President's Message

How to Increase Sales How to Cut Costs

We know one saw company that got four major panel plants in one week. They went into the plants and asked the management if they wanted to double saw life and improve cut quality. Then they built some saw blades with our Cermet 2 tips. Not only do Cermet 2 tips last twice as long on the average they also give "the smoothest cuts I have ever seen" as one mill manager said. It is not just the Cermet 2, of course. You also have to be able to make a good saw. However, if you can make a good saw, Cermet 2 tips can definitely get you more business.

Snook's Saw Service has a Great, New Product

Salem, OR (503) 581-2570

There is a new line of 100% natural, plant based coolants. They are entirely biodegradable and worker friendly. Plus they work sensationally well.

Mix the Carbide Grind 10:1 - 15:1 with water and it works just like straight oil. Cleaner machines, faster cycle times and absolutely beautiful grinds with no odor and no skin rash. It meets EPA standards for being completely biodegradable and being aquatic friendly. Plus cleaner, faster smoother grinds. (See p.4 & 5)

There are also saw and machining oils. You can run the Carbide Grind in your own shop and sell the others when you sell band saws and cold saws.

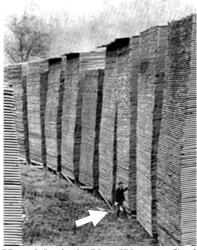
We are the distributor for these plant oils and Snook's is a dealer. Call Snook's to buy a sample and call us if you want to be a dealer.

Carbide Processors, Inc.

Northwest Research Institute, Inc. Newsletter January, 2008 3847 S. Union Ave. Tacoma, WA. 98409 (800) 346-8274

sales@carbideprocessors.com www.carbideprocessors.com

Cermet 2 Tips



How Much do You Want to Cut?



What Kind of Cuts Do You Want?

Cermet 2 tips are now doing really well in panel plants as well as hardwood and softwood mills, window and door plants, plastic operations, cabinet shops and about any kind of operation you can imagine. We are selling them locally, across the country and around the world.



Oh Boy, there's a hamburger recipe on p. 6

New Filter Units for Straight Oil

CP 2002 & New Double Bag Unit



This actually happened. We had a customer buy 2 CP2002 units and then he ran his own experiments. He came up with new ideas and we built units for him. We ended up with a double bag wall mount unit (left) that does a beautiful job filtering straight oil. We also have a bag and cartridge unit (right) that works extremely well on straight oil.



Save Money - 2 rebuilt unit available at a big discount. We took these two back and sold him 25 wall mounts. These had very little use and are fully guaranteed. They were run for a day or two, but we are offering a discount.

New Coolant

Safer, Cleaner, Cheaper & Better See pages 4 & 5 inside

Cermet 2 tips on Cal Saw Blades

This may be true

We are supplying our Cermet 2 tips to Cal Saw. Combined with their plates and manufacturing expertise we are getting sensational results. Call Cliff Gordon at (503) 580 -3253. This part is true.

What follows is what I remember Burl Swiger telling me. Burl used to be with Cascade Southern Saw and then LWO. Burl is now 'retired' and rebuilding grinders as Triple S.

Anyway Burl said that Alastair at Cal Saw Canada built some saws for LWO when Burl was there. The way I got it was that the two saws Alastair built replaced twenty saws. Burl put them on Monday morning and ran them all week. Saturday he cleaned them up so he could drive them to church Sunday. When Burl retired he finally had them sharpened and gave them to his sons. Now his grandsons are using them and they may need a second sharpening in a few years.

Now Alastair is extremely good and a Scotsman besides so he builds incredible saws. Burl is a saw filer and they are an honest bunch so this whole thing might be true no matter how far fetched it sounds.

Cliff Gordon at Cal Saw (503) 580 -3253 <u>cliff@calsaw.com</u> 888 729-6533

Burl Swiger at Triple S (503) 803 6838 triple-S@comcast.net



If you can't trust a Sawfiler then who can you trust?

Sawfiler Philosophy?

From: Jerome Adams at Adams Saw

One tequila, two tequila, three tequila, floor.....

Atheism is a non-prophet organization.

If man evolved from monkeys and apes, why do we still have monkeys and apes?

