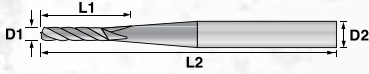


Solid Carbide End Mill Program - Bull Nose

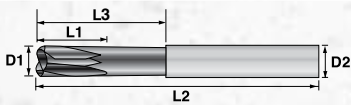


EIB - Square End Bull Nose w/Corner Radius

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 continued

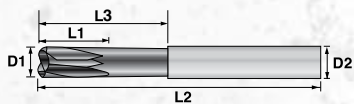


IMB-4-LL – Z4 Angle 30°

Tool Ordering No.	Cutter Diameter (D1) tol. +0 / -0.01	Corner Radius	Shank Diameter (D2)	No. of Flutes	Cutting Length (L1)	Overall Length (L2)
IMB-2.0-0.5-EX4-LL	2,0	0,5	4	4	3,0	75
IMB-3.0-0.5-EX4-LL	3,0	0,5	6	4	4,5	75
IMB-4.0-0.5-EX4-LL	4,0	0,5	6	4	6,0	75
IMB-5.0-0.5-EX4-LL	5,0	0,5	6	4	7,5	75
IMB-6.0-0.5-EX4-LL	6,0	0,5	6	4	9,0	90
IMB-8.0-0.5-EX4-LL	8,0	0,5	8	4	12,0	100
IMB-10.0-0.5-EX4-LL	10,0	0,5	10	4	15,0	100

Solid Carbide End Mill Program - Toroid

The Toroid Series TOM 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.



TOM- Toroid

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)
TOM-2.0	2	0,5	6,0	2	1,84	2,0	6 / 0,75°	63
TOM-3.0	3	0,75	6,0	2	2,76	3,0	9 / 0,75°	63
TOM-4.0	4	1,0	6	2	3,68	4,0	12 / 0,75°	63
TOM-6.0	6	1,5	6	2	5,52	6,0	18 / -	63
TOM-8.0	8	2,0	8	2	7,37	8,0	24 / -	75
TOM-10.0	10	2,5	10	2	9,21	10,0	30 / -	75
TOM-12.0	12	3,0	12	2	11,05	12,0	36 / -	90

All tools backdraft 3° per side

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

Example: TOM-2.0-TLN