Cutting NEWS

NEXUS & EXOCARB® Threadmill
Proven Technology for the Medical Industry

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MAY/JUNE 2009

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Editorial

Ecological Footprint

Darrel McCoy, OSG District Manager

As human beings we consume resources for daily function. Each individual has unique levels of consumption. There are many quizzes available online to determine our personal ecological footprint. I decided to take a quiz to find the size of my footprint and have included the links so you can too!

My first quiz at: www.myfootprint.org resulted in an ecological footprint equivalent to 115 global acres. Meaning, if everyone on planet Earth lived my lifestyle we would need 2.94 earths to sustain life. My second quiz at: www.earthday.net said we would need 3.4 earths. That is an average of 3.17 earths. At first, I assumed this was extremely high, but looking deeper I found that mine is less than 50% of the national average!

Some effective ways I could reduce my ecological footprint would be purchasing Carbon offsets, and upgrade to 100% of renewable energy credits.

"No matter what we are doing in our daily life, we are always consuming something..."

Another surprising and logical alternative would be to stop using the drive-thru entirely; idling over 30 seconds is wasteful. Also, Arizona is the ideal location for drying clothes outside. Composting my biodegradable waste would be very efficient in reducing greenhouse gases from landfills and it would supply great fertilizer for a beneficial community garden.

Think of what you can do to reduce your footprint. Consumer goods and services seem to be

America's weak spot. No matter what we are doing in our daily life, we are always consuming something; light, heat, food, water, clothing, paper, electronics, etc. Housing and carbon seem to be easier to manage than our consuming lifestyle. This has been a starting point for me in reducing my impact. Setting the thermostat by just 1 or 2 degrees less, can achieve a huge energy savings.

"Sustainability is a process not a goal."

Sustainability is a process not a goal. There are many simple alternatives to reducing our footprint as a first step. I encourage and hope you take this quiz and start the process of helping with this subject, plus it could be a fun time-killer, and add to the "water cooler" conversation of the problems of today. People love to be part of a solution; sometimes we just need a little help.

www.myfootprint.org
www.earthday.net

Oh So Green Tip: Save Paper

Paper doesn't grow on trees (ha ha), and the less you waste the more cash you'll pocket.

Print on both sides of the page, optimize your printer settings and use scratch paper for notes.

If everyone in the US refused their ATM receipts, it would save a roll of paper more than two billion feet long or enough to circle the equator 15 times!

Feature

The Wonder of Medicine

Arnie Bergeron, OSG District Manager

Medicine, where would the human race be without it? All of us have benefitted to some degree from the wonders of medicine. We have fought off infections better through antibiotics, infant mortality rates have diminished due to improved pre-natal care, even dentistry has made life more enjoyable – think corn on the cob. Medicine has come a long way from the times when the Egyptians did a great job on mummies, but perhaps not so well on the mummies to be.

"...The medical industry represents a prime customer base."

One of our present day wonders is the field of joint replacement. Joint replacement is very commonplace these days, most notably, hip and knee replacement. The end result is restored mobility and pain relief. Also related to this field are; artificial limbs, fasteners for bone repair, and surgical equipment. Post operative ancillaries, such as wheel chairs, are also important items.

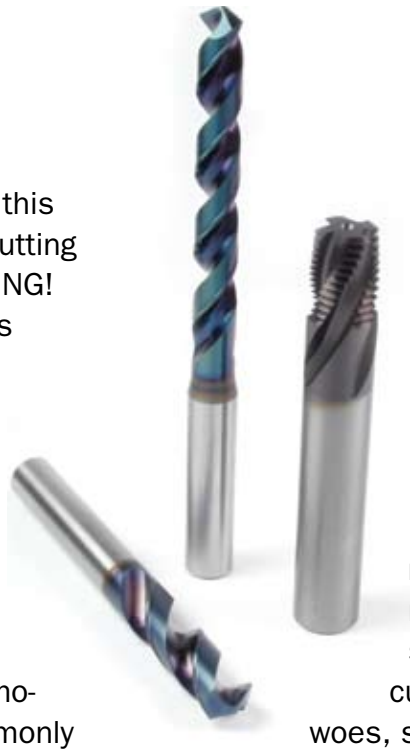
With many operations occurring across the nation every day, there is big business to be had here. We can expect to see an increase in these procedures based on our population's demographics and the technical advancement of the science. The American Academy of Orthopedic Surgery (AAOS) cites; in 2001 over 165,000 hip and 326,000 knee replacements where performed. The AAOS estimates a total of several million will have been done by the year 2030. This is in part due to the 77 million baby boomers in the US. With an American turning 50 years old every eight seconds, 45% of the US population will be 50 years of age or older by the year 2015. That is a lot of knees and hips!

