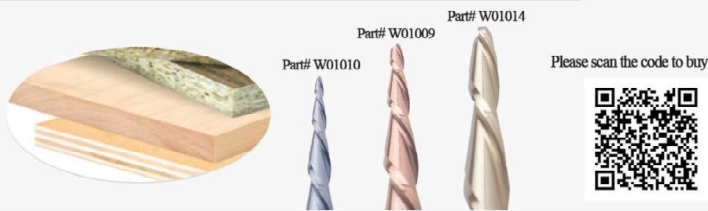


WOODWORKING ROUTER BITS

2D/3D CARVING BITS

Specially Designed For A Profile To Be Made With Your CNC In 2D And 3D

Part#	Flute Number	Shank Diameter	TIP Diameter	Cutting Length	Overall Length	Single Side Degree	Coating
1/4" SHANK							
W01005	2	1/4"	0.5mm	1-1/4"	3"	5.26°	H-Si
W01006	2	1/4"	1.0mm	1-1/4"	3"	4.82°	TiAIN
W01007	2	1/4"	1.0mm	1-1/4"	3"	4.82°	H-Si
W01008	2	1/4"	1.5mm	1-1/4"	3"	4.36°	TiAIN
W01009	2	1/4"	1.5mm	1-1/4"	3"	4.36°	H-Si
W01010	2	1/4"	2.0mm	1-1/4"	3"	3.92°	TiAIN
W01011	2	1/4"	2.0mm	1-1/4"	3"	3.92°	H-Si
W01012	2	1/4"	3.0mm	1-1/4"	3"	3.02°	TiAIN
W01013	2	1/4"	3.0mm	1-1/4"	3"	3.02°	H-Si
W01014	2	1/4"	1/8"	1"	2-1/2"	3.58°	ZrN
W01015	2	1/4"	1/16"	1"	2-1/2"	5.38°	ZrN
W01016	2	1/4"	1/32"	1"	2-1/2"	6.28°	ZrN
W01017	2	1/4"	4.0mm	1-1/4"	3"	2.20°	TiAIN
1/8" SHANK							
W01001	2	1/8"	0.5mm	15mm	1-1/2"	5.12°	TiAIN
W01002	2	1/8"	1.0mm	15mm	1-1/2"	4.16°	TiAIN
W01003	2	1/8"	1.5mm	15mm	1-1/2"	3.20°	TiAIN
W01004	2	1/8"	2.0mm	15mm	1-1/2"	2.24°	TiAIN



WOODWORKING ROUTER BITS

COMPRESSION BITS

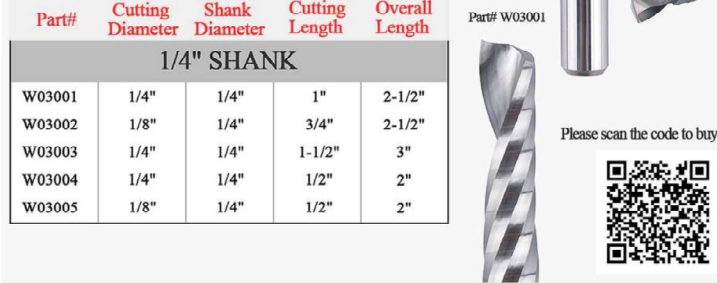
Designed With Both Up And Down Flutes, Leave An Excellent Finish On Layered Composites And Lightweight Materials

Part#	Cutting Diameter	Shank Diameter	Cutting Length	Overall Length	Coating
1/2" SHANK					
W02001	1/2"	1/2"	1-1/4"	3"	
W02002	3/8"	1/2"	1-1/4"	3"	
W02006	1/2"	1/2"	1-1/2"	4"	
1/4" SHANK					
W02003	1/4"	1/4"	1"	2-1/2"	
W02004	1/8"	1/4"	3/4"	2-1/2"	
W02007	1/4"	1/4"	1"	2-1/2"	SPE-X
1/8" SHANK					
W02003	1/8"	1/8"	3/4"	1-1/2"	

O FLUTE BITS

Designed With A Large Flute Valley, More Heat Can Be Transferred Away From The Material, Excellent For Plastic And Aluminum

Part#	Cutting Diameter	Shank Diameter	Cutting Length	Overall Length	Coating
1/4" SHANK					
W03001	1/4"	1/4"	1"	2-1/2"	
W03002	1/8"	1/4"	3/4"	2-1/2"	
W03003	1/4"	1/4"	1-1/2"	3"	
W03004	1/4"	1/4"	1/2"	2"	
W03005	1/8"	1/4"	1/2"	2"	



