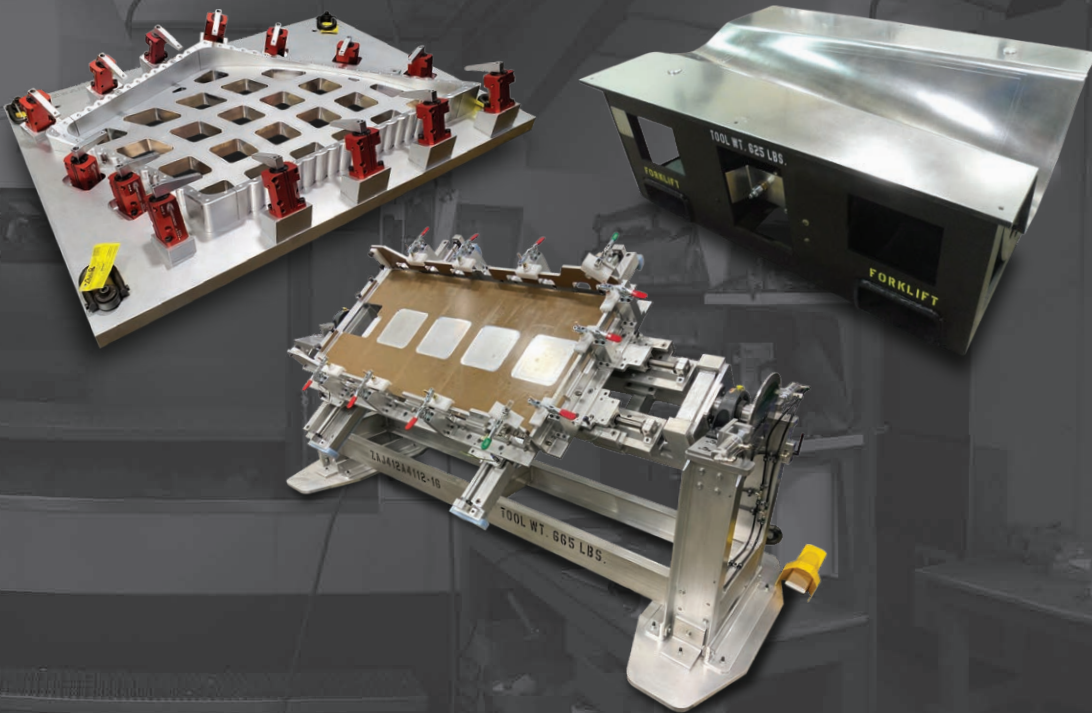




# WOODLAND TRADE CO.

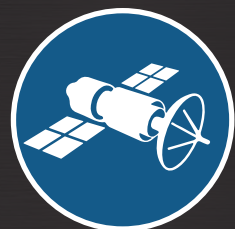
TOOL DESIGN & TOOL FABRICATION

## AWARD WINNING TOOLING EXPERTS



## 2023 CAPABILITIES CATALOG

**TOOL DESIGN, TOOL FABRICATION & PROTOTYPING SERVICES FOR THE  
AEROSPACE, AUTOMOTIVE, MARINE, MEDICAL & SPACE INDUSTRIES**





## AWARD WINNING SUPPLIER

### 2X Boeing Supplier of the Year

Woodland Trade has won Boeing's prestigious Supplier of the Year Award in 2007 and 2017. We have also been nominated in 2014, 2015, 2016 and 2018!

### 14X Boeing Supplier Excellence Award Winner

Woodland Trade has been awarded Boeing's Supplier Excellence Award every year it's been offered.

## TOOL DESIGN AND TOOL FABRICATION SERVICES

### Engineering Services

Tool Design, Material Selection, Reverse Engineering & Manufacturing Process Selection.

### Boeing DPD/MBD Approved

Woodland Trade is Boeing DPD/MBD approved tooling shop. We also hold approved Delegation from Boeing for tool inspection.

### Ease of Procurement

Woodland Trade's in-house tool design capabilities allows you to place a single PO for your tool design and tool fabrication needs. This strategy shortens lead-times, lowers risk and provides an increased level of accountability that is unique in the tooling world.

## QUALITY IS ASSURED

### ISO 9001:2015 Certified

Woodland Trade's quality system is ISO certified. We have documented and implemented a complete system of standardized business processes assuring our tools meet your requirements.

