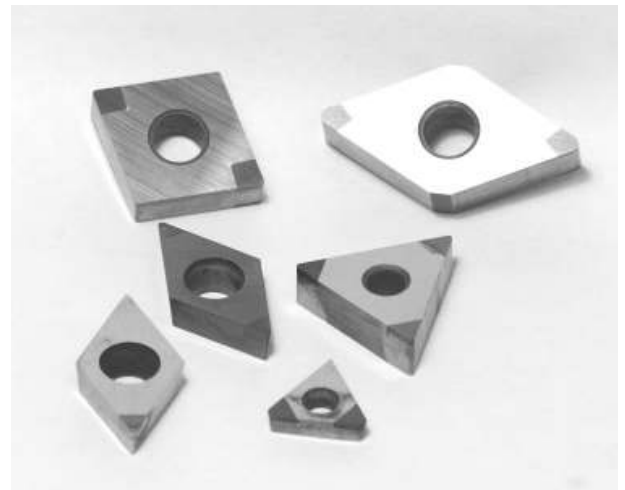
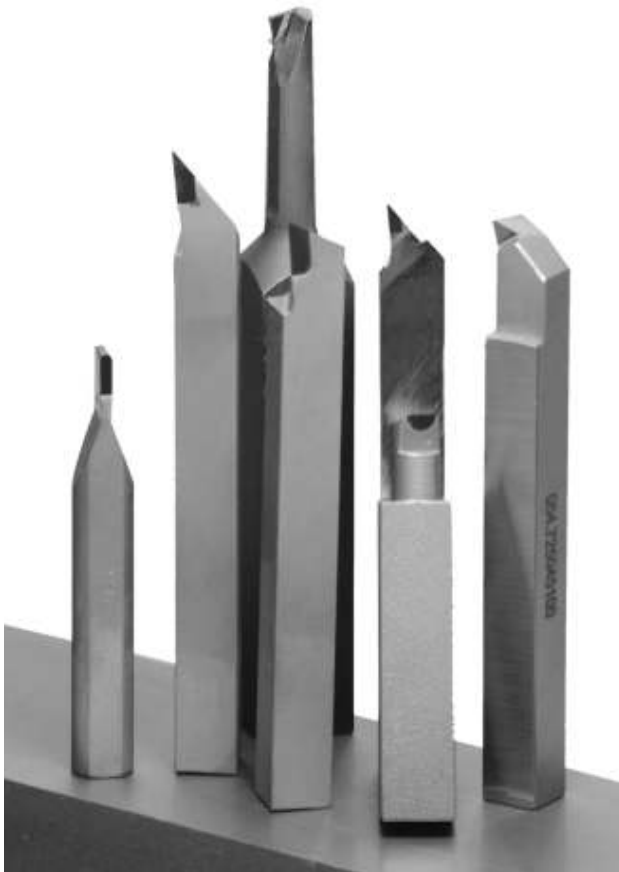


# DIAMANTOVÉ NÁSTROJE

## PCD-CBN



[www.panas.sk](http://www.panas.sk)

PANAS Tools s.r.o., Hradište 371, 95854 Hradište

Tel. +421 (0)38 7496764-5, Fax.+421 (0) 38 7491373

[info@panas.sk](mailto:info@panas.sk), [panas@panas.sk](mailto:panas@panas.sk)

# PCD?

<b>What is PCD ?</b>																	
EN	<p>Polycrystalline Diamond (PCD) is a synthetic diamond product that is produced by sintering together carefully selected diamond particles with a metal matrix.</p> <p>PCD is exceptionally resistant to wear compared to conventional tungsten carbide tools. In certain applications, PCD tool life can exceed conventional tool life 50 to 100 times. Thermal conductivity is also good. PCD is more shock resistant than natural diamond because particles are randomly oriented, and because it is security bonded to the tungsten carbide substrate.</p> <p>PCD is available in a large variety of shapes and sizes, making it possible to construct tools for a wide range of turning, milling and drilling applications and for machining wear-resistant parts.</p>																
<b>Che cosa è PCD ?</b>																	
IT	<p><i>Il Diamante Policristallino (PCD) è un diamante sintetico ottenuto dalla sinterizzazione di particelle di diamante accuratamente selezionate su una matrice metallica.</i></p> <p><i>Il PCD ha un'eccezionale resistenza all'usura rispetto agli utensili convenzionali in carburo di tungsteno; in talune applicazioni la durata è superiore da 50 a 100 volte, buona la conducibilità termica.</i></p> <p><i>Il PCD è maggiormente resistente agli urti del diamante naturale grazie all'orientamento casuale delle particelle di diamante che lo compongono, unitamente al fatto che è saldamente legato al substrato di carburo di tungsteno.</i></p> <p><i>L'ampia gamma di forme e di dimensioni disponibili consente di costruire utensili per una vasta gamma di applicazioni in tornitura, fresatura, foratura, parti antiusura.</i></p>																
<b>What materials can be processed with PCD ?</b>																	
EN	<table border="0"> <tr> <td>= Aluminium</td> <td>= PTFE</td> <td>= Copper</td> <td>= Brass</td> </tr> <tr> <td>= Bronze</td> <td>= Sintered carbides</td> <td>= Wood</td> <td>= Wear-resistant parts</td> </tr> <tr> <td>= Ceramic rubber</td> <td>= Phenol resins</td> <td>= Fiberglass</td> <td>= Ceramics</td> </tr> <tr> <td>= Plastics</td> <td>= Composit materials</td> <td>= Graphite</td> <td>= Gold</td> </tr> </table>	= Aluminium	= PTFE	= Copper	= Brass	= Bronze	= Sintered carbides	= Wood	= Wear-resistant parts	= Ceramic rubber	= Phenol resins	= Fiberglass	= Ceramics	= Plastics	= Composit materials	= Graphite	= Gold
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<b>Quali materiali si possono lavorare con il PCD ?</b>																	
IT	<table border="0"> <tr> <td>= Alluminio</td> <td>= Teflon</td> <td>= Rame</td> <td>= Ottone</td> </tr> <tr> <td>= Bronzo</td> <td>= Carburi sinterizzati</td> <td>= Legno</td> <td>= Parti resistenti all'usura</td> </tr> <tr> <td>= Gomma ceramica</td> <td>= Resine fenoliche</td> <td>= Vetroresina</td> <td>= Ceramica</td> </tr> <tr> <td>= Materiali plastici</td> <td>= Materiali compositi</td> <td>= Grafite</td> <td>= Oro</td> </tr> </table>	= Alluminio	= Teflon	= Rame	= Ottone	= Bronzo	= Carburi sinterizzati	= Legno	= Parti resistenti all'usura	= Gomma ceramica	= Resine fenoliche	= Vetroresina	= Ceramica	= Materiali plastici	= Materiali compositi	= Grafite	= Oro
= Alluminio	= Teflon	= Rame	= Ottone														
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= Gomma ceramica	= Resine fenoliche	= Vetroresina	= Ceramica														
= Materiali plastici	= Materiali compositi	= Grafite	= Oro														

# PCD?

## **What are the advantages of using PCD tools?**

- EN
- Significantly lower cost per part produced.
  - High cutting and material removal speeds, which increase output.
  - Constant workpiece quality, with absolute consistency in tolerances and finish grade.
  - Fewer rejects.
  - Manufacturing processes are more reliable.
  - Longer tool life reduces costly down time for tool changes.

## **Quali vantaggi si possono ottenere utilizzando utensili in PCD ?**

- IT
- Forte riduzione dei costi per pezzo prodotto.
  - Velocità di asportazione e di taglio elevate con conseguente incremento della produzione.
  - Assoluta costanza qualitativa del pezzo prodotto: tolleranze e gradi di finitura.
  - Riduzione di scarti.
  - Maggiore affidabilità del processo produttivo.
  - La maggior durata degli utensili evita i dispendiosi ed improduttivi cambi utensili.

## **Tips**

- EN
- For best results, it is advisable to use a CNC machine featuring high rigidity and providing appropriate spindle speeds.
  - Cutting fluids should be used to prevent built-up edges from being formed.
  - Rotary tools should be appropriately balanced for the high cutting speeds involved.
  - Handle PCD tools with care, using non-contact type equipment during preliminary tool setting operations. Careless use of contact type setting gauges can cause microscopic chipping and thus damage the PCD cutting edge.
  - Our sales network and service organization will be happy to provide further information and advice concerning our products.

## **Consigli utili**

- IT
- Per una buona resa si consiglia l'utilizzo su una macchina utensile a controllo dotata di una buona rigidità ed una adeguata rotazione del mandrino.
  - È consigliato l'uso del lubrorefrigerante per evitare la formazione del tagliente di riporto.
  - Si raccomanda, per gli utensili rotanti, una adeguata bilanciatura considerata l'alta velocità di esercizio.
  - Manipolare l'utensile in PCD con cura, utilizzando, in fase di preimpostaggio, apparecchiature non per contatto. L'uso improprio con strumenti di contatto provoca microscheggiature che danneggiano inequivocabilmente il taglio in PCD.
  - La nostra rete commerciale ed il nostro servizio tecnico sono a disposizione per eventuali ulteriori chiarimenti e consigli sul prodotto.

# CBN?

<b>What is CBN ?</b>	
EN	<p>Cubic Boron Nitride (CBN) is a sintered material consisting of CBN particles bonded to an appropriate ceramic binder and backed by a hard metal substrate.</p> <p>The CBN crystals are randomly oriented and ensure exceptional hardness and wear resistance. CBN has high fracture resistance and is thermally stable.</p>
<b>Che cosa è CBN ?</b>	
IT	<p><i>Il Nitruro di Boro Cubico (CBN) è un materiale sinterizzato composto da particelle di CBN con legante ceramico, il tutto riportato su un substrato di metallo duro.</i></p> <p><i>I cristalli di CBN sono orientati in modo casuale e garantiscono caratteristiche di durezza e di resistenza all'usura eccezionali.</i></p> <p><i>Il CBN ha elevata resistenza alla frattura ed è termicamente stabile.</i></p>

<b>What materials can be processed with CBN ?</b>			
EN	<table> <tr> <td> <ul style="list-style-type: none"> <li>= Alloy steels (40-68 HRc)</li> <li>= Die steel (40-68 HRc)</li> <li>= Cast iron</li> <li>= Ni Hard</li> <li>= Meehanite iron</li> <li>= Stellite</li> <li>= Waspaloy</li> </ul> </td> <td> <ul style="list-style-type: none"> <li>= Carbon tool steel (40-68 HRc)</li> <li>= High speed steels (40-68 HRc)</li> <li>= Pearlitic cast iron</li> <li>= Forged steel</li> <li>= Inconel 600</li> <li>= Colmonoy</li> </ul> </td> </tr> </table>	<ul style="list-style-type: none"> <li>= Alloy steels (40-68 HRc)</li> <li>= Die steel (40-68 HRc)</li> <li>= Cast iron</li> <li>= Ni Hard</li> <li>= Meehanite iron</li> <li>= Stellite</li> <li>= Waspaloy</li> </ul>	<ul style="list-style-type: none"> <li>= Carbon tool steel (40-68 HRc)</li> <li>= High speed steels (40-68 HRc)</li> <li>= Pearlitic cast iron</li> <li>= Forged steel</li> <li>= Inconel 600</li> <li>= Colmonoy</li> </ul>
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<b>Quali materiali si possono lavorare con il CBN</b>			
IT	<table> <tr> <td> <ul style="list-style-type: none"> <li>= Acciaio e legno (40-68 HRc)</li> <li>= Stampati in acciaio (40-68 HRc)</li> <li>= Ghisa</li> <li>= Nickel duro</li> <li>= Ghisa Mehanite</li> <li>= Stellite</li> <li>= Lega al Nickel Cobalto</li> </ul> </td> <td> <ul style="list-style-type: none"> <li>= Utensili in acciaio al Carbonio (40-68 HRc)</li> <li>= Acciaio superrapido (40-68 HRc)</li> <li>= Ghisa perlitica</li> <li>= Acciaio forgiato</li> <li>= Inconel 600</li> <li>= Colmonoy</li> </ul> </td> </tr> </table>	<ul style="list-style-type: none"> <li>= Acciaio e legno (40-68 HRc)</li> <li>= Stampati in acciaio (40-68 HRc)</li> <li>= Ghisa</li> <li>= Nickel duro</li> <li>= Ghisa Mehanite</li> <li>= Stellite</li> <li>= Lega al Nickel Cobalto</li> </ul>	<ul style="list-style-type: none"> <li>= Utensili in acciaio al Carbonio (40-68 HRc)</li> <li>= Acciaio superrapido (40-68 HRc)</li> <li>= Ghisa perlitica</li> <li>= Acciaio forgiato</li> <li>= Inconel 600</li> <li>= Colmonoy</li> </ul>
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# CBN?

<b>What are the advantages of using CBN tools?</b>	
EN	<p>Using superabrasive CBN tools provides fundamental economic benefits in terms of productivity, reducing costs.</p> <ul style="list-style-type: none"><li>- High cutting and material speeds, which increase output.</li><li>- Constant workpiece quality, with absolute consistency in tolerance and finish grade.</li><li>- Fewer rejects.</li><li>- Longer tool life reduces costly down time for tool changes.</li></ul>
<b>Quali vantaggi si possono ottenere utilizzando utensili in PCD ?</b>	
IT	<p>Recenti studi eseguiti hanno dimostrato come sia fondamentale il vantaggio economico (in termini di produttività e riduzione di costi) ottenuto utilizzando utensili in superabrasivo CBN in alternativa agli utensili convenzionali in carburo di tungsteno rivestiti di materiali medio-duri, ed alla rettifica su materiali duri.</p> <ul style="list-style-type: none"><li>- Velocità di asportazione e di taglio elevate con conseguente incremento della produzione.</li><li>- Assoluta costanza qualitativa del pezzo prodotto: tolleranze e gradi di finitura.</li><li>- Riduzione di scarti.</li><li>- La maggior durata degli utensili evita i dispendiosi ed improduttivi cambi utensili.</li></ul>
<b>Tips</b>	
EN	<ul style="list-style-type: none"><li>- For best results, it is advisable to use a CNC machine with appropriate rigidity and power.</li><li>- Coolant should be used in operations with continuous cut, meanwhile is not recommended when machining large interrupted cuts.</li><li>- Handle CBN tools with care. Never use contact-type gauges,</li><li>- Our sales network and service organization will be happy to provide further information and advice concerning our products.</li></ul>
<b>Consigli utili</b>	
IT	<ul style="list-style-type: none"><li>- Per una buona resa si consiglia l'utilizzo su una macchina utensile a controllo con rigidità e potenza adeguata.</li><li>- E' consigliato l'uso del refrigerante nelle operazioni di taglio continuo, mentre in presenza di tagli interrotti di notevole entità ne sconsigliamo l'utilizzo.</li><li>- Manipolare l'utensile in CBN con cura, utilizzando strumenti di misura a contatto: calibro, comparatore ecc.</li><li>- La nostra rete commerciale ed il nostro servizio tecnico sono a disposizione per eventuali ulteriori delucidazioni e consigli sul prodotto.</li></ul>

# REZNÉ PARAMETRE

diamond tools

## PARAMETRI DI TAGLIO CONSIGLIATI

<b>Materiál</b> <b>Materiale da lavorare</b>	<b>Vc</b> <b>Velocità di taglio</b> <b>(m/min.)</b>	<b>Posuv mm/ot</b> <b>Avanzamento</b> <b>(mm/giro)</b>	<b>Hĺbka rezu ap</b> <b>Profondità di taglio</b> <b>(mm)</b>	<b>Modalità di taglio</b>	<b>R vesti- mento</b>
Leghe Sinterizzate	250 (80 - 300)	0,2	0,3		
Leghe Sinterizzate ad alta densità	150 (80 - 250)	0,2	0,3		
Leghe sinterizzate	100 (80 - 150)	0,2	0,3		
Leghe a base di nichel	120 (100 - 150)	0,2	0,5		
Leghe a base di cromo	70 (50 - 100)	0,2	0,5		
<b>Liatina</b>					
Ghisa Grigia	400 - 1000	0,5	1,0		
Ghisa Legata	400 - 1000	0,4	0,5		
Ghisa Sferoidale	150 - 500	0,4	0,5		
Acciaio fuso all'adamite	80 (30 - 130)	0,3 (0,1-0,5)	0,2-3,0		
Acciaio legato o con Cromo	80 (30 - 130)	0,3 (0,1-0,5)	0,2-3,0		
Acciaio rapido	50 (20 - 70)	0,25 (0,1-0,4)	0,1-3,0		
Carburo cementato	20 (10 - 30)	0,2	0,2		
	250 (150 - 400)	0,2	0,2	Taglio di finitura ad alta velocità	Si
	250 (80 - 250)	0,3	0,5	Taglio continuo generico	Si
Profilati d'acciaio al carbonio	150 (60 - 200)	0,2	0,3	Taglio interrotto generico	Si
Acciaio alto legato	180 (80 - 250)	0,3	0,5	Taglio continuo generico	NO
5 - 65 HRC	120 (60 - 150)	0,2	0,3	Taglio continuo generico	NO
	120 (70 - 150)	0,3	0,5	Taglio interrotto continuo leggero	NO
	100 (50 - 120)	0,3	0,5	Taglio pesante interrotto	NO











diamond tools

## PARAMETRI DI TAGLIO CONSIGLIATI

<b>Materiale da lavorare</b>	<b>Velocità di taglio</b> <b>(m/min)</b>	<b>Avanzamento)</b> <b>(mm/giro)</b>	<b>Profondità di taglio</b> <b>(mm)</b>
Alluminio	1000 (200 - 1500)	0,2	3,0
Leghe di alluminio (Si <16%)	800 (200 - 1200)	0,2	3,0
Leghe di alluminio (Si >16%)	600 (200 - 1000)	0,2	3,0
Leghe di rame	700 (200 - 1200)	0,2	3,0
Plastica rinforzata	600 (100 - 1000)	0,4	2,0
Plastica con fibra di vetro	500 (100 - 800)	0,25	2,0
Carbonio	400 (100 - 600)	0,3	2,0
Ceramiche	50 (30 - 80)	0,1	2,0
Gomma Dura	600 (300 - 800)	0,15	1,0
Carburo Cementato	15 (5 - 20)	0,2	0,5
Graffite	200 (100 - 300)	0,2	3,0





