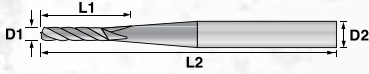


## Solid Carbide End Mill Program - Bull Nose

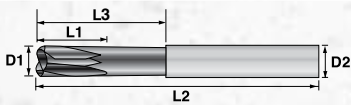


### EIB - Square End Bull Nose w/Corner Radius

Tool Ordering No.	Cutter Diameter (D1) tol. +0 / -0.0004	Corner Radius	Shank Diameter (D2)	No. of Flutes	Neck Diameter	Cutting Length (L1)	Nose Taper	Overall Length (L2)
EIB-.062-015	0.062 / (1/16)	0.015	0.250 / (1/4)	4	0.062	0.200	7.500° / side	2.500
EIB-.093-015	0.093 / (3/32)	0.015	0.250 / (1/4)	4	0.093	0.300	7.500° / side	2.500
EIB-.125-015	0.125 / (1/8)	0.015	0.250 / (1/4)	5	0.125	0.375	7.500° / side	3.000
EIB-.125-030	0.125 / (1/8)	0.030	0.250 / (1/4)	5	0.125	0.375	7.500° / side	3.000
EIB-.187-030	0.187 / (3/16)	0.030	0.250 / (1/4)	6	0.187	0.600	7.500° / side	3.000
EIB-.250-015	0.250 / (1/4)	0.015	0.250 / (1/4)	6	0.250	0.750	-	3.000
EIB-.250-030	0.250 / (1/4)	0.030	0.250 / (1/4)	6	0.250	0.750	-	3.000
EIB-.312-030	0.312 / (5/16)	0.030	0.312 / (5/16)	6	0.312	1.000	-	3.500
EIB-.375-030	0.375 / (3/8)	0.030	0.375 / (3/8)	6	0.375	1.125	-	3.500
EIB-.437-030	0.437 / (7/16)	0.030	0.437 / (7/16)	6	0.437	1.315	-	4.000
EIB-.500-030	0.500 / (1/2)	0.030	0.500 / (1/2)	6	0.500	1.500	-	4.000
EIB-.500-060	0.500 / (1/2)	0.060	0.500 / (1/2)	6	0.500	1.500	-	4.000

## Solid Carbide End Mill Program - Toroid

The Toroid Series TOI with large corner radius and slight back taper is a Millstar innovative addition. It is very useful in I.D. and O.D. Z-level and spiral milling at constant tool pressure, pocket milling, and milling of pre-hard and hardened flat surfaces at higher speeds than tools with smaller or sharp corner radii.



### TOI - Toroid

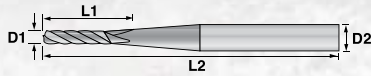
Tool Ordering No.	Cutter Diameter (D1) tol. +0 / -0.0004	Corner Radius	Shank Diameter (D2)	No. of Flutes	Neck Diameter	Cutting Length (L1)	Nose Taper	Overall Length (L2)	Neck Length (L3)
TOI-125	0.125 / (1/8)	0.030	0.250 / (1/4)	2	0.115	0.125	0.375 / 7.500°	2.500	
TOI-250	0.250 / (1/4)	0.062	0.250 / (1/4)	2	0.230	0.250	0.750 / -	2.500	
TOI-375	0.375 / (3/8)	0.093	0.375 / (3/8)	2	0.345	0.375	1.125 / -	3.000	
TOI-500	0.500 / (1/2)	0.125	0.500 / (1/2)	2	0.460	0.500	1.500 / -	3.500	

All tools backdraft 3° per side

All products on these pages come in both TLN and HSN coatings.

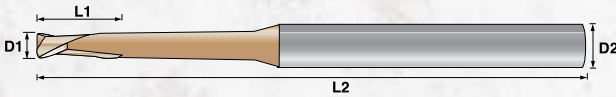
Example: TOI-.125-TLN

## Solid Carbide End Mill Program - Bull Nose



### EMB - Bull Nose w/Corner Radius

Tool Ordering No.	Cutter Diameter (D1) tol. +0/-0.01	Corner Radius	Shank Diameter (D2)	No. of Flutes	Neck Diameter	Cutting Length (L1)	Nose Taper	Overall Length (L2)
EMB-1.0-0.2	1	0,2	6	4	1	3	7.5° / side	63
EMB-1.5-0.2	1,5	0,2	6	4	1,5	4,5	7.5° / side	63
EMB-2.0-0.2	2	0,2	6	4	2	6	7.5° / side	63
EMB-3.0-0.3	3	0,3	6	5	3	9	7.5° / side	75
EMB-4.0-0.5	4	0,5	6	6	4	12	7.5° / side	75
EMB-5.0-0.5	5	0,5	6	6	5	15	7.5° / side	75
EMB-6.0-0.5	6	0,5	6	6	6	18	-	75
EMB-6.0-1.0	6	1,0	6	6	6	18	-	75
EMB-8.0-0.5	8	0,5	8	6	8	24	-	90
EMB-8.0-1.0	8	1,0	8	6	8	24	-	90
EMB-10.0-1.0	10	1,0	10	6	10	30	-	100
EMB-12.0-1.0	12	1,08	12	6	12	36	-	100



### EMB - Bull Nose - End Mill w/.75° Taper Neck HSN Coated

Tool Ordering No.	Cutter Diameter (D1) tol. +0/-0.01	Corner Radius	Shank Diameter (D2)	No. of Flutes	Neck Taper Angle per Side	Cutting Length (L1)	Neck Taper Length	Overall Length (L2)
EMB-2.4-0.5-HSN-12NL	2.4	0.5	4	2	0,75°	2,4	12	50
EMB-2.4-0.5-HSN-16NL	2.4	0.5	4	2	0,75°	2,4	16	50
EMB-2.4-0.5-HSN-20NL	2.4	0.5	4	2	0,75°	2,4	20	50
EMB-2.4-0.5-HSN-25NL	2.4	0.5	6	2	0,75°	2,4	25	50
EMB-3.0-0.5-HSN-12NL	3	0.5	6	2	0,75°	3	12	50
EMB-3.0-0.5-HSN-16NL	3	0.5	6	2	0,75°	3	16	50
EMB-3.0-0.5-HSN-20NL	3	0.5	6	2	0,75°	3	20	50
EMB-3.0-0.5-HSN-25NL	3	0.5	6	2	0,75°	3	25	50
EMB-4.0-0.5-HSN-12NL	4	0.5	6	2	0,75°	4	12	50
EMB-4.0-0.5-HSN-16NL	4	0.5	6	2	0,75°	4	16	50
EMB-4.0-0.5-HSN-20NL	4	0.5	6	2	0,75°	4	20	50
EMB-4.0-0.5-HSN-25NL	4	0.5	6	2	0,75°	4	25	50

All products on these pages come in both TLN and HSN coatings.