

Unique~Repeat



**SHARPE
PRODUCTS**

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 streamline the quoting and production processes.

It is our vision to continually add to our state-of-the-art tube bending and fabrication technology to stay in the forefront of the industry so we can provide our customers with the highest quality pipe and tube products.



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 review. 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

In alignment with our ISO 9001:2008 Certified Quality Management System, a plan is developed for your project prior to production 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 scanner. This gives our customers confidence of a smooth product development process. It is our goal to continually improve the effectiveness of our quality management system to consistently increase your satisfaction.

CMM Inspection Arm & 3D Laser Scanner

This ultimate combination in inspection equipment inspects a bent or laser cut part, creates an .IGES file and then compares it to the nominal .IGES file. From this, necessary bender corrections and detailed reports are automatically generated. This process is an integral part of our streamlined set-ups and results in reduced overall part costs for our customer.



BluCo Table

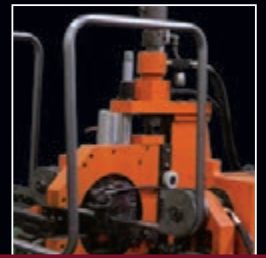
Sharpe utilizes its precision machined BluCo Table to quickly and easily setup go/no-go inspection gages providing a low-cost solution to having 100% inspection during production.

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 more accurate and efficient set-ups. 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.



Progressive



CUSTOM BENDING CAPABILITIES & SERVICES

State-of-the-Art Tube Bending Machinery

Unique or 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 four 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. This bender is capable of creating multi-radii bends without additional tooling and little to no distance between bends. Other advantages of this technology are tube roundness and thickness is maintained as it passes through the die, and the ability to produce angles greater than 180°.

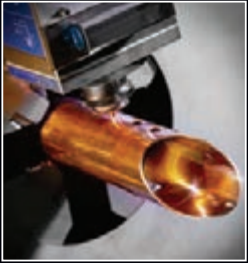
- **CNC TWIN HEAD COMPRESSION BENDER:** The CNC twin head compression bender can bend pipe or tube up to 1-1/2" O.D. This bender forms two bends simultaneously, and is ideal for high speed manufacturing of symmetrical shapes. Handles, furniture, and frames of many varieties are typical applications for 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 unique cutting capabilities and increased production speed versus traditional CO² tube lasers. With the addition of the fiber optic tube laser to our already lean CNC all-electric bending machines, we can now take traditionally costly fabrication services and complete them in a more lean and efficient manner saving you time and money on your custom projects.

Fiber Optic Tube Laser Capacity

This tube laser can handle 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 also cuts copper, brass, bronze, and galvanized pipe. Aluminum up to 3/8" thick can also be cut.

CUSTOM PIPE & TUBE FABRICATION SERVICES

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

- High Speed Cutting
- Fabrication: Notching, Punching, Welding, Coping, and Drilling
- Finishing: Anodizing, Polishing, and Powder Coating

CUSTOM PIPE & TUBE FABRICATION SERVICES (cont'd)



Pipe & Tube End-Forming Capabilities

- **TSM-3.5 DOUBLE HEAD END-FORMER:** For smaller pipe and tube this end-former expands & reduces pipe and tube using segmented tooling. The TSM can handle pipe and tube from 1" O.D. up to 3.5" O.D. and wall thicknesses up to .095".
- **ADDISON 3" O.D. & RAM-70 7" O.D. END-FORMERS:** Both of these machines are ram tube end-formers. The RAM-70 is a unique 6-head end-former that produces end-forms requiring multiple operations to be completed in one cycle, greatly reducing process and part handling time resulting in reduced labor costs for customers. Combined capabilities of these machines include beading (including marmon beading), expanding, reducing, flaring, swaging, threading, tube mitering, trimming, punching, and piercing.
- **PROTO-1 RFM 6" O.D. ROTARY DUAL HEAD END-FORMER:** Capabilities of this dual head rotary end-forming machine are rotary flaring, beading, trimming, and cut-off.
- **6" TUBE EXPANDER:** This machine uses segmented tooling to expand and reduce pipe or tube from 3" O.D. up to 6" O.D.



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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