



MSUTOLS

CARBIDE ROTARY BURR

HIGH PERFORMANCE



MSU



MSUTOOOLS

FACTORY INTRODUCTION

Zhuzhou MSU Industrial Tools Co.,LTD(MSUTOOOLS) is a solid carbide tools manufacturer, we focused on carbide end mills, carbide drills, carbide burrs, carbide inserts, tool holders, customized cutting carbide tools and carbide wear parts, which are widely used in aviation, aerospace, military industry, automobile, engineering, energy, construction, machinery and many other industries.

MSUTOOOLS have strong production capability with world's most advanced 5 Axis CNC machine lines and strict quality control system, all our tools are 100% strictly inspected. We keep most of standard tools in stock to achieve fast delivery, MSUTOOOLS have been exported to many countries and regions such as East Asia, Russia, Europe and North and South America, Middle East countries.

We provide our clients with high performance tools, competitive price and professional service.





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Why Choose MSUTOOLS Carbide Burrs?



1. Sharp Teeth and super grinding finish

2. Solid Carbide Cutting head, copper welding technology, three layer welding, the cutting head and shank joint is strong, no break.

3. Anti Rust Shank, our shank will be not get rust after stock long time and no need to apply anti-rust oil, as our shank is high-nickel content steel shank.



MSU Carbide Burrs

VS



Other company carbide burrs

4. Automatic production lines made our quality is more stable, automatic TPA Press machine, automatic welding machines, automatic teeth cutting machines(automatic feed blank burrs).



5. Strict Quality Inspection and Control

All carbide burrs will be 100% inspected before delivery.



6. Most of standard types have large stock, we can ship the items fast.



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TECHNOLOGICAL PROCESS



Wet Grinding



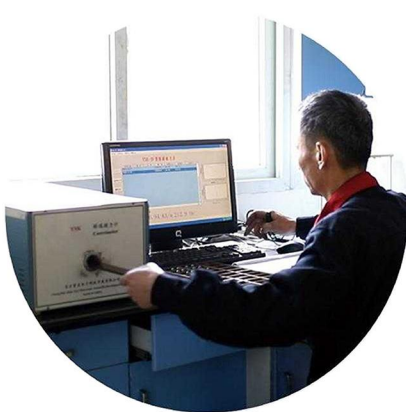
Pressing



Sintering



Tooth punching



Testing



Shipping

The way to use the speed guide below:

1. Select application and material group.
2. Identify the appropriate cut style. Please refer to previous page to match your application and the appropriate cutting style.
3. Identify recommended cutting speed.
4. Select bur diameter.
5. Follow maximum rotational speed.

MATERIAL GROUP 1				MATERIAL GROUP 1			
Super Alloy Materials	Cut M/F/MX/L						
Hardened steel >45HRc		Cut M/MR/MX					
Non hardened steel <45HRc				Cut M/MR/MX			
High temperature -resistant materials	Cut M/MR/MX						
Non-ferrous metals				Cut W			
Non-ferrous light metals					Cut W	Cut C/MR/MX	
Plastics.Hard rubber						Cut W/C	
Fibreglass						Cut L	

RECOMMENDED CUTTING SPEED 3									
METRIC(m/min)	420	480	540	600	660	720	780	840	900
FRACTIONAL(SFM)	1400	1600	1800	2000	2200	2400	2600	2800	3000

BUR DIAMETER 4		MAXIMUM ROTATIONAL SPEED(RPM)5								
Imperial (nch)	Metric(mm)									
<1/8	<3	45,000	53,000	60,000	66,000	73,000	79,000	86,000	92,500	100,000
3/16	5	35,000	40,000	45,000	50,000	55,000	60,000	65,000	70,000	75,000
1/4	6	26,000	30,000	33,000	37,000	41,500	45,000	49,000	52,500	55,000
5/16	8	21,000	24,000	27,000	30,000	33,000	36,000	39,000	42,000	45,000
3/8	10	17,500	20,000	22,500	25,000	27,500	30,000	32,500	35,000	37,500
1/2	12	13,000	15,000	17,000	19,000	20,500	22,500	24,500	26,500	28,000
5/8	16	10,500	12,000	13,500	15,000	16,500	18,000	19,500	21,000	22,500
3/4	20	9,000	10,000	11,000	12,500	14,000	15,000	16,250	17,500	19,000
1	25	6,500	7,500	8,500	9,500	10,500	11,000	12,000	13,000	14,000

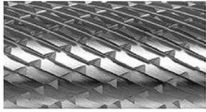
Please note that all cuts available are not displayed in this product catalogue.

Please contact MSUTOOLS Customer Service to discuss your specific requirements.



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Stand Cut Types



Cut MX -Double cut for general purpose use.Improves control and reduces chips

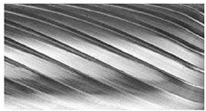


Cut M -Standard cut for general applications

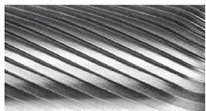


Cut W -Fast Mill cut for rapid stock removal of softer non-ferrous materials including plastics

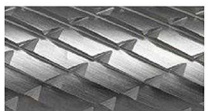
Special Cut Types



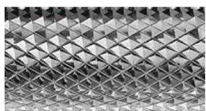
Cut C -coarse cut for metal removal and finishing applications on non-ferrous metal alloys



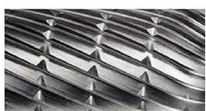
Cut F -Fine cut for improved finish on all ferrous metals



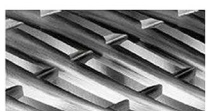
Cut ZX -Foundry cut for maximum stock removal,rough edges and foundry applications



Cut L -Diamond cut for hardest materials and best finishes



Cut MR -Chipbreaker cut for fast stock removal.Improves control and surface finish



Cut SX -Aggressive cutting form for increased stock removal

Standard Cut Types

Special Cut Types

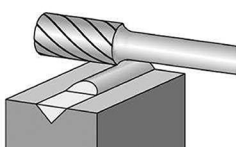
Material	Cut MX	Cut M	Cut W		Cut C	Cut F	Cut ZX	Cut L	Cut MR	Cut SX
Aluminium,Plastic			●							
Brass,Copper,Cast Iron,Bronze	●	●			○	○	●	○	○	
Unhardende Steels	●	●				○	●	○		○
Hardened Steels	●	●				●	○	●	○	●
Hardened Steels,Stainless Steels, Nimonic Alloys,Titanium	●	●				●	○	●	○	

