Embedded concrete distribution box



Overview

US20120084972A1 In the preferred embodiment, a first box (with at least one attached conduit) is embedded in the bottom of a concrete deck at pour, wherein.

Key Takeaways

Embedded concrete distribution boxes are installed within a concrete slab during construction, becoming a permanent, integrated part of the floor or deck.

Overview

Embedded or in-slab distribution boxes are designed to be placed inside a concrete slab before the pour, allowing them to become a permanent part of the structure while providing electrical, data, or AV connections. Unlike poke-through boxes, which are retrofitted into existing slabs, embedded boxes are fully surrounded by concrete and are planned during the construction phase.

Installation Process

Layout Planning – Electricians or designers mark the exact locations of the boxes based on room layout, furniture placement, and intended outlet use. Box Placement – The box is secured to the formwork or reinforcement. Wooden formwork can be used, with boxes nailed in place, while steel formwork may require expansion anchors, magnets, or adhesive foils.

Some systems use modular components to ensure precise alignment and stability. Conduit Connection – Conduits are connected to the box during the rough-in stage. The system is designed to prevent concrete from entering the box, ensuring leakproof installation.

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Concrete Pour – Concrete is poured around the box, embedding it permanently. The box must withstand the weight and curing pressures of the concrete. Finishing – After the concrete cures, the top of the box is trimmed flush with the finished floor, and a decorative cover is installed.

Some systems allow for easy adjustment before and after the pour.

Product Considerations

Modular Systems – Brands like KAISER and PRIMO offer modular boxes with membrane technology, strain relief, and tool-free entry, simplifying installation and ensuring concrete-tight performance. Durability – Embedded boxes are engineered to handle the structural load of the slab and provide long-term reliability for power, data, and AV services.

Multi-

Service Options – Boxes can accommodate power-only, data-only, or multi-service configurations, with partitions to separate high-voltage and low-voltage wiring for code compliance.

Advantages

Permanent Integration – The box becomes part of the slab, reducing the need for later modifications. Protection – Fully embedded boxes are protected from physical damage and environmental exposure. Flexibility – Modular systems allow for various wiring configurations and easy adjustments during construction.

Embedded concrete distribution boxes are essential for modern commercial and residential construction, providing a reliable, code-compliant solution for electrical and communication needs while maintaining structural integrity.

Article Content

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In the preferred embodiment, a first box (with at least one attached conduit) is embedded in the bottom of a concrete deck at pour, wherein the box has an open bottom covered during the...

CONCRETE EMBEDDED ELECTRICAL JUNCTION BOX

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Field of The InventionBackground of The InventionSummary of The InventionBrief Description of The DrawingsDetailed Description of The Preferred EmbodimentsIn a preferred embodiment of the invention, a matched two-piece electrical junction box is presented which is optimized for installing wire pulls in embedded concrete construction applications. Both pieces are open-ended boxes, preferably rectangular. The installation process is described as follows: a first or “upper” box, with an open bottom end ...See more on freepatentsonline Galco

Concrete Boxes for Embedded Electrical Installations, Cast - Galco

Concrete Boxes for Embedded Electrical Installations, Cast help standardize installs with durable options. See NEMA and IP ratings with drawings for planning.

Distribution Box | Precast Distribution Box Units by KCPI

Discover Precast Distribution Box Units from KCPI for durable, code compliant septic distribution and easy installation.

Embedded Electrical Junction Boxes

To install electrical boxes underground, you must select options that are specifically designed for buried applications. Embedded electrical junction boxes work for many environments, including traffic-rated

Concrete installation solution

Absolutely concrete-tight, installed in seconds and with numerous application possibilities. The complete concrete range of PRIMO saves every electrician work, time and money.

Precast Concrete Box

The underground utility construction industry has come to rely on the proven performance and versatility of precast concrete utility structures. Standard vault designs are readily available, while custom

Polylok Distribution Boxes

Polylok, Inc. is an international supplier for the precast concrete and onsite wastewater industries, producing high-grade septic tank Solution and product.

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Flood Precast | Utility Products for Infrastructure

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Durable precast concrete utility boxes, chambers, trenches and troughs for infrastructure, drainage and access by Flood Precast.

3 Outlet D-Box

The 3-Outlet Distribution Box is a concrete box designed for distribution of effluent wastewater to a home''s leach field. The 3-outlet is used for small leach fields

Precast Distribution Boxes & Pump Stations | R. Deso, Inc.

Explore Our Precast Distribution Boxes Efficient and Durable Solutions for Your Wastewater Management Needs Our pre-cast concrete distribution boxes are essential for effective wastewater

Concrete Electrical Box | Durable & NEC-Compliant

Shop concrete electrical boxes including masonry and octagon boxes. Durable, NEC-compliant solutions for commercial, residential, and industrial projects.

5-Outlet Distribution Box w/ Baffle

5-Outlet Distribution Box w/ Baffle Overview Precast distribution boxes serve to distribute the flow of wastewater from the septic tank evenly to the absorption field, leeching field or seepage pits. It is

Concrete/Cast Pull Boxes

Concrete/Cast Pull Boxes Oldcastle N09BOX Reinforced Concrete With Hardhat Plastic Cap Straight Wall Electrical Utility Pull Box 19-3/4-Inch x 14-1/4-Inch x 12-Inch Christy

12 Embedded Junction Boxes In Concrete | We

There are plenty of options available while buying embedded junction box in concretes in the market right now, and if you''re confused regarding which

Small Distribution Box

Distribution boxes are cast with 35 MPA strength concrete at 7 days with 5-7% air. Fiber reinforced. Inlet openings 50mm (2”) above outlets. Small distribution

Distribution Boxes

Distribution Boxes Precast concrete Distribution Boxes are used to receive septic system effluent from a septic tank and to redistribute the effluent into a network of attached drain fields or soakaway bed

12 x 18 in. Concrete Distribution Box with Lid

Find the D & M Concrete 12 x 18 in. Concrete Distribution Box with Lid at Ferguson online for delivery or pickup at a Ferguson store near you.

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This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

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