



President's Letter

### A Gentleman and a Saw Filer Ted Potter Potter Lumber Company

Mr. Potter called because he wasn't getting the life or performance out of his saws that he thought he should be getting.

The tips he was using weren't doing what he felt they should or what the salesman had promised him they would.

He started by asking us if he could send a saw blade to be analyzed. We had a problem because it was a darned fine saw and yet it wasn't working right. It took about 45 minutes to find anything wrong.



What we found was that the tips were corroding very rapidly as is common in cheap tips.

### We sold him some Cermet II tips and the results were astounding.

- Double the run time so far – he thinks they could run much longer
- No more burning
- Plates held up better
- Less hammering
- About half the noise
- Cleaner cuts
- As good as Jonally
- As good as Nicut
- Pine
- Fir
- Radiata
- Red Oak

# Carbide Processors, Inc.

Northwest Research Institute, Inc.

**Newsletter** November, 2006

3847 S. Union Ave. Tacoma, WA. 98409 (800) 346-8274

sales@carbideprocessors.com [www.carbideprocessors.com](http://www.carbideprocessors.com)

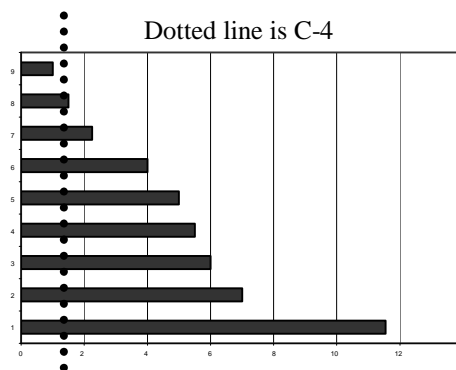
## Get New Customers with Cermet II

As everyone knows many people buy solely on price. Sometimes it seems like everyone buys only on price.

Many years ago we decided that there would always be some folks who were smart enough to buy on value.

We are very proud that our customers using Cermet II tips are winning new customers and doing it at nice profit margins. Cermet II tips are about twice the price of carbide but last up to 11 times as long.

**You pay \$10 more and sell it for \$20 more. The customer gets a tool that last 5 – 10 times as long for just a little more.**



Actual Test Data Comparing a Really Good C-4 Against Cermet II

C-4 Carbide	1
Pallet manufacturing	1.5
vinyl-laminated particle board	2.25
Countertops	4
MDF Board	5
Oak, Fiber Board, Plastic	5.5
Particle Board and Pine Dowel	6
MDF, (Formica)	7
Green hardwoods, oak, hickory,	11.55

### Also Super C Carbide for Tough Cutting

Less money than Cermet II but still longer life. It has the strength of C-1 and the wear of C-4.



## Woodworking show in Tacoma

We had a woodworking show here and we got to talk to lots of folks.

### Walther - Equipment changes

Walter discontinued the entire Woodtronic line effective Sept. 29, 2006. They have announced that they will offer service for 2 years.

### Equipment Ltd.



Rob Rzasa of equipment Ltd. stopped by with his lovely wife, Roseanne. We were talking about coolant changes and Rob said his customers do it twice a year. 4<sup>th</sup> of July and Christmas are easy to remember. Shops are going to shut down anyway and somebody always wants a day's work.

Equipment, Ltd. has \$ 1.3 million inventory of spare parts and the capability to acquire more on a short basis. They are also rebuilding a Vollmer for the first time. They plan on doing more since there is a demand for it but they are going into it carefully to make sure they get it right.

### Burton's New Grinder

Duncan McLean of Burton and Greg Moon of Moon's were good enough to show us the New Wright Grinder. It has some really sweet electronics incorporated in it as well as mechanical improvement. I really admire folks who can take the reliability of off the shelf electronics and put it into saw grinders.

### Doug Hildman - Vollmer

Had a really nice, quiet smooth machine as you would expect from Vollmer.

# Report on Cermet II saw tips at Potter Lumber

Mr. Potter runs a hardwood mill (red Oak which is very acidic) all green logs, medium in size. Twelve years ago the refurbished their equipment to convert to a climb cut bottom arbor edger. He hasn't been happy with production and wanted us to analyze his blades and make a recommendation to him on a longer lasting blade.

The Cermet II WFC 7200(.500 x .200 x .125) gave him at least twice the life as the C-2 grade he was getting from U.S. blade. Before Ni cut went out of business he was having success with there tips also.

The Cermet II blades reduce the noise by over half as far as he can tell, the blades are no longer burning and he has gotten twice the life out of them.

