

MILLING CUTTERS



CARBOLOY STYLE INDEXABLE MILLING CUTTERS

- Cutting diameters from 5/8" to 2"
- End mills and shell mills available
- Made in USA

End Mills

Cutting Dia	Shank Dia	No. Of Teeth	Part Number	Price Each	Inserts- APKT 1604 PDER			
					Grade PV 311	Grade NN 52	Grade DHCP35M	Grade DASK25M
5/8"	0.625	1	EM-APFT-625	\$54.00	US-811	US-812	DN94884	DN94893
3/4"	0.750	1	EM-APFT-750	\$65.00				
1"	0.750	2	EM-APFT-1075	\$87.00				
1"	1.000	2	EM-APFT-1000	\$87.00				
1-1/4"	1.250	3	EM-APFT-1250	\$108.00				
1-1/2"	1.000	4	EM-APFT-1510	\$130.00				
1-1/2"	1.250	4	EM-APFT-1512	\$130.00				

Accessories

Description	Part Number	Price
Screws - C04011	SC-51	\$1.00
Torx wrench	TX-215	\$5.00

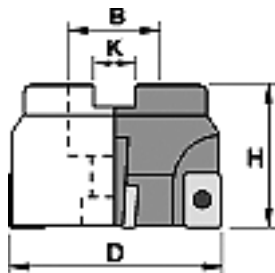
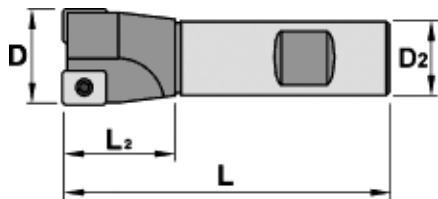
Part Number/Grade	Grade Information
US-811 PV 311	recommended for milling of stainless steels and other high temperature materials
US-812 NN52	The ideal choice for machining steels and stainless steels
DN94884 DHCP35M	for machining carbon steel, alloy steel, and stainless steel
DN94893 DASK25M	For medium to difficult milling operations in dry or wet conditions

Shell Mills

Cutting Dia	Shank Dia	No. Of Teeth	Part Number	Price Each	Inserts- APKT 1604 PDER			
					Part Number	Grade NN 52	Grade DHCP35M	Grade DASK25M
2"	0.750	5	SM-APFT-2000	\$152.00	US-811 \$7.37	US-812 \$7.37	DN94884 \$7.25	DN94893 \$8.95

INDEXABLE MILLING CUTTERS ENDMILLS & SHELL MILLS

Using AP_



Endmills Using AP_10 an AP_16 Inserts

Uses Insert	Cutting Dia	Shank Dia	OAL		Flute Length	No of Flutes	Industry Reference	Part Number	Price Each
			D	L					
AP_10	0.375	0.500	30	0.80	1	1220.21.0037	EM-AP10-37-30C	\$79.67	
AP_10	0.437	0.625	3.25	1.00	1	1220.21.0043	EM-AP10-43-32C	\$79.67	
AP_10	0.625	0.625	3.25	1.00	2	1220.21.0062	EM-AP10-62-32C	\$79.67	
AP_16	0.750	0.75	3.50	1.25	1	1230.21.0075	EM-AP16-75-35C	\$91.24	
AP_16	0.750	0.75	3.50	1.25	3	1220.21.0075	EM-AP10-75-35C	\$91.24	
AP_16	1.000	1.00	3.50	1.25	2	1230.21.0100	EM-AP16-10-35C	\$103.40	
AP_10	1.000	1.00	3.50	1.25	4	1220.21.0100	EM-AP10-10-35C	\$103.40	
AP_16	1.250	1.00	3.75	1.25	3	1230.21.0125	EM-AP16-12-37C	\$109.48	
AP_10	1.250	1.00	3.75	1.25	5	1220.21.0125	EM-AP10-12-37C	\$109.48	
AP_16	1.500	1.25	4.00	1.25	4	1230.21.0150	EM-AP16-15-40C	\$118.61	
AP_10	1.500	1.25	4.00	1.25	6	1220.21.0150	EM-AP10-15-40C	\$118.61	

