



We are NOT raising our prices.
(Not yet. Maybe we won't have to.)

We have received price increases from Tigra and Ceratizit. It looks like the average price increase for Tigra is 30%. I have not heard any specific figures from Ceratizit. (See P.2) The only thing I have heard about Ceratizit is from one customer who said his prices on a special order part had jumped 50%

We saw this price increase coming and did two things. We greatly increased our inventories here and we made some deals with some of our suppliers. We asked our suppliers to increase their inventories and some of them have done so.

We have also been checking out new suppliers and we have one new supplier who is looking really good. We have been selling their tips for about two years now with no complaints at all. However the supplier is small with a somewhat limited inventory.

So we are not raising our prices now. We may be forced to raise our prices in the future but we are going to hold out as long as we can. Hopefully, the price of raw materials will quit climbing and start dropping back.

There is an old story about teaching a horse to sing. A thief is brought before the king for sentencing. The King is getting ready to sentence the thief to death when the thief asks for a year reprieve so he can teach the King's horse to sing. If the King has a singing horse, he is going to be famous. So the king gives the thief a year to teach the horse to sing. As a thief is walking out of the court one of the guards asks him if he can really teach a horse to sing. The thief replies that he's never tried it but a year is a long time. (See P.2)

Carbide Processors, Inc.

Northwest Research Institute, Inc.

Newsletter March, 2011

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

sales@carbideprocessors.com www.carbideprocessors.com

Scrap Carbide

We are a consolidator for scrap carbide. This means we buy small amounts and then reship it to a recycler when we have large amounts. Sort of as an example, think of us as buying a coffee can full at a time and shipping it out in 55 gallon drums.

In our world there are two kinds of carbide; clean and dirty. Clean carbide consists of things such as end mills, reamers, drill bits or whatever that are solid carbide. Dirty carbide is anything with braze alloy on such as saw tips that have been taken off the saw. Clean scrap carbide is worth \$.50 a pound more than dirty.

Tungsten carbide powder is at an all-time high which means scrap is high so it might be a good time to sell it.

You can ship carbide scrap by USPS flat rate boxes. You can get a lot of scrap in the USPS flat rate boxes and it makes really cheap shipping. If you do send carbide scrap in a flat rate box make sure to tape up the outside. Use a lot of tape and wrap the box really well.

If you don't have a full box then wadded up paper works pretty well as a filler. Try and avoid using Styrofoam peanuts or similar as the carbide just crushes them into really small parts.

The price of scrap carbide changes daily so call Emily at 800-346-8274 for a quote. You can also e-mail sales@carbideprocessors.com

How to Deal With Price Increases



Cermet II

1. If You Have To Pay More, Make Sure You Get More

Our Super C and Cermet 2 grades cost a little more than regular carbide but they can stay sharp from 2 to 10 times as long as regular carbide depending on what's being cut.

This greatly reduces your carbide expense, reduces your sharpening time and expense, gives you much cleaner cuts throughout the whole shift and gives you better quality product.

2. Raise Your Prices and Get A Lot Of New Customers

Super C and Cermet two saw tips cost a bit more than carbide but they don't add much to the total cost of the saw blade.

The customer will see that they're getting cleaner cuts throughout the whole shift and will see that the saws are staying sharper longer.

The downside is that you will do less sharpening for that customer. However you will pick up new customers, lots of new customers.

Some people find it kind of frightening to sell sawblades that last a lot longer but those that do sell them really like what it does for their business.

NOT raising our prices (cont.)

In a year the king made die, the thief may die or the horse might actually learn to sing.

Today, march 16, Tungsten has leveled off in price and silver is back down to \$34 from \$38. Our pretinning prices are currently set for a maximum silver price of \$30. When silver shot up to \$38 we thought about raising prices but we hate to do that. So we're going to hold off for a while and see if silver keeps dropping.

Peerless and Carbide Processors

Peerless Saw Co. keeps an inventory at Carbide Processors to serve West Coast, Midwest customers and anybody who needs carbide after the East Coast is closed.

As part of this arrangement Carbide Processors takes orders for Peerless. We buy from each other, sell to each other, compete with each other and do business together. Because Peerless is such a great outfit it works pretty well.

Carbide Processors also has its own inventory of carbide and uses a couple of other suppliers besides Peerless.

Who to Buy From

This can create a problem because some customers don't know who to buy from.



