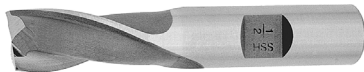


ENDMILLS



A Large Variety Of Endmills For All Of Your Cutting Needs!

We offer endmills designed for maximum performance in all types of materials. Endmill designs for general purpose machining are available in a wide range of materials and flute variety.



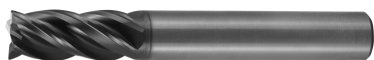
2 FLUTE SQUARE END
For Aluminum, Non-ferrous & Plastic
Pages 331-333



3 FLUTE SQUARE END
For Finishing Non-ferrous & Hard Alloys
Pages 334



4 FLUTE SQUARE END
For Steels & Stainless Steels
Pages 335-337



HIGH PERFORMANCE ENDMILLS
For Steels & Stainless Steels up to 40 Hrc
Page 338-339



VARIABLE HELIX
Unequal Index
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CORNER ROUNDING
HSS, Cobalt & Carbide
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2 & 4 FLUTE CORNER RADIUS
Solid Carbide-MONSTER
Page 342



2 & 4 FLUTE BALL END
Carbide, High Speed Steel & Cobalt
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ROUGHERS & FINISHERS
Coarse & Fine Pitch
Page 346-348



CARBIDE BURRS
With 1/4" Shanks
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DRILL POINT/DRILL MILLS
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MINIATURE/MICRO ENDMILLS
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MICRO 100 VARIABLE HELIX
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METRIC ENDMILLS
2 & 4 Flute HSS
Page 336



ECONOMY HSS ENDMILLS
Uncoated 2 & 4 Flutes
Page 380

SINGLE FLUTE ROUTERS FOR ALUMINUM SOLID CARBIDE

- High speed, solid carbide routers for aluminum and non-ferrous cutting applications
- Optimized rake and clearance angles produce highest material removal rates and improved surface finishes
- Innovative single flute end mill geometry avoids chip melting and chip re-welding problems



Dia.	Shank Dia.	OAL	Flute Length	Part Number	Price
1/16	1/8	1-1/2	1/4	MI-SFA06222	\$26.45
1/16	1/4	2	1/4	MI-SFA06242	\$31.10
1/8	1/8	1-1/2	1/4	MI-SFA12522	\$23.35
1/8	1/4	2	1/4	MI-SFA12542	\$27.20
1/8	1/4	2	1/2	MI-SFA12544	\$27.20
5/32	1/4	2	5/8	MI-SFA15645	\$27.20
3/16	3/16	2	1/2	MI-SFA18733	\$25.80
3/16	1/4	2	1/2	MI-SFA18744	\$27.20
3/16	1/4	2	5/8	MI-SFA18745	\$27.20
7/32	1/4	2-1/2	3/4	MI-SFA21846	\$27.20
1/4	1/4	2-1/2	3/8	MI-SFA25043	\$27.20
3/8	3/8	3	1-1/8	MI-SFA37569	\$40.75
1/2	1/2	3	1	MI-SFA50088	\$67.50

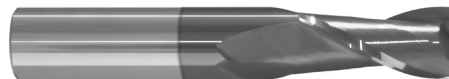
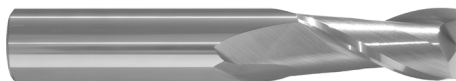
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2 FLUTE SOLID CARBIDE ENDMILLS

C

SOLID CARBIDE ENDMILLS 2 FLUTE, SQUARE END

American Made Carbide End Mills
At High Speed Steel Prices!



- Premium sub-micron C-2 carbide with 10% cobalt
- 30° helix, right hand spiral, right hand cut
- Available uncoated, Tin coated and TiAIN coated
- Tolerances:
Cutting Dia: +.000/- .002"
Shank Dia: +.0000/- .0005"

Applications:
Slotting, pocketing and plunging

Materials:
Cast Iron, non-ferrous metals, plastics and abrasive materials

Dia.	LOC	Shank Dia.	OAL	UNCOATED		TIN Coated		TiAIN Coated	
				Part Number	Price Each	Part Number	Price Each	Part Number	Price Each
1/64	3/64	1/8	1-1/2	MO-EM001000-2	\$13.60	MO-EM000995-2	\$18.00	MO-EM000997-2	\$18.00
1/32	1/8	1/8	1-1/2	MO-EM001001-2	\$7.20	MO-EM001002-2	\$8.40	MO-EM001005-2	\$9.20
3/64	1/8	1/8	1-1/2	MO-EM001010-2	\$7.20	MO-EM001011-2	\$8.40	MO-EM001013-2	\$9.20
1/16	1/4	1/8	1-1/2	MO-EM001020-2	\$5.80	MO-EM001021-2	\$7.20	MO-EM001023-2	\$7.60
5/64	1/4	1/8	1-1/2	MO-EM001030-2	\$5.80	MO-EM001032-2	\$7.20	MO-EM001036-2	\$7.60
3/32	3/8	1/8	1-1/2	MO-EM001040-2	\$5.80	MO-EM001041-2	\$7.20	MO-EM001043-2	\$7.60
7/64	3/8	1/8	1-1/2	MO-EM001050-2	\$5.80	MO-EM001052-2	\$7.20	MO-EM001055-2	\$7.60
1/8	1/2	1/8	1-1/2	MO-EM001060-2	\$5.40	MO-EM001061-2	\$6.60	MO-EM001063-2	\$7.40
1/8	3/4	1/8	2-1/4	MO-EM001001-2	\$8.45	MO-EM001002-2	\$11.86	MO-EM001004-2	\$12.22
9/64	9/16	3/16	2	MO-EM001070-2	\$9.62	MO-EM001072-2	\$12.42	MO-EM001074-2	\$12.81
5/32	9/16	3/16	2	MO-EM001080-2	\$9.21	MO-EM001081-2	\$11.54	MO-EM001084-2	\$11.90
5/32	3/4	3/16	2-1/2	MO-EM001005-2	\$14.32	MO-EM001006-2	\$18.31	MO-EM001008-2	\$18.87
11/64	9/16	3/16	2	MO-EM001090-2	\$9.62	MO-EM001092-2	\$12.00	MO-EM001094-2	\$12.38
3/16	5/8	3/16	2	MO-EM001100-2	\$8.71	MO-EM001101-2	\$10.80	MO-EM001104-2	\$11.35
3/16	3/4	3/16	2-1/2	MO-EM001012-2	\$11.98	MO-EM001013-2	\$16.04	MO-EM001014-2	\$16.53
13/64	5/8	1/4	2-1/2	MO-EM001110-2	\$11.94	MO-EM001112-2	\$14.88	MO-EM001114-2	\$16.76
7/32	5/8	1/4	2-1/2	MO-EM001120-2	\$10.54	MO-EM001121-2	\$12.87	MO-EM001124-2	\$15.26
15/64	3/4	1/4	2-1/2	MO-EM001125-2	\$11.94	MO-EM001127-2	\$14.88	MO-EM001129-2	\$16.54
1/4	3/4	1/4	2-1/2	MO-EM001130-2	\$9.16	MO-EM001131-2	\$13.48	MO-EM001134-2	\$14.19
1/4	1-1/8	1/4	3	MO-EM001020-2	\$14.73	MO-EM001021-2	\$18.41	MO-EM001023-2	\$18.98
17/64	3/4	5/16	2-1/2	MO-EM001135-2	\$14.29	MO-EM001137-2	\$18.40	MO-EM001139-2	\$20.21
9/32	3/4	5/16	2-1/2	MO-EM001140-2	\$13.07	MO-EM001141-2	\$15.71	MO-EM001144-2	\$18.81
19/64	13/16	5/16	2-1/2	MO-EM001145-2	\$14.29	MO-EM001148-2	\$18.60	MO-EM001145-2	\$19.54
5/16	13/16	5/16	2-1/2	MO-EM001150-2	\$11.65	MO-EM001151-2	\$16.68	MO-EM001153-2	\$18.30
5/16	1-1/8	5/16	3	MO-EM001030-2	\$18.97	MO-EM001031-2	\$24.89	MO-EM001033-2	\$25.66
21/64	1	3/8	2-1/2	MO-EM001154-2	\$17.57	MO-EM001157-2	\$22.80	MO-EM001154-2	\$25.70
11/32	1	3/8	2-1/2	MO-EM001160-2	\$16.17	MO-EM001162-2	\$19.40	MO-EM001164-2	\$23.24
23/64	1	3/8	2-1/2	MO-EM001165-2	\$17.57	MO-EM001166-2	\$22.20	MO-EM001165-2	\$23.44
3/8	1	3/8	2-1/2	MO-EM001170-2	\$15.11	MO-EM001171-2	\$19.28	MO-EM001173-2	\$21.90
3/8	1-1/8	3/8	3	MO-EM001040-2	\$22.65	MO-EM001009-2	\$28.46	MO-EM001010-2	\$29.34
25/64	1	7/16	2-3/4	MO-EM001175-2	\$25.84	MO-EM001178-2	\$31.92	MO-EM001175-2	\$32.43
13/32	1	7/16	2-3/4	MO-EM001180-2	\$25.33	MO-EM001182-2	\$31.41	MO-EM001184-2	\$31.92
27/64	1	7/16	2-3/4	MO-EM001185-2	\$24.32	MO-EM001187-2	\$30.40	MO-EM001185-2	\$30.60
7/16	1	7/16	2-3/4	MO-EM001190-2	\$21.96	MO-EM001191-2	\$31.37	MO-EM001198-2	\$31.77
7/16	2	7/16	4	MO-EM001050-2	\$38.90	MO-EM001051-2	\$49.52	MO-EM001052-2	\$51.05
29/64	1	1/2	3	MO-EM001192-2	\$28.58	MO-EM001194-2	\$36.80	MO-EM001192-2	\$38.40
15/32	1	1/2	3	MO-EM001193-2	\$27.87	MO-EM001197-2	\$34.33	MO-EM001196-2	\$38.00
31/64	1	1/2	3	MO-EM001195-2	\$26.85	MO-EM001199-2	\$36.36	MO-EM001195-2	\$37.49
1/2	1	1/2	3	MO-EM001200-2	\$25.87	MO-EM001201-2	\$31.25	MO-EM001205-2	\$35.58
1/2	1-1/4	1/2	3	MO-EM001200A-2	\$27.94	-	-	MO-EM001205A-2	\$37.65
1/2	2	1/2	4	MO-EM001060-2	\$42.65	MO-EM001061-2	\$52.58	MO-EM001064-2	\$54.21
33/64	1-1/4	9/16	3-1/2	MO-EM001206-2	\$57.05	-	-	-	-
17/32	1-1/4	9/16	3-1/2	MO-EM001207-2	\$56.64	-	-	-	-
9/16	1-1/4	9/16	3-1/2	MO-EM001210-2	\$49.65	MO-EM001209-2	\$59.08	MO-EM001212-2	\$64.49
5/8	1-1/4	5/8	3-1/2	MO-EM001220-2	\$51.68	MO-EM001222-2	\$59.74	MO-EM001224-2	\$66.51
5/8	2-1/4	5/8	5	MO-EM001070-2	\$82.90	MO-EM001071-2	\$96.62	MO-EM001073-2	\$99.61
11/16	1-1/2	3/4	4	MO-EM001230-2	\$79.77	MO-EM001231-2	\$103.16	MO-EM001232-2	\$104.35
3/4	1-1/2	3/4	4	MO-EM001240-2	\$71.95	MO-EM001241-2	\$83.90	MO-EM001242-2	\$88.89
3/4	2-1/4	3/4	5	MO-EM001080-2	\$114.22	MO-EM001081-2	\$131.48	MO-EM001083-2	\$135.55
7/8	1-1/2	7/8	4	MO-EM001250-2	\$127.68	MO-EM001251-2	\$142.47	MO-EM001253-2	\$157.33
1	1-1/2	1	4	MO-EM001260-2	\$132.46	MO-EM001261-2	\$147.57	MO-EM001263-2	\$162.75
1	2-1/4	1	5	MO-EM001090-2	\$177.16	MO-EM001091-2	\$200.46	MO-EM001093-2	\$206.66

