Turning and Boring Tools and Inserts

If you have to change inserts before the job is done, your insert has let you down. Techniks turning inserts excel in the most demanding applications to cut deeper, faster, and longer in machining steels, stainless steels, aluminum and exotics. The unparalleled strength and toughness of our inserts virtually eliminates premature insert failure saving you both time and money.

Positive turning

Negative turning

Positive Boring

Negative boring

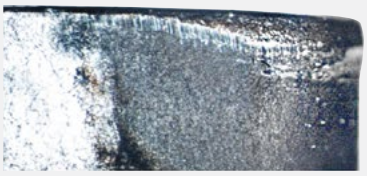
Key Points:

- *free cutter body program*
- *tooling package specials*
- *high-performance & value*

Techniks vs other brand

When tested under the same cutting conditions, Techniks inserts retained their sharpness and ran over twice as long before showing visible wear.

Techniks CNMG insert - After 22 min.



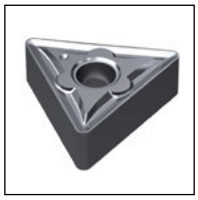
Other brand CNMG - After 11 min.

See for yourself. Request test inserts.

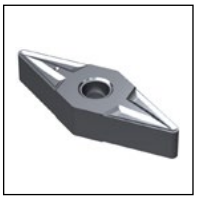
Turning Tools	Application	Lead Angle	Shank	L & R Hand	2-Side Insert	All Material
Negative Tool Holder	turning & facing	93˚, 95˚	1" square	✔	✔	✔
Negative Boring Bars*	boring & facing	93˚, 95˚	1" 1.25" 1.5"	✔	✔	✔
Positive Tool Holder	turning & facing	91˚, 93˚, 95˚	.5" & .75"	✔		✔
Positive Boring Bars*	boring & facing	91˚, 93˚, 95˚	.375" to .75"	✔		✔

*Coolant-thru is standard for better chip evacuation.

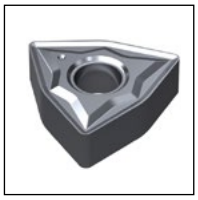
CNMG



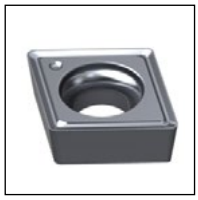
TNMG



VNMG



WNMG

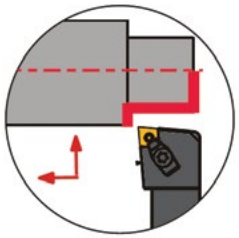


CCMT

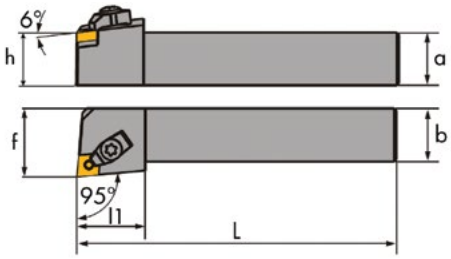
TCMT

Insert Type	Test Inserts	Package Deals	All-Material	ISO Compatible	PVD 3.5X
Milling Inserts	✔	✔	✔	✔	✔
Turning Inserts	✔	✔	✔	✔	✔
Boring Inserts	✔	✔	✔	✔	✔

Negative Turning Toolholders



turning facing



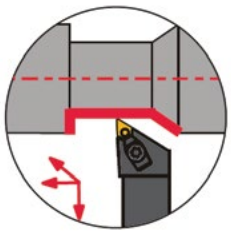
right hand shown - see table for left hand

Product Information

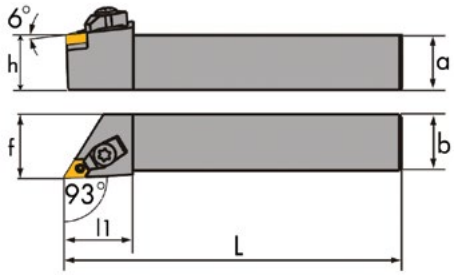
- *Left and right hand holders*
- *Takes CN__43_ inserts (4 corners)*
- *95˚ lead angle*
- *1" square shanks*
- *For turning and facing operations.*
- *Uses two-sided inserts*

MCLNR/L 95°

Part No.	Description	a=h	b	L	l1	f	Insert	Clamp Screw	Shim	Clamp	Lock Pin	Wrench
8669911	MCLNR-16-4D	1.00	1.00	6.00	1.25	1.25	CN_ _43_	9344888	9333111	9344111	9344666	9322121
8669912	MCLNL-16-4D	1.00	1.00	6.00	1.25	1.25	CN_ _43_	9344888	9333111	9344111	9344666	9322121



profile turning



right hand shown - see table for left hand

Product Information

- *Left and right hand holders*
- *16-3D Takes DN__33_ inserts*
- *16-4D takes DN__43_ inserts (4 corners)*
- *93˚ lead angle*
- *1" square shanks*
- *For profiling and turning operations.*
- *Uses two-sided inserts*

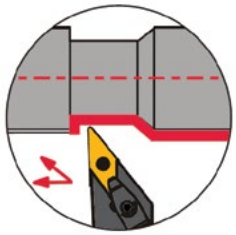
MDJNR/L 93°

Part No.	Description	a=h	b	L	l1	f	Insert	Clamp Screw	Shim	Clamp	Lock Pin	Wrench
8679923	MDJNR16-3D	1.00	1.00	6.00	1.25	1.25	DN__33_	9344888	9333225	9344111	9344555	9322121
8679924	MDJNL16-3D	1.00	1.00	6.00	1.25	1.25	DN__33_	9344888	9333225	9344111	9344555	9322121
8679921	MDJNR-16-4D	1.00	1.00	6.00	1.50	1.25	DN_ _43_	9344888	9333444	9344222	9344777	9322121
8679922	MDJNL-16-4D	1.00	1.00	6.00	1.50	1.25	DN_ _43_	9344888	9333444	9344222	9344777	9322121

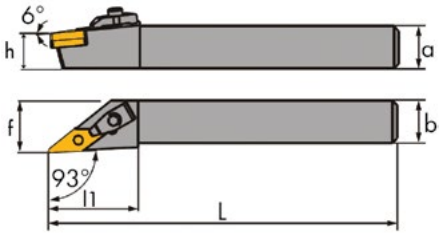
Cuts ALL THESE Materials

HIGH-PERFORMANCE
3x the Thickness of Conventional PVD!

Negative Turning Toolholders



profile turning



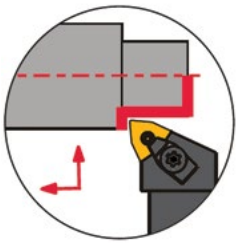
right hand shown - see table for left hand

Product Information

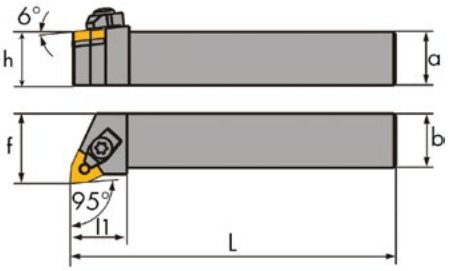
- *Left and right hand holders*
- *Takes VN__33_ inserts (4 corners)*
- *93˚ lead angle*
- *1" square shanks*
- *For profiling and turning operations.*
- *Uses two-sided inserts*

MVJNR/L 93°

Part No.	Description	a=h	b	L	l1	f	Insert	Clamp Screw	Shim	Clamp	Lock Pin	Wrench
8689931	MVJNR-16-3D	1.00	1.00	6.00	1.77	1.25	VN_ _33_	9344888	9333666	9344333	9344555	9322121
8689932	MVJNL-16-3D	1.00	1.00	6.00	1.77	1.25	VN_ _33_	9344888	9333666	9344333	9344555	9322121



turning & facing



right hand shown - see table for left hand

Product Information

- *Left and right hand holders*
- *Takes WN__43_ inserts (6 corners)*
- *95˚ lead angle*
- *1" square shanks*
- *For turning and facing operations*
- *Uses two-sided inserts*

MWLNR/L 95°

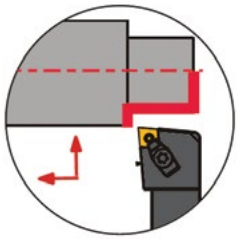
Part No.	Description	a=h	b	L	l1	f	Insert	Clamp Screw	Shim	Clamp	Lock Pin	Wrench
8649941	MWLNR-16-4D	1.00	1.00	6.00	1.38	1.25	WN_ _43_	9344888	9333888	9344111	9344666	9322121
8649942	MWLNL-16-4D	1.00	1.00	6.00	1.38	1.25	WN_ _43_	9344888	9333888	9344111	9344666	9322121

Cuts ALL THESE Materials

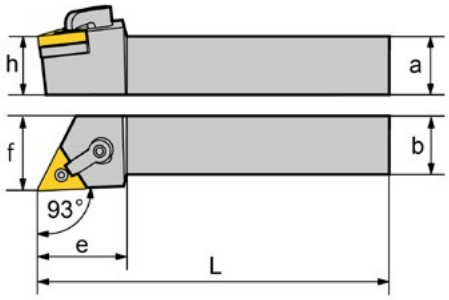
HIGH-PERFORMANCE
3x the Thickness of Conventional PVD!

TECHNIKS BUILT FOR SPEED

Negative Turning Toolholders



turning facing



right hand shown - see table for left hand

Product Information

- *Left and right hand holders*
- *163D takes TN__33_ inserts*
- *16-4D takes TN__43_ inserts*
- *93˚ lead angle*
- *1" square shanks*
- *For turning and facing operations.*
- *Uses two-sided inserts*

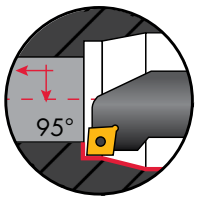
MTJNR/L93°

Part No.	Description	a=h	b	L	l1	f	Insert	Clamp Screw	Shim	Clamp	Lock Pin	Wrench
8699911	MTJNR16-3D	1.00	1.00	6.00	1.25	1.25	TN__33_	9344888	9333889	9344111	9344555	9322121
8699915	MTJNL16-3D	1.00	1.00	6.00	1.25	1.25	TN__33_	9344888	9333889	9344111	9344555	9322121
8699921	MTJNR16-4D	1.00	1.00	6.00	1.42	1.25	TN__43_	9344888	9333889	9344222	9344666	9322121
8699925	MTJNL16-4D	1.00	1.00	6.00	1.42	1.25	TN__43_	9344888	9333889	9344222	9344666	9322121

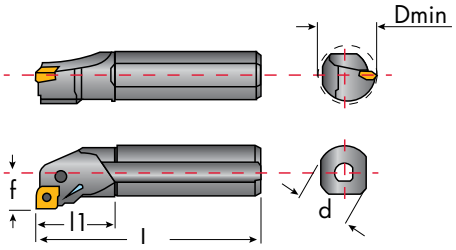
Cuts ALL THESE Materials

HIGH-PERFORMANCE
3x the Thickness of Conventional PVD!

Negative Boring Bars – Coolant Thru



boring & facing



right hand shown - see table for left hand

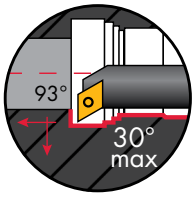
Product Information

- *Comes in 1", 1-1/4", 1-1/2" diameter shanks*
- *Left and right hand bars*
- *Takes CN__43_ inserts (4 Corners)*
- *95˚ lead angle*
- *'P' style clamping and coolant thru for better chip evacuation*
- *Used for boring and facing*
- *Uses two-sided inserts*

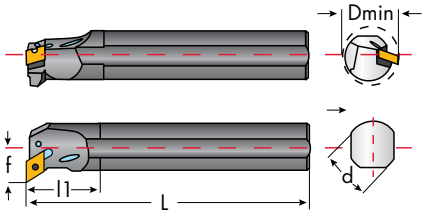
PCLNR/L 95° Coolant Thru

Part No.	Description	d	Dmin	L	l1	f	Insert	Shim	Shim Pin	Lever	Lock Screw	Wrench
8168811	A16T-PCLNR-4	1.00	1.280	12	1.570	0.640	CN_ _43_	-	-	9335333	9345222	9322116
8168821	A16T-PCLNL-4	1.00	1.400	12	1.570	0.640	CN_ _43_	-	-	9335333	9345222	9322116
8168812	A20T-PCLNR-4	1.25	1.460	12	1.970	0.77	CN_ _43_	9333252	9333999	9335222	9345333	9322121
8168822	A20T-PCLNL-4	1.25	1.530	12	1.570	0.77	CN_ _43_	9333252	9333999	9335222	9345333	9322121
8168813	A24U-PCLNR-4	1.50	1.760	14	2.360	0.890	CN_ _43_	9333252	9333999	9335222	9345333	9322121
8168823	A24U-PCLNL-4	1.50	1.760	14	2.360	0.890	CN_ _43_	9333252	9333999	9335222	9345333	9322121

Blue indicates coolant.



profile boring



right hand shown - see table for left hand

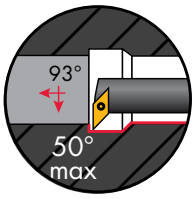
Product Information

- *Comes in 1", 1-1/4", 1-1/2" diameter shanks*
- *Left and right hand bars*
- *A16T-PDUNR/L -3 takes DN__33_ inserts (4 corners)*
- *A20T-PDUNR/L-4 and A24U-PDUNR/L take DN__43_ inserts (4 corners)*
- *93˚ lead angle*
- *'P' style clamping and coolant thru for better chip evacuation*
- *Used for profile boring (30˚ max)*
- *Uses two-sided inserts*