In the interest of fairness I am presenting your choices as clearly as possible. On the left is the beautiful, charming, always pleasant and efficient Emily from Carbide Processors. On the right is the world renowned babe magnet, Paul Duclos. Paul is a fine man with a great deal of expertise and a great reputation.

Personally, I think you should buy from the one you find best looking.

**CERATIZIT USA, INC.
Price Increase**

March 1, 2011

Dear Valued Customer,

Unfortunately, as forecasted raw material prices have continued to escalate to historical highs of \$372 / mtu in the month of February 2011.

Due to the extreme volatility of the market, effective April 1, 2011, we will institute the following price increases and practices for all of our products sold in the marketplace:

- Price lists for standard items will be modified and distributed as needed.
- All existing orders scheduled to ship before April 1, 2011 will be honored at current pricing except for extended blankets.
- All existing orders scheduled to ship after April 1, 2011 will be reviewed and adjusted as needed. If adjustments are made you will receive a new confirmation.
- Extended blankets shipping after April 1, 2011 will be reviewed and modified as needed. If adjustments are made you will receive a new confirmation.
- Non-standard and special items will be quoted on an as needed basis.
- All quotes will only be valid for 10 business days.

Thank you for your understanding and cooperation during this unprecedented rise in raw material prices. We WILL continue to do our best to keep you informed of the market developments as they occur and we will do everything possible to minimize the impact you feel while continuing to supply a very high quality product.

If you have any questions and or concerns please do not hesitate to contact me directly. Best regards,

Patrick Stoney
National Sales Manager, Wood & Stone
Pat.stoney@ceratizit.com

Ken, The Retired Husband

After I retired, my wife, Rita insisted that I accompany her on her trips to Target. Unfortunately, like most men, I found shopping boring and preferred to get in and get out. Equally unfortunate, Rita, like most women, loves to browse.

Yesterday my dear Rita received the following letter from the local Target:

Dear Mrs. Talakte,

Over the past six months, Ken has caused quite a commotion in our store. We cannot tolerate this behavior and have been forced to ban both of you from the store.

Our complaints against your husband are listed below and are documented by our video surveillance cameras:

June 15: He took 24 boxes of condoms and randomly put them in other people's carts when they weren't looking.

July 2: Set all the alarm clocks in Housewares to go off at 5-minute intervals.

July 7: He made a trail from a jar of brown gravy on the floor leading to both the ladies and men's restrooms.

July 19: Walked up to an employee and told her in an official voice, 'Code 3 in Housewares. Get on it right away'. This caused the employee to leave her assigned station and receive a reprimand from her Supervisor that in turn resulted with a union grievance, causing management to lose time and costing the company money.

August 4: Went to the Service Desk and tried to put a bag of M&Ms on layaway.

August 14: Moved a 'CAUTION - WET FLOOR' sign to a carpeted area.

August 15: Set up a tent in the camping department and told the children shoppers he'd invite them in if they would bring pillows and blankets from the bedding department to which twenty children obliged.

August 23: When a clerk asked if they could help him he began crying and screamed, 'Why can't you people just leave me alone?' EMTs were called.

September 4: Looked right into the security camera and used it as a mirror while he picked his nose.

September 10: While handling guns in the hunting department, he asked the clerk where the antidepressants were.

October 3: Darted around the store suspiciously while loudly humming the 'Mission Impossible' theme.

October 6: In the auto department, he practiced his 'Madonna look' by using different sizes of funnels.

October 18: Hid in a clothing rack and when people browsed through, yelled, 'PICK ME! PICK ME!'

October 21: When an announcement came over the loud speaker, he assumed a fetal position and screamed, 'OH NO! IT'S THOSE VOICES AGAIN!'

And last, but not least:

October 23: Went into a fitting room, shut the door, waited awhile, then yelled very loudly, 'Hey! There's no toilet paper in here.' One of the clerks passed out.

(I know this isn't quite accurate but it is funny anyway. Editor)

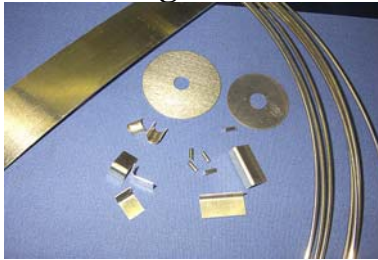
Tick Warning

I hate it when people forward bogus warnings, and I have even done it myself a couple times unintentionally but this one is real, and it's important. If someone comes to your front door saying they are checking for ticks due to the warm weather and asks you to take your clothes off and dance around with your arms up,

DO NOT DO IT!! THIS IS A SCAM!!

