



SANMINA

# MECHANICAL SYSTEMS DIVISION

**Design and Manufacture:** Enclosures, Precision Machining, Welded Frames and Systems Integration



## 6 Global Locations

1.5M+ Square Feet of Manufacturing Space

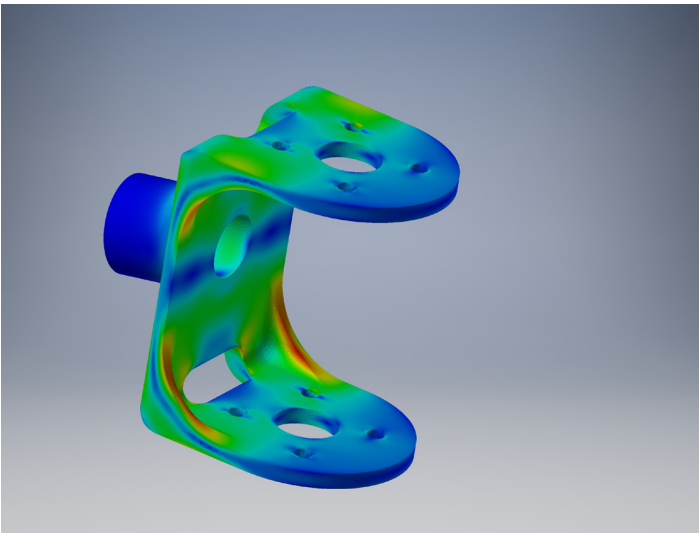


# DESIGN, ENGINEERING AND NPI



## Design and NPI

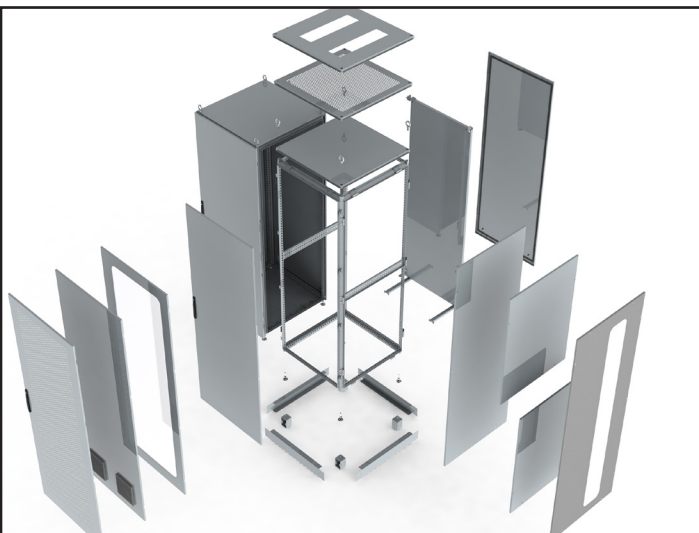
Customers shorten the time to take a product from concept to production by leveraging Sanmina's mechanical design expertise. Our experienced engineers located in multiple design centers have decades of experience in enclosure, precision machining, welded frame & systems design. Services include turnkey design, prototyping & DFX.



## Engineering Services

Customers achieve higher quality & more cost effective designs using Sanmina's engineering services including:

- Structural & Thermal Analysis
- VAVE, DFM, Design for Cost
- Product Integrity, Regulatory Approvals
- Interconnect & Cable Management
- Documentation & Change Management
- Static & Dynamic Test Support

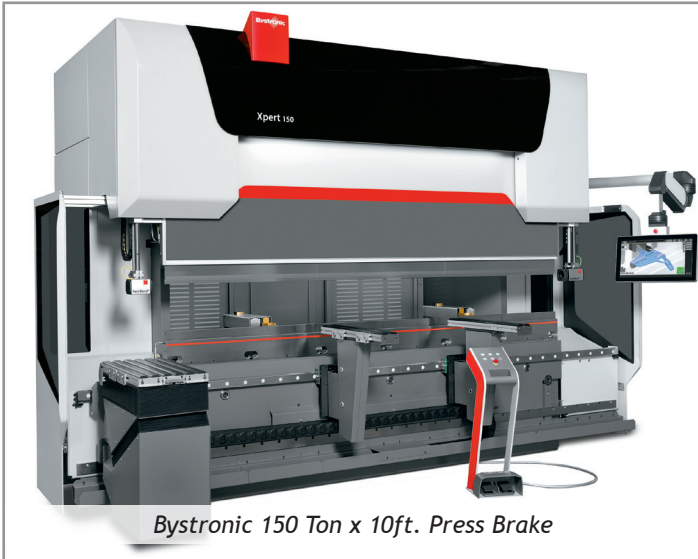


## Design and Engineering Expertise

Sanmina helps customers with a range of mechanical design & engineering projects for a broad range of mechanical systems. Modular enclosure platforms are one example of how Sanmina helps customers get to market faster at lower cost using pre-designed configurable solutions.



