

Point-Supported Vertical Glass Panel Installation JHA

Worked instructional example

Work and worksite

A glazing crew will install one factory-drilled monolithic tempered pane in a vertical glass wall using the project's engineered CRL Heavy-Duty spider supports and specified HSF14 cap-mount attachments. Support construction is already released; the pane remains on rated handling support during connection completion. This fictional learning example describes planned controls and records no actual inspection or authorization.

- Released project drawings define glass, holes, fittings, independent bearing, movement and connection acceptance. CRL instructions 11M0320_2023 support component selection; catalog geometry does not establish the project's design or authorize field substitutions.
- The accepted support assembly, protected ground-level working positions, rated handling method and receiving sequence are ready. Each panel and attachment is identified; factory holes, edges and supplied interfaces are checked before the pane moves.
- Large-panel installation 238150-16 is a partial connection. The cycle excludes support-frame or fin erection, field glass drilling or cutting, guardrails, balustrades, overhead glazing, structural silicone and elevated-access setup.

Questions before work

- Which drawing and attachment schedule govern this pane, and who resolves a hole, support or component mismatch?
- How will handling support remain effective while crew members make the point connections from protected positions?
- Who checks bearing, glass-to-metal interfaces and completed retention before authorizing handling release?

Task Hazard Control

1 Confirm the released support and connection basis

Hazard: An unaccepted support, wrong attachment family or missing movement detail can place load through an unintended glass hole or incomplete structural connection.

Control: Lead compares the pane schedule, support release and specified CRL spider and HSF14 details with the assembly. Confirm bearing, restraint, movement and tightening criteria with the technical authority. Hold missing information or unresolved alignment; a manufacturer illustration does not establish the project's adequate structural support.

Verification: Lead verifies the released design, actual support identity and acceptance route.

Reasoning: The design determines how this pane transfers and accommodates load.

2 Identify and inspect the glass and interfaces

Hazard: A chipped hole, wrong factory preparation or missing flexible interface can concentrate load or leave metal bearing directly against the pane.

Control: Crew checks the identified monolithic tempered pane's factory holes, dimensions, edges and condition against approved documents. Match attachment parts and supplied gaskets. Separate damaged or unidentified items for disposition. Do not drill, grind or enlarge tempered glass to fit, or substitute packing without approved direction.

Verification: Assigned checker confirms panel identity, intact preparation and correct component set.

Reasoning: Hidden substitutions can defeat the intended point-support interface.

3 Establish handling support and protected fitting access

Hazard: Uncontrolled glass movement, an inaccessible fitting or premature rack release can place hands and bodies between the pane, attachment and structure.

Control: Handling lead establishes the accepted rated support before rack restraint changes. Set boundaries and agree communication with the fitting crew. Confirm protected connection access outside potential fall and crush paths. Keep remaining stock restrained and maintain the planned protected recovery position throughout pane movement.

Verification: Handling lead confirms support readiness, access and the agreed restraint transition.

Reasoning: Connection work requires stable support independent of workers' hands.

Complete the work and hand over

4 Align and assemble the specified point attachments

Hazard: Forcing holes into alignment, trapping a gasket or applying premature final tightening can damage the pane or restrict the designed movement.

Control: Maintain handling support while aligning without glass levering or using fasteners to draw a mismatch closed. Assemble cap-mount interfaces in prescribed order with required flexible glass-to-metal separation. Follow project and fitting instructions for orientation and tightening. Stop for resistance, missing parts or unapproved contact.

Verification: Assigned checker verifies alignment, interface completeness and prescribed assembly sequence.

Reasoning: Correct interfaces prevent connection forces from bypassing the design.

5 Verify bearing and retention before release

Hazard: Removing the lifter while a point connection remains incomplete can drop or rotate the pane and overload an adjacent fitting.

Control: Receiving lead checks identified connections against the released schedule, including bearing, retention, movement and tightening evidence. Maintain handling support until actual independent-support release criteria are satisfied. Communicate release explicitly to the operator and clear the detachment path; temporary alignment and engaged threads are insufficient.

Verification: Receiving lead verifies all prescribed release conditions before support is withdrawn.

Reasoning: Every required load path must exist when handling assistance ends.

6 Protect the installed panel and hand over open work

Hazard: An apparently finished glass wall can be struck, used as a guard or altered before remaining connections and interface work are resolved.

Control: Maintain boundaries while handling equipment clears; secure tools and hardware. Record pane and fitting identities, actual checks, technical dispositions and remaining joint or neighboring-panel work. Transfer restrictions, including impact protection and incomplete system acceptance. Keep the assembly out of unintended use until its governing release.

Verification: Lead checks documented panel state, protection and receiving-team responsibilities.

Reasoning: Panel retention does not by itself complete the whole glass wall.

Pause and reassess

- Glass identification, hole condition, support alignment or an attachment differs from the released drawings and parts schedule.
- A gasket, bearing detail, tightening criterion, movement provision or required release check is missing or unclear.
- Handling support, protected fitting access or the communication needed for independent-support transfer is lost.

Improve the controls

Needs improvement: Pull the holes into place with the bolt.

More useful: Crew holds the supported pane for technical disposition when factory preparation and accepted fitting positions do not align.

Needs improvement: The spider holds it, so release the lifter.

More useful: Receiving lead checks the complete specified bearing and retention assembly and communicates release before handling support is removed.

Decisions that change the analysis

Can a matching-looking fitting or washer replace the specified part?

Only after the responsible technical authority accepts that actual substitution under the project and manufacturer requirements. Rigid, swivel, cap and flush configurations are not interchangeable by appearance. Keep the pane supported or return it to the planned safe position while the mismatch is resolved; the learning example supplies no approval of substitute hardware.

What must the crew record for actual use?

Record drawing and instruction revisions, support release, pane identification and factory preparation, fitting and interface parts, rated handling arrangement and protected access. Identify required bearing, movement and tightening checks, their actual results, technical dispositions and explicit release communication. Transfer unfinished system work and restrictions rather than copying a favorable connection record.

Training needs

- Instruction on the actual engineered CRL spider assembly, factory-glass identity, cap-mount interfaces, connection sequence and project verification criteria.
- Task instruction on rated glass handling, crush and cut boundaries, protected fitting access, defect recognition and the agreed independent-support release communication.

Confirm applicable qualifications and actual training evidence for the people assigned. Related toolbox talks support discussion; they do not establish competence.

References and adaptation

CRL Spider Fittings Installation Instructions, 11M0320_2023
https://azure.crlaurence.com/techdocs/PDF/11M0320_spiders.pdf

CRL Structural Glass Curtainwall Hardware design overview
<https://www.crlaurence.com.au/adv/architects/sweets/084426%2011%20crl%20buyline%208621.pdf>

OSHA 1926.21 Safety training and education
<https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.21>

References reviewed October 12, 2026. Use actual equipment and product instructions, project design and site requirements. This original draft supplies no fabricated inspection, signature or approval.