

# HARTLAUER BITS

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*Service with an edge*

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# Router Bits

By Hartlauer

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- Free Domestic Bit Shipping
- Large Stock
- Competitive Pricing

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February 2026  
Hartlauer Bits Catalog

# HARTLAUER BITS

Service with an edge

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



## LMT • ONSRUD

10-00	HSS 1 FL "O" Straight	7
37-00	SC Engravers	10
40-000	HSS 1 FL Spiral	6
40-100	HSS 2 FL Spiral	6
48-000	CT 1-2 FL Straight	7
52-000	SC 2 FL Spiral	3
52-200	SC 2 FL Wood Spiral	7
52-600	SC 2 FL "O" Spiral	5
52-700	SC 2 FL Spiral Up	4
52-900	SC 2 FL Heavy Duty	7
55-000	SC 4 FL Upcut Spiral	5
56-000	SC 2 FL Straight	5
56-200	SC 2 FL Straight	7
56-600	SC 2 FL "O" Straight	4
58-000	SC 3 FL Spiral	8
60-100	SC 1-2 FL Up/down	7
60-200	SC 3 FL Up/down	8
61-000	SC 1 FL "O" Straight	3
62-600	SC 1 FL "O" Downcut	6
62-700	SC 1 FL "O" Downcut	4
63-000	SC 1 FL Spiral	3
63-400	SC 1 FL Spiral	6
63-500	SC 1 FL "O" Spiral	4
63-600	SC 1 FL "O" Spiral	6
63-700	SC 1 FL "O" Spiral	4
63-750	SC 1 FL "O" Spiral	4
63-800	SC 1 FL Metric P	4
63-900	SC 1 FL Metric M	6
65-000	SC 1 FL Super "O"	3
67-000	SC Burr for Fiberglass	8
67-200	SC 3 FL for Phenolic	8
83-300	SC 2 FL Spiral	5

## LMT • BELIN

12000	SC 1 FL Spiral Downcut	4
13000	SC 1 FL Spiral Up	4
33000	SC 1 FL Spiral Up	6
102000	SC 3 FL Ferrous Cutter	5

## Amana Tool

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## ROBB JACK

GTS-200	SC 2 FL Spiral Up	4
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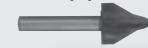
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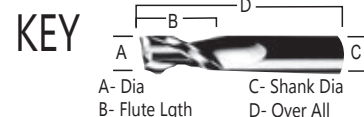


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Help**  
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**Quick Tip:** When cutting the last pass on the job, move the bit in .010 of an inch to cut a sliver out of the previous passes. This creates the look of the material being cut in one pass.



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 1-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 Length	Shank Dia	Over All
65-000	1/16	1/4	1/8	2
65-010	1/8	1/4	1/4	2
65-013	1/8	1/2	1/8	2
65-012	1/8	1/2	1/4	2
65-019	3/16	5/8	3/16	2
65-018	3/16	5/8	1/4	2
65-021	3/16	7/8	1/4	2-1/2
65-020	3/16	1-1/4	1/4	3
65-023	1/4	5/8	1/4	2
65-025	1/4	7/8	1/4	2-1/2
65-026	1/4	1-1/4	1/4	3
65-027	1/4	1-1/2	1/4	3
65-033	3/8	1-1/8	3/8	3



### 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, HDU and ultrboard.

Wood Aluminum Plastic LMT • ONSRUD

Part #	Dia	Cut Length	Shank Dia	Over All
52-040	1/8	1/2	1/4	2
52-141h	1/8	5/8	1/4	2
52-142h	1/8	3/4	1/4	2-1/2
52-050	5/32	9/16	1/4	2
52-050T	5/32	9/16	1/4	2
52-060	3/16	5/8	1/4	2
52-080	1/4	3/4	1/4	2-1/2
52-180h	1/4	1-1/4	1/4	2-1/2
52-090	9/32	3/4	3/8	2-1/2
52-120	3/8	7/8	3/8	2-1/2
52-160	1/2	1	1/2	3



### 92-000 - Upcut Solid Carbide 1-Flute Sp/St

#### Endmills

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

Natural Wood Aluminum Plastic

Part #	Dia	Cut Length	Shank Dia	Over All
92-020	1/16	3/16	1/8	1-1/2
92-021	1/16	3/16	1/8	1-1/2
92-030	3/32	1/4	1/8	1-1/2



### 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 Length	Shank Dia	Over All
92-05	1/32	3/32	1/8	1-1/2
92-105	3/64	3/32	1/8	1-1/2
92-10	3/64	1/8	1/8	1-1/2
92-20	1/16	3/16	1/8	1-1/2
92-21	1/16	3/8	1/8	1-1/2
92-30	3/32	5/16	1/8	1-1/2
92-40	1/8	7/16	1/8	1-1/2
92-60	3/16	5/8	3/16	2-1/2
92-060	3/16	5/8	1/4	2-1/2
92-80	1/4	3/4	1/4	2-1/2
92-85	3/8	1	3/8	2-1/2
92-90	1/2	1-1/2	1/2	3



### 64-000 - Downcut Solid Carbide 1-Flute "O" Spiral

The downcut version of the 65-000 series.

