EDILSIDER
PREFABBRICATI
WORLDWIDE UNIQUE PREFAB HOUSING AND CONTAINER SYSTEM

SHEDS

Insulated Sheds

Non-Insulated Sheds

Warehouses

Workshops

INTRODUCTION

Industrial modular sheds have been designed with a dual purpose in mind: to combine ease of construction and versatility of use, at a very attractive price with respect to traditional brickworks.
This system boasts a number of significant product developments which are rather unique: fully galvanised members, easy and fast track installation thanks to an assembly system that uses pairs of patented plates, incredibly tight shipping clearance.
Highly versatile, our modular sheds are ideally suited for a wide array of applications: workshops, storage facilities, warehouses, tool sheds, garages, etc.

FRAMED STRUCTURE

The hot galvanised steel bearing structure consists of cold-drawn sections whose appropriate section has been assessed to accommodate size and live load requirements. The various structure members are assembled by means of locked or bolted joints. As regards materials, design and dimensions, bearing structures comply with currently applicable Italian and international regulations, and namely:
Law n° 1086 dated 11/05/71 - Standards in relation to the regulation of works constructed from reinforced concrete, normal concrete and pre-stressed concrete blocks, and from metal frames.
Law n° 64 dated 02/02/74 - Provisions in relation to buildings in which special prescriptions for seismic areas apply.
M.D. 02/14/92 - Technical standards in relation to the regulation of works constructed from normal and pre-stressed reinforced concrete, and from metal frames.
M.D. 01/09/96 - Technical standards in relation to the design, execution and testing of works constructed from normal and pre-stressed reinforced concrete, and pertaining to metal frames.

Min. Memo. n° 252 dated 10/15/96 - Instructions with a view to enforcing the Ministerial Decree dated 01/09/96 as regards “Technical standards in relation to the design, execution and testing of works constructed from normal and pre-stressed reinforced concrete, and pertaining to metal frames.”
M.D. 01/16/96 - Technical standards in relation to the ‘’general criteria in connection with safety checks applied to construction works, loads and overloads.”
M. D. 01/16/96 - Technical standards in relation to construction works in seismic areas.
Min. Memo. n° 156 dated 07/04/96 - Instructions with a view to enforcing the Ministerial Decree dated 01/16/96 as regards “Technical standards in relation to the general criteria in connection with safety checks applied to construction works, loads and overloads.”
CNR UNI 10011/86 – Steel works. Instructions in relation to design, execution, testing and maintenance.
CNR UNI 10022/84 - Construction works built in cold-drawn rolled steel sections.

DIMENSIONS

Basic structure length:	3,20 m (non-insulated) - 3,00 m (insulated)
Width:	8,80 - 13,80 - 17,00 m
Inside height:	4,80 m

Owing to its modular features, the structure can be either expanded or modified. Sheds can be linked lengthwise through bays to form larger complexes.

ROOF

The covering framework consists of a ridge roof with a slope of about 10 degrees. The main framework is made up of trusses, duly spaced from one another at equal distances to reproduce the basic structure. Trusses are built from cold-drawn C-channels and hat sections, coupled and framed both to one another and to the supporting studs by means of bolted plates.
The secondary framework is composed of C-channel purlins that run parallel to the longitudinal axis of the shed and are duly spaced from one another. Locked joints are used so that purlins can rest on the points at which trusses intersect.
Also, the roof is provided with wind braces, secured by steel angles and fastened to the ridge purlins, the aim being to resist lateral forces induced by the wind and to stiffen the structure.
As dictated by circumstances, the roof cladding can be structured as follows:

Self-supporting sandwich-type panels 30 mm thick (70 mm by the upper rib) with a 0,4 mm thick pre-coated galvanised ribbed outer metal sheet and a 0,4 mm thick pre-coated galvanised ridged inner metal sheet; the insulation is ensured by a core of self-extinguishing high density polyurethane resins (density: 40 Kg/m^3, thermal transmission coefficient: 0,712 W/m^2 K). Finishes of both layers consist of one coat of polyester based white/grey colour paint. The above panels are anchored to the truss construction by self-threading screws, complete with cap and sealing gaskets.

6/10 mm thick galvanised corrugated sheet, fastened to the underside by means of galvanised rhomboidal mesh, complete with gasket and self-threading screws.

