CARMET TOOLS & INSERTS ltd.

carmet@carmettools.com

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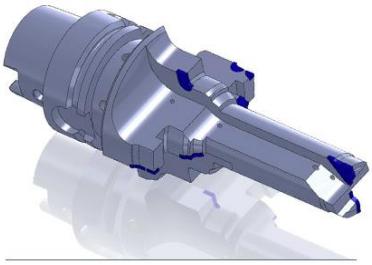
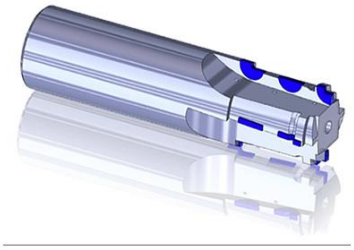
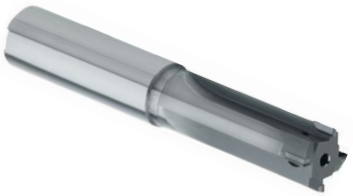
PCD TOOLS







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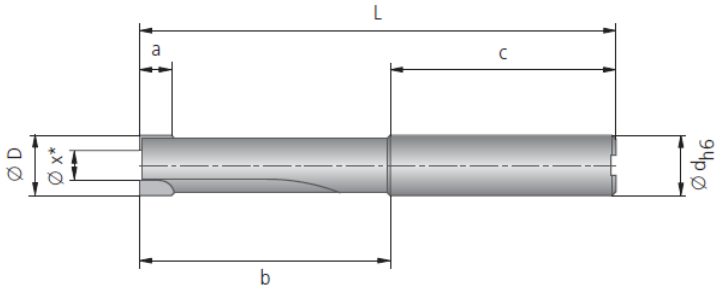
PCD Reamer with 2 flutes.



Ø D	L	b	c	a
*0.1575 – 0.1811 (4.000 – 4.600)	2.520 (64)	1.102 (28)	1.417 (36)	0.276 (7)
*0.1812 – 0.2008 (4.601 – 5.100)	2.520 (64)	1.102 (28)	1.417 (36)	0.276 (7)
*0.2009 – 0.2205 (5.101 – 5.600)	2.520 (64)	1.102 (28)	1.417 (36)	0.276 (7)
0.2206 – 0.2402 (5.601 – 6.100)	2.795 (71)	1.378 (35)	1.417 (36)	0.276 (7)
0.2403 – 0.2598 (6.101 – 6.600)	2.992 (76)	1.575 (40)	1.417 (36)	0.276 (7)
0.2599 – 0.2795 (6.601 – 7.100)	2.992 (76)	1.575 (40)	1.417 (36)	0.276 (7)
0.2796 – 0.2992 (7.101 – 7.600)	2.992 (76)	1.575 (40)	1.417 (36)	0.276 (7)
0.2993 – 0.3189 (7.601 – 8.100)	2.992 (76)	1.575 (40)	1.417 (36)	0.276 (7)
0.3190 – 0.3386 (8.101 – 8.600)	3.346 (85)	1.575 (40)	1.772 (45)	0.276 (7)
0.3387 – 0.3583 (8.601 – 9.100)	3.346 (85)	1.575 (40)	1.772 (45)	0.276 (7)
0.3584 – 0.3976 (9.101 – 10.100)	3.346 (85)	1.575 (40)	1.772 (45)	0.276 (7)
0.3977 – 0.4567 (10.101 – 11.600)	3.740 (95)	1.969 (50)	1.772 (45)	0.276 (7)
0.4568 – 0.5552 (11.601 – 14.100)	3.740 (95)	1.969 (50)	1.772 (45)	0.276 (7)
0.5553 – 0.5945 (14.101 – 15.100)	3.858 (98)	1.969 (50)	1.890 (48)	0.276 (7)
0.5946 – 0.6339 (15.101 – 16.100)	3.858 (98)	1.969 (50)	1.890 (48)	0.276 (7)
0.6340 – 0.7126 (16.101 – 18.100)	4.252 (108)	2.362 (60)	1.890 (48)	0.276 (7)
0.7127 – 0.7913 (18.101 – 20.100)	4.331 (110)	2.362 (60)	1.968 (50)	0.276 (7)