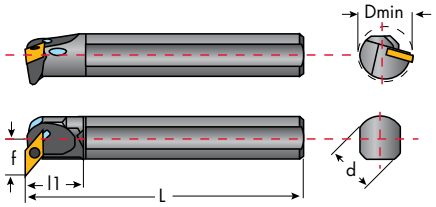
PDUNR/L 93° Coolant Thru

Part No.	Description	d	Dmin	L	l1	f	Insert	Shim	Shim Pin	Lever	Lock Screw	Wrench
8178831	A16T-PDUNR-3	1.00	1.300	12	1.380	0.750	DN_ _33_	-	-	9335111	9345111	9322111
8178841	A16T-PDUNL-3	1.00	1.300	12	1.380	0.750	DN_ _33_	-	-	9335111	9345111	9322111
8178832	A20T-PDUNR-4	1.25	1.700	12	1.970	1.000	DN_ _43_	9333353	9333999	9335222	9345333	9322121
8178842	A20T-PDUNL-4	1.25	1.700	12	1.970	1.000	DN_ _43_	9333353	9333999	9335222	9345333	9322121
8178833	A24U-PDUNR-4	1.50	2.000	14	1.970	1.13	DN_ _43_	9333353	9333999	9335222	9345333	9322121
8178843	A24U-PDUNL-4	1.50	2.000	14	1.970	1.13	DN_ _43_	9333353	9333999	9335222	9345333	9322121

Negative Boring Bars – Coolant Thru



profile boring



right hand shown - see table for left hand

Product Information

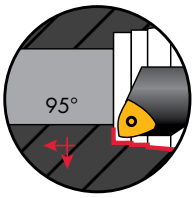
- *Comes in 1"and 1-1/4" diameter shanks*
- *Left and right hand bars*
- *Takes VN__33_ inserts (4 corners)*
- *93˚ lead angle*
- *'P' style clamping and coolant thru for better chip evacuation*
- *Used for profile boring (50˚ max)*
- *Uses two-sided inserts*

PVUNR/L 93° Coolant Thru

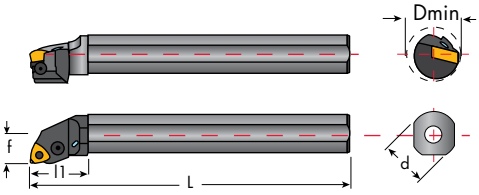
Part No.	Description	d	Dmin	L	l1	f	Insert	Lever	Lock Screw	Wrench
8188851	A16T-PVUNR-3	1.00	1.500	12	1.380	0.800	VN_ _33_	9335111	9345111	9322111
8188861	A16T-PVUNL-3	1.00	1.500	12	1.380	0.800	VN_ _33_	9335111	9345111	9322111
8188852	A20T-PVUNR-3	1.25	2.250	12	1.570	1.13	VN_ _33_	9335111	9345111	9322111
8188862	A20T-PVUNL-3	1.25	2.250	12	1.570	1.13	VN_ _33_	9335111	9345111	9322111

Blue indicates coolant.

Cuts ALL THESE Materials



boring & facing



right hand shown - see table for left hand

Product Information

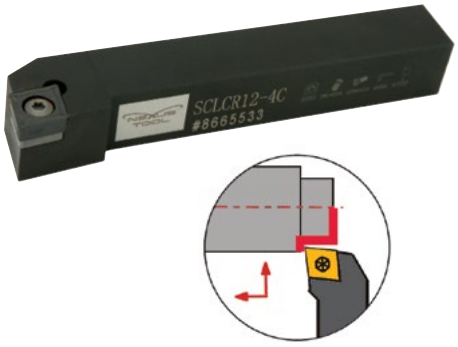
- *Comes in 1", 1-1/4", 1-1/2" diameter shanks*
- *Left and right hand bars*
- *Takes WN__43_ inserts (6 corners)*
- *95˚ lead angle*
- *'P' style clamping and coolant thru for better chip evacuation*
- *Used for boring and facing*
- *Uses two-sided inserts*

PWLNR/L 95° Coolant Thru

Part No.	Description	d	Dmin	L	l1	f	Insert	Shim	Shim Pin	Lever	Lock Screw	Wrench
8148871	A16T-PWLNR-4	1.00	1.300	12	1.770	0.750	WN_ _43_	-	-	9335333	9345222	9322116
8188881	A16T-PWLNL-4	1.00	1.300	12	1.770	0.750	WN_ _43_	-	-	9335333	9345222	9322116
8148872	A20T-PWLNR-4	1.25	1.700	12	1.970	1.000	WN_ _43_	9333757	9333999	9335222	9345333	9322121
8188882	A20T-PWLNL-4	1.25	1.700	12	1.970	1.000	WN_ _43_	9333757	9333999	9335222	9345333	9322121
8188873	A24U-PWLNR-4	1.50	2.000	14	2.360	1.000	WN_ _43_	9333757	9333999	9335222	9345333	9322121
8188883	A24U-PWLNL-4	1.50	2.000	14	2.360	1.000	WN_ _43_	9333757	9333999	9335222	9345333	9322121

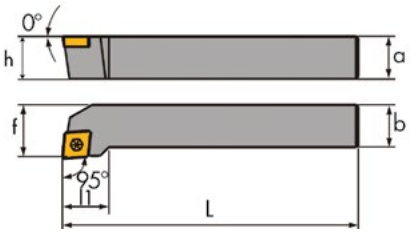
Blue indicates coolant.

Positive Turning Toolholders



SCLCR/L 95°

turning & facing

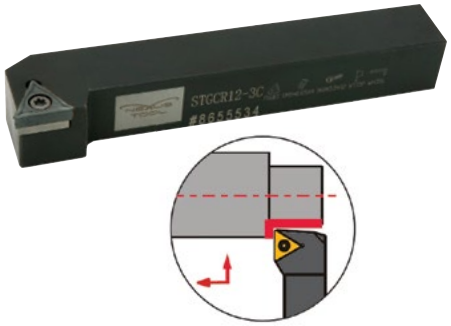


right hand shown - see table for left hand

Product Information

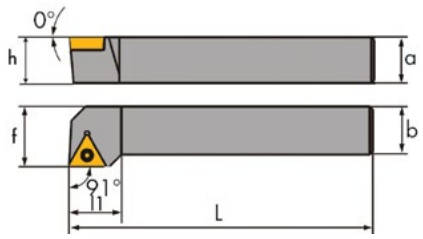
- *Comes in 1/2" and 3/4" shanks*
- *Left and right hand holders*
- *SCLCR/L-08-3J takes CC__32.5_ inserts (2 corners)*
- *SCLCR/L-12-4C takes CC__43_ inserts (2 corners)*
- *95˚ lead angle*
- *Screw clamping*
- *Used for turning and facing operations*
- *Uses only one side of insert*

Part No.	Description	a=h	b	L	l1	f	Insert	Screw	Shim	Shim Screw	Wrench
8665511	SCLCR-08-3J	0.500	0.500	3.500	0.630	0.630	CC_ _32.5_	9317446	-	-	9355555
8665522	SCLCL-08-3J	0.500	0.500	3.500	0.630	0.630	CC_ _32.5_	9317446	-	-	9355555
8665533	SCLCR-12-4C	0.750	0.750	5.000	1.000	1.000	CC_ _43_	9319446	9333222	9319648	9355555
8665544	SCLCL-12-4C	0.750	0.750	5.000	1.000	1.000	CC_ _43_	9319446	9333222	9319648	9355555



STGCR/L 91°

turning & facing

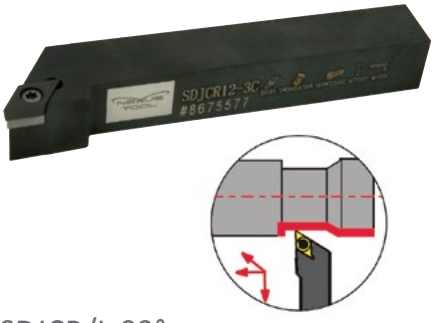


right hand shown - see table for left hand

Product Information

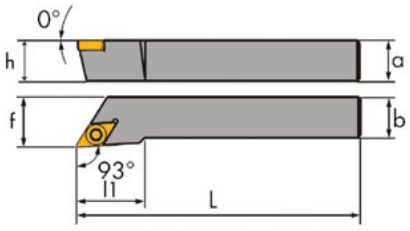
- *Comes in 1/2" and 3/4" shanks*
- *Left and right hand holders*
- *STGCR/L-08-2J takes TC__21.5_ inserts (3 Corners)*
- *STGCR/L-12-3C Takes TC__32.5_ inserts (3 Corners)*
- *91˚ Lead Angle*
- *Screw clamping*
- *Used for turning & facing operations*
- *Uses only one side of insert*

Part No.	Description	a=h	b	L	l1	f	Insert	Screw	Shim	Shim Screw	Wrench
8655512	STGCR-08-2J	0.500	0.500	3.500	0.550	0.630	TC_ _21.5_	9316547	-	-	9355222
8655523	STGCL-08-2J	0.500	0.500	3.500	0.550	0.630	TC_ _21.5_	9316547	-	-	9355222
8655534	STGCR-12-3C	0.750	0.750	5.000	0.830	1.000	TC_ _32.5_	9318446	9333555	9319547	9355555
8655545	STGCL-12-3C	0.750	0.750	5.000	0.830	1.000	TC_ _32.5_	9318446	9333555	9319547	9322126



SDJCR/L 93°

profile turning



right hand shown - see table for left hand

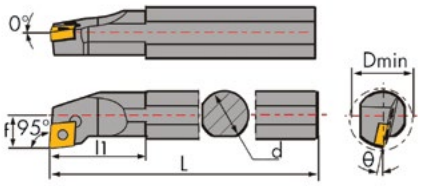
Product Information

- *Comes in 1/2" and 3/4" shanks*
- *Left and right hand holders*
- *SDJCR/L-08-2J takes DC__21.5_ inserts (2 Corners)*
- *SDJCR/L-12-3C takes DC__32.5_ inserts (2 corners)*
- *93˚ lead angle*
- *Screw clamping*
- *Used for profile turning*
- *Uses only one side of insert*

Part No.	Description	a=h	b	L	l1	f	Insert	Screw	Shim	Shim Screw	Wrench
8675555	SDJCR-08-2J	0.500	0.500	3.500	0.600	0.630	DC_ _21.5_	9316547	-	-	9355222
8675566	SDJCL-08-2J	0.500	0.500	3.500	0.600	0.630	DC_ _21.5_	9316547	-	-	9355222
8675577	SDJCR-12-3C	0.750	0.750	5.000	0.950	1.000	DC_ _32.5_	9318446	9333333	9319547	9355555
8675588	SDJCL-12-3C	0.750	0.750	5.000	0.950	1.000	DC_ _32.5_	9318446	9333333	9319547	9322126

Positive Boring Bars – Coolant Thru

boring & facing



right hand shown - see table for left hand

Product Information

- *Comes in 3/8", 1/2", 5/8", and 3/4" diameter shanks*
- *Left and right hand bars*
- *A06H-SCLCR/L-2 and A08K-SCLCR/L-2 take CC__21.5_ Inserts (2 corners)*
- *A10M-SCLCR/L-3 and A12Q-SCLCR/L-3 take CC__32.5_ Inserts (2 corners)*
- *95˚ lead angle*
- *Screw clamping and coolant thru for better chip evacuation*
- *Used for boring and facing*
- *Uses only one side of insert*

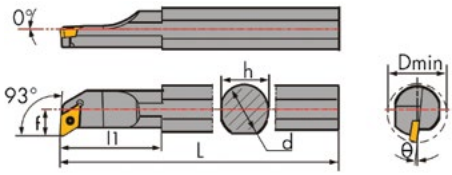
SCLCR/L 95° Coolant Thru

Part No.	Description	d	Dmin	L	l1	f	Insert	Screw	Wrench
8167711	A06H-SCLCR-2	0.375	0.472	4.00	0.551	0.236	CC_ _21.5_	9311455	9355222
8167722	A06H-SCLCL-2	0.375	0.472	4.00	0.551	0.236	CC_ _21.5_	9311455	9355222
8167733	A08K-SCLCR-2	0.500	0.630	5.00	0.984	0.354	CC_ _21.5_	9311455	9355222
8167744	A08K-SCLCL-2	0.500	0.630	5.00	0.984	0.354	CC_ _21.5_	9311455	9355222
8167755	A10M-SCLCR-3	0.625	0.787	6.00	1.280	0.433	CC_.32.5_	9317446	9355555
8167766	A10M-SCLCL-3	0.625	0.787	6.00	1.280	0.433	CC_.32.5_	9317446	9355555
8167777	A12Q-SCLCR-3	0.750	0.984	7.00	1.496	0.512	CC_.32.5_	9317446	9355555
8167788	A12Q-SCLCL-3	0.750	0.984	7.00	1.496	0.512	CC_.32.5_	9317446	9355555

Blue indicates coolant.