Recommended ○

Highly Recommended ●

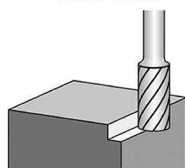


Cylinder Shape



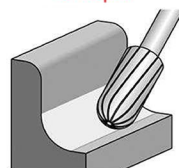
SA

Cylinder Shape With End Cut



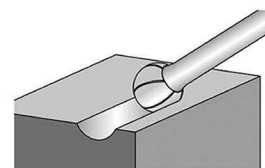
SB

Ball Nose Cylinder Shape



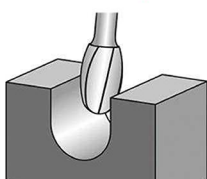
SC

Ball Shape



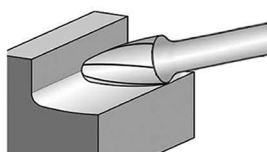
SD

Oval Shape



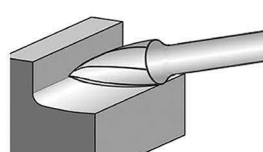
SA

Tree Shape



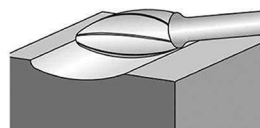
SF

Pointed Tree Shape



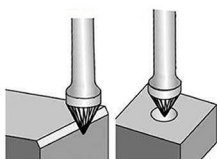
SG

Flame Shape



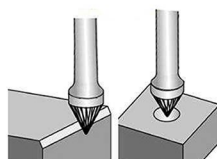
SH

60° Countersink Shape



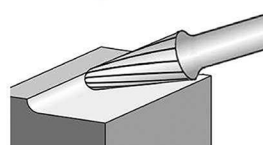
SJ

90° Countersink Shape



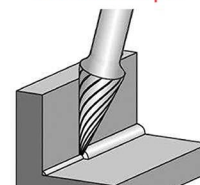
SK

Ball Nose Cone Shape



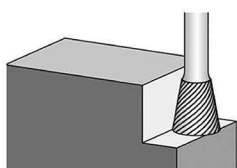
SL

Cone Shape



SM

Inverted Cone Shape



SN

ALL KINDS OF TOOTH SHAPE

APPLICABLE SCENARIOS



Features & Benefits -RADIUS LINE

FEATURES

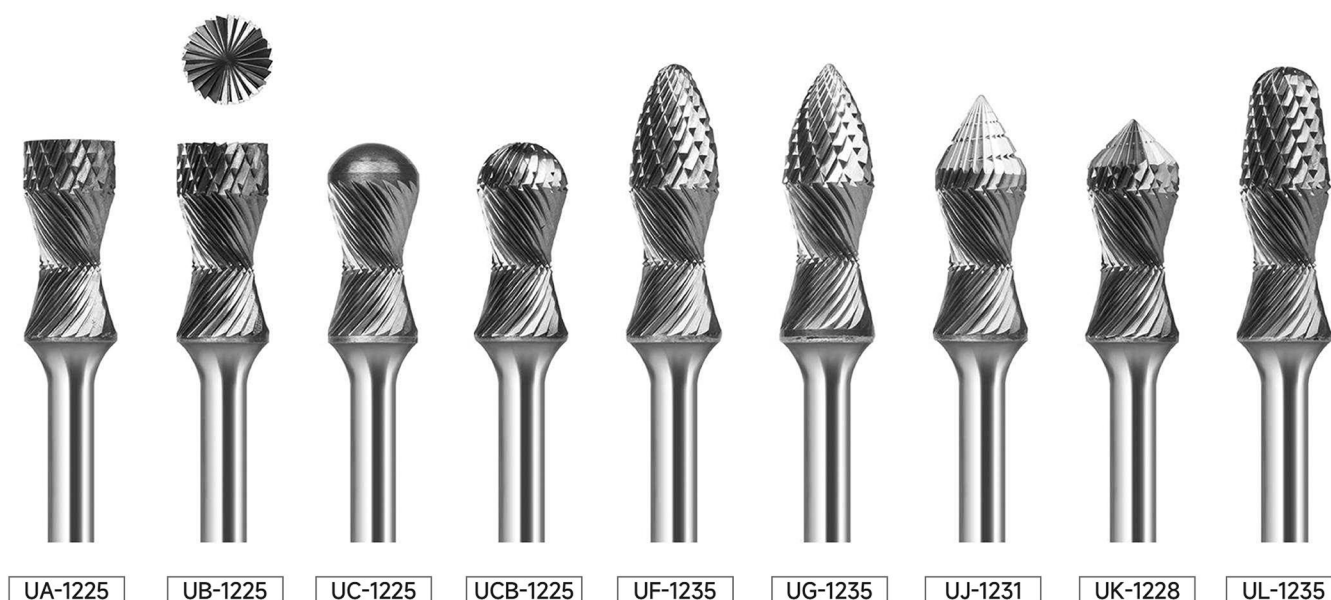
Unique guide system
Multi-application
Unique curve

BENEFITS

Easy control
Reduce downtime
Creates smooth radius

Radius Burs

Line	Description	Cut Diameter	Cut Length	Shank Diameter	Over Length
Radius Burs	UA-1225	12	25	6	70
Radius Burs	UB-1225	12	25	6	70
Radius Burs	UC-1225	12	25	6	70
Radius Burs	UCB-1225	12	25	6	70
Radius Burs	UF-1235	12	35	6	80
Radius Burs	UG-1235	12	35	6	80
Radius Burs	UJ-1231	12	31	6	76
Radius Burs	UK-1228	12	28	6	73
Radius Burs	UL-1235	12	35	6	80



Wear Hearing Protection!



Wear Eye Protection!



Observe the recommended rotational speed, especially when using burs with long shanks!

