

CNC Shot Peening Machine – Precision Surface Enhancement for Superior Performance

Product Overview

Our **CNC Shot Peening Machine** is a state-of-the-art solution designed to enhance the fatigue strength, durability, and corrosion resistance of metal components through precise shot peening. Utilizing advanced computer numerical control (CNC) technology, this machine delivers consistent and repeatable peening results, making it ideal for high-precision industries such as aerospace, automotive, medical devices, and energy.

Key Applications

1. **Aerospace & Defense** – Strengthens turbine blades, landing gear, and structural components to withstand extreme stress and extend service life.
2. **Automotive** – Improves the fatigue resistance of engine parts, suspension systems, and transmission gears.
3. **Medical Implants** – Enhances the surface integrity of orthopedic and dental implants for better biocompatibility.
4. **Oil & Gas** – Protects drilling tools, valves, and pipelines from wear and stress corrosion.
5. **Industrial Machinery** – Increases the longevity of gears, bearings, and hydraulic components.

Advanced Technology & Features

- **Precision CNC Control** – Ensures accurate peening intensity and coverage with programmable automation.
- **Robotic Manipulation** – Multi-axis robotic arms enable uniform treatment of complex geometries.
- **Intelligent Monitoring System** – Real-time feedback on peening parameters (Almen intensity, coverage rate) for optimal quality control.
- **Eco-Friendly Design** – Closed-loop shot recycling minimizes waste and reduces operational costs.
- **Customizable Solutions** – Adjustable nozzle configurations and media selection (steel, ceramic, or glass beads) for diverse material requirements.

