



President's Message

We Are Winning
Cermet 2® and Super C® are
beating Stellite® and just romping
all over ordinary carbide.

Stellite® is an excellent material and became very popular for sawmill saws fifteen years ago or so. Then carbide had plain Cobalt binders, was hard to braze and Stellite had the first good automatic tipping equipment.

Carbide always did have a much longer run life except for highly corrosive situations.

That was a long time ago. The new grades of carbide have binders much like Stellite® in that they are also complex metal alloys that are highly corrosion resistant.

New, nanograin carbides take a very sharp edge and keep it a long, long time. In some cases you are looking at 4 hours for Stellite® and full week for Super C advanced carbide grade.

The modern carbides are extremely impact resistant as well as extremely long wearing. Metal will deform under impact but advanced carbide keeps its edge and keeps cutting.

Mainly, people who used or buy Stellite® are now buying our advanced grades.

Stellite® is a registered trademark of Stoodly Deloro Stellite® which is also trademarked. Cermet 2® and Super C® are our materials and are trademarked as well.

Carbide Processors, Inc.

Northwest Research Institute, Inc.

Newsletter March, 2008

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

sales@carbideprocessors.com www.carbideprocessors.com

Try SPINDKOOL® Coolants Get a free hat



Our new, 100% natural coolants are really good. You should try them even without a free hat but Jacquie wants to run a promotion. So you get a FREE Sawfiler logo hat with order. It has a foam front and mesh back so it is perfect for summer stylin'.



You May Never be This Cute

but you can still get free straw hats. On the left is Mike West's (Cascade Hardwoods) fishing buddy and on the right is Ned Wood of Weyerhaeuser. We get these hats for about a buck – fifty each and they are worth it. We give them away because they are fun and actually are pretty good hats. They are just about perfect Spring, Summer, fishing, picnic, goofing off hats and free if you call or email. (800) 346 - 8274

If you work with kids check out a catalog called Oriental Trading. 800 228-2269 www.orientaltrading.com



Come by around lunch time and we'll treat.

Why the Carbide Company Bought 25 Filter Units

We told you last time that Jacquie had sold 25 wall mount filter units for oil to a single company that makes carbide tools. Since then we have received the lab results. We took samples before and after our filter unit. You can see by the results that our filter unit removed 96.6 of all particles, especially the larger ones that are the most damaging.

Microns	Before	After
1		
2		
3		
4		
5	459,444	
6	55,592,672	2,439,890
7	65,700,431	16,300,862
8	49,466,758	6,256,897
9	30,782,719	1,631,583
10	31,395,311	673,589
11	24,656,805	493,966
12	22,665,883	449,060
13	7,657,393	164,655
14	1,990,922	104,781
15	918,887	44,906
16	306,296	44,906
17		
18		
19		
20	46,408	
21	166,430	23
22	152,028	821
23	133,624	3,824
24	132,824	10,792
25	304,855	15,016
26	300,855	3,379
27	195,236	1,009
28	61,611	774
29	25,605	305
30	4,801	94
31	1,600	23
32	800	0
> 32	4,801	164
	293,124,999	28,641,319

**Please
 Call and
 buy
 something**



Wall Mount, Double Bag Straight Oil filter System

We have two filter systems for straight oils. The top right system is a double bag system which this customer liked enough to buy 25 of them. Our number (800) 346-8274

Rob Rzasa of Equipment Ltd.

(800) 533 – 2006 had us develop a filter system using a bag and a special cartridge which generally filters cleaner but doesn't have as long a life between filter changes.

The wall mount units removed about 96% of all particles.

Unfiltered	293,124,999
Old filter system	283,397,374
Our filter system	28,641,319
Improvement	96.58%

Notes:

1. The laser approximates counts and then uses algorithms to estimate total number of particles which accounts for the unusual results such as the repetition of 44,906.

2. With the cloth filters you get a replacement of hard carbide and diamond particles with cloth particles since the hard grit abrades the softer cloth.

3. The best and most comprehensive studies of this that I have seen were done by Boeing aircraft. Their standard is that you should remove particles down to 10% of the tightest dimension. If you grind to 0.001" then you are concerned about anything larger than 2.5 microns.