### Digital Inspection = Accuracy

Woodland Trade utilizes advanced digital metrology equipment to ensure every tool meets or exceeds your exacting requirements.



## SUPPLY CHAIN MANAGEMENT

Critical to on-time delivery is risk management of our supply chain. Woodland has no less than 3 sources for all our raw materials, hardware and outside processes. We also proactively evaluate new suppliers to mitigate any foreseeable risks. This means your tools will deliver on-time, every time.

## CERTIFICATIONS

- ISO 9001:2015
- ITAR Registered
- ASQ Certified Employees
- Boeing DPD/MBD Certified Tooling Shop
- Boeing Delegated Inspection Facility

## INSPECTION EQUIPMENT

- (3) FARO Quantum S Portable CMM Arm
- FARO VANTAGE Laser Tracker
- FARO LLP (Laser Line Probe)
- FARO 8th Axis (For Scanning 360 Degrees)

## SOFTWARE

- CATIA (Design & Machining)
- ENOVIA
- SurfCAM Traditional
- MasterCAM
- Vericut
- Kubotek Validation Tool
- ANSYS SpaceClaim
- Insight, Simplify3D & Eiger (3D Printing)
- VeriSurf

## SUPPORT EQUIPMENT

- BOSS HP-5598 Laser Engraver
- Despatch Walk-In Curing Oven



## METAL FABRICATION

Woodland Trade's machining capabilities includes the following.

### CNC MILLING MACHINES

| Machine:       | Style:           | Axis:  | Taper: | RPM:   | Travel:  |
|----------------|------------------|--------|--------|--------|--|
| HAAS VF-5 XT   | Vertical Milling | 3 Axis | Cat50  | 7,500  | X= 60.0", Y= 26.0", Z= 25.0"   |
| HAAS VF-4      | Vertical Milling | 3 Axis | Cat40  | 7,500  | X= 50.0", Y= 20.0", Z= 25.0"   |
| (2) HAAS VR-11 | Vertical Milling | 5 Axis | Cat40  | 10,000 | X= 120.0", Y= 40.0", Z= 30.0", A= +/-32 Deg, B= +/-32 Deg                  |
| FPT Stinger    | Gantry           | 5 Axis | HSK63A | 22,000 | X= 68.9", Y= 55.1", Z= 23.6", A= +/-100 Deg, C= Infinitely Continuous      |
| FPT DinoMax    | Gantry           | 5 Axis | HSK63A | 18,000 | X= 157.5", Y= 106.3", Z= 51.2", B= +115/- 97 Deg, C= Infinitely Continuous |

### CNC ROUTERS

| Machine:      | Style: | Axis:  | Travel:                  |
|---------------|--------|--------|--------------------------|
| DMS           | Gantry | 5 Axis | X= 132", Y= 77", Z= 49"  |
| Motion Master | Gantry | 5 Axis | X= 250", Y= 122", Z= 54" |
| DMS           | Gantry | 3 Axis | X= 240", Y= 113", Z= 37" |
| Komo VR-512   | Gantry | 3 Axis | X= 150", Y= 60", Z= 16"  |

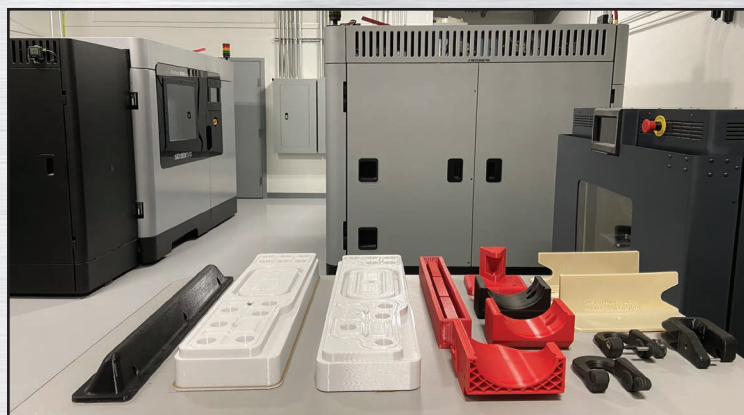


## COMPOSITES FABRICATION

Woodland Trade has decades of high and low temperature composite tooling design & fabrication experience. Composite tooling is used for prototypes & low-medium volume production rates with proven results.

