VBMT110304-MP4   | 11,07   | 0,4     | 0,08–0,20 | 0,4–1,5              | ☞      | ☞  |        |    |
|                                                                                     | VBMT110308-MP4   | 11,07   | 0,8     | 0,12–0,25 | 0,5–1,5              | ☞      | ☞  |        |    |
|                                                                                     | VBMT160404-MP4   | 16,61   | 0,4     | 0,08–0,20 | 0,4–2,0              | ☞      | ☞  |        |    |
|                                                                                     | VBMT160406-MP4   | 16,61   | 0,6     | 0,12–0,25 | 0,5–2,0              | ☞      | ☞  |        |    |
|                                                                                     | VBMT160408-MP4   | 16,61   | 0,8     | 0,12–0,30 | 0,5–2,0              | ☞      | ☞  |        |    |
|                                                                                     | VBMT160412-MP4   | 16,61   | 1,2     | 0,12–0,32 | 0,5–2,0              | ☞      | ☞  |        |    |
|    | VBMT160404-MP6   | 16,61   | 0,4     | 0,10–0,25 | 0,4–2,5              | ☞      | ☞  |        |    |
|                                                                                     | VBMT160408-MP6   | 16,61   | 0,8     | 0,15–0,30 | 0,6–2,5              | ☞      | ☞  |        |    |
|  | VCGT1103005M-FP2 | 11,07   | 0,03    | 0,01–0,04 | 0,1–1,0              |        |    |        | ☞  |
|                                                                                     | VCGT110301M-FP2  | 11,07   | 0,07    | 0,02–0,06 | 0,1–1,5              |        |    |        | ☞  |
|                                                                                     | VCGT110302M-FP2  | 11,07   | 0,17    | 0,05–0,12 | 0,2–2,0              |        |    |        | ☞  |
|                                                                                     | VCGT110304M-FP2  | 11,07   | 0,37    | 0,08–0,25 | 0,2–2,5              |        |    |        | ☞  |
|                                                                                     | VCGT160402M-FP2  | 16,61   | 0,17    | 0,05–0,12 | 0,2–2,0              |        |    |        | ☞  |
|                                                                                     | VCGT160404M-FP2  | 16,61   | 0,37    | 0,08–0,25 | 0,2–2,5              |        |    |        | ☞  |
|  | VCGT160408M-FP2  | 16,61   | 0,77    | 0,10–0,30 | 0,3–3,0              |        |    |        | ☞  |
|                                                                                     | VCMT110302-FP4   | 11,07   | 0,2     | 0,04–0,12 | 0,1–1,0              | ☞      | ☞  |        | ☞  |
|                                                                                     | VCMT110304-FP4   | 11,07   | 0,4     | 0,05–0,16 | 0,1–1,5              | ☞      | ☞  |        | ☞  |
|                                                                                     | VCMT160402-FP4   | 16,61   | 0,2     | 0,04–0,12 | 0,1–1,0              | ☞      | ☞  |        | ☞  |
|                                                                                     | VCMT160404-FP4   | 16,61   | 0,4     | 0,05–0,16 | 0,1–1,5              | ☞      | ☞  |        | ☞  |
|                                                                                     | VCMT160408-FP4   | 16,61   | 0,8     | 0,08–0,20 | 0,1–1,5              | ☞      | ☞  |        | ☞  |
|  | VCMT160404-MP4   | 16,61   | 0,4     | 0,08–0,20 | 0,4–2,0              | ☞      | ☞  |        |    |
|                                                                                     | VCMT160408-MP4   | 16,61   | 0,8     | 0,12–0,30 | 0,5–2,0              | ☞      | ☞  |        |    |
|  | VCMT110304-RP4   | 11,07   | 0,4     | 0,12–0,20 | 0,4–2,5              | ☞      | ☞  | ☞      |    |
|                                                                                     | VCMT110308-RP4   | 11,07   | 0,8     | 0,16–0,25 | 0,6–3,0              | ☞      | ☞  |        |    |
|                                                                                     | VCMT160404-RP4   | 16,61   | 0,4     | 0,12–0,25 | 0,4–2,5              | ☞      | ☞  | ☞      |    |
|                                                                                     | VCMT160406-RP4   | 16,61   | 0,6     | 0,15–0,25 | 0,6–3,0              | ☞      | ☞  |        |    |
|                                                                                     | VCMT160408-RP4   | 16,61   | 0,8     | 0,16–0,30 | 0,6–3,0              | ☞      | ☞  | ☞      |    |
|                                                                                     | VCMT160412-RP4   | 16,61   | 1,2     | 0,20–0,35 | 0,8–3,0              | ☞      | ☞  | ☞      |    |

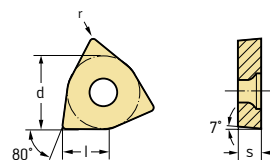
See the ISO 1832 designation key for dimensions

