PCD & PCBN Cutting Tools

for High Precision Machining

This particular category consists of materials like PCD and PCBN which are much higher on Hardness scale, Ware resistant and Heat resistant as compared to conventional materials like carbide or ceramic.

Polycrystalline Diamond [PCD]: Next Generation Non- Ferrous metals Alloys are Hard & Highly Ware resistant, a growing need for tools that are abrasion-resistant and can withstand these machining applications. PCD tooling is meeting these needs with an overwhelming success. By PCD machining, it's proven to be ideal solution for finishing and roughing application in Threading, Turning, Milling, Drilling, Grooving, Boring and end milling for Non – Ferrous Alloys & Metals i.e. automotive engine parts like transmission case, cylinder head, piston, cylinder block, connecting rod, oil pump housing and so on.
The Service of our PCD tools are more than hundred times higher compare to conventional carbide or Ceramic. Finest Surface finish can be archived also it Doubles the Production output & Higher Productivity by reduced machine Down- Time due to pro-long Tool Service Life with Our PCD Tools. Our PCD tools are highly economical, increases the productivity, Reduces machining COST-PER-COMPONENT.

We manufacture Cutting tools with Natural Diamonds, for superior mirror Polish Finish and the Most Precision Dimensional Accuracy.
Ideal Applications for PRO PCD Tools:
--aluminum, AL-Si alloys, MMC
--copper and copper alloys
--fiber reinforced plastics
--graphite, and carbon composites
--green or sintered tungsten carbide
-- Glass Fiber Composites
-- Magnesium Alloys
Already using PCD? Not Convinced? Need more life? We also manufacture PCD tools with CVD Diamonds! For more information contact us now!

Nonferrous Metals	RECOMMENDED MACHINING DATA FOR PCD TOOLS			
Material Machined	**Operation**	**Speed (m/min)**	**Rate (mm/rev)**	**Feed DOC (mm)**
Aluminum Alloy 4 - 8% Si 9 - 14% Si >13% Si	Turning Milling Turning Milling Turning Milling	900 - 3500 1000 - 5000 600 - 2400 700 - 3000 300 - 700 400 - 900	0.1 - 0.4 0.1 - 0.3 mm / insert 0.1 - 0.4 0.1 - 0.3 mm / insert 0.1 - 0.4 0.1 - 0.3 mm	0.1 - 4.0 0.1 - 3.0 0.1 - 4.0 0.1 - 3.0 0.1 - 4.0 0.1 - 3.0
Metal Matrix Composites	Turning /	300 - 600	0.1 - 0.4	0.2 - 15

A1/10 - 20% SiC	Milling			
Copper Alloys Copper, Zinc, Brass	Turning / Milling Turning / Milling	400 - 1260 400 - 1200	0.03 - 0.3 0.05 - 0.3	0.05 - 2.0 0.05 - 2.0
Tungsten Carbide <16% Co1) Unsintered (“green”) Sintered	Turning Turning Turning Turning	30 - 100 100 - 200 20 - 40 20 - 40	0.1 - 0.4 0.1 - 0.4 0.1 - 0.25 0.1 - 0.25	0.2 - 1.0 0.1 - 1.0 0.1 - 0.5 0.1 - 1.0
Ceramics Unsintered (“green”) Sintered	Turning Turning Turning	70 - 100 70 - 200 50 - 80	0.1 - 0.4 0.1 - 0.4 0.1 - 0.25	0.2 - 1.0 0.1 - 1.0 0.1 - 0.5
Manufactured Woods	Routing Sawing Routing / Sawing	1000 - 3650 1500 - 4000 1000 - 4000	0.1 - 0.4 0.5 - 6.0 0.1 - 0.4	0.1 - 4.0 1.0 - 2.0 0.1 - 3.0
Plastics / Composites Carbon / Graphite Fiberglass / Plastics Fiberglass / Graphite	Turning / Milling Turning / Milling Turning / Milling	300 - 2000 200 - 1000 300 - 1000	0.05 - 0.3 0.05 - 0.5 0.1 - 0.4	0.1 - 3.0 0.1 - 3.0 0.1 - 3.0

Boron Nitride Diamond [PCBN]: Superior mechanical properties make them ideal Tool for machining of hardened steel, Hi Speed turning and milling of cast iron, machining exotic materials where heat generation is very high while cutting and similar tough applications where there is conventionally no option but to have grinding or poor tool life ultimately higher cost.CBN Tools are most ideal for Hardened steel machining, Hi speed cast iron machining & Efficient machining of exotic materials like titanium and nickel base alloys. The Service of our PCBN tools are more than hundred times higher compare to conventional carbide or Ceramic. Finest Surface finish can be archived also it Doubles the Production output & Higher Productivity by reduced machine Down- Time due to pro-long Tool Service Life with Our PCBN Tools.

