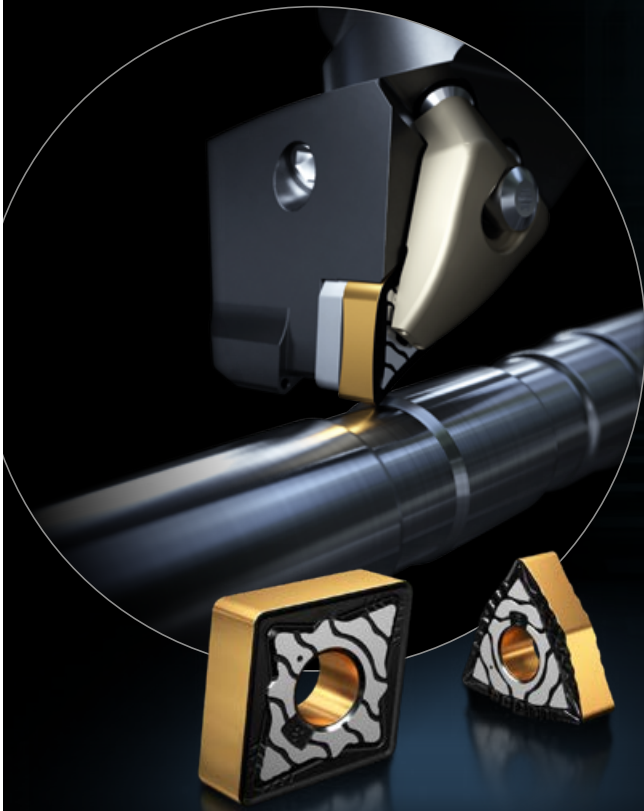


**Turning takes time.
A tool lifetime.**





ISO turning – Indexable inserts

Product description	Tiger-tec® Gold turning grades WPP10G, WPP20G, WPP30G	4
	Product range overview	6
Order pages	ISO indexable inserts – Negative basic shape	7
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	Indexable inserts for copy turning system – WL	29
Cutting tool material overview	Cutting tool material application charts	30
Geometry overview	Negative basic shape	32
	Positive basic shape	33
	Copy turn system inserts – WL	34
Cutting data	Negative basic shape	36
	Positive basic shape	38

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 Al_2O_3 – for greater resistance to crater wear
- Multi-stage post-treatment for a smooth rake face, reduced friction and improved toughness

