



## Design Requirements for See Saw

3278' Hgf f g' Ncp g. "Cuj rpf . 'P gdtcune' 8: 225"  
VqmHgg' Hz ': 880#9306233" TVqmHgg'Rj qpg-: 220 4: Q 8; 2"  
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### See Saw Products: 801-212, 312, 412, 612

The SportPlay See Saw shall be fabricated from Galvanized Steel (see below for complete specification). The see saw post shall be fabricated from pipe that is 2 3/8" O.D. and 13 gauge pipe. The cross support shall be fabricated from 2 3/8" O.D. 13 gauge pipe. The cross support and post shall be joined via a T-sleeve that shall be fabricated from 2 7/8" O.D. 8 gauge steel. The elbow used to join the end post with the cross support shall be fabricated from 2 7/8" O.D. 8 gauge steel. The see saw Fulcrum shall be fabricated from 2 7/8" O.D. 8 gauge steel. The see saw support shall be fabricated from 2 pipes running in parallel that are 1 7/8" O.D. 13 gauge steel. The see saw seat shall be fabricated from 3/4" polyethelene with UV stabilizers molded in to help maintain color. See saw handle shall be fabricated from 1/2" O.D. steel that shall be bolted to the see saw seat. All hardware shall be a mix of zinc coated and stainless steel.

#### Why Galvanize?

Bare steel will rust almost immediately if left bare. Galvanizing protects steel from rusting by forming a protective barrier between the steel and the environment, just like paint does. But galvanizing goes further than that; it also provides sacrificial protection of the steel.

Steel is more electro-negative than zinc; that is, steel will attract electrons from the zinc. This electronic flow from the zinc to the steel reduces the corrosion rate of the steel, while increasing that of the zinc. Therefore, the zinc coating is "sacrificed" to prevent the corrosion of the steel at breaks in the zinc surface. Galvanizing protects the steel even when the coating is damaged.

#### Why the Flo-Coat® Process?

Galvanizing provides electrochemical protection to steel, in addition to forming a protective barrier. Allied's unique triple layer Flo-Coat galvanizing process goes even a step further by adding a conversion coating to passivate the zinc, and a clear polymer topcoat that reduces the general corrosion rate of the zinc. This synergy between the coatings allows the zinc to be more effective in protecting uncoated edges through the self-sacrificial galvanic effect.

The Flo-Coat process begins with flat strip steel, which is cold formed into the tubular shape and welded. After welding, the tube receives a triple layer of protection — zinc, conversion coating and a clear polymer topcoat — all applied in-line to assure a uniform coating. The result is a smooth, shiny end product that is unmatched in terms of strength and durability. The interior surface is 100% coated with a Zincrich paint that covers the entire surface including the welded area.

### **Advantages of Allied Flo-Coat Tubing**

- The clear polymer topcoat also acts as a primer for painting or powder coating. Extensive pre-cleaning is unnecessary, and excellent adhesion is achieved, even at high baking temperatures.
- Flo-Coat tubing can be easily fabricated (bent, swaged, flattened) without any deformation of the coatings. Other galvanized products tend to flake or chip during fabrication.
- Independent testing shows up to 6 times greater corrosion resistance when powder coating over Flo-Coat as compared to powder coating over bare steel.
- If the powder-coated surface is scratched or marred the galvanized substrate protects the powder/paint from creeping and rusting underneath. This is why our automobiles no longer rust through – auto makers changed to galvanized steel!