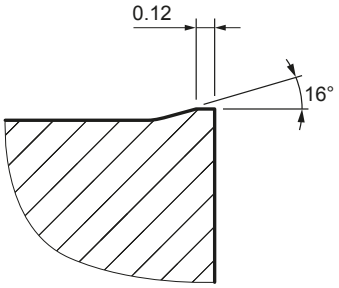
New Chipbreaker

Optimised by FEM:

- ▲ **Masterfinish** geometry
- ▲ High surface quality

Example: CNMX 120408-SWX+



Cutting Data

General cutting parameters depending on the application:

Work piece material		Type of treatment / alloy	Hardness HB	Coated carbide GTCP115 v_c [m/min]	GTCP125 v_c [m/min]	GTCP135 v_c [m/min]
P	Steel	Non-alloyed steel 0 – 0.45% C	150 – 250	220 – 400	170 – 240	170 – 190
		Low-alloyed steel	250 – 300	200 – 320	100 – 190	90 – 150
		High-alloyed steel	200	180 – 320	130 – 210	120 – 200
		Corrosion-resistant steel	200	200 – 320	130 – 210	140 – 180
M	Stainless steel	Ferritic	200	220 – 320	140 – 210	140 – 200
		Austenitic	180	–	100 – 210	110 – 190
		Duplex	230 – 260	–	–	80 – 150
		Martensitic	330	–	70 – 100	55 – 75
K	Cast iron	Grey cast iron	180	140 – 370	130 – 210	–
		Spheroidal cast iron	160	190 – 430	120 – 240	–
		Malleable/tempered iron	130	180 – 520	150 – 250	–

Application Chip groove	Depth of cut / feed rate a_p [mm]	f [mm]
SWX	0.50 to 3.00	0.35 to 0.15

Ex: CNMX 120408-SWX
Different in each application

Consistent cutting depth	Inconsistent cutting depth	Interrupted cut
●	●	○

Available Range

MASTERFINISH

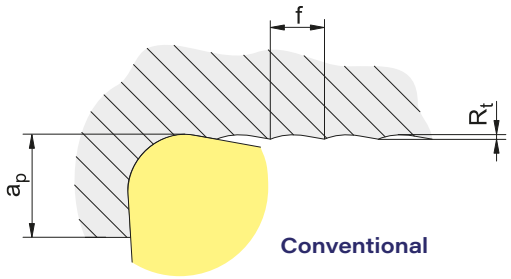
Heavy turning steel neg "P15" – Masterfinish:

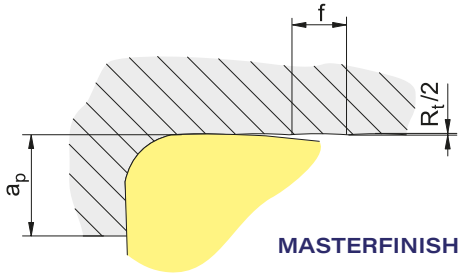
Insert	Designation	Chipbreaker	Material number	Available
	CNMX 120404-SWX+ GTCP115		MM12078117	●
	CNMX 120408-SWX+ GTCP115		MM12078114	●
	DNMX 150604-SWX+ GTCP115	...-SWX+	MM12078116	●
	DNMX 150608-SWX+ GTCP115		MM12078110	●
	WNMX 080404-SWX+ GTCP115		MM12078112	●
	WNMX 080408-SWX+ GTCP115		MM12078109	●

Operating Principle

Improved surface finish:

With the same feed rate an insert with Masterfinish cutting edge reaches a roughness value R_a which is many times higher than the one of a conventional insert.

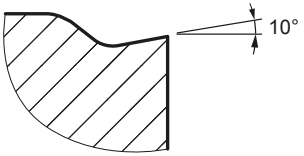




● available from stock, ○ available upon request

Cutting Data

Example: CNMG 120408EN-JF



General cutting parameters depending on the application:

Work piece material		Type of treatment / alloy	Hardness HB	Cermet TCM10 v_C [m/min]
P	Steel	Non-alloyed steel 0 – 0.45% C	150 – 250	230 – 270
		Low-alloyed steel	250 – 300	180 – 230
		High-alloyed steel	200	160 – 200
		Corrosion-resistant steel	200	230 – 270
M	Stainless steel	Ferritic	200	170 – 240
		Austenitic	180	200 – 240
		Duplex	230 – 260	–
		Martensitic	330	130 – 160
K	Cast iron	Grey cast iron	180	–
		Spheroidal cast iron	160	220 – 300
		Malleable/tempered iron	130	250 – 350

Application Chip groove	Depth of cut / feed rate a_p [mm]	f [mm]
JF	0.10 to 2.00	0.20 to 0.05

Ex: CNMG 120404EN-JF
Different in each application

Consistent cutting depth	Inconsistent cutting depth	Interrupted cut
●	X	X

Available Range

Turning steel neg finishing CERMET:

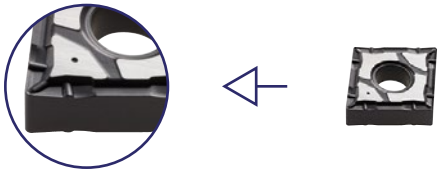
Insert	Designation		Chipbreaker	Material number	Available
	CNMG 120404EN-JF	TCM10	…-JF	MM11882894	●
	CNMG 120408EN-JF	TCM10		MM11882895	●
	DNMG 110404EN-JF	TCM10		MM11882708	●
	DNMG 150604EN-JF	TCM10		MM11882698	●

● available from stock, ○ available upon request

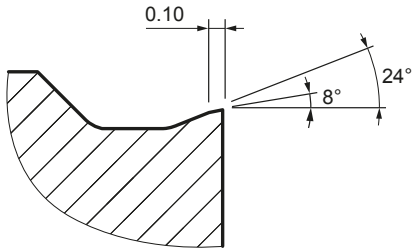
New Chipbreaker

Optimised by FEM:

- Increase life time
- Reduce temperature and stress



Example: CNMG 120408EN-WL+



Cutting Data

General cutting parameters depending on the application:

