

FlexFast™ Shuttle Improves Manufacturing Process

Background

In anticipation of increased productivity needs, an automotive parts supplier explored the feasibility of replacing two (2) older welding systems with newer, more cost and energy-efficient equipment.

The two existing machines that were used to weld a variety of fasteners (flat nuts) required two operators per shift. The equipment was operated five days a week at three shifts a day, thus resulting in 30 man shifts to complete the weekly production needs. The customer's goal was to determine if newer equipment design and process could reduce the overall operating costs of these machines.

The Solution

After reviewing a number of equipment styles from various manufacturers, the customer selected CenterLine's FlexFast welder with shuttle system. This design was able to accommodate all required fasteners and only needed one (1) operator per shift, for a total of 15 man shifts per week.

Operational / Process Benefits

The implementation of the FlexFast Shuttle:

- considerably improved the production time, from 39 hours required by the original machines down to only 21 ½ hours per day,
- reduced the number of operators from two (2) to one (1),
- eliminated non-productive time as the shuttle's configuration allowed the operator to load one station while the other station was welding,
- offered future flexibility for incorporating CentreLine's Quick Change tooling, a flexible and compact tooling system that can be easily stored and re-used for future service part orders,
- reduced the required plant space for this project thus enabling the company to increase existing capacity without needing additional space,
- added two (2) nut detection VeriFast™ Laser sensors in order to reduce the number of scrapped parts.



Financial Benefits

The FlexFast Shuttle also helped the customer to realize several financial benefits, including:

- savings from the reduction in manpower alone guaranteed a 25 month equipment payback for the FlexFast equipment,
- the two original welders were redeployed within the company, thus saving capital costs on other projects,
- the maintenance costs and spare parts needs associated with the older equipment were reduced since the FlexFast consolidates multiple weld applications into one piece of equipment,
- the FlexFast Shuttle could be used as back-up equipment should another welder break down.

Ultimately, the customer was able to acquire a state-of-the-art piece of capital equipment that could be easily re-configured for future programs. Aside from savings in labor and floor space, additional costs savings from reduced spare parts needs, less downtime, and higher quality welding contributed to a shorter than expected equipment payback period.