



KEY SYSTEM BENEFITS

- ◆ Enhance building aesthetics, performance, and occupant comfort:
 - Re-face a building while occupied
 - Prevent water infiltration
 - Provide daylight
 - Provide solar heat gain control
- ◆ Tested, dependable mechanical fittings provide increased strength and security
- ◆ Installer-friendly – easy to install, easy to adjust to field conditions, easy to replace glass
- ◆ Quality Bendheim decorative glass options, including attractive bird-safe designs and custom design capabilities, enhance occupant comfort and privacy
- ◆ Superior fit and finish

PROJECT TYPES

- ◆ Demolition-free retrofits
- ◆ New construction
- ◆ Low- to high-rises
- ◆ All building types:
 - Museums, schools, and universities
 - Sports venues: stadiums, arenas
 - Transportation projects: transit stations, parking structures
 - Offices
 - Restaurants and retail
 - Multi-family residential projects

APPLICATIONS

- ◆ Facades
 - Rainscreens / windscreens
 - Photovoltaic facades, towers, and roof structures
 - Solar shading applications
- ◆ Interior Walls
 - Interior wall cladding applications
 - Back-lit feature walls

Integrated Bendheim flat glass rainscreen systems – the first of their kind – designed for maximum visual impact and sustainable, bird-friendly architecture.



DECORATIVE GLASS RAINSCREENS WITH LÄNGLE FITTINGS



BENDHEIM

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BENDHEIM WALL SYSTEMS INC.
 Decorative Glass Rainscreens & Fittings

BENDHEIM

BENDHEIM WALL SYSTEMS INC. Decorative Glass Rainscreens Glass Fittings by Längle

Bendheim Wall Systems Inc. and Längle of Austria introduce the first architectural glass rainscreen systems of their kind to North America. The partnership of the two long-established companies brings over 200 years of collective glass experience to the architectural design community.

In addition to numerous design benefits, Bendheim Wall Systems' new flat glass rainscreens have the ability to minimize two of the industry's major construction difficulties:

- ◆ Cost – Rainscreen facades are fast and easy to install – significantly more budget friendly than traditional demolition, repairs, or reglazing of facades
- ◆ Disruption of building operations – Rainscreen systems can be installed without accessing the building's interior and without interrupting normal building operations

Water is the most significant factor in the premature deterioration of a building. Locating and repairing water leaks and damage is a costly and time-consuming effort. A properly designed rainscreen can be an effective envelope solution to moisture penetration. New construction and retrofit projects alike can benefit from the clean design of Bendheim Wall Systems' new decorative glass rainscreens, featuring Längle glass fittings.



The new Bendheim Wall Systems decorative glass rainscreens can completely transform building aesthetics and enhance the performance of the building envelope, while providing daylighting advantages and eliminating the need for costly, wasteful, and disruptive demolition.



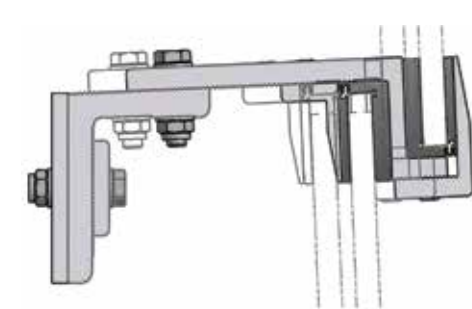
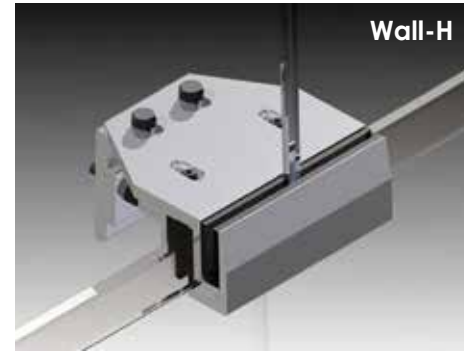
LÄNGLE GLASS FITTINGS – PATENTED DESIGNS Quality Glazing Clip Systems Manufactured in Austria

The smartly engineered Längle glass clips are tested, dependable mechanical fittings providing increased strength and security. The extraordinary patented designs require no cut-outs or holes in the glass, resulting in optimal wall strength. Easily adjustable to accommodate field conditions, Längle rainscreen glass clips install faster than comparable products, resulting in significant cost savings. Unlike other systems, individual glass panels can be quickly and easily replaced without having to deglaze surrounding panels.

The elegant, precision crafted Längle glass fittings deliver stability in style, available in a variety of finishes.



