

SELECTION



Perfection
in price too

**The standard line for turning
from CERATIZIT**

CERATIZIT is a high-technology engineering group specialised in cutting tools and hard material solutions.

Tooling a Sustainable Future

ceratizit.com



CERATIZIT
GROUP

Table of contents

Overview of inserts	2
Indexable inserts, negative	3-6
Indexable inserts, positive	7-9
Technical Information	
Cutting Data	10
Chip Breaker Types and Grade Overview	11

CERATIZIT \ Standard

Quality tools for standard applications.

The quality tools of the **CERATIZIT Standard** product line are high quality, powerful and reliable and enjoy the highest trust of our customers worldwide. Tools from this product line are the first choice for many standard applications and guarantee optimal results.

Overview of inserts

			Material							Geometry			
			Steel	Stainless steel	Cast iron	Non-ferrous metals	Heat-resistant	Tempered steel	Non-metal materials	Geometry	Geometry	Geometry	Geometry
			P	M	K	N	S	H	O	CN..	DN..	VN..	WN..
Negative													
Fine – Medium	-FMS		•	○						3	4	5	6
Medium – Rough	-MRS		•	○						3	4		6

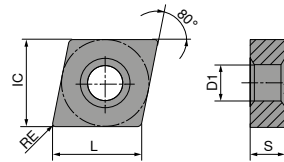
			Material							Geometry		
			Steel	Stainless steel	Cast iron	Non-ferrous metals	Heat-resistant	Tempered steel	Non-metal materials	Geometry	Geometry	Geometry
			P	M	K	N	S	H	O	CC..	DC..	VC..
Positive												
Fine – Medium	-FMS		•	○						7	8	9
Medium – Rough	-MRS		•	○						7	8	9



Matching tool holders and boring bars can be found in our main catalogue → **Chapter 9, Turning tools**

CNMG

Designation	L mm	S mm	D1 mm	IC mm
CNMG 1204..	12,9	4,76	5,16	12,70
CNMG 1606..	16,1	6,35	6,35	15,87
CNMG 1906..	19,3	6,35	7,94	19,05



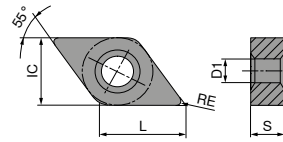
CNMG

-FMS CT-P15	-FMS CT-P25	-MRS CT-P15	-MRS CT-P25	-MRS CT-P35
F CNMG	F CNMG	M CNMG	M CNMG	M CNMG
75 302 ...	75 302 ...	75 303 ...	75 303 ...	75 303 ...

ISO	RE mm	75 302 ...		75 302 ...		75 303 ...		75 303 ...		75 303 ...	
		EUR 1S/1N		EUR 1S/1N		EUR 1S/1N		EUR 1S/1N		EUR 1S/1N	
120404EN	0,4	4,49	02809	4,49	12809						
120408EN	0,8	4,49	03009	4,49	13009	4,49	03009	4,49	13009	4,49	23009
120412EN	1,2	4,49	03209	4,49	13209	4,49	03209	4,49	13209	4,49	23209
120416EN	1,6					4,49	03409	4,49	13409	4,49	23409
160612EN	1,2					6,58	04409	6,58	14409	6,58	24409
160616EN	1,6					6,58	04609	6,58	14609	6,58	24609
190612EN	1,2					9,79	05609	9,79	15609	9,79	25609
190616EN	1,6					9,79	05809	9,79	15809	9,79	25809
P			●		●		●		●		●
M			○		○		○		○		○
K											
N											
S											
H											
O											

DNMG

Designation	L mm	S mm	D1 mm	IC mm
DNMG 1506..	15,5	6,35	5,16	12,7



DNMG

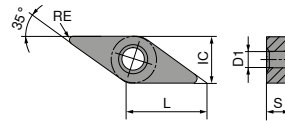
-FMS CT-P15	-FMS CT-P25	-MRS CT-P15	-MRS CT-P25	-MRS CT-P35
F DNMG	F DNMG	M DNMG	M DNMG	M DNMG
75 306 ...	75 306 ...	75 307 ...	75 307 ...	75 307 ...