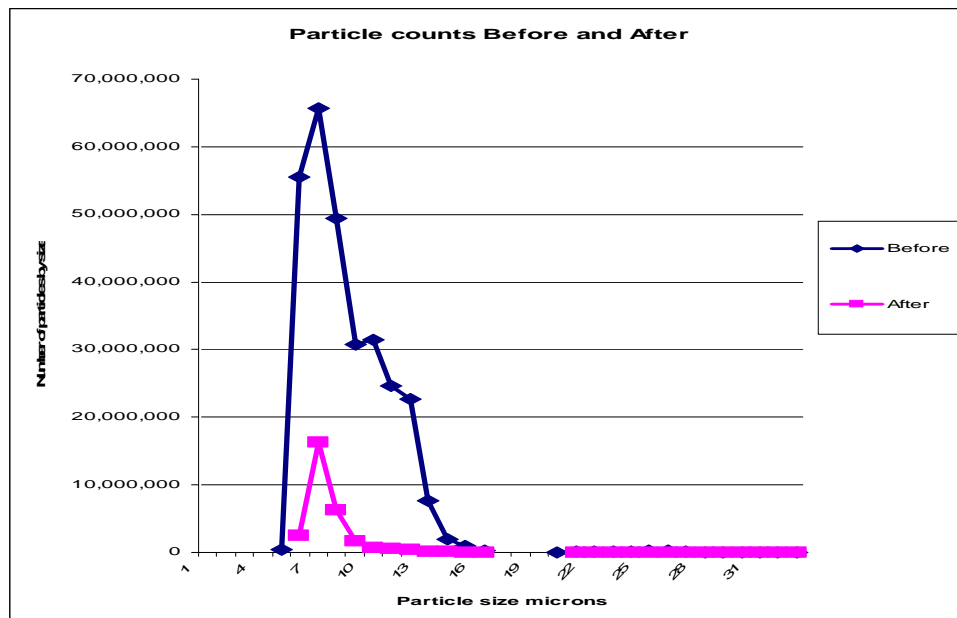
4. At this level of filtering you are also removing tramp oils and greases since they naturally form larger globules than grinding oils.

5. Many individual bacteria and fungi are one micron or larger. They all form colonies large enough to be filtered out at this level.

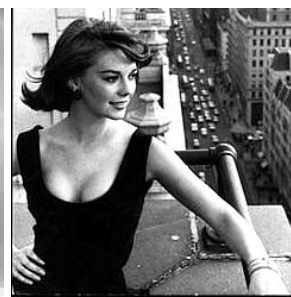
6. The laboratory is Spectra Labs in Tacoma, WA. 253 272-4850 They will be happy to answer any questions you might have.



Microns	Before	After	Improvement Number	Improvement Percent	Old Style
1					
2					
3					
4					
5	459,444		459,444		90,905,042
6	55,592,672	2,439,890	53,152,782	100.00%	145,981,061
7	65,700,431	16,300,862	49,399,569	95.61%	32,127,678
8	49,466,758	6,256,897	43,209,861	75.19%	5,922,123
9	30,782,719	1,631,583	29,151,136	87.35%	2,072,153
10	31,395,311	673,589	30,721,722	94.70%	1,776,646
11	24,656,805	493,966	24,162,839	97.85%	1,036,377
12	22,665,883	449,060	22,216,823	98.00%	1,036,377
13	7,657,393	164,655	7,492,738	98.02%	1,036,377
14	1,990,922	104,781	1,886,141	97.85%	444,161
15	918,887	44,906	873,981	94.74%	296,108
16	306,296	44,906	261,390	95.11%	296,108
17			0	85.34%	0
18			0		7,194
19			0		100,714
20	46,408		46,408		132,042
21	166,430	23	166,407	100.00%	98,161
22	152,028	821	151,207	99.99%	38,290
23	133,624	3,824	129,800	99.46%	25,759
24	132,824	10,792	122,032	97.14%	12,763
25	304,855	15,016	289,839	91.87%	13,924
26	300,855	3,379	297,476	95.07%	6,730
27	195,236	1,009	194,227	98.88%	3,017
28	61,611	774	60,837	99.48%	25,553
29	25,605	305	25,300	98.74%	928
30	4,801	94	4,707	98.81%	928
31	1,600	23	1,577	98.04%	464
32	800	0	800	98.56%	0
> 32	4,801	164	4,637	100.00%	696
	293,124,999	28,641,319	264,483,680	96.58%	283,397,374



Natalie Wood



Filtering 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 through.



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.

Accepting Amex, 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 480 machine 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.

