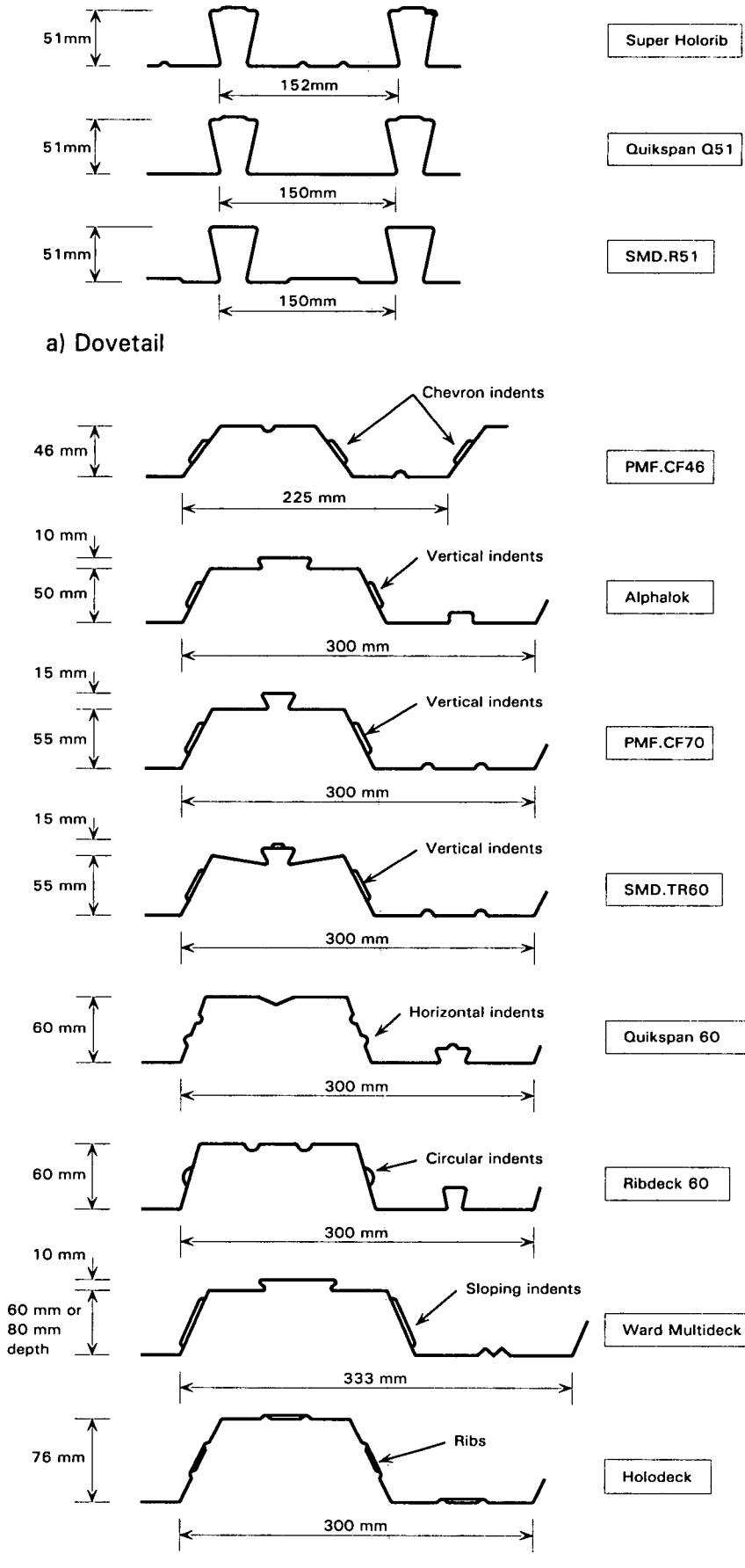

Figure 6.8 *Typical examples of decking profiles*

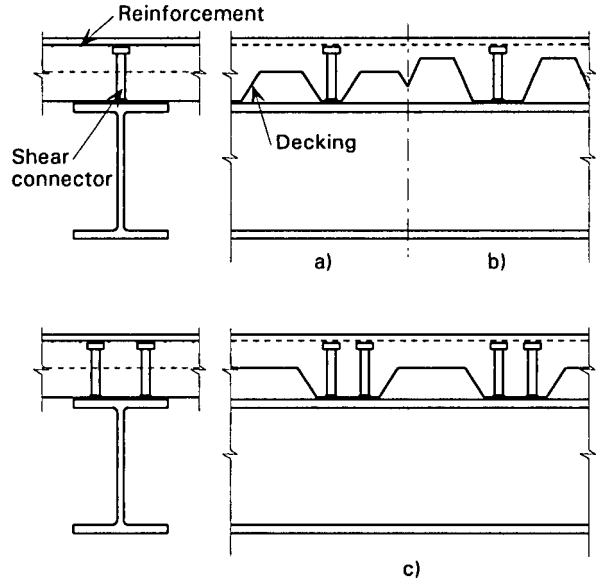

Figure 6.9 *Influence of decking on shear connector strength (a) decking with large height to width ratio, (b) high decking, (c) multiple connectors per rib*

Forming holes in the slab is a simple procedure. A box-out is left during concreting (see Figure 6.10) and then a 'nibbler' is used to cut an opening in the decking once the concrete has cured. It is not necessary to protect the cut metal edges against corrosion, because galvanising provides a sacrificial coating (zinc is lost from adjacent areas in preference to the steel corroding). It may be necessary to detail additional reinforcement around the opening when its side length exceeds 150 mm.

When holes are formed adjacent to composite beams, consideration must be given to the fact that the slab acts as a structural beam flange within a certain effective width (one quarter of the span for a simply supported beam). In theory, the designer should consider the reduced flange width when calculating the beam moment resistance. However, in practice this is often not a problem, because holes are generally formed near to walls, i.e. near the beam ends. In such locations the width of flange actually needed is significantly less than the nominal effective width.

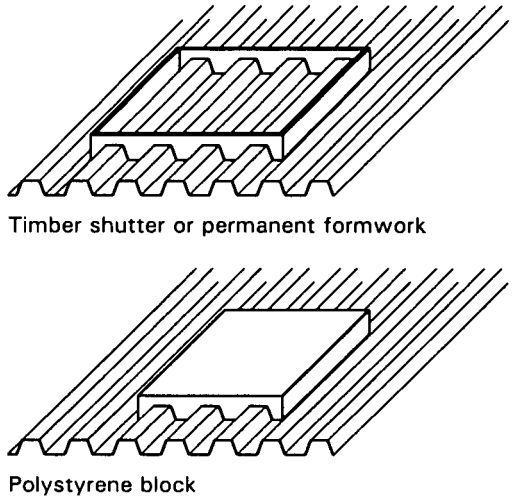

Figure 6.10 *Hole forming in a composite slab*