The main reason santa is so jolly is because he knows where all the bad girls live.

I went to a bookstore and asked the saleswoman, "where's the self-help section?" she said if she told me, it would defeat the purpose.

What if there were no hypothetical questions?

If a deaf person swears, does his mother wash his hands with soap?

If someone with multiple personalities threatens to kill himself, is it considered a hostage situation?

Is there another word for synonym?



Mike West, Cascade Hardwoods

A Baptist preacher and a Methodist pastor are standing by the side of the road, feverishly pounding a hand-made sign into the ground with a large rock. The sign reads:

THE END IS NEAR TURN AROUND NOW BEFORE IT'S TOO LATE

As a car speeds past them, the driver yells, "Leave us alone, you religious wackos!"

From the curve, they hear screeching tires and a big splash. The Methodist turns to the Baptist and asks, "Do you think it should just say "Bridge Out"?"



It is good to be trusting but watch out for the cat.



Address life with dignity



Friends come in many forms



Be nice to the little folk



In spite of the weather right now, fishing season is coming

We Test Carbide From Two New Suppliers

We are constantly looking at new carbide suppliers. When something new and better comes up we want to get it to you. In addition carbide companies are always in change. In twenty six years we have seen one company go from bad to being the best and now it seems to be falling off again.

Analysis #1

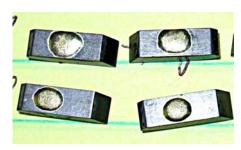
Analysis of Chinese carbide



We were supplied CWF7150 saw tips. They came two ways; one was untreated and one had a nickel coating.

Executive Summary:

The four on the left were tested with a very small piece of braze alloy. The four on the right were tested with the right amount of braze alloy for this size tip. The plated tips were marginally better but none of them worked well enough to be saleable in today's market unless they were really cheap. The wetting is about where the U.S. was 15 to 20 years ago. They will stay on the saw pretty well but I don't think they will look good.



Four tips with a small piece of alloy. Nickel plated tips are on top.



Four tips with a big piece of alloy. Nickel plated tips are on top.

The standard is an even flow to all four corners.



This is what we want. This is our pretinning. If it won't do this then we don't want it.

How We Run the Tests

First wetting test





Left pictures shows a very small piece of silver solder. Right picture the parts in the induction coil.

Full piece of alloy wetting test





This is actually a bit more alloy than we would use for production (left pic.) The parts were pretty heavily fluxed and were heated to a red heat which was a bit too hot but we wanted to give them every chance.

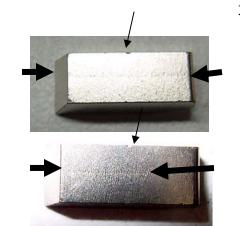
Analysis # 2 Analysis of new tips



Small piece side

Big piece

Executive summary: Flows and wets well. Good, strong bond. Minor edge chipping. Line down the middle of the tip is where the top and the bottom of the die meet.



Top arrows point to chips. Side arrows point to line. Neither one of these makes the tips bad but they are a cause for worry. The chip means problems with handling the tips in the green state. The line is a problem with the dies.

Wetting Test

Two tips with a piece of .115" long wire, which is much too small, and two tips with A piece of .210" long wire which is about right depending on customer preference.



Two tips with .115" wire on the left. Flow is very good. Arrow points to slight flow discontinuity in tips with larger pieces of braze alloy. This isn't a problem but it isn't quite ideal. Tips wet beautifully and are very saleable.

Why We Are so Fussy



Here are two tips we pretinned and then etched with acid. The braze alloy flowed out nicely during pretinning and the tips looked good but there were huge holes in the middle where the braze alloy didn't stick to the carbide.

Use This In Your Shop



SPINDKOOL™ CARBIDE GRIND Faster, Cleaner Grinds at Lower Cost

- * Increase Feed Rate up to 25%
- * Superior finish
- * Excellent cooling and heat transfer
- * Non-flammable
- * Excellent flushing
- * Great Cost / Performance

Benefits

- * Water soluble
- * 100% biodegradable

Advanced technology cutting fluid/coolant formulated for carbide grinding applications.

