



**ACE METAL CRAFTS**  
company

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WE DO *More!*

**STAINLESS STEEL FABRICATION & MACHINING**

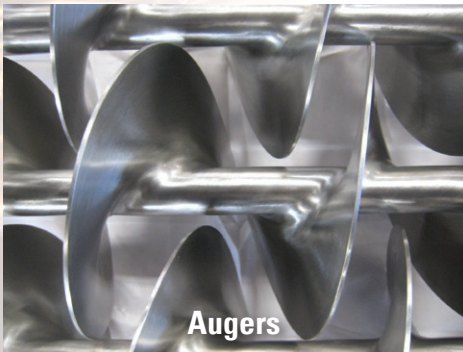


# WE KNOW STAINLESS STEEL

ACE METAL CRAFTS COMPANY provides fabrication, machining and value engineering of stainless steel components to industry-leading OEMs in food and pharmaceutical processing, packaging and environmental.

In our modern 82,000 sq. ft. plant we operate as an extension of YOUR manufacturing capabilities, exhibiting our expertise in a wide variety of stainless steel fabrication applications.

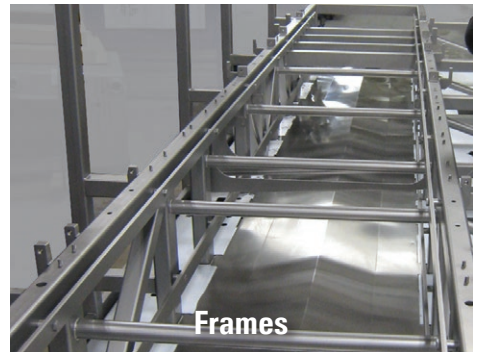
From simple parts, requiring stainless steel laser cutting to the most complex stainless steel fabrications, we apply the same expertise, quality standards and processes to every project.



**Augers**



**Enclosures**



**Frames**



**Tanks & Hoppers**



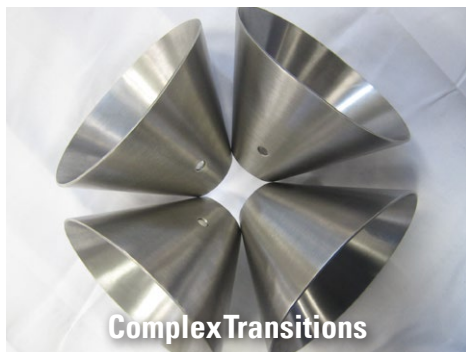
THESE ARE A SAMPLING  
OF THE MANY PROJECTS  
WE PRODUCE



**Machining**



**Assembly**



**Complex Transitions**



**Weldments**



## VALUE ENGINEERING A COLLABORATIVE INVESTMENT IN YOUR SUCCESS

From production on the shop floor to our team of value stream leaders and engineers - ACE's value engineering and process planning have one goal - to support you.

Our staff of engineers will work together with you to understand what it takes to fabricate your project:

- Our commitment to continuous improvement allows us to always be improving our processes and thinking.
- Our goal is to reduce material and labor costs and improve lead times.
- Collaboration always delivers the best results.

### DESIGN FOR MANUFACTURABILITY MUST FOCUS ON YOUR PRIORITIES.

Successful Design for Manufacturability must focus on the characteristics of a project that are most important from your point of view:

- We understand and care about your pricing challenges.
- We work to provide the most economical processes - to reduce your total cost of ownership.
- From tolerances to finishing requirements, we consider every aspect of your project.



# WHY WORK WITH ACE METAL CRAFTS COMPANY?

We've been delivering exceptional results in stainless steel for nearly 60 years.

In 1960, sixteen sheet metal workers launched ACE METAL CRAFTS COMPANY, **inventing techniques that are now standards in sanitary stainless steel fabrication.**

Today, our in-depth fabrication knowledge resides in our processes and people, many with 30+ years of experience, working alongside the next generation of engineers, welders, finishers/polishers and fabricators to make ACE one of the BEST fabricators of stainless steel components.

## EQUIPMENT AND CAPABILITY LIST

### Tube & Structural Processing

- 1- Mazak FabriGear 220 Fiber 4000 watt; 3/4" thru 6" square, 8 5/8" round outside dimensions, lengths up to 26 ft.

#### CAPACITY:

- Material types include:
    - Tube, pipe, square, round, c-channel and angle
    - Mild steel: 1/2" wall
    - Stainless steel: 3/8" wall
  - 6 axis head for bevel and weld prep
  - 6 station automatic tapping up to 1/2-13 or M12
  - Automatic load and unload
- 1- Hydraulic tube bender up to 2-1/2" O.D.
  - 1- Dual belt tube polisher up to 3-1/2" O.D.

