

Should Cost Modeling of Mechanical, Electrical, & Electronics Components – Global Leading Flow Control and Pump OEM



STATXO supported the client to achieve more accurate production cost estimation, leading to improved budgeting and reduced risk of cost overruns. A comprehensive understanding of manufacturing parameters and associated costs across different countries (*China & Hungary*) provided valuable negotiation levers, enabling informed discussions around pricing, supplier selection, and production strategies. Additionally, the implementation of a Macro-enabled dashboard offered automated, real-time analysis, enhancing the client's ability to monitor cost variations, perform sensitivity analysis, and generate reports efficiently.



STATXO's support transformed our production cost management. Their accurate cost estimations and comprehensive regional analysis improved our budgeting, reduced cost overruns, and strengthened our negotiation position. The macro-enabled dashboard provided real-time analysis, making cost monitoring and reporting much more efficient. We highly recommend STATXO for their impactful solutions and expertise."

- Director, Procurement

Q CASE FOR CHANGE

- Client, a leading Flow Control and Pump OEM planned to open a new manufacturing facility in China. The client's internal operations and production team had conducted high-level should-cost modeling using the existing supplier data and prices from Hungary. Their management wanted to have external due diligence on the should cost modeling
- The primary challenge was the inaccuracy of potential cost drivers, including supply chain costs, and unforeseen expenses between the existing suppliers from Hungary and China



🔍 SHARED VISION

- To refine cost projections, ensuring a realistic financial plan for the client's investment in the new facility
- To strengthen the client's position in negotiations with suppliers through a detailed understanding of cost structures of the eight (8) pump mechanical, electrical, and electronics pump components including:
 - 3 Phase Connection Plug Socket
 - 3 Phase 3 Speed Plug
 - Terminal Plate
 - Cover Plate
 - PCB
 - Others

📏 FEASIBLE PLAN

- Identified and analyzed raw materials, including type, grade, color, and weight, for both plastic and metal parts across different components, factoring in bought-out parts (BOPs) using product specifications, engineering drawings, and physical measurements
- Gathered crucial inputs, such as raw material rates, labor costs, and electricity costs for components manufactured in both China and Hungary, alongside an understanding of detailed manufacturing processes like casting, injection molding, and PCB manufacturing including specifications, such as machine tonnage/ capacity, efficiency, cycle time, electricity consumptions, rejection ratio, inspection ratio, deflashing ratio, BOP handling & assembly ratio, tooling cost, etc., for each unique sub-component via detailed expert interviews
- Further, collated inputs, such as machine hour rate, BOP cost, etc., for both metal and/ or plastic components across both China and Hungary
- Developed a comprehensive mathematical model to estimate various costs, including raw material, processing, inspection, assembly costs, BOP, etc. The model also includes additional factors like inventory carrying costs, packaging costs, SG&A, and profit margins, with a sensitivity analyzer with and without tooling cost
- Created a macro-enabled dashboard to facilitate automatic analysis of the data, providing real-time insights into cost components and manufacturing efficiency across different countries

✅ CAPABILITY TO DELIVER

- Client achieved a **more accurate estimation of production costs**. This led to better budgeting and financial planning, reducing the risk of cost overruns
- Comprehensive understanding of manufacturing parameters and associated costs across different countries (*China and Hungary*) **equipped the client with suppliers' negotiation levers**. This knowledge allows for more informed discussions around pricing, supplier selection, manufacturing locations, and production strategies
- Macro-enabled dashboard **provided the client with automated and real-time analysis capabilities**. This enhanced their ability to monitor cost variations, perform sensitivity analysis, and generate reports