Cuts ALL THESE Materials

profile boring



right hand shown - see table for left hand

Product Information

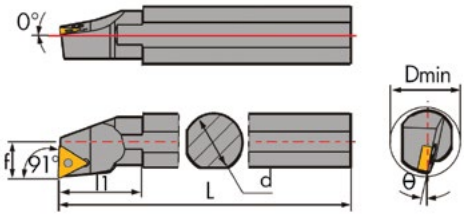
- *Comes in 3/8", 1/2", 5/8", and 3/4" diameter shanks*
- *Left and right hand bars*
- *A06H-SDUCR/L-2, A08K-SDUCR/L-2, and A10M-SDUCR/L-2 all take DC__21.5_ inserts (2 corners)*
- *A12Q-SDUCR/L-3 takes DC__32.5_ inserts (2 corners)*
- *93˚ lead angle*
- *Screw clamping and coolant thru for better chip evacuation*
- *Used for profile boring (30˚ max)*
- *Uses only one side of insert*

SDUCR/L 93° Coolant Thru

Part No.	Description	d	Dmin	L	l1	f	Insert	Screw	Wrench
8177711	A06H-SDUCR-2	0.375	0.512	4.00	-	0.276	DC_ _21.5_	9311455	9355222
8177722	A06H-SDUCL-2	0.375	0.512	4.00	-	0.276	DC_ _21.5_	9311455	9355222
8177733	A08K-SDUCR-2	0.500	0.625	5.00	0.866	0.354	DC_ _21.5_	9316547	9355222
8177744	A08K-SDUCL-2	0.500	0.625	5.00	0.866	0.354	DC_ _21.5_	9316547	9355222
8177755	A10M-SDUCR-2	0.625	0.787	6.00	1.063	0.433	DC_ _21.5_	9316547	9355222
8177766	A10M-SDUCL-2	0.625	0.787	6.00	1.063	0.433	DC_ _21.5_	9316547	9355222
8177777	A12Q-SDUCR-3	0.750	0.984	7.00	1.575	0.512	DC_ _32.5_	6811259	9355555
8177788	A12Q-SDUCL-3	0.750	0.984	7.00	1.575	0.512	DC_ _32.5_	6811259	9355555

Positive Boring Bars – Coolant Thru

boring & facing



right hand shown

Product Information

- *Comes in 1/2", 5/8", and 3/4" diameter shanks*
- *Right hand bars only*
- *All Take TC__21.5_ inserts (2 corners)*
- *91˚ lead angle*
- *Screw clamping and coolant thru for better chip evacuation*
- *Used for boring and facing*
- *Uses only one side of insert*

STFCR/L 91° Coolant Thru

Part No.	Description	d	Dmin	L	l1	f	Insert	Screw	Wrench
8157711	A08K-STFCR-2	0.500	0.630	5.00	1.024	0.354	TC_ _21.5_	9316547	9355555
8157722	A10M-STFCR-2	0.625	0.787	6.00	1.181	0.434	TC_ _21.5_	9316547	9355555
8157733	A12Q-STFCR-2	0.750	0.984	7.00	1.417	0.512	TC_ _21.5_	9316547	9355555

Blue indicates coolant.

Turning Tips

- *The cutting conditions are Techniks guidelines for optimal machining, however our inserts can work in a wider range of cutting conditions to meet special machining needs.*
- *According to our recommended cutting conditions, A-max should be used for optimum results.*
- *When machining stainless steel, make sure your speed is over the minimum requirement. Stainless steel can be gummy. Running it too slowly can cause gaulding (weldment of the chip to the insert).*
- *Coolant recommendations:*
  - *Use coolant with materials from groups 6, 7, 8, 9, 10, 11, 12.*
  - *Do not use coolant with materials from groups 1, 2, 4. Use coolant with materials from groups 3, 5 — depending on the application.*
- *Always verify that the toolholder and shim are in good condition (not damaged).*
- *If chips are too long, we recommend increasing feed rate.*
- *If chips are not controlled (vary in shape and size), we recommend increasing feed rate and reducing depth of cut.*
- *For the internal boring operations, the toolholder should be as short as possible and shank as big as possible.*
- *In the case of chatter, we recommend reducing cutting speed, and increasing feed rate.*
- *Reduce the feed rate for heavy interrupted cuts.*

Cuts ALL THESE Materials

HIGH-PERFORMANCE
3x the Thickness of Conventional PVD!

Techniks Turning & Boring Inserts

HIGH-PERFORMANCE

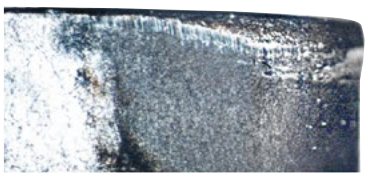
3x the Thickness of Conventional PVD!

Techniks out-performs!

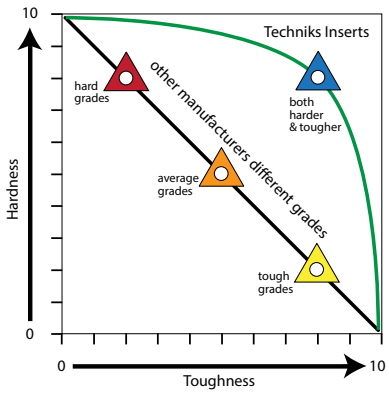
When tested under the same cutting conditions, Techniks inserts retained their sharpness and ran over twice as long before showing visible wear.

See for yourself. Request test inserts.

Techniks CNMG insert - After 22 min.

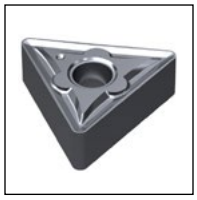


Other brand CNMG - After 11 min.

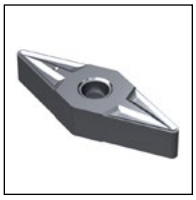


Techniks inserts are both HARDER & TOUGHER

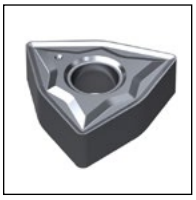
CNMG



TNMG



VNMG



WNMG

CCMT

TCMT

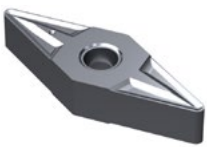
Insert Type	Test Inserts	Package Deals	All-Material	ISO Compatible	PVD 3.5X
Milling Inserts	✔	✔	✔	✔	✔
Turning Inserts	✔	✔	✔	✔	✔
Boring Inserts	✔	✔	✔	✔	✔

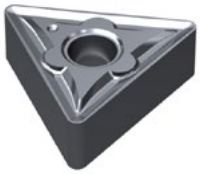
Changing jobs? Don't change inserts!

Just run our inserts at the speeds and feeds on the back of the package for increased productivity AND reduced cutting tool costs.

Cuts ALL THESE Materials

LT30 and LT1000 All Material Grade

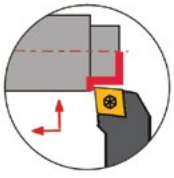




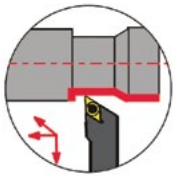
Use LT30 or LT1000 for cutting all materials

LT05 Aluminum Grade

Use LT05 for best results cutting Aluminum

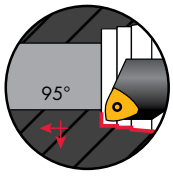


turning & facing

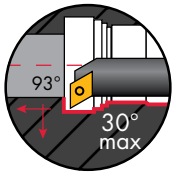


profile turning

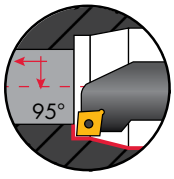
profile boring



boring & facing



profile boring



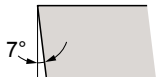
boring & facing

Technical Formulas

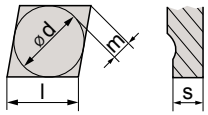
Definition	Formula
Inches Per Tooth (IPT or Chip Load) The thickness of material that is removed by one tooth in one complete revolution.	
Inches Per Revolution (IPR) The linear distance that a tool advances in one complete revolution.	**IPR = IPT x NUMBER OF TEETH**
Inches Per Minute (IPM) The linear distance, in inches, that the tool advances in one minute.	**IPM = IPR x RPM**
Surface Feet Per Minute (SFPM) The linear distance, in feet, that the cutting edge of the tool travels in one minute.	$SFPM = \frac{RPM \times DIA}{3.82}$
Revolutions Per Minute (RPM) The number of times a tool rotates 360° in one minute.	$RPM = \frac{SFPM \times 3.82}{DIA}$
Meters Per Minute (M/MIN) The linear distance, in meters, that the cutting edge of the tool travels in one minute.	**M/M = RPM x .003 x DIA**
Convert Millimeters to Inches	$INCHES = \frac{MM}{25.4}$
Convert Inches to Millimeters	**MM = INCHES x 25.4**
Convert Meters Per Minute to Surface Feet Per Minute	**SFPM = M/M x 3.3**
Convert Surface Feet Per Minute to Meters Per Minute	$MM = \frac{SFPM}{3.3}$
Depth Of Cut (DOC) The amount of material removed, in thickness, by one pass of the cutting tool.	
Metal Removal Rate ("Q" or IN^3/MIN). The amount of cubic inches of material removed in one minute.	**Q = DOC x WOC x IPM**
Balancing Feed and DOC A given value that allows an end user to balance feed rate and depth of cut.	**AMAX = DOC x IPR**

CCMT Turning & Boring Inserts

Shape

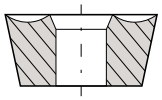


Clearance Angle



Tolerance

s ± 0.005
For l = 06/09, **d** ± 0.002 **m** ± 0.003
For l = 12, **d** ± 0.003 **m** ± 0.005



Fixing
Chip breaker

CCMT Turning & Boring Inserts

Part No.	Description	Grade	l	r	r	Direction
3663311	CCMT 2(1.5)0 HF	251	0.252	0.094	0.008	0.008
3664411	CCMT 2(1.5)1 NN	LT 10	0.254	0.094	0.016	0.016
3668011	CCMT 2(1.5)1 NN	LT 1000	0.254	0.094	0.016	0.016
3663399	CCMT 2(1.5)2 HM	251	0.252	0.094	0.031	0.031
3663344	CCMT 3(2.5)0 HF	251	0.382	0.156	0.008	0.008
3664413	CCMT 3(2.5)1 NN	LT 10	0.381	0.156	0.016	0.016
3668021	CCMT 3(2.5)1 NN	LT 1000	0.381	0.156	0.016	0.016
3664416	CCMT 3(2.5)2 NN	LT 10	0.381	0.156	0.036	0.036
3668026	CCMT 3(2.5)2 NN	LT 1000	0.381	0.156	0.036	0.036
3664422	CCMT 431 NN	LT 1000	0.508	0.187	0.016	0.016
3664421	CCMT 431 NN	LT 10	0.508	0.187	0.016	0.016
3664427	CCMT 432 NN	LT 1000	0.508	0.187	0.036	0.036
3664425	CCMT 432 NN	LT 10	0.508	0.187	0.036	0.036
3664429	CCMT 433 NN	LT 1000	0.508	0.187	0.047	0.047
3631083	CCMT 433 NN	LT 10	0.508	0.187	0.047	0.047

NN All purpose Chipbreaker. 80° Diamond shape inserts, with positive chipbreaker geometry.

Very popular and useful for boring small diameters, facing and external turning.

LT1000 Grade = 4X thicker PVD coating for extended tool life.

Application Guide

Insert Description	Finishing	Medium	Roughing / Interrupted Cut
CCMT 2(1.5)1 NN	●	●	●
CCMT 3(2.5)1 NN	●	●	●
CCMT 3(2.5)2 NN	●	●	●
CCMT 431 NN	●	●	●
CCMT 432 NN	●	●	●
CCMT 433 NN	●	●	●

● = Good ● = Acceptable ● = Not Recommended

Finishing:
d.o.c. = 0.012 - 0.059 inch
fn = 0.003 - 0.008 inch/rev

Medium:
d.o.c. = 0.028 - 0.177 inch
fn = 0.006 - 0.018 inch/rev

Roughing:
d.o.c. = 0.118 - 0.276 inch
fn = 0.014 - 0.028 inch/rev

Use these tips to help get the best productivity using Techniks' cutting inserts.
Each tip is symbolized by an icon which appears in the catalog with each insert.

Stainless Steel ↗ V_c

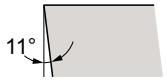
In machining Stainless Steel, please verify and follow the cutting speed recommended for the insert, as there is a tendency to machine at speeds that are too low.

↗ V_c ⇒ ↗ Productivity

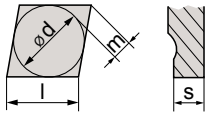
To increase machining productivity, it is recommended to increase speed (Vc) while respecting chip size calculation.

CPMT Turning Inserts

Shape

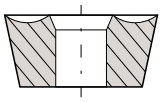


Clearance Angle



Tolerance

s ± 0.005
For l = 06/09, **d** ± 0.002 **m** ± 0.003
For l = 12, **d** ± 0.003 **m** ± 0.005



Fixing
Chip breaker

CPMT Turning Inserts

Part No.	Description	Grade	l	s	r
3668010	CPMT21.51NN LT1000	LT1000	.254	.094	.016
3668020	CPMT32.51NN LT1000	LT1000	.381	.156	.016
3668025	CPMT32.52NN LT1000	LT1000	.381	.156	.031

LT1000 Grade = 4X thicker PVD coating for extended tool life.

