

Locations

Asheville, NC; Raleigh, NC;
Cedar Rapids, IA, USA

Total Investment

Confidential

Type of Projects

Simulation (4 Projects)
3D Workstation & Fixturing Design
Material Handling Analysis –
Value Stream Mapping

Role

Simulation Model Development
Simulation Training
CAD Design (Utilizing AutoCAD 3D
Mechanical Desktop)
Industrial Engineering
Method/Equipment Recommendation

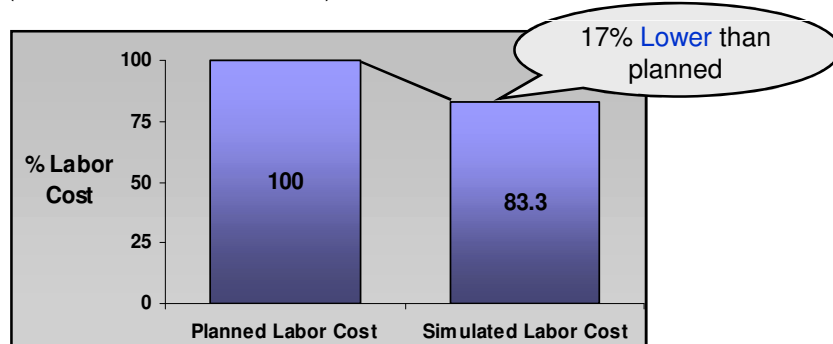
Annual Volume

Confidential

Project Impact

Labor Cost Reduction

(Industrial Breaker Production)



Project Highlights

- 1) Development of simulation models to validate and optimize process design of 4 new assembly lines/cells, confirming throughput capability, determination of process bottleneck, and the optimum line balance to maximize labor utilization, minimizing total operating costs. Model experimentation was performed to determine impact on throughput from:
 - labor utilization – line balance
 - inventory buffers
 - equipment downtime (MTBF – mean time between failures and MTRR – mean time to repair)
- 2) Trained Square D manufacturing engineers in the development of “Witness” discrete event simulation models.
- 3) Provided 3D and detailed 2D assembly and packaging workstation and fixturing design (including ergonomics review)
- 4) Utilized value stream mapping and engineering cost analysis to determine material handling method that minimizes total capital investment and labor cost.