



Heavy-Duty 15x30m All-Season Aluminum Party Marquee Tent Industrial Steel Frame Snow Wind Rated 120km/h

Our Product Introduction

Basic Information

- Place of Origin: Guangdong, China
- Brand Name: EcoTentPro
- Certification: CE, EN 13782, ISO 9001:2015, TÜV Rheinland, DIN 4102 B1, EN 1991-1-3/4
- Model Number: ETP-HD1530-EU
- Minimum Order Quantity: 1 Set
- Price: USD 18,500-28,000 / Set
- Packaging Details: Heavy-duty steel pallets with VCI anti-corrosion wrap for frame, reinforced A-frame crates for truss sections, industrial PVC bags for fabric, 40ft HQ container loading plan provided
- Delivery Time: 25-35 working days after deposit
- Payment Terms: T/T, L/C at sight
- Supply Ability: 60 Sets per Month



Product Specification

- Tent Size (WxL): 15m X 30m
- Side Height: 4.5m
- Ridge Height: 7.2m
- Frame Material: Extruded Aluminum 6061-T6 + Galvanized Steel Reinforcement
- Main Profile: 350mm X 150mm X 8mm Aluminum Box Beam
- Truss System: Double-truss 3D Space Frame, 2.5m Depth
- Roof Material: 950g/m² Heavy-Duty PVC, White
- Wind Resistance: Up To 120 Km/h (Beaufort 12)
- Snow Load: 0.85 KN/m²
- Bay Distance: 5.0m (6 Bays)
- Covered Area: 450 M²
- Anchor System: Industrial Ground Screw + Concrete Ballast Dual System
- Highlight: **Heavy-Duty 15x30m Party Marquee Tent ,**

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Product Description

Product Overview

The **ETP-HD1530-EU Heavy-Duty All-Season Party Marquee Tent** is our flagship large-scale structure, purpose-built for the most demanding European event environments. With a massive 15m * 30m footprint (450 m² column-free interior), 7.2m ridge height, and a double-truss 3D space frame system, this tent handles everything from Arctic snow loads to Atlantic storm winds. The 350mm * 150mm * 8mm aluminum box beam main profiles — the strongest in our catalog — combined with a 950g/m² heavy-duty PVC roof and industrial dual anchoring system (ground screws + concrete ballasts) deliver unmatched structural integrity. TÜV Rheinland certified to EN 1991-1-3 (snow) and EN 1991-1-4 (wind) for all European climate zones, this tent is trusted by major festival organizers, municipal event departments, and industrial exhibition operators across the continent.

Technical Specifications

Frame & Structure	
Frame System	Double-truss 3D space frame, 2.5m truss depth
Main Beam Profile	350mm * 150mm * 8mm aluminum 6061-T6 box beam
Secondary Truss	80mm * 80mm * 4mm aluminum square tube
Steel Reinforcement	Hot-dip galvanized steel gusset plates at all critical nodes
Link Pins	M24 grade 12.9 high-tensile bolts with nylon lock nuts
Base Plates	500mm * 500mm * 16mm steel, hot-dip galvanized 100µm
Dimensions	
Width * Length	15m * 30m (450 m ² gross interior)
Side Height	4.5m
Ridge Height	7.2m
Bay Configuration	5.0m * 6 bays on length, 3.75m * 4 on width
Clear Span Width	15m (zero internal columns)
Fabric & Covering	
Roof Material	950g/m ² heavy-duty double-coated PVC, white
Sidewall Material	650g/m ² PVC with reinforced hem and grommet system
Fire Certification	DIN 4102 B1, BS 7837, M2, NFPA 701
Seam Type	HF welded, 50mm overlap, pull-tested 3500+ N/5cm
UV Protection	UV stabilized coating, 10-year UV degradation warranty
Structural Performance	
Wind Resistance	120 km/h (Beaufort 12 hurricane force)
Snow Load	0.85 kN/m ² (approx. 85cm fresh snow)
Seismic Design	Compliant with EN 1998-1 (seismic zone 3)
Service Life	20+ years (frame), 8-12 years (roof fabric)
Temperature Range	-40°C to +70°C

Key Advantages & Selling Points

Hurricane-Rated Wind Resistance

120 km/h wind rating (Beaufort 12) achieved through the double-truss 3D space frame system and M24 grade 12.9 bolted connections. The 2.5m truss depth creates a structural diaphragm that distributes wind forces across the entire frame — not just point-loaded at columns.