# STATE OF THE ART EQUIPMENT



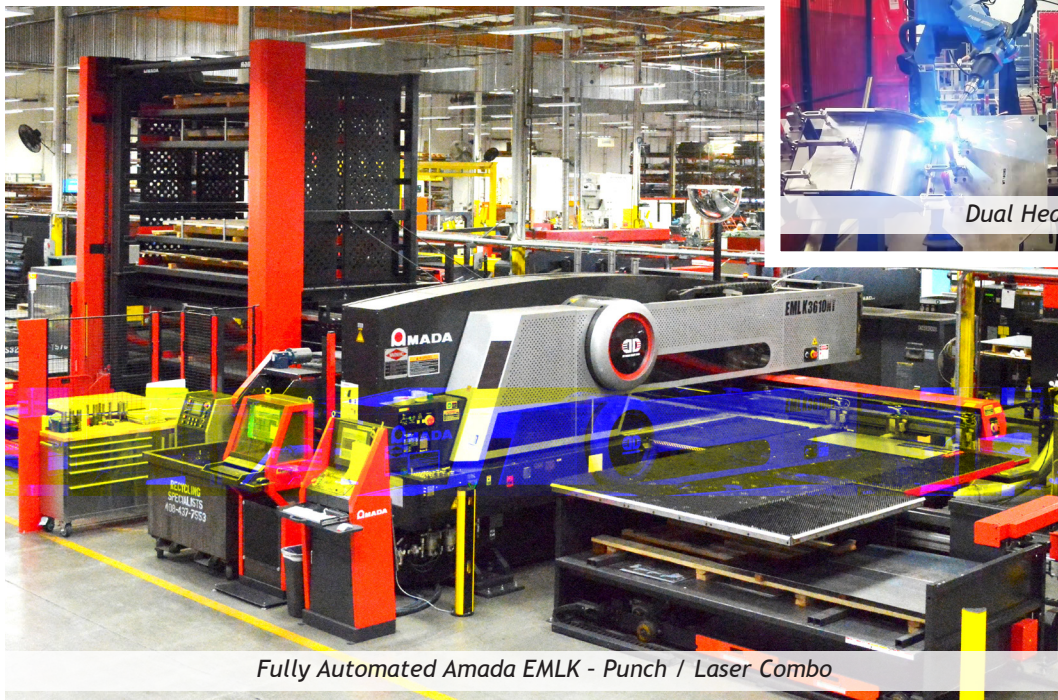
*Bystronic 150 Ton x 10ft. Press Brake*



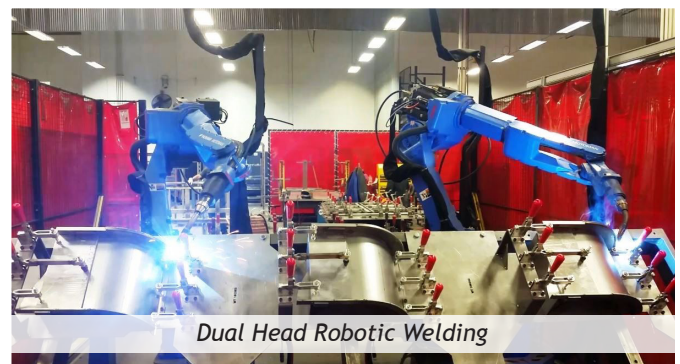
*Large Format 5 Axis Machining*

Sanmina's Mechanical Systems Division (MSD) provides machining and sheet metal fabrication capabilities with facilities located in every major region around the world. Ongoing investment in the latest technologies including 5-axis machining, multi-function laser/punch systems, robotic welding & automated material handling provides Sanmina's customers with the best metal fabrication solutions available.

Equipment & processes are standardized around the world to facilitate easy transfer of products & best practices between facilities. Sanmina utilizes a proprietary real-time SPC data analysis system integrated directly into CNC Machines to ensure reliable process control.