They only want to see you naked. I wish I'd gotten this yesterday. I feel so stupid.

Brazing Overview



We sell all kinds of braze alloy at Good Prices – any amount you want

We are talking high silver braze alloys and braze filler metals. They have both a solidus and a liquidus. We recommend about 50 F over the liquidus. The lowest is probably 1124 F – 1145 F. The highest is 1650 F – 1740 F.

Of the 31 AWS High silver braze alloys we typically use 4 the most.

The standard has been BAg-3 which is 50% Silver but contains Cadmium. It wets well and forms a strong bond. However the Cadmium and related government regulations make it very unpopular and somewhat hard to find. It has a temperature range of 1170 F – 1270 F and a working range of 1270 F – 1500F.

Much of the industry switched to BAg-24 which is 50% Silver Cad free. The range is 1220 F – 1305 F and a working range of 1305 F – 1550 F. This is maybe 40 – 50% weaker than the Cadmium alloy.

BAg-22 is 49% Silver with Manganese. It has a temperature range of 1260 F – 1290 F and a working range of 1290 F – 1525 F. This is the strongest Cadmium free braze alloy and is about where the BAg-3 is for strength. It has flow properties that make it a bit harder to use for some.

BAg-7 is a 56% Silver alloy with Tin. The temperature range is 1145 f – 1205 F with working temperature range being 1205 F – 1400 F. It is the easiest to use but forms the weakest bond.

The working range can be important if you are heating a deep joint. By the time the joint comes to temperature all

the way through it will be much hotter on the outside.

These braze alloys all contain Zinc and Zinc fumes before it melts. The temperatures given are ideal temperatures. In real life you will have to go a bit higher to compensate for Zinc loss.

Also you are dealing with both heating and a phase change. It takes so much energy to heat something to 1270 F but it doesn't melt immediately. You have to add extra energy to get the phase change from solid to liquid.

Technically these should look like a dark to medium cherry red. In real life it is a pretty bright red, maybe (maybe, maybe) edging into orange. This depends on shop lighting, your vision etc. Everybody sees color differently. If you get into bright orange you have gone too far and straw colored is just plain wrong.

I am a big believer in really thorough surface cleaning. Other will just use more heat. If the alloy will not flow at the correct temperature you can add more heat, make it more active and it will flow out. You can also take a rod and move it around. I like a chemical joint creating an intermetallic layer as well as just plain physical joining so I want a really good flow at temperature.

All this supposes that you are using the correct amount (generally a lot) of the right flux. I like Black flux because it is more forgiving.

Three quality points for temperature:

1. Is the flux easy to remove with warm water? If it is all used up and burnt it will be very hard to remove.

2. Are there pinholes in the braze alloy? If you get it too hot the zinc boils out leaving little hemispherical holes.

3. How far out did the braze alloy run? Ideally you want it very close to the surface being brazed. It should form a nice shoulder or fillet that should have a concave surface.

Analysis of Saw Blade Failure

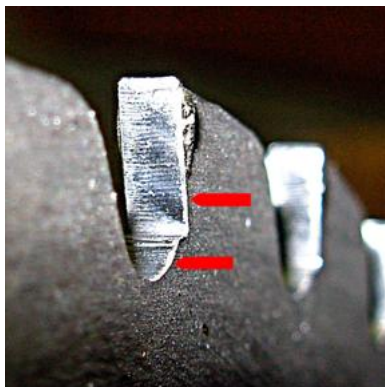
The problem is that all the tips came off while the saw was being run.



The above pictures show the saw blade. The black is dried pitch and similar. On the upper left, about 10 o'clock in the left photograph, you can see a clear patch. This is an area that I repeatedly treated with easy off oven cleaner and scrubbed with a steel brush.



These two pictures are of the same saw tip. The bottom one has been cropped and blown up.



This tip illustrates the two major problems. The first one is a gumming

issue. In the bottom picture the top arrow points to the area where the saw tip was. The bottom red arrow points to the gullet. The lines from laser cutting look to be about the same. This notch should have been gummed deep enough to remove about 0.005" to 0.007" of material. It looks as though the notch may not have been gummed it all.

The second problem is illustrated by the big bulge of braze alloy above the top arrow. It looks as though the saw tip was seated with some pressure behind it. The saw tips should just be guided into the notch during the brazing process. You should not push on them to seat them.