Wood Aluminum Plastic LMT • ONSRUD

Part #	Dia	Cut Length	Shank Dia	Over All
64-000	1/16	1/4	1/8	2
64-012	1/8	1/2	1/4	2
64-018	3/16	5/8	1/4	2
64-025	1/4	3/4	1/4	2

BOSCH This bit is similar to 52-000

Part #	Dia	Cut Length	Shank Dia	Over All
85910M	1/4	3/4	1/4	2

### Downcut to 52-000

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

### 61-000 Solid Carbide 1-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 Length	Shank Dia	Over All
61-040	1/8	1/2	1/4	2
61-050	5/32	9/16	1/4	2
61-060	3/16	5/8	1/4	2
61-063h	3/16	1	1/4	2-1/2
61-080	1/4	3/4	1/4	2-1/2



These bits are similar to 61-000

SC01	1/16	5/16	1/4	1-1/2
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### 63-000 - Upcut Solid Carbide 1-Flute Spiral

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

Plastic Aluminum LMT • ONSRUD

Part #	Dia	Cut Length	Shank Dia	Over All
63-040	1/8	1/2	1/4	2
63-060	3/16	5/8	1/4	2
63-080	1/4	3/4	1/4	2-1/2
63-080T	1/4	3/4	1/4	2-1/2



### 51000 - Upcut Solid Carbide 1-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 Length	Shank Dia	Over All
51441	1/16	1/4	1/4	2
51411	1/8	1/2	1/4	2
51417	3/16	5/8	1/4	2
51404	1/4	3/4	1/4	2-1/2



## Plastic Cutters

### GTS-201

Solid Carbide

Designed to cut hard plastics with a smooth finish.



### Plastic Cutter



Hard Plastic

Part #	Dia	Cut Length	Shank Dia	Over All
GTS-201-04	1/8	1/2	1/4	2
GTS-201-08	1/4	3/4	1/4	2-1/2

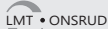
### 56-000

Solid Carbide

Straight edge "V" flute for plastics.



Composite Plastic Hard Plastic



Part #	Dia	Cut Length	Shank Dia	Over All
56-040	1/8	1/2	1/4	2
56-060	3/16	5/8	1/4	2
56-080	1/4	3/4	1/4	2-1/2
BOSCH This bit is similar to 56-000				
85213M	1/8	3/8	1/4	1-1/2

### 63-500 - Upcut

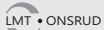
Solid Carbide

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



### Hard & Soft Plastics

Soft Plastic Hard Plastic



Part #	Dia	Cut Length	Shank Dia	Over All
63-505	1/16	1/4	1/4	2
63-510	1/8	1/4	1/4	2
63-515	1/8	1/2	1/4	2
63-520	3/16	5/8	1/4	2
63-525	1/4	3/8	1/4	2-1/2
63-530	1/4	3/4	1/4	2-1/2
63-535	3/8	1-3/8	3/8	3

### 63-700 - Upcut

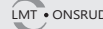
1 Flute "O" Spiral

Solid Carbide



## #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.



Hard Plastic Soft Plastic Wood Aluminum Plastic

Part Hard	Part Soft	Dia	Cut Lgth	Shank Dia	Over All
63-700	63-750	1/16	1/4	1/4	2
63-701		1/16	1/4	1/8	2
63-710		1/8	1/4	1/4	2
63-711		1/8	1/4	1/8	2
63-712	63-762	1/8	1/2	1/4	2
63-713		1/8	1/2	1/8	2
63-706		1/8	5/8	1/4	2-1/2
63-707		1/8	3/4	1/4	2-1/2
63-715		5/32	9/16	1/4	2
63-716		3/16	3/8	3/16	2
63-717		3/16	3/8	1/4	2
63-718	63-768	3/16	5/8	1/4	2
63-719		3/16	5/8	3/16	2
63-708h		3/16	7/8	1/4	2-1/2
63-720		7/32	3/4	1/4	2-1/2
63-724		1/4	3/8	1/4	2
63-725	63-775	1/4	3/4	1/4	2-1/2
63-726	63-776	1/4	1-1/4	1/4	3
63-727		1/4	1-1/2	1/4	3
63-731		3/8	3/4	3/8	3
63-733		3/8	1-1/8	3/8	3
63-735		3/8	1-5/8	3/8	3-1/2

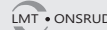
### 62-700 - Downcut

1-Flute "O" Spiral

Solid Carbide

The downcut version of the 63-700 Series. A good option for cutting Coroplast

Wood Aluminum Plastic



Part #	Dia	Cut Length	Shank Dia	Over All
62-712	1/8	1/2	1/4	2
62-718	3/16	5/8	1/4	2
62-725	1/4	3/4	1/4	2-1/2
62-726	1/4	1-1/4	1/4	3
62-733	3/8	1-1/8	3/8	3