Application Guide

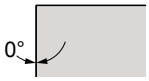
Insert Description	Finishing	Medium	Roughing / Interrupted Cut
CPMT 2(1.5)1 NN	●	●	●
CPMT 3(2.5)1 NN	●	●	●
CPMT 3(2.5)2 NN	●	●	●

● = Good ● = Acceptable ● = Not Recommended

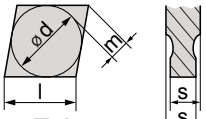
Go to http://bit.ly/2bMPVkL
or scan the QR code to find the
speeds & feeds for your inserts.

CNMG Turning & Boring Inserts

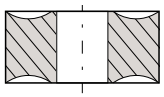
Shape



Clearance Angle



Tolerance
d ± 0.003
m ± 0.005
s ± 0.005



Fixing
Chip breaker

CNMG Turning & Boring Inserts

Part No.	Description	Grade	l	s	r
6607029	CNMG 431 NN	LT 10	0.508	0.187	0.016
6608011	CNMG 431 NN	LT 1000	0.508	0.187	0.016
6607033	CNMG 432 NN	LT 10	0.508	0.187	0.031
6608016	CNMG 432 NN	LT 1000	0.508	0.187	0.031
6601436	CNMG 432 NM	LT 10	0.508	0.187	0.031
6601437	CNMG 432 NM	LT 1000	0.508	0.187	0.031
6608026	CNMG 432 NX	LT 1000	0.508	0.187	0.031
6607037	CNMG 433 NN	LT 10	0.508	0.187	0.047
6608021	CNMG 433 NN	LT 1000	0.508	0.187	0.047

NN All purpose Chipbreaker **NM** Steel and Cast Iron **NR** Steel and Cast Iron **NX** All purpose Chipbreaker

The most popular general purpose turning inserts. Use for turning, facing and boring operations.

LT1000 Grade = 4X thicker PVD coating for extended tool life.

Application Guide

Insert Description	Finishing	Medium	Roughing / Interrupted Cut
CNMG 431 NN	●	●	●
CNMG 432 NN	●	●	●
CNMG 432 NM	●	●	●
CNMG 433 NR	●	●	●
CNMG 432 NX	●	●	●
CNMG 433 NN	●	●	●

● = Good ● = Acceptable ● = Not Recommended

Finishing:
d.o.c. = 0.012 - 0.059 inch
fn = 0.003 - 0.008 inch/rev

Medium:
d.o.c. = 0.028 - 0.177 inch
fn = 0.006 - 0.018 inch/rev

Roughing:
d.o.c. = 0.118 - 0.276 inch
fn = 0.014 - 0.028 inch/rev

Use these tips to help get the best productivity using Techniks' cutting inserts.
Each tip is symbolized by an icon which appears in the catalog with each insert.

Stainless Steel V_c

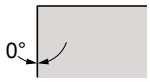
In machining Stainless Steel, please verify and follow the cutting speed recommended for the insert, as there is a tendency to machine at speeds that are too low.

F **Productivity**

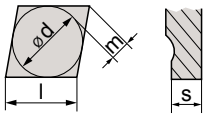
To increase productivity, it is recommended to increase feed (f) and respect cutting speed.

CNMM Turning Inserts

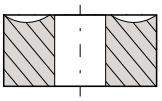
Shape



Clearance Angle



Tolerance
d ± 0.003
m ± 0.005
s ± 0.005



Fixing
Chip breaker

CNMM Turning Inserts

Part No.	Description	Grade	l	s	r
6602011	CNMM 432 NR	LT10	0.508	0.187	0.031
6602013	CNMM 432 NR	LT1000	0.508	0.187	0.031
6602022	CNMM 433 NR	LT10	0.508	0.187	0.047
6602023	CNMM 433 NR	LT1000	0.508	0.187	0.047

NR Steel and Cast Iron. 80° Diamond shape, single sided inserts.

Strong cutting edge for roughing operations which includes interrupted cut, high feeds and high depth of cut.

LT1000 Grade = 4X thicker PVD coating for extended tool life.

Application Guide

Insert Description	Finishing	Medium	Roughing / Interrupted Cut
CNMM 432 NR LT10	🟡	🟢	🟡
CNMM 432 NR LT1000	🟡	🟢	🟢
CNMM 433 NR LT10	🔴	🟡	🟢
CNMM 433 NR LT1000	🔴	🟡	🟢

🟢 = Good 🟡 = Acceptable 🔴 = Not Recommended

Finishing:
d.o.c. = 0.012 - 0.059 inch
fn = 0.003 - 0.008 inch/rev

Medium:
d.o.c. = 0.028 - 0.177 inch
fn = 0.006 - 0.018 inch/rev

Roughing:
d.o.c. = 0.118 - 0.276 inch
fn = 0.014 - 0.028 inch/rev

Use these tips to help get the best productivity using Techniks' cutting inserts.
Each tip is symbolized by an icon which appears in the catalog with each insert.

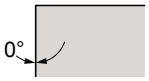
F ➡
Productivity

To increase productivity, it is recommended to increase feed (f) and respect cutting speed.

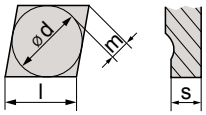
Go to http://bit.ly/2bMPVkL
or scan the QR code to find the
speeds & feeds for your inserts.

CNMP Turning Inserts

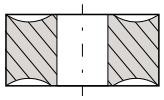
Shape



Clearance Angle



Tolerance
d ± 0.003
m ± 0.005
s ± 0.005



Fixing
Chip breaker

CNMP Turning Inserts

Part No.	Description	Grade	l	s	r
6607045	CNMP 432 NN	LT 10	0.508	0.187	0.031
6608031	CNMP 432 NN	LT 1000	0.508	0.187	0.031
3665525	CNMP 433 NN	LT 10	0.508	0.187	0.047
6608036	CNMP 433 NN	LT 1000	0.508	0.187	0.047

NN All purpose Chipbreaker. 80° Diamond shape, double sided inserts with positive chipbreaker geometry.
Generates low cutting forces, suitable for high temperature alloys and stainless steel.
LT1000 Grade = 4X thicker PVD coating for extended tool life.

Application Guide

Insert Description	Finishing	Medium	Roughing / Interrupted Cut
CNMP 432 NN	●	●	●
CNMP 433 NN	●	●	●

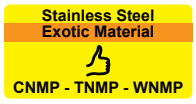
● = Good ● = Acceptable ● = Not Recommended

Finishing:
d.o.c. = 0.012 - 0.059 inch
fn = 0.003 - 0.008 inch/rev

Medium:
d.o.c. = 0.028 - 0.177 inch
fn = 0.006 - 0.018 inch/rev

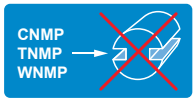
Roughing:
d.o.c. = 0.118 - 0.276 inch
fn = 0.014 - 0.028 inch/rev

Use these tips to help get the best productivity using Techniks' cutting inserts.
Each tip is symbolized by an icon which appears in the catalog with each insert.



In machining Stainless Steel or Exotic Materials, P geometry inserts (CNMP, TNMP, WNMP), are recommended as first choice.

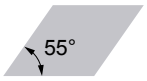
In machining Exotic Materials, it is important to verify cutting conditions of the specific insert.



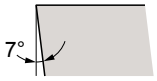
P geometry inserts (CNMP, TNMP, WNMP) are not recommended when machining with interrupted cut.

Go to http://bit.ly/2bMPVkL or scan the QR code to find the speeds & feeds for your inserts.

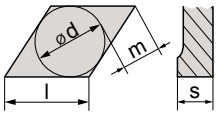
DCMT Turning Inserts



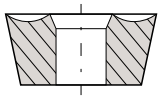
Shape



Clearance Angle



Tolerance
d ± 0.002
m ± 0.003
s ± 0.005



Fixing
Chip breaker

DCMT Turning Inserts

Part No.	Description	Grade	l	s	r
3764421	DCMT 2(1.5)1 NN	LT 10	0.305	0.094	0.016
3768811	DCMT 2(1.5)1 NN	LT 1000	0.305	0.094	0.016
3764424	DCMT 3(2.5)1 NN	LT 10	0.458	0.156	0.016
3768821	DCMT 3(2.5)1 NN	LT 1000	0.458	0.156	0.016
3764427	DCMT 3(2.5)2 NN	LT 10	0.458	0.156	0.031
3768826	DCMT 3(2.5)2 NN	LT 1000	0.458	0.156	0.031

NN All purpose Chipbreaker. 55° diamond shape inserts, suitable for internal turning due to a unique chip removal geometry. Generates low cutting forces, most suitable for small work-pieces.

LT1000 Grade = 4X thicker PVD coating for extended tool life.

Application Guide

Insert Description	Finishing	Medium	Roughing / Interrupted Cut
DCMT 2(1.5)1 NN	●	●	●
DCMT 3(2.5)1 NN	●	●	●
DCMT 3(2.5)2 NN	●	●	●

● = Good ● = Acceptable ● = Not Recommended

Finishing:
d.o.c. = 0.012 - 0.059 inch
fn = 0.003 - 0.008 inch/rev

Medium:
d.o.c. = 0.028 - 0.177 inch
fn = 0.006 - 0.018 inch/rev

Roughing:
d.o.c. = 0.118 - 0.276 inch
fn = 0.014 - 0.028 inch/rev

Use these tips to help get the best productivity using Techniks' cutting inserts. Each tip is symbolized by an icon which appears in the catalog with each insert.

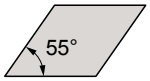
Stainless Steel
V_C

In machining Stainless Steel, please verify and follow the cutting speed recommended for the insert, as there is a tendency to machine at speeds that are too low.

Appropriate for boring operation.

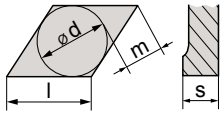
Go to http://bit.ly/2bMPVkL or scan the QR code to find the speeds & feeds for your inserts.

DNMG Turning Inserts



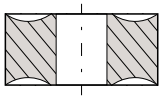
Shape

Clearance Angle



Tolerance

s ± 0.005
For l = 11, **d** ± 0.002 **m** ± 0.003
For l = 15, **d** ± 0.003 **m** ± 0.005



Fixing
Chip breaker

DNMG Turning Inserts

Part No.	Description	Grade	l	s	r
7607061	DNMG 331 NN	LT 10	0.458	0.187	0.016
7608011	DNMG 331 NN	LT 1000	0.458	0.187	0.016
7607065	DNMG 332 NN	LT 10	0.458	0.187	0.031
7608016	DNMG 332 NN	LT 1000	0.458	0.187	0.031
7607069	DNMG 431 NN	LT 10	0.610	0.187	0.016
7608021	DNMG 431 NN	LT 1000	0.610	0.187	0.016
7607073	DNMG 432 NN	LT 10	0.610	0.187	0.031
7608026	DNMG 432 NN	LT 1000	0.610	0.187	0.031
7608029	DNMG 432 NX	LT 1000	0.610	0.187	0.031
7607077	DNMG 433 NN	LT 10	0.610	0.187	0.047
7608031	DNMG 433 NN	LT 1000	0.610	0.187	0.047
7608036	DNMG 441 NN	LT 10	0.610	0.250	0.016
7601910	DNMG 441 NN	LT 1000	0.610	0.250	0.016
7608041	DNMG 442 NN	LT 10	0.610	0.250	0.031
7601911	DNMG 442 NN	LT 1000	0.610	0.250	0.031
7608046	DNMG 443 NN	LT 10	0.610	0.250	0.047
7601912	DNMG 443 NN	LT 1000	0.610	0.250	0.047

NN All Purpose Chipbreaker. LT1000 Grade = 4X thicker PVD coating for extended tool life.

Application Guide

Insert Description	Finishing	Medium	Roughing / Interrupted Cut LT 10	Roughing / Interrupted Cut LT 1000
DNMG 331 NN	●	●	●	●
DNMG 332 NN	●	●	●	●
DNMG 431 NN	●	●	●	●
DNMG 432 NN	●	●	●	●
DNMG 433 NN	●	●	●	●
DNMG 441 NN	●	●	●	●
DNMG 442 NN	●	●	●	●
DNMG 443 NN	●	●	●	●

● = Good ● = Acceptable ● = Not Recommended

Finishing:
d.o.c. = 0.012 - 0.059 inch
fn = 0.003 - 0.008 inch/rev

Medium:
d.o.c. = 0.028 - 0.177 inch
fn = 0.006 - 0.018 inch/rev

Roughing:
d.o.c. = 0.118 - 0.276 inch
fn = 0.014 - 0.028 inch/rev

Use these tips to help get the best productivity using Techniks' cutting inserts.

Stainless Steel V_c ↗

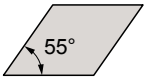
In machining Stainless Steel, please verify and follow the cutting speed recommended for the insert, as there is a tendency to machine at speeds that are too low.

V_c ⇒ Productivity ↗

To increase machining productivity, it is recommended to increase speed (Vc) while respecting chip size calculation.

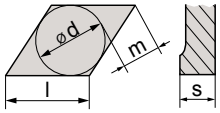
Satisfaction guaranteed on all our CNC tooling solutions from spindle to workpiece.

DNUX Turning Inserts



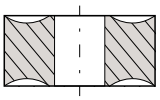
Shape

Clearance Angle



Tolerance

d ± 0.003
m ± 0.005
s ± 0.005



Fixing
Chip breaker

DNUX Turning Inserts

Part No.	Description	Grade	l	s	r
7602157	DNUX 442 R11	LT 10	0.610	0.250	0.031
7602793	DNUX 442 R11	LT 1000	0.610	0.250	0.031

R11 All Purpose Chipbreaker. 55° nose angle insert with four cutting edges.