WOODWORKING ROUTER BITS

UP CUT

Upcut Bits Are The Go To Choice Where Having A Clean Bottom Surface Or Getting Maximum Chip Evacuation

Part#	Cutting Diameter	Shank Diameter	Cutting Length	Overall Length	Coating
1/2" SHANK					
W04001	3/8"	1/2"	1-1/4"	3"	
W04003	1/2"	1/2"	1-1/4"	3"	
W04010	3/8"	1/2"	1-3/4"	4"	
W04012	1/2"	1/2"	2"	4"	
1/4" SHANK					
W04005	1/4"	1/4"	1"	2-1/2"	
W04007	1/8"	1/4"	1/2"	2"	
W04014	1/4"	1/4"	1-1/4"	3"	
W04016	1/4"	1/4"	1"	3"	
W04017	1/8"	1/4"	1"	3"	
W04020	1/4"	1/4"	1"	2-1/2"	SPE-X
W04021	1/8"	1/4"	1"	3"	SPE-X
W04022	1/4"	1/4"	2"	4"	
W04023	1/16"	1/4"	1/2"	2"	

DOWN CUT

A Downcut Bit Is The Perfect Choice For Cuts Where Having A Clean Top Surface

Part#	Cutting Diameter	Shank Diameter	Cutting Length	Overall Length	Coating
1/2" SHANK					
W04002	1/2"	1/2"	1-1/4"	3"	
W04008	3/8"	1/2"	1-1/4"	3"	
W04009	3/8"	1/2"	1-3/4"	4"	
W04011	1/2"	1/2"	2"	4"	
1/4" SHANK					
W04004	1/4"	1/4"	1"	2-1/2"	
W04006	1/8"	1/4"	1/2"	2"	
W04013	1/4"	1/4"	1-1/4"	3"	
W04015	1/4"	1/4"	1"	3"	
W04018	1/8"	1/4"	1"	3"	
W04019	1/4"	1/4"	1"	2-1/2"	SPE-X
W04024	1/16"	1/4"	1/2"	2"	



WOODWORKING ROUTER BITS

SPOILBOARD FLATTENING BIT

Used To Quickly Flatten Large Areas With A CNC Router

Part#	Wings	Cut Diameter	Shank Diameter	Insert	Overall Length
W05001	2	1"	1/4"	10*10*2.2mm	45mm
W05002	3	2"	1/2"	12*12*2.2mm	3-3/4"
W05003	4	2-1/2"	1/2"	12*12*2.2mm	72mm

V GROOVE ROUTER BITS

Typically Used For Sign-Making. Use Bits With Different Angles For Different Levels Of Detail.

Part#	Flute Number	MAX CD	Shank Diameter	Cutting Degree	Overall Length	Coating
1/4" SHANK						
W06001	2	1/2"	1/4"	60°	2-1/2"	
W06002	2	1/2"	1/4"	90°	2-1/2"	
W06005	2	3/8"	1/4"	90°	2-1/2"	
W06006	4	1/4"	1/4"	60°	2"	TiAIN
W06007	4	1/4"	1/4"	90°	2"	TiAIN

V GROOVE ROUTER BITS(SPE-X)

Part#	Tip Diameter	Shank Diameter	Cutting Degree	Overall Length	Coating
1/4" SHANK					
W06008	0.005"	1/4"	20°	2-1/4"	SPE-X
W06009	0.005"	1/4"	30°	2-1/4"	SPE-X



METALWORKING END MILL

2 FLUTES

Designed To Excel In Cast Iron, Steel's Roughing Applications

Part#	Flute Number	End Cut Type	Cutting Diameter	Shank Diameter	Cutting Length	Overall Length	Coating
1/4" SHANK							
M02001	2	Ball Nose	1/4"	1/4"	1-1/8"	3"	TiAIN
M02002	2	Ball Nose	1/4"	1/4"	3/4"	2-1/2"	TiAIN
M02003	2	Flat Top	1/4"	1/4"	3/4"	2-1/2"	TiAIN
M02004	2	Flat Top	1/4"	1/4"	1-1/8"	3"	TiAIN
1/8" SHANK							
M03001	2	Ball Nose	1/8"	1/8"	1/2"	1-1/2"	TiAIN
M03002	2	Ball Nose	3/32"	1/8"	9/32"	1-1/2"	TiAIN
M03004	2	Ball Nose	1/16"	1/8"	3/16"	1-1/2"	TiAIN
M03005	2	Ball Nose	1/32"	1/8"	5/64"	1-1/2"	TiAIN
M03006	2	Flat Top	1/16"	1/8"	3/16"	1-1/2"	TiAIN
M03007	2	Flat Top	1/32"	1/8"	5/64"	1-1/2"	TiAIN
M03008	2	Flat Top	1/8"	1/8"	1/2"	1-1/2"	TiAIN
3/8" SHANK							
M04001	2	Ball Nose	3/8"	3/8"	1-1/8"	3"	TiAIN
M04002	2	Flat Top	3/8"	3/8"	1-1/8"	3"	TiAIN
5/16" SHANK							
M05001	2	Ball Nose	5/16"	5/16"	1-1/8"	3"	TiAIN
M05002	2	Flat Top	5/16"	5/16"	13/16"	2-1/2"	TiAIN
M05003	2	Flat Top	5/16"	5/16"	1-1/8"	3"	TiAIN



