

Hollow Masonry Adhesive Anchor Installation JHA

Worked instructional example

Work and worksite

An installation crew will fit engineer-specified screened adhesive anchors through the face of an identified hollow-CMU wall at ground level for a later fixture. The accepted wall, permitted locations and actual anchor system govern drilling, installation and cure restrictions. This fictional learning example describes planned controls; it records no actual inspection or work authorization.

- The design and product approval identify the masonry unit, face/cell condition, sleeve, rod and required installation and acceptance criteria.
- The selected drilling and cleaning methods have task-specific dust controls; chemical handling follows the actual adhesive SDS.
- Core drilling, concrete starter bars, assumed solid substrate, facade tie repair and fixture loading before acceptance are excluded.

Questions before work

- What evidence identifies the hollow masonry and permitted anchoring positions?
- Which sleeve, rod and drilling/cleaning method belong to the approved system?
- How will cure conditions, installation findings and the later fixture-loading release be recorded?

Task Hazard Control

1 Release substrate and anchor locations

Hazard: An anchor in an unsuitable cell, weak face shell or unidentified service can fail or cause contact injury.

Control: Installation lead checks the identified masonry, service investigation and engineer's anchor schedule against the product's approved substrate range. Mark permitted locations and drilling limits; hold unknown units, damage or positions outside the released design.

Verification: Lead records substrate identity and location release before drilling.

Reasoning: A hollow wall cannot be treated as a continuous concrete block.

2 Arrange dust and chemical controls

Hazard: Drilling dust, adhesive contact and cluttered access can expose the installer and nearby workers.

Control: Separate the work bay, prepare the system-approved drill and cleaning tools and establish the applicable silica controls. Stage labeled adhesive, sleeves and rods with current SDS, assessed protection, ventilation and washing access; contain dispensing waste.

Verification: Lead checks the dust-control method and identified chemical handling arrangement.

Reasoning: The sleeve installation combines material-specific drilling and chemical exposure.

3 Drill within the released method

Hazard: An unsuitable drill mode can damage the face shell or create an unapproved receiving hole.

Control: Use the actual system's permitted tool, drill mode and hole criteria with dust controls functioning. Stay within marked limits, control both affected faces where necessary and stop for unexpected void geometry, breakout or a concealed obstruction; do not enlarge the hole to fit another sleeve.

Verification: Installer compares actual hole condition with the required system criteria.

Reasoning: Receiving-hole damage can undermine an otherwise correct adhesive installation.

Complete the work and hand over

4 Prepare the hole and sleeve

Hazard: An unclean hole or wrong screen can prevent the anchor system from forming its intended restraint.

Control: Inspect and clean by the system's approved method and fit the specified compatible screen sleeve. Assess exposure from cleaning and verify sleeve seating and condition; do not omit the sleeve, improvise a tube or copy a solid-concrete hole procedure.

Verification: Installer records hole and sleeve findings before dispensing.

Reasoning: The hollow-substrate system relies on a controlled assembly around the receiving void.

5 Inject and place the rod

Hazard: Unmixed adhesive, poor filling or movement during cure can leave an unsafe fastening.

Control: Check product condition, dispenser and mixing nozzle, then follow the specified discard, dosing and rod-placement method within actual working limits. Protect the rod from movement and keep assessed contact protection in use; do not invent a common cure time.

Verification: Installer records product identity, placement and conditions governing cure.

Reasoning: The product and actual temperature conditions determine the installation window.

6 Isolate loading and hand over

Hazard: A fixture can be attached to an uncured or unaccepted anchor without the receiving crew knowing.

Control: Mark unreleased anchors and prevent attachment or loading until the specified cure and acceptance are complete. Transfer actual installation records, required test findings and open actions to the designated reviewer; dispose of waste under the SDS and site arrangements.

Verification: Receiving lead confirms the loading release or continuing restriction for each anchor.

Reasoning: A visible rod supplies no evidence of cure or tested capacity.

Pause and reassess

- Masonry identity, face/cell condition or anchor location differs from the approved design.
- Breakout, failed dust control or an incompatible sleeve or cleaning tool.
- Product condition, cure requirements or the fixture-loading release is unresolved.

Improve the controls

Needs improvement: Work carefully and wear PPE.

More useful: Use the actual system's permitted tool, drill mode and hole criteria with dust controls functioning. Stay within marked limits, control both affected faces where necessary and stop for unexpected void geometry, breakout or a concealed obstruction; do not enlarge the hole to fit another sleeve.

Needs improvement: Check that everything is ready.

More useful: Installation lead checks the identified masonry, service investigation and engineer's anchor schedule against the product's approved substrate range. Mark permitted locations and drilling limits; hold unknown units, damage or positions outside the released design.

Decisions that change the analysis

Can the installer omit a sleeve because the rod feels firm?

No. Follow the approved system for the identified hollow masonry. Firmness by hand is not an acceptance test, and this example supplies neither an anchor design nor permission to treat a hollow unit as solid concrete.

What must the crew record for actual use?

Identify the actual equipment and work boundaries, responsible people, applicable criteria, inspection findings and open actions. Resolve changes with affected crews and obtain required project authorization before work.

Training needs

- The actual hollow-masonry anchor system's approved substrate, drill mode, cleaning, sleeve, dispensing and cure procedure.
- Applicable silica and hazard-communication instruction, contact protection and installation-record/acceptance responsibilities.

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

References and adaptation

Hilti HIT-HY 270 Masonry adhesive anchor instructions and technical resources
https://www.hilti.com/c/CLS_FASTENER_7135/CLS_CHEMICAL_ANCHORS_7135/r8298802

Hilti Hollow-CMU face anchorage and screened adhesive system clarification
<https://www.hilti.com/engineering/question/post-installed-anchors-in-hollow-core-cmu-walls/h81jto>

OSHA 1926.1153 Respirable crystalline silica
<https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.1153>

References reviewed October 9, 2026. Use actual equipment and product instructions, project design and site requirements. This original draft supplies no fabricated inspection, signature or approval.