What is Shot Peening?

Shot peening is a cold work process used to finish metal parts to prevent fatigue and stress corrosion failures and prolong product life for the part. In shot peening, small spherical shot bombards the surface of the part to be finished. The shot acts like a peen hammer, dimpling the surface and causing compression stresses under the dimple. As the media continues to strike the part, it forms multiple overlapping dimples throughout the metal surface being treated. The surface compression stress strengthens the metal, ensuring that the finished part will resist fatigue failures, corrosion fatigue and cracking, and galling and erosion from cavitation.

Media used for the shot peening include: steel, ceramics and glass.

Shot peening is the most economical and effective method of producing and making surface residual compressive stresses to increase the product life of treated metal parts. Shot peening is also used for work hardening to improve wear characteristics, straightening distortions, surface texturing and for creating aerodynamic curvatures for aerospace designs. The increased strength of treated parts allows for lighter-weight parts that exhibit high wear and fatigue resistance.

Engineered Abrasives offers shot peening services performed under controlled conditions in our custom-designed, high performance shot peening machines. Our Shot Peening Job Services Program provides the capabilities to analyze a particular part and enhance its appearance and fatigue life for parts as diverse as gears, housings and shafts.

Our shot peening services meet the highest standards in the industry, including the SAE International standards. We are certified for ISO/TS 16949, registered in ISO 14001, approved in Ford Q1, and have patents.

Shot Peening Services:

- **Ceramic Peening Services** – Used to improve the wear properties of gears, ceramic and virgin media is used to blast the gear. The resulting dimples retain beneficial oils and eliminate gear tooth pitting.
- **Metal Deburring Services** – Our metal deburring services offer different types of media to remove burrs and other imperfections from the part.
- **Fine Steel Peening Services** – A high velocity blast stream provides fine dimples that allow for fine finishing of parts.
- **Glass Bead Peening Services** – Using glass beads, this process produces a clean, bright satin
finish to the metal part.

- **Steel Shot Peening Services** – Steel shot peening is used to deburr and clean metal parts while improving the fatigue life of the part.

Engineered Abrasives is committed to providing your parts with the highest quality finishing services. We will work with you to ensure that your part is finished to your specific requirements and standards. Contact us today to see how we can help you.

Contact one of our sales representatives today
to inquire about a quote for What is Shot Peening?
or call us today at 708-389-9700