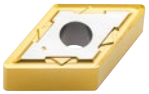
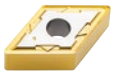
Available Range



Turning titanium "S15":

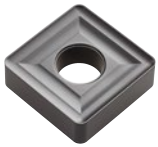
Insert	Designation		Chipbreaker	Material number	Available
	CNMG 120404-IPE+	GTP5115		MM11750290	●
	CNMG 120408-IPE+	GTP5115		MM11568115	●
	DNMG 150608-IPE+	GTP5115		MM11568117	●
	SNMG 120408-IPE+	GTP5115		MM11568120	●
	TNMG 160408-IPE+	GTP5115	...-IPE+	MM11568121	●
	VNMG 160408-IPE+	GTP5115		MM11568122	●
	WNMG 080408-IPE+	GTP5115		MM11568123	●

● available from stock, ○ available upon request

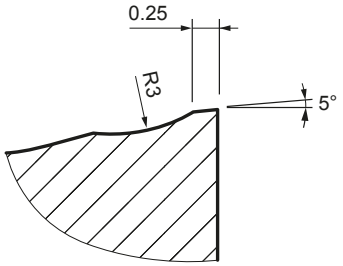
Heavy Duty Turning

HDT

Cutting Data



Example: SNMM 190616EN-TCH



General cutting parameters depending on the application:

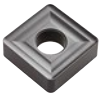
Work piece material		Type of treatment / alloy	Hardness HB	Coated carbide GTCP115 v_c [m/min]	GTCP125 v_c [m/min]	GTCP135 v_c [m/min]
P	Steel	Non-alloyed steel 0 – 0.45% C	150 – 250	220 – 400	170 – 240	170 – 190
		Low-alloyed steel	250 – 300	200 – 320	100 – 190	90 – 150
		High-alloyed steel	200	180 – 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]
TCH	2.50 to 10.00	0.60 to 0.30

Different in each application

Consistent cutting depth	Inconsistent cutting depth	Interrupted cut
●	●	○

Available Range



Heavy turning steel neg "P25":

Insert	Designation		Chipbreaker	Material number	Available
	SNMM 190616EN-TCH	GTCP125	...-TCH	MM11849212	●
	SNMM 250924EN-TCH	GTCP125		MM11849211	●

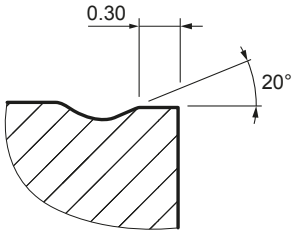
● available from stock, ○ available upon request

New Chipbreaker

Sharp positive cutting edges:

- Single-sided roughing geometry
- Good chip control
- For steels with high strength (800 N/MM^2)

Example: CNMM 120408-HD2



Cutting Data

General cutting parameters depending on the application:

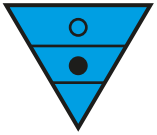
Work piece material		Type of treatment / alloy	Hardness HB	Coated carbide GTCP115 v_c [m/min]	GTCP125 v_c [m/min]	GTCP135 v_c [m/min]
P	Steel	Non-alloyed steel 0 – 0.45% C	150 – 250	220 – 400	170 – 240	170 – 190
		Low-alloyed steel	250 – 300	200 – 320	100 – 190	90 – 150
		High-alloyed steel	200	180 – 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]
HD2	1.50 to 12.00	0.50 to 0.90

Ex: CNMM 120408-HD2 for CK60
Different in each application

Consistent cutting depth	Inconsistent cutting depth	Interrupted cut
●	●	○

Available Range



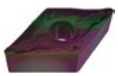
Heavy turning steel neg "P15":

Insert	Designation		Chipbreaker	Material number	Available
	CNMM 120408-HD2	GTCP115	...-HD2	MM12041787	●
	DNMM 150608-HD2	GTCP115		MM12055337	●

Heavy turning steel neg "P25":

Insert	Designation		Chipbreaker	Material number	Available
	CNMM 120408-HD2	GTCP125	...-HD2	MM12041513	●
	CNMM 120412-HD2	GTCP125		MM12077416	●
	DNMM 150608-HD2	GTCP125		MM12055332	●

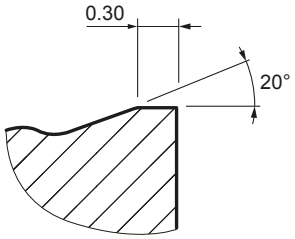
Heavy turning steel neg "P35":

Insert	Designation		Chipbreaker	Material number	Available
	CNMM 120408-HD2	GTCP135	...-HD2	MM12041518	●
	DNMM 150608-HD2	GTCP135		MM12055326	●