Ideal Applications for PCBN:

--grey cast iron
--hardened alloy steel
--hardened tool steel
--powdered metal (sintered iron)
--hard irons (Ni-hard, high Cr irons)
--Ni & Co based thermal sprays
--super alloys (heat treated)

Contact us now if you are Not Convinced with PCBN Tools & needed more life, we also do manufacture these tools with MCD [Mono crystalline Diamonds] Diamonds! For more information contact us now!

Ferrous Metals	RECOMMENDED MACHINING DATA FOR PCBN TOOLS		
RECOMMENDED MATERIALS	**SPEED (SFM)**	**FEED RATE (IPR)**	**DEPTH OF CUT (INCH)**
Pearlitic Gray Cast Iron	600 - 1500	0.15 - 0.60	0.10 - 2.50
Tool Steels	60 - 90	0.10 - 0.20	0.10 - 0.50
Hard Facing Alloys	100 - 300	0.10 - 0.25	0.10 - 1.50
Finishing of Superalloys	150 - 250	0.10 - 0.30	0.10 - 0.40
Hard Cast Iron (>45 HRc)	40 - 100	0.10 - 0.60	0.10 - 2.50
Hardened Steel (>45 HRc)	65 - 120	0.10 - 0.50	0.50 - 2.50
Tool & Die Steels	90 - 110	0.10 - 0.20	0.10 - 0.50
Hardened Steel Milling	200 - 400	0.10 - 0.20	0.10 - 1.00

Advantages of PRO PCD & PRO PCBN TOOLS:

Pro- long Service life, approx more than hundred times higher or more
No Chapping
Reduced component machining time
Reduced Machine Down Time
High productivity
Most Precise Accuracy archived
Finest Surface Finish Archived

Note:

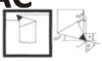
1. We also Offer High Precision Natural Diamond Turning Tools, Natural Diamond Inserts & Boring Tools and Single-point diamond turning Tools (SPDT)
2.Other Tools as per ISO standards not shown here and your order with specified Geometries - Drawings are also can be manufactured.
3.These tools are also manufactured with CVD – Mono Synthetic Diamond (MCD) for higher tool life, higher ware resistant materials & Areas where Heat Generation is very high & can't use coolant.

PCD & PCBN DIAMOND HOLDERS TO ISO STANDARDS

and to PARAS DIAMOND Co. Standards

Brazed Type

AC



Nose Angle	60°
Tool Nose Radius	0.4 & 0.8
Width of cutting edge-a	4.5, 6.2

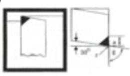
Order No.	Shank Dimension in mm	Cutting edge ht. h in mm
ARC - 6	6 x 6 x 50	6
ARC - 8	8 x 8 x 65	8
ARC - 10	10 x 10 x 70	10
ARC - 12	12 x 12 x 85	12
ARC - 16	16 x 16 x 100	16
ARC - 20	20 x 20 x 125	20
ARC - 25	25 x 25 x 150	25

AD

Nose Angle	82°
Tool Nose Radius	0.4 & 0.8
Width of cutting edge-a	4.5, 6.2

Order No.	Shank Dimension in mm	Cutting edge ht. h in mm
ARD - 6	6 x 6 x 50	6
ARD - 8	8 x 8 x 65	8
ARD - 10	10 x 10 x 70	10
ARD - 12	12 x 12 x 85	12
ARD - 16	16 x 16 x 100	16
ARD - 20	20 x 20 x 125	20
ARD - 25	25 x 25 x 150	25