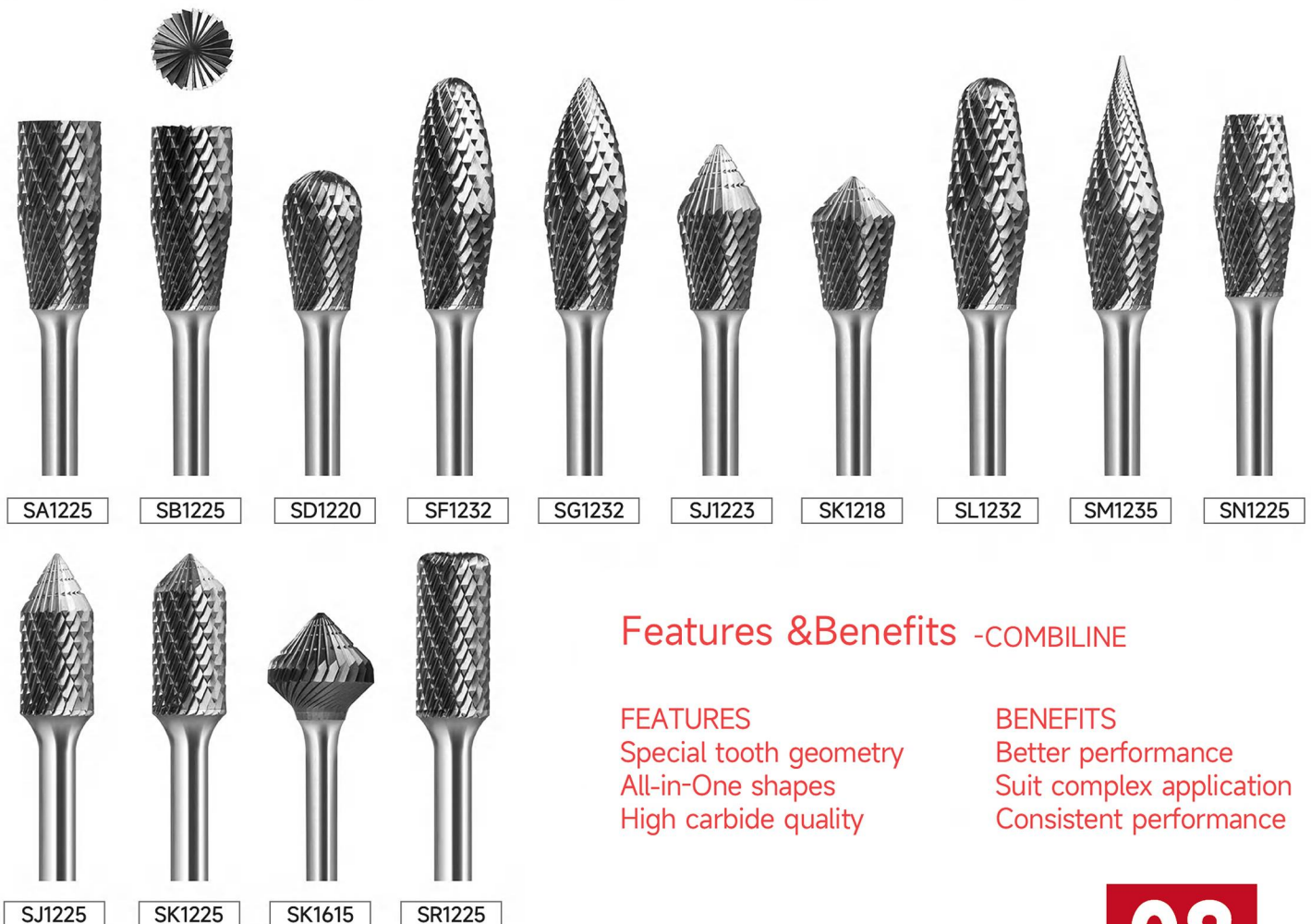


Wear Protective Gloves



Combi Burs

Line	Description	Cut Diameter	Cut Length	Shank Diameter	Over Length
Combi Burs	SA-1225	12	25	6	70
Combi Burs	SB-1225	12	25	6	70
Combi Burs	SD-1220	12	20	6	65
Combi Burs	SF-1232	12	32	6	77
Combi Burs	SG-1232	12	32	6	77
Combi Burs	SJ-1223	12	23	6	68
Combi Burs	SK-1218	12	18	6	63
Combi Burs	SL-1232	12	32	6	77
Combi Burs	SM-1235	12	35	6	80
Combi Burs	SN-1225	12	25	6	70
Combi Burs	SJ-1225	12	25	6	70
Combi Burs	SK-1225	12	25	6	70
Combi Burs	SK-1615	12	15	6	60
Combi Burs	SR-1225	12	25	6	70



Features & Benefits -COMBILINE

FEATURES

Special tooth geometry
All-in-One shapes
High carbide quality

BENEFITS

Better performance
Suit complex application
Consistent performance

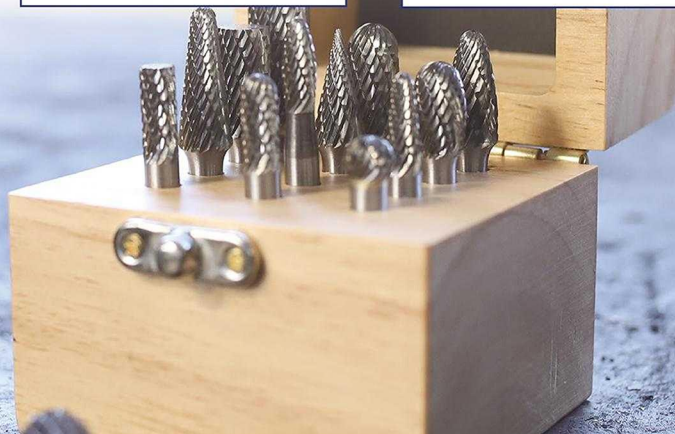


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SERIES OF SETS

Carbide burr sets contain different sizes and shapes of burrs can match customer's different requirements on usage.

- 1、 6mm or 1/4"Shank 10PCS of Sets
- 2、 6mm or 1/4" Shank 5PCS of Sets
- 3、 6mm or 1/4" Shank 8PCS of Sets
- 4、 3mm Shank & 6mm Head 10PCS of Sets
- 5、 3mm Shank & 3mm Head 20PCS of Sets
- 6、 6mm or 1/4" Shank 12PCS of Sets

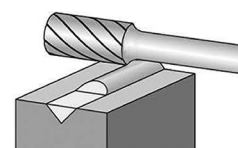
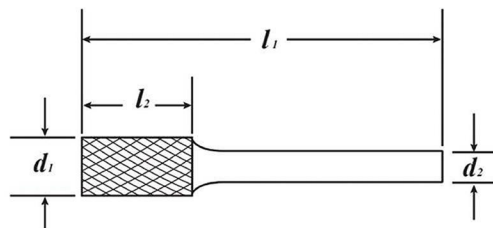




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Type A Carbide Burr

Burr Shape-Cylinder

Type A carbide burr is suitable for machining surface profile of workpiece

Metric Size

Shank Diameter(mm)	Cutter Diameter(d1)	Length of Cut(l2)	Shank Diameter(d2)	Overall Length(l1)	Tool No.	Type
3.0	3	14	3	38	SA30314	Solid
	4	13	3	51	SA30413	Brazed
	5	13	3	51	SA30513	Brazed
	6	13	3	51	SA30613	Brazed
6.0	6	16	6	50	SA60616	Solid
	6	16	6	61	SA60616	Brazed
	8	20	6	65	SA60820	Brazed
	10	20	6	65	SA61020	Brazed
	11	25	6	70	SA61125	Brazed
	12	25	6	70	SA61225	Brazed
	16	25	6	70	SA61625	Brazed
	20	25	6	70	SA62025	Brazed
	25	25	6	70	SA62525	Brazed
8.0	10	20	8	65	SA81020	Brazed
	11	25	8	70	SA81125	Brazed
	12	25	8	70	SA81225	Brazed
	16	25	8	70	SA81625	Brazed
	20	25	8	70	SA82025	Brazed
	25	25	8	70	SA82525	Brazed