THE APPLICATION

WPP10G

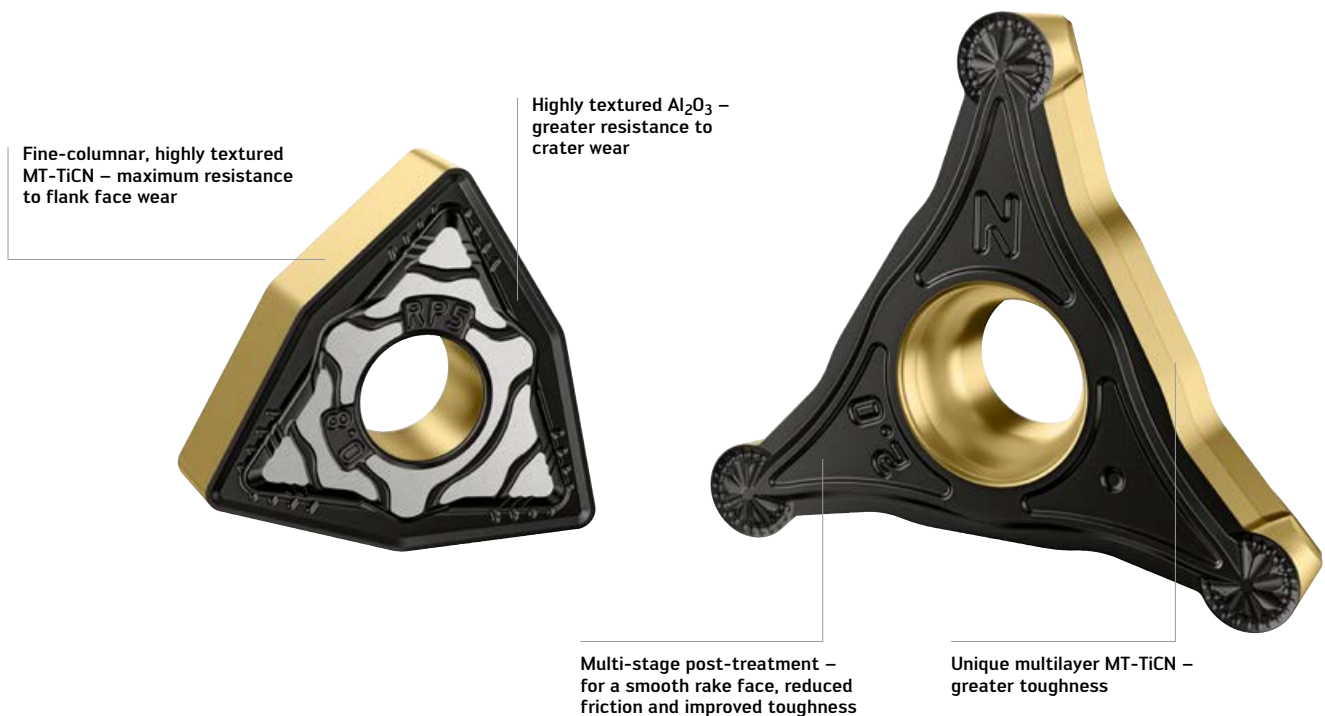
- Wear-resistant for continuous cutting and slightly interrupted cuts
- Primary application: Steel ISO P10;
Secondary application: Cast iron ISO K20

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

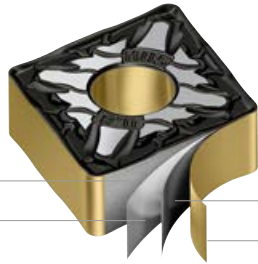
- Tough grade for interrupted cuts, unstable or unfavourable conditions
- Primary application: Steel ISO P30;
Secondary application: Cast iron ISO K40 and stainless steel ISO M20



Tiger-tec®Gold

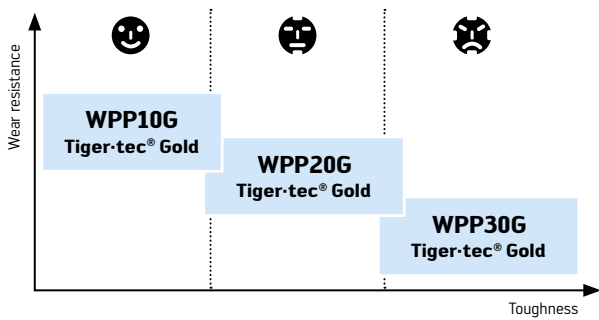
Tiger-tec® Gold turning inserts

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



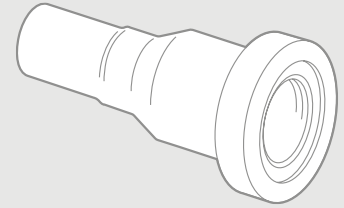
Carbide
 MT-TiCN – highly textured
 Al₂O₃ – highly textured
 Gold top layer

Fig.: TTG coating composition



APPLICATION EXAMPLE

Transmission shaft –
 Internal machining, dia. 29 mm

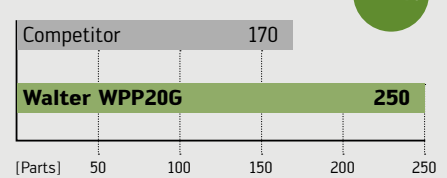


Material: 18MnCrS5/DIN 1.8720
 Tensile strength: 580 N/mm²
 Tool: E20S-SDUCR11-R
 Indexable insert: DCMT11T304-FP4 WPP20G

Cutting data

	Competitor ISO P20	Walter WPP20G 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



