LACH

Drehen • Turning

mit Diamant- und CBN-Werkzeugen

with Diamond and CBN Cutting Tools

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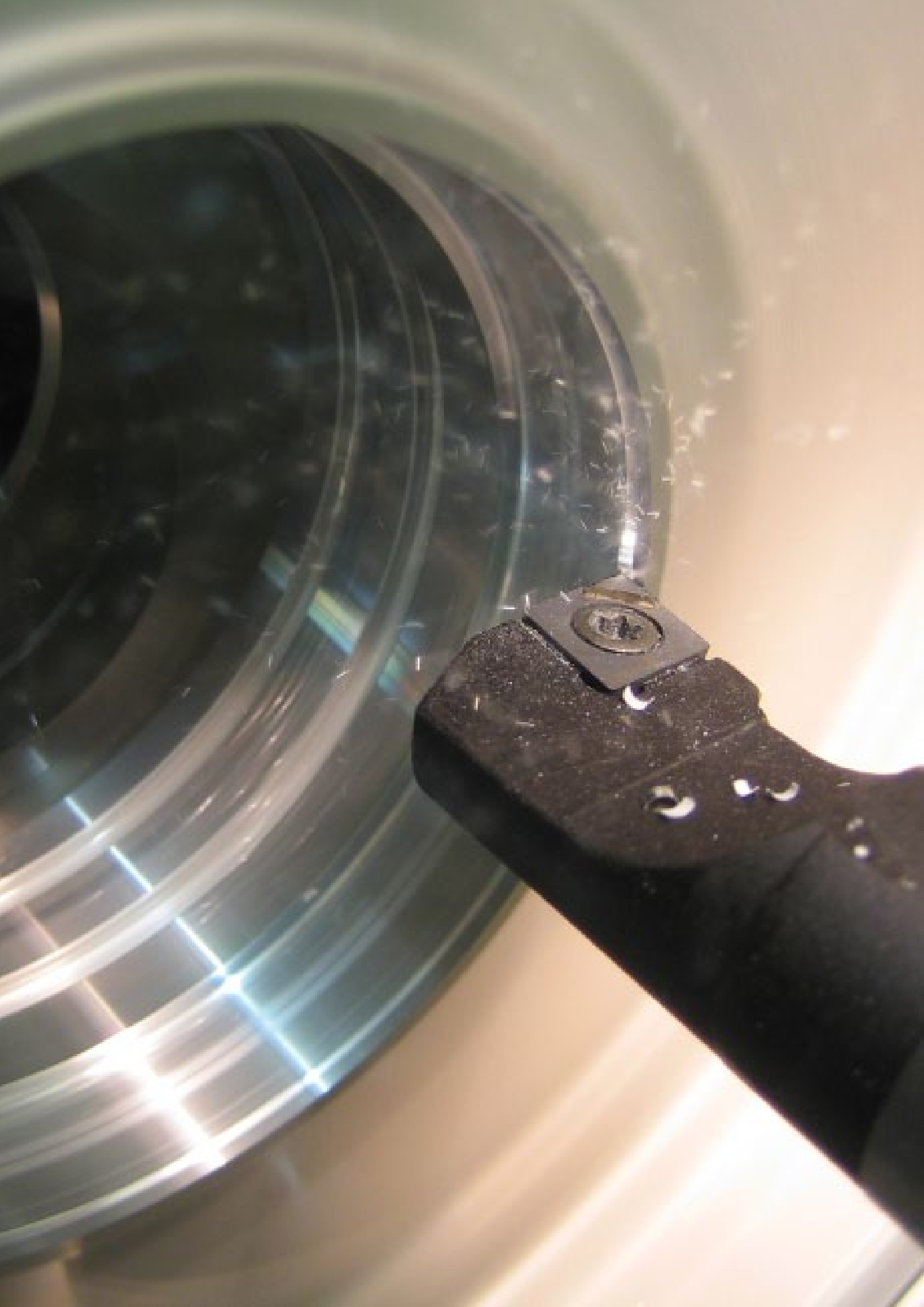

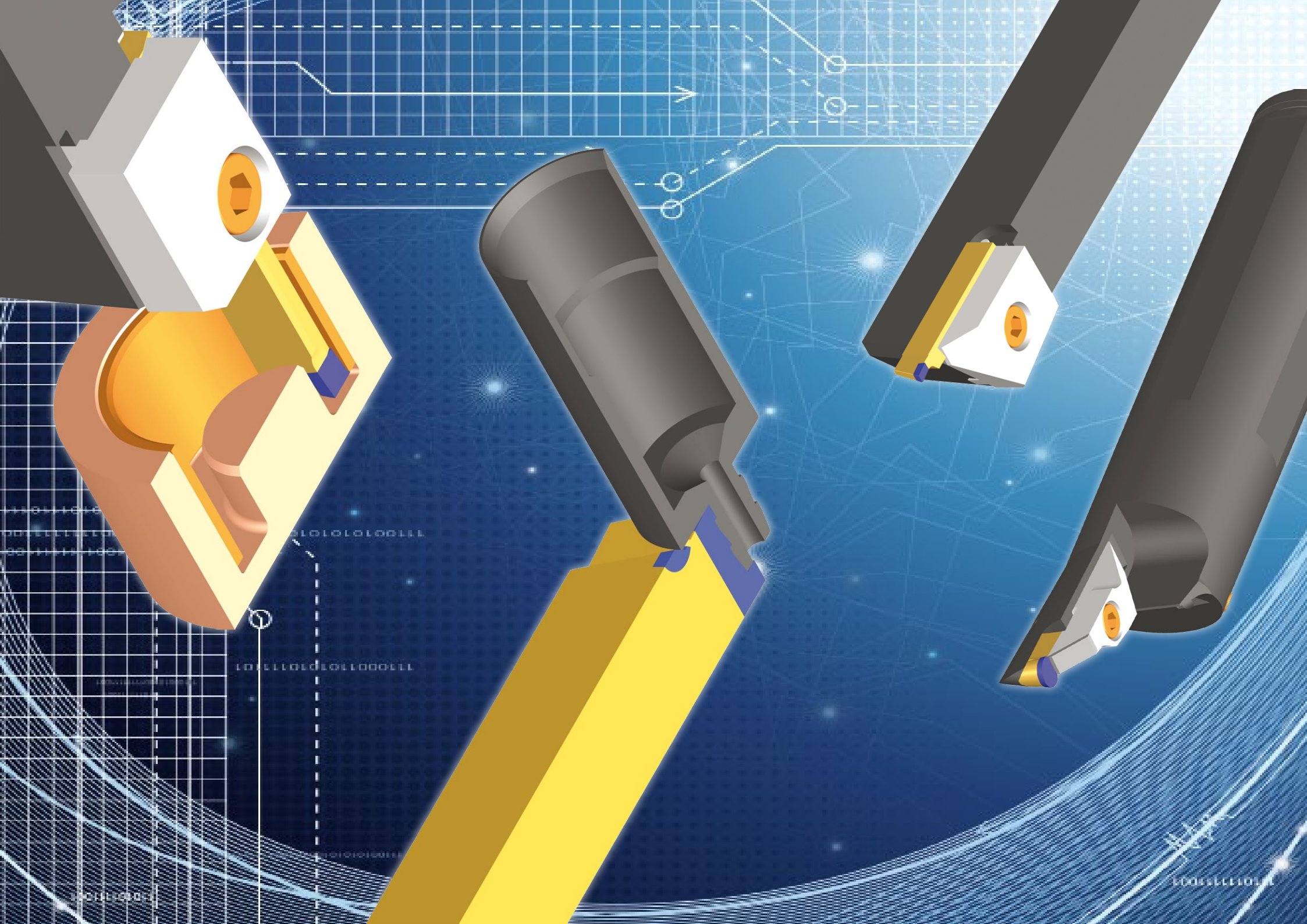

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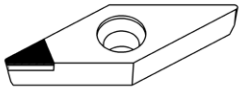
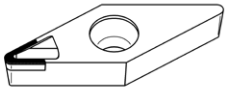
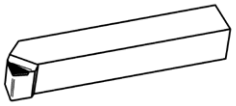
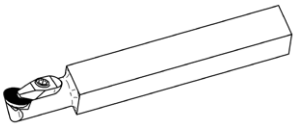
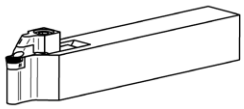
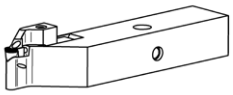
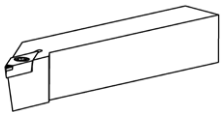
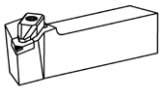
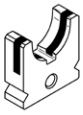
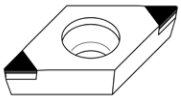
PKD-Schneidplatten *PCD inserts*		06 - 07
PKD-Schneidplatten mit Spanbrecher Typ CO, IS, IC *PCD inserts with chipbreaker Type CO, IS, IC*		09 - 11
PKD-Drehwerkzeuge *PCD turning tools*		12 - 13
PKD-Kollektor-Drehwerkzeuge *PCD commutator turning tools*		14 - 15
PKD-Drehwerkzeuge zum Profildrehen *PCD turning tools for profiling*		16
PKD-Drehwerkzeuge für Schwerzerspanung *PCD turning tools for heavy duty*		17 - 18
Klemmhalter für positive Wendeplatten *Tool holder for positive inserts*		20
Klemmhalter für negative Wendeplatten *Tool holder for negative inserts*		21
PKD Verschleißschutz für Drehbearbeitung *PCD wear parts for turning operations*		22
CBN-Zerspanungswerkzeuge *CBN cutting tools*		24 - 31
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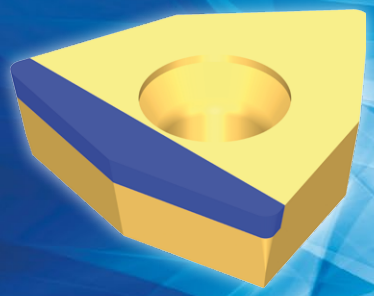
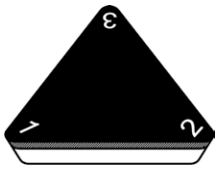
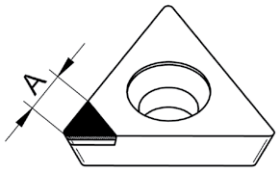
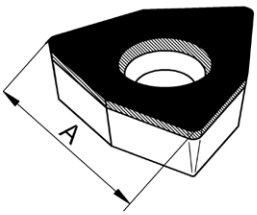
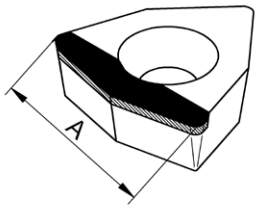
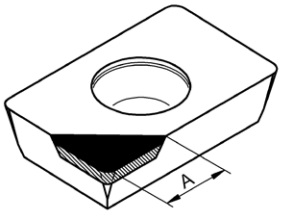
PKD-Schneidplatten

PCD Inserts



Type	Order Code	Art.No.
TCGN/TPGN	D - TCGN - 06 01 02	42 901 900
	D - TPGN - 06 01 02	42 210 619
	D - TPGN - 06 01 04	42 210 291
	D - TPGN - 09 02 04	42 902 600
	D - TPGN - 11 03 04	42 902 610
TCMW/TPMW	D - TCMW - 09 02 04/A3	42 902 020
	D - TCMW - 11 02 04/A3	42 902 030
	D - TCMW - 16 T3 04/A5	42 902 050
	D - TPMW - 09 02 04/A3	42 902 730
	D - TPMW - 11 02 04/A3	42 902 740
	D - TPMW - 16 T3 04/A3	42 902 750
WCGX	D - WCGX - 03 03 04	42 220 845
	D - WCGX - 06 T3 08	42 220 778
WCGW	D - WCGW - 06 T3 08/A13	42 221 500
	D - WCGW - 08 04 12/A16	42 221 501
	D - WCGW - 09 05 08/A19	42 221 502
	D - WCGW - 11 05 06/A22	42 221 503
LDHW	D - LDHW - 15 T3 04/A3	42 221 504
	D - LDHW - 15 T3 04/A5	42 221 505
	D - LDHW - 15 T3 04/A15	42 221 506
	D - LDHW - 15 T3 08/A15	42 221 507

