

# Carbide Endmills

HIGH PERFORMANCE

HP CARBIDE ENDMILLS

FOR ALUMINUM  
REGULAR LENGTH - 2 FLUTE - SQUARE END - 45° HELIX

**TAKE 55%  
OFF LIST  
PRICES**



**SERIES 626**  
UNCOATED



**SERIES 627**  
ZRN COATED

SIZE	SHANK DIA.	LENGTH OF CUT	OVERALL LENGTH	# OF FLUTES	ITEM#	LIST PRICE
1/8	1/8	1/2	1-1/2	2	TC62608	22.44
3/16	3/16	5/8	2	2	TC62612	31.28
1/4	1/4	3/4	2-1/2	2	TC62616	45.12
5/16	5/16	13/16	2-1/2	2	TC62620	53.28
3/8	3/8	1	2-1/2	2	TC62624	56.43
1/2	1/2	1-1/4	3	2	TC62632	93.40
5/8	5/8	1-5/8	3-1/2	2	TC62640	178.64
3/4	3/4	1-3/4	4	2	TC62648	256.04
1	1	1-3/4	4	2	TC62664	422.15

SIZE	SHANK DIA.	LENGTH OF CUT	OVERALL LENGTH	# OF FLUTES	ITEM#	LIST PRICE
1/8	1/8	1/2	1-1/2	2	TC62708	28.06
3/16	3/16	5/8	2	2	TC62712	39.11
1/4	1/4	3/4	2-1/2	2	TC62716	54.57
5/16	5/16	13/16	2-1/2	2	TC62720	64.45
3/8	3/8	1	2-1/2	2	TC62724	68.21
1/2	1/2	1-1/4	3	2	TC62732	108.32
5/8	5/8	1-5/8	3-1/2	2	TC62740	216.50
3/4	3/4	1-3/4	4	2	TC62748	310.93
1	1	1-3/4	4	2	TC62764	511.83

FOR ALUMINUM  
REGULAR LENGTH - 2 FLUTE -  CORNER RADIUS - 45° HELIX



**SERIES 646**  
UNCOATED



**SERIES 647**  
ZRN COATED

SIZE	SHANK DIA.	LENGTH OF CUT	OVERALL LENGTH	# OF FLUTES	CORNER RADIUS	ITEM#	LIST PRICE
1/8	1/8	1/2	1-1/2	2	0.020	TC64608	26.80
3/16	3/16	5/8	2	2	0.020	TC64612	36.79
1/4	1/4	3/4	2-1/2	2	0.020	TC64616	50.38
5/16	5/16	13/16	2-1/2	2	0.020	TC64620	59.51
3/8	3/8	1	2-1/2	2	0.020	TC64624	63.02
1/2	1/2	1-1/4	3	2	0.040	TC64632	104.28
5/8	5/8	1-5/8	3-1/2	2	0.040	TC64640	190.77
3/4	3/4	1-3/4	4	2	0.040	TC64648	273.47
1	1	1-3/4	4	2	0.040	TC64664	450.85

SIZE	SHANK DIA.	LENGTH OF CUT	OVERALL LENGTH	# OF FLUTES	CORNER RADIUS	ITEM#	LIST PRICE
1/8	1/8	1/2	1-1/2	2	0.020	TC64708	33.53
3/16	3/16	5/8	2	2	0.020	TC64712	45.98
1/4	1/4	3/4	2-1/2	2	0.020	TC64716	60.91
5/16	5/16	13/16	2-1/2	2	0.020	TC64720	71.96
3/8	3/8	1	2-1/2	2	0.020	TC64724	76.15
1/2	1/2	1-1/4	3	2	0.040	TC64732	120.92
5/8	5/8	1-5/8	3-1/2	2	0.040	TC64740	231.20
3/4	3/4	1-3/4	4	2	0.040	TC64748	332.08
1	1	1-3/4	4	2	0.040	TC64764	546.61

These 2 flute roughing tools are designed specifically for high speed machining in aluminum. This tool will plunge, slot and profile in all non-ferrous materials. Our ZRN coating allows for higher speed rates and prolonged tool life and does not have an affinity for aluminum.