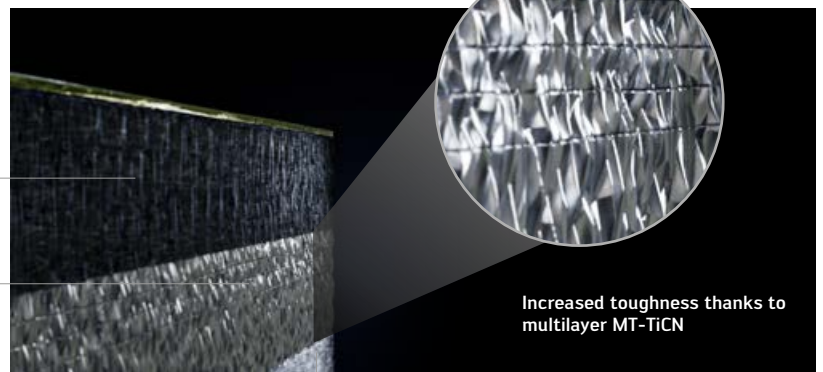
High wear resistance and
 considerable increase in
 tool life

Tiger-tec® Gold

Al₂O₃ –
 highly textured

MT-TiCN –
 highly textured

Carbide



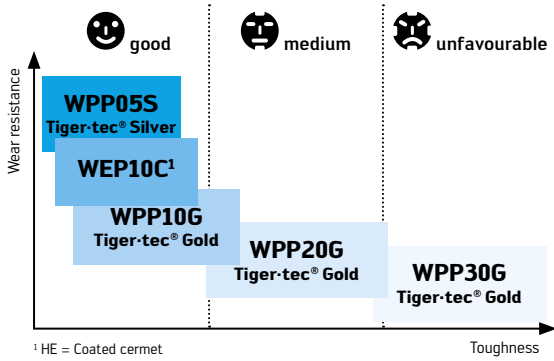
Increased toughness thanks to
 multilayer MT-TiCN

BENEFITS FOR YOU

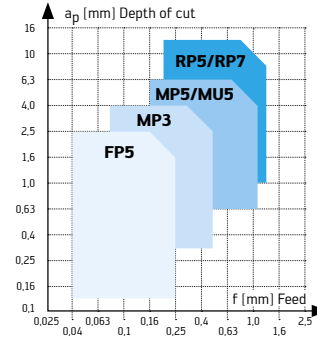
- High level of productivity and process reliability thanks to multi-stage post-treatment and unique, multilayer MT-TiCN structure
- Grades and benchmark geometries for short chips with versatile application
- High level of cost-efficiency due to highly textured Tiger-tec® Gold coating – average tool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

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

Machining steel ISO P

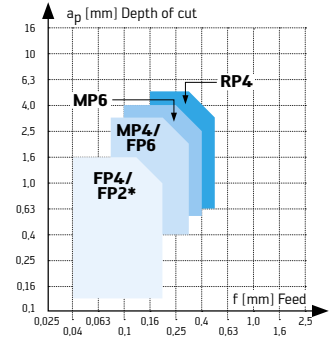


Negative basic shape double-sided



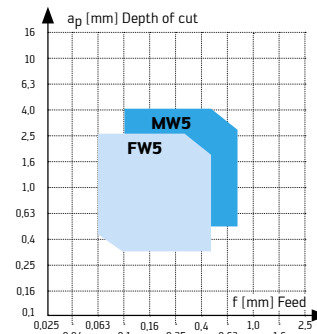
MP5: For universal machining
MU5: Easy-cutting – for ISO P and ISO M
RP5: For universal machining
RP7: For interrupted cuts, cast skin/forged skin

Positive basic shape

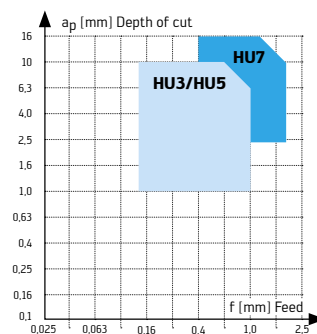


MP4: For universal machining, copy turning
FP6: For semi-finishing operations
* Fully ground circumference

