

HARTLAUER BITS

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Service with an edge

1-800-644-2487

Router Bits
By Hartlauer

- 10% Bit Discount
- Free Domestic Bit Shipping
- Large Stock
- Competitive Pricing



January 2020 Price List

Prices are subject to change without notice

HARTLAUER BITS

Service with an edge

10% Discount
plus FREE domestic ground
shipping on ALL Router Bits!



All Purpose

Plastic, Metal & Wood

52-000	SC 2 FL Spiral	3
61-000	SC 1 FL "O" Straight	3
63-700	SC 1 FL "O" Spiral	4
65-000	SC 1 FL Super "O" Spiral	3
C8-200	SC 2 FL Robb Jack Spiral	6
51000	SC 1 FL Amana	3

Metal Cutting

Hard Aluminum -

(Treated T-3 to T-6 & 5052-H32, H34, J36 & H38)

40-000	HSS 1 FL Spiral	6
40-100	HSS 2 FL Spiral	6
52-000	SC 2 FL Spiral	3
61-000	SC 1 FL Straight	3
63-000	SC 1 FL Spiral	3
63-600	SC 1 FL "O" Spiral	6
65-000	SC 1 FL Super "O"	3
33000	SC 1 FL Belin Y Spiral	6

Soft Aluminum (Untreated & 3000)

63-400	SC 1 FL Spiral	6
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Ferrous Metal

83-300	SC 2 FL Spiral	5
10200	SC 3 FL BelinY Spiral	5

Wood Cutting

Natural Wood & MDF

52-200	SC 2 FL Wood rout Spiral	7
52-900	SC 2 FL Heavy Duty	7
56-200	SC 2 FL Straight	7
60-100	SC 1-2 FL Up/down	7
65-000	SC 1 FL Super "O"	3

Wood Composites

56-200	SC 2FL Onsrud Straight	7
60-100	SC 1-2FL Onsrud up/down	7

Plastic Cutting

Hard Plastic -

Cast Acrylic, Melamine, Nylon, PVC,
& Vinyl (These plastics make sawdust)

52-200	SC 2 FL Wood rout Spiral	7
52-600	SC 2 FL "O" Spiral	5
56-000P	SC 2 FL Straight	5
56-600	SC 2 FL "O" Straight	4
60-200	SC 3 FL Up/down Spiral	8
61-000P	SC 1 FL "O" Straight	5
63-500	SC 1 FL "O" Spiral	4
63-700	SC 1 FL "O" Spiral	4
65-000	SC 1 FL Super "O"	3
13000	SC 1 FL BelinY Spiral	4

Soft Plastic - Extruded Acrylic, ABS, Polycarbonate, Polyethylene, PVC, UHMW, HDPE & Deirin (These plastics make curls not sawdust)

10-00	HSS 1 FL "O" Straight	7
52-200	SC 2 FL Wood rout Spiral	7
52-600	SC 2 FL "O" Spiral	5
56-600	SC 2 FL "O" Straight	4
60-200	SC 3 FL Up/down Spiral	8
61-000P	SC 1 FL "O" Straight	5
63-500	SC 1 FL "O" Spiral	4
63-750	SC 1 FL "O" Spiral	4
65-000	SC 1 FL Super "O"	3
13000	SC 1 FL BelinY Spiral	4

Composite Plastic - (Fiberglass, Phenolic & Carbon fibers)

48-000	CT 1-2 FL Straight	7
52-000	SC 2 FL Spiral	3
58-000	SC 3 FL Spiral	8
63-000	SC 1 FL Spiral	3
67-000	SC Burr for Fiberglass	8
67-200	SC 3 FL for Phenolic	8

Solid Surface

52-200	SC 2 FL Spiral	7
60-200	SC 3 FL Finisher	8

Specialty

3-D Cutting	8
Ball Nose Bits	8
Cleaning Brushes for collets	11
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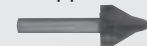
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Tape - Double Sticky	11
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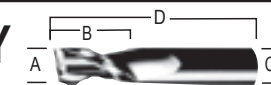


**Always
Free Cutting
Help**
1-800-644-2487

541-343-0390
outside USA & CAN

email: sales@hartlauerbits.com

KEY



A- Dia C- Shank Dia
B- Flute Lgth D- Over All

b - Ball Nosed
h - Hartlauer custom-made
TiN - Titanium Nitrate Coated
AlTiN - Aluminum Titanium Nitrate Coated
SC - Solid Carbide
HSS - High Speed Steel
CT - Carbide Tipped

General Purpose Cutters

65-000 - Upcut Solid Carbide I-Flute "O" Spiral

The Amazing Super "O"

The polished flute allows for razor sharp cutting with easy chip evacuation and a smooth bottom finish. These cut well in most materials.

Wood Aluminum Plastic LMT • ONSRUD

Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
65-000	1/16	1/4	1/8	2	41.00	36.90
65-010	1/8	1/4	1/4	2	44.25	40.05
65-013	1/8	1/2	1/8	2	42.00	37.80
65-012	1/8	1/2	1/4	2	44.25	39.82
65-019	3/16	5/8	3/16	2	49.00	44.10
65-018	3/16	5/8	1/4	2	61.25	55.12
65-021	3/16	7/8	1/4	2-1/2	66.25	59.62
65-020	3/16	1-1/4	1/4	3	70.75	63.67
65-023	1/4	5/8	1/4	2	56.25	50.62
65-025	1/4	7/8	1/4	2-1/2	65.25	58.81
65-026	1/4	1-1/4	1/4	3	79.75	71.77
65-027	1/4	1-1/2	1/4	3	85.25	76.72
65-033	3/8	1-1/8	3/8	3	111.75	100.57

64-000 - Downcut Solid Carbide I-Flute "O" Spiral

The downcut version of the 65-000 series.

Wood Aluminum Plastic LMT • ONSRUD

Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
64-000	1/16	1/4	1/8	2	41.00	36.90
64-012	1/8	1/2	1/4	2	46.75	42.07
64-018	3/16	5/8	1/4	2	49.50	44.55
64-025	1/4	3/4	1/4	2	52.75	47.47

61-000 Solid Carbide I-Flute "O" Straight

The all purpose "O" flute cutter to try when others are not doing the job. Try these before using a downcut spiral.

LMT • ONSRUD Natural Wood Aluminum Plastic

Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
61-040	1/8	1/2	1/4	2	40.75	36.67
61-140h	1/8	13/16	1/4	2	Foam Only	36.90
61-050	5/32	9/16	1/4	2	40.75	36.67
61-060	3/16	5/8	1/4	2	40.75	36.67
61-063h	3/16	1	1/4	2-1/2	46.25	41.62
61-080	1/4	3/4	1/4	2-1/2	40.75	36.67

These bits are similar to 61-000

SC01	1/16	5/16	1/4	1-1/2	22.50	20.25
92-020	1/16	3/16	1/8	1-1/2	14.00	12.60

52-000 - Upcut Solid Carbide 2-Flute Spiral

All-Purpose 2-Fluter

Designed as a general purpose spiral for Long-life usage. Great in foam, gatorboard, HDV and ultraboard.

