

On-Site Standing-Seam Panel Roll-Forming JHA

Worked instructional example

Work and worksite

A roofing crew will produce one scheduled standing-seam panel profile at a segregated ground-level station using an electric-powered New Tech Machinery SSQ3 roll former. Qualified personnel have completed the specified tooling setup; the crew will load compatible reeled coil, feed, form, cut and stage panels. This fictional learning example describes planned controls and records no actual inspection or authorization.

- The identified SSQ3 configuration, actual operation manual, profile, coil specification and panel acceptance criteria are available. Tooling changeover, repairs, gas-engine operation and roof installation are outside this cycle.
- The released station supports the machine, reeled coil and panel run-out tables. Rated coil loading is separately planned, electrical supply matches the actual configuration, and the whole infeed and discharge envelope is separated from other work.
- Standing-seam installation 238160-09 and metal roofing panels 238160-10 are partial connections. Existing installation examples start with formed panels; this operation ends at identified, safely staged fabricated panels and does not approve a roof system.

Questions before work

- Who confirms the profile, coil and completed machine setup against the actual panel and equipment requirements?
- How are the coil-loading, infeed, run-out and long-panel handling zones kept clear of other workers?
- Who isolates the machine and resolves a feed, guard or cut-quality problem before production resumes?

Task Hazard Control

1 Accept the profile coil and completed machine setup

Hazard: Wrong material, unverified tooling or missing acceptance criteria can create malformed panels and pressure to adjust hazardous moving components during production.

Control: Lead matches panel schedule and permissible coil to identified SSQ3 tooling and manual. Confirm qualified setup completion and restored guards. Agree first-panel checks and acceptance authority. Hold unknown setup or material; a profile substitution or roof-design change needs responsible technical approval.

Verification: Lead verifies material, setup release and the required panel acceptance route.

Reasoning: Production starts with an accepted configuration and a defined deliverable.

2 Prepare the protected station and run-out support

Hazard: Unstable equipment, inadequate power or unsupported discharge can move the machine, buckle a panel or place workers in an electrical or sharp-edge hazard.

Control: Establish the accepted segregated ground station and fit prescribed run-out tables for full panel support. Check alignment and stability. Responsible electrical personnel verify actual supply and cord requirements. Protect cables and walking routes; reject damaged equipment, missing guards or unusable emergency controls.

Verification: Lead checks station stability, supported run-out, protected supply and boundaries.

Reasoning: Output support and safe power are part of machine readiness.

3 Load and restrain the identified reeled coil

Hazard: An inadequately supported reel, free-spooling coil or uncontrolled lifting approach can crush workers and release sharp sheet metal into the station.

Control: Under the separately accepted rated lifting method, load the identified reeled coil with the machine safely stopped. Verify actual arbor, cradle and hold-down arrangement before withdrawing lifting assistance. Keep workers clear and control the free end; apparent seating alone does not authorize restraint release.

Verification: Loading lead verifies coil identity, accepted seating and prescribed reel control.

Reasoning: Reel control must remain effective after the lifting device leaves.

Complete the work and hand over

4 Feed and accept the first formed panel

Hazard: Hands near driven rolls or the shear, an incorrect feed direction or an unverified profile can cause severe crushing or shearing injury.

Control: Use the actual guarded entry-feed sequence with helpers in safe positions outside rolls, nip points and shear travel. Receive the trial panel on supported run-out and stop before inspection. Checker evaluates actual profile, dimensions, coating and cut criteria; failed checks require held output or authorized isolated adjustment.

Verification: Operator confirms guarded feed; checker records the actual first-panel results.

Reasoning: Trial acceptance exposes a setup problem before repeating defective production.

5 Produce panels and stop safely for intervention

Hazard: Continuous feed, a snagging panel or an improvised jam clearance can pull a worker into the machine or expose someone to unexpected restart.

Control: Operator communicates discharge before helpers handle completed panels outside danger zones. Monitor coil and output support; stop for feed problems, intrusion or guard faults. Before hazardous reaching, adjustment or clearing, authorized personnel apply manufacturer and employer isolation, verify the safe state and control remaining energy.

Verification: Lead verifies safe intervention and restored guards before any restart.

Reasoning: A stopped drive alone does not establish an isolated machine.

6 Secure fabricated output and the stopped station

Hazard: Loose long panels, exposed cut edges or an incompletely secured machine can injure the next crew or conceal nonconforming work in accepted stock.

Control: Stage panels on accepted supports against movement and sharp-edge contact using planned handling. Identify accepted and rejected output separately. Follow machine shutdown and secure remaining coil under instructions. Record checks and defects; transfer panel identities and restrictions to the installation lead before releasing station boundaries.

Verification: Lead verifies staged stock, machine and coil state, and receiving handoff.

Reasoning: Fabrication acceptance and roof-installation readiness are separate decisions.

Pause and reassess

- Coil identity, profile, tooling release, power supply or panel criteria differ from the accepted production setup.
- Guarding, run-out support, reel control, emergency function or segregation cannot be maintained.
- A jam, poor cut, damaged coating or unexpected machine behavior requires authorized isolated intervention and new output checks.

Improve the controls

Needs improvement: Feed this similar-width coil and adjust while it runs.

More useful: Lead matches the material and setup to the actual profile; adjustments occur only through the authorized isolated procedure.

Needs improvement: The emergency stop makes it safe to reach into the rolls.

More useful: Authorized personnel isolate and verify the safe state under the actual method before entering a hazardous machine area.

Decisions that change the analysis

Can a helper pull a sticking panel while the machine feeds?

Stop the affected cycle and keep the helper outside the rolls, shear and stored-movement path. A sticking panel can indicate a support, feed or setup problem; pulling by hand can conceal the cause and expose the helper to sudden release. Obtain authorized assessment and apply the required isolation before hazardous intervention, then restore guarding and verify output before restarting.

What must the crew record for actual use?

Record machine, power and control configuration, manual revision, accepted station, rated loading arrangement, coil identity and profile setup release. Identify run-out supports, guard and control checks, first-panel and later output results, rejected stock, interventions and restart evidence. Transfer actual panel identification and installation restrictions; this example certifies neither the machine nor a roof system.

Training needs

- Demonstrated instruction on the actual electric SSQ3 controls, guarding, entry-feed operation, approved run-out setup and manufacturer's isolation method for intervention.
- Task instruction on rated coil handling, sharp-edge protection, controlled panel removal and actual profile and cut checks, including rejecting defective output and reporting machine changes.

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

References and adaptation

New Tech Machinery SSQ3 Operation and Maintenance Manual, Revision 0
<https://newtechmachinery.com/wp-content/uploads/2025/12/SSQ3-MAN-Rev-0.pdf>

OSHA 1926.300 General tool and machine guarding requirements
<https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.300>

OSHA 1926.600 Equipment
<https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.600>

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.