A message from Mr. Potter  
"I am placing another order for the Cermet II tips. We are cutting a lot of pine and fir with these tips. We are now starting to cut a lot of hard woods, such as oak, alder, mahogany. We also cut a lot of the radiata wood here. We ran a test of the Cermet II tips side by side with the Jonalloy tips and they performed just as well. I hope you have a great day.  
Potter Lumber

What follows is the original analysis.

## Potter Lumber Co and Carbide Tip Life

Ted Potter Sr. Of Potter Lumber Co.  
Inc. in Allegheny, NY

Mr. Potter called which was really nice since Potter Lumber co. is a fine, old well respected name.

Mr. Potter was not getting the run life he wanted or thought he should get.

Re: Saw Blade Analysis

### Executive summary:

1. Both saw blades are very well made. It looks like they could be shaper and that perhaps too much is taken off in the face grinding. This is very hard to determine since I don't know the edge radius of the tips originally.

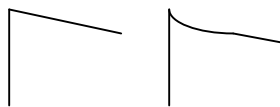
2. The only real problem is the severe erosion of the carbide behind the cutting edge.

**Recommendation:** use a tougher, more corrosion resistant grade.

### Erosion of the Carbide



Normal tip Normal Wear Erosion



A normal edge is strong but erosion behind the edge makes it thin and weak



This is a chipped edge



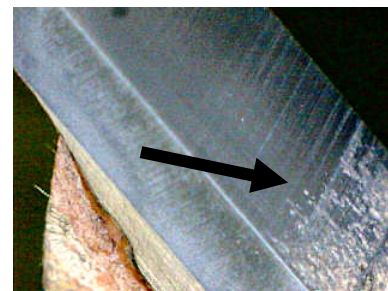
Same edge from side showing erosion trench behind edge



More pictures of erosion trench



The side erodes as well. Here you can see erosion on the sides that leaves it in about the same configuration as a hollow ground knife.



Sawdust stuck to bottom of tip due to chemical bonding.

## How Can We Help You?



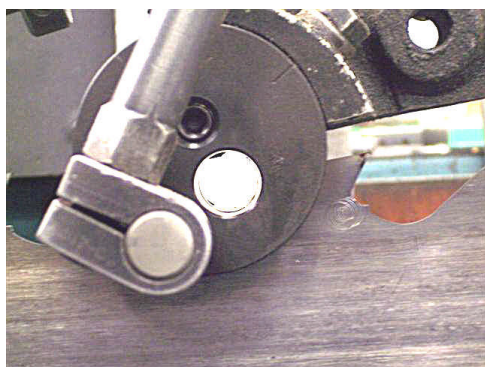
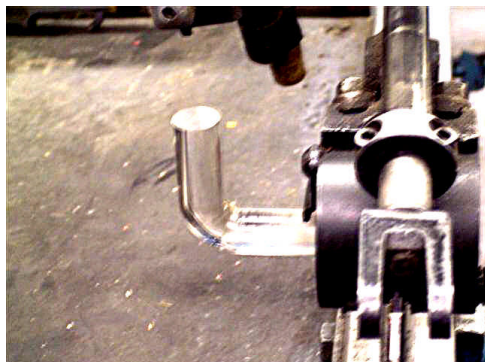
Our sales strategy is based on helping people.

One of our favorite stores is about Randy DeHeer, Head Filer and Dave Anderson, Engineer, Pella Windows

Randy was getting our newsletter and called us. He started out by asking us "how we could help him" which was a pretty intelligent way to start. We did some saw analyses for him and suggested some changes. We referred him to some other folks who have different specialties and we supplied him with better materials than he was using. We don't want to short Dave Anderson in the when giving credit since this is one of the rare cases where you have an intelligent engineer and a very good filer working together.

# Bandsaw Swaging Made Easier

Mike West  
Cascade Hardwood  
360.748-0178x132  
360.880.2177 cell  
westwm@chwa.com



Good morning Tom,

I just came up with the coolest new toy. Being somewhat of a toy maker at heart I just love to try to find ways to make simple jobs even simpler. I don't know if you're familiar at all with trying to set up an Armstrong swage so I recommend going to Armstrong's web site and checking the Air Driven Band Saw Swage publication so I don't have to explain it too much.