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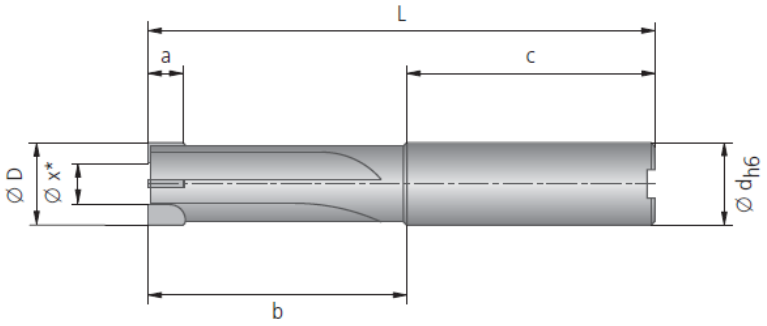
PCD Reamer with 4 flutes



Ø D	L	b	c	a	Ø d_{h6} mm
0.3780 – 0.3976 (9.601 – 10.100)	3.346 (85)	1.575 (40)	1.772 (45)	0.276 (7)	12
0.3977 – 0.4567 (10.101 – 11.600)	3.740 (95)	1.969 (50)	1.772 (45)	0.276 (7)	12
0.4568 – 0.5552 (11.601 – 14.100)	3.740 (95)	1.969 (50)	1.772 (45)	0.276 (7)	12
0.5553 – 0.5945 (14.101 – 15.100)	3.858 (98)	1.969 (50)	1.890 (48)	0.276 (7)	16
0.5946 – 0.6339 (15.101 – 16.100)	3.858 (98)	1.969 (50)	1.890 (48)	0.276 (7)	16
0.6340 – 0.7126 (16.101 – 18.100)	4.252 (108)	2.362 (60)	1.890 (48)	0.276 (7)	16
0.7127 – 0.7913 (18.101 – 20.100)	4.331 (110)	2.362 (60)	1.968 (50)	0.276 (7)	20

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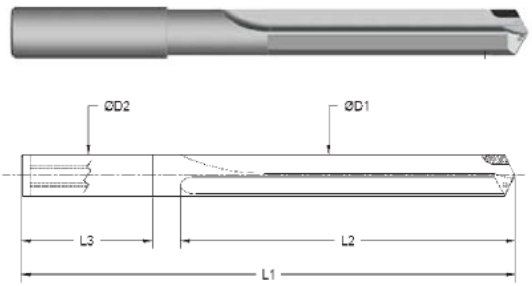
PCD……BURNISHING-Reaming DRILL



CUTTING DIAMETER (D1)	DEC EQUIV	TAP SIZE REFERENCE	SHANK DIAMETER (D2)	OVERALL LENGTH (L1)	FLUTE LENGTH (L2)	SHANK LENGTH (L3)
5.0 mm	0.1969	M6 X 1	6 mm	66 mm	28 mm	36 mm
B	0.238		1/4	(3-1/8)	(1-5/16)	(1-7/16)
6.1 mm	0.2402		8 mm	79 mm	34 mm	36 mm
I	0.272	5/16-24	5/16	(3-1/8)	(1-5/16)	(1-7/16)
7.0 mm	0.2756	M8 X 1	8 mm	79 mm	34 mm	36 mm
J	0.277		5/16	(3-1/8)	(1-5/16)	(1-7/16)
8.0 mm	0.315	M9 X 1	8 mm	79 mm	41 mm	36 mm
O	0.316		3/8	(3-1/2)	1-27/32	(1-9/16)
9.0 mm	0.3543	M10 X 1	10 mm	89 mm	47 mm	40 mm
25/64	0.3906	7/16-20	1/2	(3-1/2)	1-27/32	(1-9/16)
10.0 mm	0.3937		10 mm	89 mm	47 mm	40 mm
X	0.397	7/16-24	1/2	(4-1/16)	(4-1/16)	1-49/64
11.0 mm	0.4331	M12 X 1	12 mm	102 mm	55 mm	45 mm
15/32	0.4688	(1/2-28)	1/2	(4-1/16)	(4-1/16)	1-49/64
12.0 mm	0.4724	M14 X 2	12 mm	102 mm	55 mm	45 mm
31/64	0.4844	9/16-12	1/2	(4-1/4)	(2-5/16)	1-49/64
13.0 mm	0.5118	M14 X 1	14 mm	107 mm	60 mm	45 mm
14.0 mm	0.5512	M16 X 2	14 mm	107 mm	60 mm	45 mm
15.0 mm	0.5906	M16 X 1	16 mm	115 mm	65 mm	48 mm
16.0 mm	0.6299		16 mm	115 mm	65 mm	48 mm
21/32	0.6562	(3/4-10)	3/4	(4-7/8)	(2-3/4)	1-57/64
17.0 mm	0.6693		18 mm	123 mm	73 mm	48 mm
18.0 mm	0.7087		18 mm	123 mm	73 mm	48 mm
19.0 mm	0.748	(7/8-9)	20 mm	131 mm	79 mm	50 mm
(3/4)	0.75	M22 X 2.5	3/4	(5-1/4)	(3-1/16)	1-31/32

