TECHNIKS
BUILT FOR SPEED

Cutting Tool Solutions

Your success hangs on the reliability of every component.

CNC TOOLING SOLUTIONS
FROM SPINDLE TO WORKPIECE

2017

Techniks is a partner you can truly depend on.

You know we make toolholders, but did you know we will work closely with you to understand your manufacturing needs, so we can provide the best possible solutions? Becoming a Techniks customer means you have an expert solutions partner who provides top quality products and excellent customer service backed by our satisfaction guarantee.

With Techniks you get:

- *inspected, tested and lab-certified products that provide outstanding value and extend perishable cutting tool life to save you money*
- *full factory support before, during, and after the sale*
- *guaranteed turn-key CNC tooling and workholding solutions*
- *live phone support (toll-free) 8:00 am – 6:00 pm E.S.T.*
- *orders ship the same day they are received! (ground orders received by 2:00 pm, or expedited orders received by 5:00 pm)*
- *each order is checked 4 times before shipping. 99.9% average shipping accuracy (we track this each month)*
- *all products are backed by our 100% satisfaction guarantee*
- *training on how to use our products if needed*
- *24/7 access to request a quote, look up product information, request catalogs, on the web (www.techniksusa.com)*
- *receive promotions and product information by opt-in email*

The whole team at Techniks is committed to excellent customer service for fast and accurate fulfillment of orders.
Thank You for considering Techniks for your CNC tooling needs.

Live phone support M-F, 8:00 am – 6:00 pm EST

Orders ship the same day they are received.

RoadShow live product demos at your facility.

Contact Information
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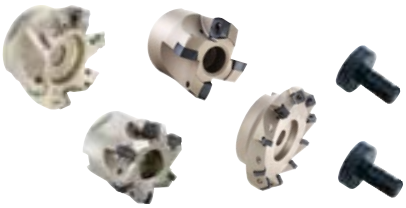
Indianapolis, IN 46236

Table of Contents

Boring Tools/Boring Kits

Save on our high performance cutting tools and multi-material inserts with Techniks Tooling Packages. Visit www.techniksusa.com to find the package that's right for you!

Milling Tools - Face Mills



Standard Face Mills

ShrinkMILL Face Mills

Arbor Screws

Milling Tools - End Mills

Indexable End Mills

PowerLOC End Mills

Milling Inserts

For full product specifications on our boring tools and deburring machines request out Toolholders and Accessories catalog or visit our website: www.techniksusa.com

Turning & Boring Tools

Negative Turning Toolholders

Negative Boring Bars

Positive Turning Toolholders

Positive Boring Bars

Turning & Boring Inserts

Indexable Drills

Part Number Index

See our full-line of High-Performance Boring Tools

Key Points:

- *lifetime guarantee*
- *performance & value*
- *easy to use & maintain*

Our extremely strong boring heads provide outstanding performance compared to other brands. All Techniks boring heads feature insert pockets that are integral to the head, not extending out to the side like other, weaker designs. Because Techniks heads support the insert better, accuracy, rigidity and tool life are maximized.

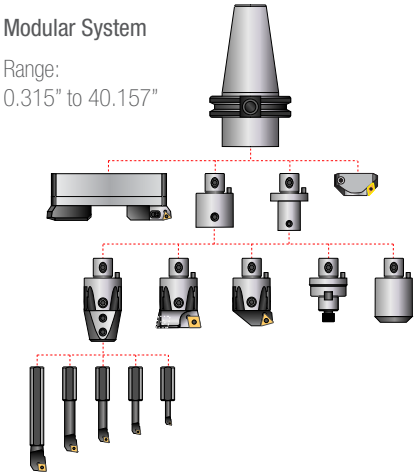
No matter what your boring needs, we have a "right-size" solution that will grow with you in the future. Contact one of our sales specialists to discuss your needs and learn more about our Lifetime Guaranteed heads.

Lifetime Guaranteed Boring Heads

We will either replace or repair the head if it fails for ANY reason, (even crashing the tool) for as long as you own the head and are using our high-performance inserts.

Modular System

Range:
0.315" to 40.157"



Ease-of-Use Features

AccuSET
Dial adjustable in increments of .0001". Quickly set the head to any diameter.

SpeedSET
Adjust both inserts on finish heads simultaneously. Cut setup time in half.


Boring Kits (8)


Modular System


MacroBOHR


Boring Bars


AccuSET Dial


Lifetime Guarantee

Boring Tool	Spindle Sizes	Range	Inserts	Boring Bars	AccuSET	Lifetime Guarantee
Boring Kits	BT40/50, CAT40/50, HSKA, Weldon, R8	.314" to 8.27"	rhombic or triangle	✔	✔	✔
Modular System	BT30/40/50, CAT40/50, HSKA, Weldon, R8	.315" to 19.685"	rhombic or triangle	✔	✔	✔
MacroBOHR	BT30/40/50, CAT40/50, HSKA	8.661" to 40.157"	rhombic or triangle	✔	✔	✔

For full details about our boring tools see our toolholders & accessories catalog or visit our website.

Call 800.597.3921 or 317.803.8000 for a fast friendly quote. • Fax: 317.803.8001

TECHNIKS BUILT FOR SPEED

Serious Boring Tools at a Great Price

Techniks high-performance BohrSTAR kits

Features

- *Lifetime Guarantee on boring heads*
- *Dial adjustable 0.0001" increments*
- *Rhombic or triangular inserts*

Rhombic kits include:

- *1 Pc. EPMT 1.5_*
- *3 Pcs. CCMT 21.5_*
- *3 Pcs. CCMT 32.5_*

Triangular kits include:

- *2 Pcs. TCMT 1.2_*
- *3 Pcs. TCMT 1.8_*
- *2 Pcs. TCMT 32.5_*

Boring Heads

Get the kit that fits!

BohrSTAR43 Kit, Range: .314" to 1.69"

Order No.	Description	Price
6991210	BohrSTAR43 kit, rhombic inserts	$1,576.00
6991215	BohrSTAR43 kit, triangular inserts	$1,576.00

BohrSTAR100 Kit, Range: .314" to 3.94"

Order No.	Description	Price
6991220	BohrSTAR100 kit, rhombic inserts	$1,983.00
6991235	BohrSTAR100 kit, triangular inserts	$1,983.00

BohrSTAR170 Kit, Range: .314" to 6.69"

Order No.	Description	Price
6991230	BohrSTAR170 kit, rhombic inserts	$2,745.00
6991250	BohrSTAR170 kit, triangular inserts	$2,745.00

BohrSTAR210 Kit, Range: .314" to 8.27"

Order No.	Description	Price
6991245	BohrSTAR210 kit, rhombic inserts	$2,900.00
6991240	BohrSTAR210 kit, triangular inserts	$2,900.00

45˚ & 90˚ Face Mill Packages

For facing, plunging, ramping, and pocket milling

45˚ Face Mill packages includes SEKT inserts

One insert cuts ALL THESE materials

Changing materials? Don't change inserts!

Simply run our inserts at the speeds & feeds on the back of the package for increased productivity AND reduced tool costs.

90˚ Face Mill packages includes our new design high-helix APKT inserts for smoother cutting.

Watch our All-Material Inserts in action!

http://ow.ly/FhPBk

45˚ Face Mill Packages

Order No.	Face Mill	Description	Insert / Qty	Description	Reg. Price	Sale	You Save!
NP-001	2521234	FM45-2.00C-.750-4-13 (2"-CT)	2506169 / 40	SEKT12T3AGSN-LT30	$644.00	$384.00	**$260.00**
NP-002	2531235	FM45-3.00C-1.25-6-13 (3"-CT)	2506169 / 60	SEKT12T3AGSN-LT30	$960.00	$576.00	**$684.00**
NP-003	2541236	FM45-4.00C-1.25-7-13 (4"-CT)	2506169 / 70	SEKT12T3AGSN-LT30	$1,120.00	$672.00	**$448.00**
NP-004	2551237	FM45-5.00C-1.50-8-13 (5"-CT)	2506169 / 80	SEKT12T3AGSN-LT30	$1,344.00	$768.00	**$576.00**

90˚ Face Mill Packages

Order No.	Face Mill	Description	Insert / Qty	Description	Reg. Price	Sale	You Save!
NP-005	2621234	FM90-2.00C-.750-4-16 (2"-CT)	1506075 / 40	APKT1604PDTR-LT30	$644.00	$384.00	**$260.00**
NP-006	2621244	FM90-2.00C-.750-5-16 (2"-CT)	1506075 / 50	APKT1604PDTR-LT30	$805.00	$480.00	**$325.00**
NP-006.5	2621235	FM90-2.50C-1.00-5-16 (2.5"-CT)	1506075 / 50	APKT1604PDTR-LT30	$816.00	$430.00	**$386.00**
NP-007	2631235	FM90-3.00C-1.25-6-16 (3"-CT)	1506075 / 60	APKT1604PDTR-LT30	$960.00	$576.00	**$384.00**
NP-008	2641236	FM90-4.00C-1.25-7-16 (4"-CT)	1506075 / 70	APKT1604PDTR-LT30	$1,120.00	$672.00	**$448.00**
NP-009	2651237	FM90-5.00C-1.50-8-16 (5"-CT)	1506075 / 80	APKT1604PDTR-LT30	$1,344.00	$768.00	**$576.00**
NP-009.5	2621238	FM90-6.00-2.00-10-16 (6"-CT)	1506075 / 100	APKT1604PDTR-LT30	$1,810.00	$960.00	**$850.00**

End Mills and Inserts Tooling Packages

Use with our new high-helix APKT inserts that provide smoother cutting than other designs

APKT1003 inserts

APKT1604 inserts

Non-Coolant/Coolant-Thru End Mills

For facing, plunging, ramping, and pocket milling

End Mill Packages: Non-Coolant

Order No.	End Mill	Description	Inserts / Qty	Description	Reg. Price	Sale	You Save!
NP-010	1631234	IEM90-.500-.500-4.00-1-10 (1/2")	3154411 / 20	APKT1003PDTR-LT30	$323.00	$157.00	**$166.00**
NP-011	1641235	IEM90-.625-.625-5.00-2-10 (5/8")	3154411 / 20	APKT1003PDTR-LT30	$343.00	$157.00	**$186.00**
NP-011.5	1641236	IEM90-.625-.625-7.00-2-10	3154411 / 20	APKT1003PDTR-LT30	$356.00	$165.00	**$191.00**
NP-012	1651236	IEM90-.750-.750-5.00-2-10 (3/4")	3154411 / 20	APKT1003PDTR-LT30	$363.00	$157.00	**$206.00**
NP-013	1652336	IEM90-.750-.750CW-3.50-3-10	3154411 / 30	APKT1003PDTR-LT30	$497.00	$236.00	**$261.00**
NP-013.5	1651237	IEM90-.750-.750-8.00-2-10	3154411 / 20	APKT1003PDTR-LT30	$360.00	$157.00	**$203.00**
NP-014	1661237	IEM90-1.00-1.00-6.00-3-10 (1")	3154411 / 30	APKT1003PDTR-LT30	$462.00	$236.00	**$226.00**
NP-014.5	1661238	IEM90-1.00-1.00-7.87-3-10	3154411 / 30	APKT1003PDTR-LT30	$462.00	$236.00	**$226.00**
NP-014.7	1671239	IEM90-1.00-1.00-7.87-2-16	1506075 / 20	APKT1604PDTR-LT30	$417.00	$225.00	**$192.00**
NP-015	1676238	IEM90-1.25-1.25-6.00-3-16 (1-1/4")	1506075 / 30	APKT1604PDTR-LT30	$533.00	$288.00	**$245.00**
NP-016	1686239	IEM90-1.50-1.25-6.00-4-16 (1-1/2")	1506075 / 40	APKT1604PDTR-LT30	$649.00	$384.00	**$265.00**

End Mill Packages: Coolant-Thru

Order No.	End Mill	Description	Inserts / Qty	Description	Reg. Price	Sale	You Save!
NP-017	1632234	IEM90-.500-.500C-4.00-1-10 (1/2"-CT-H13)	3154411 / 20	APKT1003PDTR-LT30	$333.00	$157.00	**$176.00**
NP-018	1642235	IEM90-.625-.625C-5.00-2-10 (5/8"-CT-H13)	3154411 / 20	APKT1003PDTR-LT30	$353.00	$157.00	**$196.00**
NP-019	1652236	IEM90-.750-.750C-5.00-2-10 (3/4"-CT-H13)	3154411 / 20	APKT1003PDTR-LT30	$373.00	$157.00	**$216.00**
NP-020	1662237	IEM90-1.00-1.00C-6.00-3-10 (1"-CT-H13)	3154411 / 30	APKT1003PDTR-LT30	$472.00	$236.00	**$236.00**
NP-021	1662250	IEM90-1.00-1.00CW-3.50-2-16 (1"-CT-W-H13)	1506075 / 20	APKT1604PDTR-LT30	$392.00	$192.00	**$200.00**
NP-022	1672238	IEM90-1.25-1.25C-6.00-3-16 (1-1/4"-CT-H13)	1506075 / 30	APKT1604PDTR-LT30	$543.00	$255.00	**$288.00**
NP-023	1682239	IEM90-1.50-1.25C-6.00-4-16 (1-1/2"-CT-H13)	1506075 / 40	APKT1604PDTR-LT30	$659.00	$340.00	**$319.00**

Indexable High-Performance Face Mills

Key Points:

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

One insert cuts ALL THESE materials

Techniks face mills are manufactured to the highest standards and provide outstanding performance and value. Each face mill features a bore I.D. tolerance of H6, which means less runout and longer cutter life than other brands. Our cutter bodies are made from H13 tool steel with an electroless nickel coating applied to provide corrosion resistance.

Use our CoolBLAST coolant arbor screws to provide coolant thru capability without the cost of expensive coolant tools.

For best results use our LT30 grade inserts (or LT-05 grade for aluminum) that provide great results in all materials. Instead of throwing half-used inserts away, you can keep cutting the next job with the same insert. Simply change the feeds and speeds as required.

CoolBLAST arbor screw provides coolant path even with non-coolant thru face mills.

90˚ Face Mills

45˚ Face Mills

Button Cutter

Indexable End Mill

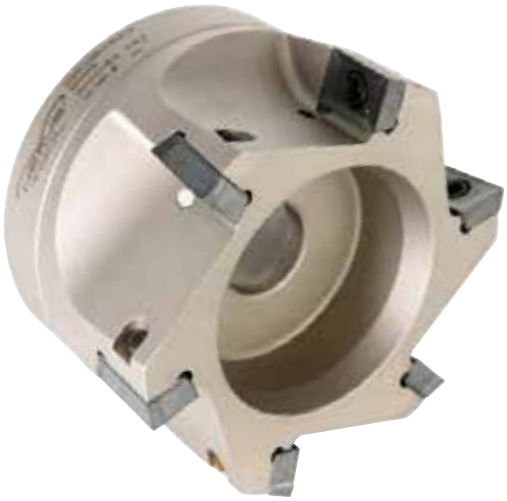
Cast Iron Cutter

Heavy-Duty

Face Mills	Diameters	Inserts	Insert Pockets	H6 Bore I.D.	ShrinkMILL	CoolBLAST
90˚ Facemills	2" 2.5" 3" 4" 5" 6"	APKT, APGT, APEX	4, 5, 6, 7, 8, 10	✔	✔	✔
45˚ Facemills	2" 3" 4" 5"	SEKT, SEET	4, 6, 7, 8	✔	✔	✔
45˚ Heavy-Duty	3" 4" 5" 6"	SNKX (8 edges)	5, 7, 8, 10	✔		✔
Positive High-Feed	2" 2.5" 3" 4"	SDKX	4, 5, 6, 7	✔		✔
Negative Cast Iron	3" 4" 5" 6"	PNEG (10 edges)	8, 10, 12, 14	✔		
Round Button	2" 3"	RDMT, RDMW, RDMX	4, 5	✔	✔	✔
Negative High-Feed	2" 2.5" 3" 4"	SNKX	4, 6, 7	✔	✔	✔

Applications Include

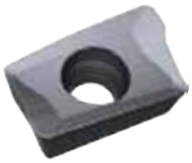
90° Face Mills and Inserts



Available in 2", 3", 4", 5", 6.6" diameters.
Use with insert APKT 1604 for most materials.
For aluminum, use with APGT 1604 or
APEX 1604 PDFRFO1-5005-HP (2 cutting edges)

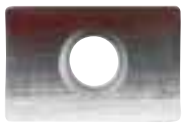
Features

- *H6 bore tolerance is 38% more accurate than standard face mills*
- *Coolant thru ready with coolant arbor screw*
- *Made from H13 tool steel and electroless nickel coated for long life*

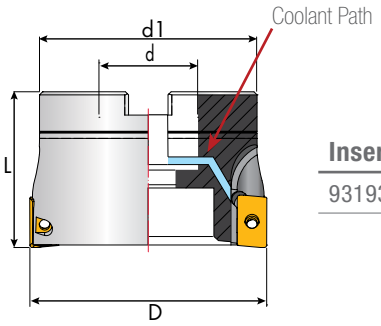


APKT

APGT



APEX



Insert Screw	Wrench
9319345	9355555

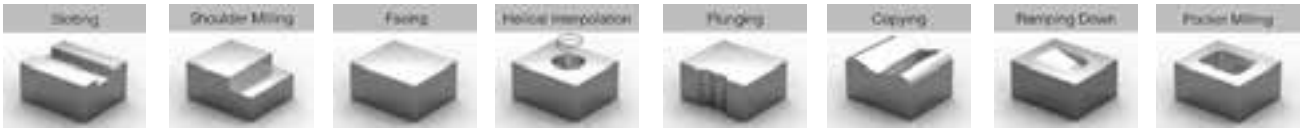
90° Face Mills, Coolant Thru & Non-Coolant

Part No.	Description	Insert	D	d	Pockets	d1	L
2621234	FM90-2.00C-.750-4-16	AP_ _1604	2.00	0.75	4	1.69	1.57
2621244	FM90-2.00C-.750-5-16	AP_ _1604	2.00	0.75	5	1.69	1.57
2621246	FM90-2.5C-1.00-5-16	AP_ _1604	2.5	1.0	5	2.36	1.75
2631235	FM90-3.00C-1.25-6-16	AP_ _1604	3.00	1.25	6	2.76	1.97
2641236	FM90-4.00C-1.25-7-16	AP_ _1604	4.00	1.25	7	2.76	1.97
2651237	FM90-5.00C-1.50-8-16	AP_ _1604	5.00	1.50	8	3.82	2.48
2661239	FM90-6.00-2.00-10-16	AP_ _1604	6	2.0	10	4.72	2.38

Blue indicates coolant thru capable. To run coolant thru order Coolant Arbor Screws on page 18.