Resharpening service for all PCD and CBN cutting tools

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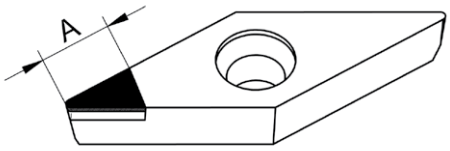
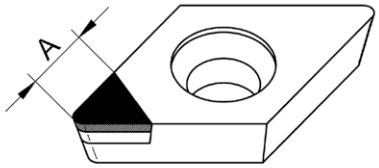
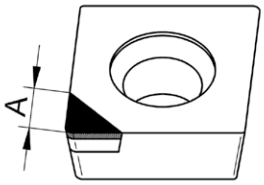
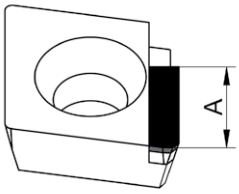
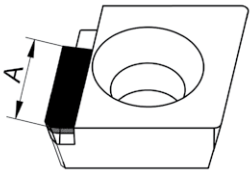
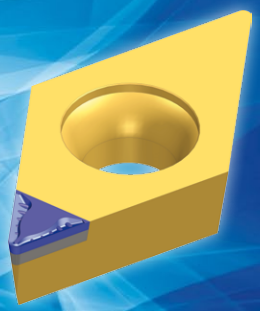
PKD-Schneidplatten

PCD Inserts

Type	Order Code	Art.No.
VCMW 	D - VCMW - 11 03 02/A4	42 210 696
	D - VCMW - 11 03 04/A4	42 210 470
	D - VCMW - 16 04 02/A4	42 210 333
	D - VCMW - 16 04 04/A4	42 210 520
	D - VCMW - 16 04 04/A6	42 210 808
	D - VCMW - 16 04 08/A6	42 210 809
DCMW 	D - DCMW - 07 02 02/A3	42 210 316
	D - DCMW - 07 02 04/A3	42 900 510
	D - DCMW - 11 T3 04/A3	42 900 520
	D - DCMW - 11 T3 08/A3	42 900 521
CCMW/CPMW 	D - CCMW - 05 02 02/A2	42 900 010
	D - CCMW - 06 02 02/A2	42 900 020
	D - CCMW - 09 T3 04/A3	42 900 040
	D - CCMW - 12 04 04/A3	42 900 050
	D - CPMW - 05 02 04/A2	42 210 447
	D - CPMW - 06 02 02/A2	42 900 310
CPMW 	D - CPMW - 05 02 02/A4 - DR	42 220 368
	D - CPMW - 06 02 02/A4 - DR	42 220 370
	D - CPMW - 09 T3 04/A5 - DR	42 220 372
	D - CPMW - 12 04 04/A5 - DR	42 220 374
DR nur für rechts drehen *only for right hand cut*		
CPMW 	D - CPMW - 05 02 02/A4 - DL	42 220 369
	D - CPMW - 06 02 02/A5 - DL	42 220 371
	D - CPMW - 09 T3 04/A5 - DL	42 220 373
	D - CPMW - 12 04 04/A5 - DL	42 220 375
DL nur für links drehen *only for left hand cut*		

Nachschleifservice für alle PKD- und CBN-Werkzeuge



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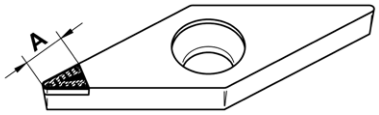
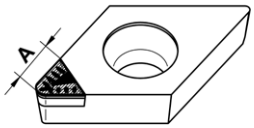
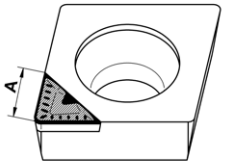
PKD-Schneidplatten mit »Spanbrecher« Type CO

PCD Inserts with »chipbreaker« Type CO

Patent EP 1023961

Schneidplatte mit Spanleitstufe und positivem Schnitt für besonders dünnwandige und labile Bauteile
Insert with chip guide step and positive cut for especially thin and unstable elements

Type CO	Order Code	Art.No.
VCMT		
	D - VCMT - 11 03 04/A5-XCO	42 221 004
	D - VCMT - 16 04 04/A5-XCO	42 221 005
	D - VCMT - 16 04 08/A5-XXCO	42 221 006
DCMT		
	D - DCMT - 07 02 02/A3-XCO	42 221 000
	D - DCMT - 07 02 04/A3-XCO	42 221 001
	D - DCMT - 11 T3 04/A4-XCO	42 221 002
	D - DCMT - 11 T3 08/A4-XXCO	42 221 003
CCMT		
	D - CCMT - 06 02 02/A3 - XCO	42 221 011
	D - CCMT - 06 02 04/A3 - XCO	42 221 012
	D - CCMT - 09 T3 04/A4 - XCO	42 221 013
	D - CCMT - 09 T3 08/A4 - XXCO	42 221 014
	D - CCMT - 12 04 04/A5 - XCO	42 221 015
	D - CCMT - 12 04 08/A5 - XXCO	42 221 016

Empfohlene Schnittwerte
Recommended cutting values

XCO für Schlichtbearbeitung
XCO for finish machining
V_c : 800 - 2500 m/min
f_n : 0,05 - 0,3 mm/U *mm/r*
a_p : 0,1 - 1,5 mm

XXCO für mittlere Schruppbearbeitung
XXCO for medium-rough machining
V_c : 800 - 2500 m/min
f_n : 0,1 - 0,3 mm/U *mm/r*
a_p : 0,5 - 3,0 mm

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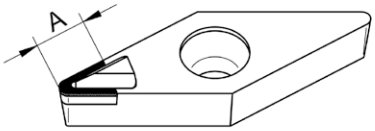
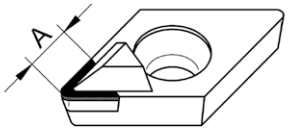
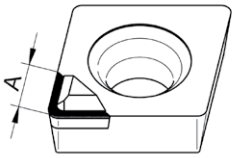
PKD-Schneidplatten mit »Spanbrecher« Type IS

PCD Inserts with »chipbreaker« Type IS

Patent EP 1023962

Schneidplatte mit aktivem Spanbrecher und stabiler Schneidkante für dickwandige, stabile Bauteile und Drehoperationen auch mit unterbrochenem Schnitt
Insert with active chipbreaker and stable cutting edge for thick, stable elements and turning operations also with interrupted cut

Type IS	Order Code	Art.No.
VCMT		
	D - VCMT - 11 03 04/A5 - XIS	42 220 357
	D - VCMT - 16 04 04/A5 - XIS	42 200 329
	D - VCMT - 16 04 08/A5 - XXIS	42 200 328
	D - VCMT - 16 04 08/A5 - XXXIS	42 221 495
DCMT		
	D - DCMT - 07 02 02/A3 - XIS	42 210 836
	D - DCMT - 07 02 04/A3 - XIS	42 220 243
	D - DCMT - 11 T3 04/A4 - XIS	42 220 253
	D - DCMT - 11 T3 08/A4 - XXIS	42 220 245
	D - DCMT - 11 T3 08/A4 - XXXIS	42 221 496
CCMT		
	D - CCMT - 06 02 02/A3 - XIS	42 220 950
	D - CCMT - 06 02 04/A3 - XIS	42 220 951
	D - CCMT - 09 T3 04/A4 - XIS	42 220 289
	D - CCMT - 09 T3 08/A4 - XXIS	42 220 427
	D - CCMT - 12 04 04/A5 - XIS	42 220 880
	D - CCMT - 12 04 08/A5 - XXIS	42 220 881
	D - CCMT - 12 04 08/A5 - XXXIS	42 221 497

Empfohlene Schnittwerte
Recommended cutting values

XIS für Schlichtbearbeitung *XIS for finish machining*	XXIS für mittlere Schruppbearbeitung *XXIS for medium-rough machining*	XXXIS für Schruppbearbeitung *XXXIS for rough machining*
V_c : 800 - 2500 m/min	V_c : 800 - 2500 m/min	V_c : 800 - 2500 m/min
f_n : 0,05 - 0,3 mm/U mm/r	f_n : 0,1 - 0,3 mm/U mm/r	f_n : 0,1 - 0,3 mm/U mm/r
a_p : 0,3 - 1,0 mm	a_p : 0,5 - 3,0 mm	a_p : 2,0 - 4,0 mm

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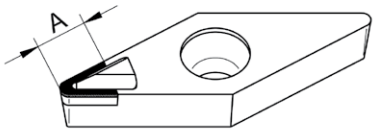
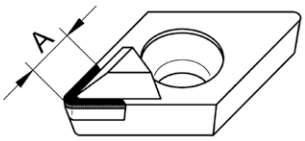
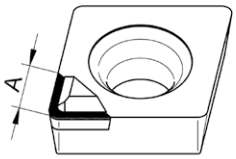
PKD-Schneidplatten mit »Spanbrecher« Type IC

PCD Inserts with »chipbreaker« Type IC

Patent EP 2067552

Schneidplatte mit aktivem Spanbrecher und positivem Schnitt für besonders dünnwandige, labile Bauteile
Insert with active chipbreaker and positive cut for especially thin and unstable elements

Type IC	Order Code	Art.No.
VCMT 	D - VCMT - 11 03 04/A5 - XIC	42 221 025
	D - VCMT - 16 04 04/A5 - XIC	42 221 026
	D - VCMT - 16 04 08/A5 - XXIC	42 221 027
DCMT 	D - DCMT - 07 02 02/A3 - XIC	42 221 021
	D - DCMT - 07 02 04/A3 - XIC	42 221 022
	D - DCMT - 11 T3 04/A4 - XIC	42 221 023
	D - DCMT - 11 T3 08/A4 - XXIC	42 221 024
CCMT 	D - CCMT - 06 02 02/A3 - XIC	42 220 948
	D - CCMT - 06 02 04/A3 - XIC	42 220 949
	D - CCMT - 09 T3 04/A4 - XIC	42 221 028
	D - CCMT - 09 T3 08/A4 - XXIC	42 221 029
	D - CCMT - 12 04 04/A5 - XIC	42 221 030
	D - CCMT - 12 04 08/A5 - XXIC	42 221 031

Empfohlene Schnittwerte
Recommended cutting values

XIC für Schlichtbearbeitung
XIC for finish machining
V_c : 800 - 2500 m/min
f_n : 0,05 - 0,3 mm/U mm/r
a_p : 0,2 - 1,0 mm

XXIC für mittlere Schruppbearbeitung
XXIC for medium-rough machining
V_c : 800 - 2500 m/min
f_n : 0,1 - 0,3 mm/U mm/r
a_p : 0,5 - 3,0 mm

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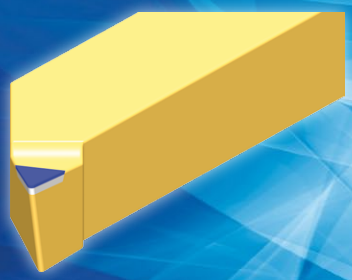
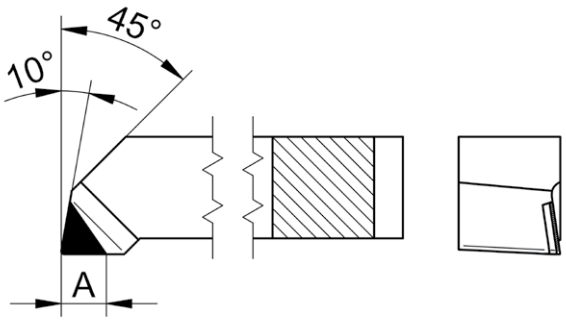
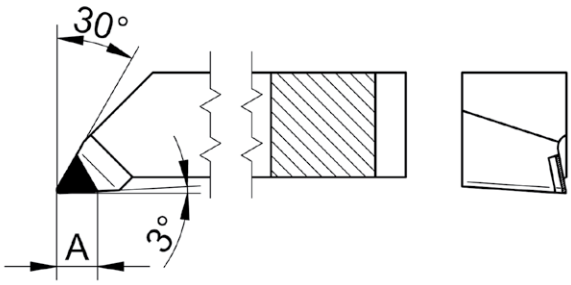
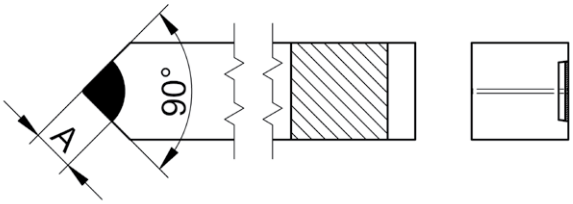
PKD-Drehwerkzeuge