* Extreme Snow Load Capacity

0.85 kN/m² snow load rating (approx. 85cm fresh snow or 35cm compacted snow) meets requirements for Alpine regions, Nordic countries, and Eastern European winter conditions. The steep roof pitch (25°) and reinforced purlin spacing prevent snow accumulation.

Industrial Double-Truss System

The 3D space frame truss is the same structural concept used in aircraft hangars and exhibition halls. 350mm * 150mm * 8mm box beams form the primary chords with 80mm * 80mm web members triangulated for maximum stiffness-to-weight ratio.

Dual Anchoring System

Every base plate accepts both industrial ground screws (1.5m helical anchors, 5-tonne pull-out resistance each) and concrete ballast blocks (2-tonne interlocking blocks). Redundant anchoring means the structure stays put even if one system is compromised.

450 m² Column-Free Space

The 15m clear span with zero internal columns provides a truly open floor plan. Configure seating for 500+ guests theater-style, 350 banquet-style, or 80 exhibition booths. The 7.2m ridge height accommodates production lighting rigs, video walls, and aerial equipment.

TÜV Certified Eurocode Compliance

Full structural calculations certified by TÜV Rheinland per EN 1991-1-3 (snow loads), EN 1991-1-4 (wind actions), and EN 1993-1-1 (aluminum structures). Documentation package accepted by building authorities across Germany, Netherlands, France, UK, and Scandinavia.

Production Process

1

Heavy Profile Extrusion & Heat Treatment

6061-T6 billets extruded on 5500-ton press for the 350mm*150mm*8mm box beam — requiring custom dies and controlled cooling rates. Post-extrusion solution heat treatment at 530°C for 4 hours, water quench, then artificial aging at 175°C for 8 hours. Every 10th profile undergoes tensile coupon testing (yield \geq 240 MPa).

2

CNC Machining & Node Preparation

Main beams machined on 7-axis CNC gantry mill: end plates faced to $\pm 0.1^\circ$ perpendicularity, M24 bolt holes drilled and tapped with thread inspection, gusset plate mounting surfaces milled flat to 0.05mm. Each beam laser-etched with unique ID for traceability.

3

Steel Component Fabrication

Gusset plates laser-cut from 10mm S355 structural steel plate. Hot-dip galvanized at 450°C to 100 μ m minimum. Every batch includes sacrificial coupons for coating thickness verification and bend testing. M24 bolts sourced from ISO 898-1 certified supplier with material certs per lot.

4

Heavy Fabric Production

950g/m² PVC fabric produced on 5m-wide calendering line. Double coating ensures uniform thickness ($\pm 5\%$). Fabric cut on automated plotting table with 60mm seam allowance. HF welded at 27.12 MHz with dual-pass welding for critical seams. Every linear meter of weld tested with seam strength pull-tester.

5

Sub-Assembly & Dimensional Verification

Truss modules pre-assembled in 5m sections. Laser tracker dimensional survey (accuracy ± 1 mm across 30m). All bolted connections torque-checked to 650 N·m. Roof fabric trial-fitted on a 15m test jig to verify tension distribution and grommet alignment.

6

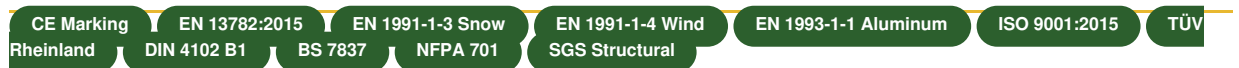
Final Inspection & Certified Documentation

Complete QC dossier: material mill certificates (aluminum + steel), dimensional reports, weld test certificates, fire retardancy batch certificates, bolt torque records, TÜV structural sign-off, and CE Declaration of Conformity. Each tent ships with a serial-numbered documentation package organized per EU construction products regulation (CPR).

Factory & Company Strength

Industrial-Scale Manufacturing for the Toughest Demands

Certifications & Test Reports



Industry-leading certification package: TÜV Rheinland structural calculation report (60+ pages, wind + snow + seismic per Eurocodes), EN 13782 temporary structure compliance certificate, fire retardancy test reports (DIN 4102 B1 + BS 7837 + NFPA 701 for international recognition), material certificates (aluminum 6061-T6 mill certs, steel S355 mill certs, bolt ISO 898-1 certs), SGS factory production control audit, and CE Declaration of Conformity per EU CPR 305/2011.

