



Point Supported Structural Glass Systems



IntelligentEnvelopes™

Introduction

Linel is headquartered in Mooresville, Indiana and is part of the Mestek Architectural Group. In addition to Linel, Mestek's architectural activities include American Warming and Ventilating (AWV). The emphasis for these companies is in providing products and systems that beautify and improve the performance of buildings through Intelligent Envelopes™.



There is an ongoing trend in the use of point supported structural glass systems for their dramatic aesthetics. These systems provide clear and clean views by eliminating the need for conventional visible framing to support the glass. They have an open, light and transparent appearance as the precision-cut glass is supported with small, unobtrusive fittings.

These point supported glass structures include:

- Curtain walls
- Skylights
- Canopies
- Ornamental art and Architectural accents

Every point supported structural glass project that Linel is involved in is unique. Linel works closely with architects to help them realize their distinctive vision on each project.

Linel offers an extraordinary range of capabilities and will entertain any size project, particularly those with unique requirements. These capabilities are in increasing demand as the architectural community creates more demanding and complex designs.

STRUCTURAL ANALYSIS AND ENGINEERING

There are two general approaches to the design and construction of structural glass systems – point supported and edge clamped. The point supported approach uses fittings that are attached through holes drilled through the glass. The edge clamped approach does not use holes in the glass, as the fittings instead are clamped like a vice to the edges of the glass.

Regardless of which method is chosen, Linel works with the industry's most experienced structural engineers to accurately predict through computerized finite element analysis the stress and strain in the glass plate geometry under applicable loadings through every season and weather extreme. In addition, the movement capabilities and the limitations of each fitting system must also be evaluated in the overall design.

LINEL'S OFFERING

- Supporting structure for select applications in a variety of materials including painted structural steel, brushed or polished stainless steel (typically type 316 or higher grade alloys) and painted aluminum.
- Wide variety of glass types including tempered, laminated and insulating. Various tinted glass substrates, decorative ceramic frit patterns, solar control coatings and interlayers are also available.
- Standard and custom fittings are available in a variety of types (fixed and articulated spiders, rotules, etc.)
- All designs are engineered using 3-D modeling engineering software fully integrated with CNC-controlled production equipment.

MATERIAL ONLY OR TURNKEY INSTALLATIONS

Every Linel project is assigned a project manager who coordinates activities with the architect, general contractor and installer, as well as internally with engineering and manufacturing. Linel can provide the structures as a material only contract, or installed as a turnkey solution.



It is important to remember that while there are several companies that offer point supported structural glass systems, the outcome largely depends on the rigorous engineering, state-of-the-art manufacturing, attention to detail, experience and close coordination with everyone involved in the project. For the most demanding and complex projects, you can depend on Linel's experience and expertise.

LINEL'S TRACK RECORD AND CAPABILITIES

Linel has more than 30 years of unsurpassed experience in the design and supply of custom engineered glass structures. Linel is dedicated to innovation and comprehensive design capabilities. While this brochure provides a general overview of our capabilities, we welcome the opportunity to develop solutions to satisfy your unique requirements.



Canopies





Skylights



Ornamental Art and Architectural Accents



LPSSGS-B-2

MF 08 44 00 - Curtain Walls
MF 08 63 00 - Metal-Framed Skylights
MF 10 73 00 - Protective Covers
MF 13 30 00 - Fabricated Engineering Structures



MESTEK

ARCHITECTURAL

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