Work piece material		Type of treatment / alloy	Hardness HB	Coated carbide GTCP115 v_c [m/min]	Coated carbide GTCP125 v_c [m/min]
P	Steel	Non-alloyed steel 0 – 0.45% C	150 – 250	220 – 400	170 – 240
		Low-alloyed steel	250 – 300	200 – 320	100 – 190
		High-alloyed steel	200	180 – 320	130 – 210
		Corrosion-resistant steel	200	200 – 320	130 – 210
M	Stainless steel	Ferritic	200	220 – 320	140 – 210
		Austenitic	180	–	100 – 210
		Duplex	230 – 260	–	–
		Martensitic	330	–	70 – 100
K	Cast iron	Grey cast iron	180	–	–
		Spheroidal cast iron	160	–	–
		Malleable/tempered iron	130	–	–

Application Chip groove	Depth of cut / feed rate a_p [mm]	f [mm]
WL+	0.50 to 2.00	0.20 to 0.10

Ex: CNMX 120408-WL+ for CK60
Different in each application

Consistent cutting depth	Inconsistent cutting depth	Interrupted cut
●	○	X

Available Range

Heavy turning steel neg "P15":

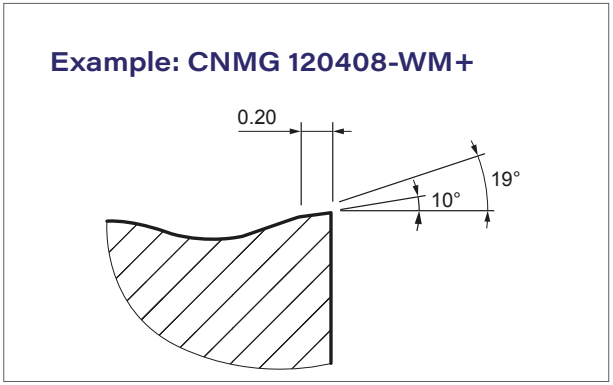
Insert	Designation	Chipbreaker	Material number	Available
	CNMG 090304EN-WL+ GTCP115	...-WL+	MM12044441	●
	CNMG 120404EN-WL+ GTCP115		MM12044444	●
	CNMG 120408EN-WL+ GTCP115		MM12044454	●
	DNMG 110404EN-WL+ GTCP115		MM12041499	●
	DNMG 150604EN-WL+ GTCP115		MM12041505	●
	DNMG 150608EN-WL+ GTCP115		MM12067233	●
	VNMG 160404EN-WL+ GTCP115		MM12046214	●
	WNMG 060404EN-WL+ GTCP115		MM12046215	●
	WNMG 080404EN-WL+ GTCP115		MM12046216	●

Heavy turning steel neg "P25":

Insert	Designation	Chipbreaker	Material number	Available
	CNMG 120404EN-WL+ GTCP125	...-WL+	MM12044450	●
	CNMG 120408EN-WL+ GTCP125		MM12044455	●
	DNMG 110404EN-WL+ GTCP125		MM12041502	●

● available from stock, ○ available upon request

Cutting Data



General cutting parameters depending on the application:

Work piece material		Type of treatment / alloy	Hardness HB	Coated carbide GTCP115 v_c [m/min]	GTCP125HP v_c [m/min]	GTCP125 v_c [m/min]	GTCP135 v_c [m/min]
P	Steel	Non-alloyed steel 0 – 0.45% C	150 – 250	220 – 400	200 – 270	170 – 240	170 – 190
		Low-alloyed steel	250 – 300	200 – 320	115 – 210	100 – 190	90 – 150
		High-alloyed steel	200	180 – 320	150 – 240	130 – 210	120 – 200
		Corrosion-resistant steel	200	200 – 320	150 – 240	130 – 210	140 – 180
M	Stainless steel	Ferritic	200	220 – 320	160 – 240	140 – 210	140 – 200
		Austenitic	180	–	115 – 240	100 – 210	110 – 190
		Duplex	230 – 260	–	–	–	80 – 150
		Martensitic	330	–	80 – 115	70 – 100	55 – 75
K	Cast iron	Grey cast iron	180	140 – 370	150 – 240	130 – 210	–
		Spheroidal cast iron	160	190 – 430	140 – 270	120 – 240	–
		Malleable/tempered iron	130	180 – 520	170 – 290	150 – 250	–

Application Chip groove	Depth of cut / feed rate a_p [mm]	f [mm]
WM+	1.00 to 4.00	0.44 to 0.22

Ex: CNMG 120408-WM+ for CK60
Different in each application

Consistent cutting depth	Inconsistent cutting depth	Interrupted cut
●	●	○

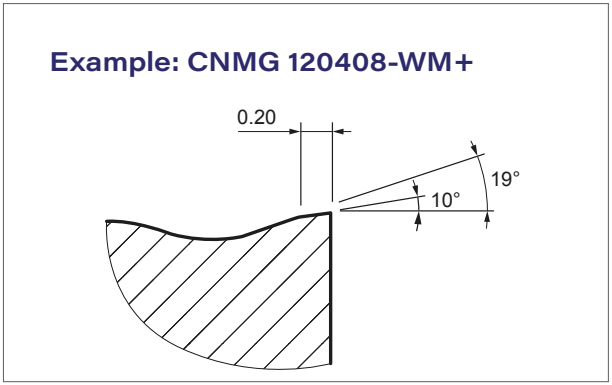
Available Range

Turning steel neg semi finishing "P15":

Insert	Designation	Chipbreaker	Material number	Available
	CNMG 120404-WM+ GTCP115		MM11854331	●
	CNMG 120408-WM+ GTCP115		MM11854338	●
	CNMG 120412-WM+ GTCP115		MM11861944	●
	DNMG 110404-WM+ GTCP115		MM12067234	●
	DNMG 110408-WM+ GTCP115		MM12032128	●
	DNMG 150604-WM+ GTCP115		MM11855030	●
	DNMG 150608-WM+ GTCP115		MM11855070	●
	DNMG 150612-WM+ GTCP115		MM11861919	●
	SNMG 120408-WM+ GTCP115		MM11861932	●
	SNMG 120412-WM+ GTCP115		MM11861936	●
	TNMG 160404-WM+ GTCP115	...-WM+	MM11861915	●
	TNMG 160408-WM+ GTCP115		MM11861899	●
	TNMG 160412-WM+ GTCP115		MM11861913	●
	VNMG 160404-WM+ GTCP115		MM11861933	●
	VNMG 160408-WM+ GTCP115		MM11861935	●
	WNMG 060404-WM+ GTCP 115		MM11861939	●
	WNMG 060408-WM+ GTCP 115		MM11861942	●
	WNMG 080404-WM+ GTCP 115		MM11855139	●
	WNMG 080408-WM+ GTCP 115		MM11855141	●
	WNMG 080412-WM+ GTCP 115		MM11861917	●