*Fully Automated Amada EMLK - Punch / Laser Combo*



*Dual Head Robotic Welding*



# CAPITAL EQUIPMENT



*Large Format Digital Printer Systems Built by Sanmina MSD*

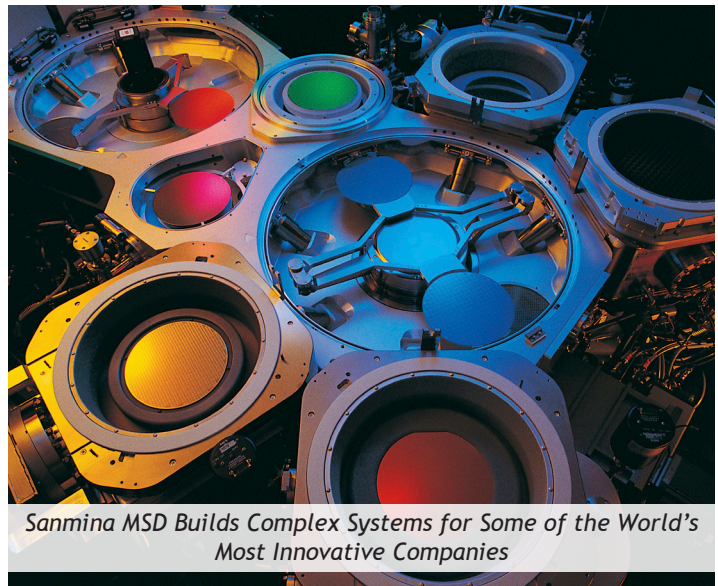


*Semiconductor Systems Built by Sanmina MSD*

Sanmina MSD assembles & tests complex electromechanical systems in dedicated clean-rooms for leading capital equipment suppliers. We produce large form factor machined components, frames, racks, sheet metal products & fully integrated assemblies including cables & electronics.



*Precision Machining at Sanmina*



*Sanmina MSD Builds Complex Systems for Some of the World's Most Innovative Companies*



# MEDICAL EQUIPMENT

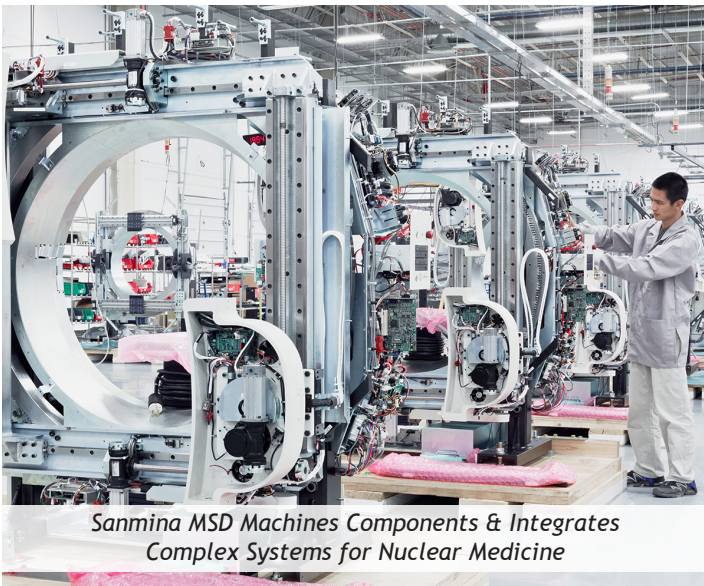


*Sanmina MSD - Enclosures & Electro-Magnetic Assembly of Diagnostic Imaging Equipment*



*Blood Diagnostic Equipment*

Sanmina MSD manufactures complex frame weldments, large medical imaging assemblies, gantries, patient tables & complex systems for industry leaders in laboratory diagnostics, ultrasound, diagnostic imaging and 3D printing. We have designed complex frames and enclosures for medical equipment.



*Sanmina MSD Machines Components & Integrates Complex Systems for Nuclear Medicine*