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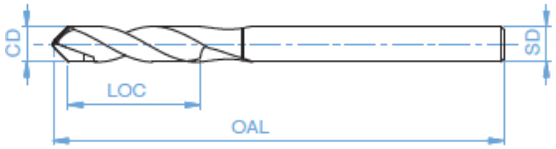
PCD DRILLS



Cutting Diameter (+0.006)	Shank Diameter (h6)	LOC (+03)	OAL (+06)
0.165	1/4	1.125	2.75
0.191	1/4	1.125	2.75
0.251	5/16	1.25	3
0.3125	5/16	1.25	3
0.375	3/8	1.5	3.5
0.4375	1/2	1.75	3.5
0.500	1/2	2	4

Cutting Diameter (+0.015)	Shank Diameter (h6)	LOC (+0.8)	OAL (+1.5)
4.19	6.00	28	70
4.85	6.00	28	70
6.375	8.00	32	75
7.938	8.00	32	75
10.00	10.00	40	84
12.00	12.00	45	89

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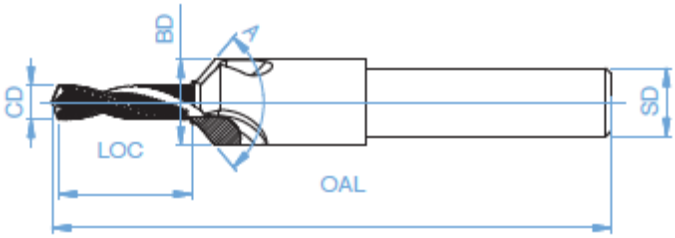
TOOLS & INSERTS

PCD DRILL & COUNTERSINK - combined



Cutting Diameter (+0.006)	Shank Diameter (h6)	Body Diameter (+/-.01)	CSK Angel
0.165	1/4	0.375	100/130
0.191	3/8	0.500	100/130
0.251	5/16	0.625	100/130
0.3125	5/16	0.625	100/130

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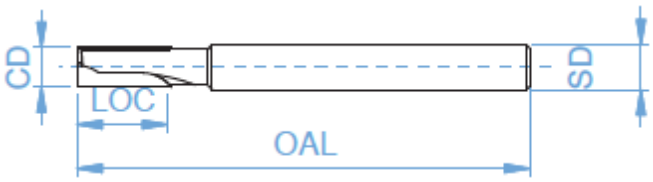
TOOLS & INSERTS

PCD END MILLS

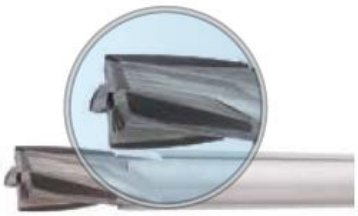


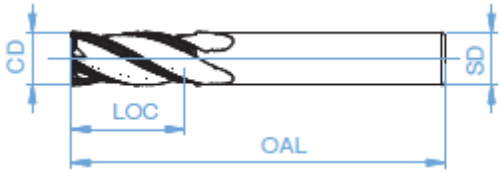
Cutting Diameter (-.002)	Shank Diameter (h6)	LOC (+03)	OAL (+06)	Number of Flutes
1/8	1/8	1/4	2	1
3/16	3/16	5/16	2	1
1/4	1/4	3/8	2	2
3/8	3/8	1/2	2.5	2
1/2	1/2	5/8	3	2
5/8	5/8	3/4	3.25	2

Cutting Diameter (-0.05)	Shank Diameter (h6)	LOC (+03)	OAL (+06)	Number of Flutes
3	3.00	6	60	1
4	4.00	6	60	1
6	6.00	10	70	2
8	8.00	15	70	2
10	10.00	15	75	2
12	12.00	18	75	2
16	16.00	20	75	2

CARMET
TOOLS & INSERTS

PCD ROUTER SPIRAL FLUTES





Cutting Diameter (-.002)	Shank Diameter (h6)	LOC (+03)	OAL (+06)	Number of Flutes
1/4	1/4	1/2	2.1/2	3
3/8	3/8	1/2	3	4
1/2	1/2	5/8	3.5	4
5/8	5/8	3/4	4	4

Cutting Diameter (-.005)	Shank Diameter (h6)	LOC (+08)	OAL (+1.5)	Number of Flutes
6	6.00	10	63	3
10	10.00	15	76	4
12	12.00	15	84	4
16	16.00	20	100	4