EXTERNAL WALLS

The vertical structural frame is made up of posts, duly spaced from one another at equal distances to reproduce the basic structure, constructed from 20/10 mm thick cold-drawn, coupled hat sections. Each frame-mounted supporting stud carries the roof loads and transmits them directly to the basement foundations to which they are anchored by means of buffer screws.
Side panels are fastened to galvanised C-channel lintels secured to the wall studs. The external walls are provided with wind braces.
As dictated by circumstances, the external wall cladding can be structured as follows :

Self-supporting sandwich type panels, having a total thickness of 50 mm. The insulation is ensured by a core of self-extinguishing polyurethane resins (density : 40 Kg/m^3, thermal transmission coefficient : 0,461 W/m^2 K) fitted between two galvanised ridged metal sheets 0,5 mm thick. Finishing of wall panels consists of one coat of polyester based white/grey colour paint. Panels have waterproof and dustproof tongue-and-groove vertical joints and are fully interchangeable.

8/10 mm cold-drawn galvanised ribbed sheet panels, duly secured to one another through pairs of patented plates. If need be, they can be covered on site in a special water-soluble coating whose colour can be chosen by the customer.

DOORS AND WINDOWS

External main doors are fully blind of the sliding type with galvanised steel frame and faces in panels identical to that of the walls (dimensions: 4000xh4300 mm or 3200xh4300 mm). Their upper section is fastened to a door runner rail by means of ball bearings and the base is provided with hasp and staple in the centre in order to prevent the doors from oscillating once shut.

External doors consist of silver anodised aluminium-based alloy profiles and face in sandwich type panel, equipped with 3 hinges, heavy-duty plastic handles and a lock. Dimensions are as follows : 760xh2100 mm or 970xh2100 mm.

Fittings available upon request include: anti-panic bars, upper/lower safety glass (3+3 mm), door closer.

Windows consist of silver anodised aluminium-based alloy profiles, with hollow-core polycarbonate faces. Either fixed or outward opening operated by manual control devices, they run along the perimeter, at a height of 4,5 m above the floor, in order to leave the internal walls free. Dimensions 1970xh970 mm or 1560xh1130 mm.

Dormer windows, either made from fibreglass or hollow-core polycarbonate, are set into the sloping side of the roof instead of roof panels.

A wide variety of additional door and window fittings may be provided upon request.

