Rigging And Slinging Training for Manufacturing

Service Objectives

Industry-specific rigging competence focused on repeatable, safe lifting in UAE manufacturing environments.

- Reduce near-misses, equipment damage, and downtime during die/mould changes and routine lifts.
- Select suitable slings and hardware; verify WLL/colour codes; apply discard criteria (web, chain, wire rope).
- Compute sling angles, leg tensions, and load share for common shop-floor geometries.
- Apply standard signals and radio protocol; control exclusion zones and line-of-fire hazards.
- Integrate rigging with permits-to-work, lockout/tagout, and OEM instructions.
- Differentiate routine vs. non-routine/critical lifts; scale planning, supervision, and documentation accordingly.

> Aligned with ISO 45001 systems and widely used references in the UAE: BS 7121 and ASME B30 (B30.9, B30.10, B30.26). Supports regulator expectations (e.g., OSHAD/AD EHS Center, Dubai Municipality, Trakhees/JAFZA).

Who This Service Is For

- Manufacturing plants with frequent, precise lifting: coil handling, die/mould changes, equipment installation, jig/fixture moves, loading/unloading.
- Operators using overhead/gantry/jib cranes; maintenance technicians coordinating changeouts; warehouse teams slinging large or awkward loads.
- Supervisors who authorise and oversee lifting plans and routine lift checklists.
- Facilities with tight aisles, overhead cranes, congested work cells, mixed forklift traffic, and energised equipment.
- Teams requiring calculation competence (centre of gravity, angle factors, load share) and practical inspection skills to ASME/BS criteria.
- Multilingual workforces needing standard signals, radio discipline, and pictorial/job-aid support on the shop floor.

Duration & Process Overview

- Operators/Riggers: 1 day foundation. Supervisors/Team Leads: 1 day. Appointed Person (manufacturing context): 2 days. Refresher: 0.5 day.
- Blended delivery: theory (standards and calculations) + practicals using plant gear and cranes where permitted; mobile rigs/dedicated area if access is limited.

- Hybrid for multi-site groups: remote theory across sites; in-person practicals scheduled in maintenance windows to minimise disruption.
- Recommended cohort: 8–12 delegates per trainer for hands-on sessions; scalable with additional trainers; bilingual delivery and job aids provided.

Methodology

Scenario-based learning anchored in your plant layout, typical load geometries, and available lifting devices, with clear escalation from routine to critical lifts.

Phase	Objective / What It Covers	Duration / Deliverable
Pre-delivery Needs Analysis & Site Walkdown	Capture plant-specific scenarios (die/mould changes, overhead constraints, storage). Align materials and assessments with SOPs.	Pre-course; tailored syllabus and assessment scope.
Principles, Loads & Sling Calculations	Load estimation, centre of gravity, sling angle factors, leg tensions, WLL/SWL and deration. Worked examples for typical manufacturing loads.	Within course day(s); calculation exercises/job aids.
Rigging Gear Selection & Inspection	Inspection of hooks, shackles, eye bolts, links, spreaders, and slings (web/round/chain/wire rope). Tagging, colour coding, traceability. Overhead crane pre-use checks.	Within course day(s); inspection checklists and defects practice.
Communication & Space Control	Hand signals, radio discipline, banksman duties. Exclusion zones, line-of-fire control near presses, CNC, conveyors.	Within course day(s); practical signalling drills.
Routine vs. Critical Lift Planning	Standardise routine lift checklists. When to escalate to a written lift plan, appointed person oversight, pre-lift meeting, and barricading plan. PTW/LOTO interface.	Within course day(s); escalation criteria and templates aligned to SOPs.
Assessment & Certification	Written (calculations, standards, hazards) and practical (selection, inspection, signalling, execution). Records aligned with ISO 45001 and client LMS.	End of course; NPM certificate of completion upon successful assessment.

Module 1 — Principles, Loads, and Sling Calculations

- Centre of gravity, angle factors, leg tensions, deration, load share for offset lifting points.

Module 2 — Rigging Gear Selection and Inspection

- Discard criteria, colour coding, identification tagging; overhead crane/trolley hoist pre-use checks.

Module 3 — Communication, Space Control, and Critical Lift Planning

- Signals and radio protocol; exclusion zones; escalation to documented lift plans and pre-lift meetings.