● available from stock, ○ available upon request

Cutting Data



General cutting parameters depending on the application:

Work piece material		Type of treatment / alloy	Hardness HB	Coated carbide GTCP115 v_c [m/min]	GTCP125HP v_c [m/min]	GTCP125 v_c [m/min]	GTCP135 v_c [m/min]
P	Steel	Non-alloyed steel 0 – 0.45% C	150 – 250	220 – 400	200 – 270	170 – 240	170 – 190
		Low-alloyed steel	250 – 300	200 – 320	115 – 210	100 – 190	90 – 150
		High-alloyed steel	200	180 – 320	150 – 240	130 – 210	120 – 200
		Corrosion-resistant steel	200	200 – 320	150 – 240	130 – 210	140 – 180
M	Stainless steel	Ferritic	200	220 – 320	160 – 240	140 – 210	140 – 200
		Austenitic	180	–	115 – 240	100 – 210	110 – 190
		Duplex	230 – 260	–	–	–	80 – 150
		Martensitic	330	–	80 – 115	70 – 100	55 – 75
K	Cast iron	Grey cast iron	180	140 – 370	150 – 240	130 – 210	–
		Spheroidal cast iron	160	190 – 430	140 – 270	120 – 240	–
		Malleable/tempered iron	130	180 – 520	170 – 290	150 – 250	–

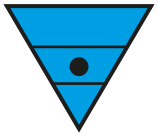
Application	Depth of cut a_p [mm]	feed rate f [mm]
Chip groove		
WM+	1.00 to 4.00	0.44 to 0.22

Ex: CNMG 120408-WM+ for CK60
Different in each application

Consistent cutting depth	Inconsistent cutting depth	Interrupted cut
●	●	○

Available Range

Turning steel neg medium "P25":

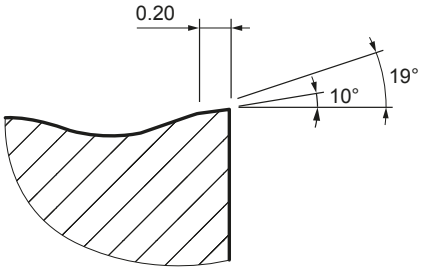


Insert	Designation	Chipbreaker	Material number	Available
	CNMG 120404-WM+ GTCP125		MM11562085	●
	CNMG 120408-WM+ GTCP125		MM11557291	●
	CNMG 120412-WM+ GTCP125		MM11577562	●
	DNMG 110404-WM+ GTCP125		MM11562091	●
	DNMG 110408-WM+ GTCP125		MM11562093	●
	DNMG 150404-WM+ GTCP125		MM11752699	●
	DNMG 150408-WM+ GTCP125		MM11752701	●
	DNMG 150604-WM+ GTCP125		MM11562094	●
	DNMG 150608-WM+ GTCP125		MM11562097	●
	DNMG 150612-WM+ GTCP125		MM11581880	●
	SNMG 120408-WM+ GTCP125		MM11560890	●
	SNMG 120412-WM+ GTCP125		MM11579855	●
	TNMG 160404-WM+ GTCP125	...-WM+	MM11562100	●
	TNMG 160408-WM+ GTCP125		MM11557290	●
	TNMG 160412-WM+ GTCP125		MM11581881	●
	TNMG 220404-WM+ GTCP125		MM11562102	●
	TNMG 220408-WM+ GTCP125		MM11562105	●
	VNMG 160404-WM+ GTCP125		MM11562107	●
	VNMG 160408-WM+ GTCP125		MM11560889	●
	WNMG 060404-WM+ GTCP125		MM11562108	●
	WNMG 060408-WM+ GTCP125		MM11562111	●
	WNMG 080404-WM+ GTCP125		MM11562112	●
	WNMG 080408-WM+ GTCP125		MM11560888	●
	WNMG 080412-WM+ GTCP125		MM11577559	●

● available from stock, ○ available upon request

Cutting Data

Example: CNMG 120408-WM+



NEW

General cutting parameters depending on the application:

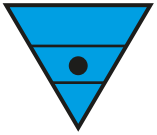
Work piece material		Type of treatment / alloy	Hardness HB	Coated carbide GTCP115 v_c [m/min]	GTCP125HP v_c [m/min]	GTCP125 v_c [m/min]	GTCP135 v_c [m/min]
P	Steel	Non-alloyed steel 0 – 0.45% C	150 – 250	220 – 400	200 – 270	170 – 240	170 – 190
		Low-alloyed steel	250 – 300	200 – 320	115 – 210	100 – 190	90 – 150
		High-alloyed steel	200	180 – 320	150 – 240	130 – 210	120 – 200
		Corrosion-resistant steel	200	200 – 320	150 – 240	130 – 210	140 – 180
M	Stainless steel	Ferritic	200	220 – 320	160 – 240	140 – 210	140 – 200
		Austenitic	180	–	115 – 240	100 – 210	110 – 190
		Duplex	230 – 260	–	–	–	80 – 150
		Martensitic	330	–	80 – 115	70 – 100	55 – 75
K	Cast iron	Grey cast iron	180	140 – 370	150 – 240	130 – 210	–
		Spheroidal cast iron	160	190 – 430	140 – 270	120 – 240	–
		Malleable/tempered iron	130	180 – 520	170 – 290	150 – 250	–

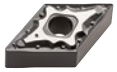
Application Chip groove	Depth of cut / feed rate a_p [mm]	f [mm]
WM+	1.00 to 4.00	0.44 to 0.22