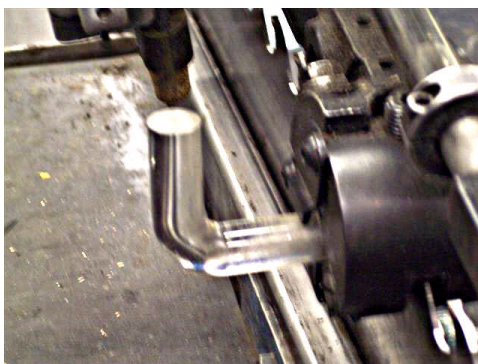
The problem I attempted to correct involved setting the swage anvil to the top of the tooth. Over the years I have tried flashlights and mirrors and trouble lights to attempt to see into the die channel to see that the top of the saw was flat on the anvil. I was listening to Greg Richardson from Armstrong / Simonds talking about swage adjustments at the Western Saw Filer's Educational Association meeting in September and I remembered the little bore sight I use to clean rifle bores. All it is is a bent piece of clear acrylic rod

that gathers available light and directs it into a hole, in this case the swage head.

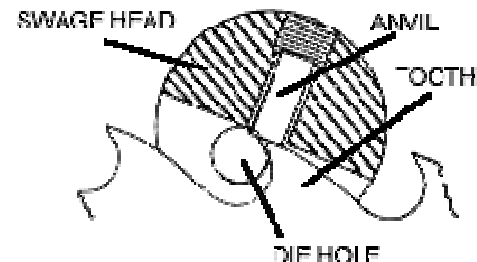


Not new technology, just a different application. My particular swage is a #6 so I used 3/4" rod, for other swages you might use a 5/8" or a 7/8" rod, all available from McMaster Carr or whoever. I made three of them for about \$4. I just took a small torch and bent it 90 degrees and there it was. The end did need a little fitting to stay in the hole but it sure works great. I thought you might like to share this with your readers to encourage them to share other toys we can all make and use. Heck, maybe I'll share some of my other toys in the future.

Enjoy,  
Mike West



If you have any ideas you would like to share we would love to hear them

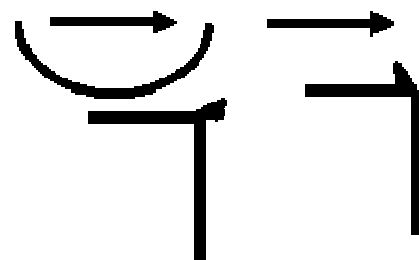


1. Set swage on saw. Run saw through slot in swage head and rest shoe on saw tips. Remove die from die hole and look to see if flat end of anvil is sitting flat on tooth with no light at either front or back of anvil.
2. To adjust, loosen two screws holding guide arm and rotate head forward or backward until anvil sets flat on back clearance of tooth.
3. Tighten screws in guide arm.
4. Recheck.

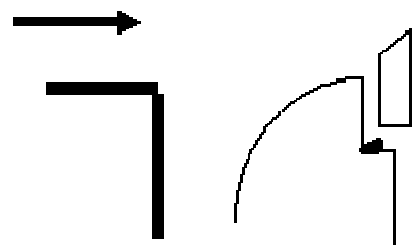
## Grinding Burrs

Norm Brown at Simonds Int.

When you grind steel you can create a burr. The wheel pushes the steel ahead of it.



The burr hangs over the edge and is easily moved in handling.



Depending on how the saw plate is handled the burr can be broken off (really good), pushed away from out of the notch (maybe o.k.) or pushed back into the notch (bad).

What you definitely do not want is to have the burr between the carbide tip and the steel.