HC = Coated carbide  
HE = Coated cermet

# Positive Trigon 80°

## WCMT

### Tiger-tec® Gold



#### Cutting inserts

|                                                                                     | Designation    | l<br>mm | r<br>mm | f<br>mm   | a <sub>p</sub><br>mm | P  |        |        |
|-------------------------------------------------------------------------------------|----------------|---------|---------|-----------|----------------------|----|--------|--------|
|                                                                                     |                |         |         |           |                      | HC | WPP10G | WPP20G |
|    | WCMT040202-FP4 | 4,34    | 0,2     | 0,04–0,12 | 0,1–1,0              |    | ⊗      | ⊗      |
|                                                                                     | WCMT040204-FP4 | 4,34    | 0,4     | 0,05–0,16 | 0,1–1,5              |    | ⊗      | ⊗      |
|                                                                                     | WCMT040208-FP4 | 4,34    | 0,8     | 0,08–0,20 | 0,1–1,5              |    |        | ⊗      |
|                                                                                     | WCMT06T302-FP4 | 6,52    | 0,2     | 0,04–0,12 | 0,1–1,0              |    |        | ⊗      |
|                                                                                     | WCMT06T304-FP4 | 6,52    | 0,4     | 0,05–0,16 | 0,1–1,5              |    |        | ⊗      |
|                                                                                     | WCMT06T308-FP4 | 6,52    | 0,8     | 0,08–0,20 | 0,1–1,5              |    |        | ⊗      |
|                                                                                     | WCMT080404-FP4 | 8,69    | 0,4     | 0,05–0,16 | 0,1–1,5              |    |        | ⊗      |
|                                                                                     | WCMT080408-FP4 | 8,69    | 0,8     | 0,08–0,20 | 0,1–1,5              |    |        | ⊗      |
|    | WCMT040204-FP6 | 4,34    | 0,4     | 0,06–0,18 | 0,3–2,0              |    |        | ⊗      |
|                                                                                     | WCMT040208-FP6 | 4,34    | 0,8     | 0,10–0,20 | 0,5–2,0              |    |        | ⊗      |
|   | WCMT06T304-MP4 | 6,52    | 0,4     | 0,08–0,25 | 0,4–2,5              |    |        | ⊗      |
|                                                                                     | WCMT06T308-MP4 | 6,52    | 0,8     | 0,12–0,32 | 0,5–2,5              |    |        | ⊗      |
|  | WCMT030202-RP4 | 3,91    | 0,2     | 0,08–0,12 | 0,2–1,5              |    |        | ⊗      |
|                                                                                     | WCMT040204-RP4 | 4,34    | 0,4     | 0,12–0,25 | 0,4–2,5              |    |        | ⊗      |
|                                                                                     | WCMT06T304-RP4 | 6,52    | 0,4     | 0,12–0,25 | 0,4–3,0              |    |        | ⊗      |
|                                                                                     | WCMT06T308-RP4 | 6,52    | 0,8     | 0,16–0,35 | 0,6–3,0              |    |        | ⊗      |
|                                                                                     | WCMT080404-RP4 | 8,69    | 0,4     | 0,12–0,25 | 0,4–3,0              |    |        | ⊗      |
|                                                                                     | WCMT080408-RP4 | 8,69    | 0,8     | 0,16–0,40 | 0,6–4,0              |    |        | ⊗      |
|                                                                                     | WCMT080412-RP4 | 8,69    | 1,2     | 0,20–0,45 | 0,8–4,0              |    |        | ⊗      |

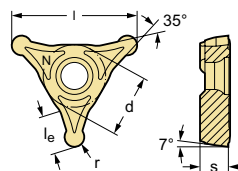
See the ISO 1832 designation key for dimensions

HC = Coated carbide

## Indexable inserts for copy turning system

WL...-RC...

Tiger·tec® Gold



### Cutting inserts

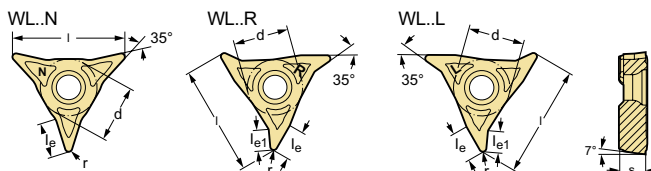
|                                                                                   | Designation      | r<br>mm | l<br>mm | l <sub>e</sub><br>mm | f<br>mm   | a <sub>p</sub><br>mm | P                                                                                   |                                                                                     |
|-----------------------------------------------------------------------------------|------------------|---------|---------|----------------------|-----------|----------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                                                                                   |                  |         |         |                      |           |                      | HC                                                                                  | WPP20G                                                                              |
|  | WL25-RC0420N-MU6 | 2       | 25      | 7,2                  | 0,12–0,40 | 0,5–2,0              |  |  |
|                                                                                   | WL25-RC0525N-MU6 | 2,5     | 25      | 6,9                  | 0,12–0,45 | 0,5–2,5              |  |  |

HC = Coated carbide

## Indexable inserts for copy turning system

WL...-VC...

Tiger·tec® Gold



### Cutting inserts

|                                                                                     | Designation      | r<br>mm | l<br>mm | l <sub>e</sub><br>mm | l <sub>e1</sub><br>mm | f<br>mm   | a <sub>p</sub><br>mm | P                                                                                     |                                                                                       |
|-------------------------------------------------------------------------------------|------------------|---------|---------|----------------------|-----------------------|-----------|----------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|                                                                                     |                  |         |         |                      |                       |           |                      | WPP10G                                                                                | WPP20G                                                                                |
|  | WL25-VC0704L-FP4 | 0,4     | 25      | 6,2                  | 3,9                   | 0,05–0,20 | 0,1–2,0              |  |  |
|                                                                                     | WL25-VC0708L-FP4 | 0,8     | 25      | 6,6                  | 4,6                   | 0,08–0,25 | 0,2–2,0              |  |  |
|  | WL25-VC0704L-MP4 | 0,4     | 25      | 6,2                  | 3,9                   | 0,08–0,25 | 0,4–2,5              |  |  |
|                                                                                     | WL25-VC0708L-MP4 | 0,8     | 25      | 6,6                  | 4,6                   | 0,12–0,32 | 0,5–2,5              |  |  |
|  | WL25-VC0704N-FP4 | 0,4     | 25      | 6,3                  |                       | 0,05–0,20 | 0,1–2,0              |  |  |
|                                                                                     | WL25-VC0708N-FP4 | 0,8     | 25      | 7,1                  |                       | 0,08–0,25 | 0,2–2,0              |  |  |
|  | WL25-VC0704N-MP4 | 0,4     | 25      | 6,3                  |                       | 0,08–0,25 | 0,4–2,5              |  |  |
|                                                                                     | WL25-VC0708N-MP4 | 0,8     | 25      | 7,1                  |                       | 0,12–0,32 | 0,5–2,5              |  |  |
|                                                                                     | WL25-VC0712N-MP4 | 1,2     | 25      | 7,4                  |                       | 0,12–0,35 | 0,5–2,5              |  |  |
|                                                                                     | WL25-VC0716N-MP4 | 1,6     | 25      | 8,7                  |                       | 0,12–0,40 | 0,5–2,5              |  |  |
|  | WL25-VC0704R-FP4 | 0,4     | 25      | 6,2                  | 3,9                   | 0,05–0,20 | 0,1–2,0              |  |  |
|                                                                                     | WL25-VC0708R-FP4 | 0,8     | 25      | 6,6                  | 4,6                   | 0,08–0,25 | 0,2–2,0              |  |  |
|  | WL25-VC0704R-MP4 | 0,4     | 25      | 6,2                  | 3,9                   | 0,08–0,25 | 0,4–2,5              |  |  |
|                                                                                     | WL25-VC0708R-MP4 | 0,8     | 25      | 6,6                  | 4,6                   | 0,12–0,32 | 0,5–2,5              |  |  |

