

EQUIPMENT CAPABILITIES

CNC Laser Cutting and Edge Rounding/Deburring

(3) 8,000 watt CINCINNATI CL-960, Fiber Laser, 2M x 4M cutting table, dual pallet systems
6,000 watt CINCINNATI CL-460, CO2 Laser, 2M x 4M cutting table, dual pallet system
5,000 watt CINCINNATI CL-850, CO2 Laser, 2M x 4M cutting table, dual pallet system
Max. sheet/plate size: 2 meters (78.74") x 4 meters (157.48") (6.5 ft x 13 ft cutting tables)
Max. laser cutting thickness: 1.000" Carbon, .750" Stainless, .750" Aluminum

CNC Forming, Rolling and Tube Forming

CINCINNATI 350 Ton MaxForm, 14' Bed, Auto-Crown, 48" 6-axis gage, extra stroke, auto-supports
CINCINNATI 350 Ton MaxForm, 14' Bed, Auto-Crown, 48" 5-axis gage, extra stroke
CINCINNATI 230 Ton ProForm, 12' Bed, 24" 5-axis backgage, extra stroke and extra gap
CINCINNATI 90 Ton FMII, 8' Bed, 24" backgage, extra stroke
CINCINNATI 90 Ton CBII, 10' Bed, 24" backgage
CINCINNATI 90 Ton X Form, 8' Bed, 14" stroke, 18" throat, 24" 5-axis backgage
3" ID x 48" Roll Form (14 GA and lighter steel)
LEMAS Roller– 4 rolls with cone attachment, 3/8" steel max. x 48" length
BAILEIGH RDB-350-TS, Rotary Draw Bender with 10 ft table, 2.5" Schedule 40 Pipe capacity

Welding and Fabrication

IPG Laser WELD XR, laser welding system for aluminum, carbon and stainless
Cooper Welding Cobot (Lincoln Power Wave with a 74" range Fanuc arm)
MIG (GMAW) welding capability for stainless steel and mild steel
TIG (GTAW) welding capability for aluminum, stainless steel, mild steel and exotics
Spot (RSW), Stud (SW) and Brazing (TB) capability for stainless steel and mild steel among others
PEMserter Series 4 press for PEMs (2), Flex-Arm tapping devices (2), pop riveting, rivnuts
GEKA two-station Iron Worker
HEM Auto-Saw – miter cut & straight cut structural in small lot to production volumes
OTC Robotic Welding A&B Cell, large arm, 7 ft head-stock/tail-stock and 3 ft rotary tilting table
Vibratory deburring machines (2 machines), Glass beading finishing machine
LISSMAC SBM-L1500 G1S2 double-sided grinding, sanding, edge rounding machine

CNC Machining

(2) HAAS VF-4SS Vertical Machining Centers- 12,500 rpm spindle, axis travels 50" x 20" x 25", rigid tapping, 20 pocket tool changer. Plus a full-service manual machining cell

Customer Service via Integrated ERP and Quality Inspection equipment, Truck Fleet

80,000 sq ft with Skilled team of customer-focused sales, production & engineering professionals
ERP system routing your job correctly and on-time with the ability to get quick status updates
3-D Solid modeling/engineering software – Solid Edge, Solid Works, Inventor, AutoCAD (2-D)
VIRTEK laser scanning machine (retro-engineering capability), 4 ft reach ROMER CMM arm
Seven (7) Delivery Trucks: pickup, van, flat beds, box trucks, Semi tractor/Conestoga trailer

Other Seamless Value-Added Services from Anodizing to Zinc plating

All types of blasting/painting/plating/heat treating, tube laser cutting and more
We stock most common metals, offer HERO time, KANBAN, stocking and JIT delivery

Steel Metal Gauge	Thickness in Inches
24	0.0250
22	0.0313
20	0.0375
18	0.0500
16	0.0625
14	0.0781
12	0.1094
11	0.0125
10	0.1406
7	0.1793
Steel Plate	
3/16	0.1875
1/4	0.2500
5/16	0.3125
3/8	0.3750
7/16	0.4375
1/2	0.5000
9/16	0.5625
5/8	0.6250
11/16	0.6875
3/4	0.7500
13/16	0.8125
7/8	0.8750
15/16	0.9375
1	1.0000

Standard Tapped Hole Sizes		
Screw Size	Drill Size	Decimal Eq.
6-32	32	0.1160
8-32	27	0.1440
10-24	20	0.1610
10-32	18	0.1695
12-24	12	0.1890
12-28	10	0.1935
12-32	9	0.1960
1/4-20	7/32	0.2188
1/4-28	1	0.2280
5/16-18	J	0.2770
5/16-24	9/32	0.2812
3/8-16	Q	0.3320
3/8-24	S	0.3480
7/16-14	25/64	0.3906
7/16-20	13/32	0.4062
7/16-28	Z	0.4130
1/2-13	29/64	0.4531
1/2-20	15/32	0.4688
9/16-12	33/64	0.5156
5/8-11	17/32	0.5135
3/4-10	11/16	0.6273
7/8-9	51/64	0.7969
1-8	59/64	0.8750
Metric Tapped Hole Sizes		
Screw Size	Drill Size	Decimal Eq.
M2 x 0.4	#52	0.0630
M3 x 0.5	#39	0.0995
M4 x 0.7	#29	0.1360
M6 x 1	#8	0.1990
M8 x 1	J	0.2770
M10 x 1.5	K	0.3390
M12 x 1.75	13/32	0.4060



Founded in 1999

2-D CAD options:
Flat blank, Flat layout, wire-frame drawings
File types DXF or DWG
3-D modeling options: (include PDFs and DXF or DWG)
Inventor: IDW, IPT or IAM
Solid Edge: PSM, PRT, ASM or DFT
Solid Works: SLDPRC or SLDDRW
STP Files Welcomed.

Carbon Steel Call Outs:
CR- Cold Rolled Steel
HR- Hot Rolled Steel
HRPO- HR Pickled and Oiled Steel
HRAP- HR Annealed, Pickled
Stainless Steel Call Outs:
#2B Mill Finish
#4B Brush Finish
#8 Bright Polished (Mirror-like)

Generic K-Factors	Mild Steel	Aluminum	Stainless
For Forming Metal			
Air Bending			
0 to Material Thickness	0.33	0.33	0.33
Above Thickness to 3x	0.4	0.4	0.4
Greater than 3X Thickness	0.5	0.5	0.5
Bottoming			
0 to Material Thickness	0.33	0.33	0.33
Above Thickness to 3x	0.4	0.4	0.4
Greater than 3X Thickness	0.5	0.5	0.5
*Factors are for rule of thumb, these may vary per part			

Imperial to Metric	
Conversion	1 inch = 25.4 mm
	1 inch = 2.54 cm
	1 foot = 304.8 mm
	1 foot = 30.48 cm
Metric to Imperial	
1 mm = .0393 inches	
1 cm = .3937 inches	
1 m = 39.370 inches	
1 m = 3.28 feet	
Temperature	
°Celsius = °F-32/1.8	

Need a quote? E-mail to sales@cincymetalfab.com