# Cermet II Performance Is Incredible

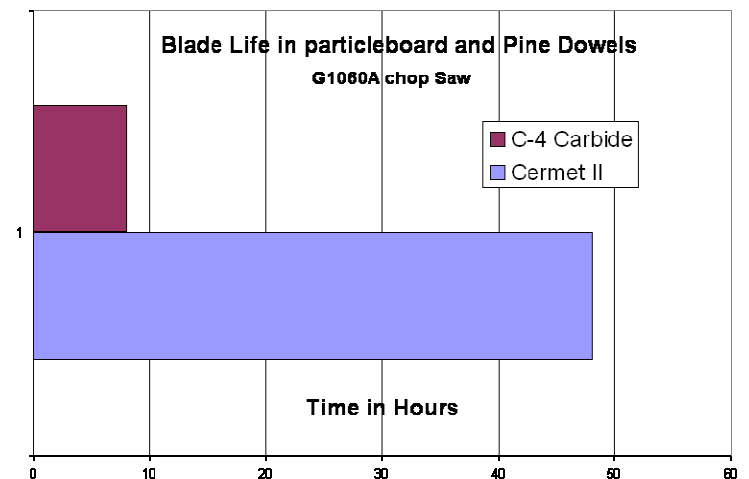
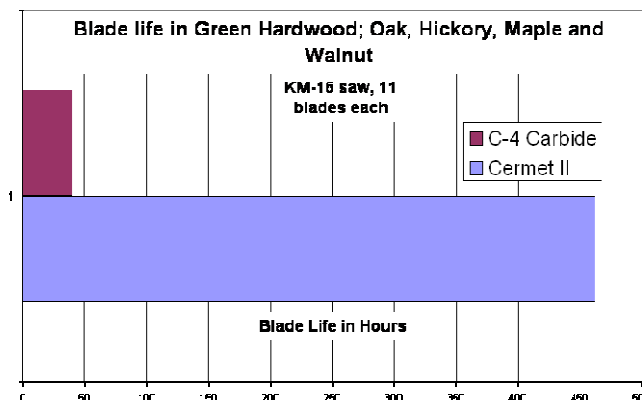
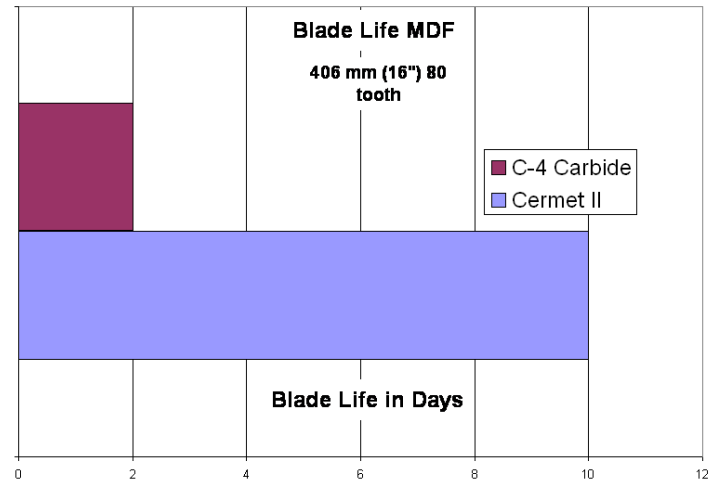
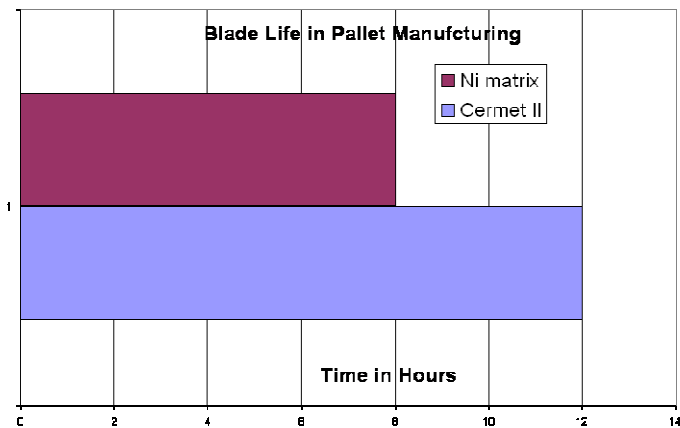
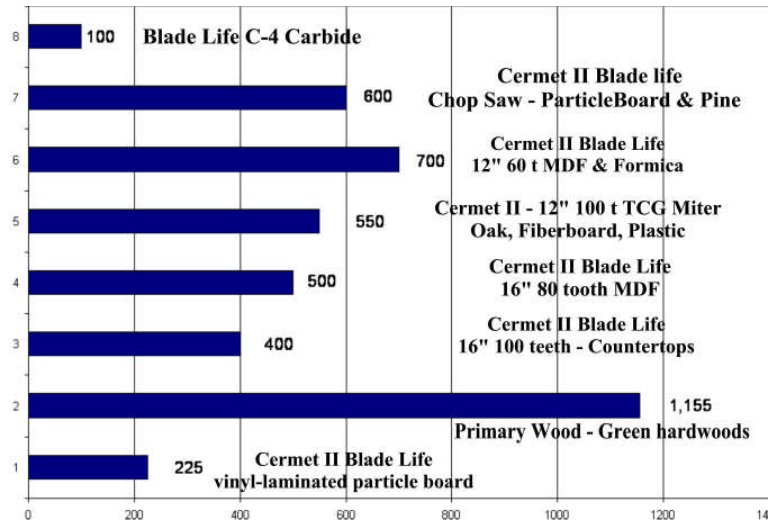
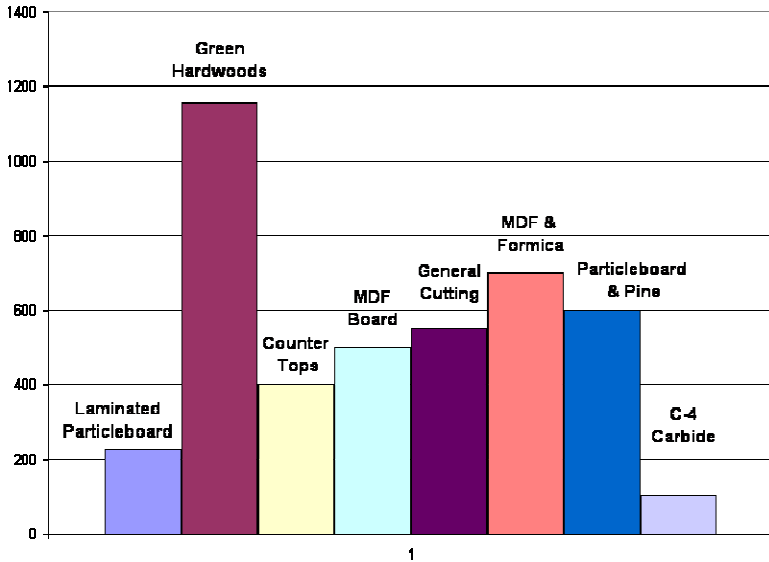
## And They Are Easy To Use