Wiper

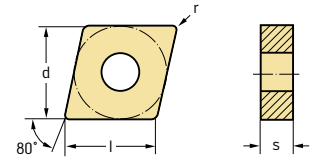


Negative basic shape single-sided



HU3: For universal machining
HU5: Easy-cutting

Negative rhombic 80°
CNMG / CNMM
Tiger-tec® Gold



Cutting inserts

	Designation	l mm	r mm	f mm	a _p mm	P					
						WPP05S	HC	HE	WPP10G	WPP20G	WPP30G
	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		☉	☉			
Wiper											
	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			☉	☉	☉	
	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		☉	☉	☉		
Wiper											
	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		☉	☉	☉	☉	

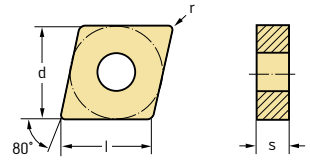
See the ISO 1832 designation key for dimensions

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

Negative rhombic 80°

CNMG / CNMM

Tiger-tec® Gold



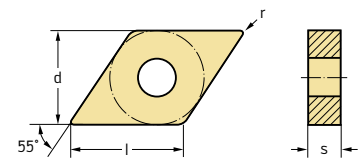
Cutting inserts

	Designation	l mm	r mm	f mm	a _p mm	P				
						WPP05S	HC			HE
						WPP10G	WPP20G	WPP30G	WEP10C	
	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



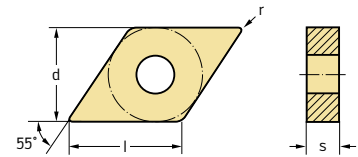
Cutting inserts

	Designation	r mm	f mm	a _p mm	P				
					WPP05S	HC			HE
					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	☺	☺	☺	☺	
DNMG150612-FP5	1,2	0,10-0,25	0,5-2,5	☺	☺	☺	☺		
	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	☺	☺	☺	☺	
	DNMG150612-MP3	1,2	0,16-0,40	0,8-3,5	☺	☺	☺		
	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	☺	☺	☺	☺	
DNMG150616-MP5	1,6	0,25-0,45	1,2-5,0	☺	☺				
	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



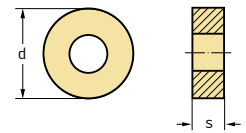
Cutting inserts

	Designation	r mm	f mm	a _p mm	P				
					WPP05S	HC			HE
					WPP10G	WPP20G	WPP30G	WEP10C	
	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**



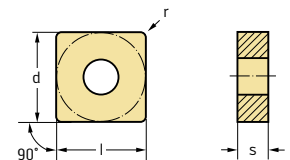
Cutting inserts

	Designation	d mm	f mm	a _p mm	P	
					HC	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**



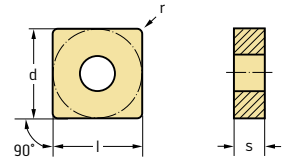
Cutting inserts

	Designation	r mm	f mm	a _p mm	P			
					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 mm	f mm	a _p mm	P			
					HC			
					WPP055	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	⊗	⊗	⊗	⊗
	SNMG250924-RP5	2,4	0,44-1,20	2,0-10,0	⊗	⊗	⊗	⊗
	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	⊗	⊗	⊗	⊗
	SNMG250924-RP7	2,4	0,40-0,80	2,5-7,0	⊗	⊗	⊗	⊗
	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	⊗	⊗	⊗	⊗
	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	⊗	⊗	⊗	⊗

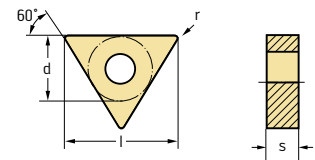
See the ISO 1832 designation key for dimensions

HC = Coated carbide

Negative triangular 60°

TNMG / TNMM

Tiger-tec® Gold



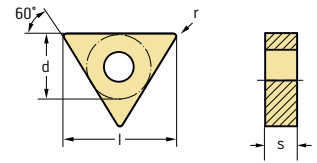
Cutting inserts

Designation	r mm	f mm	a _p mm	P				
				WPP05S	HC			HE
				WPP10G	WPP20G	WPP30G	WEP10C	
	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	⊕	⊕		
Wiper								
	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	⊕	⊕	⊗	
	TNMG270616-MP5	1,6	0,35-0,55	1,2-7,0		⊕		
	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	⊕	⊕		
Wiper								
	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



