

PRODUCT HIGHLIGHTS

Bending Steel Products and Listing

A1 ROLL

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A-1 Roll is a worldwide leader in supplying rolled structural shapes. A-1 Roll Company specializes in putting radii in angles, bars, beams, channels, rails, pipes, tubes, aluminum extrusions, copper, brass and conveyor curves. Our work is on display at auto shows around the world. Many conveyor lines have our curves on them. From buildings to bridges, conveyors to train tracks, auto show displays to skate parks, you will see our work. In 2000, with demand increasing for larger structural shapes we decided to build a new 25,000-sq.-ft building and ordered a larger machine. Our new machine allows us to bend 30" beams, 26" channels, 3" x 12" bars, 175# rails, 8" x 8" x 1" angles, 8" pipe, and large tubes.

Family owned and operated since 1980, A-1 Roll has become an industrial leader in rolling structural steel and provides its customers with quality products and services, and offers quick turnaround time. With high-quality services, we look forward to your business.

ADVANCED BENDING TECHNOLOGIES INC. (FORMERLY VAN INGEN SERVICES)

27372 Gloucester Way
Langley, BC V4W 4A1 Canada
Ph: 800.563.BEND
Fax: 888.563.BEND
sales@bending.net
www.bending.net

Why compromise? Let Advanced Bending Technologies (formerly Van Ingen) save you time and money by bending exactly what you need to the highest possible AESS quality. Don't assume it can't be done until you talk to us!

Advanced is a leading specialist since 1982 in low-deformation and high-precision bending, rolling and spiraling of beams, channel, pipes and tube. Their new, larger plant doubles capacity and adds a 40" induction bender. They offer solutions tailored to your requirements in a full range of shapes, sizes, capacities and materials. Recent projects include:

- 36" OD x 1 1/4"-wall pipe, bent to multiple radii, for Seattle pedestrian bridge
- New England court house: spiral tube for stair stringers 16 x 4 x 1/2" helical rolled, AESS quality



- East-coast university: 200 tons of wide-flange beams eliminating hundreds of welds beams range from W27 x 146 reverse compound bent easy way to W12 x 65 compound bent hard way as tight as 7' I.R.

ADVANCED FABRICATING MACHINERY

65 Route 125
Kingston, NH 03848
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sales@advancedfab.com
www.advancedfab.com



Advanced Fabricating Machinery provides the North American tube-fabricating industry with cost-effective, high-quality machines and superior service. Specializing in tube, pipe, bar and profiles, AFM offers products for bending, end forming, deburring, loading, unloading and transfer. These machines, manufactured by Ineco, Stierli-Bieger, Transfluid and SOCO, range from entry level to complete production solutions. This diversity enables AFM to closely define a machine that fits both your requirements and your budget.

ALBINA PIPE BENDING CO., INC.

12080 SW Myslony St.
Tualatin, OR 97062
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Since 1939, Albina Pipe Bending has built a powerful reputation in the bending and fabrication industries for producing innovative, quality products that are competitively priced and on time. APB works with all forms of structural steel including: angle, wide flange and I-beams, channels, square and rectangular tubing, and bars. APB supplies products to a wide range of industries including steel fabricators, public works contractors, architectural designers, sculptors, pulp and paper mills, truck manufacturers, and many others. APB produces virtually any metal component that needs to bend or curve. Every piece of bending equipment owned has been engineered and upgraded to perform beyond known industry specifications. APB is a designated Kirk & Blum distributor for dust- and air-handling systems. Component parts are in stock for immediate delivery and quantity discounts are available!

BENDCO

801 Houston Ave.
Pasadena, TX 77502
Ph: 713.473.1557
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bendco@ghg.net
www.bendco.com

Induction Bending: Bendco's B-6—Thru 6" Pipe & Structural. Cojafex Special—Thru 12" Pipe & Structural. Bendco's B-36—Thru 36" Pipe & Structural.
Coiling: Pipe & Tube—Thru 8" Pipe.
Cambering: Bendco's B-760—Wide Flange up to 44" 285# foot. 760-Ton Cambering Machine.
Straightening: 760-Ton Large Profiles and Pipe.
Angle: 10" x 10" Leg In or Out.
Channel: 18" Flange In or Out.
W.F.: 40" W.F., Easy Way. 24" W.F., Hard Way.
Tee: W.T. 18" Stem Out, In, or UP.
Flat Bar: 12" Hard Way. 20" Easy Way.
Tubing/Pipe: 20" Square, Rectangle or Round. Half Pipe.
Rail: 175 lb. Head Out or Head In.
Draw Bending: 10" Pipe.