Inch Size

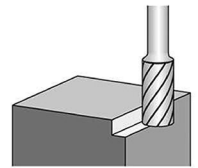
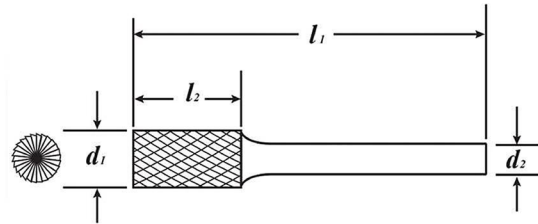
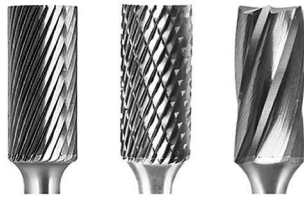
Shank Diameter(In)	Cutter Diameter(d1)	Length of Cut(l2)	Shank Diameter(d2)	Overall Length(l1)	Tool No.	Type
1/8	1/8	1/2	1/8	1-1/2	SA-43	Solid
	1/4	1/2	1/8	2	SA-51	Brazed
1/4	1/4	5/8	1/4	2	SA-1	Solid
	1/4	5/8	1/4	2-3/8	SA-1	Brazed
	5/16	3/4	1/4	2-1/2	SA-2	Brazed
	3/8	3/4	1/4	2-1/2	SA-3	Brazed
	7/16	1	1/4	2-3/4	SA-4	Brazed
	1/2	1	1/4	2-3/4	SA-5	Brazed
	5/8	1	1/4	2-3/4	SA-6	Brazed
	3/4	1	1/4	2-3/4	SA-7	Brazed
	7/8	1	1/4	2-3/4	SA-8	Brazed
	1	1	1/4	2-3/4	SA-9	Brazed



Type B Carbide Burr

Burr Shape-Cylinder With End Cut

Type B carbide burr is suitable for machining surface profile and the interchange of two right angle surface of workpiece



Metric Size						
Shank Diameter(mm)	Cutter Diameter(d1)	Length of Cut(l2)	Shank Diameter(d2)	Overall Length(l1)	Tool No.	Type
3.0	3	14	3	38	SB30314	Solid
	4	13	3	51	SB30413	Brazed
	5	13	3	51	SB30513	Brazed
	6	13	3	51	SB30613	Brazed
6.0	6	16	6	50	SB60616	Solid
	6	16	6	61	SB60616	Brazed
	8	20	6	65	SB60820	Brazed
	10	20	6	65	SB61020	Brazed
	11	25	6	70	SB61125	Brazed
	12	25	6	70	SB61225	Brazed
	16	25	6	70	SB61625	Brazed
	20	25	6	70	SB62025	Brazed
	25	25	6	70	SB62525	Brazed
8.0	10	20	8	65	SB81020	Brazed
	11	25	8	70	SB81125	Brazed
	12	25	8	70	SB81225	Brazed
	16	25	8	70	SB81625	Brazed
	20	25	8	70	SB82025	Brazed
	25	25	8	70	SB82525	Brazed

Inch Size						
Shank Diameter(In)	Cutter Diameter(d1)	Length of Cut(l2)	Shank Diameter(d2)	Overall Length(l1)	Tool No.	Type
1/8	1/8	1/2	1/8	1-1/2	SB-43	Solid
	1/4	1/2	1/8	2	SB-51	Brazed
1/4	1/4	5/8	1/4	2	SB-1	Solid
	1/4	5/8	1/4	2-3/8	SB-1	Brazed
	5/16	3/4	1/4	2-1/2	SB-2	Brazed
	3/8	3/4	1/4	2-1/2	SB-3	Brazed
	7/16	1	1/4	2-3/4	SB-4	Brazed
	1/2	1	1/4	2-3/4	SB-5	Brazed
	5/8	1	1/4	2-3/4	SB-6	Brazed
	3/4	1	1/4	2-3/4	SB-7	Brazed
	7/8	1	1/4	2-3/4	SB-8	Brazed
	1	1	1/4	2-3/4	SB-9	Brazed

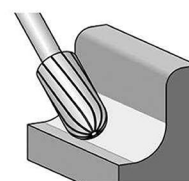
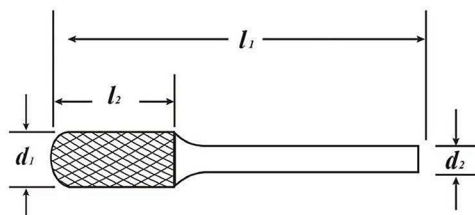


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Type C Carbide Burr

Type C carbide burr is suitable for machining surface profile and circular arc profile of workpiece



Metric Size

Shank Diameter(mm)	Cutter Diameter(d1)	Length of Cut(l2)	Shank Diameter(d2)	Overall Length(l1)	Tool No.	Type
3.0	3	14	3	38	SC30314	Solid
	4	13	3	51	SC30413	Brazed
	5	13	3	51	SC30513	Brazed
	6	13	3	51	SC30613	Brazed
6.0	6	16	6	50	SC60616	Solid
	6	16	6	61	SC60616	Brazed
	8	20	6	65	SC60820	Brazed
	10	20	6	65	SC61020	Brazed
	11	25	6	70	SC61125	Brazed
	12	25	6	70	SC61225	Brazed
	16	25	6	70	SC61625	Brazed
	20	25	6	70	SC62025	Brazed
	25	25	6	70	SC62525	Brazed
8.0	10	20	8	65	SC81020	Brazed
	11	25	8	70	SC81125	Brazed
	12	25	8	70	SC81225	Brazed
	16	25	8	70	SC81625	Brazed
	20	25	8	70	SC82025	Brazed
	25	25	8	70	SC82525	Brazed

Inch Size

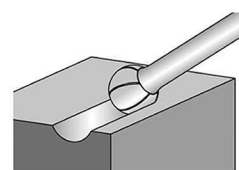
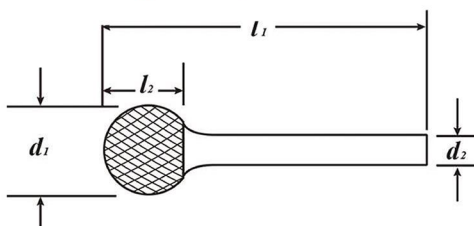
Shank Diameter(In)	Cutter Diameter(d1)	Length of Cut(l2)	Shank Diameter(d2)	Overall Length(l1)	Tool No.	Type
1/8	1/8	1/2	1/8	1-1/2	SC-42	Solid
	1/4	1/2	1/8	2	SC-51	Brazed
1/4	1/4	5/8	1/4	2	SC-1	Solid
	1/4	5/8	1/4	2-3/8	SC-1	Brazed
	5/16	3/4	1/4	2-1/2	SC-2	Brazed
	3/8	3/4	1/4	2-1/2	SC-3	Brazed
	7/16	1	1/4	2-3/4	SC-4	Brazed
	1/2	1	1/4	2-3/4	SC-5	Brazed
	5/8	1	1/4	2-3/4	SC-6	Brazed
	3/4	1	1/4	2-3/4	SC-7	Brazed
	7/8	1	1/4	2-3/4	SC-8	Brazed
	1	1	1/4	2-3/4	SC-9	Brazed



Type D Carbide Burr

Burr Shape-Ball Shape

Type D carbide burr is suitable for machining circular arc profile, removing burrs of diameter and machining weld point before weld.