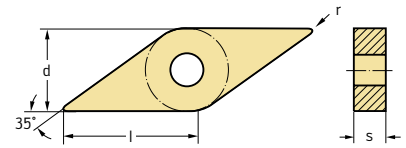
Cutting inserts

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

See the ISO 1832 designation key for dimensions

HC = Coated carbide
 HE = Coated cermet

Negative rhombic 35°
VNMG
Tiger-tec® Gold



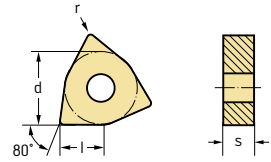
Cutting inserts

	Designation	r mm	f mm	a _p mm	P			
					HC		HE	
					WPP10G	WPP20G	WPP30G	WEP10C
	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



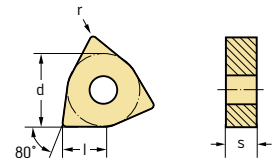
Cutting inserts

	Designation	r mm	f mm	a _p mm	P				
					HC			HE	
					WPP05S	WPP10G	WPP20G	WPP30G	WEP10C
	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		⊗	⊗		
	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		⊗	⊗		
	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



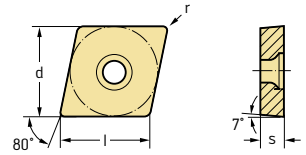
Cutting inserts

Designation	r mm	f mm	a _p mm	P					
				WPP05S	HC			HE	
				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



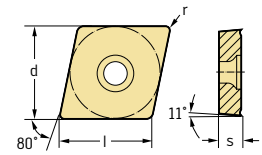
Cutting inserts

	Designation	l mm	r mm	f mm	a _p 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	☺	☺		
	CCMT120408-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



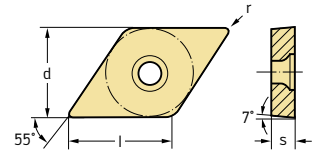
Cutting inserts

	Designation	l mm	r mm	f mm	a _p mm	P		
						WPP10G	WPP20G	HE
	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



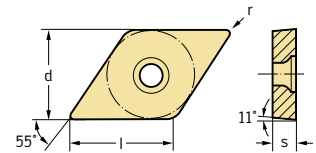
Cutting inserts

	Designation	l mm	r mm	f mm	a _p 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



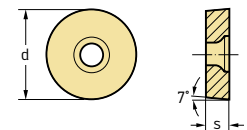
Cutting inserts

	Designation	l mm	r mm	f mm	a _p 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



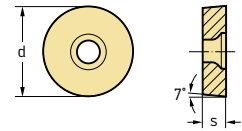
Cutting inserts

	Designation	d mm	f mm	a _p 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



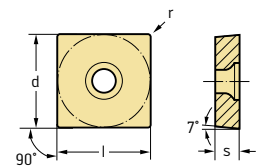
Cutting inserts

Designation	d mm	f mm	a _p mm	P			
				HC			
				WPP10G	WPP20G	WPP30G	
	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



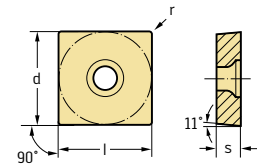
Cutting inserts

Designation	l mm	r mm	f mm	a _p mm	P				
					HC		HE		
					WPP10G	WPP20G	WPP30G	WEP10C	
	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



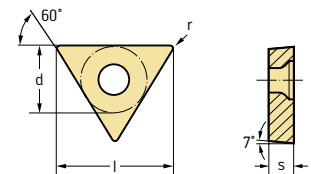
Cutting inserts

Designation	l mm	r mm	f mm	a _p mm	P	
					HC	WPP20G
 SPMT09T304-MP4 SPMT09T308-MP4	9,53	0,4	0,08–0,25	0,4–3,0	⊕	⊕
	9,53	0,8	0,12–0,32	0,5–3,0	⊕	⊕





