

## Rebuild of High-Speed Waterbury Farrel Presses (For small caliber ammunition)



*Press before rebuild*

### Impact of Rebuild

- Better equipment reliability
- Less downtime related to repairs
- Better control of the presses



*Press after rebuild*

### Background

A Midwestern manufacturer has been producing parts on Waterbury Farrel presses for many years. Their 35 ton mechanical presses were originally built in the 1940's. After more than 60 years of service, their presses were in poor mechanical condition, some never rebuilt at all during their time in service. In addition, the presses were operating with outdated technology (electrical controls and safety systems).

Schuler Incorporated and BCN Technical Services were selected to carry out the engineering, project management, and mechanical and electrical rebuilding of eight presses to upgrade them to modern production standards - for productive and reliable operation with quality end products.

The project to rebuild eight presses had a tight schedule - a goal was set to deliver two completed presses in just less than five months, three more the next month, and then the final three presses delivered three weeks later. In the end, the presses were delivered on schedule, thanks to experienced project management and very close coordination with the customer and sub-suppliers to achieve this timeframe.

### The Rebuilding Process

Working together, Schuler Incorporated and BCN Technical Services established a project plan and appointed an experienced project management team to oversee the rebuild project. This team managed the project timeline with measurable milestones and a clear line of communication with the customer for decision making and status reports.

Schuler engineers developed the design for the new controls of the rebuild, while BCN Technical Services carried out the disassembly, inspection, cleaning, component sourcing, remanufacturing, assembly and rebuilding of the press system.

The eight presses were completely disassembled, cleaned, and components were inspected by experienced press rebuild engineers, and then documented and staged to ensure quality for reassembly.



*Disassembly and inspection*

The complete mechanical and electrical rebuild included the following:

- Replacement of perishable parts
- Replacement of worn or damaged non-perishable parts approved by customer
- Installation of new clutch & brake system
- Installation of new automatic lubrication system
- Installation of new electrical controls including a touch screen monitor
- New paint, enclosure and updated guarding

BCN Technical Services completed the rebuild and manufacturing process in their Hastings, Michigan facility. Then, after final programming by Schuler controls technicians, experts from the two companies carried out full testing of the presses and pre-production run-off to the customer's specifications.

### Impact of Rebuild

With the rebuild complete and the presses back in production, the customer is experiencing better equipment reliability with less downtime related to repairs, and better control of the presses leading to improved productivity and quality.

As a result of a successful project, the customer has ordered more press rebuilds of the same scope.

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