Design Systems, Inc. provides turnkey systems integration and engineering services for manufacturing and process companies of all types and sizes. Our goal: to help you maximize the productive capacity of your people, equipment, control systems, and the facility itself.
Design Systems, Inc. is an experienced multi-disciplined engineering company positioned to support your program needs globally. Since our beginning in 1983, Design Systems, Inc. has evolved into providing complete “Concept to Commission” services for manufacturing companies where precision engineering and efficient processing are key to your operations success.

- World headquarters located in Farmington Hills, Michigan
- Design Systems Canada Ltd. (DSC) headquartered in Windsor, Ontario, Canada
- Saltillo, Mexico office
- Over 200 engineers and technicians
- TSI – Affiliate company providing Turnkey Systems Integration

Design Systems, Inc. is recognized as a global supplier, with a focus on manufacturing process design and integration. They are a full-service provider, offering "Concept to Commission" services, with over 30 years of engineering excellence. Their services include:

- Multimillion Dollar Turnkey Programs
- Manufacturing Process Engineering and Consulting
- Program Management Services
- Conveyor Engineering
- Electrical and Controls Engineering
- Paint Process Engineering
- Simulation Engineering

With offices in Farmington Hills, Michigan, Windsor, Ontario, and Saltillo, Mexico, Design Systems, Inc. is equipped to support multinational operations. Their services include Lean Manufacturing, Aerospace, Federal and Defense - Cage Code #4TRG6, Throughput Improvement, Sustainable Initiatives, Material Flow Management and Engineering, System Health Assessments Specialist, and Structural Engineering.

DESIGN SYSTEMS, INC.
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Manufacturing / Industrial Engineering

Throughout our history, Design Systems, Inc. has been faced with challenging projects where product and process complexity have required creative, flexible engineering solutions.

PROCESS DRIVEN DESIGN APPROACH

In all cases a process driven design approach analyzes unique and common processes, along with product complexity and options, to develop the most cost effective manufacturing process that contains the right value-added mix of automation.

■ Facility Planning and Design
■ Manufacturing Process Development
■ Lean Manufacturing
■ Program Planning and Scheduling
■ Material Flow Management and Engineering
■ Containerization / Rack Design
■ Process Quality Improvements
■ Work Station Design / Station Readiness
■ Supply Chain Logistics
■ Labor Studies
■ Assembly Processing

Simulation Engineering

POWERFUL COST AND TIME-SAVING TOOL

Complexity and flexibility continue to be the norm for projects at Design Systems, Inc. To reduce overall program costs and ensure throughput demands are met, Design Systems, Inc. utilizes Simulation Engineering. Simulation is one of the most powerful cost and time savings tool available, allowing complex systems to be tested and evaluated prior to any fabrication or installation.

Utilizing simulation solutions including AutoMod, Quest, SIMUL8, Witness, Design Systems, Inc. will assist in design verification, system optimization, identifying bottlenecks, performing “what if” experiments, and your systems sensitivity to product or production rate changes.
Process Engineering

BENCHMARKING WORLD CLASS OPERATIONS

Design Systems, Inc.'s Process Engineering group is highly experienced team of professionals that bring a global perspective to every project. Working in industrial facilities across the globe has provided DSI Process Engineers the invaluable experience of benchmarking world class operations.

■ Complete Paint Finishing Systems Design and Engineering
  ● Pretreatment (Phosphate, E-Coat)
  ● Sealing and Sanding
  ● Spray Booths (Liquid, Powder, Misc.)
  ● Ovens (Convection, Radiant, Infrared)
  ● VOC Abatement
  ● Sludge Removal
  ● Paint Circulation

■ Complete Environmental Systems Design and Engineering
  ● Air and Water Pollution Control
  ● Solid Waste Sludge Management
  ● Noise Attenuation

■ Complete Process Utilities Systems Design and Engineering
  ● Ventilation Design – Building to Process
  ● Water, Steam, Compressed Air, Gas, Oil
  ● Fire Protection, Hydraulic Fluids
  ● Utility Usage Audits and Savings Potential Analysis

■ Environmental Issues
  ● Evaluation of Environmental Implications
  ● Cooperation with Authorities
  ● Process, Materials and Equipment Criteria
  ● Master Waste Management Program

Electrical and Controls Engineering

UPPER LEVEL TO PLANT FLOOR

Design Systems, Inc. has the highest credentials in the design and implementation of Automated Electrical Control Systems. The strength of this core engineering service is a key reason why many of the most challenging projects are awarded to Design Systems, Inc. From the upper level to the plant floor communications, DSI will design and execute the right system for your operation.