Ex: CNMG 120408-WM+ for CK60
Different in each application

Consistent cutting depth	Inconsistent cutting depth	Interrupted cut
●	●	○

Available Range

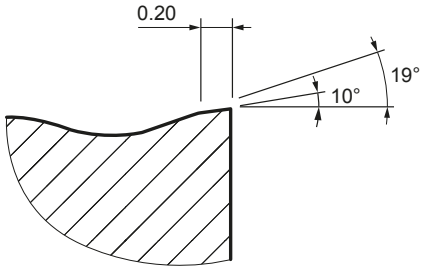


Insert	Designation		Chipbreaker	Material number	Available
	CNMG 120404-WM+	GTCP125HP		MM14659139	●
	CNMG 120408-WM+	GTCP125HP		MM12245949	●
	CNMG 120412-WM+	GTCP125HP		MM12245954	●
	DNMG 110408-WM+	GTCP125HP		MM14659140	●
	DNMG 150404-WM+	GTCP125HP		MM14659141	●
	DNMG 150408-WM+	GTCP125HP		MM14659143	●
	DNMG 150604-WM+	GTCP125HP		MM14659149	●
	DNMG 150608-WM+	GTCP125HP		MM12245956	●
	DNMG 150612-WM+	GTCP125HP		MM14659151	●
	TNMG 160408-WM+	GTCP125HP	...-WM+	MM12245955	●
	SNMG 120408-WM+	GTCP125HP		MM12245950	●
	WNMG 080404-WM+	GTCP125HP		MM14659152	●
	WNMG 080408-WM+	GTCP125HP		MM12245952	●
	WNMG 080412-WM+	GTCP125HP		MM12245953	●

● available from stock, ○ available upon request

Cutting Data

Example: CNMG 120408-WM+



General cutting parameters depending on the application:

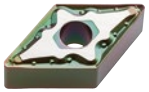
Work piece material		Type of treatment / alloy	Hardness HB	Coated carbide GTCP115 v_c [m/min]	GTCP125 v_c [m/min]	GTCP135 v_c [m/min]
P	Steel	Non-alloyed steel 0 – 0.45% C	150 – 250	220 – 400	170 – 240	170 – 190
		Low-alloyed steel	250 – 300	200 – 320	100 – 190	90 – 150
		High-alloyed steel	200	180 – 320	130 – 210	120 – 200
		Corrosion-resistant steel	200	200 – 320	130 – 210	140 – 180
M	Stainless steel	Ferritic	200	220 – 320	140 – 210	140 – 200
		Austenitic	180	–	100 – 210	110 – 190
		Duplex	230 – 260	–	–	80 – 150
		Martensitic	330	–	70 – 100	55 – 75
K	Cast iron	Grey cast iron	180	140 – 370	130 – 210	–
		Spheroidal cast iron	160	190 – 430	120 – 240	–
		Malleable/tempered iron	130	180 – 520	150 – 250	–

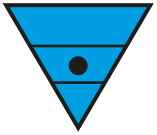
Application Chip groove	Depth of cut / feed rate a_p [mm]	f [mm]
WM+	1.00 to 4.00	0.44 to 0.22

Ex: CNMG 120408-WM+ for CK60
Different in each application

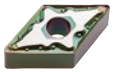
Consistent cutting depth	Inconsistent cutting depth	Interrupted cut
●	●	●

Available Range





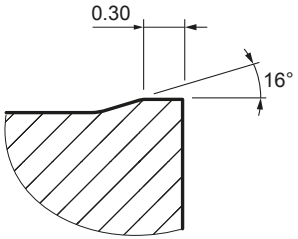
Turning steel neg medium roughing "P35":

Insert	Designation	Chipbreaker	Material number	Available
	CNMG 120408-WM+ GTCP135		MM11854341	●
	CNMG 120412-WM+ GTCP135		MM11854345	●
	DNMG 110408-WM+ GTCP135		MM12032130	●
	DNMG 150608-WM+ GTCP135		MM11855074	●
	DNMG 150612-WM+ GTCP135		MM11855076	●
	SNMG 120408-WM+ GTCP135		MM11855100	●
	SNMG 120412-WM+ GTCP135	...-WM+	MM11855103	●
	TNMG 160408-WM+ GTCP135		MM11855128	●
	WNMG 080408-WM+ GTCP135		MM11855143	●
	WNMG 080412-WM+ GTCP135		MM11855145	●

● available from stock, ○ available upon request

Cutting Data

Example: CNMG 120408EN-WR+



General cutting parameters depending on the application:

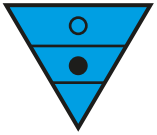
Work piece material		Type of treatment / alloy	Hardness HB	Coated carbide GTCP115 v_c [m/min]	GTCP125 v_c [m/min]	GTCP135 v_c [m/min]
P	Steel	Non-alloyed steel 0 – 0.45% C	150 – 250	220 – 400	170 – 240	170 – 190
		Low-alloyed steel	250 – 300	200 – 320	100 – 190	90 – 150
		High-alloyed steel	200	180 – 320	130 – 210	120 – 200
		Corrosion-resistant steel	200	200 – 320	130 – 210	140 – 180
M	Stainless steel	Ferritic	200	220 – 320	140 – 210	140 – 200
		Austenitic	180	–	100 – 210	110 – 190
		Duplex	230 – 260	–	–	80 – 150
		Martensitic	330	–	70 – 100	55 – 75
K	Cast iron	Grey cast iron	180	140 – 370	130 – 210	–
		Spheroidal cast iron	160	190 – 430	120 – 240	–
		Malleable/tempered iron	130	180 – 520	150 – 250	–

Application Chip groove	Depth of cut / feed rate a_p [mm]	f [mm]
WR+	1.50 to 5.00	0.50 to 0.30

Ex: CNMG 120408-WR+ for CK60
Different in each application

Consistent cutting depth	Inconsistent cutting depth	Interrupted cut
●	●	○

Available Range



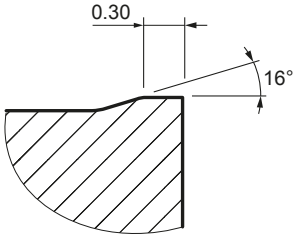
Turning steel neg roughing "P15":

Insert	Designation		Chipbreaker	Material number	Available
	CNMG 120408EN-WR+	GTCP115	...-WR+	MM11983084	●
	DNMG 150608EN-WR+	GTCP115		MM12037321	●
	DNMG 150612EN-WR+	GTCP115		MM12048929	●

● available from stock, ○ available upon request

Cutting Data

Example: CNMG 120408EN-WR+



General cutting parameters depending on the application:

