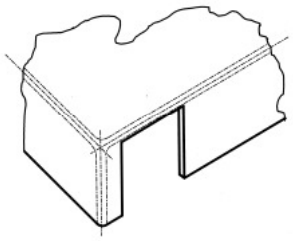
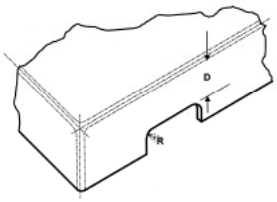
6. EDGE CUT OUT



Poor design. The large cut out from the flange will result in weakening of the part and will lead to distortion during firing. The design is further aggravated by the sharp corners.

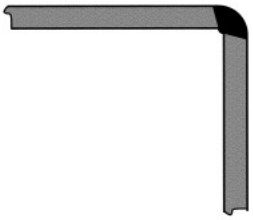


Preferred design. The cut out has been minimised retaining strength in the flange by maximising dimension D and the corners have been rounded with a generous radius R.

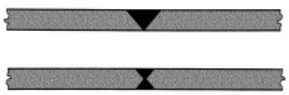
7. JOINING

Poor design. Double rolled joining of parts for vitreous enamelling will result in localised build-ups of enamel in the gaps, stress concentration and a risk of entrapment of gases evolved during firing. These will all lead to chipping at worst and racking of the enamel at best.

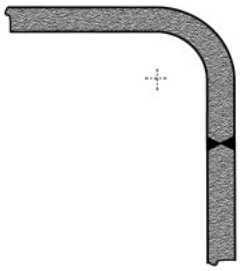
Poor design. A fully welded lap joint can cause stress concentration, gas entrapment and under-firing, resulting in chipping, distortion and cracking. This may be unavoidable on light gauge domestic appliance oven and chassis fabrications which are usually assembled by electric resistance "spot" welding. The more open nature of the joint will prevent some of the problems.



Poor design. The weld has been made along an edge. As well as the difficulty of producing a sound weld in this area, there will be a tendency for stress build up. Even with good dressing the resultant radius is too small and there will be a risk of chipping.



Preferred design. A fully prepared and single side welded or double side welded butt joint is the preferred method of joining heavier gauge steel. Good technique, the correct filler rod and good after dressing will make this type of weld virtually invisible after vitreous enamelling.



Preferred design. Ideally the weld should be placed away from the corner. This permits a suitably generous radius on the edge. In some components, this may not be possible in fully fabricated parts and if so careful and neat after dressing of the weld is critical to the final appearance. The extent of such welds should be kept to a minimum.