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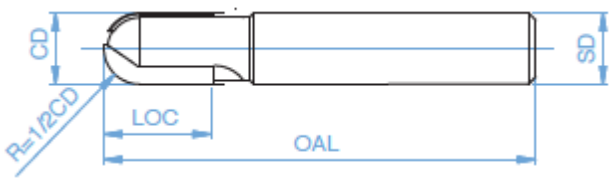
PCD Ball nose endmill



Cutting Diameter (-.002)	Shank Diameter (h6)	LOC (+03)	OAL (+06)	Number of Flutes
1/8	1/8	1/4	2	1
3/16	3/16	5/16	2	1
1/4	1/4	3/8	2	2
3/8	3/8	1/2	2.5	2
1/2	1/2	5/8	3	2
5/8	5/8	3/4	3.25	3

Cutting Diameter (-0.05)	Shank Diameter (h6)	LOC (+03)	OAL (+06)	Numbe of Flute
3	3.00	6	60	1
4	4.00	6	60	1
6	6.00	10	70	2
8	8.00	15	70	2
10	10.00	15	75	2
12	12.00	18	75	2
16	16.00	20	75	3

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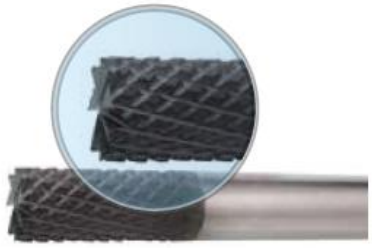
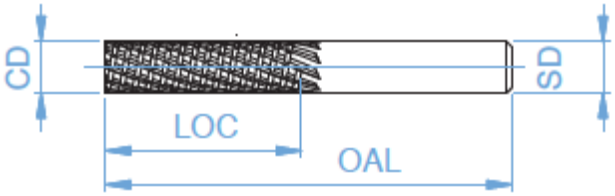
ROUTER diamond cvd coated





Cutting Diameter (-.002)	Shank Diameter (h6)	LOC (+03)	OAL (+06)	Number of Flutes
1/4	1/4	1	2.5	6
3/8	3/8	1.25	3	10
1/2	1/2	1.5	4	12

Cutting Diameter (-0.05)	Shank Diameter (h6)	LOC (+03)	OAL (+06)	Number of Flutes
6	6.00	25	63	6
8	8.00	32	76	8
10	10.00	35	76	10
12	12.00	40	80	12

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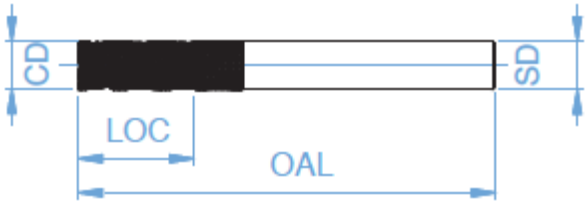
TOOLS & INSERTS

COMPRESSION ROUTER CVD DIAMOND COATED



Cutting Diameter (-.002)	Shank Diameter (h6)	LOC (+03)	OAL (+06)	Number of Flutes
1/4	1/4	1	2.5	6
3/8	3/8	1.25	3	6
1/2	1/2	1.5	4	6

Cutting Diameter (-0.05)	Shank Diameter (h6)	LOC (+03)	OAL (+06)	Number of Flutes
6	6.00	25	63	6
8	8.00	32	76	6
10	10.00	35	76	6
12	12.00	40	80	6

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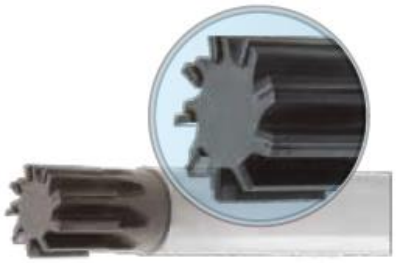
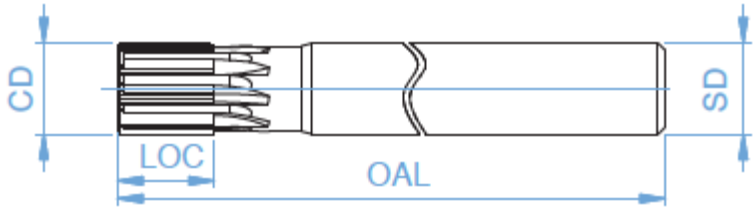
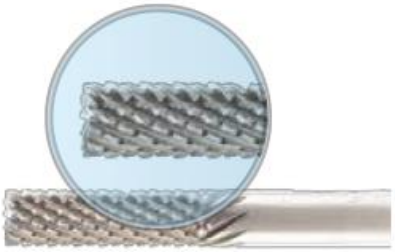
PCD Multi flute close pitch ENDMILL