■ Control System Architecture Design
■ Detail Design and Programming
■ Field Wiring Drawings
■ Control Panel Design
■ PLC and PC Programming
■ Manufacturing Execution Systems – MES
■ Quality Alert Systems
■ Factory Information Systems
■ Man-Machine Controls System Design
■ On Site Debug and Testing
■ Routing Tracking Systems
■ Emulation and System Verification
■ Configuration Management
Mechanical / Conveyor and Facilities Engineering

MATERIAL HANDLING SOLUTIONS

Design Systems, Inc.’s Mechanical Group brings the skills and experience honed from working hands-on in many of the world’s most demanding environments. In brief, our goal is to design a system to meet your specific throughput, with maximum uptime, and the best possible use of space, materials and manpower for an effective material handling solution.

- **Detail and Shop Fabrication Engineering**
  - Conveyor Detail Design
  - Support Steel Design
  - Platform and Mezzanine Design
  - Tool Rail and Line Lighting

- **Conveyor Engineering**
  - Conveyor Selection Optimization
  - Conveyor Design and Layout
  - Conveyor and Equipment Installation Engineering
  - Carrier Design and Build
  - Chain Pull / Drive Calculations
  - Health Assessments of Existing Systems

- **3D Engineering**
  - Racks and Container Design
  - Facility Layout and Design
  - Carrier Design, Deflection Analysis and Prototyping
  - Product Equipment Interface Design

Program Management

Design Systems, Inc. has provided Program Management services for over 30 years in various manufacturing facilities for small projects up to new Greenfield billion dollar programs. At the request of our customers, we have returned to many of these facilities multiple times to provide Program Management services for their next program.

A WINNING STRATEGY

Design Systems, Inc. manages major programs in phases. We staff each phase with the required experienced engineers from our multidisciplined Engineering Groups. This skilled team will provide the efficiency and knowledge to identify cost savings ideas to ensure your program timing and budget goals are met.

The following phases allow for a well thought out plan and execution of the plan to ensure that there will be no surprises and costly overruns.
Complete Turnkey Systems Integration - TSI

THE BEST SOLUTION AT THE MOST COMPETITIVE COST

As an engineering based Turnkey Systems Integrator, we provide a distinctive attribute that many product suppliers and/ or traditional systems integrators do not necessarily possess – complete objectivity. We will design the solutions that meet your needs and then source the components that yield the best value for your unique system solution...with a complete OPEN BOOK policy! We do not have a product line that we are compelled to sell to you, but rather, we always focus on providing the best solution at the most competitive cost.

Many systems integrators are specialists in only one or two areas yet solutions regularly require a depth of knowledge well beyond their expertise and core competencies. Design Systems, Inc. on the other hand - with our understanding of the entire plant operation as well as our commitment to self performing the core professional services - provides a singular uniqueness in the field of integration services: value, professionalism, and accountability from concept to close out.

Design Systems offers complete system integration:

- Mechanical Systems / Conveyors
- Process Equipment
- ITM / MES / FIS Systems
- Facility
- Final Assembly Operations
- Paint / Coating / Cleaning Systems
- Tooling
- Work Stations
- Electrical / Control Systems
- Material Handling Systems
- Sub-Assembly Operations
Design Systems, Inc. invites you to visit our headquarters in Farmington Hills, Michigan as well as our regional office in Saltillo, Mexico or Design Systems Canada Ltd. in Windsor, Ontario.