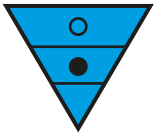
Work piece material		Type of treatment / alloy	Hardness HB	Coated carbide GTCP115 v_c [m/min]	GTCP125 v_c [m/min]	GTCP135 v_c [m/min]
P	Steel	Non-alloyed steel 0 – 0.45% C	150 – 250	220 – 400	170 – 240	170 – 190
		Low-alloyed steel	250 – 300	200 – 320	100 – 190	90 – 150
		High-alloyed steel	200	180 – 320	130 – 210	120 – 200
		Corrosion-resistant steel	200	200 – 320	130 – 210	140 – 180
M	Stainless steel	Ferritic	200	220 – 320	140 – 210	140 – 200
		Austenitic	180	–	100 – 210	110 – 190
		Duplex	230 – 260	–	–	80 – 150
		Martensitic	330	–	70 – 100	55 – 75
K	Cast iron	Grey cast iron	180	140 – 370	130 – 210	–
		Spheroidal cast iron	160	190 – 430	120 – 240	–
		Malleable/tempered iron	130	180 – 520	150 – 250	–

Application Chip groove	Depth of cut / feed rate a_p [mm]	f [mm]
WR+	1.50 to 5.00	0.50 to 0.30

Ex: CNMG 120408-WR+ for CK60
Different in each application

Consistent cutting depth	Inconsistent cutting depth	Interrupted cut
●	●	○

Turning steel neg roughing "P25":



Insert	Designation		Chipbreaker	Material number	Available
	CNMG 120408EN-WR+	GTCP125	...-WR+	MM11882916	●
	CNMG 120412EN-WR+	GTCP125		MM11882915	●
	DNMG 150608EN-WR+	GTCP125		MM12037320	●
	DNMG 150612EN-WR+	GTCP125		MM12049239	●
	SNMG 120408EN-WR+	GTCP125		MM11882913	●
	SNMG 120412EN-WR+	GTCP125		MM11882911	●
	TNMG 160408EN-WR+	GTCP125		MM11882909	●
	TNMG 160412EN-WR+	GTCP125		MM11882907	●
	WNMG 080408EN-WR+	GTCP125		MM11882906	●
	WNMG 080412EN-WR+	GTCP125		MM11882904	●

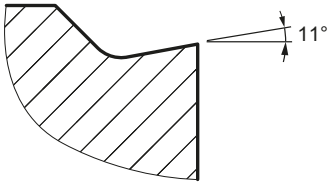
Turning steel neg roughing "P35":

Insert	Designation		Chipbreaker	Material number	Available
	DNMG 150608EN-WR+	GTCP135	...-WR+	MM12037319	●
	DNMG 150612EN-WR+	GTCP135		MM12049240	●

● available from stock, ○ available upon request

Cutting Data

Example: CNGP 120408-EXK+



General cutting parameters depending on the application:

Work piece material		Type of treatment / alloy	Hardness HB	Coated carbide GTP2120 v_c [m/min]
M	Stainless steel	Ferritic	200	150 – 200
		Austenitic	180	120 – 200
		Duplex	230 – 260	90 – 160
		Martensitic	330	60 – 80
K	Cast iron	Grey cast iron	180	120 – 160
		Spheroidal cast iron	160	120 – 160
		Malleable/tempered iron	130	140 – 220
	Non-ferrous metals		100	100 – 400
			130	100 – 400
			90	100 – 600
			100	100 – 400
	Exotic materials	Fe base	200	20 – 50
		Nickel or cobalt base	280	20 – 50
		Nickel or cobalt base	250	15 – 40
		Nickel or cobalt base		20 – 35
		Titanium	Rm 440*	80 – 140

Chip groove	Application Depth of cut a_p [mm]	Feed rate f [mm]
EXK+	0.5 to 2.5	0.25 to 0.10

Ex: CNGP 120408-EXK+ for 304
Different in each application

Consistent cutting depth	Inconsistent cutting depth	Interrupted cut
●	○	X

Available Range

Turning stainless steel neg finishing "M25":

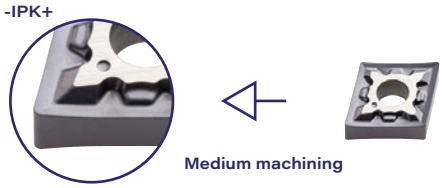
Insert	Designation		Chipbreaker	Material number	Available
	CNGP 120402-EXK+	GTP2120	...-EXK+	MM11223927	●
	CNGP 120404-EXK+	GTP2120		MM11219251	●
	CNGP 120408-EXK+	GTP2120		MM11219254	●
	CNGP 120412-EXK+	GTP2120		MM12068756	●
	DNGP 150404-EXK+	GTP2120		MM11219260	●
	DNGP 150602-EXK+	GTP2120		MM11241911	●
	DNGP 150604-EXK+	GTP2120		MM11241912	●
	DNGP 150608-EXK+	GTP2120		MM11226180	●
	VNGP 160402-EXK+	GTP2120		MM11215526	●
	VNGP 160404-EXK+	GTP2120		MM11226182	●
	WNGP 080404-EXK+	GTP2120		MM11225022	●
	WNGP 080408-EXK+	GTP2120		MM11220363	●

● available from stock, ○ available upon request

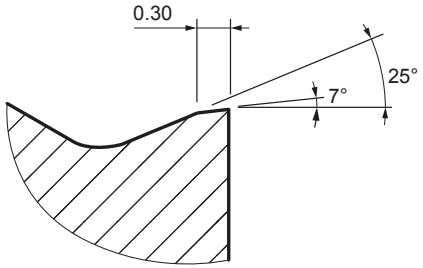
New Chipbreaker

Optimised by FEM:

- Reduced formation of burrs
- Good surface finish
- Low cutting forces



Example: CNMG 120408 IPK+



Cutting Data

General cutting parameters depending on the application:

