



AMERICAN
EARTH ANCHORS

MADE IN THE UNITED STATES OF AMERICA

QUICK REFERENCE

PE46-FLAT

SPECIFICATIONS

46" PENETRATOR™ ALUMINUM GROUND ANCHOR

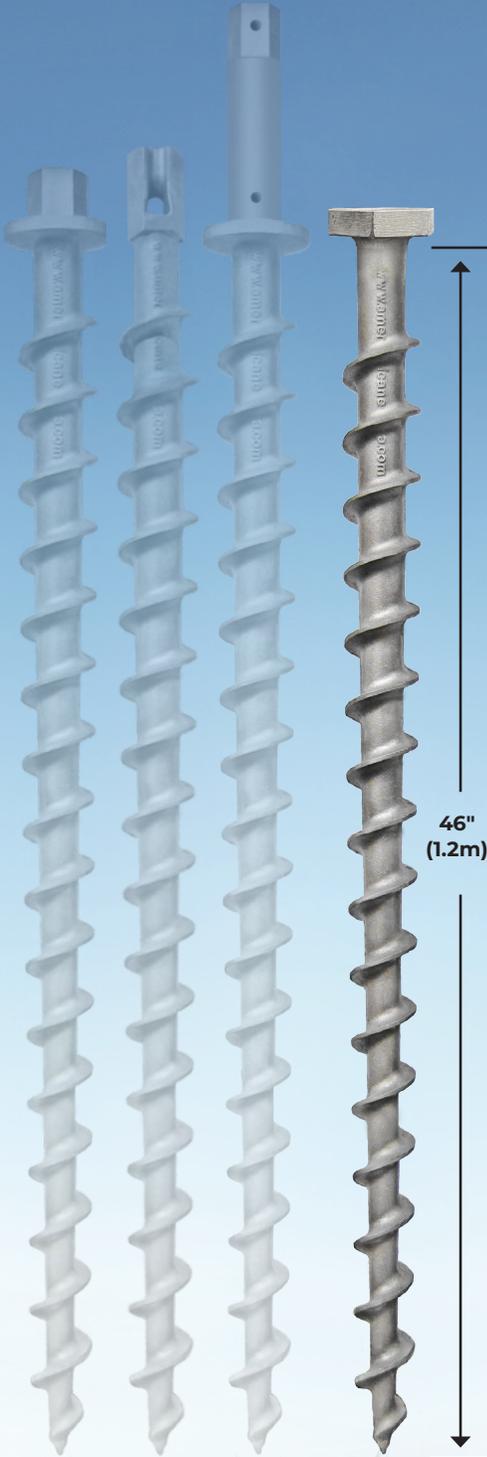
356 ALUMINUM ALLOY T6 HEAT TREATED



PE46-FLAT

ULTIMATE PULLOUT CAPACITY - 14,000 LBS.

- Available in guy, hex or hex 8" head version
- Aircraft-quality cast aluminum 356 Alloy - No Corrosion
- Install with 2" or 51 mm socket
- Weighs 10.5lb (4.8 kg)
- Permanent or Removable/Reusable
- Can also replace concrete footings & downloads



Gazebo Post



Stairs



Yurts - Glamping



Decks - Platforms



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The World's Most Trusted Ground Anchors



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Flat hex head 3 1/2" : (89mm)

Neck Diameter 1 3/4" : (45mm)

Flight Diameter 3" : (77mm)



Socket size 3.5" : (89mm)

Threaded hole for 3/4" - 10 bolt



6-point socket (instead of 12-point socket) will minimize wear and rounding of hex head for repeated installation/removal

VERTICAL PULL

Ultimate Load Capacity Vertical pullout strength flight fully embedded	PE9 9"	PE10 10"	PE14 14"	PE18 18"	PE26 26"	PE36 36"	PE46 46"
Soil Class 1 Hardpan or Asphalt	400lb 1.78 kN	1,000lb 4.45 kN	2,500lb 11.1 kN	2,500lb 11.1 kN	4,500lb 20.0 kN	8,400lb 37.4 kN	14,000lb 62.3 kN
Soil Class 2 Hard clays, Hard compact sand / gravel	200lb 0.89 kN	700lb 3.11 kN	1,700lb 7.56 kN	1,700lb 7.56 kN	3,100lb 13.8 kN	6,000lb 26.7 kN	9,500lb 42.3 kN
Soil Class 3 Medium clays, Medium sandy gravel	100lb 0.44 kN	350lb 1.56 kN	600lb 2.67 kN	600lb 2.67 kN	1,100lb 4.89 kN	2,100lb 9.34 kN	3,300lb 14.7 kN
Soil Class 4A Loose medium to fine sand with minimal clay	<100lb 0.44 kN	200lb 0.89 kN	350lb 1.56 kN	350lb 1.56 kN	630lb 2.80 kN	1,000lb 4.45 kN	2,000lb 8.90 kN
Soil Class 4B Loose fine un-compacted sand	<100lb 0.44 kN	100lb 0.44 kN	200lb 0.89 kN	200lb 0.89 kN	350lb 1.56 kN	550lb 2.45 kN	750lb 3.34 kN

