

DESIGN SYSTEMS, INC. NEWS

Specializing in Manufacturing Process
Design and Integration

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A Design Systems
Corporate Update

APRIL 2010

A Tangible Return On Your Investment

For over a quarter century, Design Systems, Inc. (DSI) has provided engineering and integration services for companies in the manufacturing, process and service industries. DSI employs a "concept to commission" approach to our projects with specialists in several Engineering Group disciplines:

- Mechanical / Conveyor Engineering
- Manufacturing / Industrial Engineering
- Electrical / Controls Engineering
- Paint and Process Engineering
- Simulation Engineering

Our ability to provide customers with a wide range of engineering expertise enables us to provide "Turnkey" Facility Engineering and Program Management solutions that fit any project. DSI has a rich history of experience with successful Programs. Evidence of our quality performance is maintaining a client list of over 80% repeat business as well as being ISO 9001:2008 certified.

With our multidiscipline group structure and overall staff membership of 150 engineers and technicians Design Systems, Inc. provides the best quality and value by staffing each project with the most efficient engineering team. Each of our engineers are committed to the corporate mission of *"providing the highest quality engineering and program management services to each of our clients so that a tangible return on their investment with DSI is achieved."*

Sincerely,
Design Systems, Inc.

Daniel J. Birchmeier



Dan Birchmeier
Director of Sales and
Marketing

**Providing
world class
Engineering and
Program
Management
services**

highest quality and value



WHAT'S INSIDE:

- ▶ Manufacturing Engineering and Consultant Group
- ▶ Electrical and Controls Engineering Group

PAGE 2

- ▶ Process Engineering Group
- ▶ Mechanical / Conveyor Engineering Group

PAGE 3

- ▶ Program Management Group
- ▶ Simulation Engineering Group

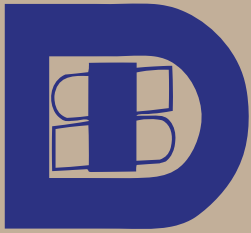
PAGE 4

- ▶ Turnkey Systems
Integration

PAGE 5

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Design Systems' innovative approaches and real-world solutions have saved its customers millions of dollars in start-up costs



DESIGN SYSTEMS, INC.

Manufacturing Engineering and Consultant Group

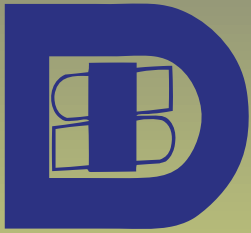
- Industrial Engineering Services
- Detailed Assembly Process Development
- Human Factors Analysis and Engineering (Ergonomics)
- Quality Improvement
- Manufacturing Management Consulting Assessments
- Process and Productivity Improvement
- Benchmarking Studies and Evaluations
- Material Logistics Analysis and Planning
- Implementation of Lean and Synchronous Techniques to the Manufacturing Environment
- Station Readiness Integration Planning
- Facility Launch Readiness
- Master Planning Process
- Torque Validation
- Labor Studies
- Process Development
- Downtime Analysis
- Work Cell and Station Layouts
- Value Stream Analysis
- Process Mapping
- Material Flow Planning
- Failure Mode and Effects Analysis
- Error Proofing
- Container Logistics Planning

Electrical and Controls Engineering Group

- Control System Design and Electrical Engineering
- Plant System Architecture Design
- Factory Information Systems Integration
- On-Site System Start-up Engineering
- Systems Integration
- Utility Optimization Evaluations and Studies
- Application and Integration of Manufacturing Execution System (MES) Software Tools
- Emulation to Validate, Debug and Test PLC and PC Programming Code
- Power Distribution and Loading Studies
- Control Room Design
- Weld Water System Design
- Andon / Quality Alert Systems
- On-site Control Systems Debug and Testing
- Error Proofing Systems Integration
- Troubleshooting

concept to commission

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Process Engineering Group

- Paint Finishing
- Powder Applications
- Solvent Borne and Water Base Paint Systems
- Ancillary Equipment Engineering
- Abatement Systems
- Ventilation, Air Supply, Make-Up Systems
- Cure Processes
- Overall Process Development
- Sealer Systems
- Process and Equipment Problem Solving Solutions
- Pre-Treatment
- Waste Disposal Systems
- Engineering Solutions for Energy Management
- Fire Protection
- Weld Water Systems
- Building Air Balancing
- Environmental Compliance Evaluation
- Process and Materials Evaluation
- Waste Consolidation and Reductions Studies
- LEED Accredited Professional on Staff to Support Your "Green" Initiatives