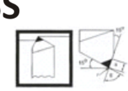
AS



Nose Angle	90°
Tool Nose Radius	0.4 & 0.8
Width of cutting edge-a	4.5, 6.2

Order No.	Shank Dimension in mm	Cutting edge ht. h in mm
ARS - 6	6 x 6 x 50	6
ARS - 8	8 x 8 x 65	8
ARS - 10	10 x 10 x 70	10
ARS - 12	12 x 12 x 85	12
ARS - 16	16 x 16 x 100	16
ARS - 20	20 x 20 x 125	20
ARS - 25	25 x 25 x 150	25

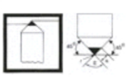
BS



Nose Angle	90°
Tool Nose Radius	0.4 & 0.8
Width of cutting edge-a	4.5, 6.2

Order No.	Shank Dimension in mm	Cutting edge ht. h in mm
BRS - 6	6 x 6 x 50	6
BRS - 8	8 x 8 x 65	8
BRS - 10	10 x 10 x 70	10
BRS - 12	12 x 12 x 85	12
BRS - 16	16 x 16 x 100	16
BRS - 20	20 x 20 x 125	20
BRS - 25	25 x 25 x 150	25

DS



Nose Angle	90°
Tool Nose Radius	0.4 & 0.8
Width of cutting edge-a	4.5, 6.2

Order No.	Shank Dimension in mm	Cutting edge ht. h in mm
DS - 6	6 x 6 x 50	6
DS - 8	8 x 8 x 65	8
DS - 10	10 x 10 x 70	10
DS - 12	12 x 12 x 85	12
DS - 16	16 x 16 x 100	16
DS - 20	20 x 20 x 125	20
DS - 25	25 x 25 x 150	25

ES

Nose Angle	60°
Tool Nose Radius	0.4 & 0.8
Width of cutting edge-a	4.5, 6.2

Order No.	Shank Dimension in mm	Cutting edge ht. h in mm
ES - 6	6 x 6 x 50	6
ES - 8	8 x 8 x 65	8
EC - 10	10 x 10 x 70	10
EC - 12	12 x 12 x 85	12
EC - 16	16 x 16 x 100	16
EC - 20	20 x 20 x 125	20
EC - 25	25 x 25 x 150	25

BRD

Nose Angle	90°
Tool Nose Radius	0.4 & 0.8
Width of cutting edge-a	4.5, 6.2

Order No.	Shank Dimension in mm	Cutting edge ht. h in mm
BRD - 6	6 x 40	3.5
BRD - 8	8 x 50	4.5
BRD - 10	10 x 80	5.5
BRD - 12	12 x 100	6.5
BRD - 16	16 x 120	8.5
BRD - 20	20 x 140	10.5

BMT

Nose Angle	83°
Tool Nose Radius	0.4 & 0.8
Width of cutting edge-a	4.5, 6.2

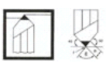
Order No.	Shank Dimension in mm	Cutting edge ht. h in mm +0.5mm above centre
BMT - 8	8 x 125	4.5
BMT - 10	10 x 150	5.5
BMT - 12	12 x 175	6.5
BMT - 16	16 x 200	8.5
BMT - 20	20 x 225	10.5
BMT - 25	25 x 250	13

BMU

Nose Angle	60°
Tool Nose Radius	0.4 & 0.8
Width of cutting edge-a	4.5, 6.2

Order No.	Shank Dimension in mm	Cutting edge ht. h in mm +0.5mm above centre
BMT - 8	8 x 125	4.5
BMT - 10	10 x 150	5.5
BMT - 12	12 x 175	6.5
BMT - 16	16 x 200	10.5
BMT - 20	20 x 225	10.5
BMT - 25	25 x 250	13

BBC



Nose Angle	85°
Tool Nose Radius	0.4 & 0.8
Width of cutting edge-a	4.5, 6.2

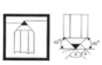
Order No.	Shank Dimension in mm	Cutting edge ht. h in mm +0.5mm above centre
BBC - 3	3 x 10	2
BBC - 4	4 x 12	2.5
BBC - 5	5 x 15	3
BBC - 6	6 x 20	3.5
BBC - 8	8 x 35	4.5
BBC - 10	10 x 40	5.5
BBC - 12	12 x 50	6.5