# OZNAČENIE - OBSAH

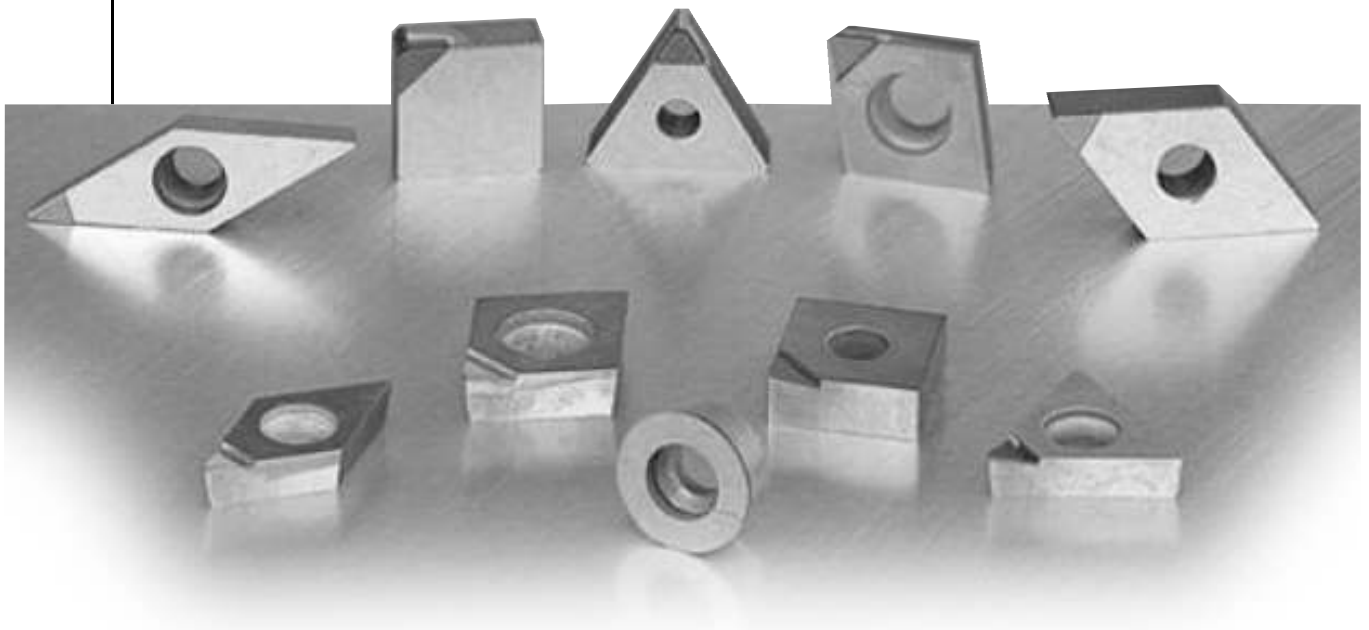
diamond tools

	CCMT.....	4		TCM	17	
	CCMW.....	5		TCMW	....17	
	CNMA.....	5		TNMA	....18	
	CNMN.....	6		TNMM	....18	
	CPGT..PD R.....	6		TNMR	....19	
	CPGW..PD R.....	6		TPGA	....19	
	CPMT.....	7		TPGN	....19	
	CPMW.....	7		TPKN PDR..	....20	
	CPMN.....	8		TPMR.....	....20	
	TPMT.....	....20		TPMW.....	....20	
	DCMT.....	8		VBMT.....	....21	
	DCMW.....	9		VBMW.....	....21	
	DNMA.....	9		VCMT.....	....2	
	DNMM.....	10		VCMW.....	....2	
	DPMW.....	10		VNMA.....	....23	
	EPHT.....	10	VNMM.....	....23		
	EPHW.....	10		WNGX-N.....	....23	
	EPHT.....	11			CCMW.....	....24
	EPMW.....	11			CNMA.....	....24
	RCMW.....	11				DCMW.....
	RPMW.....	12	DNMA.....	....25		
	SCMT.....	12				
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	SNMN.....	14				
	SNMM.....	14				
	SNMR.....	14				
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	SPGN..ED R.....	15				
	SPGT..ED R.....	15				
	SPGW..ED R.....	15				
	SPGW..ED R .....	15				
	SPKN..ED R.....	16				
	SPMT.....	16				
	SPMW.....	16				

# OZNAČENIE - OBSAH

diamond tools

	EPMT.....26 EPMW.....26
	RNGN.....26 RNMA.....26 RCGX.....27
	SPKN..ED R.....28 SPMW.....28
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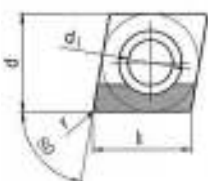
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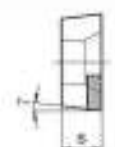
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060204	6,35	2,8	2,38	6,45	3,2	0,4
060208	6,35	2,8	2,38	6,45	3,0	0,8
09T302	9,52	4,4	3,97	9,7	4,5	0,2
09T304	9,52	4,4	3,97	9,7	4,3	0,4
09T308	9,52	4,4	3,97	9,7	4,1	0,8
120404	12,70	5,5	4,76	12,9	4,3	0,4
120408	12,70	5,5	4,76	12,9	4,1	0,8



060201-W	6,35	2,8	2,38	6,45	3,4	0,1
060202-W	6,35	2,8	2,38	6,45	3,2	0,2
060204-W	6,35	2,8	2,38	6,45	3,0	0,4
09T301-W	9,52	4,4	3,97	9,7	4,5	0,1
09T302-W	9,52	4,4	3,97	9,7	4,4	0,2
09T304-W	9,52	4,4	3,97	9,7	4,2	0,4
120402-W	12,70	5,5	4,76	12,9	4,4	0,2
120404-W	12,70	5,5	4,76	12,9	4,2	0,4

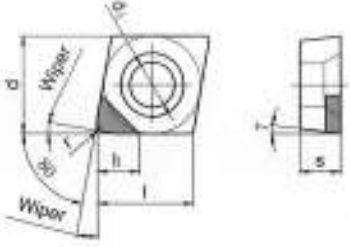


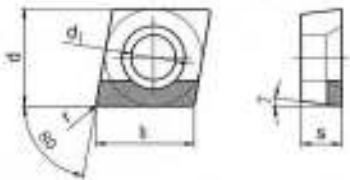
060204 R/L-GS	6,35	2,8	2,38	-	6,2	0,4
060208 R/L-GS	6,35	2,8	2,38	-	5,8	0,8
09T308 R/L-GS	9,52	4,4	3,97	-	9,7	0,8
09T312 R/L-GS	9,52	4,4	3,97	-	9,7	1,2
120412 R/L-GS	12,70	5,5	4,76	-	12,9	1,2

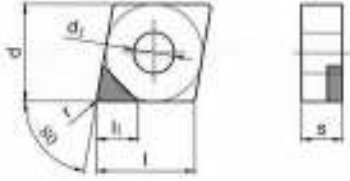



060201	6,35	2,8	2,38	6,45	3,4	0,1
060202	6,35	2,8	2,38	6,45	3,2	0,2
060204	6,35	2,8	2,38	6,45	3,0	0,4
09T301	9,52	4,4	3,97	9,7	4,5	0,1
09T302	9,52	4,4	3,97	9,7	4,3	0,2
09T304	9,52	4,4	3,97	9,7	4,1	0,4
120402	12,70	5,5	4,76	12,9	4,3	0,2
120404	12,70	5,5	4,76	12,9	4,1	0,4

# Inserts in **PCD/CBN**

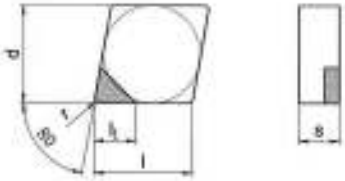
dia	d tools	<b>CCMW</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
			060201-W	6,35	2,8	2,38	6,45	3,4	0,1
			060202-W	6,35	2,8	2,38	6,45	3,2	0,2
			060204-W	6,35	2,8	2,38	6,45	3,1	0,4
			09T301-W	9,52	4,4	3,97	9,7	4,5	0,1
			09T302-W	9,52	4,4	3,97	9,7	4,4	0,2
			09T304-W	9,52	4,4	3,97	9,7	4,2	0,4
			120402-W	12,70	5,5	4,76	12,9	4,4	0,2
			120404-W	12,70	5,5	4,76	12,9	4,2	0,4

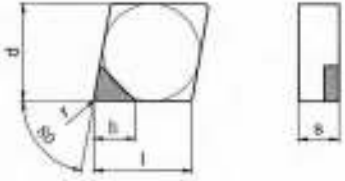
dia	ond tools	<b>CCMW</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
			060204 R/L-GS	6,35	2,8	2,38	-	6,45	0,4
			060208 R/L-GS	6,35	2,8	2,38	-	6,45	0,8
			09T308 R/L-GS	9,52	4,4	3,97	-	9,7	0,8
			09T312 R/L-GS	9,52	4,4	3,97	-	9,7	1,2
			120412 R/L-GS	12,70	5,13	4,76	-	12,9	1,2

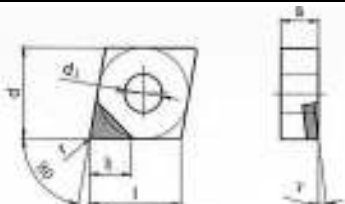
dia	ond tools	<b>CNMA</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
			120404-A2	12,70	5,13	4,76	12,9	6,3	0,4
			120408-A2	12,70	5,13	4,76	12,9	6,0	0,8
			120412-A2	12,70	5,13	4,76	12,9	5,7	1,2

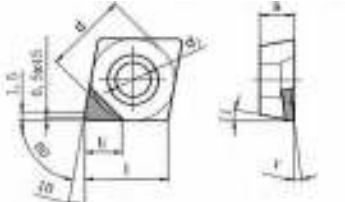
dia	ond tools	<b>CNMA</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
			120404-A1	12,70	5,13	4,76	12,9	4,3	0,4
			120408-A1	12,70	5,13	4,76	12,9	4,0	0,8
			120412-A1	12,70	5,13	4,76	12,9	3,8	1,2
			120416-A1	12,70	5,13	4,76	12,9	3,6	1,6

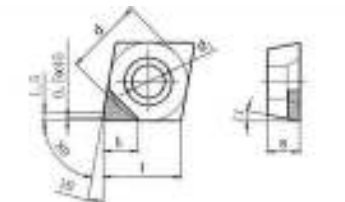
# Inserts in **PCD/CBN**

diamond tools	<b>CNMN</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		120404-A2	12,70	-	4,76	12,9	6,3	0,4
		120408-A2	12,70	-	4,76	12,9	6,0	0,8
		120412-A2	12,70	-	4,76	12,9	5,7	1,2

diamond tools	<b>CNMN</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		120404-A1	12,70	-	4,76	12,9	4,3	0,4
		120408-A1	12,70	-	4,76	12,9	4,0	0,8
		120412-A1	12,70	-	4,76	12,9	3,8	1,2
		120416-A1	12,70	-	4,76	12,9	3,6	1,6

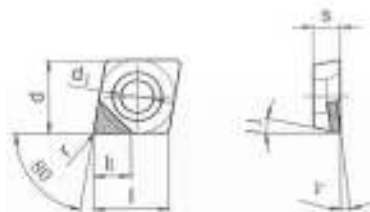
diamond tools	<b>CNMN</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		120404-A2	12,70	5,13	4,76	12,9	6,3	0,4
		120408-A2	12,70	5,13	4,76	12,9	6,0	0,8
		120412-A2	12,70	5,13	4,76	12,9	5,7	1,2

diamond tools	<b>CPGT..PD R</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		1204-PD R-4	12,70	5,5	4,76	12,7	4,5	-
		1204-PD R-6	12,70	5,5	4,76	12,7	7,5	-
		1204-PD R-8	12,70	5,5	4,76	12,7	9,0	-

diamond tools	<b>CPGW..PD R</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		1204-PD R-2	12,70	5,5	4,76	12,7	2,0	-
		1204-PD R-4	12,70	5,5	4,76	12,7	4,5	-
		1204-PD R-6	12,70	5,5	4,76	12,7	7,5	-

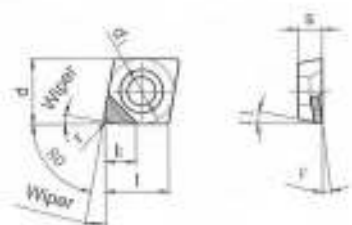
# PCD/CBN

dia



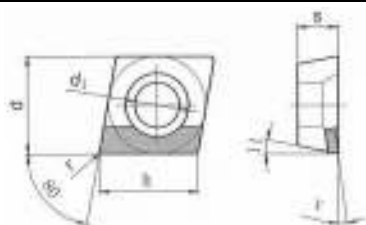
04T102	4,76	2,1	1,98	4,8	2,2	0,2
04T104	4,76	2,1	1,98	4,8	2,0	0,4
05T102	5,56	2,5	1,98	5,6	2,4	0,2
05T104	5,56	2,5	1,98	5,6	2,2	0,4
050202	5,56	2,5	2,38	5,6	2,4	0,2
050204	5,56	2,5	2,38	5,6	2,2	0,4
060202	6,35	2,8	2,38	5,6	3,4	0,2
060204	6,35	2,8	2,38	6,45	3,2	0,4
060208	6,35	2,8	2,38	6,45	3,0	0,8

dia



04T102-W	4,76	2,1	1,98	4,8	2,0	0,2
04T104-W	4,76	2,1	1,98	4,8	1,9	0,4
05T102-W	5,56	2,5	1,98	5,6	2,3	0,2
05T104-W	5,56	2,5	1,98	5,6	2,1	0,4
050202-W	5,56	2,5	2,38	5,6	2,3	0,2
050204-W	5,56	2,5	2,38	5,6	2,1	0,4
060202-W	6,35	2,8	2,38	6,45	3,3	0,2
060204-W	6,35	2,8	2,38	6,45	3,1	0,4

dia



05T104 R/L-GS	5,56	2,5	1,98	-	5,6	0,4
05T108 R/L-GS	5,56	2,5	1,98	-	5,6	0,8
050204 R/L-GS	5,56	2,5	2,38	-	5,6	0,4
050208 R/L-GS	5,56	2,5	2,38	-	5,6	0,8
060208 R/L-GS	6,35	2,8	2,38	-	6,45	0,8
09T312 R/L-GS	9,52	4,4	3,97	-	9,7	1,2
120412 R/L-GS	12,70	5,5	4,76	-	12,9	1,2

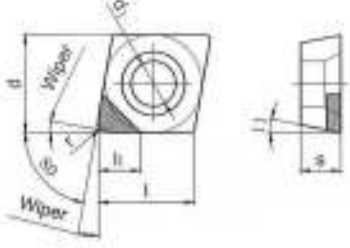
dia

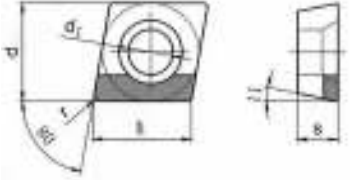


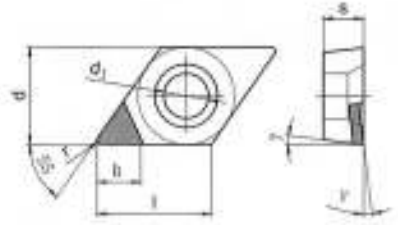
04T102	4,76	2,1	1,98	4,85	2,2	0,2
04T104	4,76	2,1	1,98	4,85	2,0	0,4
05T102	5,56	2,15	1,98	5,6	2,4	0,2
05T104	5,56	2,15	1,98	5,6	2,2	0,4
050202	5,56	2,5	2,38	5,6	2,4	0,2
050204	5,56	2,5	2,38	5,6	2,2	0,4
060202	6,35	2,8	2,38	6,45	3,4	0,2
060204	6,35	2,8	2,38	6,45	3,2	0,4
060208	6,35	2,8	2,38	6,45	3,0	0,8
09T304	9,52	4,4	3,97	9,7	4,3	0,4
09T308	9,52	4,4	3,97	9,7	4,1	0,8
120404	12,70	5,5	4,76	12,9	4,3	0,4
120408	12,70	5,5	4,76	12,9	4,1	0,8