Long Reach Endmills Using AP_10 an AP_16 Inserts

Uses Insert	Cutting Dia	Shank Dia	OAL		Flute Length	No of Flutes	Industry Reference	Part Number	Price Each
			D	L					
AP_10	0.375	0.500	6	0.80	1	1220.22.0037	EM-AP10-37-60C	\$79.67	
AP_10	0.437	0.625	6	1.00	1	1220.22.0043	EM-AP10-43-60C	\$79.67	
AP_10	0.625	0.625	6	1.00	2	1220.22.0062	EM-AP10-62-60C	\$79.67	
AP_16	0.750	0.750	8	1.25	1	1230.22.0075	EM-AP16-75-80C	\$91.24	
AP_10	0.750	0.750	8	1.25	3	1220.22.0075	EM-AP10-75-80C	\$91.24	
AP_16	1.000	1.000	8	1.25	2	1230.22.0100	EM-AP16-10-80C	\$103.40	
AP_10	1.000	1.000	8	1.25	4	1220.22.0100	EM-AP10-10-80C	\$103.40	
AP_16	1.250	1.000	10	1.25	3	1230.22.0125	EM-AP16-12-10C	\$109.48	
AP_10	1.250	1.000	10	1.25	5	1220.22.0125	EM-AP10-12-10C	\$109.48	
AP_16	1.500	1.250	10	1.25	4	1230.22.0150	EM-AP16-15-10C	\$118.61	
AP_10	1.500	1.250	10	1.25	6	1220.22.0150	EM-AP10-15-10C	\$121.25	

Shell Mills Using AP_16 Inserts

Cutting Dia	Height	Key Width	Shank Dia	No of Flutes	Industry Reference	Part Number	Price Each
1.50	1.75	0.250	0.500	4	1230.90.0150	SM-AP16-15-C	\$115.08
2.00	1.75	0.312	0.750	5	1230.90.0200	SM-AP16-20-C	\$122.50
2.50	2.00	0.375	1.000	6	1230.90.0250	SM-AP16-25-C	\$150.18
3.00	2.00	0.375	1.000	7	1230.90.0300	SM-AP16-30-C	\$180.30
4.00	2.00	0.500	1.250	8	1230.90.0400	SM-AP16-40-C	\$265.86
5.00	2.00	0.625	1.500	8	1230.90.0500	SM-AP16-50-C	\$365.37
6.00	2.00	0.625	1.500	9	1230.90.0600	SM-AP16-60-C	\$464.14
8.00	2.50	1.000	2.500	11	1230.90.0800	SM-AP16-80-C	\$567.84

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MILLING INSERTS

MULTI-MATERIAL GRADE CARBIDE MILLING INSERTS

One Grade Offers Outstanding Performance On All Materials



MADE IN SWITZERLAND

One Grade Does It All!

- Lamina's "Multi-MAT®" technology works on any material-Always have the correct grade available and reduce machine idle time!
- Only one grade is needed for all materials, reducing inventory and costs
- Swiss made inserts offer unparalleled quality that can perform as good as, if not better, than dedicated insert grades of competitors
- Easier to use! Less grades means less confusion for machinists. Exact cutting data is printed on each box!

- Steel**
- Stainless Steel**
- Cast Iron**
- Super Alloys**

Grade LT30:
Lamina's top quality milling insert grade excels in Super Alloys



Insert Designation	Grade	Insert Shape	Clearance Angle	Cutting Edge Length L	Thick. S	Radius	Lead Angle P	Relief Angle D	Part Number	Price Each	10 + Price
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ADKT__ Inserts-Right Hand Direction- Chamfered (CH) or Honed (H)

Insert Designation	Grade	Insert Shape	Clearance Angle	Cutting Edge Length L	Thick. S	Radius	Lead Angle P	Relief Angle D	Part Number	Price Each	10 + Price
ADKT1505 PDTR	LT 30	85° Parallelogram	15° POS.	0.6 (15mm)	0.22	-	90°	15°	ADKT1505PDTR-LA	\$7.70	\$6.93
APLX 1003 PDTR	LT 30		11° POS.	0.370 (10mm)	1/8	-	90°	15°	APLX1003PDTR-LA	\$6.23	\$5.61
APLX 100308 TR	LT 30				1/8	0.031	-	-	APLX100308TR-LA	\$6.23	\$5.61
APLX 100340 TR	LT 30				1/8	0.148	-	-	APLX100340TR-LA	\$6.23	\$5.61
APKT 1604 PDTR	LT 30		11° POS.	0.630 (16mm)	3/16	-	90°	15°	APKT1604PDTR-LA	\$7.36	\$6.62
APKT 160424 ER	LT 30				3/16	0.091	-	-	APKT160424ER-LA	\$9.02	\$8.12
APGT 1604 PDER - Alu	LT10	3/16			-	90°	15°	APGT1604ALU-LA	\$7.97	\$7.17	