Metric Size

Shank Diameter(mm)	Cutter Diameter(d1)	Length of Cut(l2)	Shank Diameter(d2)	Overall Length(l1)	Tool No.	Type
3.0	3	2	3	38	SD30302	Solid
	4	3	3	41	SD30403	Brazed
	5	4	3	42	SD30504	Brazed
	6	5	3	43	SD30605	Brazed
6.0	6	5	6	50	SD60605	Solid
	6	5	6	50	SD60605	Brazed
	8	7	6	52	SD60807	Brazed
	10	9	6	54	SD61009	Brazed
	11	10	6	55	SD61110	Brazed
	12	10	6	55	SD61210	Brazed
	16	14	6	59	SD61614	Brazed
	20	18	6	63	SD62018	Brazed
8.0	25	21	6	66	SD62521	Brazed
	10	9	8	54	SD81009	Brazed
	11	10	8	55	SD81110	Brazed
	12	10	8	55	SD81210	Brazed
	16	14	8	59	SD81614	Brazed
	20	18	8	63	SD82018	Brazed
	25	21	8	66	SD82521	Brazed

Inch Size

Shank Diameter(In)	Cutter Diameter(d1)	Length of Cut(l2)	Shank Diameter(d2)	Overall Length(l1)	Tool No.	Type
1/8	1/8	1/8	1/8	1-1/2	SD-42	Solid
	1/4	7/32	1/8	2	SD-51	Brazed
1/4	1/4	7/32	1/4	2	SD-1	Solid
	1/4	7/32	1/4	1-31/32	SD-1	Brazed
	5/16	1/4	1/4	2	SD-2	Brazed
	3/8	5/16	1/4	2-1/16	SD-3	Brazed
	7/16	3/8	1/4	2-1/7	SD-4	Brazed
	1/2	7/16	1/4	2-1/5	SD-5	Brazed
	5/8	9/16	1/4	2-1/3	SD-6	Brazed
	3/4	11/16	1/4	2-4/9	SD-7	Brazed
	7/8	1	1/4	2-3/4	SD-8	Brazed
	1	15/16	1/4	2-2/3	SD-9	Brazed



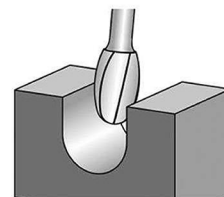
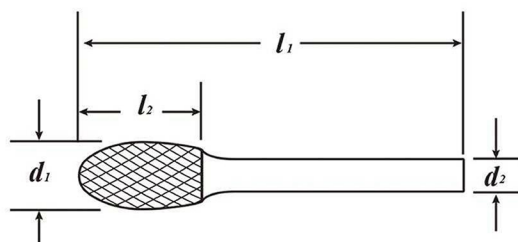
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Type E Carbide Burr

Burr Shape-Oval Shape

Type E carbide burr is suitable for machining circular arc profile of workpiece



Metric Size

Shank Diameter(mm)	Cutter Diameter(d1)	Length of Cut(l2)	Shank Diameter(d2)	Overall Length(l1)	Tool No.	Type
3.0	3	6	3	38	SE30306	Solid
	4	7	3	45	SE30407	Brazed
	5	8	3	46	SE30508	Brazed
	6	10	3	48	SE30610	Brazed
6.0	6	10	6	50	SE60610	Solid
	6	10	6	55	SE60610	Brazed
	8	13	6	58	SE60813	Brazed
	10	16	6	61	SE61016	Brazed
	12	20	6	65	SE61220	Brazed
	16	25	6	70	SE61625	Brazed
	20	25	6	70	SE62025	Brazed
	25	25	6	70	SE62525	Brazed
8.0	10	16	8	61	SE81016	Brazed
	12	20	8	65	SE81220	Brazed
	16	25	8	70	SE81625	Brazed
	20	25	8	70	SE82025	Brazed
	25	25	8	70	SE82525	Brazed

Inch Size

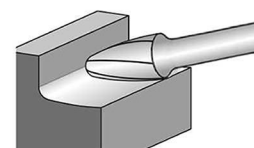
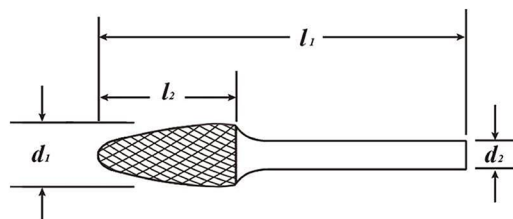
Shank Diameter(In)	Cutter Diameter(d1)	Length of Cut(l2)	Shank Diameter(d2)	Overall Length(l1)	Tool No.	Type
1/8	1/8	1/4	1/8	1-1/2	SE-41	Solid
	1/4	3/8	1/8	1-8/9	SE-51	Brazed
1/4	1/4	3/8	1/4	2	SE-1	Solid
	1/4	3/8	1/4	2-1/8	SE-1	Brazed
	5/16	1/2	1/4	2-1/4	SE-2	Brazed
	3/8	5/8	1/4	2-3/8	SE-3	Brazed
	1/2	7/8	1/4	2-5/8	SE-5	Brazed
	5/8	1	1/4	2-3/4	SE-6	Brazed
	3/4	1	1/4	2-3/4	SE-7	Brazed



Type F Carbide Burr

Burr Shape-Ball Nosed Tree

Type F carbide burr is suitable for machining circular arc profile of workpiece which in confined space.



Metric Size

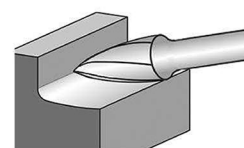
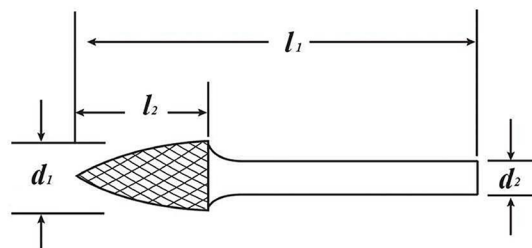
Shank Diameter(mm)	Cutter Diameter(d1)	Length of Cut(l2)	Shank Diameter(d2)	Overall Length(l1)	Tool No.	Type
3.0	3	14	3	38	SF30314	Solid
	4	13	3	51	SF30413	Brazed
	5	13	3	51	SF30513	Brazed
	6	13	3	51	SF30613	Brazed
6.0	6	16	6	50	SF60616	Solid
	6	16	6	61	SF60616	Brazed
	8	20	6	65	SF60820	Brazed
	10	20	6	65	SF61020	Brazed
	11	25	6	70	SF61125	Brazed
	12	25	6	70	SF61225	Brazed
	16	25	6	70	SF61625	Brazed
	20	25	6	70	SF62025	Brazed
	25	25	6	70	SF62525	Brazed
8.0	10	20	8	65	SF81020	Brazed
	11	25	8	70	SF81125	Brazed
	12	25	8	70	SF81225	Brazed
	16	25	8	70	SF81625	Brazed
	20	25	8	70	SF82025	Brazed
	25	25	8	70	SF82525	Brazed

