

# Assembly & Control Systems Automation

## Large-Scale Tight-Tolerance and Precision

Janicki brings demonstrated engineering and manufacturing experience to meet our customer's requirements with automation projects. We started over 20 years ago with the design and build of our own large-scale 5-Axis CNC Mills. Engineering focuses on delivering high quality and innovative solutions using 3D CATIA modeling and analysis tools to craft designs for intricate problems. We have experience with multi-segment tools, large aerospace factory designs, pick-n-place tools, software engineering, and systems integration.



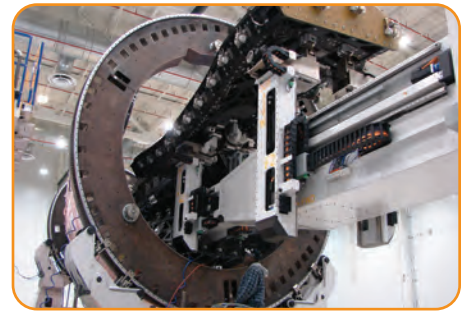
Large Assembly Tools



Stringer Placement Tooling



Heated Molds



Segmented Tools

### Capabilities

Specializing in Large Scale Mechatronics

- ▶ Mechanical / Electrical Integration
- ▶ Instrumentation & Controls
- ▶ Process Design Controls
- ▶ Systems Integration (Siemens+Leica)
- ▶ Software Engineering
- ▶ Special compensation algorithms



Nadcap AC7118 CERTIFIED

AS9100C CERTIFIED

BAC 5578 & BAC 5317 Approved

Boeing Digital Product Definition  
Approved Supplier

Boeing approved processor to  
D1-4426 requirements



508A CERTIFIED  
Industrial Control  
Panel Fabricator  
Reg. #316793



20 Years Designing and Building  
Large 5-Axis CNC Machines



Final Assembly Lines

### Partner with FFT

- ▶ Lower Price Structure
- ▶ Customer Focus & Proximity
- ▶ Broad Experience
- ▶ Global Basis

# Facilities Optimized for Automation

Our newest facility is a dedicated engineering office in Everett, WA. Staffed with design and analysis engineers, this office specializes in automation and systems integration projects. Our manufacturing facilities are equipped to build your largest and most complex projects.

## 5-Axis CNC Milling

Janicki's mills are unsurpassed in precision and scale with repeatable tolerance of  $\pm 0.005"$  and envelope up to 100' x 20' x 8'. Our proprietary CNC software uses custom Janicki volumetric error compensation algorithms that provide unprecedented accuracy.



Control Cabinet

## Electronic Design & Construction

- ▶ Electronics cabinet design and construction
- ▶ Software engineering for process and manufacturing automation
- ▶ Algorithm development and implementation
- ▶ Research and Development to automate multi-physics problems
- ▶ Machine design to incorporate sensors/electrical components
- ▶ Complete integration of automation system into a manufacturing facility

## Engineering

Engineering Services support the design and digital simulation of automation projects from fixtures and scaffolding, to pick-and-place robots and to full automation assemblies.

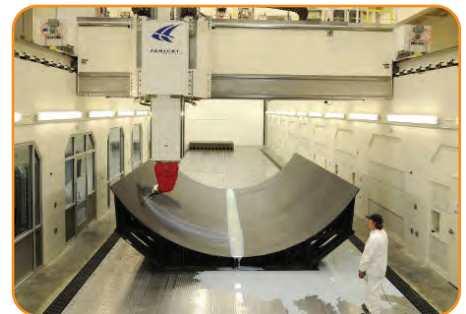
- ▶ Concurrently develop part & tooling
- ▶ Expert in optimization for manufacturability
- ▶ CATIA Composite Design workbench to analyze designs and create ply kits and laser projection files
- ▶ Rapidly incorporate revisions
- ▶ Manage configuration with SAP-PLM

## Equipment

- ▶ 9 Large 5-Axis CNC Mills (100' x 20')
- ▶ Machine Shop (4 & 5-Axis Mills & Lathes)
- ▶ Oven (100' x 24' x 14') w/ Automated Controls
- ▶ Weld Shop (Certified Welders)
- ▶ Waterjet & Plasma Cutter (14' x 42')
- ▶ Autoclave (12' x 50')
- ▶ Annealing Furnace (24' x 72')
- ▶ 25 Ton Overhead Cranes
- ▶ Grit Blasting & Paint Booth (60' x 16' x 10')
- ▶ 1,100 Ton Forming Press
- ▶ 45' Eastman Ply Cutter
- ▶ Gerber Ply Cutter



Engineering Office in Everett, WA



5-Axis CNC Milling: Large Scale & Precise



Janicki UL Cabinet Shop

our  
**quality** promise

- ▶ Dedicated Continuous Improvement
- ▶ Deliver Quality Products
- ▶ Exceed Customers' Requirements

**Sedro-Woolley, WA**

160,000 ft<sup>2</sup>

**325**  
Employees

**Hamilton, WA**

254,000 ft<sup>2</sup>

**361**  
Employees

**Layton, UT**

100,000 ft<sup>2</sup>

**100+**  
Employees



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