

Powered Wet Glass Edge Finishing JHA

Worked instructional example

Work and worksite

A glazing fabricator finishes the edges of small, accepted annealed monolithic glass pieces using a guarded bench-mounted wet abrasive belt sander at a ground-level site workshop. Glass selection, previous cutting and the specified end use are released before this operation. This fictional learning example describes planned controls; it records no actual inspection or work authorization.

- Partial site-fabrication coverage: powered wet edge finishing only; no scoring and breaking, tempering, laminated-glass separation or IGU fabrication.
- The actual machine instructions identify suitable glass, belt, guards, work support and water arrangement; the bench and electrical supply are accepted.
- Pane size and handling positions permit continuous controlled support without placing hands in the belt or nip points.

Questions before work

- Which glass types and piece sizes are authorized for this actual machine and end use?
- How are electrical protection, belt guarding, water flow and pane support checked before feed begins?
- How does the operator isolate movement before clearing a jam, changing a belt or maintaining the water system?

Task Hazard Control

1 Accept the glass and finishing requirements

Hazard: An unsuitable glass type or unnoticed damage can lead to breakage or an unusable component.

Control: Match the identified annealed pieces to the specified edge treatment and end use. Inspect edges and surfaces, reject damaged or unapproved pieces and confirm the actual machine instructions before staging.

Verification: Fabricator records glass identity, permitted piece range and the required finished-edge check.

Reasoning: A machine capable of abrading glass does not authorize alteration of every glazing product.

2 Prepare the guarded wet machine and bench

Hazard: A moving belt can entangle material; water and damaged electrical equipment can expose workers to shock.

Control: With movement isolated, inspect guards, belt condition, work support and the prescribed water system. Accept the stable bench, protected supply and cable route; select eye, splash and clothing controls suited to the machine.

Verification: Operator checks guards, electrical protection and water readiness against the selected-model instructions.

Reasoning: Water cooling is a process control and requires an electrical arrangement designed for that environment.

3 Arrange continuous pane support and the feed position

Hazard: Unsupported glass can tip or pinch fingers; loose clothing or gloves can enter a moving belt.

Control: Stage pieces on a stable rack within the approved handling range. Establish the instructed grip and support, keep the belt and nip zones clear and resolve the machine-specific hand-protection choice before starting.

Verification: Operator rehearses the supported feed position with the machine stopped and removes snagging items.

Reasoning: Cut protection during transport and entanglement control during powered feed must be considered together.

Complete the work and hand over

4 Run the controlled wet finishing pass

Hazard: Loss of water, excessive pressure or an unstable piece can produce fragments and unexpected glass movement.

Control: Start and feed according to the actual instructions while maintaining support and required water flow. Keep the contact area visible, avoid forcing the piece and stop for binding, vibration, damage or failed wet controls.

Verification: Operator monitors pane support and wet operation throughout each pass and segregates suspect pieces.

Reasoning: Increasing feed force can hide a process problem while increasing the chance of losing glass control.

5 Stop and inspect before adjustments

Hazard: Coasting movement or automatic restart can injure a worker clearing debris or changing a belt.

Control: Remove the supported piece to its rack, stop and wait for all movement to cease. Apply the actual energy-isolation procedure before adjustment, cleaning or belt change; never reach into a running or coasting belt.

Verification: Authorized person verifies stopped and isolated equipment before accessing the guarded area.

Reasoning: An off switch alone is insufficient when maintenance could expose someone to unexpected restart.

6 Check the edge and manage wet waste

Hazard: A damaged edge or poorly controlled slurry can injure the next handler and make the workshop slippery.

Control: Inspect the finished edge against the specified acceptance criteria and label rejected pieces. Collect wet debris and slurry by the approved method, restore guards after maintenance and leave the bench and floor safe.

Verification: Fabricator records accepted pieces, waste disposition and the machine status for the next operator.

Reasoning: Finishing must leave both a usable glass edge and a safe receiving and cleanup arrangement.

Pause and reassess

- Pause for unapproved glass, damage, missing guards, failed electrical protection or an unsuitable feed position.
- Stop for loss of required water, belt damage, binding, abnormal vibration or slipping pane support.
- Larger pieces, a different machine or another glass build-up require a revised handling and fabrication plan.

Improve the controls

Needs improvement: Work carefully and wear PPE.

More useful: Stage pieces on a stable rack within the approved handling range. Establish the instructed grip and support, keep the belt and nip zones clear and resolve the machine-specific hand-protection choice before starting.

Needs improvement: Check that everything is ready.

More useful: Match the identified annealed pieces to the specified edge treatment and end use. Inspect edges and surfaces, reject damaged or unapproved pieces and confirm the actual machine instructions before staging.

Decisions that change the analysis

Is this already taught in the annealed-glass cutting example?

That example scores and breaks an annealed pane and finishes its edge manually. This one starts with released pieces and manages a powered wet belt, guarding, supported feed, electrical protection and isolated maintenance.

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

- Demonstrate selected-machine setup, guarded feed, water and electrical checks, stopping and isolated belt-maintenance procedures.
- Train handlers to identify permitted glass, maintain support and assess finished edges without entering belt or nip zones.

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 BM64B Bench model wet abrasive belt sander: equipment and instruction resources

<https://www.crlaurence.com/All-Products/Glazing-Tools-%26-Supplies/Fabrication-Machinery-%26-Equipment/Glass-Sanding-Equipment-%26-Accessories/CRL-4%22-x-64%22-Bench-Model-Wet-Abrasive-Belt-Sander/p/BM64B>

OSHA 1926.300 Hand and power tools

<https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.300>

OSHA 1926.404 Wiring design and protection

<https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.404>

OSHA 1926.102 Eye and face protection

<https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.102>

OSHA 1926.21 Safety training and education

<https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.21>

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.