

Innovative Solutions from

Emhart AutoSet™ system solution heats up throughput and reduces total installed cost for major stove manufacturer.

Application: Stove hopper, ash pan, and fireplace insert

Challenge

A leading manufacturer of gas fireplaces and an assortment of gas, wood, pellet, coal, and corn stoves required a more efficient method of increasing assembly production throughput for the hopper, fireplace insert, and ash pan. Initial manufacturing procedures resulted in unnecessary spot welding and an assembly process that required using two separate rivets. Moreover, the current method of assembly used a closed-end rivet that was overspecified for the application which did not meet Industrial Fastener Institute (IFI) specifications.

Customer requirements

- Increase throughput
- Reduce labor costs
- Minimize noise and vibration harshness
- Automated assembly process
- Ensure structural integrity

Solutions

Customer realizes greater process efficiency and higher reliability.

Emhart engineers recommended AutoSet™, an automatic blind riveting system, to automate the assembly process and eliminate spot welding. Emhart engineers recommended using a blind rivet from the POP® anti-rattle product line that will eliminate the need for two separate rivets for each of the assembly requirements, thus reducing costs. This anti-rattle design has a positive locking feature that ensures the mandrel head locks into the rivet body upon installation providing superior vibration resistance. The solution consisted of standardizing assembly production to the AutoSet™ automatic blind riveting system feeding POP® rivets. The customer's prior solution was a low cost fastener from the Far East. Although the cost of the rivet itself increased, the overall installed cost based on automation has decreased.



Features & Benefits

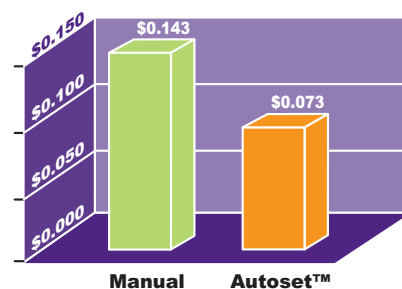
- Rattle resistant
- Vibration resistant
- Automatic efficiency
- Inventory reduction
- Decreased in-place cost
- Standardized rivet assembly to one tool

Cost Benefit Analysis

PROJECT DATA

Fasteners per Unit	40
Annual Unit Build	25,000
Total Annual Fasteners	1,000,000

Total Installed Cost Comparison



INSTALLED COST ANALYSIS	Manual	AutoSet™
Total Cost per Installed Fastener	0.143	0.073
Cost Per Unit	\$5.72	\$2.92
Savings Per Unit with AutoSet		\$2.80
Installation Cost Savings		60%
Annual Cost Savings		\$70,000.00