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VISE ACCESSORIES
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COLLET HOLDERS
TAP HOLDERS
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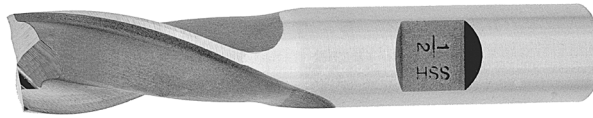
2 FLUTE HSS & COBALT ENDMILLS

2 FLUTE END MILLS

Single End, Regular Length, Center Cutting



- High speed steel and 8% Cobalt M-42
- Single end, center cutting
- Right hand cut
- Ball nose, metric and double end also available



				HSS		Cobalt M-42						HSS		Cobalt M-42	
Mill Dia	Shank Dia	LOC	OAL	Part Number	Price Each	Part Number	Price Each	Mill Dia	Shank Dia	LOC	OAL	Part Number	Price Each	Part Number	Price Each
1/8	3/8	3/8	2-5/16	BI-5300-005	\$6.21	BI-5301-005	\$7.34	7/8	1/2	1-1/2	3-5/8	BI-5300-100	\$24.37	BI-5301-100	\$36.43
5/32	3/8	7/16	2-5/16	BI-5300-010	\$6.21	BI-5301-010	\$7.34	7/8	5/8	1-1/2	3-5/8	BI-5300-135	\$24.37	-	-
3/16	3/8	7/16	2-5/16	BI-5300-015	\$6.21	BI-5301-015	\$7.34	7/8	3/4	1-1/2	3-3/4	BI-5300-165	\$24.37	BI-5301-165	\$36.43
7/32	3/8	1/2	2-5/16	BI-5300-020	\$6.21	BI-5301-020	\$7.34	7/8	7/8	1-1/2	3-3/4	BI-5300-210	\$25.07	-	-
1/4	3/8	1/2	2-5/16	BI-5300-025	\$6.21	BI-5301-025	\$7.31	15/16	1/2	1-1/2	3-5/8	BI-5300-105	\$28.15	-	-
9/32	3/8	9/16	2-5/16	BI-5300-030	\$6.21	BI-5301-030	\$8.08	15/16	5/8	1-1/2	3-5/8	BI-5300-140	\$28.15	BI-5301-140	\$39.44
5/16	3/8	9/16	2-5/16	BI-5300-035	\$6.21	-	-	1	1/2	1-1/2	3-5/8	BI-5300-110	\$28.85	BI-5301-110	\$39.44
11/32	3/8	9/16	2-5/16	BI-5300-040	\$6.21	BI-5301-040	\$8.08	1	5/8	1-1/2	3-5/8	BI-5300-145	\$28.85	BI-5301-145	\$39.44
3/8	3/8	9/16	2-5/16	BI-5300-045	\$6.21	BI-5301-045	\$8.08	1	3/4	1-1/2	3-3/4	BI-5300-175	\$28.85	BI-5301-175	\$39.44
13/32	3/8	13/16	2-1/2	BI-5300-050	\$7.96	BI-5301-050	\$10.83	1	1	1-5/8	4-1/8	BI-5300-235	\$31.06	BI-5301-235	\$40.43
7/16	3/8	13/16	2-1/2	BI-5300-055	\$7.96	BI-5301-055	\$10.83	1-1/16	5/8	1-5/8	3-7/8	BI-5300-150	\$42.59	-	-
15/32	3/8	13/16	2-1/2	BI-5300-060	\$7.96	-	-	1-1/8	3/4	1-5/8	3-7/8	BI-5300-185	\$42.59	BI-5301-185	\$61.65
1/2	3/8	13/16	2-1/2	BI-5300-065	\$7.96	BI-5301-065	\$10.83	1-1/8	7/8	1-5/8	3-7/8	BI-5300-225	\$42.59	-	-
1/2	1/2	1	3	BI-5300-070	\$8.37	BI-5301-070	\$10.83	1-1/8	1	1-5/8	4-1/8	BI-5300-240	\$45.42	-	-
9/16	1/2	1-1/8	3-1/8	BI-5300-075	\$12.74	BI-5301-075	\$16.76	1-1/4	3/4	1-5/8	3-7/8	BI-5300-190	\$46.99	BI-5301-190	\$71.61
5/8	1/2	1-1/8	3-1/8	BI-5300-080	\$14.57	BI-5301-080	\$19.89	1-1/4	1	1-5/8	4-1/8	BI-5300-245	\$48.54	BI-5301-245	\$71.61
5/8	5/8	1-5/16	3-7/16	BI-5300-115	\$15.87	BI-5301-115	\$19.89	1-1/4	1-1/4	1-5/8	4-1/8	BI-5300-260	\$48.54	-	-
11/16	1/2	1-5/16	3-1/16	BI-5300-085	\$17.43	BI-5301-085	\$26.67	1-3/16	3/4	1-5/8	3-7/8	BI-5300-195	\$46.99	-	-
11/16	5/8	1-5/16	3-7/16	BI-5300-120	\$17.53	BI-5301-120	\$23.83	1-1/2	3/4	1-5/8	3-7/8	BI-5300-205	\$57.64	-	-
3/4	1/2	1-5/16	3-1/16	BI-5300-090	\$17.43	BI-5301-090	\$26.67	1-1/2	1	1-5/8	4-1/8	BI-5300-255	\$59.09	-	-
3/4	5/8	1-5/16	3-7/16	BI-5300-125	\$18.32	BI-5301-125	\$26.67	1-1/2	1-1/4	1-5/8	4-1/8	BI-5300-265	\$59.09	-	-
3/4	3/4	1-5/16	3-7/16	BI-5300-155	\$18.32	BI-5301-155	\$26.67	1-5/8	1-1/4	1-5/8	4-1/8	BI-5300-270	\$65.13	-	-
13/16	5/8	1-1/2	3-5/8	BI-5300-130	\$22.90	BI-5301-130	\$36.43	1-3/4	1-1/4	1-5/8	4-1/8	BI-5300-275	\$74.34	-	-
13/16	3/4	1-1/2	3-3/4	BI-5300-160	\$23.54	BI-5301-160	\$27.90	2	1-1/4	1-5/8	4-1/8	BI-5300-285	\$87.09	-	-

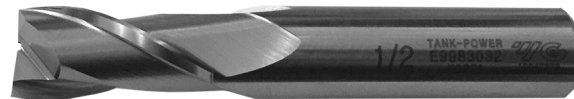
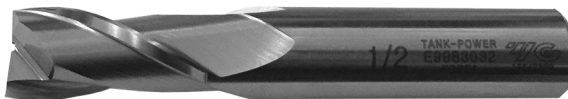
2 FLUTE END MILLS

Single End, Regular Length

Faster Feeds & Speeds Than HSS or Cobalt!



- Powdered HSS
- 30° helix
- For hardened steels up to Rc 45
- Single end, right hand cut
- Flat on shank
- Tank Power coating ideal for applications where cobalt wears rapidly, carbide chips or breaks, or when higher feed rates are desired



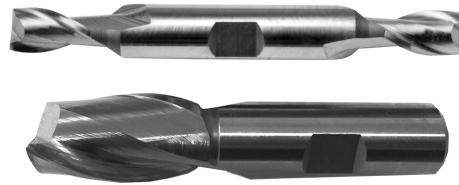
				UNCOATED		Tank-Power Coated	
Dia	Shank	LOC	OAL	Part Number	Price	Part Number	Price
1/8	3/8	3/8	2-5/16	YG-EME9983008	\$11.82	YG-EME9983008TF	\$21.23
3/16	3/8	7/16	2-5/16	YG-EME9983012	\$11.82	YG-EME9983012TF	\$21.23
1/4	3/8	1/2	2-5/16	YG-EME9983016	\$11.82	YG-EME9983016TF	\$21.23
5/16	3/8	9/16	2-5/16	YG-EME9983020	\$11.82	YG-EME9983020TF	\$21.23
3/8	3/8	9/16	2-5/16	YG-EME9983024	\$11.82	YG-EME9983024TF	\$21.23
1/2	1/2	1	3	YG-EME9983032	\$16.98	YG-EME9983032TF	\$27.73
5/8	5/8	1-5/16	3-7/16	YG-EME9983040	\$27.80	YG-EME9983040TF	\$42.38
3/4	3/4	1-5/16	3-7/16	YG-EME9983048	\$31.17	YG-EME9983048TF	\$47.38
7/8	7/8	1-1/2	3-3/4	YG-EME9983056	\$39.98	YG-EME9983056TF	\$62.47
1	1	1-5/8	4-1/8	YG-EME9983064	\$49.70	YG-EME9983064TF	\$71.00

Call Us Today For All Of Your Machine Tool Needs!

