

Ground Concrete Delivery Pipeline Assembly JHA

Worked instructional example

Work and worksite

A trained pump-line crew will assemble an uncharged rigid concrete delivery pipeline along a released ground-level route for a building pour. Identified compatible pipes, bends, seals and couplings are installed on designed supports through the actual selected-system method. The completed line stays unavailable for flow until a separate pumping-readiness handover. This fictional learning example describes planned controls and records no actual inspection or work authorization.

- The actual pump and complete delivery-system arrangement are identified. Required pressure compatibility, component wear acceptance, coupling instructions and support design are available; the weakest identified component governs suitability, without a universal rating or wear value.
- The entire assembly is uncharged, empty and separated from any source that could introduce pressure or concrete during the work. Prepared supports, permitted handling equipment, stable access and protection from site traffic are released before components move.
- Pump setup 238110-14 and pumping 238110-15 are partial connections: ground rigid-line construction before priming only. End-hose handling, active-line extension, high-rise risers, pump erection, pressure testing, blockage intervention, cleanout and field welding are excluded.

Questions before work

- Which actual pump duty and selected component instructions establish compatibility and remaining wear acceptance?
- What supports and route controls protect the assembled line, its handling crew and nearby access?
- Who maintains the no-flow condition and receives the actual assembly evidence before separate pumping readiness?

Task Hazard Control

1 Establish the released uncharged system boundary

Hazard: An unidentified connection to pumping equipment can introduce concrete or pressure while people are assembling the line.

Control: Assembly lead identifies the complete route, pump interface and selected-system package with the pump operator. Establish and maintain the actual arrangement preventing flow or pressure throughout assembly, including any necessary equipment controls under the employer's procedure. Hold uncertainty or evidence of retained material/pressure. This example begins with a known empty uncharged system and gives no method for opening an active or blocked line.

Verification: Lead and operator confirm the actual no-flow boundary and assigned control ownership.

Reasoning: A safe assembly condition must be established positively before anyone handles a coupling.

2 Accept the route and designed supports

Hazard: Unsupported pipe, conflicting traffic or an unverified bearing surface can cause movement during assembly and later pumping.

Control: Check the released ground route, access, buried services and traffic separation. Identify overhead power lines and nearby electrical sources and establish the applicable clearance and control arrangements before any prescribed mechanical pipe transfer. Obtain acceptance of specified supports/restraint, including required pumping-load design and OSHA discharge-pipe support requirements. Keep exits available, prevent vehicle impact and hold changed support conditions for responsible review.

Verification: Lead verifies actual support evidence and the protected route before laying pipe.

Reasoning: The line's later filled and operating condition requires a designed support path at setup.

3 Match and examine the complete component set

Hazard: An incompatible end, damaged coupling or unaccepted worn pipe can fail despite an apparently closed joint.

Control: Assigned personnel identify pipes, bends, seals, couplings and retention devices against the selected system and intended pump duty. Review required condition and wear records and perform prescribed checks of mating surfaces, threads, hinges, ends and seals. Segregate uncertain or damaged parts for disposition. Do not assume similar diameter establishes compatibility or use a readable label as proof of adequate remaining wear condition.

Verification: Lead records component match, actual required wear/condition findings and rejected items.

Reasoning: Compatibility and condition must be established together for each part of the delivery path.

Complete the work and hand over

4 Position supported sections and complete couplings

Hazard: Rolling heavy sections, unsupported ends or hands between mating pipes can cause crushing and lead to forced misalignment.

Control: Use the planned handling equipment and coordinated commands to position manageable sections on accepted supports. Keep bodies outside rolling and closing gaps and retain section support while joining. Trained installers complete only the exact manufacturer's seal, engagement, fastening and retention method. Stop for incorrect fit or excessive required effort; do not hammer a mismatched joint closed or substitute an invented bolt-torque or clamp-adjustment recipe.

Verification: Installer checks supported fit and each prescribed coupling/retention condition before progressing.

Reasoning: Controlled support allows the joint to be assembled without people holding its load or forcing a defect.

5 Review the complete assembly before handover

Hazard: A missed retention device, support change or damaged interface can remain hidden until priming subjects the line to operating forces.

Control: Assigned checker follows the accepted assembly verification route across the entire line and documents required joint, support and interface findings. Resolve defects through the selected system and responsible planner while the uncharged boundary remains effective. Preserve access to required observations. This check does not include a crew-devised pressure test, concrete flow or trial opening of a connection.

Verification: Lead reviews actual complete-line findings and keeps unresolved sections unavailable for pumping.

Reasoning: The assembled system needs a complete verified condition, beyond checks of individual loose parts.

6 Transfer assembly evidence and preserve pumping holds

Hazard: An operator may start flow before hose, exclusion or priming readiness is separately established, exposing workers still beside connections.

Control: Record system identity, route, components, wear basis, supports, installation findings and held issues. Remove unused parts and keep line protection visible. Transfer the actual assembly state to the pump lead and confirm that later hose configuration, priming positions, operating checks and start authority remain under the separate pumping plan. Keep the no-flow condition until that handover and release are complete.

Verification: Receiving pump lead confirms line status, protection ownership and separate startup requirements.

Reasoning: Pipeline construction ends with a controlled interface to operation, not an assumed permission to pump.

Pause and reassess

- The actual uncharged boundary, pump/system compatibility, required wear evidence or applicable coupling method is unresolved.
- Ground route, supports, component condition, fit or prescribed retention differs from the released assembly package.
- Flow, pressure testing, active-line modification or a blocked/charged connection is proposed through this assembly example.

Improve the controls

Needs improvement: All the clamps are the same size, so the system matches.

More useful: Verify compatible ends, pressure duty, actual wear/condition evidence and the selected coupling's prescribed retention.

Needs improvement: The line is connected; start the pump now.

More useful: Hand over the complete assembly evidence while retaining the separate hose, priming, exclusion and pumping-start holds.

Decisions that change the analysis

May a line section be added while delivery continues elsewhere?

That changes the established empty uncharged assembly boundary and is outside this example. Keep the proposed intervention held for a separate equipment-specific plan addressing isolation, trapped energy, connected sections and actual verification. Stopping visible discharge or removing a safety pin is not evidence that a concrete delivery connection is safe to open.

What must the crew record for actual use?

Record pump and system identities, released route/support package, actual component and wear acceptance, no-flow arrangements, installation and retention findings and defects. Identify responsible dispositions, complete-line verification, receiving pump lead and remaining startup requirements. Supply real evidence without prefilled inspection results, a claimed pressure test or permission to introduce concrete.

Training needs

- Selected delivery-pipeline assembly instruction on component identity, wear acceptance, support, coupling engagement and required retention checks.
- Instruction on heavy pipe and pinch paths, maintained uncharged-system boundaries, defect reporting and the separate priming/flow handover.

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

References and adaptation

ESSER coupling inspection sheet: compatibility, condition, engagement and retention
<https://catalogs.essertwinpipes.com/view/768026200/1/>

Putzmeister delivery-line systems: matching components and measured wear
<https://proline.putzmeister.com/documents/20127/14903443/Delivery%2BLines%2BBrochure%2BEN.pdf/1f180303-2046-a36b-e205-c74ea5c0c242?download=true&t=1741342032420&version=1.6>

OSHA 1926.702 Equipment and tools: concrete pumping discharge-pipe supports
<https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.702>

References reviewed October 13, 2026. Use actual equipment and product instructions, project design and site requirements. This original draft supplies no fabricated inspection, signature or approval.