PRODUCT HIGHLIGHTS

Bending Steel Products and Listing

BENDTEC, INC.

366 Garfield Ave.
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www.bendtec.com



BendTec is a leader in bending and fabrication for projects involving curved architectural and structural members. AISC-Certified for conventional steel building structures, simple steel bridges, complex steel building structures and major steel bridges. Products include roof trusses, parabolic arches, vierendell trusses, long radius bends, light/power poles, signs, bridge arches, park benches and window mullions.

CHICAGO METAL ROLLED PRODUCTS COMPANY

3715 S. Rockwell St.
Chicago, IL 60632
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www.cmrp.com



On the world's largest beam roller, Chicago Metal Rolled Products bends up to 44" x 285# beams both the "easy way" and the "hard way." On one of the world's largest section rolls, the company bends up to 20"-diameter pipe and 20" x 12" tube. And with 51 rolling machines and 95 years of experience, Chicago Metal provides two/three-day delivery of quality, curved structural steel, maintaining a 98% on-time-delivery record for the last five years.

The company also roll-curves sections to extremely tight radiuses with minimum distortion, for example, a W6 x 12# beam rolled the "hard way" to a 2' radius. Lastly, the company regularly bends steel into ellipses; rolls arcs with tangents; does off-axis and multi-axis bending; creates true, helical coils; and manufactures plumb, circular stair stringers.

CLAYTON INDUSTRIES

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Clayton Industries supplies a broad range of industries with a variety of standard and unique services. Their large equipment capacities allow them to roll beams as large as 44", form plates on a 1,000-ton, 40' press brake, and roll plate as thick as 6" x 14'. They also have a full-line machine shop, with large CNC lathes and mills. Employees at Clayton have a wide range of skills and experience, and their devotion to the successful operation of the plant contributes to the efficient production, service and high-quality product their clients have learned to expect.

PRODUCT CASE STUDY

Project:
Train Tube over Illinois
Institute of Technology
McCormick Tribune
Campus Center

STEEL BENDING:
Chicago Metal Rolled Products,
Chicago, IL

A new student center at the Illinois Institute of Technology in Chicago, designed by Dutch architect Rem Koolhaas, was to be linked to Chicago's elevated "E" train system. Koolhaas' solution to train noise was to create a steel-and-concrete tube to encase trains as they pass over the single-story building.

To form the tube, Chicago Metal Rolled Products roll-curved 104,000 lb. of W12 x 58 beams the "hard way" to form a series of half ellipses with radiuses of approximately 12', 24' and 34'. AISC-member fabricator K & K Iron Works of McCook, IL both fabricated and erected the steel. Even though the work was performed in tight quarters, there was no interruption of train service.

"We knew we could easily roll 12" beams for the top of the tunnel where the ellipse has the



Photo courtesy John Stamets

larger radii, but we were especially happy to provide K & K with the extremely tight 12' radius on the sides," said Chicago Metal Rolled Engineer Dan Wendt. "We were helped by the excellent detailing provided by K & K."

K & K praised the roll-curved beams for being distortion-free and for having a profile tolerance of less than 3/8". "The product that we got from Chicago Metal Rolled was almost

perfect—they've always done a great job for us," said K & K Vice President Jerry Kulhanek.

The tube muffles train noise on the campus of the Illinois Institute of Technology. "From the point of view of both sound and vibration, it's working, inside and outside of the building," said IIT Director of External Relations David Baker. "The EI doesn't create noise as it goes by campus any more." ★

PRODUCT HIGHLIGHTS

Bending Steel Products and Listing

COMEQ, INC.

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ROUND O of Sweden produces the broadest range of bending rolls in the world, including the world's largest section bending machines; and COMEQ, Inc. has been the exclusive North American agent since 1970.

Working together with the customer to forge a mutually beneficial partnership, COMEQ and ROUND O have successfully placed section bending machines in virtually every company devoted to the rolling of sections and profiles in North America. These range from the world's largest angle roll, the Model R-15S at Holloway Company, Fort Worth, TX, to the ROUND O Beambenders, the largest section bending machine in the world, currently in use at two U.S. facilities.

ROUND O supplies 22 standard sizes of section bending machines, or angle rolls, ranging from 2" x 2" angle up to the giant R-15S, which can roll up to 24" pipe and 30" beams the hard way! All models are hydraulically operated, and most feature hydraulic guide rolls to insure optimum bending results.

E.G. HELLER'S SON, INC.