Inch Size

Shank Diameter(In)	Cutter Diameter(d1)	Length of Cut(l2)	Shank Diameter(d2)	Overall Length(l1)	Tool No.	Type
1/8	1/8	1/2	1/8	1-1/2	SF-43	Solid
	1/4	1/2	1/8	2	SF-51	Brazed
1/4	1/4	5/8	1/4	2	SF-1	Solid
	1/4	5/8	1/4	2-3/8	SF-1	Brazed
	5/16	3/4	1/4	2-1/2	SF-2	Brazed
	3/8	3/4	1/4	2-1/2	SF-3	Brazed
	7/16	1	1/4	2-3/4	SF-4	Brazed
	1/2	1	1/4	2-3/4	SF-5	Brazed
	5/8	1	1/4	2-3/4	SF-6	Brazed
	3/4	1	1/4	2-3/4	SF-7	Brazed
	7/8	1	1/4	2-3/4	SF-8	Brazed
	1	1	1/4	2-3/4	SF-9	Brazed



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Type G Carbide Burr

Burr Shape-Point Tree

Type G carbide burr is suitable for machining circular arc profile which in confined spaces and acute-angled profile of workpiece.

Metric Size

Shank Diameter(mm)	Cutter Diameter(d1)	Length of Cut(l2)	Shank Diameter(d2)	Overall Length(l1)	Tool No.	Type
3.0	3	14	3	38	SG30314	Solid
	4	13	3	51	SG30413	Brazed
	5	13	3	51	SG30513	Brazed
	6	13	3	51	SG30613	Brazed
6.0	6	16	6	50	SG60616	Solid
	6	18	6	63	SG60618	Brazed
	8	20	6	65	SG60820	Brazed
	10	20	6	65	SG61020	Brazed
	12	25	6	70	SG61225	Brazed
	16	25	6	70	SG61625	Brazed
	20	25	6	70	SG62025	Brazed
	25	25	6	70	SG62525	Brazed
8.0	10	20	8	65	SG81016	Brazed
	12	25	8	70	SG81220	Brazed
	16	25	8	70	SG81625	Brazed
	20	25	8	70	SG82025	Brazed
	25	25	8	70	SG82525	Brazed

Inch Size

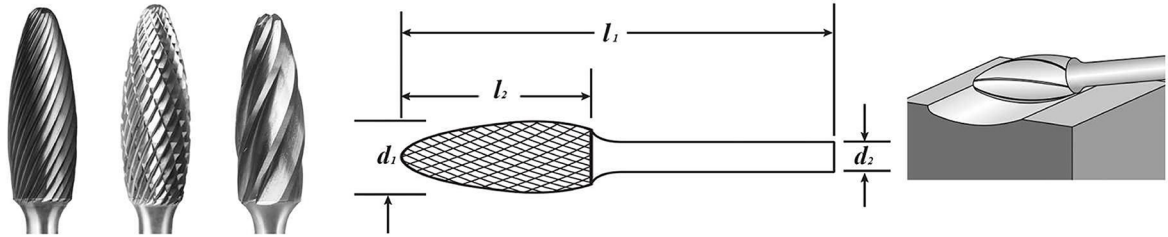
Shank Diameter(In)	Cutter Diameter(d1)	Length of Cut(l2)	Shank Diameter(d2)	Overall Length(l1)	Tool No.	Type
1/8	1/8	1/2	1/8	1-1/2	SG-44	Solid
	1/4	1/2	1/8	1-8/9	SG-51	Brazed
1/4	1/4	5/8	1/4	2	SG-1	Solid
	1/4	5/8	1/4	2-1/8	SG-1	Brazed
	5/16	3/4	1/4	2-1/4	SG-2	Brazed
	3/8	3/4	1/4	2-3/8	SG-3	Brazed
	1/2	1	1/4	2-5/8	SG-5	Brazed
	5/8	1	1/4	2-3/4	SG-6	Brazed
	3/4	1	1/4	2-3/4	SG-7	Brazed
	3/4	1-1/2	1/4	3-1/4	SG-15	Brazed



Type H Carbide Burr

Burr Shape-Flame Shape

Type H carbide burr is suitable for machining circular arc profile of workpiece



Metric Size						
Shank Diameter(mm)	Cutter Diameter(d1)	Length of Cut(l2)	Shank Diameter(d2)	Overall Length(l1)	Tool No.	Type
3.0	3	14	3	38	SG30314	Solid
	4	13	3	51	SG30413	Brazed
	5	13	3	51	SG30513	Brazed
	6	13	3	51	SG30613	Brazed
6.0	6	16	6	50	SG60616	Solid
	6	18	6	63	SG60618	Brazed
	8	20	6	65	SG60820	Brazed
	10	25	6	65	SG61020	Brazed
	12	32	6	70	SG61225	Brazed
	16	36	6	70	SG61625	Brazed
	19	41	6	70	SG62025	Brazed
8.0	10	25	8	70	SE81220	Brazed
	12	32	8	70	SE81625	Brazed
	16	36	8	70	SE82025	Brazed
	19	41	8	70	SE82525	Brazed

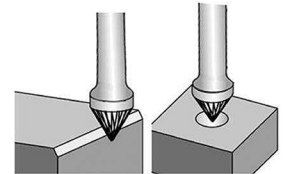
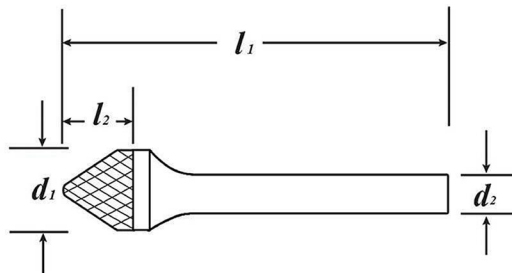
Inch Size						
Shank Diameter(In)	Cutter Diameter(d1)	Length of Cut(l2)	Shank Diameter(d2)	Overall Length(l1)	Tool No.	Type
1/8	1/8	1/4	1/8	1-1/2	SH-41	Solid
	1/4	1/2	1/8	2	SH-51	Brazed
1/4	1/4	5/8	1/4	2	SH-1	Solid
	1/4	5/8	1/4	2-3/8	SH-1	Brazed
	5/16	3/4	1/4	2-1/2	SH-2	Brazed
	3/8	1	1/4	2-3/4	SH-3	Brazed
	1/2	1-1/4	1/4	3	SH-5	Brazed
	5/8	1-7/16	1/4	3-1/5	SH-6	Brazed
	3/4	1-5/8	1/4	3-3/8	SH-7	Brazed



