Product Specification

27-11-16

PART 1- GENERAL

1.1 Related Documents

A. Drawings, General and Supplementary Conditions, Division 00 Procurement and Contracting Requirements, and Division 01 Specifications sections apply to this Section.

1.2 Summary

A. This Section includes PolarPlexTM Rack Top Baffles used for either Hot or Cold Aisle Containment.

1.3 System Description

A. PolarPlexTM Rack Top Baffles that can be configured in either the vertical position or at a 45° angle. An integrated J-Hook is also included that allows for tool-less SPSTM Infill Panels for gaps between racks.

1.4 Submittals

A. Submit product information showing compliance with these Specifications to the Owner 2 weeks prior to shipment to the site.

B. Action Submittals:

- 1. Product Data: Submit manufacturer's technical data and brochures for specified system.
- 2. Shop Drawings: Dimensioned plans, layout of components, connection details, and relationship to adjoining work.

C. Closeout Submittals

Final Shop Drawings: If as-built drawings are substantially different from original drawings.

1.5 Design Requirements

A. Rack Top Baffles shall be a magnetically attached, individual bottom framed panel with a twin-wall polycarbonate insert. Panel twin-wall inserts shall be Class A fire rated material.

B. Rack Top Baffles shall be individual components that can be easily removed without tools for maintenance access to the space above the equipment racks and for cleaning of the baffles.

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1.6 Quality Assurance

A. Manufacturer Qualifications: Minimum 3 years producing types of products specified.

1.7 Delivery, Storage, and Handling

- A. Accept rack top baffles onsite in manufacturer's original containers. Inspect for damage.
- B. Exercise extreme care in handling all rack top baffles to prevent damage.
- C. Store materials and products in strict compliance with manufacturer's instructions and industry standards. Protect components from damage during handling and installation.

1.8 Project Conditions

A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.

1.9 Warranty

A. Warranty Period: PolarPlexTM Rack Top Baffles shall be warranted against defects in materials and workmanship for the first 12 months after initial start-up or 18 months after ship date, whichever occurs first.

PART 2 - PRODUCTS

2.1 Product Names

A. Polargy PolarPlexTM Rack Top Baffles

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2.2 Manufacturers

A. Basis of Design: Product specified is manufactured by Polargy, Inc. PolarPlexTM Rack Top Baffle specified is to establish a standard of quality for design, function, materials, and appearance.

- B. Manufacturers: Subject to compliance with requirements, provide products by the manufacturers specified:
 - 1. PolarPlexTM Rack Top Baffle:
 - a. Polargy, Inc.

1148 Sonora Court

Sunnyvale, CA 94086 U.S.A.

Phone: (888) 816-8338

- 1. Other Owner-approved manufacturer.
- C. Substitutions: Proposed substitutions must be approved prior to bidding.

2.3 Components

- A. Framing Component General:
 - 1. A metal extrusion track that sits on top of the racks is used to secure the rack top baffle in either the vertical or 45° angle position.
 - 2. Material:
 - a. Aluminum Framing: 6063-T6 aluminum with an anodized clear finish.
- B. Panel General:
 - 1. Panel Construction:
 - a. Panels shall be of polycarbonate construction with a fire safety rating of ASTM e84 Class A designed at standard and custom sizes.

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- 2. Panel Thickness: Panel thickness as specified.
 - a.8mm
- 3. Colors: As selected by the Owner from the manufacturer's standard panel colors.
- C. Mounting Magnets General:
 - a. Neodymium Magnets

2.4 Structure

A. PolarPlexTM Rack Top Baffles shall be removable without tools and held at the bottom by the aluminum extrusion track that runs along the tops of the equipment racks. It can be attached to the racks at three possible mounting locations by neodymium magnets.

- B. Rack Top Baffles shall be prefabricated in order to minimize installation time.
- C. Rack Top Baffles shall be individual components in both standard and custom sizes. Baffles shall be aluminum framed at the bottom with 8mm thick twin-wall polycarbonate inserts. Each baffle shall be capable of being installed and removed easily by way of magnets so that no tools are necessary allowing easy cleaning and maintenance access.
- D. Rack Top Baffles extrusion track shall be equipped with a custom J-Hook that will allow for easy SPSTM Infill Panel attachment for gaps between racks.

PART 3 - EXECUTION

3.1 Preparation

A. Inspect all materials upon arrival to job-site to ensure correct quantity, finishes, and quality of product. Report, in writing, any conditions that appear to have failed in general durability or

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any other form of apparent deterioration.

B. Clean surfaces thoroughly prior to installation.

3.2 Installation

A. Install in accordance with manufacturer's instructions and approved submittals if applicable.

B. PolarPlexTM Rack Top Baffles shall be supported by the aluminum extrusion on the bottom and attached to the top of the equipment racks via magnets.

3.3 Cleaning

- A. Clean Rack Top Baffles with mild soap and water solution as needed.
- B. Maintain Rack Top Baffles per manufacturer's instructions.

3.4 Protection

- A. All work must be protected during shipment, storage, and erection so as to avoid development of nonconformity of appearance or other deleterious effects in the work.
- B. Protection should be removed when requested by the construction manager for inspection of finishes.
- C. Remove protection when no longer required. Any material found to be defective or improperly installed shall be replaced.