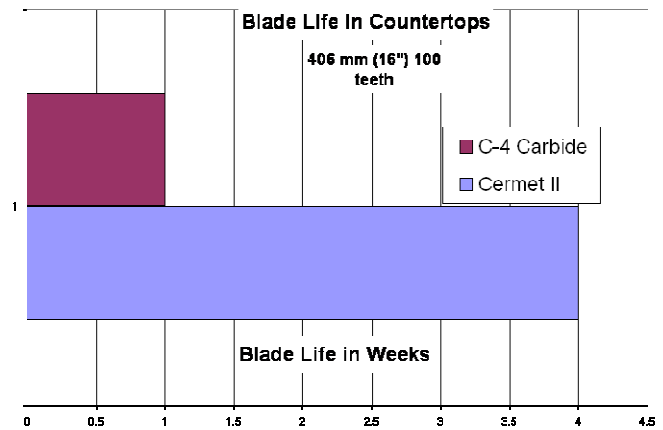
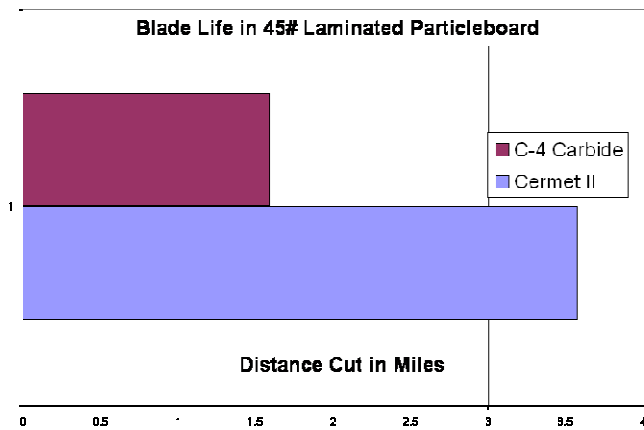
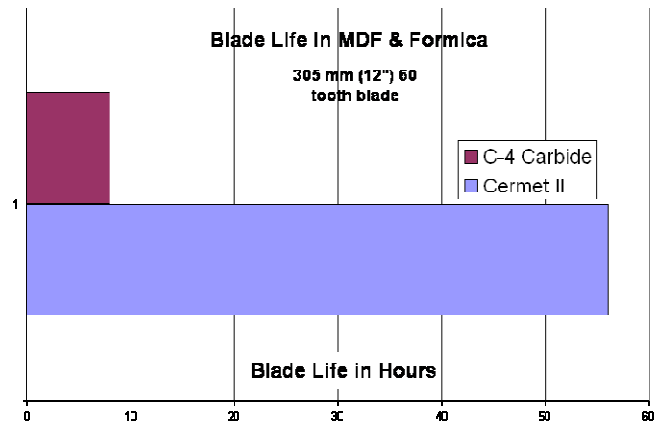
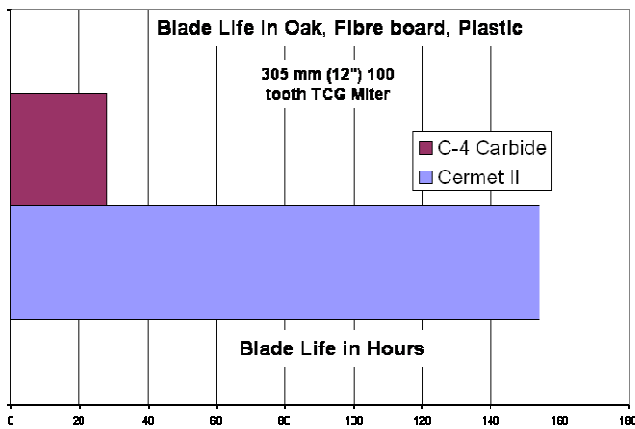
You use them just like carbide however you get much better performance. They are about twice the price of carbide but last up to ten times as long.