PCD Turning Tools



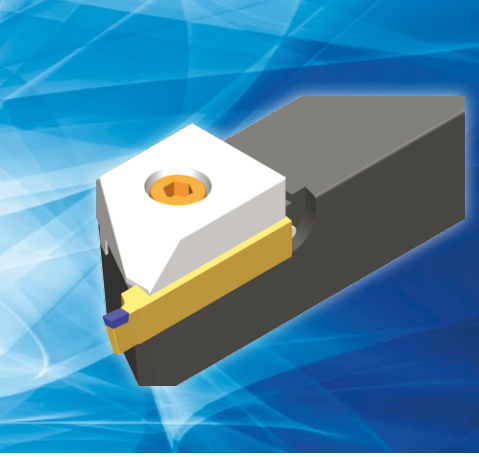
Außendrehen

External turning

Type	Order Code	Art.No.
ANR 	D - ANR - 1010 x 100 - R = 0,2/A3-8°	42 000 001
	D - ANR - 1212 x 120 - R = 0,2/A3-8°	42 000 011
	D - ANR - 1616 x 120 - R = 0,3/A3-8°	42 000 021
	D - ANR - 2020 x 160 - R = 0,3/A6-8°	42 000 035
	D - ANR - 1010 x 100 - R = 0,2/A3-11°	42 000 101
	D - ANR - 1212 x 120 - R = 0,2/A3-11°	42 000 111
	D - ANR - 1616 x 120 - R = 0,3/A3-11°	42 000 121
	D - ANR - 2020 x 160 - R = 0,3/A3-11°	42 000 131
ACR 	D - ACR - 1010 x 100 - R = 0,2/A3-8°	42 000 201
	D - ACR - 1212 x 120 - R = 0,2/A3-8°	42 000 211
	D - ACR - 1616 x 120 - R = 0,3/A3-8°	42 000 221
	D - ACR - 2020 x 160 - R = 0,3/A6-8°	42 000 231
	D - ACR - 1010 x 100 - R = 0,2/A3-11°	42 000 301
	D - ACR - 1212 x 120 - R = 0,2/A3-11°	42 000 311
	D - ACR - 1616 x 120 - R = 0,3/A3-11°	42 000 321
	D - ACR - 2020 x 160 - R = 0,3/A6-11°	42 000 323
AER 	D - AER - 1010 x 100 - R = 0,3/A3-0°	42 001 001
	D - AER - 1212 x 120 - R = 0,3/A3-0°	42 001 011
	D - AER - 1616 x 120 - R = 0,5/A3-0°	42 001 021
	D - AER - 2016 x 160 - R = 0,5/A6-0°	42 001 031
	D - AER - 1010 x 100 - R = 0,3/A3-10°	42 001 201
	D - AER - 1212 x 120 - R = 0,3/A3-10°	42 001 211
	D - AER - 1616 x 120 - R = 0,5/A6-10°	42 001 221
	D - AER - 2016 x 160 - R = 0,5/A6-10°	42 001 231

Linke Ausführung lieferbar
Left design available

Resharpening service for all PCD and CBN cutting tools



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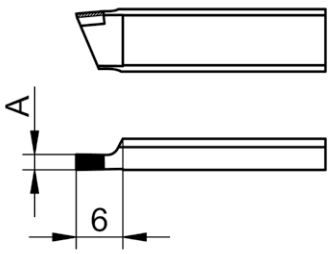
PKD-Drehwerkzeuge

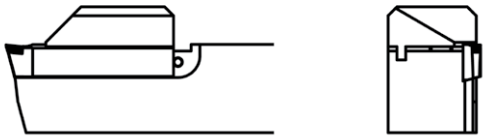
PCD Turning Tools

Stechen

Grooving

Type	Order Code	Art.No.
AT - Einsatz *Insert*	D - ATR = 1,85	42 020 001
	D - ATL = 1,85	42 020 005
	D - ATR = 2,15	42 020 002
	D - ATL = 2,15	42 020 006
	D - ATR = 2,65	42 020 003
	D - ATL = 2,65	42 020 007
	D - ATR = 3,15	42 020 004
	D - ATL = 3,15	42 020 008
AT - Klemmhalter *Tool holder*	ATSR - 2020 x 120	45 100 481
	ATSL - 2020 x 120	45 100 482
	ATSR - 2525 x 120	45 100 173
	ATSL - 2525 x 120	45 100 483

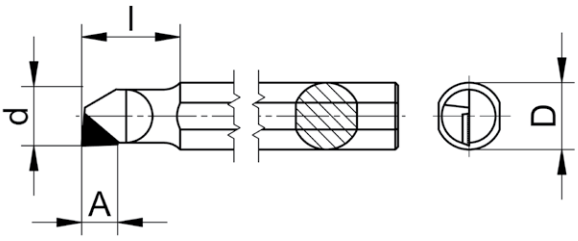




Innendrehen

Internal turning

BDR	D - BDR - 10 x 140 - R = 0,2/A3 d/l = 8/13	42 022 000
	D - BDR - 12 x 160 - R = 0,2/A3 d/l = 10/15	42 022 002
	D - BDR - 16 x 180 - R = 0,2/A3 d/l = 14/19	42 022 004
	D - BDR - 20 x 200 - R = 0,2/A3 d/l = 18/33	42 022 006
	D - BDR - 25 x 200 - R = 0,2/A3 d/l = 20/53	42 022 008
	D - BDL - 10 x 140 - R = 0,2/A3 d/l = 8/13	42 022 001
	D - BDL - 12 x 160 - R = 0,2/A3 d/l = 10/15	42 022 003
	D - BDL - 16 x 180 - R = 0,2/A3 d/l = 14/19	42 022 005
	D - BDL - 20 x 200 - R = 0,2/A3 d/l = 18/33	42 022 007
	D - BDL - 25 x 200 - R = 0,2/A3 d/l = 20/53	42 002 009



Nachschleifservice für alle PKD- und CBN-Werkzeuge

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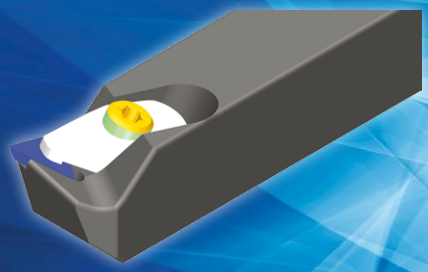
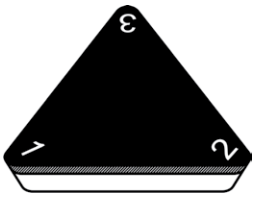
PKD-Kollektordrehwerkzeuge

PCD Commutator Turning Tools

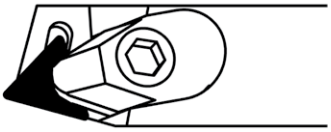


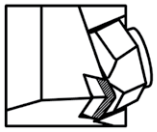
Type	Order Code	Art.No.
TFGN	D - TFGN - 08 01 02	42 210 257
	D - TFGN - 08 01 03	42 210 551
	D - TFGN - 07 01 02	42 210 698
	D - TFGN - 07 01 03	42 210 810



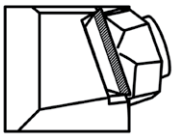
passend für Klemmhalter CTBF und CTCF
suitable for tool holder CTBF and CTCF

CTBF - Klemmhalter *Tool holder*	CTBFR - 1010 H08	45 100 181
	CTBFL - 1010 H08	45 100 182
	CTBFR - 1212 H08	45 100 183
	CTBFL - 1212 H08	45 100 184
	CTBFR - 1010 H07	45 100 451
	CTBFL - 1010 H07	45 100 456
	CTBFR - 1212 H07	45 100 458
	CTBFL - 1212 H07	45 110 457

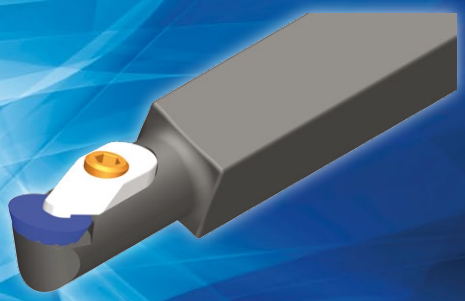




CTCF - Klemmhalter *Tool holder*	CTCFN - 1212 H08 - Vario	45 100 505
	CTCFR - 1212 H08 - 18°	45 100 468
	CTCFL - 1212 H08 - 18°	45 100 469
	CTCFR - 1212 H07 - 18°	45 100 472
	CTCFL - 1212 H07 - 18°	45 100 473



Resharpening service for all PCD and CBN cutting tools



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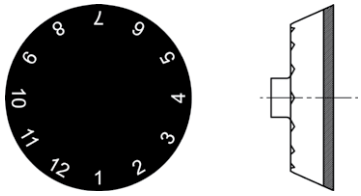
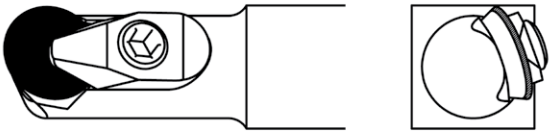
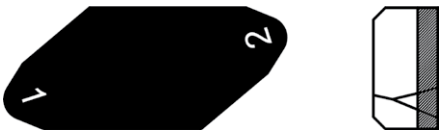
PKD-Kollektordrehwerkzeuge

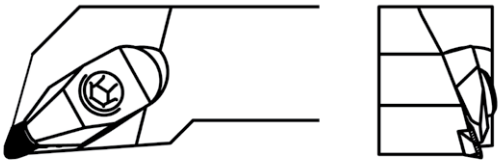
PCD Commutator Turning Tools

Type	Order Code	Art.No.
RFGN	D - RFGN - 09 03 00 - 0	42 220 404
	D - RFGN - 09 03 00 - 12	42 210 968
	D - RFGN - 09 03 00 - 16	42 211 031
	D - RFGN - 09 03 00 - 20	42 211 032
(mit Rasterung *(with Raster)* 0 - 12 - 16 - 20)		
CRCF - Klemmhalter *Tool holder*	CRCFN - 1212 H09 - R - Vario	45 100 566
	CRCFR - 1212 H09 - R - 20°	45 100 548
	CRCFL - 1212 H09 - R - 20°	45 100 592
KFGN	D - KFGN - 07 01 02 R	42 211 167
	D - KFGN - 07 01 03 R	42 220 751
	D - KFGN - 07 01 05 R	42 220 750
	D - KFGN - 07 01 02 L	42 211 168
	D - KFGN - 07 01 03 L	42 220 749
	D - KFGN - 07 01 05 L	42 211 166
CXVF - Klemmhalter *Tool holder*	CXVFR - 12 12 F07	45 100 693
	CXVFL - 12 12 F07	45 100 692









Nachschleifservice für alle PKD- und CBN-Werkzeuge

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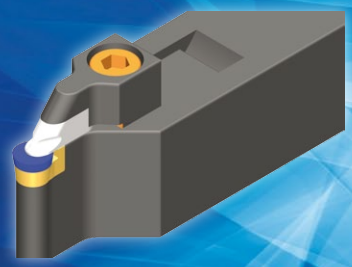
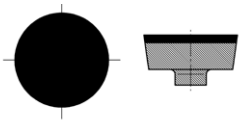
PKD-Drehwerkzeuge

PCD Turning Tools



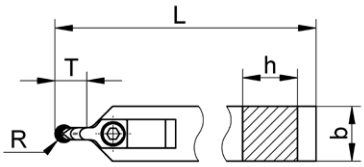
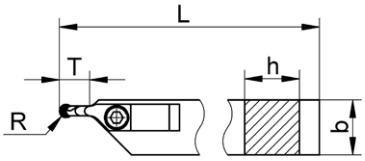
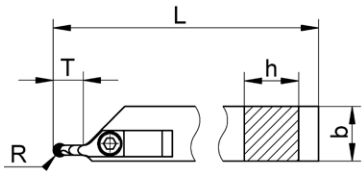
Patent EU 1370382

Type	Order Code	Art.-No
RXGN 	D - RXGN - 06 01 00 F	42 210 821
	D - RXGN - 08 01 00 F	42 210 990

Schneidkantenausführungen: *Edge preparation*	F für Standard-Schneidkantenqualität FF für geläppte Schneidkantenqualität T für negativ gefaste Schneidkante	*F for standard edge quality* *FF for high edge quality* *T for T-land*

Klemmhalter zum Profildrehen mit PKD-Vollschicht-Rundplatten

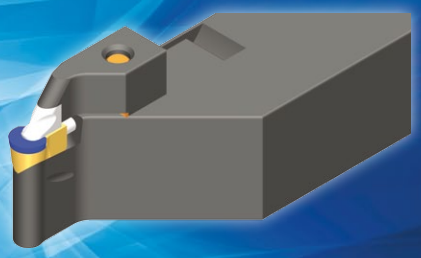
Tool holder for profiling with pcd full face inserts

Type	Order Code	h	b	R	T	L	Art.-No
CRNXN 	CRNXN - 2020 M6-3	20	20	3,0	14,5	150	45 102 100
	CRNXN - 2525 M6-3	25	25	3,0	14,5	150	45 102 101
	CRNXN - 2020 M8-4	20	20	4,0	14,5	150	45 102 102
	CRNXN - 2525 M8-4	25	25	4,0	14,5	150	45 100 514
CRNXL 	CRNXL - 2020 M6-3	20	20	3,0	10	150	45 102 103
	CRNXL - 2525 M6-3	25	25	3,0	14,5	150	45 102 104
	CRNXL - 2020 M8-4	20	20	4,0	10	150	45 102 105
	CRNXL - 2525 M8-4	25	25	4,0	14,5	150	45 102 106
CRNXR 	CRNXR - 2020 M6-3	20	20	3,0	10	150	45 102 107
	CRNXR - 2525 M6-3	25	25	3,0	14,5	150	45 100 487
	CRNXR - 2020 M8-4	20	20	4,0	10	150	45 102 108
	CRNXR - 2525 M8-4	25	25	4,0	14,5	150	45 102 109

