

Dovetail connector - additional processing information

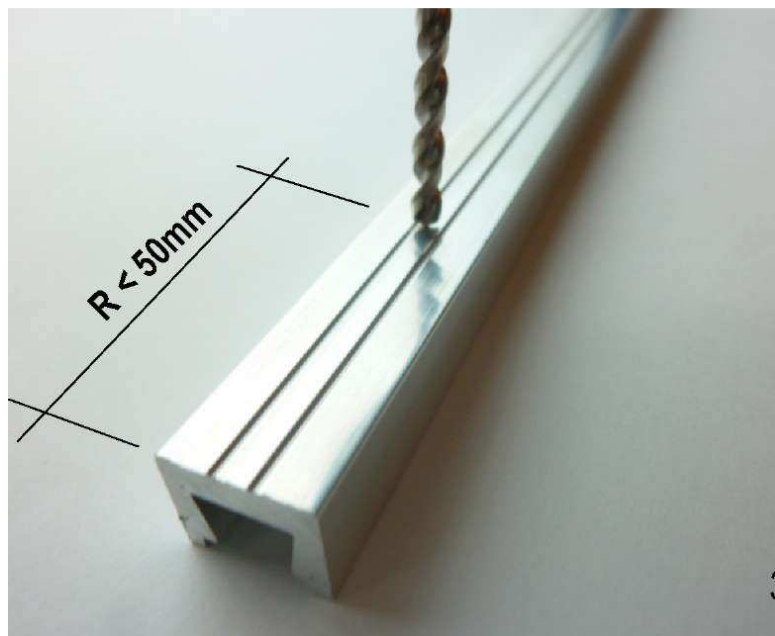
1. Cutting the aluminium rails to size



The 3m rail gives the joiner the option of manufacturing a wide variety of profile lengths with minimal waste, therefore keeping stock levels down. However, for optimum connector functionality it is important for the cut edges to be neat, i.e. without burrs on the inwards-facing edges (see fig 2, red). The edges must be cleaned with a deburring tool or a file if necessary, or alternatively with a brass brush for the sander or the like.

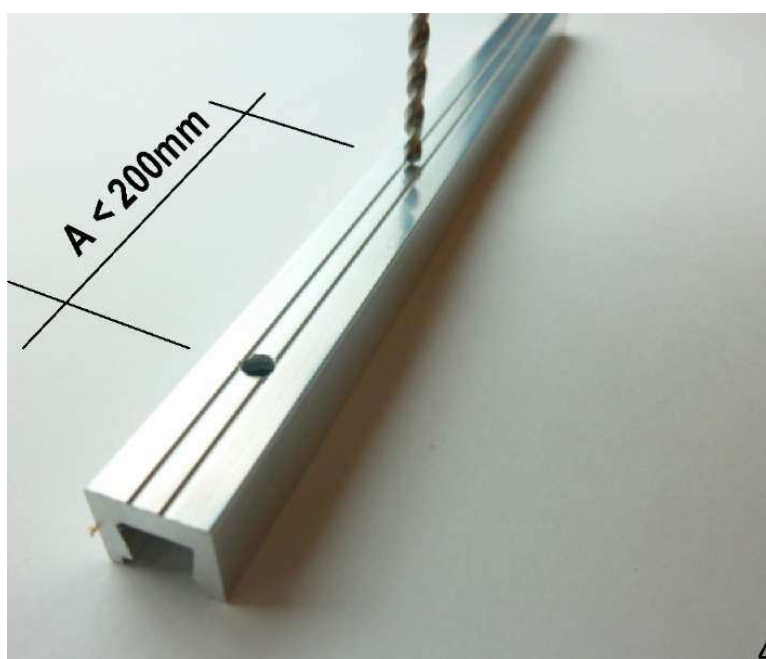


2. Drilling the rail



The rail is drilled either using the available drilling jig Cat. No. 261.30.900 (see page 4) or manually using a drill and countersinker.

Manual drilling should ideally be carried out from the rear. The drill hole should be between the two boundary lines. The edge distance R should be no more than 50 mm, and distance A between two drill holes should be no more than 200 mm.