### Laser Cutting

- 1- Mitsubishi Fiber 6000 watt: 60" x 120" bed with automation tower

#### CAPACITY:

- Mild steel to 1" thick
- Aluminum to 1/2" thick
- Stainless to 5/8" thick with nitrogen clean cut

### Plate Cutting

- 1- OMax 80X 60,000 PSI, 72" x 144" bed

#### CAPACITY:

- Up to 8" thick material

### Rolling

- 1- Davi Max 3022
- 1- 3" diameter roller; capacity 16ga. x 50"
- 1- 6" diameter roller; capacity 1/4" thick x 2' long

### Forming

- 4- Hydraulic press brakes with European style precision tooling, hydraulic clamping, CNC controlled w/3D capability; 5-axis back gauge; auto crowning
  - 320-ton Bystronic Xpert x 13.4 ft; 29" of open height; dynamic sheet supports to assist lifting for large sheet and plate parts
  - 220-ton x 14' w/2' horn for conical forming
  - 150-ton Bystronic Xpert x 10.2 ft
  - 320-ton Bystronic Xpert x 14 ft x 33" open height
- 1- Electric Press Brake; Coastone C15 48 ton x 63"; 5-axis back gauge

### Secondary Operations

- 2- Variable speed drill press
- 2- Bridgeport mill 24" x 12" x 8"
- 1- Marvel 380A-PC60 fully automatic vertical tilt-frame band saw with programmable NC control; Capacity: 15" x 20"
- 1- Marvel model S2GVP Spartan vertical band saw w/power feed
- 1- Flex Arm tapping station

### Automated Welding

- 1- Orbimat 165 orbital welder 1/4" thru 3" outside dimension
- 1- Weldline Automation seam welder 48" welding length, material thickness up to 7ga.
- 1- Steel Max straight line MIG welding automation

# INVESTING IN TECHNOLOGY FOR GROWTH

Our M1 ERP platform is win-win: providing outstanding value to customers with greater efficiencies to ACE:

- Accepts XML data transfer, providing a real-time exchange between ACE and our customers' systems.
- Supports fully-integrated nesting software - loads parts for programming, which reduces engineering time.
- Reports accurate, real-time metrics.
- Provides TRUE lead times, promise dates and expediting information with capacity-based job scheduling.
- Enables "Just In Time" sequencing - synching jobs so all parts are completed at the same time



## Welding

- 5- IP6 Lightweld 1500
- 12- Miller Max Star 400
- 6- Miller Dynasty 400
- 5- Miller Syncrowave 350LX amp TIG welders
- 11- Miller 350P amp MIG pulse machines
- 4- Fronius Synergic Pulse Multi Control (PCM) Mig
- 2- Pro-weld stud welder
- 2- Stanco 30 KVA spot welders with Entron controls
- 1- Acme 50 KVA spot welding machine
- 40- Weld tables up to 6' x 18'

## Stainless Steel Finishing/Polishing

- 12- Independent dust-controlled grinding & polishing booths, complete with dedicated pneumatic tools to provide polish up to #8 mirror finish
- 1- 25' x 40' glass bead room with dual automated reclaim system – virgin bead for stainless steel
- 1- Uni-hone glass bead unit
- 3- Apex 52" wide-belt sander
- 1- Ramco 36" wide-belt sander
- 1- Kuhlmeier 8' ZBS twin-belt: stroke polisher
- 1- 8' stroke polisher
- 1- Hammond Roto-finish, 7 cubic foot tumbler
- 3- Walter Surfox 202 Chem-Clean unit
- 1-Doucet Dual Belt 48"x 144" stroke sander

## Material Handling

Automated material handling for tanks and cylindrical weldments up to 4000 LBS capacity

### Cranes

- 60' x 250' High Bay with (2) 5Ton Bridge Cranes with (1) 5Ton hoist
- (1) 10Ton Bridge Crane with (2) 5Ton hoists & remote pendant
- (6) 2Ton Bridge Cranes with multiple 1Ton hoists
- (5) 1Ton Bridge Cranes with multiple 1/2Ton hoists
- (3) 1/2Ton Monorails with multiple 1/2Ton hoists

## Mechanical Assembly

A wide range of value-added services are available including:

- Kitting Services- the gathering of components and parts needed for the manufacture of a particular assembly or product, when used in a lean manufacturing environment, can reduce material handling and processing times and improve line side assembly.
- Subassembly
- Inventory Management

## Inspection

- Calipers
- Pin Gauges
- Thread Plug
- Height Gauges
- Keyence WM-Series Wide-Area CMM

## Programming

- ECI M1
- SolidWorks
- Driveworks
- Solid Edge
- Autodesk Inventor
- Bystronics Bysoft
- Sigmatek Sigmanest & Sigmatube

# THE ACE TEAM EXCELS AT FABRICATING STAINLESS STEEL FOR YOUR INDUSTRY



## FOOD PROCESSING AND PACKAGING

Now, more than ever, the safety of our food supply is of greatest importance. At ACE, our team of engineers, welders and polishers are experts at efficiently producing stainless steel components with a wide variety of hygienic finish requirements, including the exacting 3A Sanitary Standards required for the dairy industry.