Wood Aluminum Plastic LMT • ONSRUD

Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
52-044TIN	1/8	5/16	1/4	2	33.50	30.15
52-040	1/8	1/2	1/4	2	33.25	29.92
52-040TIN	1/8	1/2	1/4	2	35.75	32.17
52-141h	1/8	5/8	1/4	2	38.50	34.65
52-142h	1/8	3/4	1/4	2-1/2	44.00	39.60
52-554	1/8	1-1/16	1/4	2-1/2	Foam Only	53.77
52-050	5/32	9/16	1/4	2	33.25	29.92
52-050TIN	5/32	9/16	1/4	2	35.75	32.17
52-060	3/16	5/8	1/4	2	33.25	29.92
52-060TIN	3/16	5/8	1/4	2	35.75	32.17
52-558	3/16	1-1/8	3/16	2-1/2	Foam Only	53.77
52-160h	3/16	1-1/8	1/4	2-1/2	Foam Only	38.70
52-560	3/16	1-5/8	3/16	3	Foam Only	58.27
52-080	1/4	3/4	1/4	2-1/2	33.25	29.92
52-080TIN	1/4	3/4	1/4	2-1/2	35.75	32.17
52-180h	1/4	1-1/4	1/4	2-1/2	40.00	36.00
52-181h	1/4	1-3/8	1/4	3	Foam Only	36.00
52-281h	1/4	1-3/4	1/4	3-1/2	Foam Only	54.00
52-564	1/4	2-1/4	1/4	3-1/2	Foam Only	61.42
52-090	9/32	3/4	3/8	2-1/2	48.75	43.88
52-570	5/16	3-1/8	5/16	6	Foam Only	69.07
52-574	3/8	3-1/2	3/8	6	Foam Only	76.72
52-120	3/8	7/8	3/8	2-1/2	56.50	50.85
52-160	1/2	1	1/2	3	94.30	84.87

BOSCH This bit is similar to 52-000

85910M	1/4	3/4	1/4	2	23.25	20.92
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Downcut to 52-000

57-040	1/8	1/2	1/4	2	33.25	29.92
57-060	3/16	5/8	1/4	2	33.25	29.92
57-080	1/4	3/4	1/4	2-1/2	33.25	29.92

51000 - Upcut Solid Carbide I-Flute "O" Spiral

Produce super clean smooth cuts especially in acrylic materials and other plastics and wood.

Hard Plastic Wood New Amana Tool

Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
51441	1/16	1/4	1/4	2	31.00	27.90
51411	1/8	1/2	1/4	2	31.00	27.90
51417	3/16	5/8	1/4	2	31.00	27.90
51404	1/4	3/4	1/4	2-1/2	30.00	27.00

92-000 - Upcut Solid Carbide I-Flute Sp/St

Endmills

by Various Manufacturers

A small diameter all-purpose cutter at a budget price.

Natural Wood Aluminum Plastic

Part	Dia	Cut Lgth	Shank Dia	Over All	Str/ Spiral	List	Our Price
92-020	1/16	3/16	1/8	1-1/2	ST	14.00	12.60
92-021	1/16	3/16	1/8	1-1/2	SP	12.00	10.80
92-030	3/32	1/4	1/8	1-1/2	SP	14.00	12.60

92-000 - Upcut Solid Carbide 2-Flute Spiral

These endmills, which are used for metal cutting are at a budget price. They also cut good in wood.

Aluminum Natural Wood

Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
92-05	1/32	3/32	1/8	1-1/2	8.00	7.20
92-105	3/64	3/32	1/8	1-1/2	12.75	11.47
92-10	3/64	1/8	1/8	1-1/2	9.00	8.10
92-20	1/16	3/16	1/8	1-1/2	8.00	7.20
92-21	1/16	3/8	1/8	1-1/2	14.00	12.60
92-30	3/32	5/16	1/8	1-1/2	6.00	5.40
92-40	1/8	7/16	1/8	1-1/2	6.00	5.40
92-140	1/8	1-1/16	1/8	2	Foam Only	28.35
92-60	3/16	5/8	1/4	2-1/2	11.00	9.90
92-060	3/16	5/8	1/4	2-1/2	14.50	13.05
92-80	1/4	3/4	1/4	2-1/2	11.00	9.90
92-564	1/4	3	1/4	6	Foam Only	36.90
92-570	5/16	3	5/16	6	Foam Only	41.62
92-85	3/8	1	3/8	2-1/2	30.00	27.00
92-574	3/8	4	3/8	7	Foam Only	55.80
92-90	1/2	1-1/2	1/2	3	47.00	42.30

63-000- Upcut Solid Carbide I-Flute Spiral

General purpose spiral with several times the life than other high speed steel counterparts.

Plastic Aluminum LMT • ONSRUD

Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
63-040	1/8	1/2	1/4	2	36.75	33.07
63-040TIN	1/8	1/2	1/4	2	39.25	35.32
63-060	3/16	5/8	1/4	2	36.75	33.07
63-060TIN	3/16	5/8	1/4	2	39.25	35.32
63-080	1/4	3/4	1/4	2-1/2	36.75	33.07
63-080TIN	1/4	3/4	1/4	2-1/2	39.25	35.32

Plastic Cutters

GTS-201 - Upcut

Solid Carbide

2-Flute Spiral

Designed to cut hard plastics with a smooth finish.



Plastic Cutter

ROBB JACK

Hard Plastic

Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
GTS-201-04	1/8	1/2	1/4	2	28.75	25.87
GTS-201-08	1/4	3/4	1/4	2-1/2	28.75	25.87

56-000

Solid Carbide

2-Flute Straight

Straight edge "V" flute for plastics.



Composite Plastic Hard Plastic

LMT • ONSRUD

Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
56-040	1/8	1/2	1/4	2	33.25	29.92
56-060	3/16	5/8	1/4	2	33.25	29.92
56-080	1/4	3/4	1/4	2-1/2	33.25	29.92
56-281h	1/4	1-5/8	1/4	3	42.30	42.30
56-282h	1/4	2-1/4	1/4	3-1/2	58.50	58.50

BOSCH This bit is similar to 56-000

85213M	1/8	3/8	1/4	1-1/2	18.25	16.42
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63-500 - Upcut

Solid Carbide

1-Flute Spiral

Crafted to rout acrylic while maintaining long tool life. Cutter will give smooth finish in cast or extruded plastic.

Just for Soft Plastics

Soft Plastic

LMT • ONSRUD

Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
63-505	1/16	1/4	1/4	2	38.50	34.65
63-510	1/8	1/4	1/4	2	40.00	36.00
63-515	1/8	1/2	1/4	2	40.00	36.00
63-520	3/16	5/8	1/4	2	42.75	38.47
63-525	1/4	3/8	1/4	2-1/2	46.25	41.62
63-530	1/4	3/4	1/4	2-1/2	47.75	42.97
63-535	3/8	1-3/8	3/8	3	94.75	85.27

12000 13000

Solid Carbide

1-Flute Spiral

"O" Fluted with polished inside and out to leave a smooth finish in plastics.

Soft Plastic

Hard Plastic

LMT • BELIN

Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
Downcut						
12317	1/8	1/2	1/4	1-1/2	33.75	30.38
12476	3/16	5/8	1/4	2	33.75	30.38
12635	1/4	3/4	1/4	2	33.75	30.38

Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
Upcut						
13317	1/8	1/2	1/4	1-1/2	33.75	30.38
13317A	1/8	1/2	1/8	2	25.00	22.50
13317B	1/8	3/4	1/8	2	28.75	25.88
13476	3/16	5/8	1/4	2	33.75	30.38
13476A	3/16	5/8	3/16	2	28.00	25.20
13476B	3/16	1-1/4	1/4	3	43.25	38.93
13635	1/4	3/4	1/4	2	33.75	30.38
13635A	1/4	1-1/2	1/4	3	43.25	38.93
13635B	1/4	2-1/4	1/4	3-3/4	48.60	48.60
13635C	1/4	1-1/8	1/4	3	39.50	35.50
13952	3/8	1-1/8	3/8	3	60.25	54.23
13952A	3/8	3-3/16	3/8	5	72.90	72.90

These router bits are similar to the Onsrud 62-700 and 63-700 Series

56-600

Solid Carbide

2-Flute Straight

Two edge "O" flute designed to give a smooth finish.