SQUARE NOSE END MILLS

Center Cutting • M42 Cobalt • Uncoated

- M42 cobalt HSS
- 30° helix
- For general purpose machining
- Single (SE) or double end (DE)
- Center cutting
- For materials up to 48 Rc
- Flats on shanks (except where noted with *)
- Additional sizes available



LATHE CHUCKS
LIVE CENTERS

VICE JAWS
VICE ACCESSORIES

STRAIGHT SHANK
COLLET HOLDERS

TAP HOLDERS
DRILL CHUCKS

CARBIDE INSERTS
THREADING/GROOVING

CUTTING TOOLS
MACHINERY

PRECISION TOOLS
DEBURRING

COOLANT/FLUIDS
TOOL STORAGE

Dia	LOC	Shank	OAL	Type	Part Number	Price Each
3/64*	9/64	3/16	2-1/4	DE	ME-B-601-1/2	\$17.31
1/16	3/16	3/16	1-1/2	SE	ME-A-602	\$10.14
1/16*	3/16	3/16	2-1/4	DE	ME-B-602	\$15.11
1/16*	7/32	3/16	2-1/2	DE	ME-B-602-L	\$20.45
5/64	15/64	3/16	1-1/2	SE	ME-A-602-1/2	\$10.14
5/64*	15/64	3/16	2-1/4	DE	ME-B-602-1/2	\$15.11
3/32	9/32	3/16	1-1/2	SE	ME-A-603	\$10.14
3/32*	9/32	3/16	2-1/4	DE	ME-B-603	\$15.11
1/8*	3/8	3/16	2-1/4	DE	ME-B-604	\$15.11
1/8	3/8	3/8	2-5/16	SE	ME-A-1204	\$13.21
1/8	3/4	3/8	2-5/8	SE	ME-A-1204-L	\$17.65
9/64*	13/32	3/16	2-1/4	DE	ME-B-604-1/2	\$15.11
3/16	3/16	3/8	2-1/16	SE	ME-AS-1206	\$12.23
3/16	7/16	3/8	2-5/16	SE	ME-A-1206	\$12.23
3/16	1/2	3/8	2-11/16	SE	ME-AN-1206	\$16.08
9/32	9/16	3/8	3-1/8	DE	ME-B-1209	\$20.95
5/16	9/16	3/8	2-5/16	SE	ME-A-1210	\$12.42
5/16	3/4	3/8	3-5/16	SE	ME-AN-1210	\$16.40
3/8	9/16	3/8	2-5/16	SE	ME-A-1212	\$12.42
3/8	3/4	3/8	3-5/16	SE	ME-AN-1212	\$16.31
3/8	2-1/2	3/8	4-1/4	SE	ME-A-1212-E	\$25.89
7/16	13/16	1/2	3-3/4	DE	ME-B-1614	\$31.89

*No Flats on Shank

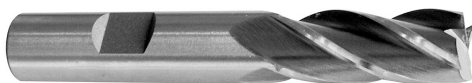
Dia	LOC	Shank	OAL	Type	Part Number	Price Each
1/2	1	1/2	4	SE	ME-AN-1616	\$22.98
1/2	1-1/2	1/2	3-1/2	SE	ME-A-1616-M	\$25.21
1/2	2	1/2	4	SE	ME-A-1616-L	\$26.02
1/2	3	1/2	5	SE	ME-A-1616-E	\$32.55
17/32	1-1/8	1/2	3-1/8	SE	ME-A-1617	\$26.04
9/16	1-1/8	1/2	3-1/8	SE	ME-A-1618	\$23.35
5/8	5/8	1/2	2-3/4	SE	ME-AS-1620	\$26.25
5/8	1-3/8	5/8	4-5/8	SE	ME-AN-2020	\$34.65
11/16	1-5/16	5/8	3-7/16	SE	ME-A-2022	\$32.58
3/4	1-5/16	5/8	3-7/16	SE	ME-A-2024	\$33.09
3/4	1-5/16	3/4	3-9/16	SE	ME-A-2424	\$30.30
3/4	1-5/8	3/4	5-3/8	SE	ME-AN-2424	\$44.78
3/4	2-1/4	3/4	4-1/2	SE	ME-A-2424-M	\$43.54
3/4	3	3/4	5-1/4	SE	ME-A-2424-L	\$56.55
13/16	1-1/2	5/8	3-5/8	SE	ME-A-2026	\$42.39
13/16	1-1/2	3/4	3-3/4	SE	ME-A-2426	\$43.80
13/16	1-9/16	7/8	5-1/2	DE	ME-B-2826	\$79.51
7/8	5/8	1/2	2-5/8	SE	ME-AS-1628	\$43.46
7/8	1-1/2	3/4	3-3/4	SE	ME-A-2428	\$43.61
7/8	1-9/16	7/8	5-1/2	DE	ME-B-2828	\$79.51
1	1-1/2	7/8	3-3/4	SE	ME-A-2832	\$54.74
1	1-5/8	1	4-1/8	SE	ME-A-3232	\$53.72

SQUARE NOSE END MILLS

HSS • 2 & 4 Flutes



- Uncoated high speed steel
- For general purpose machining on ferrous and non-ferrous materials
- Single end
- Center cutting
- Ground from solid
- TiN Coated and M42 Cobalt also available



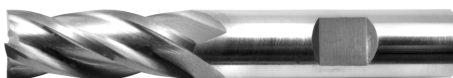
Dia	Shank	LOC	OAL	2 FLUTE		4 FLUTE	
				2 flute	Price Each	4 flute	Price Each
1/8	3/8	3/8	2-5/16	A-5801-0125	\$5.27	A-5802-0125	\$5.24
3/16	3/8	7/16	2-5/16	A-5801-0187	\$5.27	A-5802-0187	\$5.08
1/4	3/8	1/2	2-5/16	A-5801-0250	\$5.27	A-5802-0250	\$5.08
5/16	3/8	9/16	2-5/16	A-5801-0312	\$5.27	A-5802-0312	\$5.24
3/8	3/8	9/16	2-5/16	A-5801-0375	\$5.27	A-5802-0375	\$5.43
7/16	3/8	13/16	2-1/2	A-5801-0437	\$6.96	A-5802-0437	\$6.62
1/2	3/8	1	3	A-5801-0500	\$8.07	A-5802-0500	\$7.47
1/2	1/2	1	3	A-5801-0501	\$8.07	A-5802-0501	\$9.42
9/16	1/2	1-1/8	3-1/8	A-5801-0562	\$10.77	A-5802-0562	\$12.54
5/8	1/2	1-1/8	3-1/8	A-5801-0625	\$10.45	A-5802-0625	\$11.03
5/8	5/8	1-5/16	3-7/16	A-5801-0626	\$10.45	A-5802-0626	\$12.88
3/4	1/2	1-5/16	3-5/16	A-5801-0750	\$14.58	A-5802-0750	\$15.84
3/4	5/8	1-5/16	3-7/16	A-5801-0751	\$14.58	A-5802-0751	\$15.84
3/4	3/4	1-5/16	3-9/16	A-5801-0753	\$13.65	A-5802-0753	\$17.07
1	1/2	1-1/2	3-5/8	A-5801-1000	\$23.22	A-5802-1000	\$28.54
1	3/4	1-1/2	3-3/4	A-5801-1001	\$25.04	A-5802-1001	\$33.39
1	1	1-5/8	4-1/8	A-5801-1002	\$24.93	A-5802-1002	\$31.40
1-1/8	3/4	1-5/8	3-7/8	A-5801-1125	\$33.00		
1-1/4	3/4	1-5/8	3-7/8	A-5801-1250	\$45.70		
1-1/2	3/4	1-5/8	4-1/8	A-5801-1500	\$50.37		

Call Us Or Visit Our Website For Our Complete Selection!

3 FLUTE ENDMILLS-COBALT & CARBIDE

3 FLUTE, SQUARE END

Cobalt • Center Cutting



- M42 cobalt HSS
- 30° helix
- For general purpose machining
- Single end
- Center cutting
- For materials up to 48 Rc
- Flats on shanks
- Additional sizes available

Dia	LOC	Shank	OAL	Part Number	Price Each	Dia	LOC	Shank	OAL	Part Number	Price Each
1/8	3/8	3/8	2-5/16	ME-E-1204	\$15.17	9/16	1-3/8	1/2	3-3/8	ME-E-1618	\$31.63
3/16	1/2	3/8	2-3/8	ME-E-1206	\$15.17	5/8	1-3/8	1/2	3-3/8	ME-E-1620	\$31.63
1/4	5/8	3/8	2-7/16	ME-E-1208	\$15.57	11/16	1-5/8	1/2	3-5/8	ME-E-1622	\$42.80
5/16	3/4	3/8	2-1/2	ME-E-1210	\$15.57	3/4	1-5/8	1/2	3-5/8	ME-E-1624	\$38.95
3/8	3/4	3/8	2-1/2	ME-E-1212	\$15.57	13/16	1-5/8	1/2	3-5/8	ME-E-1626	\$48.56
7/16	1	3/8	2-11/16	ME-E-1214	\$20.73	7/8	1-5/8	1/2	3-5/8	ME-E-1628	\$50.79
1/2	1	3/8	2-11/16	ME-E-1216	\$20.73	1	1-7/8	3/4	4-1/8	ME-E-2432	\$60.71

3 FLUTE, SQUARE END

Solid Carbide Endmills



American Made Carbide End Mills
At High Speed Steel Prices!



