Large-Scale 5-Axis **CNC Milling**

Nadcap Accredited Nadcap Nadcap AC7118 CEPTIE

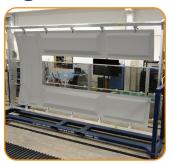
Nadcap AC7118 CERTIFIED
ISO 9001 CERTIFIED
AS9100 CERTIFIED
BAC 5578 & BAC 5317 APPROVED
Boeing Approved D1-4426

SPACECarbon Fiber Parts and Tooling

In the outer-space environment Janicki Industries (Janicki) understands your need to push the limits on material performance. Janicki has over 20 years experience building fly-away aerospace parts made of advanced composite materials that will exceed mission requirements. Janicki brings specific equipment, processes and talented people to your project to assist you in building space vehicles that will thrive in the rigorous environment of space.

Space Products and Experience

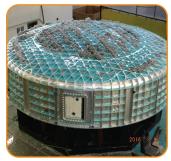
Flight Hardware



Fly-Away Aero Parts
Janicki is Nadcap Certified to
make Carbon Fiber Aerospace
Parts with nomex and aluminum
core.



Contamination Barrier
Janicki builds a 350°F Carbon
Fiber Tool followed by a fly-away
barrier used in the Space
Launch System Rocket.



Boeing Starliner Dome
Janicki milled both sides of
an aluminum billet to precise
tolerances. This is part of
the Boeing Commercial Crew
program.

Production Tooling



Carbon Fiber ToolingJanicki specializes in large-scale projects with out-of-autoclave carbon fiber tooling.



Cryo Tank ToolJanicki has technical abilities to make complex parts and tools.



Heat Shield ToolingJanicki builds high-cycle aluminum tooling for heat shields.

Janicki builds flight hardware of all sizes and complexity that our customers can trust will meet their requirements. Space hardware is typically loaded with stress throughout all structure, and requires a meticulously planned and documented build record, at which Janicki excels.



For Outer-Space Parts & Tooling

Our newest building in Hamilton adds 90,000 square feet of manufacturing space dedicated to flight-quality, aerospace parts made of composites. It adds 15,000 square feet of cleanroom, drive-in freezer, Ultrasonic Core Cutter, 5-Axis CNC Mills, Non-destructive testing and is climate controlled.

5-Axis CNC Milling

Janicki's mills are unsurpassed in precision and scale with repeatable tolerance of \pm 0.003" and envelope up to $100' \times 20' \times 8'$. Our proprietary, CNC software uses custom volumetric error compensation algorithms that provide unprecedented accuracy.



5-Axis Zimmermann Mill

Clean Room

25,000 sq. ft. Clean Rooms with 16' ceilings.

- · Dedicated to Aero Parts Production
- Certified Technicians
- Access Controlled for Sensitive Projects

Meets requirements for:

- ISO Class 8 (Upgradeable to 5)
- BAC5317, BAC5578
- D012Z062-001

Engineering

Janicki engineering rivals our competition in technical abilities to design and build highly complex parts, necessary for demanding aerospace requirements. Engineering supports customers with one-off conceptual prototypes to high-volume serialized build-to-print flight hardware.

- Concurrently develop part & tooling
- · Expert in highly comlex parts.
- CATIA Composite Design workbench to analyze designs and create ply kits and laser projection files
- · Rapidly incorporate revisions
- · Manage configuration with SAP-PLM

Equipment

- 10 Large 5-Axis CNC Mills (100' × 20')
- 5-Axis Zimmermann Mill
- Genesis Non-Destructive Testing
- AGFM Core Cutter
- Oven (100' × 24' × 14')
 w/ Automated Controls
- Weld Shop (Certified Welders)
- Waterjet & Plasma Cutter (14' × 42')
- Autoclave (12' × 50')
- Annealing Furnace (24' × 72')
- · Grit Blasting & Paint Booth
- 1,100 Ton Forming Press
- 45' Eastman & Gerber Ply Cutter

Janicki has the level of engineering support, capabilities that allow us to be very schedule competitive on large Design, Build, Deliver programs. Relative to our competition, we have a solid project management culture that adds a lot of communication value to our customers.

Sedro-Woolley, WA 160,000 ft²

> 325 Employees

Hamilton, WA 254,000 ft²

361 Employees Layton, UT 100,000 ft²

100+ Employees



Composite Parts Manufacturing Bldg.



AGFM CNC Core Cutter



12' × 50' Autoclave



Non-Destructive Testing

our quality promise

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

JULY 2020