See the ISO 1832 designation key for dimensions

HC = Coated carbide

Positive triangular 60°
TCGT / TCMT
Tiger-tec® Gold



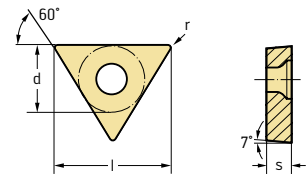
Cutting inserts

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



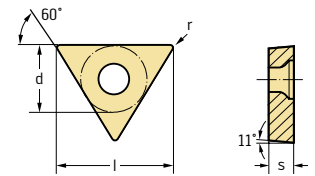
Cutting inserts

	Designation	l mm	r mm	f mm	a _p mm	P			
						WPP10G	HC	WPP30G	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



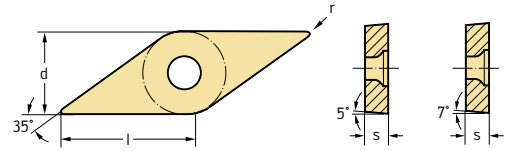
Cutting inserts

	Designation	l mm	r mm	f mm	a _p 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



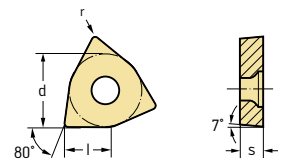
Cutting inserts

	Designation	l mm	r mm	f mm	a _p 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 mm	r mm	f mm	a _p 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		⊗	

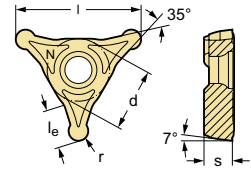
See the ISO 1832 designation key for dimensions

HC = Coated carbide






Indexable inserts for copy turning system

WL...-RC...

Tiger-tec® Gold



Cutting inserts

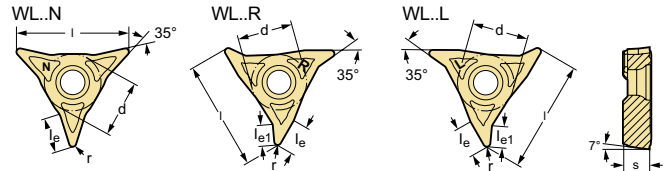
Designation	r mm	l mm	l _e mm	f mm	a _p mm	P		
						HC	WPP20G	
	WL25-RC0420N-MU6	2	25	7,2	0,12-0,40	0,5-2,0		
	WL25-RC0525N-MU6	2,5	25	6,9	0,12-0,45	0,5-2,5		

HC = Coated carbide




































Indexable inserts for copy turning system

WL...-VC...

Tiger-tec® Gold




Cutting inserts

Designation	r mm	l mm	l _e mm	l _{e1} mm	f mm	a _p 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


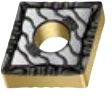
Walter grade designation	Standard designation	Material groups							Application range							Coating process	Coating composition	Indexable insert example
		P	M	K	N	S	H	O	01	10	20	30	40					
WPP10G	HC – P 10	●●							[Application range diagram for HC-P 10: 01-10]							CVD	TiCN + Al ₂ O ₃ (+ TiN)	
	HC – K 20			●				[Application range diagram for HC-K 20: 15-20]										
WPP20G	HC – P 20	●●						[Application range diagram for HC-P 20: 10-20]							CVD	TiCN + Al ₂ O ₃ (+ TiN)		
	HC – K 30			●				[Application range diagram for HC-K 30: 25-30]										
WPP30G	HC – P 30	●●						[Application range diagram for HC-P 30: 20-30]							CVD	TiCN + Al ₂ O ₃ (+ TiN)		
	HC – M 20		●					[Application range diagram for HC-M 20: 15-20]										
	HC – K 40			●				[Application range diagram for HC-K 40: 35-40]										

