



WOODLAND TRADE CO.

TOOL DESIGN & FABRICATION

Capabilities Quick Reference Guide

Certifications and Awards

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

Boeing Supplier of the Year (2007 and 2017), Nominated (2015, 2016 & 2018)
12X Boeing Performance Excellence Award (2007-2018)



Software

Catia V5-6 R2019
Enovia V5-6 R2019
SurfCAM Traditional 2016 R2
MasterCAM 2019
Vericut V8.2
Kubotek Validation Tool 2017
VeriSurf 9 (MasterCAM Background)
ANSYS SpaceClaim 2017
Insight, Control Center & Eiger (3D Printing)



Inspection Equipment

(2) FARO EDGE Portable CMM Arm
Working Volume: Up to 8 ft. (spherical)
Single Point Repeatability: 0.0009 (0.022mm)
FARO Quantum S Portable CMM Arm
Working Volume: Up to 3 ft. (spherical)
Precision: Up to .0005 (0.012mm)
FARO VANTAGE Laser Tracker with Retro Probes
Working Volume: 525 ft. (spherical)
Accuracy: Up to 0.0006 in. (0.015mm)
FARO LLP (Laser Line Probe)
Accuracy- $\pm 25\mu\text{m}$ ($\pm 0,001\text{in}$)
Scan rate- 280 frames/second, 280fps x 2,000 points/line = 560,000 points/sec





WOODLAND TRADE CO.

TOOL DESIGN & FABRICATION

Capabilities Quick Reference Guide

Additive Manufacturing

Stratasys Fortus 900mc Gen II and Fortus F900

FDM (Fused Deposition Modeling)

Build Envelope (Max): 36 x 24 x 36 in.

Materials: ABS-ESD7, ABS-M30, ABS-M30i, Antero 800NA, ASA, FDM Nylon 6, FDM Nylon 12, FDM Nylon 12CF, PC, PC-ABS, PC-ISO, PPSF, ST-130, ULTEM 1010, ULTEM 9085



Markforged X7

FDM and CFF (Continuous Filament Fabrication)

Build Envelope: 13 x 10.5 x 7.75 in.

Materials: Onyx (Nylon w/ chopped carbon fiber), Continuous Fibers (carbon fiber, fiberglass, HSHF fiberglass, Kevlar)



Markforged Metal X

Metal ADAM (Atomic Diffusion Additive Manufacturing)

Build Envelope: 11.75 x 8.5 x 7.0 in.

Materials: 17-4 stainless steel (Beta: 316L stainless steel, tool steel (A2 and D2), Inconel 625, Titanium (Ti-6Al-4V))

CNC Milling Machines

HAAS VF-4 (Vertical milling machine) 3 axis, Cat40 taper, 7500 RPM

Travel: X= 50.0" Y= 20.0" Z= 25.0"

HAAS VF-5 XT (Vertical milling machine) 3 axis, Cat50 taper, 7500 RPM

Travel: X= 60.0" Y= 26.0" Z= 25.0"

(2) HAAS VR-11 (5 axis) 5 axis dual nutator, Cat40, 10,000RPM

Travel: X= 120.0" Y= 40.0" Z= 30.0" A= +/- 32 Deg B= +/- 32 Deg

FPT Stinger (high speed 5 axis contouring milling machine)

5 axis, HSK63A connection, 22,000 RPM

Travel: X= 68.8976" Y= 55.1181" Z= 23.622" A= +/- 100 Deg

C= Infinitely continuous

FPT DinoMax (Moving bridge gantry style high speed 5 axis contouring milling machine)

5 axis, HSK63A connection, 18,000 RPM

Travel: X= 157.4803" Y= 106.2992" Z= 51.1811" B= +115/- 97 Deg C= Infinitely continuous



CONTACT INFORMATION

Bruce Green
Sr. Sales Manager
T: (253) 476-9985
bruce@woodlandtrade.com

7625 McKinley Ave
Tacoma, WA 98404
www.woodlandtrade.com



WOODLAND TRADE CO.

TOOL DESIGN & FABRICATION

Capabilities Quick Reference Guide

Open Bed Routers

5AXIS DMS (Moving Table)

Travel: X= 60" Y= 120" Z= 48"

5AXIS MOTION MASTER (Large Format Gantry)

Travel: X= 108" Y= 240" Z= 48"

3AXIS DMS (Large Format Gantry)

Travel: X= 96" Y= 240" Z= 30"

3AXIS KOMO VR 512 (Moving Table)

Travel: X= 60" Y= 144" Z= 18"



Laser Engraver

BOSS HP-5598

Travel: X= 60" Y= 120"

150 Watts

Cut and raster engrave both metal & non-metal materials



Oven

Despatch Walk-In Curing Oven

Capacity: 9' WIDE X 16' DEEP X 8' TALL

500-degree Fahrenheit maximum operating temperature

Composites Fabrication

High & Low Temperature Composite Tooling

Assembly

Full Bench and Assembly Area



CONTACT INFORMATION

Bruce Green
Sr. Sales Manager
T: (253) 476-9985
bruce@woodlandtrade.com

7625 McKinley Ave
Tacoma, WA 98404
www.woodlandtrade.com