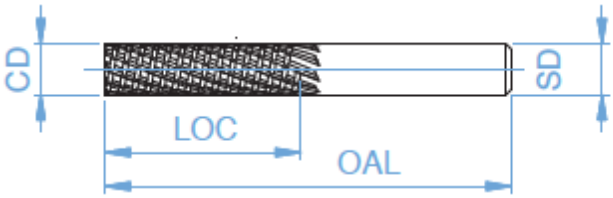




Cutting Diameter (-.005)	Shank Diameter (h6)	LOC (+08)	OAL (+1.5)	Numbe of Flute
4	4.00	6	50	3
6	6.00	6	60	3
8	8.00	11	60	3
10	10.00	13	63	5
12	12.00	13	75	5
12	12.00	13	75	7
12	12.00	13	75	9
16	16.00	16	79	3
16	16.00	16	79	9

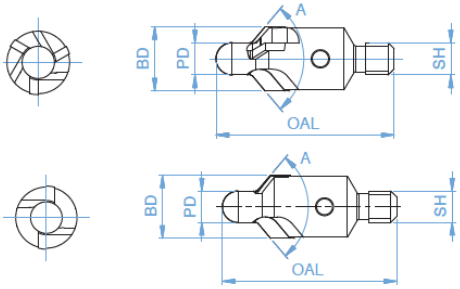
CARBIDE ROUTER





Cutting Diameter (-0.05)	Shank Diameter (h6)	LOC (+03)	OAL (+06)	Number of Flutes
6	6.00	25	63	6
8	8.00	32	76	8
10	10.00	35	76	10
12	12.00	40	80	12

PCD Countersink integral pilot


A
BD
PD
SH
OAL
A
BD
PD
SH
OAL

Body Dia. (+/-.03)	Pilot Dia. (-.001)	Number of flutes	CSK Angle (+/-0.5)	Thread shank
3/8	0.125	2 / 3	100/130	1/4"-28
3/8	0.128	2 / 3	100/130	1/4"-28
7/16	0.156	2 / 3	100/130	1/4"-28
7/16	0.187	2 / 3	100/130	1/4"-28
1/2	0.125	2 / 3	100/130	1/4"-28
1/2	0.128	2 / 3	100/130	1/4"-28
1/2	0.239	2 / 3	100/130	1/4"-28
5/8	0.191	2 / 3	100/130	1/4"-28
5/8	0.25	2 / 3	100/130	1/4"-28
3/4	0.312	2 / 3	100/130	3/8"-24
7/8	0.312	2 / 3	100/130	3/8"-24
1	0.312	2 / 3	100/130	7/16"-20
1.1/4	0.312	2 / 3	100/130	7/16"-20

Body Dia. (+/-.03)	Pilot Dia. (-.001)	Number of flutes	CSK Angle (+/-0.5)	Thread shank
10	3.00	2 / 3	100/130	M6x1.0
12	3.00	2 / 3	100/130	M6x1.0
14	3.00	2 / 3	100/130	M8x1.0
17	4.00	2 / 3	100/130	M8x1.0
19	6.00	2 / 3	100/130	M8x1.0
22	8.00	2 / 3	100/130	M8x1.0
25	8.00	2 / 3	100/130	M8x1.0

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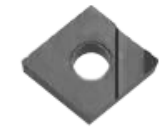
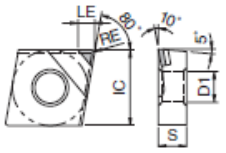
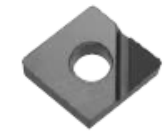
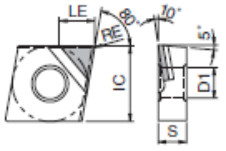
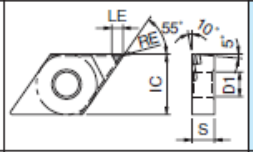
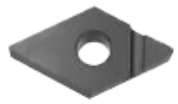
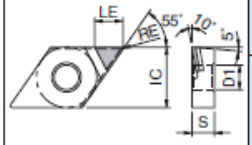
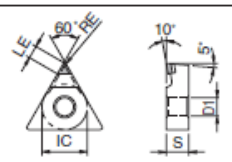
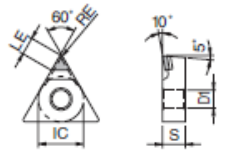
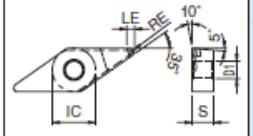
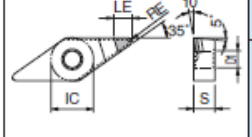
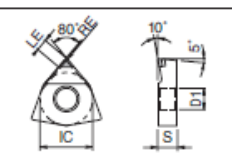
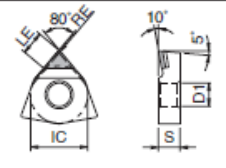
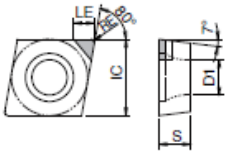
PCD INSERTS