ISO	RE mm	EUR 1S/1N	01609	EUR 1S/1N	11609	EUR 1S/1N	01809	EUR 1S/1N	11809	EUR 1S/1N	23009	EUR 1S/1N	23209	EUR 1S/1N	23409
150404EN	0,4	5,78	01609	5,78	11609										
150408EN	0,8	5,78	01809	5,78	11809	5,78	01809	5,78	11809						
150604EN	0,4	6,08	02809	6,08	12809										
150608EN	0,8	6,08	03009	6,08	13009	6,08	03009	6,08	13009	6,08	23009	6,08	23009		
150612EN	1,2	6,08	03209	6,08	13209	6,08	03209	6,08	13209	6,08	23209	6,08	23209		
150616EN	1,6					6,08	03409	6,08	13409	6,08	23409	6,08	23409		

P	●	●	●	●	●
M	○	○	○	○	○
K					
N					
S					
H					
O					

VNMG

Designation	L mm	S mm	D1 mm	IC mm
VNMG 1604..	16,6	4,76	3,81	9,52



VNMG

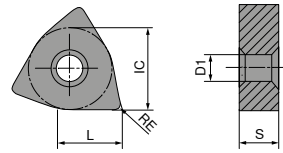
-FMS CT-P15	-FMS CT-P25
F VNMG	F VNMG
75 310 ...	75 310 ...
EUR 1S/1N	EUR 1S/1N
5,72 01609	5,72 11609
5,72 01809	5,72 11809

ISO	RE mm
160404EN	0,4
160408EN	0,8

P	●	●
M	○	○
K		
N		
S		
H		
O		

WNMG

Designation	L mm	S mm	D1 mm	IC mm
WNMG 0804..	8,6	4,76	5,16	12,7



WNMG

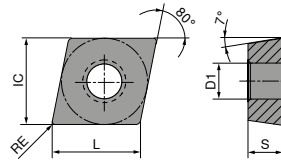
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F WNMG	F WNMG	M WNMG	M WNMG	M WNMG
75 311 ...	75 311 ...	75 312 ...	75 312 ...	75 312 ...

ISO	RE mm	EUR 1S/1N	01609	EUR 1S/1N	11609	EUR 1S/1N	01809	EUR 1S/1N	11809	EUR 1S/1N	21809
080404EN	0,4	5,29	01609	5,29	11609						
080408EN	0,8	5,29	01809	5,29	11809	5,29	01809	5,29	11809	5,29	21809
080412EN	1,2	5,29	02009	5,29	12009	5,29	02009	5,29	12009	5,29	22009

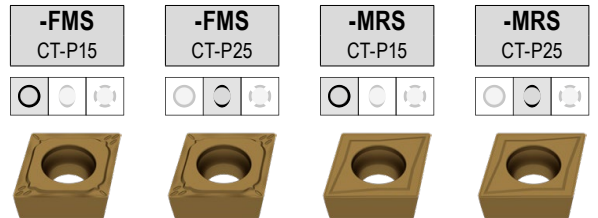
P	●	●	●	●	●
M	○	○	○	○	○
K					
N					
S					
H					
O					

CCMT

Designation	L mm	S mm	D1 mm	IC mm
CCMT 09T3..	9,7	3,97	4,4	9,52
CCMT 1204..	12,9	4,76	5,5	12,70



CCMT



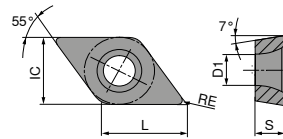
F CCMT	F CCMT	M CCMT	M CCMT
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ISO	RE mm	75 300 ...		75 300 ...		75 301 ...		75 301 ...	
		EUR 1S/1P		EUR 1S/1P		EUR 1S/1P		EUR 1S/1P	
09T304EN	0,4	3,27	01609	3,27	11609	3,27	01609	3,27	11609
09T308EN	0,8	3,27	01809	3,27	11809	3,27	01809	3,27	11809
120404EN	0,4	4,38	02809	4,38	12809	4,38	02809	4,38	12809
120408EN	0,8	4,38	03009	4,38	13009	4,38	03009	4,38	13009
120412EN	1,2					4,38	03209	4,38	13209

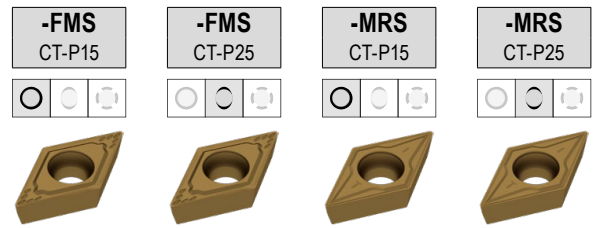
P	●	●	●	●
M	○	○	○	○
K				
N				
S				
H				
O				

DCMT

Designation	L mm	S mm	D1 mm	IC mm
DCMT 0702..	7,75	2,38	2,8	6,35
DCMT 11T3..	11,60	3,97	4,4	9,52



