



Hebei Longze Metal Products Manufacturing Co., LTD

Technical Data Sheet: Solar Ground Screws & Helical Piles

Product Overview

Brand: Longze Fasteners

Product Name: Solar Ground Screws / Hot-Dip Galvanized (HDG) Helical Piles

International Standards: ISO 1461 (Galvanizing) / ASTM A123 / EN 10219

Material Grade: Q235B / Q355B Carbon Steel (High Strength)

Surface Treatment: Hot-Dip Galvanized (HDG), Zinc coating thickness \geq 80 μ m (Customizable up to 120 μ m)

Application Scenarios: Utility-Scale Solar Farms, Timber-Frame Housing, Fencing Systems, Highway Signage.

Dimensional Specifications (Metric)

Technical Specifications

<i>Model Type</i>	<i>Tube Diameter (d)</i>	<i>Wall Thickness (t)</i>	<i>Length (L)</i>	<i>Flange Size</i>
<i>LZ-G76-1600</i>	<i>76 mm</i>	<i>3.0 / 3.5 / 4.0 mm</i>	<i>1600 mm</i>	<i>200*8 mm / U-Type</i>
<i>LZ-G89-2000</i>	<i>89 mm</i>	<i>3.5 / 4.0 mm</i>	<i>2000 mm</i>	<i>220*10 mm</i>
<i>LZ-G114-2500</i>	<i>114 mm</i>	<i>4.0 / 6.0 mm</i>	<i>2500 mm</i>	<i>250*12 mm</i>

*Note: Custom lengths and flange designs (Round, Square, Hexagon, U-Shape) are available upon request.

Mechanical & Physical Properties

<i>Property Item</i>	<i>Specification / Value</i>	<i>Standard</i>
<i>Tensile Strength</i>	<i>370 - 500 MPa</i>	<i>GB/T 700 / DIN EN 10025</i>
<i>Zinc Coating Thickness</i>	<i>Average $\geq 85 \mu\text{m}$</i>	<i>ISO 1461</i>
<i>Anti-Corrosion Life</i>	<i>30 - 50 Years (In typical soil conditions)</i>	<i>-</i>
<i>Vertical Load Capacity</i>	<i>15 kN - 80 kN (Depends on soil density)</i>	<i>Pull-out Test Validated</i>
<i>Salt Spray Resistance</i>	<i>1500+ Hours (No Red Rust)</i>	<i>ASTM B117</i>

Eric's Professional Advice:

1. Soil Analysis: For acidic or high-salinity soils, we recommend a minimum Zinc coating of 100μm to ensure a 25-year structural warranty.

2. Anti-Corrosion Synergy: When connecting with Aluminum frames, ensure the use of Stainless Steel A4-80 bolts to prevent galvanic corrosion at the contact points..

3. Installation Efficiency: Our helical blade design is optimized for high-torque hydraulic drivers, reducing installation time by 30% compared to traditional concrete foundations. Contact

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