18330 Oxnard St.
Tarzana, CA 91356
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Fax: 818.344.8898
sales@hellerson.com
www.hellerson.com

With nearly 90 years of family service, E.G. Heller's Son, Inc. is one of the largest and most experienced importers of metal fabricating equipment in North America. We provide equipment for a wide range of customer needs, from small ornamental and fabricating shops to large manufacturers and construction companies. To meet the needs of our customers, we carry a wide range of equipment from plate and angle rolls to tube, pipe and rebar benders along with a selection of specialty fabricating equipment.

Heller universal ring rolls are great for con-



sistent bending of all sections such as channels, beams, angles, pipes/tubes, square- and round-bar stock, and extruded aluminum shapes. Our AR series of machines are heavy fabricated steel frames machined on CNC machining centers to ensure extreme accuracy and feature: three drive rolls each with an independent hydraulic planetary motor which maximizes torque and eliminates secondary reduction gears, connecting arms, chains, synchronization devices and clutches; two forming rolls to reduce flats are independently operated; double-roll spherical bearings (SKF or equal) for maximum rigidity; tooling is modular and can be configured to roll most standard sections; vertical or horizontal standard.

FACCIN USA, INC.

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faccinusa@aol.com
www.faccin.com



World leaders in the supply of plate-bending rolls, dishing and forming machines, and section-bending and beam-bending machines. 35+ years production experience manufacturing within our own facility. Thousands of installations worldwide.

Q: I've heard that the next AISC Specification will combine the best of ASD and LRFD. Can you tell me more about this "unified" specification? When will it be available?

A: Call 866.ASK.AISC

AISC's Steel Solutions Center is your FREE resource for the answer to this question and many more. For the most up-to-date, complete information on structural steel, call toll free and ask today! Or e-mail us at solutions@aisc.org.



www.aisc.org

Steel
SolutionsCenter
Your connection to
ideas + answers

PRODUCT HIGHLIGHTS

Bending Steel Products and Listing

GREINER INDUSTRIES, INC.

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Greiner Industries, Inc. rolls structural wide-flange beams up to 40" the easy way and 24" the hard way; tubing up to 26" by 16" or 20" square; and pipe up to 20" diameter with their ROUND R-13 structural roll. They also roll structural tees, channel, and angle, as well as square, round and flat bar. Additionally, they can roll A36 carbon steel plate up to 1¹/₄" thick by 144" wide and bend up to 1" by 120" wide.

Greiner Industries specializes in the fabrication of large pipe trusses, wide flange beam trusses, plate girders, heavy structural columns, and base plates. Their 266,000-sq.-ft. facility includes 80'-wide by 400'-long fabrication bays with 85-ton crane capacity and 81,000-sq.-ft. blasting & coatings facility with 100-ton, four-point pick-and-carry crane capacity inside.

Greiner Industries offers cutting, forming, fabrication, welding, machining, blasting, and coating as individual services, or they will handle the complete project.

HODGSON CUSTOM ROLLING INC.

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hodgson@hodgson.on.ca
www.hodgsoncustomrolling.com

One of North America's largest plate rolling, forming, section rolling and fabricating companies. Services include structural section rolling, press-brake forming and hot forming, plate rolling and flattening, and fabricating of various parts and sections. Hodgson can help you solve your problems!

KOTTLER METAL PRODUCTS, INC.

1595 Lost Nation Road
Willoughby, OH 44094
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kottler@apk.net
kottlermetal.com

Family owned and operated for 95 years, the Kottler name has earned the reputation in the marketplace as an industry standard for excellence of quality accurate parts and services. With one of the largest capacities in the Midwest, we are able to draw bend pipe up to 8" I.P.S., as tight as 3-D, and Rotoform to 12" I.P.S.



Our state-of-the-art roll-bending equipment offers our customers an extensive range of forming up to 48" I-beam and channel, hard way/easy way, 20" pipe, and 20" square tube, as well as a multitude of custom structural shapes and sizes. Our custom techniques have allowed us to offer our customers tight-radius tube bends with no distortion. We recently formed a 20"x8"x¹/₂" wall tube easy way to a 26'-8" radius, with less than a ¹/₁₆" distortion. We specialize in multi-radius segments in all shapes and sizes. Our architectural bends are viewed in numerous city skylines, airports, museums, bridges and stadiums throughout North America. We look forward to the opportunity of earning your business.

PRODUCT CASE STUDY

Product: Stewart Beam Rollover



In September 2002, AISC-member fabricator Eastern Bridge, LLC, in Claremont, NH, purchased a

beam rollover system recently developed by Stewart Engineering & Sales Company of Muskegon, MI. This system has an air-powered, 5-ton-capacity drive unit and a 5-ton-capacity idler unit. Both units have a heavy nylon sling in a re-connectable basket configuration. In operation, the slings are positioned by overhead cranes, the beam is lifted, and the operator connects to a shop air supply hose.