Soft Plastic

Hard Plastic

LMT • ONSRUD

Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
56-612	1/8	1/2	1/4	2	32.00	28.80
56-618	3/16	5/8	1/4	2	32.00	28.80
56-625	1/4	1	1/4	2-1/2	35.00	31.50
56-638	3/8	7/8	3/8	2-1/2	64.75	58.27

Metric for 63-700

Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
63-816	3mm	12mm	6mm	64mm	34.25	30.82
63-830	5mm	16mm	6mm	64mm	34.25	30.82
63-838	6mm	20mm	6mm	64mm	34.25	30.82

63-700 - Upcut

Solid Carbide

1-Flute "O" Spiral

#1 Best Seller

Designed to provide a smooth finish in hard and soft

plastics. However, can be used as an all purpose cutter

Great for ACM Alucobond, Dibond, Centra, and Max Metal.

LMT • ONSRUD

Hard Plastic Soft Plastic

Wood

Aluminum

Plastic

Upcut of 63-700

Part Hard	Part Soft	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price		
63-700	63-750	1/16	1/4	1/4	2	35.00	31.50		
63-701		1/16	1/4	1/8	2	31.50	28.35		
63-710		1/8	1/4	1/4	2	35.00	31.50		
63-711		1/8	1/4	1/8	2	32.50	29.25		
63-712		63-762	1/8	1/2	1/4	2	35.00	31.50	
63-713			1/8	1/2	1/8	2	31.50	28.35	
63-706			1/8	5/8	1/4	2-1/2	39.50	35.55	
63-707	1/8		3/4	1/4	2-1/2	42.00	37.80		
63-715	5/32		9/16	1/4	2	34.25	31.05		
63-716	63-768	3/16	3/8	3/16	2	31.50	28.35		
63-717		3/16	3/8	1/4	2	35.00	31.50		
63-718		3/16	5/8	1/4	2	35.00	31.50		
63-719		3/16	5/8	3/16	2	32.50	29.25		
63-708h		3/16	7/8	1/4	2-1/2	52.00	46.80		
63-720		7/32	3/4	1/4	2-1/2	34.25	30.82		
63-724		1/4	3/8	1/4	2	33.25	29.92		
63-725		63-775	1/4	3/4	1/4	2-1/2	35.00	31.50	
63-726			63-776	1/4	1-1/4	1/4	3	41.50	37.35
63-727				1/4	1-1/2	1/4	3	41.75	37.57
63-731	3/8			3/4	3/8	3	57.00	51.30	
63-733	3/8			1-1/8	3/8	3	60.50	54.45	
63-735	3/8	1-5/8	3/8	3-1/2	69.50	62.55			

62-700 - Downcut

Solid Carbide

1-Flute "O" Spiral

The downcut version of the 63-700 Series.

Wood

Aluminum

Plastic

LMT • ONSRUD

Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
62-712	1/8	1/2	1/4	2	35.00	31.50
62-718	3/16	5/8	1/4	2	35.00	31.50
62-725	1/4	3/4	1/4	2-1/2	35.00	31.50
62-726	1/4	1-1/4	1/4	3	41.50	37.35
62-733	3/8	1-1/8	3/8	3	60.50	54.45

Plastic Cutters

61-000P

Solid Carbide

1-Flute "O" Straight

Designed for cutting all plastics.

Plastic

LMT • ONSRUD



Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
61-041P	1/8	5/16	1/4	2	34.00	30.60
61-042P	1/8	1/2	1/4	2	37.00	33.30
61-061P	3/16	3/8	1/4	2	34.50	30.60
61-061	3/16	5/8	1/4	2	37.00	33.30
61-063h	3/16	1	1/4	2-1/2	46.25	41.62
61-081P	1/4	3/8	1/4	2-1/2	37.00	33.30
61-082P	1/4	3/4	1/4	2-1/2	38.75	34.87

52-600 - Upcut

2-Flute Spiral

Solid Carbide

Designed with a double "O" flute for smooth finish & less lift on materials than spirals. Great in corian, lexan and rubber.

Soft Plastic

Hard Plastic

LMT • ONSRUD



Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
52-622	1/4	3/8	1/4	2-1/2	30.00	27.00
52-624	1/4	3/4	1/4	2-1/2	32.00	28.80
52-638	3/8	1	3/8	3	62.00	55.80
52-650	1/2	1-1/8	1/2	3-1/2	108.00	97.20
52-655	1/2	2-1/8	1/2	4-1/2	162.00	145.80

85000M - Downcut

2-Flute Spiral

Solid Carbide

Amazing Plastic Cutter

Hard Plastic

BOSCH



Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
85611M	1/4	1	1/4	2-1/2	26.25	23.62

85-000M

2-Flute Straight

Solid Carbide

Straight edge "V" flute for plastics.

Hard Plastic

Composite Plastic

BOSCH



Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
85213M	1/8	3/8	1/4	1-1/2	18.25	16.42

85000M

1-Flute "O" Straight

High Speed Steel

Natural Soft Wood

Soft Plastic

BOSCH



Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
85092	1/8	5/16	1/4	1-5/8	8.50	7.65
85152	1/8	5/8	1/4	2	7.25	6.98
85154	1/4	1	1/4	2-3/8	8.50	7.65

56-000P

2-Flute Straight

Solid Carbide

Straight edge "V" flute for plastics.

Plastic Cutter

Hard Plastic

LMT • ONSRUD



Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
56-041P	1/8	1/4	1/4	2	31.75	28.57
56-062P	3/16	5/8	1/4	2	31.75	28.57
56-082P	1/4	3/4	1/4	2-1/2	34.75	31.27

55-000 - Upcut

4-Flute Spiral

Solid Carbide

Equally adaptable to low or high spindle speed in CNC machining.

Composite Plastic

LMT • ONSRUD



Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
55-040	1/8	1/2	1/4	2	38.75	34.87
55-088h	1/4	1/2	1/4	2	19.00	17.10
55-088TIN	1/4	1/2	1/4	2	21.50	19.35
55-088AITIN	1/4	1/2	1/4	2	35.00	31.50
55-080	1/4	3/4	1/4	2-1/2	38.75	34.87

Metal Cutters

83-300 - Upcut

2-Flute Spiral

Solid Carbide

AlTiN coated to provide heat and wear resistance to achieve decent tool life in ferrous materials.

Steel

LMT • ONSRUD

Steel Cutter



Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
83-305AITIN	1/8	1/4	1/8	2	37.50	33.75
83-310AITIN	3/16	3/8	3/16	2-1/2	52.25	47.02
83-315AITIN	1/4	1/2	1/4	2-1/2	54.25	48.82

57-000 - Downcut

2-Flute Spiral

Solid Carbide

Designed as a general purpose spiral for Long-life usage.

Hard Plastic

Solid Surface

Aluminum

LMT • ONSRUD



Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
57-040	1/8	1/2	1/4	2	33.25	29.92
57-060	3/16	5/8	1/4	2	33.25	29.92
57-080	1/4	3/4	1/4	2-1/2	33.25	29.92

These are the downcut to the 52-000 Series

102000 - Upcut

3-Flute Spiral

Solid Carbide

Coated to provide heat and wear resistance in ferrous materials.

Steel

Brass

LMT • BELIN



Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
102317	1/8	3/8	1/4	1-1/2	46.50	41.85
102476	3/16	7/16	1/4	1-7/8	46.50	41.85
102635	1/4	5/8	1/4	2-3/8	46.50	41.85

Metal Cutters

33000 - Upcut

1-Flute "O" Spiral

Solid Carbide

Made to cut non-ferrous metals.



Aluminum	Copper	Brass	LMT • BELIN			
Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
33317	1/8	5/16	1/4	1-1/2	41.25	37.12
33317A	1/8	5/16	1/8	1-1/2	27.00	24.30
33476	3/16	1/2	1/4	2	41.25	37.12
33476A	3/16	1/2	3/16	2	31.00	27.90
33635	1/4	5/8	1/4	2	41.25	37.12
33635A	1/4	3/4	1/4	2	48.25	43.42

These router bits are similar to the Onsrud 63-600 Series

40-100

2-Flute Spiral

High Speed Steel

Cost effective solution where tool life is not the primary concern. Great bit for a one time job.