Our first cermet experiments were very successful when they worked. The Cermets gave greatly improved wear and corrosion resistance. However the first cermets were hard to braze, very hard to grind and tended to break easily. When they worked they were sensational but they didn't always work. It took us several years to develop Cermet II.

**Cermet II brazes and grinds like carbide. And it always works.**

**Blade Life - Cermet II as a % of C-4 Carbide**



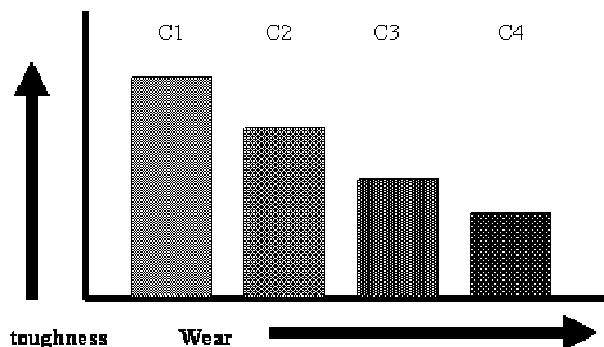


## “Super C” Grade of Carbide

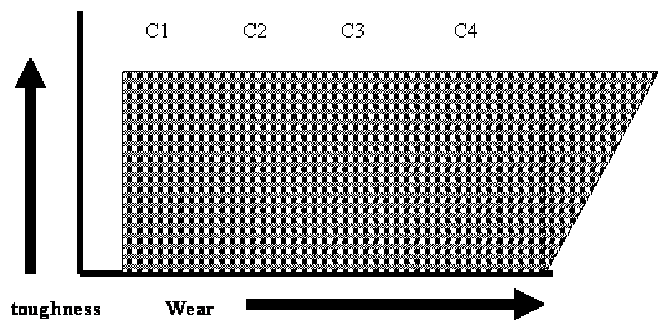
### High toughness and long wearing

Just a little bit more than plain carbide but much better results.

It used to be that you had to choose between a tough grade of a high wear grade. In addition a soft grade could often be longer wearing than a hard grade because hard grades were more prone to Microfracturing. This was because the traditional carbide grade design was tungsten carbide grains in a Cobalt matrix. “Super C” grades take the traditional design to the next level and incorporate nano-technology to give a grade that is both high wear and tough. It is tough enough to cut nails and it gives much longer wear in man made materials as well.



Old grades – You had to choose toughness or wear



“Super C” toughness and wear

# Emily's Ideas for the Newsletter

- Huge sale on carbide tips----WB 7180 \$0.10 each with Pretin while supplies last
- Saw plate 10 x 48 western saw \$15.00 while supplies last
- Cermet II blades in stock 10 x 48 and 10 x 60
- Free advertising for customers--send us your ad and or picture--you'll be in next issue.

## ➤ Book Links

- 1. Chisels on a wheel (reproduced)**  
<http://www.cafepress.com/chisels.80455869> (Paperback) \$49.95
- 2. Building Superior Brazed Tools**  
<http://www.cafepress.com/superiortools.80457403> (Paperback) \$65.00
- 3. Managing Coolants from Machining and Grinding Operations**  
<http://www.cafepress.com/managecoolants.80458178> (Paperback) \$49.95
- 4. Lowell Freeborn's Carbide Saw Manual**  
<http://www.cafepress.com/freebornmanual.80464996> (Paperback) \$24.95
- 4. Braze Failure Analysis Especially Failure Analysis in Brazed Tools**  
<http://www.cafepress.com/brazefailure.79434854> (Paperback) \$65.00
- 5. Carbide Saw Specification Manual**  
<http://www.cafepress.com/sawspecs.80466877> (Paperback) \$24.95

## For Sale

Very good condition V3 Akemat Top Grinder Asking \$23,000 **Contact:**  
John McKinney  
Bobs Saw Sharpening  
721 N.W. 7th Ave.  
Ft. Lauderdale, FL 33311  
954-463-2689 -phone  
954-463-8731- fax

## Monte Murphy of Murphy's Saw Shop in Redmond, OR

Monte Murphy called. He had been reading an old newsletter article about different plate cleaners.

