

SHARS M2AL Roughing End Mills



Coarse Pitch
Center Cutting

Dia	Shank	LOC	OAL	Flutes	Order No.	Price(C)
1/4"	3/8"	5/8"	2-7/16"	4	404-9001*	\$3.50
1/4	3/8	1-1/4	3-1/16	4	404-9002	5.50
5/16	3/8	3/4	2-1/2	4	404-9003*	3.50
5/16	3/8	1-3/8	3-1/8	4	404-9004	6.00
3/8	3/8	3/4	2-5/8	4	404-9005*	4.50
3/8	3/8	1-1/2	3-1/4	4	404-9006	6.00
1/2	1/2	1-1/4	3-1/4	4	404-9007*	5.50
1/2	1/2	2	4	4	404-9008	7.20
5/8	5/8	1-5/8	3-3/4	4	404-9009*	7.00
5/8	5/8	2-1/2	4-5/8	4	404-9010	8.70
3/4	5/8	1-5/8	3-7/8	4	404-9011	13.00
3/4	3/4	1-5/8	3-3/4	4	404-9012*	8.65
3/4	3/4	3	5-1/4	4	404-9013	14.30
7/8	3/4	1-7/8	4-1/8	4	404-9014	12.95
7/8	7/8	1-7/8	4-1/8	4	404-9016	12.00
7/8	7/8	3-1/2	5-3/4	4	404-9017	17.50
1	3/4	2	4-1/2	6	404-9018*	18.00
1	3/4	4	6-1/2	6	404-9019	23.00
1	1	2	4-1/2	6	404-9020	17.00
1	1	3	5-1/2	6	404-9021	22.00
1	1	4	6-1/2	6	404-9022	23.10
1-1/8	1	2	4-1/2	6	404-9023	25.00
1-1/4	3/4	2	4-1/2	6	404-9045	34.95
1-1/4	3/4	4	6-1/2	6	404-9024	30.95
1-1/4	1-1/4	2	4-1/2	6	404-9025	25.95
1-1/4	1-1/4	3	5-1/2	6	404-9026	37.95
1-1/4	1-1/4	4	6-1/2	6	404-9027	37.95
1-1/4	1-1/4	6	8-1/2	6	404-9046	49.95
1-1/2	3/4	4	6-1/4	6	404-9028	38.95
1-1/2	1-1/4	2	4-1/2	6	404-9029	33.95
1-1/2	1-1/4	4	6-1/2	6	404-9030	49.95
1-3/4	1-1/4	2	4-1/2	6	404-9031	39.00
1-3/4	1-1/4	4	6-1/2	6	404-9032	51.95
2	1-1/4	2	4-1/2	8	404-9033	51.95
2	1-1/4	4	6-1/2	8	404-9034	70.00
2	2	3	6-3/4	8	404-9047	76.95
2	2	4	7-3/4	8	404-9035	89.00
2	2	5	8-3/4	8	404-9048	99.00
2	2	6	9-3/4	8	404-9036	148.00
2	2	8	11-3/4	8	404-9037	148.00
2	2	10	13-3/4	8	404-9038	189.95

SHARS M42 Cobalt Roughing End Mills

Coarse Pitch • Center Cutting • Weldon Shank



USA Made
ISO 9001 certified

- Due to the sinusoidal form on cutting edge, small chips are produced which allow faster feed rates than conventional end mills
- Used for difficult and abrasive materials and tough alloys such as: stainless steel, nickel base alloys, brass, iron, etc.