Works well in all non-ferrous materials as well as brass and bronze applications

FOR COATING INFORMATION SEE PAGE 5. FOR TECHNICAL INFORMATION, PLEASE SEE PAGES 196-197.

TOLERANCES	DIAMETER	SHANK	RADIUS
1/8" - 1/2"	+0.00, -0.002	-0.0001, -0.0004	+0.001, -0.001
5/8" - 1"	+0.00, -0.003	-0.0001, -0.0004	+0.001, -0.001

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**TAKE 55% OFF LIST PRICES**

**FOR ALUMINUM  
LONG LENGTH - 2 FLUTE - SQUARE END - 45° HELIX**



**SERIES 632  
UNCOATED**



**SERIES 633  
ZRN COATED**

SIZE	SHANK DIA.	LENGTH OF CUT	OVERALL LENGTH	# OF FLUTES	ITEM#	LIST PRICE
1/8	1/8	3/4	2-1/4	2	TC63208	38.11
3/16	3/16	3/4	2-1/2	2	TC63212	43.94
1/4	1/4	1-1/4	3	2	TC63216	61.94
5/16	5/16	1-3/8	3	2	TC63220	80.19
3/8	3/8	1-1/2	4	2	TC63224	100.45
1/2	1/2	2	4	2	TC63232	140.74
5/8	5/8	2-3/8	5	2	TC63240	291.82
3/4	3/4	2-1/2	5	2	TC63248	320.67
1	1	2-1/4	5	2	TC63264	527.11

SIZE	SHANK DIA.	LENGTH OF CUT	OVERALL LENGTH	# OF FLUTES	ITEM#	LIST PRICE
1/8	1/8	3/4	2-1/4	2	TC63308	47.63
3/16	3/16	3/4	2-1/2	2	TC63312	54.93
1/4	1/4	1-1/4	3	2	TC63316	74.86
5/16	5/16	1-3/8	3	2	TC63320	101.84
3/8	3/8	1-1/2	4	2	TC63324	121.49
1/2	1/2	2	4	2	TC63332	170.66
5/8	5/8	2-3/8	5	2	TC63340	371.41
3/4	3/4	2-1/2	5	2	TC63348	401.40
1	1	2-1/4	5	2	TC63364	632.06

**FOR ALUMINUM  
LONG LENGTH - 2 FLUTE - CORNER RADIUS - 45° HELIX**



**SERIES 652  
UNCOATED**



**SERIES 653  
ZRN COATED**

SIZE	SHANK DIA.	LENGTH OF CUT	OVERALL LENGTH	# OF FLUTES	CORNER RADIUS	ITEM#	LIST PRICE
1/8	1/8	3/4	2-1/4	2	0.020	TC65208	45.70
3/16	3/16	3/4	2-1/2	2	0.020	TC65212	52.71
1/4	1/4	1-1/4	3	2	0.020	TC65216	69.17
5/16	5/16	1-3/8	3	2	0.020	TC65220	89.53
3/8	3/8	1-1/2	4	2	0.020	TC65224	112.15
1/2	1/2	2	4	2	0.040	TC65232	157.09
5/8	5/8	2-3/8	5	2	0.040	TC65240	311.65
3/4	3/4	2-1/2	5	2	0.040	TC65248	342.42
1	1	2-1/4	5	2	0.040	TC65264	562.96

SIZE	SHANK DIA.	LENGTH OF CUT	OVERALL LENGTH	# OF FLUTES	CORNER RADIUS	ITEM#	LIST PRICE
1/8	1/8	3/4	2-1/4	2	0.020	TC65308	57.15
3/16	3/16	3/4	2-1/2	2	0.020	TC65312	65.92
1/4	1/4	1-1/4	3	2	0.020	TC65316	83.59
5/16	5/16	1-3/8	3	2	0.020	TC65320	113.69
3/8	3/8	1-1/2	4	2	0.020	TC65324	135.66
1/2	1/2	2	4	2	0.040	TC65332	190.55
5/8	5/8	2-3/8	5	2	0.040	TC65340	396.64
3/4	3/4	2-1/2	5	2	0.040	TC65348	428.66
1	1	2-1/4	5	2	0.040	TC65364	675.04

