

Induction Bending

We operate three induction bending machines at Angle Ring, that have been designed and built-in house, to offer a controlled bending technique through the application of localised heat and a copper induction coil.

The induction coil heats the circumferential part of the profile to a temperature between 700°C to 1100°C, which allows the section to be moved slowly through the coil whilst the bending force is applied by a fixed radius arm.

Unlike cold bending methods, this hot bending process requires just a single pass through the machine and eliminates strain on the section to produce minimal deformation.

Sections, tube, and hollows can be curved to single or multiple radii, or even to elliptical or 3D shapes.

A large industrial pipe, painted yellow and red, is being bent in a factory setting. The pipe is positioned horizontally, and its end is visible, showing a dark interior. In the background, there are red industrial structures and other pipes.

Types of profile we can bend:

- Universal Beams/Columns
- Tubes & Pipes
- Rectangular & Square Hollow Sections
- Elliptical & Semi-Elliptical Tubes
- P.F.C.

Our largest machines can bend up to these maximum capacities:

- Up to 914mm o/d Tube & up to 650x450x40mm Structural Hollow Section
- Maximum section size subject to agreement

Induction Bending is a suitable process for the following market sectors:

- Architectural & Construction
- Civils
- Defence
- Energy
- Industrial
- Manufacturing
- Offshore