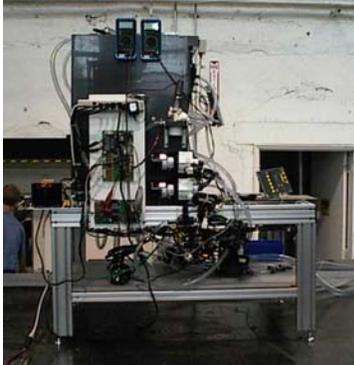


Sterilization System Product Development & Contract Manufacturing

Background

Sterilox Technologies, Inc. is a leading developer and marketer of sterilization and disinfection generators and solutions for the healthcare, food and environmental areas. Sterilox products use an electrochemical cell to produce a room-temperature high-level disinfectant that is non-toxic to humans and broadly effective against a wide range of bacteria, fungi, viruses, and spores. Sterilox did not have a reliable and competitive sanitizer for the food industry and needed assistance in solving a number of design issues in order to have a cost competitive sanitizer.



Proof-of-Concept

Project Description

Advent Design was selected as the engineering development team to design and bring to market a new Aqualox 2000 sanitizer for the food industry, primarily supermarket chains. Solutions had to be developed for a number of design issues including corrosion, mechanical reliability, fluid flow, machine controls, and serviceability. The machine had to be evaluated, approved, and listed by both the National Sanitary Foundation (NSF) and Underwriters Laboratories (UL). Operators of this machine would have little experience, no mechanical ability and minimal training. Sterilox had to roll out and deliver the new sanitizer to customers in only four to five months.



Alpha



Beta / Production

Implementation /Impact

After an intensive six week design effort, solutions were developed for all of the issues identified by Sterilox. A proof of concept unit was developed to verify the new sanitizer design in only 6 weeks. At the same time, Advent Design began working with NSF and UL to get the sanitizer listed and began ordering long lead components. The first pre-production prototypes were ready in ten weeks after start of design. The initial order of 2000's was shipped, complete with NSF and UL approvals, in five months. The cost of the 2000 was less than the targeted production cost and met or exceeded all functional requirements. While the 2000 was still in the approval process, the design for the next generation sanitizer, the Sterilox 2100, was started. This unit was a significant improvement to the 2000. Designed for modular production and reduced cost with similar functionality as the 2000, the first Sterilox 2100s were shipped only seven months after the initial delivery of the Aqualox 2000. In addition, the product cost was reduced by nearly 50%.

Custom Engineering Solutions



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