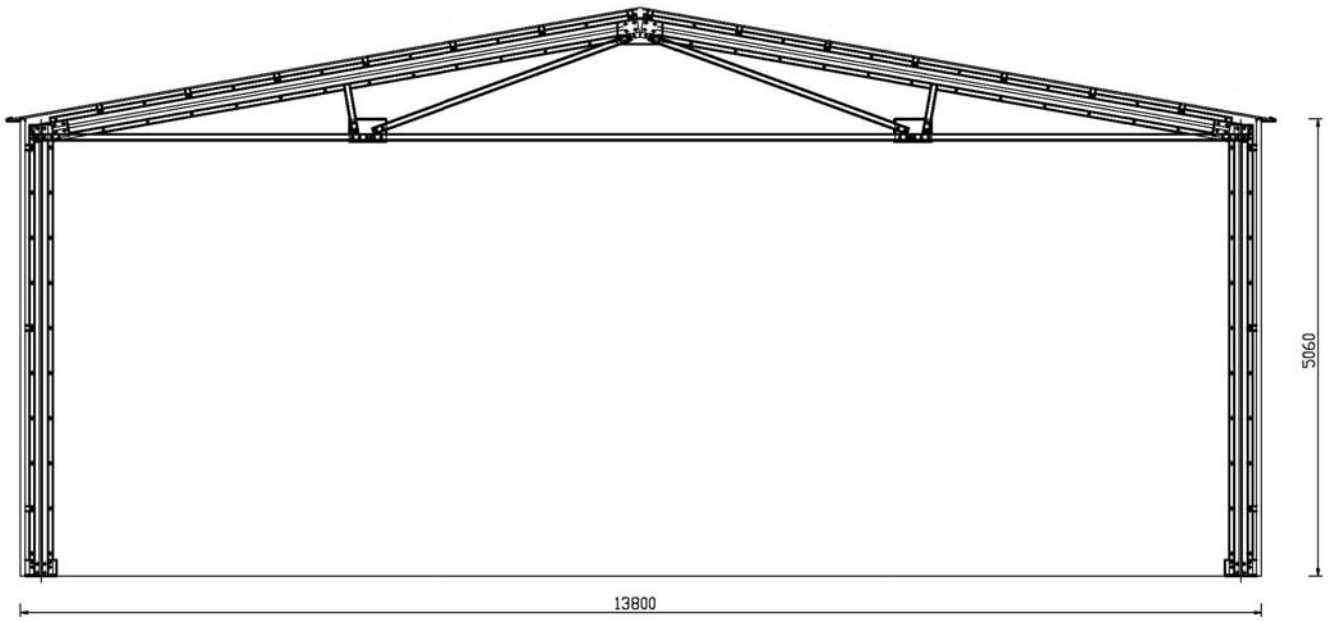
ELECTRICAL INSTALLATION

In accordance with currently enforceable IEC regulations and Italian law n° 46/90, the electrical installation, if any, shall be constructed from IMQ quality label materials. The power supply is 230/400V 3F+N 50Hz three-phase.
The shed houses a main electric panel which accommodates differential switches and thermal magnetic circuit breakers for lighting circuit protection.
Power transmission is ensured by prefabricated bus bars (busway) and flush-mounted, self-extinguishing PVC pipes, duly fastened by plastic clamps. Both the distribution boxes and the enclosures which house the appliances are in self-extinguishing plastic.
Multicore, fire arresting cables are used : provided with copper stranded conductors and covered in a HEPR FG70R4 rubber sheathing, their section is compatible with appliances in place, as recommended by IEC 20-11, IEC 20-34, IEC 20-13, IEC 20-22, IEC 20-52 standards.

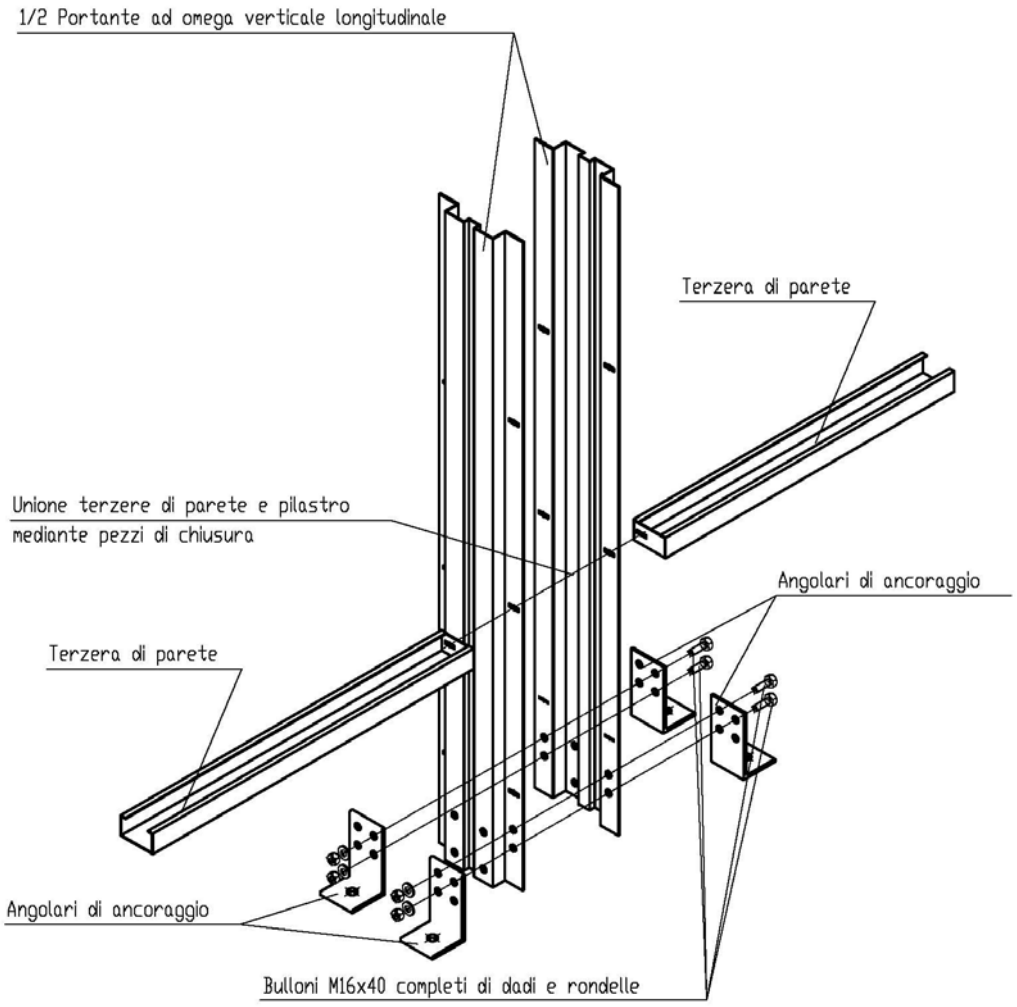
Indoor lighting is achieved by means of glass fibre reinforced polyester ceiling fixtures and an IP65 methacrylate diffusing screen, complete with two 58W fluorescent lamps. There is a sufficient number of lighting fixtures to ensure the level of illumination, expressed in lux, required under applicable legislation.

