

**ASSETSTAGE**
DATA STAGING & QUALITY PLATFORM

ISO 14224 for Non-Oil & Gas Companies

How to get the most out of ISO 14224 even if you are not a major oil and gas operator.

ISO 14224 was developed for the oil & gas sector, but its principles of structured reliability and maintenance data apply to many industries. Manufacturing, utilities, transportation, mining, and even facilities management can benefit from adopting parts of ISO 14224 to improve data quality, decision-making, and benchmarking.

1. Why ISO 14224 Matters Beyond Oil & Gas

- Standardizes asset classes and failure codes across industries.
- Improves root cause analysis and reliability tracking.
- Supports digital transformation projects (Industry 4.0, IoT, predictive maintenance).
- Enables better vendor comparisons and contract negotiations using consistent data.
- Reduces CMMS migration risks by enforcing structured hierarchies.

2. How to Apply ISO 14224 in Non-Oil & Gas Industries

- Start with high-criticality assets (compressors, turbines, boilers, conveyors, production lines).
- Map existing CMMS equipment classes to ISO 14224 categories where possible.
- Use ISO 14224 failure modes as a library but adapt to your plant history.
- Apply ISO 14224 templates to new projects, expansions, or major overhauls.
- Leverage staging tools (like AssetStage) to validate and clean hierarchies before CMMS updates.

3. Adaptations for Specific Sectors

Manufacturing:

Use ISO 14224 classes for rotating equipment (pumps, motors, gearboxes). Standardize failure codes to improve OEE analysis.

Utilities & Power:

Adopt ISO 14224 taxonomy for turbines, boilers, and electrical equipment. Align with KKS or IEC 81346 for functional structures.

Transportation:

Map rolling stock or fleet equipment into ISO 14224-like hierarchies. Helps track reliability by component (engine, brakes, HVAC).

Mining & Heavy Industry:

Apply ISO 14224 to conveyors, crushers, haul trucks, and mills. Failure mode standardization enables fleet-wide benchmarking.

4. Implementation Steps

- 1. Assess current asset and failure coding practices.
- 2. Identify ISO 14224 categories that align with your equipment.
- 3. Customize failure modes based on actual plant history.
- 4. Build a pilot hierarchy in staging environment.
- 5. Validate codes with maintenance and operations teams.
- 6. Roll out across sites with training and governance.
- 7. Monitor compliance and refine codes over time.

5. ISO 14224 Quick Checklist for Non-Oil & Gas

- ✓ High-criticality assets identified for pilot.
- ✓ Asset classes mapped to ISO 14224 categories.
- ✓ Failure modes adapted to site-specific history.
- ✓ Hierarchy staged and validated.
- ✓ Training completed for maintenance staff.
- ✓ Governance workflows for new codes established.
- ✓ Compliance dashboards set up for tracking.

Even outside oil & gas, ISO 14224 can drive reliability, consistency, and data-driven maintenance. AssetStage provides the staging, validation, and templates to make it practical for any industry.