### 63-800 - Metric

1-Flute "O" Spiral

Part #	Dia	Cut Length	Shank Dia	Over All
63-816	3mm	12mm	6mm	64mm
63-830	5mm	16mm	6mm	64mm
63-838	6mm	20mm	6mm	64mm

### 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



Part #	Dia	Cut Length	Shank Dia	Over All
Downcut				
12317	1/8	1/2	1/4	1-1/2
12476	3/16	5/8	1/4	2
12635	1/4	3/4	1/4	2
Upcut				
13317	1/8	1/2	1/4	1-1/2
13317A	1/8	1/2	1/8	2
13317B	1/8	3/4	1/8	2
13476	3/16	5/8	1/4	2
13476A	3/16	5/8	3/16	2
13476B	3/16	1-1/4	1/4	3
13635	1/4	3/4	1/4	2
13635A	1/4	1-1/2	1/4	3
13635C	1/4	1-1/8	1/4	3
13952	3/8	1-1/8	3/8	3

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

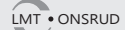
### 56-600

2-Flute Straight

Solid Carbide

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

Soft Plastic Hard Plastic



Part #	Dia	Cut Length	Shank Dia	Over All
56-612	1/8	1/2	1/4	2
56-618	3/16	5/8	1/4	2
56-625	1/4	1	1/4	2-1/2
56-638	3/8	7/8	3/8	2-1/2

### 52-700 Upcut

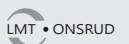
2-Flute O Spiral

Solid Carbide

Amazing finish in acrylics with a smoother bottom finish

Soft Plastic Hard Plastic

Wood




Part #	Dia	Cut Length	Shank Dia	Over All
52-703	1/8	1/2	1/4	2
52-708	3/16	3/8	3/16	2-1/2
52-710	3/16	5/8	1/4	2-1/2
52-707	1/4	7/8	1/4	3
52-700	1/4	1-1/4	1/4	3
52-709	3/8	1	3/8	3
52-701	3/8	1-1/2	3/8	4
52-702	1/2	1-1/4	1/2	4

## Plastic Cutters

**61-000P** Solid Carbide  
1-Flute "O" Straight

Designed for cutting all plastics.

Plastic LMT • ONSRUD




Part #	Dia	Cut Length	Shank Dia	Over All
61-041	1/8	5/16	1/4	2
61-042	1/8	1/2	1/4	2
61-061	3/16	3/8	1/4	2
61-062	3/16	5/8	1/4	2
61-063h	3/16	1	1/4	2-1/2
61-081	1/4	3/8	1/4	2-1/2
61-082	1/4	3/4	1/4	2-1/2

**52-600 - Upcut** Solid Carbide  
2-Flute Spiral

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 Length	Shank Dia	Over All
52-622	1/4	3/8	1/4	2-1/2
52-624	1/4	3/4	1/4	2-1/2
52-638	3/8	1	3/8	3
52-650	1/2	1-1/8	1/2	3-1/2
52-655	1/2	2-1/8	1/2	4-1/2

**85000M - Downcut** Solid Carbide  
2-Flute Spiral

Amazing Plastic Cutter

Hard Plastic BOSCH



Part #	Dia	Cut Length	Shank Dia	Over All
85611M	1/4	1	1/4	2-1/2

**85-000M** Solid Carbide  
2-Flute Straight

Straight edge "V" flute for plastics.

Hard Plastic Composite Plastic BOSCH




Part #	Dia	Cut Length	Shank Dia	Over All
85213M	1/8	3/8	1/4	1-1/2

**56-000** Solid Carbide  
2-Flute Straight

Straight edge "V" flute for plastics.

Hard Plastic LMT • ONSRUD



Plastic Cutter


Part #	Dia	Cut Length	Shank Dia	Over All
56-041	1/8	1/4	1/4	2
56-062	3/16	5/8	1/4	2
56-082	1/4	3/4	1/4	2-1/2

**55-000 - Upcut** Solid Carbide  
4-Flute Spiral

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

\* Limited quantity while supply lasts


Composite Plastic LMT • ONSRUD



Part #	Dia	Cut Length	Shank Dia	Over All
55-088h	1/4	1/2	1/4	2
55-088T	1/4	1/2	1/4	2
55-088AIT	1/4	1/2	1/4	2

**85000M** High Speed Steel  
1-Flute "O" Straight

Natural Soft Wood Soft Plastic BOSCH




Part #	Dia	Cut Length	Shank Dia	Over All
85092	1/8	5/16	1/4	1-5/8
85152	1/8	5/8	1/4	2
85154	1/4	1	1/4	2-3/8

## Metal Cutters

**83-300 - Upcut** Solid Carbide  
2-Flute Spiral

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

Steel LMT • ONSRUD



Steel Cutter


Part #	Dia	Cut Length	Shank Dia	Over All
83-305AlTiN	1/8	1/4	1/8	2
83-310AlTiN	3/16	3/8	3/16	2-1/2
83-315AlTiN	1/4	3/8	1/4	2-1/2

**51400 - Upcut** Solid Carbide  
3-Flute Spiral

Coated to provide heat and wear resistance in ferrous materials.