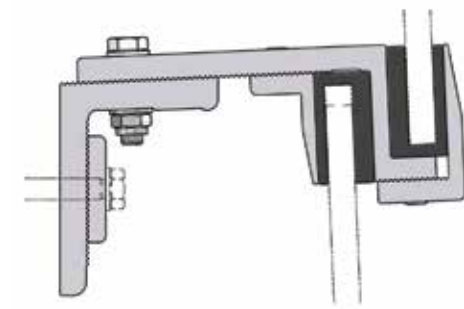
Close-up of Wall-VH clips holding etched glass panels



Vertical and Horizontal Overlap Clip System

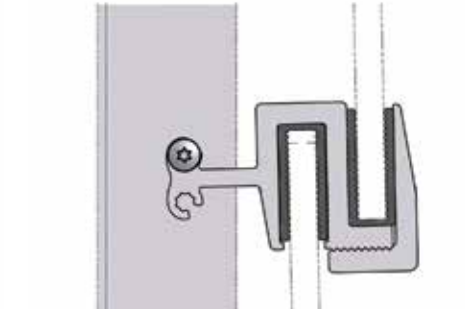
Accommodates panel thickness from 1/4" (6 mm) to 5/8" (16 mm)

The only fastener system to overlap the glass panels both vertically and horizontally



Horizontal Overlap Clip System

Accommodates panel thickness from 1/4" (6 mm) to 3/4" (19 mm)

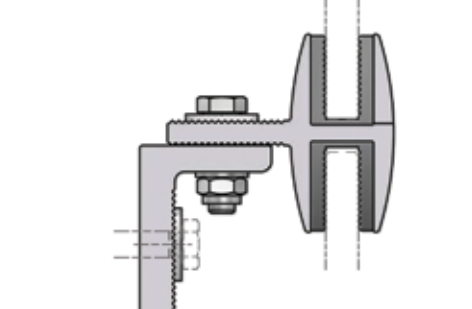


"Light-Duty" Horizontal Overlap Clip System

Accommodates panel thickness from 1/4" (6 mm) to 5/16" (8 mm)

Fittings attach to the structure without the need for aluminium angles

Particularly effective for interior feature walls



Flat / No Overlap Clip System

Accommodates panel thickness from 1/4" (6 mm) to 5/8" (16 mm)

The glass panels are secured to the fastener system without the use of compression screws

All Designs Patented & Protected



Look for the Längle seal, your guarantee of quality glass fittings manufactured with Austrian precision



BENDHEIM FLAT GLASS WALL SYSTEMS The Finest Decorative Safety Glass Fabricated in North America

Bendheim decorative glass can dramatically improve the appearance of an entire building through a synergy of translucency, reflectivity, pattern, and color. A variety of glass options, including attractive bird-safe designs, provide architects a rich creative design palette.

Bendheim safety glass – tempered or laminated – is durable, tested, and specially formulated for exterior applications. Our tempered glass is 100% heat soak tested, greatly minimizing the chances of spontaneous breakage.

Glass options include clear, low-iron, colored, etched, silkscreened ceramic frit, direct-to-glass digitally imprinted glass, and more. Requests for custom patterns and designs are also welcome.

Partial Listing of Available Glass Options:

1. Clear Float Glass
2. Low-Iron Float Glass
3. Colored Float Glass
4. Dura-Etch™ Ceramic Frit Glass
5. Low-Iron Dura-Etch™ Ceramic Frit Glass
6. Ceramic Frit Colored Glass, Standard or Custom Color
7. Ceramic Frit Fade, Standard or Custom Color
8. Ceramic Frit Silk Screened Patterns, Standard or Custom
9. Custom Digitally Printed Glass Patterns
10. Custom, High-Resolution Digital Images on Glass



Dura-Etch™ Ceramic Frit Glass

Full coverage or patterned "etch"
Exceptionally durable, resists permanent stains from water & dirt
Bird-friendly, proprietary designs
Custom patterns & designs welcome (order minimums apply)



Ceramic Frit Colored Glass

Full coverage, fades, or patterns, including proprietary bird-friendly designs
Available in a range of standard colors or hundreds of custom hues
Exceptionally resistant to scratching & discoloration
Opaque or translucent



Digitally Printed Glass

Custom high-resolution (720 dpi) digital images and full-color graphics
Virtually unlimited custom graphic & color capabilities
Exceptionally resistant to scratching & discoloration
Opacity: 4% to 100% depending on printing intensity

Bendheim Wall Systems Inc. Decorative Glass Rainscreens for Bird-Friendly Architecture

According to the American Bird Conservancy (ABC), the leading advocacy organization for bird-friendly architecture, up to a billion birds per year fall victim to glass collisions, hundreds of millions of those in North America alone. Glass facades and corners made of clear or highly translucent glass can be particularly deadly to birds. With this in mind, Bendheim Wall Systems commissioned the development of a range of architectural glass patterns, designed to ABC guidelines, combining the performance benefits of decorative glass rainscreens with eco-friendly architectural principles. These bird-friendly glass designs are designed to the "2 x 4 rule" and should be installed with the pattern facing outward in order to minimize continuous reflections. Fully etched, opaque, and textured Bendheim decorative glass types are also appropriate for use in bird-friendly architecture.