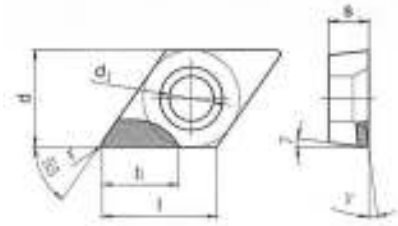


# Inserts in **PCD/CBN**

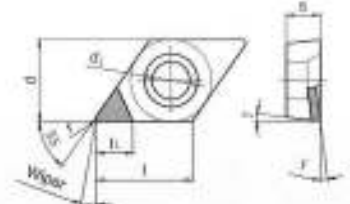
diamond tools	<b>CPMN</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		04T102-W	4,76	2,1	1,98	4,85	2,2	0,2
		04T104-W	4,76	2,1	1,98	4,85	2,0	0,4
		05T102-W	5,56	2,15	1,98	5,5	2,4	0,2
		05T104-W	5,56	2,15	1,98	5,5	2,1	0,4
		050202-W	5,56	2,5	2,38	5,5	2,4	0,2
		050204-W	5,56	2,5	2,38	5,5	2,1	0,4
		060202-W	6,35	2,8	2,38	6,45	3,3	0,2
		060204-W	6,35	2,8	2,38	6,45	3,1	0,4
		09T302-W	9,52	4,4	3,97	9,7	4,4	0,2
		09T304-W	9,52	4,4	3,97	9,7	4,2	0,4

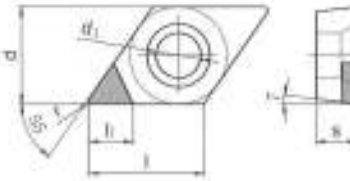
diamond tools	<b>CPMN</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		05T104 R/L-GS	5,56	2,5	1,98	-	5,6	0,4
		050204 R/L-GS	5,56	2,5	2,38	-	5,6	0,4
		060204 R/L-GS	6,35	2,8	2,38	-	6,45	0,4
		060208 R/L-GS	6,35	2,8	2,38	-	6,45	0,8
		09T308 R/L-GS	9,52	4,4	3,97	-	9,7	0,8
		120408 R/L-GS	12,70	5,5	4,76	-	12,9	0,8

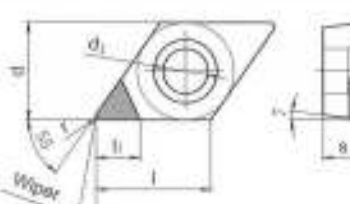
diamond tools	<b>DCMT</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		070201	6,35	2,8	2,38	7,75	3,8	0,1
		070202	6,35	2,8	2,38	7,75	3,7	0,2
		070204	6,35	2,8	2,38	7,75	3,4	0,4
		070208	6,35	2,8	2,38	7,75	3,0	0,8
		11T301	9,52	4,4	3,97	11,6	4,8	0,1
		11T302	9,52	4,4	3,97	11,6	4,7	0,2
		11T304	9,52	4,4	3,97	11,6	4,3	0,4
		11T308	9,52	4,4	3,97	11,6	4,0	0,8
		11T312	9,52	4,4	3,97	11,6	3,6	1,2

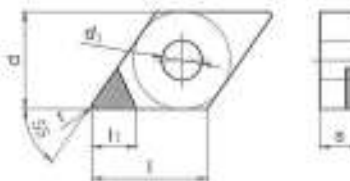
diamond tools	<b>DCMT</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		070204R/L	6,35	2,8	2,38	7,75	5,5	0,4
		070208R/L	6,35	2,8	2,38	7,75	5,0	0,8
		11T304R/L	9,52	4,4	3,97	11,6	7,5	0,4
		11T308R/L	9,52	4,4	3,97	11,6	7,0	0,8
		11T312R/L	9,52	4,4	3,97	11,6	6,5	1,2

# Inserts in **PCD/CBN**

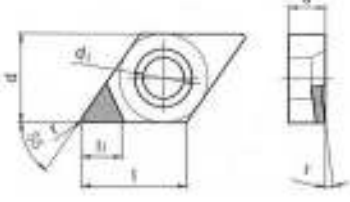
diamond tools	<b>DCMT</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		070201 R/L-W	6,35	2,8	2,38	7,75	3,0	0,1
		070202 R/L-W	6,35	2,8	2,38	7,75	3,0	0,2
		070204 R/L-W	6,35	2,8	2,38	7,75	3,0	0,4
		11T301 R/L-W	9,52	4,4	3,97	11,6	4,0	0,1
		11T302 R/L-W	9,52	4,4	3,97	11,6	4,0	0,2
		11T304 R/L-W	9,52	4,4	3,97	11,6	4,0	0,4

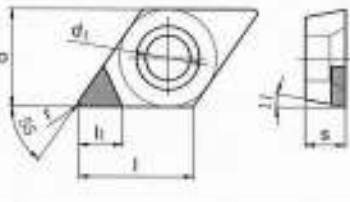
diamond tools	<b>DCMW</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		070201	6,35	2,8	2,38	6,45	3,8	0,1
		070202	6,35	2,8	2,38	6,45	3,7	0,2
		070204	6,35	2,8	2,38	6,45	3,4	0,4
		070208	6,35	2,8	2,38	6,45	3,0	0,8
		110302	9,52	4,4	3,18	11,6	4,7	0,2
		110304	9,52	4,4	3,18	11,6	4,3	0,4
		110308	9,52	4,4	3,18	11,6	4,0	0,8
		11T301	9,52	4,4	3,97	11,6	4,8	0,1
		11T302	9,52	4,4	3,97	11,6	4,7	0,2
		11T304	9,52	4,4	3,97	11,6	4,3	0,4
		11T308	9,52	4,4	3,97	11,6	4,0	0,8
		11T312	9,52	4,4	3,97	11,6	3,6	1,2

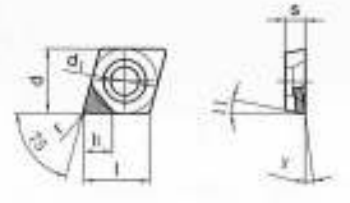
diamond tools	<b>DCMW</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		070201 R/L-W	6,35	2,8	2,38	7,75	3,0	0,1
		070202 R/L-W	6,35	2,8	2,38	7,75	3,0	0,2
		070204 R/L-W	6,35	2,8	2,38	7,75	3,0	0,4
		11T301 R/L-W	9,52	4,4	3,97	11,6	4,0	0,1
		11T302 R/L-W	9,52	4,4	3,97	11,6	4,0	0,2
		11T304 R/L-W	9,52	4,4	3,97	11,6	4,0	0,4

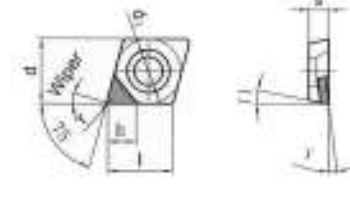
diamond tools	<b>DNMA</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		150404-A2	12,70	5,13	4,76	15,5	6,4	0,4
		150408-A2	12,70	5,13	4,76	15,5	6,0	0,8
		150412-A2	12,70	5,13	4,76	15,5	5,6	1,2
		150604-A2	12,70	5,13	6,35	15,5	6,4	0,4
		150608-A2	12,70	5,13	6,35	15,5	6,0	0,8
		150612-A2	12,70	5,13	6,35	15,5	5,6	1,2

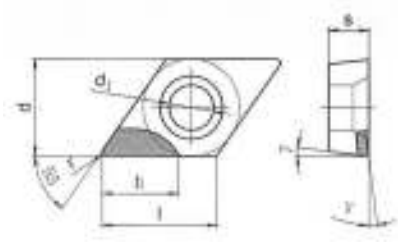
# Inserts in **PCD/CBN**

diamond tools	<b>DNMM</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		150404-A2	12,70	5,13	4,76	15,5	6,4	0,4
		150408-A2	12,70	5,13	4,76	15,5	6,0	0,8
		150412-A2	12,70	5,13	4,76	15,5	5,6	1,2
		150604-A2	12,70	5,13	6,35	15,5	6,4	0,4
		150608-A2	12,70	5,13	6,35	15,5	6,0	0,8
		150612-A2	12,70	5,13	6,35	15,5	5,6	1,2

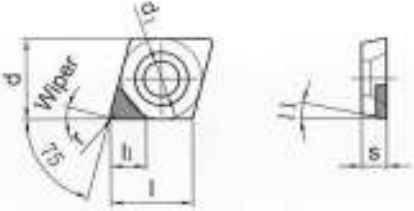
diamond tools	<b>DPMW</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		070202	6,35	2,8	2,38	7,75	3,0	0,2
		070204	6,35	2,8	2,38	7,75	3,0	0,4
		070208	6,35	2,8	2,38	7,75	3,0	0,8
		11T302	9,52	4,4	3,97	11,6	4,0	0,2
		11T304	9,52	4,4	3,97	11,6	4,0	0,4
		11T308	9,52	4,4	3,97	11,6	4,0	0,8

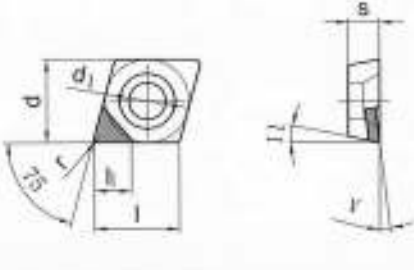
diamond tools	<b>EPHT</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		06T101	6,35	2,8	1,98	6,6	3,3	0,1
		06T102	6,35	2,8	1,98	6,6	3,0	0,2
		06T104	6,35	2,8	1,98	6,6	2,8	0,4

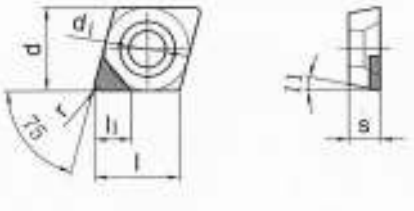
diamond tools	<b>EPHT</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		06T101 R/L-W	6,35	2,8	1,98	6,6	3,3	0,1
		06T102 R/L-W	6,35	2,8	1,98	6,6	3,0	0,2
		06T104 R/L-W	6,35	2,8	1,98	6,6	2,8	0,4

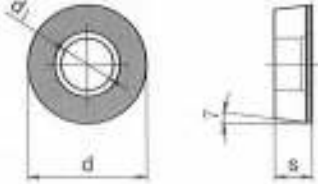
diamond tools	<b>EPHW</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		070204R/L	6,35	2,8	2,38	7,75	5,5	0,4
		070208R/L	6,35	2,8	2,38	7,75	5,0	0,8
		11T304R/L	9,52	4,4	3,97	11,6	7,5	0,4
		11T308R/L	9,52	4,4	3,97	11,6	7,0	0,8
		11T312R/L	9,52	4,4	3,97	11,6	6,5	1,2

# Inserts in **PCD/CBN**

diamond tools	<b>EPHW</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		06T101 R/L-W	6,35	2,8	1,98	6,6	3,1	0,1
		06T102 R/L-W	6,35	2,8	1,98	6,6	3,0	0,2
		06T104 R/L-W	6,35	2,8	1,98	6,6	2,8	0,4

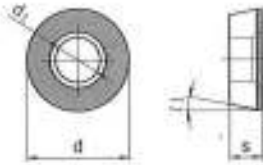
diamond tools	<b>EPMT</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		040202	4,76	2,15	2,38	4,8	2,4	0,2
		040204	4,76	2,15	2,38	4,8	2,2	0,4
		050202	5,56	2,4	2,38	5,7	3,0	0,2
		050204	5,56	2,4	2,38	5,7	2,6	0,4
		060202	6,35	2,8	2,38	6,5	3,4	0,2
		060204	6,35	2,8	2,38	6,5	3,2	0,4
		080302	7,94	3,4	3,18	8,3	3,4	0,2
		080304	7,94	3,4	3,18	8,3	3,2	0,4
	080308	7,94	3,4	3,18	8,3	3,0	0,8	

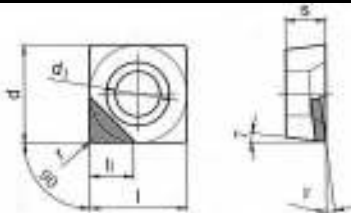
diamond tools	<b>EPMW</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		040202	4,76	2,15	2,38	4,8	2,4	0,2
		040204	4,76	2,15	2,38	4,8	2,2	0,4
		050202	5,56	2,4	2,38	5,7	3,0	0,2
		050204	5,56	2,4	2,38	5,7	2,6	0,4
		060202	6,35	2,8	2,38	6,5	3,4	0,2
		060204	6,35	2,8	2,38	6,5	3,2	0,4
		080302	7,94	3,4	3,18	8,3	3,4	0,2
		080304	7,94	3,4	3,18	8,3	3,2	0,4
	080308	7,94	3,4	3,18	8,3	3,0	0,8	

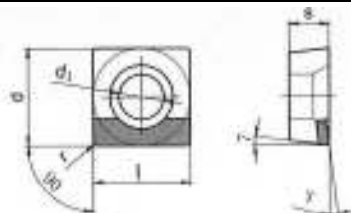
diamond tools	<b>RCMW</b>	TYPE	d	d <sub>1</sub>	s
		0602MO-FF	6,0	2,80	2,38
		0803MO-FF	8,0	3,40	3,18
		1003MO-FF	10,0	4,40	3,18
		10T3MO-FF	10,0	4,40	3,97
		1204MO-FF	12,0	4,40	4,76

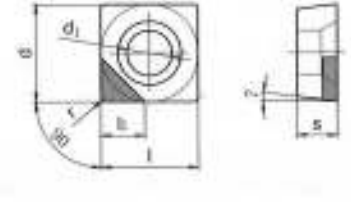


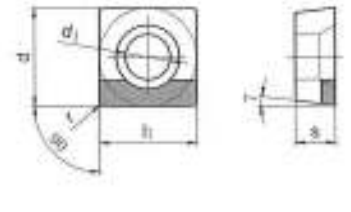
# Inserts in **PCD/CBN**

diamond tools	<b>RPMW</b>	TYPE	d	d <sub>1</sub>	s
		0802MO-FF	8,0	3,4	2,38
		1003MO-FF	10,0	4,4	3,18
		1204MO-FF	12,0	4,4	4,76
		120400-FF	12,7	5,5	4,76

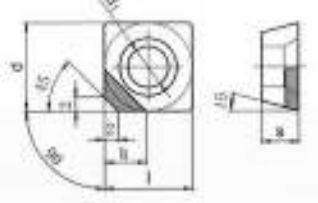
diamond tools	<b>SCMT</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		09T304	9,52	4,4	3,97	9,52	4,4	0,4
		09T308	9,52	4,4	3,97	9,52	4,3	0,8
		09T312	9,52	4,4	3,97	9,52	4,2	1,2
		120408	12,70	5,5	4,76	12,7	4,3	0,8
		120412	12,70	5,5	4,76	12,7	4,2	1,2

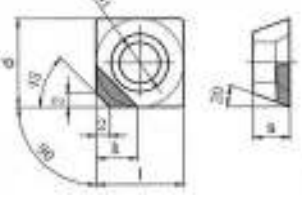
diamond tools	<b>SCMT</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		09T308-GS	9,52	4,4	3,97	9,52	4,4	0,8
		09T312-GS	9,52	4,4	3,97	9,52	4,3	1,2
		120408-GS	12,70	5,5	4,76	12,7	4,3	0,8
		120412-GS	12,70	5,5	4,76	12,7	4,2	1,2

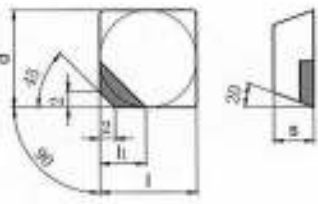
diamond tools	<b>SCMW</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		09T304	9,52	4,4	3,97	9,52	4,4	0,4
		09T308	9,52	4,4	3,97	9,52	4,3	0,8
		09T312	9,52	4,4	3,97	9,52	4,2	1,2
		120404	12,70	5,5	4,76	12,7	4,4	0,4
		120408	12,70	5,5	4,76	12,7	4,3	0,8
		120412	12,70	5,5	4,76	12,7	4,2	1,2

