Repairs on hollow jewellery

Most tasks could be handled very fast and with high quality, if you know how. We will show you one practical example in the following workshop.

1. The challenge

Working with hollow-ware is always difficult. If you choose the wrong settings you can risk putting a hole in your work piece. In the following we will show you one example to simplify this duty in future.

Our work piece: earring-piece made of yellow-gold 333/000

2. Preparation

Clean your work piece well in an ultrasonic cleaner, this will help to avoid soot build up when welding. If possible remove excess solder as this cannot be welded and will interfere the joint.

3. The settings

Working with such thin work pieces (material thickness around 0,30mm), it is always important to choose minimal duration to get less penetration depth. Also it is advisable to start with less power. In this case we would recommend 20-24% for the PUK04 and 15-18% power for the PUK 3 and PUK 3s.

4. Advise

If you are not sure, which settings would be the right ones, choose less power and also less time, then turn both up and try to get a feeling for the right settings. With this approach, you can’t do anything wrong and your work piece can’t get broken.
5. Create a basis

Put your welding wire at the edge of the hole or dent and place the electrode on the inside to the wire. So the edge is getting thicker and adding material becomes simpler. With this position of the electrode you also build a barrier to avoid that the edge is burning down.

6. Right position of the electrode

Next position your welding wire beside your first drop and weld the wire from the inside to the material surface at first (1). Then position the electrode between both drops and melt them together (2). Continue working from the edge to the middle and make sure that you use enough material.

7. Thick material

If you have thick material the procedure is a little bit different, because you won’t get your edges burned down or prevent a hole. That is why you start from the middle of the dent and add some welding wire. Then you repeat the procedure and weld until you reach the edge.

8. Deposited material

To achieve a strong weld you need to ensure the extra material is melted close together. This will also give you less porosity and a more even finish.

9. Finish

Work very carefully and polish the area lightly and avoid removing any material or you may have to start all over again.