



Mechanical Equipment and Process Systems Inspection

Inspecting the Core of Industrial Operations with Precision and Reliability

Innovio e.U. offers comprehensive inspection services for mechanical systems and industrial process equipment. These inspections ensure structural integrity, functionality, safety, and conformity with engineering specifications before, during, and after fabrication or installation.

We support projects across various sectors including water treatment, energy, manufacturing, and food production by verifying rotating and static equipment, skids, process modules, and mechanical assemblies. Our approach is grounded in experience with mechanical commissioning, FATs, and quality control in complex multi-disciplinary environments.

1. Rotating Equipment Inspection

- Visual inspection of pumps, blowers, fans, and compressors
- Alignment and coupling integrity checks
- Shaft rotation and bearing seat inspection
- Clearance measurements (axial, radial)
- Review of assembly and torque procedures
- Verification of lubrication system components
- Inspection of balancing and vibration test records
- FAT supervision including dry-run and startup simulation

2. Static Equipment and Fabrication

- Dimensional verification of tanks, pressure vessels, and piping assemblies
- Visual checks for weld quality, corrosion protection, and coating condition
- Surface treatment inspection (galvanizing, painting, insulation prep)
- Nozzle and flange orientation confirmation
- Marking and nameplate data validation



- Review of MTCs, WPS/PQR, and fabrication drawings
 - Hydrostatic and pneumatic test witnessing
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3. Valves and Actuated Components

- Visual inspection of valve body, coating, and pressure class markings
 - Tag number verification and conformity to valve list
 - Seat tightness testing and operational stroke check
 - Actuator mounting and positioner configuration review
 - Signal response validation (open-close, fail-safe function)
 - Torque testing and flange face alignment check
 - Leak testing with compressed air or nitrogen where applicable
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4. Process Skids and Modular Systems

- Visual and dimensional inspection of modular process systems
 - Piping layout, support systems, and frame assembly checks
 - Tagging and nameplate verification across all components
 - FAT witnessing for system performance and operational readiness
 - Utility connection and access point inspection
 - Leak testing and functionality simulation for fluid handling units
 - Inspection of instrumentation, cabling, and mechanical integration
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5. Technical Review and Final Handover

- Review of as-built documentation and redlined fabrication drawings
- Inspection of shipping preparation: protection, bracing, and packaging
- Completion of punch list for pending mechanical works



- Review of installation instructions and operation manuals
- Witnessing of factory inspections and pre-dispatch reviews
- Final release documentation verification and reporting