
Insulating Concrete Form Section

E-Channel 3 5/8" by 2" imbedded wall raceway

PART 1 GENERAL

This specification covers the labor and materials for an imbedded wall raceway distribution system for electrical services, as shown on drawings and as specified. The conditions of the contract apply to this section as fully as if repeated herein.

1. SCOPE

E-Channel imbedded wall raceway for Insulating Concrete Form wall systems. Related accessories to include spray urethane adhesives, foam supports, and all other items necessary to the E-Channel raceway system.

1.2 References

The specifications and standards referenced herein, apply to the work only to the extent specified by the reference ICF wall system manufacturer.

1.3 System description

The materials, e-channels specified in this section establish a standard of required function, dimension, appearance and quality to be met by any proposed substitution. No substitution will be considered unless written request for approval has been submitted by the bidder and has been received by the architect at least ten days prior to the date for receipt of bids. Each such request shall include the name of the materials for which it is to be substituted and a complete description of the proposed substitute including drawings, cuts, mock-ups, performance and test data, compliance with ICF manufacturer's approvals and any other information necessary for evaluation.

1.4 Submittals

Submit manufacturer's specifications and installation instructions. Include copy of installation instruction distributed to the contractor. Submit detailed drawings showing layout of all e-channel and accessories as necessary for the proper installation of the imbedded wall raceway system for Insulating Concrete Form wall construction.

1.5 DELIVERY, STORAGE, AND HANDLING

On arrival, check the shipment for shortages or damage. Damage claims shall be filed directly with the carrier. Protect material and cartons from exposure to moisture and extreme heat.

PART 2 E-CHANNEL

2.1 Manufacturer

E-Channel imbedded wall raceway by Solcraft PDC, Inc. The manufacturer shall demonstrate a minimum of two years experience with this type of imbedded wall raceway system.

2.2 Components

Typical layout, as shown on drawings, will consist of vertical raceway feeding into single or multiple horizontal power distribution raceways. E-Channel raceways shall be on specified centers and shall consist of W-Clips at no more than 24" on center.

The E-Channel raceway shall have inside dimensions of 3 5/8" [94mm] x 2" [50mm]. The e-channel's interior concrete flange shall have overall outside dimensions of 6" [153mm] and the outside fins of 1 1/16" [26mm]. The e-channel shall be of one-piece continuous construction of CPVC (RIGID). Standard lengths are 4' [140cm] and 8' [280cm].

The back fin will be notched 3/16" x 1 1/16" on a presets centers of on 8" and 6" Other preset spacing shall be available from the manufacturer. An interior connecting flange in the e-channel, will receive a removable extruded wire clip.

PART 3 Execution

3.1 Preparation

Manufacturer suggests that all proper bracing and support be in place before concrete is placed into the wall system.

3.2 Installation

Compare and coordinate the architectural and electrical installation drawings for any incorrect dimensions or details. Do not proceed with installation until incorrect details or dimensions are corrected.

Install distribution raceway system and accessories in accordance with the manufacturers suggested installation instructions. The e-channel shall be located in strict accordance with the electrical drawings to maintain the electrical spacing.

Fasten the e-channel bridge supports to the wall manufacturer's block ties with a 1 1/2" # 6 drywall screw. Spacing between bridge supports shall not exceed 2' [610mm]

Before concrete placement, make a final inspection of the entire e-channel system. Any gaps in the system shall be sealed with urethane spray adhesive or tape to prevent concrete from entering system. Level the e-channel flush with the interior and exterior faces of the ICF block system.

After concrete placement remove supporting materials from e-channel system. Install service fittings before drywall installation. Remove foam as necessary, following e-channel manufacturer's recommendations.

3.3 CONSTRUCTION

Reinforced concrete design shall be in accordance with American Concrete for Buildings (ACI301-72) and ACI Building Code Requirements for Reinforced Concrete (ACI318-83). Concrete placement shall follow proper and accepted industry practice.

Concrete must be vibrated at the e-channel to insure that the concrete completely secures the e-channel system. Care shall be taken during concrete placement and, in particular, during concrete vibration.