- For slotting and pocketing in ferrous materials including stainless steel and high temperature alloys
- Premium sub-micron C-2 carbide with 10% cobalt
- 30° helix, right hand spiral, right hand cut
- Center cutting
- Tolerances:
Cutting Dia: +.000/- .002"
Shank Dia: +.0000/- .0005"

Dia	LOC	Shank	OAL	UNCOATED		TIAIN COATED	
				Part Number	Price Each	Part Number	Price Each
1/32	1/8	1/8	1-1/2	MO-205-001001	\$7.20	MO-205-001004	\$9.20
3/64	1/8	1/8	1-1/2	MO-205-001020	\$7.20	MO-205-001023	\$9.20
1/16	1/4	1/8	1-1/2	MO-205-001030	\$5.80	MO-205-001033	\$7.60
5/64	1/4	1/8	1-1/2	MO-205-001040	\$5.80	MO-205-001043	\$7.60
3/32	3/8	1/8	1-1/2	MO-205-001050	\$5.80	MO-205-001053	\$7.60
7/64	3/8	1/8	1-1/2	MO-205-001060	\$5.80	MO-205-001063	\$7.60
1/8	1/2	1/8	1-1/2	MO-205-001070	\$5.40	MO-205-001073	\$7.40
5/32	9/16	3/16	2	MO-205-001090	\$9.21	MO-205-001093	\$11.90
3/16	5/8	3/16	2	MO-205-001110	\$8.71	MO-205-001113	\$11.35
7/32	5/8	1/4	2-1/2	MO-205-001130	\$10.54	MO-205-001133	\$15.26
1/4	3/4	1/4	2-1/2	MO-205-001140	\$9.16	MO-205-031140	\$14.19
9/32	3/4	5/16	2-1/2	MO-205-001150	\$13.07	-	-
5/16	13/16	5/16	2-1/2	MO-205-001160	\$11.65	MO-205-001163	\$18.30
3/8	1	3/8	2-1/2	MO-205-001180	\$15.11	MO-205-001186	\$21.90
25/64	1	7/16	2-3/4	MO-205-001188	\$25.84	-	-
7/16	1	7/16	2-3/4	MO-205-001200	\$21.96	MO-205-001203	\$31.77
1/2	1	1/2	3	MO-205-001210	\$25.87	MO-205-001216	\$35.58
9/16	1-1/4	9/16	3-1/2	MO-205-001220	\$49.65	-	-
5/8	1-1/4	5/8	3-1/2	MO-205-001230	\$51.68	MO-205-001233	\$66.51
3/4	1-1/2	3/4	4	MO-205-001250	\$71.95	MO-205-001253	\$88.89
1	1-1/2	1	4	MO-205-001270	\$132.46	MO-205-001273	\$162.75

3 FLUTE, BALL NOSE

Solid Carbide Endmills



American Made Carbide End Mills
At High Speed Steel Prices!



- For slotting and pocketing in ferrous materials including stainless steel and high temperature alloys
- Premium sub-micron C-2 carbide with 10% cobalt
- 30° helix, right hand spiral, right hand cut
- Center cutting
- Tolerances:
Cutting Dia: +.000/- .002"
Shank Dia: +.0000/- .0005"

Dia	LOC	Shank	OAL	UNCOATED		TIAIN COATED	
				Part Number	Price Each	Part Number	Price Each
1/32	1/8	1/8	1-1/2	MO-222-001001	\$10.70	MO-222-001004	\$12.90
3/64	1/8	1/8	1-1/2	MO-222-001020	\$10.80	MO-222-001023	\$12.90
1/16	1/4	1/8	1-1/2	MO-222-001030	\$9.10	MO-222-001033	\$11.60
5/64	1/4	1/8	1-1/2	MO-222-001040	\$9.60	MO-222-001043	\$11.00
3/32	3/8	1/8	1-1/2	MO-222-001050	\$9.10	MO-222-001053	\$11.60
7/64	3/8	1/8	1-1/2	MO-222-001060	\$9.60	MO-222-001063	\$11.00
1/8	1/2	1/8	1-1/2	MO-222-001070	\$7.70	MO-222-001073	\$9.80
5/32	9/16	3/16	2	MO-222-001090	\$11.58	MO-222-001093	\$14.38
3/16	5/8	3/16	2	MO-222-001110	\$11.13	MO-222-001113	\$13.93
7/32	5/8	1/4	2-1/2	MO-222-001130	\$14.20	MO-222-001133	\$18.80
1/4	3/4	1/4	2-1/2	MO-222-001140	\$12.80	MO-222-001143	\$16.80
9/32	3/4	5/16	2-1/2	MO-222-001150	\$18.74	-	-
5/16	13/16	5/16	2-1/2	MO-222-001160	\$16.66	MO-222-001163	\$21.65
3/8	1	3/8	2-1/2	MO-222-001180	\$19.72	MO-222-001183	\$26.61
7/16	1	7/16	2-3/4	MO-222-001200	\$29.54	MO-222-001203	\$37.92
1/2	1	1/2	3	MO-222-001210	\$32.85	MO-222-001213	\$39.51
9/16	1-1/4	9/16	3-1/2	MO-222-001220	\$63.21	-	-
5/8	1-1/4	5/8	3-1/2	MO-222-001230	\$59.53	MO-222-001233	\$75.21
3/4	1-1/2	3/4	4	MO-222-001250	\$90.75	MO-222-001253	\$104.19
1	1-1/2	1	4	MO-222-001270	\$162.52	MO-222-001273	\$183.52

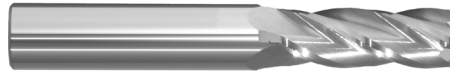
Call Us Today For All Of Your Machine Tool Needs!

4 FLUTE SOLID CARBIDE END MILLS

C

SOLID CARBIDE ENDMILLS 4 FLUTE, SQUARE END

American Made Carbide End Mills
At High Speed Steel Prices!



- Premium sub-micron C-2 carbide with 10% cobalt
- 30° helix, right hand spiral, right hand cut
- Center cutting
- Increased core strength
- Available uncoated, Tin coated and TiAlN coated
- Tolerances:
Cutting Dia: +.000/- .002"
Shank Dia: +.0000/- .0005"

Materials:
Ferrous materials including stainless steel and high temperature alloys



Dia.	LOC	Shank Dia.	OAL	UNCOATED		TIN Coated		TiAlN Coated	
				Part Number	Price Each	Part Number	Price Each	Part Number	Price Each
1/64	3/64	1/8	1-1/2	MO-EM001000-4	\$13.60	MO-EM000995-4	\$18.00	MO-EM000997-4	\$18.00
1/32	1/8	1/8	1-1/2	MO-EM001001-4	\$7.20	MO-EM001002-4	\$8.40	MO-EM001005-4	\$9.20
3/64	1/8	1/8	1-1/2	MO-EM001010-4	\$7.20	MO-EM001011-4	\$8.40	MO-EM001015-4	\$9.20
1/16	1/4	1/8	1-1/2	MO-EM001020-4	\$5.80	MO-EM001021-4	\$7.20	MO-EM001027-4	\$7.60
5/64	1/4	1/8	1-1/2	MO-EM001030-4	\$5.80	MO-EM001031-4	\$7.20	MO-EM001036-4	\$7.60
3/32	3/8	1/8	1-1/2	MO-EM001040-4	\$5.80	MO-EM001041-4	\$7.20	MO-EM001044-4	\$7.60
7/64	3/8	1/8	1-1/2	MO-EM001050-4	\$5.80	MO-EM001051-4	\$7.20	MO-EM001053-4	\$7.60
1/8	1/2	1/8	1-1/2	MO-EM001060-4	\$5.40	MO-EM001061-4	\$6.60	MO-EM001067-4	\$7.40
1/8	3/4	1/8	2-1/4	MO-EM001001-4	\$8.45	MO-EM001002-4	\$11.86	MO-EM001004-4	\$12.22
1/8	1	1/8	3	MO-EM001001-4	\$12.59	MO-EM001002-4	\$14.74	MO-EM001004-4	\$15.04
9/64	9/16	3/16	2	MO-EM001070-4	\$9.62	MO-EM001071-4	\$12.42	MO-EM001073-4	\$12.81
5/32	9/16	3/16	2	MO-EM001080-4	\$9.21	MO-EM001081-4	\$11.54	MO-EM001083-4	\$11.90
5/32	3/4	3/16	2-1/2	MO-EM001005-4	\$14.32	MO-EM001006-4	\$18.31	MO-EM001008-4	\$18.87
11/64	9/16	3/16	2	MO-EM001090-4	\$9.62	MO-EM001091-4	\$12.00	MO-EM001093-4	\$12.38
3/16	5/8	3/16	2	MO-EM001100-4	\$8.71	MO-EM001101-4	\$10.80	MO-EM001107-4	\$11.35
13/64	5/8	1/4	2-1/2	MO-EM001110-4	\$11.94	MO-EM001111-4	\$14.88	MO-EM001113-4	\$16.76
7/32	5/8	1/4	2-1/2	MO-EM001120-4	\$10.54	MO-EM001121-4	\$12.87	MO-EM001123-4	\$15.26
15/64	3/4	1/4	2-1/2	MO-EM001125-4	\$11.94	MO-EM001126-4	\$14.88	MO-EM001128-4	\$16.54
1/4	3/4	1/4	2-1/2	MO-EM001130-4	\$9.16	MO-EM001131-4	\$13.48	MO-EM001137-4	\$14.19
1/4	1-1/2	1/4	4	MO-EM001020-4	\$17.23	MO-EM001021-4	\$22.68	MO-EM001023-4	\$22.45
17/64	3/4	5/16	2-1/2	MO-EM001133-4	\$14.29	MO-EM001135-4	\$18.40	MO-EM001136-4	\$20.21
9/32	3/4	5/16	2-1/2	MO-EM001140-4	\$13.07	MO-EM001142-4	\$15.71	MO-EM001144-4	\$18.81
19/64	13/16	5/16	2-1/2	MO-EM001147-4	\$14.29	MO-EM001145-4	\$18.60	MO-EM001147-4	\$19.54
5/16	13/16	5/16	2-1/2	MO-EM001150-4	\$11.65	MO-EM001151-4	\$16.68	MO-EM001153-4	\$18.30
5/16	1-1/8	5/16	3	MO-EM001030-4	\$18.97	MO-EM001033-4	\$24.89	MO-EM001028-4	\$25.66
21/64	1	3/8	2-1/2	MO-EM001154-4	\$17.57	MO-EM001157-4	\$22.80	MO-EM001154-4	\$25.70
11/32	1	3/8	2-1/2	MO-EM001160-4	\$16.17	MO-EM001161-4	\$19.40	MO-EM001163-4	\$23.24
23/64	1	3/8	2-1/2	MO-EM001169-4	\$17.57	MO-EM001165-4	\$22.20	MO-EM001169-4	\$23.44
3/8	1	3/8	2-1/2	MO-EM001170-4	\$15.11	MO-EM001171-4	\$19.28	MO-EM001177-4	\$21.90
3/8	1-1/8	3/8	3	MO-EM001040-4	\$22.65	MO-EM001041-4	\$28.46	MO-EM001043-4	\$29.34
3/8	1-3/4	3/8	4	MO-EM001040-4	\$27.87	MO-EM001039-4	\$34.56	MO-EM001038-4	\$35.26
25/64	1	7/16	2-3/4	MO-EM001175-4	\$25.84	MO-EM001178-4	\$31.92	MO-EM001175-4	\$32.43
13/32	1	7/16	2-3/4	MO-EM001180-4	\$25.33	MO-EM001181-4	\$31.41	MO-EM001183-4	\$31.92
27/64	1	7/16	2-3/4	MO-EM001185-4	\$24.32	MO-EM001187-4	\$30.40	MO-EM001185-4	\$30.60
7/16	1	7/16	2-3/4	MO-EM001190-4	\$21.96	MO-EM001191-4	\$31.37	MO-EM001193-4	\$31.77
29/64	1	1/2	3	MO-EM001195-4	\$28.58	MO-EM001194-4	\$36.80	MO-EM001195-4	\$38.40
15/32	1	1/2	3	MO-EM001198-4	\$27.87	MO-EM001196-4	\$34.33	MO-EM001206-4	\$38.00
1/2	1	1/2	3	MO-EM001200-4	\$25.87	MO-EM001201-4	\$31.25	MO-EM001207-4	\$35.58
1/2	1-1/2	1/2	4	MO-EM001059-4	\$41.47	MO-EM001058-4	\$51.44	MO-EM001056-4	\$53.03
1/2	2	1/2	4	MO-EM001060-4	\$42.65	MO-EM001063-4	\$52.58	MO-EM001067-4	\$54.21
17/32	1-1/4	9/16	3-1/2	MO-EM001209-4	\$56.64	-	-	MO-EM001219-4	\$80.66
9/16	1-1/4	9/16	3-1/2	MO-EM001210-4	\$49.65	MO-EM001211-4	\$59.08	MO-EM001213-4	\$64.49
19/32	1-1/4	5/8	3-1/2	MO-EM001217-4	\$56.75	-	-	MO-EM001217B-4	\$76.16
5/8	1-1/4	5/8	3-1/2	MO-EM001220-4	\$51.68	MO-EM001221-4	\$59.74	MO-EM001226-4	\$66.51
5/8	1-1/2	5/8	6	MO-EM001074-4	\$89.17	MO-EM001075-4	\$107.75	MO-EM001074A-4	\$109.95
5/8	2-1/4	5/8	5	MO-EM001070-4	\$82.90	MO-EM001071-4	\$96.62	MO-EM001073-4	\$99.61
21/32	1-1/2	3/4	4	MO-EM001228-4	\$86.13	-	-	MO-EM001228B-4	\$100.72
11/16	1-1/2	3/4	4	MO-EM001230-4	\$79.77	MO-EM001231-4	\$103.16	MO-EM001233-4	\$104.35
3/4	1	3/4	4	MO-EM001238-4	\$71.95	-	-	MO-EM001238B-4	\$88.99
3/4	1-1/2	3/4	4	MO-EM001239-4	\$71.95	MO-EM001241-4	\$83.90	MO-EM001244-4	\$88.89
3/4	2-1/4	3/4	5	MO-EM001080-4	\$114.22	MO-EM001081-4	\$131.48	MO-EM001083-4	\$135.55
13/16	1-1/2	7/8	4	MO-EM001245-4	\$142.13	-	-	MO-EM001246-4	\$158.38
7/8	1-1/2	7/8	4	MO-EM001250-4	\$127.68	MO-EM001251-4	\$142.47	MO-EM001254-4	\$157.33
15/16	1-1/2	1	4	MO-EM001255-4	\$142.68	-	-	MO-EM001256-4	\$178.34
1	1	1	4	MO-EM001259-4	\$132.46	-	-	MO-EM001259B-4	\$162.75
1	1-1/2	1	4	MO-EM001260-4	\$132.46	MO-EM001261-4	\$147.57	MO-EM001264-4	\$162.75
1	2-1/4	1	5	MO-EM001090-4	\$177.16	MO-EM001091-4	\$200.46	MO-EM001093-4	\$206.66
1-1/4	2	1-1/4	4-1/2	MO-EM001266-4	\$446.19	-	-	-	-

