

Machine List //

Sheet Metal

- High-Tech, precision cutting and forming
- Innovative equipment, newest technology
- Talented, skilled and creative personnel dedicated to building in quality
- The RIGHT process to achieve your needs

Fathom Ithaca // 1920 Slaterville Rd., Ithaca, NY 14850 // 37,000 sq. ft

Blanking and Cutting Services (Prototype and Production)

Laser & Water Jet Equipment

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| 1 | (1) Mitsubishi 4 kW Fiber Laser with 5'x10' bed with pallet changer | Cut speeds up to 1,500" per minute, depending on material and thickness, and a minimum Kerf of .010". Tolerances of +/- .002" to .005" |
| 1 | Amada 6 kW Fiber Laser with 5'x10' bed with pallet changer | Cut speed up to 1,600" per minute, depending on material and thickness and a minimum Kerf of .010". Tolerances of +/- .002" to .005" |
| 1 | OMAX 80X, 5axis Waterjet with 7.5'x 15' x 8"Z bed size | .005" tolerance, automatic taper control, .020" Kerf |

MicroCut™

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| 2 | Precision Waterjet cutting | (0.0004" accuracy) of a variety of materials including Metal, Plastic, Rubber, Glass, Ceramic and Laminates. Kerf sizes of .008", .013" and .020" for precise cutting on a 24" x 36" bed. |
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Photochemical Machining

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| 7 | Etching machines for processing flat metal parts | Process most metals including High Temp, Nickel Silver and Lead |
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Wire EDM

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| 2 | Mitsubishi 5 -axis Submersible CNC Wire EDM | Capable of down to .006" dia. wire |
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Forming, Bending Punching (Prototype and Production)

Precision Forming with Minimum Tool Investment

10	CNC controlled Press Brakes ranging from 16 Ton to 85 Ton	Six axis, 1 micron resolution. All forming & bending tooling is designed & built in-house.
1	BALTEC PWS 640, CNC 30 ton hydraulic dual turret & forming station	.002" resolution
1	Pacific 300 ton CNC press for larger stamped and formed metal parts	3' x 6' bed size

Mid to High Volume Forming / Stamping, Semi Automated

1	Niagara A22, 22 ton OBI press	
1	Verson 150 ton press	For fully automated progressive die manufacturing
1	Seely Slide (™ pending) for Put and Take forming	Up to 1" width and .020" thick materials
3	MultiSlide machines for Put and Take forming	Utilizing pre-blanked material

High Volume Forming, Fully Automated FourSlide / MultiSlide Machining

6	Horizontal & Vertical FourSlide / MultiSlide Machines, with automatic feed of material for stamping and forming of small gage parts	Up to 2.5" W x 7.5" L x .050" thick material. All custom design and manufacture of tooling is done in-house
1	35 Ton Bliss crank press	Including progressive die forming

Various Pem inserters, riveting and hardware installation equipment

Timesaver surface finishers and assorted polishing & deburr, hand finishing tools and sand blasting

Machine Shop / Tool Room (Post Machining and Custom Tooling)

1	Haas VF-4ss, 4 axis Vertical CNC Milling machine	20 hp, 12000 rpm spindle, 24 ATC. Travel = X 50", Y 20"
3	Haas VF-2, 3 axis Vertical CNC Milling machine	20 hp, 8100 rpm spindle, 20 ATC. Travel = X 40", Y 20"
1	Haas VF-2 SS, 3 axis Vertical CNC Milling machine	20 hp, 12,000 rpm spindle, 30 ATC. Travel = X 30", Y 16"
3	Haas TM-2P, 3 axis Vertical CNC Milling machine	6000 rpm spindle, 10 ATC, Travel = X 24" x Y 16"
1	Haas SL10, CNC Lathe	6.5" chuck, 1.75" bar capacity thru spindle Max turn – 10" dia x 16" length
1	Cincinnati Lathe with Acu-Rite control	
2	Bridgeport Milling machines with conversational programming	
Various Drill Presses and Surface Grinding equipment, Cut off saw, etc.		