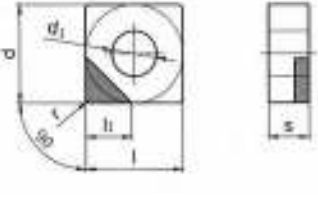
diamond tools	<b>SCMW</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		09T304-GS	9,52	4,4	3,97	-	9,52	0,4
		09T308-GS	9,52	4,4	3,97	-	9,52	0,8
		09T312-GS	9,52	4,4	3,97	-	9,52	1,2
		120404-GS	12,70	5,5	4,76	-	12,7	0,4
		120408-GS	12,70	5,5	4,76	-	12,7	0,8
		120412-GS	12,70	5,5	4,76	-	12,7	1,2

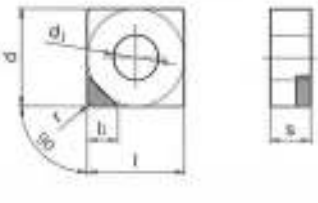
# Inserts in **PCD/CBN**

diamond tools	<b>SDHW..AE N</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		1204-AE N-4	12,70	5,5	4,76	12,7	4,0	-
		1204-AE N-6	12,70	5,5	4,76	12,7	6,0	-

diamond tools	<b>SEHW..AF N</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		1204-AF N-4	12,70	5,5	4,76	12,7	4,0	-
		1204-AF N-6	12,70	5,5	4,76	12,7	6,0	-

diamond tools	<b>SEKN..AF N</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		1203-AF N-4	12,70	-	3,18	12,7	4,0	-
		1203-AF N-6	12,70	-	3,18	12,7	6,0	-

diamond tools	<b>SNMA</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		120404-A2	12,70	5,13	4,76	12,7	6,3	0,4
		120408-A2	12,70	5,13	4,76	12,7	6,2	0,8
		120412-A2	12,70	5,13	4,76	12,7	6,0	1,2

diamond tools	<b>SNMA</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		120404-A1	12,70	5,13	4,76	12,7	4,3	0,4
		120408-A1	12,70	5,13	4,76	12,7	4,2	0,8
		120412-A1	12,70	5,13	4,76	12,7	4,0	1,2

# Inserts in **PCD/CBN**

diamond tools	<b>SNMN</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		120404-A2	12,70	-	4,76	12,7	6,3	0,4
		120408-A2	12,70	-	4,76	12,7	6,2	0,8
		120412-FF	12,70	-	4,76	12,7	6,0	1,2

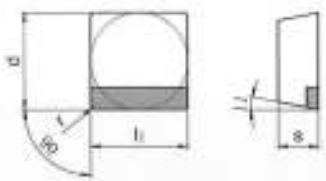
diamond tools	<b>SNMN</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		120404-A1	12,70	-	4,76	12,7	4,3	0,4
		120408-A1	12,70	-	4,76	12,7	4,2	0,8
		120412-A1	12,70	-	4,76	12,7	4,0	1,2

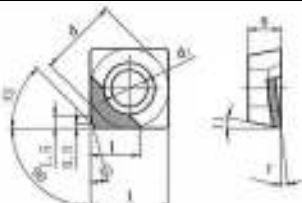
diamond tools	<b>SNMM</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		120408-GS	12,70	5,13	4,76	-	12,7	0,8
		120412-GS	12,70	5,13	4,76	-	12,7	1,2
		120416-GS	12,70	5,13	4,76	-	12,7	1,6

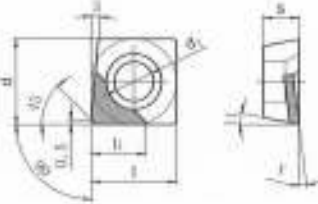
diamond tools	<b>SNMR</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		120408-GS	12,70	-	4,76	-	12,7	0,8
		120412-GS	12,70	-	4,76	-	12,7	1,2
		120416-GS	12,70	-	4,76	-	12,7	1,6

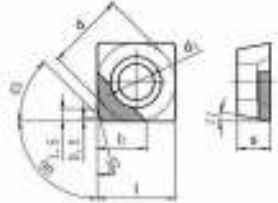
diamond tools	<b>SPGN</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		090304	9,52	-	3,18	9,52	4,4	0,4
		090308	9,52	-	3,18	9,52	4,3	0,8
		120304	12,70	-	3,18	12,7	4,2	0,4
		120308	12,70	-	3,18	12,7	4,3	0,8
		120312	12,70	-	3,18	12,7	4,2	1,2

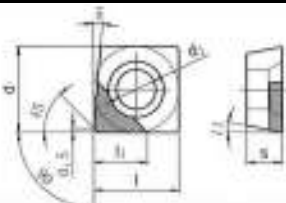
# Inserts in **PCD/CBN**

diamond tools	<b>SPGN</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		090304-GS	9,52	-	3,18	-	9,52	0,4
		090308-GS	9,52	-	3,18	-	9,52	0,8
		120308-GS	12,70	-	3,18	-	12,7	0,8
		120312-GS	12,70	-	3,18	-	12,7	1,2

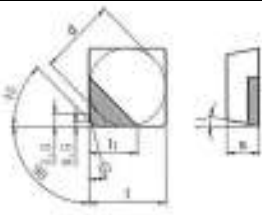
diamond tools	<b>SPGT..ED R</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		1204-ED R-8	12,70	5,5	4,76	12,7	8,5	-

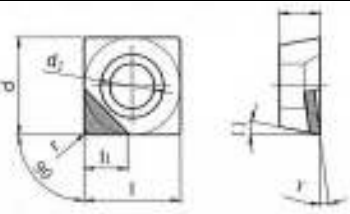
diamond tools	<b>SPGT..PD R</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		1204-PD R-8	12,70	5,5	4,76	12,7	8,5	-

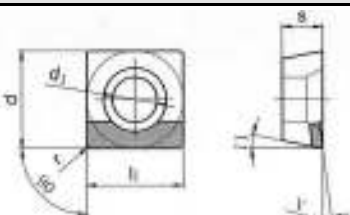
diamond tools	<b>SPGW..ED R</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		1204-ED R-4	12,70	5,5	4,76	12,7	4,5	-
		1204-ED R-6	12,70	5,5	4,76	12,7	7,5	-

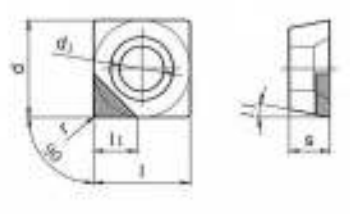
diamond tools	<b>SPGW..PD R</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		1204-PD R-4	12,70	5,5	4,76	12,7	4,5	-
		1204-PD R-6	12,70	5,5	4,76	12,7	7,5	-

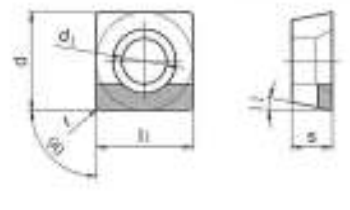
# Inserts in **PCD/CBN**

diamond tools	<b>SPKN..ED R</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		1203-ED R-4	12,70	-	3,18	12,7	4,5	-
		1203-ED R-6	12,70	-	3,18	12,7	7,5	-

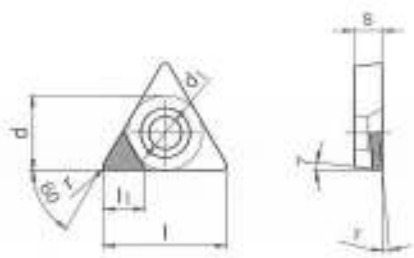
diamond tools	<b>SPMT</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		09T304	9,52	4,4	3,97	9,52	4,4	0,4
		09T308	9,52	4,4	3,97	9,52	4,3	0,8
		09T312	9,52	4,4	3,97	9,52	4,2	1,2
		120408	12,70	5,5	4,76	12,7	4,3	0,8
		120412	12,70	5,5	4,76	12,7	4,2	1,2

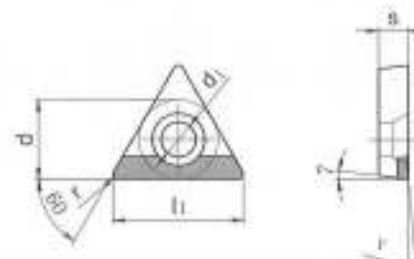
diamond tools	<b>SPMT</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		09T308-GS	9,52	4,4	3,97	-	9,52	0,8
		09T312-GS	9,52	4,4	3,97	-	9,52	1,2
		120408-GS	12,70	5,5	4,76	-	12,7	0,8
		120412-GS	12,70	5,5	4,76	-	12,7	1,2

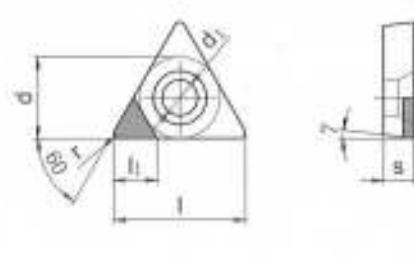
diamond tools	<b>SPMW</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		09T304	9,52	4,4	3,97	9,52	4,4	0,4
		09T308	9,52	4,4	3,97	9,52	4,3	0,8
		09T312	9,52	4,4	3,97	9,52	4,2	1,2
		120404	12,70	5,5	4,76	12,7	4,4	0,4
		120408	12,70	5,5	4,76	12,7	4,3	0,8
		120412	12,70	5,5	4,76	12,7	4,2	1,2

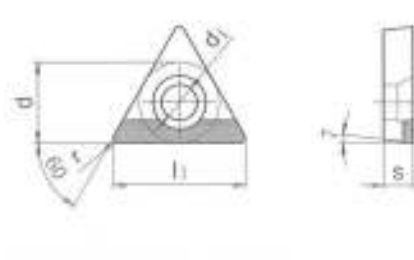
diamond tools	<b>SPMW</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		09T304-GS	9,52	4,4	3,97	-	9,52	0,4
		09T308-GS	9,52	4,4	3,97	-	9,52	0,8
		09T312-GS	9,52	4,4	3,97	-	9,52	1,2
		120404-GS	12,70	5,5	4,76	-	12,7	0,4
		120408-GS	12,70	5,5	4,76	-	12,7	0,8
		120412-GS	12,70	5,5	4,76	-	12,7	1,2

# Inserts in **PCD/CBN**

diamo d tools	<b>TCMT</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		090202	5,56	2,5	2,38	9,6	3,7	0,2
		090204	5,56	2,5	2,38	9,6	3,4	0,4
		090208	5,56	2,5	2,38	9,6	3,0	0,8
		110202	6,35	2,8	2,38	11,0	3,7	0,2
		110204	6,35	2,8	2,38	11,0	3,4	0,4
		110208	6,35	2,8	2,38	11,0	3,0	0,8
		16T304	9,52	4,4	3,97	16,5	4,6	0,4
		16T308	9,52	4,4	3,97	16,5	4,2	0,8

diamond tools	<b>TCMT</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		090204-GS	5,56	2,5	2,38	-	9,6	0,4
		090208-GS	5,56	2,5	2,38	-	9,6	0,8
		110204-GS	6,35	2,8	2,38	-	11,0	0,4
		110208-GS	6,35	2,8	2,38	-	11,0	0,8
		110212-GS	6,35	2,8	2,38	-	11,0	1,2
		16T304-GS	9,52	4,4	3,97	-	16,5	0,4
		16T308-GS	9,52	4,4	3,97	-	16,5	0,8
		16T312-GS	9,52	4,4	3,97	-	16,5	1,2

diamond tools	<b>TCMW</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		090202	5,56	2,5	2,38	9,6	3,8	0,2
		090204	5,56	2,5	2,38	9,6	3,7	0,4
		090208	5,56	2,5	2,38	9,6	3,4	0,8
		110202	6,35	2,8	2,38	11,0	3,0	0,2
		110204	6,35	2,8	2,38	11,0	4,8	0,4
		110208	6,35	2,8	2,38	11,0	4,7	0,8
		16T304	9,52	4,4	3,97	16,5	4,3	0,4
		16T308	9,52	4,4	3,97	16,5	4,0	0,8
		16T312	9,52	4,4	3,97	16,5	3,6	1,2

diamond tools	<b>TCMW</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		090204-GS	5,56	2,5	2,38	-	9,6	0,4
		090208-GS	5,56	2,5	2,38	-	9,6	0,8
		110204-GS	6,35	2,8	2,38	-	11,0	0,4
		110208-GS	6,35	2,8	2,38	-	11,0	0,8
		110212-GS	6,35	2,8	2,38	-	11,0	1,2
		16T304-GS	9,52	4,4	3,97	-	16,5	0,4
		16T308-GS	9,52	4,4	3,97	-	16,5	0,8
		16T312-GS	9,52	4,4	3,97	-	16,5	1,2

# Inserts in **PCD/CBN**

diamond tools	<b>TNMA</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		160404-A2	9,52	3,81	4,76	16,5	6,2	0,4
		160408-A2	9,52	3,81	4,76	16,5	5,8	0,8
		160412-A2	9,52	3,81	4,76	16,5	5,4	1,2
		220408-A2	12,70	5,13	4,76	22,0	5,8	0,8
		220412-A2	12,70	5,13	4,76	22,0	5,4	1,2

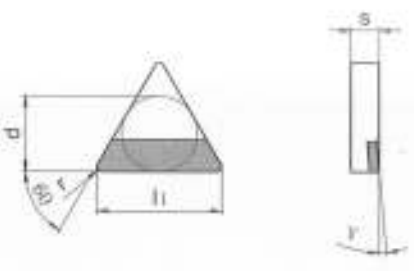
diamond tools	<b>TNMA</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		160404-A1	9,52	3,81	4,76	16,5	4,2	0,4
		160408-A1	9,52	3,81	4,76	16,5	3,8	0,8
		160412-A1	9,52	3,81	4,76	16,5	3,6	1,2
		220408-A1	12,70	5,13	4,76	22,0	3,8	0,8
		220412-A1	12,70	5,13	4,76	22,0	3,6	1,2

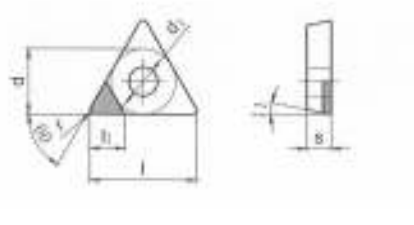
diamond tools	<b>TNMM</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		160404-A1	9,52	-	4,76	16,5	4,2	0,4
		160408-A1	9,52	-	4,76	16,5	3,8	0,8
		160412-A1	9,52	-	4,76	16,5	3,6	1,2

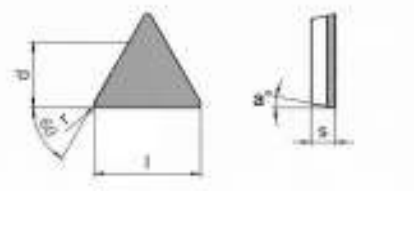
diamond tools	<b>TNMM</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		160404-A2	9,52	5,13	4,76	16,5	6,2	0,4
		160408-A2	9,52	5,13	4,76	16,5	5,8	0,8
		160412-A2	9,52	5,13	4,76	16,5	5,4	1,2
		220408-A2	12,70	5,13	4,76	22,0	5,8	0,8
		220412-A2	12,70	5,13	4,76	22,0	5,4	1,2

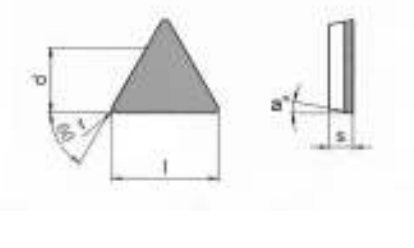
diamond tools	<b>TNMM</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		160408-GS	9,52	5,13	4,76	-	16,5	0,8
		160412-GS	9,52	5,13	4,76	-	16,5	1,2
		160416-GS	9,52	5,13	4,76	-	16,5	1,6
		220408-GS	12,70	5,13	4,76	-	22,0	0,8
		220412-GS	12,70	5,13	4,76	-	22,0	1,2

# Inserts in **PCD/CBN**

diamond tools	<b>TNMR</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		160408-GS	9,52	-	4,76	-	16,5	0,8
		160412-GS	9,52	-	4,76	-	16,5	1,2

diamond tools	<b>TPGA</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		110302	6,35	3,4	3,18	11,0	3,7	0,2
		110304	6,35	3,4	3,18	11,0	3,4	0,4
		110308	6,35	3,4	3,18	11,0	3,0	0,8

diamond tools	<b>TCGN -TEGN</b>	TYPE	d	a°	s	l	l <sub>1</sub>	r
		TCGN 080102-FF	3,97	5°	1,58	6,58	-	0,2
		TCGN 080104-FF	3,97	5°	1,58	6,29	-	0,2
		TEGN 110304-FF	6,35	20°	3,18	10,41	-	0,4

diamond tools	<b>TPGN</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		090204-FF	5,56	-	2,38	-	9,04	0,4
		110304-FF	6,35	-	3,18	-	10,41	0,4
		110308-FF	6,35	-	3,18	-	9,82	0,8
		160304-FF	9,52	-	3,18	-	15,8	0,4
		160308-FF	9,52	-	3,18	-	15,5	0,8
		160312-FF	9,52	-	3,18	-	15,2	1,2



