



DESIGN GUIDANCE FOR VENT HOLE SIZES

Current Guidance on the GA Design Wall Chart

| Size of hollow section (mm) | Minimum diameter of hole (mm) |
|-----------------------------|-------------------------------|
| < 25 | 10 |
| ≥ 25-50 | 12 |
| > 50-100 | 16 |
| > 100-150 | 20 |
| > 150 | consult galvanizer |

Guidance within ISO DIS 14713-2 (March 2019)

The hole sizes indicated apply where only one hole is provided at each end of the sealed hollow section.

| CHS (mm) | SHS (mm) | RHS (mm) | SHS/RHS Diameter of hole (mm) | CHS Diameter of hole (mm) |
|----------|----------|-----------|-------------------------------|---------------------------|
| 15 | 15 | | 10 | 10 |
| 20 | 20 | 30 x 15 | 10 | 10 |
| 30 | 30 | 40 x 20 | 12 | 12 |
| 40 | 40 | 50 x 30 | 14 | 14 |
| 50 | 50 | 60 x 40 | 16 | 16 |
| 60 | 60 | 80 x 40 | 20 | 20 |
| 80 | 80 | 100 x 60 | 25 | 20 |
| 100 | 100 | 120 x 80 | 30 | 25 |
| 120 | 120 | 160 x 80 | 35 | 30 |
| 160 | 160 | 200 x 120 | 45 | 40 |
| 200 | 200 | 260 x 140 | 60 | 50 |

Note that smaller vent hole sizes might be appropriate for hollow sections used for special applications (e.g. playground equipment). Provision of smaller vent holes should be agreed with the galvanizer.

Why are Vent Holes Important?

Safety Notice:

Water or other solutions can enter hollow sections during fabrication or during the galvanizing process. When the steelwork is dipped into the zinc bath (which is heated to 450 degrees C) the water is converted into steam. This results in the solution/water expanding approximately 1750 times its original volume. Pressures of 50MPa can be produced. This can prove life threatening for our staff. If you are not sure about venting, or have any doubts please speak to our Design Team.