He uses a product called Attack that comes out of Nevada. He thinks it was made for cleaning cement floors. He

heats the high alkaline solution up in a covered tank to about 100 deg, lets the blades soak about 15 min then scrubs them. The blades come out very clean and rust free. Attack isn't very expensive (he changes the batch about once a month)

## This May Be a Great Tool For You



**This is our Hot Rod saw tip poker for brazing.** It is a multi-purpose saw tip manipulation tool for more effective and safer brazing with the new miracle metal Normalloy. It stays cooler much better than tungsten or steel and has none of the health risks associated with thoriated tungsten welding rod.

Paul Duclos of Peerless gave Teresa Kessler a Hot Rod brazing tool to try. Teresa did not like it at. This was kind of discouraging as Teresa is really good and we have a lot of respect for her. On the other hand, shortly after this we had a big company call and order 15 of the same tool because they really liked it in their testing.

We see this regularly. What may work very well one place may not work at all well in another place. This does not mean anyone is right or wrong. It simply means that two people, who are each experts, may prefer different ways of getting the same results.

We suggest you do what these two experts did and try something in a small, simple, inexpensive trial. If it works then you have something new. If it doesn't work then you haven't lost much time or money and you are a little smarter.

## If You or Your Kids Like Airplanes



There are some great free pictures at the Air Force web site. <http://www.af.mil/>

## Sanding Pad Closeout

Andrew Dembicks  
Andrews Toolworks Inc.  
1220 Corporation Parkway, Suite R  
Raleigh, North Carolina 27610  
919 212 2245 office

This is the inventory we have on sanding pads. Frankly speaking, they're better than 3M's. We use 6# density UV stabilized urethane and apply a silicon carbide grit. Most pads use cheaper aluminum oxide. When they fill, simply rinse them in water and reuse.

### Packaged 2 pads and one Velcro sheet

14051 SQ1/2"220g	636
14052 SQ1/2"120g	1068
14061 SQ1/2"80g	1788
14062 SQ1/2"46g	348
14111 RD1/2"220g	852
14112 RD1/2"120g	420
14121 RD1/2"80g	564
14122 RD1/2"46g	348
14151 Wax & Buff	852

### COMPONENTS - no packaging

ANGLE SANDING 80/46g	780
ANGLE SANDING 220/120g	200

DETAIL SANDING 120g	1747
DETAIL SANDING 80g	109
DETAIL SANDING 46g	1554

EASY GRIP 220g	177
EASY GRIP 120g	225
EASY GRIP 80g	326
EASY GRIP 46g	521

FLEX PAD 220g	3418
FLEX PAD 120g	3408
FLEX PAD 80g	2943

HAND SANDING 220g/120g	274
HAND SANDING 80g/46g	9738

### Power Sanding Pads

SQ1/4"220g	2382
SQ1/4"120g	2764
SQ1/4"80g	3184
SQ1/4"46g	2727
SQ1/2"220g	0
SQ1/2"120g	0
SQ1/2"80g	1572
SQ1/2"46g	15415
SQ3/4"220g	174
SQ3/4"120g	0
SQ3/4"80g	1572
SQ3/4"46g	1832

RD1/4"220g	2309
RD1/4"120g	2557
RD1/4"80g	2326
RD1/4"46g	2495
RD1/2"220g	0
RD1/2"46g	4000
RD3/4"220g	2167
RD3/4"120g	515
RD3/4"80g	0
RD3/4"46g	2718

BUFF PADS (WOOL)	2664
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## New video inspection system from Vision-Works



### Computer-based Inspection & Measuring System designed for the Saw Industry

This system is designed to allow full inspection of saw blades using computer-based, video technology. The Multi-Stand mounts to a precision spindle that can be mounted to almost any flat surface and is adjustable to allow for the inspecting and measuring of the top, side, and face views of the saw blade. The measuring portion of the system allows for the measurement and recordation of widths, angles, and radii in either Metric or English using light sensing edge detection technology. This product is best utilized as a in-house quality control device, but can also be used to generate finished product reports for your customers, which can be used in the re-inspection process of returned blades from the end user.

This system comes complete including Multi-Stand and spindle (spindle has a 5/8" machined shaft with a 3 1/2" fixed rear collar and removable front collar), computer with flat screen monitor, video acquisition and measuring hardware and software (magnification range: 5x to 50x), wireless keyboard and mouse, dual bundle fiber optic light set and illuminator. Additional options for magnification are also available upon request.

The technology in the system will set your business apart from the competition. It is instrumental in the

production, inspection, and marketing of your products to the end-user and shows that your firm is on the cutting edge in accuracy and quality.

