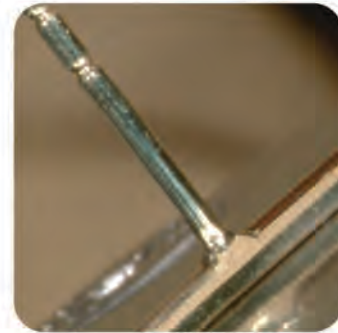


## 13.1 Joints and Seams



**1** When PUK-welding joints, it is important that they are properly worked (fit well) and don't have any gaps where the pieces join. If the edges have got burred during previous filing, this burr is well adapted for use as extra material and can be welded into the joint.

The metal should be thin enough so that the welding spot can penetrate 2/3 of the way through. This method avoids a cavity between the welds, after the seam is welded from the other side.

(fig. 13.1)

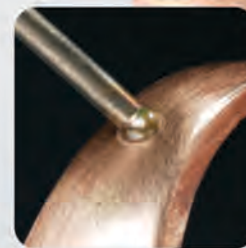
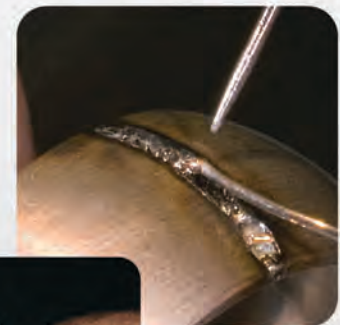
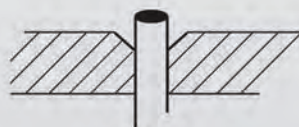
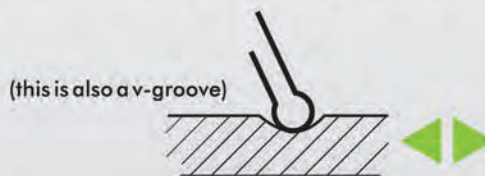


(fig. 13.1)

**2** If the joint is not properly prepared prior to welding, a crater or hollow may occur in the surface. This will then have to be refilled.



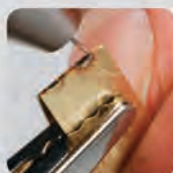
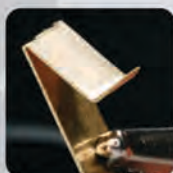
If the work-piece is too thick, a v-groove should be worked into the surface. This can then be filled, layer for layer, with welding wire of



(fig. 13.2)

the same alloy as the base metal. The welding wire should be no thicker than 0,4mm.

(fig. 13.2)



(fig. 13.3)

**3** Parts should first be "tacked" together using one or two welding spots. After this, the parts can be more precisely positioned or adjusted and then a seam can be welded.

(fig. 13.3)

## 13.2 Joints and Seams



(fig. 13.4)

- 4** For maximum stability and penetration depth, always hold the hand piece at right angles to the work piece. Always place the electrode tip on the edge of the previous welding spot so that the welding spots overlap.

Be aware that the edges of a work piece need less welding power than the rest of the surface.

(fig. 13.4)



- 5** It is always possible to weld seams using various energy levels (Power). With a higher power, the welding spots will be larger and the user can work quicker; this on the other hand also means that cleaning the welded area will take more time than with lower Power settings.

When working with seams that can only be welded from one side, or when working with thicker material, try the following method. Weld the seam completely using the normal impulse time 7m/s (PUK2: impulse I), then weld over the seam again using a longer impulse time. This will improve the penetration depth.



(fig. 13.5)

- 6** You can PUK-weld small holes in the joint shut, by placing the electrode tip vertically in the hole.

(fig. 13.5)

Larger holes are best closed by running the electrode tip at an angle across the hole, remembering to place the tip at the edge of the previous welding spot. This way the hole can be "pulled" shut.

(fig. 13.6)



(fig. 13.6)