

Figure 54.

In case of double-sided fillet welds, the weld must be continued around the ends to prevent unnecessary penetration of acid into any crevices (figure 61).

Weld Spatter

Weld spatter does not reduce the protective properties of a hot dip galvanized coating to the same extent as with a paint coating, but it is recommended practice to remove spatter prior to hot dip galvanizing.

9.2 VENTING, FILLING AND DRAINAGE

External stiffeners, welded gussets and webs on columns and beams and gussets in channel sections should have cropped corners. The gaps created should be as large as possible without compromising structural strength. If welding is required around the edge created, a radiused corner is desirable to facilitate continuity of the weld around the cut end to the other side. Circular holes are less effective: if used, they should be as close to corners and edges as practical. Where more convenient, the cropped corners or holes may be in the main beam. Consultation with the galvanizer, regarding the appropriate vent and drainage hole sizes is recommended (figure 49 and table 17).

Welded Pipe Sections

Closed sections must never be incorporated in a fabrication. Sections should be interconnected using open mitred joints as illustrated in figure 54, or interconnecting holes should be drilled before fabrication as in figure 55.

Alternatively external holes may be positioned as in figure 56, a method which is often preferred by the galvanizer, since quick visual inspection shows that the work is safe to hot dip galvanize.

Pipe ends can be left open, or provided with removable plugs. (See unwanted vent holes).

Unwanted Vent Holes

These may be closed by hammering in lead or aluminium plugs after galva-

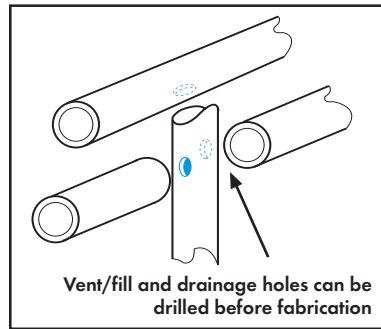


Figure 55.

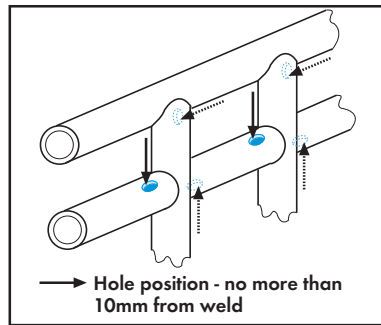


Figure 56.

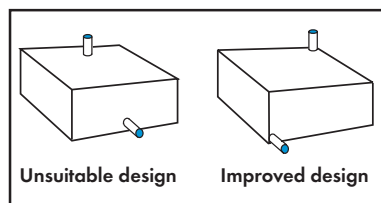


Figure 57.

nizing and filing off flush with surrounding surfaces.

Small Tubular Fabrications

Small tubular fabrications must be vented, preferably with holes not less than 10mm diameter (table 17).

Tubular Fabrications / Hollow Structurals

Drain/vent hole sizes should preferably be 25% of internal diameter or diagonal dimension for components with a maximum cross sectional area of 180cm². This percentage can be influenced by the shape of the fabrication. Consultation with the galvanizer at the design stage is recommended.

Tubular Fabrication After Hot Dip Galvanizing

The requirement for bending tubes after hot dip galvanizing, ie. for the fabrication of gates etc. must be carried out according to the method set out in the Bend Test (galvanized tube). See 11.5 Adhesion of the Coating, page 35.

Tanks and Closed Vessels

When both internal and external surfaces are to be hot dip galvanized at

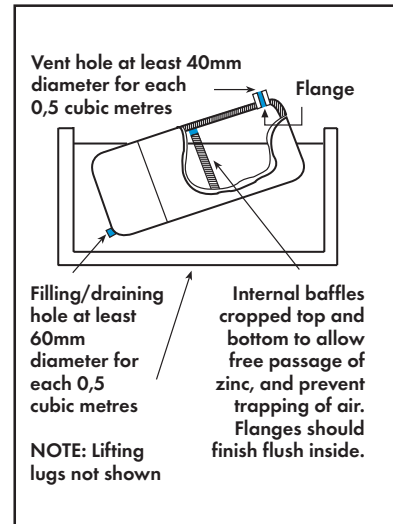


Figure 58.

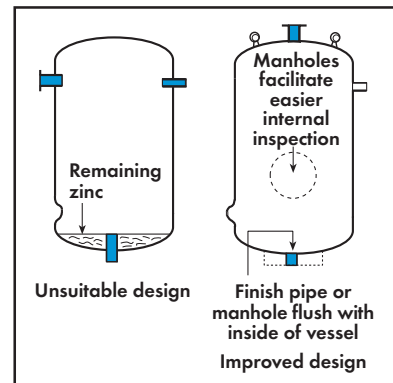


Figure 59.

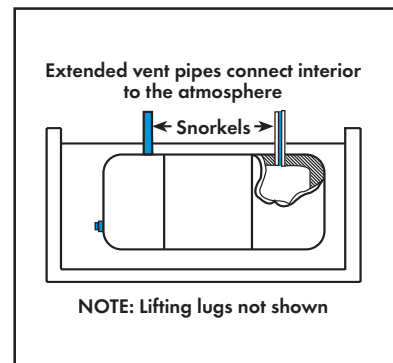


Figure 60.

least one filling and draining hole must be provided, with a vent hole diagonally opposite to allow the exit of air during immersion (figure 57). For each 0,5 cubic metres of volume, provide at least one fill/drain hole of minimum size $\phi 60\text{mm}$ and vent hole of minimum size $\phi 40\text{mm}$ or both at $\phi 60\text{mm}$ (figure 58).

Internal baffles should be cropped as illustrated (figure 51 and 58). Manholes or pipes should finish flush inside to prevent trapping excess zinc (figure 59).