

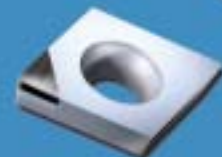
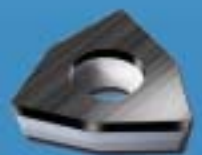


BECKER

PCD / CBN Mini-Bore

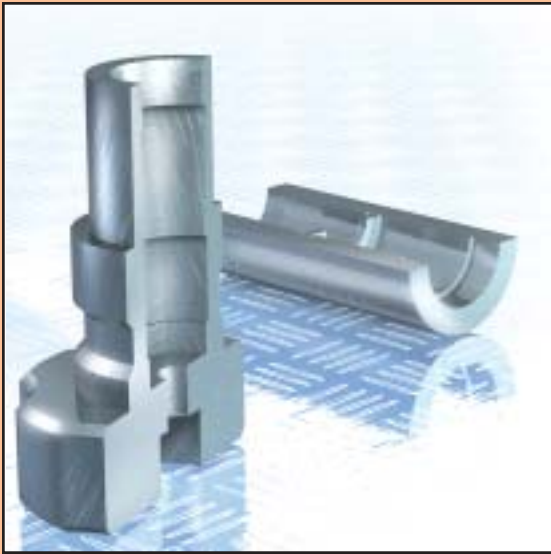
MiniCut boring bars!

- Diameters from .157"!
- Able to achieve depths of up to 7 x D!
- Solid tungsten carbide design, PCD or CBN tipped!
- 75° positive insert style produces excellent cutter performance!
- Featuring MAXICOOL™ through coolant technology!



Rani Tool Corp.

MiniCut PCD Tipped Boring Bars



BECKER has developed the MiniCut Tool System especially for boring from a diameter of .157" to .984" in PCD, CBN and MDC optimizing the advantages of each material type.

All boring bars are designed in solid tungsten carbide with integrated through coolant and enable boring depths of up to 7xD. Our MiniCut tools are used on machining centers and turning machines. Contrary to most conventional tool systems we use the positive indexable inserts type EPHW and EPHT. The advantages of the 75° insert style enables higher cutting performance and precision. The tipped boring bars have the identical shape for the full diameter range.

The Wiper-Indexable Inserts with neutral or positive rake angle and tipped Wiper Boring Bars with neutral rake angle are used for high-tech machining with high productivity, also increasing the flexibility of the MiniCut System considerably.

PCD Tipped Carbide Boring Bars

Cylindrical solid carbide boring bar with one clamping surface, tipped cutting edge and MaxiCool™ internal coolant feed
For Adapter Sleeves, see page 3



X-GE Right or left hand

Right hand bar shown

Designation	Dimensions							PDC-S	PDC	PDC-L	MDC	
	d _{min}	l	d ⁹⁷	d ⁹⁷ mm	f	l ²	r				DP	DM
X3.5F-GEUPR/L01	.157	3.15	.138	3.5	.079	.47	.004	■				
X3.5F-GEUPR/L02							.008	■				
X04F-GEUPR/L01							.004	■				
X04F-GEUPR/L02	.197	3.15	.157	4	.098	.55	.008	■				
X04F-GEUPR/L04							.016	■				
X05H-GEUPR/L01							.004	■				
X05H-GEUPR/L02	.236	3.94	.197	5	.118	.71	.008	■				
X05H-GEUPR/L04							.016	■				
X06H-GEUPR/L01							.004	■				
X06H-GEUPR/L02	.275	3.94	.236	6	.138	.79	.008	■				
X06H-GEUPR/L04							.016	■				

R/L= please choose right or left hand designation

Boring bars with wiper edge also available, see full BECKER catalogue for complete selection



MiniCut CBN Tipped Boring Bars

CBN Tipped Carbide Boring Bars

Cylindrical solid carbide boring bar with one clamping surface, tipped cutting edge and MaxiCool™ internal coolant feed.

For Adapter Sleeves, see below



X-GE Right or left hand

Right hand bar shown

Designation	Dimensions										
	d _{min}	l	d ⁹⁷	d ⁹⁷ mm	f	l ²	r	SBC1	SB10	SB25	SB40
								BH	BL		
X3.5F-GEUPR/LT01							.004	■	■	■	■
X3.5F-GEUPR/LF02	.157	3.15	.138	3.5	.079	.47	.008		■	■	■
X3.5F-GEUPR/LT02							.008	■	■	■	■
X04F-GEUPR/LT01							.004	■	■	■	■
X04F-GEUPR/LF02							.008		■	■	■
X04F-GEUPR/LT02	.197	3.15	.157	4	.098	.55	.008	■	■	■	■
X04F-GEUPR/LF04							.016		■	■	■
X04F-GEUPR/LT04							.016	■	■	■	■
X05H-GEUPR/LT01							.004		■	■	■
X05H-GEUPR/LF02							.008		■	■	■
X05H-GEUPR/LT02	.236	3.94	.197	5	.118	.71	.008	■	■	■	■
X05H-GEUPR/LF04							.016		■	■	■
X05H-GEUPR/LT04							.016	■	■	■	■
X06H-GEUPR/LT01							.004		■	■	■
X06H-GEUPR/LF02							.008		■	■	■
X06H-GEUPR/LT02	.275	3.94	.236	6	.138	.79	.008	■	■	■	■
X06H-GEUPR/LF04							.016		■	■	■
X06H-GEUPR/LT04							.016	■	■	■	■