APKT, APGT, APEX Milling Inserts

Multi purpose 90° milling insert suitable for roughing to finishing-slotting, shoulder and face milling.



Part No.	Description	Grade	l	s	r	Direction
1506075	APKT 1604 PDTR-NEW	L 30	0.606	0.187	0.031	Right
1506073	APKT 1604-PDTR	LT 30	0.060	0.187	0.031	Right
1506078	APKT 160416 PDTR	LT 30	0.606	0.187	0.062	Right
1500300	APKT 160424 ER	LT 30	0.060	0.187	0.094	Right
1506079	APKT 160432 PDTR	LT 30	0.606	0.187	0.125	Right
1506506	APGT 160408 PDER ALU	LT 05	0.606	0.187	0.031	Right
3151239	APEX 1604 PDFR F01 HP	GH05	0.704	0.227	Sharp	Right

Green indicates aluminum insert.

45° Face Mills and Inserts

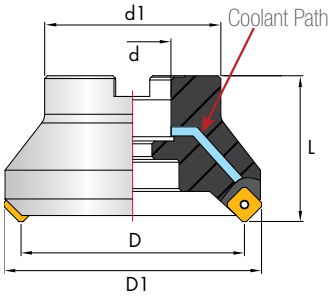
Features

- *H6 bore tolerance is 38% more accurate than standard face mills*
- *Coolant thru ready with coolant arbor screw*
- *Made from H13 tool steel and electroless nickel coated for long life*

SEKT

SEET

Available in 2", 3", 4", 5" diameters.
Use with SEKT 12 inserts for most materials.
For aluminum, use with SEET 13T3 (4 cutting edges)



Insert Screw	Wrench
9318345	9355555

45° Face Mills, Coolant Thru

Part No.	Description	Inserts	D	d	D1	Z	d1	L
2521234	FM45-2.00C-.750-4-13	SE_ _12T3/13T3	2.00	0.75	2.48	4	1.69	1.57
2531235	FM45-3.00C-1.25-6-13	SE_ _12T3/13T3	3.00	1.25	3.66	6	2.75	1.97
2541236	FM45-4.00C-1.25-7-13	SE_ _12T3/13T3	4.00	1.25	4.49	7	2.75	1.97
2551237	FM45-5.00C-1.50-8-13	SE_ _12T3/13T3	5.00	1.50	5.43	8	3.82	2.48

Blue indicates coolant thru capable. To run coolant thru order Coolant Arbor Screws on page 18.

SEKT Milling Inserts

Multi purpose 45° milling insert, designed for high depths of cut. Suitable for roughing to finishing face milling operations.

Part No.	Description	Grade	l	s	r	Direction
2506169	SEKT 12T3 AGSN	LT 30	0.528	0.156	Chamfer	Neutral
3251239	SEET 13T3 HP	WSK10	0.528	0.158	Chamfer	Neutral

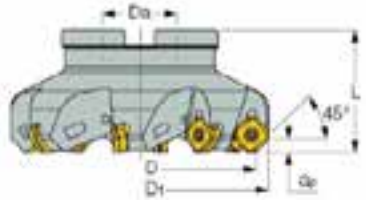
Green indicates aluminum insert.

Heavy-Duty 45° Face Mills & Inserts

Features

- *H6 bore tolerance is 38% more accurate than standard face mills*
- *Internal coolant directed at each cutting edge*
- *Made from H13 tool steel and electroless nickel coated for long life*

SNKX



For easier cutting at higher feed rates and greater depth-of-cut. An excellent choice for heavy milling of steel and cast iron.
Available in 3", 4", 5", 6" diameters.
Use with SNKX inserts (8 cutting edges)

Insert Screw	Wrench
9318345	9355555

Heavy Duty 45° Face Mill (FM) Coolant Thru

Part No.	Description	Inserts	D	D1	Da	Z	L
2531237	FM45-D3.00-1.25-5-16	SNKX 1607	3.00	3.71	1.25	5	2.00
2541238	FM45-D4.00-1.50-7-16	SNKX 1607	4.00	4.58	1.50	7	2.00
2551239	FM45-D5.00-1.50-8-16	SNKX 1607	5.00	5.62	1.50	8	2.50
2561240	FM45-D6.00-2.00-10-16	SNKX 1607	6.00	6.63	2.00	10	2.50

Blue indicates coolant thru capable. To run coolant thru order Coolant Arbor Screws on page 18.

SNKX Heavy Duty 45° Milling Inserts

Exclusive and unique design insert with 8 cutting edges for high feed. Suitable for roughing to semi-finishing face milling operations.

Part No.	Description	Grade	Direction
2502205	SNKX 1607-45°	LT 30	Right

Pr. R. = Programming Radius.

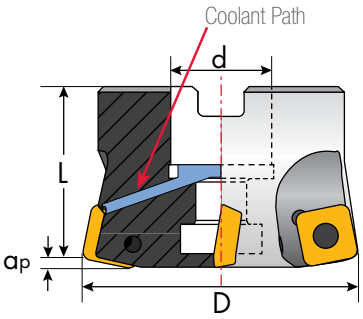
Positive High Feed Face Mills

Achieve higher feed rates in steel, stainless steel, cast iron, hard steel, high-temp alloys and even aluminum. Perfect for facing, plunging, ramping, and pocket milling, Positive insert clearance provides excellent helical ramping capabilities.

Features

- *H6 bore tolerance is 38% more accurate than standard face mills*
- *Internal coolant directed at each cutting edge*
- *Made from H13 tool steel and electroless nickel coated for long life*

SDKX

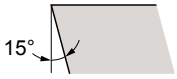


SDHF High Feed Face Mill Coolant Thru

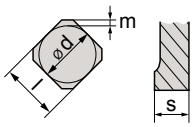
Part No.	Description	Insert	D	d	L	Pockets	Ap max	α°	Screw	Wrench
2928820	SDHF 2.00-.750C-4-12	SDKX 1205	2.00	.750	1.574	4	.098	1.574	9319347	9355555
2828825	SDHF 2.50-.750C-5-12	SDKX 1205	2.50	.750	1.574	5	.098	1.574	9319347	9355555
2938830	SDHF 3.00-1.000C-6-12	SDKX 1205	3.00	1.000	1.97	6	.098	1.97	9319347	9355555
2948840	SDHF 4.00-1.250C-7-12	SDKX 1205	4.00	1.250	1.97	7	.098	1.97	9319347	9355555

Blue indicates coolant thru capable. To run coolant thru order Coolant Arbor Screws on page 18. α° = Ramp Angle.

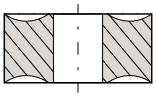
Shape



Clearance Angle



Tolerance
d ± 0.08
m ± 0.013
s ± 0.025



Fixing
Chip breaker

SDKX Milling Inserts

Part No.	Description	Grade	l	s	Pr. R.	Direction
2503095	SDKX 0904 HF	LT 30	0.375	0.187	0.078	Right
2503096	SDKX 1205 HF	LT 30	0.500	0.219	0.098	Right

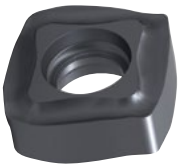
Pr. R = Programming Radius

Application Guide

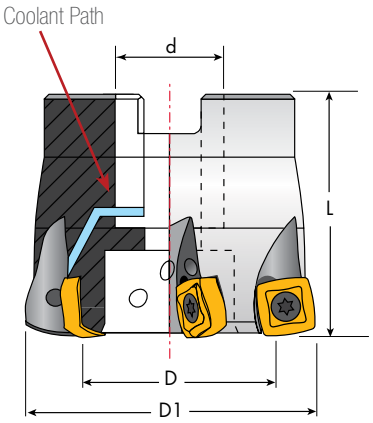
Negative High Feed Face Mills

Features

- *H6 bore tolerance is 38% more accurate than standard face mills*
- *Internal coolant directed at each cutting edge*
- *Made from H13 tool steel and electroless nickel coated for long life*



SNKX



For roughing operations in steel, cast iron, and hardened materials milling pockets and 3D surfaces
An excellent choice for plunge milling, and also work great for profile and copy milling.
Use with SNKX inserts (8 cutting edges)
Available in 2", 2.5", 3", 4" diameters.

High Feed Face Mills Coolant Thru

Part No.	Description	D	d	L	Z	Insert	Ap	αº	Screw	Wrench
9202123	HF-2.00-.750C-4SN9	2.00	0.75	1.57	4	SNKX09T3	0.040	1º	6811264	9355444
9212124	HF-2.50-.750C-5SN9	2.50	0.75	1.57	4	SNKX09T3	0.040	.75º	6811264	9355444
9353123	HF-3.00-1.00C-6SN9	3.00	1.00	1.57	6	SNKX09T3	0.040	.5º	6811264	9355444
9474123	HF-4.00-1.25C-7SN9	4.00	1.25	2.00	7	SNKX09T3	0.040	.25º	6811264	9355444

Blue indicates coolant. αº = Ramp Angle.

SNKX Milling Inserts

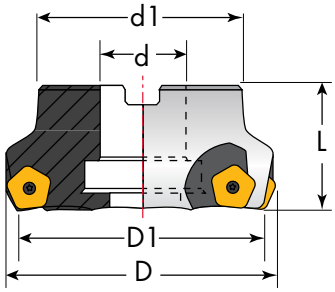
Part No.	Description	Grade	Direction
SNKX09T3	SNKX 09T3-HF	LT30	Right

Negative Cast Iron Milling Cutter

Features

- *H6 bore tolerance is 38% more accurate than standard face mills*
- *Internal coolant directed at each cutting edge*
- *Made from H13 tool steel and electroless nickel coated for long life*

PNEG



Negative pentagon insert primarily used in cast iron, but can be used in other materials. 10 cutting edges produce lower cost per corner
Available in 3", 4", 5", 6" diameters.

Decagon Cutter

Part No.	Description	Insert	D	d	D1	Z	d1	L	Screw	Wrench
2139910	PN11-3.00-1.00-08	PNEG1105	3.00	1.00	2.87	8	2.36	2.00	9319345	9355555
2149920	PN11-4.00-1.25-10	PNEG1105	4.00	1.25	3.93	10	3.16	2.00	9319345	9355555
2159930	PN11-5.00-1.50-12	PNEG1105	5.00	1.50	4.90	12	3.94	2.50	9319345	9355555
2169940	PN11-6.00-1.50-14	PNEG1105	6.00	1.50	5.80	14	4.53	2.50	9319345	9355555

PNEG Milling Inserts

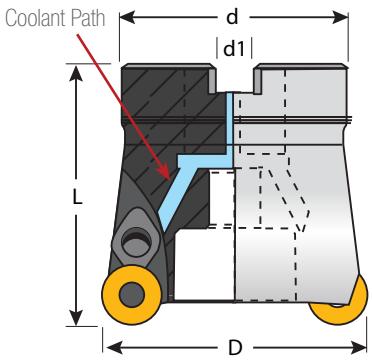
Part No.	Description	Grade	Direction
3959999	PNEG 110512 R CM	152	Right

See back of box for speeds & feed information.

Positive Round Button Cutter Face Mill

Features

- *H6 bore tolerance is 38% more accurate than standard face mills*
- *Internal coolant directed at each cutting edge*
- *Made from H13 tool steel and electroless nickel coated for long life*



For roughing operations including milling pockets and 3D surfaces. Works great for profile and copy milling. Number of indexes depends on D.O.C. Available in 2", 3" diameters.

Round Button Cutter Coolant Thru

Part No.	Description	Insert	D	d	d1	ap	Z	α°	L
2825635	RD12-2.00-.750C-4	RD__1204	2.00	0.75	1.69	0.250	4	5°	1.97
2835640	RD12-3.00-1.00C-5	RD__1204	2.50	0.75	2.19	0.250	5	3°	1.97

Blue indicates coolant. α° = Ramp Angle.

RDM_1204 Inserts

Button inserts provide the maximum number of cutting edges depending upon depth-of-cut.

RDMT
general purpose

RDMW
hard steels &
cast iron

RDMX
aluminum &
soft material

Part No.	Description	Grade	Radius	Operation	Screw	Clamp	Wrench	Clamp Screw	Clamp Screw Wrench	Material
3355541	RDMT 1204	LT30	-	*	9311311	9344999	9355555	6811299	9355666	P-M-K-S-H
3355548	RDMW 1204	LT30	-	*	9311311	9344999	9355555	6811299	9355666	P-M-K-S-H
3355549	RDMX 1204	LT30	-	*	9311311	9344999	9355555	6811299	9355666	P-M-K-S-H

* Pocket Milling, Copying, Facing

P = steel, **M** = stainless, **K** = cast iron, **S** = high temp alloys, **H** = hardened material, **N** = aluminum & alloys

ShrinkMILL Super-Rigid Milling Tools

ShrinkMILLs provide ShrinkFIT advantages to milling tools. No ShrinkFIT machine? No problem. We will do it for you.

Key Points:

- *T.I.R. of 0.0" extends insert life 30%–50%*
- *improved surface finish*
- *Best tool for high metal removal rates*

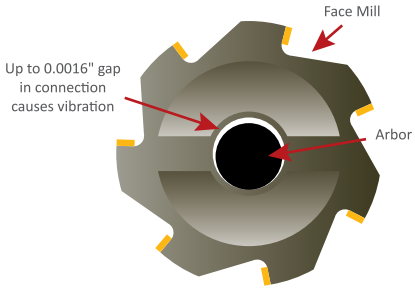
NOTE: You lose 10% of tool life for every .0001" of T.I.R. Insert life varies with cutting conditions.

Compared to other tools in your shop, face mills actually have a very poor T.I.R. (runout) specification. This is because the I.D./O.D. tolerance between the face mill and the arbor is 0.0016" (see diagram). Poor T.I.R. causes runout and vibration while cutting, reducing cutter life.

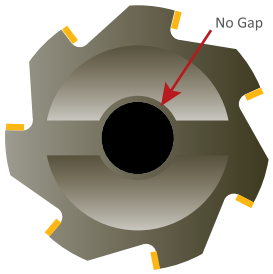
Our patented ShrinkMILLs create a near-perfect connection between the face mill and arbor, and are the most rigid, and accurate milling tools in the industry. ShrinkMILLs are your best choice for high metal removal rates, improved surface finish and extended cutter life.

Let us show you the cost savings using ShrinkMILLs. Contact us to schedule a demonstration or to request test tools. With ShrinkMILLs you will hear the difference when they runs, and see it in the surface finish.