3. Countersinking the drill holes



Special care should be taken not to damage the inner side walls of the rail during countersinking. The countersinking drill should therefore first be placed onto the drill hole before it rotates. The countersink depth corresponds to the height of the screw head. This procedure is not required when drilling and countersinking using the drilling jig, see also page

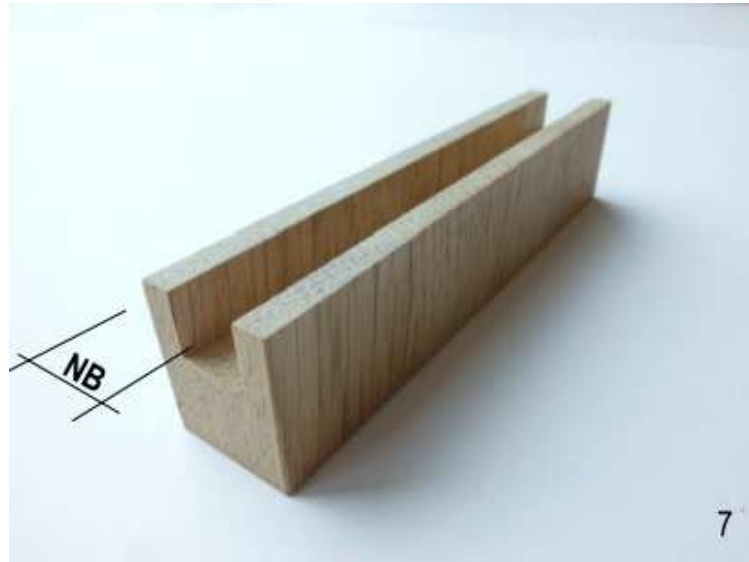


4. Drilling jig and countersinking drill

The drilling jig is inserted into the rail, and is guided in the rail by the sleeve-like conical shape. Now the holes and countersinks can be drilled in the required position in a single work operation. The countersink depth is defined exactly by the upper bushing stop. The countersinking drill is guided exactly by the hardened drill bushing. The rail cannot be damaged.



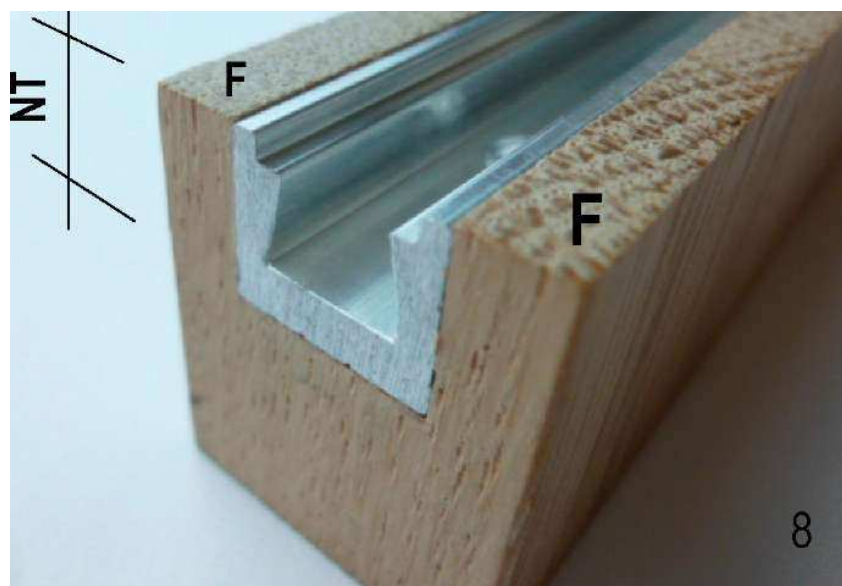
5. Milling the rail groove



Depending on the purpose of use and the appearance, the rail groove can be cut, milled or milled in parts. The groove width NB is always 12 mm.

The groove depth NT depends on the purpose of use, whether the side walls F (fig. 8) are to be in contact with the connecting part or not. However, the groove depth is usually approx. 10.5 mm.