Pre-Sales & After-Sales Service

Pre-Sales Service	After-Sales Service
TÜV-certified wind/snow calculation per project GPS coordinates	5-year structural warranty on frame system
Geotechnical review of anchoring requirements (soil report analysis)	3-year fabric warranty (UV degradation + seam integrity)
Complete building permit documentation package in local language	EU-based critical spare parts inventory (48-hour dispatch)
Factory acceptance test (FAT) with client representative present	Annual structural inspection service by TÜV-certified engineer
3D BIM model (Revit/IFC) for integration with venue planning	On-site installation management by factory project engineer
Turnkey DDP shipping with full customs clearance	24/7 emergency engineering support line

Application Cases & Scenarios

Music Festival	Major Music Festival Main Stages & VIP Areas
Expo Hall	Industrial Trade Fair & Expo Halls
Sports Event	Covered Sports Events & Indoor Tennis
Municipal Event	Municipal Celebrations & City Festivals
Circus	Touring Circus & Large Performance Venues
Emergency	Emergency Response & Disaster Relief Shelter

FAQ

Q1: What is the maximum wind speed this tent can actually withstand?

The ETP-HD1530-EU is certified to 120 km/h (Beaufort 12, hurricane force on the Beaufort scale) with the standard anchoring package. This rating is verified by TÜV Rheinland structural calculations per EN 1991-1-4, including gust factor analysis. For extreme coastal locations (North Sea, Atlantic coast), we offer an upgraded anchoring specification that extends the rating to 140 km/h — contact our engineering team with your site GPS coordinates for a project-specific wind assessment.

Q2: How is snow load managed for winter installations?

The 25° roof pitch naturally sheds snow, and the 0.85 kN/m² rating (≈85cm fresh snow, ≈35cm compacted old snow) exceeds typical European snow load requirements. For Alpine installations above 1500m, we offer a heated roof edge system (self-regulating heat trace cable) that prevents ice dam formation. All snow load calculations follow EN 1991-1-3 with altitude and exposure coefficients specific to your venue location.

Q3: How many people and how long to set up?

A crew of 12-15 professional installers with a telehandler/forklift can erect the frame in 2 days. Roof fabric and tensioning takes day 3. Sidewalls and interior finishing take days 4-5. Total: 5 working days from delivery to handover. We provide a factory installation supervisor for every first-time client and can recommend certified installation crews across Europe.

Q4: Can this tent be left up permanently or semi-permanently?

Yes. With the 950g/m² roof fabric (8-12 year lifespan), double-truss frame (20+ year lifespan), and dual anchoring system, this tent is engineered for multi-year installations. Many clients operate these as permanent event venues with annual fabric inspection and bolt re-torquing. For truly permanent use (10+ years), we offer a rigid roof upgrade (insulated sandwich panels) — ask for our permanent structure specification sheet.

Q5: How does shipping work for something this large?

The complete 15x30m tent fits into one 40ft High Cube container (or two 20ft containers). We provide a detailed container loading plan with weight distribution calculations. DDP shipping to all EU countries is available: we handle ocean freight, customs clearance, import duties, and final truck delivery to your site. Typical transit time: 25-30 days factory to EU port + 3-5 days inland delivery.

Q6: What accessories and upgrades are available?

Comprehensive accessory range: rigid sandwich panel wall upgrade, insulated roof panels, HVAC integration packages (50kW-150kW), LED lighting rigs (DMX controllable), raised cassette flooring (wood/carpet/marble finishes), glass wall sections, mezzanine floor systems, stage modules, backstage partition walls, fire alarm and emergency lighting systems (EN 54 compliant), and branding packages (custom-printed valance, flags, entry arch). We can spec and quote any combination — tell us about your project.


Package Contents

Component	Quantity	Specification
Main Beam Profiles	Full set	350*150*8mm, 6061-T6, anodized
Secondary Truss Members	Full set	80*80*4mm, 6061-T6
Steel Gusset Plates	Full set	S355, 10mm, galvanized 100µm
M24 Bolts & Lock Nuts	Full set	Grade 12.9, ISO 898-1 certified
Heavy PVC Roof Cover	1 set	950g/m ² , B1/B2/M2 fire rated
PVC Sidewalls	1 set (4 sides)	650g/m ² with reinforced grommets
Steel Base Plates	Full set	500*500*16mm, galvanized 100µm
Ground Screw Anchors	Full set	1.5m helical, 5-tonne rated each
Concrete Ballast Blocks	Optional	2-tonne interlocking, steel frame
Installation Toolkit	1 set	Torque wrench, tension tools, rigging gear
Documentation Package	1 set	TÜV report, CE DoC, manuals, QC dossier



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