FLEXILOAD CUSTOM PALLETS

TAILORED ENGINEERING & CUSTOM DIMENSION LOAD CARRIERS

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Class: Bespoke Industrial Packaging

DIMENSIONAL FREEDOM	PAYLOAD CAPACITY	MATERIAL OPTIONS	CAD DESIGN
Fully Customizable	Up to 10,000 kg	Hardwood / Softwood / Hybrid	PDS FEA Modeled

PRODUCT OVERVIEW

The FlexiLoad Custom Pallet program delivers engineered-to-order load carriers designed around non-standard machinery dimensions, unique weight distribution profiles, and specific assembly-line interfaces. Built to overcome the structural limits of off-the-shelf pallets, each unit is designed using Pallet Design System (PDS) finite element analysis to ensure exact fit, optimized material usage, maximum payload safety, and full export compliance.

CUSTOM STRUCTURAL CUSTOMIZATIONS & FEA MODELING

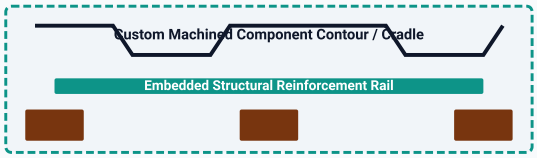


Figure 1: Custom Contoured Deck Cutouts, Internal Reinforcement & Specialized Base Runners

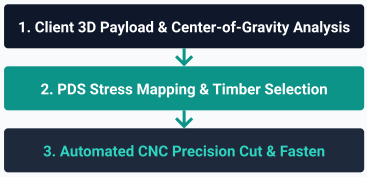


Figure 2: Engineered Custom Design Workflow (From 3D CAD to CNC Assembly)

TECHNICAL SPECIFICATIONS

PARAMETER	CUSTOM CAPABILITY RANGE	ENGINEERING OPTIONS
Length & Width Range	400 mm up to 6000 mm (Any custom dimension)	Oversized equipment skids & narrow aisle formats
Dynamic Load Rating	500 kg to 10,000 kg (Engineered spec)	FEA calculated safety factor (Min 2.0x rating)
Material Composition	Oak, Pine, Birch, Plywood, OSB, Steel Hybrid	Combined hardwood decks with softwood runners
Specialized Deck Cutouts	CNC Milled Cradles, Wells, & Bolt Clearance	Prevents cylindrical payload rolling (e.g., coils, motors)
Entry Configuration	2-Way, 4-Way, or Extended Crane Lifting Slots	Custom side notches or forklift fork pockets
Phytosanitary Certification	ISPM-15 Heat Treated (HT Stamp) / Kiln Dried	Global export compliant for any destination
Fastening Options	Ring-Shank Nails, Lag Screws, Through-Bolts	Countersunk fasteners prevent cargo scratching
Surface Treatments	Anti-Slip Coating, Stenciling, Mold Inhibit	Color-coded branding & barcode/RFID tracking

CUSTOM ENGINEERING FEATURES

Custom Contour CNC Milling

Sub-millimeter CNC routing allows custom-fit cradles and recessed grooves to lock round or asymmetrical components directly onto the pallet structure.

Hybrid Material Integration

Combines high-density hardwood lead boards, steel channel reinforcement, and cushioned EVA foam pads for maximum shock isolation.

PDS Finite Element Modeling
Every custom build is simulation-tested for sagging, corner impact drop, and beam deflection before prototype manufacturing begins.

Integrated Rigging & Lashing Points
Optional steel D-rings, perimeter tie-down slots, and forklift lock channels enable rapid cargo strapping and crane lifting.

CUSTOM APPLICATION CASE EXAMPLES

INDUSTRY APPLICATION	CUSTOM DESIGN ELEMENTS	TYPICAL LOAD RATING
Heavy Machinery & Turbines	Steel-reinforced 6-runner skid with through-bolt tie-downs	8,000 – 10,000 kg
Automotive Stamping Dies	Hardwood top deck with CNC milled recessed locator pins	5,000 kg
Glass & Solar Panel Transportation	V-frame angled upright support pallet with rubber lining	2,500 kg
Long Pipe & Shaft Handling	Interlocking wood cradles with quick-release ratchet straps	3,500 kg