LATHE CHUCKS
LIVE CENTERS
VISE JAWS
VISE ACCESSORIES
STRAIGHT SHANK
COLLET HOLDERS
TAP HOLDERS
DRILL CHUCKS
CARBIDE INSERTS
THREADING/GROOVING
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4 FLUTE HSS & COBALT ENDMILLS

4 FLUTE END MILLS

Single End, Regular Length



- Powdered HSS
- 30° helix
- For hardened steels up to Rc 45
- Single end, right hand cut
- Flat on shank
- Tank Power coating ideal for applications where cobalt wears rapidly, carbide chips or breaks, or when higher feed rates are desired

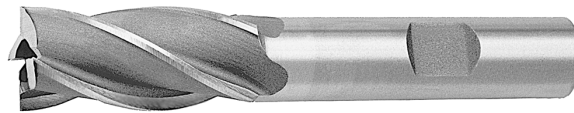
Faster Feeds & Speeds Than HSS or Cobalt!

Dia	Shank	LOC	OAL	UNCOATED		Tank-Power Coated	
				Part Number	Price	Part Number	Price
1/8	3/8	3/8	2-5/16	YG-EME9985008	\$13.78	YG-EME9985008TF	\$22.77
3/16	3/8	1/2	2-3/8	YG-EME9985012	\$13.78	YG-EME9985012TF	\$22.77
1/4	3/8	5/8	2-7/16	YG-EME9985016	\$13.78	YG-EME9985016TF	\$22.77
5/16	3/8	3/4	2-1/2	YG-EME9985020	\$13.78	YG-EME9985020TF	\$22.77
3/8	3/8	3/4	2-1/2	YG-EME9985024	\$13.78	YG-EME9985024TF	\$22.77
1/2	1/2	1-1/4	3-1/4	YG-EME9985032	\$20.68	YG-EME9985032TF	\$33.33
5/8	5/8	1-5/8	3-3/4	YG-EME9985040	\$32.94	YG-EME9985040TF	\$46.18
3/4	3/4	1-5/8	3-7/8	YG-EME9985048	\$38.93	YG-EME9985048TF	\$53.56
7/8	7/8	1-7/8	4-1/8	YG-EME9985056	\$48.91	YG-EME9985056TF	\$72.87
1	1	2	4-1/2	YG-EME9985064	\$58.96	YG-EME9985064TF	\$81.56

MULTI-FLUTE END MILLS

Single End, Regular Length, Center Cutting

- High speed steel and 8% Cobalt M-42
- Single end, center cutting
- Right hand cut
- 4 flutes, except where noted
- 6 flute endmills marked with *



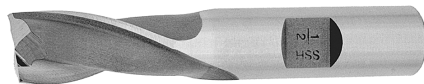
Mill Dia	Shank Dia	LOC	OAL	HSS		Cobalt M-42		Mill Dia	Shank Dia	LOC	OAL	HSS		Cobalt M-42	
				Part Number	Price Each	Part Number	Price Each					Part Number	Price Each	Part Number	Price Each
1/8	3/8	3/8	2-5/16	BI-5304-005	\$6.57	BI-5306-005	\$8.20	11/16	1/2	1-5/8	3-5/8	-	-	BI-5306-090	\$25.49
5/32	3/8	3/8	2-5/16	BI-5304-010	\$6.57	BI-5306-010	\$8.20	11/16	5/8	1-5/8	3-3/4	BI-5304-130	\$19.39	BI-5306-130	\$25.49
3/16	3/8	1/2	2-3/8	BI-5304-015	\$6.57	BI-5306-015	\$8.20	3/4	1/2	1-5/8	3-5/8	BI-5304-095	\$20.21	BI-5306-095	\$28.40
7/32	3/8	5/8	2-7/16	BI-5304-020	\$6.57	BI-5306-020	\$8.20	3/4	5/8	1-5/8	3-3/4	BI-5304-135	\$20.21	BI-5306-135	\$28.40
1/4	3/8	5/8	2-7/16	BI-5304-025	\$6.57	BI-5306-025	\$8.20	3/4	3/4	1-5/8	3-3/4	BI-5304-170	\$20.21	BI-5306-170	\$28.40
9/32	3/8	3/4	2-1/2	BI-5304-030	\$6.57	BI-5306-030	\$8.20	13/16	1/2	1-7/8	4	BI-5304-100	\$24.87	BI-5306-100	\$32.75
5/16	3/8	3/4	2-1/2	BI-5304-035	\$6.57	BI-5306-035	\$9.29	7/8	3/4	1-7/8	4-1/8	BI-5304-185	\$26.72	BI-5306-185	\$32.73
11/32	3/8	3/4	2-1/2	BI-5304-040	\$6.57	BI-5306-040	\$9.29	15/16	3/4	1-7/8	4-1/8	BI-5304-195	\$30.73	-	-
3/8	3/8	3/4	2-1/2	BI-5304-045	\$6.57	BI-5306-045	\$9.16	1	1/2	1-7/8	4	BI-5304-115	\$31.50	-	-
13/32	3/8	1	2-11/16	BI-5304-050	\$10.20	BI-5306-050	\$11.03	1	5/8	1-7/8	4	BI-5304-160	\$30.82	BI-5306-160	\$43.16
7/16	3/8	1	2-11/16	BI-5304-055	\$10.20	BI-5306-055	\$11.64	1	3/4	1-7/8	4-1/8	BI-5304-200	\$31.69	BI-5306-200	\$43.16
15/32	3/8	1	2-11/16	-	-	BI-5306-060	\$11.64	1-1/16	3/4	2	4-1/4	-	-	BI-5306-208	\$74.69
1/2	3/8	1	2-11/16	BI-5304-065	\$10.20	BI-5306-065	\$15.63	1-1/8*	3/4	2	4-1/4	BI-5304-215	\$45.96	BI-5306-215	\$74.69
1/2	1/2	1-1/4	3-1/4	BI-5304-070	\$10.20	BI-5306-070	\$13.10	1-3/16*	3/4	2	4-1/4	BI-5304-220	\$50.81	BI-5306-220	\$78.66
9/16	1/2	1-3/8	3-3/8	BI-5304-080	\$15.72	BI-5306-080	\$21.83	1-1/4*	3/4	2	4-1/4	BI-5304-225	\$50.81	BI-5306-225	\$78.66
5/8	1/2	1-3/8	3-3/8	BI-5304-085	\$17.58	BI-5306-085	\$21.83	1-5/16*	3/4	2	4-1/2	BI-5304-227	\$55.04	BI-5306-227	\$94.27
5/8	5/8	1-5/8	3-3/4	BI-5304-125	\$17.58	BI-5306-125	\$21.83	1-3/8*	3/4	2	4-1/2	BI-5304-230	\$55.04	BI-5306-230	\$94.27

All endmills are 4 flute except *, which are 6 flute

All endmills are 4 flute except *, which are 6 flute

METRIC ENDMILLS

HSS Square End-Regular Length



- High speed steel
- Center cutting
- Single end
- 2 & 4 flutes
- Additional sizes available- please call for more information