Work piece material		Type of treatment / alloy	Hardness HB	Coated carbide GTCM120HP v_c [m/min]	GTPM125 v_c [m/min]	GTPM135M v_c [m/min]
P	Steel	non-alloyed steel 0 – 0.45% C	150 – 250	150 – 250	130 – 250	150 – 190
		low-alloyed steel	250 – 300	100 – 200	60 – 180	90 – 150
		high-alloyed steel	200	120 – 220	80 – 200	120 – 200
		corrosion-resistant steel	200	120 – 220	100 – 200	140 – 180
M	Stainless steel	Ferritic	200	190 – 250	120 – 250	140 – 200
		Austenitic	180	140 – 220	100 – 220	110 – 190
		Duplex	230 – 260	110 – 170	60 – 160	80 – 150
		Martensitic	330	40 – 100	40 – 100	55 – 75

Application Chip groove	Depth of cut / feed rate a_p [mm]	f [mm]
IPK+	1.00 to 4.20	0.40 to 0.22

Ex: CNMG 120408-IPK+ for 304
Different in each application

Consistent cutting depth	Inconsistent cutting depth	Interrupted cut
●	○	X

Available Range

Turning stainless steel neg "M20":

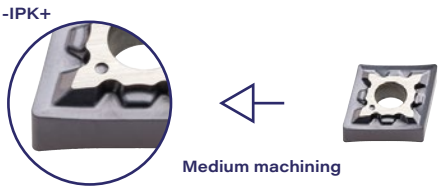
Insert	Designation	Chipbreaker	Material number	Available
	CNMG 090304-IPK+ GTCM120HP		MM14620558	●
	CNMG 090308-IPK+ GTCM120HP		MM12563653	●
	CNMG 120404-IPK+ GTCM120HP		MM12233866	●
	CNMG 120408-IPK+ GTCM120HP		MM12233867	●
	CNMG 120412-IPK+ GTCM120HP		MM14620560	
	DNMG 110404-IPK+ GTCM120HP		MM14600542	●
	DNMG 110408-IPK+ GTCM120HP		MM14600544	●
	DNMG 150404-IPK+ GTCM120HP		MM14600546	●
	DNMG 150408-IPK+ GTCM120HP		MM14681077	●
	DNMG 150604-IPK+ CTCM120HP		MM12233869	●
	DNMG 150608-IPK+ GTCM120HP	...-IPK+	MM12233868	●
	SNMG 120408-IPK+ GTCM120HP		MM14600552	●
	TNMG 160404-IPK+ GTCM120HP		MM14600556	●
	TNMG 160408-IPK+ GTCM120HP		MM14600566	●
	VNMG 160408-IPK+ GTCM120HP		MM14600567	●
	WNMG 060404-IPK+ GTCM120HP		MM14620561	●
	WNMG 060408-IPK+ GTCM120HP		MM14620547	●
	WNMG 080404-IPK+ GTCM120HP		MM12233872	●
	WNMG 080408-IPK+ GTCM120HP		MM12233870	●

● available from stock, ○ available upon request

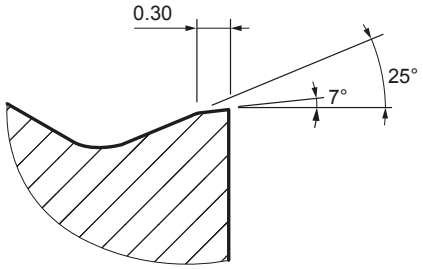
New Chipbreaker

Optimised by FEM:

- ▲ Reduced formation of burrs
- ▲ Good surface finish
- ▲ Low cutting forces



Example: CNMG 120408 IPK+



Cutting Data

General cutting parameters depending on the application:

Work piece material		Type of treatment / alloy	Hardness HB	Coated carbide GTPM125 v_c [m/min]	Coated carbide GTPM135 v_c [m/min]
P	Steel	Non-alloyed steel 0 – 0.45% C	150 – 250	130 – 250	170 – 190
		Low-alloyed steel	250 – 300	60 – 180	90 – 150
		High-alloyed steel	200	80 – 200	120 – 200
		Corrosion-resistant steel	200	100 – 200	140 – 180
M	Stainless steel	Ferritic	200	120 – 250	140 – 200
		Austenitic	180	100 – 220	110 – 190
		Duplex	230 – 260	60 – 160	80 – 150
		Martensitic	330	40 – 100	55 – 75

Application Chip groove	Depth of cut / feed rate a_p [mm]	f [mm]
IPK+	1.00 to 4.20	0.40 to 0.22

Ex: CNMG 120408-IPK+ for 304
Different in each application

Consistent cutting depth	Inconsistent cutting depth	Interrupted cut
●	○	X

Available Range

Turning stainless steel neg medium "M25":

Insert	Designation	Chipbreaker	Material number	Available
	CNMG 090304-IPK+ GTPM125		MM11812968	●
	CNMG 090308-IPK+ GTPM125		MM11812211	●
	CNMG 120404-IPK+ GTPM125		MM11748122	●
	CNMG 120408-IPK+ GTPM125		MM11748123	●
	DNMG 110404-IPK+ GTPM125		MM11808002	●
	DNMG 110408-IPK+ GTPM125		MM11807993	●
	DNMG 150404-IPK+ GTPM125		MM11753922	●
	DNMG 150408-IPK+ GTPM125		MM11753921	●
	DNMG 150604-IPK+ GTPM125		MM11748133	●
	DNMG 150608-IPK+ GTPM125		MM11748134	●
	SNMG 120408-IPK+ GTPM125	...-IPK+	MM11804482	●
	TNMG 160404-IPK+ GTPM125		MM11748628	●
	TNMG 160408-IPK+ GTPM125		MM11748632	●
	VNMG 160408-IPK+ GTPM125		MM11754890	●
	WNMG 060404-IPK+ GTPM125		MM11808488	●
	WNMG 060408-IPK+ GTPM125		MM11808489	●
	WNMG 080404-IPK+ GTPM125		MM11749341	●
	WNMG 080408-IPK+ GTPM125		MM11749343	●
	WNMG 080412-IPK+ GTPM125		MM11808490	●

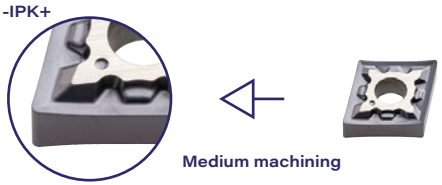
● available from stock, ○ available upon request