Excellent chip control and low cutting forces, suitable for conventional turning operations and long shafts.

T1000 Grade = 4X thicker PVD coating for extended tool life.

Application Guide

Insert Description	Finishing	Medium	Roughing / Interrupted Cut
DNUX 150608 R11	●	●	●

● = Good ● = Acceptable ● = Not Recommended

Finishing:
d.o.c. = 0.012 - 0.059 inch
fn = 0.003 - 0.008 inch/rev

Medium:
d.o.c. = 0.028 - 0.177 inch
fn = 0.006 - 0.018 inch/rev

Roughing:
d.o.c. = 0.118 - 0.276 inch
fn = 0.014 - 0.028 inch/rev

Use these tips to help get the best productivity using Techniks' cutting inserts.

Feed x d.o.c. = Amax

It is important to verify and respect Amax, which is the maximum chip section. Feed x d.o.c. must be lower than the number noted as Amax.

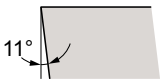
V_c → Productivity

To increase machining productivity, it is recommended to increase speed (Vc) while respecting chip size calculation.

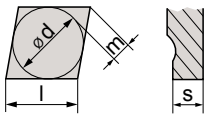
Go to http://bit.ly/2bMPVkL
or scan the QR code to find the
speeds & feeds for your inserts.

EPGT & EPMT Turning Inserts

Shape

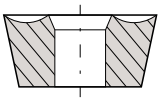


Clearance Angle



Tolerance

s ± 0.005
For l = 06/09, **d** ± 0.002 **m** ± 0.003
For l = 12, **d** ± 0.003 **m** ± 0.005



Fixing
Chip breaker

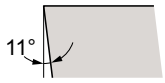
EPGT Turning Inserts

Part No.	Description	Grade	l	s	r
3934020	EPGT 1.2(1).5L W08 (ANSI) EPGT 040102L W08 (ISO)	NS53	0.161	0.063	0.008

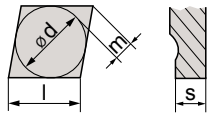
Application Guide

Insert Description	
EPGT 1.2(1).5L W08 (ANSI) EPGT 040102L W08 (ISO)	See the back of the box for speeds & feeds

Shape

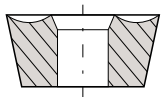


Clearance Angle



Tolerance

s ± 0.005
For l = 06/09, **d** ± 0.002 **m** ± 0.003
For l = 12, **d** ± 0.003 **m** ± 0.005



Fixing
Chip breaker

EPMT Turning Inserts

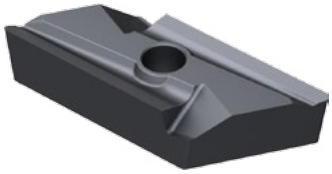
Part No.	Description	Grade	l	s	r
3934030	EPMT 1.5(3).5 PM5 (ANSI) EPMT 050202 PM5 (ISO)	5625	0.224	0.094	0.008

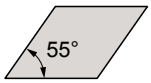
Application Guide

Insert Description	
EPMT 1.5(3).5 PM5 (ANSI) EPMT 050202 PM5 (ISO)	See the back of the box for speeds & feeds

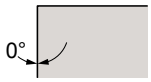
Go to http://bit.ly/2bMPVkL
or scan the QR code to find the
speeds & feeds for your inserts.

KNUX Turning Inserts

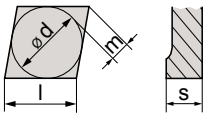




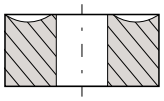
Shape



Clearance Angle



Tolerance
d ± 0.003
m ± 0.005
s ± 0.005



Fixing
Chip breaker

KNUX Turning Inserts

Part No.	Description	Grade	l	s	r
3164420	KNUX 160405 R11	LT 10	0.630	0.187	0.020

R11 All Purpose Chipbreaker

A 55° nose angle insert with two cutting edges.

Popular insert with excellent chip control and low cutting forces, suitable for conventional turning operations.

Application Guide

Insert Description	Finishing	Medium	Roughing / Interrupted Cut
KNUX 160405 R11	●	●	●

● = Good ● = Acceptable ● = Not Recommended

Finishing:
d.o.c. = 0.012 - 0.059 inch
fn = 0.003 - 0.008 inch/rev

Medium:
d.o.c. = 0.028 - 0.177 inch
fn = 0.006 - 0.018 inch/rev

Roughing:
d.o.c. = 0.118 - 0.276 inch
fn = 0.014 - 0.028 inch/rev

Use these tips to help get the best productivity using Techniks' cutting inserts.

Feed x d.o.c. = Amax

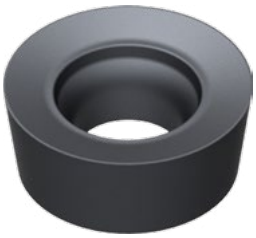
It is important to verify and respect Amax, which is the maximum chip section. Feed x d.o.c. must be lower than the number noted as Amax.

V_c ⇒ Productivity

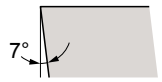
To increase machining productivity, it is recommended to increase speed (Vc) while respecting chip size calculation.

Go to http://bit.ly/2bMPVkL
or scan the QR code to find the
speeds & feeds for your inserts.

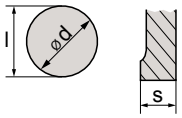
RCMT Turning Inserts



Shape

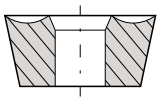


Clearance Angle



Tolerance

s ± 0.005
For l = 06/08/10, **d** ± 0.002 **m** ± 0.003
For l = 12, **d** ± 0.003 **m** ± 0.005



Fixing
Chip breaker

RCMT Turning Inserts

Part No.	Description	Grade	l	s	r
3355511	RCMT 0602 M0	LT 10	0.236	0.094	0.118
3351914	RCMT 0602 M0	LT 1000	0.236	0.094	0.118
3355516	RCMT 0803 M0	LT 10	0.315	0.125	0.158
3351915	RCMT 0803 M0	LT 1000	0.315	0.125	0.158
3355521	RCMT 10T3 M0	LT 10	0.394	0.156	0.197
3351916	RCMT 10T3 M0	LT 1000	0.394	0.156	0.197
3355525	RCMT 1204 M0	LT 10	0.472	0.187	0.236
3351917	RCMT 1204 M0	LT 1000	0.472	0.187	0.236

Round inserts with positive rake angle and excellent edge resistance.

Suitable for Profiling operations of mill rolls and aerospace parts.

LT1000 Grade = 4X thicker PVD coating for extended tool life.

Application Guide

Insert Description	Finishing	Medium	Roughing / Interrupted Cut
RCMT 0602	●	●	●
RCMT 0803	●	●	●
RCMT 10T3	●	●	●
RCMT 1204	●	●	●

● = Good ● = Acceptable ● = Not Recommended

Finishing:
d.o.c. = 0.012 - 0.059 inch
fn = 0.003 - 0.008 inch/rev

Medium:
d.o.c. = 0.028 - 0.177 inch
fn = 0.006 - 0.018 inch/rev

Roughing:
d.o.c. = 0.118 - 0.276 inch
fn = 0.014 - 0.028 inch/rev

Use these tips to help get the best productivity using Techniks' cutting inserts.

Stainless Steel
V_c

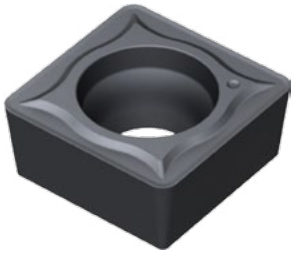
In machining Stainless Steel, please verify and follow the cutting speed recommended for the insert, as there is a tendency to machine at speeds that are too low.

V_c → Productivity

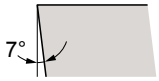
To increase machining productivity, it is recommended to increase speed (Vc) while respecting chip size calculation.

Go to http://bit.ly/2bMPVkL or scan the QR code to find the speeds & feeds for your inserts.

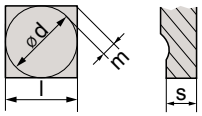
SCMT Turning Inserts



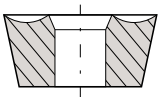
Shape



Clearance Angle



Tolerance
d ± 0.002
m ± 0.003
s ± 0.005



Fixing
Chip breaker

SCMT Turning Inserts

Part No.	Description	Grade	l	s	r
8661459	SCMT 3(2.5)1 NN	LT 10	0.375	0.156	0.016
8661918	SCMT 3(2.5)1 NN	LT 1000	0.375	0.156	0.016
8661458	SCMT 3(2.5)2 NN	LT 10	0.375	0.156	0.031
8661919	SCMT 3(2.5)2 NN	LT 1000	0.375	0.156	0.031

NN All Purpose Chipbreaker.

Square inserts with a positive rake angle with excellent cutting edge resistance, suitable for Boring.

LT1000 Grade = 4X thicker PVD coating for extended tool life.

Application Guide

Insert Description	Finishing	Medium	Roughing / Interrupted Cut
SCMT 3(2.5)1 NN	●	●	●
SCMT 3(2.5)2 NN	●	●	●

● = Good ● = Acceptable ● = Not Recommended

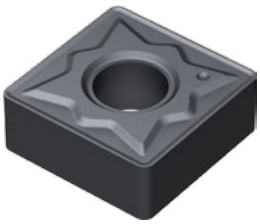
Finishing:
d.o.c. = 0.012 - 0.059 inch
fn = 0.003 - 0.008 inch/rev

Medium:
d.o.c. = 0.028 - 0.177 inch
fn = 0.006 - 0.018 inch/rev

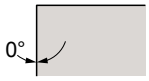
Roughing:
d.o.c. = 0.118 - 0.276 inch
fn = 0.014 - 0.028 inch/rev

Go to http://bit.ly/2bMPVkL
or scan the QR code to find the
speeds & feeds for your inserts.

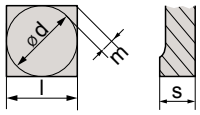
SNMG Turning Inserts



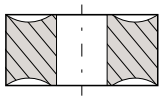
Shape



Clearance Angle



Tolerance
d ± 0.003
m ± 0.005
s ± 0.005



Fixing
Chip breaker

SNMG Turning Inserts

Part No.	Description	Grade	l	s	r
3263311	SNMG 432 NN	LT 10	0.500	0.187	0.031
3261921	SNMG 432 NN	LT 1000	0.500	0.187	0.031
3263322	SNMG 433 NN	LT 10	0.500	0.187	0.047
3263011	SNMG 432 NX	LT 1000	0.500	0.187	0.031
3263326	SNMG 433 NN	LT 1000	0.500	0.187	0.047

NN All Purpose Chipbreaker.

Square inserts with strong cutting edge, suitable for roughing operations.

LT1000 Grade = 4X thicker PVD coating for extended tool life.

Application Guide

Insert Description	Finishing	Medium	Roughing / Interrupted Cut
SNMG 432 NN LT10	●	●	●
SNMG 432 NN LT1000	●	●	●
SNMG 432 NX LT1000	●	●	●
SNMG 433 NN LT10/LT1000	●	●	●

● = Good ● = Acceptable ● = Not Recommended

Finishing:
d.o.c. = 0.012 - 0.059 inch
fn = 0.003 - 0.008 inch/rev

Medium:
d.o.c. = 0.028 - 0.177 inch
fn = 0.006 - 0.018 inch/rev

Roughing:
d.o.c. = 0.118 - 0.276 inch
fn = 0.014 - 0.028 inch/rev

Use these tips to help get the best productivity using Techniks' cutting inserts.

Feed x d.o.c. = Amax

It is important to verify and respect Amax, which is the maximum chip section. Feed x d.o.c. must be lower than the number noted as Amax.

V_c ➡ Productivity

To increase machining productivity, it is recommended to increase speed (Vc) while respecting chip size calculation.

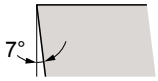
F ➡ Productivity

To increase productivity, it is recommended to increase feed (f) and respect cutting speed.

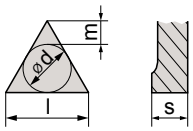
Go to http://bit.ly/2bMPVkL or scan the QR code to find the speeds & feeds for your inserts.

TCMT Turning & Boring Inserts

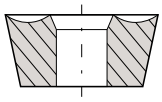
Shape



Clearance Angle



Tolerance
d ± 0.002
m ± 0.003
s ± 0.005



Fixing
Chip breaker

TCMT Turning & Boring Inserts

Part No.	Description	Grade	l	s	r	Machining Recommendations
3533010	TCMT 1.2(1).50	5615	0.378	0.094	0.004	see back of box for speeds and feeds
3533020	TCMT 1.2(1)1	5625	0.378	0.094	0.008	see back of box for speeds and feeds
3563311	TCMT 1.8(1.5)0 HF	251	0.378	0.094	0.008	see back of box for speeds and feeds
3563388	TCMT 1.8(1.5)2 HM	251	0.378	0.094	0.031	see back of box for speeds and feeds
3563399	TCMT 1.8(1.5)1 HF	251	0.378	0.094	0.016	see back of box for speeds and feeds
3533030	TCMT 1.8(1.5)1 PF4	5625	0.378	0.094	0.016	see back of box for speeds and feeds
3564431	TCMT 2(1.5)1 NN	LT 10	0.433	0.094	0.016	see tables on following pages
3568831	TCMT 2(1.5)1 NN	LT 1000	0.433	0.094	0.016	see tables on following pages
3564435	TCMT 2(1.5)2 NN	LT 10	0.433	0.094	0.031	see tables on following pages
3568841	TCMT 2(1.5)2 NN	LT 1000	0.433	0.094	0.031	see tables on following pages
3564438	TCMT 3(2.5)1 NN	LT 10	0.650	0.156	0.016	see tables on following pages
3568851	TCMT 3(2.5)1 NN	LT 1000	0.650	0.156	0.016	see tables on following pages
3564441	TCMT 3(2.5)2 NN	LT 10	0.650	0.156	0.031	see tables on following pages
3568861	TCMT 3(2.5)2 NN	LT 1000	0.650	0.156	0.031	see tables on following pages
3561774	TCMT 3(2.5)3 NN	LT 10	0.650	0.156	0.047	see tables on following pages
3561929	TCMT 3(2.5)3 NN	LT 1000	0.650	0.156	0.047	see tables on following pages

60° triangle shaped inserts, with positive rake angle. Suitable for boring and internal turning.

