Anchors for SHEDS

For HOLD-DOWN
Cabled Anchors

For combined FOOTINGS / HOLD-DOWN
Penetrators

American Earth Anchors
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BOLTED to the outside
OVER an inside structural member
LOOPEd around the ground frame
Cable is attached to buried anchor chosen for soil conditions and desired pullout strength
Cable clamps make a loop
BULLET is best for driving through tough or stony soil

Choice of adapters for post or pipe

3” (7.5 cm) ARROWHEAD
4” (10 cm) ARROWHEAD
3” (7.5 cm) BULLET
36” (0.9 m) PENETRATOR
46” (1.2 m) PENETRATOR

See next page for an example

American Earth Anchors
The best screw you will have in the dirt™
Anchoring Methods

EXTERNAL – Attached to the shed’s wall or ground frame

- Using THIMBLE option for cable termination...
- ...and your fastening hardware
- Vertical positioning of the bolt will depend on how far the anchor pulls up before it “locks”
- Anchor pull-up during locking (typically 3-5 inches)
- Cables looped around the shed’s ground frame, using an anchor at each corner and at midpoint of each side

INTERNAL – Through the floor and secured to (or over) a structural member

- In this example, the anchors are in pairs, with the cable from an anchor on one side attached to the cable from its mate on the other side
- Anchors on this side have a LONG (custom) cable
- Anchors on this side have a standard thimble-terminated cable

The specific method, and the number and placement of anchors, will depend upon shed size, soil conditions, and user preference.
Combined ANCHOR and FOOTING

If a larger shed needs support as well as hold-down (i.e., requires footings), the large Penetrators can provide both functions with the same anchor. The largest (46") can replace poured concrete as an easier, faster, equally effective, and less expensive alternative.

The large Penetrators provide both hold-down (like an anchor) and support (like a footing).

ATTACHMENT METHODS
Ours / yours / custom

We can make brackets to your specification

- No digging
- No forms
- No pouring
- No waiting

36" (0.9 m)

Threaded hole for 3/4"-10 bolt

46" (1.2 m)

Clear hole 9/16" (9.5 mm) For bolt or grounding wire

2¼" I.D. (58 mm) pipe fits over

For pipe or round post

For square post

2" pipe (51 mm) 4x4 lumber (100x100)
**Installation**

**SPACING:** For best holding strength, anchors should be installed at a minimum spacing equal to the depth of the anchor, in order to avoid each other’s “cone of soil” — the region of soil that contributes to an anchor’s holding strength. This applies to both cabled anchors and Penetrator (screw-type) anchors.

![Diagram showing anchor installation and separation](image)

**Pullout Strength Table**

<table>
<thead>
<tr>
<th>Soil Type</th>
<th>3&quot; Arrowhead Min. Depth</th>
<th>4&quot; Arrowhead Min. Depth</th>
<th>3&quot; Bullet Min. Depth</th>
<th>36&quot; Penetrator</th>
<th>46&quot; Penetrator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardpan or asphalt</td>
<td>2,000 lb</td>
<td>3,500 lb</td>
<td>2,000 lb</td>
<td>8,400 lb</td>
<td>14,000 lb</td>
</tr>
<tr>
<td></td>
<td>8.90 kN</td>
<td>15.6 kN</td>
<td>8.90 kN</td>
<td>37.4 kN</td>
<td>62.3 kN</td>
</tr>
<tr>
<td>SOIL CLASS 1: Dense sand or gravel</td>
<td>1,800 lb</td>
<td>2,200 lb</td>
<td>1,800 lb</td>
<td>6,000 lb</td>
<td>9,500 lb</td>
</tr>
<tr>
<td></td>
<td>8.01 kN</td>
<td>15.6 kN</td>
<td>8.01 kN</td>
<td>26.7 kN</td>
<td>42.3 kN</td>
</tr>
<tr>
<td>SOIL CLASS 2: Medium sandy gravel</td>
<td>1,700 lb</td>
<td>1,900 lb</td>
<td>1,700 lb</td>
<td>2,100 lb</td>
<td>3,300 lb</td>
</tr>
<tr>
<td></td>
<td>7.56 kN</td>
<td>15.6 kN</td>
<td>7.56 kN</td>
<td>9.34 kN</td>
<td>14.7 kN</td>
</tr>
<tr>
<td>SOIL CLASS 3: Loose medium-to-fine sand</td>
<td>600 lb</td>
<td>900 lb</td>
<td>600 lb</td>
<td>1,000 lb</td>
<td>2,000 lb</td>
</tr>
<tr>
<td></td>
<td>2.67 kN</td>
<td>15.6 kN</td>
<td>2.67 kN</td>
<td>4.45 kN</td>
<td>8.90 kN</td>
</tr>
<tr>
<td>SOIL CLASS 4: Loose fine uncompacted sand</td>
<td>350 lb</td>
<td>475 lb</td>
<td>350 lb</td>
<td>350 lb</td>
<td>1,100 lb</td>
</tr>
<tr>
<td></td>
<td>1.56 kN</td>
<td>15.6 kN</td>
<td>1.56 kN</td>
<td>1.56 kN</td>
<td>4.89 kN</td>
</tr>
</tbody>
</table>

Watch installation videos at [aeavideo.com](http://aeavideo.com)