USA Made

Dia	Shank	LOC	OAL	Flutes	Order No.	Price(C)	Order No.	Price(B)
1/4"	3/8"	3/4"	2-1/2"	4	404-9051	\$6.95		
5/16	3/8	3/4	2-1/2	4	404-9052	6.95		
3/8	3/8	3/4	2-1/2	4	404-9053	6.95		
7/16	3/8	1	2-3/4	4	404-9054	9.00		
1/2	1/2	1-1/4	3-1/4	4	404-9055	9.00	414-3606	\$26.67
1/2	1/2	2	4	4	404-9056	11.70	414-3609	37.16
5/8	5/8	1-5/8	3-3/4	4	404-9057	12.00	414-3607	33.01
5/8	5/8	2-1/2	4-5/8	4	404-9058	14.40	414-3610	44.15
3/4	3/4	1-5/8	3-3/4	4	404-9059	17.00	414-3608	40.24
3/4	3/4	3	5-1/4	4	404-9060	19.95	414-3611	51.14
1	3/4	2	4-1/4	4	404-9061	25.00	* 5 Flute	
1	1	2	4-1/2	4	404-9062	26.50	414-3632*	57.48
1	1	3	5-1/2	4	404-9063	32.00	414-3633*	64.72
1	1	4	6-1/2	4	404-9064	37.00	414-3634*	71.91
1	1	6	8-1/2	4	404-9065	56.50		
1-1/4	1-1/4	2	4-1/2	6			414-3654	75.14
1-1/4	1-1/4	4	6-1/2	6			414-3656	104.83
1-1/2	1-1/4	2	4-1/2	6			414-3655	102.28
1-1/2	1-1/4	4	6-1/2	6			414-3657	141.83

SHARS M2AL Roughing End Mill Sets

- Cobalt 5% performance at HSS price
- Specially formulated M2 Steel with aluminum alloy prolongs tool life
- Mill dia tolerance ± .010"

- With wooden stand
- 3/4 Shank stub length
- 5 Pieces
- 1-1/8 Flute length, 3-5/8 Overall length, 6FL
- Set includes 1 each: 1", 1-1/8", 1-1/4", 1-3/8", 1-1/2"

Order No	Price(C)
404-9039	\$129.95

- Regular Length
- 4 Pieces *
- 404-9040 Set includes 1 each: 1/4", 5/16", 3/8", 1/2"
- 404-9041 Set includes 1 each: 1/2", 5/8", 3/4"×3/4", 1"×3/4"

Order No	Price(C)
404-9040	\$17.25
404-9041	39.95

SHARS 4pc. Coarse Tooth M-42 Cobalt Roughing End Mill Sets

- Coarse tooth roughing end mills for heavy cuts, deep slotting, and pocketing.
- 4 Flute, Center Cutting
- Regular Length, 8% Cobalt



Set Contents Includes / each	Order No.	SHARS(C)	USA Made
1/4"×3/8", 5/16×3/8, 3/8×3/8, 1/2×1/2"	404-9042	\$29.50	\$45.50
1/2×1/2, 5/8×5/8, 3/4×3/4, 1×3/4"	404-9043	65.50	68.50

SHARS M42 8% Cobalt TiAlN Coated Fine Pitch Roughing Single End Mills

Cutting Diameter Tolerance+.003"/-.000"



- For profiling, shallow slots
- Fine tooth style for harder metals (Stainless, Inconel, Mold Steels)
- Center Cutting
- TiAlN coated for increased product life



USA Made

Dia	Shank	LOC	OAL	Flutes	Uncoated Price(B)	TiAlN Price(C)	Uncoated Price(B)	
1/4"	3/8"	3/4"	2-1/2"	4"	404-9076	\$8.45	404-9086	\$9.50
5/16	3/8	3/4	2-1/2	4	404-9077	9.45	404-9087	9.95
3/8	3/8	3/4	2-1/4	4	404-9078	10.10	404-9088	10.50
1/2	1/2	1-1/4	3-1/4	4	404-9079	12.65	404-9089	13.20
1/2	1/2	2	4	4	404-9080	15.00	404-9090	15.70
1/2	1/2	3	5	4	404-9081	18.70	404-9091	19.60
5/8	5/8	1-5/8	3-3/4	4	404-9082	19.20	404-9092	20.15
3/4	3/4	1-5/8	3-3/4	4	404-9083	23.95	404-9093	26.30
3/4	3/4	3	5-1/4	4	404-9084	32.95	404-9094	39.60
1	1	2	4-1/2	5	404-9085	35.95	404-9095	42.70
							414-3677	\$26.67
							414-3730	37.16
							414-3679	33.01
							414-3680	40.24
							414-3682	51.14
							414-3703	58.86