 Small Edge		CNMM	120402 120404 120408
		CNMM CNMM	120402 120404 120408 120402 120404 120408 120412
 Small Edge		DNMM	150402 150404 150408
		DNMM DNMM	150402 150404 150408 150402 150404 150408 150412
 Small Edge		TNMM	160402 160404 160408
		TNMM TNMM	160402 160404 160408 160402 160404 160408 160412
 Small Edge		VNMM	160402 160404 160408
		VNMM VNMM	160402 160404 160408 160402 160404 160408 160412
 Small Edge		WNMM	080402 080404 080408
		WNMM WNMM	080402 080404 080404

		CCGW	040101 040102 040104
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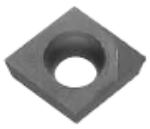	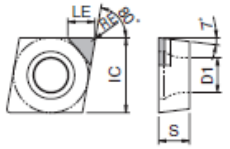	CCGW	040101 040102 040104
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	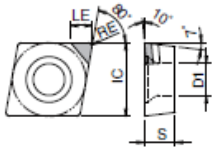	CCMT	060202 060204
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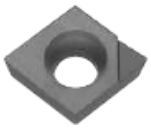	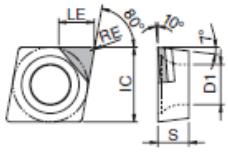	CCMT	060201 060202 060204
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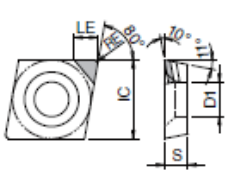
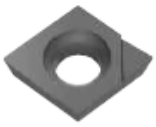
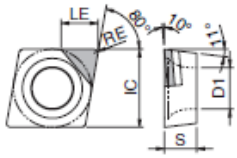
		CPMH	090302 090304
		CPMH	080202 080204
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	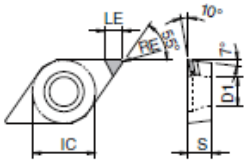	DCMT	070201 070202 070204
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	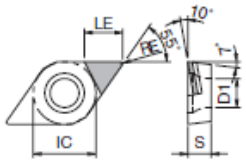	DCMT	070201 070202 070204
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	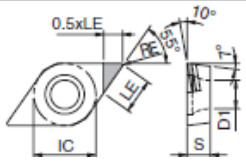	DCMT	070202 070204
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	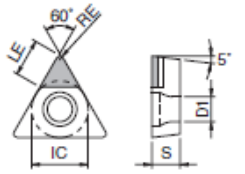	TBGW	060102 060104
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	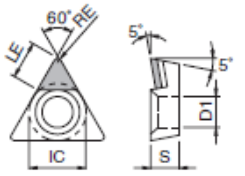	TBMT	060101 060102 060104 060108
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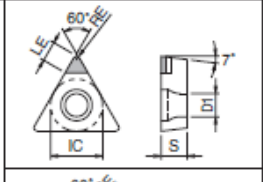
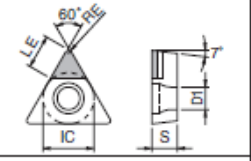
		TCGW	110302 110304
		TCGW	110302 110304
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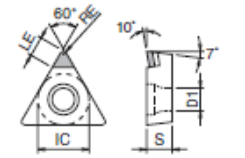
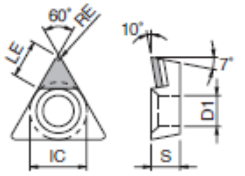
		TCMT	110301 110302 110304
		TCMT	080202
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	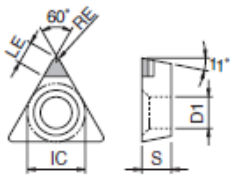	TPGB	090202 090204 090208
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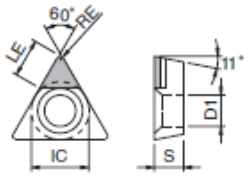

