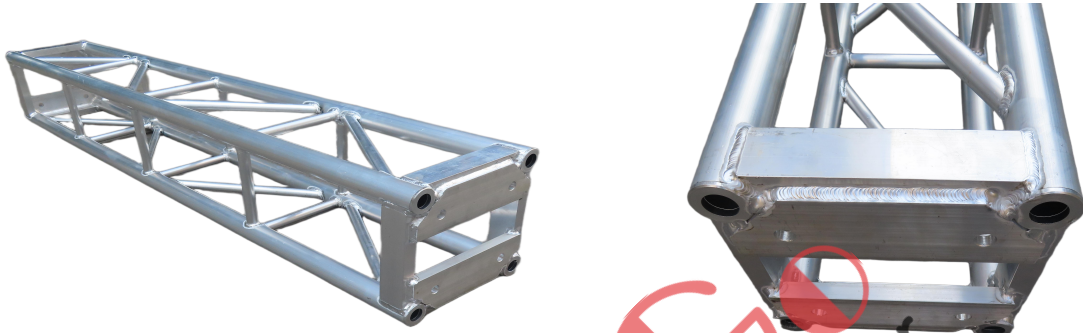


TOURGO ENGINEERING DATA SHEET

16" x 16" Plated Box Truss System

ENGINEER APPROVED ✓
EN / TÜV COMPLIANT | GLOBAL PROJECT USE



1. PRODUCT OVERVIEW

TOURGO 16" x 16" HD Plated Box Truss is designed for heavy-duty applications including stage structures, LED screen support, and large-scale rigging systems. Manufactured with high-strength aluminum alloy, it ensures reliability, durability, and safety in demanding environments.

2. TECHNICAL SPECIFICATIONS

Dimensions: 16"x16" (406 x 406 mm)

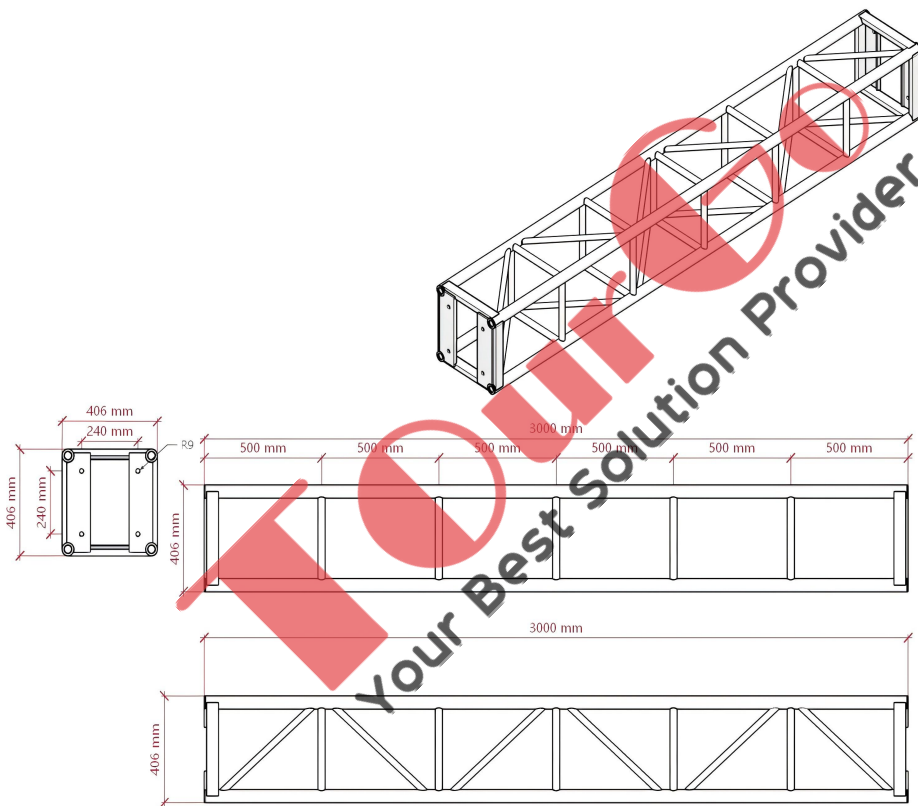
Main Tube: $\text{Ø}50 \times 3$ mm

Bracing Tube: $\text{Ø}25 \times 2$ mm

Material: EN AW-6082 T6

Connection: High-strength Bolt Plate System

Finish: Polished / Powder Coated



3. STRUCTURAL PERFORMANCE BASIS

- Standard: EN 1999 (Eurocode 9 – Aluminum Structures)
- Safety Factor: 1.5
- Deflection Limit: $L / 200$
- Load Type Definitions:
 - UDL – Uniformly Distributed Load
 - CPL – Center Point Load
 - TPL – Third Point Load
 - QPL – Quarter Point Load

4. ALLOWABLE LOAD TABLE (WITH DEFLECTION)

16" x 16" HD Plated Box								
TRUSS SPAN	UNIFORMLY DISTRIBUTED LOAD		CENTER POINT LOAD		THIRD POINT LOAD		QUARTER POINT LOAD	
	LOAD	DEFLECTION	LOAD	DEFLECTION	LOAD	DEFLECTION	LOAD	DEFLECTION
3 m	715 kg/m	3.8 mm	1,130 kg	3.6 mm	725 kg	3.4 mm	475 kg	3.3 mm
6 m	275 kg/m	18.6 mm	710 kg	15.6 mm	520 kg	17.2 mm	320 kg	17.5 mm
9 m	105 kg/m	34.3 mm	510 kg	30.7 mm	510 kg	33.5 mm	350 kg	34.3 mm
12 m	48 kg/m	57.9 mm	300 kg	51.3 mm	210 kg	58.4 mm	210 kg	58.4 mm
15 m	24 kg/m	86.4 mm	210 kg	81.3 mm	130 kg	85.4 mm	130 kg	84.6 mm

VERTICAL TOWER LOAD PERFORMANCE

Tower Height	Effective Length	Safe Axial Load	Safe Flexural Load (Mid-Span Point Load)	Application
● 3 m	3 m	≈ 6,050 kg	≈ 6,100 kg	Single section tower / short span beam
● 6 m	6 m	≈ 4,500 kg	≈ 4,500 kg	Medium tower / multi-level platform
● 9 m	9 m	≈ 3,350 kg	≈ 3,350 kg	Large backdrop tower / lighting tower
● 12 m	12 m	≈ 2,500 kg	≈ 2,500 kg	High tower structure / side lighting rig
● 13.72m (45')	13.72 m	≈ 1,815 kg	≈ 1,800 kg	Manufacturer rated maximum height

● High Capacity (Low Risk) ● Medium Capacity ● Reduced Capacity ● Maximum Limit Condition
 ● High Capacity ● Reduced Capacity ● High Structure / Lower Capacity

ENGINEERING CHARACTERISTICS

- High Load Capacity:** Designed for heavy-duty stage and roof systems.
- Rigid Plate Connection:** Provides superior structural stiffness vs spigot truss
- Precision Welding:** TIG welded with controlled heat input
- Load Distribution:** Optimized diagonal bracing for torsional resistance
- Compatibility:** Can integrate with standard tyler/Tomcat truss systems (adapter required)

TESTING & QUALITY CONTROL

- Weld inspection (visual + penetration test optional)
- Dimensional tolerance control +0.5 mm
- Load testing available upon request
- Material traceability (EN certification available)