Steel Brass

New Amana Tool



Part #	Dia	Cut Length	Shank Dia	Over All
51460	1/8	3/8	1/4	1-1/2
51462	3/16	7/16	1/4	1-7/8
51464	1/4	5/8	1/4	2-3/8

## Metal Cutters

### 33000 - Upcut Solid Carbide 1-Flute "O" Spiral

Made to cut non-ferrous metals.

Aluminum Copper Brass LMT • BELIN



Part #	Dia	Cut Length	Shank Dia	Over All
33317	1/8	5/16	1/4	1-1/2
33317A	1/8	5/16	1/8	1-1/2
33476	3/16	1/2	1/4	2
33476A	3/16	1/2	3/16	2
33635	1/4	5/8	1/4	2
33635A	1/4	3/4	1/4	2

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

### C8-200 - Upcut Solid Carbide 2-Flute Spiral

Capable of non-ferrous metal and all purpose cutting.

Wood Plastic ROBB JACK



Part #	Dia	Cut Length	Shank Dia	Over All
C8-201-04	1/8	1/4	1/4	2
C8-203-04	1/8	1/2	1/4	2-1/2
C8-201-06	3/16	3/8	1/4	2
C8-203-06	3/16	5/8	1/4	2-1/2
C8-201-08	1/4	1/2	1/4	2
C8-203-08	1/4	3/4	1/4	2-1/2

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

### 92-000 - Upcut Solid Carbide 4-Flute Spiral

The metal cutter at a budget price.

Aluminum

Part #	Dia	Cut Length	Shank Dia	Over All
92-101	3/64	1/8	1/8	1-1/2
92-201	1/16	3/16	1/8	1-1/2
92-202	1/16	1/4	1/8	1-1/2
92-301	3/32	3/8	1/8	1-1/2
92-401	1/8	1/2	1/8	1-1/2
92-601	3/16	5/8	3/16	2
92-184	1/4	1-1/4	1/4	2-1/2
92-81	5/16	1	5/16	3
92-484	1/2	3	1/2	6

### 40-100 High Speed Steel 2-Flute Spiral

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 Length	Shank Dia	Over All
40-101h	1/8	3/8	1/4	2
40-101T	1/8	3/8	1/4	2
40-101L	1/8	3/8	1/4	2-5/8
40-103h	3/16	5/8	1/4	2-1/4
40-103T	3/16	5/8	1/4	2-1/4
40-103L	3/16	5/8	1/4	2-7/8
40-107	1/4	3/4	1/4	2-3/4
40-107T	1/4	3/4	1/4	2-3/4
40-111	1/4	1	1/4	3

#### Downcut to 40-100

40-102	1/8	5/16	1/4	2-5/8
40-104	3/16	5/8	1/4	2-7/8
40-106	1/4	5/8	1/4	2-3/4
40-108	1/4	3/4	1/4	2-3/4

### 63-400 - Upcut Solid Carbide 1-Flute Spiral

Designed for clean cutting in soft aluminum like 3003 alloy

## Just for Soft Aluminum

Soft Aluminum LMT • ONSRUD



Part #	Dia	Cut Length	Shank Dia	Over All
63-420	3/16	1/4	1/4	2
63-430	1/4	1/4	1/4	2-1/2

### 40-000 - Upcut High Speed Steel 1-Flute Spiral

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 Length	Shank Dia	Over All
40-001	1/8	3/8	1/4	2-5/8
40-003	3/16	5/8	1/4	2-7/8
40-007	1/4	3/4	1/4	2-3/4
40-011	1/4	1	1/4	3

### 63-600 - Upcut Solid Carbide 1-Flute Spiral

# 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 Length	Shank Dia	Over All
63-602	1/16	1/4	1/8	1-1/2
63-603	3/32	1/4	1/8	2
63-604	1/8	1/4	1/8	1-1/2
63-606	1/8	1/4	1/4	2
63-610	1/8	1/2	1/4	2
63-612	3/16	3/8	3/16	1-1/2
63-614	3/16	3/8	1/4	2
63-618	3/16	5/8	1/4	2
63-620	1/4	3/8	1/4	2
63-622	1/4	3/4	1/4	2-1/2
63-624	1/4	1-1/4	1/4	3
63-625	3/8	3/4	3/8	3
63-626	3/8	1-1/8	3/8	3
63-631	1/2	1-1/8	1/2	3-1/2

## Downcut of 63-600

Part #	Dia	Cut Length	Shank Dia	Over All
62-602	1/16	1/4	1/8	1-1/2
62-604	1/8	1/4	1/8	1-1/2
62-606	1/8	1/4	1/4	2
62-614	3/16	3/8	1/4	2
62-620	1/4	3/8	1/4	2

## Metric of 63-600

Part #	Dia	Cut Length	Shank Dia	Over All
63-912	3mm	8mm	6mm	64mm
63-930	5mm	16mm	6mm	64mm
63-934	6mm	8mm	6mm	64mm