Welding Services

3	Full time welding stations providing both MIG (Metal Inert Gas) welding and TIG welding, for clean high quality welding of all types of metals	
1	Programmable mechanized pulsed TIG welding machine	Capable of both orbital and linear welding. Handles pipe up to 18" diameter. ASME certified BPV code Sec IX.

Finishing Services

Heat Treating, Plating (all types of materials), Wet and Powdercoat painting, Etching and Part marking

Quality Control & Inspection

CheckMaster CMM. Keyence Image Dimension Measurement System. Starret Optical Comparators. Profilometer. Force-Gage. Leak-check. Microscope. Digital Calipers and full sets of hole & thread gages

Software

Prototype Life-Cycle Management Software: Custom in-house software for customer quote creation, order processing, project management, custom tooling requirements, scheduling, order tracking, change order, outside sourcing, QC and schedule shipping.

CAD software including: PRO-E, AutoCAD, SolidWorks, Metalsoft, MasterCAM, etc.

Customer CAD input including native CAD files, DXF, STEP, STL, IGES, DWG, Parasolids and PDF.

Fathom Denver // 7770 Washington Street, Denver, CO 80229 // 87,000 sq. ft

Qty	Manufacturer	Model	Description
1	AMADA	CAD / CAM Network	Network consisting of 4 work stations, 2 file servers for DNC, 2D, Cad and Cam with 3D unfold, capable of importing IGES, DXF, and CADL files.
8	SolidWorks 2021	CAD Software Package	Cad package including 3D modeling and sheet metal design.
1	AMADA	Fabrivation	48x48 3d Laser non-contact Part Scanning and inspection
1	AMADA	4 Foot	10 Gauge capacity, Precision Swing Beam Shear with 27" power back-Gauge.
1	AMADA	6 Foot M-2045	3/16" capacity, Precision Swing Beam Shear with 40" power back gauge, Pneumatic worksheet support system.
1	FMB	Centaurio	NC controlled automatic metal cutting band saw.
1	AMADA	HFA250W	NC controlled automatic metal cutting band saw.
1	AMADA	EMK3510 M2	58 Station Twin AC Servo Driven CNC punch press, 30 ton capacity, 48" x 98" blank size with auto index and equipped with MP2512C1 handling automation.
1	AMADA	EMK3612 M2	58 Station Twin AC Servo Driven CNC punch press, 30 ton capacity, 60" x 120" blank size with auto index and equipped with ASR510 'handling automation.
1	AMADA	VIPROS 358K II	58 Station High Speed Hydraulic punch press, 30 ton capacity, 50" x 80" blank size with 4 auto index stations and brush table equipped with 48" x 96" load/unload system.
1	AMADA	VIPROS 358K	58 Station High Speed Hydraulic punch press, 30 ton 30 ton capacity, 50" x 80" blank size with 4 auto index stations and brush table
1	AMADA	PEGA 357	58 Station Turret, CNC punch press, 30 ton capacity, 50" x 70" blank size with auto index
1	AMADA	LCG 3015 AJ Laser	6000W Fiber laser, 60" x 120" blank size, Includes AMSCL 10 shelf material handling automation
1	AMADA	ENSIS Laser	2000W Fiber Laser, 60" x 120" blank size,
1	AMADA	FOL-AJ Fiber Laser	4000W Fiber Laser, 60" x 120" blank size, with high speed dynamic piercing. Includes ASLUL 6 shelf material handling automation.
1	AMADA	LC 3015 F1 NI Laser	4000W CO2 Laser, 60" x 120" blank size, with high speed dynamic piercing. Includes ASF 3015 F1 6 shelf material handling automation
1	AMADA	FO-NT 3015 Laser	4000W Solid State RF excited Laser, 60" x 120" blank size, with high speed dynamic piercing.