0.0016" T.I.R.
Standard Face Mill & Arbor



0.0000" T.I.R.
Techniks ShrinkMILL




90˚ ShrinkMILLs

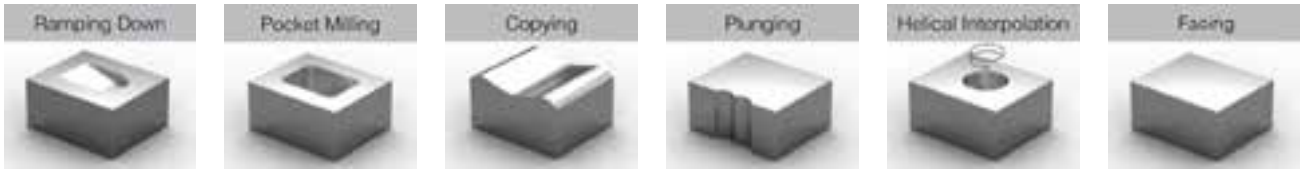

45˚ ShrinkMILLs


Negative High Feed

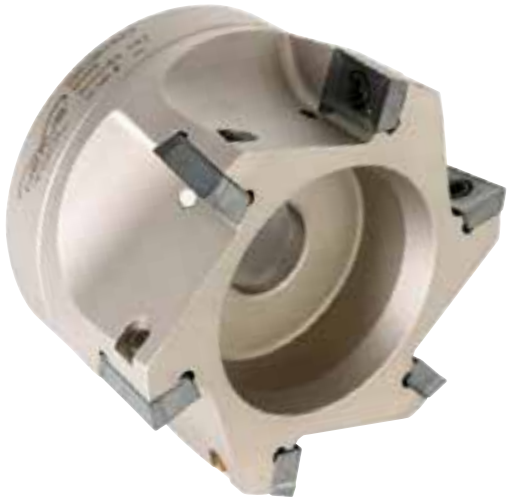

Button Cutter

ShrinkMILLs	Diameters	Inserts	Insert Pockets	H6 Bore I.D.	ShrinkMILL	CoolBLAST
90˚ ShrinkMILLs	2" 2.5" 3" 4" 5" 6"	APKT, APGT, APEX	4, 5, 6, 7, 8, 10	✔	✔	✔
45˚ ShrinkMILLs	2" 3" 4" 5"	SEKT, SEET	4, 6, 7, 8	✔	✔	✔
Round Button	2" 3"	RDMT, RDMW, RDMX	4, 5	✔	✔	✔
Negative High-Feed	2" 2.5" 3" 4"	SNKX	4, 6, 7	✔	✔	✔

ShrinkMILLs are your best choice for:

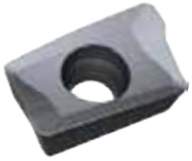


90˚ ShrinkMILL Facemill



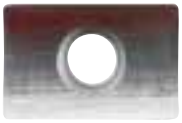
Features

- *ShrinkMILL bore tolerance creates a nearly perfect connection between arbor and face mill*
- *Coolant thru ready with coolant arbor screw*
- *Made from H13 tool steel and electroless nickle coated for long life*



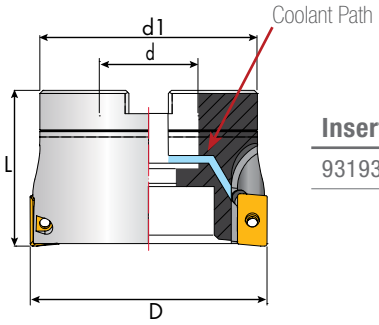
APKT

APGT



APEX

Use ShrinkMILL face mills when better metal removal rates and longer cutter life is desired.
Use with insert APKT 1604 for most materials.
For aluminum, use with APGT 1604 or
APEX 1604 PDFRFO1-5005-HP (2 cutting edges)
Available in 2”, 3”, 4”, 5” diameters.



Insert Screw	Wrench
9319345	9355555

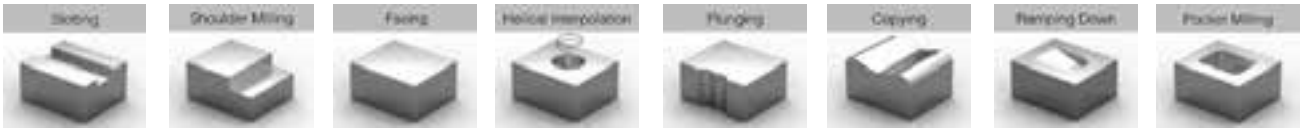
90° ShrinkMILL (SFM) Coolant Thru

Part No.	Description	Insert	D	d	Z	d1	L
2321234	SFM90-2.00C-.750-4-16	AP_ _1604	2.00	0.75	4	1.69	1.57
2331235	SFM90-3.00C-1.25-6-16	AP_ _1604	3.00	1.25	6	2.76	1.97
2341236	SFM90-4.00C-1.25-7-16	AP_ _1604	4.00	1.25	7	2.76	1.97
2351237	SFM90-5.00C-1.50-8-16	AP_ _1604	5.00	1.50	8	3.82	2.48

Blue indicates coolant thru capable. To run coolant thru order Coolant Arbor Screws on page 18.

APKT, APGT, APEX Milling Inserts

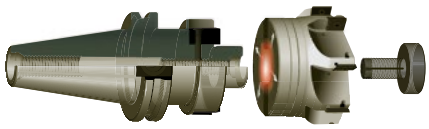
Multi purpose 90° milling insert suitable for roughing to finishing-slotting, shoulder and face milling.



Part No.	Description	Grade	l	s	r	Direction
1506075	APKT 1604 PDTR-NEW	L 30	0.606	0.187	0.031	Right
1506073	APKT 1604-PDTR	LT 30	0.060	0.187	0.031	Right
1506078	APKT 160416 PDTR	LT 30	0.606	0.187	0.062	Right
1500300	APKT 160424 ER	LT 30	0.060	0.187	0.094	Right
1506079	APKT 160432 PDTR	LT 30	0.606	0.187	0.125	Right
1506506	APGT 160408 PDER ALU	LT 05	0.606	0.187	0.031	Right
3151239	APEX 1604 PDFR F01 HP	GH05	0.704	0.227	Sharp	Right

Green indicates aluminum insert.

45˚ ShrinkMILL Face Mills



Features

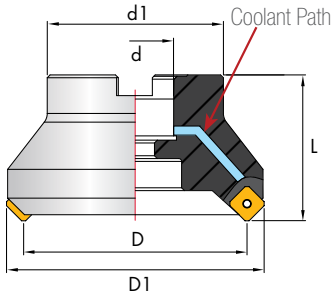
- *ShrinkMILL bore tolerance creates a nearly perfect connection between arbor and face mill*
- *Coolant thru ready with coolant arbor screw*
- *Made from H13 tool steel and electroless nickle coated for long life*

SEKT

SEET

Insert Screw	Wrench
9318345	9355555

Use ShrinkMILL face mills when better metal removal rates and longer cutter life is desired.
Use with SEKT 12 inserts for most materials.
For aluminum, use with SEET 13T3 (4 cutting edges)
Available in 2”, 3”, 4”, 5” diameters.



45° ShrinkMILL (SFM) Coolant Thru

Part No.	Description	Inserts	D	d	D1	Z	d1	L
2421234	SFM45-2.00C-.750-4-13	SE_ _12T3/13T3	2.00	0.75	2.48	4	1.69	1.57
2431235	SFM45-3.00C-1.25-6-13	SE_ _12T3/13T3	3.00	1.25	3.66	6	2.76	1.97
2441236	SFM45-4.00C-1.25-7-13	SE_ _12T3/13T3	4.00	1.25	4.49	7	2.76	1.97
2451237	SFM45-5.00C-1.50-8-13	SE_ _12T3/13T3	5.00	1.50	5.43	8	3.82	2.48

Blue indicates coolant thru capable. To run coolant thru order Coolant Arbor Screws on page 18.

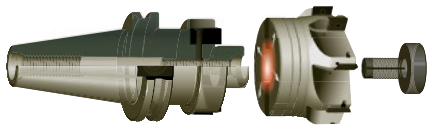
SEKT Milling Inserts

Multi purpose 45° milling insert, designed for high depths of cut. Suitable for roughing to finishing-face, plunging and ramping down milling operations.

Part No.	Description	Grade	l	s	r	Direction
2506169	SEKT 12T3 AGSN	LT 30	0.528	0.156	Chamfer	Neutral
3251239	SEET 13T3 HP	WSK10	0.528	0.158	Chamfer	Neutral

Green indicates aluminum insert.

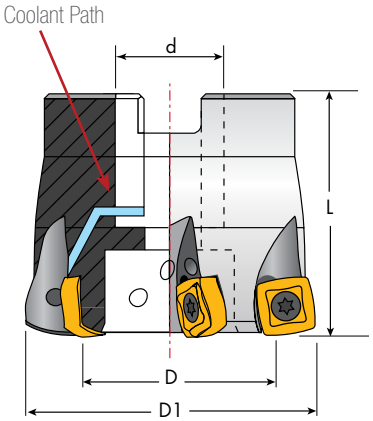
Negative High Feed ShrinkMILL Face Mills



Features

- *H6 bore tolerance is 38% more accurate than standard face mills*
- *Internal coolant directed at each cutting edge*
- *Made from H13 tool steel and electroless nickle coated for long life*

SNKX



For roughing operations in steel, cast iron, and hardened materials milling pockets and 3D surfaces
An excellent choice for plunge milling, and also work great for profile and copy milling.
Use with SNKX inserts (8 cutting edges)
Available in 2", 2.5", 3", 4" diameters.

ShrinkMILL High Feed Face Mills Coolant Thru

Part No.	Description	D	d	H	Z	Insert	Ap	αº	Screw	Wrench
9223123	SHF-2.00-.750C-4SN9	2.00	0.75	1.570	4	SNKX09T3	0.040	1º	6811264	9355444
9233124	SHF-2.50-.750C-5SN9	2.50	0.75	1.570	4	SNKX09T3	0.040	.75º	6811264	9355444
9363123	SHF-3.00-1.00C-6SN9	3.00	1.00	1.57	6	SNKX09T3	0.040	.5º	6811264	9355444
9484123	SHF-4.00-1.25C-7SN9	4.00	1.25	2.00	7	SNKX09T3	0.040	.25º	6811264	9355444

Blue indicates coolant. αº = Ramp Angle.

SNKX Milling Inserts

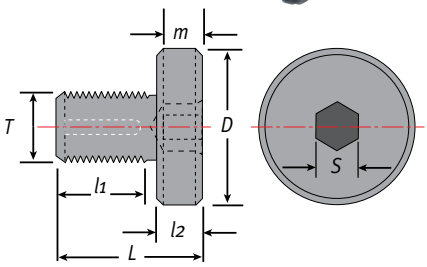
Part No.	Description	Grade	Direction
SNKX09T3	SNKX 09T3-HF	LT30	Right

CoolBLAST & Standard Face Mill Arbor Screws

CoolBLAST arbor screw provides coolant path even with non-coolant thru face mills.

Features

- *Compatible with all coolant thru face mills and ShrinkMILLs*
- *Works with all Techniks face mill arbors*
- *For coolant up to 1,500 PSI*



CAT, BT, and HSK CoolBLAST Coolant Arbor Screws

Part No.	Description	Style	Size	D	L	l1	l2	T	S	m
WF.C1-0.5	CoolBLAST arbor screw 1/2"	B	1/2"	5/8"	.84"	.5"	.34"	1/4"-28UNF	3/16"	.157"
WF.C1-0.75	CoolBLAST arbor screw 3/4"	B	3/4"	7/8"	1.8"	1.4"	.37"	3/8"-24UNF	1/4"	.197"
9851125	CAS-A-0.75 smaller "D"	A	3/4"	5/8"	1.375"	1.0"	.36"	3/8-24 UNF	1/4"	.37"
WF.C1-1	CoolBLAST arbor screw 1.0"	B	1.0"	1-3/16"	1.4"	0.81"	.37"	1/2"-20UNF	5/16"	.197"
9851135	CAS-A-1.00 smaller "D"	A	1.0"	1.180"	1.375"	1.0"	.38"	1/2-20UNF	5/16"	.37"
WF.C1-1.25	CoolBLAST arbor screw 1-1/4"	B	1-1/4"	1-1/2"	1.44"	0.94"	.5"	5/8"-18UNF	5/16"	.236"
WF.C1-1.5	CoolBLAST arbor screw 1-1/2"	B	1-1/2"	1-7/8"	1.63"	1.13"	.5"	3/4"-16UNF	3/8"	.276"
WF.C1-2	CoolBLAST arbor screw 2.0"	B	2"	2-1/2"	1.81"	1.31"	.5"	1.0"-14UNF	1/2"	.354"

Blue indicates coolant.

CAT, BT, and HSK Standard Arbor Screws

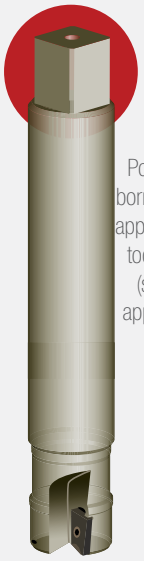
Part No.	Description	Arbor Size	D	L	l1	l2	T	S	m
WF0.5	FMA screw 1/2"	1/2"	5/8"	.84"	.5"	.34"	1/4"-28UNF	3/16"	.157"
WF0.75	FMA screw 3/4"	3/4"	7/8"	1.8"	1.4"	.37"	3/8"-24UNF	1/4"	.197"
WF1	FMA screw 1.0"	1.0"	1-3/16"	1.4"	0.81"	.37"	1/2"-20UNF	5/16"	.197"
WF1.25	FMA screw 1-1/4"	1-1/4"	1-1/2"	1.44"	0.94"	.5"	5/8"-18UNF	5/16"	.236"
WF1.5	FMA screw 1-1/2"	1-1/2"	1-7/8"	1.63"	1.13"	.5"	3/4"-16UNF	3/8"	.276"
WF2	FMA screw 2.0"	2"	2-1/2"	1.81"	1.31"	.5"	1.0"-14UNF	1/2"	.354"

High-Performance End Mills and Inserts

Key Points:

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

POWERLOC



PowerLOC end mills borrow a time-honored approach to eliminating tool slippage in taps, (square drive) and applies it to end mills.

Techniks end mills are manufactured to the highest standards and provide outstanding performance and value. Each end mill meets a shank tolerance of H6, which means less runout and longer cutter life than other brands. Our cutter bodies are made from H13 tool steel with an electroless nickel coating applied to provide corrosion resistance.

Choose from coolant-thru or non-coolant styles as required.

For best results use our LT30 grade inserts (or LT-05 grade for aluminum) that provide great results in all materials. Instead of throwing half-used inserts away, you can keep cutting the next job with the same insert. Simply change the feeds and speeds as required.

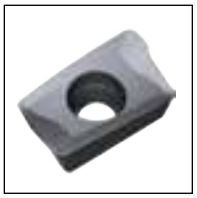
Indexable End Mill

Positive High-Feed

Negative High-Feed

90˚ Helical Cutter

Indexable Drills



Inserts

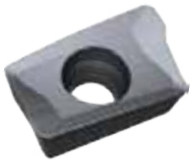
End Mills	Diameters	Inserts	Insert Pockets	PowerLOC	ShrinkLOC	CoolBLAST
Indexable End Mill	.5" up to 1.5"	APKT, APGT	1, 2, 3	✔	✔	✔
Positive High-Feed	.75" up to 1.25"	WPGT, SDMT, SDKX	2, 3			✔
Negative High-Feed	1" up to 1.25"	SNKX (8 edges)	3, 4	✔	✔	✔
90˚ Helical Cutter	.75" up to 1.25"	APKT	4, 8, 12			✔
Indexable Drill	2.5" up to 9"	WCMX	3, 4, 6, 8			✔

Applications Include

90˚ Indexable End Mills

Features

- *H6 shank tolerance provides 38% less runout than standard end mills*
- *Coolant thru end mills from .5" up to 1.5"*
- *Made from H13 tool steel and electroless nickel coated for long life*

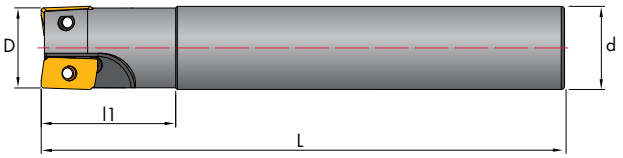


APKT

APGT

Applications

Use with APKT inserts for most materials. Use APGT for aluminum (2 cutting edges). Available in sizes from .5" up to 1.5". 1" size includes a Weldon shank.