Aluminum	Natural Wood	LMT • ONSRUD				
Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
Upcut						
40-101h	1/8	3/8	1/4	2	10.50	9.45
40-101TiN	1/8	3/8	1/4	2	12.50	11.25
40-101Long	1/8	3/8	1/4	2-5/8	12.50	11.25
40-201h	1/8	1-1/16	1/4	2-1/2	Foam Only	28.80
40-103h	3/16	5/8	1/4	2-1/4	11.50	10.35
40-103TiN	3/16	5/8	1/4	2-1/4	13.50	12.15
40-103Long	3/16	5/8	1/4	2-7/8	13.50	12.15
40-107	1/4	3/4	1/4	2-3/4	10.00	9.00
40-107TiN	1/4	3/4	1/4	2-3/4	12.00	10.80
40-111	1/4	1	1/4	3	12.75	11.25
40-282h	1/4	2-1/8	1/4	3-1/2	Foam Only	25.20
40-212h	5/16	3-1/8	5/16	5-1/2	Foam Only	45.00
Downcut to 40-100						
40-102	1/8	5/16	1/4	2-5/8	12.50	11.25
40-104	3/16	5/8	1/4	2-7/8	13.50	12.15
40-106	1/4	5/8	1/4	2-3/4	11.75	10.57
40-108	1/4	3/4	1/4	2-3/4	11.00	9.90

C8-200 - Upcut

2-Flute Spiral

Solid Carbide

Capable of non-ferrous metal and all purpose cutting.



Wood	Plastic	ROBB JACK				
Aluminum	Copper	Brass				
Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
C8-201-04	1/8	1/4	1/4	2	22.50	20.25
C8-203-04	1/8	1/2	1/4	2-1/2	30.50	27.45
C8-201-06	3/16	3/8	1/4	2	22.50	20.25
C8-203-06	3/16	5/8	1/4	2-1/2	30.50	27.45
C8-201-08	1/4	1/2	1/4	2	22.50	20.25
C8-203-08	1/4	3/4	1/4	2-1/2	30.50	27.45

These bits are similar to Onsrud's 52-000 series.

92-000 - Upcut

4-Flute Spiral

Solid Carbide
High Speed Steel

The metal cutter at a budget price.

Aluminum						
Part	Dia	Cut Lgth	Shank Dia	Over All	Made Of	Our Price
92-101	3/64	1/8	1/8	1-1/2	SC	12.50 11.25
92-201	1/16	3/16	1/8	1-1/2	SC	10.00 9.00
92-202	1/16	1/4	1/8	1-1/2	SC	10.00 9.00
92-141	1/8	1-1/16	1/8	3	SC	Foam Only 14.40
92-301	3/32	5/16	1/8	1-1/2	SC	10.00 9.00
92-401	1/8	7/16	1/8	1-1/2	SC	6.00 5.40
92-601	3/16	5/8	3/16	2	SC	12.50 11.25
92-184	1/4	1-1/4	1/4	2-1/2	SC	19.50 17.55
92-81	5/16	1	5/16	3	SC	43.00 38.70
92-384	3/8	2-5/8	3/8	4-1/4	HSS	Foam Only 22.05
92-414	1/2	3	1/2	5	HSS	Foam Only 31.50
92-484	1/2	3	1/2	6	SC	144.00 129.60

63-400 - Upcut

1-Flute Spiral

Solid Carbide

Designed for clean cutting in soft aluminum like 3003 alloy

*Just for
Soft Aluminum*

Soft Aluminum	LMT • ONSRUD					
Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
63-420	3/16	1/4	1/4	2	82.25	74.02
63-430	1/4	1/4	1/4	2-1/2	64.75	58.27

40-000 - Upcut

1-Flute Spiral

High Speed Steel

Designed for routing application where speed and chip removal are a primary concern. Great bit for a one time job.

Aluminum	Natural Wood	LMT • ONSRUD				
Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
40-001	1/8	3/8	1/4	2-5/8	17.25	15.52
40-003	3/16	5/8	1/4	2-7/8	15.50	13.95
40-007	1/4	3/4	1/4	2-3/4	12.50	11.25
40-011	1/4	1	1/4	3	14.25	12.82

63-600 - Upcut

1-Flute Spiral

Solid Carbide

*Our #1
Aluminum
Cutter*

These "O" fluted tools are designed for use at high speeds in metal cutting. Also try them in plastics.



LMT • ONSRUD

Hard Aluminum

Upcut of 63-600

Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
63-602	1/16	1/4	1/8	1-1/2	34.75	31.27
63-603	3/32	1/4	1/8	2	35.75	32.17
63-604	1/8	1/4	1/8	1-1/2	36.50	32.85
63-606	1/8	1/4	1/4	2	43.00	38.70
63-610	1/8	1/2	1/4	2	45.75	41.17
63-612	3/16	3/8	3/16	1-1/2	41.75	37.57
63-614	3/16	3/8	1/4	2	45.75	41.17
63-618	3/16	5/8	1/4	2	48.25	43.42
63-620	1/4	3/8	1/4	2	45.50	40.95
63-622	1/4	3/4	1/4	2-1/2	49.50	44.55
63-624	1/4	1-1/4	1/4	3	71.25	64.12
63-625	3/8	3/4	3/8	3	84.50	76.05
63-626	3/8	1-1/8	3/8	3	102.50	92.25
63-631	1/2	1-1/8	1/2	3-1/2	130.50	117.45

Downcut of 63-600

Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
62-602	1/16	1/4	1/8	1-1/2	34.75	31.27
62-604	1/8	1/4	1/8	1-1/2	36.50	32.85
62-606	1/8	1/4	1/4	2	43.00	38.70
62-614	3/16	3/8	1/4	2	45.75	41.17
62-620	1/4	3/8	1/4	2	45.50	40.95

Metric of 63-600

Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
63-912	3mm	8mm	6mm	64mm	61.00	54.90
63-930	5mm	16mm	6mm	64mm	61.00	54.90
63-934	6mm	8mm	6mm	64mm	63.25	56.92

Wood Cutters

10-00

1-Flute "O" Straight

High Speed Steel

Designed to provide optimum chip removal at fast feed rates. Excellent for hand-fed operations.



Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
10-00	1/16	3/16	1/4	2	14.75	13.28
10-01	3/32	3/8	1/4	2	13.75	12.38
10-02	1/8	3/8	1/4	2	14.75	13.28
10-20	1/8	1/2	1/4	2	16.00	14.40
10-22	3/16	3/4	1/4	2	15.75	14.18
10-07	1/4	1	1/4	2-3/8	12.00	10.80

Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
85092	1/8	5/16	1/4	1-5/8	8.50	7.65
85152	1/8	5/8	1/4	2	7.25	6.53
85154	1/4	1	1/4	2-3/8	8.50	7.65

BOSCH Similar to the Onsrud 10-00 Series

52-200 - Upcut

2-Flute Spiral

Solid Carbide

Designed for tool rigidity, long life and high quality finish.

Wood Routs



Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
52-240	1/8	1/2	1/4	2	28.50	25.65
52-260	3/16	3/4	1/4	2	28.50	25.65
52-280	1/4	7/8	1/4	2-1/2	32.25	29.02
52-285	1/4	1	1/4	2-1/2	33.25	29.92
52-287	1/4	1-1/8	1/4	3	37.00	33.30
52-320	3/8	1-1/8	3/8	3	55.25	49.72
52-360	1/2	1-1/8	1/2	3	88.50	79.65

Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
52-910	1/4	7/8	1/4	2-1/2	25.75	23.18

Extreme Heavy Duty for Wood

56-200

2-Flute Straight

Solid Carbide

Provides a superior finish in a variety of wood materials & optimum cutter life. Less splinters in fibrous woods like cedar.