SPINDKOOLTM CARBIDE GRIND, is a 100% plant based coolant that is cobalt blue in color. It sticks to the work much better than petroleum products. It also has the famous superior slickness of plant based lubricants. SPINDKOOLTM carbide grind is designed for coolant systems under 100 psi.

Sell These to Your Customers



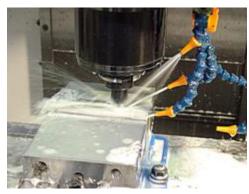
SPINDKOOLTM SAW Saw Lubricant Clean, Fast Cuts

SPINDKOOLTM SAW is specially designed for metal cutting and machining operations on ferrous, nonferrous and specialty alloys.

SPINDKOOLTM SAW is a clear-green, entirely plant based, non-petroleum product so it is fully biodegradable. It is plant based and specially formulated for long life as well the high lubricity

It has superior heat transference properties. Its high lubricity reduces friction on the sides of the cut and allows for more energy to be placed where it belongs, in the actual cutting application.

It also has excellent health and environmental properties since it is all natural, plant based materials. The 30 Series is designed for flood coolant of saws.



SPINDKOOLTM CNC-PRO CNC Machining Superior, lubricity, chip removal and heat transfer

SPINDKOOLTM CNC-PRO is an advanced technology cutting fluid/coolant formulated for metalworking applications that include CNC machining, drilling, grinding, milling, sawing and screw machines.

SPINDKOOLTM CNC-PRO is formulated to assist in most metal cutting and machining operations on ferrous, non-ferrous and specialty alloys. It is a purely plant based coolant that is milk-white in color.

This means a higher viscosity index, lower evaporation loss and a potential to enhance lubricity, which could lead to improved energy efficiency.

Northwest Research Institute, Inc. / Carbide Processors, Inc.

3847 S. Union Ave. Tacoma, WA. 98409 Tel: 800 346-8274 Fax: (253) 476 1321

president@carbideprocessors.com www.carbideprocessors.com

<u>Biodegradability</u> measured by EPA 560/6-82-003 and OECD 301. These tests monitor the conversion of the test material carbon to carbon dioxide. To pass, at the product must biodegrade in 28 days.

<u>Aquatic toxicity</u> measured by EPA 560/6-82-002. This test measures the number of trout fingerlings who survive a minimum 100-ppm injection of oil for 96 hours in their tank. To pass, at least 50 percent of trout fingerlings must survive, and the product is considered nontoxic.

SPINDKOOL Products Explanation 2 Out Of 3 Who Try It, Buy It

Plant Based Oils and Lubricants

Oils occur in small droplets within the plant cells, and are typically most abundant in seeds. Waxes are the fatty acid esters of monohydroxy



alcohols; oils, by contrast, are fatty acid esters of trihydroxy glycerol. Waxes are found mostly as protective coatings on the leaves and stems of plants, where they function to retard water loss. Waxes are a less voluminous (and typically more expensive) commodity than the vegetable oils and fats.

Vegetable oils have the following advantages over petroleum products
Higher viscosity
Lower evaporation loss
Increased lubricity
Improved energy efficiency

Ester lubricants have the following advantages over vegetable oils
Readily degrade
Lubricate better than vegetable oils.

SPINDKOOLTM products are a highly refined blend of vegetable oil products for low cost and advanced organic chemistry that gives the very top end synthetics their incredible performance. Proper blending of various plant oils plus other plant extracts can greatly improve performance.



You can greatly improve the performance of coolants with careful blending. If you take iron and add a little carbon you get steel. If you take steel and add little nickel and chrome you get stainless steel. Below is data from Purdue showing how much you can improve the performance of plant oil with some additives.