Super "C" Carbide Grade

Tougher than C1 - Better wear than C3

What Makes Super C Tips Truly Superior

1. Superior Abrasion Resistance - Abrasion or straight wear is countered by smaller, better grain size.
- 2 & 3. Superior Adhesion and Diffusion Resistance (corrosion and chemical attack) Super C grade of carbide has an extremely fine structure so there is very little binder presented to the material being cut. This, combined with the special metallurgical formulation the Super C binder (hint - it's not just plain Cobalt) creates an extremely wear and corrosion material for use in wood, plastic or non-ferrous metals.
4. Superior Fatigue Resistance

And People Really Like Them - Call Today To Try Them - Most Sizes Readily Available

Super C	Hardness (HRA)	T.R.S. (psi)
	92.2 - 92.4	530,000 +

Typical C2 values

	Hardness (HRA)	T.R.S. (psi)
C2	92.1	334,000
C2	91.8	334,000
C2	91.5	377,000
C2	90.4	435,000

Typical C Values

	Hardness	T.R.S. (psi)
C1	89 - 92.4	350,000 - 360,000
C2	91.2 - 92.9	250,000 - 400,000
C3	91.4 - 93.6	270,000 - 350,000
C4	89.6 - 93	260,000 - 450,000

Sawmill Grade Tips

- Transverse rupture strength well above 500,000 psi.
- Rockwell A hardness above 92
- Alloy binder for corrosion resistance
- Grain structure to inhibit both crack initiation and crack propagation
- Micro grain or mixed grain for superior wear

Carbide Processors, Inc.
800 346-8274



Cermet II®
8 days
instead of 5
in MDF

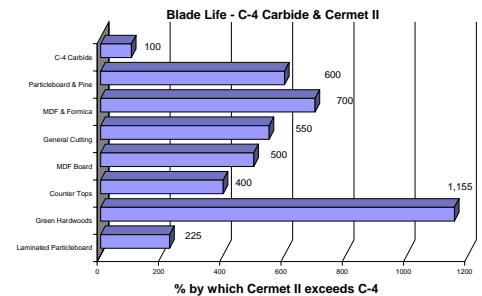
Three weeks and three full loads of double side melamine laminate instead of 1 week and 1 load with carbide

1. 5 blades with standard C-4 carbide cutting 45 lb. single and double sided vinyl-laminated particle board
* Cermet II - 15,088 meters / old grade - 6706 meters for **225% as much run life**
2. KM-16 industrial saw cutting 101.6 mm x 152.4 mm (4" x 6") Green hardwoods, oak, hickory, maple and walnut using 11 blades with standard C-4 carbide
* Cermet II / 462 hrs / old grade - 40 hrs
1,155% as much run life
3. 406 mm (16") 100 teeth cutting countertops
* Cermet II - 4 weeks / old grade - 1 week (4 times) **400% as much run life**
4. 406 mm (16") 80 teeth cutting MDF Board
* Cermet II - 10 days / old grade - 2 days (5 times) **500% as much run life**

5. 305 mm (12") 100 teeth TCG Miter cutting oak, Compressed Fiber Board, Plastic
* Cermet II - 154 hrs / old grade - 28 hrs (5.5 times) **550% as much run life**
6. 305 mm (12") 60 teeth cutting MDF, High Pressure Laminate (Formica)
* Cermet II - 56 hrs / old grade - 8 hrs (7 times) **700% as much run life**

7. G 1060A on Chop Saw cutting Particle Board and Pine Dowel Rods
* Cermet II - 48 hrs / old grade - 8 hrs (6 times) **600% as much run life**

Use Cermet 2 instead of carbide and make your life much easier



Cermet II® Successes

Several times the life in a window and door plant.

3 times the life in Corian.

8 days instead of 5 in MDF and we have an even better grade coming.

Twice the life in beetle killed Lodge Pole pine.

Benefits You Get

- * Grinds like regular carbide
- * Gives a better edge than carbide
- * Stays sharper longer than carbide
- * Great increase in fracture toughness.
- * More corrosion-resistant
- * Better at high temperatures
- * Cuts faster
- * Cuts faster & longer yet is tougher
- * Longer runs and less downtime.

Report from Marvin Windows

On the saw that we tried. How many times we sharpen a blade before we order new or have retipped we are not sure. Most blades get damaged by hitting something so we have the carbides retipped a lot. How often do regular blades have to be sharpened? We normally have our carbide tipped blades sharpened every week.

The new Cement II blade normally last twice as long before it gets damaged. The best so far is four weeks and one and a half million cuts before we changed it out which is four times longer.

Hope this helps and keep up the good work on those tips.

Nathan Hull, Grinderman
Marvin Wood Products

Equality of the Sexes

I firmly believe that all people deserve to be treated well no matter what their gender. However men and women are different. With that in mind here are springtime activities for both women and men.