2 FLUTE

Dia	Shank Dia	LOC	OAL	Part Number	Price Each
3MM	3/8	3/8	2-5/16	BI-5302-003	\$8.46
4MM	3/8	7/16	2-5/16	BI-5302-004	\$8.46
5MM	3/8	1/2	2-5/16	BI-5302-005	\$8.46
6MM	3/8	1/2	2-5/16	BI-5302-006	\$8.46
7MM	3/8	9/16	2-5/16	BI-5302-007	\$9.38
8MM	3/8	9/16	2-5/16	BI-5302-008	\$9.38
9MM	3/8	9/16	2-5/16	BI-5302-009	\$9.38
10MM	3/8	13/16	2-1/2	BI-5302-010	\$9.38
11MM	3/8	13/16	2-1/2	BI-5302-011	\$12.01
12MM	1/2	1-1/8	3-1/8	BI-5302-112	\$12.01
13MM	1/2	1-1/8	3-1/8	BI-5302-113	\$12.55
14MM	1/2	1-1/8	3-1/8	BI-5302-114	\$12.55
15MM	1/2	1-1/8	3-1/8	BI-5302-115	\$17.16
16MM	1/2	1-1/8	3-1/8	BI-5302-116	\$18.70
18MM	1/2	1-5/16	3-7/16	BI-5302-118	\$20.60
20MM	5/8	1-1/2	3-3/4	BI-5302-220	\$26.90
22MM	3/4	1-1/2	3-3/4	BI-5302-322	\$28.15
24MM	1/2	2	4-1/2	BI-5302-124	\$30.08

4 FLUTE

Dia	Shank Dia	LOC	OAL	Part Number	Price Each
3MM	3/8	3/8	2-5/16	BI-5307-003	\$8.62
4MM	3/8	1/2	2-3/8	BI-5307-004	\$8.62
5MM	3/8	9/16	2-1/2	BI-5307-005	\$8.62
6MM	3/8	5/8	2-1/2	BI-5307-006	\$8.62
7MM	3/8	3/4	2-1/2	BI-5307-007	\$8.62
8MM	3/8	3/4	2-1/2	BI-5307-008	\$9.45
9MM	3/8	3/4	2-1/2	BI-5307-009	\$9.45
10MM	3/8	1	2-11/16	BI-5307-010	\$10.83
11MM	3/8	1	2-11/16	BI-5307-011	\$10.83
12MM	3/8	1	2-11/16	BI-5307-012	\$10.83
13MM	1/2	1-1/4	3-1/4	BI-5307-113	\$11.33
14MM	1/2	1-1/4	3-1/4	BI-5307-114	\$16.82
15MM	1/2	1-3/8	3-3/8	BI-5307-115	\$17.92
16MM	5/8	1-5/8	3-3/4	BI-5307-216	\$18.70
18MM	5/8	1-5/8	3-3/4	BI-5307-218	\$19.74
20MM	5/8	1-7/8	4-1/8	BI-5307-220	\$26.61
22MM	3/4	1-7/8	4-1/8	BI-5307-322	\$29.14
24MM	3/4	2	4-1/2	BI-5307-324	\$32.97

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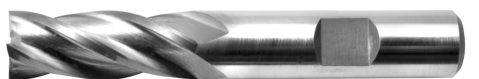
4 FLUTE COBALT ENDMILLS

B

4 FLUTE COBALT END MILLS

Square End • Center Cutting

- M42 cobalt HSS
- 30° helix
- For general purpose machining
- Single (SE) or double end (DE)
- Uncoated
- Center cutting (except where noted *)
- For materials up to 48 Rc
- Flats on shanks where noted
- Additional sizes available



LATHE CHUCKS
LIVE CENTERS

VICE JAWS
VICE ACCESSORIES

STRAIGHT SHANK
COLLET HOLDERS

TAP HOLDERS
DRILL CHUCKS

CARBIDE INSERTS
THREADING/GROOVING

Dia	LOC	Shank	OAL	Type	Flats	Part Number	Price Each
1/16*	3/16	3/16	1-1/2	SE	No	ME-C-602	\$10.27
1/16*	3/16	3/16	2-1/4	DE	No	ME-D-602	\$15.11
5/64*	1/4	3/16	1-1/2	SE	No	ME-D-602-1/2	\$10.27
3/32*	9/32	3/16	2-1/4	DE	No	ME-D-603	\$15.11
7/64*	5/32	3/16	2	DE	No	ME-DS-603-1/2	\$14.12
1/8*	3/8	3/16	2-1/4	DE	No	ME-D-604	\$15.11
1/8	1/2	3/8	3-1/4	DE	Yes	ME-DD-1204-M	\$22.37
1/8	5/8	3/8	3-9/16	DE	Yes	ME-DD-1204-L	\$23.88
9/64*	27/64	3/16	2-1/4	DE	No	ME-D-604-1/2	\$15.11
5/32	7/16	3/8	2-5/16	SE	Yes	ME-CC-1205	\$13.01
5/32	3/4	3/8	2-5/8	SE	Yes	ME-CC-1205-L	\$18.45
3/16	3/4	3/8	2-5/8	SE	Yes	ME-CC-1206-L	\$18.45
3/16	1-1/4	3/8	3-1/8	SE	Yes	ME-CC-1206-E	\$21.54
7/32	1/2	3/8	2-3/8	SE	Yes	ME-CC-1207	\$13.01
7/32	1-1/4	3/8	3-1/8	SE	Yes	ME-CC-1207-L	\$18.45
1/4	7/8	3/8	2-11/16	SE	Yes	ME-CC-1208-M	\$17.82
1/4	1-3/4	3/8	3-9/16	SE	Yes	ME-CC-1208-E	\$20.91
9/32	1	3/8	2-3/4	SE	Yes	ME-CC-1209-M	\$18.45
9/32	1-3/4	3/8	3-5/8	SE	Yes	ME-CC-1209-E	\$23.23
5/16	1-3/8	3/8	3-1/8	SE	Yes	ME-CC-1210-L	\$17.50
5/16	2	3/8	3-3/4	SE	Yes	ME-CC-1210-E	\$22.77
11/32	1	3/8	2-3/4	SE	Yes	ME-CC-1211-M	\$17.82
3/8	3/8	3/8	2-1/8	SE	Yes	ME-CCS-1212	\$13.33
3/8	1	3/8	2-3/4	SE	Yes	ME-CC-1212-M	\$17.00
13/32	1	3/8	2-11/16	SE	Yes	ME-CC-1213	\$18.57
7/16	1	3/8	2-11/16	SE	Yes	ME-CC-1214	\$18.57
7/16	1-3/4	1/2	3-3/4	SE	Yes	ME-CC-1614-L	\$31.29

* Non Center-Cutting

Dia	LOC	Shank	OAL	Type	Flats	Part Number	Price Each
15/32	1-1/4	1/2	3-1/4	SE	Yes	ME-CC-1615	\$21.32
1/2	1	3/8	2-11/16	SE	Yes	ME-CC-1216	\$18.57
1/2	1-1/4	1/2	3-1/4	SE	Yes	ME-CC-1616	\$17.83
1/2	1-5/8	1/2	3-5/8	SE	Yes	ME-CC-1616-M	\$24.51
1/2	2	1/2	4	SE	Yes	ME-CC-1616-L	\$23.90
17/32	1-3/8	1/2	3-3/8	SE	Yes	ME-CC-1617	\$25.84
17/32	1-3/8	5/8	5	DE	Yes	ME-DD-2017	\$46.71
9/16	1-3/8	1/2	3-3/8	SE	Yes	ME-CC-1618	\$25.84
9/16	2-1/2	1/2	4-1/2	SE	Yes	ME-CC-1618-L	\$36.34
5/8	1-3/8	1/2	3-3/8	SE	Yes	ME-CC-1620	\$27.32
5/8	2	5/8	4-1/8	SE	Yes	ME-CC-2020-M	\$34.63
5/8	2-1/2	5/8	4-5/8	SE	Yes	ME-CC-2020-L	\$35.94
3/4	1-5/8	3/4	3-7/8	SE	Yes	ME-CC-2424	\$38.14
3/4	2-1/4	3/4	4-1/2	SE	Yes	ME-CC-2424-M	\$44.54
3/4	4	3/4	6-1/4	SE	Yes	ME-CC-2424-E	\$65.56
3/4	6	3/4	8-1/4	SE	Yes	ME-CC-2424-EE	\$87.31
13/16	1-7/8	3/4	4-1/8	SE	Yes	ME-CC-2426	\$45.13
7/8	1-7/8	7/8	4-1/8	SE	Yes	ME-CC-2828	\$50.39
7/8	5	7/8	7-1/4	SE	Yes	ME-CC-2828-E	\$89.75
15/16	1-7/8	7/8	4-1/8	SE	Yes	ME-CC-2830	\$56.46
1	3	1	5-1/2	SE	Yes	ME-CC-3232-M	\$80.23
1	4	1	6-1/2	SE	Yes	ME-CC-3232-L	\$88.53
1-1/8	2	1	4-1/2	SE	Yes	ME-CC-3236	\$83.68
1-1/4	4	1-1/4	6-1/2	SE	Yes	ME-CC-4040-L	\$122.13
1-1/2	4	1-1/4	6-1/2	SE	Yes	ME-CC-4048-L	\$160.36
2	4	1-1/4	6-1/2	SE	Yes	ME-CCP-4064-L	\$304.80

VARIABLE HELIX ENDMILLS

4 Flutes • AlTiN Coated Carbide



- Regular length
- Variable pitch- Ideal for high production and high speed milling
- Corner radius
- Excellent surface finishes
- Offset flute design eliminates chatter and reduces machine vibration
- All tools 3/8" and over have Weldon flats



Dia	Shank Dia	OAL	Flute Length	Corner Radius	Part Number	Price
1/8	1/8	1-1/2	1/2	.010	MI-VHM1254X	\$14.95
3/16	3/16	2	5/8	.010	MI-VHM1874X	\$24.35
1/4	1/4	2-1/2	3/4	.020	MI-VHM2504X	\$30.35
5/16	5/16	2-1/2	13/16	.020	MI-VHM3124X	\$36.80
3/8	3/8	2-1/2	3/4	.020	MI-VHM3754X	\$40.85
7/16	7/16	2-1/2	1	.020	MI-VHM4374X	\$61.85
1/2	1/2	3	1	.030	MI-VHM5004X	\$67.75
5/8	5/8	3-1/2	1-1/4	.030	MI-VHM6254X	\$124.55
3/4	3/4	4	1-1/2	.030	MI-VHM7504X	\$185.95
1	1	4	1-1/2	.030	MI-VHM0014X	\$281.00