HC = Coated carbide

## Cutting tool material application charts – Turning

### Carbide

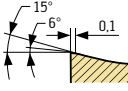
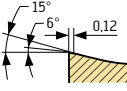
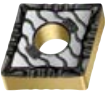
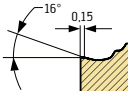
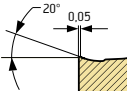
| Walter grade designation | Standard designation | Material groups |                 |           |           |                                             |                |       | Application range |    |    |    |    |     |                                               | Coating process                                                                     | Coating composition                           | Indexable insert example |
|--------------------------|----------------------|-----------------|-----------------|-----------|-----------|---------------------------------------------|----------------|-------|-------------------|----|----|----|----|-----|-----------------------------------------------|-------------------------------------------------------------------------------------|-----------------------------------------------|--------------------------|
|                          |                      | P               | M               | K         | N         | S                                           | H              | O     | 01                | 10 | 20 | 30 | 40 |     |                                               |                                                                                     |                                               |                          |
|                          |                      | Steel           | Stainless steel | Cast iron | NF metals | Materials with difficult cutting properties | Hard materials | Other | 05                | 15 | 25 | 35 | 45 |     |                                               |                                                                                     |                                               |                          |
| WPP10G                   | HC – P 10            | ●●              |                 |           |           |                                             |                |       | ▲                 |    |    |    |    | CVD | TiCN + Al <sub>2</sub> O <sub>3</sub> (+ TiN) |  |                                               |                          |
|                          | HC – K 20            |                 |                 | ●         |           |                                             |                |       | ▲                 |    |    |    |    |     |                                               |                                                                                     |                                               |                          |
| WPP20G                   | HC – P 20            | ●●              |                 |           |           |                                             |                |       | ▲                 |    |    |    |    | CVD | TiCN + Al <sub>2</sub> O <sub>3</sub> (+ TiN) |                                                                                     |                                               |                          |
|                          | HC – K 30            |                 |                 | ●         |           |                                             |                |       |                   | ▲  |    |    |    |     |                                               |                                                                                     |                                               |                          |
| WPP30G                   | HC – P 30            | ●●              |                 |           |           |                                             |                |       |                   | ▲  |    |    |    |     | CVD                                           |                                                                                     | TiCN + Al <sub>2</sub> O <sub>3</sub> (+ TiN) |                          |
|                          | HC – M 20            |                 | ●               |           |           |                                             |                |       | ▲                 |    |    |    |    |     |                                               |                                                                                     |                                               |                          |
|                          | HC – K 40            |                 |                 | ●         |           |                                             |                |       |                   |    | ▲  |    |    |     |                                               |                                                                                     |                                               |                          |

HC = Coated carbide

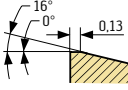
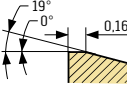
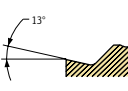
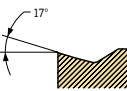
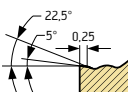
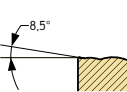
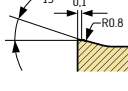
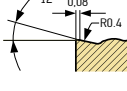
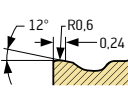
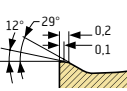
- Primary application
- Additional application

## Geometry overview of turning inserts – Negative basic shape

### Finishing operation

| Geometry                                                                                                                                                                                                                                                                              | Remarks/application area | Material groups |                 |           |           |                                             |                |       | Main cutting edge section                                                          | Corner radius section                                                               | $a_p$ [mm] | $f$ [mm]  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-----------------|-----------------|-----------|-----------|---------------------------------------------|----------------|-------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------------|-----------|
|                                                                                                                                                                                                                                                                                       |                          | P               | M               | K         | N         | S                                           | H              | O     |                                                                                    |                                                                                     |            |           |
|                                                                                                                                                                                                                                                                                       |                          | Steel           | Stainless steel | Cast iron | NF metals | Materials with difficult cutting properties | Hard materials | Other |                                                                                    |                                                                                     |            |           |
|  <b>FW5</b><br><b>Wiper</b><br>– Finishing with wiper technology<br>– Double the feed rate – the same high surface quality<br>– Reduced cutting pressure thanks to short radiused wiper cutting edge |                          | ••              | ••              | ••        | •         |                                             |                |       |  |  | 0,3–3,0    | 0,10–0,60 |
|  <b>FP5</b><br>– Finishing steel materials<br>– Can also be used in semi-finishing as an alternative to MP3<br>– Curved cutting edge for low cutting forces                                          |                          | ••              |                 |           |           |                                             |                |       |  |  | 0,1–2,5    | 0,04–0,25 |

### Medium machining

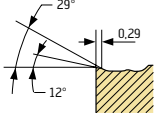
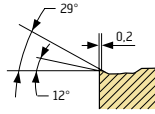
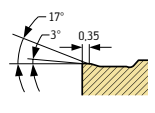
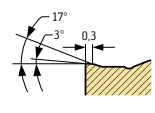
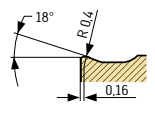
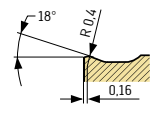
|                                                                                                                                                                                                                                                                                  |  |    |    |    |   |    |  |  |                                                                                      |                                                                                       |         |           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----|----|----|---|----|--|--|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------|-----------|
|  <b>MW5</b><br><b>Wiper</b><br>– Medium machining with wiper technology<br>– Double the feed rate – the same high surface quality<br>– Maximum feeds thanks to long wiper curved cutting edge |  | •• | •• | •• | • |    |  |  |  |  | 0,8–4,0 | 0,15–0,75 |
|  <b>MS3</b><br>– For unstable or thin-walled components<br>– Low cutting forces due to sharp cutting edge design<br>– Circumference precision-ground<br>– Circumference precision-sintered    |  | •  | •  |    | • | •• |  |  |  |  | 0,2–3,0 | 0,02–0,30 |
|  <b>MP3</b><br>– Medium machining of long-chipping steel materials<br>– Low cutting forces due to curved cutting edge<br>– Machining forged parts with low material removal                   |  | •• |    |    |   |    |  |  |  |  | 0,3–4,0 | 0,06–0,40 |
|  <b>MP5</b><br>– Universal geometry for steel materials<br>– Reinforced chip breakers<br>– Extremely wide application range                                                                   |  | •• |    |    |   |    |  |  |  |  | 0,5–8,0 | 0,16–0,55 |
|  <b>MU5</b><br>– Universal geometry for steel and stainless materials<br>– Low cutting forces and reduced heat generation when machining                                                      |  | •• | •• | •  | • |    |  |  |  |  | 0,5–6,0 | 0,15–0,60 |

- Primary application
- Additional application

Note: Sectional views show CNMG120408 . .