Oil Functionality index (# on rt) (From Purdue University Report)

Petroleum	
10W-30	12.3
a	
Straight plant oil	
Commercial canola oil	8.7

High quality plant oilCommercial high oleic canola 10.9

Straight plant oil and enriched plant oils Commercial canola oil + 11.5 hydroxyl fatty acid rich oil

High quality plant oil and enriched plant oils

Commercial high oleic canola 19.8 oil + hydroxy fatty acid rich oil

Straight and enriched plant oils plus wax Commercial canola oil + 24.6 hydroxyl fatty acid rich oil + liquid wax ester enriched oil

High quality and enriched plant oils plus wax

Commercial high oleic canola 31.2 Oil + hydroxy fatty acid rich oil + liquid wax ester enriched oil

SPINDKOOLTM is:

- * Slicker than petroleum products cutting is about 25 30% easier
- * Sticks to steel much better less spray off
- * Superior thermal properties carries the heat away better
- * Lasts longer because it resists oxidation better than petroleum products.

Health and Safety: While everything can be dangerous, in the Purdue tests vegetable based products, like SPINDKOOLTM type products, were shown to be 244,000 times safer. (Acute toxicity, LC50 (ppm) EPA/600/4-90/027F, 1993 SPINDKOOLTM type products required an exposure of 7,320 parts per million to achieve this standard while the petroleum product only required 0.03 ppm.)

Environmental: SPINDKOOLTM products are 100% biodegradable.



Environmentally Friendly and Great Results

If you want to try it, call Snook's Saw (503) 581-2570.

A gallon is about \$20 or \$25 depending on which product you try. Dilution is 15:1 so it is a great price.

We bought a distributorship and Snook's Saw is a dealer. There are dealerships available if you want to resell and if your reputation is as good as Snook's is.

Carbide Processors, Inc.
Ph (253) 476 1338 800 346-8274
Sales@carbideprocessors.com

A Secret to Success

David Feinberg Cutter's Edge in Clifton, NJ

Below is an ad David sent us.



I really like it. It starts out with a benefit to the customer. It is very clean and clear and crisp. I don't know if that is David or a model. In any case it really looks like a guy who knows tools.

Below is a note David sent. "Season's Greetings.

This is an ad I ran in a local magazine.

I have been in business since 1975 (33 years) with all the problems that come with it.

I started with some Foley machinery and now have Vollmers for most of our saws.

When I started sharpening there was no one to ask or give good advice. Not even an Internet.

Know you are helping lots of small shops like the 2007 Meet and Greet did.

Please keep your newsletter coming. Sincerely Yours, David Feinberg

David has been in the business 33 years and has been able to buy Vollmers

which is a success path a lot of folks have followed.

I'm not sure if they are secrets or not but it seems like he works hard, fights his way through problems, invests in better equipment and is always looking for ways to do things better. In addition he is a nice, polite person. He didn't have to send us the ad and the note but we are glad he did.

Hamburger Perfection

Jeffrey Steingarten is a food columnist for Vogue magazine. Since some of our readers don't get Vogue we are including his hamburger recipe here. The burgers are described as "mouth wateringly insane".

The perfect hamburger

The meat patty must be profoundly beefy in flavor, mouthwateringly browned on the outside, and succulent (a combination of juicy and tender) on the inside.

The bread or bun should not interfere with any of these virtues. It should be soft, mild, and unassertive; its job is to absorb every last drop of savory juice trickling from the meat while keeping the burger more or less in one piece and your hands dry.

- 1. Chill Out: "Before grinding chunks of beef, before forming a hamburger, and before cooking a hamburger, make sure that the beef is ice cold. Otherwise, the fat may melt and separate from the lean."
- 2. Grind or Else: Either grind your own meat or have a trusted butcher grind it for you for safety reasons. Otherwise cook it until it is well done. "Never buy supermarket ground beef unless the butcher there grinds it specially for you." If you have any questions about the safety of the chopped meat you've just bought: "Drop the meat into a pot of boiling water for a minute, fish it out, and pat it dry. It'll turn gray, but only on the outside, and this will get ground into the rest of the meat and vanish."
- 3. Fluff that Stuff: "When forming a hamburger, don't compress the meat. The fluffier, the better. A raw burger

should be airy and full of tiny holes that can hold the juices released during cooking, when the fat melts and water is squeezed out from between the proteins." "The gently gathered ground beef in a good hamburger has a delicate quality quite unlike even a tender steak."