Indexable End Mills - Coolant Thru

Part No.	Description	Insert*	D	d	L	Z	l1	α°	Screw	Wrench
1632234	IEM90-.500-.500C-4.00-1-10	AP_ _1003	.500	.500	4.00	1	0.787	32°	9316446	9355333
1642235	IEM90-.625-.625C-5.00-2-1	AP_ _1003	.625	.625	5.00	2	0.984	5°	9316446	9355333
1652236	IEM90-.750-.750C-5.00-2-10	AP_ _1003	.750	.750	5.00	2	0.984	7.5°	9316446	9355333
1652336	IEM90-.750-.750CW-3.50-3-10	AP_ _1003	.750	.750	3.50	3	1.00	5°	9316446	9355333
1662237	IEM90-1.00-1.00C-6.00-3-10	AP_ _1003	1.00	1.00	6.00	3	0.984	5°	9316446	9355333
1662250	IEM90-1.00-1.00CW-3.50-2-16	AP_ _1604	1.00	1.00	3.50	2	1.250	90°	9319345	9355555
1672238	IEM90-1.25-1.25C-6.00-3-16	AP_ _1604	1.25	1.25	6.00	3	1.772	3°	9319345	9355555
1682239	IEM90-1.50-1.25C-6.00-4-16	AP_ _1604	1.50	1.25	6.00	4	1.772	2.7°	9319345	9355555

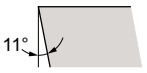
Indexable End Mills - Non-Coolant

Part No.	Description	Insert	D	d	L	Z	l1	α°	Screw	Wrench
1631234	IEM90-.500-.500-4.00-1-10	AP_ _1003	.500	.500	4.00	1	0.787	32°	9316446	9355333
1641235	IEM90-.625-.625-5.00-2-10	AP_ _1003	.625	.625	5.00	2	0.984	5°	9316446	9355333
1641236	IEM90-.625-.625-7.00-2-10	AP_ _ 1003	.625	.625	7	2	1.44	5	9316446	9355333
1651236	IEM90-.750-.750-5.00-2-10	AP_ _1003	.750	.750	5.00	2	0.984	7.5°	9316446	9355333
1651237	IEM90-.750-.750-8.00-2-10	AP_ _ 1003	.750	.750	8	2	0.82	7.5	9316446	9355333
1661237	IEM90-1.00-1.00-6.00-3-10	AP_ _1003	1.00	1.00	6.00	3	0.984	5°	9316446	9355333
1671239	IEM90-1.00-1.00-7.87-2-16	AP_ _ 1604	1	1	7.87	2	1.91	5	9319345	9355555
1661238	IEM90-1.00-1.00-7.87-3-10	AP_ _ 1003	1	1	7.87	3	1.91	5	9316446	9355333
1676238	IEM90-1.25-1.25-6.00-3-16	AP_ _1604	1.25	1.25	6.00	3	1.772	3°	9319345	9355555
1686239	IEM90-1.50-1.25-6.00-4-16	AP_ _1604	1.50	1.25	6.00	4	1.772	2.7°	9319345	9355555

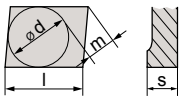
Z = insert pockets. α° = Ramp Angle

APKT and APGT Milling Inserts

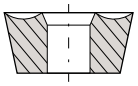
Shape



Clearance Angle



Tolerance
d ± 0.002
m ± 0.005
s ± 0.001



Fixing
Chip breaker

APKT Milling Inserts

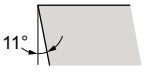
Part No.	Description	Grade	l	s	r	Direction
3154422	APKT 100304 PDTR	LT 30	0.409	0.138	0.016	Right
3154411	APKT 1003 PDTR	LT 30	0.409	0.138	0.031	Right
3154433	APKT 100312 PDTR	LT 30	0.409	0.138	0.047	Right
3154435	APKT 100316 PDTR	LT 30	0.409	0.138	0.062	Right
3154444	APKT 100332 PDTR	LT 30	0.409	0.138	0.126	Right
3154455	APKT 100340 PDTR	LT 30	0.409	0.138	0.157	Right
1506075	APKT 1604 PDTR-NEW	L 30	0.606	0.187	0.031	Right
1506073	APKT1604-PDTR	LT 30	0.060	0.187	0.031	Right
1506078	APKT 160416 PDTR	LT 30	0.606	0.187	0.062	Right
1500300	APKT 160424 ER	LT 30	0.060	0.187	0.094	Right
1506079	APKT 160432 PDTR	LT 30	0.606	0.187	0.125	Right

Face milling insert with 90° lead angle.
Multi purpose 90° milling insert suitable for roughing to finishing-slotting, shoulder and face milling operations.

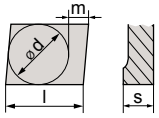
APGT Aluminum Milling Inserts

Multi purpose 90° milling insert suitable for roughing to finishing-slotting, shoulder and face milling.

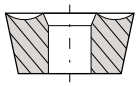
Shape



Clearance Angle



Tolerance
d ± 0.001
m ± 0.001
s ± 0.005



Fixing
Chip breaker

APGT Aluminum Milling Inserts

Part No.	Description	Grade	l	s	r	Direction
1506502	APGT 100304 PDER ALU	LT 05	0.409	0.136	0.016	Right
1506506	APGT 160408 PDER ALU	LT 05	0.606	0.187	0.031	Right

Green indicates aluminum. Face milling Insert with 90° lead angle.
Highly positive inserts with a unique coating and 90° lead angle for aluminum.
Suitable for roughing to finishing-slotting, shoulder and face milling operations.

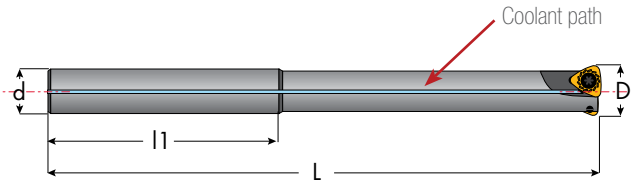
.75" Positive High-Feed Indexable End Mills

Features

- *H6 shank tolerance provides 38% less runout than standard end mills*
- *Coolant thru ready*
- *Made from H13 tool steel and electroless nickel coated for long life*

WPGT

This positive high-feed end mill is a great choice for all high-feed applications. The positive insert clearance reduces radial cutting forces, minimizing spindle wear and provides excellent helical ramping. Available in .75" size. Use with WPGT inserts



Insert	Insert Screw	Wrench
WPGT0503	9317446	9355444

Positive High Feed Indexable End Mills Coolant Thru

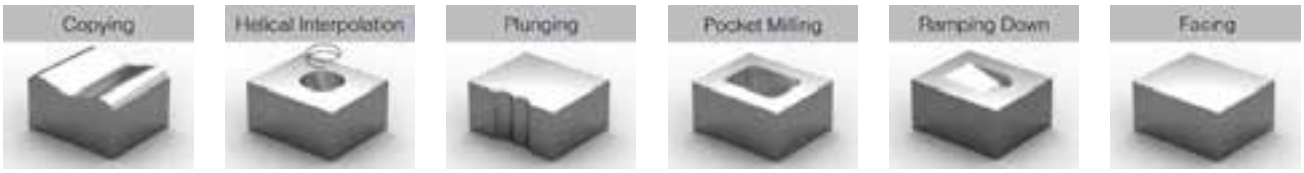
Part No.	Description	D	d	L	Z	l1	Ap	α°
1658810	HFEM-0.75-0.75-7.00-WP05-02	0.75	0.75	5.00	2	3.25	0.06	6.5°

Blue indicates coolant. Z = number of inserts. **α°** = Ramp Angle

WPGT Milling Inserts

See back of insert box for speeds and feeds data.

Applications



Part No.	Description	Grade	Direction
3451112	WPGT 050315 ZSR HF	351	Neutral

HF = High Feed

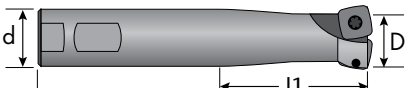
1.0" - 1.25" Positive High Feed Indexable End Mills

Achieve higher feed rates in steel, stainless steel, cast iron, hard steel, high-temp alloys and even aluminum. Perfect for facing, plunging, ramping, and pocket milling, these cutters are also used for extended-reach applications or when cutting conditions are unstable. The positive insert clearance reduces radial cutting forces, minimizing spindle wear and provides excellent helical ramping.

Features

- *H6 shank tolerance provides 38% less runout than standard end mills*
- *Coolant thru ready*
- *Made from H13 tool steel and electroless nickel coated for long life*

SDKX



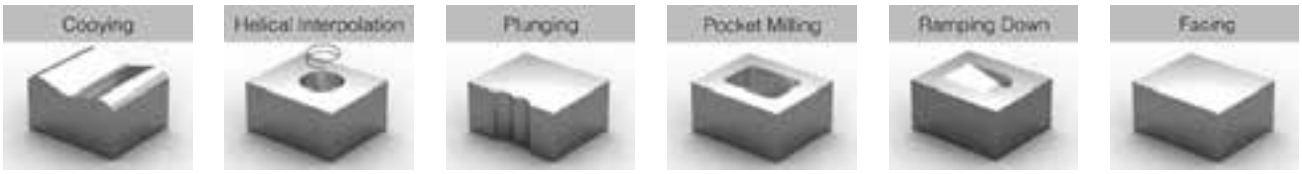
SDHF Positive High Feed Indexable End Mills Coolant Thru

Part No.	Description	D	d	L	Z	L1	Ap Max	Screw	Wrench
6602119	SDHF 1.00-1.00CW-5.00-2-09	1	1	5	2	2.36	.059	9317549	9355555
6602120	SDHF 1.00-1.00CW-8.00-2-09	1	1	8	3	2.53	.059	9317549	9355555
6602121	SDHF 1.25-1.25CW-5.00-3-09	1.25	1.25	5	2	2.36	.059	9317549	9355555
6602122	SDHF 1.25-1.25CW-8.00-3-09	1.25	1.25	8	3	2.53	.059	9317549	9355555

Blue indicates coolant.

SDKX Milling Inserts

Applications



Part No.	Description	Grade	Direction
2503095	SDKX 0904-HF LT 3000	LT 3000	right

HF = High Feed

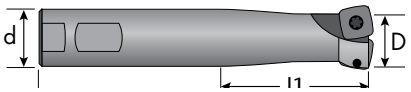
Negative High Feed Indexable End Mills

For high-feed roughing and semi-finishing in steel, cast iron, and hardened materials. 8 cutting edges for maximum productivity and reduced costs.
Available in 1" and 1.25" sizes.
Use with SNKX 09T3 inserts.

Features

- *H6 shank tolerance provides 38% less runout than standard end mills*
- *Coolant thru ready*
- *Made from H13 tool steel and electroless nickel coated for long life*

SNKX 09T3



Negative High-Feed End Mills - Coolant Thru

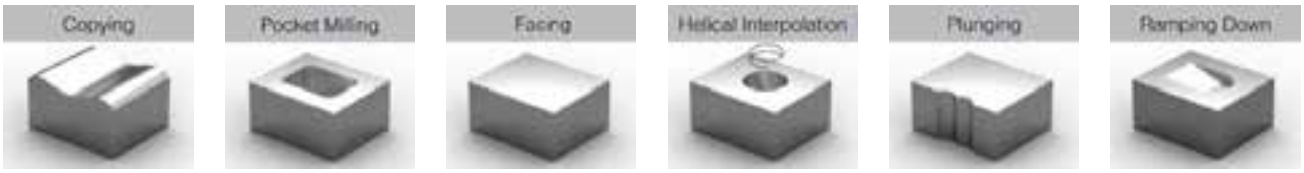
Part No.	Description	D	d	L	Z	l1	Ap	α°	Screw	Wrench
6602118	HFEM-1.00-1.00CW-5.00-3SN9	1.00	1.00	5.00	3	2.36	.039	3.5º	6811264	9355444
6602117	HFEM-1.00-1.00CW-8.00-3SN9	1.00	1.00	8.00	3	3.94	.039	3.5º	6811264	9355444
6702119	HFEM-1.25-1.25CW-5.00-4SN9	1.25	1.25	5.00	4	2.36	.039	2º	6811264	9355444
6702120	HFEM-1.25-1.25CW-8.00-3SN9	1.25	1.25	8.00	3	3.94	.039	2º	6811264	9355444

Blue indicates coolant. W=Weldon. Z = number of inserts. **α°** = Ramp Angle

SNKX High Feed Milling Inserts

Suitable for roughing to semi-finishing copying of 3D surfaces and face milling operations.

Applications



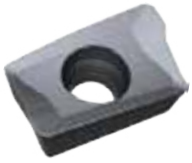
Part No.	Description	Grade	Pr. R.	Direction
2502115	SNKX 09T3-HF	LT 30	0.165	Right

Pr. R. = Programming Radius. Exclusive and unique design insert with 8 cutting edges for high feed.

High Performance Long Edge Helical Cutter

Features

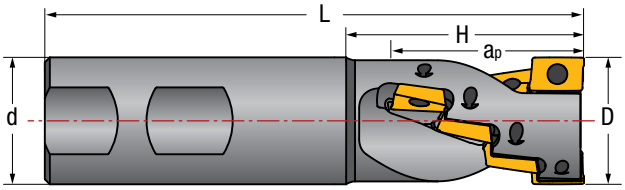
- *H6 shank tolerance provides 38% less runout than standard end mills*
- *Coolant thru ready*
- *Made from H13 tool steel and electroless nickel coated for long life*



APKT

APGT

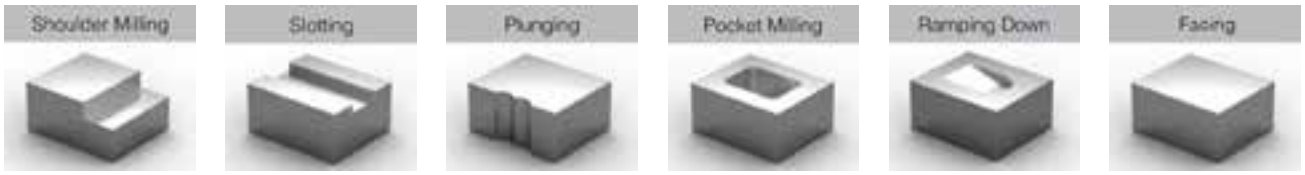
For heavy-duty roughing including: slotting, profiling, deep shoulder cutting and ramping. A great choice for steels, stainless, cast iron, hardened steels, high-temp alloys and aluminum. High-helix design allows high feed rates and reduced cutting forces. Very stable in the cut thanks to positive rake angles



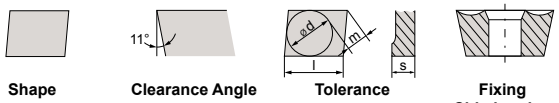
90˚ Long Edge Helical Cutter

Part No.	Description	D	a_p	Flutes	Inserts	H	L	d	Shank
1651238	IEM90- .75-1.15-CW.75-10	.75	1.15	1	4	1.43	3.50	.75	Weldon
1662251	IEM90-1.00-1.50-CW1.00-10	1.00	1.47	2	8	1.87	4.25	1.00	Weldon
1672237	IEM90-1.25-1.86-CW1.25-10	1.25	1.86	2	12	2.12	4.50	1.25	Weldon

Applications



APKT Milling Inserts

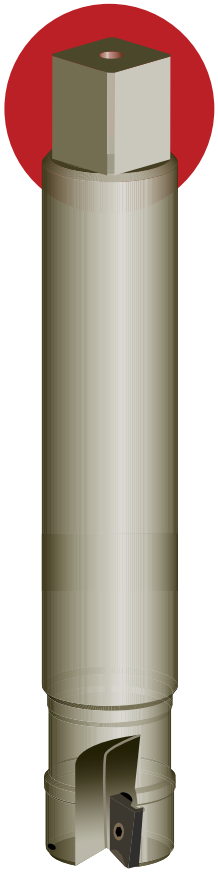


Shape | Clearance Angle | Tolerance d ± 0.002 m ± 0.005 s ± 0.001 | Fixing Chip breaker

Part No.	Description	Grade	l	s	r	Direction
3154411	APKT 1003 PDTR	LT 30	0.409	0.138	0.031	Right
3154422	APKT 100304 PDTR	LT 30	0.409	0.138	0.016	Right
3154433	APKT 100312 PDTR	LT 30	0.409	0.138	0.047	Right
3154435	APKT 100316 PDTR	LT 30	0.409	0.138	0.062	Right
3154444	APKT 100332 PDTR	LT 30	0.409	0.138	0.126	Right
3154455	APKT 100340 PDTR	LT 30	0.409	0.138	0.157	Right
1506502	APGT 100304 PDER ALU	LT 05	0.409	0.136	0.016	Right

Green indicates highly positive inserts with a unique coating and 90° lead angle for aluminum

PowerLOC Square Drive Eliminates Tool Slippage



PowerLOC end mills borrow a time-honored approach to eliminating tool slippage in taps, (square drive) and applies it to end mills.