BAS

Nose Angle	60° & 90°
Tool Nose Radius	0.4 & 0.8
Width of cutting edge-a	4.5, 6.2

Order No.	Shank Dimension in mm	Cutting edge ht. h in mm +0.5mm above centre
BAS - 4	4 x 4 x 12	2.5
BAS - 5	5 x 5 x 15	3.0
BAS - 6	6 x 6 x 20	3.5
BAS - 8	8 x 8 x 25	4.5
BBC - 10	10 x 10 x 40	5.5
BBC - 12	12 x 12 x 50	6.5

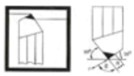
BAR



Nose Angle	60° & 90°
Tool Nose Radius	0.4 & 0.8
Width of cutting edge-a	4.5, 6.2

Order No.	Shank Dimension in mm	Cutting edge ht. h in mm +0.5mm above centre
BAR - 3	3 x 10	2.0
BAR - 4	4 x 12	2.5
BAR - 5	5 x 15	3.0
BAR - 6	6 x 20	3.5
BAR - 8	8 x 25	4.5
BAR - 10	10 x 40	5.5
BAR - 12	12 x 50	6.5

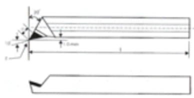
BBE



Nose Angle	85°
Tool Nose Radius	0.4 & 0.8
Width of cutting edge-a	4.5, 6.2

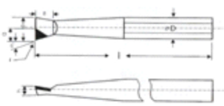
Order No.	Shank Dimension in mm	Cutting edge ht. h in mm +0.5mm above centre
BBE - 3	3 x 12	2
BBE - 4	4 x 14	2.5
BBE - 5	5 x 16	3
BBE - 6	6 x 20	3.5
BBE - 8	8 x 35	4.5
BBE - 10	10 x 40	5.5
BBE - 12	12 x 50	6.5

SDT



Order No.	Shank Dimension in mm	Cutting edge ht. h in mm +0.5mm above centre
SDT - 4	4 x 50	2.5
SDT - 5	5 x 60	3.0
SDT - 6	6 x 70	3.5
SDT - 8	8 x 100	4.5
SDT - 10	10 x 120	5.5
SDT - 12	12 x 130	6.5

SDS



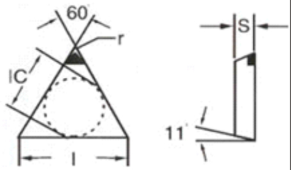
Order No.	Shank Dimension in mm			Cutting edge ht. h in mm +0.5mm above centre
	d	D	l	
SDS - 5	5	10	60	3.0
SDS - 6	6	10	60	3.5
SDS - 8	8	10	60	4.5
SDS - 10	10	12	70	5.5
SDS - 12	12	12	70	6.5

Note:

1. Other tool nose radius on request.
2. Other tool dimensions on request.
3. R - Right hand cutting; L - Left hand cutting (Please specify ordering).
4. Other cutting edge width available on request.
5. Please specify PCD / PCBN while ordering.

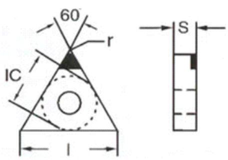
PCD & PCBN INDEXABLE INSERTS TO ISO STANDARDS

TPUN



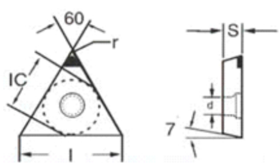
Description	I	d	s	r
TPUN 110304	11.00	6.35	3.18	0.4
TPUN 110308	11.00	6.35	3.18	0.8
TPUN 160304	16.50	9.52	3.18	0.4
TPUN 160308	16.50	9.52	3.18	0.8
TPUN 160312	16.50	9.52	3.18	1.2

TNMA/TNMG



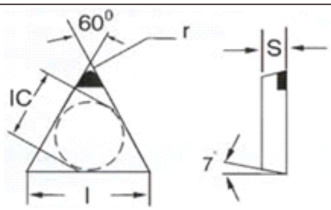
Description	I	d	s	r
TNMA 160404	16.5	9.52	4.76	0.4
TNMA 160408	16.5	6.35	4.76	0.8
TNMA 160412	16.5	9.52	4.76	1.2
TNMA 160404	16.5	9.52	4.76	0.4
TNMA 160408	16.5	9.52	4.76	0.8
TNMA 160412	16.5	9.52	4.76	1.2

