

2.1 To add metal

For example wedding ring Au 585

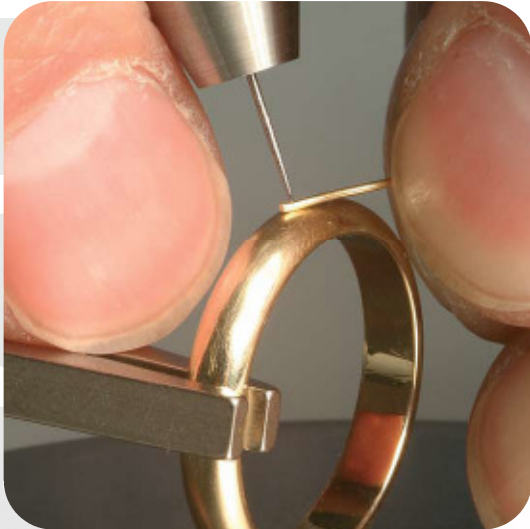


fig. 2.1

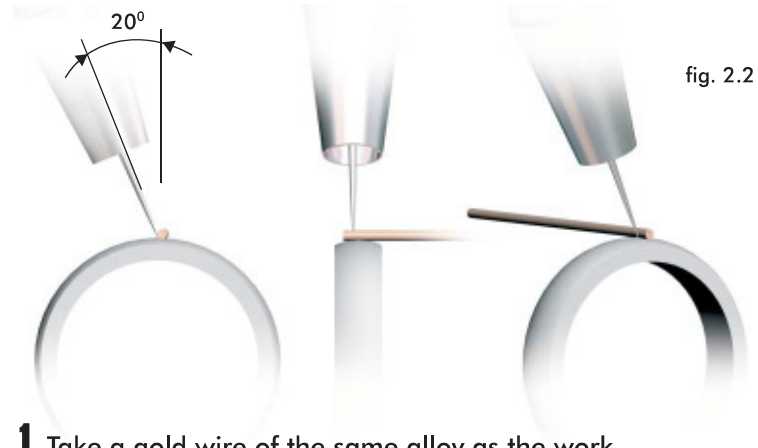


fig. 2.2

- 1 Take a gold wire of the same alloy as the work piece; this should be $\varnothing 0,4\text{mm}$ max. Place the gold wire on the surface of the work piece. Now position the electrode at the correct angle next to the wire, so that the tip touches both the wire and the work piece surface.

(see fig. 2.1 & 2.2)



fig. 2.4

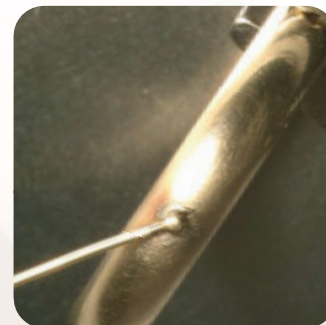
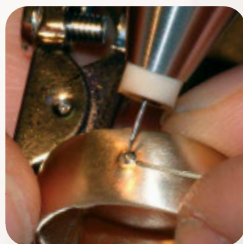
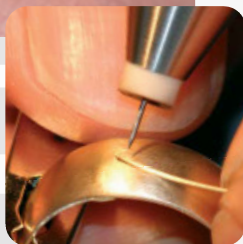


fig. 2.3

- 2 Trigger a weld, using medium power and 7msec. impulse length. If you have proceeded correctly, a piece of wire will have melted onto the work piece surface.

For fine repairs on the settings of gemstones, a much thinner wire and considerably lower power settings are used. We recommend a wire of 0.25mm thickness; this can be used with the Micro-Mode at shortest impulse time and 12 - 15% power.
(fig. 2.3)



fig. 2.5

- 3 The added metal can then either be further processed mechanically, or modelled using additional welds.

(fig. 2.4 & 2.5)

2.2 Spreading and modelling metal



fig. 2.6



fig. 2.8a

- 1** In order to model or spread out the metal, a different technique is used. Place the electrode at an angle of approx. 45° so that it touches the lowest point between the drops of added metal.

(fig. 2.6 & 2.8a)

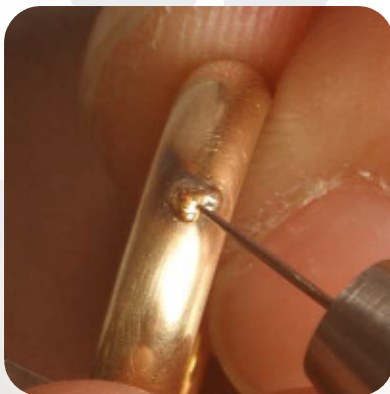


fig. 2.7

- 2** This way, the melted metal is pulled from the sides (the higher points), into the lower part of the added metal. It is also worth noting that the lower the angle is, at which the electrode is held, the further the metal will be moved.

(fig. 2.8b)

- 3** Using this method, metal can be spread out and modelled into the required form.

(fig. 2.7 & 2.8c)

- 4** The technique is especially well adapted for use on metals which respond very well to welding, such as Gold alloys. After the metal has been applied, it should be compressed using our compacting tool, before being subjected to any mechanical stress.

Please note: Silver reacts totally different when welded, so a different technique than the one described here, has to be used. For information on welding silver, please see Workshop #10.



fig. 2.8b



fig. 2.8c