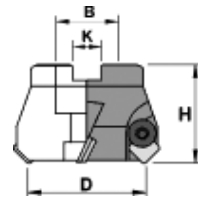
SDKT__ Inserts-Neutral-Chamfered (0.031 Corner Edge)

SDKT1204 AETN	LT 30	Square	15° POS.	0.472 (12mm)	3/16	-	45°	20°	SDKT1204AETN-LA	\$8.26	\$7.43
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SEKN__ Inserts-Neutral-Chamfered (0.031 Corner Edge)

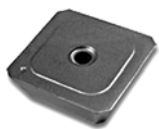
SEKN 42 AFTN	LT 30	Square	20° POS.	0.472 (12mm)	3/16	-	45°	25°	SEKN1203AFTN-LA	\$6.65	\$5.99
SEKN 43 AFTN					3/16	-	45°	25°	SEKN1204AFTN-LA	\$6.65	\$5.99

SEKN SHELL MILL CUTTERS Using SE__ 42 Inserts



D	H	K	B	z	Reference	Part Number	Price Each	Clamp Screw	Clamp	Seat	Seat Screw	Wrench
2.0	1.75	0.312	0.75	4	0748.90.0200	SM-SEKN4-20-C	\$134.97	CA-1006L	CA-2063	CA-3010	CA-4012	CA-5004
2.5	2.0	0.375	1.00	5	0748.90.0250	SM-SEKN4-25-C	\$174.26					
3.0	2.0	0.375	1.00	6	0748.90.0300	SM-SEKN4-30-C	\$246.82					
4.0	2.0	0.500	1.25	6	0748.90.0400	SM-SEKN4-40-C	\$289.76					
5.0	2.0	0.625	1.50	8	0748.99.0500	SM-SEKN4-50-C	\$490.91					
6.0	2.0	0.625	1.50	10	0748.99.0600	SM-SEKN4-60-C	\$623.56					
8.0	2.5	1.000	2.50	12	0748.99.0800	SM-SEKN4-80-C	\$809.37	CA-1077	CA-5620	CA-6488	CA-6489	CA-6918
10.0	2.5	1.000	2.50	16	0748.99.1000	SM-SEKN4-100-C	\$1,008.38					
12.0	2.5	1.000	2.50	20	0748.99.1200	SM-SEKN4-120-C	\$1,185.01					

SEKN INSERTS



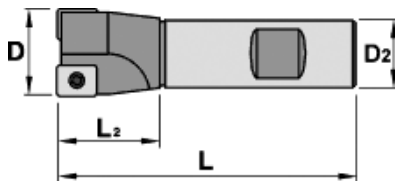
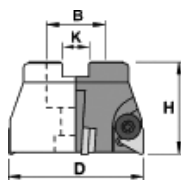
Inch No	Metric No	TUNGALOY GRADE				LAMINA GRADE
		AH330	AH120	TH10	UX30	LT30
SEKN42AFTN	SEKN1203AFTN	TO-2142 \$6.05	TO-2141 \$6.05	-	TO-2145 \$4.88	SEKN1203AFTN-LA \$6.65
SEKN42AFFN	SEKN1203AFFN	-	-	TO-2140 \$4.88	-	SEKN1204AFTN-LA \$6.65

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INDEXABLE MILLING CUTTERS

MILLING CUTTERS Using TP__ 22/32 Inserts



SHELL MILLS

Uses Insert	D	H	K	B	z	Reference	Part Number	Price Each	Clamp Screw	Wrench	Clamp
TP__32	1.5	1.75	0.250	0.50	3	0130.90.0150	SM-TP32-15-C	\$115.08	CA-1006	CA-5004	CA-2064
TP__32	2.0	1.75	0.312	0.75	4	0130.90.0200	SM-TP32-40-C	\$122.50			
TP__32	2.5	2.00	0.375	1.00	4	0130.90.0250	SM-TP32-25-C	\$150.18			
TP__32	3.0	2.00	0.375	1.00	5	0130.90.0300	SM-TP32-30-C	\$207.35			
TP__32	4.0	2.00	0.500	1.25	6	0130.90.0400	SM-TP32-40-C	\$265.86			



