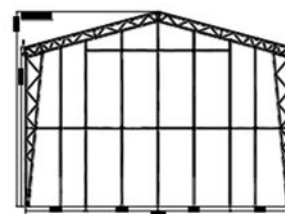
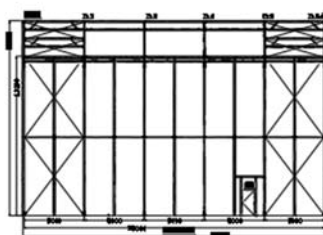
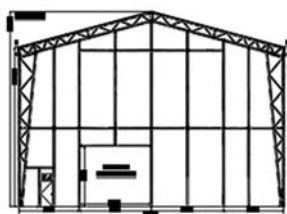
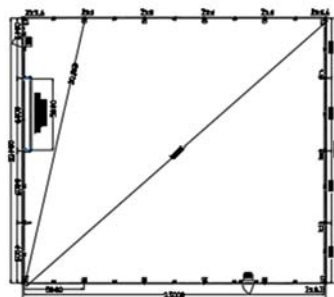
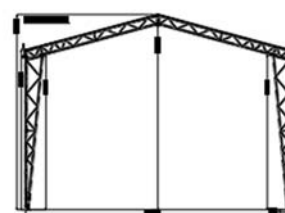
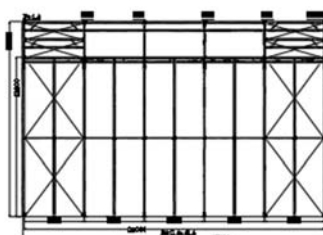
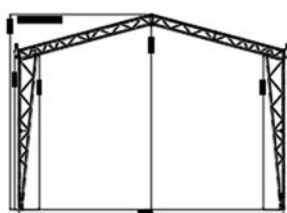


TECHNICAL PROJECT REMOVABLE STRUCTURE

Maxi-Space 22x25x13.2 MS-800 Surface Transform



Prepared by:

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Col. Núm.: 22.782-L (CETILL)

Les Borges Blanques, Lleida 2025

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1. DESCRIPTIVE MEMORY

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1. DESCRIPTIVE MEMORY

A. PROMOTER OWNER

Customer: Smart - Space Buildings
Address: Kingsbury Link, Trinity Rd, Tamworth B78 2EX,
 United Kingdom

B. PROJECT AUTHOR.

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C. BACKGROUND.

This document is written as a basis for the construction of a removable steel structure.

D. PURPOSE OF THE PROJECT.

The purpose of this project is to implement a removable structure with a thermos roof covers and structures based on semi-rigid frames, made of steel elements, with gabled roofs with slopes at 15°.

E. SITUATION.

The removable structure is planned to be installed on existing land for the Smart - Space Buildings company in Liverpool, but the design concept allows this construction to be installed anywhere, always subject to the conditions of use and acceptance of these by the client.

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F. PURPOSE.

The specific use and activity to be developed in this structure is not the subject of this document.

G. DIMENSIONS OF THE AXIAL STRUCTURE.

Measurements to axis centres	22x25x13.2 MS-800
Total area	550 m ²
Modulation	5 sections of 5 ml
Width	22 ml
Length/Depth	25 ml
Height at eaves	13.2 ml
Height at ridge	16.15 ml

H. DESCRIPTION OF THE STRUCTURE.

The removable structure consists of gabled portico structures with a 15° roof pitch.

The total floor area is 550 m². The maximum pitch will be 5 ml.

The structure will be composed of steel pillars and beams.

The roof will be thermos covers with a slightly pressurized chamber.

The perimeter enclosures will be 50 mm thick horizontal panels.

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I. CONSTRUCTION DESCRIPTION.

1. Foundation.

To ensure the structures are in balance with the ground on which their pillars rest, the anchor plates will be placed on the existing ground. These plates will be responsible for transmitting the loads from the pillars under the most adverse loading conditions, without causing settlement or punching of the structure.

To ensure that the assembly behaves as a succession of double-hinged frames in their plane and articulated for assembly and disassembly operations in the plane perpendicular to the frames, a base plate is designed to allow for these articulations and is anchored to the foundation using chemical anchoring (M-20 threaded rods L=250 mm + Epoxy). This solution allows the structural loads to be transmitted to the supporting ground without generating moments in the anchor base, thus ensuring the stability of the assembly.

2. Structure.

These structures are designed using steel sections. The frames are designed with rigid nodes except at their connection to the foundation, where they are hinged.

The main load-bearing structure is composed of frames whose pillars and lintels are formed by structural sections made of 120x120mm S-355 J2H steel tubes.

The roof purlins are designed on both sides using 120x120x4mm S-355 J2H tubular steel sections, and the ridge purlins are designed using 120x80x3mm S420 GD rectangular tubular steel sections. 120x120x4mm S-355 J2H steel sections are designed as side and front pillars, on which the perimeter enclosure will be supported.

To provide stability to the buildings against wind forces, rigidity is provided by cross-bracing the roof and facades with St. Andrew's crosses formed by 12-mm diameter galvanized steel slings. This work is carried out on the first and last spans of the tent.

The steel elements that make up the structures have a hot-dip galvanized anti-corrosion surface finish, as do the assembly parts: the "plane," the "pillar-beam connection," and anchor plates.

The minimum galvanizing coating thicknesses will be equal to or greater than the values indicated in Standard UN EN ISO 1461:1999, depending on the thickness of the galvanized parts.

Articles & its thickness	Local conting (minimum)		Mean conting (minimum)	
	g/m ²	μ/m	g/m ²	μ/m
steel > 6mm	505	70	610	85
steel > 3mm to ≤ 6mm	395	55	505	70
steel ≥ 1,5mm to ≤ 3mm	325	45	395	55
steel > 1,5mm	250	35	325	45
casting ≥ 6mm	505	70	575	80
casting < 6mm	430	60	505	70

3. Perimeter Enclosures.

The structure is equipped with 50mm thick horizontal panel perimeter enclosures.

4. Cover.

The roof will be thermos covers, with a 15° pitch. The covering material will be a double PVC, forming an air chamber with a constant pressure of 1.6 mbar, supplied by an air pump and anchored around the perimeter to the lintels and lower purlins. The PVC that makes up the thermal roof are translucent white lacquered. This material meets the international fire performance standard B-s2.d0 and the perforation criterion T2. Its thermal insulation factor is K=1.5.

5. Access.

- 1 Roll-up door. Dimensions 5880x5000mm (W/H).
- 1 pedestrian door.