

CNC Bits Buying Guide

If you have any suggestions or need any assistance, please contact us via support@sainsmart.com.

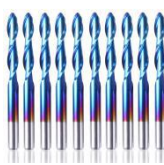
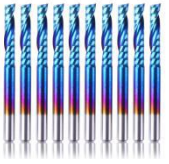
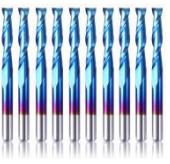
Picture						
Model		C08	C15	SS17	SF17	SB17
Type		Spiral Bits				
		Fishtail End Mill/Corn-shaped End Mill	Square Nose End Mill		Ball Nose End Mill	
			Flat Nose		Ball Nose	
Specification	Shank	1/8" (3.175mm)	1/8" (3.175mm)	1/8" (3.175mm)	1/8" (3.175mm)	1/8" (3.175mm)
	Flute	/		1 (Single Flute)	2	2
	Degree	/		/		/
	Material	Tungsten Carbide Steel Alloy				
	Coating	Nano Blue Coating		Nano Blue Coating		Nano Blue Coating
	Cutting Diameter	0.8-3.0mm	1.5-3.175mm	3.175mm		3.175mm
	Cutting Length	12mm	12mm	17mm		17mm
	Overall Length	38mm		38mm		38mm

Chart 1-1

Picture						
Model		C08	C15	SS17	SF17	SB17
Application Materials	Wood (MDF,Hardwood, Plywood...)	☆	☆	☆	☆	☆
	Plastic (ABS, Acrylic, PVC...)	☆	☆	☆	☆	☆
	Soft Metal (Al,Fe,Cu,Steel...)	✓	✓	✓	✓	✓
	Circuit Board (PCB)	☆	☆	×	×	×
	Others (Ceramic, Granite, Glass...)	×	×	×	×	×
Ideal for	Slot Milling	✓	✓	✓	✓	✓
	Side Milling	✓	✓	✓	✓	✓
	Face Milling	✓	✓	✓	✓	×
	3D Milling	×	×	×	×	✓
	Drilling	✓	✓	×	×	×
	Engraving(Lettering...)	✓	✓	✓	✓	✓
	Polishing	×	×	×	×	×
	Grinding	×	×	×	×	×
	Deburring	×	×	×	×	×

Note ☆: Recommended, ✓: Applicable, ×: Not Applicable

Chart 1-2

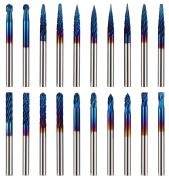
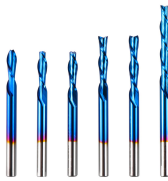
Picture					
Model		TB04A	SD06A	SC05A	RR20A
Type		Spiral Bits			Rotary Burrs
		Ball Nose End Mill	Downcut Cutter	Compression Cutter (Up&Down)	Rotary Boring: Single Groove
		Tapered Ball Nose			Rotary Boring: Double Groove Grinding Head
Specification	Shank	1/8" (3.175mm)	1/8" (3.175mm)	1/8" (3.175mm)	3.0mm
	Flute	2	2	2	/
	Degree	/	/	/	/
	Material	Tungsten Carbide Steel Alloy			
	Coating	Nano Blue Coating	Nano Blue Coating	Nano Blue Coating	Nano Blue Coating
	Cutting Diameter	R0.25, 0.5, 0.75 ,1.0	3.175mm	3.175mm	3.0mm
	Cutting Length	15mm	8, 10, 12, 15, 17, 22mm	12, 15, 25, 28, 32mm	17mm
	Overall Length	38mm	40, 40, 40, 45, 45, 55mm	40, 40, 55, 60, 65mm	38mm

Chart 2-1

Picture					
Model		TB04A	SD06A	SC05A	RR20A
Application Materials	Wood (MDF,Hardwood, Plywood...)	☆	☆	☆	☆
	Plastic (ABS, Acrylic, PVC...)	☆	☆	☆	☆
	Soft Metal (Al,Fe,Cu,Steel...)	✓	☆	✓	☆
	Circuit Board (PCB)	×	✓	✓	×
	Others (Ceramic, Granite, Glass...)	×	×	×	×
Ideal for	Slot Milling	✓	✓	✓	×
	Side Milling	✓	✓	✓	×
	Face Milling	×	✓	✓	✓
	3D Milling	✓	×	×	✓
	Drilling	×	✓	✓	✓
	Engraving(Lettering...)	✓	✓	✓	☆
	Polishing	×	×	×	☆
	Grinding	×	×	×	☆
	Deburring	×	×	×	☆