VARIABLE HELIX ENDMILLS

4 Flutes • AlTiN Coated Carbide



- Long length
- Variable pitch- Ideal for high production and high speed milling
- Corner radius
- Excellent surface finishes
- Offset flute design eliminates chatter and reduces machine vibration
- All tools 3/8" and over have Weldon flats



Dia	Shank Dia	OAL	Flute Length	Corner Radius	Part Number	Price
3/16	3/16	2-1/2	3/4	.010	MI-VLM1874X	\$29.90
1/4	1/4	3	1-1/8	.020	MI-VLM2504X	\$37.60
5/16	5/16	3	1-1/8	.020	MI-VLM3124X	\$43.40
3/8	3/8	3	1-1/4	.020	MI-VLM3754X	\$50.45
1/2	1/2	4-1/2	2-1/4	.030	MI-VLM5004X	\$91.65
5/8	5/8	5	2-1/4	.030	MI-VLM6254X	\$157.55
3/4	3/4	5	2-1/2	.030	MI-VLM7504X	\$236.90

CUTTING TOOLS
MACHINERY

PRECISION TOOLS
DEBURRING

COOLANT/FLUIDS
TOOL STORAGE

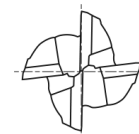
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HIGH PERFORMANCE ENDMILLS**HIGH PERFORMANCE CARBIDE ENDMILLS**

C

**HIGH PERFORMANCE
CARBIDE ENDMILLS
FOR STEEL, CAST IRON
& STAINLESS STEEL****SAVE OVER 35% OFF MFG'S LIST!****4 FLUTE-VARIABLE HELIX
High Grade C10 Micrograin Carbide**Ideal For Slotting, Side Milling & Pocketing In:
Stainless Steels, Mild Steels, Cast Iron &
Low/Medium Hard Steels up to 40Hrc

- Variable helix reduces chatter and harmonics for improved stability and finish
- Flute geometry designed for optimal chip formation and evacuation
- Enhanced corner geometry for longer tool life
- Engineered coating for reduced wear and superior heat resistance

**Variable Helix Reduces Vibration
And Chatter And Allows For Maximum
Material Removal And Feed Rates!****FEATURES:**

- Corner geometries include chamfer and various corner radii sizes
- Unequal indexing
- Premium grade C10 carbide substrate

BENEFITS:

- Reduced chatter and harmonics for improved stability and better finishing
- Designed flute geometry for optimal chip formation and chip evacuation
- Enhanced corner geometry for longer tool life
- Engineered coating for reduced wear and superior heat resistance

Cut Dia	LOC	Shank	OAL	Part Number	Price Each
1/8	1/8	1/8	1-1/2	YG-EMUGMF68008	\$12.32
1/8	3/8	1/8	1-1/2	YG-EMUGMF68901	\$13.12
5/32	3/16	3/16	2	YG-EMUGMF68010	\$18.15
5/32	7/16	3/16	2	YG-EMUGMF68902	\$19.38
3/16	3/16	3/16	2	YG-EMUGMF68012	\$17.23
3/16	7/16	3/16	2	YG-EMUGMF68903	\$18.34
7/32	1/4	1/4	2	YG-EMUGMF68014	\$21.93
7/32	7/16	1/4	2-1/2	YG-EMUGMF68904	\$24.41
1/4	3/8	1/4	2	YG-EMUGMF68016	\$20.07
1/4	3/4	1/4	2-1/2	YG-EMUGMF68905	\$22.41
9/32	5/8	5/16	2-1/2	YG-EMUGMF68018	\$30.73
5/16	7/16	5/16	2	YG-EMUGMF68020	\$27.67
5/16	13/16	5/16	2-1/2	YG-EMUGMF68906	\$30.73
11/32	1/2	3/8	2-1/2	YG-EMUGMF68022	\$32.80

Cut Dia	LOC	Shank	OAL	Part Number	Price Each
3/8	1/2	3/8	2-1/2	YG-EMUGMF68024	\$32.80
3/8	7/8	3/8	2-1/2	YG-EMUGMF68907	\$36.92
7/16	5/8	7/16	2-1/2	YG-EMUGMF68028	\$44.01
7/16	1	7/16	2-3/4	YG-EMUGMF68908	\$47.26
1/2	5/8	1/2	2-1/2	YG-EMUGMF68032	\$48.94
1/2	1	1/2	3	YG-EMUGMF68909	\$56.72
1/2	1-1/4	1/2	3-1/2	YG-EMUGMF68910	\$72.21
5/8	3/4	5/8	3	YG-EMUGMF68040	\$87.91
5/8	1-1/4	5/8	3-1/2	YG-EMUGMF68911	\$114.53
3/4	3/4	3/4	3	YG-EMUGMF68048	\$145.70
3/4	1-1/2	3/4	4	YG-EMUGMF68912	\$168.72
1	1	1	4	YG-EMUGMF68064	\$255.55
1	1-1/2	1	4	YG-EMUGMF68913	\$264.96
1	2	1	5	YG-EMUGMF68914	\$376.49

Also Available with corner radius-see following page

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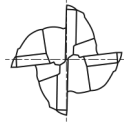
HIGH PERFORMANCE ENDMILLS

C

HIGH PERFORMANCE CARBIDE ENDMILLS

With Corner Radius

- High grade C10 micrograin carbide
- Variable helix reduces chatter and harmonics for improved stability and finish
- Flute geometry designed for optimal chip formation and evacuation
- Enhanced corner geometry for longer tool life
- Engineered coating for reduced wear and superior heat resistance



Cut Dia	Corner Radius	Shank Dia	LOC	OAL	Part Number	Price Each
1/8	R.010	1/8	1/8	1-1/2	YG-EMUGMF70008	\$14.04
1/8	R.010	1/8	3/8	1-1/2	YG-EMUGMF70901	\$15.01
1/8	R.030	1/8	3/8	1-1/2	YG-EMUGMF70902	\$15.01
3/16	R.010	3/16	3/16	2	YG-EMUGMF70012	\$19.43
3/16	R.010	3/16	7/16	2	YG-EMUGMF70903	\$20.78
3/16	R.030	3/16	7/16	2	YG-EMUGMF70904	\$20.78
1/4	R.010	1/4	3/8	2	YG-EMUGMF70016	\$22.36
1/4	R.030	1/4	3/8	2	YG-EMUGMF70905	\$22.36
1/4	R.060	1/4	3/8	2	YG-EMUGMF70906	\$22.36
1/4	R.010	1/4	3/4	2-1/2	YG-EMUGMF70907	\$25.10
1/4	R.015	1/4	3/4	2-1/2	YG-EMUGMF70908	\$25.10
1/4	R.030	1/4	3/4	2-1/2	YG-EMUGMF70909	\$25.10
5/16	R.030	5/16	7/16	2	YG-EMUGMF70020	\$30.42
5/16	R.010	5/16	13/16	2-1/2	YG-EMUGMF70910	\$34.03
5/16	R.030	5/16	13/16	2-1/2	YG-EMUGMF70911	\$34.03
5/16	R.060	5/16	13/16	2-1/2	YG-EMUGMF70912	\$34.03
3/8	R.010	3/8	1/2	2-1/2	YG-EMUGMF70024	\$35.43
3/8	R.030	3/8	1/2	2-1/2	YG-EMUGMF70913	\$35.43
3/8	R.060	3/8	1/2	2-1/2	YG-EMUGMF70914	\$35.43
3/8	R.010	3/8	7/8	2-1/2	YG-EMUGMF70915	\$40.27
3/8	R.030	3/8	7/8	2-1/2	YG-EMUGMF70916	\$40.27
3/8	R.060	3/8	7/8	2-1/2	YG-EMUGMF70917	\$40.27
7/16	R.015	7/16	5/8	2-1/2	YG-EMUGMF70028	\$44.94
7/16	R.030	7/16	5/8	2-1/2	YG-EMUGMF70918	\$44.94
7/16	R.010	7/16	1	2-3/4	YG-EMUGMF70919	\$50.23
7/16	R.030	7/16	1	2-3/4	YG-EMUGMF70920	\$50.23
7/16	R.060	7/16	1	2-3/4	YG-EMUGMF70921	\$50.23
1/2	R.010	1/2	5/8	2-1/2	YG-EMUGMF70032	\$52.98
1/2	R.015	1/2	5/8	2-1/2	YG-EMUGMF70922	\$52.98
1/2	R.030	1/2	5/8	2-1/2	YG-EMUGMF70923	\$52.98
1/2	R.060	1/2	5/8	2-1/2	YG-EMUGMF70924	\$52.98
1/2	R.010	1/2	1	3	YG-EMUGMF70925	\$61.17

Cut Dia	Corner Radius	Shank Dia	LOC	OAL	Part Number	Price Each
1/2	R.030	1/2	1	3	YG-EMUGMF70926	\$61.17
1/2	R.060	1/2	1	3	YG-EMUGMF70927	\$61.17
1/2	R.125	1/2	1	3	YG-EMUGMF70928	\$61.17
1/2	R.010	1/2	1-1/4	3-1/2	YG-EMUGMF70929	\$77.71
1/2	R.015	1/2	1-1/4	3-1/2	YG-EMUGMF70930	\$77.71
1/2	R.030	1/2	1-1/4	3-1/2	YG-EMUGMF70931	\$77.71
1/2	R.060	1/2	1-1/4	3-1/2	YG-EMUGMF70932	\$77.71
1/2	R.125	1/2	1-1/4	3-1/2	YG-EMUGMF70933	\$77.71
5/8	R.010	5/8	3/4	3	YG-EMUGMF70040	\$94.94
5/8	R.030	5/8	3/4	3	YG-EMUGMF70934	\$94.94
5/8	R.060	5/8	3/4	3	YG-EMUGMF70935	\$94.94
5/8	R.010	5/8	1-1/4	3-1/2	YG-EMUGMF70936	\$123.63
5/8	R.015	5/8	1-1/4	3-1/2	YG-EMUGMF70937	\$123.63
5/8	R.030	5/8	1-1/4	3-1/2	YG-EMUGMF70938	\$123.63
5/8	R.060	5/8	1-1/4	3-1/2	YG-EMUGMF70939	\$123.63
5/8	R.125	5/8	1-1/4	3-1/2	YG-EMUGMF70940	\$123.63
3/4	R.030	3/4	3/4	3	YG-EMUGMF70048	\$155.87
3/4	R.060	3/4	3/4	3	YG-EMUGMF70941	\$155.87
3/4	R.015	3/4	1-1/2	4	YG-EMUGMF70942	\$183.30
3/4	R.030	3/4	1-1/2	4	YG-EMUGMF70943	\$183.30
3/4	R.060	3/4	1-1/2	4	YG-EMUGMF70944	\$183.30
3/4	R.125	3/4	1-1/2	4	YG-EMUGMF70945	\$183.30
1	R.015	1	1	4	YG-EMUGMF70064	\$273.98
1	R.030	1	1	4	YG-EMUGMF70946	\$273.98
1	R.060	1	1	4	YG-EMUGMF70947	\$273.98
1	R.015	1	1-1/2	4	YG-EMUGMF70948	\$285.24
1	R.030	1	1-1/2	4	YG-EMUGMF70949	\$285.24
1	R.060	1	1-1/2	4	YG-EMUGMF70950	\$285.24
1	R.125	1	1-1/2	4	YG-EMUGMF70951	\$285.24
1	R.015	1	2	5	YG-EMUGMF70952	\$403.73
1	R.030	1	2	5	YG-EMUGMF70953	\$403.73
1	R.060	1	2	5	YG-EMUGMF70954	\$403.73

3 & 4 FLUTE 60° HELIX ENDMILLS

Faster Feeds & Speeds Than HSS or Cobalt!