## Wood Cutters

**10-00** High Speed Steel  
1-Flute "O" Straight

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

Soft Plastic Natural Soft Wood LMT • ONSRUD

Part #	Dia	Cut Length	Shank Dia	Over All
10-00	1/16	3/16	1/4	2
10-01	3/32	3/8	1/4	2
10-02	1/8	3/8	1/4	2
10-20	1/8	1/2	1/4	2
10-22	3/16	3/4	1/4	2
10-07	1/4	1	1/4	2-3/8

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

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

### Wood Routs

Solid Surface Composite Wood Natural Wood LMT • ONSRUD

Part #	Dia	Cut Length	Shank Dia	Over All
52-240	1/8	1/2	1/4	2
52-260	3/16	3/4	1/4	2
52-280	1/4	7/8	1/4	2-1/2
52-285	1/4	1	1/4	2-1/2
52-287	1/4	1-1/8	1/4	3
52-320	3/8	1-1/8	3/8	3
52-360	1/2	1-1/8	1/2	3

**56-200** Solid Carbide  
2-Flute Straight

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

### Wood Routs

LMT • ONSRUD Plywood Composite Wood Natural Wood

Part #	Dia	Cut Length	Shank Dia	Over All
56-240	1/8	1/2	1/4	2
56-260	3/16	3/4	1/4	2
56-280	1/4	7/8	1/4	2-1/2
56-285	1/4	1	1/4	2-1/2
56-287	1/4	1-1/8	1/4	3
56-320	3/8	1-1/8	3/8	3
56-360	1/2	1-1/8	1/2	3

**60-100MW** Solid Carbide  
Up/Down  
1-2-Flute Spiral

### Compression Spirals

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

2-Sided Laminates Coposite Wood Natural Wood LMT • ONSRUD

Part #	Dia	Cut Length	Shank Dia	Over All
1 Flute				
60-102MW	1/8	3/8	1/4	2-1/2
60-106MW	3/16	5/8	1/4	2-1/2
60-111MW	1/4	7/8	1/4	2-1/2
60-120MW	3/8	1-1/8	3/8	3
2 Flute				
60-113MW	1/4	7/8	1/4	2-1/2
60-124MW	3/8	1-1/8	3/8	3

**48-000** Carbide Tipped  
2 Flute Straight

Cost effective alternative, especially in larger diameters.

LMT • ONSRUD

Foam Hard Plastic Composite Wood Natural Wood

Part #	Dia	Cut Length	Shank Dia	Over All
48-012	3/8	3/4	1/4	2-1/4
48-058	3/8	1-1/4	3/8	2-3/4
48-183	1/2	2-1/2	1/2	4-1/2

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

Part #	Dia	Cut Length	Shank Dia	Over All
45190	1/16	3/16	1/4	1-5/8

**63-200 - Upcut** Solid Carbide  
1-Flute Spiral

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

### Wood Routs

LMT • ONSRUD Coposite Wood Natural Wood

Part #	Dia	Cut Length	Shank Dia	Over All
63-240	1/8	1/2	1/4	2
63-280	1/4	7/8	1/4	2-1/2

**52-900 - Upcut** Solid Carbide  
2-Flute Spiral

Extreme Heavy Duty for all woods.

Wood LMT • ONSRUD

Part #	Dia	Cut Length	Shank Dia	Over All
52-910	1/4	7/8	1/4	2-1/2

**85000M** Carbide Tipped  
2-Flute Straight

BOSCH

Natural Wood Coposite Wood Plastic Foam

Part #	Dia	Cut Length	Shank Dia	Over All
85427M	1/2	1	1/2	2-1/2
85242M	1/2	1-1/2	1/2	3
85251M	1/2	2	1/2	4
85243M	1	1-1/4	1/2	2-7/8

**61-200** Solid Carbide  
1-Flute "O" Straight

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

### Wood Routs

Coposite Wood Natural Wood LMT • ONSRUD



Part #	Dia	Cut Length	Shank Dia	Over All
61-240	1/8	1/2	1/4	2
61-280	1/4	7/8	1/4	2-1/2
61-285	1/4	1	1/4	2-1/2

## 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.


Wood Aluminum Plastic

Part #	Dia	Cut Length	Shank Dia	Over All
<i>2 Flute</i>				
SR-2-030	.030	.0900	1/8	1-1/2
<i>4 Flute</i>				
SR-4-047	.047	.1410	1/8	1-1/2

**66-400** Solid Carbide  
6-Flute Spiral

**Honeycomb Cardboard**

Designed for cutting bioboard, falconboard and honeycomb cardboard.