DCMT

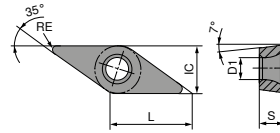


ISO	RE mm	-FMS CT-P15		-FMS CT-P25		-MRS CT-P15		-MRS CT-P25	
		F DCMT	M DCMT	F DCMT	M DCMT	F DCMT	M DCMT	F DCMT	M DCMT
		75 304 ...		75 304 ...		75 305 ...		75 305 ...	
		EUR 1S/1P		EUR 1S/1P		EUR 1S/1P		EUR 1S/1P	
070204EN	0,4	2,87	00409	2,87	10409	2,87	00409	2,87	10409
070208EN	0,8	2,87	00609	2,87	10609	2,87	00609	2,87	10609
11T304EN	0,4	3,61	01609	3,61	11609	3,61	01609	3,61	11609
11T308EN	0,8	3,61	01809	3,61	11809	3,61	01809	3,61	11809

P	●	●	●	●
M	○	○	○	○
K				
N				
S				
H				
O				

VCMT

Designation	L mm	S mm	D1 mm	IC mm
VCMT 1103..	11,1	3,18	2,9	6,35
VCMT 1604..	16,6	4,76	4,4	9,52



VCMT

ISO	RE mm	-FMS CT-P15		-FMS CT-P25		-MRS CT-P15		-MRS CT-P25	
		EUR 1S/1P		EUR 1S/1P		EUR 1S/1P		EUR 1S/1P	
110304EN	0,4	5,52	01609	5,52	11609				
160404EN	0,4	5,61	02809	5,61	12809	5,61	02809	5,61	12809
160408EN	0,8	5,61	03009	5,61	13009	5,61	03009	5,61	13009
P		●		●		●		●	
M		○		○		○		○	
K									
N									
S									
H									
O									

Cutting data approximate values




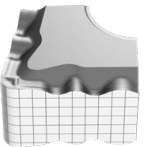
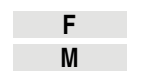
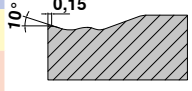
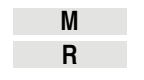

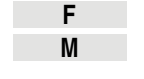
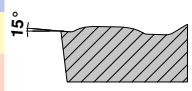
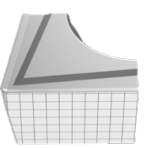
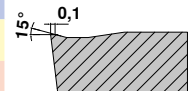
					CT-P15	CT-P25	CT-P35	
	Material sub-group	Index	Composition / Structure / Heat treatment	Tensile strength N/mm ² / HB / HRC	v _c in m/min			
P	Unalloyed steel	P.1.1	< 0,15 % C Annealed	420 N/mm ² / 125 HB	290	235	165	
		P.1.2	< 0,45 % C Annealed	640 N/mm ² / 190 HB	250	200	140	
		P.1.3	< 0,45 % C Tempered	840 N/mm ² / 250 HB	215	170	115	
		P.1.4	< 0,75 % C Annealed	910 N/mm ² / 270 HB	200	160	110	
		P.1.5	< 0,75 % C Tempered	1010 N/mm ² / 300 HB	185	145	100	
	Low-alloy steel	P.2.1	Annealed	610 N/mm ² / 180 HB	260	210	145	
		P.2.2	Tempered	930 N/mm ² / 275 HB	200	155	105	
		P.2.3	Tempered	1010 N/mm ² / 300 HB	185	145	95	
		P.2.4	Tempered	1200 N/mm ² / 375 HB	135	105	65	
	High-alloy steel and high-alloy tool steel	P.3.1	Annealed	680 N/mm ² / 200 HB	160	135	120	
		P.3.2	Hardened and tempered	1100 N/mm ² / 300 HB	115	85	75	
		P.3.3	Hardened and tempered	1300 N/mm ² / 400 HB	65	34	26	
	Stainless steel	P.4.1	Ferritic / martensitic Annealed	680 N/mm ² / 200 HB	160	135	120	
		P.4.2	Martensitic Tempered	1010 N/mm ² / 300 HB	140	110	100	
M	Stainless steel	M.1.1	Austenitic / austenitic-ferritic Quenched	610 N/mm ² / 180 HB	150	130	120	
		M.2.1	Austenitic Tempered	300 HB	125	105	75	
		M.3.1	Austenitic / ferritic (Duplex)	780 N/mm ² / 230 HB	140	120	110	
K	Grey cast iron	K.1.1	Pearlitic / ferritic	350 N/mm ² / 180 HB				
		K.1.2	Pearlitic (martensitic)	500 N/mm ² / 260 HB				
	Spherulitic graphite cast iron	K.2.1	Ferritic	540 N/mm ² / 160 HB				
		K.2.2	Pearlitic	845 N/mm ² / 250 HB				
	Malleable iron	K.3.1	Ferritic	440 N/mm ² / 130 HB				
		K.3.2	Pearlitic	780 N/mm ² / 230 HB				
N	Aluminium wrought alloy	N.1.1	Non-hardenable	60 HB				
		N.1.2	Hardenable Age-hardened	340 N/mm ² / 100 HB				
	Cast aluminium alloy	N.2.1	≤ 12 % Si, non-hardenable	250 N/mm ² / 75 HB				
		N.2.2	≤ 12 % Si, hardenable Age-hardened	300 N/mm ² / 90 HB				
		N.2.3	> 12 % Si, non-hardenable	440 N/mm ² / 130 HB				
	Copper and copper alloys (bronze/brass)	N.3.1	Free-machining alloys, PB > 1 %	375 N/mm ² / 110 HB				
		N.3.2	CuZn, CuSnZn	300 N/mm ² / 90 HB				
		N.3.3	CuSn, lead-free copper and electrolytic copper	340 N/mm ² / 100 HB				
Magnesium alloys	N.4.1	Magnesium and magnesium alloys	70 HB					
S	Heat-resistant alloys	S.1.1	Fe - basis Annealed	680 N/mm ² / 200 HB				
		S.1.2		Age-hardened	950 N/mm ² / 280 HB			
		S.2.1	Ni or Co basis Annealed	840 N/mm ² / 250 HB				
		S.2.2		Age-hardened	1180 N/mm ² / 350 HB			
		S.2.3		Cast	1080 N/mm ² / 320 HB			
	Titanium alloys	S.3.1	Pure titanium	400 N/mm ²				
		S.3.2	Alpha + beta alloys Age-hardened	1050 N/mm ² / 320 HB				
		S.3.3	Beta alloys	1400 N/mm ² / 410 HB				
H	Hardened steel	H.1.1	Hardened and tempered	46–55 HRC				
		H.1.2		56–60 HRC				
		H.1.3		61–65 HRC				
		H.1.4		66–70 HRC				
	Chilled iron	H.2.1	Cast	400 HB				
Hardened cast iron	H.3.1	Hardened and tempered	55 HRC					
O	Non-metal materials	O.1.1	Plastics, duroplastic	≤ 150 N/mm ²				
		O.1.2	Plastics, thermoplastic	≤ 100 N/mm ²				
		O.2.1	Aramid fibre-reinforced	≤ 1000 N/mm ²				
		O.2.2	Glass/carbon-fibre reinforced	≤ 1000 N/mm ²				
		O.3.1	Graphite					

