



Panel Clip Pin Location:

| | | Inline Panel Clips | | | | Offset Panel Clips | | | Guard Rail Diameter |
|------------------------------------|--------------|--|--|--|--|---|--|--|---------------------|
| | | GR310F.4  | GR310F.4-R  | GR310R.4  | GR310R.4-R  | LXFP30-1  | LXTB51-1  | LXTB51-1 (w/adapter)  | |
| Pin Diameter (centered vertically) | | 0.32 | 0.32 | 0.32 | 0.32 | 0.75 | 0.75 | 0.75 | |
| Pin Offset from Post Centerline | Square Posts | 2.88 | 2.88 | -- | -- | 3.36 | 3.53 | -- | 1.5" |
| | Blade Posts | 2.13 | 2.13 | -- | -- | 2.61 | 2.78 | -- | 1.5" |
| | Round Posts | -- | -- | 2.83 | 2.83 | 3.31 | -- | 3.61 | 1.9" |

Vertical Clip Spacing:

Total Height of Guard Rail - guard rail diameter - 6" = the upper location of the glass clip
 Ground + 6" = bottom clip location

Vertical Panel Sizing:

The gap between the panel and railing typically cannot allow a 4" sphere to pass through. The panel must extend more than 2" above the upper panel clip location and 2" below the lower panel clip location.
 To clear the railing system, the panels extension above and below the must be less than 6".

Horizontal Panel Sizing:

In line panel clips require a minimum of 0.65" clearance between the edge of the post and the edge of the glass. Offset panel mounts can allow the panels to extend past the posts horizontally.

Glass Panels:

Drilled holes or notches cut into tempered glass panels, must be fabricated in accordance with ASTM C 1048. *Reference Below:*

Placement of Holes:

- 7.8.2.1 The minimum distance from any edge of the glass to the nearest point on the rim of a hole shall be 6 mm ($\frac{1}{4}$ in.) or 2 times the thickness of the glass, whichever is greater.
- 7.8.2.2 The minimum distance between the rims of adjoining holes shall be 10 mm ($\frac{3}{8}$ in.) or 2 times the thickness of glass, whichever is greater.
- 7.8.2.3 Holes near corners shall be located so that the nearest edge of the hole is a minimum of 6.5 times the thickness of the glass from the tip of the corner when the corner is 90° or more.
- 7.8.3 *Minimum Dimension of Holes*—Circular holes shall have a minimum diameter of 6 mm ($\frac{1}{4}$ in.) or the thickness of the glass, whichever is greater. In other than circular holes, any corners shall have fillets, the radius of which shall be equal to or greater than the thickness of the glass.
- 7.8.4 *Dimensional Tolerances of Holes:*
 - 7.8.4.1 Tolerance of hole diameter shall be 61.6 mm ($\frac{1}{16}$ in.).
 - 7.8.4.2 Tolerance for dimensions of hole center from specified edges shall be 61.6 mm ($\frac{1}{16}$ in.).
 - 7.8.4.3 Tolerance for dimension between hole centers shall be 61.6 mm ($\frac{1}{16}$ in.).
- 7.8.5 Chips and flakes at hole edges shall not exceed 1.6 mm ($\frac{1}{16}$ in.).
- 7.8.6 *Notches and Cutouts:*
 - 7.8.6.1 Notches and cutouts shall have fillets, the radius of which shall be equal to or greater than the thickness of the glass
 - 7.8.6.2 Dimensional tolerance of notches and cutouts shall be:
 - 1.6 mm ($\frac{1}{16}$ in.) for glass thickness less than 12 mm ($\frac{1}{2}$ in.).
 - 3 mm ($\frac{1}{8}$ in.) for glass thickness of 12 mm ($\frac{1}{2}$ in.) and greater.
 - 7.8.6.3 Inner surfaces of notches and cutouts shall be smooth, seamed, ground, or polished.
- 7.8.7 Consult manufacturer regarding heat-treatment of glass with irregular patterns, surface treatments, unusual edge work or any fabrication that falls outside these guidelines.