Honeycomb Cardboard LMT • ONSRUD

Part	Dia	Cut Lgth	Upcut Lgth	Shank Dia	Over All
66-405	3/8	1-1/4	0.25	3/8	3

**67-000** Solid Carbide

**Fiberglass and Phenolic**

Fiberglass LMT • ONSRUD Phenolic

Part #	Dia	Cut Length	Shank Dia	Over All
<i>Burr Bit for Fiberglass</i>				
67-080	1/4	3/4	1/4	2-1/2
<i>Phenolic Cutter</i>				
67-211	1/2	1-1/8	1/2	3

**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.




LMT • ONSRUD

Composite Plastic Solid Surface Plastic Natural Wood

Part #	Dia	Cut Length	Shank Dia	Over All
<i>Upcut Spiral</i>				
60-241	1/4	7/8	1/4	3
<i>Dowcut Spiral</i>				
60-250	1/2	1-1/8	1/2	3-1/2

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

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




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Part	Dia	Cut Depth	Shank Dia	Over All	Deg
77-102	1/8	1-1/2	1/4	3	1°
77-104	1/8	1	1/4	3	3°
77-106	1/8	3/4	1/4	3	5°
77-108	1/8	1/2	1/4	3	7°

**66-300 - Upcut** Solid Carbide  
2-Flute Spiral

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

**Smooth Routed Bottoms**



LMT • ONSRUD Plastic Aluminum

Part #	Dia	Cut Length	Shank Dia	Over All
66-308	1/8	1/4	1/4	2
66-314	1/4	3/8	1/4	2
66-320	3/8	5/8	3/8	2-1/2

## 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#
46009	1/16	1/2	1/4	2	SC	2
52-554	1/8	1-1/8	1/4	2-1/2	SC	2
92-140	1/8	1	1/8	3	SC	2
92-141	1/8	1	1/8	3	SC	4
52-558	3/16	1-1/8	3/16	3	SC	2
52-160h	3/16	1-1/8	1/4	2-1/2	SC	2
52-560	3/16	1-5/8	3/16	4	SC	2
52-180h	1/4	1-1/4	1/4	2-1/2	SC	2
92-184	1/4	1-1/4	1/4	2-1/2	SC	4
52-181h	1/4	1-3/8	1/4	3	SC	2
52-281h	1/4	1-3/4	1/4	3-1/2	SC	2
40-282h	1/4	2-1/8	1/4	3-1/2	HSS	2
52-564	1/4	2-1/4	1/4	4	SC	2
13635B	1/4	2-1/4	1/4	3-3/4	SC	1
92-564	1/4	3	1/4	6	SC	2
92-570	5/16	3	5/16	6	SC	2
52-570	5/16	3-1/8	5/16	6	SC	2
40-212h	5/16	3-1/8	5/16	5-1/2	HSS	2
92-384	3/8	2-5/8	3/8	4-1/4	HSS	4
13952A	3/8	3-3/16	3/8	5	SC	1
52-574	3/8	3-1/2	3/8	6	SC	2
92-574	3/8	4	3/8	7	SC	2
92-484	1/2	3	1/2	6	SC	4
92-414	1/2	3	1/2	5	HSS	4
40-564	1/2	4-1/8	1/2	6-1/2	HSS	4

### Foam Cutters 1-2 Flute Straight



Foam

### Straight Foam Cutters

Part	Dia	Cut Lgth	Shank Dia	Over All	Made of	FL#
61-140h	1/8	13/16	1/4	2	SC	1
48-206h	1/4	1-1/4	1/4	2-3/4	CT	2
12-37	1/4	1-1/4	1/4	3-1/2	HSS	2
56-281h	1/4	1-5/8	1/4	3	SC	2
56-282h	1/4	2-1/4	1/4	3-1/2	SC	2
85427M	1/2	1	1/2	2-1/2	CT	2
85242M	1/2	1-1/2	1/2	3	CT	2
85251M	1/2	2	1/2	4	CT	2
48-183	1/2	2-1/2	1/2	4-1/2	CT	2

### Cove 2-Flute

Carbide Tipped

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

BOSCH



Part	Radius	Cut Depth	Shank Dia	Over All
Cove with 1/2" Ball Bearing Pilot				
85205M	1/4	9/16	1/4	2-1/8
85206M	3/8	9/16	1/4	2-1/4
85207M	1/2	5/8	1/4	2-1/4

### 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
Flat Bottom				
2050WS	1/8	1/4	1/4	1-3/4
2051WS	3/16	1/8	1/4	1-3/4
92-394	1/4	5/8	1/4	2-1/4
92-694	1/4	5/8	1/2	2-1/4
92-695	3/8	3/4	1/2	2-1/2
2060WS	1/2	3/4	1/2	2-1/2
Round Bottom				
3725WS	1/8	1/2	1/4	2
V Bottom				
56125	1/8	5/16	1/4	2
92-394V	1/4	3/8	1/4	2-1/4
92-397V	3/8	5/8	1/4	2-1/2
92-396V	1/2	3/4	1/4	2-5/8

### 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
Round Over with 1/2" Ball Bearing Pilot				
85289M	1/16	5/16	1/4	1-7/8
85290M	1/8	5/16	1/4	2
85293M	3/16	1/2	1/4	2-1/8
85294M	1/4	1/2	1/4	2-3/16
85295M	5/16	9/16	1/4	2-3/16
85296M	3/8	5/8	1/4	2-3/8
85297M	1/2	13/16	1/4	2-1/2
92-27	3/4	1	1/2	3-1/4
92-28	1	1	1/2	3-1/2

### Chamfer 2-Flute with BB

Carbide Tipped

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



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

### Flush Trim 2-3 Flute with BB

Carbide Tipped

Used to trim off excess material.