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TOLERANCES	DIAMETER	SHANK	RADIUS
1/8" - 1/2"	+0.00, -0.002	-0.0001, -0.0004	+0.001, -0.001
5/8" - 1"	+0.00, -0.003	-0.0001, -0.0004	+0.001, -0.001

HP CARBIDE ENDMILLS

# Carbide Endmills

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**FOR ALUMINUM**

**REGULAR LENGTH - 3 FLUTE - SQUARE END - 45° HELIX**



**SERIES 628**  
UNCOATED



**SERIES 629**  
ZRN COATED

SIZE	SHANK DIA.	LENGTH OF CUT	OVERALL LENGTH	# OF FLUTES	ITEM#	LIST PRICE
1/8	1/8	1/2	1-1/2	3	TC62808	22.44
3/16	3/16	5/8	2	3	TC62812	31.28
1/4	1/4	3/4	2-1/2	3	TC62816	45.12
5/16	5/16	13/16	2-1/2	3	TC62820	53.28
3/8	3/8	1	2-1/2	3	TC62824	56.43
1/2	1/2	1-1/4	3	3	TC62832	93.40
5/8	5/8	1-5/8	3-1/2	3	TC62840	178.64
3/4	3/4	1-3/4	4	3	TC62848	256.04
1	1	1-3/4	4	3	TC62864	422.15

SIZE	SHANK DIA.	LENGTH OF CUT	OVERALL LENGTH	# OF FLUTES	ITEM#	LIST PRICE
1/8	1/8	1/2	1-1/2	3	TC62908	28.06
3/16	3/16	5/8	2	3	TC62912	39.11
1/4	1/4	3/4	2-1/2	3	TC62916	54.57
5/16	5/16	13/16	2-1/2	3	TC62920	64.45
3/8	3/8	1	2-1/2	3	TC62924	68.21
1/2	1/2	1-1/4	3	3	TC62932	108.32
5/8	5/8	1-5/8	3-1/2	3	TC62940	216.50
3/4	3/4	1-3/4	4	3	TC62948	310.93
1	1	1-3/4	4	3	TC62964	511.83

**FOR ALUMINUM**

**REGULAR LENGTH - 3 FLUTE -  CORNER RADIUS - 45° HELIX**



 CORNER RADIUS

**SERIES 658**  
UNCOATED



 CORNER RADIUS

**SERIES 659**  
ZRN COATED

SIZE	SHANK DIA.	LENGTH OF CUT	OVERALL LENGTH	# OF FLUTES	CORNER RADIUS	ITEM#	LIST PRICE
1/8	1/8	1/2	1-1/2	3	0.020	TC65808	26.80
3/16	3/16	5/8	2	3	0.020	TC65812	36.79
1/4	1/4	3/4	2-1/2	3	0.020	TC65816	50.38
5/16	5/16	13/16	2-1/2	3	0.020	TC65820	59.51
3/8	3/8	1	2-1/2	3	0.020	TC65824	63.02
1/2	1/2	1-1/4	3	3	0.040	TC65832	104.28
5/8	5/8	1-5/8	3-1/2	3	0.040	TC65840	190.77
3/4	3/4	1-3/4	4	3	0.040	TC65848	273.47
1	1	1-3/4	4	3	0.040	TC65864	450.85

SIZE	SHANK DIA.	LENGTH OF CUT	OVERALL LENGTH	# OF FLUTES	CORNER RADIUS	ITEM#	LIST PRICE
1/8	1/8	1/2	1-1/2	3	0.020	TC65908	33.53
3/16	3/16	5/8	2	3	0.020	TC65912	45.98
1/4	1/4	3/4	2-1/2	3	0.020	TC65916	60.91
5/16	5/16	13/16	2-1/2	3	0.020	TC65920	71.96
3/8	3/8	1	2-1/2	3	0.020	TC65924	76.15
1/2	1/2	1-1/4	3	3	0.040	TC65932	120.92
5/8	5/8	1-5/8	3-1/2	3	0.040	TC65940	231.20
3/4	3/4	1-3/4	4	3	0.040	TC65948	332.08
1	1	1-3/4	4	3	0.040	TC65964	546.61