Our process driven design approach analyzes unique and common processes, along with product complexity and options, to develop the most cost effective manufacturing solution

Mechanical / Conveyor Engineering Group

- Mechanical / Conveyor Facilities Consulting and Layout Design
- Preliminary Design Engineering
- Detail Design and Shop Drawings
- Infrared Camera Surveys
- Conveyor and Equipment Health Assessments
- 3D Modeling, BIM Modeling
- 3D Carrier Development
- Conveyor Chain Pulls and Analysis
- 3D Material Handling Rack Design
- Web Site Safety Program



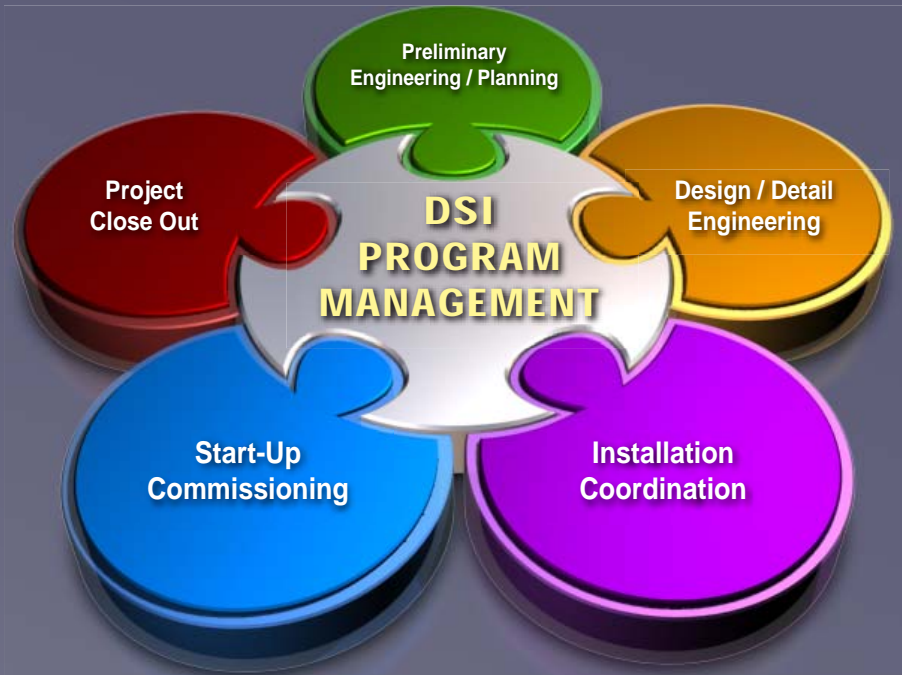
benchmarking world class operations

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Program Management Group

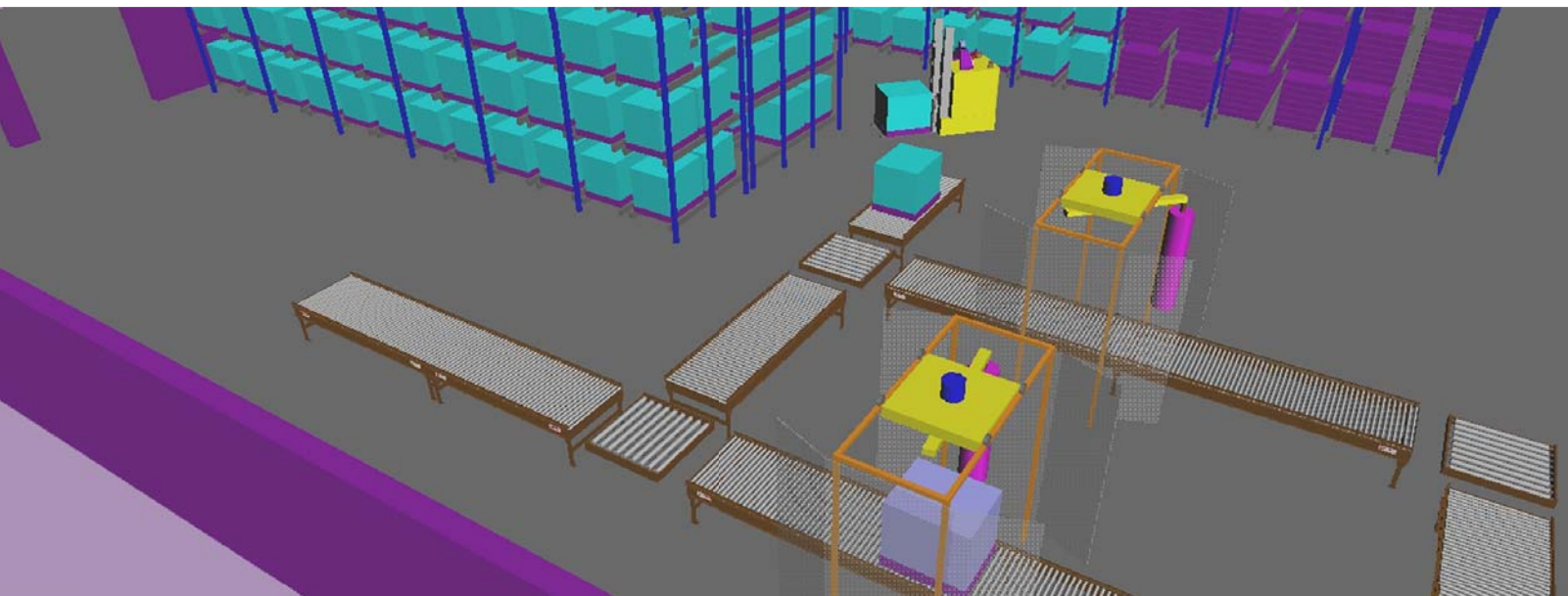
Design Systems has provided Program Management services for manufacturing facilities of various sizes and programs that range from our customer's internal projects to new billion dollar Greenfield programs.

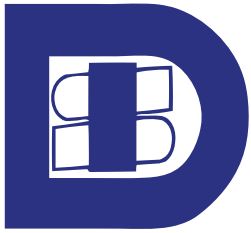


Simulation Engineering Group

With over 400 large scale models developed by DSI's staff we have one of the most experienced simulation groups in the country. We are highly skilled in the development of computer simulation models as design development, design verification tools, as production training aids, and for productivity optimization.

Additionally control systems algorithms are developed and verified through proper application of simulation modeling techniques. System sensitivity analysis, model mix experimentation, system complexity experimentation, carrier count analysis, material handling design analysis, manufacturing equipment uptime analysis are included in our Simulation Group service offerings.





*Design Systems, Inc. , with our understanding of the **entire plant operation** as well as our commitment to self performing the core professional services provides a unique offering in the field of integration services: **Value, Professionalism, and Accountability** - from concept to close out.*

DESIGN SYSTEMS, INC.