LT1000 Grade = 4X thicker PVD coating for extended tool life.

Application Guide

Insert Description	Finishing	Medium	Roughing / Interrupted Cut LT 10	Roughing / Interrupted Cut LT 1000
TCMT 2(1.5)1 NN	●	●	●	●
TCMT 2(1.5)2 NN	●	●	●	●
TCMT 3(2.5)1 NN	●	●	●	●
TCMT 3(2.5)2 NN	●	●	●	●
TCMT 3(2.5)3 NN	●	●	●	●

● = Good ● = Acceptable ● = Not Recommended

Finishing:
d.o.c. = 0.012 - 0.059 inch
fn = 0.003 - 0.008 inch/rev

Medium:
d.o.c. = 0.028 - 0.177 inch
fn = 0.006 - 0.018 inch/rev

Roughing:
d.o.c. = 0.118 - 0.276 inch
fn = 0.014 - 0.028 inch/rev

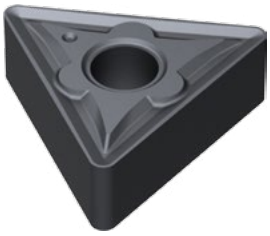
Use these tips to help get the best productivity using Techniks' cutting inserts.

Stainless Steel
V_c

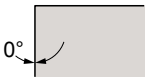
In machining Stainless Steel, please verify and follow the cutting speed recommended for the insert, as there is a tendency to machine at speeds that are too low.

Appropriate for boring operation.

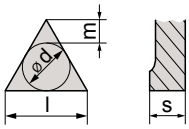
TNMG Turning Inserts



Shape

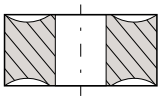


Clearance Angle



Tolerance

s ± 0.005
For l = 16, **d** ± 0.002 **m** ± 0.003
For l = 22, **d** ± 0.003 **m** ± 0.005



Fixing
Chip breaker

Turning Inserts

Part No.	Description	Grade	l	s	r
3577715	TNMG 331 NN	LT 10	0.650	0.187	0.016
3578011	TNMG 331 NN	LT 1000	0.650	0.187	0.016
3567721	TNMG 332 NN	LT 10	0.650	0.187	0.031
3578016	TNMG 332 NN	LT 1000	0.650	0.187	0.031
3573012	TNMG 332 NX	LT 1000	0.650	0.187	0.031
3561734	TNMG 333 NN	LT 10	0.650	0.187	0.047
3578021	TNMG 333 NN	LT 1000	0.650	0.187	0.047
3578031	TNMG 431 NN	LT 10	0.866	0.187	0.016
3571934	TNMG 431 NN	LT 1000	0.866	0.187	0.016
3573036	TNMG 432 NN	LT 10	0.866	0.187	0.031
3571935	TNMG 432 NN	LT 1000	0.866	0.187	0.031
3573013	TNMG 432 NX	LT 1000	0.866	0.187	0.031
3578036	TNMG 433 NN	LT 10	0.866	0.187	0.047
3571936	TNMG 433 NN	LT 1000	0.866	0.187	0.047

NN All Purpose Chipbreaker. 60° triangle shape inserts. Suitable for general purpose turning and copying operations.

LT1000 Grade = 4X thicker PVD coating for extended tool life.

Application Guide

Insert Description	Finishing	Medium	Roughing / Interrupted Cut LT 10	Roughing / Interrupted Cut LT 1000
TNMG 331 NN	●	●	●	●
TNMG 332 NN	●	●	●	●
TNMG 332 NX	●	●	-	●
TNMG 333 NN	●	●	●	●
TNMG 431 NN	●	●	●	●
TNMG 432 NN	●	●	●	●
TNMG 432 NX	●	●	-	●
TNMG 433 NN	●	●	●	●

● = Good ● = Acceptable ● = Not Recommended

Finishing:
d.o.c. = 0.012 - 0.059 inch
fn = 0.003 - 0.008 inch/rev

Medium:
d.o.c. = 0.028 - 0.177 inch
fn = 0.006 - 0.018 inch/rev

Roughing:
d.o.c. = 0.118 - 0.276 inch
fn = 0.014 - 0.028 inch/rev

Use these tips to help get the best productivity using Techniks' cutting inserts.

Stainless Steel V_c

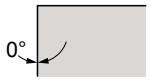
In machining Stainless Steel, please verify and follow the cutting speed recommended for the insert, as there is a tendency to machine at speeds that are too low.

Feed x d.o.c. = Amax

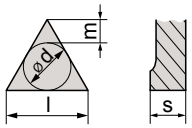
It is important to verify and respect Amax, which is the maximum chip section. Feed x d.o.c. must be lower than the number noted as Amax.

TNMP Turning Inserts

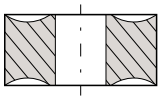
Shape



Clearance Angle



Tolerance
d ± 0.002
m ± 0.003
s ± 0.005



Fixing
Chip breaker

TNMP Turning Inserts

Part No.	Description	Grade	l	s	r
3567735	TNMP 332 NN	LT 10	0.650	0.187	0.031
3578026	TNMP 332 NN	LT 1000	0.650	0.187	0.031

NN All Purpose Chipbreaker.

60° triangle shape inserts, with positive chip breaker geometry for considerably low cutting forces.

Suitable for general purpose, copying, high temperature alloys and stainless steel turning operations.

LT1000 Grade = 4X thicker PVD coating for extended tool life.

Application Guide

Insert Description	Finishing	Medium	Roughing / Interrupted Cut
TNMP 332 NN	●	●	●

● = Good ● = Acceptable ● = Not Recommended

Finishing:
d.o.c. = 0.012 - 0.059 inch
fn = 0.003 - 0.008 inch/rev

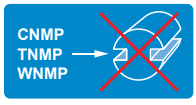
Medium:
d.o.c. = 0.028 - 0.177 inch
fn = 0.006 - 0.018 inch/rev

Roughing:
d.o.c. = 0.118 - 0.276 inch
fn = 0.014 - 0.028 inch/rev

Use these tips to help get the best productivity using Techniks' cutting inserts.

In machining Stainless Steel or Exotic Materials, P geometry inserts (CNMP, TNMP, WNMP), are recommended as first choice.

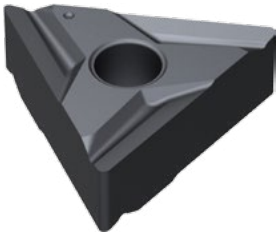
In machining Exotic Materials, it is important to verify cutting conditions of the specific insert.



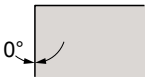
P geometry inserts (CNMP, TNMP, WNMP) are not recommended when machining with interrupted cut.

Go to http://bit.ly/2bMPVkL or scan the QR code to find the speeds & feeds for your inserts.

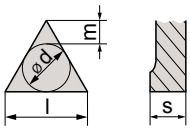
TNUX Turning Inserts



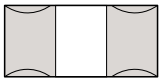
Shape



Clearance Angle



Tolerance
d ± 0.003
m ± 0.005
s ± 0.005



Fixing
Chip breaker

TNUX Turning Inserts

Part No.	Description	Grade	l	s	r
3567737	TNUX 331 R	LT 10	0.650	0.187	0.016
3561938	TNUX 331 R	LT 1000	0.650	0.187	0.016
3561877	TNUX 331 L	LT 10	0.650	0.187	0.016
3562794	TNUX 331 L	LT 1000	0.650	0.187	0.016
3567739	TNUX 332 R	LT 10	0.650	0.187	0.031
3561939	TNUX 332 R	LT 1000	0.650	0.187	0.031
3561878	TNUX 332 L	LT 10	0.650	0.187	0.031
3562795	TNUX 332 L	LT 1000	0.650	0.187	0.031

60° triangle shape inserts.

Suitable for general turning and longitudinal operations, where there is a concern for work piece vibrations.

LT1000 Grade = 4X thicker PVD coating for extended tool life.

Application Guide

Insert Description	Finishing	Medium	Roughing / Interrupted Cut
TNUX 331 R	●	●	●
TNUX 331 L	●	●	●
TNUX 332 R	●	●	●
TNUX 332 L	●	●	●

● = Good ● = Acceptable ● = Not Recommended

Finishing:
d.o.c. = 0.012 - 0.059 inch
fn = 0.003 - 0.008 inch/rev

Medium:
d.o.c. = 0.028 - 0.177 inch
fn = 0.006 - 0.018 inch/rev

Roughing:
d.o.c. = 0.118 - 0.276 inch
fn = 0.014 - 0.028 inch/rev

Use these tips to help get the best productivity using Techniks' cutting inserts.

Feed x d.o.c. = Amax

It is important to verify and respect Amax, which is the maximum chip section. Feed x d.o.c. must be lower than the number noted as Amax.

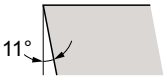
V_c ➡ Productivity

To increase machining productivity, it is recommended to increase speed (Vc) while respecting chip size calculation.

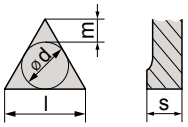
Go to http://bit.ly/2bMPVkL or scan the QR code to find the speeds & feeds for your inserts.

TPGH, TPGT, & TPMR Turning and Boring Inserts

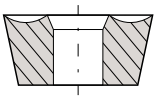
Shape



Clearance Angle



Tolerance
d ± 0.002
m ± 0.003
s ± 0.005



Fixing
Chip breaker

TPGH and TPGT Turning & Boring Inserts

Part No.	Description	Grade	l	s	r	Machining Recommendations
3533033	TPGH 1.8(1.5)0L	102	.378	.094	.008	see back of box for speeds and feeds
3533034	TPGH 1.8(1.5)1L	102	.378	.094	.016	see back of box for speeds and feeds
3933040	TPGH221L	102	.433	.125	.016	see back of box for speeds and feeds
3533032	TPGT 1.8(1.5)1-SF	151	.378	.094	.016	see back of box for speeds and feeds
3567758	TPMR 321 NN	LT 10	0.650	0.125	0.016	see back of box for speeds and feeds
3567759	TPMR 322 NN	LT 10	0.650	0.125	0.031	see back of box for speeds and feeds

NN All Purpose Chipbreaker

60° Triangle shape inserts, with positive rake angle. Suitable for boring and internal turing operations.

For MacroBOHR fine finishing. See MacroBOHR boring tools in Techniks Tooling Solutions catalog or at www.techniksusa.com for plates, heads, cartridges, holders, adapters and extensions.

Application Guide

Insert Description	Finishing	Medium	Roughing / Interrupted Cut
TPMR 321 NN	●	●	●
TPMR 322 NN	●	●	●

● = Good ● = Acceptable ● = Not Recommended

Finishing:
d.o.c. = 0.012 - 0.059 inch
fn = 0.003 - 0.008 inch/rev

Medium:
d.o.c. = 0.028 - 0.177 inch
fn = 0.006 - 0.018 inch/rev

Roughing:
d.o.c. = 0.118 - 0.276 inch
fn = 0.014 - 0.028 inch/rev

Use these tips to help get the best productivity using Techniks' cutting inserts.

Stainless Steel
V_c

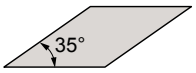
In machining Stainless Steel, please verify and follow the cutting speed recommended for the insert, as there is a tendency to machine at speeds that are too low.

V_c → Productivity

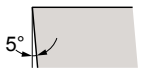
To increase machining productivity, it is recommended to increase speed (Vc) while respecting chip size calculation.

Go to http://bit.ly/2bMPVkL
or scan the QR code to find the
speeds & feeds for your inserts.

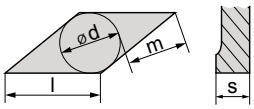
VBMT Turning Inserts



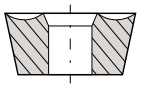
Shape



Clearance Angle



Tolerance
d ± 0.002
m ± 0.003
s ± 0.005



Fixing
Chip breaker

VBMT Turning Inserts

Part No.	Description	Grade	l	s	r
3862215	VBMT 221 NN	LT 10	0.433	0.125	0.016
3861942	VBMT 221 NN	LT 1000	0.433	0.125	0.016
3862221	VBMT 331 NN	LT 10	0.654	0.187	0.016
3861943	VBMT 331 NN	LT 1000	0.654	0.187	0.016
3862225	VBMT 332 NN	LT 10	0.654	0.187	0.031
3861944	VBMT 332 NN	LT 1000	0.654	0.187	0.031

NN All Purpose Chipbreaker. 35° shape inserts with positive rake angle.

Suitable for internal and external copying operations of complex geometries.