We have an excellent brazing video on YouTube at the following address:
<http://www.youtube.com/watch?v=nmlj37zOvQw>

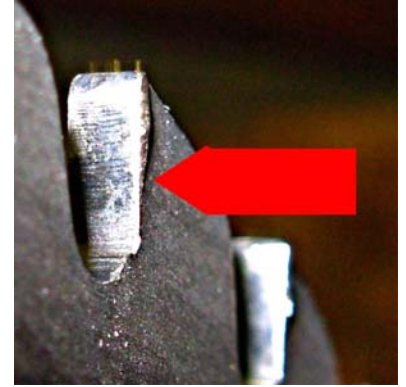
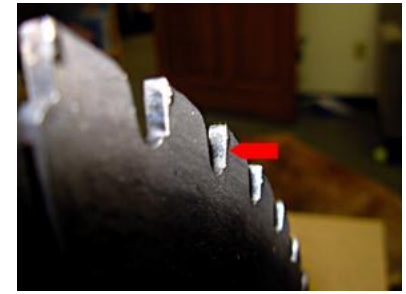
Why you need to gum out the notch

This is laser cut steel as is obvious by the horizontal lines running from left to right or right to left across the steel notch. The laser doesn't really cut. It melts a hole and the molten metal is blown out with a gas. So a laser cut is actually a series of very small holes which show up on the saw blade as a series of fine lines.

Melting the steel causes the migration of carbon to the surface which is an issue that affects successful brazing. No matter what gas is used to blow out the molten metal, you still have hot metal exposed to the atmosphere and thus you have oxidation. Finally you have a metal slag which the blacksmiths call upset.

This leaves you with a surface that brazes kind of well. Carbide saw tips braze to this surface stay on fairly well for a fair amount of time.

The real problem is that this looks like a good braze but isn't. Usually brazing is a "It works or it doesn't work" proposition. This is one of the few cases where it sort of works and then fails in use.



This is another saw tip and it again shows the horizontal lines as well as the bulge of braze alloy.

It appears that all the tips on the saw show braze alloy bulge to a certain extent and that all the tips also show the horizontal lines indicating little or no gumming.



Above are more pictures of braze alloy bulges. These look like the saw was run quite a while after the tips came off.

In addition there was a pretty heavy pitch build up in the notches also indicating that the saw was run a fair amount of time after the tips came off.

Fishing

After last month I received some flack, mostly from Emily, about gratuitous pictures of women in bikinis. So here are women with actual fish. I believe that women have the right to wear whatever they wish and I know women can catch fish. My mother sure could.



**Warning – totally hot picture follows.
Look at the size of that Alaskan
Steelhead**



Texas Preparation

Seems a guy cruises thru a stop sign and gets pulled over by a local policeman. Guy hands the cop his driver's license, insurance verification, plus his concealed carry permit.

"Okay, Mr. Smith," the cop says, "I see your CHL permit. Are you carrying today?"

Smith says, "Yes, I am. I got a .357 revolver in my inside coat pocket. There's a 9mm semi-auto in the glove box. And, I've got a .22 magnum derringer in my right boot. Back in the trunk, there's an AR15 and a shotgun. That's about it."

"Mr. Smith, are you on your way to or from a gun range...?"

"Nope."

"Well then, what are you afraid of...?"

"Not a damn thing...."

Support Our Troops!

World's largest self-financed army
...guess who?

FYI: The state of Wisconsin has gone an entire deer hunting season without someone getting killed. That's great. There were over 600,000 hunters.

Allow me to restate that number. Over the last two months, the eighth largest army in the world - more men under arms than Iran; more than France and Germany combined - deployed to the woods of a single American state to help keep the deer menace at bay.

But that pales in comparison to the 750,000 who are in the woods of Pennsylvania this week. Michigan's 700,000 hunters have now returned home. Toss in a quarter million hunters in West Virginia, and it is literally the case that the hunters of those four states alone would comprise the largest army in the world.

The point? America will forever be safe from foreign invasion with that kind of

home-grown firepower. All we need is for the government to leave our Right To Bear Arms alone!!

Hunting -- it's not just a way to fill the freezer. It's a matter of national security.

Ever Since I Was a Child, I've Always Had a Fear of Someone under My Bed at Night.

So I went to a shrink and told him: 'I've got problems. Every time I go to bed I think there's somebody under it. I'm scared. I think I'm going crazy.'

'Just put yourself in my hands for one year,' said the shrink. 'Come talk to me three times a week and we should be able to get rid of those fears..'

'How much do you charge?'