Mit integrierter Kühlmittelzufuhr, auch für MMS geeignet
With integrated cooling, also suitable for MMS

Order code:

C	R	N	X	N / L / R	20	20	M	6	3
gepratzt *Top clamp*	Rundplatte *Round insert*	Neutral *Neutral*	Freiwinkel *Clearance angle*	Schnitt-richtung *Hand of tool*	Höhe *Height*	Breite *Width*	Länge *Length*	Durch-messer *Diameter*	Radius *Radius*



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PKD-Drehwerkzeuge

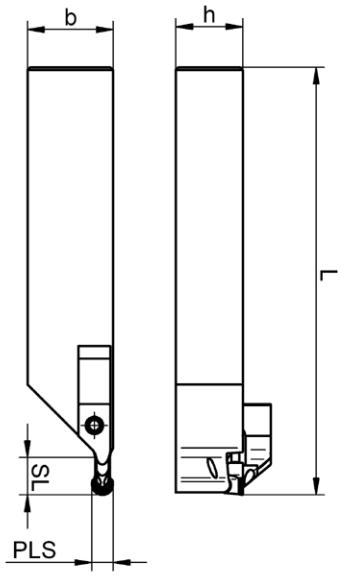
PCD Turning Tools

Patent EU 1370382

Klemmhalter zum Stechen und Profildrehen für Schwerzerspanung

Tool holder for grooving, turning and profiling for heavy duty

ATW-R



Type	Order Code	h	b	SL	PLS	L	Art.-No
ATW-R	ATW-R - 2020 M03-15	20	20	10	03	150	45 102 000
	ATW-R - 2020 M04-20	20	20	15	04	150	45 102 001
	ATW-R - 2020 M06-25	20	20	20	06	150	45 102 002
	ATW-R - 2020 M08-30	20	20	25	08	150	45 102 003
	ATW-R - 2525 M03-15	25	25	10	03	150	45 102 004
	ATW-R - 2525 M04-20	25	25	15	04	150	45 102 005
	ATW-R - 2525 M06-25	25	25	20	06	150	45 102 006
	ATW-R - 2525 M08-30	25	25	25	08	150	45 102 007
	ATW-R - 3232 M03-15	32	32	10	03	150	45 102 008
	ATW-R - 3232 M04-20	32	32	15	04	150	45 102 009
	ATW-R - 3232 M06-25	32	32	20	06	150	45 102 010
	ATW-R - 3232 M08-30	32	32	25	08	150	45 102 011

Linke Ausführung lieferbar.
Left design available.

Mit integrierter Kühlmittelzufuhr, auch für MMS geeignet
With integrated cooling, also suitable for MMS

Stecheinsätze siehe Seite 18
Grooving inserts see page 18

Order code:

ATW	R/L/N	25	25	M	04	20
Stechsystem mit Pratze *Grooving system with clamp*	Schnittrichtung *Hand of tool*	Höhe *Height*	Breite *Width*	Länge *Length*	Platten-Größe *Insert size*	Stechtiefe *Depth of cut*

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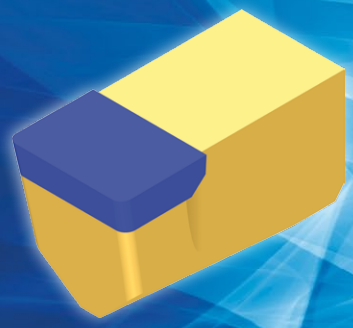
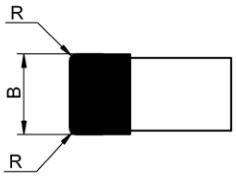
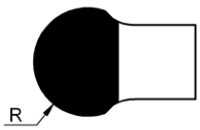
PKD-Stecheinsätze

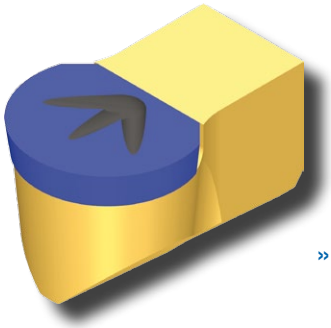
PCD Grooving Inserts



Zum Stechen und Profildrehen

For grooving, turning and profiling

Type		Order Code	Art.-No
AC		AC - 0300 N 0,2	42 122 000
		AC - 0350 N 0,2	42 122 001
		AC - 0400 N 0,3	42 122 002
		AC - 0450 N 0,3	42 122 003
		AC - 0500 N 0,3	42 122 004
		AC - 0600 N 0,3	42 122 005
		AC - 0650 N 0,4	42 122 006
Zum Stechen *For grooving*		AC - 0800 N 0,4	42 122 007
		AC - 0900 N 0,4	42 122 008
AR		AR - 0300 N 1,5	42 122 009
		AR - 0400 N 2,0	42 122 010
		AR - 0600 N 3.0	42 122 011
		AR - 0800 N 4,0	42 122 012
Zum Profildrehen *For profiling*			

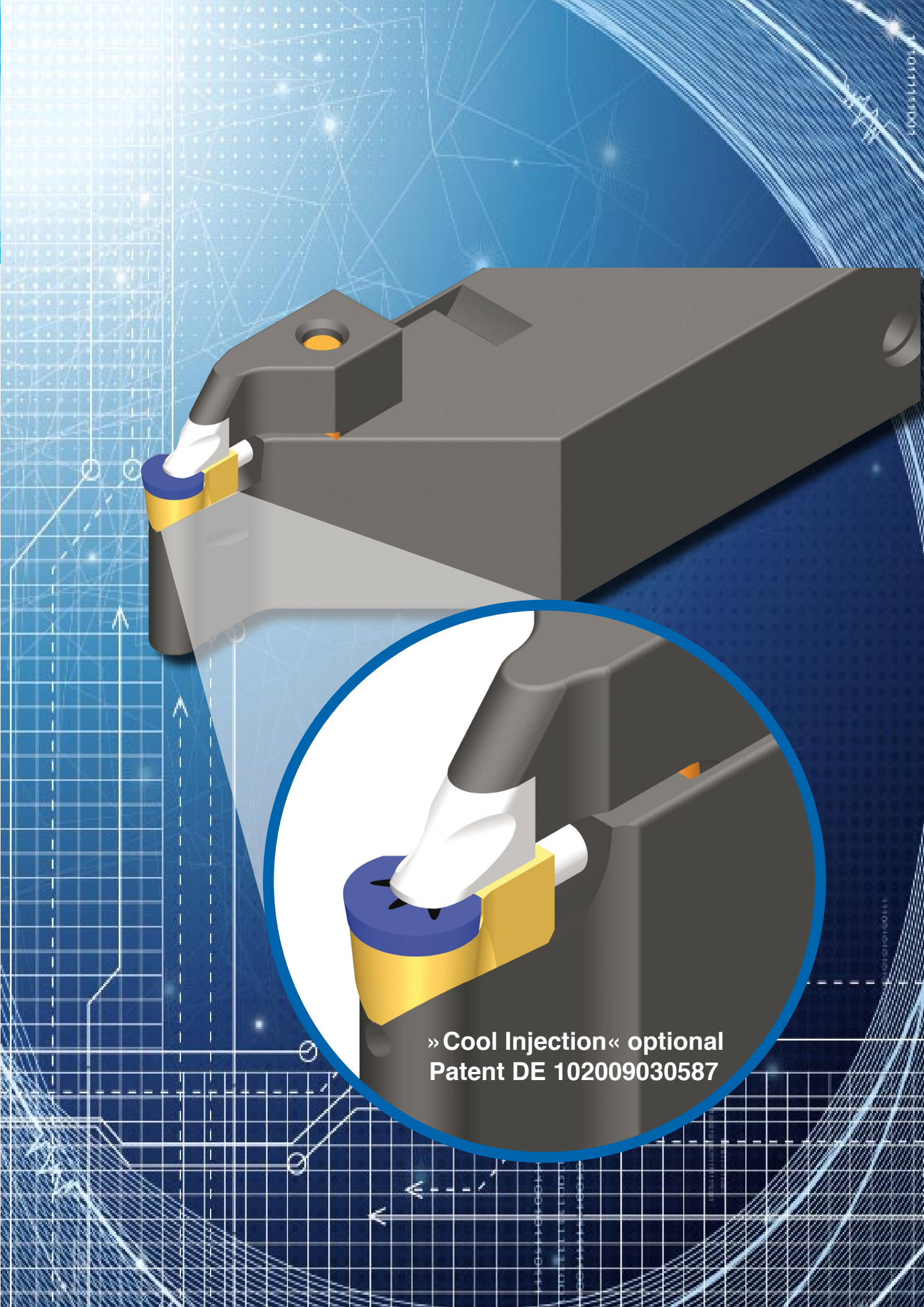


»Cool Injection« optional

Order code:

A	C / R	0400	R/L/N	0,4
Stecheinsatz *Grooving insert*	C = Stechen R = Profil-drehen *C = Grooving* *R = profiling*	Breite *Width*	Schnittrichtung *Hand of tool*	Ecken-/Vollradius *Corner/full radius*

Resharpening service for all PCD and CBN cutting tools


»Cool Injection« optional
Patent DE 102009030587

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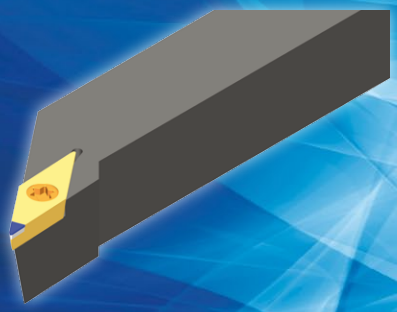
PKD-Drehwerkzeuge

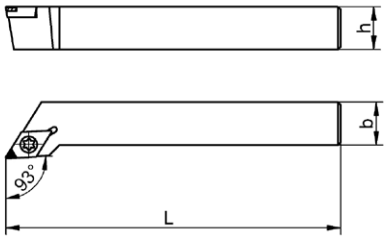
PCD Turning Tools

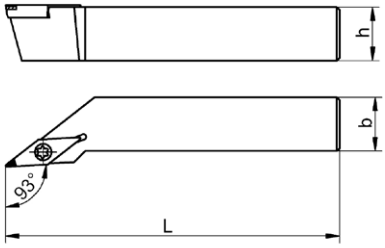


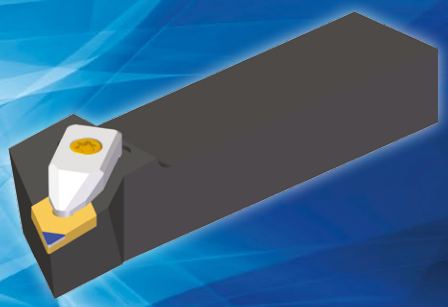
Klemmhalter für positive Wendeplatten

Tool holder for positive inserts

Type	Order Code	h	h	L	Insert	Art.-No
SDLCR	SDLCR - 1212 F07	12	12	80	DC..0702	45 102 110
	SDLCL - 1212 F07	12	12	80	DC..0702	45 102 111
	SDLCR - 1616 H11	16	16	100	DC..11T3	45 102 112
	SDLCL - 1616 H11	16	16	100	DC..11T3	45 102 113
	SDLCR - 2020 K11	20	20	125	DC..11T3	45 102 114
	SDLCL - 2020 K11	20	20	125	DC..11T3	45 102 115
SVJCR	SVJCR - 1616 H11	16	16	100	VC..1103	45 100 624
	SVJCL - 1616 H11	16	16	100	VC..1103	45 100 623
	SVJCR - 2020 K16	20	20	125	VC..1604	45 100 250
	SVJCL - 2020 K16	20	20	125	VC..1604	45 100 274
	SVJCR - 2525 M16	25	25	150	VC..1604	45 100 683
	SVJCL - 2525 M16	25	25	150	VC..1604	45 100 684
SCLCR	SCLCR - 1010 E06	10	10	70	CC..0602	45 100 446
	SCLCL - 1010 E06	10	10	70	CC..0602	45 102 116
	SCLCR - 1212 F09	12	12	80	CC..09T3	45 100 452
	SCLCL - 1212 F09	12	12	80	CC..09T3	45 100 253
	SCLCR - 1616 H09	16	16	100	CC..09T3	45 100 119
	SCLCL - 1616 H09	16	16	100	CC..09T3	45 100 500
	SCLCR - 2020 K12	20	20	125	CC..1204	45 100 269
	SCLCL - 2020 K12	20	20	125	CC..1204	45 100 297
	SCLCR - 2525 M12	25	25	150	CC..1204	45 100 231
	SCLCL - 2525 M12	25	25	150	CC..1204	45 100 587