TCMW



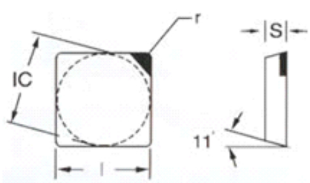
Description	I	d	s	r
TCMW 090202	9.63	2.5	2.38	0.4
TCMW 090204	9.63	2.5	2.38	0.4
TCMW 110204	11.0	2.8	2.38	0.4
TCMW 110208	16.5	4.4	3.97	0.8
TCMW 16T304	11.0	2.8	2.38	0.4
TCMW 16T308	11.0	2.8	2.38	0.8

TCGN



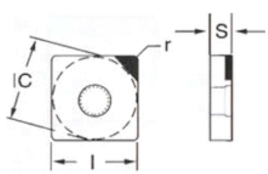
Description	I	d	s	r
TCGN 060102	3.97	3.97	1.60	0.2
TCGN 060104	3.97	3.97	1.60	0.4
TCGN 060108	3.97	3.97	1.60	0.8

SPUN



Description	I	d	s	r
SPUN 090304	9.52	-	3.18	0.4
SPUN 090308	9.52	-	3.18	0.8
SPUN 120304	12.7	-	3.18	0.4
SPUN 120308	12.7	-	3.18	0.8
SPUN 120312	12.7	-	3.18	1.2

SNMA/SNMG



Description	I	d	s	r
SNMA 120404	12.7	-	4.76	0.4
SNMA 120408	12.7	-	4.76	0.8
SNMA 120412	12.7	-	4.76	1.2
SNMA 120404	12.7	-	4.76	0.4
SNMA 120408	12.7	-	4.76	0.8
SNMA 120412	12.7	-	4.76	1.2

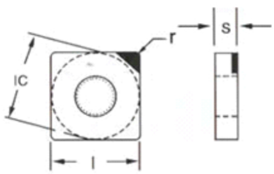
SCMT

Description	I	d	s	r
SCMT 090304	9.52	-	3.97	0.4
SCMT 090308	9.52	-	3.97	0.8
SCMT 120304	12.7	-	4.76	0.4
SCMT 120308	12.7	-	4.76	0.8

SCMW

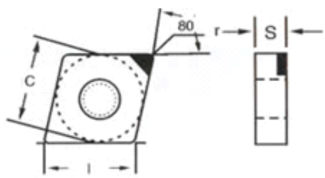
Description	I	d	s	r
SCMW 09T302	9.52	9.52	3.97	0.2
SCMW 09T304	9.52	9.52	3.97	0.4
SCMW 09T308	9.52	9.52	3.97	0.8
SCMW 120404	12.7	12.7	4.76	0.8
SCMW 120412	12.7	12.7	4.76	0.8

SNMN



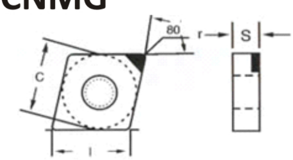
Description	I	d	s	r
SNMN 090304	9.52	-	3.18	0.4
SNMN 090308	9.52	-	3.18	0.8
SNMN 120404	12.7	-	4.76	0.4
SNMN 120404	12.7	-	4.76	0.8
SNMN 120412	12.7	-	4.76	1.2

CCMT



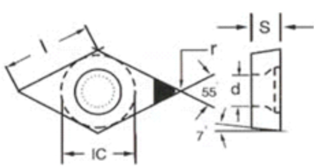
Description	I	d	s	r
CNMA 120404	12.7	12.7	4.76	0.4
CNMA 120408	12.7	12.7	4.76	0.8
CNMA 120404	12.7	12.7	4.76	0.4
CNMA 120408	12.7	12.7	4.76	0.8

CNMA/CNMG



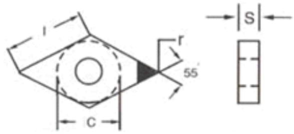
Description	I	d	s	r
CNMA 120404	12.7	12.7	4.76	0.4
CNMA 120408	12.7	12.7	4.76	0.8
CNMA 120404	12.7	12.7	4.76	0.4
CNMA 120408	12.7	12.7	4.76	0.8