PowerLOC Square Drive Solves These Problems

1. *Tool slippage (axial movement)*
2. *Early cutter failure and poor finish due to .0018" runout of end mill holders*
3. *Poor performance at extended lengths and when cutting heavy loads*

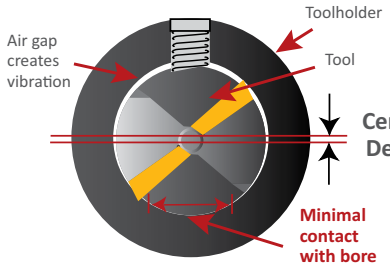
PowerLOC Solutions

- *Square Drive eliminates tool slippage*
- *Use PowerLOC end mills with ER collet chucks for significantly better runout and cutter life performing general milling. (see below)*
- *For heavy milling and extended lengths use PowerLOC endmills with ShrinkLOC holders for maximum rigidity and accuracy*

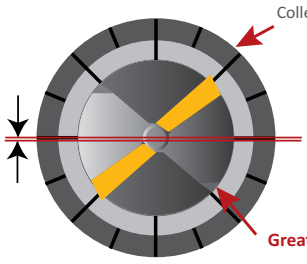
.0018" T.I.R.
Typical Use
End Mill Holder

.0004" T.I.R.
Better Option
PowerLOC Collet Chuck

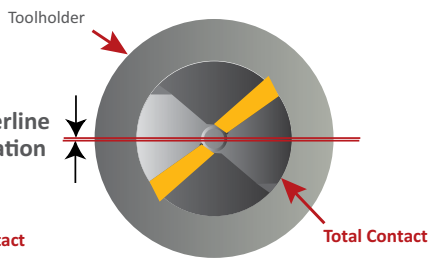
.0002" T.I.R.
Best Option
ShrinkLOC Holder



Average Tool Life



Up to 25% More Tool Life

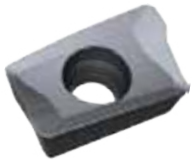


Up to 50% Additional Tool Life

PowerLOC 90˚ Square Drive Indexable End Mills

PowerLOC square shank end mills feature an H6 shank tolerance that provides 38% less runout, so tools cut smoother and last longer. They are constructed of H13 tool steel for improved rigidity in the cut, and are electroless nickel plated for long life.

Available in .5", .75", and 1" sizes. Use with APKT inserts for most materials. For aluminum use APGT.



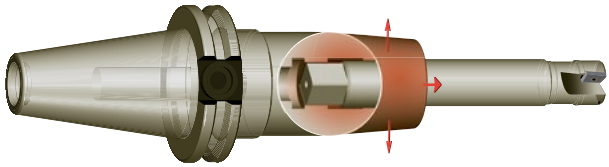
APKT

APGT

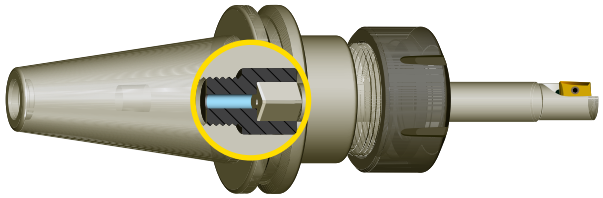
Features

- *Square drive eliminates tool slippage*
- *Flexible! Use with ER chuck or ShrinkLOC holders*
- *Extends cutter life and reduces scrap*

PowerLOC end mills borrow a time-honored approach to eliminating tool slippage in taps, (square drive) and applies it to end mills. Use PowerLOC end mills with either ShrinkLOC holders or ER Collet Chucks (see below)

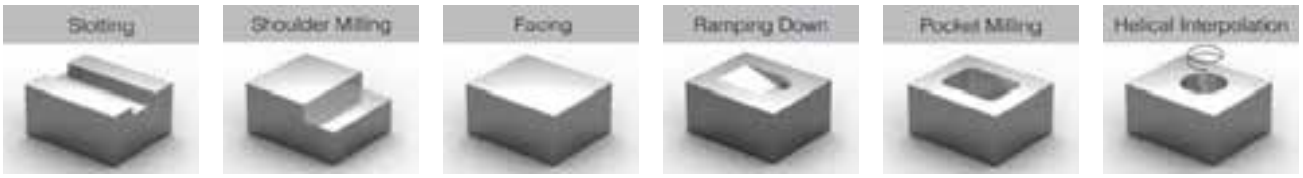


Use PowerLOC end mills with ShrinkLOC holders for heavy milling or when extended cutter life and improved surface finish is desired. ShrinkLOC holders provide maximum rigidity and accuracy in the cut and are a great choice for machining at extended lengths.

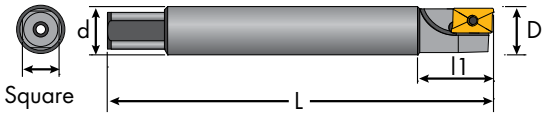


Use PowerLOC end mills with ER Chucks and a PLSS adapter to perform light milling without investing in end mill holders or milling chucks.

Applications



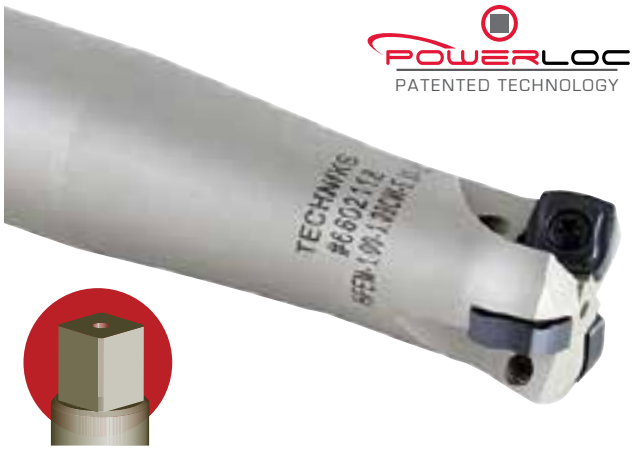
PowerLOC End Mills Coolant Thru and Non-Coolant



Part No.	Description	No. of Inserts	Collet Size	D	d	L	l1	Square	α°
1633345	PLIM.500-.500C-4.00-1-10	1	ER32 or ER40	.500	.500	4.00	0.79	0.380	32°
1655345	PLIM.750-.750C-5.00-2-10	2	ER32 or ER40	.750	.750	5.00	0.98	0.563	7.5°
1666350	PLIM1.00-1.00C-3.50-2-16	2	ER40	1.00	1.00	3.50	1.25	.750	5°
1666345	PLIM1.00-1.00C-6.00-3-10	3	ER40	1.00	1.00	6.00	0.98	0.750	5°
1632345	PLIM.500-.500-4.00-1-10	1	ER32 or ER40	.500	.500	4.00	0.79	0.380	32°
1654345	PLIM.750-.750-5.00-2-10	2	ER32 or ER40	.750	.750	5.00	0.98	0.563	7.5°
1665345	PLIM1.00-1.00-6.00-3-10	3	ER40	1.00	1.00	6.00	0.98	0.750	5°

Blue indicates coolant thru. **α°** = Ramp Angle

Negative High Feed Square Drive End Mills



PowerLOC square shank end mills feature an H6 shank tolerance that provides 38% less runout, so tools cut smoother and last longer. They are constructed of H13 tool steel for improved rigidity in the cut, and are electroless nickel plated for long life.

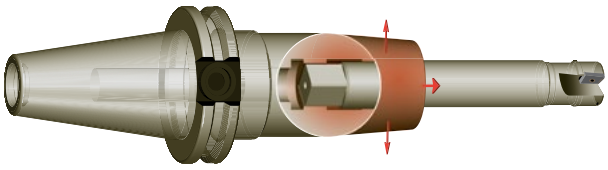
Available in .5", .75", and 1" sizes. Use with APKT inserts for steel, cast iron, and hardened materials. For aluminum use APGT.

- *SNKX inserts 8 cutting edges*
- *Low axial cutting forces reduce spindle wear*
- *Excellent for dry machining of moulds and dies*

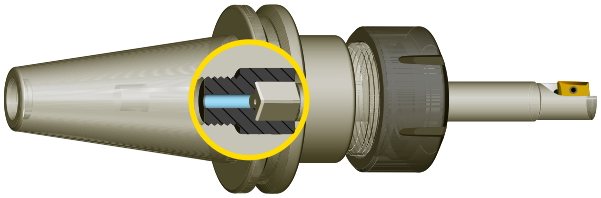
Features

- *Square drive eliminates tool slippage*
- *Flexible! Use with ER chuck or ShrinkLOC holders*
- *Extends cutter life and reduces scrap*

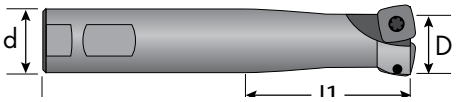
PowerLOC end mills borrow a time-honored approach to eliminating tool slippage in taps, (square drive) and applies it to end mills. Use PowerLOC end mills with either ShrinkLOC holders or ER Collet Chucks (see below)



Use PowerLOC end mills with ShrinkLOC holders for heavy milling or when extended cutter life and improved surface finish is desired. ShrinkLOC holders provide maximum rigidity and accuracy in the cut and are a great choice for machining at extended lengths.



Use PowerLOC end mills with ER Chucks and a PLSS adapter to perform light milling without investing in end mill holders or milling chucks.



PowerLOC Coolant Thru High-Feed End Mills

Part No.	Description	D	d	L	Z	Insert	l1	Ap	α°	Screw	Wrench
6612118	PLHF-1.00-1.00C-5.00-3SN9	1.00	1.00	5.00	3	SNKX09T3	2.36	.039	3.5º	6811264	9355444
6612117	PLHF-1.00-1.00C-8.00-3SN9	1.00	1.00	8.00	3	SNKX09T3	3.94	.039	3.5º	6811264	9355444
6712119	PLHF-1.25-1.25C-5.00-4SN9	1.25	1.25	5.00	4	SNKX09T3	1.20	.039	2º	6811264	9355444
6712120	PLHF-1.25-1.25C-8.00-3SN9	1.25	1.25	8.00	3	SNKX09T3	1.20	.039	2º	6811264	9355444

Blue indicates coolant. Z = number of inserts. **α°** = Ramp Angle

SNKX High Feed Milling Inserts

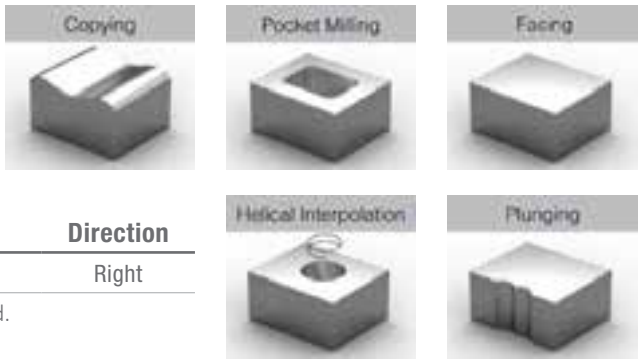
(See back of insert box for speeds and feeds data.)

Suitable for roughing to semi-finishing copying of 3D surfaces and face milling operations.

Part No.	Description	Grade	Pr. R.	Direction
2502115	SNKX 09T3-HF	LT 30	0.165	Right

Pr. R. = Programming Radius. Insert with 8 cutting edges for high feed.

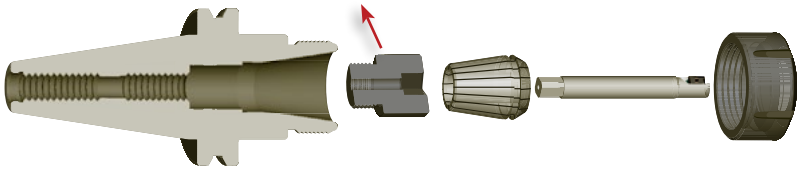
Application Guide



Toolholders for PowerLOC End Mills

CAT40, CAT50 ER PowerLOC End Mill Toolholders

PLSS PowerLOC adapter is required



For general milling applications use Techniks collet chucks with PowerLOC end mills and (PLSS) adapters.

Part No.	Descriptions	Collet	Length	PLSS .5" End Mill	PLSS .75" End Mill	PLSS 1.0" End Mill	PLSS 1.25" End Mill
22253	CAT40-ER-32-2.76	ER32	2.76	9398765	9397764	-	-
22255	CAT40-ER-32-4	ER32	4	9397764	9397764	-	-
22261	CAT40-ER-40-3.15	ER40	3.15	9396764	9396763	9396762	-
22311	CAT50-ER-32-4	ER32	4	9398765	9397764	-	-
22313	CAT50-ER-32-6	ER32	6	9397764	9397764	-	-
22321	CAT50-ER-40-4	ER40	4	9396764	9396763	9396762	-
22331	CAT50-ER-50-4	ER50	4	-	-	-	9396766

Additional toolholder lengths available. Collets sold separately.

High Performance Milling Inserts

Key Points:

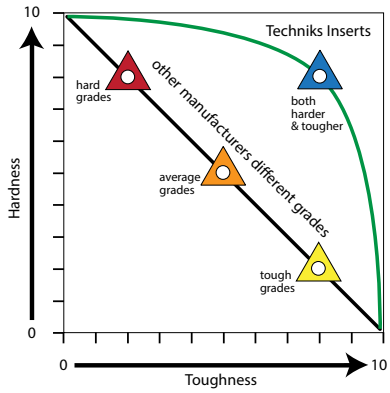
- *free test inserts*
- *cost-effective solutions*
- *fits other cutter bodies*

You only need to stock a few types of inserts…

… instead of stocking all kinds of inserts…

For over 35 years insert companies have profited by convincing customers that they need special inserts for each material. Then they saturated the market with dozens of "specialized" insert choices, that the customer is stuck with even though they only use them for one material or application.

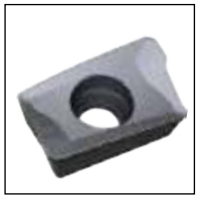
Recent advances in insert technology have changed all this. Because Techniks inserts are both HARDER and TOUGHER (see chart) they work in all materials up to 55 HRC. Now you can get great performance cutting brass, aluminum, cast iron, steels, hard steels and exotics ***– all with the same insert.*** Our inserts are very resistant to plastic deformation and provide excellent performance in uninterrupted cuts.



Techniks inserts are both HARDER & TOUGHER

Changing jobs? Don't change inserts!

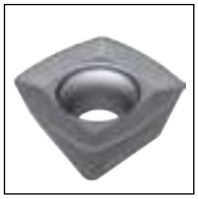
Simply run our inserts at the recommended speeds and feeds on the back of the package for great results in all materials. Stop throwing away half used inserts and start saving money! Call us to match up with your cutter bodies. Complimentary test inserts available upon request.



APKT

SEKT

SNKX



SDKX

RDMT

PNEG

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

Frequently Asked Questions

In machine shops that run Techniks inserts, what do they find as the biggest benefits?

- *Cost saving- 80% reduction in insert inventory, ordering and stocking cost.*
- *Time saving- always have the right insert on hand reduces the number of setups and down time.*

Can I really run Techniks inserts in any material?

Techniks inserts have been tested in countless application around the world, and perform well in practically any material.

Note that Techniks inserts will work well in aluminum, production jobs in aluminum frequently require chip-control optimization. Use Techniks LT-05 Grade optimized for aluminum.

How does the LT-O5 Grade perform in low silicon Aluminum?

Our inserts' geometry is specially designed for aluminum with low silicon content, creating chips that break instead of curl. The inserts are also coated and treated to reduce friction achieving unbeatable performance and tool life.

What speeds and feeds should I use?

Starting recommendations are provided for each individual insert, indicating the speeds and feeds that are required for most materials. In order to achieve the maximum advantage from Techniks' grade technology it is important to always run the inserts according to the recommended conditions. In general, the best results are normally achieved at the high range of the recommended cutting speeds.

What can we expect regarding the quality and consistency of Techniks inserts?

You can expect inserts with much higher accuracy and consistency than you have been accustomed up to now: insert-to-insert, box-to-box and batch-to-batch. This advantage improves the unattended operation of your machines.

What percentage of my tooling requirements can Techniks supply?

In most regular shops Techniks' insert program will add about 80% of all inserts needed for CNC machines up to 20 Hp. The insert program covers a full range of standard turning and milling operations from Semi-Roughing to Super-Finishing.

Will Techniks inserts run better than the inserts I currently use?

Our multi-material inserts evolved from our extensive know-how in sub-micron powder technology, our advanced PVD coating, and unique chip breaker geometry. With Techniks, the same insert can be used job after job, replacing the dozens of confusing insert choices that are common in our industry.

Is Techniks PVD coating the same as other inserts?

Techniks' state of the art PVD coating has significant differences compared to other suppliers. Our coating is thicker and stronger, – with better adhesion, higher performance and longer tool life.

What about turning tool holders & boring bars?

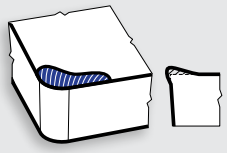
Techniks' ANSI / ISO standard turning inserts are designed to fit all industrial standard turning tools and boring bars, using the tool holders you already have in your shop.

In turning, when should I use the _NMP style inserts rather than the _NMG style inserts?

Most customers find that High-Positive _NMP style inserts (CNMP, TNMP and WNMP) deliver the best results in sticky materials, such as 316 stainless steel, Inconel, and titanium (high heat and corrosion resistant properties). This is achieved by our unique combination of our grades and geometry.