● available from stock, ○ available upon request

Cutting Data

Example: CNMM 190616EN-HD5



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]
HD5	2.00 to 12.00	0.80 to 0.30

Ex: CNMM 190616-HD5 for CK60
Different in each application

Consistent cutting depth	Inconsistent cutting depth	Interrupted cut
●	●	○

Available Range

Heavy turning steel neg "P15":

Insert	Designation	Chipbreaker	Material number	Available
	CNMM 120412-HD5 GTCP115	...-HD5	MM12046218	●
	CNMM 160612-HD5 GTCP115		MM12044415	●
	CNMM 190612-HD5 GTCP115		MM12030570	●
	DNMM 150612-HD5 GTCP115		MM12044385	●

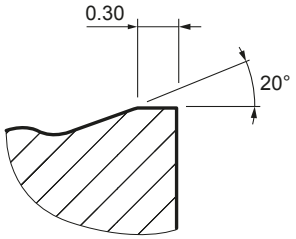
Heavy turning steel neg "P25":

Insert	Designation	Chipbreaker	Material number	Available
	CNMM 120412EN-HD5GTCP125	...-HD5	MM12046217	●
	CNMM 120416EN-HD5GTCP125		MM12044382	●
	CNMM 160612EN-HD5GTCP125		MM12044410	●
	CNMM 190612EN-HD5GTCP125		MM11840692	●
	CNMM 190616EN-HD5GTCP125		MM11836430	●
	CNMM 250724EN-HD5GTCP125		MM11848028	●
	CNMM 250924EN-HD5GTCP125		MM11840037	●
	DNMM 150612EN-HD5GTCP125		MM12044390	●
	SNMM 190612EN-HD5GTCP125		MM11840041	●
	SNMM 190616EN-HD5GTCP125		MM11840042	●
	SNMM 250724EN-HD5GTCP125		MM11840045	●
	SNMM 250924EN-HD5GTCP125		MM11840046	●

● available from stock, ○ available upon request

Cutting Data

Example: CNMM 190616EN-HD5



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	–

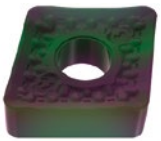
Application Chip groove	Depth of cut / feed rate a_p [mm]	f [mm]
HD5	2.00 to 12.00	0.80 to 0.30

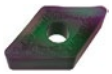
Ex: CNMM 190616-HD5 for CK60
Different in each application

Consistent cutting depth	Inconsistent cutting depth	Interrupted cut
●	●	○

Available Range

Heavy turning steel neg "P35":

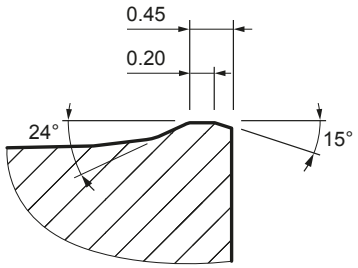


Insert	Designation		Chipbreaker	Material number	Available
	CNMM 120412-HD5	GTCP135	...-HD5	MM12046219	●
	CNMM 120416-HD5	GTCP135		MM12044397	●
	CNMM 160612-HD5	GTCP135		MM12044423	●
	DNMM 150612-HD5	GTCP135		MM12044431	●

● available from stock, ○ available upon request

Cutting Data

Example: CNMM 190616SN-HD8



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	–

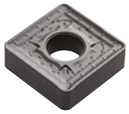
Application Chip groove	Depth of cut / feed rate a_p [mm]	f [mm]
HD8	2.50 to 12.00	1.20 to 0.35

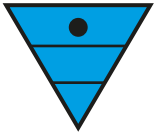
Ex: CNMM 190616SN-HD8 for CK60
Different in each application

Consistent cutting depth	Inconsistent cutting depth	Interrupted cut
●	●	●

Available Range

Heavy turning steel neg "P25":



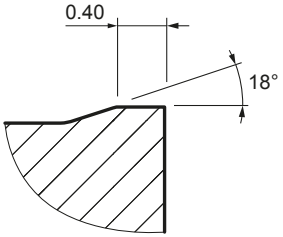


Insert	Designation	Chipbreaker	Material number	Available
	CNMM 190616SN-HD8 GTCP125	...-HD8	MM11840034	●
	CNMM 190624SN-HD8 GTCP125		MM11840035	●
	CNMM 250924SN-HD8 GTCP125		MM11840038	●
	CNMM 250932SN-HD8 GTCP125		MM11840039	●
	SNMM 190616SN-HD8 GTCP125		MM11840043	●
	SNMM 190624SN-HD8 GTCP125		MM11840044	●
	SNMM 250924SN-HD8 GTCP125		MM11840047	●
	SNMM 250932SN-HD8 GTCP125		MM11840048	●