Part	Dia & BB	Cut Depth	Shank Dia	Over All	#FL
2 - 3 Flute - With Ball Bearing Pilot on Tip					
92-900	1/4	3/4	1/4	2-1/4	2
28-55	1/4	1	1/4	2-1/2	2
92-100	1/4	1-1/4	1/4	2-3/4	2
85268M	3/8	1	1/4	2-5/8	2
85266M	1/2	1	1/4	2-1/2	2
85441M	1/2	1	1/2	3-1/4	2
85216M	1/2	1	1/4	2-1/2	3
85602M	1/2	1-1/2	1/2	4-3/8	3



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



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

### Over Hang 2-Flute with BB

Carbide Tipped

Used to trim off excess material.



Part	Dia	BB	Cut Depth	Shank Dia	Over All
Over Hang with Ball Bearing Pilot					
85210M	1/2	5/8	1	1/4	2-5/8

## Shaping Tools

### "V" Cutting 2-Flute Straight

Carbide Tipped



Designed for "V" routing and tapering edges.

Part	Width	Cut Depth	Shank Dia	Over All
<b>45° Included Angle</b>				
92-45V	5/8	3/4	1/4	2-1/4
<b>60° Included Angle</b>				
92-60V	1/2	1/2	1/4	2-1/8
92-61V	3/4	3/4	1/4	2
1541WS	1/4	7/32	1/4	2
1560WS	1/2	7/16	1/2	2-1/4
37-82	1	3/4	1/2	3-1/2
<b>90° Included Angle</b>				
85219M	9/16	9/32	1/4	1-1/2
84306M	3/4	3/8	1/2	2
1504WS	3/4	3/8	1/2	2-1/4
84309M	1	1/2	1/2	2-3/8
85220M	1-1/4	5/8	1/4	1-3/4
37-87	1-1/2	7/8	1/2	3
92-24V	2	1	1/2	3-3/8
<b>120° Included Angle</b>				
92-12V	1-1/4	3/8	1/4	1-7/8
92-120V	1-1/4	3/8	1/2	2
37-92	2	9/16	1/2	2-7/8
<b>140° Included Angle</b>				
37-97	2	23/64	1/2	2-5/8

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.

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Part	Tip	Cut Depth	Shank Dia	Over All
<b>7 Degree</b>				
16-48h	1/32	1/4	1/4	1-1/2
18-00h	3/32	13/16	1/4	2
<b>10 Degree</b>				
18-01h	3/32	3/8	1/4	2

### "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
1045	45°	1	1/2	2-3/8
1108	60°	29/32	1/2	2-7/8
1102	90°	3/4	1/2	3
1103	100°	11/16	1/2	3-3/16
1105	110°	5/8	1/2	3-3/16
1104	120°	9/16	1/2	3-1/16
1107	130°	1/2	1/2	3
1110	140°	13/32	1/2	3-1/16
1106	150°	19/64	1/2	2-15/16
1109	160°	13/64	1/2	2-25/32

### Replacement Blades

Degree	General Purpose	Part # for MDF
45° 60°	RCK 56	RCK 350
90°	RCK 134	RCK 351
100° 110°	RCK 119	RCK 352
120°	RCK 136	RCK 353
130° 150° 160°	RCK 137	RCK 354
140°	RCK 59	RCK 346

### 37-00

1-Flute Straight

Solid Carbide

Engraving bits for bottom loading routers.

LMT • ONSRUD Recommended speed: 18,000 RPM  
90 IPM

Part	Tip	Degree	Cut Lgth	Shank Dia	Over All
37-01	0.005	60°	1/4	1/4	2
37-03	0.010	60°	1/4	1/4	2
37-05	0.020	60°	1/4	1/4	2
37-07	0.030	60°	1/4	1/4	2
37-21	0.005	30°	1/2	1/4	2
37-23	0.010	30°	1/2	1/4	2
37-25	0.020	30°	1/2	1/4	2
37-27	0.030	30°	1/2	1/4	2
37-29	0.040	30	1/2	1/4	2
37-31	0.060	30	1/2	1/4	2

### 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
37-50	3/16	5/8	1/4	2
37-51	1/4	3/4	1/4	2

### 37-00 2-Flute Straight

Carbide Tipped

### Folding Tools

Folding tool for Dibond or Alucobond.