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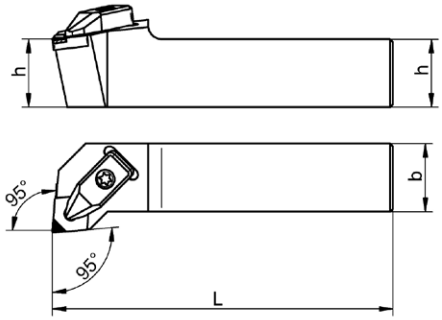
PKD-Drehwerkzeuge

PCD Cutting Tools

Klemmhalter für negative Wendeplatten

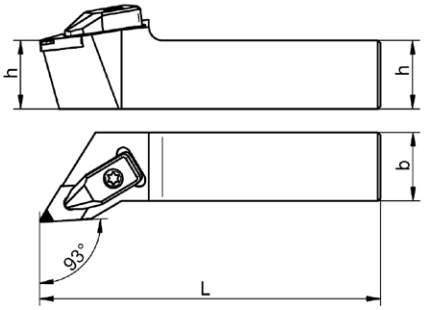
Toolholder for negative cutting inserts

MCLNR



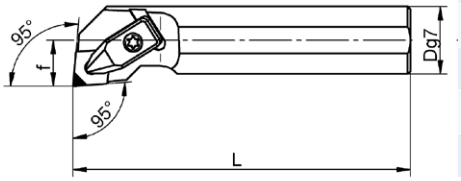
Type	Order Code	h	b	L	Insert	Art.-No
MCLNR	MCLNR - 2020 K12	20	20	125	CN.. 1204	45 102 117
	MCLNL - 2020 K12	20	20	125	CN.. 1204	45 102 118
	MCLNR - 2525 M12	25	25	150	CN.. 1204	45 102 119
	MCLNL - 2525 M12	20	20	150	CN.. 1204	45 102 120

MDJNR



Type	Order Code	h	b	L	Insert	Art.-No
MDJNR	MDJNR - 2020 K15	20	20	125	DN.. 1506	45 102 121
	MDJNL - 2020 K15	20	20	125	DN.. 1506	45 102 122
	MDJNR - 2525 M15	25	25	150	DN.. 1506	45 102 123
	MDJNL - 2525 M15	25	25	150	DN.. 1506	45 102 124

A... MCLNR



Type	Order Code	dg7	f	L	Insert	Art.-No
A... MCLNR	A25T MCLNR 12	25	17	300	CN..1204	45 102 125
	A25T MCLNL 12	25	17	300	CN..1204	45 102 126
	A32U MCLNR 12	32	22	350	CN..1204	45 102 127
	A32U MCLNL 12	32	22	350	CN..1204	45 102 128
	A40V MCLNR 12	40	27	400	CN..1204	45 102 129
	A40V MCLNL 12	40	27	400	CN..1204	45 102 130

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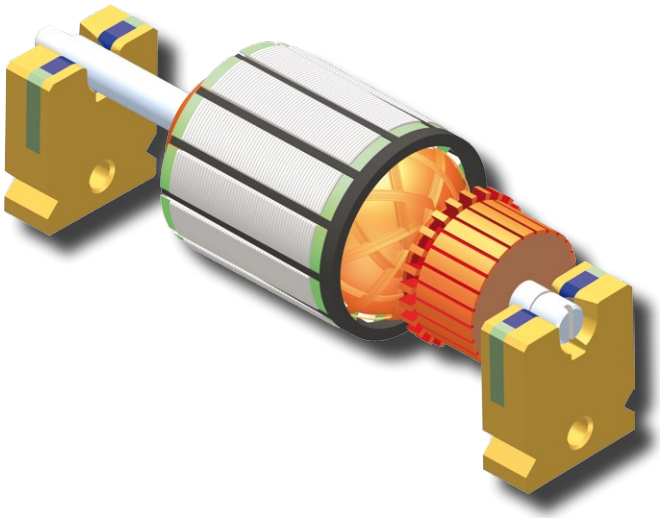
PKD für Verschleißschutz

PCD Wear Parts



In der Großserienfertigung - Beispiel Transferstraße - sind Führungsteile, Auflagen, Stützen oder Messfühler einem starken Verschleiß ausgesetzt - der Wechsel dieser Teile führt zwangsweise zu Betriebsunterbrechungen und zu einem hohen Kostenfaktor.

PKD-bewehrte Verschleißteile haben sich gegenüber z.B. Hartmetall-, Cermet- oder Keramik-bestückten Teilen als wahre Kostenkiller erwiesen: extrem geringer Verschleiß und minimale Reibung durch die diamantene Härte und polierte Oberfläche.

LACH DIAMANT fertigt heute aus langjähriger Erfahrung PKD-bewehrte Verschleißteile für z.B.

- Prismen- und Lagerschalen zur Aufnahme von Ankern beim Fertigdrehen des Kollektors
- Rollierwerkzeuge zum Glätten von Zentrierungen
- Messtaster zum Messen in der Maschine während des Schleifprozesses
- Stützleisten zum Centerless-Schleifen
- Schlagmesser und Gegenmesser beim Granulieren von Kunststoffen
- Rachenlehren zum Prüfen von Präzessionsteilen
- Düsen für Hochdruckzerstäuber
- Führungsleisten bei der Verarbeitung abrasiver Materialien
- und viele Anwendungen mehr.

Schildern Sie uns Ihre Aufgabe, wir helfen Ihnen!

In mass production, such as in transfer lines, guide parts, supports, rests or measuring probes are subject to heavy wear. The replacement of such parts leads to interruption of operation and to a high expense factor.

PCD wear parts have proven to be real cost killers in comparison to carbide, cermet or ceramic parts. The polished surface and the hardness of the diamond however results in extreme low wear and minimum friction.

LACH DIAMANT today, from long time experience manufacturers PCD wear parts such as:

- *Prism and bearing seats for armatures when finish-turning commutators*
- *Roller-burnishing for polishing of centers*
- *Measuring probes at the machine during grinding*
- *Support strips for centerless grinding*
- *Shock cutters and counter cutters when granulating plastics*
- *End gages when inspecting precision parts*
- *Nozzles for high pressure atomizers*
- *Guide rails for the processing of abrasive materials*
- *and any more applications.*

Please let us know your requirement and/or problem, we help you!

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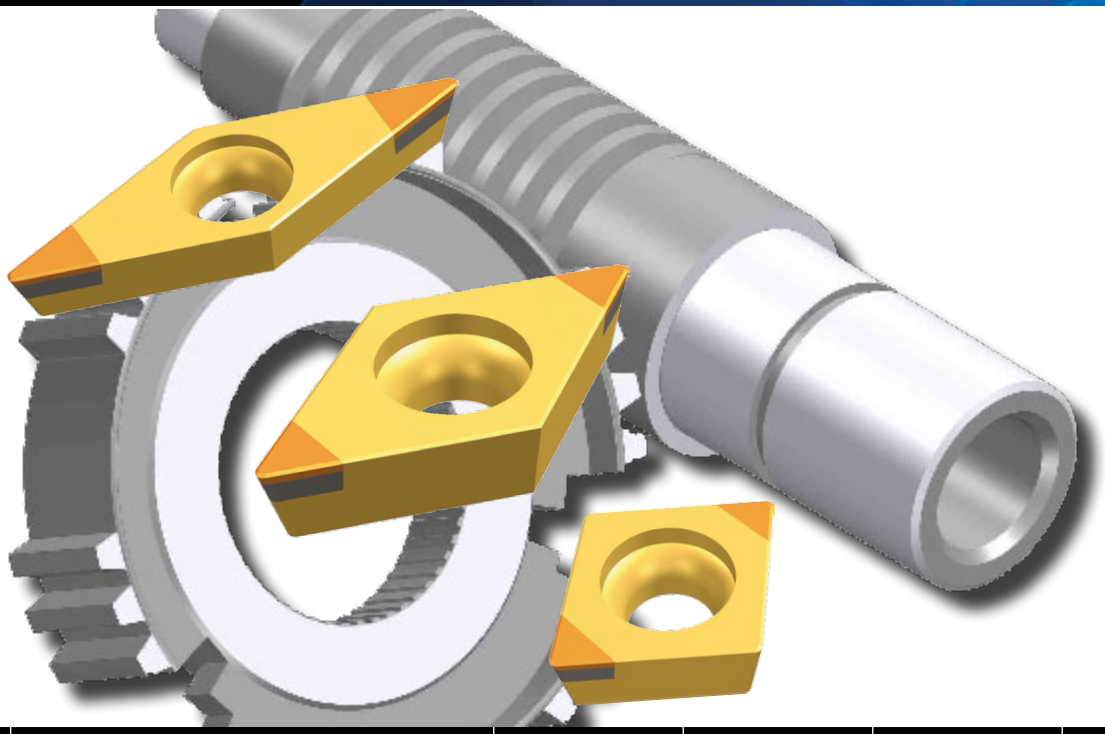
Empfehlungen für die Auswahl der CBN-Schneidstoff-Sorte

Recommendations for the Selection of the CBN Cutting Grade



CBN-Sorte *CBN type*	Werkstoff *Material*	schruppen *roughing*	schlichten *finishing*	unterbrochener Schnitt *interrupted cut*	kontinuierlicher Schnitt *continuous cut*
B500	Werkzeug- und Einzelsatzstähle Kugellagerstähle, Sinterwerkstoffe *Tool and case hardened steels* *Ball bearing steels, sintered materials*		●		●
B600 B641 B650	Sonderlegierungen (Cr/Ni) Pulvermetallurgische Stähle (ASP) GG; GGG *Special alloys (Cr/Ni)* *Powder metallurgic steels (ASP)*	●	●	●	●
B610	Werkzeug- und Einsatzstähle (C; CK) *Tool and case hardened steels (C; CK)*		●	●	●
B700 B800	GG; GGG; GTW; GH; GS Aufspritzlegierungen *Thermal sprayed alloys*	●		●	●

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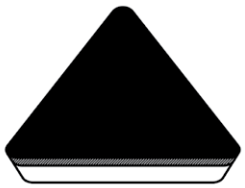
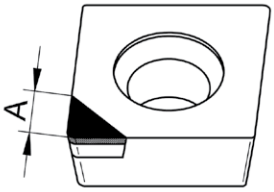
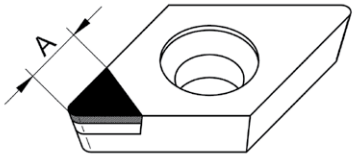
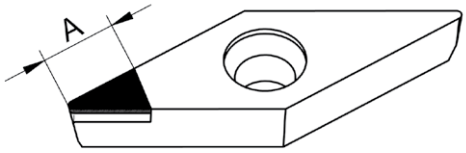
CBN-power-Schneidplatten

CBN Power Inserts

Type	Order Code	Art.No.
TPGN 	B600 - TPGN 06 01 04 F	43 210 504
	B600 - TPGN 09 02 04 F	43 901 600
	B600 - TPGN 11 03 04 F	43 902 620
CCMW/CPMW 	B600 - CCMW 06 02 02 F/A2	43 900 010
	B600 - CCMW 09 T3 04 F/A3	43 900 030
	B600 - CCMW 12 04 04 F/A3	43 900 050
	B600 - CPMW 06 02 02 F/A2	43 900 300
	B600 - CPMW 09 T3 04 F/A3	43 900 320
	B600 - CPMW 12 04 04 F/A3	43 900 340
DCMW 	B600 - DCMW 07 02 02 F/A2	43 210 494
	B600 - DCMW 07 02 04 F/A3	43 210 491
	B600 - DCMW 11 T3 04 F/A3	43 900 500
	B600 - DCMW 11 T3 08 F/A3	43 210 036
VBMW/VCMW 	B600 - VBMW 16 04 04 F/A4	43 903 500
	B600 - VBMW 16 04 08 F/A4	43 903 520
	B600 - VCMW 16 04 04 F/A4	43 903 620
	B600 - VCMW 16 04 08 F/A4	43 210 666

Nachschleifservice für alle PKD- und CBN-Werkzeuge

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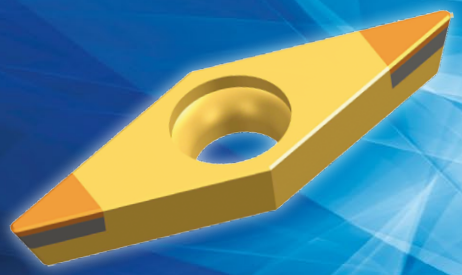
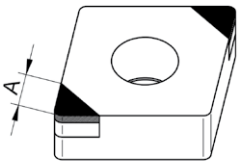
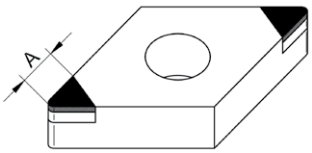
CBN-DUO-power-Schneidplatten