New Chipbreaker

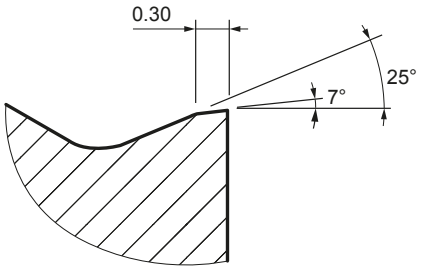
NEW

Sharp positive cutting edges:

- Reduced formation of burrs
- Good surface finish
- Low cutting forces



Example: CNMG 120408 IPK+



Cutting Data

General cutting parameters depending on the application:

Work piece material		Type of treatment / alloy	Hardness HB	Coated carbide GVTCM120HP v_c [m/min]
P	Steel	Non-alloyed steel 0 – 0.45% C	150 – 250	130 – 250
		Low-alloyed steel	250 – 300	60 – 180
		High-alloyed steel	200	80 – 200
		Corrosion-resistant steel	200	100 – 200
M	Stainless steel	Ferritic	200	120 – 250
		Austenitic	180	120 – 220
		Duplex	230 – 260	–
		Martensitic	330	–

Application Chip groove	Depth of cut / feed rate a_p [mm]	f [mm]
IPK+	1.00 to 4.20	0.40 to 0.22

Ex: CNMG 120408-IPK+ for 304
Different in each application

Consistent cutting depth	Inconsistent cutting depth	Interrupted cut
●	○	X

Available Range

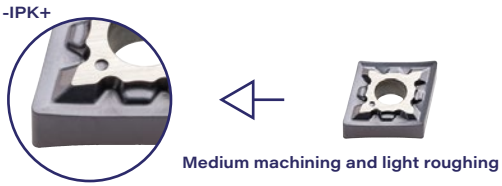
Insert	Designation	Chipbreaker	Material number	Available
	CNMG 120404-IPK+ GTCM120HP	...-IPK+	MM12233866	●
	CNMG 120408-IPK+ GTCM120HP		MM12233867	●
	DNMG 150604-IPK+ GTCM120HP		MM12233869	●
	DNMG 150608-IPK+ GTCM120HP		MM12233868	●
	WNMG 080404-IPK+ GTCM120HP		MM12233872	●
	WNMG 080408-IPK+ GTCM120HP		MM12233870	●

● available from stock, ○ available upon request

New Chipbreaker

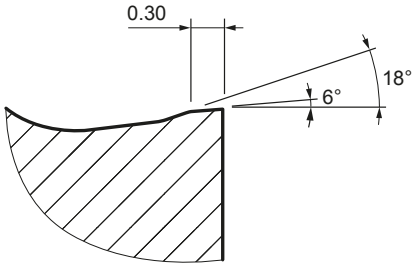
Sharp positive cutting edges:

- Reduced formation of burrs
- Good surface finish
- Low cutting forces



Medium machining and light roughing

Example: CNMG 120408 IPR+



Cutting Data

General cutting parameters depending on the application:

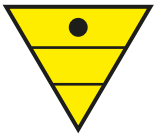
Work piece material		Type of treatment / alloy	Hardness HB	Coated carbide GTPM125 v_C [m/min]	Coated carbide GTPM135 v_C [m/min]
P	Steel	Non-alloyed steel 0 – 0.45% C	150 – 250	130 – 250	170 – 190
		Low-alloyed steel	250 – 300	60 – 180	90 – 150
		High-alloyed steel	200	80 – 200	120 – 200
		Corrosion-resistant steel	200	100 – 200	140 – 180
M	Stainless steel	Ferritic	200	120 – 250	140 – 200
		Austenitic	180	100 – 220	110 – 190
		Duplex	230 – 260	60 – 160	80 – 150
		Martensitic	330	40 – 100	55 – 75

Application Chip groove	Depth of cut / feed rate a_p [mm]	f [mm]
IPR+	1.50 to 6.00	0.50 to 0.25

Ex: CNMG 120408-IPR+ for 304
Different in each application

Consistent cutting depth	Inconsistent cutting depth	Interrupted cut
●	●	○

Available Range

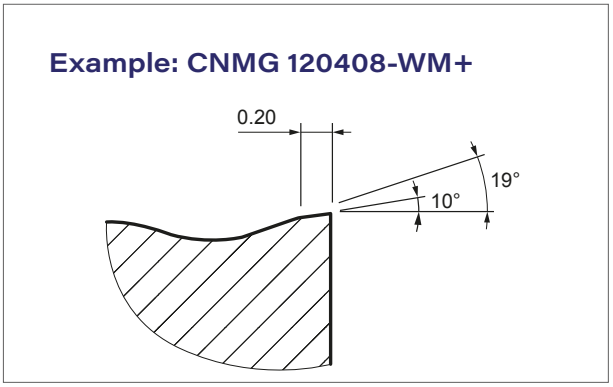


Turning stainless steel neg roughing "M25":

Insert	Designation	Chipbreaker	Material number	Available
	CNMG 120408-IPR+ GTPM125	...-IPR+	MM11752697	●
	CNMG 120412-IPR+ GTPM125		MM11752698	●
	DNMG 150608-IPR+ GTPM125		MM11752693	●
	DNMG 150612-IPR+ GTPM125		MM11752691	●
	TNMG 160408-IPR+ GTPM125		MM11752690	●
	TNMG 160412-IPR+ GTPM125		MM11752688	●
	WNMG 080408-IPR+ GTPM125		MM11752687	●
	WNMG 080412-IPR+ GTPM125		MM11752685	●

● available from stock, ○ available upon request

Cutting Data



General cutting parameters depending on the application:

Work piece material		Type of treatment / alloy	Hardness HB	Coated carbide GTCK120 v_c [m/min]
P	Steel	Non-alloyed steel 0 – 0.45% C	150 – 250	200 – 340
		Low-alloyed steel	250 – 300	150 – 290
		High-alloyed steel	200	150 – 290
		Corrosion-resistant steel	200	160 – 290
K	Cast iron	Grey cast iron	180	150 – 400
		Spheroidal cast iron	160	200 – 450
		Malleable/tempered iron	130	200 – 550

Application Chip groove	Depth of cut / feed rate a_p [mm]	f [mm]
WM+	1.00 to 4.00	0.44 to 0.22