## ADDITIVE MANUFACTURING

3D Printing allows us to make tooling faster, better, cheaper and safer than ever before.



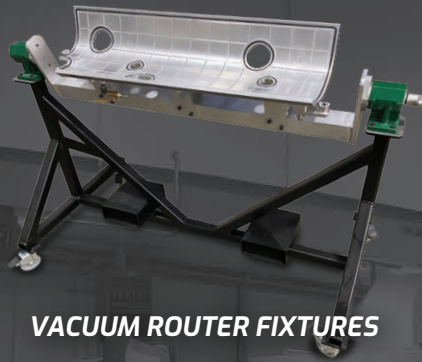
### ADDITIVE MANUFACTURING MACHINES

| Printer:                      | Process:    | Build Envelope:      | Materials:  |
|-------------------------------|-------------|----------------------|---|
| Stratasys Fortus 900MC Gen II | FDM         | 36 x 24 x 36 in      | ABS-ESD7, ABS-M30, ABS-M30i, ASA, FDM Nylon 6, FDM Nylon 12, FDM Nylon 12CF, PC, PC-ABS, PC-ISO, PPSF, ST-130, ULTEM 1010, ULTEM 9085 |
| Stratasys Fortus F900         | FDM         | 36 x 24 x 36 in      | ABS-ESD7, ABS-M30, ABS-M30i, ASA, FDM Nylon 6, FDM Nylon 12, FDM Nylon 12CF, PC, PC-ABS, PC-ISO, PPSF, ST-130, ULTEM 1010, ULTEM 9085 |
| AON-M2                        | FDM         | 18 x 18 x 25 in      | ABS, ASA, Nylon, PC, PEEK, PEKK, PETG, PSU, PPSU, TPC, TPU, ULTEM   |
| Markforged X7                 | FDM and CFF | 13 x 10.5 x 7.75 in  | Onyx (Nylon w/ Chopped Carbon Fiber), Continuous Fibers (Carbon Fiber, Fiberglass, HSHT Fiberglass, Kevlar)                           |
| Markforged Metal X            | Metal ADAM  | 11.75 x 8.5 x 7.0 in | 17-4 Stainless Steel (Beta), 316L Stainless Steel, Tool Steel (A2 And D2), Inconel 625, Titanium (Ti-6Al-4V)                          |

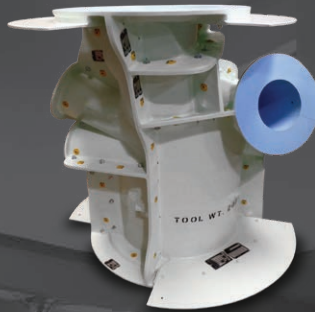




# CONTACT US TODAY FOR A FREE ESTIMATE!



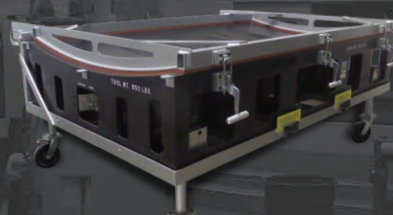
**VACUUM ROUTER FIXTURES**



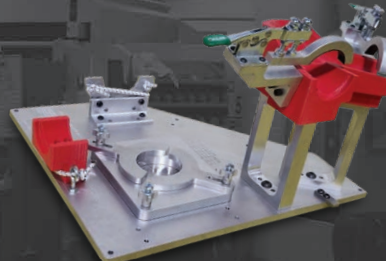
**SLOSH MOLDS**



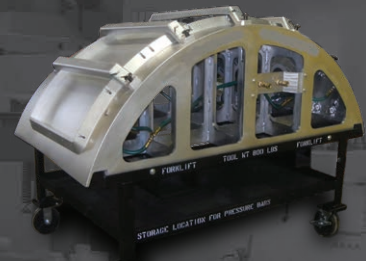
**PROTECTIVE EQUIPMENT**



**VACUUM FORMING FIXTURES**



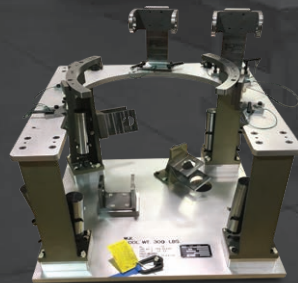
**SAW FIXTURES**



**BONDING JIGS**



**DRILL JIGS**



**WELD JIGS**



**ROTOMOLDS**



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