*Sanmina Provides Enclosures & Manufacturing Solutions for Ultrasound Equipment*



# INDUSTRIAL, SELF-SERVICE AND MULTIMEDIA



*Sanmina MSD Manufactures Charging Systems for a Tier One Automotive Company*

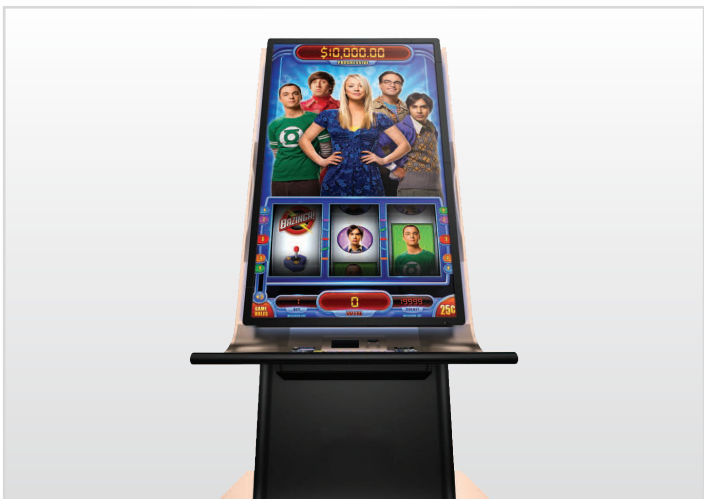


*Locker Systems Built by Sanmina MSD are Used by Some of the World's Leading Logistics Companies*



*Sanmina MSD Manufactures Industrial Enclosures & Systems for Power Inverters*

Many of the world's best known automotive, power, self-service & gaming companies trust Sanmina to simplify their supply chains. As well as fabricating metal enclosures, Sanmina provides fully integrated design and manufacturing services for interconnect systems, electronics, electro-mechanical assemblies and systems integration.



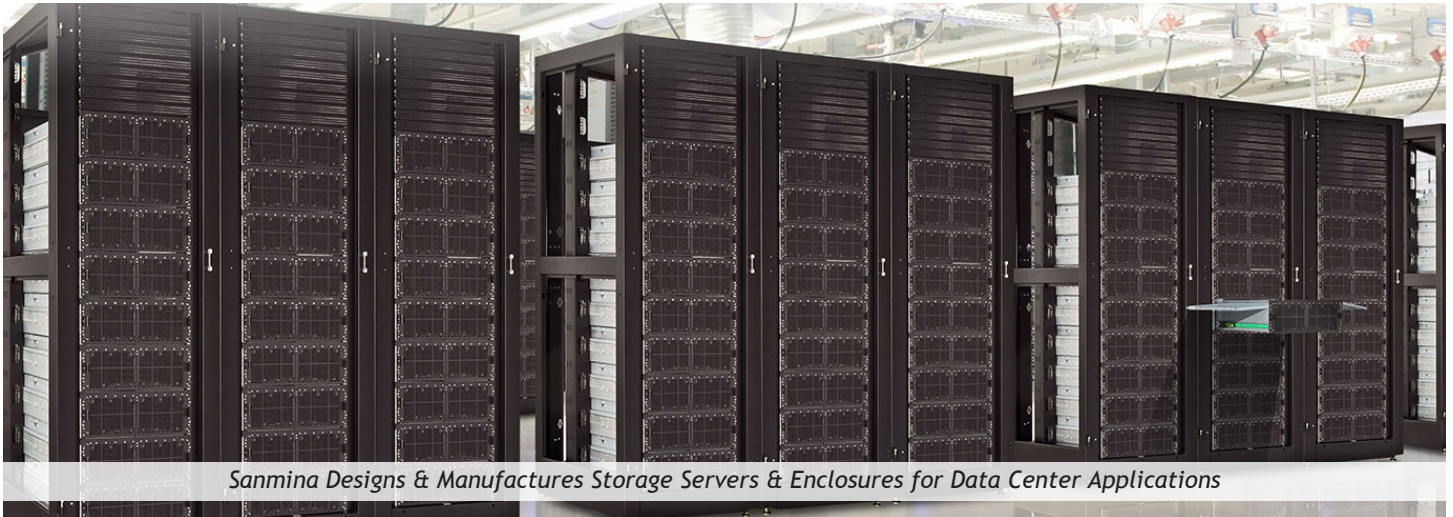
*Sanmina MSD Fabricates Metal Enclosures & Assembles Complex Gaming Consoles*



*Turnkey Design & Manufacturing of Kiosk Solutions at Sanmina*



# ENTERPRISE AND CLOUD COMPUTING



*Sanmina Designs & Manufactures Storage Servers & Enclosures for Data Center Applications*

Sanmina's Mechanical Systems Division (MSD) provides turnkey design & manufacturing for custom enclosure & rack products as well as pre-designed modular & configurable systems for IT, computing & storage applications. MSD's expertise combined with Sanmina's turnkey storage solutions make us uniquely qualified to serve the Enterprise & Cloud computing markets.