Ex: CCM. 120408-WM+ for GC25
Different in each application

Consistent cutting depth	Inconsistent cutting depth	Interrupted cut
●	○	X

Available Range

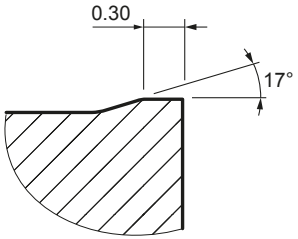
Turning cast iron neg "K20":

Insert	Designation	Chipbreaker	Material number	Available
	CNMG 120408-WM+ GTCK120		MM11780521	●
	CNMG 120412-WM+ GTCK120		MM11865623	●
	DNMG 150608-WM+ GTCK120		MM11780519	●
	DNMG 150612-WM+ GTCK120		MM11780518	●
	SNMG 120408-WM+ GTCK120		MM11911053	●
		...-WM+		
	TNMG 160408-WM+ GTCK120		MM11780838	●
	TNMG 160412-WM+ GTCK120		MM11865634	●
	TNMG 220408-WM+ GTCK120		MM11780836	●
	WNMG 080408-WM+ GTCK120		MM11780839	●
	WNMG 080412-WM+ GTCK120		MM11780841	●

● available from stock, ○ available upon request

Cutting Data

Example: CNMG 120408-909+



General cutting parameters depending on the application:

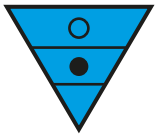
Work piece material		Type of treatment / alloy	Hardness HB	Coated carbide GTCK120 v_c [m/min]
P	Steel	Non-alloyed steel 0 – 0.45% C	150 – 250	200 – 340
		Low-alloyed steel	250 – 300	150 – 290
		High-alloyed steel	200	150 – 290
		Corrosion-resistant steel	200	160 – 290
K	Cast iron	Grey cast iron	180	150 – 400
		Spheroidal cast iron	160	200 – 450
		Malleable/tempered iron	130	200 – 550

Application Chip groove	Depth of cut / feed rate a_p [mm]	f [mm]
909+	2.00 to 4.80	0.48 to 0.30

Ex: CNM. 120408-909+ for GC25
Different in each application

Consistent cutting depth	Inconsistent cutting depth	Interrupted cut	Interrupted cut
●	●	X	○ Only .NMA

Available Range



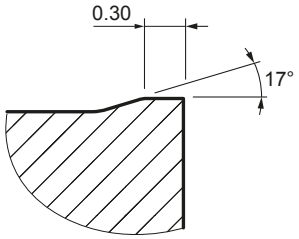
Turning cast iron neg "K20":

Insert	Designation		Chipbreaker	Material number	Available
	CNMG 120408-909+	GTCK120		MM11821829	●
	CNMG 120412-909+	GTCK120		MM11821831	●
	CNMG 160612-909+	GTCK120		MM11781440	●
	DNMG 150608-909+	GTCK120		MM11821833	●
	SNMG 120408-909+	GTCK120		MM11821834	●
			...-909+		
	TNMG 160408-909+	GTCK120		MM11875228	●
	WNMG 080408-909+	GTCK120		MM11875227	●
	WNMG 080412-909+	GTCK120		MM11875229	●
	CNMA 120408-EN	GTCK120		MM11821837	●
	CNMA 120412-EN	GTCK120		MM11931076	●
	CNMA 120416-EN	GTCK120		MM11946726	●
	SNMA 120408-EN	GTCK120		MM11821838	●
			...-EN		
	TNMA 160408-EN	GTCK120		MM11821839	●
	WNMA 080408-EN	GTCK120		MM11821840	●

● available from stock, ○ available upon request

Cutting Data

Example: CNMG 120408-909+



NEW

General cutting parameters depending on the application:

Work piece material		Type of treatment / alloy	Hardness HB	Coated carbide GTCK110HP v_c [m/min]
P	Steel	Non-alloyed steel 0 – 0.45% C	150 – 250	220 – 400
		Low-alloyed steel	250 – 300	170 – 340
		High-alloyed steel	200	170 – 340
		Corrosion-resistant steel	200	200 – 300
K	Cast iron	Grey cast iron	180	170 – 450
		Spheroidal cast iron	160	220 – 430
		Malleable/tempered iron	130	220 – 400

Application Chip groove	Depth of cut / feed rate a_p [mm]	f [mm]
909+	2.0 to 4.8	0.48 to 0.30

Ex: CNM. 120408-909+ for GC25
Different in each application

Consistent cutting depth	Inconsistent cutting depth	Interrupted cut	Interrupted cut
●	●	X	○ Only .NMA

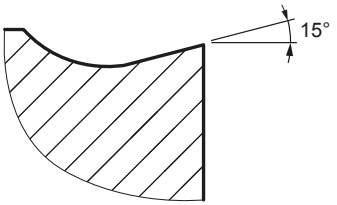
Available Range

Insert	Designation	Chipbreaker	Material number	Available
	CNMG 120408-909+ GTCK110HP		MM12149710	●
	CNMG 120412-909+ GTCK110HP		MM12200956	●
	CNMG 160612-909+ GTCK110HP		MM12200958	●
	SNMG 120412-909+ GTCK110HP	...-909+	MM12200959	●
	WNMG 080408-909+ GTCK110HP		MM12200960	●
	WNMG 080412-909+ GTCK110HP		MM12200954	●
	CNMA 120408-EN GTCK110HP	–	MM12234327	●
	WNMA 080412-EN GTCK110HP		MM12234328	●

● available from stock, ○ available upon request

Cutting Data

Example: CNMG 120408-IPE+



General cutting parameters depending on the application:

Work piece material		Type of treatment / alloy	Hardness HB	Coated carbide GTP5110 v_c [m/min]
M	Stainless steel	Ferritic	200	150 – 230
		Austenitic	180	140 – 190
		Duplex	230 – 260	60 – 100
		Martensitic	330	–
	Exotic materials	Fe base	200	80 – 120
		Nickel or cobalt base	280	60 – 100
		Nickel or cobalt base	250	35 – 90
		Nickel or cobalt base		30 – 50
		Titanium	Rm 440*	70 – 120

Application Chip groove	Depth of cut / feed rate a_p [mm]	f [mm]
IPE+	0.80 to 3.00	0.30 to 0.10

Ex: CNMG 120408-IPE+ for Super Alliage
Different in each application

Consistent cutting depth	Inconsistent cutting depth	Interrupted cut
●	○	X