SQUARE-1 ENGINEERING

CASE STUDY

OPERATIONS IMPROVEMENT & CAPEX PLANNING

OVERVIEW

A contract manufacturer needed to increase production capacity while addressing safety risks and costly production inefficiencies. Square-1 was brought in to assess the operation, build the business case, and secure funding for a $965K CapEx project designed to improve throughput, reduce production delays, and create a safer work environment.

CHALLENGES

Insufficient production capacity threatened the company's ability to meet customer throughput requirements and secure future purchase orders.

Long wait times, extended cycle times, and unnecessary material movement were limiting production efficiency and overall throughput.

Welding operations created significant safety risks, including trip-and-fall hazards for operators working in a fast-paced production environment.

SQR1 IMPACT

Solutions from Square-1:

- Evaluated the production environment and identified improvement opportunities across safety, manufacturing, quality, and operations.
- Worked directly with welders and supervisors to understand production bottlenecks and document safety concerns.
- Researched qualified suppliers and coordinated technical requirements across internal and external teams.
- Built and supported the CapEx business case, translating operational challenges into a clear proposal for executive and finance stakeholders.
- Secured approval for $965,091 in capital investment to fund the improvements.

$965K Investment

$2.1M

PROJECTED SAVINGS

(2027-2030)

ABOUT SQR1

At Square-1 Engineering, we provide technical consulting services across the entire medical device product life cycle from product ideation to obsolescence. Our skilled engineering and compliance teams take on projects of all sizes in R&D Engineering, Quality & Compliance, Regulatory (RAQA) and Manufacturing Engineering.

When Companies Need Us:

Regulatory Events
Loss of Key Personnel
Rapid Company Growth
Lacking SME
Audit Preparedness
Bandwidth Constraints
Next Gen Development
M&A Support
Facility Moves & Transfers
Change in Supply Chain

Capabilities

Engineering & Ops: Square-1 provides engineering and operational expertise needed across the entire product development lifecycle.

Regulatory & Compliance: We help clients build quality and regulatory practices which protect the business while enabling it to move forward.

Executive Strategy: Seasoned medtech executives who help organizations navigate growth, solve complex challenges, and execute strategic initiatives.

www.square1engineering.com
info@square1engineering.com
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