R/L= please choose right or left hand designation

Boring bars with wiper edge also available, see full BECKER catalogue for complete selection

Adapter Sleeve for Boring Bars form X...GEUP

Adapter Sleeves enable versatile use of the boring bars in all areas

Coolant feed is provided through the adapter.

Only for BECKER - Form X...GE



Inch

Designation	D	d	d ^{H7}	d ^{H7} mm	H	l	Boring Bar
ADAP-0.625-35	.625	.157	.138	3.5	.551	3.94	X3.5F-GEUPR/L
ADAP-0.625-40	.625	.197	.157	4	.551	3.94	X04F-GEUPR/L
ADAP-0.625-50	.625	.236	.197	5	.551	3.94	X05H-GEUPR/L
ADAP-0.625-60	.625	.315	.236	6	.551	3.94	X06H-GEUPR/L

Metric O.D. Adapter Sleeves also available, see full BECKER catalogue for complete selection

MiniCut Boring Bars with Carbide Shank



Boring Bar, Solid Carbide Shank, Design E...SEUP, right or left hand

Boring bar with cylindrical solid carbide shank and MaxiCool™ internal coolant feed

E__-SEUPR/L									
Designation	d min	d ^{g7}	d ^{g7} mm	f	L ¹	g	Insert	insert screw	wrench
Inch Shank Bars / With Through Coolant									
E04H-SEUPR/L-15	.290	.250	6.35	.142	4.00	5°	EPH.. 1.51..	SCR-1101	KEY-2101
E05K-SEUPR/L-15	.350	.312	7.94	.173	5.00	5°			
E06M-SEUPR/L-2	.400	.375	9.53	.205	6.00	5°	EPH.. 21.2..	SCR-1102	KEY-2102
Metric Shank Bars / With Through Coolant									
E06F-SEUPR/L-04	.268	.236	6	.134	3.15	9°	EPH.. 1.51..	SCR-1101	KEY-2101
E07H-SEUPR/L-04	.331	.276	7	.173	3.94	5°			
E08H-SEUPR/L-04	.374	.315	8	.193	3.94	5°			
E10K-SEUPR/L-06	.453	.394	10	.228	4.92	5°	EPH.. 21.2..	SCR-1102	KEY-2102
E12M-SEUPR/L-06	.531	.472	12	.272	5.91	3°			
E16R-SEUPR/L-06	.728	.630	16	.386	7.87	0°			

R/L= please choose right or left hand designation

Boring Bar, Solid Carbide, Design E...SEUP, right or left hand

Boring bar with cylindrical solid carbide shank, two clamping surfaces and MaxiCool™ internal coolant feed

E__-SEUPR/L												
Designation	d min	d	f	L ¹	L ²	d ^{g7}	d ^{g7} mm	h	g	Insert	insert screw	wrench
Metric Shank Bars / With Through Coolant												
E0610H-SEUPR/L-04	.268	.236	.134	3.94	1.42	.394	10	.31	9°	EPH.. 1.51..	SCR-1101	KEY-2101
E0710K-SEUPR/L-04	.331	.276	.173	4.92	1.65	.394	10	.31	5°			
E0810K-SEUPR/L-04	.374	.315	.193	4.92	1.89	.394	10	.31	5°			

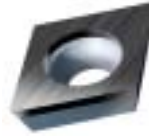
R/L= please choose right or left hand designation

BECKER PCD & CBN Inserts

EPHW Fullface



Also available with wiper edge!



See full BECKER catalogue for complete selection!

Insert	Designation	Dimensions						PDC-S	PDC	PDC-L	MDC	
		d	d ¹	s	l	l ¹	r	DP			DM	
	EPHW-1.510-VM					--	.004	■	■			
	EPHW-1.510.5-VM	.187	.087	.062	.193	--	.008	■	■			
	EPHW-1.511-VM					--	.016	■	■			

EPHW



Also available with wiper edge!



See full BECKER catalogue for complete selection!