The new hobby for women that is sweeping the nation.



Here is a woman with her brand new, one woman cross cut saw. You can tell by the big smile on her face how happy she is.



Women of every age are doing it.



Even city girls are doing it.

While women are enjoying their new hobby, men are hard at work providing for their families.



When the women get home from their happy day at play they will be delighted to see that their menfolk have been working hard to bring home dinner. All that is left for the women is the cleaning and cooking.

Medical Student Lands 359-Lb Grouper

Thibodaux, La. --A medical student who blindfolds his friends to keep his favorite offshore fishing spot secret has come up with a record-beating fish -- a warsaw grouper weighing 359.1 pounds.

The giant hauled in by J.J. Tabor of Thibodaux is 12 ounces above the previous Louisiana state record, a state biologist confirmed. The world record, caught off Florida in 1985, is 436 pounds, 12 ounces. It's been cut down to fillets. The first fillet weighed 53 pounds. It was about a 15 to 20 minute fight.

He caught it near an oil rig 70 miles south of Fourchon, in 400 feet of water. He won't give a more specific description. 'It's J.J.'s secret,' said Joey Rodrigue, a friend from Baton Rouge. 'I don't even know where I was. He blindfolds us on the way out.'

A Bible Lesson

I was taught that, besides all its other qualities, the Bible had a lot of good common sense in it. Here are a Cocker Spaniel and two German shepherds explaining why you should be nice to little people.

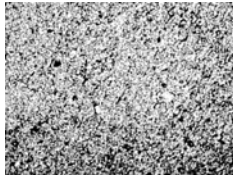


Purified Flux

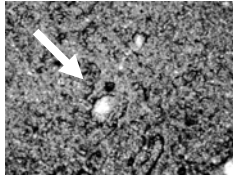
30% To 100% Better
Braze Joints
(50x magnification)



Purified flux
Smooth &
consistent



Standard flux
Large grains of
foreign material



You can see and feel the difference immediately.

Purified flux is black flux that has had extra processing steps. These processing steps take the black article out and leave the flux a rich, creamy brown color. If you take a little of each flux and rub it between your fingers you can feel that Purified Flux is not only smoother but the particles are smaller and there are no extra large particles.

Flux is made to prevent oxygen from getting to the parts as they are heated. Steel and especially tungsten carbide oxidize at room temperature. The hotter they get the more they oxidize. Above 1,000 F tungsten carbide oxidizes extremely rapidly and forms an unbrazable surface. Purified flux is good for more time at higher temperatures, up to 1,700 F.

The original idea with flux was that it was to be applied on top of the braze area. However the critical part of saw and tool brazing is what goes on inside the braze joint. Ordinary flux is inexpensively made and has up to 10% odd size particles and non-active minerals in it. These odd size particles and non-active minerals get lodged in the braze area and can seriously effect the strength of the braze joint.

Purified flux is cleaner, smoother, creamier and much more effective.

5 # jars

Case (6 jars @ 5#) \$ 464.31

Single jar \$ 87.39

Braze Alloys (Silver Solders)

The right braze alloy can make a huge difference in performance

Braze Alloy Impact & Bond Strength Tests	
High Impact	100%
S50N - 50% Silver with Cadmium	100%
A50N - 50% Silver - Cadmium free	75%
A56T - 56% Silver with Tin	0%
S50N - 50% Silver with Cadmium	100%
A50N - 50% Silver - Cadmium free	64%
A50N with copper spheres added	67%

Stop tip Loss - Prevent Carbide Breakage

Saw tips are brazed onto a steel saw using braze alloy. When a tungsten carbide saw tip breaks it is usually bad carbide, the wrong grade of carbide, the wrong braze alloy or a combination of these.

The brazing process forms a three part composite. The success of the composite depends on the tungsten carbide, the steel, the braze alloy and the way it is all put together. The braze alloy has to do three things. 1. It has to keep the tip on the saw. 2. It has to cushion the tip because the tip suffers a lot of impact stress when the saw cuts. 3. It has to compensate for the difference in expansion between steel and tungsten carbide as they are heated and cooled during brazing.