With high-gloss surfaces that require frequent assembly and dismantling a minimal gap is advisable, i.e. with a reduced groove depth (e.g. 10 mm). This means that only the rail touches the side surface, and the small gap means that there is no contact with the base and the side.



6. Possible insertion stops



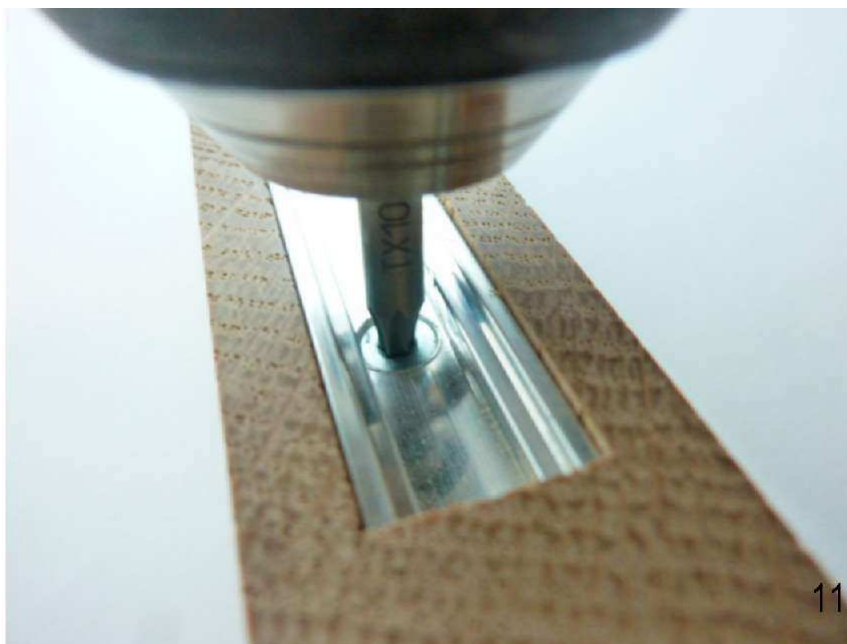
In addition to the cut groove and the insertion milling, figure 9 shows a variant that is frequently carried out using a plunge router or a CNC system. The aluminium rail has the same rounded end when this is done.

Figure 10 shows the variant with subsequently glued-on solid wood edging. Another variant is cutting the groove with the table router and chiselling out the groove rectangularly.

In both cases the end of the groove cutting also defines the insertion depth of the sleeve.



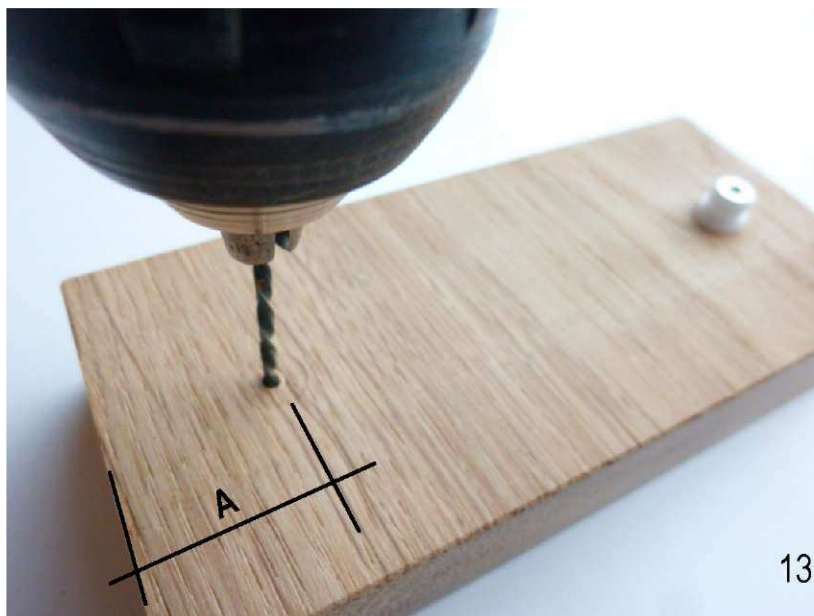
7. Fixing the rail



Depending on the material / board material and tightening requirements, appropriately long screws must be used, pre-drill if necessary (2 mm).

