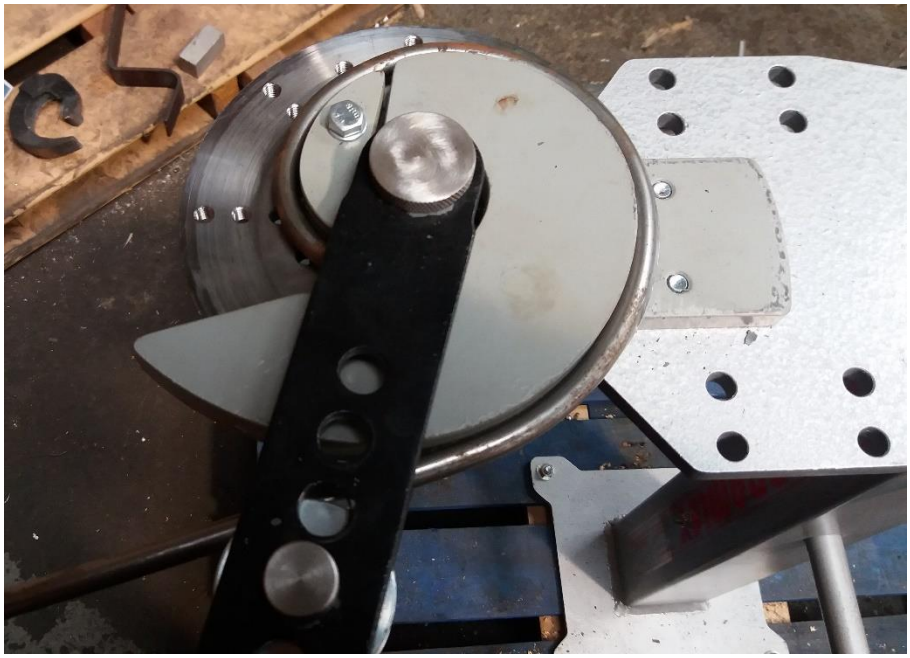
Wrought Iron Bender.

Thank you for purchasing the Bramley Wrought Iron Bender.

This new Bender can bend Scrolls, Eyes, Spirals shapes and complex shapes from Round, Square and flat bar.

Scrolls can be bent from round and square bar up to 3/8inch (10mm) and flat bar up to 1 x 1/4inch (25mm x 6mm).



Complex Bends are achievable in Mild Steel. It will bend up to Dia ½ inch (12mm) Round and Square mild steel Bar with a minimum radius of approx 3/8 inch (10mm) Diameter and 3/8 inch (10mm) Round and Square mild steel Bar to a radius of ¼ inch (7mm)

The Bender will bend 1 x ¼ inch flat mild steel (25 x 6mm) with a ¼ inch (7mm) minimum radius.

The Maximum Bend capacity of this Bender is determined by a moderate amount of effort required with standard handle. Do not extend or fit a longer handle. It is possible to heat the bend area of the material prior to bending to facilitate the bend. Heating should be done off the machine using suitable protection and caution.

This bender will bend in any direction with an infinite amount of rotations.

Here are some examples of what it can do.



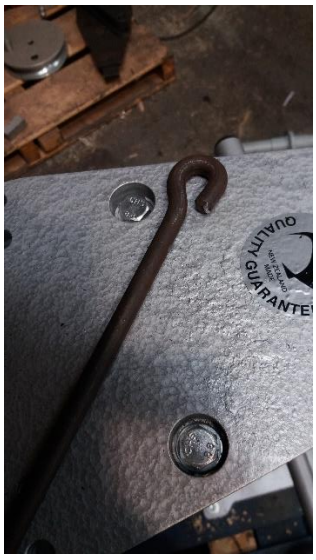


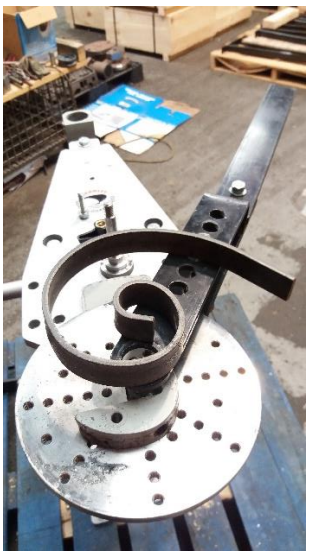


With the ability to bend in any direction any amount of turns enables complex bends to be achieved.

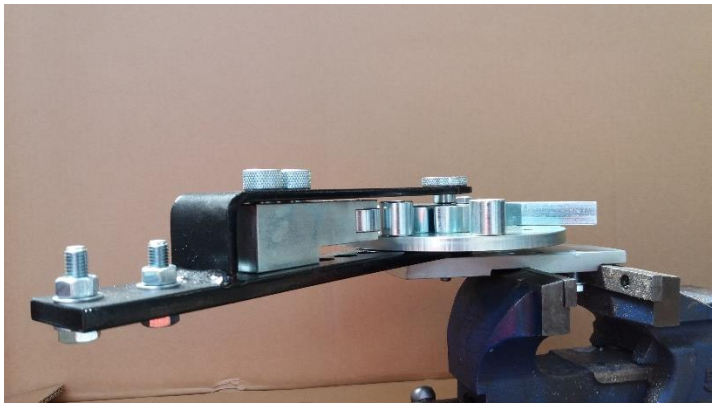
The Tooling plate has 48 holes drilled and tapped on it allowing tooling to be fitted anywhere on Tooling plate.