● available from stock, ○ available upon request

Cutting Data

Example: CNMG 160612-909+



General cutting parameters depending on the application:

Work piece material		Type of treatment / alloy	Hardness HB	GTCP125 v_c [m/min]	GTCP135 v_c [m/min]
P	Steel	Non-alloyed steel 0 – 0.45% C	150 – 250	170 – 240	170 – 190
		Low-alloyed steel	250 – 300	100 – 190	90 – 150
		High-alloyed steel	200	130 – 210	120 – 200
		Corrosion-resistant steel	200	130 – 210	140 – 180
M	Stainless steel	Ferritic	200	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	130 – 210	–
		Spheroidal cast iron	160	120 – 240	–
		Malleable/tempered iron	130	150 – 250	–

Application Chip groove	Depth of cut / feed rate a_p [mm]	f [mm]
909+	3.20 to 7.60	1.00 to 0.60

Ex: CNMG 190616-909+ for CK60
Different in each application

Consistent cutting depth	Inconsistent cutting depth	Interrupted cut
●	○	X

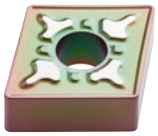
Available Range

Medium and roughing turning steel:

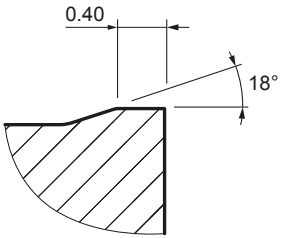
Insert	Designation	Chipbreaker	Material number	Available
	CNMG 160612-909+ GTCP125		MM11854347	●
	CNMG 190612-909+ GTCP125		MM11854749	●
	CNMG 190616-909+ GTCP125		MM11625891	●
	SNMG 150612-909+ GTCP125		MM11855109	●
	SNMG 190612-909+ GTCP125	...-909+	MM11855114	●
	TNMG 220412-909+ GTCP125		MM11860512	●
	RCMT 1606MOSN-XR GTCP125		MM11855078	●
	RCMT 2006MOSN-XR GTCP125	...-XR	MM11855080	●

● available from stock, ○ available upon request

Cutting Data



Example: CNMG 160612-909+



General cutting parameters depending on the application:

Work piece material		Type of treatment / alloy	Hardness HB	GTCP125 v_c [m/min]	GTCP135 v_c [m/min]
P	Steel	Non-alloyed steel 0 – 0.45% C	150 – 250	170 – 240	170 – 190
		Low-alloyed steel	250 – 300	100 – 190	90 – 150
		High-alloyed steel	200	130 – 210	120 – 200
		Corrosion-resistant steel	200	130 – 210	140 – 180
M	Stainless steel	Ferritic	200	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	130 – 210	–
		Spheroidal cast iron	160	120 – 240	–
		Malleable/tempered iron	130	150 – 250	–

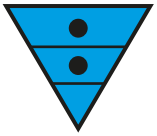
Application	Depth of cut / feed rate	
Chip groove	a_p [mm]	f [mm]
909+	3.20 to 7.60	1.00 to 0.60

Ex: CNMM 190616-909+ for CK60
Different in each application

Consistent cutting depth	Inconsistent cutting depth	Interrupted cut
●	○	X

Available Range

Medium and roughing turning steel:

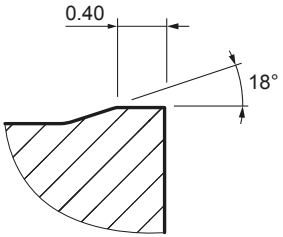


Insert	Designation	Chipbreaker	Material number	Available
	CNMG 160608-909+ GTCP135		MM11854346	●
	CNMG 160612-909+ GTCP135		MM11854348	●
	CNMG 190612-909+ GTCP135		MM11854758	●
	CNMG 190616-909+ GTCP135	...-909+	MM11861937	●
	SNMG 150612-909+ GTCP135		MM11855112	●
	SNMG 190612-909+ GTCP135		MM11855116	●
	RCMT 1606MOSN-XR GTCP135		MM11855079	●
	RCMT 2006MOSN-XR GTCP135	...-XR	MM11855082	●

● available from stock, ○ available upon request

Cutting Data

Example: CNMG 160612-909+



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+	3.20 to 5.60	0.60 to 0.38

Ex: CNMG 160612-909+ for GC25
Different in each application

Consistent cutting depth	Inconsistent cutting depth	Interrupted cut
●	○	X