Turnkey Systems Integration, LLC

Turnkey Systems Integration, LLC (TSI) is an engineering-based turnkey systems integrator. TSI can provide a distinctive advantage 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 competitively bid outsourced components to yield the best value for your unique system solution. 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.

We are unique in our role as a **TSI** provider, in that we self perform all of the core professional services without subcontracting. These TSI core professional services include:

- Mechanical Engineering
- Industrial Engineering
- Material Flow
- Controls Design
- Simulation
- Logistics and Supply Chain

Adding overall project management and procurement are the skill sets that insure success.

Many systems integrators are specialists in only one or two areas, but, in fact, solutions often require a depth of knowledge well beyond their realms of expertise and core competencies. On the other hand, 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 TSI.

Turnkey Systems Integration provides:



- **Competitively** Bid Your Solution to Yield the “Best Value”
- Provide **Single Point Responsibility** for Projects Involving Numerous Vendors
- **Self Perform** All Core Professional Services
- **Project Manage** the Complete Solution through Buy-off
- **Mitigate** Your Project Risk
- Provide Comprehensive and **Complete System Close-out Documentation**

complete and affordable

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integrated solutions

Design Systems Inc. is a complete design and engineering firm that specializes in fulfilling the engineering needs of manufacturing and process companies.

Our 150 staff engineers provide engineering services for a broad based clientele encompassing:

- General Manufacturing
- Specialty Manufacturing
- Food and Beverage Processing
- Heavy Equipment Manufacturing
- Aerospace
- Material Handling
- Package Handling
- Baggage Handling
- Warehousing
- Government / Defense

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