CBN DUO Power Inserts



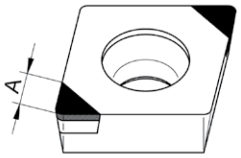
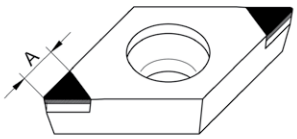
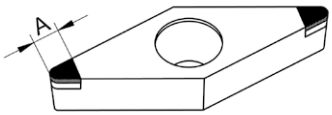
Negative CBN-DUO-power-Schneidplatten

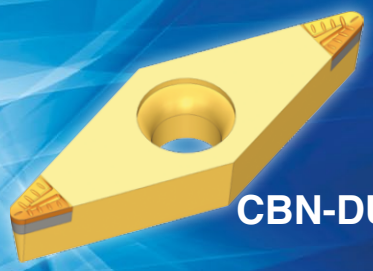
Negative CBN DUO power inserts

Type	Order Code	Art.No.
CNMA 	B610 - CNMA - 12 04 04S - DUO	43 220 050
	B600 - CNMA - 12 04 04S - DUO	43 211 008
	B610 - CNMA - 12 04 08S - DUO	43 220 051
	B600 - CNMA - 12 04 08S - DUO	43 210 969
DNMA 	B610 - DNMA - 15 06 04S - DUO	43 220 061
	B600 - DNMA - 15 06 04S - DUO	43 220 130
	B610 - DNMA - 15 06 08S - DUO	43 220 062
	B600 - DNMA - 15 06 08S - DUO	43 220 131

Positive CBN-DUO-power-Schneidplatten

Positive CBN DUO power inserts

CCMW 	B610 - CCMW - 09 T3 04S - DUO	43 220 083
	B600 - CCMW - 09 T3 04S - DUO	43 220 132
	B610 - CCMW - 09 T3 08S - DUO	43 220 085
	B600 - CCMW - 09 T3 08S - DUO	43 220 133
DCMW 	B610 - DCMW - 11 T3 04S - DUO	43 220 059
	B600 - DCMW - 11 T3 04S - DUO	43 220 134
	B610 - DCMW - 11 T3 08S - DUO	43 220 060
	B600 - DCMW - 11 T3 08S - DUO	43 220 135
VBMW 	B610 - VBMW - 16 04 04S - DUO	43 220 057
	B600 - VBMW - 16 04 04S - DUO	43 220 136
	B610 - VBMW - 16 04 08S - DUO	43 220 058
	B600 - VBMW - 16 04 08S - DUO	43 220 137



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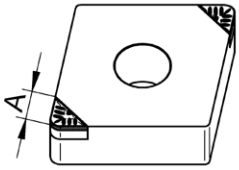
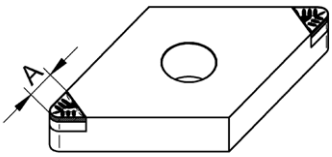
CBN-DUO-power-Schneidplatten mit »Spanbrecher« Type CO

CBN DUO Power Inserts with »chipbreaker« Type CO

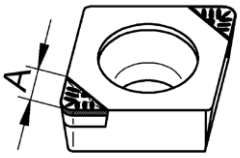
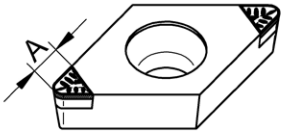
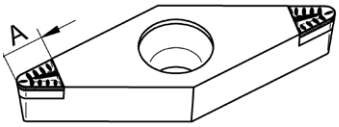
Negative CBN-DUO-power-Schneidplatten

Negative CBN DUO power inserts

Type	Order Code	Art.No.
CNMM 	B610 - CNMM - 12 04 04E - DUO-CO	43 220 300
	B600 - CNMM - 12 04 04E - DUO-CO	43 220 310
	B610 - CNMM - 12 04 08E - DUO-CO	43 220 320
	B600 - CNMM - 12 04 08E - DUO-CO	43 220 330
DNMM 	B610 - DNMM - 15 06 04E - DUO-CO	43 220 340
	B600 - DNMM - 15 06 04E - DUO-CO	43 220 350
	B610 - DNMM - 15 06 08E - DUO-CO	43 220 360
	B600 - DNMM - 15 06 08E - DUO-CO	43 220 370

Positive CBN-DUO-power-Schneidplatten

Positive CBN DUO power inserts

CCMT 	B610 - CCMT - 09 T3 04E - DUO-CO	43 220 380
	B600 - CCMT - 09 T3 04E - DUO-CO	43 220 390
	B610 - CCMT - 09 T3 08E - DUO-CO	43 220 400
	B600 - CCMT - 09 T3 08E - DUO-CO	43 220 410
DCMT 	B610 - DCMT - 11 T3 04E - DUO-CO	43 220 420
	B600 - DCMT - 11 T3 04E - DUO-CO	43 220 430
	B610 - DCMT - 11 T3 08E - DUO-CO	43 220 440
	B600 - DCMT - 11 T3 08E - DUO-CO	43 220 450
VBMT 	B610 - VBMT - 16 04 04E - DUO-CO	43 220 460
	B600 - VBMT - 16 04 04E - DUO-CO	43 220 470
	B610 - VBMT - 16 04 08E - DUO-CO	43 220 480
	B600 - VBMT - 16 04 08E - DUO-CO	43 220 490

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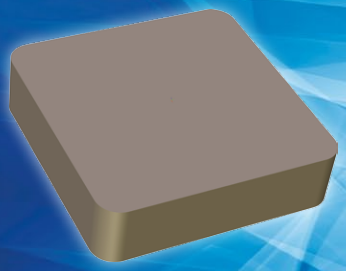
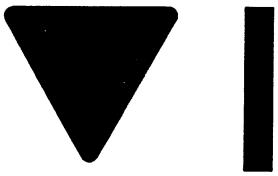
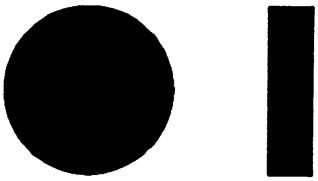
CBN-power-Schneidplatten

CBN Power Inserts



Vollschneidplatten

Solid inserts

Type	Order Code	Art.No.
TNMN		
	B700 - TNMN - 11 03 04F	43 905 810
	B700 - TNMN - 11 03 08F	43 905 820
	B700 - TNMN - 11 03 12F	43 905 830
	B700 - TNMN - 11 03 16F	43 905 840
SNMN		
	B700 - SNMN - 09 03 08F	43 905 610
	B700 - SNMN - 09 03 12F	43 905 620
	B700 - SNMN - 09 03 16F	43 905 630
	B700 - SNMN - 12 03 12F	43 905 640
	B700 - SNMN - 12 03 16F	43 905 650
RNGN		
	B700 - RNGN - 06 03 00F	43 211 163
	B700 - RNGN - 09 03 00F	43 905 920
	B700 - RNGN - 12 03 00F	43 905 930

Resharpening service for all PCD and CBN cutting tools

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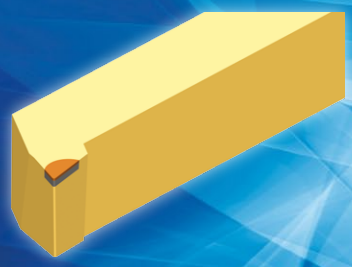
CBN-power-Drehwerkzeuge

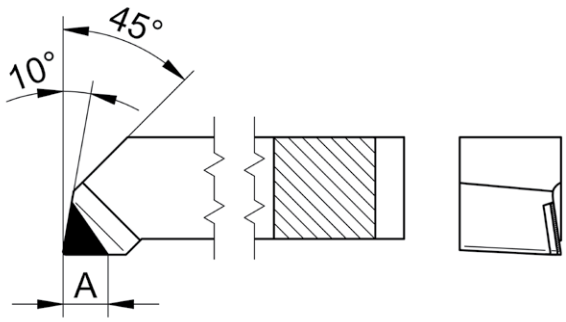
CBN Power Turning Tools

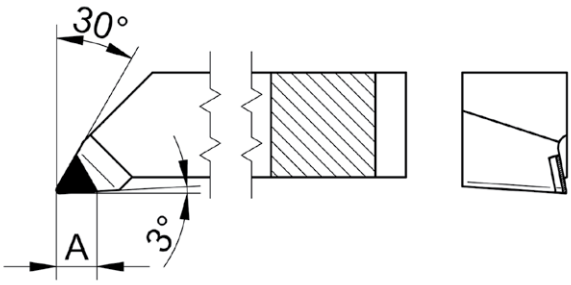


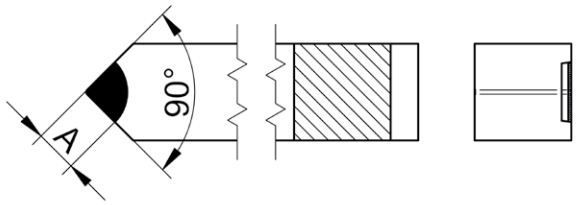
Außendrehen

External turning

Type	Order Code	Art.No.
ANR		
	B600 - ANR - 1616 x 120 - R = 0,3/A7	43 000 023
	B600 - ANR - 2020 x 160 - R = 0,3/A7	43 000 033
	B600 - ANR - 2520 x 160 - R = 0,3/A7	43 000 043
	B600 - ANR - 3225 x 180 - R = 0,4/A7	43 000 046
	B600 - ANL - 1616 x 120 - R = 0,3/A7	43 000 024
	B600 - ANL - 2020 x 160 - R = 0,3/A7	43 000 034
	B600 - ANL - 2520 x 160 - R = 0,3/A7	43 000 044
	B600 - ANL - 3225 x 180 - R = 0,4/A7	43 000 054
ACR		
	B600 - ACR - 1616 x 120 - R = 0,3/A7	43 000 223
	B600 - ACR - 2020 x 160 - R = 0,3/A7	43 000 233
	B600 - ACR - 2520 x 160 - R = 0,3/A7	43 000 243
	B600 - ACR - 3225 x 180 - R = 0,4/A7	43 000 246
	B600 - ACL - 1616 x 120 - R = 0,3/A7	43 000 224
	B600 - ACL - 2020 x 160 - R = 0,3/A7	43 000 234
	B600 - ACL - 2520 x 160 - R = 0,3/A7	43 000 244
	B600 - ACL - 3225 x 180 - R = 0,4/A7	43 000 245
AER		
	B600 - AER - 1616 x 120 - R = 0,3/A7	43 001 023
	B600 - AER - 2016 x 160 - R = 0,3/A7	43 001 035
	B600 - AER - 2516 x 160 - R = 0,3/A7	43 001 045
	B600 - AER - 3220 x 180 - R = 0,4/A7	43 001 048
	B600 - AEL - 1616 x 120 - R = 0,3/A7	43 001 024
	B600 - AEL - 2016 x 160 - R = 0,3/A7	43 001 034
	B600 - AEL - 2516 x 160 - R = 0,3/A7	43 001 046
	B600 - AEL - 3220 x 180 - R = 0,4/A7	43 001 047





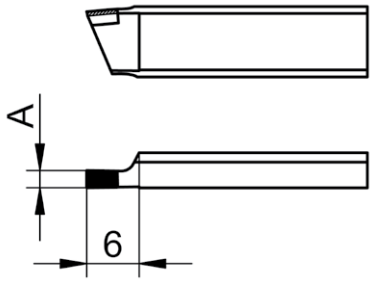


Resharpening service for all PCD and CBN cutting tools

dreborid®
CBN-power-Drehwerkzeuge
CBN Power Turning Tools

Stechen *Grooving*

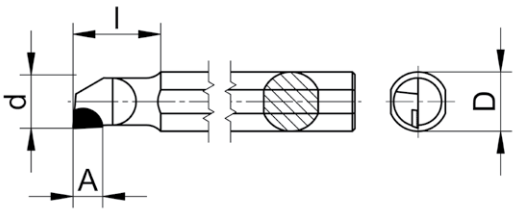
Type	Order Code	Art.No.
AT-Einsatz *Insert*	B600 - ATR = 1,85	430 200 01
	B600 - ATR = 2,15	430 200 02
	B600 - ATR = 2,65	430 200 03
	B600 - ATR = 3,15	430 200 04
	B600 - ATL = 1,85	430 200 05
	B600 - ATL = 2,15	430 200 06
	B600 - ATL = 2,65	430 200 07
	B600 - ATL = 3,15	430 200 08