DCMT



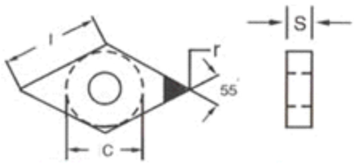
Description	I	d	s	r
DCMT 070202	7.75	6.35	2.38	0.2
DCMT 070204	7.75	6.35	2.38	0.4
DCMT 11T302	11.6	9.52	3.97	0.2
DCMT 11T304	11.6	9.52	3.97	0.4
DCMT 11T308	11.6	9.52	3.97	0.8

DNMA/DNMG



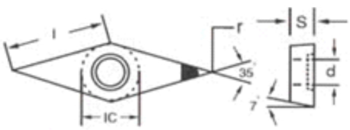
Description	l	d	s	r
DNMA 150604	15.5	12.76	6.35	0.4
DNMA 150608	15.5	12.76	6.35	0.8
DNMA 150604	15.5	12.76	6.35	0.4
DNMA 150608	15.5	12.76	6.35	0.8

VBMT



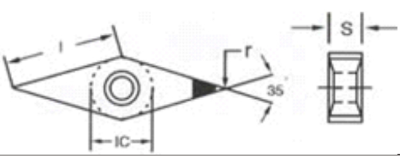
Description	l	d	s	r
VBMT 110304	11.0	6.35	3.18	0.4
VBMT 110308	11.0	6.35	3.18	0.8
VBMT 160404	16.6	9.52	4.76	0.4
VBMT 160408	16.6	9.52	4.76	0.8
VBMT 160412	16.6	9.52	4.76	1.2

VCMT



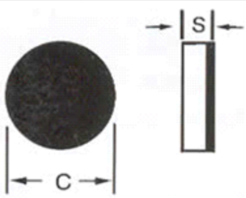
Description	l	d	s	r
VCMT 110304	11.0	6.35	3.18	0.4
VCMT 110304	11.0	6.35	3.18	0.8
VCMT 16T304	16.6	6.35	3.97	0.4
VCMT 16T308	16.6	6.35	3.97	0.8
VCMT 16T312	16.6	6.35	3.97	1.2
VCMT 160404	16.6	6.35	3.97	0.4
VCMT 160408	16.6	6.35	3.97	0.8

VNMA



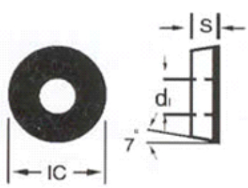
Description	l	d	s	r
VNMA 160402	16.6	6.35	4.76	0.2
VNMA 160404	16.6	6.35	4.76	0.4
VNMA 160408	16.6	6.35	4.76	0.8
VNMA 160412	16.6	6.35	4.76	1.2

RNGN



Description	l	d	s	r
RNGN 090300T	9.52	3.18	3.18	00
RNGN 120300T	12.7	12.7	3.18	00
RNGN 120400T	12.7	12.7	4.76	00

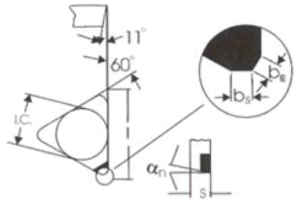
RCMX/RCMT



Description	l	d	s	r
RCMX 060200	6.00	6.00	2.38	2.80
RCMX 080300	8.00	8.00	3.18	2.80
RCMX 100300	10.0	10.0	4.76	3.60
RCMX 120400	12.0	12.0	4.76	4.20

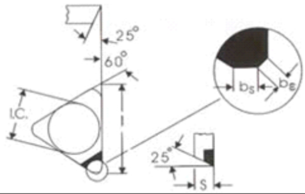
PCD & PCBN MILLING INSERTS TO ISO STANDARDS

