

## Custom Anchoring Systems for FRF

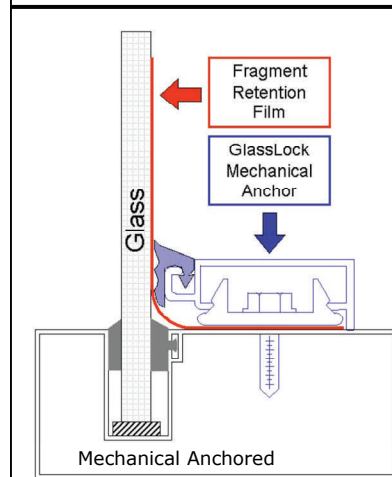
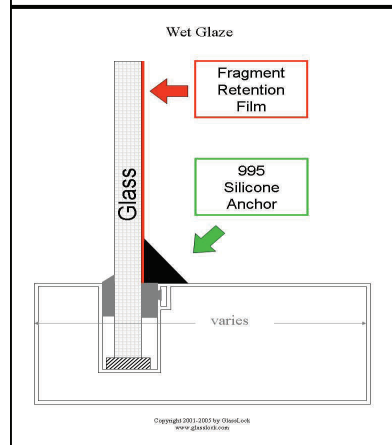
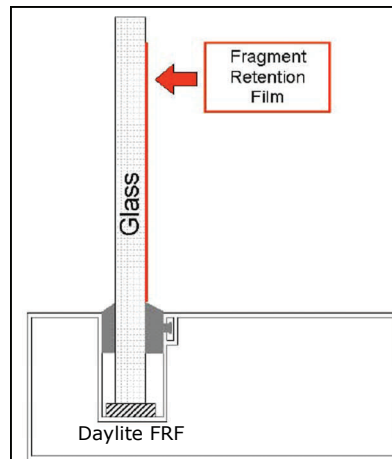
**GlassLock offers two anchoring systems: a mechanical systems that uses an aluminum batten for anchoring the fragment retention film to the window frame, and a structural adhesive system.**

Often fragment retention window film is applied directly to glass to reduce fragmentation hazards, but it also can be anchored to existing window frames to increase the overall performance of the glass. Anchoring to the frames helps keep the glass shards and the FRF within the window opening (depending on the size of the blast) and significantly reduces glass fragment hazards.

### Mechanical Anchoring

The mechanical anchoring system has been rigorously tested to ISC/GSA Blast Security Criteria using various types of glass and window units. In this system the FRF is applied to the glass and wrapped onto the existing window frame. The film is anchored there with an aggressive transfer adhesive. The batten is bolted to the window frame, mechanically securing the film and glass in place.

A Cosmetic cap (anodized or painted to match the frame) is installed to cover the screws, batten and film, and a vinyl gasket is added to provide a clean, sharp appearance. The finished installation becomes part of the window system and is virtually invisible to building occupants.



### Structural Adhesive

With the structural adhesive system the gaskets on the existing window unit are removed or cut to allow adhesive to extrude into the frame rebate (the gap between the glass and the frame). The FRF is applied to the glass and allowed to dry. Next, a black architectural structural hardening adhesive is applied over the film, over the existing window frame, and into the frame rebate. The adhesive is strictly applied following GSA standards to achieve the anchoring performance necessary to meet ISC/GSA Blast Security Criteria.

Typically, GlassLock clients specify the anchoring system and installation configuration preferred based on their needs. All clients are encouraged to have a qualified structural engineer with blast experience evaluate the existing frames, glazing unit assemblies, and the substrata of the existing windows before specifying an anchoring system.

**Every installation configuration is specific to the requirements of the site.**