Buy Our Books

Buy online or call 800 346-8274

1. Carbide Saw Specification Manual
<http://www.cafepress.com/sawspecs.80466877>

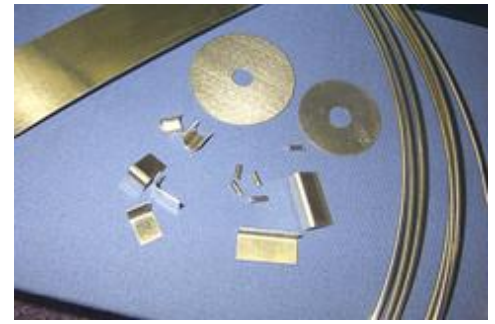
2. Carbide Saw Manual - Lowell freeborn
<http://www.cafepress.com/freebornmanual.80464996>

3. Managing Coolants from Machining and Grinding Operations
<http://www.cafepress.com/managecoolants.80458178>

4. Building Superior Brazed Tools
<http://www.cafepress.com/superiortools.93943435>

5. Chisels on a Wheel by Jim Effner
<http://www.cafepress.com/chisels.90813670>

6. Braze Failure Analysis
<http://www.cafepress.com/brazefailure.79434854>



We sell braze alloys (also called silver solders, high temperature silver solders, or braze filler metals.)

We supply the finest information in the world on the selection and use of braze alloys for carbide brazing.



The Finest, Most Consistent Braze Alloys For Tungsten Carbide

- ☐ 26 Different braze Alloys
- ☐ All AWS approved
- ☐ All inspected to parts per million
- ☐ All alloys exceed AWS specifications
- ☐ Cadmium free
- ☐ With Cadmium
- ☐ Hi Impact – developed for Weyerhaeuser
- ☐ Ultra Hi Strength – High Temp.
- ☐ Low Silver – Very High Strength
- ☐ Low Temp. with high strength
- ☐ Wire – all diameters
- ☐ Ribbon - all sizes
- ☐ Sandwich alloy ribbon
- ☐ Brazing preforms

Why Quality Makes A Difference

(American Welding Society AWS 5.8)
Braze alloy can be within AWS specifications but it can vary in brazing temperature by as much as twenty degrees. This means that you can have cold joints and tip one end or zinc loss and more broken tungsten carbide tips at the other end.

Our braze alloy is accurate and measured within parts per million. It is typically four times better than it has to be or more according to government certified analysis. It brazes the same way every time.

As I've Matured..



I've learned that you cannot make someone love you. All you can do is stalk them and hope they panic and give in...

I've learned that one good turn gets most of the blankets.

I've learned that it is not what you wear; it is how you take it off.

I've learned that you can keep vomiting long after you think you're finished.

I've learned that no matter how much I care, some people are just jackasses.

I've learned that it takes years to build up trust, and it only takes suspicion, not proof, to destroy it.

I've learned that ex's are like fungus, and keep coming back.

I've learned age is a very high price to pay for maturity.

I've learned that you shouldn't compare yourself to others - they are more screwed up than you think

I've learned that depression is merely anger without enthusiasm.

I've learned that I don't suffer from insanity, I enjoy it.

I've learned that whatever hits the fan will not be evenly distributed.

I've learned to not sweat the petty things, and not pet the sweaty things.

I've learned that we are responsible for what we do, unless we are celebrities.

I've learned that artificial intelligence is no match for natural stupidity.

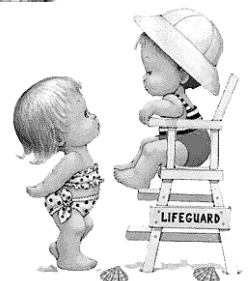
I've learned that 99% of the time when something isn't working in your house, one of your kids did it

I've learned that there is a fine line between genius and insanity.

I've learned that the people you care most about in life are taken from you too soon and all the less important ones just never go away. And the real pains in the ass are permanent.

Pass this along to 5 friends...trust me, they'll appreciate it. Who knows, maybe something good will happen. If not...tough!

(This came from Mike West by email. In the email version you have full color, butterflies flapping all over and much bigger pictures. It is truly wonderful or horrible depending on how your taste runs. If you want to see it, let us know and we will ask Mike to send it to you.)



Carbide Processors Inc.
 Northwest Research Institute, Inc.
 3847 S. Union Ave.
 Tacoma, WA. 98409 USA



**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

We are regularly mailing checks for over \$1,000 and as much as \$3,000.

You can ship a lot of scrap for \$8.95 in a US Postal Service flat rate box.



We like to share tips and tricks



But some things we can't do.

We can recommend carbide grades and uses but we won't tell you what your competitor is doing. Even with our easy-to-use advanced grades you still have to know what you are doing and what your customer is doing.



Buying bad carbide because it is cheap is like buying a beer cap engagement ring. You save some money up front but you are heading for trouble.