» Commercial

» Residential

» Permanent

» Temporary

Soil classification per ASTM D-2487/2488. Install with impact socket.

» Military

ANGLE INSTALLATION

Soil Type	Installed 15° / Pullout 15°			Installed 30° / Pullout 30°			Installed 45° / Pullout 45°		
	PE26"	PE36"	PE46"	PE26"	PE36"	PE46"	PE26"	PE36"	PE46"
Soil Class 1 Hardpan or Asphalt	4,265lb	7,980lb	13,300lb	4,050lb	7,560lb	12,600lb	3,600lb	6,720lb	11,200lb
Soil Class 2 Hard clays, Hard compact sand / gravel	2,945lb	5,700lb	9,025lb	2,790lb	5,400lb	8,550lb	2,480lb	4,800lb	7,600lb
Soil Class 3 Medium clays, Medium sandy gravel	1,045lb	1,995lb	3,135lb	990lb	1,890lb	2,970lb	880lb	1,680lb	2,640lb
Soil Class 4A Loose medium to fine sand with minimal clay	598lb	950lb	1,900lb	567lb	900lb	1,800lb	504lb	800lb	1,600lb
Soil Class 4B Loose fine un-compacted sand	332lb	475lb	712lb	315lb	450lb	675lb	280lb	400lb	600lb

» Underwater

» Soil / Sand

» Asphalt



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PE46-FLAT INSTALLATION METHODS

USE 3.5" 6-POINT SOCKET

Install the anchor at the same angle the load is pulling - it's the flights of the anchor that hold the anchor in the ground.

- ▶ **Electric Impact Driver** - Suggested minimum of 750ft lbs of torque in hard soil



- ▶ **Air Impact Driver** - 1/2 - 3/4" Impact Driver On Average Needs 70-90 PSI At 10 CFM. 3/4 - 1" Impact Driver On Average Needs 70-90 PSI At 20 CFM



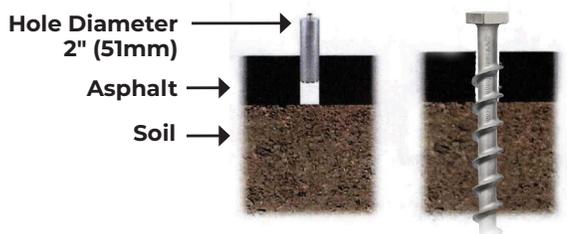
- ▶ **Power Take Off (PTO) - Tractor, Bobcat, Skid Steer, etc.** - Make sure the PTO or Power Head is always in line with the anchor. After the anchor is 50% installed move the PTO so it is again aligned with the anchor. The anchor can bow and fail if not installed properly.



- ▶ **Manual**- Ratchet with appropriate socket. Add Steel Pipe (Cheater Bar) for leverage. If you are having a tough time getting the last few installation inches in the ground with an impact tool.



- ▶ **Pre-Drill** - Pre-drilling is necessary when installing penetrators in asphalt, frozen, hard or rocky soil. Takes stress off the anchor and installer and will tell you if any rocks, roots or obstacles are in the way. Use a 2" auger bit (no larger) so anchor can still bite into soil.





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BRACKETS FOR PE36 AND PE46 PENETRATORS



PE46-2U 2" round post



PE46-44H/V for 4x4 vertical or horizontal. Also available as a 6x6.



PE46-44 Wrap for 4x4 lumber. Also available as a 6x6.



Custom Base Plate



PE46-L90 Universal fit. Lumber or metal.



Custom Strapping. Shown here connected to top of anchor with 3/4"-10 bolt.



Custom Bracket. Shown here for a greenhouse.



Tie Off Cables



Gazebo Tie down



Log Cabling / Erosion Control



WE MAKE CUSTOM BRACKETS, BASE PLATES AND CABLES FOR MOST APPLICATIONS. CALL OR EMAIL US WITH YOUR DESIGN, SKETCH OR IDEA.