

Unique~Repeat



YOUR PIPE & TUBE BENDING SPECIALISTS



CUSTOM PIPE/TUBE BENDING & FABRICATION SERVICES
FIBER OPTIC TUBE LASER SERVICES



ISO 9001:2008 Registered

Innovation



WELCOME TO SHARPE PRODUCTS!

Established in 1990, Sharpe Products began providing custom bending solutions primarily for the architectural handrailing industry. Since then, our growth has allowed us to expand our capabilities to competitively and efficiently meet the custom bending needs of many industries such as the automotive, medical, and furniture industries. Along with the handrailing industry we serve many Original Equipment Manufacturers (OEMs) by meeting their complex bending needs in a timely and cost effective manner.

With continual growth Sharpe has been able to expand our capacity, technology, and machinery giving us a leading edge in the tube bending industry. In addition to our lean all-electric CNC tube bending machinery, we have incorporated fiber optic tube laser services into our fabrication processes and state-of-the-art software technologies that simplify quoting and production processes.

Lean "cells" are set-up throughout our shop that are equipped with the necessary tools and machinery required for each step of any bending project. By utilizing lean practices Sharpe remains dedicated to our customers and delivering quality, American-made products at a competitive price.

PARTNERSHIPS THAT WORK

Our experience with fine tuning the details of your project and the innovative mind set to develop solutions for even the most complex project forms a partnership from concept to completion. The attention to detail that each team member gives to each project ensures that it will progress smoothly and accurately, delivering a quality finished product.



ENGINEERING PROCESSES

Our engineering department uses innovative software that aids in design, quoting, and production processes from customers 3D models. Customer drawings are tested within our software to ensure the part design is feasible and can be produced accurately during bending and laser processes. This makes production smooth and efficient. If alterations are needed to the design, the issues can be corrected while still in this developmental phase and are easily exported back into 3D files for customer approval. When the drawings have final approval they are imported directly back into our bending and laser machinery.

INVENTORY MANAGEMENT PROGRAMS

For customers who have a continuous need for their products, Sharpe Products offers inventory management programs such as kanban, and stock and release programs. These programs provide our customers with shortened lead times for lean operations.



Quality



QUALITY ASSURANCE & PROCESS VERIFICATION

Before your product is even made, Sharpe Products starts with a plan for your project to maintain quality from start to finish. Quality inspection processes are in place for every type of quality level needed. From 100% fixturing on the BluCo to detailed reporting from the Tube Inspect and 3D laser. This gives our customers confidence of a smooth development process in the making of their product.

ISO Certified

Along with our inspection technology Sharpe Products is also ISO 9001:2008 Registered. By having these quality systems in place the needs of our customers are confidently met. It is our goal to continually improve the effectiveness of our quality management system to consistently increase your satisfaction.

Tube Inspect S

The Tube Inspect S is specifically designed for the tube bending industry. It inspects parts in seconds with the click of the mouse and sends corrections back to the bender if needed. This results in shortened set-up times and more accurate set-up of parts. Detailed reports can also be made from the data taken from the part inspection. The Tube Inspect S also has the capability of reverse engineering from existing parts or prototypes.



BluCo Table

Sharpe utilizes its precision machined BluCo Table to quickly and easily setup go/no-go inspection gages providing a low-cost solution to having 100% inspection during production.

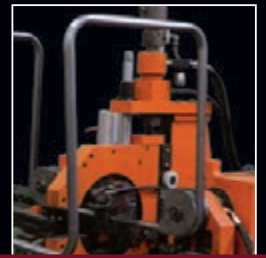
CMM Inspection Arm & 3D Laser Scanner

The CMM inspection arm generates precise measurements, produces detailed reports, and has the ability to reverse engineer from existing parts or prototypes. With these features assisting us, we can deliver you quality parts.

A state-of-the-art 3D laser scanner not only inspects parts already in production, but also has the ability to scan any bent part and generate real time XYZs and bending data output which is then made into an IGES file. These coordinates can then be calculated and converted into bending data for the bending machines. This scanner is perfect when prints are needed for an existing part and the original print is not available.



Progressive



CUSTOM BENDING CAPABILITIES & SERVICES

State-of-the-Art Tube Bending Machinery

Unique to repeat, Sharpe Products has the capabilities to meet your tube bending needs. Our facility is equipped to bend tube and pipe from 1/4" O.D. to 6" O.D. We have a total of 11 tube benders, 8 of which are CNC benders and 3 that are NC benders. Within our CNC benders we have 6 multi-radius CNC machines that also have additional tube generation capabilities for large radii, and 1 twin head compression bender. Sharpe continues to be in the forefront of tube bending technology with having 5 "Lean and Green" all-electric CNC benders and 1 semi-electric bender.

Tube Bending Machinery Capabilities

- **UNISON 50mm, 76mm, 130mm, & LANG 90mm ALL-ELECTRIC CNC BENDERS:** All-electric benders have unique capabilities such as high accuracy and repeatability, resulting in high quality parts, reduced set-up times, and reduced scrap. The combination of these three all-electric benders provides the capability to bend pipe and tube up to 5" O.D. These machines include multi-radius stacking and rolling, and hole punching capabilities. By using all-electric benders we are able to deliver our customers quality American-made products in an even more cost effective and time efficient way.
- **BLM E-TURN BENDER:** This all electric bender can bend up to 1-1/4" O.D. In addition to the many advantages of an all electric machine, the E-Turn has the widest flexibility because of its in-process right and left bending with fixed and variable radius. It also has increased feasibility of more complex structures.

