

# Design for hot dip galvanizing



Holes for venting and draining should be as vertically as possible under suspension points.

**Allow suspension!**

Missing holes for venting and draining on hollow sections can cause dangerous explosions!

**Holes for venting and draining must be visible from outside!**

Only use appropriate welding sprays!

**Remove paint, welding slag and welding residues!**

**Avoid overlapping surfaces and gaps!**

Design holes for venting and draining even for open sections

**Avoid dead spots/corners - vent unavoidable overlapping surfaces!**

**Avoid bulky components as far as possible!**

**Holes for venting and draining must have a sufficient size and number and must be visible from outside!**

**How to read the the table on the right:**

A hollow section with the dimension 60 mm x 40 mm requires at each end either

- at least one hole with a diameter of 16 mm
- or
- at least two holes with a diameter of 12 mm
- or
- at least four holes with a diameter of 10 mm
- or
- at least two cut-outs (crops) with a length of 13 mm on the adjacent sides.

The table applies to constructions up to approx. 6 m in length. Longer constructions require additional and/or larger holes.

Recommended minimum sizes for holes for ventilation and drainage in hollow profiles			Number and location of holes or crops at each end of the hollow section										
			1 hole	1 hole	2 holes	2 holes	4 holes	4 holes	2 crops at corners	4 crops at corners	4 holes of 15 mm + 1 central hole	4 holes of 15 mm + 1 central hole	4 crops at corners of 25 mm + 1 central hole L
Round	Square	Rect- angular	Diameter of hole (mm)				Size of crop (mm)		Diameter of central hole (mm)				
15	15	—	10	10	—	—	—	—	—	—	—	—	—
20	20	30 x 15	10	10	—	—	—	—	—	—	—	—	—
30	30	40 x 20	12	12	10	10	—	—	—	—	—	—	—
40	40	50 x 30	14	14	12	12	—	—	10	—	—	—	—
50	50	60 x 40	16	16	12	12	10	10	13	—	—	—	—
60	60	80 x 40	20	20	12	12	10	10	15	12	—	—	—
80	80	100 x 60	25	20	16	16	12	12	20	15	—	—	—
100	100	120 x 80	30	25	20	20	14	15	25	20	—	—	—
120	120	160 x 80	35	30	25	25	20	20	30	25	—	—	—
160	160	200 x 120	45	40	35	30	25	20	40	30	35	—	—
200	200	260 x 140	60	50	40	35	30	25	50	35	50	40	—
300	300	350 x 250	—	—	60	55	45	40	75	55	80	70	75
400	400	450 x 250	—	—	80	75	60	50	100	75	110	100	110
500	500	600 x 300	—	—	100	90	75	65	125	90	140	125	135
600	600	700 x 400	—	—	120	110	85	75	150	110	170	150	165

**Note 1:** The shaded holes or crops indicate the hole or crop in the opposite end of the hollow section

**Note 2:** The size of crop given in this table refers to the length of the adjacent side (not the diagonal length)

**Note 3:** Table entries that are not applicable are designated by \*-\*

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