Insider

2008 Cutting Tool Solutions Catalog Corrections

2008 CUTTING TOOL SOLUTIONS CATALOG CORRECTIONS	
PG 143	Top chart under Special Alloy Steels HRC, IPR 0.5 should be 0.00059
PG 239	EDP# 17304, Thread Limit should be H3

FLYER CORRECTIONS	
WXS FLYER	List 4570, EDP 457011111 should be EDP 457011011
HXL/VXL FLYER	EDP#s 1301500701, 1301500901 and 1301501101 have 4 flutes not 5



So what does all this have to do with cutting tools? EVERYTHING! The manufactures of these components is a perfect place to sell cutting tools. Stainless steels, Titanium, Cobalt Chrome/ Stellite and thermo-plastics are commonly seen work materials for the medical field; however, others may also be included. The machining tolerances are usually tight and superior surface finishes are needed. The customer base and their facilities reflect this by utilizing newer, high performance machines. Also, the customers are willing to purchase higher grade tooling to meet their specific criteria.

The medical industry represents a prime customer base. As medical business remains relatively strong despite current economic woes, selling OSG tools to the medical industry is "just what the doctor ordered."

Short Cuts

While many of us are familiar with the instruments we see at our doctor or dentist that are sterilized on site and reused, most other instruments and implant devices are a one-time usage when used in a hospital emergency room. Trauma kits contain; instruments, implants, screws, and surgical tools once the kit is opened anything that has been used or not from the kit is destroyed to prevent any contamination. These kits need to be replaced with all of the same products for the next emergency.

Testimonial

Aero Rougher

Mike Whitney, OSG District Manager

Our customer was milling a Hastelloy X (Nickel-based Alloy) part using one of our competitors' tools. There have been some changes in this shop recently so when I went there I asked if we could take another look at this job with the new supervisor and our new EXOCARB® AERO Rougher. The new supervisor said "sure, but nobody has beat the current tool we are using."

"The kicker, they were making money with the old process!"

The existing tool was processing the part with a 0.050 inch depth of cut and 0.100 inch radial depth of cut. Then they flipped the part to the next station to finish the bottom starting with roughing at a 0.060 inch depth of cut, 0.100 inch radial, and finishing at 0.01 inch radial depth of cut.

The competitor tool ran at 1,145 RPM and 9 IPM. It took them four passes to depth on the first side, then one roughing and two finishing passes on the other side. In total it took the competitor one hour and 15 minutes to complete the part, and their tool life was about 10 to 15 parts.

With the AERO Rougher, I started at 650 RPM and 3.1 IPM with the same axial and radial cuts the customer was using. The customer remarked "we are too slow, can you do any better?" I said "yes we can," and I increased to the speeds and feeds for the AERO Rougher. We ran at 1,700 RPM and 17 IPM with only one pass to depth, achieving one minute and 24 seconds for three parts, and tool life of 42 parts! We followed up with the EXOCARB® AERO SUS at 30IPM for some additional finishing work, where we were able to do one radial pass to finish the first side and one pass to finish the bottom side. Overall, we reduced the manufacturing time by over 40 minutes per part!

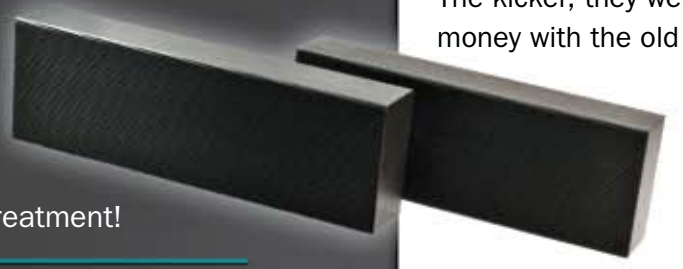
The kicker, they were making money with the old process!

New Product

XBT™ Surface Treatment for Rolling Dies

OSG is proud to introduce our XBT™ surface treatment, the latest innovation in thread rolling die coating technology. XBT™ is ideally suited for heat-treated steels, stainless steel, and titanium. Customer field testing has yielded up to 250 percent greater tool life versus the competition. The XBT™ treatment can be applied to both M2 and M42 die materials.

Contact OSG today for more information of the XBT™ surface treatment!



Industry News

Fields of Opportunities

Mike Duggan, OSG District Manager

Iowa is known as the "Fields of Opportunities," and I would have to agree. In the Midwest, Iowa is the largest producer of corn, followed closely by Illinois. So it is no wonder that the largest tractor manufacture set roots along the Mississippi River banks between Iowa and Illinois. Farming in Iowa, and the surrounding states, is what keeps food on the table in every US household and is the major infrastructure in Iowa. As someone once said, "Corn… it's what keeps the heartland going."

Manufacturing in Iowa is aimed toward farming with manufacturing plants producing products from tractors, combines, planters, tillage equipment and, other implements. As the United States goes green for the environment so does IOWA's ethanol production which has boosted Iowa and Illinois corn production. With the exception of construction products, tractors, and implements, OEM's, Tier I and Tier II manufacturing facilities are still producing products as they have not yet seen the same type of slow down from the economy.

So what does this mean to the cutting tool industry? METAL CHIPS. Every component that goes into a tractor or implement needs to be milled, drilled, or tapped. In the past four years this market has grown 72%. As our US economy is in this slow economic down turn agriculture products produced in Iowa are making their way into foreign markets, which is a key element to keeping things going.