Wood Routs



Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
56-240	1/8	1/2	1/4	2	29.25	26.32
56-260	3/16	3/4	1/4	2	29.25	26.32
56-280	1/4	7/8	1/4	2-1/2	33.25	29.92
56-285	1/4	1	1/4	2-1/2	34.00	30.60
56-287	1/4	1-1/8	1/4	3	37.75	33.97
56-320	3/8	1-1/8	3/8	3	56.50	50.85
56-360	1/2	1-1/8	1/2	3	90.25	81.22

60-100MW Up/Down

1-2-Flute Spiral

Solid Carbide

Compression Spirals

Gives you the benefits of both the upcut spiral and the downcut spirals in one.



Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
60-102MW	1/8	3/8	1/4	2-1/2	58.25	54.42
60-106MW	3/16	5/8	1/4	2-1/2	66.25	59.62
60-111MW	1/4	7/8	1/4	2-1/2	73.00	65.70
60-120MW	3/8	1-1/8	3/8	3	81.25	73.12
60-167MW	1/2	1-1/8	1/2	3	104.25	93.82

Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
60-113MW	1/4	7/8	1/4	2-1/2	75.75	68.17
60-124MW	3/8	1-1/8	3/8	3	99.50	89.55

48-000

2 Flute Straight

Carbide Tipped

Cost effective alternative, especially in larger diameters.

Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
48-206h	1/4	1-1/4	1/4	2-3/4	28.00	25.20
48-012	3/8	3/4	1/4	2-1/4	28.00	25.20
48-058	3/8	1-1/4	3/8	2-3/4	25.75	23.17
48-183	1/2	2-1/2	1/2	4-1/2	47.25	42.52

Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
45-190	1/16	3/16	1/4	1-5/8	29.00	26.10
85427M	1/2	1	1/2	2-1/2	22.25	20.02
85242M	1/2	1-1/2	1/2	3	23.75	21.37
85251M	1/2	2	1/2	4	27.00	24.30
85243M	1	1-1/8	1/2	2-1/2	29.00	26.10

These router bits are similar to the Onsrud 48-000 Series

63-200 - Upcut

1-Flute Spiral

Solid Carbide

Designed for routing where aggressive chip removal is necessary. Provides tool rigidity, long life and high quality.

Wood Routs



Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
63-240	1/8	1/2	1/4	2	36.75	33.07
63-280	1/4	7/8	1/4	2-1/2	36.75	33.07

52-900 - Upcut

2-Flute Spiral

Solid Carbide

Extreme Heavy Duty for all woods.



Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
52-910	1/4	7/8	1/4	2-1/2	27.25	24.52

Mortise Compression Spirals



Compression design for excellent finish with short upcut to allow mortise cut with downcut action.

Part	Dia	Cut Lgth	Upcut Lgth	Shank Dia	Over All	List	Our Price
60-111	1/4	7/8	0.175	1/4	2-1/2	86.00	77.40
60-113	1/4	7/8	0.188	1/4	2-1/2	92.75	83.47

61-200

1-Flute "O" Straight

Solid Carbide

"O" flute that provides fast, free cutting for long tool life.

Wood Routs



Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
61-240	1/8	1/2	1/4	2	40.75	36.67
61-280	1/4	7/8	1/4	2-1/2	40.75	36.67
61-285	1/4	1	1/4	2-1/2	42.75	38.47

Specialty Cutters

SR-0-000 - Upcut Solid Carbide 2 & 4 Flute Spiral

Miniatures for detailing in 3D routing.

Miniature End Mills for highly detailed routing and engraving. Use with high spindle speeds.

ROBB JACK

Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
2 Flute						
SR-2-030	.030	.0900	1/8	1-1/2	17.25	15.52
4 Flute						
SR-4-047	.047	.1410	1/8	1-1/2	16.75	15.07

52-200B - Upcut Solid Carbide 2-Flute Spiral

Ball Nosed for 3-D

Ball-nosed for carving and modeling operations.

Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
B-203-02	1/16	3/16	1/8	1-1/2	27.00	24.30
52-235B	1/16	1/4	1/8	2	46.00	41.40
52-235Bh	1/16	1/4	1/4	2	38.25	33.42
52-240B	1/8	1/2	1/4	2	49.50	44.55
52-260B	3/16	3/4	1/4	2	49.50	44.55
52-280B	1/4	7/8	1/4	2-1/2	49.50	44.55
52-564Bh	1/4	2-1/4	1/4	4	70.00	63.00
52-320B	3/8	1-1/8	3/8	3	78.50	70.65
52-360B	1/2	1-1/8	1/2	3	120.75	108.67

66-400 Solid Carbide 6-Flute Spiral

Honeycomb Cardboard

Designed for cutting bioboard, falconboard and honeycomb cardboard.

Part	Dia	Cut Lgth	Upcut Lgth	Shank Dia	Over All	List	Our Price
66-405	3/8	1-1/4	0.25	3/8	3	116.75	105.07

60-200 - Upcut Solid Carbide 3-Flute Spiral

Low Helix Finishers

Low helix finishers, designed for perfect balance and ultra smooth finish over a wide range.

Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
60-241	1/4	7/8	1/4	3	52.50	47.25
60-250	1/2	1-1/8	1/2	3-1/2	114.25	102.82

85000M Carbide Tipped 2-Flute Straight

BOSCH

Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
85427M	1/2	1	1/2	2-1/2	22.25	20.25
85242M	1/2	1-1/2	1/2	3	23.75	21.37
85251M	1/2	2	1/2	4	27.00	24.30
85243M	1	1-1/8	1/2	2-1/2	30.50	26.10

66-300 - Upcut Solid Carbide 2-Flute Spiral

Designed for pocketing or routing applications where the bottom needs to be smooth.



Smooth Routed Bottoms

Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
66-306	1/8	1/4	1/8	2	26.50	23.85
66-308	1/8	1/4	1/4	2	43.75	39.37
66-314	1/4	3/8	1/4	2	46.25	41.62
66-320	3/8	5/8	3/8	2-1/2	69.00	62.10

77-100 - Upcut Solid Carbide 3-Flute Tapered Ball

Designed to give small diameters more strength in 3D routing with 1/16 radius ball.

Part	Dia	Cut Depth	Shank Dia	Over All	Deg	List	Our Price
77-102	1/8	1-1/2	1/4	3	1°	90.25	81.22
77-104	1/8	1	1/4	3	3°	78.00	70.20
77-106	1/8	3/4	1/4	3	5°	75.00	67.50
77-108	1/8	1/2	1/4	2	7°	72.00	64.80

67-000 Solid Carbide

Fiberglass and Phenolic

Fiberglass

LMT • ONSRUD

Phenolic

Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
Burr Bit for Fiberglass						
67-080	1/4	3/4	1/4	2-1/2	40.00	36.00
Phenolic Cutter						
67-211	1/2	1-1/8	1/2	3	139.25	125.32

58-000- Upcut 59-000 - Downcut Solid Carbide 3-Flute Spiral

Designed to rout difficult to cut material when horsepower or spindle speed may be a problem.

LMT • ONSRUD

Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
58-040	1/8	1/2	1/4	2	38.75	33.88
58-060	3/16	5/8	1/4	2	38.75	33.88
58-080	1/4	3/4	1/4	2-1/2	38.75	33.88
Downcuts						
59-080	1/4	3/4	1/4	2-1/2	37.75	33.97

52-200BL - Upcut Solid Carbide 2-Flute Spiral

Extended Reach

Has a long spinback for an (ERL) Extended Reach Length. The ball nose is designed for 3D cutting.