LT1000 Grade = 4X thicker PVD coating for extended tool life.

Application Guide

Insert Description	Finishing	Medium	Roughing / Interrupted Cut
VBMT 221 NN	●	●	●
VBMT 331 NN	●	●	●
VBMT 332 NN	●	●	●

● = Good ● = Acceptable ● = Not Recommended

Finishing:
d.o.c. = 0.012 - 0.059 inch
fn = 0.003 - 0.008 inch/rev

Medium:
d.o.c. = 0.028 - 0.177 inch
fn = 0.006 - 0.018 inch/rev

Roughing:
d.o.c. = 0.118 - 0.276 inch
fn = 0.014 - 0.028 inch/rev

Use these tips to help get the best productivity using Techniks' cutting inserts.

Stainless Steel
V_C

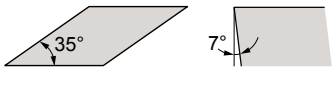
In machining Stainless Steel, please verify and follow the cutting speed recommended for the insert, as there is a tendency to machine at speeds that are too low.

V_C → Productivity

To increase machining productivity, it is recommended to increase speed (Vc) while respecting chip size calculation.

Go to http://bit.ly/2bMPVkL
or scan the QR code to find the
speeds & feeds for your inserts.

VCMT Turning Inserts



Shape | **Clearance Angle** | **Tolerance** d ± 0.002, m ± 0.003, s ± 0.005 | **Fixing Chip breaker**

VCMT Turning Inserts

Part No.	Description	Grade	l	s	r
8608828	VCMT 331 NN	LT 10	0.654	0.187	0.016
8608831	VCMT 331 NN	LT 1000	0.654	0.187	0.016
8608833	VCMT 332 NN	LT 10	0.654	0.187	0.031
8608836	VCMT 332 NN	LT 1000	0.654	0.187	0.031

NN All Purpose Chipbreaker. 35° shape inserts with positive rake angle.

Suitable for internal and external copying operations of complex geometries.

LT1000 Grade = 4X thicker PVD coating for extended tool life.

Application Guide

Insert Description	Finishing	Medium	Roughing / Interrupted Cut
VCMT 331 NN	●	●	●
VCMT 332 NN	●	●	●

● = Good ● = Acceptable ● = Not Recommended

Finishing:
d.o.c. = 0.012 - 0.059 inch
fn = 0.003 - 0.008 inch/rev

Medium:
d.o.c. = 0.028 - 0.177 inch
fn = 0.006 - 0.018 inch/rev

Roughing:
d.o.c. = 0.118 - 0.276 inch
fn = 0.014 - 0.028 inch/rev

Use these tips to help get the best productivity using Techniks' cutting inserts.

Stainless Steel V_c

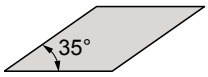
In machining Stainless Steel, please verify and follow the cutting speed recommended for the insert, as there is a tendency to machine at speeds that are too low.

$V_c \rightarrow$ **Productivity**

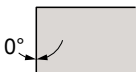
To increase machining productivity, it is recommended to increase speed (Vc) while respecting chip size calculation.

Go to http://bit.ly/2bMPVkL
or scan the QR code to find the
speeds & feeds for your inserts.

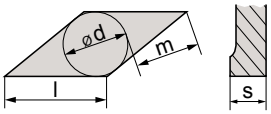
VNMG Turning Inserts



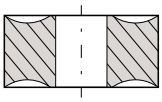
Shape



Clearance Angle



Tolerance
d ± 0.002
m ± 0.003
s ± 0.005



Fixing
Chip breaker

VNMG Turning Inserts

Part No.	Description	Grade	l	s	r
8607241	VNMG 331 NN	LT 10	0.654	0.187	0.016
8608011	VNMG 331 NN	LT 1000	0.654	0.187	0.016
8607245	VNMG 332 NN	LT 10	0.654	0.187	0.031
8608016	VNMG 332 NN	LT 1000	0.654	0.187	0.031

NN All Purpose Chipbreaker. 35° shape inserts.

Suitable for semi-roughing sxternal copying operations.

LT1000 Grade = 4X thicker PVD coating for extended tool life.

Application Guide

Insert Description	Finishing	Medium	Roughing / Interrupted Cut
VNMG 331 NN	●	●	●
VNMG 332 NN	●	●	●

● = Good ● = Acceptable ● = Not Recommended

Finishing:
d.o.c. = 0.012 - 0.059 inch
fn = 0.003 - 0.008 inch/rev

Medium:
d.o.c. = 0.028 - 0.177 inch
fn = 0.006 - 0.018 inch/rev

Roughing:
d.o.c. = 0.118 - 0.276 inch
fn = 0.014 - 0.028 inch/rev

Use these tips to help get the best productivity using Techniks' cutting inserts.

Stainless Steel V_c

In machining Stainless Steel, please verify and follow the cutting speed recommended for the insert, as there is a tendency to machine at speeds that are too low.

Feed x d.o.c. = Amax

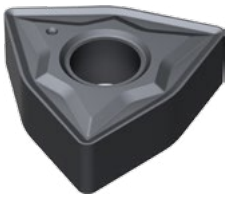
It is important to verify and respect Amax, which is the maximum chip section. Feed x d.o.c. must be lower than the number noted as Amax.

V_c → **Productivity**

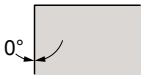
To increase machining productivity, it is recommended to increase speed (Vc) while respecting chip size calculation.

Go to http://bit.ly/2bMPVkL or scan the QR code to find the speeds & feeds for your inserts.

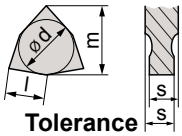
WNMG Turning & Boring Inserts



Shape

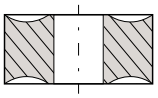


Clearance Angle



Tolerance

s ± 0.005
For l = 06, **d** ± 0.002 **m** ± 0.003
For l = 08, **d** ± 0.003 **m** ± 0.005



Fixing
Chip breaker

WNMG Turning & Boring Inserts

Part No.	Description	Grade	l	s	r
3463311	WNMG 331 NN	LT 10	0.256	0.187	0.016
3461949	WNMG 331 NN	LT 1000	0.256	0.187	0.016
3463315	WNMG 332 NN	LT 10	0.256	0.187	0.031
3461950	WNMG 332 NN	LT 1000	0.256	0.187	0.031
3463014	WNMG 332 NX	LT 1000	0.256	0.187	0.031
4607257	WNMG 431 NN	LT 10	0.343	0.187	0.016
4608011	WNMG 431 NN	LT 1000	0.343	0.187	0.016
4607261	WNMG 432 NN	LT 10	0.343	0.187	0.031
4608016	WNMG 432 NN	LT 1000	0.343	0.187	0.031
4601967	WNMG 432 NM	LT 10	0.343	0.187	0.031
4608023	WNMG 432 NM	LT 1000	0.343	0.187	0.031
4608021	WNMG 432 NX	LT 1000	0.343	0.187	0.031
4607265	WNMG 433 NN	LT 10	0.343	0.187	0.047
4608026	WNMG 433 NN	LT 1000	0.343	0.187	0.047

NN All Purpose Chipbreaker **NM** Steel and Cast Iron **NX** All Purpose Chipbreaker

80° trigon shape inserts, with 6 cutting edges. Suitable for all-purpose turning, facing and boring operations.

LT1000 Grade = 4X thicker PVD coating for extended tool life.

Application Guide

Insert Description	Finishing	Medium	Roughing / Interrupted Cut LT 10	Roughing / Interrupted Cut LT 1000
WNMG 331 NN	●	●	●	●
WNMG 332 NN	●	●	●	●
WNMG 332 NX	●	●	●	●
WNMG 431 NN	●	●	●	●
WNMG 432 NN	●	●	●	●
WNMG 432 NM	●	●	●	●
WNMG 432 NX	●	●	●	●
WNMG 433 NN	●	●	●	●

● = Good ● = Acceptable ● = Not Recommended

Finishing:
d.o.c. = 0.012 - 0.059 inch
fn = 0.003 - 0.008 inch/rev

Medium:
d.o.c. = 0.028 - 0.177 inch
fn = 0.006 - 0.018 inch/rev

Roughing:
d.o.c. = 0.118 - 0.276 inch
fn = 0.014 - 0.028 inch/rev

Use these tips to help get the best productivity using Techniks' cutting inserts.

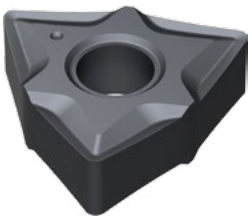
Stainless Steel
↑ V_c

In machining Stainless Steel, please verify and follow the cutting speed recommended for the insert, as there is a tendency to machine at speeds that are too low.

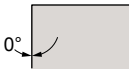
↑ V_c ⇒
↑ Productivity

To increase machining productivity, it is recommended to increase speed (Vc) while respecting chip size calculation.

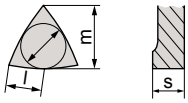
WNMP Turning Inserts



Shape

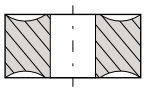


Clearance Angle



Tolerance

s ± 0.005
For l = 06, **d** ± 0.002 **m** ± 0.003
For l = 08, **d** ± 0.003 **m** ± 0.005



Fixing
Chip breaker

WNMP Turning Inserts

Part No.	Description	Grade	l	s	r
4608029	WNMP 331 NN	LT 10	0.256	0.187	0.016
4601954	WNMP 331 NN	LT 1000	0.256	0.187	0.016
4608030	WNMP 332 NN	LT 10	0.256	0.187	0.031
4601955	WNMP 332 NN	LT 1000	0.256	0.187	0.031
4607277	WNMP 432 NN	LT 10	0.343	0.187	0.031
4608031	WNMP 432 NN	LT 1000	0.343	0.187	0.031

NN All Purpose Chipbreaker. 80° trigon shape inserts with positive chipbreaker geometry.
Generates lower cutting forces, suitable for high temperature alloys and stainless steel operations.
LT1000 Grade = 4X thicker PVD coating for extended tool life.

Application Guide

Insert Description	Finishing	Medium	Roughing / Interrupted Cut
WNMP 331 NN	●	●	●
WNMP 332 NN	●	●	●
WNMP 432 NN	●	●	●

● = Good ● = Acceptable ● = Not Recommended

Finishing:
d.o.c. = 0.012 - 0.059 inch
fn = 0.003 - 0.008 inch/rev

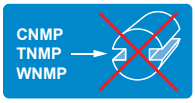
Medium:
d.o.c. = 0.028 - 0.177 inch
fn = 0.006 - 0.018 inch/rev

Roughing:
d.o.c. = 0.118 - 0.276 inch
fn = 0.014 - 0.028 inch/rev

Use these tips to help get the best productivity using Techniks' cutting inserts.

In machining Stainless Steel or Exotic Materials, P geometry inserts (CNMP, TNMP, WNMP), are recommended as first choice.

In machining Exotic Materials, it is important to verify cutting conditions of the specific insert.

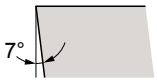


P geometry inserts (CNMP, TNMP, WNMP) are not recommended when machining with interrupted cut.

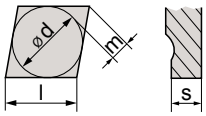
Go to http://bit.ly/2bMPVkL or scan the QR code to find the speeds & feeds for your inserts.

CCGX & CNGG Aluminum Turning Inserts

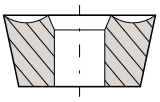
Shape



Clearance Angle



Tolerance
s ± 0.005
For l = 06/09, **d** ± 0.002 **m** ± 0.003
For l = 12, **d** ± 0.003 **m** ± 0.005



Fixing
Chip breaker

CCGX Aluminum Turning Inserts

Part No.	Description	Grade	l	s	r
3663336	CCGX 2(1.5)1 LH	101	0.252	0.094	0.016
3663337	CCGX 3(2.5)1 LH	101	0.382	0.156	0.016
3663338	CCGX 3(2.5)2 LH	101	0.382	0.156	0.031
3663340	CCGX 431-LH	101	0.508	0.187	0.016
3663339	CCGX 432 LH	101	0.508	0.187	0.031

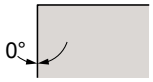
Green indicates aluminum. HP = High Polish

Application Guide

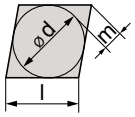
Insert Description
CCGX 2(1.5)1 LH HP 101
CCGX 3(2.5)1 LH HP 101
CCGX 3(2.5)2 LH HP 101
CCGX431-LH 101 101
CCGX 432 LH HP 101

See the back of the box for speeds & feeds.

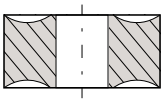
Shape



Clearance Angle



Tolerance
d ± 0.001
m ± 0.001
s ± 0.005



Fixing
Chip breaker

CNGG Aluminum Turning Inserts

Part No.	Description	Grade	l	s	r
6607901	CNGG 431 ALU	LT 05	0.508	0.187	0.016
6607905	CNGG 432 ALU	LT 05	0.508	0.187	0.031

Green indicates aluminum. ALU All purpose Chipbreaker

ISO standard with extreme and unique positive chipbreaker geometry for aluminum turning operations.

Suitable mostly for external operations but good also for internal, roughing and finishing operations.

