

## Blacksmiths touch mark - Frequently asked questions

Thanks for your enquiry. Below is some information regarding our blacksmiths touch marks that may address questions that you may have.

### What size is the touch mark?

The most common size touch mark is ~180mm and 20.6mm in diameter with a draft/transition of ~25mm from the body to the face. 180mm long is a good handling length. It keeps your hand away from the work and means that you don't need tongs to hold it. Different lengths can be made upon request.

A CAD model of a typical touch mark can be found at: <http://a360.co/2zfkGOk>

### Can you make a larger touch mark?

Larger touch marks can be made however it's much harder to leave an impression as the amount of metal to be displaced increases. It is possible to machine different sizes although it's dependent on stock availability from the metal suppliers.

### What is the touch mark made from?

Our touch marks are designed for hot work applications. To cope with this are made from Bohler W302 hot work air hardening tool steel (<http://www.buau.com.au/media/W302DE.pdf>). They are double tempered firstly at 500degC and then 470degC. They can be used in cold work applications also.

### How are they made?

From a provided design each touch mark is CNC milled. They're not hand cut. The design is incorporated in a model that allows the CAM software to develop the necessary cutting paths. The CNC mill then cuts the touch mark based on these cutting paths using small cutters. Typically the smallest radius is 0.125mm. The depth of the face is 1mm with a 15deg draft angle. The touch mark is then cleaned up to remove cutting marks on the face. It is then wrapped in stainless steel foil to minimise oxidization before being heat treated.

### How is it finished?

The finish on the touch mark is from the hardening and tempering process and there will be some differences in colouring over the touch mark due to oxidization. It has been left on to offer some rust protection. Even so, W302 is not a stainless steel and is susceptible to rust so it's a good idea to use your favourite rust preventative.

### How to align the touch mark?

To facilitate quick alignment a flat has been machined on the touch mark. This flat is in line with the top of your mark. This is so that you can align it and sight along the line where you want the top of your mark to be before resting the touch mark on hot metal.

### Are there any special handling considerations?

It's important not to exceed 470degC as some hardness will be lost. Whilst the touch mark has been designed to leave an impression in red hot steel, if you have a fine mark it's a good idea not leave the mark sitting on the metal for long. Typically there isn't any need to quench the touch mark between impressions.



## **Touch mark design**

It's important to consider how your design scales. The nice logo that you view on your screen at 100mm x 100mm may not work when it is scaled down to 10mm x 10mm. A lot of detail is lost when scaled down. A good exercise is to print your design out at its intended touch mark size and see how it looks. Particularly consider the spacing between the elements of your design. The 2mm gap at 100mm will become 0.2mm at 10mm. Its barely visible, will probably be lost in the impression and it's more complicated to machine adding to the cost.

A larger design can incorporate more detail but will leave a shallower impression. A smaller design will leave a deeper impression but doesn't hold as much detail. The sweet spot seems to be a mark around 12mm in diameter.

Ideally the design is provided in a vector format such as SVG, EPS, DXF or AI. This allows the design to be incorporated in a CAD model. JPG doesn't work because it's a series of dots that doesn't allow for scaling. If you only have a hand drawn design that's OK I can produce a vector design but there is additional cost for it. If you want to try to develop a vector format design yourself Inkscape (<https://inkscape.org/en/>) is a free vector graphics drawing program.

## **Pricing**

Each touch mark is priced based on the supplied design. Some designs need more work to incorporate into a CAD model and take more time to cut. There's no reduction in cost if you order more than one mark of different designs. Payment can be made through EFT to my account or if overseas through Paypal

## **Lead time**

Lead time is dependent on the orders for touch marks. To keep costs down they're made in batches. The aim is to produce them within 3 weeks. A more precise time frame can be provided on inquiry. Touch marks can be produced as a rush service but there is additional cost for this.

## **Ordering a touch mark**

Once you accept the quoted price the design will be incorporated into a CAD model. You will be sent a link to be model for final approval before the touch mark is cut. An example model is: <http://a360.co/2zfkGOk>

## **Can the touch mark be posted?**

Touch marks can be posted at the customers expense. We typically use Australia Post and invoice the cost. You can estimate the cost based on a parcel between 0.5 – 1kg sent from postcode 3015.

If you have any questions, please contact me at [christian@kunstmade.com.au](mailto:christian@kunstmade.com.au). You can check my Instagram page @kunstmade for examples of customer touchmarks.