F.O.B. Charlotte, NC \$13,995.00



"Giving Your Quality a Closer Look"

Vision-Works  
20101 Riverchase Dr  
Cornelius, NC 28031  
Phone: 253-208-5148  
Fax: 704-895-8948  
E-mail: richthornton@yahoo.com

Tim Rief and Associates  
30021 Tomas St. #300  
Rancho Santa Margarita, CA 92688  
Phone: 949-459-2187  
Fax: 949-459-2142  
Mobile: 714-329-9843  
E-mail: tcrief@aol.com

## TUNGSTEN, THE WOLF-FROTHING METAL

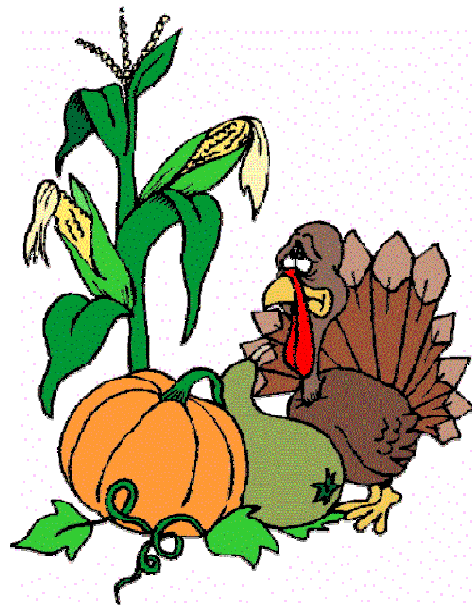
The history of tungsten goes back to the 17th century. The miners in the Erz Mountains of Saxony noticed that certain ores disturbed the reduction of cassiterite (a tin mineral) and induced slagging. "They tear away the tin and devour it like a wolf devours a sheep," a contemporary wrote in the symbolic language of those times. The miners gave this annoying ore German nicknames such as "wolfrahm," which means "wolf froth."

In 1758, the Swedish chemist and mineralogist Axel Fredrik Cronstedt, discovered and described an unusually heavy mineral that he called "tungsten", which is Swedish for "heavy stone."

Pure tungsten is a shiny white metal and, in its purest form, is quite pliant and can easily be processed. However it usually contains small amounts of carbon and oxygen, which give tungsten its considerable hardness and brittleness.

## Best Ever Turkey Recipe - Just in time for Holiday dinners !!!!!!!

From John Schultz at Superthin Saws



Here is a turkey recipe that also includes the use of popcorn as a stuffing - imagine that!

When I found this recipe, I thought it was perfect for people, like me, who just are not sure how to tell when poultry is thoroughly cooked, but not dried out. Give this a try.



**Baked Stuffed Turkey**  
6-7 lb. turkey  
1 cup melted butter  
1 cup stuffing (Pepperidge Farm is good)  
1 cup uncooked popcorn (Orville Redenbachers Low Fat)  
Salt/pepper to taste.

Preheat oven to 350 degrees. Brush turkey well with melted butter, salt, and pepper. Fill cavity with stuffing and popcorn. Place in baking pan with the neck end toward the back of the oven.

Listen for the popping sounds. When the turkey's ass blows the oven door open and the turkey flies across the room, it is done.



### **Not only a pretty face but also great customer service**

Here is Emily, who is always perky and always happy to help customers. Emily's job is to help people find carbide, silver solder, filter systems and everything else we sell. If we can't supply you but we know who can we will refer you. No matter what you want we will work really hard to find it.

### **We Would Really Like It If You Bought From Us**



Be smart like Yoda dog and buy from us. Otherwise we'll have to send the kitten after you.

## **Happy Holidays**



This is our Holiday newsletter. We won't be sending separate cards instead we will make a donation to the local food bank. We have a great number of friends who celebrate a lot of different holidays but a common theme seems to be helping those less fortunate, especially feeding children.

### **Thank You to those of you who make the effort to pay promptly.**

We realize what a struggle it can be and we appreciate it. We also understand if you need to be late and are happy to work with you when you call. If you ever want to use us as a credit reference we would be glad to do so.

### **Inventions That May Not Be a Good Idea**

An elastic strap that converts any cell phone into a hands free cell phone.



**This is good pretinning.** It is ours and it is what you should be buying. Demand it (well, ask for it, anyway) wherever you buy carbide. If they won't ship to us we'll get it for you direct and save you time and money.



### **We Buy Scrap Carbide**

Price varies but figure \$200.00 per 2# coffee can for scrap & cheap shipping **800-346-8274**

### **How Can We Help You?**



Our marketing strategy is pretty simple. We try to help folks. If it means making a sale then that is good. If it means sending them to someone else then we do that as well, even if it means sending them to a competitor.

**Carbide Processors, Inc.  
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