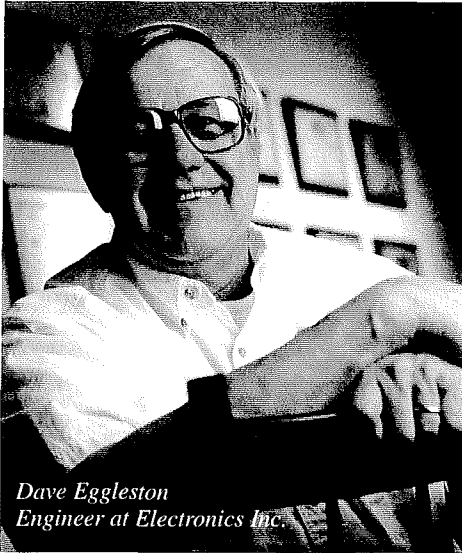


Amperage

Control it and you'll control wear damage, energy and costs by Dave Eggleston



Dave Eggleston
Engineer at Electronics Inc.

This is the third in a series of articles that address the costs savings that can be achieved when the wheel blast cleaning process is controlled.

Abrasive blast cleaning machine designers and builders know that a high percentage of shot thrown by each wheel will miss the target.* Historically, builders compensated for this problem by placing "wear parts or plates" at these critical locations. If not for this, blasted holes would appear within a few weeks of operation. Replacement parts and plates are costly to purchase and time-consuming to replace. Any procedure or product that lessens the frequency of replacing these costly wear parts is very welcome in the industry.

I recently paid a visit to an Electrical Engineer at an automotive aluminum block foundry in Windsor, Canada. We were discussing their need to control their blast cleaning processes and he shared with me the manual from their machine manufacturer. The manual states, "To

obtain full wheel efficiency, the ammeter should always show a full load reading during the blast cycle." I contend that the objective is not full wheel efficiency, but optimum cleaning using the least amount of shot possible. Over-blasting and using the same blast cycle for all parts has been the prevailing technology for years. Fortunately, competition from air blast machine manufacturers has convinced wheel blast manufacturers that controlling the process is not only possible, but mandatory. There are several wheel machine designers that build machines that offer process control while optimizing the wheel machine's energy efficiency. Engineers, like our associate in Canada, are now looking for ways to improve the quality and reduce costs and maintenance time on their present blast cleaning equipment. Gaining process control on these older machines is achievable and the cost outlays would be paid back within a short amount of time.

I've shown you in previous articles how EI's MagnaValves and amperage controllers save energy and shot costs. It stands to reason that if you can use the least of amount of shot possible to get the cleaning level you need, your machines will receive that much less wear. A controller will also make it easy for operators to document and repeat good set-ups so there is less temptation to use the same blast cycles on products that could be cleaned in much less time and with much less shot.

Our products were designed to be easily retrofitted on older machines and are specified on new machine designs worldwide.

Expand Your Reference Library

Did you know that the largest selection of books on shot peening and blast cleaning are available from one source?

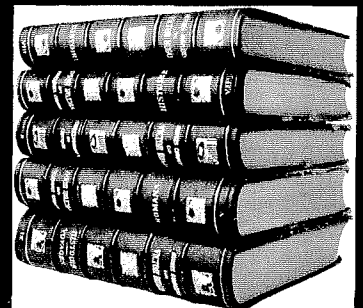
These are just a few of the books that can be purchased from the Shot Peening Universe web site:

- ICSP5 and ICSP6 Proceedings
- Blast Cleaning and Allied Processes by H.J. Plaster
- Shot Peening and Blast Cleaning edited by M.C. Sharma
- and many, many more.

Plus, the Shot Peening Universe has over 3,000 articles in its online library. New contributions are welcome!

For more information, visit the Shot Peening Universe today at:

www.shotpeener.com



* The Shot Peener has published numerous articles on how to set and monitor blast patterns. Go to the library at www.shotpeener.com for more information.