

# SHOT PEENING UP CLOSE AND PERSONAL



(courtesy Electronics Inc.)

At the beginning of Electronics Inc.'s (EI) shot peening workshops, Jack Champaigne, the company's president, gives opening remarks where he tells attendees that at any time they have feedback, they should write it down on a thousand dollar bill and submit it to him.

Also known as the publisher of *The Shotpeener*, the well-humored Champaigne and his staff conduct shot peening/blast cleaning workshops and on-site training programs worldwide. They are attended by a range of specialists including product design engineers, machine operators, foremen, supervisors and maintenance and quality engineers. The next workshop takes place in Toronto, Canada, spanning two days of intensive instruction on all aspects of the metal finishing process.

Since the workshop is aimed toward a broad audience of all levels, covering the entire scope of shot peening education in two days seems like it could be challenge, but the

EI education division staff have carefully organized the workshops and conducted many of them in the past. "We run four classrooms simultaneously because there are so many topics," Champaigne says. "Once you get over 30 students, it gets difficult to carry on. Typically we might have 40 to 50 topics, and you need 40 instructors."

For these reasons, enrollment is limited. "We can count on a minimum of 20 and a maximum of 40 attendees to a one- or two-day event," Champaigne says.

Topics attendees will learn about include air blast machine design, air blast machine maintenance, advanced intensity, applications, benefits and equipment, basic intensity, basics of media, an introduction to shot peening, peening coverage, rotary-flap peening, saturation curve practice, wheel blast machine design and wheel blast machine maintenance.

continued



**The two-day Canadian Shot Peening Workshop provides intensive instruction on all aspects of shot peening (courtesy Electronics Inc.).**

“We concentrate on the basic entry level on the first day,” says Dave Barkley, director of the EI education division. “The general knowledge—we can get through most of it in five to six hours.”

Although gear peening does not have a topic of its own at the workshop, gears do come up frequently in discussing the different applications of shot peening. The EI focus is less about what you can use peening on, but about teaching the correct techniques. “It doesn’t matter what you’re applying the peening process to, it has to be done properly,” Barkley emphasizes.

All EI training courses are approved by the Federal Aviation Administration (FAA) to meet the requirements for FAA employees who audit shot peening processes. The programs were actually developed specifically for FAA inspectors. At the end of each day, attendees have the option to take an exam that they will receive credit toward yearly FAA training requirements. Each day of training in combination with the appropriate exam awards eight hours of training by the FAA’s IA and AMT programs. Exam levels include Shot Peening Level 1, 2 and Flapper Peening. EI launched the FAA training program in 2001, at which time Champaigne commented “We are very pleased to have formed this alliance with the FAA. It elevates shot peening training to the level of attention and importance it deserves in the aerospace industry.”

The FAA certification is valuable for anyone in the aerospace industry where shot peening is a necessary process in achieving the high quality standards aerospace applications require. “Seventy percent of the students take the exam, and they want the FAA recognition,” Barkley says.

One unique aspect of the workshop that differentiates it from other training courses is the concurrent trade show held

in which shot peening vendors purchase booth space in the classrooms. “Some of them will also do a presentation they aim at their background,” Champaigne says. “We ask them not to be too commercial. They pretty much adhere to that.”

EI tries to intermingle the attendees and exhibitors by scheduling breaks and meals together as well as setting up the booths either around the periphery of the classrooms or in the back at the smaller, international workshops. This is useful for attendees because they have the opportunity to hear about more specific topics and applications from businesses with those specializations. “When we have breaks and lunches, if there’s a question they have for a manufacturer that might have come to mind during the class, they can go back and ask them,” Barkley says.

The number of exhibitors varies, as does attendance, depending on the location of the workshop. Although the international workshops are smaller than the U.S. counterpart, the smaller group size and simpler travel logistics are benefits. “There may be five to six exhibitors at an international workshop and more like 15 to 20 in the U.S. exhibits,” Champaigne says.

It’s difficult to predict whether there will be attendees from the gear industry at the upcoming Canadian workshop yet because most people typically don’t sign up more than four weeks prior to the workshops. However, according to Barkley, “As far as exhibitors go, we have people that have machines specifically for gears.”

Three exhibitors build machines that are sold to gear manufacturers, including Engineered Abrasives and Wheelabrator.

Regardless of coming from the gear industry or not, the EI Education division’s biggest priority remains to disseminate the most accurate information and promote the importance of shot peening. “One of the biggest challenges is explaining the difference between the intensity of the process,” Champaigne says.

People have been taught indirectly by a company culture, he says, and many attendees leave the workshop feeling qualified and confident to change the status quo for the betterment of their organization.

“You hear someone say ‘Aha!’ And you know you’ve made a breakthrough.”

The upcoming Canadian Shot Peening Workshop takes place April 28–29 at the Hyatt Regency Toronto, Canada. For more information, visit [www.electronics-inc.com/workshop\\_canada.html](http://www.electronics-inc.com/workshop_canada.html), call (574) 256-5001 or (800) 832-5653.