Part	Dia	Cut Lgth	Shank Dia	ERL	Over All	List	Our Price
Ball Nose Tipped							
52-235BL	1/16	1/4	1/4	-	3	64.00	57.60
52-240BL	1/8	1/2	1/4	1-5/8	3	67.00	60.30
52-260BL	3/16	3/4	1/4	1-5/8	3	67.00	60.30
92-664B	1/4	3/8	1/4	4-3/8	6	60.00	54.00
52-280BL	1/4	1	1/4	2-5/8	4	75.75	68.17
52-320BL	3/8	1-1/8	3/8	2-5/8	4	120.75	108.67
Flat Tipped							
92-664	1/4	3/8	1/4	4-3/8	6	61.00	54.90

Foam Cutters

Shaping Tools

Foam Cutters 2-4 Flute Upcut Spiral



Foam

Spiral Foam Cutters

Part	Dia	Cut Lgth	Shank Dia	Over All	Made of	FL#	List	Our Price
52-554	1/8	1-1/16	1/4	2-1/2	SC	2	59.75	53.77
40-201h	1/8	1-1/16	1/4	2-1/2	HSS	2	32.00	28.80
92-140	1/8	1-1/16	1/8	3	SC	2	31.50	28.35
92-141	1/8	1-1/16	1/8	3	SC	4	16.00	14.40
52-558	3/16	1-1/8	3/16	2-1/2	SC	2	59.75	53.77
52-160h	3/16	1-1/8	1/4	2-1/2	SC	2	43.00	38.70
52-560	3/16	1-5/8	3/16	3	SC	2	64.75	58.27
52-180h	1/4	1-1/4	1/4	2-1/2	SC	2	40.00	36.00
92-184	1/4	1-1/4	1/4	2-1/2	SC	4	19.50	17.55
52-181h	1/4	1-3/8	1/4	3	SC	2	40.00	36.00
52-281h	1/4	1-3/4	1/4	3-1/2	SC	2	60.00	54.00
40-282h	1/4	2-1/8	1/4	3-1/2	HSS	2	28.00	25.20
52-564	1/4	2-1/4	1/4	4	SC	2	68.25	61.42
13635B	1/4	2-1/4	1/4	3-3/4	SC	1	54.00	48.60
92-564	1/4	3	1/4	6	SC	2	41.00	36.90
92-570	5/16	3	5/16	6	SC	2	46.25	41.62
52-570	5/16	3-1/8	5/16	6	SC	2	76.75	69.07
40-212h	5/16	3-1/8	5/16	5-1/2	HSS	2	50.00	45.00
92-384	3/8	2-5/8	3/8	4-1/4	HSS	4	24.50	22.05
13952A	3/8	3-3/16	3/8	5	SC	1	81.00	72.90
52-574	3/8	3-1/2	3/8	6	SC	2	85.25	76.72
92-574	3/8	4	3/8	7	SC	2	62.00	55.80
92-484	1/2	3	1/2	6	SC	4	144.00	129.80
92-414	1/2	3	1/2	5	HSS	4	35.00	31.50
40-564	1/2	4-1/8	1/2	6-1/2	HSS	4	80.00	72.00

Foam Cutters 1-2 Flute Straight



Foam

Straight Foam Cutters

Part	Dia	Cut Lgth	Shank Dia	Over All	Made of	FL#	List	Our Price
61-140h	1/8	13/16	1/4	2	SC	1	41.00	36.90
48-206h	1/4	1-1/4	1/4	2-3/4	CT	2	28.00	25.20
12-37	1/4	1-1/4	1/4	3-1/2	HSS	2	22.50	20.25
56-281h	1/4	1-5/8	1/4	3	SC	2	47.00	42.30
56-282h	1/4	2-1/4	1/4	3-1/2	SC	2	65.00	58.50
85427M	1/2	1	1/2	2-1/2	CT	2	23.75	21.38
85242M	1/2	1-1/2	1/2	3	CT	2	23.75	21.37
85251M	1/2	2	1/2	4	CT	2	27.00	24.30
48-183	1/2	2-1/2	1/2	4-1/2	CT	2	47.25	42.52

Cove 2-Flute

Carbide Tipped

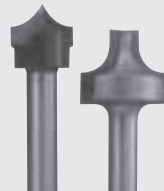
Has a ball bearing for hand-held use to follow templates.



Part	Radius	Cut Depth	Shank Dia	Over All	List	Our Price
Cove with 1/2" Ball Bearing Pilot						
85205M	1/4	1/2	1/4	2-1/8	40.50	36.45
85206M	3/8	9/16	1/4	2-1/4	41.00	36.90
85207M	1/2	5/8	1/4	2-1/4	42.25	38.02

Round Over 2-Flute - no BB

Carbide Tipped



Designed to plunge with a CNC machine to round the edges of material.

Part	Radius	Cut Depth	Shank Dia	Over All	List	Our Price
Flat Bottom						
2050WS	1/8	1/4	1/4	1-3/4	24.75	22.27
2051WS	3/16	1/8	1/4	1-3/4	33.75	30.37
92-394	1/4	5/8	1/4	2-1/4	25.00	22.50
92-694	1/4	5/8	1/2	2-1/4	25.00	22.50
92-695	3/8	3/4	1/2	2-1/2	27.00	24.30
2060WS	1/2	3/4	1/2	2-1/2	53.50	48.15
Round Bottom						
3725WS	1/8	1/2	1/4	2	35.00	31.50
V Bottom						
56125	1/8	5/16	1/4	2	28.00	25.20
92-394V	1/4	3/8	1/4	2-1/4	23.00	20.70
92-397V	3/8	5/8	1/4	2-1/2	24.00	21.60
92-396V	1/2	1/2	1/4	2-5/8	32.00	28.80

Round Over 2-Flute with BB

Carbide Tipped

Designed for hand-held applications for ball bearing to follow pattern templates.



Part	Radius	Cut Depth	Shank Dia	Over All	List	Our Price
Round Over with 1/2" Ball Bearing Pilot						
85289M	1/16	5/16	1/4	1-7/8	38.25	34.42
85290M	1/8	5/16	1/4	2	39.25	35.32
85293M	3/16	1/2	1/4	2-1/8	40.25	36.22
85294M	1/4	1/2	1/4	2-3/16	41.00	37.35
85295M	5/16	9/16	1/4	2-3/16	41.50	36.90
85296M	3/8	5/8	1/4	2-3/8	42.25	38.02
85297M	1/2	13/16	1/4	2-1/2	43.00	38.70
92-27	3/4	1	1/2	3-1/4	35.00	31.50
92-28	1	1	1/2	3-1/2	60.00	54.00

Chamfer

Carbide Tipped

2-Flute with BB

Has a ball bearing for hand-held use to follow patterns.



Part	Degree	Cut Depth	Shank Dia	Over All	List	Our Price
Chamfer with 1/2" Ball Bearing Pilot						
85298M	45°	11/16	1/4	2-1/4	33.50	30.15
92-22	45°	1	1/2	3	32.00	28.80

Flush Trim

Carbide Tipped

2-3 Flute with BB

Used to trim off excess material.



Part	Dia & BB	Cut Depth	Shank Dia	Over All	#FL	List	Our Price
2 - 3 Flute - With Ball Bearing Pilot on Tip							
92-900	1/4	3/4	1/4	2-1/4	2	33.00	29.70
28-55	1/4	1	1/4	2-1/2	2	38.50	34.65
92-100	1/4	1-1/4	1/4	2-3/4	2	37.00	33.30
85268M	3/8	1	1/4	2-5/8	2	20.00	18.00
85266M	1/2	1	1/4	2-1/2	2	21.25	19.12
85441M	1/2	1	1/2	3-1/4	2	24.75	22.27
85216M	1/2	1	1/4	2-1/2	3	28.00	25.20
85602M	1/2	1-1/2	1/2	4-3/8	3	38.50	34.65



Part	Dia & BB	Cut Depth	Shank Dia	Over All	#FL	List	Our Price
2 Edge with Ball Bearing on Shank							
85680M	1/2	1	1/4	2-1/2	2	34.50	31.05



Part	Dia & BB	Cut Depth	Shank Dia	Over All	#FL	List	Our Price
1 Edge with 1/4" Self Pilot, no Ball Bearing							
27-00	1/4	1/4	1/4	1-1/2	1	18.50	16.65

Over Hang

Carbide Tipped

2-Flute with BB

Used to trim off excess material.