Insert	Designation	Dimensions						PDC-S	PDC	PDC-L	MDC	
		d	d ¹	s	l	l ¹	r	DP			DM	
	EPHW-21.20					.122	.004	■	■			
	EPHW-21.20.5	.250	.110	.078	.260	.118	.008	■	■			
	EPHW-21.21					.110	.016	■	■			

EPHW Fullface



Also available with wiper edge!



Also available without edge prep.
See full BECKER catalogue for complete selection!

Insert	Designation	Dimensions						PBC-10	PBC-15	PBC-17	PBC-20	PBC-25	PBC-30	PBC-40
		d	d ¹	s	l	l ¹	r	BH			BH			
	EPHW-1.510T-VM					--	.004	■			■	■	■	■
	EPHW-1.510.5T-VM	.187	.087	.062	.193	--	.008	■	■	■	■	■	■	■
	EPHW-1.510.7T-VM					--	.012	■		■	■	■	■	■
	EPHW-1.511T-VM					--	.016	■		■	■	■	■	■

EPHW EW



Also available with wiper edge!



Also available without edge prep.
See full BECKER catalogue for complete selection!

Insert	Designation	Dimensions						PBC-10	PBC-15	PBC-17	PBC-20	PBC-25	PBC-30	PBC-40
		d	d ¹	s	l	l ¹	r	BH			BL			
	EPHW-21.20T-EW					.122	.004	■			■	■	■	■
	EPHW-21.20.5T-EW	.250	.110	.078	.260	.118	.008	■	■	■	■	■	■	■
	EPHW-21.21T-EW					.094	.016	■	■	■	■	■	■	■
	EPHW-21.22T-EW					.094	.031	■	■	■	■	■	■	■

MiniCut Boring Bars / BECKER PCD & CBN Inserts

Boring Bar, Solid Carbide Shank, Design C...SWUC, right or left hand

Boring bar with cylindrical solid carbide shank

__-SWUCR/L									
Designation	d_min	d ^{g7}	d ^{g7} mm	f	L ¹	g	Insert	insert screw	wrench
Inch Shank Bars / Non Coolant									
C03A-SWUCR/L-12	.228	.188	4.78	.114	4.00	17°	WCGW-1.21..	SCR-1101	KEY-2101
C04A-SWUCR/L-12	.312	.250	6.35	.156	4.00	17°			
Inch Shank Bars / With Through Coolant									
E04A-SWUCR/L-12	.312	.250	6.35	.156	4.00	17°	WCGW-1.21..	SCR-1101	KEY-2101

R/L= please choose right or left hand designation

WCGW Fullface



Insert	Designation	Dimensions					PDC-S	PDC	PDC-L	MDC	
		d	d ¹	s	l	l ¹	r	DP		DM	
	WCGW-1.210.5-VM	.156	.091	.062	--	.106	.008		■		
	WCGW-1.211-VM								■		

WCGW Fullface




Also available without edge prep.
See full BECKER catalogue
for complete selection!

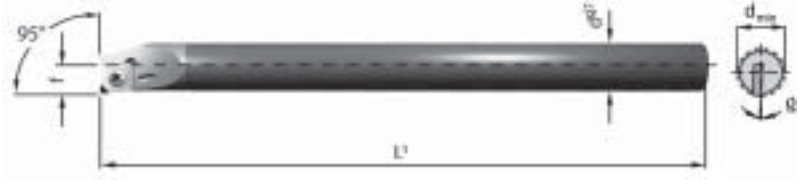
Insert	Designation	Dimensions					PBC-10	PBC-15	PBC-17	PBC-20	PBC-25	PBC-30	PBC-40	
		d	d ¹	s	l	l ¹	r	BH		BL				
	WCGW-1.210.5T-VM	.156	.091	.062	--	.106	.008	■			■	■	■	■
	WCGW-1.211T-VM							■	■	■	■	■	■	■

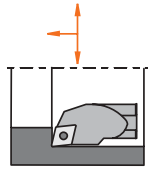
MiniCut Boring Bars / BECKER PCD & CBN Inserts

Boring Bar, Solid Carbide Shank, Design C_-SCLC, right or left hand

C_-SCLCR/L








Lead Angle: -5°
Entering Angle: 95°

Designation	Min. Bore A	D	L	L ²	F	Insert	insert screw	wrench
C06M-SCLCR/L 2	.500	.375	6.00	.550	.250	CC_-21.5_	C-1425	C-5507
C08M-SCLCR/L 2	.625	.500	6.00	.650	.312		C-1440	C-5515
C10R-SCLCR/L 3	.750	.625	8.00	.740	.406	CC_-32.5_	C-1440	C-5515
C12S-SCLCR/L 3	1.000	.750	10.00	.740	.500		C-1440	C-5515


R/L= please choose right or left hand designation

These bars are also available with coolant through



CCMW Neutral

Also available
with wiper edge!