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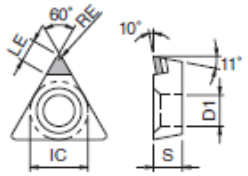

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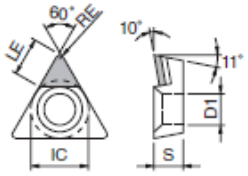

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TPMH	090201
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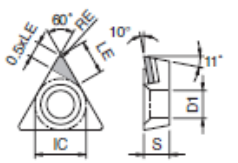
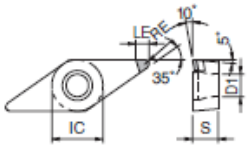
		TPMH	110302 110304
		VBMT	110301 110302 110304 110308
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	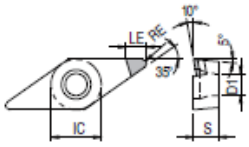	VBMT	110301 110302 110304 110308
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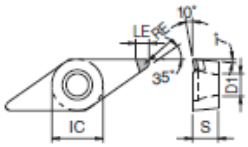
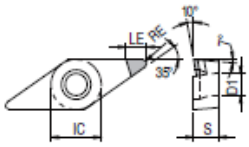
		VCMT	080202 080204 080208
		VCMT	080201 080202 080204 080208
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	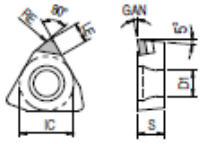	WBMT	060102
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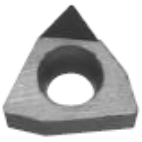	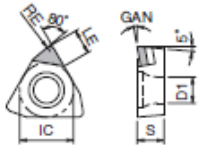	WBMT	060101 060102 060104
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	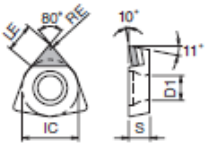	WPMT	110202
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	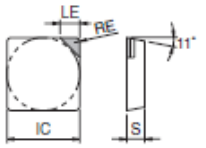	SPGN	120304
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	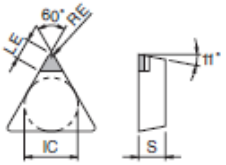	TPGN	110301 110302 110304
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	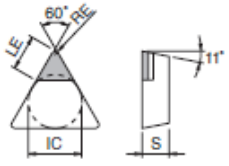	TPGN	160304 160308
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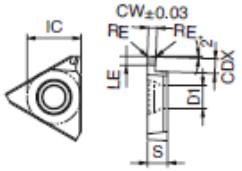
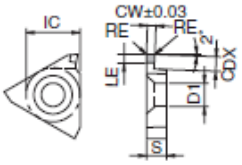
External / Internal Grooving



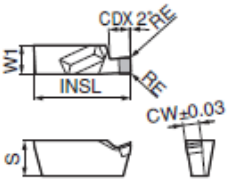
GBA32R	125-010
	150-010
GBA43R/L	125-010
	150-010
	200-010
	250-010
	300-010

External Grooving



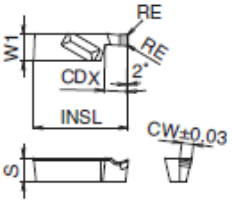
TGF32R	125-010
	150-010
	200-010

Internal Grooving



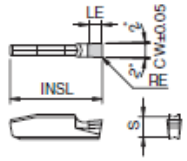
GVR/L	145-020
	200-020
GVR/L	200-020
	250-020
GVR/L	300-020
	400-020

Face Grooving



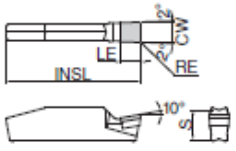
GVFR/L	250-020
	300-020
	400-020
GVFR/L	350-020
GVFR/L	350-040

External Deep Grooving

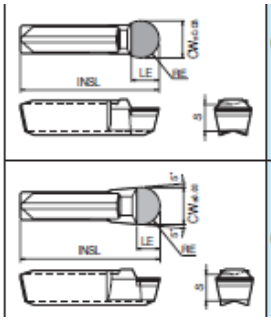


GMN	2
	3
	4
	5
	6

External Deep Grooving



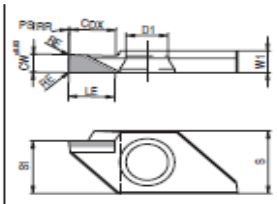
GDGS	2020N-020
	3020N-020
	4020N-020
	5020N-020
	6020N-020