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				
 FW5 – Finishing with wiper technology – Double the feed rate – the same high surface quality – Reduced cutting pressure thanks to short radiused wiper cutting edge Wiper		••	••	••	•					0,3–3,0	0,10–0,60	
 FP5 – Finishing steel materials – Can also be used in semi-finishing as an alternative to MP3 – Curved cutting edge for low cutting forces		••								0,1–2,5	0,04–0,25	

Medium machining


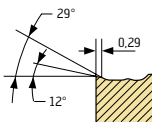
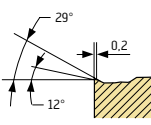

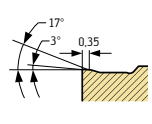
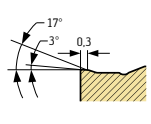

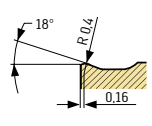
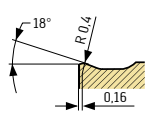
 MW5 – Medium machining with wiper technology – Double the feed rate – the same high surface quality – Maximum feeds thanks to long wiper curved cutting edge Wiper		••	••	••	•					0,8–4,0	0,15–0,75
 MS3 – For unstable or thin-walled components – Low cutting forces due to sharp cutting edge design – Circumference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


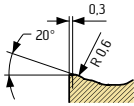
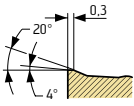

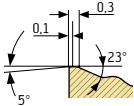
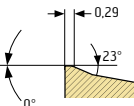

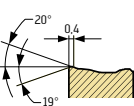
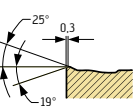
Geometry	Remarks/application area	Material groups							Main cutting edge section	Corner radius section	a_p [mm]	f [mm]
		P	M	K	N	S	H	O				
	RM5 – Roughing operations in stainless materials and high-temperature alloys		••			••					1,2–8,0	0,20–0,80
	RP5 – Roughing steel materials – Stable, positive cutting edge – Open chip groove for a low cutting temperature	••		•						0,8–12,0	0,2–1,20	
	RP7 – Interrupted cuts – Cast skins/forged skins – 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

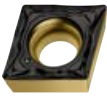
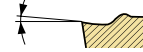
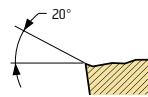

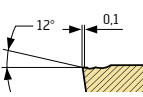
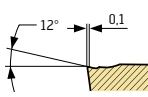

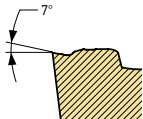
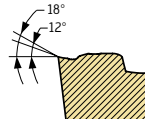

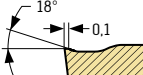
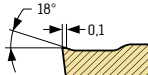

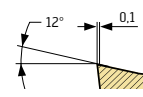
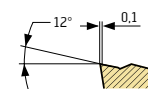

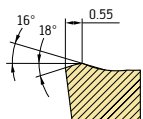
Roughing operations – Single-sided indexable inserts

Geometry Remarks/application area	Material groups							Main cutting edge section	Corner radius section	a_p [mm]	f [mm]
	P	M	K	N	S	H	O				
 <p>HU3</p> <ul style="list-style-type: none"> – Single-sided roughing geometry, for universal application – Curved cutting edge for low cutting forces – V chip formation for optimised chip breaking even with small depths of cut and fluctuating material removal – Reinforced double chip breaker groove on the main cutting edge 	●●	●	●							0,8–12,0	0,25–1,20
 <p>HU5</p> <ul style="list-style-type: none"> – Single-sided roughing geometry, for universal application – Curved cutting edge and deep chip breaker groove for low cutting forces – Open chip breaker groove design for reduced heat generation 	●	●●	●		●●					2,5–10,0	0,30–1,00
 <p>HU7</p> <ul style="list-style-type: none"> – Single-sided geometry for challenging roughing operations – Straight cutting edge with negative protective chamfer for maximum stability – 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


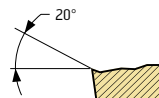
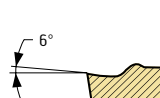

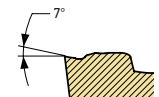
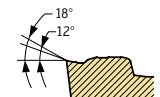

