

Manufacturing for Performance

Manufacturing for Performance - what a powerful statement! It's the name the Society of Manufacturing Engineers (SME) has given to an annual Conference and Exhibit in Indianapolis. This event, focused on the motor sports industry, is held in January in the U.S.'s hub for racing activity. According to SME, their Indianapolis event brings high performance technologies and applications to designers and builders of motor sports vehicles and components. These manufacturing operations, which range from one-man machine shops to large race teams, are constantly looking for ways to improve vehicle performance, speed and safety.

Attendees will learn about state-of-the-art technologies that will improve their operations, including Rapid Manufacturing, Composites, Fabricating, High Speed Machining, Prototyping, Finishing & Coating, Shot Peening and many more.

The Shot Peener magazine had a booth at the first Manufacturing for Performance in January, 2006. Our staff was impressed with SME's organization and promotion of the event, its tremendous potential, and most of all, the concept of "Manufacturing for Performance". We met attendees and exhibitors from the race car industry, signed them up for subscriptions to *The Shot Peener*, and handed out copies of the magazine.

As Daryll McKinley points out in his article on page 14, "Audits and Artisans", shot peening has an identity crisis. Not within the industry; OEMs, job shops and suppliers are very secure in the knowledge that our surface-finishing technology advances manufacturing in aerospace, automotive, medical and energy. But outside of our world, if people have heard of shot peening at all, it's viewed as a primitive process or confused with blast cleaning. Our staff attends shows, like the SME Manufacturing for Performance, to be advocates for the shot peening process.

How much opportunity is in the motor sports industry for shot peening? The facts and figures from a recent newspaper article by the Associated Press on specialized degree programs in racing are enough to get anyone's motor rewinding.¹ Consider this:

Contribution to the economy

The motor sports industry, which employs more than 24,000 workers in North Carolina, has a \$5 billion economic impact on that state in 2003. Indiana has more than 1,000 companies in its motor sports sector. The Indiana Economic Development Corp. even has a director of motor sports development.

Motor sports programs in colleges and universities are growing

Dozens of colleges and universities are responding to the racing industry's growing popularity by creating motor sports programs designed to give students degrees in mechanics, engineering and management.

SME's support of the motor sports industry through linkages between manufacturing technologies such as design, advanced material usage, equipment and process knowledge will propel this industry and its people to new heights. We are pleased to have shot peening represented at Manufacturing for Performance as a surface treatment with tremendous benefits to design engineers.

—Rodney Grover
SME Motorsports Development

International Appeal

The first motor sports education programs began in the heart of NASCAR country, springing up in the Carolinas in the 1990s. Europe has a long tradition of motor sports education, in part due to the popularity of Formula One racing. Now, academic motor sports programs are cropping up in China, Malaysia and Singapore.

Motor sports school programs are unique

Many programs lack textbooks and instead rely on guest lectures and hands-on experience. Classes focus on sponsorships, management and marketing, as well as engineering and mechanics.

If your business has the proximity or resources to service the motor sports industry, are you getting your share of the business? Are your marketing materials education- and application-driven or just a recap of the technical benefits of your product? Is the identity of your company too closely linked to an old process or to a proven, controllable technology? (We know that shot peening will improve vehicle performance, speed and safety but we can't assume those outside our industry understand the benefits of a controlled shot peening process.) Teaching engineering students about shot peening is an exciting prospect. Can you offer your products for hands-on labs or teaching expertise to a college or university with a racing program? If you are already servicing the racing industry, think about submitting an article to a racing magazine. Believe us, we know that this isn't as easy as it sounds but the payoff can be huge. Kumar Balan, Product Engineer with Wheelabrator Group, has done a great job promoting gear peening with an educational article that was published in *Gear Product News*. (See the article on page 18 of this issue.)

SME believes product engineers are looking for high performance manufacturing technologies in motor sports and we believe it, too. We encourage you to seek avenues to get your products and services in front of motor sports designers and builders. ●



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¹ Facts and figures source: South Bend Tribune, May 27, 2006.