"In the past four years this market has grown 72%."

As the soil dries in Iowa and farmers start to cultivate the fields, I am reminded of thousands of parts that need to be milled, drilled, or tapped, here in the "Fields of Opportunities."

Short Cuts

While many companies desire to get into the lucrative medical manufacturing field it is strictly regulated by the FDA. All manufacturing processes must use the same tooling; they cannot be used on other parts, and also cannot switch manufacturing tools. For example, you cannot switch from a HSS end mill to a Carbide product without extensive testing and FDA approval. All manufacturing processes, material certifications, and traceability must be kept on paper in a secure storage facility for up to ten years.

So, while the rewards may be great, and pretty much recession proof, there are many challenges to overcome, beginning with machining difficult materials to storing the records that need to be fully investigated before you decide to become a supplier to the medical field.

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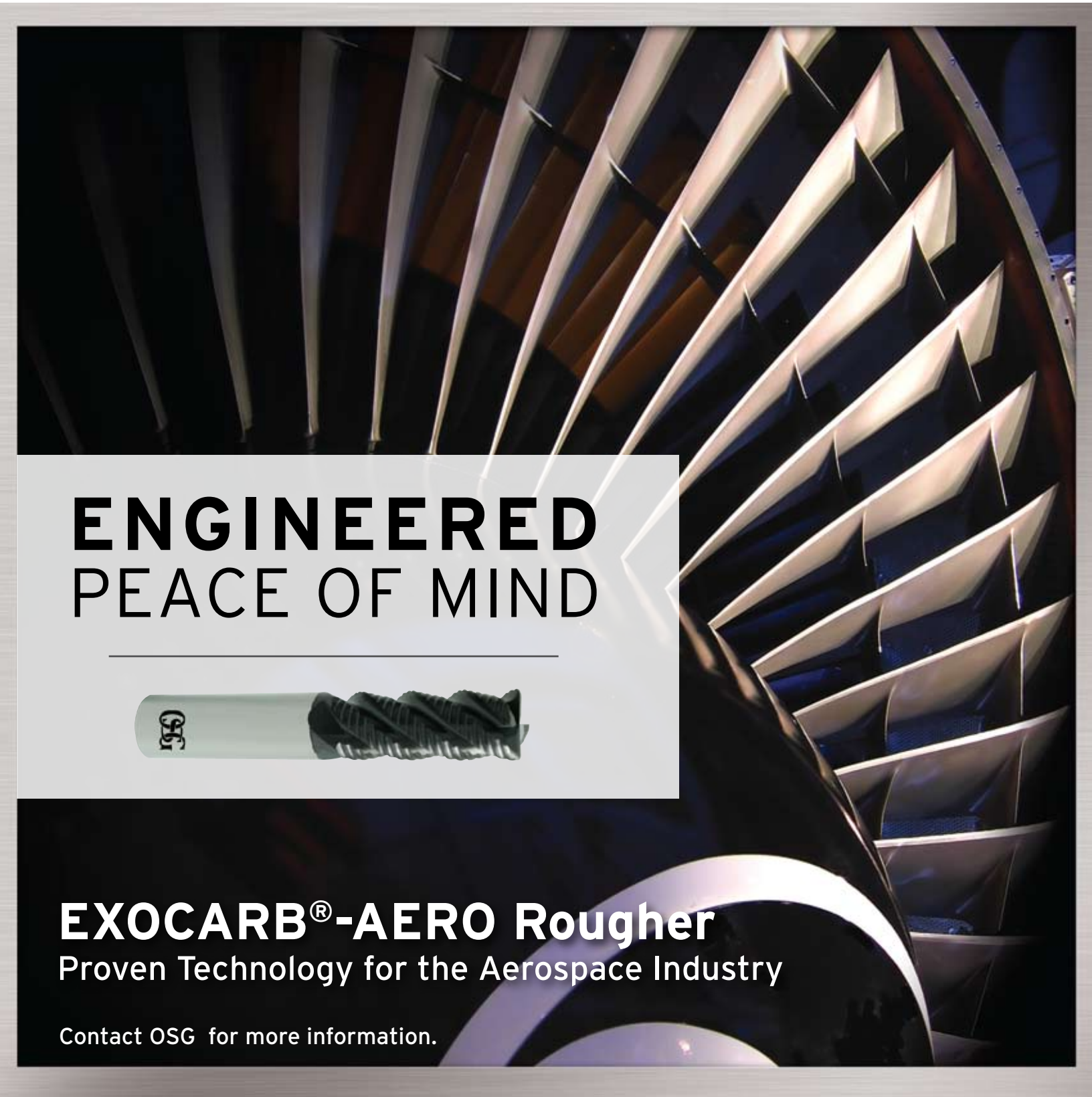

ENGINEERED
PEACE OF MIND

EXOCARB®-AERO Rougher
Proven Technology for the Aerospace Industry

Contact OSG for more information.