

Durafirm Stand Installation Instructions

Preparation:

It is possible that you can install this stand without reading the instructions. However, they were written after many installations and five minutes of your time may save you several hours of labor. Care should be taken in uncrating; especially the small parts and cartons because they contain bolts, shims, etc.

Tools: The following is a list of tools to have available.

- Disc-sander
- Large Screwdriver
- Machinist's Level (Precision Level)
- 15/16" Socket Wrench with 18" handle
- 15/16" Box Wrench
- 9/16" Socket Wrench
- 1/2" Socket Wrench
- 5/8" x 11 (NC) tap
- Plumb-Bob
- Tube Cutter, for 1 1/2" outside diameter tubing (if stand has guardrails)

If the stand is to be installed on an existing deck with concrete inserts or thru-rods, have available:

- Center Punch
- Carbide Drill (1/4" or a very small "Star" Drill)
- Rotary Hammer
- 3/4" diameter Carbide-tipped Drill used in Rotary Hammer (for the thru-rods)
- 7/8" diameter Carbide-tipped Drill used in Rotary Hammer (for inserts)
- Punch with a maximum 1/2" diameter (for inserts)

Helpful Accessories:

- Leveling Straight-Edge, about 30"
- Lacquer thinner and rags for clean up

Shims: At least one Shim 1/8" thick should be placed between the mounting surface of the deck and the stand, to reduce paint blistering and corrosion of the stand material (cast aluminum).

Never use Shims between the Board and the Hinge.

Site Preparation:

For New Decks with Cast-In Bronze Anchors

Check deck surface at each attachment point. There should be a flat smooth area approximately 6" in diameter around each fitting. If the casting protrudes, it must be ground flush with the concrete or tile surface. All anchor points for the main support (or fulcrum) should be on a flat, level plane as well as all anchor points for the ladder (or anchor). Drive corks down through the threaded hole (this will not interfere with the installation bolts) and run through each hole with a tap to clean all threads.

For Existing Decks

In the crate you will find a roll of paper. This is the layout for the deck holes. First mark a centerline on the deck (preferably lining up to a spot on the opposite end of the pool). Lay out the paper template on the pool deck lining up the edge marked "Edge of Pool" with the edge of the pool or coping. The template centerline is marked. The 'dot in a circle' marks indicate the location of holes to attach the stand to the deck. Use a center punch to transfer the hole pattern to the concrete. Double-check the layout on the concrete before drilling, by placing both the main support and the ladder in place to "eyeball" the hole location. After removing the paper, drill a small pilot hole exactly on these centers, using a 1/4" carbide-tipped drill.

Where thru-rods are used, drill a 3/4" hole for each 5/8" diameter rod.

For Rawl concrete inserts, use a 7/8" drill, and roto-hammer only. Hole must be to size; and depth of hole must not be less than 2 3/4", nor more than 3". Note: If the deck has tile surface, the concrete insert must be set deeper, through the tile and bedding of "mush". Top quality concrete 3" thick surrounding the insert is required. Force taper plug (in insert) to bottom with punch. Note: Cap screws must tighten stand to deck (with necessary shims) before the screw bottoms on threads of insert. Different length cap screws are provided for different shim conditions.

Obviously, the ladder bolt holes are most critical, since they carry "uploads" of approximately 3000 lbs. There are 4 extra inserts packed per stand, and the ladder feet have slots for a total of 8 inserts. If the paper template shows only 4 locations, the location of the other 4 can be taken from the ladder itself. The top of the inserts should be driven into the hole approximately 1/4" below the surface of the deck. In final tightening, all cap screws in the ladder should withstand a maximum pull on a wrench handle 18" long, or approximately 110 ft.-lbs. of torque load. If a single bolt will not carry this torque load, the ladder will eventually work loose.