

**Concrete Pad – Footing - Foundations**  
**Level of Difficulty: Elaborate**

Concrete pads provide a concrete base onto which your garden shed walls can be mounted. This foundation option is generally used if you are:

- Storing heavy equipment that cannot be supported by a wooden floor.
- Housing heavy machinery or vehicles.
- Housing pool equipment (ie heater, filter, pump).
- Installing a plumbing system.

Concrete pads are also used for larger buildings that may require a permanent foundation.

**A Word about Concrete Pads**

- Concrete pads are an expensive foundation option and we recommend that you enlist the services of an experienced contractor who is aware of local regulations and will ensure that your structure complies with regional building codes.
- Pouring a concrete pad means you have the option of not having a floor. In this case, the walls would be mounted directly into the concrete using a pressure treated bottom plate and a gasket seal to prevent moisture build-up.
- If you are replacing an existing shed with a larger size it is possible to frame on to the existing concrete pad. Using pressure treated materials you can extend the pad so that the size matches that of your new structure.



*An example of a shed on concrete pad*

## Concrete Pads & Your Garden Shed

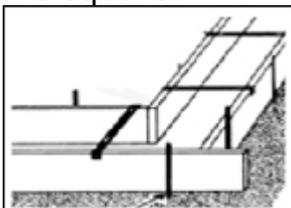
Here's what you need to know when laying the foundation for your Todd's garden shed using a concrete pad:

1. Before you begin pouring your concrete pad, it is very important to check with your local area's building codes for rules and regulations. Frost lines and seismic considerations will all dictate the type of pad and shed foundation you can build.
2. If you enlist the services of an experienced contractor, they will likely select the appropriate type and amount of concrete mix for you. Choosing the right mix depends on the climate in your area (i.e. warm or cold) and the type of shed you will be erecting on the concrete pad. If you've elected to mix your own concrete, contact your local building supplier for assistance. They will also be able to help you determine what tools you will need.
3. Once you have chosen the site for your concrete pad, you will need to dig a trench. We recommend a 3-foot wide trench, but size will vary depending on your location. Grade or level the center of your trench.



*Dig a trench to start building your concrete pad.*

4. Fill the bottom of your trench with crushed stone to maintain proper drainage.
5. Construct a concrete footing form using stakes and 2" x 8" lumber to mark the corners of your pad. It will be like building a sandbox or mould for your concrete mixture later. Ensure that your corners and the box are square.



*A concrete form will keep your concrete in place*

6. It is very important to pour a concrete pad that is the same size as your garden shed. Do not pour your pad according to your structure's exterior dimensions, which tend to be bigger than the actual building (siding allowances are not included in the measurement because they are positioned over the concrete pad).  
If you pour a concrete pad that is bigger than your building measurements, you will increase the likelihood of water leaking into your building (creating a proper seal between your wall and your concrete pad is difficult).
7. Pour your ready-mixed concrete into the mould you've created. Agitate the concrete to work out air bubbles. Level the concrete and use a piece of lumber (e.g. 2 x 4) to screed (i.e. smooth out) the surface of the pad. Apply more concrete to the sunken areas to bring the entire pad up to the same level.
8. Next, use a float to further smooth out the surface of your concrete pad. Keep going over the concrete until you have worked out any moisture or remaining air bubbles. Avoid marring the surface of your pad.



An example of a smooth concrete pad

9. When your concrete pad begins to set, run an edging tool along the inside of the mould. This technique will help make it easier to remove the forming boards later.
10. Properly finish and seal your concrete pad using one of the following methods so that your floor lasts for as long as you have your shed. Try:
  - Creating a slightly grooved surface so no one slips on your floor. Do this when the concrete has yet to set fully.
  - Cover your pad and allow the concrete to set evenly for approximately 48 hours.
  - Apply a protective concrete sealer.

11. There are several ways you can affix your walls to your finished concrete pad: use a J-bolt (available through any building supplier) or a concrete screw (Tapcons). Using a heavy drill, screw your J-bolt or Tapcon through the bottom plate and into the pad. We recommend that you use 4 1/2-inch screws and place them approximately every 12 to 16 inches apart.



A picture of a tapcon

12. Our siding is designed to overhang the bottom plate of the walls by approximately 1 inch. Should your concrete pad be slightly larger than the structure, simply saw off the overhang so that the bottom of the plate and the siding are flush with each other.



Make sure your bottom plate and siding are flush

### **What We Recommend**

When using a concrete pad as your shed foundation, we suggest the following (depending on the size of your structure, the recommendations below may be adjusted accordingly):

- Always check with local contractors and/or building departments prior to pouring a concrete pad.
- Consider installing gutters to help redirect water away from your foundation and walls. This is always a useful addition, if your concrete pad is larger than your garden shed.
- If you are installing conduits for electrical service or plumbing, you must do so at least 4 1/2 inches from the edge of the pad so that the walls will have room to sit.

- Pouring a partial concrete pad tends to create problems in the future (with warping and the 2 foundations in use might sink or move at different times and degrees). We recommend that you pour an entirely new pad if necessary. Extending existing pads is possible but not advisable.