Type J Carbide Burr

Burr Shape-60° Countersink

Type J carbide burr is suitable for machining 60° counter boring
are chamfering of workpiece



Metric Size						
Shank Diameter(mm)	Cutter Diameter(d1)	Length of Cut(l2)	Shank Diameter(d2)	Overall Length(l1)	Tool No.	Type
3.0	3	2	3	38	SJ30302	Solid
6.0	6	5	6	50	SJ60605	Solid
	6	5	6	52	SJ60605	Brazed
	8	6	6	54	SJ60806	Brazed
	10	8	6	56	SJ61008	Brazed
	12	10	6	58	SJ61210	Brazed
	16	13	6	63	SJ61613	Brazed
	19	16	6	65	SJ61916	Brazed
	25	21	6	70	SJ62521	Brazed
8.0	10	8	8	56	SJ81008	Brazed
	12	10	8	58	SJ81008	Brazed
	16	13	8	63	SJ81613	Brazed
	19	16	8	65	SJ81916	Brazed
	25	21	8	70	SJ82521	Brazed

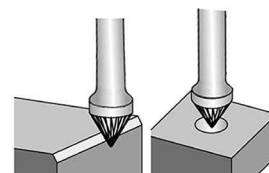
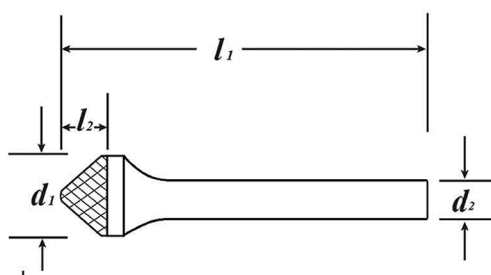
Inch Size						
Shank Diameter(In)	Cutter Diameter(d1)	Length of Cut(l2)	Shank Diameter(d2)	Overall Length(l1)	Tool No.	Type
1/8	1/8	3/32	1/8	1-1/2	SJ-42	Solid
1/4	1/4	3/16	1/4	2	SJ-1	Solid
	1/4	3/16	1/4	2	SJ-1	Brazed
	3/8	5/16	1/4	2-1/5	SJ-3	Brazed
	1/2	7/16	1/4	2-1/3	SJ-5	Brazed
	5/8	9/16	1/4	2-4/9	SJ-6	Brazed
	3/4	11/16	1/4	2-5/9	SJ-7	Brazed
	1	15/16	1/4	2-7/9	SJ-9	Brazed



Type K Carbide Burr

Burr Shape-90° Countersink

Type K carbide burr is suitable for machining circular arc profile of workpiece



Metric Size						
Shank Diameter(mm)	Cutter Diameter(d1)	Length of Cut(l2)	Shank Diameter(d2)	Overall Length(l1)	Tool No.	Type
3.0	3	1.5	3	38	SK30315	Solid
	6	3	6	50	SK60603	Solid
6.0	6	3	6	50	SK60603	Brazed
	8	4	6	52	SK60804	Brazed
	10	5	6	53	SK61005	Brazed
	12	6	6	54	SK61206	Brazed
	16	8	6	57	SK61608	Brazed
	19	9	6	58	SK61909	Brazed
	25	12	6	61	SK62512	Brazed
	10	5	8	53	SK81008	Brazed
8.0	12	6	8	54	SK81210	Brazed
	16	8	8	57	SK81613	Brazed
	19	9	8	58	SK81916	Brazed
	25	12	8	61	SK82521	Brazed

Inch Size						
Shank Diameter(In)	Cutter Diameter(d1)	Length of Cut(l2)	Shank Diameter(d2)	Overall Length(l1)	Tool No.	Type
1/8	1/8	3/32	1/8	1-1/2	SJ-42	Solid
1/4	1/4	3/16	1/4	2	SJ-1	Solid
	1/4	3/16	1/4	2	SJ-1	Brazed
	3/8	5/16	1/4	2-1/5	SJ-3	Brazed
	1/2	7/16	1/4	2-1/3	SJ-5	Brazed
	5/8	9/16	1/4	2-4/9	SJ-6	Brazed
	3/4	11/16	1/4	2-5/9	SJ-7	Brazed
	1	15/16	1/4	2-7/9	SJ-9	Brazed

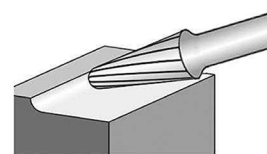
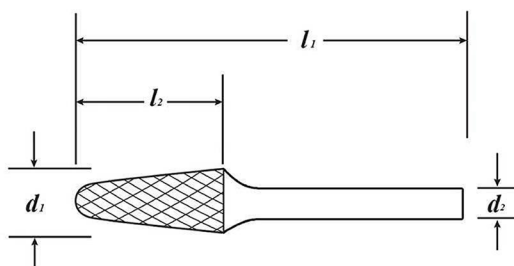


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Type L Carbide Burr

Burr Shape-Ball Nose Cone

Type L carbide burr is suitable for machining narrow profile and surface profile of workpiece



Metric Size

Shank Diameter(mm)	Cutter Diameter(d1)	Length of Cut(l2)	Shank Diameter(d2)	Overall Length(l1)	Tool No.	Type
3.0	3	14	3	38	SL30314	Solid
	4	13	3	51	SL30413	Brazed
	5	13	3	51	SL30513	Brazed
	6	13	3	51	SL30613	Brazed
6.0	6	16	6	50	SL60616	Solid
	6	16	6	61	SL60616	Brazed
	8	22	6	67	SL60822	Brazed
	10	25	6	70	SL61025	Brazed
	12	28	6	73	SL61228	Brazed
	16	33	6	78	SL61633	Brazed
	20	31	6	76	SL62031	Brazed
	25	45	6	90	SL62545	Brazed
8.0	10	25	8	70	SL81025	Brazed
	12	28	8	73	SL81228	Brazed
	16	33	8	78	SL81633	Brazed
	20	31	8	76	SL82031	Brazed
	25	45	8	90	SL82545	Brazed