## Geometry overview of turning inserts – Negative basic shape (continued)

### Roughing operations – Double-sided indexable inserts

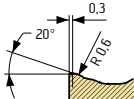
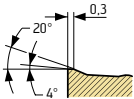
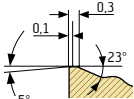
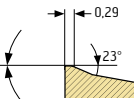
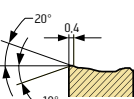
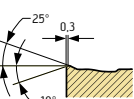
| Geometry                                                                            | Remarks/application area                                                                                                        | Material groups |                 |           |           |                                             |                |       | Main cutting edge section                                                            | Corner radius section                                                                 | $a_p$ [mm] | $f$ [mm]  |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|-----------------|-----------------|-----------|-----------|---------------------------------------------|----------------|-------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|------------|-----------|
|                                                                                     |                                                                                                                                 | P               | M               | K         | N         | S                                           | H              | O     |                                                                                      |                                                                                       |            |           |
|                                                                                     |                                                                                                                                 | Steel           | Stainless steel | Cast iron | NF metals | Materials with difficult cutting properties | Hard materials | Other |                                                                                      |                                                                                       |            |           |
|    | <b>RM5</b><br>– Roughing operations in stainless materials and high-temperature alloys                                          |                 | ••              |           |           | ••                                          |                |       |    |    | 1,2–8,0    | 0,20–0,80 |
|    | <b>RP5</b><br>– Roughing steel materials<br>– Stable, positive cutting edge<br>– Open chip groove for a low cutting temperature | ••              |                 | •         |           |                                             |                |       |    |    | 0,8–12,0   | 0,2–1,20  |
|  | <b>RP7</b><br>– Interrupted cuts<br>– Cast skins/forged skins<br>– Stable cutting edge                                          | ••              |                 | ••        |           |                                             |                |       |  |  | 0,8–8,0    | 0,16–0,70 |

- Primary application
- Additional application

Note: Sectional views show CNMG120408 . .

## Geometry overview of turning inserts – Negative basic shape

### Roughing operations – Single-sided indexable inserts

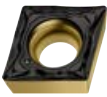
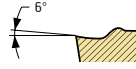
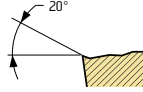
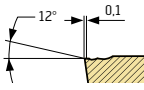
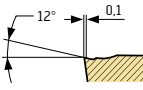
| Geometry<br>Remarks/application area                                                                                                                                                                                                                                                                                                                                                             | Material groups |                 |           |           |                                                |                |       | Main cutting<br>edge section                                                         | Corner radius<br>section                                                              | $a_p$ [mm] | $f$ [mm]  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----------------|-----------|-----------|------------------------------------------------|----------------|-------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|------------|-----------|
|                                                                                                                                                                                                                                                                                                                                                                                                  | P               | M               | K         | N         | S                                              | H              | O     |                                                                                      |                                                                                       |            |           |
|                                                                                                                                                                                                                                                                                                                                                                                                  | Steel           | Stainless steel | Cast iron | NF metals | Materials with difficult<br>cutting properties | Hard materials | Other |                                                                                      |                                                                                       |            |           |
|  <b>HU3</b><br>– Single-sided roughing geometry, for universal application<br>– Curved cutting edge for low cutting forces<br>– V chip formation for optimised chip breaking even with small depths of cut and fluctuating material removal<br>– Reinforced double chip breaker groove on the main cutting edge | ●●              | ●               | ●         |           |                                                |                |       |    |    | 0,8–12,0   | 0,25–1,20 |
|  <b>HU5</b><br>– Single-sided roughing geometry, for universal application<br>– Curved cutting edge and deep chip breaker groove for low cutting forces<br>– Open chip breaker groove design for reduced heat generation                                                                                       | ●               | ●●              | ●         |           | ●●                                             |                |       |   |   | 2,5–10,0   | 0,30–1,00 |
|  <b>HU7</b><br>– Single-sided geometry for challenging roughing operations<br>– Straight cutting edge with negative protective chamfer for maximum stability<br>– Chip breaker for reduced friction                                                                                                           | ●●              | ●               | ●●        |           |                                                |                |       |  |  | 2,0–17,0   | 0,50–1,60 |

●● Primary application  
● Additional application

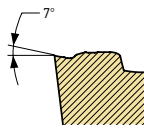
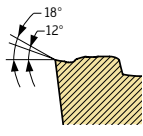
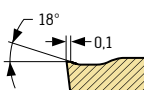
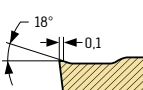
Note: Sectional views show SNMM190616 . .

## Geometry overview of turning inserts – Positive basic shape

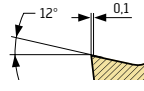
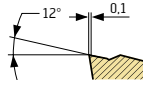
### Finishing operation

| Geometry                                                                          | Remarks/application area                                                                                        | Material groups |                 |           |           |                                             |                |       | Main cutting edge section                                                          | Corner radius section                                                               | $a_p$ [mm] | $f$ [mm]  |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-----------------|-----------------|-----------|-----------|---------------------------------------------|----------------|-------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------------|-----------|
|                                                                                   |                                                                                                                 | P               | M               | K         | N         | S                                           | H              | O     |                                                                                    |                                                                                     |            |           |
|                                                                                   |                                                                                                                 | Steel           | Stainless steel | Cast iron | NF metals | Materials with difficult cutting properties | Hard materials | Other |                                                                                    |                                                                                     |            |           |
|  | <b>FP4</b><br>– Finishing insert<br>– Excellent chip control<br>– Can also be used for precision boring         | ●●              | ●               | ●         |           | ●                                           |                |       |  |  | 0,1–2,5    | 0,04–0,20 |
|  | <b>FP6</b><br>– Universal insert for finishing and medium machining operations<br>– Can also be used for boring | ●●              | ●               | ●         |           | ●                                           |                |       |  |  | 0,3–2,5    | 0,08–0,32 |