'Eighty dollars per visit,' replied the doctor.

'I'll sleep on it,' I said.

Six months later the doctor met me on the street. 'Why didn't you come to see me about those fears you were having?' he asked.

'Well, Eighty bucks a visit three times a week for a year is an awful lot of money! A bartender cured me for \$10. I was so happy to have saved all that money that I went and bought me a new pickup!'

'Is that so!' With a bit of an attitude he said, 'and how, may I ask, did a bartender cure you?'

'He told me to cut the legs off the bed! -

Spring is Coming



Time to Help Your Wife with the Garden

The Law of (Oh so true)

1. Law of Mechanical Repair - After your hands become coated with grease, your nose will begin to itch & you'll have to pee.
2. Law of Gravity - Any tool, nut, bolt, screw, when dropped, will roll to the least accessible corner.
3. Law of Probability - The probability of being watched is directly proportional to the stupidity of your act.
4. Law of Random Numbers - If you dial a wrong number, you never get a busy signal & someone always answers.
5. Law of the Alibi - If you tell the boss you were late for work because you had a flat tire, the very next morning you will have a flat tire.
6. Variation Law - If you change lines (or traffic lanes), the one you were in will always move faster than the one you are in now (works every time).
7. Law of the Bath - When the body is fully immersed in water, the telephone rings.
8. Law of Close Encounters – The probability of meeting someone you know increases dramatically when you are with someone you don't want to be seen with.
9. Law of the Result - When you try to prove to someone that a machine won't work, it will.
10. Law of Biomechanics – The severity of the itch is inversely proportional to the reach.
11. Law of the Theater & Hockey Arena - At any event, the people whose seats are furthest from the aisle, always arrive last. They are the ones who will leave their seats several times to go for food, beer, or the toilet & who leave early before the end of the performance or the game is over. The folks in the aisle seats come early, never move once, have long gangly legs or big bellies & stay to the bitter end of the performance. The aisle people also are very surly folk.
12. The Coffee Law - As soon as you sit down to a cup of hot coffee, your boss will ask you to do something which will last until the coffee is cold.
13. Murphy's Law of Lockers - If there are only 2 people in a locker room, they will have adjacent lockers.
14. Law of Physical Surfaces – The chances of an open-faced jam sandwich

landing face down on a floor are directly correlated to the newness & cost of the carpet or rug.

15. Law of Logical Argument - Anything is possible if you don't know what you are talking about.

16. Brown's Law of Physical Appearance - If the clothes fit, they're ugly.

17. Oliver's Law of Public Speaking - A closed mouth gathers no feet.

18. Wilson's Law of Commercial Marketing Strategy - As soon as you find a product that you really like, they will stop making it.

19. Doctors' Law - If you don't feel well, make an appointment to go to the doctor, by the time you get there you'll feel better. But don't make an appointment, and you'll stay sick.



Worst scam I have sever seen

Dear Friend,

I have some information for you about your unpaid fund, the people you are dealing with is not the original bank, why can't you deal with the bank instead of sending money to people to help you get your fund, I have their direct Contact Information and I can direct you to the proper office/Bank where you can get paid than to be wasting your time and money.

And just bear it in mind that all this money you have been sending would have completed your payment transmission before now. Email me back only on this email samuelagbala1@xnmsn.cn

Waiting to hear from you if you needed my assistance.

Regards,
Barr. Samuel Agbala

Spring is Here



Time For Fishing



Go To The Range



Clean Up The Front Yard



Go On A Picnic



Hang Out With The Kids Or Grandkids

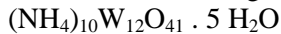
Tungsten Prices Per Tip

1. International Tungsten Industry Association <http://www.itia.info/>

2. Tungsten APT

Most tungsten concentrates are processed chemically to ammonium paratungstate (APT). Secondary raw materials like (oxidized) scrap and residues are another important feed for chemical tungsten processing.

Ammonium Paratungstate (APT)



APT is the main intermediate and also the main tungsten raw material traded in the market. APT is usually calcined to yellow or blue oxide (WO₃ or W₂O₅).

3. % pure Tungsten in Tungsten APT

Minor Metals Trade Association
<http://www.mmta.co.uk/metals/W/75/>

APT is priced in \$/MTU (metric ton unit), or less often in \$/STU (short ton unit).

1 Metric Tons = 2204.62262 Pounds.
1 MTU of APT contains 10 kgs of WO₃.

Using atomic weights: W = 184, O₃ = 48, WO₃ = 232, W portion = 184/232 = 79.31%.