AT-Klemmhal

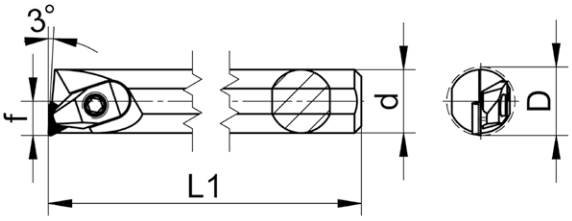
Innendrehen *Internal turning*

BDR	B600 - BDR - 10 x 140 - R = 0,2/A7 d/l = 8/13	430 220 00
	B600 - BDR - 12 x 160 - R = 0,2/A7 d/l = 10/15	430 220 02
	B600 - BDR - 16 x 180 - R = 0,2/A7 d/l = 14/19	430 220 04
	B600 - BDR - 20 x 200 - R = 0,3/A7 d/l = 18/33	430 220 06
	B600 - BDR - 25 x 200 - R = 0,3/A7 d/l = 20/53	430 220 08
	B600 - BDL - 10 x 140 - R = 0,2/A7 d/l = 8/13	430 220 01
	B600 - BDL - 12 x 160 - R = 0,2/A7 d/l = 10/15	430 220 03
	B600 - BDL - 16 x 180 - R = 0,2/A7 d/l = 14/19	430 220 05
	B600 - BDL - 20 x 200 - R = 0,3/A7 d/l = 18/33	430 220 07
	B600 - BDL - 25 x 200 - R = 0,3/A7 d/l = 20/53	430 220 09



Bohrstangen für PKD- und CBN-Vollschichtplatten
Boring bars for PCD and CBN full face inserts

Type	Order Code	d	l1	f	D	Art.-No.
CTUP 93° Klemmhalter *Tool holder*	C08K - CTUP - R06	8	125	4,5	9	451 003 34
	C08K - CTUP - L06	8	125	4,5	9	451 003 35
	C10K - CTUP - R06	10	125	5,5	11	451 003 36
	C10K - CTUP - L06	10	125	5,5	11	451 003 37
	C12P - CTUP - R06	12	170	6,5	13	451 003 38
	C12P - CTUP - L06	12	170	6,5	13	451 003 39
	S16Q - CTUP - R06	16	180	8,5	17	451 003 40
	S16Q - CTUP - L06	16	180	8,5	17	451 003 41
	S20R - CTUP - R06	20	200	10,5	21	451 003 42
	S20R - CTUP - L06	20	200	10,5	21	451 003 43



passend für Wendeplatten TPGN 0601
suitable for inserts

Nachschleifservice für alle PKD- und CBN-Werkzeuge

ISO-Nummernschlüssel für Schneidplatten

ISO Numerical Code for Inserts

Bestellbeispiel *Example for ordering*	L	-	1	2	3	4	5	6	7	8	9
Order Code	B	-	T	P	M	W	16	T3	04	F	N

L — LACH-dreborid-Spezifikation *LACH dreborid specification*

Code D	B	N	M	CVD
PKD *PCD*	CBN *CBN*	Naturdiamant *Natural diamond*	Monodiamant *Mono diamond*	CVD

1 — Grundform *Basic Shape*

Code H	P	S	C	E	V	A	K
		90°	80°	75°	35°	85°	55°

Code O	R	T	D	M	L	B	W
		60°	55°	86°		82°	80°

2 — Freiwinkel *Clearance angle*

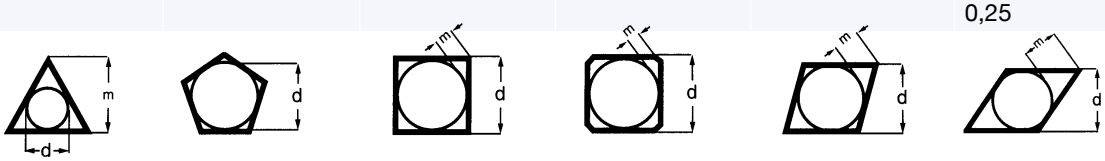
Code A	B	C	D	E	F	G	N	P
3°	5°	7°	15°	20°	25°	30°	0°	11°

3 — Toleranzen *Tolerances*

Code	A	F	C	H	E	G
m	± 0,005	± 0,005	± 0,013	± 0,013	± 0,025	± 0,025
s	± 0,025	± 0,025	± 0,025	± 0,025	± 0,025	± 0,013
d	± 0,025	± 0,013	± 0,025	± 0,013	± 0,025	± 0,025

Code	J	K	L	M[1)]	N[1)]	U[1)]
m	± 0,005	± 0,013	± 0,025	± 0,08 to ± 0,20	± 0,08 to ±0,20	± 0,13 - 0,38
s	± 0,025	± 0,025	± 0,025	± 0,013	± 0,025	± 0,013
d	± 0,05 to ± 0,15	± 0,05 to ± 0,15	± 0,05 to ± 0,15	± 0,05 to ± 0,15	± 0,05 to ± 0,15	± 0,08 to ± 0,25

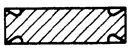
s = Dicke
Thickness



ISO-Nummernschlüssel für Schneidplatten

ISO Numerical Code for Inserts

4 Plattentype *Insert type*

Code N	R	F	A
			
Code M	**W**	**T**	**X**
			Special

5 Schneidkantenlänge *Length of cutting edge*

		06	08	09	11	13	16	22	27	33	44
		03	04	05	06	07	09	12	15	19	25
		-	-	-	03	04	05	07	09	11	14
		-	-	-	04	05	06	09	11	13	18
	80°	-	04	05	06	08	09	12	16	19	25
	55°	-	05	06	07	09	11	15	19	23	31
	35°	-	08	09	11	13	16	22	27	33	34
	d	3,968 5/32 “	4,762 3/16 “	5,556 7/32 “	6,35 1/4 “	7,937 5/16 “	9,525 3/8 “	12,7 1/2 “	15,875 5/8 “	19,05 3/4 “	25,4 1 “

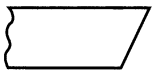
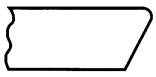
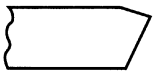
6 Plattenstärke *Thickness of insert*

Code	01	T1	02	03	T3	04	05	06	07	09	12
S	1,59	1,98	2,38	3,18	3,97	4,76	5,56	6,35	7,94	9,52	12,70

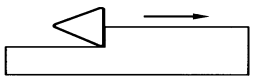
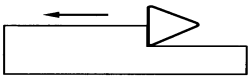
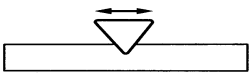
7 Schneidenecke *Corner of cutting edge*

Code	00	00	02	04	08	12	16	24	32	40
r (mm)	runde Platten *round inserts*	scharfe Ecken *sharp corners*	0,2	0,4	0,8	1,2	1,6	2,4	3,2	4,0

8 Schneide *Cutting edge*

F	E	T	S
			

9 Schneidrichtung *Cutting direction*

Code R	L	N
		

ISO-Nummernschlüssel für Klemmhalter
ISO Numerical Code for Tool Holders

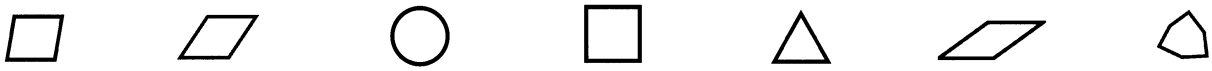
Bestellbeispiel *Example for ordering*	1	2	3	4	5	6	7	8	9
Order Code	P	D	F	N	R	20	20	N	12

1 Spannsystem *Clamping system*

Code C	M	P	S

2 Plattenform *Insert Shape*

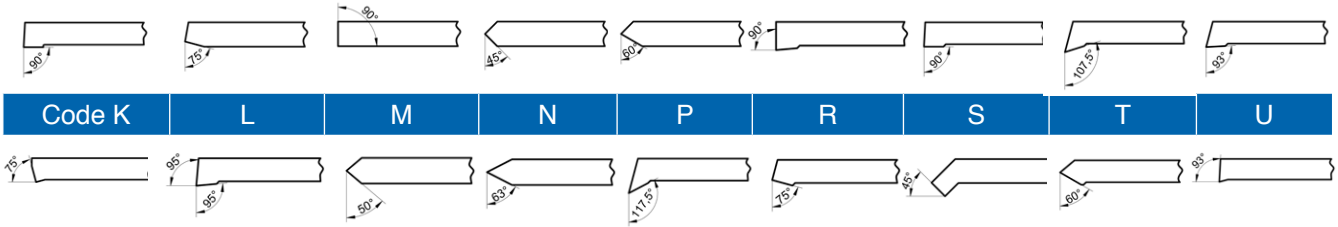
Code C	D	R	S	T	V	W



3 Form des Halters *Style of tool holder*

Code A	B	C	D	E	F	G	H	J
90°	75°	90°	45°	90°	90°	90°	107,5°	93°

Code K	L	M	N	P	R	S	T	U
75°	95° / 95°	50°	63°	117,5°	75°	45°	60°	93°

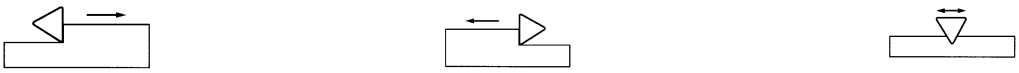


4 Freiwinkel *Clearance angle*

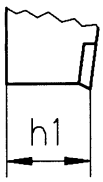
Code B	C	N	P
5°	7°	0°	11°

5 Schnittrichtung *Hand of tool*

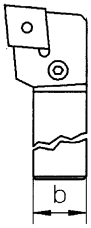
Code R	L	N



6 Höhe *Height*



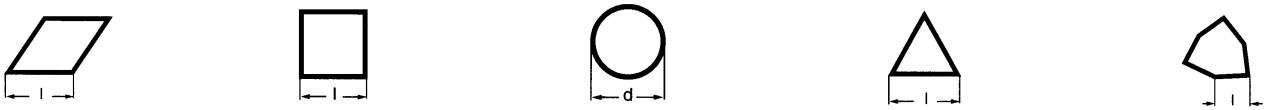
7 Breite *Width*



8 Länge *Total length*

A	32	**G**	90	**N**	160	**U**	350
B	40	**H**	100	**P**	170	**V**	400
C	50	**J**	110	**Q**	180	**W**	450
D	60	**K**	125	**R**	200	**Y**	500
E	70	**L**	140	**S**	250		
F	80	**M**	150	**T**	300		

9 Kantenlänge *Edge length*



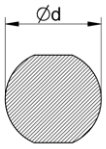
ISO-Nummernschlüssel für Bohrstangen
ISO Numerical Code for Tool Holders

Bestellbeispiel *Example for ordering*	1	2	3	4	5	6	7	8	9
Order Code	S	20	Q	S	T	F	N	R	12

1 Schaftausführung *Type of shank*

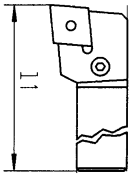
Code A	C	S
Stahl, mit Kanal für Kühlmittel *Steel with coolant channel*	Voll-Hartmetall mit feststehendem Kopf aus Stahl *Solid carbide with fixed steel head*	Stahlausführung *Steel version*

2 Schaft *Shank*



08	Ø 8	**25**	Ø 25
10	Ø 10	**32**	Ø 32
12	Ø 12	**40**	Ø 40
16	Ø 16	**50**	Ø 50
20	Ø 20		

3 Länge *Length*



F	*80*	**Q**	*180*	**U**	*350*
H	*100*	**R**	*200*	**V**	*400*
K	*125*	**X**	*225*	**W**	*450*
M	*150*	**S**	*250*	**Z**	*600*
P	*170*	**T**	*300*		

4 Spannsystem *Clamping system*

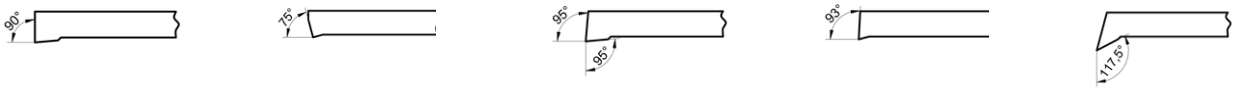
Code C	M	P	S

5 Plattenform *Insert Shape*

Code C	D	S	T	V	W

6 Halterform *Style of tool holder*

Code F	K	L	U	P



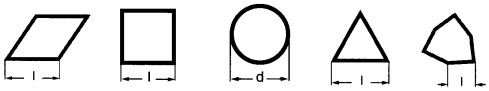
7 Freiwinkel *Clearance angle*

Code B	C	N	P

8 Schnittrichtung *Hand of tool*

Code R	L

9 Kantenlänge *Edge length*



LACH

Richtlinien für den Einsatz
Application Instructions

polykristalliner Diamant-Werkzeuge (PKD)
polycrystalline diamond tools (PCD)