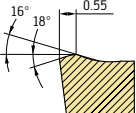
### Medium machining

|                                                                                     |                                                                                                                                                                                                                                                                                             |    |   |   |  |   |  |  |                                                                                      |                                                                                       |         |           |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|---|---|--|---|--|--|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------|-----------|
|  | <b>MP4</b><br>– Machining of long-chipping materials<br>– Can be used universally in a wide application range<br>– Circumference precision-ground<br>– Circumference precision-sintered<br>– Straight cutting edge for C, S and T basic shapes, for use as a chamfer insert in boring tools | ●● | ● | ● |  | ● |  |  |  |  | 0,4–3,5 | 0,08–0,32 |
|  | <b>MP6</b><br>– Medium machining of steel<br>– Positive geometry with good chip control with very stable cutting edge                                                                                                                                                                       | ●● | ● | ● |  | ● |  |  |  |  | 0,4–4,0 | 0,10–0,35 |

### Roughing operation

|                                                                                     |                                                                                                                                                                        |    |   |   |  |   |  |  |                                                                                      |                                                                                       |         |           |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|---|---|--|---|--|--|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------|-----------|
|  | <b>RP4</b><br>– Universal geometry for roughing and medium machining operations<br>– Extremely large chip breaking range<br>– Maximum metal removal rate and tool life | ●● | ● | ● |  | ● |  |  |  |  | 0,6–5,0 | 0,12–0,50 |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|---|---|--|---|--|--|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------|-----------|

### Heavy machining

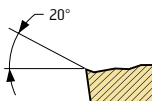
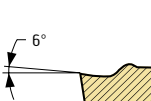
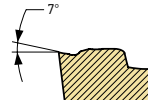
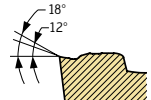
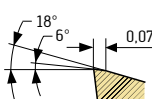
|                                                                                     |                                                                                                                                  |    |  |    |  |  |  |  |                                                                                      |  |          |          |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|----|--|----|--|--|--|--|--------------------------------------------------------------------------------------|--|----------|----------|
|  | <b>HU6</b><br>– Heavy roughing<br>– Excellent chip breaking<br>– Machining of forged parts<br>– For use in train wheel machining | ●● |  | ●● |  |  |  |  |  |  | 1,0–15,0 | 0,12–1,7 |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|----|--|----|--|--|--|--|--------------------------------------------------------------------------------------|--|----------|----------|

●● Primary application  
● Additional application

Note: Sectional views show CCMT09T308 . . . and CCGT09T308 . . .

## Geometry overview of Copy Turn System inserts – WL

### Finishing and medium machining

| Geometry                                                                            | Remarks/application area                                                                                                                              | Material groups |                 |           |           |                                             |                |       | Main cutting edge section                                                            | Corner radius section                                                               | $a_p$ [mm] | f [mm]    |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----------------|-----------|-----------|---------------------------------------------|----------------|-------|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------------|-----------|
|                                                                                     |                                                                                                                                                       | P               | M               | K         | N         | S                                           | H              | O     |                                                                                      |                                                                                     |            |           |
|                                                                                     |                                                                                                                                                       | Steel           | Stainless steel | Cast iron | NF metals | Materials with difficult cutting properties | Hard materials | Other |                                                                                      |                                                                                     |            |           |
|    | <b>FP4</b><br>– Finishing geometries for minimal depths of cut<br>– Excellent chip control<br>– Developed for copy turning                            | ●●              | ●               |           |           | ●                                           |                |       |    |  | 0,1–2,0    | 0,05–0,25 |
|    | <b>MP4</b><br>– Medium machining – with a large application range<br>– Machining for long-chipping materials<br>– Developed for copy turning          | ●●              | ●               | ●         |           | ●                                           |                |       |    |  | 0,4–2,5    | 0,08–0,35 |
|  | <b>MU6</b><br>– Full-radius geometry for copy turning<br>– Soft cutting action with excellent chip breaking<br>– Chip breaking in all feed directions | ●●              | ●●              | ●●        |           | ●●                                          | ●              |       |  |                                                                                     | 0,4–2,5    | 0,1–0,40  |

●● Primary application  
 ● Additional application

Note: Sectional views show WL25-VC0708 . . and WL25-RC0420 . .

# Walter GPS



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## Cutting data for turning inserts – Negative basic shape



The specified cutting data represents average standard values.  
For specific applications, adjustment is recommended.

