

CASE STUDY

CONSOLE COST REDUCTION

OVERVIEW

Our client, a Class II medical technology company, sought to reduce the cost of several high dollar critical components for its flagship capital equipment console. Our client lacked strategic cost reduction expertise, in particular when analyzing casted versus machined parts, and material properties associated with various alloys. Select components needed to be redesigned from the ground up, ensuring structural integrity while achieving the desired cost savings to sustain manufacturing of the console system.

CHALLENGE

Our client believed an investment in reusable tooling could achieve a significant cost reduction but was uncertain how to go about it. Square-1 was brought in for advisory and engineering support to lead our client through a complete review of its console components, documentation, and options for alternate part manufacturing. Key to this project was to maintain design form, fit and function, while achieving a reduction in cost which produced a good return on investment.

ACTION

Square-1 led our clients' R&D and Manufacturing teams through a top-down analysis of their entire system, strategically selecting two dozen components which could potentially meet the parameters for cost reduction. Square-1 optimized all CAD files, redesigning each component for casting purposes, then began the supplier qualification process to conduct a regional analysis to select the highest quality vendors. New suppliers were selected, and parts acquired. The Square-1 team was comprised of a principal manufacturing engineer, an expert certified Solidworks designer, and a casting specialist working in collaboration with our customer to facilitate the project.

SOLUTION

Square-1's work on this project helped our client exceed their target cost reduction goals by 199% while completing the project two (2) weeks ahead of schedule. Our team's ability to hit the ground running and quickly execute on deliverables allowed our client's internal team to work on other mission critical projects ensuring business continuity throughout the project. "Of all the partners we've had, Square-1 has been the best."
– Sr. Director of R&D



199%
COST SAVINGS
ACHIEVED