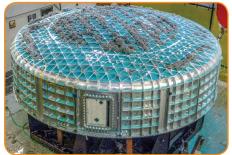




# Precise 5-Axis Milling On-Time Trim & Drill Zero-defect Confidence

Janicki Industries has extensive trim and drill experience on both composites and metallic parts.

The Utah facility has performed Trim and Drill on over 4,000 composite wing parts for military jets with 99% on time delivery and 99% zero-defect rate. Our proprietary machining software combined with real-time health monitoring allow for certainty that parts will be machined within the tight tolerances of today's high-performance aerospace world. Automated processes eliminate human error, allowing for unparalleled precision and repeatability.

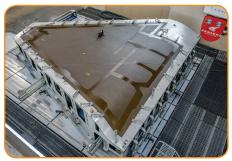


5-Axis Machining of Isogrid Boeing CST Starliner Domes



Laser Metrology machine alignment ensures high tolerance results

Milling of the Lower Dome consisted of over 1,500 pockets that were machined using highly precise 5-Axis mills while removing over 90% of the material from the aluminum formed blank.



**Trim & Drill of JSF Wings** 

- ▶ 4,000 composite panels
- ▶ 99% on-time
- ▶ 99% zero-defect



### **Orion FWD Bulkhead**

- ≥ 246 lb part from 5,000 lb Aluminum Blank
- ► As-Built Features Better Than +\- 0.0025"
- ▶ 8 wks machining time

# 5-Axis Machining Capabilities | Experience | Equipment

Janicki built facilities at Layton, Utah dedicated to the trim & drill of highly accurate parts, made of composites and metals. With over 100,000 sq. ft. of manufacturing space, three large 5-Axis mills, metrology lab and staffed with experienced engineers and expert fabricators, we are ready to provide solutions to our customer's largest challenges.

# **Capabilities**

- Agile Program and Project Management for one-off and production machining needs
- ▶ 5-Axis NC Milling (+/- 0.002")
- ► Large-scale Facilities
- ▶ Precise Leica Laser Metrology Inspections
- Assembly of inserts and subcomponents for turnkey delivery solutions



Laser Metrology Analysis and Reporting



**Paint Booth** 

# **Program Experience**

- Trim & Drill of JSF Wing Skins and Fuselage panels
- Trim & Drill of composite stiffeners for commercial airliner fuselage
- Extremely complex machining and inspection processes for large aluminum isogrid Domes for Boeing CCT Starliner
- Machined isogrid Bulkhead for Orion EFT-1

## **Key Utah Equipment**

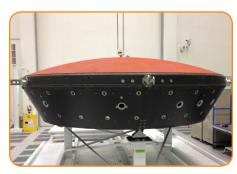
- ► Mill 7: 17' x 14' x 6' Production 5-Axis Trim and Drill
- ► Mill 8: 17′ x 14′ x 6′ Production 5-Axis Trim and Drill
- Mill 9: 80' x 14' x 6' Versatile, High Precision Metallic and Composite 5-Axis Machining
- ► Leica Laser Metrology with accuracy of +/- 0.001" over 25 feet
- ▶ 50' x 16' Paint and Coatings Booth
- ▶ 18' x 18' Medium Temp Paint/ Coatings Cure Oven



Large, one-off, composite skins for Orion



Large-Scale, Precision 5-Axis NC Mill



One-Stop shop for composite trim and drill, inspection and assembly tasks



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



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