| Material group | Overview of the main material groups and code letters |                                         |              | Brinell hardness HB | Tensile strength $R_m$<br>N/mm <sup>2</sup> | Machining group <sup>1</sup> |  |  | Cutting material grades                            |      |      |
|----------------|-------------------------------------------------------|-----------------------------------------|--------------|---------------------|---------------------------------------------|------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------------------------------------|------|------|
|                |                                                       |                                         |              |                     |                                             |                              |                                                                                     |                                                                                     | Starting values for cutting speed<br>$v_c$ [m/min] |      |      |
|                |                                                       |                                         |              |                     |                                             |                              |                                                                                     |                                                                                     | HC                                                 |      |      |
|                |                                                       |                                         |              |                     |                                             |                              |                                                                                     |                                                                                     | WPP10G<br>f [mm/rev]                               |      |      |
|                |                                                       |                                         |              |                     |                                             |                              |                                                                                     |                                                                                     | 0,10                                               | 0,40 | 0,60 |
| <b>P</b>       | Non-alloyed steel                                     | C ≤ 0.25%                               | Annealed     | 125                 | 430                                         | P1                           | ●●                                                                                  | ●                                                                                   | 530                                                | 400  | 310  |
|                |                                                       | C > 0.25% to ≤ 0.55%                    | Annealed     | 190                 | 640                                         | P2                           | ●●                                                                                  | ●                                                                                   | 420                                                | 300  | 240  |
|                |                                                       | C > 0.25% to ≤ 0.55%                    | Heat-treated | 210                 | 710                                         | P3                           | ●●                                                                                  | ●                                                                                   | 320                                                | 250  | 210  |
|                |                                                       | C > 0.55%                               | Annealed     | 190                 | 640                                         | P4                           | ●●                                                                                  | ●                                                                                   | 350                                                | 250  | 200  |
|                |                                                       | C > 0.55%                               | Heat-treated | 300                 | 1010                                        | P5                           | ●●                                                                                  | ●                                                                                   | 270                                                | 200  | 190  |
|                |                                                       | Free-machining steel (short-chipping)   | Annealed     | 220                 | 750                                         | P6                           | ●●                                                                                  | ●                                                                                   | 490                                                | 350  | 280  |
|                | Low-alloy steel                                       | Annealed                                |              | 175                 | 590                                         | P7                           | ●●                                                                                  | ●                                                                                   | 380                                                | 280  | 240  |
|                |                                                       | Heat-treated                            |              | 285                 | 960                                         | P8                           | ●●                                                                                  | ●                                                                                   | 230                                                | 180  | 160  |
|                |                                                       | Heat-treated                            |              | 380                 | 1280                                        | P9                           | ●●                                                                                  | ●                                                                                   | 180                                                | 140  | 100  |
|                |                                                       | Heat-treated                            |              | 430                 | 1480                                        | P10                          | ●●                                                                                  | ●                                                                                   | 120                                                | 100  |      |
|                | High-alloy steel and<br>high-alloy tool steel         | Annealed                                |              | 200                 | 680                                         | P11                          | ●●                                                                                  | ●                                                                                   | 340                                                | 240  | 160  |
|                |                                                       | Hardened and tempered                   |              | 300                 | 1010                                        | P12                          | ●●                                                                                  | ●                                                                                   | 240                                                | 140  | 120  |
|                |                                                       | Hardened and tempered                   |              | 380                 | 1280                                        | P13                          | ●●                                                                                  | ●                                                                                   | 120                                                | 100  |      |
|                | Stainless steel                                       | Ferritic/martensitic, annealed          |              | 200                 | 680                                         | P14                          | ●●                                                                                  | ●                                                                                   | 280                                                | 220  | 200  |
|                |                                                       | Martensitic, heat-treated               |              | 330                 | 1110                                        | P15                          | ●●                                                                                  | ●                                                                                   | 200                                                | 140  | 120  |
| <b>M</b>       | Stainless steel                                       | Austenitic, quench hardened             |              | 200                 | 680                                         | M1                           | ●●                                                                                  | ●                                                                                   |                                                    |      |      |
|                |                                                       | Austenitic, precipitation hardened (PH) |              | 300                 | 1010                                        | M2                           | ●●                                                                                  | ●                                                                                   |                                                    |      |      |
|                |                                                       | Austenitic/ferritic, duplex             |              | 230                 | 780                                         | M3                           | ●●                                                                                  | ●                                                                                   |                                                    |      |      |
| <b>K</b>       | Malleable cast iron                                   | Ferritic                                |              | 200                 | 400                                         | K1                           | ●●                                                                                  | ●                                                                                   | 300                                                | 200  | 150  |
|                |                                                       | Pearlitic                               |              | 260                 | 700                                         | K2                           | ●●                                                                                  | ●                                                                                   | 260                                                | 160  | 110  |
|                | Grey cast iron                                        | Low strength                            |              | 180                 | 200                                         | K3                           | ●●                                                                                  | ●                                                                                   | 570                                                | 380  | 280  |
|                |                                                       | High strength/austenitic                |              | 245                 | 350                                         | K4                           | ●●                                                                                  | ●                                                                                   | 300                                                | 210  | 140  |
|                | Cast iron with spheroidal graphite                    | Ferritic                                |              | 155                 | 400                                         | K5                           | ●●                                                                                  | ●                                                                                   | 320                                                | 230  | 170  |
|                |                                                       | Pearlitic                               |              | 265                 | 700                                         | K6                           | ●●                                                                                  | ●                                                                                   | 230                                                | 170  | 140  |
|                | GGV (CGI)                                             |                                         |              | 230                 | 400                                         | K7                           | ●●                                                                                  | ●                                                                                   |                                                    |      |      |
| <b>N</b>       | Wrought aluminium alloys                              | Not hardenable                          |              | 30                  | –                                           | N1                           | ●●                                                                                  | ●                                                                                   |                                                    |      |      |
|                |                                                       | Hardenable, hardened                    |              | 100                 | 340                                         | N2                           | ●●                                                                                  | ●                                                                                   |                                                    |      |      |
|                | Cast aluminium alloys                                 | ≤ 12% Si, not hardenable                |              | 75                  | 260                                         | N3                           | ●●                                                                                  | ●                                                                                   |                                                    |      |      |
|                |                                                       | ≤ 12% Si, hardenable, hardened          |              | 90                  | 310                                         | N4                           | ●●                                                                                  | ●                                                                                   |                                                    |      |      |
|                |                                                       | > 12% Si, not hardenable                |              | 130                 | 450                                         | N5                           |                                                                                     |                                                                                     |                                                    |      |      |
|                | Magnesium-based alloys                                |                                         |              | 70                  | 250                                         | N6                           |                                                                                     |                                                                                     |                                                    |      |      |
|                |                                                       |                                         |              | 100                 | 340                                         | N7                           | ●●                                                                                  | ●                                                                                   |                                                    |      |      |
|                |                                                       |                                         |              | 90                  | 310                                         | N8                           | ●●                                                                                  | ●                                                                                   |                                                    |      |      |
| <b>S</b>       | Heat-resistant alloys                                 | Fe-based                                | Annealed     | 200                 | 680                                         | S1                           | ●●                                                                                  | ●                                                                                   |                                                    |      |      |
|                |                                                       |                                         | Hardened     | 280                 | 940                                         | S2                           | ●●                                                                                  | ●                                                                                   |                                                    |      |      |
|                |                                                       | Ni- or Co-based                         | Annealed     | 250                 | 840                                         | S3                           | ●●                                                                                  | ●                                                                                   |                                                    |      |      |
|                |                                                       |                                         | Hardened     | 350                 | 1180                                        | S4                           | ●●                                                                                  | ●                                                                                   |                                                    |      |      |
|                |                                                       |                                         | Cast         | 320                 | 1080                                        | S5                           | ●●                                                                                  | ●                                                                                   |                                                    |      |      |
|                | Titanium alloys                                       | Pure titanium                           |              | 200                 | 680                                         | S6                           | ●●                                                                                  | ●                                                                                   |                                                    |      |      |
|                |                                                       | α and β alloys, hardened                |              | 375                 | 1260                                        | S7                           | ●●                                                                                  | ●                                                                                   |                                                    |      |      |
|                |                                                       | β alloys                                |              | 410                 | 1400                                        | S8                           | ●●                                                                                  | ●                                                                                   |                                                    |      |      |
|                | Tungsten alloys                                       |                                         |              | 300                 | 1010                                        | S9                           |                                                                                     |                                                                                     |                                                    |      |      |
|                | Molybdenum alloys                                     |                                         |              | 300                 | 1010                                        | S10                          |                                                                                     |                                                                                     |                                                    |      |      |
| <b>H</b>       | Hardened steel                                        | Hardened and tempered                   |              | 50 HRC              | –                                           | H1                           |                                                                                     |                                                                                     |                                                    |      |      |
|                |                                                       | Hardened and tempered                   |              | 55 HRC              | –                                           | H2                           |                                                                                     |                                                                                     |                                                    |      |      |
|                |                                                       | Hardened and tempered                   |              | 60 HRC              | –                                           | H3                           |                                                                                     |                                                                                     |                                                    |      |      |
|                | Hardened cast iron                                    | Hardened and tempered                   |              | 55 HRC              | –                                           | H4                           |                                                                                     |                                                                                     |                                                    |      |      |

