INDUSTRIAL WOODEN BOXES & CRATES

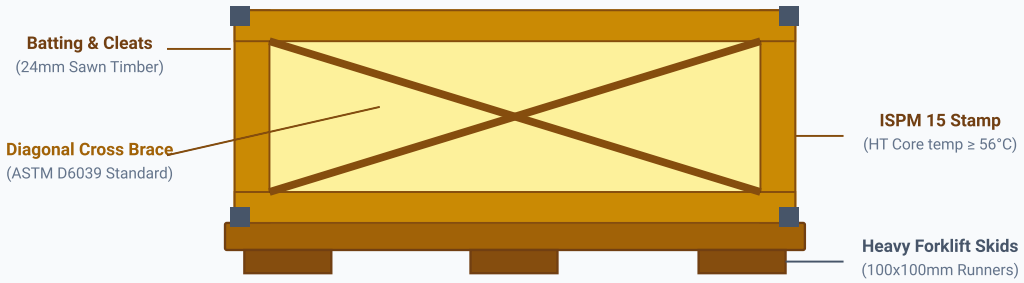
Heavy Equipment Packaging & Export Standard Specifications

SPEC NO: WBOX-IND-2026
Standards: ISPM 15 / ASTM D6039 / ISO 12777

1. SCOPE & MANUFACTURING INTENT

This document outlines the material standards, structural framework, fastener design, moisture content rules, phytosanitary treatment, and load-bearing requirements for custom industrial wooden boxes and fully enclosed wooden export crates.

2. BOX CONSTRUCTION & STRUCTURAL FRAMING ASSEMBLY



3. TECHNICAL COMPONENT SPECIFICATIONS

Box Component	Material & Technical Specifications	Structural & Load Capacity
Lumber & Timber Grade	Kiln-dried Spruce/Pine/Fir (SPF) or mixed hardwood timber (Group II/III). Moisture ≤ 18%.	Bending strength > 40 MPa; knot-free at structural joinery points.
Wall Sheathing	12mm – 18mm Exterior Grade WBP Plywood or OSB/3 structural panels.	Uniform lateral impact resistance; fully enclosed moisture barrier lined with PE film.
Base Skids & Floor	100mm × 100mm heavy-duty runners with 25mm solid hardwood floor boards.	Static load rating up to 5,000 kg; 4-way forklift entry notch dimensions per ISO 6780.
Fasteners & Hardware	Ring-shank helical nails, zinc-plated M10 lag bolts, and steel corner reinforcement angles.	Nail withdrawal resistance > 70 N/mm; anti-vibration joint locking.
Barrier Lining	Aluminum foil barrier bag (VCI anti-corrosion film) with desiccant packs inside.	Protects precision machinery against sea-salt rust and humidity during ocean transit.

4. QUALITY COMPLIANCE & HANDLING STANDARDS

PHYTOSANITARY & EXPORT CERTIFICATION

- **ISPM 15 Treatment:** Heat Treated (HT) to core temperature of 56°C for 30 consecutive minutes.
- **IPPC Marking:** Official IPPC wheat logo stamp visible on at least 2 opposite exterior walls.
- **Bark Clearance:** Debarked wood standard compliant with international quarantine regulations.

TESTING & MARKING PROTOCOLS

- **Stacking Strength:** Certified to support 3-high warehouse stacking at maximum gross weight.
- **Transit Standards:** Drop test and vibration test compliant with ASTM D4169 / ISTA 3B.
- **Handling Symbols:** Stenciled ISO 780 symbols (Center of Gravity, Lifting Point, Fragile, Top).