ALUMINUM END MILL

3 FLUTES

Design For Machining Aluminum And Other Non-Ferrous Materials

Part#	Flute Number	Cutting Diameter	Shank Diameter	Cutting Length	Overall Length	Coating
1/2" SHANK						
A01001	3	1/2"	1/2"	2"	4"	
1/4" SHANK						
A02002	3	1/4"	1/4"	3/4"	2-1/2"	
A02003	3	5/16"	1/4"	3/4"	4"	
A02005	3	1/4"	1/4"	1-1/2"	3-1/2"	
A02007	3	5/16"	1/4"	3/4"	3"	
A02009	3	1/4"	1/4"	1"	4"	
1/8" SHANK						
A03003	3	1/16"	1/8"	3/16"	1-1/2"	
A03004	3	1/8"	1/8"	7/16"	1-1/2"	
3/8" SHANK						
A04001	3	3/8"	3/8"	1-1/2"	3-1/2"	
5/16" SHANK						
A05001	3	5/16"	5/16"	1"	3"	
A05002	3	5/16"	5/16"	1"	4"	
A05003	3	5/16"	5/16"	1-5/8"	4"	

2 FLUTES

Part#	Flute Number	Cutting Diameter	Shank Diameter	Cutting Length	Overall Length
1/4" SHANK					
A02001	2	1/4"	1/4"	3/4"	2-1/2"
1/8" SHANK					
A03001	2	1/16"	1/8"	3/16"	1-1/2"
A03002	2	1/8"	1/8"	7/16"	1-1/2"

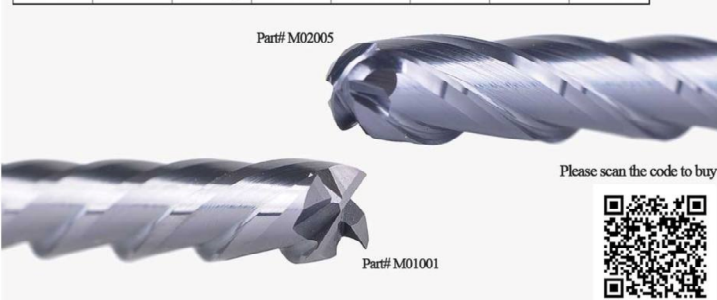


METALWORKING END MILL

4 FLUTES

For Stainless Steel, Steel, Cast Iron's Semi-Finishing

Part#	Flute Number	End Cut Type	Cutting Diameter	Shank Diameter	Cutting Length	Overall Length	Coating
1/2" SHANK							
M01001	4	Flat Top	1/2"	1/2"	1-1/8"	3"	TiAIN
1/4" SHANK							
M02005	4	Ball Nose	1/4"	1/4"	1-1/8"	3"	TiAIN
M02006	4	Flat Top	1/4"	1/4"	3/4"	2-1/2"	TiAIN
M02007	4	Flat Top	1/4"	1/4"	1-1/8"	3"	TiAIN
1/8" SHANK							
M03009	4	Flat Top	1/16"	1/8"	3/16"	1-1/2"	TiAIN
M03010	4	Flat Top	1/32"	1/8"	5/64"	1-1/2"	TiAIN
M03011	4	Flat Top	1/8"	1/8"	1/2"	1-1/2"	TiAIN
5/16" SHANK							
M05004	4	Flat Top	5/16"	5/16"	1-1/8"	3"	TiAIN



Router Bits Sets

Part# WD-1: W06007, W04004, W04005, W01006

Part# WD-2: W06006, W04004, W03001, W01015

Part# WD-3: W04007, W06007, W06006, W04004, W04005, W06007, W04007