

**Q.** Dear Dr. Galv: How can I make sure certain areas are not coated with zinc when I galvanize a steel fabrication such as threaded bolts, surfaces which must be welded after fabrication or drilled holes?

**A.** Gauze tape can be used to protect cylindrical components, including threaded bolts and pins, but is not suitable for flat surfaces. The tape should be cloth based and must be tightly wrapped around the relevant area. Plastic insulation tape is not suitable. The temperature in the galvanizing bath will cause the gauze to burn but the carbon residue remaining will be sufficient to keep the zinc from metallurgically combining with the steel. After galvanizing, remove the carbon residue with a wire brush.

Flat areas can be protected through the use of high temperature paints, such as those used to protect automobile exhaust systems. It is also possible to use special pastes, which are particularly effective at protecting bore holes or internal threads. These paints and paste products are sold by automotive suppliers. The paste is intended for sealing small holes in the exhaust systems of cars. When moistened with a little water, these pastes can also be pressed into holes and openings to prevent ingress of zinc. However, it is extremely important to take care not to trap air inside and obviously, it will be necessary to remove the residue after galvanizing.