TPKN



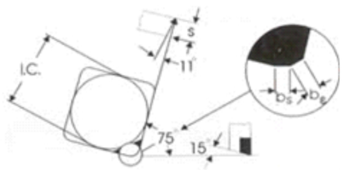
Description	l	d	s	b_s	b_e	æ
TPKN 16 03 PP R	16,5	9,525	3,18	1,2	1,0	11
TPMN 16 03 PP R	16,5	9,525	3,18	1,2	1,0	11
TPKN 22 04 PD R	22,0	12,7	4,76	1,4	0,7	15
TPKN 16 03 PP R	16,5	12,7	4,76	1,4	0,7	15
TPKN 16 03 PP R	16,5	12,7	4,76	1,4	0,7	15

TFAN



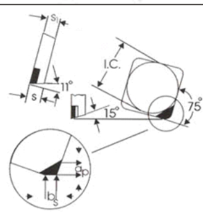
Description	l	IC	s	b_s	b_e
TFAN 22 03 PF R	22,0	12,7	3,18	2,5	0,7
TFAN 22 03 PF L	22,0	12,7	3,18	2,5	0,7

SPKN/SPAN



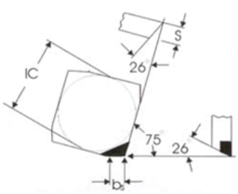
Description	IC	s	b_s	b_e
SPKN 12 03 ED R	12,7	3,18	1,4	1,0
SPKN 12 03 ED L	12,7	3,18	1,4	1,0
SPMN 12 03 ED R	12,7	3,18	1,4	1,0
SPMN 12 03 ED L	12,7	3,18	1,4	1,0
SPAN 12 03 ED R	12,7	3,18	1,4	1,0
SPAN 12 03 ED L	12,7	3,18	1,4	1,0
SPKN 12 04 ED R	12,7	4,76	1,4	1,0
SPKN 12 04 ED L	12,7	4,76	1,4	1,0
SPMN 12 04 ED R	12,7	4,76	1,4	1,0
SPMN 12 04 ED L	12,7	4,76	1,4	1,0

SPCN



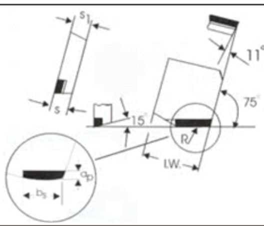
Description	I.C	b_s	s	s_1	Max a_p
SPCN 12 03 ED R	12,7	2,6	3,18	3,25	2,5
SPCN 12 03 ED L	12,7	2,6	3,18	3,25	2,5

SFAN



Description	IC	s	b_s
SFAN 12 03 EF R	12,7	3,18	2,5
SFAN 12 03 EF L	12,7	3,18	2,5

SPCX

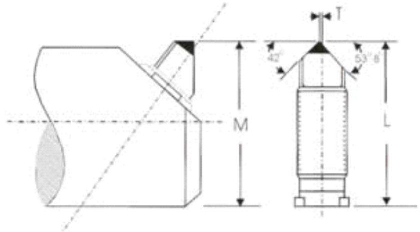


Description	I.W.	s	s_1	b_s	a_p
SPCX 12 03 ED R	12,7	3,18	3,25	2.6	2.5
SPCX 12 03 ED l	12,7	3,18	3,25	2.6	2.5

Note:

1. Other tool nose radius on request.
2. Other tool dimensions on request.
3. R - Right hand cutting; L - Left hand cutting (Please specify ordering).
4. Other cutting edge width available on request.
5. Please specify PCD / PCBN while ordering.