* Tensile strength



The cutting data depends extremely on the external conditions, e.g. stability of the tool and tool clamping, material and machine type. The indicated values are possible cutting data which have to be increased or reduced according to the application conditions.

Standard chip breakers / application notes

Negative	Model	Smooth cut	Irregular cutting depth	Interrupted cut	Sectional illustration		Geometry
					a _p mm	f mm	
-FMS ▲ Finishing to medium machining ▲ very good chip control ▲ universal chip breaker ▲ low cutting forces	  F M	CT-P15 / CT-P25	CT-P15 / CT-P25	CT-P25	 10° 0,15	0,40–3,00 0,10–0,30	CN.. DN.. VN.. WN..
		CT-P15 / CT-P25	CT-P25				
-MRS ▲ medium to rough machining ▲ well suited for components with cast crust or forged skin ▲ works well with interrupted cuts	  M R	CT-P15 / CT-P25 / CT-P35	CT-P15 / CT-P25 / CT-P35	CT-P25 / CT-P35	 20° 0,2	0,50–4,50 0,20–0,60	CN.. DN.. WN..
		CT-P15 / CT-P25	CT-P25 / CT-P35	CT-P35			
Positive -FMS ▲ Finishing to medium machining ▲ very good chip control ▲ universal chip breaker ▲ low cutting forces	  F M	CT-P15 / CT-P25	CT-P15 / CT-P25	CT-P25	 15° 0,1	0,10–2,00 0,05–0,20	CC.. DC.. VC..
		CT-P15 / CT-P25	CT-P15 / CT-P25				
-MRS ▲ light to medium roughing ▲ universal chip breaker ▲ stable cutting edge	  M R	CT-P15 / CT-P25	CT-P15 / CT-P25	CT-P25	 15° 0,1	0,15–3,50 0,15–0,35	CC.. DC.. VC..
		CT-P15 / CT-P25	CT-P15 / CT-P25				

Grade description

CT-P15	<ul style="list-style-type: none"> ▲ Carbide, coated ▲ ISO P15 M10 ▲ Wear-resistant standard steel grade for smooth cut
CT-P25	<ul style="list-style-type: none"> ▲ Carbide, coated ▲ ISO P25 M20 ▲ Standard steel grade for universal steel machining
CT-P35	<ul style="list-style-type: none"> ▲ Carbide, coated ▲ ISO P35 M25 ▲ Tough standard steel grade for interrupted cutting



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