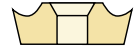
- Recommended application (the specified cutting data is regarded as starting values for the recommended application)
- Possible application

### Note:

If dry machining is possible, tool life is reduced by 20–30% on average.



## Cutting data for turning inserts – Positive basic shape



The specified cutting data represents average standard values.  
For specific applications, adjustment is recommended.

| Material group            | Overview of the main material groups and code letters |                                            |                                | Brinell hardness HB | Tensile strength $R_m$<br>N/mm² | Machining group <sup>1</sup> |  |  | Cutting material grades                            |     |     |
|---------------------------|-------------------------------------------------------|--------------------------------------------|--------------------------------|---------------------|---------------------------------|------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------------------------------------|-----|-----|
|                           |                                                       |                                            |                                |                     |                                 |                              |                                                                                     |                                                                                     | Starting values for cutting speed<br>$v_c$ [m/min] |     |     |
|                           |                                                       |                                            |                                |                     |                                 |                              |                                                                                     |                                                                                     | HC                                                 |     |     |
|                           |                                                       |                                            |                                |                     |                                 |                              |                                                                                     |                                                                                     | WPP10G                                             |     |     |
|                           |                                                       |                                            |                                |                     |                                 |                              | f [mm/rev]                                                                          |                                                                                     |                                                    |     |     |
|                           |                                                       |                                            |                                |                     |                                 |                              | 0,10                                                                                | 0,20                                                                                | 0,40                                               |     |     |
| P                         | Non-alloyed steel                                     | C ≤ 0.25%                                  | Annealed                       | 125                 | 430                             | P1                           | ●●                                                                                  | ●                                                                                   | 480                                                | 430 | 350 |
|                           |                                                       | C > 0.25% to ≤ 0.55%                       | Annealed                       | 190                 | 640                             | P2                           | ●●                                                                                  | ●                                                                                   | 370                                                | 330 | 270 |
|                           |                                                       | C > 0.25% to ≤ 0.55%                       | Heat-treated                   | 210                 | 710                             | P3                           | ●●                                                                                  | ●                                                                                   | 280                                                | 260 | 220 |
|                           |                                                       | C > 0.55%                                  | Annealed                       | 190                 | 640                             | P4                           | ●●                                                                                  | ●                                                                                   | 310                                                | 280 | 220 |
|                           |                                                       | C > 0.55%                                  | Heat-treated                   | 300                 | 1010                            | P5                           | ●●                                                                                  | ●                                                                                   | 230                                                | 220 | 190 |
|                           |                                                       | Free-machining steel (short-chipping)      | Annealed                       | 220                 | 750                             | P6                           | ●●                                                                                  | ●                                                                                   | 440                                                | 390 | 310 |
|                           | Low-alloy steel                                       | Annealed                                   |                                | 175                 | 590                             | P7                           | ●●                                                                                  | ●                                                                                   | 230                                                | 220 | 190 |
|                           |                                                       | Heat-treated                               |                                | 285                 | 960                             | P8                           | ●●                                                                                  | ●                                                                                   | 330                                                | 300 | 250 |
|                           |                                                       | Heat-treated                               |                                | 380                 | 1280                            | P9                           | ●●                                                                                  | ●                                                                                   | 200                                                | 190 | 160 |
|                           |                                                       | Heat-treated                               |                                | 430                 | 1480                            | P10                          | ●●                                                                                  | ●                                                                                   | 70                                                 | 60  | 50  |
|                           | High-alloy steel and<br>high-alloy tool steel         | Annealed                                   |                                | 200                 | 680                             | P11                          | ●●                                                                                  | ●                                                                                   | 310                                                | 270 | 200 |
|                           |                                                       | Hardened and tempered                      |                                | 300                 | 1010                            | P12                          | ●●                                                                                  | ●                                                                                   | 200                                                | 180 | 130 |
|                           |                                                       | Hardened and tempered                      |                                | 380                 | 1280                            | P13                          | ●●                                                                                  | ●                                                                                   | 60                                                 | 50  | 50  |
|                           | Stainless steel                                       | Ferritic/martensitic, annealed             |                                | 200                 | 680                             | P14                          | ●●                                                                                  | ●                                                                                   | 240                                                | 230 | 200 |
|                           |                                                       | Martensitic, heat-treated                  |                                | 330                 | 1110                            | P15                          | ●●                                                                                  | ●                                                                                   | 170                                                | 160 | 130 |
| M                         | Stainless steel                                       | Austenitic, quench hardened                |                                | 200                 | 680                             | M1                           | ●●                                                                                  | ●                                                                                   |                                                    |     |     |
|                           |                                                       | Austenitic, precipitation hardened (PH)    |                                | 300                 | 1010                            | M2                           | ●●                                                                                  | ●                                                                                   |                                                    |     |     |
|                           |                                                       | Austenitic/ferritic, duplex                |                                | 230                 | 780                             | M3                           | ●●                                                                                  | ●                                                                                   |                                                    |     |     |
| K                         | Malleable cast iron                                   | Ferritic                                   |                                | 200                 | 400                             | K1                           | ●●                                                                                  | ●                                                                                   | 270                                                | 230 | 170 |
|                           |                                                       | Pearlitic                                  |                                | 260                 | 700                             | K2                           | ●●                                                                                  | ●                                                                                   | 230                                                | 190 | 140 |
|                           | Grey cast iron                                        | Low strength                               |                                | 180                 | 200                             | K3                           | ●●                                                                                  | ●                                                                                   | 490                                                | 400 | 350 |
|                           |                                                       | High strength/austenitic                   |                                | 245                 | 350                             | K4                           | ●●                                                                                  | ●                                                                                   | 270                                                | 230 | 170 |
