

Industry News

Process-safe shot peening of valve and small pressure springs with the new DISA RDS MINI

Switzerland. Coil springs, such as suspension springs, valve springs or small pressure springs, are typical work pieces whose endurance and service life are significantly increased by shot peening.

Small metal work pieces (valve and pressure springs) can in fact be shot peened in bulk on trough-shaped barrel belts. However, this method does not provide process safety as is often required.

A specific feature of the RDS Shot Peening System is its ability to handle coil springs in a wide range of dimensions including small parts and to treat them individually under uniform and defined conditions in a continuous process. With suitably adapted loading and unloading devices, the shot peening process can be integrated into continuous production lines.



Operating principle

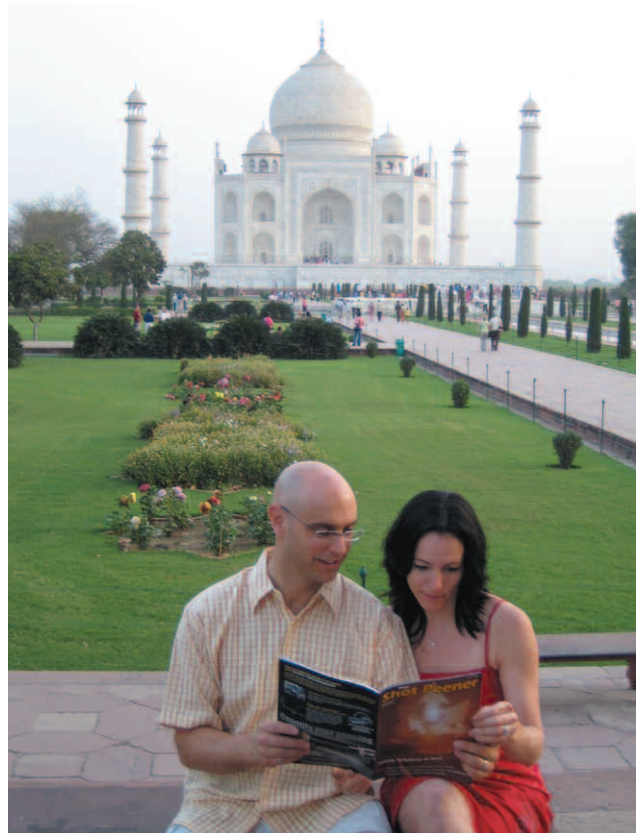
In RDS-Mini Shot Peening Systems, continuously rotating, single work pieces travel on horizontal rollers through the machine. The machines are designed to strengthen valve springs and suspension springs by shot peening at a throughput rate of more than 5,000 springs an hour, depending on relevant requirements. The springs are fed to the machine individually on a straight-line conveyor or other loading systems and then move through the blasting zone on continuously rotating horizontal rollers. Axial movements are effected by cams attached to chains.

Inside the blasting zone the springs are properly guided by adjustable baffle plates which also serve to focus the shot stream on the work pieces for optimal exposure within the "hot spot" of the blast pattern. The parameters of the shot peening process, such as shot quantity, blast wheel speed/throwing velocity, the speed at which the work pieces rotate and the dwell time, can all be regulated to suit the requirements of a specific type of work piece. It is this definition of all treatment parameters that ensures process-safety at all times. Process parameters can be recorded in the control system and retrieved when necessary.

Conclusion

- Shot peening based on the throughput principle is simple and process-safe, suitable for automatic production lines with a continuous work piece flow without intermediate storage.
- Individually adjustable parameters ensure work piece-specific shot peening of the desired quality.
- Automatic systems of high performance and manufacturing consistency reduce production costs.
- A solid machine structure and high-quality machine components ensure long service life and low maintenance costs.

For more information, contact Mr. Hans Jörg Stoll at hansjoerg.stoll@disagroup.com.



Sylvain Forgues and Brigitte Labelle, Shockform, Inc., take a break from sightseeing to read **The Shot Peener**.

The Shot Peener is read around the world

Agra, India. Could **The Shot Peener** really be more interesting than one of the most beautiful examples of architecture in the world?

Sylvain Forgues and Brigitte Labelle, owners of Shockform, combined a business trip and vacation in India this April. Shockform, located in Quebec, Canada, offers new and emerging technologies in the field of Structural Fatigue Management. While in India, they visited MEC Shot, a shot peening machine manufacturer and distributor.

Jim Chambers, with Surface Improvements, started this fun pursuit when he sent us his photo taken on a Cuban beach. If you want to share your travels with **The Shot Peener**, send a high-resolution jpeg and a brief description of your trip to jack.champagne@electronics-inc.com. We look forward to hearing from you!



Jim Chambers, Surface Improvements, read **The Shot Peener** while vacationing in Cuba.