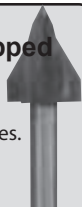
Part	Dia	BB	Cut Depth	Shank Dia	Over All	List	Our Price
Over Hang with Ball Bearing Pilot							
92-200	3/8	1/2	1	1/4	2-1/2	23.50	21.15
92-210	3/8	5/8	1	1/4	2-1/2	27.00	24.30
85210M	1/2	5/8	1	1/4	2-5/8	27.00	24.30

Shaping Tools

"V" Cutting 2-Flute Straight

Carbide Tipped

Designed for "V" routing and tapering edges.



Part	Width	Cut Depth	Shank Dia	Over All	List	Our Price
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45° Included Angle

92-45V	5/8	3/4	1/4	2-1/4	25.00	22.50
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60° Included Angle

92-60V	1/2	1/2	1/4	2-1/8	22.00	19.80
92-61V	3/4	3/4	1/4	2	22.00	19.80
1541WS	1/4	7/32	1/4	2	20.75	18.67
1560WS	1/2	7/16	1/2	2-1/4	28.25	24.75
37-82	1	3/4	1/2	3-1/2	37.25	33.52

90° Included Angle

85219M	9/16	9/32	1/4	1-1/2	25.25	22.72
84306M	3/4	3/8	1/2	2	45.00	40.50
1504WS	3/4	3/8	1/2	2-1/4	45.50	40.95
84309M	1	1/2	1/2	2-3/8	46.25	41.62
85220M	1-1/4	5/8	1/4	1-3/4	41.00	36.90
37-87	1-1/2	7/8	1/2	3	43.25	38.92
92-24V	2	1	1/2	3-3/8	46.50	41.85

120° Included Angle

92-12V	1-1/4	3/8	1/4	1-7/8	33.00	29.70
92-120V	1-1/4	3/8	1/2	2	40.00	36.00
37-92	2	9/16	1/2	2-7/8	43.25	39.10

135° Included Angle

92-135V	1-1/4	1/4	1/4	2	44.00	39.60
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NOTE: 85-219 & 85-220 do not come to a true point

"V" Taper 1-Flute Straight

Solid Carbide

Designed to put a slight draft onto edges.

LMT • ONSRUD



Part	Tip	Cut Depth	Shank Dia	Over All	List	Our Price
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7 Degree

16-48h	1/32	1/4	1/4	1-1/2	31.00	27.90
18-00h	3/32	13/16	1/4	2	41.50	37.35

10 Degree

18-01h	3/32	3/8	1/4	2	50.00	45.00
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"V" Cutting CNC

1-Flute Straight

Carbide Tipped

Allows you to turn the blade when the blade gets dull and purchase a new blade when blade is dull.

Insert Tooling

Amana Tool



Part	Degree	Cut Depth	Shank Dia	Over All	List	Our Price
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1045	45°	1	1/2	2-3/8	73.00	65.70
1108	60°	29/32	1/2	2-7/8	77.00	69.30
1102	90°	3/4	1/2	3	121.50	109.35
1103	100°	11/16	1/2	3-3/16	121.50	109.35
1105	110°	5/8	1/2	3-3/16	134.25	120.82
1104	120°	9/16	1/2	3-1/16	164.25	147.82
1107	130°	1/2	1/2	3	170.00	153.00
1110	140°	13/32	1/2	3-1/16	172.75	155.47
1106	150°	19/64	1/2	2-15/16	172.75	155.47
1109	160°	13/64	1/2	2-25/32	180.25	162.22

Replacement Blades

Degree	Part	Our Price	Part for MDF	Our Price
45° 60°	RCK 56	25.06	RCK 350	30.06
90°	RCK 134	17.95	RCK 351	21.42
100° 110°	RCK 119	17.95	RCK 352	21.42
120°	RCK 136	17.95	RCK 353	21.42
130° 150° 160°	RCK 137	17.95	RCK 354	21.42
140°	RCK 59	19.03	RCK 346	23.35

37-00

1-Flute Straight

Solid Carbide

Engraving bits for bottom loading routers.

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Part	Tip	Degree	Shank Dia	Over All	List	Our Price
37-01	0.005	60°	1/4	2	30.50	27.45
37-03	0.010	60°	1/4	2	30.50	27.45
37-05	0.020	60°	1/4	2	30.50	27.45
37-07	0.030	60°	1/4	2	30.50	27.45

37-21	0.005	30°	1/4	2	30.50	27.45
37-23	0.010	30°	1/4	2	30.50	27.45
37-25	0.020	30°	1/4	2	30.50	27.45
37-27	0.030	30°	1/4	2	30.50	27.45
37-29	0.040	30°	1/4	2	30.50	27.45
37-31	0.060	30°	1/4	2	30.50	27.45

37-00

2-Flute Straight

For "V" bottom routing with a 90 degree tip.

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Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
37-50	3/16	5/8	1/4	2	51.25	46.12
37-51	1/4	3/4	1/4	2	49.25	44.32

37-00 2-Flute Straight

Solid Carbide

Folding Tools

Folding tool for Dibond or Alucobond.

Dibond/
Alucobond

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Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
37-71*	1/2	3/8	1/4	2	73.25	65.92
37-72	1/2	3/8	1/2	2	78.50	70.65

*NOTE: 37-71 is a carbide-tipped bit

52-200B - Upcut 2-Flute Spiral

Solid Carbide

Ball-nosed for carving and modeling operations.

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Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
B-203-02	1/16	3/16	1/8	1-1/2	24.00	21.60
52-235B	1/16	1/4	1/8	2	46.00	41.40
52-235Bh	1/16	1/4	1/4	2	38.25	34.43
52-240B	1/8	1/2	1/4	2	49.50	44.55
52-260B	3/16	3/4	1/4	2	49.50	44.55
52-280B	1/4	7/8	1/4	2-1/2	49.50	44.55
52-564Bh	1/4	2-1/4	1/4	4	75.00	67.50
52-320B	3/8	1-1/8	3/8	3	78.50	70.65
52-360B	1/2	1-1/8	1/2	3	120.75	108.67

Part	Dia	Cut Lgth	Shank Dia	ERL	Over All	List	Our Price
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Ball Nose with Extended Reach Length

52-235BL	1/16	1/4	1/4	-	3	64.00	57.60
52-240BL	1/8	1/2	1/4	1-5/8	3	67.00	60.30
52-260BL	3/16	3/4	1/4	1-5/8	3	67.00	60.30
92-664B	1/4	3/8	1/4	4-3/8	6	59.00	53.10
52-280BL	1/4	1	1/4	2-5/8	4	75.75	68.17
52-320BL	3/8	1-1/8	3/8	2-5/8	4	120.75	108.67

Flat Tipped with Extended Reach Length

92-664	1/4	3/8	1/4	4-3/8	6	61.00	54.90
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77-100 - Upcut 3-Flute Spiral

Solid Carbide

Designed to give small diameters more strength in 3D routing.

Part	Dia	Cut Depth	Shank Dia	Over All	Deg	List	Our Price
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Upcut Spiral with 1/16" radius

77-102	1/8	1-1/2	1/4	3	1°	90.25	77.18
77-104	1/8	1	1/4	3	3°	78.00	66.83
77-106	1/8	3/4	1/4	3	5°	75.00	64.35
77-108	1/8	1/2	1/4	2	7°	72.00	61.65

Shaping Tools & Accessories

Core Box 2-Flute Straight

Carbide Tipped

Designed for groove cutting.