# Inserts in **PCD/CBN**

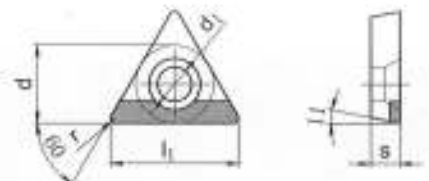
diamond tools	<b>TPKN..PDR</b>	TYPE	d	d <sub>i</sub>	s	l	l <sub>i</sub>	r
		1603-PD N-4	9,52	-	3,18	16,5	4,0	

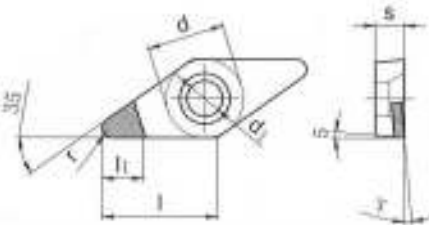
diamond tools	<b>TPMR</b>	TYPE	d	d <sub>i</sub>	s	l	l <sub>i</sub>	r
		110304-GS	6,35	-	3,18	-	11,0	0,4
		110308-GS	6,35	-	3,18	-	11,0	0,8
		110312-GS	6,35	-	3,18	-	11,0	1,2
		160304-GS	9,52	-	3,18	-	16,5	0,4
		160308-GS	9,52	-	3,18	-	16,5	0,8
		160312-GS	9,52	-	3,18	-	16,5	1,2

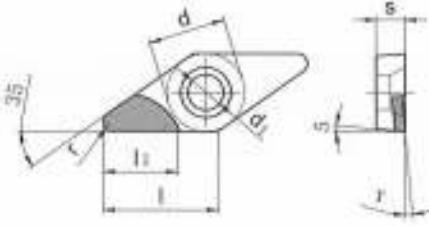
diamond tools	<b>TPMT</b>	TYPE	d	d <sub>i</sub>	s	l	l <sub>i</sub>	r
		080204-GS	4,76	2,2	2,38	-	8,2	0,4
		080208-GS	4,76	2,2	2,38	-	8,2	0,8
		090204-GS	5,56	2,5	2,38	-	9,6	0,4
		090208-GS	5,56	2,5	2,38	-	9,6	0,8
		110204-GS	6,35	2,8	2,38	-	11,0	0,4
		110208-GS	6,35	2,8	2,38	-	11,0	0,8
		110304-GS	6,35	2,8	3,18	-	11,0	0,4
		110308-GS	6,35	2,8	3,18	-	11,0	0,8
		160408-GS	9,52	4,4	4,76	-	16,5	0,8

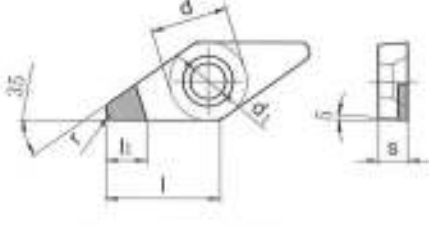
diamond tools	<b>TPMW</b>	TYPE	d	d <sub>i</sub>	s	l	l <sub>i</sub>	r
		080204	4,76	2,2	2,38	8,2	3,4	0,4
		090204	5,56	2,5	2,38	9,6	3,0	0,4
		090208	5,56	2,5	2,38	9,6	3,4	0,8
		110202	6,35	2,8	2,38	11,0	3,0	0,2
		110204	6,35	2,8	2,38	11,0	3,7	0,4
		110208	6,35	2,8	2,38	11,0	3,4	0,8
		110302	6,35	2,8	3,18	11,0	3,0	0,2
		110304	6,35	2,8	3,18	11,0	4,6	0,4
		110308	6,35	2,8	3,18	11,0	4,2	0,8

# Inserts in **PCD/CBN**

dia	ond tools	<b>TPMW</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
			080204-GS	4,76	2,2	2,38	-	8,2	0,4
			090204-GS	5,56	2,5	2,38	-	9,6	0,4
			110204-GS	6,35	2,8	2,38	-	11,0	0,4
			110208-GS	6,35	2,8	2,38	-	11,0	0,8
			110304-GS	6,35	2,8	3,18	-	11,0	0,4

dia	ond tools	<b>VBMT</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
			110201	6,35	2,9	2,38	11,1	5,4	0,1
			110202	6,35	2,9	2,38	11,1	4,6	0,2
			110204	6,35	2,9	2,38	11,1	3,9	0,4
			110208	6,35	2,9	2,38	11,1	3,3	0,8
			160402	9,52	4,4	4,76	16,6	5,9	0,2
			160404	9,52	4,4	4,76	16,6	5,5	0,4
			160408	9,52	4,4	4,76	16,6	5,0	0,8

dia	ond tools	<b>VBMT</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
			110204R/L	6,35	2,9	2,38	11,0	6,5	0,4
			110208R/L	6,35	2,9	2,38	11,0	6,0	0,8
			160404R/L	9,52	4,4	4,76	16,5	7,5	0,4
			160408R/L	9,52	4,4	4,76	16,5	7,0	0,8
			160412R/L	9,52	4,4	4,76	16,5	7,0	1,2

dia	ond tools	<b>VBMT</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
			110202	6,35	2,9	2,38	11,1	4,6	0,2
			110204	6,35	2,9	2,38	11,1	3,9	0,4
			110208	6,35	2,9	2,38	11,1	3,3	0,8
			160402	9,52	4,4	4,76	16,6	5,9	0,2
			160404	9,52	4,4	4,76	16,6	5,5	0,4
			160408	9,52	4,4	4,76	16,6	5,0	0,8
			160412	9,52	4,4	4,76	16,6	4,4	1,2

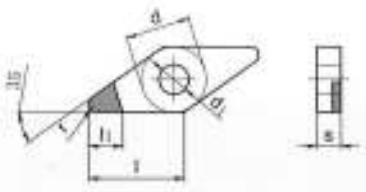
# Inserts in **PCD/CBN**

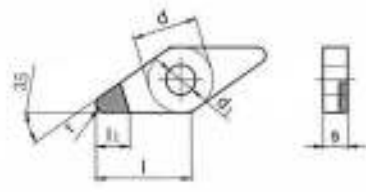
diamond tools	<b>VCMT</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		070201	3,97	2,2	2,38	6,9	3,8	0,1
		070202	3,97	2,2	2,38	6,9	3,8	0,2
		070204	3,97	2,2	2,38	6,9	3,2	0,4
		110301	6,35	2,9	3,18	11,6	5,4	0,1
		110302	6,35	2,9	3,18	11,6	4,6	0,2
		110304	6,35	2,9	3,18	11,6	3,9	0,4
		110308	6,35	2,9	3,18	11,6	3,3	0,8
		130302	7,94	3,4	3,18	13,3	5,9	0,2
		130304	7,94	3,4	3,18	13,3	5,5	0,4
		160401	9,52	4,4	4,76	11,6	6,0	0,1
		160402	9,52	4,4	4,76	11,6	5,9	0,2
		160404	9,52	4,4	4,76	11,6	5,5	0,4
		160408	9,52	4,4	4,76	11,6	5,0	0,8
		160412	9,52	4,4	4,76	11,6	4,5	1,2

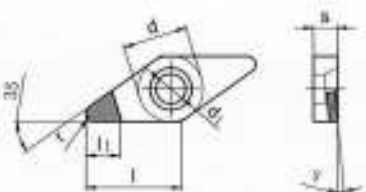
diamond tools	<b>VCMT</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		110304R/L	6,35	2,9	3,18	11,1	6,5	0,4
		110308R/L	6,35	2,9	3,18	11,1	6,0	0,8
		160404R/L	9,52	4,4	4,76	16,6	7,5	0,4
		160408R/L	9,52	4,4	4,76	16,6	7,0	0,8
		160412R/L	9,52	4,4	4,76	16,6	7,0	1,2

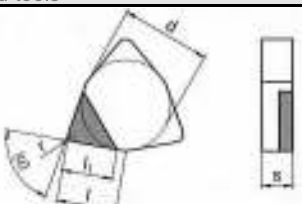
diamond tools	<b>VCMW</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		070201	3,97	2,2	2,38	6,9	3,8	0,1
		070202	3,97	2,2	2,38	6,9	3,6	0,2
		070204	3,97	2,2	2,38	6,9	3,2	0,4
		110301	6,35	2,9	3,18	11,1	5,4	0,1
		110302	6,35	2,9	3,18	11,1	4,6	0,2
		110304	6,35	2,9	3,18	11,1	3,9	0,4
		110308	6,35	2,9	3,18	11,1	3,3	0,8
		130302	7,94	3,4	3,18	13,3	5,9	0,2
		130304	7,94	3,4	3,18	13,3	5,5	0,4
		160401	9,52	4,4	4,76	16,6	6,0	0,1
		160402	9,52	4,4	4,76	16,6	5,9	0,2
		160404	9,52	4,4	4,76	16,6	5,5	0,4
		160408	9,52	4,4	4,76	16,6	5,0	0,8
		160412	9,52	4,4	4,76	16,6	4,5	1,2
		160416	9,52	4,4	4,76	16,6	4,0	1,6

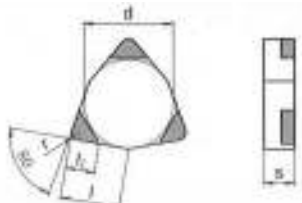
# Inserts in **PCD/CBN**

diamond tools	<b>VNMA</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		160404-A2	9,52	3,81	4,76	16,6	5,5	0,4
		160408-A2	9,52	3,81	4,76	16,6	5,0	0,8
		160412-A2	9,52	3,81	4,76	16,6	4,5	1,2

diamond tools	<b>VNMA</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		160404-A1	9,52	3,81	4,76	16,6	4,2	0,4
		160408-A1	9,52	3,81	4,76	16,6	3,9	0,8
		160412-A1	9,52	3,81	4,76	16,6	3,6	1,2

diamond tools	<b>VNMM</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		160404-A2	9,52	3,81	4,76	16,6	5,5	0,4
		160408-A2	9,52	3,81	4,76	16,6	5,0	0,8
		160412-A2	9,52	3,81	4,76	16,6	4,5	1,2

diamond tools	<b>WNGX-N</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		060302	9,52	-	3,18	6,2	5,6	0,2
		060304	9,52	-	3,18	6,2	5,4	0,4
		060308	9,52	-	3,18	6,2	5,2	0,8
		060312	9,52	-	3,18	6,2	5,0	1,2

diamond tools	<b>WNGX-N</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		060302-A3	9,52	-	3,18	6,2	3,4	0,2
		060304-A3	9,52	-	3,18	6,2	3,2	0,4
		060308-A3	9,52	-	3,18	6,2	3,0	0,8
		060312-A3	9,52	-	3,18	6,2	2,8	1,2

# Inserts in **PCD/CBN**

diamond tools	<b>CCMW</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		09T302 W-A3	9,52	4,4	3,97	9,7	3,3	0,2
		09T304 W-A3	9,52	4,4	3,97	9,7	3,0	0,4
		09T308 W-A3	9,52	4,4	3,97	9,7	2,7	0,8

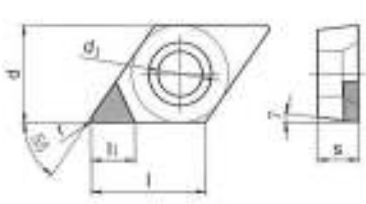
diamond tools	<b>CCMW</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		060204 R/L-GS	6,35	2,8	2,38	-	6,45	0,4
		060208 R/L-GS	6,35	2,8	2,38	-	6,45	0,8
		09T304 R/L-GS	9,52	4,4	3,97	-	9,7	0,4
		09T308 R/L-GS	9,52	4,4	3,97	-	9,7	0,8

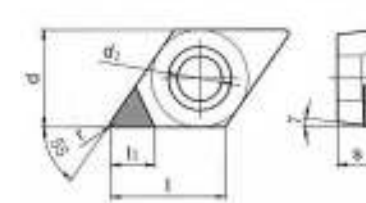
diamond tools	<b>CNMA</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		090304-A1	9,52	3,81	3,18	9,7	3,1	0,4
		090308-A1	9,52	3,81	3,18	9,7	2,8	0,8
		120402-A1	12,70	5,13	4,76	12,9	3,4	0,2
		120404-A1	12,70	5,13	4,76	12,9	3,1	0,4
		120408-A1	12,70	5,13	4,76	12,9	2,8	0,8
		120412-A1	12,70	5,13	4,76	12,9	2,5	1,2

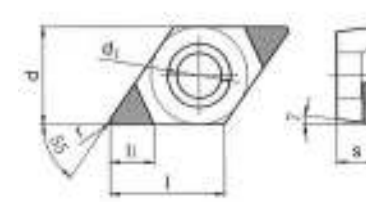
diamond tools	<b>CNMA</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		120404-A2	12,70	5,13	4,76	12,9	5,3	0,4
		120408-A2	12,70	5,13	4,76	12,9	5,0	0,8
		120412-A2	12,70	5,13	4,76	12,9	4,7	1,2
		120416-A2	12,70	5,13	4,76	12,9	4,4	1,6

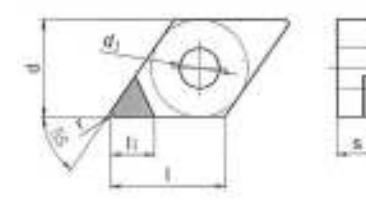
diamond tools	<b>CNMA</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		120404-A3	12,70	5,13	4,76	12,9	3,0	0,4
		120408-A3	12,70	5,13	4,76	12,9	2,7	0,8
		120412-A3	12,70	5,13	4,76	12,9	2,4	1,2

# Inserts in **PCD/CBN**

dia	nd tools	<b>DCMW</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
			070202-A1	6,35	2,8	2,38	7,75	3,9	0,2
			070204-A1	6,35	2,8	2,38	7,75	3,5	0,4
			070208-A1	6,35	2,8	2,38	7,75	3,0	0,8
			110302-A1	9,52	4,4	3,18	11,6	3,9	0,2
			110304-A1	9,52	4,4	3,18	11,6	3,5	0,4
			110308-A1	9,52	4,4	3,18	11,6	3,0	0,8
			11T302-A1	9,52	4,4	3,97	11,6	3,9	0,2
			11T304-A1	9,52	4,4	3,97	11,6	3,5	0,4
			11T308-A1	9,52	4,4	3,97	11,6	3,0	0,8
			150404-A1	12,70	5,5	4,76	15,5	3,5	0,4
		150408-A1	12,70	5,5	4,76	15,5	3,0	0,8	

dia	ond tools	<b>DCMW</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
			11T302-A2	9,52	4,4	3,97	11,6	5,6	0,2
			11T304-A2	9,52	4,4	3,97	11,6	5,5	0,4
			11T308-A2	9,52	4,4	3,97	11,6	5,0	0,8
			150404-A2	12,70	5,5	4,76	15,5	5,5	0,4
			150408-A2	12,70	5,5	4,76	15,5	5,0	0,8

dia	ond tools	<b>DCMW</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
			070202-A3	6,35	2,8	2,38	7,75	3,9	0,2
			070204-A3	6,35	2,8	2,38	7,75	3,5	0,4
			070208-A3	6,35	2,8	2,38	7,75	3,0	0,8
			11T302-A3	9,52	4,4	3,97	11,6	3,9	0,2
			11T304-A3	9,52	4,4	3,97	11,6	3,5	0,4
			11T308-A3	9,52	4,4	3,97	11,6	3,0	0,8

dia	ond tools	<b>DNMA</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
			110402-A1	9,52	3,81	4,76	11,6	3,9	0,2
			110404-A1	9,52	3,81	4,76	11,6	3,5	0,4
			110408-A1	9,52	3,81	4,76	11,6	3,0	0,8
			150402-A1	12,70	5,13	4,76	15,5	3,9	0,2
			150404-A1	12,70	5,13	4,76	15,5	3,5	0,4
			150408-A1	12,70	5,13	4,76	15,5	3,0	0,8
			150604-A1	12,70	5,13	6,35	15,5	3,5	0,4
			150608-A1	12,70	5,13	6,35	15,5	3,0	0,8

# Inserts in **PCD/CBN**

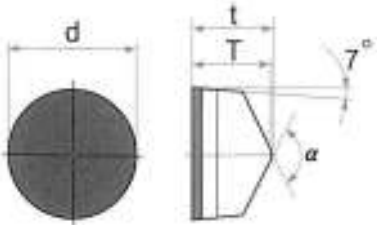
diamond tools	<b>EPMT</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		040202-A1	4,76	2,15	2,38	4,8	3,9	0,2
		040204-A1	4,76	2,15	2,38	4,8	3,5	0,4
		050208-A1	5,56	2,4	2,38	5,7	3,0	0,8
		050202-A1	5,56	2,4	2,38	5,7	3,9	0,2
		060202-A1	6,35	2,8	2,38	6,5	3,5	0,2
		060204-A1	6,35	2,8	2,38	6,5	3,0	0,4