- 4. Just Add Water: Adding the liquid is literally the secret sauce that will make any burger sing. Adding a tablespoon and a half of liquid to the ground meat immeasurably improves the burger. Either cream or water produces a superior, succulent, juicy, crumbly burger.
- 5. Season Well: "Don't salt hamburger meat either before or after it is ground. Just before you cook the burger, liberally sprinkle salt on both sides of each patty, and press it lightly. After they're cooked, sprinkle with freshly ground pepper."
- 6. Flip Side: If you flip a burger or a steak every fifteen to 30 seconds, the outside surface will get nicely browned while the inside stays relatively cool.
- 7. No Pressure: "While cooking your hamburger never press down on the patty with your spatula or with anything else." Also broiling from above is much less likely to dry out the burger.
- 8. Buns: The best hamburger buns are Pepperidge Farm's Farmhouse Sandwich Rolls (not the hamburger buns). They do need to be compressed a bit before using.
- 9. The Meat: Most of New York City's great hamburgers are made with a blend of chuck (specifically the chuck flap) and brisket. Some chefs ask that short rib or hanger steak be thrown in. One recipe calls for a blend of hanger steak, short rib, and brisket. Another blend is two parts chuck, two parts boneless short rib, and one part brisket. Fat is extremely important to excellence in the hamburger arts because most of the beefy flavor in beef is in the fat."



Filtering Straight Oil Coolants



We now have a filter system that filters straight oil coolants. Above is our CP 2020 which filters tight oil coolant very well. It is also available as a wall mount unit.



Here is our CP 2002, which has been an extremely good unit on water based coolants for about eight years.

We have tried it on straight oil with very poor results. It filtered for maybe an hour before it plugged up.

Oil is much thicker than water. The filters were good enough to filter the oil for awhile but, as soon as they started to a load up with dirt, the oil was too thick to get though.



Here are the two units side by side.

A filter is a series of holes that separates particles from liquid. Oil is thicker than water so it is harder to filter out small particles. In addition oil transfers the pressure from the pump directly to the filter and is much more likely to collapse a filter element.

The secret is a high-tech filter. This is stainless steel inside and outside to handle the pressure. It is smaller than our water filters and has a pleated surface to provide sensational filter surface area at the high pressures oil creates.





We recommend monthly filter changes but many go much longer than that.

Great Filter Units

For Straight oil, Synthetic and Water - based coolants.

Really popular – We're selling a bunch of them





Great prices, pay for themselves readily, cleaner shops, less labor and longer diamond wheel life with better, faster grinds.

Now accepting Visa & MasterCard Call Us at 800 346-8274 or Equipment Ltd at 800-533-2006

Coolant filter Life

We recommend a filter change after one month in use on a single machine which is about 160 hours of use. In our tests we have seen them go 21 days of 20 hour shifts, which is 420 hours. Many folks get 2 or 3 months out of the filters which is 320 to 480machine hours.

The rating is based on the amount of sludge generated by the machine in an hour. If you run a machine 40 hours and filter one hour then you remove all the sludge from the 40 hours of running.

If you are running 11 machines then you are getting 440 hours life out of the filters in a week.

Two things can happen. 1. If filters are run too long they can load up and releases over and over so they don't do any good past a certain point. It looks like they are working, however. This is like pouring fifty gallons of water in a five gallon bucket. It works because when you are though the 50 gallon drum is empty and the bucket is full. You just ignore the water on the ground. 2. After a long enough time there will be a lot of sub-micron particles in the coolant and this can give it a gray color.



Not only pretty faces but also great customer service 800 346 - 8274

Here are Jackie and Emily are always perky and always happy to help. 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.

Get Cash for Scrap

Emily is paying \$6.50 a pound for scrap and maybe higher. You can ship a lot of scrap for \$8.95 in a US Postal Service flat rate box.





If you do the same old thing the competition gangs up on you.



Do something new and you can blow them away. Sell our new Cermet 2

Buy Carbide from Us Here's One Reason Why



Here's what you get.



Here's what you never see.

These are tips we bought and had to eat because the braze alloy didn't stick to the surface. You can see the lumps of braze alloy and the gaps. In the bottom right the braze alloy ran too well and ran over the side. Not all the tips were bad but it takes one bad tip to make a bad saw blade and many of these tips were bad enough to jam an automatic brazer.