Earth rod comparison and selection guide

Galvanised, copper-bonded, solid copper and 304L and 316 stainless steel side by side

KALOT EARTH RODS · GVER · ERCB · SCER · SSER 304L / 316

KALOT GROUP · TECHNICAL ILLUSTRATION · NOT TO SCALE

316 stainless steel earth rod

SSER Austenitic stainless steel with molybdenum

This product



Sizes
Diameters of 16 and 20; lengths of 1500 and 2000

Weight per 1500 mm length
2.38 and 3.72 kg

Joining lengths
Integral dowel; first earth rod and extension earth rods

Installation method
Driven; borehole in rocky soil

●●●●●	Corrosion resistance
●●●●●	Saline and chloride soil
○●●●●	Next to buried steel
○●●●●	Ease of driving
○$$$$	Relative cost

Best choice for
Coastal areas, saline and chloride soils and chemical plants; projects that call for IEC requirements.

304L stainless steel earth rod

SSER Low-carbon austenitic stainless steel

This product



Sizes
Diameters of 16 and 20; lengths of 1500 and 2000

Weight per 1500 mm length
2.36 and 3.70 kg

Joining lengths
Integral dowel; first earth rod and extension earth rods

Installation method
Driven; borehole in rocky soil

○●●●●	Corrosion resistance
○○●●●	Saline and chloride soil
○●●●●	Next to buried steel
○●●●●	Ease of driving
○○$$$	Relative cost

Best choice for
Next to buried steel foundations, pipes and tanks; low-salt, well-drained soil.

Solid copper earth rod

SCER Copper throughout the cross-section



Sizes
Diameters of 16 and 20; length 1500

Weight per 1500 mm length
2.68 and 4.19 kg

Joining lengths
M10 dowel; several lengths in line

Installation method
Borehole with ground improvement material, or driving in soft soil

●●●●●	Corrosion resistance
○●●●●	Saline and chloride soil
○○○●●	Next to buried steel
○○○●●	Ease of driving
$$$$$	Relative cost

Best choice for
Saline and corrosive soils, wherever very high durability is needed; installed in a borehole.

Copper-bonded earth rod

ERCB Steel core with copper coating



Sizes
5/8 and 3/4 inch; length 1500

Weight per 1500 mm length
1.95 and 2.76 kg

Joining lengths
Brass coupling; several lengths end to end

Installation method
Driven with a sledgehammer or power hammer

○●●●●	Corrosion resistance
○○●●●	Saline and chloride soil
○○○●●	Next to buried steel
●●●●●	Ease of driving
○○○$$	Relative cost

Best choice for
Most projects: buildings, substations, lightning protection and towers; driven to great depth at a sensible cost.

Galvanised earth rod

GVER Steel core, hot-dip galvanised



Sizes
Diameters of 16 and 20; lengths of 1500 and 2000

Weight per 1500 mm length
2.38 and 3.71 kg

Joining lengths
One piece; several parallel earth rods joined by galvanised conductor

Installation method
Driven with a driving cap, or in a borehole with GIM

○○○●●	Corrosion resistance
○○○●●	Saline and chloride soil
○○●●●	Next to buried steel
●●●●●	Ease of driving
○○○○$	Relative cost

Best choice for
All-galvanised earthing networks such as towers, fences and galvanised steel structures, and temporary site earthing; in neutral, well-drained soil.

Ratings compare these five earth rods with each other; more coins mean higher cost, based on metal prices on 21 Mehr 1405. Weights are per 1500 mm length.

Near installations with cathodic protection, coordinate the design with the cathodic protection designer.

We keep improving our products; please confirm final dimensions with our experts.

گروه کالوت
KALOT GROUP
Protect Today For Tomorrow
Since: 1972 تاسیس: ۱۳۵۱
www.kalot.ir · Tel +98 21 2268 8852