



## Equipment Design Solutions

On-going needs and expectations of the end-user continue to pose multi-dimensional challenges to manufacturers. Design Group works with original equipment manufacturers (OEMs) and equipment users, leveraging its experience of over 30 years, offering customized mechanical and electrical engineering design solutions. With a team of multi-disciplinary engineers supporting various industry verticals, we enable our clients to stay competitive and realize value for their stakeholders.

### Services

- Design & Development
- Engineering Support
- Sustaining Engineering
- Sourcing
- Technical Publishing
- Lean Manufacturing

### Challenges for OEMs

- Internal resource constraints for new product development
- Eroding margins due to higher material and assembly costs
- Low throughput
- Inefficient workflows resulting in higher cost of manufacturing
- Rising warranty costs

### Industries

- Industrial Machinery & Equipment
- Pulp & Paper
- Food & Beverage
- Household & Personal Care
- Life Sciences
- Consumer Durables
- Automotive & Transportation

### Challenges for End-Users

- Equipment no longer supported by the OEM
- Equipment OEMs offer expensive solutions for retrofitting
- Current machines do not meet evolving safety standards
- Older equipment limiting production rates and or unable to support new SKUs
- No 'off-the-shelf' solutions to automate operations
- Repetitive motion or non-ergonomic work processes

## Equipment Design Solutions

### **Incremental Innovation**

Experience in working across various industry verticals enables Design Group to address industry challenges in unique ways. We make small-scale improvements to add value to existing equipment and processes for our clients to stay competitive and retain their market share, and for them to enhance the product lifecycle, resulting in maximizing return on investments. Any Intellectual Property (IP), if created in the process, will belong to the client.

### **Redesign and Retrofit**

Design Group provides Redesign and Retrofit solutions to modify or add new specifications, features, functionalities, to an existing equipment or machine to meet market requirements for OEMs. For equipment users, these solutions help our clients realize higher order specifications on an existing equipment or machine to address “less than optimal performance”, non-compliance to industry safety standards or technology obsolescence.

### **Cost Optimization**

Cost optimization solutions help in reducing the material and manufacturing costs of an existing equipment or machine using FAST and DFA techniques, without compromising on the features or functionalities.

### **Line Automation**

Clients are supported in automating assembly operations, both semi-automatic and fully automatic to deliver consistent and repeatable quality, right the first time. Line Automation assists in lowering the COGM – Cost of Goods Manufactured, resulting in improved profitability.

### **Manufacturing Automation**

Design Group provides solutions to conceptualize and design - tooling, jigs and fixtures to address client requirements for productivity improvements, optimize manufacturing costs and eventually eliminating the need for skilled manpower.

### **Program Management**

Program Management provides support for realizing clients' long-term strategic goals, and to effectively manage project inter-dependencies within the program. This includes managing a group of related projects in a coordinated manner with multiple stakeholders, spread across countries, leveraging available resources across locations and providing an independent view of the project status for client's executive team to meet their strategic goals.

### **Engineering & Release for Fab**

Engineering design and development is undertaken for 'made-to-order' products, based on clients' Sales Orders and is released for fabrication without occupying the client's engineering team bandwidth.

### **Engineering Change Order Management**

Engineering support is provided to perform day-to-day engineering tasks, and also any engineering changes or design modifications needed in addressing parts' obsolescence.

### **Sustaining Engineering**

Design Group specializes in customized Sustaining Engineering solutions that address product enhancements, development of competitive product variants, and address quality issues from products in use.

### **Sourcing**

Our Sourcing services include identifying and procuring high quality machined and fabricated parts and assemblies. Supply Chain Management professionals follow a DFMA (Design for Manufacture and Assembly) approach to use the right process at the right cost for maximizing the cost savings.

### **Technical Publishing**

We offer Technical Publishing and Language Translation services for authoring technical documentation including user manuals, operating instructions, installation manuals, and part catalogues for machinery and products. Our consultants leverage in-house engineering experience, technical writing skills and machine-building knowledge to produce 'first-time-right' results.

*Design Group operates from 45+ offices in the US and India providing engineering, consulting, and technical services to the world's leading companies in the Food & Beverage, Life Sciences, Advanced Technology, Industrial, and other market sectors. Our nearly 1500 technical and engineering experts have direct industry experience in industrial automation, control system integration, facility and process engineering, architecture, construction management, regulatory compliance, enterprise technology, and other consulting services.*