79.31% of 10 kgs = 7.931 kgs W.

Therefore: 1 metric ton of APT = 7.931 kgs W (17.45 pounds)

Therefore: Tungsten APT is 0.79% Tungsten

4. % Tungsten in Tungsten Carbide

Tungsten Atomic Weight = 183.85 = 93.867%. Carbon Atomic Weight = 12.01 = 6.133%

5. % Tungsten in Tungsten Carbide Saw Tips

Tungsten Atomic Weight = 183.85 = 93.867%

Carbon Atomic Weight = 12.01 = 6.133%

Cobalt Atomic Weight = 58.93

6. Price of Tungsten and Cobalt

A metric ton of Tungsten APT sells for \$375 and yields 17.45 pounds of tungsten

Therefore: A pound of tungsten has a raw material cost of \$21.49

Cobalt is about \$19.50 per pound

Figure they are the same cost roughly.

5. Cost of Tungsten per saw tip

% Cobalt	% WC	% Tungsten
5%	95%	89.17%
10%	90%	84.48%
15%	85%	79.79%
20%	80%	75.09%

If 100 tips weigh 6 ounces then each tip weighs 0.06 ounce. It has 95% Tungsten and Cobalt for a weight of 0.057 ounces. If a pound of tungsten costs \$21.49 a pound. Then an ounce costs \$1.34 then there is \$0.076 worth of carbide in the tip.

Note from Johan Holm

We had a rule of thumb that the raw material powder was about 50 % on a pressed and sinter part like as saw tip without pretinning. This rule is so old so I have forgotten when it was made. It just shows my age.

My thoughts and calculations gives that we today are over 70% as cost for the raw materials. My estimation is that a total increase of 30 % is justified at the current APT levels. This compared to last years prices without any increases from the last rally.

Best regards

Johan
803 403 6082
johanolvholm@gmail.com

My calculations

Tungsten APT has approximately gone from \$225 to \$375 since March of 2010. This is a 67% increase in raw material.

A saw tip is about 95% tungsten and cobalt.

Therefore: the price increase should be adjusted to 95% of the raw material cost or 64%.

Since material is 70% of the cost of the finished carbide saw tip then you take 70% of 64% or 45%.

There have already been price increases of 10% to 15% so there is about 30% to 35% left.

(Editor: these are my calculations only. I think they are relatively accurate. They certainly give a pretty good picture of the market. Tungsten carbide is mostly metal by weight. Tungsten and Cobalt are both climbing dramatically in price.)

The Reasons

China has been the cheap producer for decades so everyone else got out of the business. Production in the US is extremely sensitive in large part due to environmental laws.

The Chinese got to the point where they needed everything they were producing so there was a shortage. When there is a shortage is something and people really need it then they are generally willing to pay more.

Inflation is generally a spiral where the price of goods increases because there is more money to buy the goods then there are goods to be bought. That's what we're seeing here.

As these goods become scarcer and the markets get more exciting there are more and more speculators who get into them which further drives up the price.

There is a real hesitancy to open new mines or reopen old mines in the United States because it requires an investment of several years and tens or hundreds of millions of dollars. People are very reluctant to do this because no one knows what the government is going to do in a few years or even next year.

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No Price Increase Here

Tigra and Ceratizit have both announced big price increases. What we saw from Tigra comes out to about 30%. We don't know what Ceratizit is doing but we have heard of price increases as high as 50%. (See the letter on page 2.)

We saw the price increase coming and bought extra inventory. We worked with our suppliers to get a guarantee at least until May 1. So we don't have to raise our prices yet. We are really hoping that the market will readjust and we won't have to raise our prices and all. (More inside)



Wake up – It is Spring

New Supplier: Great Carbide & Great Prices

We have a new carbide supplier and it is the best carbide we have seen since we started in 1981. The saw tips are great and the strob bars and other special parts are truly excellent.



We did a lot of work with the supplier a couple years ago to teach them what a good saw tip is in the saw tips they have been producing the last two years are excellent.

Besides excellent quality the prices are really good. You really should try these. Call Emily (800) 346-8274

Inside Preventing Saw Failure Save Money on Carbide

\$6,000 or old carbide?
Which do you want?



We buy obsolete inventory of good carbide. We buy carbide scrap. We also maybe buy carbide sludge. **We Buy Scrap Carbide & the prices are really good. They are about at a record high.** Prices change daily so Call Emily at 800 346-8274