Powdered Metal

- Powdered HSS
- 60° helix
- For hardened steels up to Rc 45
- Single end, right hand cut
- Flat on shank
- Tank Power coating ideal for applications where cobalt wears rapidly, carbide chips or breaks, or when higher feed rates are desired



Dia	Shank	LOC	OAL	No. Flutes	UNCOATED		Tank-Power Coated	
					Part Number	Price	Part Number	Price
1/4	3/8	5/8	2-7/16	3	YG-EME9988016	\$19.60	YG-EME9988016TF	\$28.34
5/16	3/8	3/4	2-1/2	3	YG-EME9988020	\$19.60	YG-EME9988020TF	\$28.34
3/8	3/8	3/4	2-1/2	3	YG-EME9988024	\$19.60	YG-EME9988024TF	\$28.34
7/16	3/8	1	2-11/16	3	YG-EME9988028	\$25.53	YG-EME9988028TF	\$33.79
1/2	1/2	1-1/4	3-1/4	3	YG-EME9988032	\$28.52	YG-EME9988032TF	\$40.88
5/8	5/8	1-5/8	3-3/4	3	YG-EME9988040	\$42.98	YG-EME9988040TF	\$55.57
3/4	3/4	1-5/8	3-7/8	3	YG-EME9988048	\$56.91	YG-EME9988048TF	\$70.07
7/8	3/4	1-7/8	4-1/8	4	YG-EME9988901	\$74.15	YG-EME9988901TF	\$94.67
7/8	7/8	1-7/8	4-1/8	4	YG-EME9988056	\$74.15	YG-EME9988056TF	\$94.67
1	1	2	4-1/2	4	YG-EME9988064	\$88.56	YG-EME9988064TF	\$107.10

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COLLET HOLDERS

TAP HOLDERS
DRILL CHUCKS

CARBIDE INSERTS
THREADING/GROOVING

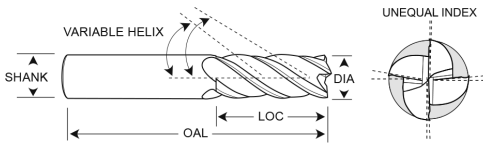
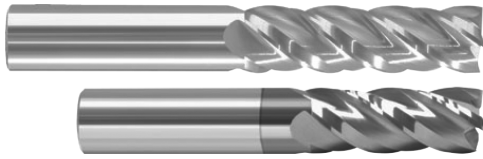
CUTTING TOOLS
MACHINERY

PRECISION TOOLS
DEBURRING

COOLANT/FLUIDS
TOOL STORAGE

SOLID CARBIDE END MILLS

VARIABLE HELIX, UNEQUAL INDEX SOLID CARBIDE ENDMILLS 4 FLUTE, SQUARE END



- Specifically designed for superior productivity for all general purpose milling of ferrous materials including stainless steel and high temperature alloys
- Advanced geometry allows for increased speeds and feeds while eliminating chatter and reducing harmonics
- Next generation of MLT coating allows for maximum hardness and wear resistance while maintaining excellent temperature stability
- Premium sub-micron C-2 carbide with 10% cobalt
- Variable helix, right hand spiral, right hand cut
- Available uncoated and MLT coated
- Tolerances:
Cutting Dia: +.000/-0.002"
Shank Dia: +.0000/-0.0004"

Cut Dia	LOC	Shank	OAL	UNCOATED		MLT Coated	
				Part Number	Price Each	Part Number	Price Each
1/8	1/4	1/8	1-1/2	MO-284-000058	\$5.61	MO-284-000059	\$7.36
1/8	1/2	1/8	1-1/2	MO-284-000060	\$5.61	MO-284-000061	\$7.36
1/8	3/4	1/8	2-1/4	MO-284-000062	\$8.41	MO-284-000063	\$10.17
1/8	1	1/8	3	MO-284-000064	\$10.08	MO-284-000065	\$11.83
3/16	3/8	3/16	2	MO-284-000088	\$7.15	MO-284-000089	\$8.82
3/16	5/8	3/16	2	MO-284-000090	\$7.14	MO-284-000091	\$8.83
3/16	3/4	3/16	2-1/2	MO-284-000092	\$10.71	MO-284-000093	\$13.36
3/16	1-1/8	3/16	3	MO-284-000094	\$12.87	MO-284-000095	\$15.51
1/4	1/2	1/4	2-1/2	MO-284-000118	\$9.32	MO-284-000119	\$11.96
1/4	3/4	1/4	2-1/2	MO-284-000120	\$9.59	MO-284-000121	\$12.15
1/4	1-1/8	1/4	3	MO-284-000122	\$15.04	MO-284-000123	\$19.05
1/4	1-1/2	1/4	4	MO-284-000124	\$21.79	MO-284-000125	\$27.16
5/16	1/2	5/16	2-1/2	MO-284-000148	\$13.18	MO-284-000149	\$17.88
5/16	13/16	5/16	2-1/2	MO-284-000150	\$13.34	MO-284-000151	\$18.05
5/16	1-1/8	5/16	3	MO-284-000152	\$18.13	MO-284-000153	\$25.53
5/16	1-5/8	5/16	4	MO-284-000154	\$23.76	MO-284-000155	\$33.02
3/8	5/8	3/8	2-1/2	MO-284-000178	\$15.87	MO-284-000179	\$20.71
3/8	1	3/8	2-1/2	MO-284-000180	\$16.28	MO-284-000181	\$20.99
3/8	1-1/8	3/8	3	MO-284-000182	\$20.68	MO-284-000183	\$29.52
3/8	1-3/4	3/8	4	MO-284-000184	\$28.03	MO-284-000185	\$38.77
7/16	1	7/16	2-3/4	MO-284-000210	\$22.74	MO-284-000211	\$28.63
7/16	2	7/16	4	MO-284-000212	\$33.71	MO-284-000213	\$44.44
7/16	3	7/16	6	MO-284-000214	\$51.38	MO-284-000215	\$63.88
1/2	5/8	1/2	3	MO-284-000238	\$27.15	MO-284-000239	\$33.08
1/2	1	1/2	3	MO-284-000240	\$27.79	MO-284-000241	\$33.68
1/2	1-1/4	1/2	3	MO-284-000242	\$28.51	MO-284-000243	\$34.41
1/2	1-1/2	1/2	4	MO-284-000244	\$38.90	MO-284-000245	\$49.64
1/2	2	1/2	4	MO-284-000246	\$39.80	MO-284-000247	\$50.54
1/2	3	1/2	6	MO-284-000248	\$63.66	MO-284-000249	\$76.16
5/8	3/4	5/8	3-1/2	MO-284-000268	\$50.78	MO-284-000269	\$60.29
5/8	1-1/4	5/8	3-1/2	MO-284-000270	\$51.67	MO-284-000271	\$61.17
5/8	2-1/4	5/8	5	MO-284-000272	\$80.89	MO-284-000273	\$101.43
5/8	3	5/8	6	MO-284-000274	\$105.02	MO-284-000275	\$128.17
3/4	1	3/4	4	MO-284-000298	\$78.08	MO-284-000299	\$89.48
3/4	1-1/2	3/4	4	MO-284-000300	\$79.19	MO-284-000301	\$90.50
3/4	2-1/4	3/4	5	MO-284-000302	\$105.01	MO-284-000303	\$128.02
3/4	3	3/4	6	MO-284-000304	\$130.70	MO-284-000305	\$158.35
3/4	4	3/4	7	MO-284-000306	\$159.83	MO-284-000307	\$187.48
1"	1-1/2	1	4	MO-284-000330	\$128.35	MO-284-000331	\$144.65
1"	2-1/4	1	5	MO-284-000332	\$171.63	MO-284-000333	\$196.48
1"	3	1	6	MO-284-000334	\$214.82	MO-284-000335	\$250.49
1"	4	1	7	MO-284-000336	\$249.54	MO-284-000337	\$285.21

LONG LENGTH END MILLS Solid Carbide



- 2 & 4 flute
- Long length
- 30° helix
- Center cutting
- Solid micrograin carbide

Dia	Shank Dia	OAL	Flute Length	2-Flute Part Number	4-Flute Part Number	Price Each
3/16	3/16	3	1-1/8	MI-GEL1872	MI-GEL1874	\$28.15
1/4	1/4	4	1-1/2	MI-GEL2502	MI-GEL2504	\$33.85
3/8	3/8	4	1-3/4	MI-GEL3752	MI-GEL3754	\$44.90
1/2	1/2	6	3	MI-GEL5002	MI-GEL5004	\$80.85

5 FLUTE END MILLS Solid Carbide



- 5 flute
- Stub length
- 45° helix
- Center cutting
- Solid micrograin carbide

Cutter Dia	Shank Dia	OAL	Flute Length	Part Number	Price Each
3/16	3/16	1-1/2	3/8	MI-ASM1875	\$20.80
1/4	1/4	2	1/2	MI-ASM2505	\$24.50
5/16	5/16	2	1/2	MI-ASM3125	\$28.75
3/8	3/8	2	5/8	MI-ASM3755	\$35.75
1/2	1/2	2-1/2	5/8	MI-ASM5005	\$56.20

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