Dibond/  
Alucobond

LMT • ONSRUD



Part	Dia	Cut Lgth	Shank Dia	Over All
37-71	1/2	3/8	1/4	2
Recommended speed: 12,000 RPM at 120 IPM				
37-72	1/2	3/8	1/2	2
Recommended speed: 18,000 RPM at 180 IPM				

### 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
B-203-02	1/16	3/16	1/8	1-1/2
52-235B	1/16	1/4	1/8	2
52-235Bh	1/16	1/4	1/4	2
52-240B	1/8	1/2	1/4	2
52-260B	3/16	3/4	1/4	2
52-280B	1/4	7/8	1/4	2-1/2
52-564Bh	1/4	2-1/4	1/4	4
52-320B	3/8	1-1/8	3/8	3
52-360B	1/2	1-1/8	1/2	3

### 37-00 1-Flute Straight

Solid Carbide

### Ball Nose with Extended Reach Length

Part	Dia	Cut Lgth	Shank Dia	ERL	Over All
52-235BL	1/16	1/4	1/8	-	3
52-240BL	1/8	1/2	1/4	1-5/8	3
52-260BL	3/16	3/4	1/4	1-5/8	3
92-664B	1/4	3/8	1/4	4-3/8	6
52-280BL	1/4	1	1/4	2-5/8	4
52-320BL	3/8	1-1/8	3/8	2-5/8	4

### Flat Tipped with Extended Reach Length

92-664	1/4	3/8	1/4	4-3/8	6
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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
<b>Upcut Spiral with 1/16" radius</b>					
77-102	1/8	1-1/2	1/4	3	1°
77-104	1/8	1	1/4	3	3°
77-106	1/8	3/4	1/4	3	5°
77-108	1/8	1/2	1/4	2	7°

## Shaping Tools & Accessories

### Core Box 2-Flute Straight

Carbide Tipped



Designed for groove cutting.

Part	Dia	Cut Lgth	Shank Dia	Over All
85444M	1/4	1/4	1/4	2
85445M	3/8	1/4	1/4	2
85446M	1/2	3/8	1/4	2
85447M	5/8	7/16	1/4	2
92-06	3/4	5/8	1/4	2
92-07	7/8	5/8	1/2	2-1/2
92-08	1	3/4	1/2	2-1/2

### Table Surfacer

Carbide Tipped

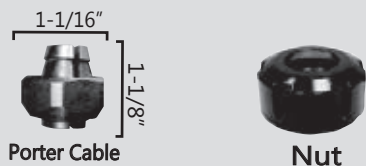
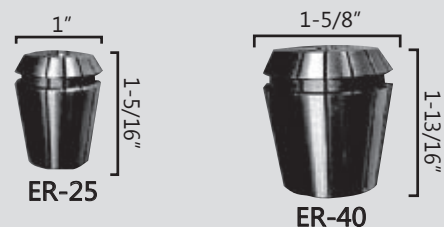


For resurfacing spoilboards.

Part	Dia	Cut Lgth	Shank Dia	OAL
85243M	1	1-1/4	1/2	2-7/8
1303WS	1-1/4	1/2	1/4	2-1/8
91-000	1-1/4	1/2	1/2	2
Recommended Speed for 91-000: 16,000 RPM at 200 IPM				
91-250	2-1/2	1/2	1/2	2-7/8

Replacement Blades	
Part	Edges
91-125 (10 pack) Onsrud	4

### Collets & Nuts



### Available Sizes

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

SYOZ-20	Collet
	Nut
RDO-20	Collet
	Nut
ER-20	Collet
	Nut
ER-25	Collet
	Nut
ER-32	Collet
	Nut
ER-40	Collet
	Nut
Porter Cable	Collet with Nut
	1/4" - 3/8" - 1/2"

### Accessories

#### Collet Brushes

Brass Collet Cleaning Brushes  
sizes 1/4" - 3/8" - 1/2"

#### Double Stick Tape

(Used to hold the material down while being cut)

- 1/2" wide - 36 yd (72 per case)
- 3/4" wide - 36 yd (48 per case)
- 1" wide - 36 yd (36 per case)
- 2" wide - 36 yd (24 per case)
- 3" wide - 36 yd (12 per case)

#### Metal Adapter

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

### 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
<b>Hard Plastics</b>			
63-700	.006 - .008	.008 - .010	.010 - .012
56-000P	.002 - .004	.004 - .006	.004 - .006
63-500	.003 - .005	.003 - .005	.004 - .006
<b>Soft Plastics</b>			
61-000P	.004 - .006	.006 - .008	.008 - .012
63-750	.004 - .006	.006 - .008	.008 - .012
<b>Soft Wood</b>			
52-200	.006 - .008	.006 - .008	.007 - .009
56-200	.004 - .006	.005 - .007	.006 - .008
<b>Hard Wood</b>			
52-200	.003 - .005	.004 - .006	.005 - .007
56-200	.003 - .005	.004 - .006	.005 - .007
<b>Foam</b>			
52-550	.002 - .004	.002 - .004	.004 - .006
48-000	.002 - .004	.002 - .004	.003 - .005
<b>Aluminum</b>			
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%

**Plunge Feed Rate:** When cutting with a single flute  
reduce the feed rate 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 friction, 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](http://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.

- 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.

- 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.

- 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.