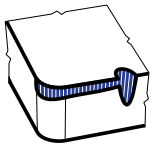
Machining Optimization

Machining Troubleshooting for Milling & Turning



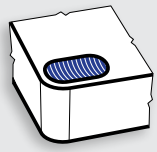
Built-up Edge
(Adhesive Wear)

Problem
The workpiece material is welded to the cutting edge, usually due to temperatures that are too low.
Solution
- Increase cutting speed
- Increase feed
- Use more positive geometry



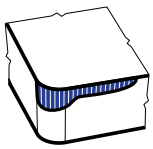
Notch Wear
(Adhesive/Mechanical wear)

Problem
The result of adhesive or mechanical action: chipping or localized wear at the depth-of-cut line.
Solution
- Use more positive geometry
- Reduce feed
- Vary depth-of-cut



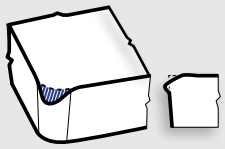
Crater
(Chemical Wear)

Problem
Occurs on the rake surface, normally the result of the combination of a diffusion and abrasion wear mechanism.
Solution
- Decrease cutting speed
- Check coolant direction
- Use more positive geometry



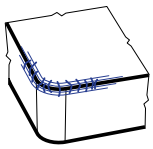
Flank Wear
(Abrasive Wear)

Problem
Abrasive wear mechanism occurs on the cutting edge's flank. Not common in Techniks inserts.
Solution
- Decrease cutting speed
- Check coolant direction



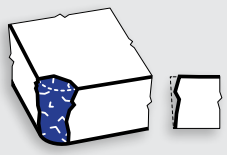
Plastic Deformation
(Thermal Wear)

Problem
Caused by cutting forces and temperatures that are too high. Not common in Techniks inserts.
Solution
- Decrease cutting speed
- Decrease feed rate



Thermal Cracks
(Thermal Wear)

Problem
Small cracks — normally at 90° to the cutting edge — caused by temperature variations
Solution
- Stabilize the temperature
- Shut off coolant

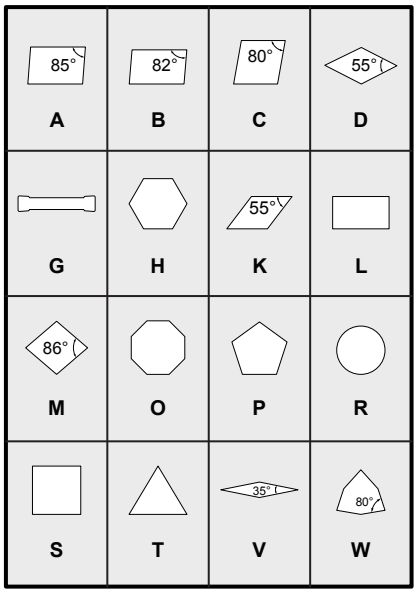


Breakage
(Mechanical Wear)

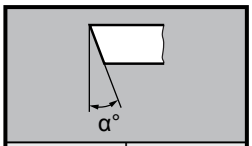
Problem
Most of the breakages happen because the wear development is not seen in time.
Solution
- Check the toolholder
- Check the tool overhang
- Check the Amax
- Decrease feed and Vc
- Use a more robust insert
- Check the run out

Inserts Designation Based on ANSI and ISO Norms

1. Insert shape

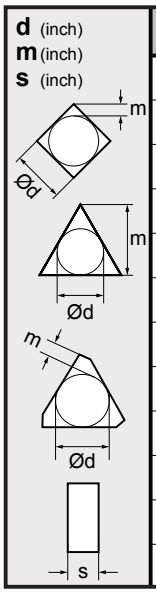


2. Clearance angle



Letter Symbol	α
A	3°
B	5°
C	7°
D	15°
E	20°
F	25°
G	30°
N	0°
P	11°
O	Special

3. Tolerance Class



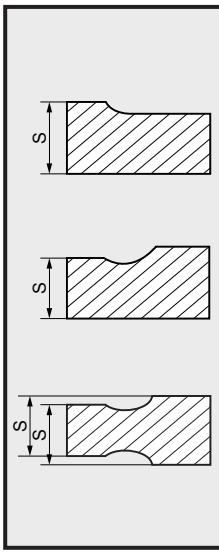
Symbol	D	M	S
A	± 0.0010	± 0.0002	± 0.001
C	± 0.0010	± 0.0005	± 0.001
E	± 0.0010	± 0.0010	± 0.001
F	± 0.0005	± 0.0002	± 0.001
G	± 0.0010	± 0.0010	± 0.005
H	± 0.0005	± 0.0005	± 0.001
J*	± 0.002-0.006	± 0.0002	± 0.001
K*	± 0.002-0.006	± 0.0005	± 0.001
L*	± 0.002-0.006	± 0.0010	± 0.001
M*	± 0.002-0.006	± 0.003-0.008	± 0.005
N*	± 0.002-0.006	± 0.003-0.008	± 0.001
U*	± 0.003-0.010	± 0.005-0.015	± 0.005

*Depending on the insert size (For exact tolerance see insert page

W	N	M	G
1	2	3	4

A	P	K	T
1	2	3	4

6. Insert thickness



Symbol		Inch
ISO	ANSI	
01	1	1/16
T1	1.2	5/64
02	1.5	3/32
03	2	1/8
T3	2.5	5/32
04	3	3/16
05	3.5	7/32
06	4	1/4
07	5	5/16
09	6	3/8

7. Insert corner radius

Symbol		Corner radius (in)
ISO	ANSI	
01	0	**0.004**
02	0.5	**0.008**
04	1	**0.016**
08	2	**0.032**
12	3	**0.047**
16	4	**0.063**
20	5	**0.079**
24	6	**0.095**
28	7	**0.109**
32	8	**0.125**
00	-	**Round insert** (in)
M0	-	**Round insert**(mm)

1st letter (Milling)

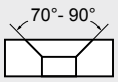
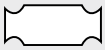
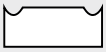
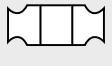
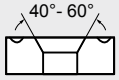
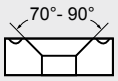
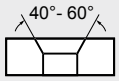
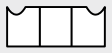
A = 45°
D = 60°
E = 75°
F = 85°
P = 90°
Z = other

2nd letter (Milling)

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

Inserts Designation Based on ANSI and ISO Norms

4. Fixing and chip breaker types

Type	Symbol	Type	Symbol
A		N	
B		P	
F		R	
G		T	
H		W	
M		X	Special design

5. Cutting Edge Length

I.C.			C	D	R	S	T	V	W
Symbol	Inch	mm							
1.2	.156	1.2	S4	04	03	03	06		
1.5	.187	1.5	04	05	04	04	08	08	S3
1.8	.219	1.8	05	06	05	05	09	09	03
2	.250	2	06	07	06	06	11	11	04
2.5	.313	2.5	08	09	07	07	13	13	05
3	.375	3	09	11	09	09	16	16	06
4	.500	4	12	15	12	12	22	22	08
5	.625	5	16	19	15	15	27	27	10
6	.750	6	19	23	19	19	33	33	13
8	1.000	8	25	31	25	25	44	44	17
08	.315	08			08				
10	.394	10			10				
12	.472	12			12				
16	.630	16			16				

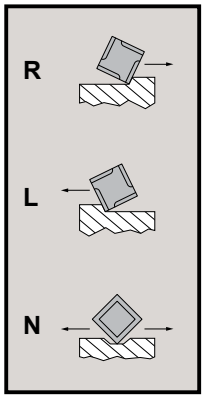
5	6	7	8	9	10
4	3	2			NN
16	04	PD	T	R	

8. Edge preparation

	F
	E
	T
	S

Optional information

9. Cutting direction



Optional information

10. Internal Designation

e.g. Application (Milling)

45 = 45° Approach angle
90 = 90° Approach angle
HF = High Feed

Optional information

e.g. Chip breaker (Turning)

NN = General purposes
NM = Roughing operations
NX = General purposes Magia
PP = All purposes grooving
ALU = Non Ferrous Materious

Optional information

Composition & Characteristics of Metals

Material Group		Gr. N°	VDI Group	Material Examples*	Description	Be carefull with
Steel	Non-alloyed	1	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	**Non-alloyed Steel** • ***Composition*** > Fe-C alloy (usually 0.1 to 0.6% of carbon). • ***Characteristics*** > Good machinability and high cutting speeds can be ap-plied. When it has less than 0.25% of carbon can be very sticky, requiring positive rake and small land inserts. **Alloyed Steel** • ***Composition*** > Fe-C alloy (maximum 2.1% of carbon) with additives like Cr, Mo, V, Ni, Mn, Co, W, etc. • ***Characteristics*** > The variation of the amount of alloying elements and different heat treatments control features such as mechanical resistance and machinability. It's important to follow the cutting speeds recommended according to the hardness of the steel, since it influences a lot the temperature of the cut, chemical and adhesive wears. **High alloyed Steel** have more than 5% of alloying elements.	**Built-up edge** **Crater**
			2			
			3			
	Low alloyed	2	6	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6		**Built-up edge** **Crater**
			4,6			
			5,7			
			8			
	High alloyed	3	10	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19		**Crater**
			10			
			11			
			11			
Stainless Steel	Austenitic	4	14	304, 316, X5CrNi18-9	• ***Composition*** > Alloyed Steel with more than 11% of Chrom(Cr). • ***Characteristics*** > Stainless steel does not stain, corrode, or rust as easily as ordinary steel. Usually they are difficult to machine, because of it's narrow range of cutting speeds. If the cutting speed is too low, the material sticks in the cutting edge, if it's too high, the high quantity of additives pro-duces abrasive wears in the cutting edge.	**Built-up edge** **Notch wear**
			14			
	Duplex	5	14	X2CrNiN23-4, 531500		**Notch wear** **Crater**
			14			
	Ferritic & Martensitic	6	12	410, X6Cr17, 17-4 PH, 430		**Crater**
			13			
Cast Iron	Grey	7	15	GG20, GG40, EN-GJL-250, No30B	• ***Composition*** > Fe-C alloy with 2.1 to 5% of carbon. It can be alloyed with Si, P, Mn and Ni. • ***Characteristics*** > Grey cast iron tends to be brittle, and malleable cast irons usually have a more ductile but less homogeneous microstructure. Reinforced cuting edges will perform the best, and high productivity can be achieved by using high feeds.	**Flank wear** **Crater** **Mechanical cracks**
			15			
			16			
	Malleable & Nodular	8	17,19	GGG40, GGG70, 50005		
			17,19			
			18,20			
High Temp.Alloys	Fe, Ni & Co based	9	31,32	Incoloy 800	***Composition*** > Iron (Fe) based, Nickel (Ni) based or Cobalt (Co) based alloys and Titanium alloys. ***Characteristics*** > High Temperature alloys and Titanium provide excellent mechanical strength resistance, as well as corrosion and oxidation resist-ance. Relatively low cutting speed is recommended due to their poor thermal conductivity.	**Notch wear** **Crater**
			33	Inconel 700		
			34	Stellite 21		
	Ti based	10	36	TiAl6V4		
			37	T40		
Hardened Mat.	Steel	11	38	X100CrMo13, 440C, G-X260NiCr42	This group includes hardened and tempered steel up to 55 HRc, chilled and white cast iron up to 55 HRc. Machining success depends largely on clamping system rigidity, as cutting forces and power consumption are high. Finishing represents the majority of the operations for this materials group.	**Crater**
			38			
			38			
	Chilled Cast Iron		40	Ni-Hard 2		
	White Cast Iron		41	G-X300CrMo15		
NF	Al (>8%Si)	12	25	AlSi12	Non-ferrous and soft materials (less than 130HB of hardness). Most common: Aluminum **Composition** > Al alloys. It can be alloyed with Cu, Zn, Mg, Mn and Si. **Characteristics** > Aluminium is widely used due to its low denisity and relatively good strengh/weight ratio. When machi-ning it tends to have long chips and built up edge. A highly positive cutting edge together with low friction coating are supposed to control the chips and reduce built up edge.	**Built-up edge**
	Al (<8%Si)	13	21, 22 23, 24	Si < 4 %		
				4% < Si < 8 %		
	Cooper Alloys	14	26,27,28	CuZn30		
	Non-Metallic	15	29	Fiber Plastics		
			30	Hard Rubber		
			-	Graphite		

APKT
ADKT
AOMT
APMT
LDMT
ODMT
ODMW
OFER
OFMT
ONKX
PNEG
RDMT
RDMW
RDMX
SDKT
SDKX
SEKN
SEKR
SEKT
SNKX
SPUN
SPKN
SPKR
SPMT
TPKN
TPKR
TPUN
WPGT
APET
APEX
APGT
SEET
SEGT

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**

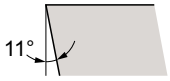
Techniks Inserts Cross-Reference Guide

Insert Description	Part No.	Cutter Bodies
ADKT1505PDTR-LT30	1506065	Iscar
AOMT123608PETR-LT30	3153311	Mitsubishi
APGT1003PDER-ALU-LT05	1506501	Iscar
APGT1604PDER-ALU-LT05	1506505	Kennametal, Korloy, Ingersoll, Seco, Stellram
APKT 100304 PDTR LT30	3154422	Iscar
APKT 100312 PDTR LT30	3154433	Iscar
APKT 100332 PDTR LT30	3154444	Iscar
APKT 100340 PDTR LT30	3154455	Iscar
APKT1003PDTR-LT30	3154411	Iscar
APKT160424ER-LT30	1500300	Kennametal, Korloy, Ingersoll, Seco, Stellram
APKT1604PDTR-LT30	1506073	Kennametal, Korloy, Ingersoll, Seco, Stellram
APKT1604PDTR-LT30-NEW	1506075	Kennametal, Korloy, Ingersoll, Seco, Stellram
APKT1705PETR-LT30	1506077	Ingersoll, Taegutec
APMT0903PDTR-LT30	3153317	Walter
APMT1135PDTR-LT30	3153321	Mitsubishi
APMT1604PDTR-LT30	3151134	Kennametal, Korloy, Ingersoll, Seco, Stellram
APMT160408PDTR-LT30	3153325	Kennametal, Korloy, Ingersoll, Seco, Stellram
KNUX160405R11-LT10	3164420	Kennametal
LDMT1504PDTR-LT30	3161989	Ceratizit
ODMT0504ZZTR-LT30	3954406	Seco
ODMT060508TN-LT30	3954411	Seco, Walter
ODMW060508TN-LT30	3954415	Seco, Walter
OFER070405TN-LT30	3954421	Iscar, Seco
OFMT050405TR-LT30	3954441	Seco, Iscar
OFMT05T305TN-LT30	3954431	Seco, Iscar
OFMT070405TN-LT30	3954435	Iscar, Seco
RCMT0602MO-LT10	3355511	Kennametal
RCMT0602MO-LT1000	3351914	Kennametal
RCMT0803MO-LT10	3355516	Seco, Walter
RCMT0803MO-LT1000	3351915	ISO TurnIng
RCMT10T3MO-LT10	3355521	ISO Turning
RCMT10T3MO-LT1000	3351916	ISO Turning
RCMT1204M0-LT10	3355525	ISO Turning
RCMT1204MO-LT1000	3351917	ISO Turning

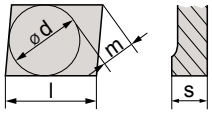
Insert Description	Part No.	Cutter Bodies
RDMT0602MO-LT30	3355528	Kennametal
RDMT0803M0-LT30	3355531	Seco, Walter
RDMT1003M0-LT30	3355533	Kennametal
RDMT10T3MO-LT30	3355536	Kennametal, Seco, Walter
RDMT1204M0-LT30	3355541	Walter
RDMT12T3MO-LT30	3355543	Kennametal
RDMW10T3MO-LT30	3355546	Walter
RDMW1204MO-LT30	3355548	Walter
RDMX10T3MO-LT30	3351552	Walter
RDMX1204MO-LT30	3355549	Walter
SDKT1204AETN-LT30	3254411	Walter
SDKX0904HF-LT30	2503095	Stellram High Feed
SDKX1205HF-LT30	2503096	Stellram High Feed
SEGT1204AFEN-ALU-LT05	2506509	Sandvik, Kennametal
SEKN42AFTN-LT30	3254415	Iscar, Seco, Sandvick, Walter, Kennametal
SEKN43AFTN-LT30	3254417	Iscar, Seco, Sandvick, Walter, Kennametal
SEKN53AFTN-LT30	3254421	Iscar, Seco, Sandvick, Walter, Kennametal
SEKR1203AFTN-LT30	3254431	Iscar, Seco, Sandvick, Walter, Kennametal
SEKR43AFTN-LT30	3254433	Sandvik
SEKT1204AFTN-LT30	3254435	Iscar, Sandvik, Walter
SEKT12T3AGSN-LT30	2506169	Sandvik
SNKX1205-45-LT30	2502203	Walter
SNKX1607-45-LT30	2502205	Ingersoll, Iscar
SPKN42EDTR-LT30	3263336	ISO Milling
SPKN43EDTR-LT30	3263341	ISO Milling
SPKN53EDTR-LT30	3266029	ISO Milling
SPKR42EDTR-LT30	3253346	ISO Milling
SPKR43EDTR-LT30	3263351	ISO Milling
SPMT12T308-LT30	3263347	Sandvik
WCMX030208R53	3441111	Sandvik
WCMX040208NN	3441121	Sandvik
WCMX050308NN	3441125	Sandvik
WCMX06T308NN	3441131	Sandvik
WCMX080412NN	3441135	Sandvik