Your imagination and willingness to experiment are often the only limitations.



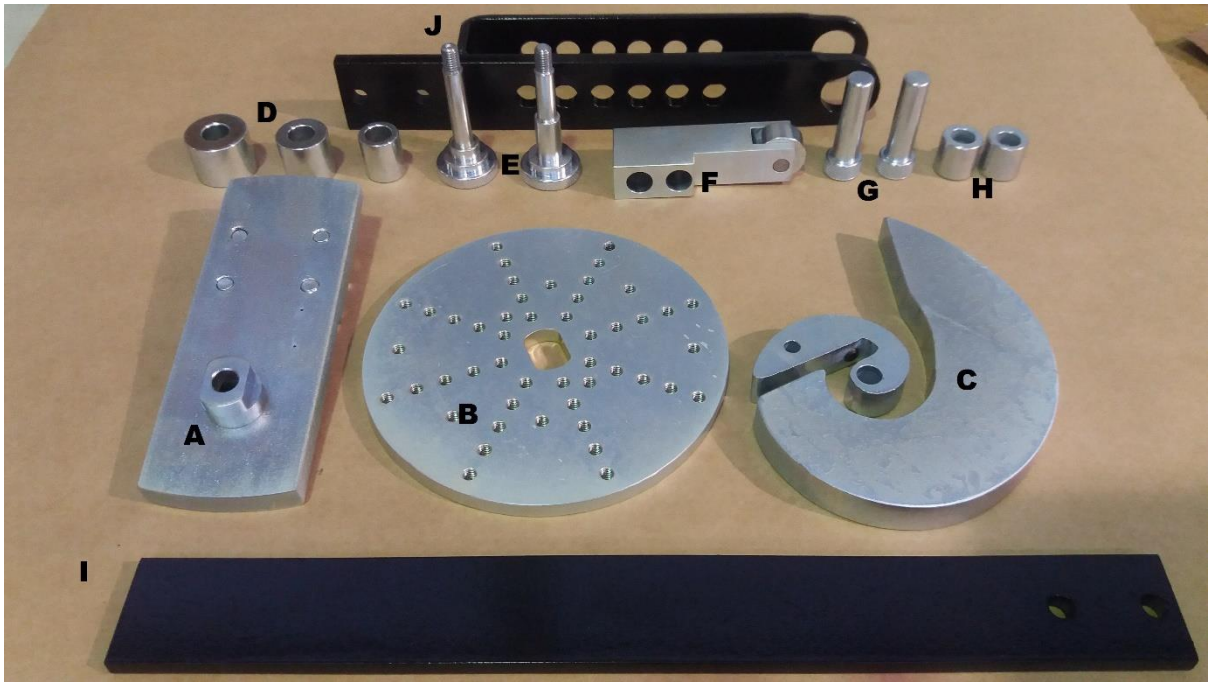



This Bender is an add on attachment to our O64 Bramley Tube Bender or can be used on its own in a vice.



This Bender is ideally suited to be mounted along with our O64 Tube Bender on a stand such as our O65 Tube Bender Stand to make best use of the full Bending Rotation. A suitable stand setup that would allow full rotation is recommended to get the best out of this bender. If this is not possible the Tooling Disc (round Disc with all the holes on) in most cases can be easily lifted and turned 180 degrees to complete a bend.

Bender Parts.



A Base.

B Tooling Plate.

C Scroll Dies (inner and Outer).

D Collars (3).

E Pivot Pins (2).

F Roller Body.

G Roller Body Pins.

H bend stop Boss (1x Standard 1 x Eccentric).

I Handle.

J Upper & Lower Support.

This Bender uses a moveable roller body(F) to push close into the Bend area. This is necessary to achieve uniform even tight bends. This is held in the Upper /Lower Support by 2 x Pins(G).

The Upper/Lower support is fitted first followed by the Tooling Plate (tooling may be fitted to Tooling Plate First).

If Scroll Bending is being performed, fitting of the inner scroll Die(C) is done and an adjustment of a grub screw is necessary depending on what material is being bent. This is to retain the end of the material and is not fastened up tight (this feature enables material down to 1/8inch all the way up to 3/8inch to be bent).

The Upper/Lower support is fitted with the Roller Body. At the beginning of the bend this is set close to the bend and gradually set further out as you progress through the bend.

The Outer Scroll Die is tucked in behind inner Die and the bend can progress.

When the Roller body cannot be set further back, it is replaced with the standard tube bender guide tube roller (#64-05) for round bar or one of the collars(D) for flat or square bar.




With normal bending of steel, a 12mm Diameter pin is used (minimum radius) or the stepped pin with 3 sizes of rollers to get desired bend radius.

A Bend stop Boss(H) is required to retain end of material. There are 2 off these. One is eccentric to allow adjustment for varying sizes of material. The second would be used to perform a secondary bend in the opposite direction if required. The Tooling Plate (B)has many holes drilled in it to cater for all possible requirements. There are a set off extra holes drilled at half a pitch from the lines of holes to cater for all requirements (there are two sets of these set 180 degrees apart).

Bending an eye in the end of a bar is no problem as once the eye is bent, you simply rotate arm in the opposite direction to place eye in the centre of bar.

The inspiration behind this design was based on the Blacksmiths Wheel where hot steel was heated and bent around a pin set on a Disc like this.

It is possible to heat larger steel sizes and bend in this machine however it would be recommended that heating be done off the machine. Common sense would need to be used as to how larger a piece was bent in machine. (if you a wanting a longer handle you are exceeding its capacity and risk damaging this bender).