Inch Size

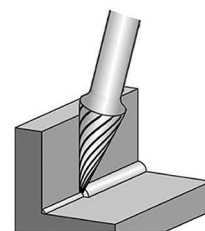
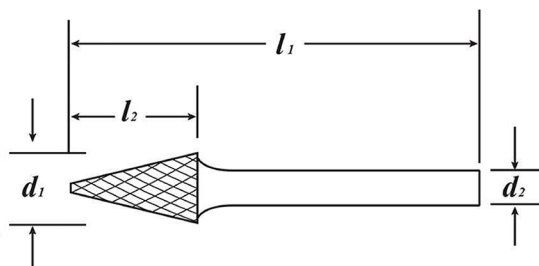
Shank Diameter(In)	Cutter Diameter(d1)	Length of Cut(l2)	Shank Diameter(d2)	Overall Length(l1)	Tool No.	Type
1/8	1/8	1/2	1/8	1-1/2	SL-42	Solid
	1/4	1/2	1/8	2	SL-51	Brazed
1/4	1/4	5/8	1/4	2	SL-1	Solid
	1/4	5/8	1/4	2-3/8	SL-1	Brazed
	5/16	7/8	1/4	2-3/4	SL-2	Brazed
	3/8	1-1/16	1/4	2-15/16	SL-3	Brazed
	1/2	1-1/8	1/4	3	SL-4	Brazed
	5/8	1-3/16	1/4	3-1/16	SL-5	Brazed
	5/8	1-5/16	1/4	3-1/5	SL-6	Brazed
	3/4	1-1/2	1/4	3-3/8	SL-7	Brazed



Type M Carbide Burr

Burr Shape-Cone Shape

Type M carbide burr is suitable for machining narrow profile and surface profile of workpiece



Metric Size						
Shank Diameter(mm)	Cutter Diameter(d1)	Length of Cut(l2)	Shank Diameter(d2)	Overall Length(l1)	Tool No.	Type
3.0	3	11	3	38	SM30311	Solid
	4	13	3	51	SM30413	Brazed
	5	13	3	51	SM30513	Brazed
	6	13	3	51	SM30613	Brazed
6.0	6	16	6	50	SM60616	Solid
	6	18	6	63	SM60618	Brazed
	8	20	6	65	SM60820	Brazed
	10	30	6	65	SM61020	Brazed
	12	25	6	70	SM61225	Brazed
	16	25	6	70	SM61625	Brazed
	19	25	6	70	SM61925	Brazed
	22	25	6	70	SM62225	Brazed
8.0	10	20	8	70	SM81020	Brazed
	12	25	8	73	SM81225	Brazed
	16	25	8	78	SM81625	Brazed
	19	25	8	76	SM81925	Brazed
	22	25	8	90	SM82225	Brazed

Inch Size						
Shank Diameter(In)	Cutter Diameter(d1)	Length of Cut(l2)	Shank Diameter(d2)	Overall Length(l1)	Tool No.	Type
1/8	1/8	7/16	1/8	1-1/2	SM-42	Solid
	1/4	1/2	1/8	2	SM-51	Brazed
1/4	1/4	1/2	1/4	2	SM-1	Solid
	1/4	5/8	1/4	2-3/8	SM-1	Brazed
	1/4	3/4	1/4	2-1/2	SM-2	Brazed
	1/4	1	1/4	2-3/4	SM-3	Brazed
	3/8	5/8	1/4	2-1/2	SM-4	Brazed
	1/2	7/8	1/4	2-3/4	SM-5	Brazed
	5/8	1	1/4	2-8/9	SM-6	Brazed

PRODUCT APPLICATION SCENARIOS

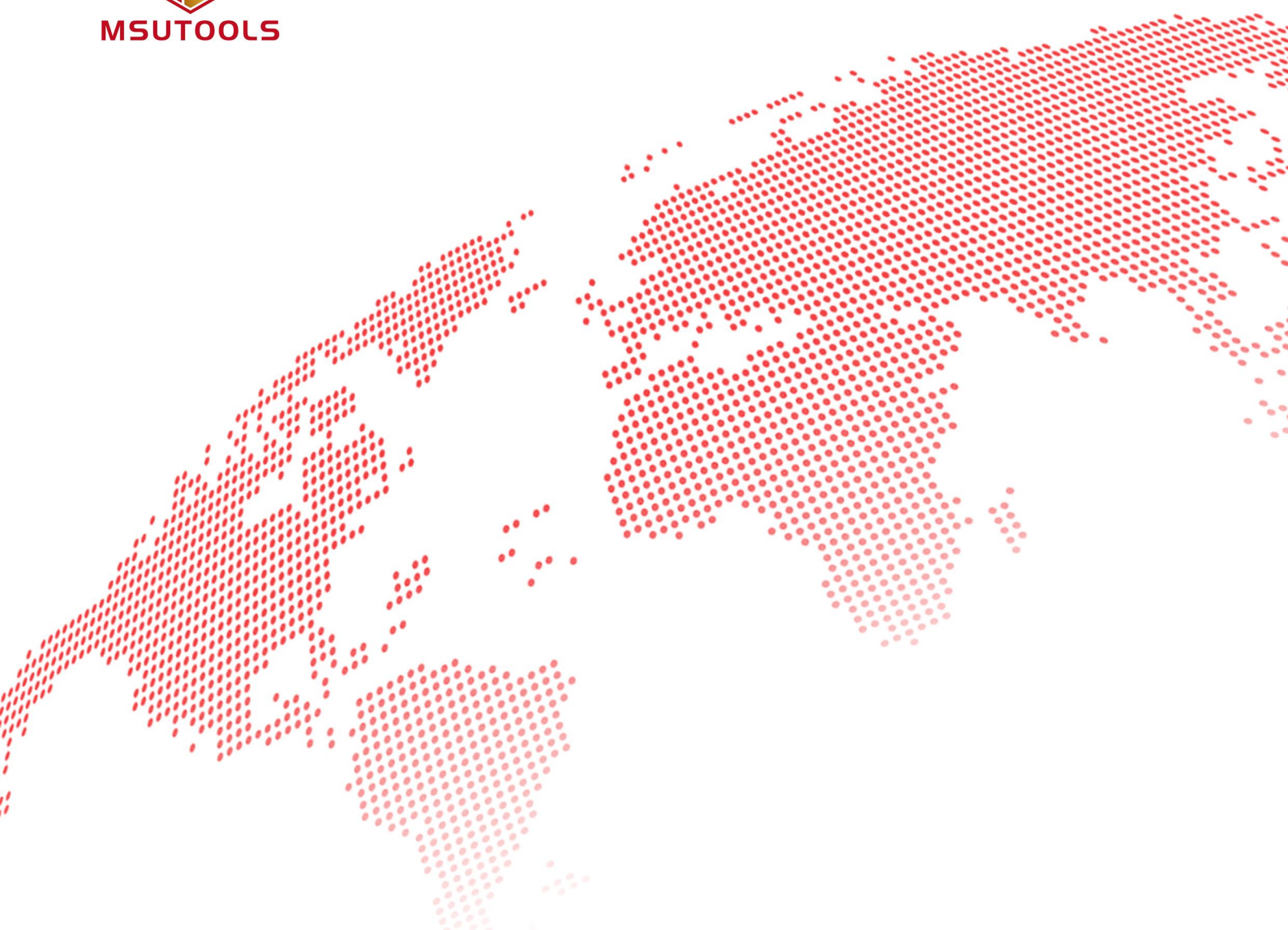


METHOD OF APPLICATION

Grinding with slowly rotating speed at start to keep the concentricity between shank and head are steady, unstable grinding and shaking during using will damage burrs fast.



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