ACE has in-depth experience working with the many types of stainless steel, offering a variety of tradeoffs in corrosion resistance, magnetism and machinability. Our team of engineers understand and apply the FDA's many regulations regarding the materials used in all machine surfaces that contact food - as well as the lesser standards for non-contact surfaces.



## PHARMACEUTICAL PROCESSING AND PACKAGING

In the pharmaceutical industry, all materials used throughout the production and packaging processes must meet strict industry quality standards and sanitation requirements.

Stainless steel is most commonly used throughout the production process, due to its hygienic properties, corrosion-resistance and easily-cleaned surfaces, whether processing dry powders or liquids.

Whether your application requires highly polished stainless steel in product contact processes or you're looking to provide enhanced aesthetics for non-sanitary processes after capping, the ACE team is committed to helping improve your design for manufacturing, ensuring your products realize the beneficial properties of stainless steel components that offer ease of maintenance for cleaning, sanitizing and resistance to corrosion.



## ENVIRONMENTAL

Stainless steel has become the standard material of construction for many environmental applications, including municipal waste water treatment and management.

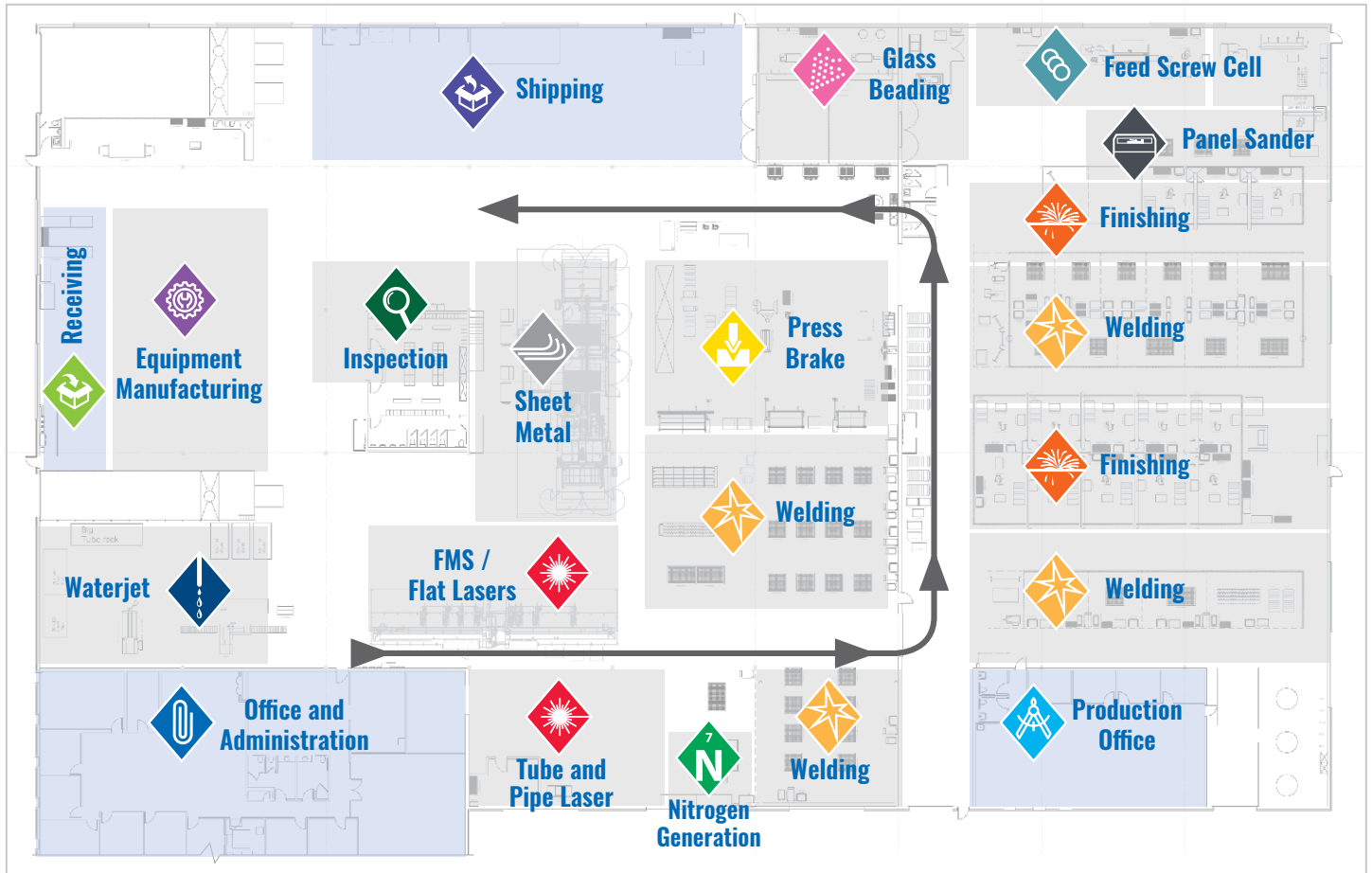
Stainless steel piping is used for aeration, transfer, and gas disposal and in the construction of grates, valves, tanks, screens and other equipment provides a much more durable and longer lasting solution when compared to galvanized or painted carbon steel.