APKT Milling Inserts

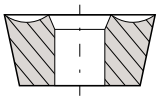
Shape



Clearance Angle



Tolerance
d ± 0.002
m ± 0.005
s ± 0.001



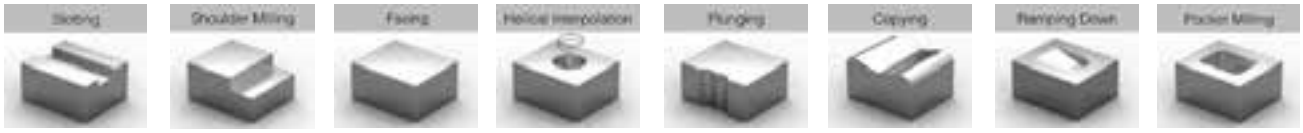
Fixing
Chip breaker

APKT Milling Inserts

Part No.	Description	Grade	l	s	r	Direction
3154422	APKT 100304 PDTR	LT 30	0.409	0.138	0.016	Right
3154411	APKT 1003 PDTR	LT 30	0.409	0.138	0.031	Right
3154433	APKT 100312 PDTR	LT 30	0.409	0.138	0.047	Right
3154435	APKT 100316 PDTR	LT 30	0.409	0.138	0.062	Right
3154444	APKT 100332 PDTR	LT 30	0.409	0.138	0.126	Right
3154455	APKT 100340 PDTR	LT 30	0.409	0.138	0.157	Right
1506075	APKT 1604 PDTR-NEW	L 30	0.606	0.187	0.031	Right
1506073	APKT1604-PDTR	LT 30	0.060	0.187	0.031	Right
1506078	APKT 160416 PDTR	LT 30	0.606	0.187	0.062	Right
1500300	APKT 160424 ER	LT 30	0.060	0.187	0.094	Right
1506079	APKT 160432 PDTR	LT 30	0.606	0.187	0.125	Right
1506077	APKT 1705 PETR	LT 30	0.646	0.187	0.031	Right

Multi purpose 90° milling insert suitable for roughing to finishing-slotting, shoulder and face milling operations.
Face Mill for APKT. See page 10. End Mill for APKT. See page 23. PowerLOC End Mill for AP_ _ 1003 see page 27.

Application Guide



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

F ⇒ Productivity

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

Coolant	
1, 2, 3, 4	No
7, 8, 11	No
10, 12	Yes
5, 6, 9	Yes

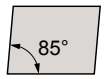
When milling materials from groups 1, 2, 3, 4, 7, 8 and 11, coolant is not recommended. When machining materials from groups 5, 6, 9, 10 and 12, it is recommended to use coolant.

Stainless Steel
V_C

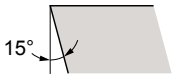
In machining Stainless Steel, please verify and follow the cutting speed recommended for the insert, as there is a tendency to machine at speeds that are too low.

Go to http://bit.ly/2c5a8U1 or scan the QR code to find the speeds & feeds for your inserts.

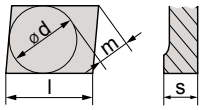
ADKT & AOMT Milling Inserts



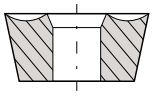
Shape



Clearance Angle



Tolerance
d ± 0.002
m ± 0.005
s ± 0.001



Fixing
Chip breaker

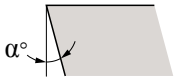
ADKT Milling Inserts

Part No.	Description	Grade	l	s	r	Direction
1506065	ADKT 1505 PDTR	LT 30	0.512	0.222	0.038	Right

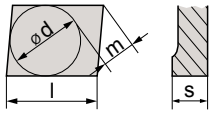
Face milling insert with 90° lead angle.

Multi purpose 90° milling insert suitable for roughing to finishing-slotting, shoulder and face milling operations.

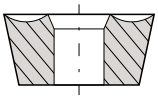
Shape



Clearance Angle
α = Special



Tolerance
d ± 0.002
m ± 0.003
s ± 0.005



Fixing
Chip breaker

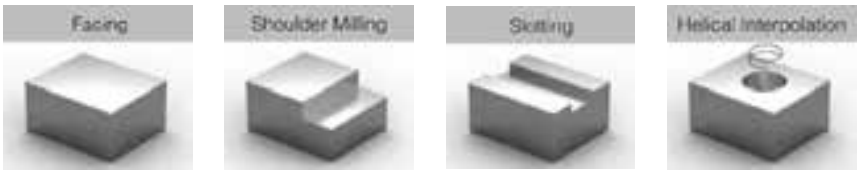
AOMT Milling Inserts

Part No.	Description	Grade	l	s	r	Direction
3153311	AOMT 123608 PETR	LT 30	0.409	0.143	0.031	Right

Face milling insert with 90° lead angle.

Multi purpose 90° milling insert suitable for roughing to finishing-slotting, shoulder and face ramping down milling operations.

Application Guide



Go to http://bit.ly/2c5a8U1 or scan the QR code to find the speeds & feeds for your inserts.

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

F ⇒ Productivity

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

Coolant	
1, 2, 3, 4	No
7, 8, 11	No
10, 12	Yes
5, 6, 9	Yes

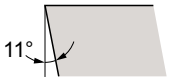
When milling materials from groups 1, 2, 3, 4, 7, 8 and 11, coolant is not recommended. When machining materials from groups 5, 6, 9, 10 and 12, it is recommended to use coolant.

Stainless Steel
V_c

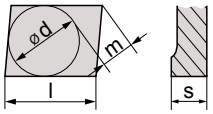
In machining Stainless Steel, please verify and follow the cutting speed recommended for the insert, as there is a tendency to machine at speeds that are too low.

APMT & LDMT Milling Inserts

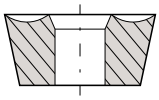
Shape



Clearance Angle



Tolerance
d ± 0.002
m ± 0.003
s ± 0.005



Fixing
Chip breaker

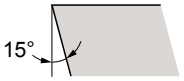
APMT Milling Inserts

Part No.	Description	Grade	l	s	r	Direction
3153317	APMT 0903 PDTR	LT 30	0.375	0.125	0.016	Right
3153321	APMT 1135 PDTR	LT 30	0.374	0.139	0.028	Right
3151134	APMT 1604 PDTR	LT 30	0.625	0.187	0.026	Right
3153325	APMT 160408 PDTR	LT 30	0.625	0.187	0.031	Right

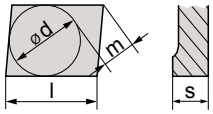
Face milling insert with 90° lead angle.

Multi purpose 90° milling insert suitable for roughing to finishing-slotting, shoulder and face milling operations.

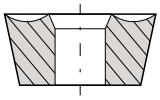
Shape



Clearance Angle



Tolerance
d ± 0.002
m ± 0.003
s ± 0.005



Fixing
Chip breaker

LDMT Milling Inserts

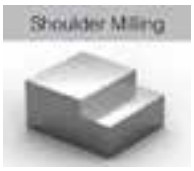
Part No.	Description	Grade	l	s	r	Direction
3161989	LDMT 1504 PDTR	LT 30	0.575	0.187	0.029	Right

Availability is subject to special agreement.

Face milling insert with 90° lead angle.

Multi purpose 90° milling insert suitable for roughing to finishing-slotting, shoulder and face milling operations.

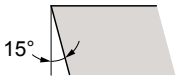
Application Guide



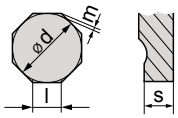
Go to http://bit.ly/2c5a8U1
or scan the QR code to find the
speeds & feeds for your inserts.

ODMT & ODMW Milling Inserts

Shape

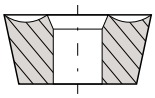


Clearance Angle



Tolerance

s ± 0.005
For l = 05, **d** ± 0.003 **m** ± 0.005
For l = 06, **d** ± 0.004 **m** ± 0.006



Fixing
Chip breaker

ODMT Milling Inserts

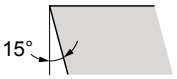
Part No.	Description	Grade	l	s	r	Direction
3954406	ODMT 0504 ZZTR	LT 30	0.207	0.187	0.031	Right
3954411	ODMT 060508 TN	LT 30	0.259	0.219	0.031	Right

Face Milling Insert with 45° Lead Angle.

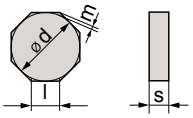
Multi purpose 45° milling insert with 8 cutting edges.

Suitable for roughing to finishing-face milling, plunging and ramping down operations.

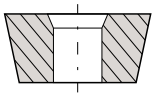
Shape



Clearance Angle



Tolerance
d ± 0.004
m ± 0.006
s ± 0.005



Fixing
Chip breaker

ODMW Milling Inserts

Part No.	Description	Grade	l	s	r	Direction
3954415	ODMW 060508 TN	LT 30	0.259	0.219	0.031	Right

Face milling insert with 45° lead angle.

Multi purpose 45° milling insert with 8 cutting edges and flat rake surface. Designed for materials that generate short chips.

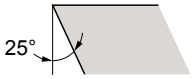
Suitable for roughing to finishing-face milling, plunging and ramping down operations.

Application Guide

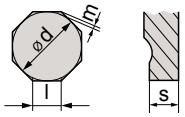
Go to http://bit.ly/2c5a8U1
or scan the QR code to find the
speeds & feeds for your inserts.

OFER & OFMT Milling Inserts

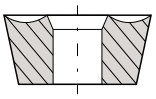
Shape



Clearance Angle



Tolerance
d ± 0.001
m ± 0.001
s ± 0.001



Fixing
Chip breaker

OFER Milling Inserts

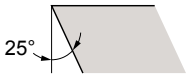
Part No.	Description	Grade	l	s	r	Direction
3954421	OFER 070405 TN	LT 30	0.268	0.187	0.031	Right

Face Milling Insert with 45° Lead Angle.

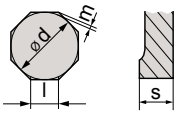
Multi purpose 45° Milling insert with 8 cutting edges and flat rake surface.

Suitable for roughing to finishing-face milling, plunging and ramping down operations.

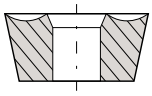
Shape



Clearance Angle



Tolerance
s ± 0.005
For l = 05, **d** ± 0.003 **m** ± 0.005
For l = 07, **d** ± 0.004 **m** ± 0.006



Fixing
Chip breaker

OFMT Milling Inserts

Part No.	Description	Grade	l	s	r	Direction
3954431	OFMT 05T305 TN	LT 30	0.207	0.156	0.031	Right
3954441	OFMT 050405 TR	LT 30	0.217	0.187	0.021	Right
3954435	OFMT 070405 TN	LT 30	0.268	0.187	0.020	Right

Face Milling Insert with 45° Lead Angle.

Multi purpose 45° milling insert with 8 cutting edges and flat rake surface.

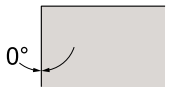
Suitable for roughing to finishing-face milling, plunging and ramping down operations.

Application Guide

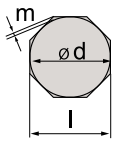
Go to http://bit.ly/2c5a8U1
or scan the QR code to find the
speeds & feeds for your inserts.

ONKX & PNEG Milling Inserts

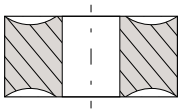
Shape



Clearance Angle



Tolerance
d ± 0.05
m ± 0.013
s ± 0.025

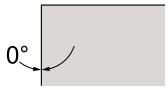


Fixing
Chip breaker

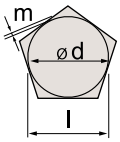
ONKX Milling Inserts

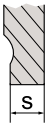
Description	Grade	l	s	r	Direction
ONKX 0806-45 LT 30	LT 30	.795	.228	.031	Neutral

Shape

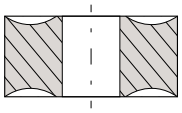


Clearance Angle





Tolerance
d ± 0.05
m ± 0.013
s ± 0.025



Fixing
Chip breaker

PNEG Milling Inserts

Part No.	Description	Grade	l	s	r	Direction
3959999	PNEG 110512 R CM	152	0.213	0.219	0.047	Right

Use PNEG inserts with Cast Iron Cutter on page 12.

Application Guide

Go to http://bit.ly/2c5a8U1
or scan the QR code to find the
speeds & feeds for your inserts.

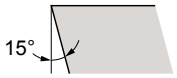
RDMT, RDMW, & RDMX Milling Inserts

RDMT

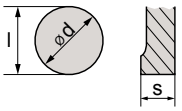
RDMW

RDMX

Shape



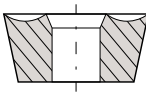
Clearance Angle



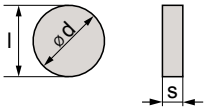
Tolerance

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

(For RDMT)



Fixing
Chip breaker



Tolerance
d ± 0.002
s ± 0.005

(For RDM & RDMX)

Part No.	Description	Grade	l	s	r	Direction
3355528	RDMT 0602 M0	LT 30	0.236	0.094	-	Neutral
3351882	RDMT 0702 M0	LT 30	0.276	0.094	-	Neutral
3355531	RDMT 0803 M0	LT 30	0.315	0.125	-	Neutral
3355533	RDMT 1003 M0	LT 30	0.394	0.125	-	Neutral
3355536	RDMT 10T3 M0	LT 30	0.394	0.156	-	Neutral
3355543	RDMT 12T3 M0	LT 30	0.472	0.156	-	Neutral
3355541	RDMT 1204 M0	LT 30	0.472	0.187	-	Neutral
3351881	RDMT 1604 M0	LT 30	0.630	0.187	-	Neutral
3355546	RDMW 10T3 M0	LT 30	-	0.156	-	Neutral
3355548	RDMW 1204 M0	LT 30	-	0.187	-	Neutral
3351552	RDMX 10T3 M0	LT 30	0.394	0.156	-	Neutral
3355549	RDMX 1204 M0	LT 30	0.472	0.187	-	Neutral

Face milling Insert with 90° lead angle.

Multi purpose round insert with flat rake surface, designed for hard materials.

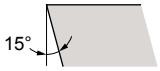
Suitable for roughing to semi-finishing copying of 3D surfaces and face milling operations for hard materials & cast iron.

Application Guide

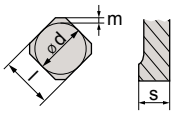
Go to http://bit.ly/2c5a8U1
or scan the QR code to find the
speeds & feeds for your inserts.

SDKT Milling Inserts

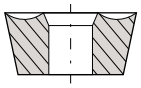
Shape



Clearance Angle



Tolerance
d ± 0.003
m ± 0.0005
s ± 0.0001



Fixing
Chip breaker

SDKT Milling Inserts

Part No.	Description	Grade	l	s	r	Direction
3254411	SDKT 1204 AETN	LT 30	0.500	0.187	Chamfer	Neutral

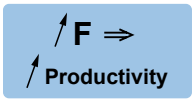
Face Milling Insert with 45° Lead Angle.

Multi purpose 45° milling insert, designed for high depths of cut.

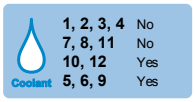
Suitable for roughing to finishing-face milling, plunging and ramping down milling operations.

Application Guide

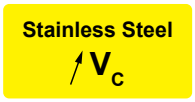
Use these tips to help get the best productivity using Techniks' inserts.



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



When milling materials from groups 1, 2, 3, 4, 7, 8 and 11, coolant is not recommended. When machining materials from groups 5, 6, 9, 10 and 12, it is recommended to use coolant.

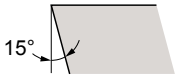


In machining Stainless Steel, please verify and follow the cutting speed recommended for the insert, as there is a tendency to machine at speeds that are too low.

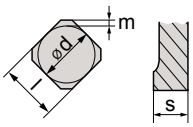
Go to http://bit.ly/2c5a8U1
or scan the QR code to find the
speeds & feeds for your inserts.

