

Conditions for a good result after galvanizing - Information from galvanizer to buyer



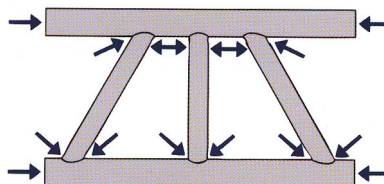
Rev. 1

The steel shall be prepared for hot dip galvanizing according to EN ISO 1461 (not ISO 8501), see below:

1) Venting holes

Right located venting holes in the constructions provides safe galvanizing, internal corrosion protection and good drainage - discuss with your galvanizer for advice!

Round profile (mm)	Square profile (mm)	Rektangular profile (mm)	Diameter, through hole (mm)
20	< 20	30x15	10
30	< 30	40x20	12
40	< 40	50x30	14
50	< 50	60x40	16
60	< 60	80x40	20
80	< 80	100x60	20
100	< 100	120x80	25
120	< 120	160x80	30
160	< 160	200x120	30



Tubes should be open in both ends and drain holes should be located as close as possible to corners and welds.

NOTE!! Enclosed liquid and air will expand in the hot zinc bath which may cause explosions that both harms the construction and the operating staff in the galvanizing plant.

Suitable hole diameters for different dimensions of hollow sections.

2) Pores and weld defects

It is important that through pores are not formed. If acid from the pretreatment has penetrated into a slit or pore, it cannot be removed later. Since molten zinc is more viscous than acid, it will seal the opening during galvanizing. After a while the acid causes holes in the coating over the opening. A rust-colored liquid then runs on to the surface and spoils the appearance.

3) Narrow gaps

Structures shall be designed so that narrow gaps, less than 3 mm, does not arise. Butt welds are much better than the overlap welds for constructions that will be galvanized. Narrow gaps can cause same types of problems that is described in paragraph 2 above.



Discoloration caused by acid trap.

4) Suitable design

It is an advantage if large structures, especially in cases where welding will create mechanical stresses, instead are hot-dip galvanized as smaller segments which are joined by bolting after galvanizing. Tensions may relax in the hot zinc bath and cause distortion. Risk of deformations also applies to larger flat plates with material thicknesses less than 3-4 mm, which normally have to be stiffened. In Nordic Galvanizers "Handbook in Galvanizing" there are pictures and descriptions of how structures suitable for hot dip galvanizing should be designed. See also the link <http://www.nordicgalvanizers.com/tankapa/tankapa.htm>.

5) The steel surfaces must be clean

Paint, grease, weld slag and other foreign substances must not appear on items being galvanized! These contaminants will not disappear in the pretreatment but remains on the surface and disrupts the reactivity between steel and zinc.