

PRODUCT INTRODUCTION

Mike Wern | President | Engineered Abrasives® | www.engineeredabrasives.com

The New Flex Peener™ by Engineered Abrasives®

ENGINEERED ABRASIVES® (EA®) is a leader in custom shot peening and blast equipment for finishing gears and gear shafts. The company also provides precision shot peening services. Mike Wern, President of Engineered Abrasives, noted two developments in gear manufacturing, “All gears made in the USA for the automotive industry are now vacuum carbonized for greater endurance, and Electric Vehicles will need quality shot-peened gears.” He added, “We are still building our Index Units to do high-volume gears, but in smaller batches. This is especially important to the new Electric Vehicle gear programs.”

The company recently delivered their new Flex Peener™ shot peening unit to an automotive customer with the high-volume, small-batch requirements. This customer wanted an Index Unit that could shotpeen multiple transmission gears at the same time. “The Flex Peener™ is ideal for automotive manufacturers, including electric vehicle manufacturers, because they don’t need to buy a machine for each type of gear. The automated Flex Peener™ provides savings in money and time,” said Mr. Wern.

The 72" Flex Peener™ unit has four spindles at each station and can process different types of gears with no tooling changeovers. The machine has four stations and can have manual or robotic loading. Additional features include:

- The Flex Peener™ has multiple nozzles with a double chamber pressure vessel for continuous operation. Each pressure vessel has special, customized features built just for high-volume shotpeen operations. “EA has developed these pressure vessels over the many years we’ve been building high-volume index units for the automotive industry,” said Mr. Wern.
- EA® machines are made from the highest-quality American steel. They are welded and have ground seams. Roofs are 1" steel plate and side walls are 1/2" steel plate. Machines are lined with EA’s special Red polyurethane sheets and durometer material that will outlast rubber 30 to 1. The polyurethane sheets also reduce noise.
- A bucket elevator system for the air blast unit allows the mounting of the Sweco screen separator unit on the floor for easier maintenance and reduced downtime. This is very important when peening 1,000 to 1,500 gears per hour: If no gears are peened, no transmissions are built, and no cars are assembled.
- The Camco index unit drives are designed for precision stopping of robot or gantry loading. The EA®-designed Red

solid polyurethane is molded to a 1-1/2" thick aluminum table and will outlast any other table and reduce the sound levels. These machines run at 77 DBA.

- Media specially designed for these machines gives very good KSI at a lower air pressure which is a big energy savings.

In addition, an important benefit to customers with a Flex Peener™ is that a duplicate machine is available in Engineered Abrasives® job shop. “There is no other machine manufacturer in the world with a job shop operation like ours. We peen gears seven days a week. The machines in our job shop allow us to make improvements in machine design through real-life testing,” said Mr. Wern. In addition, the in-house facility can meet production schedules over and above the capabilities of on-site equipment. They are able to duplicate production processes and this tandem approach assures high-quality and consistent production runs. Engineered Abrasives® also has a support team and maintains a large spare parts inventory specifically for these machines.

About Engineered Abrasives

Engineered Abrasives® is an ISO/TS 16949, ISO 14001, and Ford Q1 certified job shop. Founded in 1935, Engineered Abrasives® designs and fabricates standard or custom automated abrasive and shot peening systems. Engineered Abrasives® can analyze any situation and design a machine to meet production requirements. Complete turnkey systems are also available. ●



The 72" Flex Peener™ can shotpeen different-sized gears at the same time. (Shown here with Almen strip fixtures.)

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