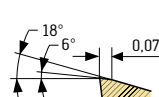
		Material groups										
		P	M	K	N	S	H	O				
		Steel	Stainless steel	Cast iron	NF metals	Materials with difficult cutting properties	Hard materials	Other	Main cutting edge section	Corner radius section	a_p [mm]	f [mm]
Finishing operation												
	FP4 – Finishing insert – Excellent chip control – Can also be used for precision boring	●●	●	●		●					0,1–2,5	0,04–0,20
	FP6 – Universal insert for finishing and medium machining operations – Can also be used for boring	●●	●	●		●					0,3–2,5	0,08–0,32
Medium machining												
	MP4 – Machining of long-chipping materials – Can be used universally in a wide application range – Circumference precision-ground – Circumference precision-sintered – 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
	MP6 – Medium machining of steel – Positive geometry with good chip control with very stable cutting edge	●●	●	●		●					0,4–4,0	0,10–0,35
Roughing operation												
	RP4 – Universal geometry for roughing and medium machining operations – Extremely large chip breaking range – Maximum metal removal rate and tool life	●●	●	●		●					0,6–5,0	0,12–0,50
Heavy machining												
	HU6 – Heavy roughing – Excellent chip breaking – Machining of forged parts – 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				
	FP4 – Finishing geometries for minimal depths of cut – Excellent chip control – Developed for copy turning	●●	●			●					0,1–2,0	0,05–0,25
	MP4 – Medium machining – with a large application range – Machining for long-chipping materials – Developed for copy turning	●●	●	●		●				0,4–2,5	0,08–0,35	
	MU6 – Full-radius geometry for copy turning – Soft cutting action with excellent chip breaking – 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 . .

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Cutting data for turning inserts – Negative basic shape



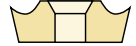
The specified cutting data represents average standard values.
For specific applications, adjustment is recommended.

Material group	Overview of the main material groups and code letters				Brinell hardness HB	Tensile strength R _m N/mm ²	Machining group ¹		Cutting material grades		
									Starting values for cutting speed v _c [m/min]		
									HC		
									WPP10G		
								f [mm/rev]			
								0,10	0,40	0,60	
P	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 high-alloy tool steel	Annealed	200	680	P11	●●●	340	240	160		
		Hardened and tempered	300	1010	P12	●●●	240	140	120		
	Stainless steel	Hardened and tempered	380	1280	P13	●●●	120	100			
		Ferritic/martensitic, annealed	200	680	P14	●●●	280	220	200		
	M	Stainless steel	Martensitic, heat-treated	330	1110	P15	●●●	200	140	120	
Austenitic, quench hardened			200	680	M1	●●●					
Austenitic, precipitation hardened (PH)			300	1010	M2	●●●					
K	Malleable cast iron	Austenitic/ferritic, duplex	230	780	M3	●●●					
		Ferritic	200	400	K1	●●●	300	200	150		
	Grey cast iron	Pearlitic	260	700	K2	●●●	260	160	110		
		Low strength	180	200	K3	●●●	570	380	280		
	Cast iron with spheroidal graphite	High strength/austenitic	245	350	K4	●●●	300	210	140		
		Ferritic	155	400	K5	●●●	320	230	170		
	GGV (CGI)	Pearlitic	265	700	K6	●●●	230	170	140		
		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 (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						
H	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 N/mm ²	Machining group ¹		Cutting material grades				
							Starting values for cutting speed 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 high-alloy tool steel	Annealed	200	680	P11	●●	●	310	270	200
			Hardened and tempered	300	1010	P12	●●	●	200	180	130
		Stainless steel	Hardened and tempered	380	1280	P13	●●	●	60	50	50
			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 (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

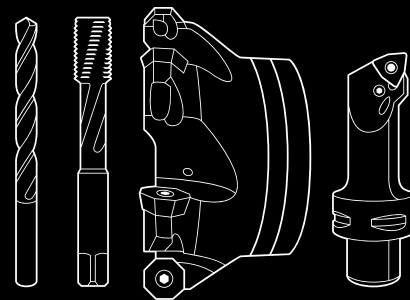
Note:

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

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