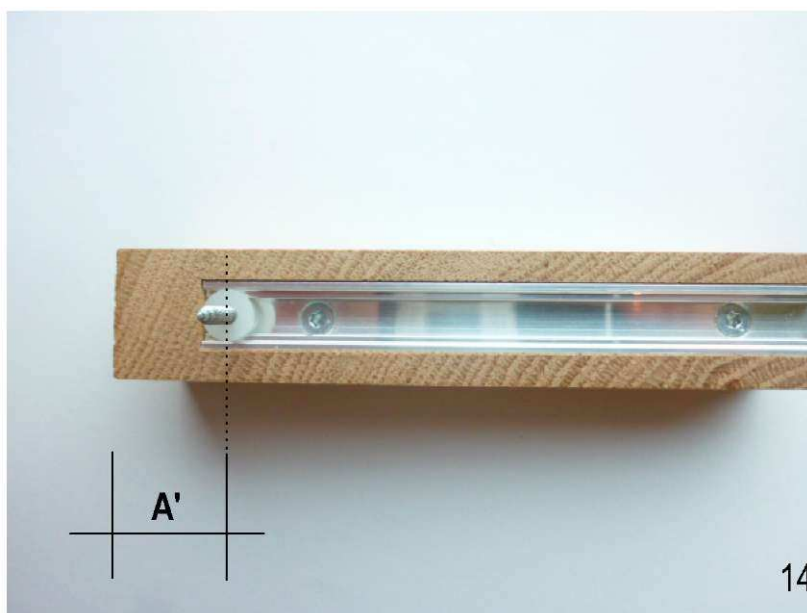


8. Drilling the sleeve holes



Depending on the material that is used, pre-drill holes for sleeve attachment with a 2 mm drill.

In the version with insertion stop, the drilling distance A corresponds to the sleeve stop A'



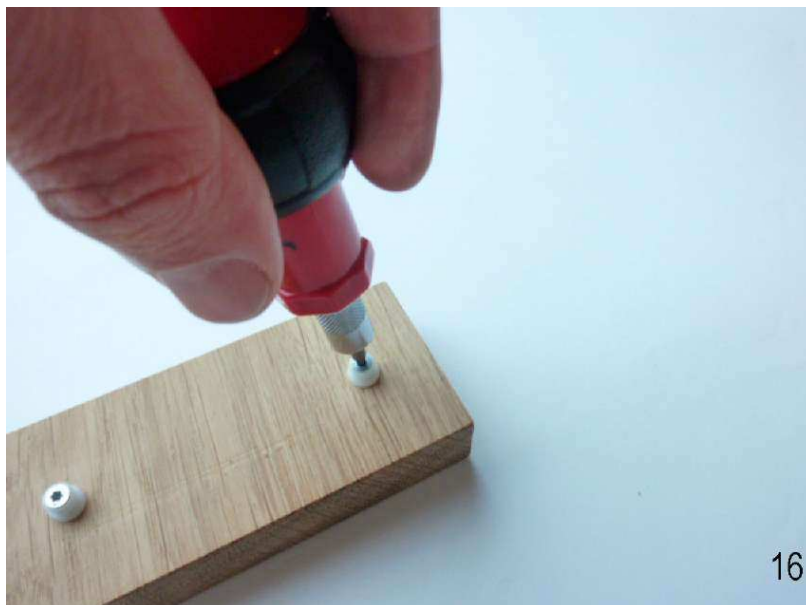
9. Fixing the sleeves



The sleeves are fixed to the side part with 3 mm countersunk screws.

Important:

If the screw is tightened more firmly the top of the plastic sleeve widens slightly, see also page 12. For fine adjustment of this contact pressure, the final turns should be made manually.



The firmer the sleeve is tightened, the harder it is to insert the counter piece. However, this is just a matter of practice - you soon get a feel for it.