Werkstoff *Material*	Schnittwerte *Cutting datas*		
	Schnittgeschw. *Cutting speed* V_c = m/min	Vorschub *Infeed* f_n = mm/U	Spantiefe *Depth of cut* a_p = mm
Aluminiumlegierungen unter 3 % Si *Aluminium alloys less than 3 % Si*	200 - 2000	0,05 - 0,4	bis zur ganzen Diamant-schneide *up to the whole diamond cutting edge*
Aluminiumlegierungen bis zu 12 % Si *Aluminium alloys up to 12 % Si*	150 - 1000	0,05 - 0,4	
Aluminiumlegierungen bis ca. 21 % Si *Aluminium alloys up to approx. 21 % Si*	100 - 800	0,05 - 0,4	
Messing-, Magnesium-, Zinklegierungen *Brass, magnesium, zinc alloys*	200 - 2000	0,05 - 0,4	
Kupfer-, Bronze-, Bleilegierungen *Copper, bronze, lead alloys*	200 - 1000	0,05 - 0,4	
Duro- und Thermoplaste ohne und mit Füllstoffen, z.B.: CFK, GFK und Epoxydharze *Duro and thermoplastics with and without fillers,e.g. CFRP, GRP and epoxy resin*	100 - 1000	0,05 - 0,2	
Hartpapiere *Hard papers*	200 - 600	0,10 - 0,3	
Hart- und Weichgummi ohne u. mit Füllstoffen *Hard and soft rubber with and without fillers*	100 - 500	0,10 - 0,3	
Graphit- und vorgesintertes Hartmetall *Graphite and pre-sintered carbide*	100 - 500	0,10 - 0,4	
Aluminiumoxyd, Silizium, Wolfram *Aluminium oxide, silicon, tungsten*	50 - 180	bis 0,1 *up to 0,1*	bis 0,5 *up to 0,5*

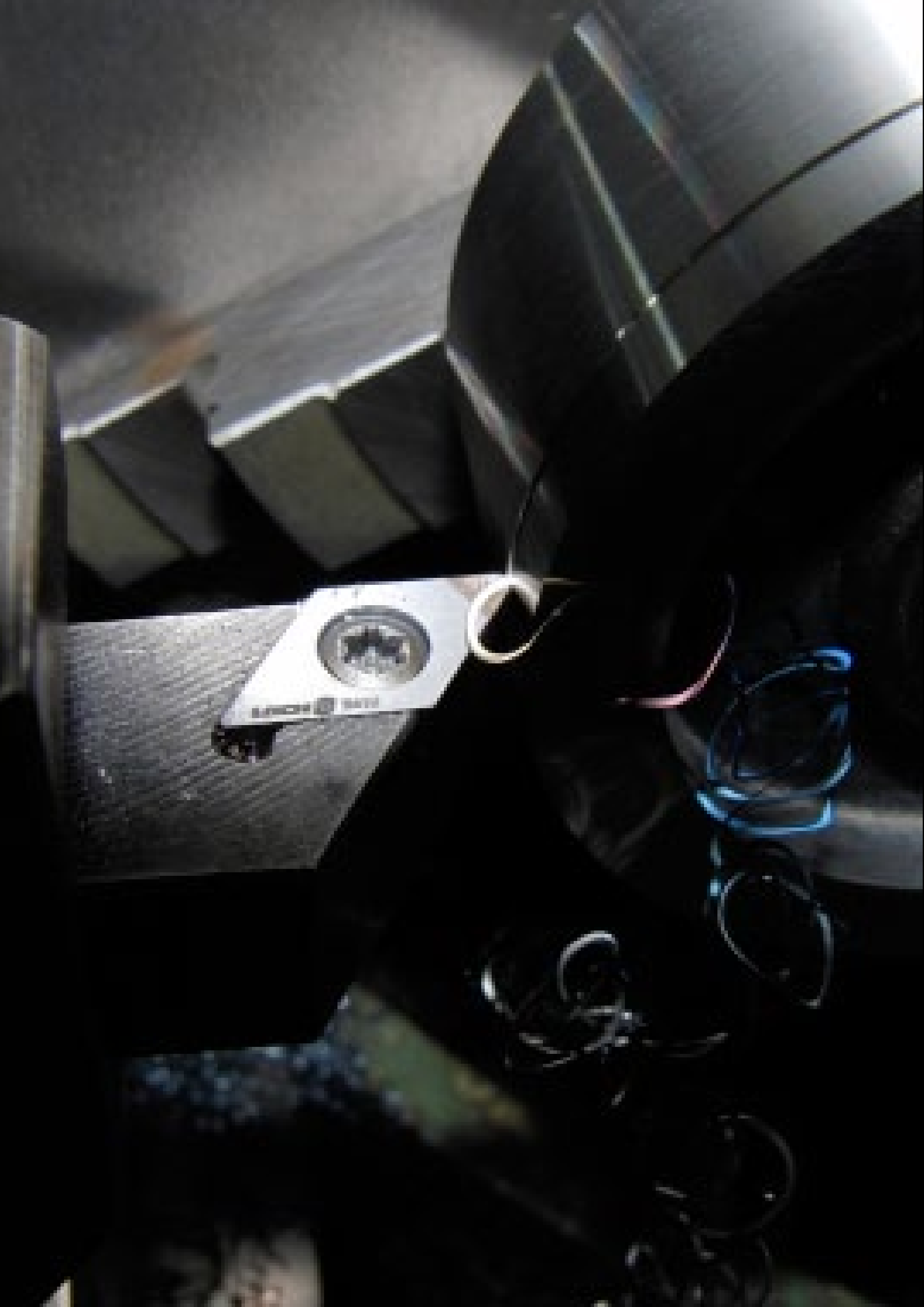
polykristalliner Bornitrid-Werkzeuge (CBN)
polycrystalline boron nitride tools (CBN)

Werkstoff *Material*	Schnittwerte *Cutting datas*		
	Schnittgeschw. *Cutting speed* V_c = m/min	Vorschub *Infeed* f_n = mm/U	Spantiefe *Depth of cut* a_p = mm
Werkzeug - und Einsatzstähle *Tool and case hardened steels*	120 - 300	bis 0,4	bis 0,8
hochleg. Werkzeugstähle (CrNi) *High alloy hardened steels (CrNi)* pulvermetallurgische Stähle (ASP) *Powder metallurgic steels (ASP)*	60 - 220	bis 0,15	bis 1,0
Gusswerkstoff *Cast materials* GG; GGG, GTW, GH, GS	bis 900	bis 0,5	bis 2,0
Aufspritzlegierungen *Thermal sprayed alloys* Sonderlegierungen *Special alloys*	60 - bis 120	bis 2,0	bis 1,0

Für unterbrochenen Schnitt wählen Sie 50% der Schnittdaten.Intensive Kühlung mit KSS oder MMKS verbessert die Schnittleistung.
For interrupted cuts use 50% of the cutter values. Intensive cooling with suitable coolant improves the cutting performance.

Formelsammlung
Collection of formulas

Terminologie *Terminology*		Einheit *Unit*	Formel *Formular*
Fräsen ***Milling***			
d	= Fräserdurchmesser *Milling cutter diameter*	[mm]	$v_c = \frac{\Pi \times D \times n}{1000}$
l_f	= Bearbeitungslänge *Processing length*	[mm]	$n = \frac{V_c \times 1000}{\Pi \times D \times n}$
a_p	= Spantiefe *Depth of cut*	[mm]	$v_f = f_z \times n \times z_n$
a_e	= Werkstückbreite *Width of workpiece*	[mm]	
v_c	= Schnittgeschwindigkeit *Cutting speed*	[m/min]	$Q = \frac{a_p \times a_e \times v_f}{1000}$
Q	= Zerspanungsvolumen *Chipping volume*	[cm^3/min]	
t_c	= Eingriffszeit *Processing time*	[min]	$t_c = \frac{l_f}{v_f}$
z_n	= Anzahl der Schneiden *Number of cutting edges*	[Stück] [*Piece*]	
f_z	= Vorschub pro Zahn *Infeed per cutting edge*	[mm]	$P_c = a_p \times f_z \times z_e \times k_c$
f_n	= Vorschub pro Umdrehung *Infeed per rotation*	[mm]	
v_f	= Vorschubgeschwindigkeit *Infeed speed*	[mm/min]	
n	= Drehzahl *Revolution*	[U/min] *[r/min]*	
P_c	= Leistungsbedarf *Power requirement*	[kW]	
k_c	= Spezifische Schnittkraft *Specific cutting force*	[N/mm^2]	
Drehen *Turning*			
D	= Bearbeitungsdurchmesser *Processing Diameter*	[mm]	$v_c = \frac{\Pi \times D \times n}{1000}$
v_c	= Schnittgeschwindigkeit *Cutting Speed*	[m/min]	
n	= Drehzahl *Revolution*	[U/min] *[r/min]*	$n = \frac{V_c \times 1000}{\Pi \times D}$
t_c	= Eingriffszeit *Processing time*	[min]	
Q	= Zerspanungsvolumen *Chipping volume*	[cm^3/min]	$t_c = \frac{l_f}{f_n \times n}$
l_f	= Bearbeitungslänge *Processing length*	[mm]	
f_n	= Vorschub pro Umdrehung *Infeed per rotation*	[mm]	$R_{max} = \frac{f_n^2 \times 125}{r_\varepsilon}$
R_{max}	= Oberflächengüte *Surface quality*	[µm]	
r_ε	= Schneidenradius *Cutting edge radius*	[mm]	
a_p	= Spantiefe *Depth of cut*	[mm]	



LACH-Diamant- und CBN-Fertigungsprogramm

Drehen, Bohren, Fräsen von NE-Metallen, gehärteten Stählen, Guss und Faser-Verbundwerkstoffen – GFK – CFK	dreborid® polykristalline Diamant- und CBN-Zerspanungs-Werkzeuge oder CVD-bestückt Besonderheiten: u. a. »chipbreaker«-Programm »Cool Injection« - Kühlung direkt
Schleifen von Hartmetall und Keramik	Diamant-Schleifscheiben und -Stifte in Kunststoff-, Metall-, Keramik-und Galvanik-Bindungen
Schleifen von HSS und gehärteten Stählen	CBN-Schleifscheiben und -Stifte in Kunststoff-, Metall-, Keramik- und Galvanik-Bindungen
Abrichten von Schleifscheiben	Natur-Einzel-Abrichtdiamanten, geschliffene Profil-, Kopier- und Diaform-Diamanten, Vielkorn-Diamant-Abrichter, Abrichtplatten und Aggregate, Präzisions-Diamant-Abrichtrollen, drebojet-Diamant-Fräs-Abrichtrollen, Rohdiamanten – auch zur Vorlage – aus eigenen Importen
Feilen, Entgraten, Trennen, Fräsen	Galvanikprogramm: Diamant-Trennscheiben für GFK, CFK etc. und Grünlingsbearbeitung von Hartmetall und Keramik, Diamant-Feilen, Entgratungs- und Profil-Werkzeuge
Läppen und Polieren	Diamant-Pasten und Diamant-Spray »MF«-Programm
Schleif- und Schärfmaschinen	für Service und Herstellung polykristalliner Diamant- und CBN-Werkzeuge
Service-Leistungen	Nachschleifen aller polykristallinen Diamant-, CBN- und CVD-Zerspanungs-Werkzeuge, Umfassen und Nachschleifen in eigener Natur-Diamant-Schleiferei von Einzel-Abrichtdiamanten, Profil-, Kopier- sowie Diaform-Diamanten und sonstigen Natur-Diamant-Werkzeugen, Wiederbelegung galvanisch gebundener Diamant- und CBN-Werkzeuge, CVD-Beschichtung von Verschleißteilen

LACH Diamond and CBN Manufacturing Programme

Turning, drilling, milling of non-ferrous metals, hardened steels, cast iron and fibre composite materials – GRP – CFRP	*dreborid® polycrystalline diamond and CBN cutting tools or CVD-tipped* *Specialties: e.g. »chipbreaker« programme* *»Cool Injection« - direct cooling*
Grinding of carbide and ceramics	*Diamond grinding wheels and pins in resin, metal, vitrified and electroplated bond*
Grinding of HSS and hardened steels	*CBN grinding wheels and pins in resin, metal, vitrified and electroplated bond*
Dressing of grinding wheels	*Single-point natural diamond dressers, ground profile, copy and Diaform diamonds, multi-point diamond dressers, dressing plates and grit dressers, precision diamond dressing rolls,* *drebojet diamond mill dressing rolls,* *natural diamonds – from own imports for selection*
Filing, deburring, cutting off, milling	*Electroplated tool programme: diamond cutting discs for GRP, CFRP etc. and machining of green carbide and green ceramics, diamond files, deburring and profile tools*
Lapping and polishing	*Diamond lapping compounds and diamond spray »MF« programme*
Grinding and sharpening machines	*for service and manufacturing of polycrystalline diamond and CBN tools*
Service	*Resharpening of all polycrystalline diamond, CBN and CVD cutting tools, resetting and resharpening in our own natural diamond service facility of single-point diamond dressers, profile, copy as well as Diaform diamonds and other natural diamond tools, recoating of electroplated diamond and CBN tools, CVD-coating of wear parts*

Stammwerk / *Headquarter* Hanau/Frankfurt/M.

Werk Sachsen / *Plant Saxonia* Lichtenau/Chemnitz

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