PCD & PCBN MICROBORE TOOLS TO ISO STANDARDS

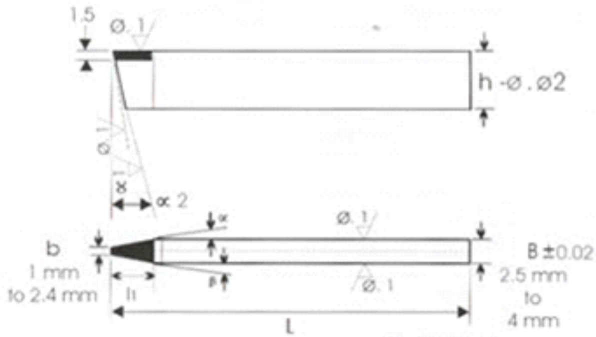


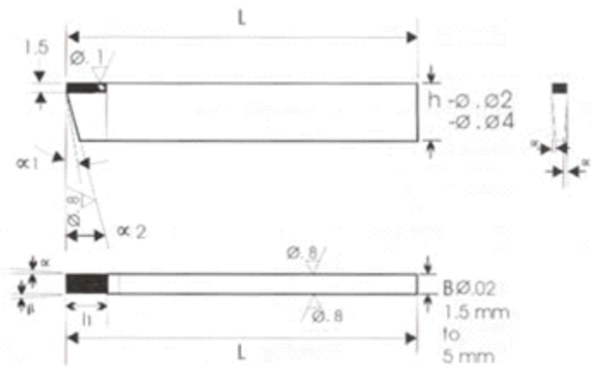
T= Tool Point Offset is on the Right of centre of cartridge

Note: * All dimension in mm, * 12° top rake can be used Alluminium. * All specifications subject to change without notice. * All left cartidges will have same tool Geometry. * Ordering please specify PCD or CBN

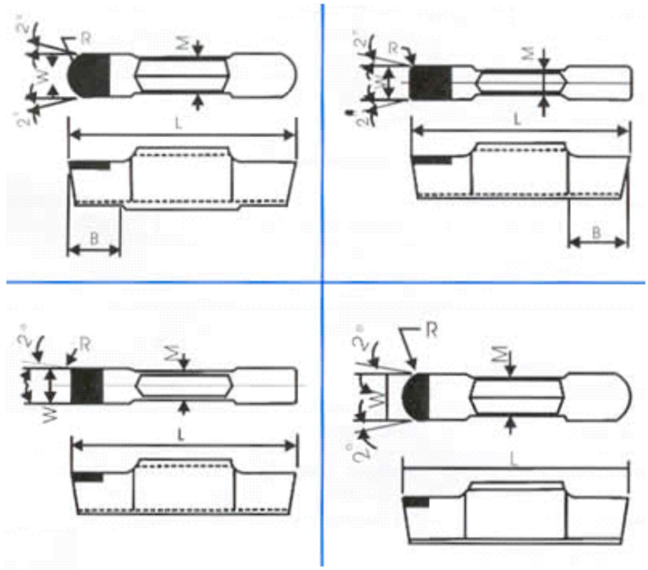
Microbore No.	M. Min Bore	Length	T
M1 A2	16.1	14.2	0.4
M1 B2	13.4	11.4	0.4
M2 A2	21.1	19.9	0.4
M2 B2	18.8	16.8	0.4
M3 A2	26.1	25.5	0.8
M3 B2	23.1	21.5	0.8
M5 A2	41.4	39.8	1.2
M5 B2	35.8	33.4	1.2
M7 A2	58.8	55.7	1.6
M7 B2	53.3	49.3	1.6

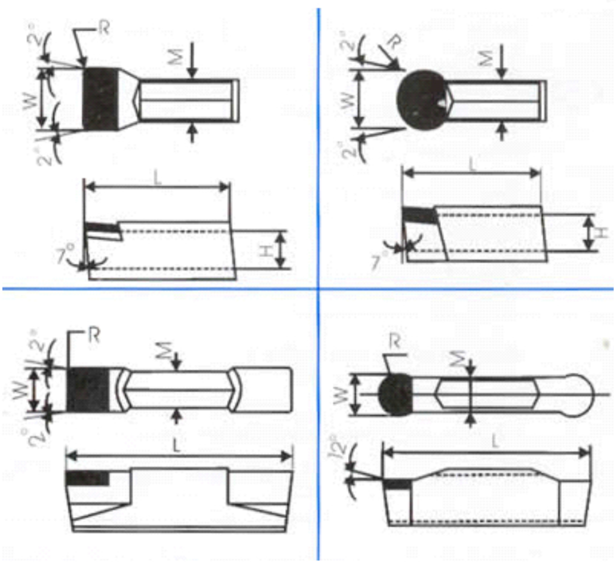
GROOVING TOOLS BRAZED TYPE TO ISO STANDARDS





GROOVING TOOLS BRAZED TYPE TOOLS TO ISO STANDARDS





Note:

All dimension in MM

12° top rake can be used for Aluminium

All Specifications subject to change without notice

All left hand cartridges will have same tool Geomentry

While ordering please specify PCD or CBN