|                           | Cast iron with spheroidal graphite                    | Ferritic                                   |                                | 155                 | 400                             | K5                           | ●●                                                                                  | ●                                                                                   | 290                                                | 250 | 200 |
|                           |                                                       | Pearlitic                                  |                                | 265                 | 700                             | K6                           | ●●                                                                                  | ●                                                                                   | 200                                                | 180 | 150 |
|                           | GGV (CGI)                                             |                                            |                                | 230                 | 400                             | K7                           | ●●                                                                                  | ●                                                                                   |                                                    |     |     |
| N                         | Wrought aluminium alloys                              | Not hardenable                             |                                | 30                  | –                               | N1                           | ●●                                                                                  | ●                                                                                   |                                                    |     |     |
|                           |                                                       | Hardenable, hardened                       |                                | 100                 | 340                             | N2                           | ●●                                                                                  | ●                                                                                   |                                                    |     |     |
|                           | Cast aluminium alloys                                 | ≤ 12% Si, not hardenable                   |                                | 75                  | 260                             | N3                           | ●●                                                                                  | ●                                                                                   |                                                    |     |     |
|                           |                                                       | ≤ 12% Si, hardenable, hardened             |                                | 90                  | 310                             | N4                           | ●●                                                                                  | ●                                                                                   |                                                    |     |     |
|                           |                                                       | > 12% Si, not hardenable                   |                                | 130                 | 450                             | N5                           |                                                                                     |                                                                                     |                                                    |     |     |
|                           | Magnesium-based alloys                                |                                            |                                | 70                  | 250                             | N6                           |                                                                                     |                                                                                     |                                                    |     |     |
|                           |                                                       | Copper and copper alloys<br>(bronze/brass) | Unalloyed, electrolytic copper |                     | 100                             | 340                          | N7                                                                                  | ●●                                                                                  | ●                                                  |     |     |
|                           | Brass, bronze, red brass                              |                                            |                                | 90                  | 310                             | N8                           | ●●                                                                                  | ●                                                                                   |                                                    |     |     |
| Cu alloys, short-chipping |                                                       |                                            | 110                            | 380                 | N9                              | ●●                           | ●                                                                                   |                                                                                     |                                                    |     |     |
|                           | High-tensile, Ampco                                   |                                            | 300                            | 1010                | N10                             |                              |                                                                                     |                                                                                     |                                                    |     |     |
| S                         | Heat-resistant alloys                                 | Fe-based                                   | Annealed                       | 200                 | 680                             | S1                           | ●●                                                                                  | ●                                                                                   |                                                    |     |     |
|                           |                                                       |                                            | Hardened                       | 280                 | 940                             | S2                           | ●●                                                                                  | ●                                                                                   |                                                    |     |     |
|                           |                                                       | Ni- or Co-based                            | Annealed                       | 250                 | 840                             | S3                           | ●●                                                                                  | ●                                                                                   |                                                    |     |     |
|                           |                                                       |                                            | Hardened                       | 350                 | 1180                            | S4                           | ●●                                                                                  | ●                                                                                   |                                                    |     |     |
|                           |                                                       |                                            | Cast                           | 320                 | 1080                            | S5                           | ●●                                                                                  | ●                                                                                   |                                                    |     |     |
|                           | Titanium alloys                                       | Pure titanium                              |                                | 200                 | 680                             | S6                           | ●●                                                                                  | ●                                                                                   |                                                    |     |     |
|                           |                                                       | α and β alloys, hardened                   |                                | 375                 | 1260                            | S7                           | ●●                                                                                  | ●                                                                                   |                                                    |     |     |
|                           |                                                       | β alloys                                   |                                | 410                 | 1400                            | S8                           | ●●                                                                                  | ●                                                                                   |                                                    |     |     |
|                           | Tungsten alloys                                       |                                            |                                | 300                 | 1010                            | S9                           |                                                                                     |                                                                                     |                                                    |     |     |
|                           | Molybdenum alloys                                     |                                            |                                | 300                 | 1010                            | S10                          |                                                                                     |                                                                                     |                                                    |     |     |
| O                         | Thermoplastics                                        | Without abrasive fillers                   |                                |                     |                                 | O1                           | ●●                                                                                  | ●                                                                                   |                                                    |     |     |
|                           | Thermosets                                            | Without abrasive fillers                   |                                |                     |                                 | O2                           | ●●                                                                                  | ●                                                                                   |                                                    |     |     |
|                           | Plastic, glass-fibre-reinforced                       | GFRP                                       |                                |                     |                                 | O3                           |                                                                                     |                                                                                     |                                                    |     |     |
|                           | Plastic, carbon-fibre-reinforced                      | CFRP                                       |                                |                     |                                 | O4                           |                                                                                     |                                                                                     |                                                    |     |     |
|                           | Plastic, aramid-fibre-reinforced                      | AFRP                                       |                                |                     |                                 | O5                           |                                                                                     |                                                                                     |                                                    |     |     |
|                           | Graphite (technical)                                  |                                            | 80 Shore                       |                     |                                 | O6                           | ●●                                                                                  | ●                                                                                   |                                                    |     |     |

- Recommended application (the specified cutting data is regarded as starting values for the recommended application)
- Possible application

### Note:

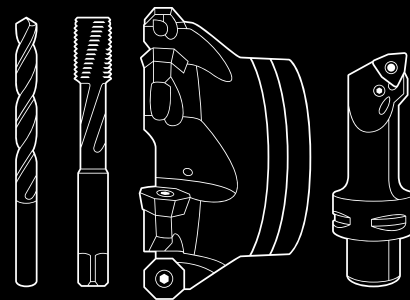
If dry machining is possible, tool life is reduced by 20–30% on average.



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