1	AMADA	SP-30	Programmable triple track single action hydraulic punch.
1	AMADA	8 x 8	10 Gauge hydraulic precision notcher.
1	AMADA	FBD 3512	35 Ton Fine Alpha Bender with 3 axis programmable back gauge and DNC
1	AMADA	FBD 5020	55 Ton Fine Alpha Bender with 3 axis programmable back gauge and DNC
1	AMADA	RG50	50 Ton Fine Alpha Bender with 3 axis programmable back gauge and DNC
1	AMADA	RG80	80 Ton Fine Alpha Bender with 3 axis programmable back gauge and DNC
1	AMADA	HFT130-4s	130 ton, 12 foot hydraulic down acting press brake with CD 2002 programmable controller and back gauge.
2	AMADA	HDS 8025	88 Ton 8 Foot Servo/Hydraulic Press brake with 5 Axis Back gauge.
3	AMADA	HG 1003 W/ ATC	143 Ton 10 foot Dual Servo Drive Press brake with 6 Axis Back gauge and AMNC 3i Control equipped with Automatic Tool Changer.
1	AMADA	HG 1303	143 Ton 10 foot Dual Servo Drive Press brake with 6 Axis Back gauge and AMNC 3i Control
2	AMADA	HDS-1303	143 ton, 10 foot Servo/Hydraulic 5 axis press brake with AMNC-PC Control
1	DIACRO	4 Foot Press Brake	17 Ton Press Brake.
4	MILLER	400 AMP	Dynasty 400 TIG
3	MILLER	350 AMP	350 MIG alumafeed with push pull gun
3	Miller	255 AMP	Single phase MIG
1	MILLER	300 AMP	Syncrowave 300 AC/DC, GTA Power source with SP2
6	MILLER	250 AMP	Syncrowave 250 AC/DC, GTA Power source with SP2
1	MILLER	250 AMP	Wire-Feed DC GMA Power Source.
2	Thermal Arc	185 AMP	Thermal Arc
1	HOBART	200 AMP	Beta Mug II AC/DC.
1	HYPERTHERM	MAX 42	Plasma Cutter.
1	Amada	ID40	3 phase spot welder
1	H & H	75 KVA, Single Phase	36" throat rocker spot welder, programmable computer controlled.
1	DETROIT	PT-4000	Tensile Tester.
1	Clausing	Colchester 13"	Lathe
2	BRIDGEPORT	YC 1/2 VA	Mill with DRO Control
2	G&P	GMP11C6158-5	6" X 158" 5HP Stroke Sander
2	G&P	GMPC6264-7	6" x 264" 7HP Stroke Sander.
1	LISSMAC	SBM-L-1500-G1S2	Deburring Machine
1	TIMESAVER	Series 2200	37" dry surface sander with wet dust collector

3	HAEGER	824	Hardware installation for top and bottom feed nuts, studs and standoff's, including misc. specialty fasteners
2	HAEGER	824 Window Touch 3	Hardware installation for top and bottom feed nuts, studs and standoff's, including misc. specialty fasteners. Equipped with Window Touch control supporting Insertion Logic software and Insertion Graphics.
1	HAEGER	618	Hardware installation for top and bottom feed nuts, studs and standoff's, including misc. specialty fasteners
1	SuperMax	H.Q.T.	Mill
7	MMI	4x5x5	Tanks for pretreatment of metal parts.
	Applications & Coating Solutions	10' X 18'	Spray Booth Wash System
1	BINKS	PFA 8-8 TLH	Spray booth.
1	BINKS	PFA 12-8 TLH	Spray booth.
3	NORDSON	Vantage FCM	10' Zero Emission Powder coating booth.
1	NORDSON	GX-3600	Electrostatic powder coating system.
3	WAGNER	EPG-Sprint X	Electrostatic powder coating system.
1	Rapid Engineering	10815 Batch Oven	15' Double Entry Batch oven.
1	Rapid Engineering	10820 Batch Oven	20' Double Entry Batch oven.
1	DESPATCH	"S" TYPE	10 Foot single entry industrial oven.
4	MMI	MODEL 100	Screen printing tables.
1	American M&M	19"x30"	Flat bed screen printing machine