SDKX Milling Inserts

Shape

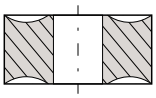


Clearance Angle



Tolerance

d ± 0.08
m ± 0.013
s ± 0.025



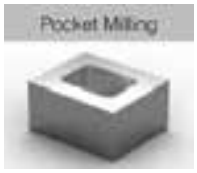
Fixing
Chip breaker

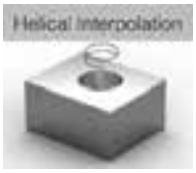
SDKX Milling Inserts

Part No.	Description	Grade	l	s	Pr. R.	Direction
2503095	SDKX 0904 HF	LT 30	0.375	0.187	0.078	Right
2503096	SDKX 1205 HF	LT 30	0.500	0.219	0.098	Right

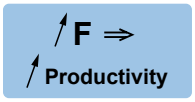
Pr. R = Programming Radius

Application Guide

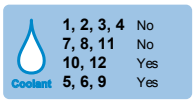




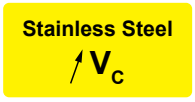
Use these tips to help get the best productivity using Techniks' inserts.



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



When milling materials from groups 1, 2, 3, 4, 7, 8 and 11, coolant is not recommended. When machining materials from groups 5, 6, 9, 10 and 12, it is recommended to use coolant.

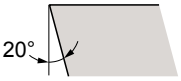


In machining Stainless Steel, please verify and follow the cutting speed recommended for the insert, as there is a tendency to machine at speeds that are too low.

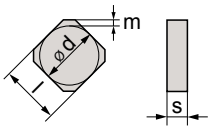
Go to http://bit.ly/2c5a8U1
or scan the QR code to find the
speeds & feeds for your inserts.

SEKN & SEKR Milling Inserts

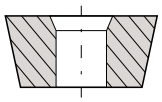
Shape



Clearance Angle



Tolerance
m ± 0.0005
s ± 0.001
For l = 12, **d** ± 0.003
For l = 15, **d** ± 0.004



Fixing
Chip breaker

SEKN Milling Inserts

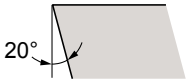
Part No.	Description	Grade	l	s	r	Direction
3254415	SEKN 42 AFTN (ANSI) SEKN 1203 AFTN (ISO)	LT 30	0.500	0.125	Chamfer	Neutral
3254417	SEKN 43 AFTN (ANSI) SEKN 1204 AFTN (ISO)	LT 30	0.500	0.187	Chamfer	Neutral
3254421	SEKN 53 AFTN (ANSI) SEKN 1504 AFTN (ISO)	LT 30	0.625	0.187	Chamfer	Neutral

Face milling insert with 45° lead angle.

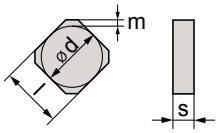
Multi purpose 45° milling insert, designed for high depths of cut.

Suitable for roughing to finishing-face milling, plunging and ramping down milling operations

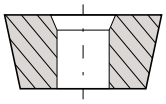
Shape



Clearance Angle



Tolerance
d ± 0.003
m ± 0.0005
s ± 0.0001



Insert Type
Clamping
Chip breaker

SEKR Milling Inserts

Part No.	Description	Grade	l	s	r	Direction
3254431	SEKR 42 AFTN (ANSI) SEKR 1203 AFTN (ISO)	LT 30	0.500	0.125	Chamfer	Neutral
3254433	SEKR 43 AFTN (ANSI) SEKR 1204 AFTN (ISO)	LT 30	0.500	0.187	Chamfer	Neutral

Face milling insert with 45° lead angle.

Multi purpose 45° milling insert, designed for high depths of cut and materials that generate long chips.

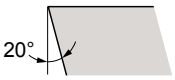
Suitable for roughing to finishing-face, plunging and ramping down milling operations of stainless steel.

Application Guide

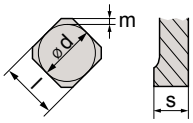
Go to http://bit.ly/2c5a8U1
or scan the QR code to find the
speeds & feeds for your inserts.

SEKT Milling Inserts

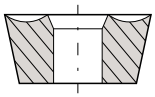
Shape



Clearance Angle



Tolerance
d ± 0.003
m ± 0.0005
s ± 0.0001



Fixing
Chip breaker

SEKT Milling Inserts

Part No.	Description	Grade	l	s	r	Direction
2506169	SEKT 12T3 AGSN	LT 30	0.528	0.156	Chamfer	Neutral
3254435	SEKT 1204 AFTN	LT 30	0.528	0.187	Chamfer	Neutral

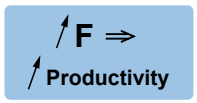
Face Milling Insert with 90° Lead Angle.

Multi purpose 45° milling insert, designed for high depths of cut.

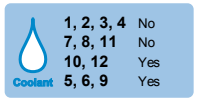
Suitable for roughing to finishing-face, plunging and ramping down milling operations.

Application Guide

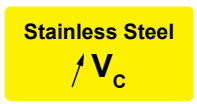
Use these tips to help get the best productivity using Techniks' inserts.



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



When milling materials from groups 1, 2, 3, 4, 7, 8 and 11, coolant is not recommended. When machining materials from groups 5, 6, 9, 10 and 12, it is recommended to use coolant.



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.

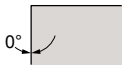
Go to http://bit.ly/2c5a8U1
or scan the QR code to find the
speeds & feeds for your inserts.

SNKX 45° Heavy Duty & High Feed Milling Inserts

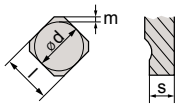
45° Heavy Duty

High Feed

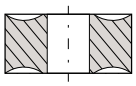
Shape



Clearance Angle



Tolerance
d ± 0.0002
m ± 0.0005
s ± 0.0001



Fixing
Chip breaker

Face Mill for SNKX 09T3 see page 11.
High Feed Indexable End mill for SNKX 09T3 see page 24.

Part No.	Description	Grade	l	s	r	Pr. R.	Direction
2502203	SNKX 1205-45°	LT 30	.0500	0.252	-	-	Right
2502205	SNKX 1607-45°	LT 30	0.658	0.269	-	0.165	Right
2502115	SNKX 09T3-HF	LT 30	0.381	0.146	-	0.165	Right

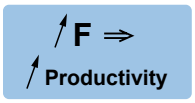
Pr. R. = Programming Radius.

Exclusive and unique design insert with 8 cutting edges for high feed.

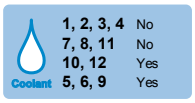
Suitable for roughing to semi-finishing copying of 3D surfaces and face milling operations.

Application Guide

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



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

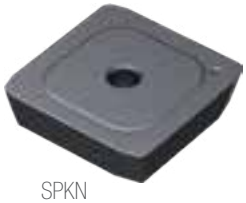


When milling materials from groups 1, 2, 3, 4, 7, 8 and 11, coolant is not recommended. When machining materials from groups 5, 6, 9, 10 and 12, it is recommended to use coolant.

Go to http://bit.ly/2c5a8U1
or scan the QR code to find the
speeds & feeds for your inserts.

SPUN, SPKN, & SPKR Milling Inserts

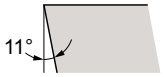
SPUN



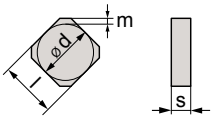
SPKN

SPKR

Shape

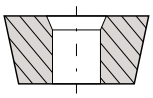


Clearance Angle

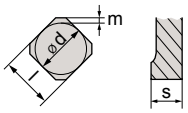


Tolerance

m ± 0.0005 **s** ± 0.001
For l = 12, **d** ± 0.003
For l = 15, **d** ± 0.004



Fixing
Chip breaker



Tolerance
d ± 0.003
m ± 0.0005
s ± 0.001
(For SPKR)

Part No.	Description	Grade	l	s	r	Direction
3263333	SPUN 422 (ANSI) SPUN 120308 (ISO)	LT 30	0.500	0.125	0.031	Neutral
3263336	SPKN 42 EDTR (ANSI) SPKN 1203 EDTR (ISO)	LT 30	0.500	0.125	-	Right
3263341	SPKN 43 EDTR (ANSI) SPKN 1204 EDTR (ISO)	LT 30	0.500	0.187	-	Right
3266029	SPKN 53 EDTR (ANSI) SPKN 1504 EDTR (ISO)	LT 30	0.625	0.187	-	Right
3253346	SPKR 42 EDTR (ANSI) SPKR 1203 EDTR (ISO)	LT 30	0.500	0.125	-	Right
3263351	SPKR 43 EDTR (ANSI) SPKR 1204 EDTR (ISO)	LT 30	0.500	0.187	-	Right

Application Guide

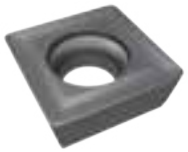
Square inserts, with 75° lead angle designed for high depths of cut and materials that generate long chips.

Suitable for roughing to finishing-face milling operations.

Go to http://bit.ly/2c5a8U1
or scan the QR code to find the
speeds & feeds for your inserts.

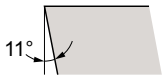
SPMT Milling Inserts

SPMT with wiper

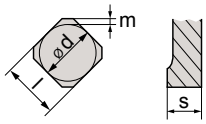


SPMT without wiper

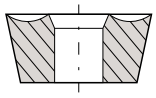
Shape



Clearance Angle



Tolerance
d ± 0.003
m ± 0.005
s ± 0.005



Fixing
Chip breaker

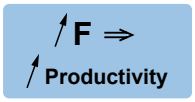
Part No.	Description	Grade	l	s	r	Direction
3263347	SPMT12T308 TN	LT 30	0.523	0.156	0.031	Right
3263349	SPMT060304 TN	LT30	0.250	0.126	0.016	Right
3263348	SPMT120408 TN	LT30	0.500	0.189	0.031	Right

Face Mill Insert with 90° Lead Angle.

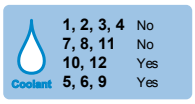
Multi purpose 90° milling insert with 4 cutting edges. Suitable for roughing to finishing-slotting, shoulder and face milling operations.

Application Guide

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



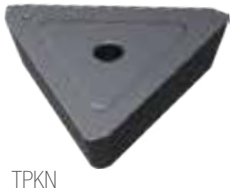
To increase productivity, it is recommended to increase feed (f) and respect cutting speed.



When milling materials from groups 1, 2, 3, 4, 7, 8 and 11, coolant is not recommended. When machining materials from groups 5, 6, 9, 10 and 12, it is recommended to use coolant.

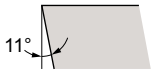
Go to http://bit.ly/2c5a8U1
or scan the QR code to find the
speeds & feeds for your inserts.

TPKN & TPKR Milling Inserts

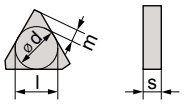

TPKN


TPKR

Shape

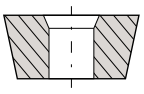


Clearance Angle



Tolerance

m ± 0.013 **s** ± 0.0005
For l = 16, **d** ± 0.002
For l = 22, **d** ± 0.003


Fixing
Chip breaker

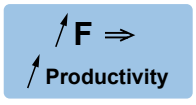
Part No.	Description	Grade	l	s	r	Direction
3567741	TPKN 32 PDTR (ANSI) TPKN 1603 PDTR (ISO)	LT 30	0.650	0.650	0.125	Right
3567745	TPKN 43 PDTR (ANSI) TPKN 2204 PDTR (ISO)	LT 30	0.866	0.866	0.187	Right
3567751	TPKR 323 PDTR (ANSI) TPKR 1603 PDTR (ISO)	LT 30	0.650	0.125	-	Right
3567755	TPKR 43 PDTR (ANSI) TPKR 2204 PDTR (ISO)	LT 30	0.866	0.187	-	Right

Multi purpose 90° milling insert with designed for materials that generate long chips.

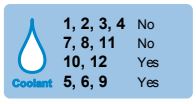
Suitable for roughing to finishing-slotting, shoulder and face filling operations.

Application Guide

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



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

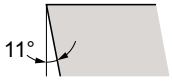


When milling materials from groups 1, 2, 3, 4, 7, 8 and 11, coolant is not recommended. When machining materials from groups 5, 6, 9, 10 and 12, it is recommended to use coolant.

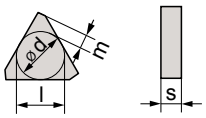
Go to http://bit.ly/2c5a8U1
or scan the QR code to find the
speeds & feeds for your inserts.

TPUN & WPGT Milling Inserts

Shape

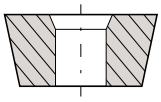


Clearance Angle



Tolerance

d ± 0.003
m ± 0.005
s ± 0.005



Fixing
Chip breaker

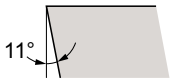
TPUN Milling Inserts

Part No.	Description	Grade	l	s	r	Direction
3567761	TPUN 322 (ANSI) TPUN 160308 (ISO)	LT 30	0.650	0.125	0.031	Right

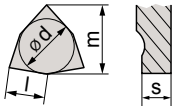
Multi purpose 90° milling insert with 3 cutting edges and corner radius.

Suitable for roughing to finishing-slotting, shoulder and face milling operations.

Shape

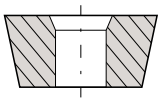


Clearance Angle



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

WPGT Milling Inserts

Part No.	Description	Grade	l	s	r	Direction
3451112	WPGT 050315 ZSR HF	351	0.197	0.138	0.059	Neutral

HF = High Feed

See the back of the box for speeds and feeds.

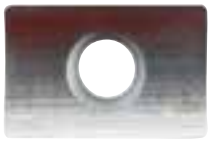
Application Guide

Go to http://bit.ly/2c5a8U1
or scan the QR code to find the
speeds & feeds for your inserts.

APET, APEX, & APGT Aluminum Milling Inserts

Polished and ground

APET



APEX

Face Mill for AP_ _ see page 9 7.
End Mill for AP_ _. see page 20.
PowerLOC End Mill for AP_ _ 1003 See page 27.

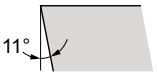
APET & APEX Aluminum Milling Inserts

Part No.	Description	Grade	l	s	r	Direction
3151232	APET 160402 LH	101	0.704	0.227	0.008	Neutral
3151236	APEX 100304 PDFR F01 HP	5005	0.393	0.125	0.016	Right
3151239	APEX 1604 PDFR F01 HP	GH05	0.704	0.227	Sharp	Right

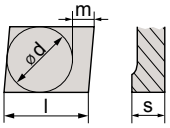
Green indicates aluminum.

HP = High Polish

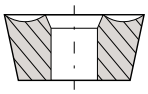
Shape



Clearance Angle



Tolerance
d ± 0.001
m ± 0.001
s ± 0.005



Fixing
Chip breaker

APGT Aluminum Milling Inserts

Part No.	Description	Grade	l	s	r	Direction
1506502	APGT 100304 PDER ALU	LT 05	0.409	0.136	0.016	Right
1506506	APGT 160408 PDER ALU	LT 05	0.606	0.187	0.031	Right

Green indicates aluminum.

Face milling Insert with 90° lead angle.

Highly positive inserts with a unique coating and 90° lead angle for aluminum.

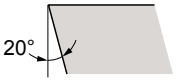
Suitable for roughing to finishing-slotting, shoulder and face milling operations.

Application Guide

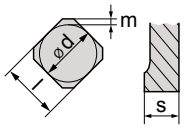
Go to http://bit.ly/2c5a8U1
or scan the QR code to find the
speeds & feeds for your inserts.

SEET & SEGT Aluminum Milling Inserts

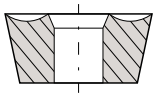
Shape



Clearance Angle



Tolerance
d ± 0.001
m ± 0.001
s ± 0.005

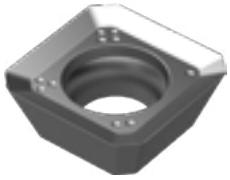


Fixing
Chip breaker

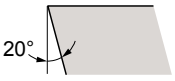
SEET Aluminum Milling Inserts

Part No.	Description	Grade	l	s	r	Direction
3251239	SEET 13T3 HP	WSK10	0.528	0.158	Chamfer	Neutral

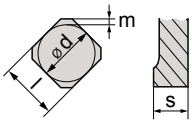
Green indicates aluminum.



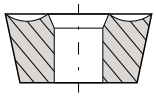
Shape



Clearance Angle



Tolerance
d ± 0.003
m ± 0.0005
s ± 0.0001



Fixing
Chip breaker

SEGT Aluminum Milling Inserts

Part No.	Description	Grade	l	s	r	Direction
2506509	SEGT 1204 AFEN ALU	LT 05	0.500	0.187	Chamfer	Neutral

Green indicates aluminum.

Face Milling Insert with 45° Lead Angle.

Highly positive inserts with a unique coating and 90° lead angle for aluminum.

Suitable for roughing to finishing-slotting, shoulder and face milling operations.

Application Guide

Go to http://bit.ly/2c5a8U1
or scan the QR code to find the
speeds & feeds for your inserts.