

# Product Data Sheet

## Point-Supported Canopy System – Crystal Structures

CSI Section: 08 44 53 – Point-Supported Canopy Systems

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### 1. Product Name & Description

**Product Name:** Crystal Structures Point-Supported Canopy System

**Description:**

The Crystal Structures Point-Supported Canopy System offers a minimalist and elegant solution for overhead glazing applications. Utilizing point-supported glass panels, this system provides unobstructed views and a sleek aesthetic, ideal for entryways, walkways, and architectural features. The system is designed to support glass panels using stainless steel fittings, ensuring durability and a modern appearance.

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### 2. Manufacturer

**Manufacturer:** Crystal Structures

**Address:** 3333 N Mead, Wichita, KS 67219

**Phone:** (316) 838-0033

**Website:** <https://www.crystalstructuresglazing.com>

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### 3. Applicable Standards & Testing

- **ASTM E283** – Air Leakage
  - **ASTM E330** – Structural Load Resistance
  - **ASTM E331 / E547** – Water Penetration Resistance
  - **ASTM D635 / D1929** – Flammability / Ignition
  - **FM 4473 / UL 2218** – Hail and Impact Resistance (with use of PVB/SGP)
  - **NFRC 100 / 200 / 500** – Thermal and Condensation Ratings
  - **AAMA 1503 / 2604 / 2605** – Thermal and Finish Performance
  - **UL 790 / ASTM E108** – Roof Assembly Fire Rating
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## 4. System Components

### Glazing Panels

- **Material:** Tempered or laminated glass
- **Thickness:** 1/4" to 1" (6 mm to 25 mm), depending on design requirements
- **Finish Options:** Clear, tinted, low-e coatings, or custom finishes
- **Performance:**
  - U-Factor: 0.25–0.40
  - CRF:  $\geq 50$
  - Visible Light Transmittance: 0.70–0.90

### Point-Supported Fittings

- **Material:** 316 stainless steel for corrosion resistance
- **Types:** Center posts, end posts, mini posts, standoff fittings
- **Design:** Flush-mounted bolt heads, gasketed to prevent metal contact with glass
- **Finish Options:** Brushed or polished stainless steel
- **Mounting:** Suitable for various substrates including concrete, steel, and wood
- **Example Products:**
  - CRL 316 Brushed Stainless Point Supported Center Post
  - CRL 316 Polished Stainless Point Supported Center Post
  - CRL 316 Brushed Stainless Point Supported Mini Post
  - CRL 316 Polished Stainless Point Supported Mini Post
  - CRL 316 Brushed Stainless Point Supported Standoff Base and Domed Cap

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## 5. Performance Criteria

Property	Typical Value / Description
Structural Deflection	L/175 max (ASTM E330)
Impact Resistance	FM 4473 / UL 2218 optional

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## 6. Design & Fabrication

- Custom-engineered glass panels and fittings to meet project-specific loads and geometry
  - Factory-fabricated modules ensure precision fit and clean sightlines
  - Panels can be installed in vertical, horizontal, or sloped configurations
  - Optional integration with structural elements such as glass fins, steel members, or stainless steel cables
  - Complex geometric designs supported by pivoting heads and varying stand-off heights
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## **7. Installation**

- Install per manufacturer's instructions and approved shop drawings
  - Verify substrate and structural supports prior to installation
  - Anchor fittings per engineer-of-record specifications
  - Flash and seal continuously per NRCA guidelines
  - Field-testing recommended per ASTM E1105 for critical applications
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## **8. Maintenance & Warranty**

- Annual inspection of seals, gaskets, and fittings recommended
  - Clean with mild, non-abrasive cleaners
  - **Warranty:**
    - 10 years – Structural frame and finish
    - 10 years – Glass panel integrity
    - Extended warranties available
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## **9. System Variants / Product Lines**

- **Standard SS spider fittings**
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## **10. Typical Applications**

- Point-supported canopies for entryways and walkways
  - Glass facades
  - Architectural features requiring minimal visual obstruction
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## **11. Submittals & Engineering**

- Product data and detailed drawings
- Engineering calculations for spans, loads, and thermal performance
- Finish and panel samples

- Licensed structural engineer seal where required
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## **12. Ordering Information**

Provide:

- Project name & location
- Panel dimensions and configuration
- Glazing type & finish
- Fitting types & finishes
- Structural interface details
- Desired geometry