Application Guide

Insert Description	Finishing	Medium	Roughing / Interrupted Cut
CNGG 431 ALU	●	●	●
CNGG 432 ALU	●	●	●

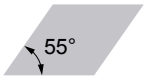
● = Good ● = Acceptable ● = Not Recommended

Finishing:
d.o.c. = 0.012 - 0.059 inch
fn = 0.003 - 0.008 inch/rev

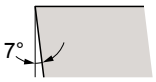
Medium:
d.o.c. = 0.028 - 0.177 inch
fn = 0.006 - 0.018 inch/rev

Roughing:
d.o.c. = 0.118 - 0.276 inch
fn = 0.014 - 0.028 inch/rev

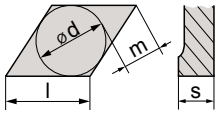
DCGX & DNGG Aluminum Turning Inserts



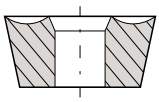
Shape



Clearance Angle



Tolerance
d ± 0.002
m ± 0.003
s ± 0.005



Fixing
Chip breaker

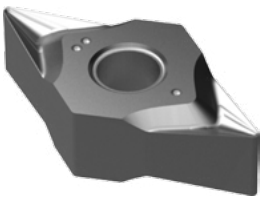
DCGX Aluminum Turning Inserts

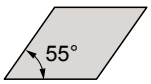
Part No.	Description	Grade	l	s	r
3763336	DCGX 2(1.5)1 LH HP	101	0.037	0.094	0.016
3763337	DCGX 3(2.5)2 LH HP	101	0.457	0.156	0.031

Green indicates aluminum. HP = High Polish

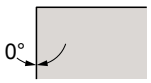
Application Guide

Insert Description	
DCGX 2(1.5)1 LH HP	See the back of the box for speeds & feeds.
DCGX 3(2.5)2 LH HP	

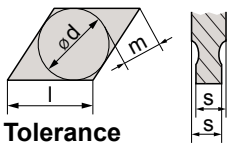




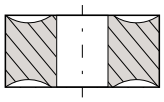
Shape



Clearance Angle



Tolerance
d ± 0.001
m ± 0.001
s ± 0.005



Fixing
Chip breaker

DNGG Aluminum Turning Inserts

Part No.	Description	Grade	l	s	r
7607909	DNGG 331 ALU	LT 05	0.457	0.187	0.016
7607913	DNGG 332 ALU	LT 05	0.457	0.187	0.031

Green indicates aluminum. ALU All purpose Chipbreaker

ISO standard with extreme and unique positive chipbreaker geometry for aluminum turning operations.

Suitable mostly for external operations but good also for Internal operations, roughing and finishing operations.

Application Guide

Insert Description	Finishing	Medium	Roughing / Interrupted Cut
DNGG 331 ALU	●	●	●
DNGG 332 ALU	●	●	●

● = Good ● = Acceptable ● = Not Recommended

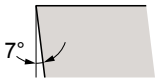
Finishing:
d.o.c. = 0.012 - 0.059 inch
fn = 0.003 - 0.008 inch/rev

Medium:
d.o.c. = 0.028 - 0.177 inch
fn = 0.006 - 0.018 inch/rev

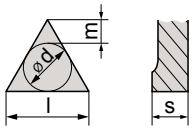
Roughing:
d.o.c. = 0.118 - 0.276 inch
fn = 0.014 - 0.028 inch/rev

TCGX & TNGG Aluminum Turning Inserts

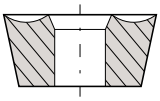
Shape



Clearance Angle



Tolerance
d ± 0.002
m ± 0.003
s ± 0.005



Fixing
Chip breaker

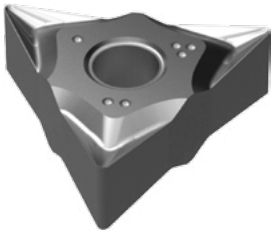
TCGX Aluminum Turning Inserts

Part No.	Description	Grade	l	s	r
3563335	TCGX21.50-LH	101	0.433	0.94	0.008
3563336	TCGX21.51-LH	101	0.433	0.94	0.016
3563338	TCGX32.51-LH	101	0.650	0.156	0.016
3563337	TCGX32.52-LH	101	0.650	0.156	0.031

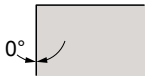
Green indicates aluminum. HP = High Polish

Application Guide

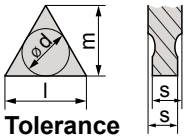
Insert Description	
TCGX21.50-LH101-HP	See the back of the box for speeds & feeds.
TCGX21.51-LH-101-HP	
TCGX32.52-LH-101-HP	
TCGX32.51-LH-101-HP	



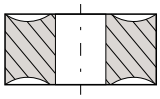
Shape



Clearance Angle



Tolerance
d ± 0.001
m ± 0.001
s ± 0.005



Fixing
Chip breaker

TNGG Aluminum Turning Inserts

Part No.	Description	Grade	l	s	r
3567711	TNGG 331 ALU	LT 05	0.457	0.187	0.031

Green indicates aluminum. ALU All purpose Chipbreaker

ISO standard with extreme and unique positive chipbreaker geometry for aluminum turning operations.

Suitable mostly for external operations but good also for Internal operations, roughing and finishing operations.

Application Guide

Insert Description	Finishing	Medium	Roughing / Interrupted Cut
TNGG 331 ALU	●	●	●

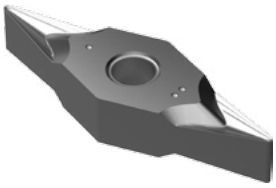
● = Good ● = Acceptable ● = Not Recommended

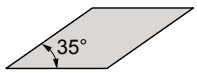
Finishing:
d.o.c. = 0.012 - 0.059 inch
fn = 0.003 - 0.008 inch/rev

Medium:
d.o.c. = 0.028 - 0.177 inch
fn = 0.006 - 0.018 inch/rev

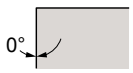
Roughing:
d.o.c. = 0.118 - 0.276 inch
fn = 0.014 - 0.028 inch/rev

VNGG Aluminum Turning Inserts

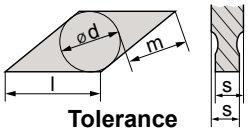




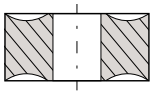
Shape



Clearance Angle



Tolerance
d ± 0.001
m ± 0.001
s ± 0.005



Fixing
Chip breaker

VNGG Aluminum Turning Inserts

Part No.	Description	Grade	l	s	r
8607921	VNGG 331 ALU	LT 05	0.654	0.187	0.016
8607925	VNGG 332 ALU	LT 05	0.654	0.187	0.031

Green indicates aluminum. ALU All purpose Chipbreaker

ISO standard with extreme and unique positive chipbreaker geometry for aluminum turning operations.

Suitable mostly for external operations but good also for Internal operations, roughing and finishing operations.

Application Guide

Insert Description	Finishing	Medium	Roughing / Interrupted Cut
VNGG 331 ALU	●	●	●
VNGG 332 ALU	●	●	●

● = Good ● = Acceptable ● = Not Recommended

Finishing:
d.o.c. = 0.012 - 0.059 inch
fn = 0.003 - 0.008 inch/rev

Medium:
d.o.c. = 0.028 - 0.177 inch
fn = 0.006 - 0.018 inch/rev

Roughing:
d.o.c. = 0.118 - 0.276 inch
fn = 0.014 - 0.028 inch/rev

Go to http://bit.ly/2bMPVkL
or scan the QR code to find the
speeds & feeds for your inserts.

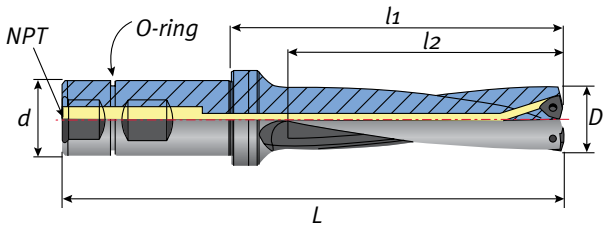
Indexable Drills & WCMX Drilling Inserts

WCMT inserts

Cuts ALL THESE Materials.

Features

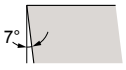
- *Coolant fed through center*
- *Special -ring design to help seal coolant*
- *H13 steel for rigidity and tool life*
- *4x depth to diameter*
- *High-performance inserts reduce setup time and inventory of inserts*



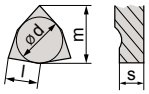
4WD Indexable Drills

Part No.	Description	NTP Thread P	D	d	Drill Depth l2	l1	L	Insert	Screw	Torx
1741234	4WD.625-.750C-2.50-3	1/8"	0.625"	0.750"	2.50"	3.44"	5.48"	WC_0302	9315446	9355333
1751244	4WD.750-.750C-3.00-3	1/8"	0.750"	0.750"	3.00"	3.94"	6.00"	WC_0302	9315446	9355333
1751254	4WD.875-1.00C-3.50-4	1/8"	0.875"	1.00"	3.50"	4.43"	6.72"	WC_0402	9315446	9355333
1761264	4WD1.00-1.00C-4.00-4	1/8"	1.00"	1.00"	4.00"	4.94"	7.23"	WC_0402	9315446	9355333
1771284	4WD1.25-1.25C-5.00-6	1/4"	1.25"	1.25"	5.00"	6.14"	8.43"	WC_06T3	9317547	9355555
1771294	4WD1.375-1.25C-5.50-6	1/4"	1.375"	1.25"	5.50"	6.64"	8.92"	WC_06T3	9317547	9355555
1781334	4WD1.50-1.25C-6.00-6	1/4"	1.50"	1.25"	6.00"	7.26"	9.54"	WC_06T3	9317547	9355555
1781354	4WD1.75-1.50C-7.00-6	1/4"	1.75"	1.50"	7.00"	8.26"	10.95"	WC_06T3	9317547	9355555
1781374	4WD2.00-1.50C-8.00-8	1/4"	2.00"	1.50"	8.00"	9.34"	12.03"	WC_0804	9319345	9355555
1791394	4WD2.25-1.50C-9.00-8	1/4"	2.25"	1.50"	9.00"	10.34"	13.03"	WC_0804	9319345	9355555

Shape

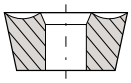


Clearance Angle



Tolerance

s ± 0.005
For l = 04/05/06, **d** ± 0.002 **m** ± 0.003
For l = 08, **d** ± 0.003 **m** ± 0.005



Fixing
Chip breaker

WCMX Drilling Inserts

Part No.	Description	Grade	l	s	r	Direction
3441111	WCMX 030208 R53 *	201	0.150	0.094	0.031	Neutral
3441121	WCMX 040208 NN	LT 30	0.169	0.094	0.031	Neutral
3441125	WCMX 050308 NN	LT 30	0.199	0.125	0.031	Neutral
3441131	WCMX 06T308 NN	LT 30	0.256	0.156	0.031	Neutral
3441135	WCMX 080412 NN	LT 30	0.343	0.187		Neutral

Trigon inserts for drilling. Strong cutting edges for high feeds.

* See back of box for speeds & feeds

Part Number Index

Part Number Index

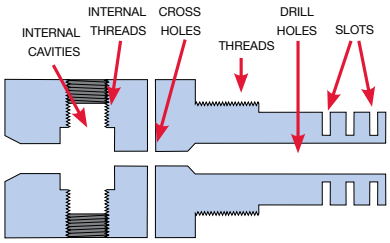
The sPINner Deburring Machine

The sPINner machine batch deburrs small precision parts FAST!

- *eliminate hand deburring*
- *deburr parts faster & better*
- *improve quality of parts*

Quickly batch deburr dozens or even hundreds of small, precision parts produced on machining centers, swiss-type screw machines, and lathes.

- *medical parts - swiss turned*
- *drilled or threaded parts*
- *machined or stamped parts*



Setup your deburring containers.

Put media and parts into container and add water and deburring solution.

3. Set the time, speed and duration and press the start button.

Send us your sample parts for complimentary deburring testing.

Send your parts to Mike Smalley, Deburring Specialist.
He will deburr your parts and provide a complete report including media used, deburring time, and photo results.

Techniks sPINner Deburring
9930 East 56th St.
Indianapolis, IN 46236

Satisfaction guaranteed on all our CNC tooling solutions from spindle to workpiece.

Road Show

Our Roadshow Events provide complimentary product and application information to your staff, all delivered to your door. Roadshow Event staff are experienced tooling specialists that provide an educational experience like no other, plus an opportunity to get hands-on with our tools.

What we will bring

- *Techniks Certified CNC toolholders*
- *Techniks cutting tools*
- *ShrinkFIT machines*
- *MagVISE magnetic workholding*
- *sPINner small parts deburring*
- *Other products you request us to bring*

What we will do

- The Techniks roadshow van arrives at your facility fully equipped to demonstrate the capabilities of our most popular products.
- Our factory reps will provide hands-on, one-on-one instructional training to show the most effective use of our tooling for your company's unique applications.

Contact us to schedule a Roadshow Event at your facility and don't forget to request specific products you would like to see. ***No risk, no obligation!***
Contact us to arrange a visit.

Featured: sPINner Parts Deburring Machine

Batch deburrs parts in minutes that take hours by hand.

Featured: ShrinkFIT Machines and Tooling

SFS-12 ShrinkFIT adapters are SK compatible and a great way to minimize toolholder purchases.

LITTKSCT2017

Techniks Inc. 9930 East 56th St. Indianapolis, IN 46236
Office Hours: Monday – Friday 8:00 am to 6:00 pm E.S.T.

Ph: 800.597.3921 or 317.803.8000 | Fax: 317.803.8001
Email: info@techniksusa.com | website: www.techniksusa.com