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TOLERANCES	DIAMETER	SHANK	RADIUS
1/8" - 1/2"	+0.000, -0.002	-0.0001, -0.0004	+0.001, -0.001
5/8" - 1"	+0.000, -0.003	-0.0001, -0.0004	+0.001, -0.001

# Carbide Endmills

HIGH PERFORMANCE



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**FOR ALUMINUM  
LONG LENGTH - 3 FLUTE - SQUARE END - 45° HELIX**



**SERIES 634  
UNCOATED**

**SERIES 635  
ZRN COATED**

SIZE	SHANK DIA.	LENGTH OF CUT	OVERALL LENGTH	# OF FLUTES	ITEM#	LIST PRICE
1/8	1/8	3/4	2-1/4	3	TC63408	38.11
3/16	3/16	3/4	2-1/2	3	TC63412	43.94
1/4	1/4	1-1/4	3	3	TC63416	61.94
5/16	5/16	1-3/8	3	3	TC63420	80.19
3/8	3/8	1-1/2	4	3	TC63424	100.45
1/2	1/2	2	4	3	TC63432	140.74
5/8	5/8	2-3/8	5	3	TC63440	291.82
3/4	3/4	2-1/2	5	3	TC63448	320.67
1	1	2-1/4	5	3	TC63464	527.11

SIZE	SHANK DIA.	LENGTH OF CUT	OVERALL LENGTH	# OF FLUTES	ITEM#	LIST PRICE
1/8	1/8	3/4	2-1/4	3	TC63508	47.52
3/16	3/16	3/4	2-1/2	3	TC63512	54.93
1/4	1/4	1-1/4	3	3	TC63516	74.86
5/16	5/16	1-3/8	3	3	TC63520	101.84
3/8	3/8	1-1/2	4	3	TC63524	121.49
1/2	1/2	2	4	3	TC63532	170.66
5/8	5/8	2-3/8	5	3	TC63540	371.41
3/4	3/4	2-1/2	5	3	TC63548	401.40
1	1	2-1/4	5	3	TC63564	632.06

**FOR ALUMINUM  
LONG LENGTH - 3 FLUTE - CORNER RADIUS - 45° HELIX**



**SERIES 664  
UNCOATED**

**SERIES 665  
ZRN COATED**

SIZE	SHANK DIA.	LENGTH OF CUT	OVERALL LENGTH	# OF FLUTES	CORNER RADIUS	ITEM#	LIST PRICE
1/8	1/8	3/4	2-1/4	3	0.020	TC66408	45.70
3/16	3/16	3/4	2-1/2	3	0.020	TC66412	52.71
1/4	1/4	1-1/4	3	3	0.020	TC66416	69.17
5/16	5/16	1-3/8	3	3	0.020	TC66420	89.53
3/8	3/8	1-1/2	4	3	0.020	TC66424	112.15
1/2	1/2	2	4	3	0.040	TC66432	157.09
5/8	5/8	2-3/8	5	3	0.040	TC66440	311.65
3/4	3/4	2-1/2	5	3	0.040	TC66448	342.42
1	1	2-1/4	5	3	0.040	TC66464	562.96

SIZE	SHANK DIA.	LENGTH OF CUT	OVERALL LENGTH	# OF FLUTES	CORNER RADIUS	ITEM#	LIST PRICE
1/8	1/8	3/4	2-1/4	3	0.020	TC66508	57.15
3/16	3/16	3/4	2-1/2	3	0.020	TC66512	65.92
1/4	1/4	1-1/4	3	3	0.020	TC66516	83.59
5/16	5/16	1-3/8	3	3	0.020	TC66520	113.69
3/8	3/8	1-1/2	4	3	0.020	TC66524	135.66
1/2	1/2	2	4	3	0.040	TC66532	190.55
5/8	5/8	2-3/8	5	3	0.040	TC66540	396.64
3/4	3/4	2-1/2	5	3	0.040	TC66548	428.66
1	1	2-1/4	5	3	0.040	TC66564	675.04

HP CARBIDE ENDMILLS

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5/8" - 1"	+0.00, -0.003	-0.0001, -0.0004	+0.001, -0.001