Stainless steel's versatility as a high-strength, durable material which provides ease in forming and welding is of great benefit during equipment assembly, installation, maintenance and repair.



# SEEING IS BELIEVING

Our plant is designed and built to deliver the best possible outcomes: quality product on time and on budget.



## TOTAL FLOOR SPACE

82,715 square feet

Optimal set-up of equipment as jobs flow, from receiving raw materials to laser cutting, to forming, to welding, to finishing, and finally to shipping, which can translate into shorter lead times and faster delivery.

## CLEAR HEIGHT

18-28 feet

## OFFICE & ADMINISTRATION

Production support spaces are designed for greater efficiency.

## SHIPPING AND RECEIVING

Three internal loading docks.

10-ton crane high bay capacity.

Can take raw materials from receiving directly to the machinery for processing – can move stainless sheets from the receiving dock directly to the automated material handling of the flat laser, which can result in shorter set-up time.

## PRODUCTION OFFICE

Purchasing and Engineering are close to the shop floor area.

Collaboration between Engineering and Production.

## FMS/FLAT LASERS

Two Mazak flat lasers cut material up to 1/2"; clean-cut stainless to tolerances of +/- .005" to ensure repeatability. Lasers are directly linked to production CAD systems to provide a seamless flow, from design to production.

## GLASS BEADING

Finishing area can be used either as two separate smaller rooms or as a single room that can handle larger parts. Blasting area is strategically located to ensure minimal travel time between processes.

## NITROGEN GENERATION

Pressure Swing Absorption (PSA) Nitrogen Generating System.

Self-sufficient for generating nitrogen, which is very important to laser cutting of stainless steel.

Supports three lasers.

## PRESS BRAKE

Three-dimensional geometry to exacting specifications. With Windows®-based 3-D software and controllers for exceptional flexibility and accuracy. Capacity from 40 to 350 tons.

## FEED SCREW CELL

A dedicated cell for efficient manufacturing of feed screws.

## TUBE AND PIPE LASER

Complex structural designs and frames require one operation and one set-up, with integrated tapping tools.

Handles up to 6" round or square pipe in shapes such as I-beam, L-shaped, C-shaped, angles and custom shapes; up to 1/2" mild steel and 3/8" stainless steel; up to 26' long stainless steel, aluminum or mild steel.

Automatically loads, feeds, laser cuts and unloads parts.

## WELDING

MIG, TIG, Pulse MIG, orbital, seam and spot welding stations.

## FINISHING

Independent dust-controlled grinding & polishing booths, complete with dedicated pneumatic tools to provide polish up to #8 mirror finish.

## PANEL SANDER

Straight Line Polishing. One Kuhlmeier machine up to 112" long and one Doucet machine up to 83" long. Used for polishing flat blanks, formed panels and flat areas on weldment to your finish requirements.

## EQUIPMENT MANUFACTURING

A comprehensive assembly process with a single part number and direct shipment.

## INSPECTION

All items undergo an inspection before final shipment utilizing a variety of tools, from handheld to advanced imaging.

## WATER JET

An OMAX waterjet capable of cutting material of any thickness. The waterjet boasts a bed size of 72" x 144", capable of handling oversized sheets. The work center is tied to our nesting system to ensure optimal use of material per sheet.

## SHEET METAL

A work center able to provide quick turn around on secondary operations such as tapping, drilling, countersinking, reaming, and rolling.

# WE KNOW STAINLESS STEEL

Technology and training can only get you so far. To excel you need a team of people with the manufacturing skills and experience, combined with the desire to walk and talk our team values on a daily basis. ACE's commitment to our conscious culture - **growing as individuals - winning as a team** - serves to benefit our customers by unleashing everyone's potential.

