

Cost of Helical Pile Foundations

Contractors weigh in on the advantages of helical piles over concrete tubes, in this thread from 2012

I'm intrigued by helical coil technology, but everyone I've spoken to says they're more money than conventional concrete. Wondering if someone with experience could speak to their cost for new construction vs. Sonotubes. —*cdservices, Boston*

Helical pile, not "coil." On face value, the cost of the concrete and tube are minimal and are way cheaper than any helical pile. But when you factor in the time to excavate, cost to relocate spoils and/or backfill, time to wait for an inspection, time to place the concrete, time waiting for concrete to cure, and the fact that you have no idea if the

soil you just placed those Sonotubes in is actually capable of bearing the load, helical piles win every time. Prices for installed helical piles start at around \$150 per pile and get more expensive commensurate with the loading requirements. —*Greg Di, Bergen County, N.J.*

Make sure you look at the right product. The old helical piers (basically an auger that you leave in the ground) are definitely way expensive and almost never worth it. The newer Techno Metal Posts [TMP] are definitely worth looking into. —*Alaskan Son, Wasilla, Alaska*

Can you guesstimate how much a Techno Metal Post would cost with bearing capacity equivalent to a 14-inch-diameter concrete pier in 2,500 [psf] soil? —*cdservices*

Contact the guy who serves your area. They're helpful. technometalpost.com —*VTNorm, southwestern Vermont*

The smallest Techno Metal Post, P1, can handle up to a 6,800-pound load, which is more than double what that 14-inch Sonotube is estimated to take. Each dealer sets their own pricing, but it's probably around \$150, give or take ... [The] P2 is the most commonly used residential pile and it can handle 9,600 pounds. You would need a 24-inch Sonotube in at least 3,000 [psf] soil to get that loading conventionally. —*Greg Di*

So, it sounds like the new metal pile technology blows away the justification for concrete piers in almost every case. —*cdservices*

I still use concrete Sonotubes with a Bigfoot base if I don't have much work, as I do most of the labor and therefore they are more profitable. If you are subcontracting it all out, the Techno Metal Posts are the way to go almost every time. Only other weakness to them is that they aren't as good as a conventional pile at going through solid rock. —*Alaskan Son*



1. Adding a vertical extension to the drilling rig makes it possible to drive piers into steeply sloped sites. **2.** In frozen ground, a pile can be driven normally after the ground is warmed using a proprietary heating rod. **3.** Several types of caps are available to attach piers to framing; some are adjustable in order to fine-tune the elevation.

For more information on concrete piers and helical piles, see the following articles: "Designing Pier Footings," *Professional Deck Builder*, Jan/Feb 2007 and "Working With Helical Piers," *JLC*, Oct 2012