Note ☆: Recommended, ✓: Applicable, ×: Not Applicable

Chart 2-2

Picture						
Model		RR10B	RR10A	V15	V20	V30
Type		Rotary Burrs		Conical V-Bit		
		Grinding Head:Double Groove 10 Shapes	Grinding Head:Single Groove 10 Shapes	V-shape Engraving Bit		
Specification	Shank	3.0mm	1/8" (3.175mm)	1/8" (3.175mm)	1/8" (3.175mm)	1/8" (3.175mm)
	Flute	/	/	/	/	/
	Degree	/	/	15°	20°	30°
	Material	Tungsten Carbide Steel Alloy	HSS	Tungsten Carbide Steel Alloy		
	Coating	Nano Blue Coating	Titanium Coating	Nano Blue Coating	Nano Blue Coating	Nano Blue Coating
	Cutting Diameter	6.0mm	2-8mm	0.1mm	0.1mm	0.1mm
	Cutting Length	6-13mm	3-10mm	/	/	/
	Overall Length	43-50mm	40mm	30mm	30mm	30mm

Chart 3-1

Picture						
Model		RR10B	RR10A	V15	V20	V30
Application Materials	Wood (MDF,Hardwood, Plywood...)	☆	✓	✓	✓	✓
	Plastic (ABS, Acrylic, PVC...)	☆	✓	☆	☆	☆
	Soft Metal (Al,Fe,Cu,Steel...)	☆	✓	✓	✓	✓
	Circuit Board (PCB)	×	×	×	×	×
	Others (Ceramic, Granite, Glass...)	×	×	×	×	×
Ideal for	Slot Milling	×	×	×	×	×
	Side Milling	×	×	×	×	×
	Face Milling	✓	✓	×	×	×
	3D Milling	✓	✓	×	×	×
	Drilling	✓	✓	×	×	×
	Engraving(Lettering...)	☆	☆	☆	☆	☆
	Polishing	☆	☆	×	×	×
	Grinding	☆	☆	×	×	×
	Deburring	☆	☆	×	×	×

Note ☆: Recommended, ✓: Applicable, ×: Not Applicable

Chart 3-2

Picture					
Model		VG05A	RB10A	MC40A	EM10A
Type		Conical V-Bit	Router Bit	2-Flute Spiral Flat Nose 2-Flute Spiral Ball Nose Fishtail End Mill (Nano Blue Coating) Fishtail End Mill (Titanium Coating)	V-shape Engraving Bit Single Flute Flat Nose 2-Flute Tapered Ball Nose
		V-groove Bit	Straight, Core Box, V-Groove, Round Over, Keyhole, Rabbet, Corner Rounding, Piloted Beading		
Specification	Shank	6mm	1/8" (3.175mm)	1/8" (3.175mm)	1/8" (3.175mm)
	Flute	/	/	2	1, 2
	Degree	60° , 90° , 120° , 150°	/	/	30°
	Material	Tungsten Carbide Steel Alloy	HSS	Tungsten Carbide Steel Alloy	
	Coating	#N/A	Titanium Coating	Nano Blue Coating Titanium Coating	Nano Blue Coating

Chart 4-1

Picture					
Model		VG05A	RB10A	MC40A	EM10A
Specification	Cutting Diameter	16,22,22,32,32mm	Corner Rounding Bit (CD: 9.5mm, CL: 12mm) Core Box Bit (CD: 6.5mm, CL: 11mm) Piloted Beading Bit (CD: 9.5mm, CL: 13mm)	3.175 mm 3.175 mm 0.8-3.0 mm 0.8-3.0 mm	0.1mm,0.2mm 2, 2, 3.175, 3.175mm R0.25, 0.5, 0.75, 1.0
	Cutting Length	11,11,15,17,31.5mm	Keyhole Bit (CD: 8mm, CL: 9.5mm) Rabbet Bit (CD: 9.5mm, CL: 12mm) V-Groove Bit (CD: 6.5mm, CL: 11mm) Round Over Bit (CD: 6.5mm, CL: 11mm) Straight Bit (CD: 6.5mm, CL: 11mm) Straight Bit (CD 3mm, CL: 13mm) Straight Bit (CD: 5mm, CL: 11mm)	17mm	/ 8, 8, 12, 22mm 15mm
	Overall Length	40,42,46,49,63mm	40mm	38mm	38mm

Chart 4-2

Picture					
Model		VG05A	RB10A	MC40A	EM10A
Application Materials	Wood (MDF,Hardwood, Plywood...)	★	★	★	★
	Plastic (ABS, Acrylic, PVC...)	×	×	★	★
	Soft Metal (Al,Fe,Cu,Steel...)	×	×	✓	✓
	Circuit Board (PCB)	×	×	✓	×
	Others (Ceramic, Granite, Glass...)	×	×	×	×
Ideal for	Slot Milling	★	★	✓	✓
	Side Milling	✓	✓	✓	✓
	Face Milling	×	×	✓	✓
	3D Milling	×	✓	✓	✓
	Drilling	×	×	✓	×
	Engraving(Lettering...)	×	×	✓	✓
	Polishing	×	×	×	×
	Grinding	×	×	×	×
	Deburring	×	×	×	×

Note ★: Recommended, v: Applicable, ×: Not Applicable

Chart 4-3