



FAQ Which materials are recommended for direct-burial pipe-grounding clamps?

Materials

Direct burial installations require the most corrosion resistant materials economically available. Bronze (copper-tin alloy) has excellent corrosion resistance and strength, and is suitable for nearly all direct-burial applications.

However, brass (copper-lead alloy) is susceptible to electrolytic corrosion and is not recommended for direct burial applications.

Stainless steel is also suitable for direct burial, and is sometimes utilized for screws or bolts with bronze clamps due to strength and cost factors.

Recommendation

In general, bronze is the material recommendation for direct burial and many outdoor situations... both for clamp bodies and screws. Stainless steel is also appropriate for screws.

Discussion

Long-term reliability depends on the actual application environment in terms of moisture, soil chemistry, and electrical leakage. A dry mountain desert is benign in contrast to the chemical harshness of a semi-tropical mine-site, a water treatment plant, or an agricultural building with manure or fertilizing chemicals. For direct burial, bronze and/or stainless steel should be used in any situation.

Direct burial ratings by UL and/or CSA indicate suitability for "direct burial in earth and concrete".

Greaves designates most direct-burial connectors with "DB".

FAQGrMatDB

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