10. Assembling the connecting parts



Because of the form-fitting and positive-fitting connection, the individual parts can be connected and disconnected as often as required almost wear-free. An insertion stop as shown on page 5 is not strictly required. For the majority of applications it is sufficient to tighten the rear sleeve a little more, the rail part only has to be pushed over the sleeve a little harder for the last short distance, see fig. 18.



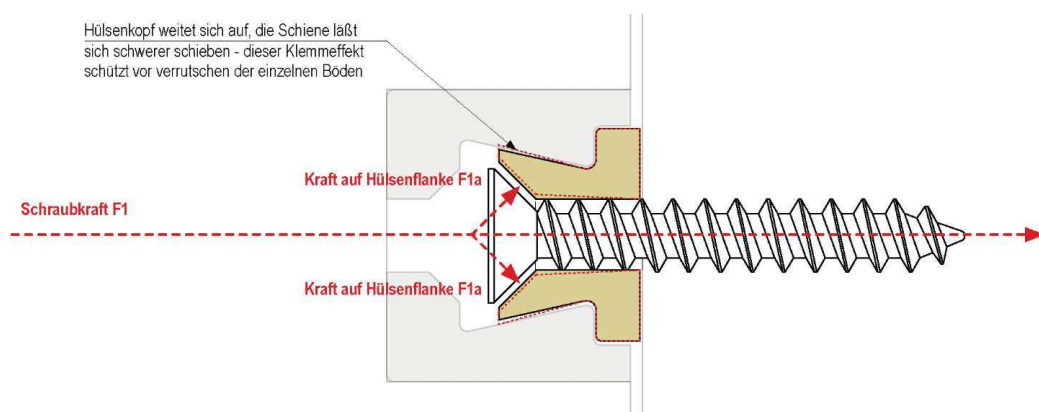
11. Version as concealed connection



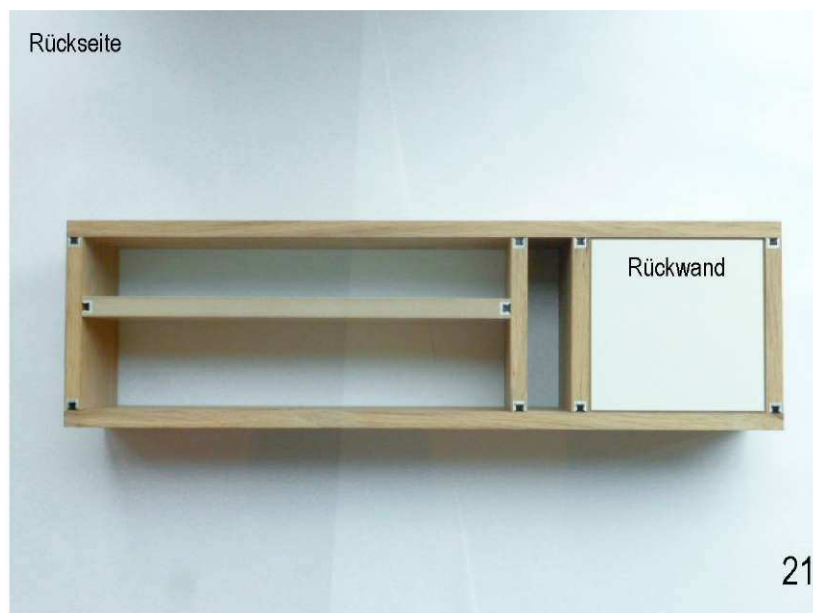
A special variant is the concealed connection. In this version the conical side arms of the rail are cut out of partial areas of the rail using a routing jig, see fig. 20. In these areas the sleeve counter piece can be inserted and slid in the axle direction of the rail, and therefore locked. See also stool design example, page 14.



12. Sleeve clamping effect functional principle



13. Wall shelf design example



All parts of the shelf can be completely reassembled, the rear wall is inserted in the same way and also reinforces the furniture.



14. Stool design example



Design variant with concealed corner connection for a stool. For reinforcement purposes a lateral part (with hole) is inserted from below.

