



Repeatable Process for Lowering Costs, Increasing Quality, and Reducing Production Time

Learn how iCONN Systems utilizes their six step Custom Engineering process to re-engineer an existing product for a fire protection and safety equipment manufacturer.

Background

This case study takes a look at an OEM (Original Equipment Manufacturer) of fire protection and safety equipment. The fire protection industry requires equipment that is designed and developed for harsh environments and requires very stringent agency approvals, such as the NFPA (National Fire Protection Association). Firefighters working in the industry depend upon the quality, accuracy and safety of these life critical products they use.

The Client's Challenge

iCONN Systems was engaged by this customer due to their existing supplier's inability to meet criteria related to quality, service and delivery. The customer was constantly put into a line down situation. Their existing supplier could not produce enough good products in order to support their demands.

iCONN's Approach

iCONN Systems capitalized on our vast knowledge and years of experience. We utilized our Six Step Custom Engineered Solutions Process to re-engineer the existing product and address every quality, service, pricing and delivery issue our customer was experiencing. We were able to perform this function very timely, and efficiently to stay on course with our customer's time constraints.

iCONN's Strategy Involved:

iCONN Systems re-engineered the product to be reverse-compatible and intermateable with our customer's existing product. This allows the customer to maintain a single SKU in their system for production and replacement of warranty issues in the field.



iCONN's Solution

Client's Problem	Our Solution
Contact Pins Were Continually Breaking	We re-engineered the keying, contacts and plastic insert to eliminate further breakage including a visual indicator.
Plastic Inserts Were Breaking	We changed material to a more difficult to process, robust plastic, designed for high temperature and the rugged nature that fit the customer's application.
The Connector Was Rotating the Metal Shell	We re-engineered the plastic connector insert and in metal shell in which the connector was inserted to eliminate all rotational issues.
The Connector Was Pulling Out of the Shell	We designed a snap-in feature on the connector and metal shell which allowed the plastic to lock into place.
The End Users Were Tampering	With the Product in the Field We enhanced the coupling mechanism that requires a special tool to assemble and disassemble.
The Sealing Method Was Unreliable	iCONN worked with the industry experts in the high pressure washer hose construction market to provide a more streamlined process that performed 100% of the time in application.

The Result

iCONN Systems utilized our advanced knowledge to design for manufacturability. We developed a repeatable process, took out unnecessary variability and increased throughput. This process enabled iCONN to provide our customer a superior product in reduced time at a lower cost. We took our service one step further and worked with our customer to eliminate their operational constraints. Our customer's throughput was significantly improved by redesigning, engineering and manufacturing test equipment for their test requirements.

iCONN Systems design was favorable to our customer as it provided an initial 10% price reduction from their original product. Then through more efficiencies related to materials and operational enhancements iCONN was able to provide an additional 15% over the following two year period equaling a 25% total cost reduction.

We also designed and managed an inventory program to meet our customer's specific needs that enabled us to ship product at any time and on time. This prevented line down situations that the current supplier caused on a daily basis due to lack of product and/or poor quality.

iCONN Systems is always willing to invest with our prospective customers. We re-engineer and design to manufacture to eliminate line down situations, decrease warranty claims by designing robustness into the connector solution, reduce cost, and we continuously look at ways to increase customer throughput by utilizing lean practices or conducting Kaizen events off-site. We do not stop there, and we did not stop for this customer either. We offered continual improvement to their product by redesigning their cable to provide a more robust, user-friendly cable that was still required to inter-mate with the initial design. This provided even more cost savings and durability.

About iCONN...



Founded in 2006, iCONN Systems, LLC designs and manufactures electrical and electronic connectors, overmolded and discrete cable assemblies and value added turnkey products serving global markets for a variety of applications including those requiring environmental and EMI/RFI shielding considerations. Our management team has extensive connector/cable assembly experience, in excess of 100 years, to the benefit of our customers.

To learn more about how iCONN's reengineering process can help your company achieve greater efficiency, save money and improve profitability, speak with an

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