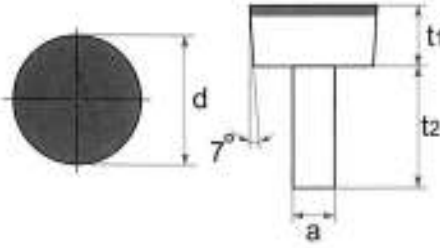
diamond tools	<b>EPMW</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		040202-A1	4,76	2,15	2,38	4,8	2,5	0,2
		040204-A1	4,76	2,15	2,38	4,8	2,2	0,4
		050202-A1	5,56	2,4	2,38	5,7	2,7	0,2
		050204-A1	5,56	2,4	2,38	5,7	2,4	0,4
		060202-A1	6,35	2,8	2,38	6,5	3,4	0,2
		060204-A1	6,35	2,8	2,38	6,5	3,1	0,4
		080302-A1	7,94	3,4	3,18	8,3	3,4	0,2
		080304-A1	7,94	3,4	3,18	8,3	3,1	0,4
	080308-A1	7,94	3,4	3,18	8,3	2,8	0,8	

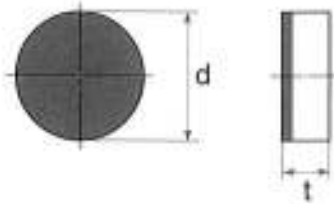
diamond tools	<b>RNGN</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		090300-VM	9,52	-	3,18	-	-	-
		120400-VM	12,70	-	4,76	-	-	-

diamond tools	<b>RNMA</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		090300-VM	9,52	3,81	3,18	-	-	-
		120400-VM	12,70	5,13	4,76	-	-	-

# Inserts in **PCD/CBN**

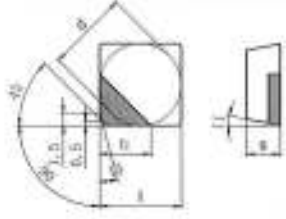
diamond tools	<b>RCGX</b>	TYPE	d	T	t	a
		RCGX 060600 F	6,35	6,35	6,20	120°
		RCGX 096700 F	9,52	7,94	7,70	120°
		RCGX 120700 F	12,70	7,94	7,70	120°

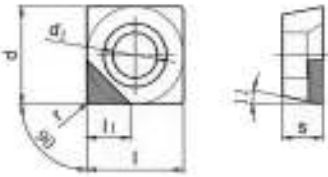
diamond tools	<b>RCGX</b>	TYPE	d	t <sub>1</sub>	t <sub>2</sub>	a
		RCGX 0600 F	6,35	5,00	8,35	3,00
		RCGX 0900 F	9,52	6,00	20,00	4,00
		RCGX 1200 F	12,70	6,00	20,00	5,88

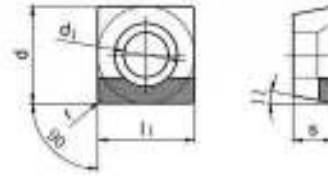
diamond tools	<b>RNGN</b>	TYPE	d	t
		RNGN 090300 F	9,52	3,18
		RNGN 120400 F	12,70	4,76

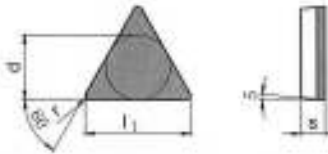


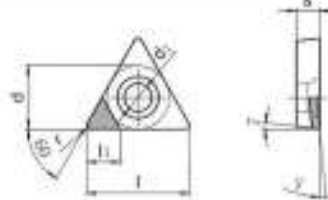
# Inserts in **PCD/CBN**

diamond tools	<b>SPKN..ED R</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		1203-ED RT	12,70	-	3,18	12,7	4,0	-


diamond tools	<b>SPMW</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		09T304-A1	9,52	4,4	3,97	9,52	3,5	0,4
		09T308-A1	9,52	4,4	3,97	9,52	3,4	0,8
		120404-A1	12,70	5,13	4,76	12,7	3,5	0,4
		120408-A1	12,70	5,13	4,76	12,7	3,4	0,8
		120412-A1	12,70	5,13	4,76	12,7	3,2	1,2

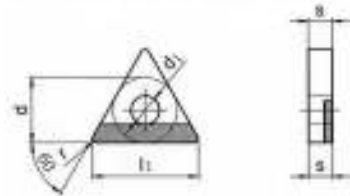
diamond tools	<b>SPMW</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		09T304-GS	9,52	4,4	3,97	-	9,52	0,4
		09T308-GS	9,52	4,4	3,97	-	9,52	0,8

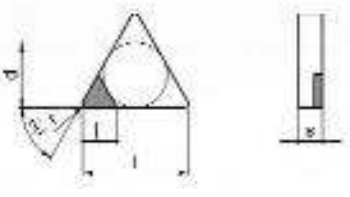
diamond tools	<b>TBGN</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		060102-FF	3,97	-	1,59	-	6,5	0,2
		060104-FF	3,97	-	1,59	-	6,5	0,4
		060108-FF	3,97	-	1,59	-	6,5	0,8

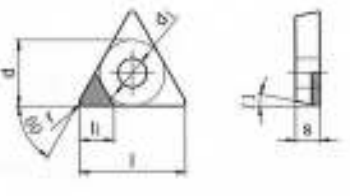
diamond tools	<b>TCMT</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		090202-A1	5,56	2,5	2,38	9,6	3,5	0,2
		090204-A1	5,56	2,5	2,38	9,6	3,0	0,4
		110202-A1	6,35	2,8	2,38	11,0	3,5	0,2
		110204-A1	6,35	2,8	2,38	11,0	3,0	0,4

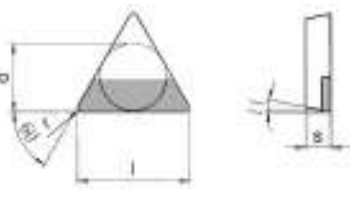
# Inserts in **PCD/CBN**

diamond tools	<b>TNMA</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		160404-A2	9,52	3,81	4,76	16,5	5,5	0,4
		160408-A2	9,52	3,81	4,76	16,5	5,0	0,8
		160412-A2	9,52	3,81	4,76	16,5	4,5	1,2

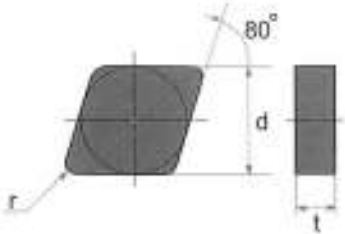
diamond tools	<b>TNMA</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		160404-GS	9,52	3,81	4,76	-	16,5	0,4
		160412-GS	9,52	3,81	4,76	-	16,5	1,2

diamond tools	<b>TNMM</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		160408-GS	9,52	-	4,76	-	16,5	0,8
		160412-GS	9,52	-	4,76	-	16,5	1,2

diamond tools	<b>TPGA</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		110302-A1	6,35	3,4	3,18	11,0	3,8	0,2
		110304-A1	6,35	3,4	3,18	11,0	3,5	0,4
		110308-A1	6,35	3,4	3,18	11,0	3,0	0,8

diamond tools	<b>TPGN</b>	TYPE	d	d <sub>1</sub>	s	l	l <sub>1</sub>	r
		110304-GS	6,35	-	3,18	-	11,0	0,4
		110308-GS	6,35	-	3,18	-	11,0	0,8
		110312-GS	6,35	-	3,18	-	11,0	1,2
		160304-GS	9,52	-	3,18	-	16,5	0,4
		160308-GS	9,52	-	3,18	-	16,5	0,8
		160312-GS	9,52	-	3,18	-	16,5	1,2

# Solid in **CBN**


diamond tools	<b>CNGN</b>	TYPE	d	t	r
		CNGN 090308 S	9,52	3,18	0,8
		CNGN 090312 S	9,52	3,18	1,2
		CNGN 090316 S	9,52	3,18	1,6
		CNGN 120408 S	12,70	4,76	0,8
		CNGN 120412 S	12,44	4,76	1,2
		CNGN 120308 S	12,70	4,76	1,6
		CNGN 120416 S			

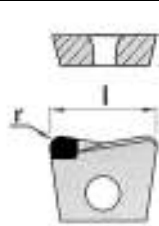
diamond tools	<b>RNGN</b>	TYPE	d	t
		RNGN 090300 S	9,52	3,18
		RNGN 120300 S	12,70	3,18
		RNGN 120400 S	12,70	4,76

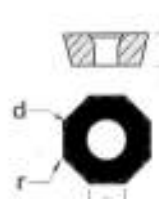
diamond tools	<b>SNGN</b>	TYPE	d	t	r
		SNGN 090308 S	9,52	3,18	0,8
		SNGN 090312 S	9,52	3,18	1,2
		SNGN 090316 S	9,52	3,18	1,6
		SNGN 120308 S	12,70	3,18	0,8
		SNGN 120312 S	12,70	3,18	1,2
		SNGN 120316 S	12,70	3,18	1,6
		SNGN 120308 S	12,70	4,76	0,8
		SNGN 120312 S	12,70	4,76	1,2

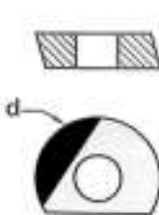
diamond tools	<b>TNGN</b>	TYPE	d	t	r
		TNGN 110308 S	6,35	3,18	0,8
		TNGN 110312 S	6,35	3,18	1,2
		TNGN 160408 S	9,52	4,76	0,8
		TNGN 160412 S	9,52	4,76	1,2
		TNGN 160416 S	9,52	4,76	1,6

# Inserts in **PCD/CBN**

diamond tools	<b>APHT-AL</b>	TYPE	l	s	d	r
		APKT 1003DR	9,25	3,18	6,35	0,4
		APKT 1003PDTR	9,25	3,18	6,35	0,4
		APKT 1604PDR	16,00	4,76	9,52	0,8
		APKT 160416	16,00	4,76	9,52	1,6

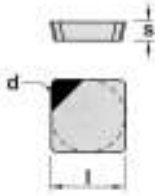
diamond tools	<b>MTK</b>	TYPE	l	s	d	r
		MTK 10	10,00	2,60	-	0,60
		MTK 12	12,00	3,00	-	1,00
		MTK 16	16,00	4,00	-	1,30
		MTK 20	20,00	5,00	-	1,60
		MTK 25	25,00	6,00	-	2,00

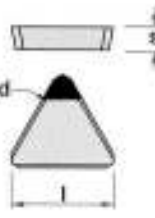
diamond tools	<b>ODMW</b>	TYPE	l	s	d	r
		ODMW 040408	4,00	4,76	12,70	0,8
		ODMW 060508	6,00	5,55	16,00	0,8
		ODMW 060512	6,00	5,55	16,00	1,2

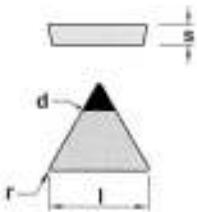
diamond tools	<b>RPR</b>	TYPE	l	s	d	r
		RPR 10	-	2,60	10,00	-
		RPR 12	-	3,00	12,00	-
		RPR 16	-	4,00	16,00	-
		RPR 20	-	5,00	20,00	-
		RPR 25	-	6,00	25,00	-
		RPR 32	-	7,00	32,00	-

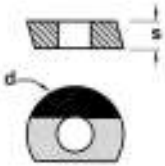
diamond tools	<b>SEHW</b>	TYPE	l	s	d	r
		SEHW 1204AFEN001	12,70	4,76	12,70	-
		SEHW 1204AFSN151	12,70	4,76	16,00	-

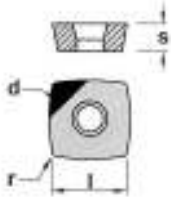
# Inserts in **PCD/CBN**

diamond tools	<b>SPKN</b>	TYPE	l	s	d	r
		SPKN1203EDER-3A	12,70	3,18	12,70	-
		SPKN1203EDSR-3C	12,70	3,18	12,70	-
		SPKN1203EDTR	12,70	3,18	12,70	-
		SPKN1504EDSR-2F	15,88	4,76	15,882	-

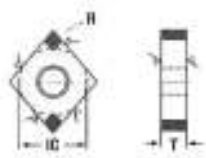
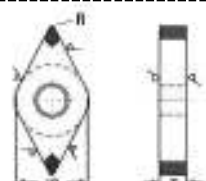
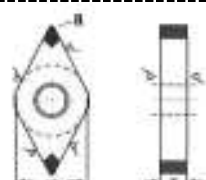
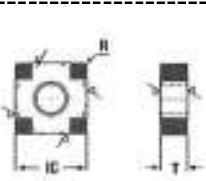
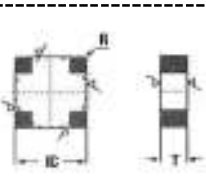
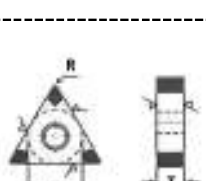
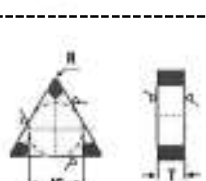
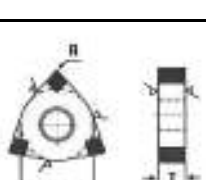
diamond tools	<b>TPKN</b>	TYPE	l	s	d	r
		TPKN 1103PPSN-1C	11,00	3,18	6,35	-
		TPKN 1603PDER-1A	16,50	3,18	9,52	-
		TPKN 1603PDSR-1C	16,50	3,18	9,52	-
		TPKN 2204PDER-1A	22,00	4,76	12,70	-
		TPKN 2204PDSR-1F	22,00	4,76	15,70	-

diamond tools	<b>TPUN</b>	TYPE	l	s	d	r
		TPUN110208E	11,00	2,38	6,35	0,8
		TPUN110304E	11,00	3,18	6,35	0,4
		TPUN110208E	11,00	3,18	6,35	0,8
		TPUN160304E	16,50	3,18	9,52	0,4
		TPUN160308E	16,50	3,18	9,52	0,8
		TPUN160312E	16,50	3,18	9,52	1,2
		TPUN220408E	22,00	4,76	12,7	0,8
		TPUN220412E	22,00	4,73	12,700	1,2

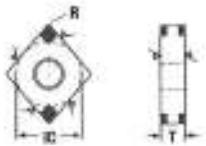
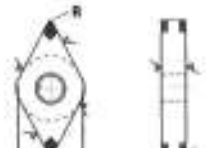
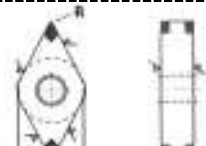
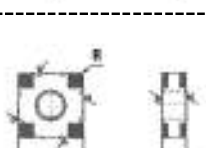
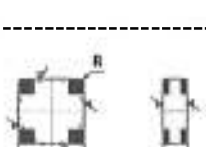



diamond tools	<b>WPR</b>	TYPE	l	s	d	r
		WPR10	-	2,40	10,00	-
		WPR12	-	2,50	12,00	-
		WPR16	-	3,00	16,00	-
		WPR20	-	3,00	20,00	-
		WPR25	-	4,00	25,00	-
		WPR32	-	5,00	32,00	-

diamond tools	<b>XDKW</b>	TYPE	l	s	d	r
		XDKW 090430	9,00	4,76	9,00	0,8
		XDKW 120430	12,50	4,76	12,50	0,8