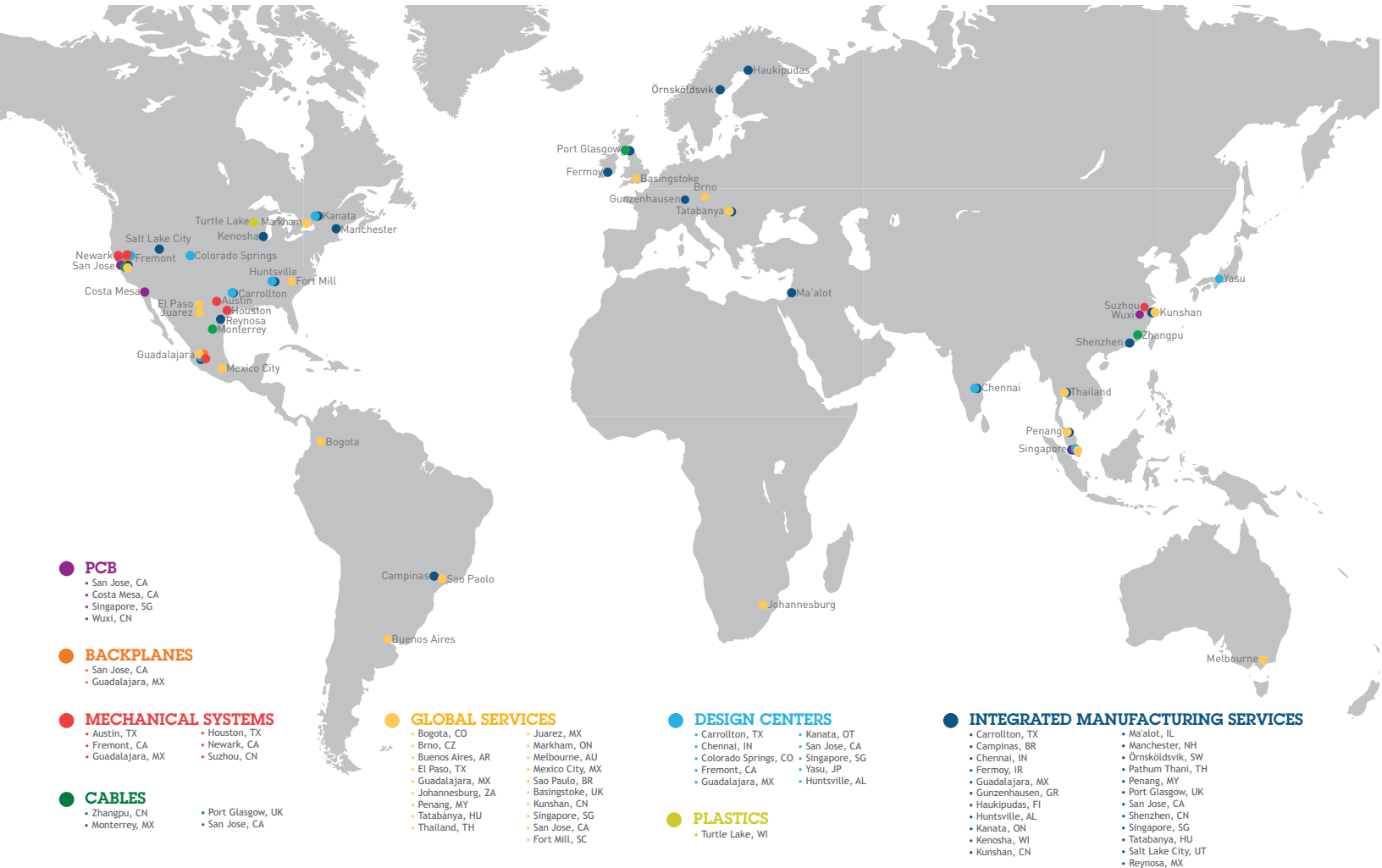
*Rack-IQ Platform: Modular & Configurable for IT, Computing & Storage Applications*



*Sanmina Provides Turnkey Design & Manufacturing for Custom Telecoms & Data Center Systems*



# Sanmina Worldwide



## ABOUT SANMINA CORPORATION

Sanmina Corporation is a leading integrated manufacturing solutions provider serving the fastest-growing segments of the global Electronics Manufacturing Services (EMS) market. Recognized as a technology leader, Sanmina provides end-to-end manufacturing solutions, delivering superior quality and support to Original Equipment Manufacturers (OEMs) primarily in the medical, communications networks, defense and aerospace, industrial and semiconductor systems, multimedia, computing and storage, automotive and clean technology sectors. Sanmina has facilities strategically located in key regions throughout the world.

For more information, visit [www.sanmina.com](http://www.sanmina.com)

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