Control is from a normally closed air valve with a quick disconnect coupling on a 25' long-coiled air hose connected to the drive unit. The drive unit has a spring-set/air-released brake, allowing precise and controlled positioning of the beam. For shorter beams or beams under 5 tons, the drive unit can be used alone at the

center of the beam. Normally the units are used in tandem because it is faster (the balance point does not have to be found) and it is safer (the beam does not have to be guided).

By disconnecting the air supply, the operator can move a beam, supported by the slings, anywhere in the fabrication bay.

Utilizing an idler allows for the easy and safe rollover of tapered beams and long weldments. Firms using competitive units cannot rotate tapered beams because both slings travel at same speed.

The standard unit is equipped with an air filter, lubricator, nylon coil air supply hose, variable-control air valve and quick-disconnect air supply fitting. Both the driver and idler units have a sling storage device to keep the slings



off the shop floor when not in use. Both the drive and idler units occupy minimal floor space and are portable.

The nylon sling is 4" wide with tough nylon protective-wear layer on both sides. The slings are furnished either endless or re-connectable with a loop and safety hook on the ends.

Steve Crowell, the president of Eastern Bridge, says the Beam Rollover saves handling time and alleviates congestion on the shop floor. "Without the Beam Rollover, you'd have to take a beam to another spot on the shop floor, roll it over, and bring it back to its fabrication spot," he said. "Instead, the you can roll it over in its location, so all you have to do is pick it up a couple of inches. The Rollover also reduces handling marks on the steel as its being produced."

Stewart is also developing an electric unit of 5-ton capacity. It will be used primarily for production operations where the rollover units stay connected to the cranes and are controlled from either the crane pushbutton pendant or radio control.

For more information or to order, contact Stewart Engineering: 231.767.2140, ken@steweng.com, or visit www.steweng.com.

PRODUCT HIGHLIGHTS

Bending Steel Products and Listing

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Kubes Steel Limited

At Kubes Steel Limited, we are Canada's structural and section rolling specialists. Our fleet of seven machines offers capabilities ranging from the manufacture of machined-quality seal rings, to rolling 36" beams on the massive Roundo R13s. We offer personal service; ISO-certified quality assurance and in-house CWB certified fabrication for those customers requiring value added services. Our extensive machining division provides quick turn around for projects requiring specialized tooling. Other services we provide include spiral and plate rolling, custom forming, and shearing and plasma cutting. In-house export expertise and a location 30 minutes from the border at Lewiston NY, assure no-hassle service to our U.S. customers.

MARK IV METAL PRODUCTS, INC.

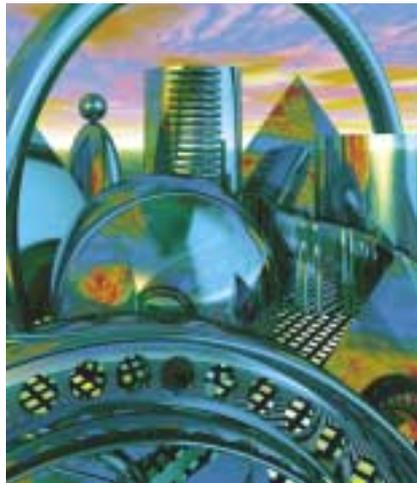
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The West Coast's largest tube bending company, we specialize in tube bending, $\frac{5}{8}$ " OD to 6" OD. Round, square, and rectangular. We have hundreds of dies and over 50 years of experience. Please call for a quote.

MARKS METAL TECHNOLOGY

10300 SE Jennifer
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Marks Metal Technology is an innovative leader in capabilities and methods for the rolling and forming of plate and structural members. Since 1946, MMT has specialized in meeting the complex needs of our customers by providing quality rolling and fabrication services, backed by extensive knowledge of complex geometry and years of practical experience. Under one roof, you will find multiple complementary processes, including structural and plate rolling & forming, Diamond Curve Technology for curving wide-flange beam the hard way of the web, specialty manufacturing, and OEM component manufacturing. MMT fab-



ricates and processes stainless steel, aluminum, carbon steel and other metals. Some of our products include: rolled structural profiles, truss components, circular stairs, cylinders, cones, reducers, transitions, heavy bands, bridge components, and utility hardware & towers. MMT also specializes in Advanced Digital Welding Technologies supporting Narrow Gap MIG and High Energy TIG welding processes.