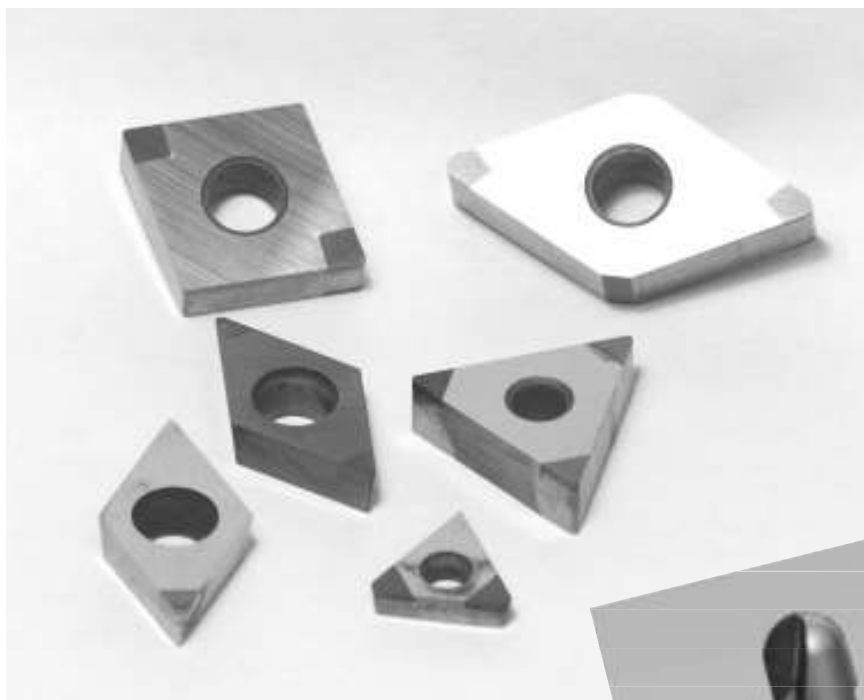
# Solid Inserts in **CBN**

diamond tools	Shape	Nomenclature		Dimensions (mm)			
		ANSI	ISO	IC +0.02	T ±0.02	R ±0.02	Cutting Corners
	C.80° Rhombic	CNGA-431	CNGA 120404	12.70	4.78	0.4	4
		CNGA-432	CNGA 120408	12.70	4.78	0.8	4
		CNGA-433	CNGA 120412	12.70	4.78	1.2	4
	D.55° Rhombic	DNGA-431	DNGA 150404	12.70	4.78	0.4	4
		DNGA-432	DNGA 150408	12.70	4.78	0.8	4
		DNGA-433	DNGA 150412	12.70	4.78	1.2	4
	D.55° Rhombic	DNGA-441	DNGA 150604	12.70	6.38	0.4	4
		DNGA-442	DNGA 150608	12.70	6.38	0.8	4
		DNGA-443	DNGA 150612	12.70	6.38	1.2	4
	S.90° Square	SNGA-431	SNGA 120404	12.70	4.78	0.4	8
		SNGA-432	SNGA 120408	12.70	4.78	0.8	8
		SNGA-433	SNGA 120412	12.70	4.78	1.2	8
	S.90° Square	SNGN-431	SNGN 120404	12.70	4.78	0.4	8
		SNGN-432	SNGN 120408	12.70	4.78	0.8	8
		SNGN-433	SNGN 120412	12.70	4.78	1.2	8
	T.60° Triangle	TNGA-331	TNGA 160404	9.52	4.78	0.4	6
		TNGA-332	TNGA 160408	9.52	4.78	0.8	6
		TNGA-333	TNGA 160412	9.52	4.78	1.2	6
	T.60° Triangle	TNGN-331	TNGN 160404	9.52	4.78	0.4	6
		TNGN-332	TNGN 160408	9.52	4.78	0.8	6
		TNGN-333	TNGN 160412	9.52	4.78	1.2	6
	VL.80° Rhombic	WNGA-431	WNGA 080404	12.70	4.78	0.4	6
		WNGA-432	WNGA 080408	12.70	4.78	0.8	6
		WNGA-433	WNGA 080412	12.70	4.78	1.2	6

# Double Sided CBN

Shape	Nomenclature		Dimensions (mm)				Cutting Corners
	ANSI	ISO	IC +0.02	T ±0.02	R ±0.02		
	CNGA-431	CNGA 120404	12.70	4.78	0.4	4	
	CNGA-432	CNGA 120408	12.70	4.78	0.8	4	
	CNGA-433	CNGA 120412	12.70	4.78	1.2	4	
	DNGA-431	DNGA 150404	12.70	4.78	0.4	4	
	DNGA-432	DNGA 150408	12.70	4.78	0.8	4	
	DNGA-433	DNGA 150412	12.70	4.78	1.2	4	
	DNGA-441	DNGA 150604	12.70	6.38	0.4	4	
	DNGA-442	DNGA 150608	12.70	6.38	0.8	4	
	DNGA-443	DNGA 150612	12.70	6.38	1.2	4	
	SNGA-431	SNGA 120404	12.70	4.78	0.4	8	
	SNGA-432	SNGA 120408	12.70	4.78	0.8	8	
	SNGA-433	SNGA 120412	12.70	4.78	1.2	8	
	SNGN-431	SNGN 120404	12.70	4.78	0.4	8	
	SNGN-432	SNGN 120408	12.70	4.78	0.8	8	
	SNGN-433	SNGN 120412	12.70	4.78	1.2	8	
	TNGA-331	TNGA 160404	9.52	4.78	0.4	6	
	TNGA-332	TNGA 160408	9.52	4.78	0.8	6	
	TNGA-333	TNGA 160412	9.52	4.78	1.2	6	
	TNGN-331	TNGN 160404	9.52	4.78	0.4	6	
	TNGN-332	TNGN 160408	9.52	4.78	0.8	6	
	TNGN-333	TNGN 160412	9.52	4.78	1.2	6	
	WNGA-431	WNGA 080404	12.70	4.78	0.4	6	
	WNGA-432	WNGA 080408	12.70	4.78	0.8	6	
	WNGA-433	WNGA 080412	12.70	4.78	1.2	6	

# FRÉZY, VRTÁKY A NOŽE Z PCD A CBN.



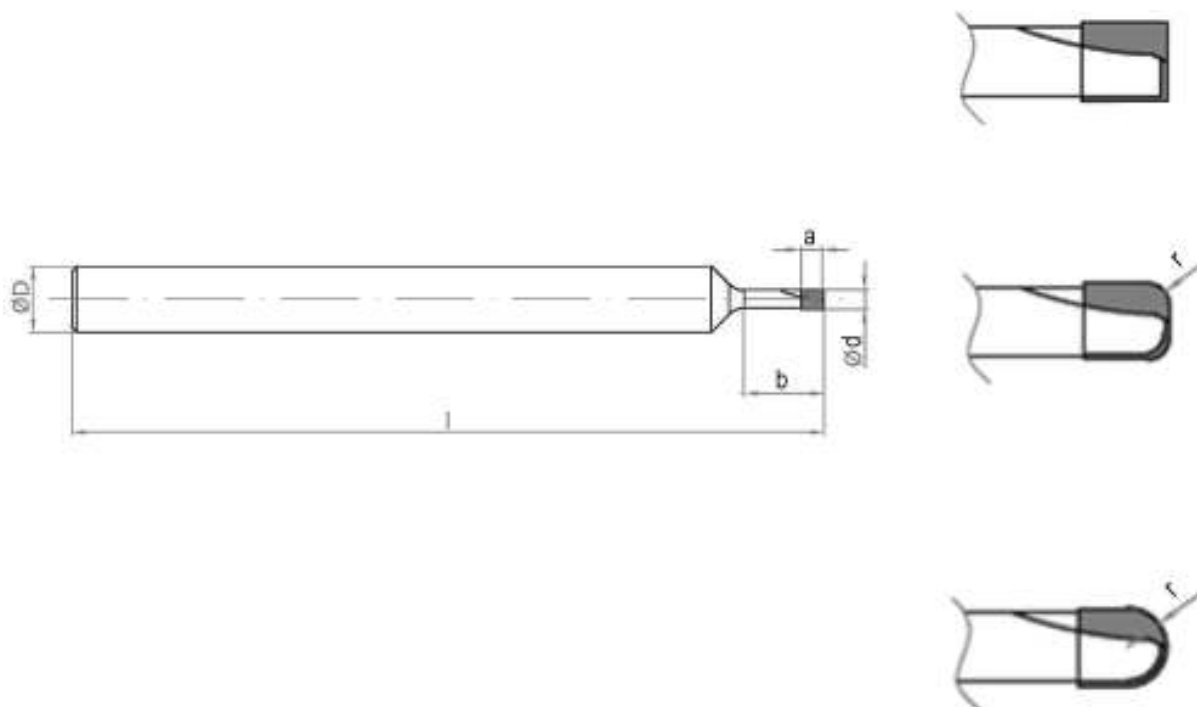


diamond tools

EN In Two versions: 1) Micro End Mill with body in solid carbide and head in PCD for high speed machining of aluminium, non ferrous alloys, presintered materials and plastic composite materials. 2) Micro End Mill with body in solid carbide and head in CBN for high speed machining of tempered steels, super alloys and cast iron. These end mills are available from dia.1 to 2,5. Z2 cutting edges

IT *Micro-Fresa con corpo in metallo duro e cuspidi PCD per lavorazione ad alta velocità di alluminio, leghe non-ferrose, presinterizzati e materie plastiche composite. Oppure con cuspidi in CBN per lavorazione ad alta velocità di acciai temprati superleghe e ghise. Disponibili diametri da Ø1-Ø2,5. Taglienti Z2.*

Micro End Mills in solid carbide with head in PCD or CBN



diamond tools

CODE	Ø d	a	b	l	Ø D	r
CGM0001	da 1.0 a 2.5	1	da 2 a 16	60	o 2 o 6	-
CGM0002	da 1.0 a 2.5	1	da 2 a 16	60	o 2 o 6	da 0.05 a 0.5
CGM0001	da 1.0 a 2.5	1	da 2 a 16	60	o 2 o 6	Ø d / 2

diamond tools

EN Flat Head End Mill with body in solid carbide and plates in PCD for high speed milling of pockets, slots, contouring etc.. of aluminium, non ferrous alloys, presintered materials and plastic composite materials or with plates in CBN for high speed machining of tempered steels, super alloys and cast iron.

IT Fresa piatta con corpo in metallo duro e placchette PCD per lavorazione di contornatura, svuotamento tasche ecc., ad alta velocità di alluminio, leghe non-ferrose, presinterizzati e materie plastiche composite, oppure con placchette in CBN per lavorazione ad alta velocità di acciai temprati superleghe e ghise.

Flat Head End Mills in solid carbide with plates in PCD or CBN



diamond tools

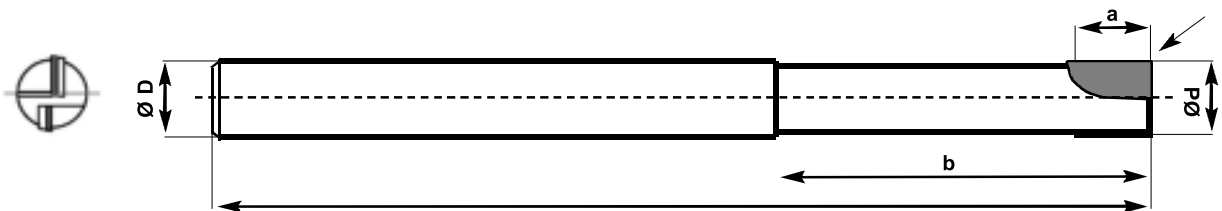
CODE	Ø	a	b	l	Ø D	Z
CGM0004	2	5	15	60	6	1
CGM0005	3	5	15	60	6	2
CGM0006	4	5,5	30	75	6	2
CGM0007	6	6	30	75	6	$\frac{2}{3}$
CGM0008	8	8	30	75	8	$\frac{2}{3}$
CGM0009	10	10	45	100	10	$\frac{2}{3}$
CGM0010	12	12	45	100	12	$\frac{2}{3}$
CGM0011	16	14	45	100	16	$\frac{2}{3}$
CGM0012	20	16	45	100	20	$\frac{2}{3}$
CGM0013	25	18	45	120	25	$\frac{2}{3}$

diamond tools

EN Fresa torica con corpo in metallo duro e placchette PCD per lavorazione di contornatura, svuotamento tasche ecc., ad alta velocità di alluminio, leghe non-ferrose, presinterizzati e materie plastiche composite, oppure con placchette in CBN per lavorazione ad alta velocità di acciai temprati superleghe e ghise.

IT Fresa piatta con corpo in metallo duro e placchette PCD per lavorazione di contornatura, svuotamento tasche ecc., ad alta velocità di alluminio, leghe non-ferrose, presinterizzati e materie plastiche composite, oppure con placchette in CBN per lavorazione ad alta velocità di acciai temprati superleghe e ghise.

Toric End Mills in solid carbide with plates in PCD or CBN



diamond tools

CODE	Ø d	a	b	l	Ø D	R	Z
CGM0014	2	5	15	60	6	0,25	1
CGM0015	3	5	15	60	6	0,25	2
CGM0016	4	5,5	30	75	6	—	2
CGM0017	6	6	30	75	6	$\frac{0,5}{1}$	2
CGM0018	8	8	30	75	8	$\frac{0,5}{1}$	2
CGM0019	10	10	45	100	10	$\frac{0,5}{1}$	2
CGM0020	12	12	45	100	12	$\frac{0,5}{1,5}$	2
CGM0021	16	14	45	100	16	—	2
CGM0022	20	16	45	100	20	—	4
CGM0023	25	18	45	120	25	$\frac{1}{0,5}$	4

diamond tools

EN Ball Nose End Mill with body in solid carbide and cuttings in PCD for high speed 3D machining of aluminium, non ferrous alloys, presintered materials and plastic composite materials, or with plates in CBN for high speed machining of tempered steels, super alloys and cast iron.

IT Fresa sferica con corpo in metallo duro e placchette in PCD per lavorazioni 3D ad alta velocità di alluminio, leghe ferrous alloys, presintered materials and plastic composite materials, or with plates in CBN for high speed machining of tempered steels, super alloys and cast iron.

Flat Head End Mills in solid carbide with plates in PCD or CBN



diamond tools

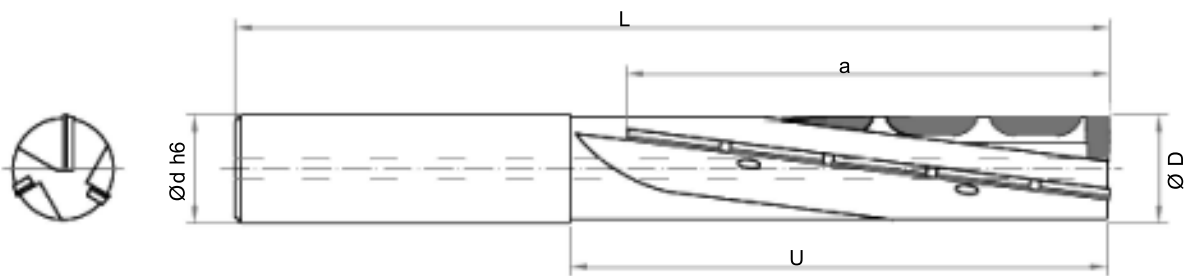
CODE	Ø d	a	b	l	Ø D	R	Z
CGM0024	2	5	15	60	6	Ød/2	1
CGM0025	3	5	15	60	6	Ød/2	2
CGM0026	4	5,5	30	75	6	Ød/2	2
CGM0027	6	6	30	75	6	Ød/2	2
CGM0028	8	8	30	75	8	Ød/2	2
CGM0029	10	10	45	100	10	Ød/2	2
CGM0030	12	12	45	100	12	Ød/2	2
CGM0031	16	14	45	100	16	Ød/2	2
CGM0032	20	16	45	100	20	Ød/2	2

diamond tools

EN Twist End Mill with body in solid carbide and cuttings in PCD with center cutting edge, designed for counter-boring operations with high cutting depth on aluminium, non ferrous alloys, presintered materials and plastic composite materials, or with plates in CBN for high speed machining of tempered steels, super alloys and cast iron.

IT Fresa elicoidale con corpo in metallo duro e placchette PCD, con tagliente al centro e lubrificazione interna, adatta principalmente per lavorazione di contornatura con elevata profondità di taglio. Lavorazione ad alta velocità di alluminio, leghe non-ferrose, presinterizzati e materie plastiche composite, oppure con placchette in CBN per lavorazione ad alta velocità di acciai temprati superleghe e ghise.

Twist End Mills in solid carbide with plates in PCD or CBN



diamond tools

CODE

Ø d

a

U

L

Ø D

R

PCD

CBN

FE + Ød + a + U + L + ØD + R + Z + PCD o CBN

Two flute

twist drills

# PCD/CBN

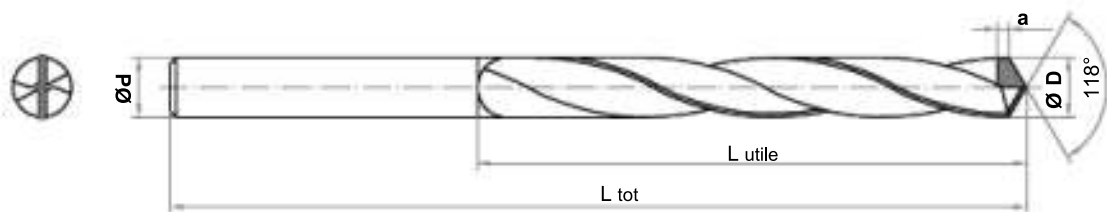
Punte

diamond tools

EN Two flute twist drills with body in solid carbide and head in PCD fitting for drilling non ferrous alloys sintered materials, plastic composite materials, glass fibre and carbon fibre, or with head in CBN for speed machining of tempered steels, super alloys and cast iron.