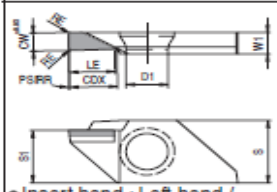


GMGW	6030-30
	8030-40

GMGW	8030-40

Turning / Grooving

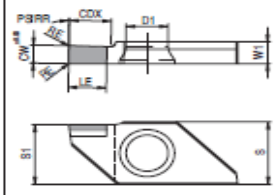




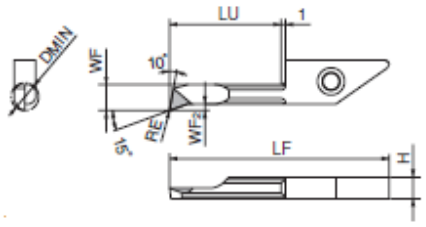
● Insert hand : Left-hand / PCD edge hand: Right-hand

TKF12R/L	200
	250
TKF16R/L	250
TKF12L	200
TKF16L	250

External Grooving
(Turning is possible)

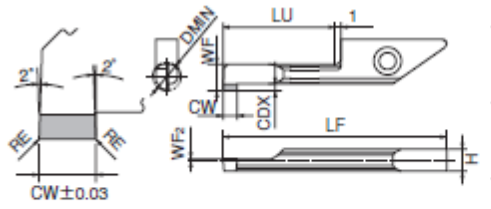
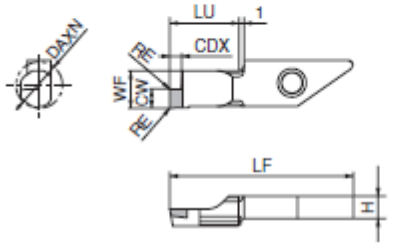
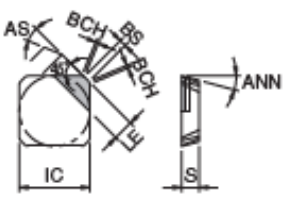
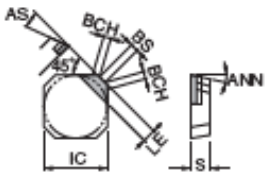
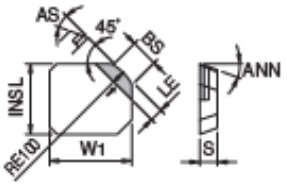
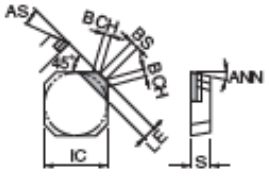
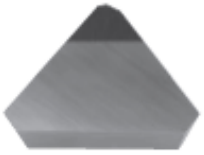
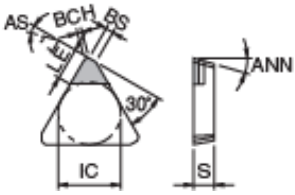


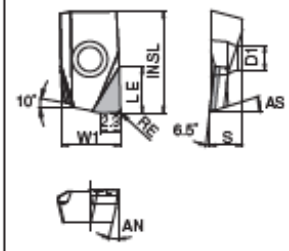
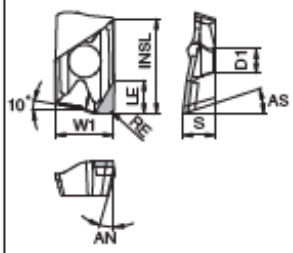
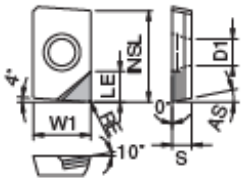
TKF12R/L	150
	200
	250
	250



Micro Boring

VNBR	0411-02
	0420-02
VNBR	0511-02
	0520-02
VNBR	0620-02
	0630-02
VNBR	0720-02
	0730-02

 Micro Grooving	VNGR	0410-11 0420-11 0510-11 0520-11 0610-20 0620-20 0710-20 0720-20
 Micro Face Grooving	VNFGR	0820-10 0830-10
		SDKN 1203 1203
		SEEN 1203 1203
 With Wiper Edge		SEEN 1203
		SOKN 13T3
		TEEN 1603 1603 TEKN 2204 2204

		BDGT 11T302 11T304 11T308 BDGT 11T302 11T304 11T308
		BDMT 11T302 11T304 BDMT 170402 170404
		NDCW 150302 150302

Carmet Tools & Inserts Ltd.

71/ F- II, Pimpri MIDC
Pune -411 018 [INDIA]

Email : carmet@carmettools.com

Tel: +91 9730023916 / 17 / 18

Web: www.carmettools.com