Tube Bending Machinery Capabilities (cont'd)

- **1-1/4" O.D. NISSIN 3D BENDER:** The Nissin bender uses single die technology that allows flexibility in part design, unmatched by traditional forms of bending, the Nissin 3D bender is capable of creating multi-radii bends without additional tooling and little to no distance between bends. Other advantages of this technology is tube roundness and thickness are maintained as it passes through the die, and the ability to produce angles greater than 180°.

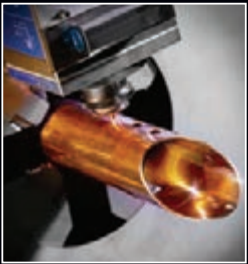
- **CNC TWIN HEAD COMPRESSION BENDER:** The CNC twin head compression bender can bend up to 1-1/2" O.D. This bender forms two bends simultaneously, and is ideal for high speed manufacturing of symmetrical shapes. Handles, furniture, and frames of many varieties are typical applications for this type of bending.

Tooling

We offer a very large inventory of tooling with over 600 bending dies. This allows our customers to save on tooling costs. In addition to our already furnished inventory, we also have a tool and die design department, ready to meet any of your custom die needs. The tool and die department can build your die in a cost efficient manner with shortened lead times.



Technology



FIBER OPTIC TUBE LASER SERVICES

Our state-of-the-art 3,000 watt BLM Fiber Optic Tube Laser has many advantages over traditional CO² tube lasers with its unique cutting capabilities and its increased production speed. With the addition of the fiber optic tube laser to our already lean CNC all-electric bending machines, we can take traditional and costly fabrication services and process them in a much more time efficient and cost effective way. Saving you time and money on your custom projects.

Fiber Optic Tube Laser Capacity

This tube laser can handle pipe and tube up to 6" O.D.

Fiber Optic Tube Laser Material Capabilities

With its unique ability to process highly reflective materials the fiber optic tube laser not only cuts the traditional materials such as steel and stainless steel, it can also cut aluminum*, copper, brass, bronze, and galvanized pipe.

**Aluminum up to 3/8" can be cut but does have some limitations due to outside diameter dimensions. Please call for more information on these restrictions.*



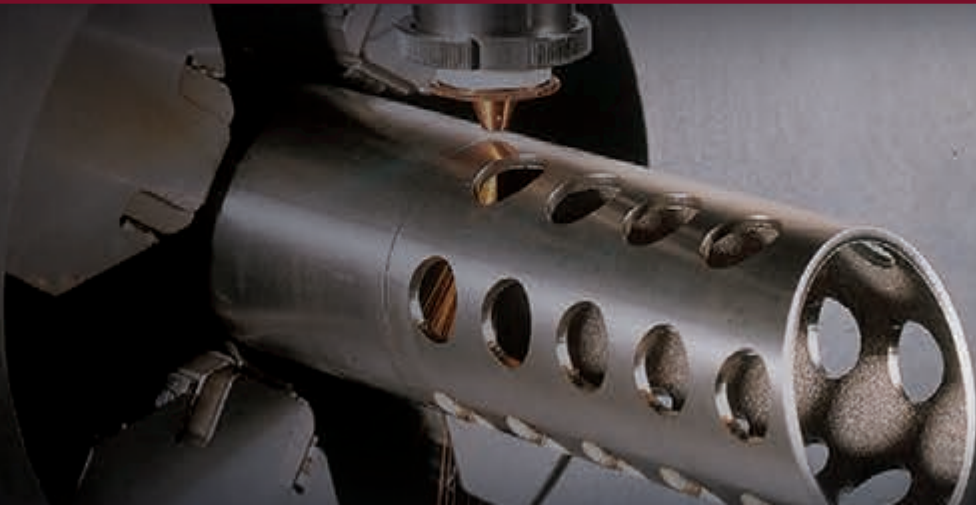
CUSTOM PIPE & TUBE FABRICATION SERVICES

To help complete your project Sharpe also offers the following value-added custom tube fabrication services:

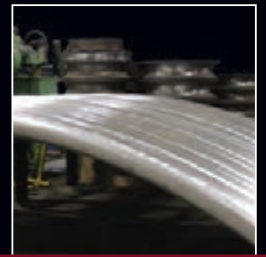
- High Speed Cutting
- End Forming: Reducing, Expanding, Flaring, Swaging, Beading, and Threading
- Fabrication: Notching, Punching, Welding, Coping, and Drilling
- Finishing: Anodizing, Polishing, and Powder Coating

Tube End-Forming Capabilities

- **RAM 70:** Our RAM-70 end-former can handle tube sizes from 1/2" O.D. up to 7" O.D. In addition to making end-forms this CNC machine can put multiple end-forms on one piece of tubing by being able to hit the same tube up to 6 times thus making intricate end-forms including marmon beads.
- **TSM-3.5 DOUBLE HEAD TUBE SIZING MACHINE:** For smaller pipe and tube our TSM-3.5 end-former can expand or reduce pipe and tube from 1" O.D. up to 3.5" O.D. and can handle wall thicknesses up to .095".



Experience



CUSTOM BENDING MADE EASY

Sharpe Products custom bending and fabrication services offer an effortless solution for your bent product needs. The key factors to this effortless solution are experience, resources, and customer service. Our teams experience and know-how in working with many types of materials in a variety of shapes and sizes, enables us to give you exactly what you expect.

THE SHARPE TEAM IS HERE FOR YOU

Call us at **800-879-4418** or e-mail **bending@sharpeproducts.com** for more information on our custom pipe/tube bending services or to request a quote. If you are sending us a print of your part, please send it one of the following formats: .PDF, .STP, .IGS, .DWG, or .DXF.





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