IT *Punte in elica con corpo in metallo duro e cuspidi in PCD adatta principalmente alla foratura di leghe ferrose, presinterizzati, materie plastiche composite, fibra di vetro e fibra di carbonio, oppure con cu in CBN per lavorazione ad alta velocità di acciai temprati superleghe e ghise.*

DIN 1897 / 338 / 340



diamond tools

**DIN 1897**

Ø D	Ø d	L tot	L utile	a
1,50—1,99	1,50	32	9	1
2,00—2,49	2,00	38	12	1
2,50—2,99	2,50	43	14	1
3,00—3,49	3,00	46	16	1,6
3,50—3,99	3,50	52	20	1,6
4,00—4,49	4,00	55	22	2
4,50—4,99	4,50	58	24	2
5,00—5,49	5,00	62	26	2
5,50—5,99	5,50	66	28	2
6,00—6,49	6,00	66	28	2,7
6,50—6,99	6,50	70	31	2,7
7,00—7,49	7,00	74	34	2,7
7,50—7,99	7,50	74	34	2,7
8,00—8,49	8,00	79	37	2,7
8,50—8,99	8,50	79	37	2,7
9,00—9,49	9,00	84	40	2,7
9,50—9,99	9,50	84	40	2,7
10,00—10,49	10,00	89	43	2,7
10,50—10,99	10,50	89	43	2,7
11,00—11,49	11,00	95	47	2,7
11,50—11,99	11,50	95	47	2,7
12,00—12,49	11,00	102	51	2,7
14,00—14,50	14,00	107	54	3
16,00—16,50	16,00	115	58	3

**DIN 338**

Ø D	Ø d	L tot	L utile	a
1,50—1,99	1,50	40	18	1
2,00—2,49	2,00	49	24	1
2,50—2,99	2,50	57	30	1
3,00—3,49	3,00	61	33	1,
3,50—3,99	3,50	70	39	1,
4,00—4,49	4,00	75	43	2
4,50—4,99	4,50	80	47	2
5,00—5,49	5,00	86	52	2
5,50—5,99	5,50	93	57	2
6,00—6,49	5,50	93	57	2
6,50—6,99	6,00	101	63	2,7
7,00—7,49	6,50	109	69	2,7
7,50—7,99	6,50	109	69	2,7
8,00—8,49	7,00	117	75	2,7
8,50—8,99	7,50	117	75	2,7
9,00—9,49	8,00	125	81	2,7
9,50—9,99	8,00	125	81	2,7
10,00—10,49	9,00	133	87	2,7
10,50—10,99	9,50	133	87	2,7
11,00—11,49	10,00	142	94	2,7
11,50—11,99	10,50	142	94	2,7
12,00—12,49	11,00	151	101	2,7
14,00—14,50	14,00	160	108	3
16,00—16,50	16,00	178	120	3

diamond tools

**DIN 340**

Ø D	Ø d	L tot	L utile	a
1,50—1,99	1,50	75	30	1
2,00—2,49	2,00	75	30	1
2,50—2,99	2,50	100	35	1
3,00—3,49	3,00	100	50	1,6
3,50—3,99	3,50	100	50	1,6
4,00—4,49	4,00	100	50	2
4,50—4,99	4,50	100	50	2
5,00—5,49	5,00	150	75	2
5,50—5,99	5,50	150	75	2
6,00—6,49	6,00	150	75	2,7
6,50—6,99	6,50	150	75	2,7
7,00—7,49	7,00	150	75	2,7

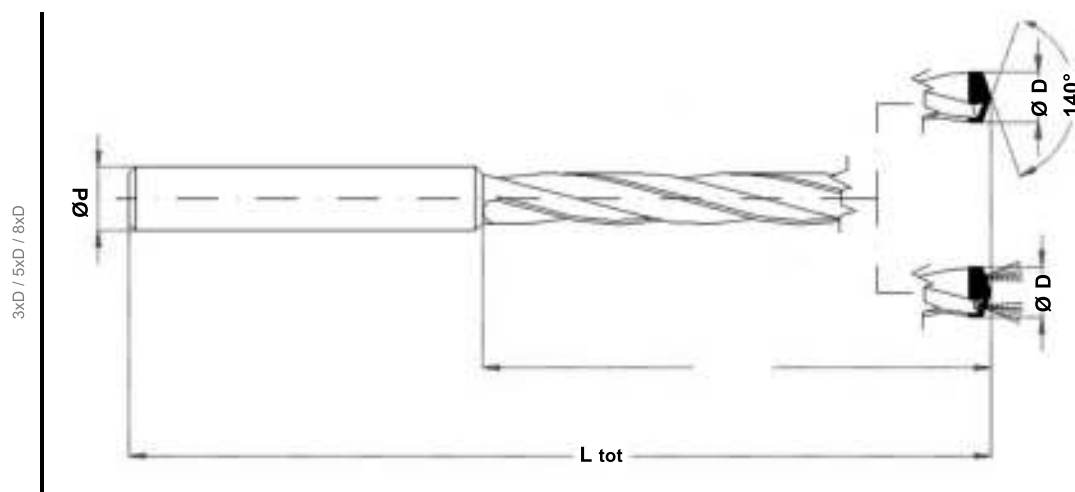
Ø D	Ø d	L tot	L utile	a
7,50—7,99	6,50	150	75	2,7
8,00—8,49	7,00	150	75	2,7
8,50—8,99	7,50	150	75	2,7
9,00—9,49	8,00	150	75	2,7
9,50—9,99	8,00	150	75	2,7
10,00—10,49	10,00	150	75	2,7
10,50—10,99	10,50	133	90	2,7
11,00—11,49	11,00	142	90	2,7
11,50—11,99	11,50	142	90	2,7
12,00—12,49	12,00	151	90	2,7
14,00—14,50	12,50	200	90	2,7
16,00—16,50	16,00	178	90	3

# Two flute twist drills PCD/CBN

diamond tools

EN Two flute twist drills with body in solid carbide  
option of inner cooling for 5xD and 8xD drills, the  
sintered materials, plastic composite materials, g  
speed machining of tempered steels, super alloy

IT *Punte in elica con corpo in metallo duro e cuspid  
cazione per le misure 5xD e 8xD, adatta principa  
ti, materie plastiche composite, fibra di vetro e fi  
zione ad alta velocità di acciai temprati superleg*



	Codice	Ø D	Ø d	L utile	L tot
diamond tools	CGM00034	3.0 - 3.7	6,0	20	62
	CGM00035	3.8 - 4.7	6,0	24	66
	CGM00036	4.8 - 6.0	6,0	28	66
	CGM00037	6.1 - 8.0	8,0	34	79
	CGM00038	8.1 - 10.0	10,0	47	89
	CGM00039	10.1 - 12.0	12,0	55	102
	CGM00040	12.1 - 14.0	14,0	55	102
	CGM00041	14.1 - 16.0	16,0	65	115
	CGM00042	16.1 - 18.0	18,0	73	123
	CGM00043	18.1 - 20.0	20,0	79	131

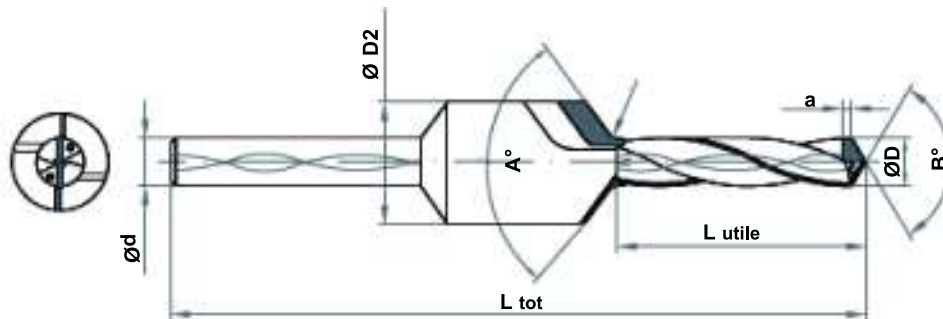
	Codice	Ø D	Ø d	L utile	L tot
diamond tools	CGM00054	3.0 - 3.7	6,0	34	72
	CGM00055	3.8 - 4.7	6,0	43	81
	CGM00056	4.8 - 6.0	6,0	57	95
	CGM00057	6.1 - 8.0	8,0	76	114
		8.1 - 10.0	10,0	95	142
	10.1 - 12.0	12,0	114	162	

diamond tools

EN Twist drills with body in solid carbide and head in PCD, with the option of inner cooling and countersink with brazed plates in PCD. These drills are designed for drilling non ferrous alloys, presintered materials, plastic composite materials, glass fibre and carbon, or with head in CBN for high speed machining of tempered steels, super alloys and cast iron.

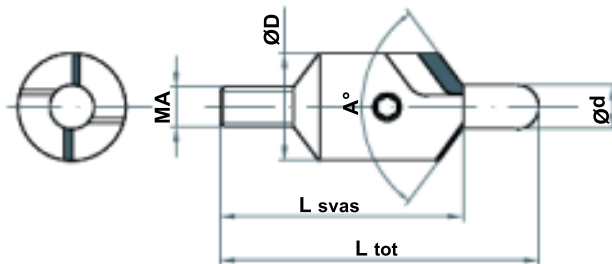
IT Punte in elica con corpo in metallo duro e cuspide in PCD, con possibilità fori di lubrificazione e svasatura in acciaio con placchette in PCD, saldobrasato sulla punta. Utensile adatto principalmente alla foratura di leghe non-ferrose, presinterizzati, materie plastiche composite, fibra di vetro e fibra di carbonio, oppure con cuspide in CBN per lavorazione ad alta velocità di acciai temprati superleghe e ghise.

Twist drills in solid carbide with head in PCD or in CBN



diamond tools

ØD B° a L utile R A° Ød2 Ød L tot



diamond tools

ØD A° Ød MA L svas L tot



# TOOLS PCD/CBN

diamond tools	<b>TR-A</b>	TYPE	ØDH6	L	H	h	E	R
		TR-A04	4	16	3.5	3	2	0.2
		TR-A05	5	20	4.5	3.5	2.5	0.2
		TR-A06	6	25	5.5	4	3	0.4
		TR-A08	8	35	7.5	6	4	0.4
		TR-A10	10	50	9.5	7	5	0.4

diamond tools	<b>TR-B</b>	TYPE	ØDH6	L	H	h	E	R
		TR-B04	4	16	3.5	3	2	0.2
		TR-B05	5	20	4.5	3.5	2.5	0.2
		TR-B06	6	25	5.5	4	3	0.4
		TR-B08	8	35	7.5	6	4	0.4
		TR-B10	10	50	9.5	7	5	0.4

diamond tools	<b>VCMW</b>	TYPE	ØDH6	L	H	h	E	R
		TR-C04	4	16	3.5	3	0.3	0.2
		TR-C05	5	20	4.5	3.5	0.3	0.2
		TR-C06	6	25	5.5	4	0.5	0.4
		TR-C08	8	35	7.5	6	0.5	0.4
		TR-C10	10	50	9.5	7	0.5	0.4

# TOOLS PCD/CBN

diamond tools	TR-D	TYPE	ØDH6	L	H	h	R
		TR-D03	3	10	2.5	2	0.2
		TR-D04	4	10	3.5	2.5	0.2
		TR-D05	5	10	4.5	3	0.4
		TR-D06	6	10	5.5	3.2	0.4
		TR-D08	8	10	7.5	4.2	0.4

diamond tools	VCMT	TYPE	ØDH6	L	H	h	R
		TR-F04	4	65	3.2	2.3	0.2
		TR-F05	5	70	4	2.8	0.2
		TR-F06	6	80	5	3.3	0.4
		TR-F08	8	85	7	4.3	0.4
		TR-F10	10	100	9	5.3	0.4
		TR-F12	12	100	11	6.3	0.4

# TOOLS *PCD/CBN*

diamond tools	<i>HUB TOOL</i>	TYPE	H	L	W	R
		E20	3.5	10	2	0.2
		E30	3.5	10	3	0.2
		E40	4.0	10	4	0.2
		E50	4.5	12	5	0.2

diamond tools	<i>HUB TOOL</i>	TYPE	H	L	W	R
		R30	3.5	10	3	1.5
		R40	4.0	10	4	2.0
		R50	4.5	12	5	2.5

diamond tools	<i>HUB TOOL</i>	TYPE	H	L	W	R
		K1	12	32	5	60°
		K2	12	32	5	90°
		K3	12	32	5	120°
		K4	12	32	5	150°

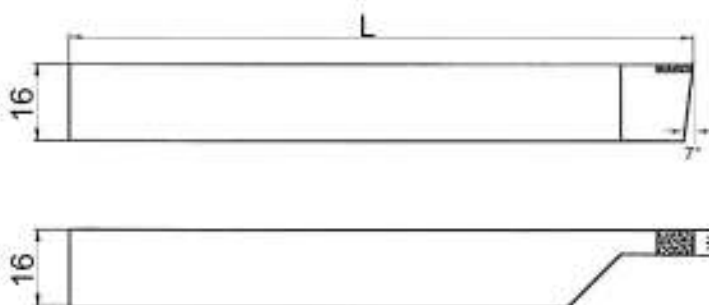
# TOOLS *PCD/CBN*

diamond tools

## GROOVING TOOL



TYPE	L	W	R
R/W2	100	100	0.2
R/W3	100	100	0.2
R/W4	100	100	0.2
R/W5	100	100	0.2
R/W6	100	100	0.2

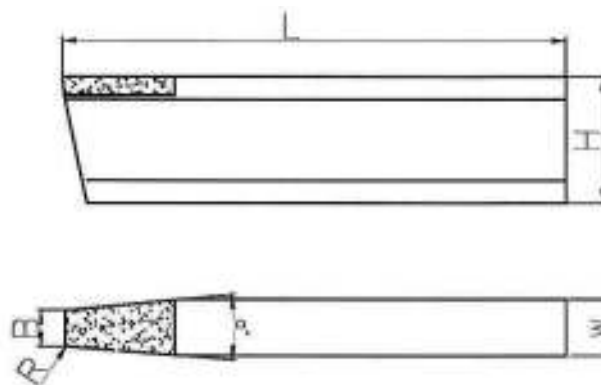


diamond tools

## GROOVING TOOL



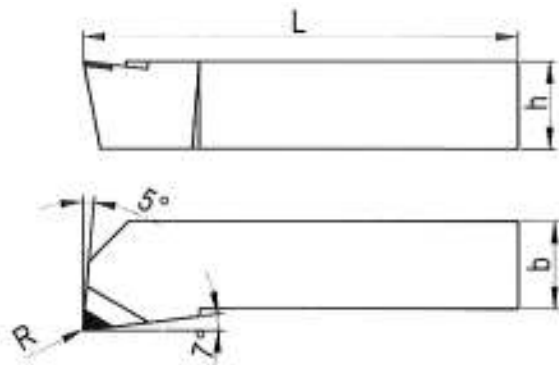
TYPE	H	L	W	R	
ZR2	16	60	2	---	0.2
ZR3	16	60	3	---	0.2
ZR4	16	60	4	---	0.2
Zr5	16	60	5	---	0.2



# TOOLS PCD/CBN

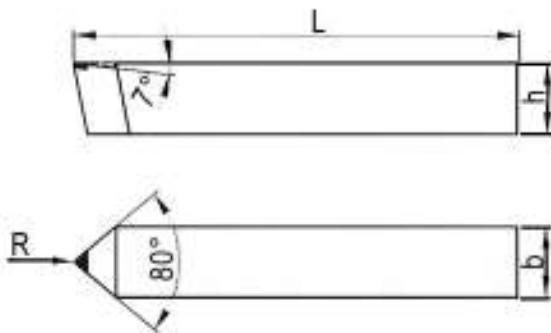
diamond tools

TYPE	h	L	b	R
16X16/100	16	100	16	0.2
20X20/125	20	125	20	0.4
25X25/125	25	125	25	0.4



diamond tools

TYPE	h	L	b	R
16X16/100	16	10	16	0.2
20X20/125	20	10	20	0.4
25X25/125	25	10	25	0.4



## V NAŠEJ PONUKE NÁJDETE:



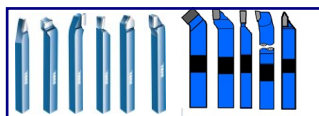
Vrtáky, výhrubníky, výstružníky, záhlbníky z HSS, HSSE, HSS-PM, TK ....



Frézy z HSS, HSSE, HSS-PM, TK Frézy vysokovýkonné pre CNC obrábanie kalených ocelí, hliníku, grafitu, diamantové frézy .....



Závitníky, závitové čeluste, závitorezné hlavy, závitové sady ..... HSSE, HSS-PM, TK ....



Sústružnicke nože s plátkami, radeká .....TK, HSS, HSSCo ....



Nástroje pre frézovanie s vymeniteľnými plátkami - frézy valcové, čelné, uhlové .....

Nástroje pre sústruženie s vymeniteľnými plátkami .....



CNC držiaky, púzdra, upínače, zveráky.....

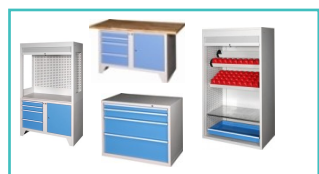
Upínacie púzdra , zveráky, skľučovadlá, trne, držiaky, vyvrtávacie hlavy....



Posuvné meradlá, mikrometre, číselníkové odchylkomery, základné mierky, závitové, valčekové kalibre, dutinomery .....



Brúsky na vrtáky do kovu od 2 do 52 mm, na vrtáky do dreva, na frézy.....



Dielenský kovový nábytok - pracovné stoly, zásuvkové skrine, chemické skrine, skrine pre CNC nástroje, nástrojárske stoly .....



Ostatné: technologická strojárka kalkulačka, 3D tastery, OPTIMATOR - zvárací ventil pre úsporu plynu ....

Ak v uvedenom sortimente nenájdete čo hľadáte, neváhajte nás kontaktovať.