MAX WEISS CO., INC.

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www.maxweiss.com



Max Weiss Co, Inc. continues its long reputation of service, quality and innovation in rolling, bending and forming of all sections of structural steel, with the addition of new equipment designed to increase capabilities and reduce lead times. Circular, irregular, elliptical and reverse curves are all bent accurately and with minimal distortion to the section.

Experienced estimators service your inquiries promptly and accurately, whether your work is a construction project, simple rolled sections, or piece parts used in an OEM product. In addition to forming and rolling we can supply splitting, layout, trimming, drilling, and weld fabrication operations on all structural sections. Additional services such as hot bending, forging and threading can effectively produce parts for your project or product.

Our skilled craftsmen produce superior

quality and appearance in your finished product. We are well known for formed structural sections that are precise and ideal for exposed architectural applications. When you need prompt attention and service, put our team to work for you.

NJ MCCUTCHEN INC.

123 West Sonora St
Stockton, Ca 95203
Ph: 209.466.9704
Fax: 209.465.7718
www.njminc.com

NJ McCutchen offers custom processing of pressure vessels, metal fabrications, and general machine shop repair and support. Our equipment supports these processes by offering: metal rolling of metals up to W36 beams, plate rolling for widths up to 12' with thickness' up to $\frac{9}{8}$ ", and a 1000-ton press with a 20' bed.

Welding operations are supported by state-of-the-art welding equipment and processes. Plasma and flame cutting on CNC equipment ensures high precision with CAD/CAM generated operations. NJ MCCutchen has on-site atmospheric-controlled, abrasive-blast, and controlled-environment painting and coating facilities.

OAKLEY STEEL PRODUCTS COMPANY

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We are one of the largest, most diversified custom shaping, bending and forming shops in the Midwest. Being able to curve some of the largest structural shapes produced as well as being able to form plates up to 6" thick makes us a "one stop shop" for all of our shaping and forming needs. From large jobs to small ones, Oakley Steel Products can provide the highest quality of products delivered to your door, on time. With our newest machine, it enables us to roll products faster, which means better prices that are passed on to you, our customer.

PRODUCT HIGHLIGHTS

Bending Steel Products and Listing

SHAPED STEEL, INC.

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Shaped Steel, Inc. supplies custom curved structural sections, formed plates and rolled cylinders and cones. Shaped Steel is truly everywhere, servicing the entire United States with its vast distribution network. Shaped Steel stands out by providing excellent customer service as well as quality craftsmanship. With extensive capabilities and state-of-the-art technology, Shaped Steel is experienced in steel fabrication for a variety of industries including: steel construction and erection, tank manufacturing, underground construction—pipe production, mining, farming and agriculture, heavy equipment—OEM, and many more! Shaped Steel is a preferred choice when it comes to curved and formed parts

TULSA TUBE BENDING COMPANY, INC.

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Tulsa Tube Bending is a pipe and tube-bending facility in the United States, with a 44-year history of finding solutions for customers' needs. They have a reputation for quality, dependability and the kind of service that brings over 85% of their business from referrals by satisfied customers. They can ship anywhere in the U.S. and Canada. For added flexibility, they can

quote FOB delivered within the U.S. or FOB Tulsa, OK. Their capabilities included cold-formed bends up to 16" O.D., heat-induction bends up to 28" O.D., and square and rectangular sections up to 20" O.D. Materials that can be bent include carbon steel, stainless steel, aluminum, chrome, nickel, high-strength alloys and many other exotics. Their bends can be found in bridges, airports, shopping malls, skyscrapers, roller coasters and other prominent structures across the country.

VICON FABRICATING CO.

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Vicon's 50' x 4000-ton CNC press brake is one of the largest in the world. Specializing in long, heavy steel forming such items as frame rails, cell towers, conveyor framework and heavy custom structurals.

In-house plasma cutting up to 100' as well as shot-blast and powder-coating services offer customers one-stop shopping. Redesign shorter items into longer stronger profiles to save weight and dollars.

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WhiteFab has built and patented specially designed equipment for cold forming structural shapes into curves. They are able to form shapes to tight radii with very little distortion. With their process, customers can use thinner sections to form tighter radii than with other methods. Some of the sections formed are: structural tubing up to 20" x 12" hard way and easy way; beams up to 24", hard way and easy way; all channels; hard way and easy way; pipe up to 16"; angles, tees, bars and rails. Their plate processing provides: leveling up to 72" wide from coils; shearing up to 1/2" x 20'-0"; forming complex bends on press brakes up to 1000 tons; and plate rolling up to 1/2" x 10'-0".