Part	Dia	Cut Lgth	Shank Dia	Over All	List	Our Price
85444M	1/4	3/8	1/4	2	24.00	21.60
85445M	3/8	5/16	1/4	2	30.75	27.67
85446M	1/2	3/8	1/4	2	31.75	28.57
85447M	5/8	7/16	1/4	2	32.00	28.80
92-06	3/4	5/8	1/4	2	19.00	17.10
92-07	7/8	5/8	1/2	2-1/2	24.00	21.60
92-08	1	3/4	1/2	2-1/2	24.00	21.60

Table Surfacers

Carbide Tipped

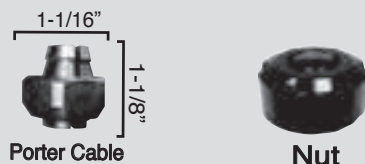
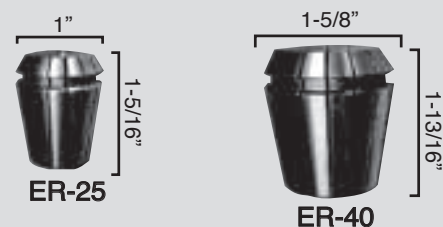


For resurfacing spoilboards.

Part	Dia	Shank Dia	OAL	List	Our Price
85243M	1	1/2	2-1/2	30.50	27.45
1303WS	1-1/4	1/4	2-1/8	30.00	27.00
91-000	1-1/4	1/2	2	52.50	47.25
91-250	2-1/2	1/2	2-7/8	175.00	157.50

Replacement Blades				List	Our Price
Part	Edges				
HI-R12 (each)	Hersaf	4	5.50		4.95
91-125 (10 pack)	Onsrud	4	65.50		58.95

Collets & Nuts



Available Sizes

1/8" - 3/16" - 1/4" - 5/16" - 3/8" - 1/2"

SYOZ-20 Collet.....	36.00
Nut.....	64.00
RDO-20 Collet.....	27.00
Nut.....	53.00
ER-25 Collet.....	28.00
Nut.....	56.00
ER-32 Collet.....	28.00
Nut.....	67.50
ER-40 Collet.....	31.00
Nut.....	75.00
Porter Cable Collet with Nut	
1/4" - 3/8" - 1/2".....	12.50ea

Accessories

Collet Brushes

Brass Collet Cleaning Brushes
sizes 1/4" - 3/8" - 1/2".....7.55 **Our price 6.79**

Routers

Porter Cable Routers
#75182 (3-1/4 HP, 5 speed).....350.00

Double Stick Tape

(Used to hold the material down while being cut)

1/2" wide - 36 yd (72 per case).....	7.00 per roll
3/4" wide - 36 yd (48 per case).....	9.00 per roll
1" wide - 36 yd (36 per case).....	12.50 per roll
2" wide - 36 yd (24 per case).....	23.00 per roll
3" wide - 36 yd (12 per case).....	33.00 per roll



Metal Adapter

1/8" - 1/4".....	6.00	Our price 5.40
3/16" - 1/4".....	6.00	Our price 5.40
1/4" - 1/2".....	6.00	Our price 5.40
5/16" - 1/2".....	6.00	Our price 5.40
3/8" - 1/2".....	6.00	Our price 5.40

How to find the Perfect Feed Rate

1. Feed Rate = Chipload x RPM x # of flutes
2. Start at the low end of the feed rates.
3. Increase the feed rate until:
 - a. The edge finish deteriorates, OR
 - b. The router bit risk breakage.
4. After one of the above happens, decrease feed rate by 10% and reduce the RPM's until the edge finish once again deteriorates.

**THIS IS THE POINT OF MAXIMUM
PRODUCTIVITY AND BEST TOOL LIFE!**

Chipload is the amount of material
each cutting edge slices off per revolution.

CHIPLOAD CHART

	1/8" dia	3/16" dia	1/4" dia
Hard Plastics			
63-700	.006 - .008	.008 - .010	.010 - .012
56-000P	.002 - .004	.004 - .006	.004 - .006
63-500	.003 - .005	.003 - .005	.004 - .006
Soft Plastics			
61-000P	.004 - .006	.006 - .008	.008 - .012
63-750	.004 - .006	.006 - .008	.008 - .012
Soft Wood			
52-200	.006 - .008	.006 - .008	.007 - .009
56-200	.004 - .006	.005 - .007	.006 - .008
Hard Wood			
52-200	.003 - .005	.004 - .006	.005 - .007
56-200	.003 - .005	.004 - .006	.005 - .007
Foam			
52-550	.002 - .004	.002 - .004	.004 - .006
48-000	.002 - .004	.002 - .004	.003 - .005
Aluminum			
63-600	.002 - .004	.003 - .006	.003 - .006
65-000	.002 - .004	.003 - .006	.003 - .006

NOTICE!!!!

If depth of cut is 2 times the diameter - reduce chipload by 25%
If depth of cut is 3 times the diameter - reduce chipload by 50%

RPM is your spindle speed

Recommended RPM's

1/16" dia	24,000 - 30,000 rpms
1/8" dia	21,000 - 24,000 rpms
3/16" dia	19,000 - 21,000 rpms
1/4" dia	16,000 - 18,000 rpms

TIP: The smaller diameter bits act stronger if they are spun at a higher rpm. This helps maintain the same surface feet per minute as a larger diameter tool.



Service with an edge

- Make chips not dust. The bit should be relatively cool to the touch. Large chips take the heat with them. Heat removes the cobalt binder from the bit dulling the edge, greatly reducing tool life.
- Bits that have the same size shank and cutting diameter are stronger and more economical. (ex: 63-719 has a 3/16" dia. with a 3/16" shank).
- Cutting edge lengths should be as short as possible to reduce vibration and readout. If the bit is too long the leverage will cause the bit to break.
- Do not run out of cutting edge length, the flute fadeout and shank will not leave a desirable finish.
- Cut material in several passes (depth of cut should be no more than diameter of the bit). When using a downcut only go down half the diameter of the bit. Exception: always cut foam and coroplast in one pass. Coroplast cuts best with a downcut spiral.
- Cut thick material in several passes (except foam).
- Use a Ramp-in entry so that the chips have a place to exit, instead of plunging into the material.
- Do not dwell in the cut because this causes more fiction, loop the corners to maintain an ideal chipload.
- For a better edge finish cut 0.010" - 0.015" oversize, then take a final pass that cuts to desired dimensions.
- When cutting natural fibrous woods, try a high-speed steel bit because they are sharper.
- Go to www.plasticrouting.com for additional help on plastic cutting.
- Try a straight fluted bit before using a downcut spiral.
- Use a larger diameter bit; they are stronger, throw the chips better, and leave better finishes.
- Use the correct bit for the application. Any router bit can be an all-purpose cutter, however specially designed tools will cut better and last longer.
- Once a tool has been used in metal, it should not be used in woods or plastics.
- Use a lubricant or coolant in metal cutting.
- TiN coated bits for aluminum and AlTiN for ferrous materials.
- Do not use dull bits.
- Listen for abnormal sounds. You can tell a lot about how a tool is cutting by the sound it makes.
- Use proper colleting and fixturing.
- Make sure material is held down so that it won't shift. Resurface spoilboard and cover unused areas to maximize vacuum hold.
- Check dust collector often.
- Avoid adapter bushings for extended use, instead buy the right size of collet.
- Check the finish on your scrap material. Is the finish on the scrap better than the stuff you are keeping? If so, change the direction of your feed. Conventional vs. climb cut.



The number one cause of tool breakage is improper collet maintenance!

Proper Colleting Maintenance

- If a tool breaks in the collet, or up on the shank, replace the collet immediately and throw away the old collet. This is a sign that your collet is worn out. The tool has slipped in the collet and then been regripped causing the tool to break.
- Clean the collet after every bit change with a brass brush and non flammable cleaner.
- Wax the collet's threads with paraffin wax occasionally. This helps to tighten the hold.
- Collets should be changed every 400 to 600 hours of run time. The spring capacity, elasticity, of the collet is fatigued and its ability to grip the bit has deteriorated. Also change collet nuts when wear is evident.
- Insert the bit into the collet so that that shank fills 80% of the collet. DO NOT clamp down on the flute fadeout area of the bit (the machined area above the cutting edge). Use a collet plug, if necessary to fill collet.