END MILLS

Uses Insert	D	D2	L	L2	z	Reference	Part Number	Price Each	Screw	Wrench	Clamp
TP__22	0.75	0.75	3.50	1.25	2	0120.21.0075	EM-TP22-75-35C	\$103.40	CA-1005	CA-5025	CA-2010
TP__22	1.00	1.00	3.50	1.25	2	0120.21.0100	EM-TP22-10-35C	\$103.40			
TP__32	1.00	1.00	3.50	1.25	2	0130.21.0100	EM-TP32-10-35C	\$103.40	CA-1016	CA-5004	CA-2064
TP__32	1.25	1.00	3.75	1.25	2	0130.21.0125	EM-TP32-12-37C	\$109.48			
TP__32	1.50	1.25	4.00	1.25	3	0130.21.0150	EM-TP32-15-40C	\$118.61			



INSERTS

		GRADE					
Inch No	Metric No	AH120	T3030	T325	NS540	TH10	UX30
TPU221	TPMN110304	-	-	-	TO-3076 \$2.25	TO-3078 \$2.25	TO-3079 \$2.25
TPU222	TPMN110308	-	-	TO-3081 \$2.94	-	TO-3083 \$2.25	TO-3084 \$2.25
TPU321	TPMN160304	TO-3085 \$4.19	TO-8023 \$4.11	TO-3087 \$4.19	-	TO-3089 \$3.21	TO-3090 \$3.21
TPU322	TPMN160308	TO-3091 \$4.19	-	TO-3093 \$4.19	TO-3097 \$3.21	TO-3095 \$3.21	TO-3096 \$3.21

INDEXABLE MILLING CUTTERS



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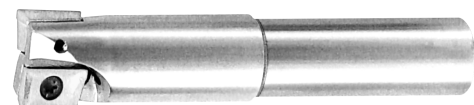
- FEATURES:**
- Uses APKT 1003 PDR Inserts (not included)
 - Durable and unique chrome nickel coated holder
 - Positive chip control



INDEXABLE MILLING CUTTERS

Nomenclature	Cutter Dia	Shank Dia	OAL	DOC	No. Of Flutes	Part Number	Price Each
BAAP 1216 2	3/8	1/2	3	1 1/2	1	MI-311216	\$89.34
BAAP 1616 2	1/2	1/2	3	1 1/2	1	MI-311616	\$99.85
BAAP 1816 2	5/8	1/2	3	1 1/2	2	MI-311816	\$110.36
BAAP 2424 2	3/4	3/4	4 3/8	2	3	MI-312424	\$152.40
BAAP 3224 2	1	3/4	4 3/8	2	4	MI-313224	\$162.91
BAAP 4024 2	1 1/4	3/4	4 3/8	2	5	MI-314024	\$242.78

Uses APKT 1003 PDR Inserts



INDEXABLE COOLANT-THRU MILLING CUTTERS

Nomenclature	Cutter Dia	Shank Dia	OAL	DOC	No. Of Flutes	Part Number	Price Each
AAAP 1216 2	3/8	1/2	3	1 1/2	1	MI-301216	\$110.36
AAAP 1616 2	1/2	1/2	3	1 1/2	1	MI-301616	\$120.87
AAAP 1816 2	5/8	1/2	3	1 1/2	2	MI-301816	\$131.90
AAAP 2424 2	3/4	3/4	4 3/8	2	3	MI-302424	\$155.34
AAAP 3224 2	1	3/4	4 3/8	2	4	MI-303224	\$249.09
AAAP 4024 2	1 1/4	3/4	4 3/8	2	5	MI-304024	\$266.95

Uses APKT 1003 PDR Inserts

3 PIECE COOLANT-THRU MILLING SET

Shank Dia	Cutter Dia	No. Of Flutes	Description	Part Number	Set Price
1/2	3/8 1/2 5/8	1 1 2	Set of 3 pcs. AAAP with APKT 1003 PDR Insert, Torx Screw & Torx Key	MI-603003	\$245.00



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