See full BECKER catalogue
for complete selection!

Insert	Designation	Dimensions								PDC-S	PDC	PDC-L	MDC	
		d	d'	s	l	PDC l'	MDC l'	r	DP		DM			
	CCMW-21.50.5					.134	.094	.008	■	■		■	■	
	CCMW-21.51	.250	.110	.094	.254	.126	.087	.016	■	■		■	■	
	CCMW-21.52					.118	.079	.031		■		■	■	
	CCMW-32.50.5					.177	--	.008		■			■	■
	CCMW-32.51	.375	.173	.156	.382	.169	.087	.016	■	■		■	■	
	CCMW-32.52					.161	.079	.031		■			■	■



CCMW EW

Also available
with wiper edge!



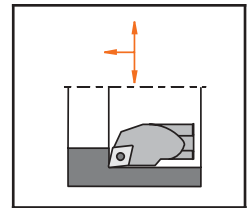
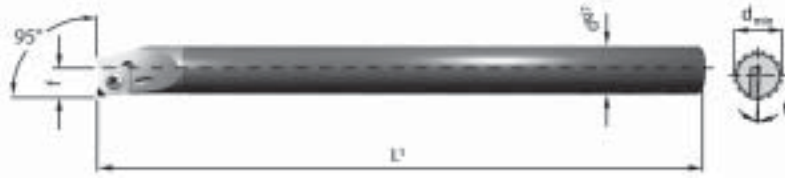
Also available without edge prep.
See full BECKER catalogue
for complete selection!

Insert	Designation	Dimensions							PBC-10	PBC-15	PBC-17	PBC-20	PBC-25	PBC-30	PBC-40
		d	d'	s	l	l'	r	BH		BL					
	CCMW-21.50.5T-EW					.134	.008	■	■	■	■	■	■	■	
	CCMW-21.51T-EW	.250	.110	.094	.254	.122	.016	■	■	■	■	■	■	■	
	CCMW-21.52T-EW					.110	.031	■	■	■	■	■	■	■	
	CCMW-32.50.5T-EW					.134	.008	■	■	■	■	■	■	■	
	CCMW-32.51T-EW	.375	.173	.156	.382	.122	.016	■	■	■	■	■	■	■	
	CCMW-32.52T-EW					.110	.031	■	■	■	■	■	■	■	
	CCMW-32.53T-EW					.098	.047	■	■	■	■	■	■	■	

MiniCut Boring Bars / BECKER PCD & CBN Inserts



Solid Carbide Shank



Lead Angle: -5°
Entering Angle: 95°

Designation	Min. Bore A	D	L	L ²	F	Insert	insert screw	wrench
C06M-SCLPR/L 2	.500	.375	6.00	.550	.250	CP__-21.5_	C-1425	C-5507
C08R-SCLPR/L 2	.625	.500	8.00	.650	.312			
C10S-SCLPR/L 2	.750	.625	10.00	.740	.406			
C12S-SCLPR/L 3	1.000	.750	10.00	.740	.500	CP__-32.5_	C-1440	C-5515

R/L= please choose right or left hand designation

These bars are also available with coolant through



Also available with wiper edge!



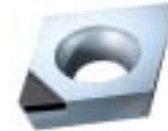
See full BECKER catalogue for complete selection!

CPMW Neutral

Insert	Designation	Dimensions							PDC-S	PDC	PDC-L	MDC		
		d	d'	s	l	PDC 1	MDC 1	r	DP			DM		
	CPMW-21.50.5					.134	--	.008	■	■				
	CPMW-21.51	.250	.110	.094	.254	.126	--	.016		■	■			
	CPMW-21.52					.118	.079	.031		■	■		■	
	CPMW-32.51	.375	.173	.156	.382	.169	--	.016		■	■			
	CPMW-32.52					.161	--	.031		■	■			



Also available with wiper edge!



Also available without edge prep. See full BECKER catalogue for complete selection!

CPMW EW

Insert	Designation	Dimensions							PBC-10	PBC-15	PBC-17	PBC-20	PBC-25	PBC-30	PBC-40
		d	d'	s	l	l'	r	BH			BL				
	CPMW-21.50.5T-EW					.134	.008	■	■	■	■	■	■	■	■
	CPMW-21.51T-EW	.250	.110	.094	.254	.122	.016	■	■	■	■	■	■	■	■
	CPMW-21.52T-EW					.110	.031	■	■	■	■	■	■	■	■
	CPMW-32.50.5T-EW					.134	.008	■	■	■	■	■	■	■	■
	CPMW-32.51T-EW	.375	.173	.156	.382	.122	.016	■	■	■	■	■	■	■	■
	CPMW-32.52T-EW					.110	.031	■	■	■	■	■	■	■	■

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