

# Structural



**Canopies & Roof Trusses**

**Bridges & Stadiums**

**Solar Panel Supports**

**Parking Garages**

**WHERE CAPACITY, ACCURACY AND  
QUALITY MAKES A DIFFERENCE**

- Albina Co., Inc. works with all forms of structural steel (e.g.- angle, wide flange and I-beam, channel, square and rectangular tubing, extrusion, rail and bar), as well as virtually any other ferrous or non-ferrous metals.
- Albina has been proven to be capable of supplying unique, quality products to a wide range of end users including structural steel fabricators, architectural designers, government contractors, public works contractors and many more.
- We can bend to your AESS (Architecturally Exposed Structural Steel) Requirements!



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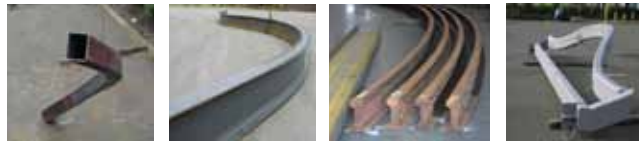
Website: [www.albinaco.com](http://www.albinaco.com)



# We Can Bend Almost Anything the Mills Can Produce

In addition to the most common forms of structural steel, Albina Pipe Bending also bends other miscellaneous material types, like architectural rail cap, railroad iron, round bars, square bars, etc. In addition to standard bend profiles, Albina is able to Spiral / Helix Bend, Compound Bend ( Multiple Plane ), Off-Axis Bend, Elliptical / Parabolic Bend, etc.

## Non-Standard Bend Profiles



### Wide Flange, Channel & Angle

**Wide Flange Easy Way:**  
S3/W4 Through W33 X 241#,  
W36 X 210#, and W40 X 183#

**Wide Flange Hard Way:**  
S3/W4 through W36 X 230#

**Channel Easy Way and Hard Way:** All mill produced sizes

**Angle Leg-In/Leg-Out:** All sizes through 8" X 8" X 1-1/4"



### Tube Steel/HSS

**\*Square:** 16" X 16" X .625"

**\*Rectangular Easy Way:**  
20" X 12" X .625"

**\*Rectangular Hard Way:**  
20" X 12" X .625"

**\*Maximum Mill Produced Size-Bending Capacity is Greater.**



### Pipe/Round HSS

3/16" OD through 28" OD by Roll/Cold Bending Process

6" OD through 28" OD by Hot Bending Process

1/2" OD through 6" Pipe ( Sch80 ) by Rotary Draw/Mandrel Process



### Flat Bar, Tee & Plate

**\*Flat Bar Easy Way:** Any thickness and size through 4" X 22"

**\*Flat Bar Hard Way:** Any thickness and size through 2-1/2" X 16"  
**\*Section is dependant on thickness to width.**

**Tee:** All sizes through 12" Stems (Weight per ft. maximums calculated based on WF origin)

**Plate:** 3/4" Thick X 10' Wide (pre-bend up to 5/8" thick)

## Why You Should Choose Us as Your Preferred Bender

Some degree of distortion will occur as tube steel reacts to the bending process. It is critical to find a bender that can minimize this distortion.

Albina Co., Inc. is the BEST choice!

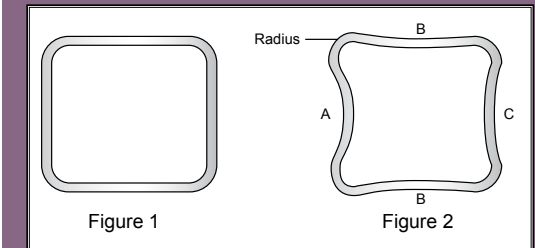


Figure 2 depicts a cross-section, in an intentionally exaggerated visual, how hollow structural steel (tube steel) typically deforms during a roll bending process without internal support. Figure 1 depicts a piece of unbent material. Figure 2 depicts a piece of bent material.

Tube steel reacts to bending processes by collapsing inward as a result of compression across the bend section (B) and the inside face (A) of the material.

Severity of deformation is increased when using thinner wall material and/or bending to tighter radii. Deformation of the tube faces is also dependant on material sizes and direction of rolling (ie. Hard-Way vs. Easy-Way) when bending rectangular tube steel

Face (A) will deform more significantly when bending rectangular material the Easy-Way vs. the Hard-Way. The reverse is true for face (B). Face (C) will always deform the least regardless of bend direction. (In extreme cases, faces (A) and (B) may not only collapse inward, but can result in alternating inward and outward collapsing as large wrinkles throughout the bend section.

**CALL FOR MORE INFORMATION ON OUR CAPABILITIES**