BASEMENT

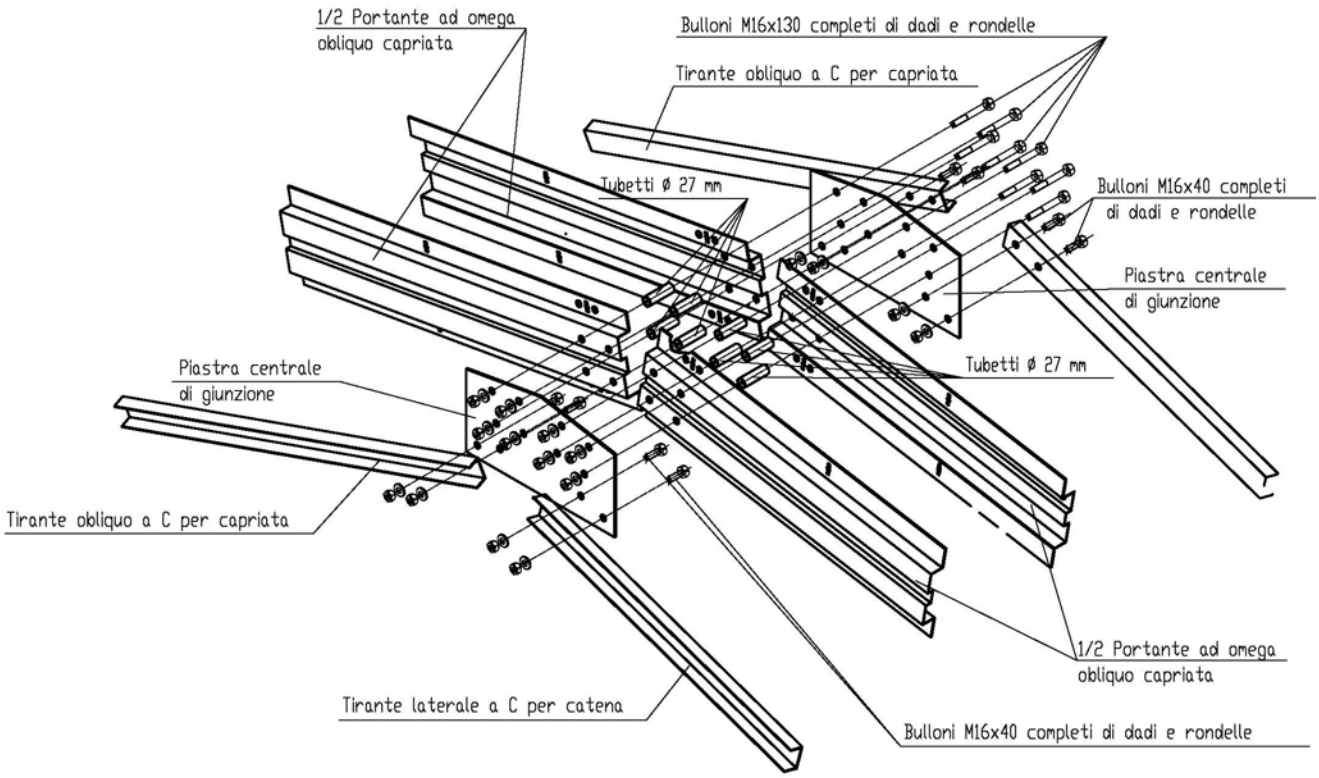
Basements are made up of reinforced concrete foundations; the customer is responsible for their construction that will be undertaken following our plans on which any information possibly needed to gather proper dimensions, according to both the soil upon which prefab buildings will be erected and the load to be transmitted, are reported.



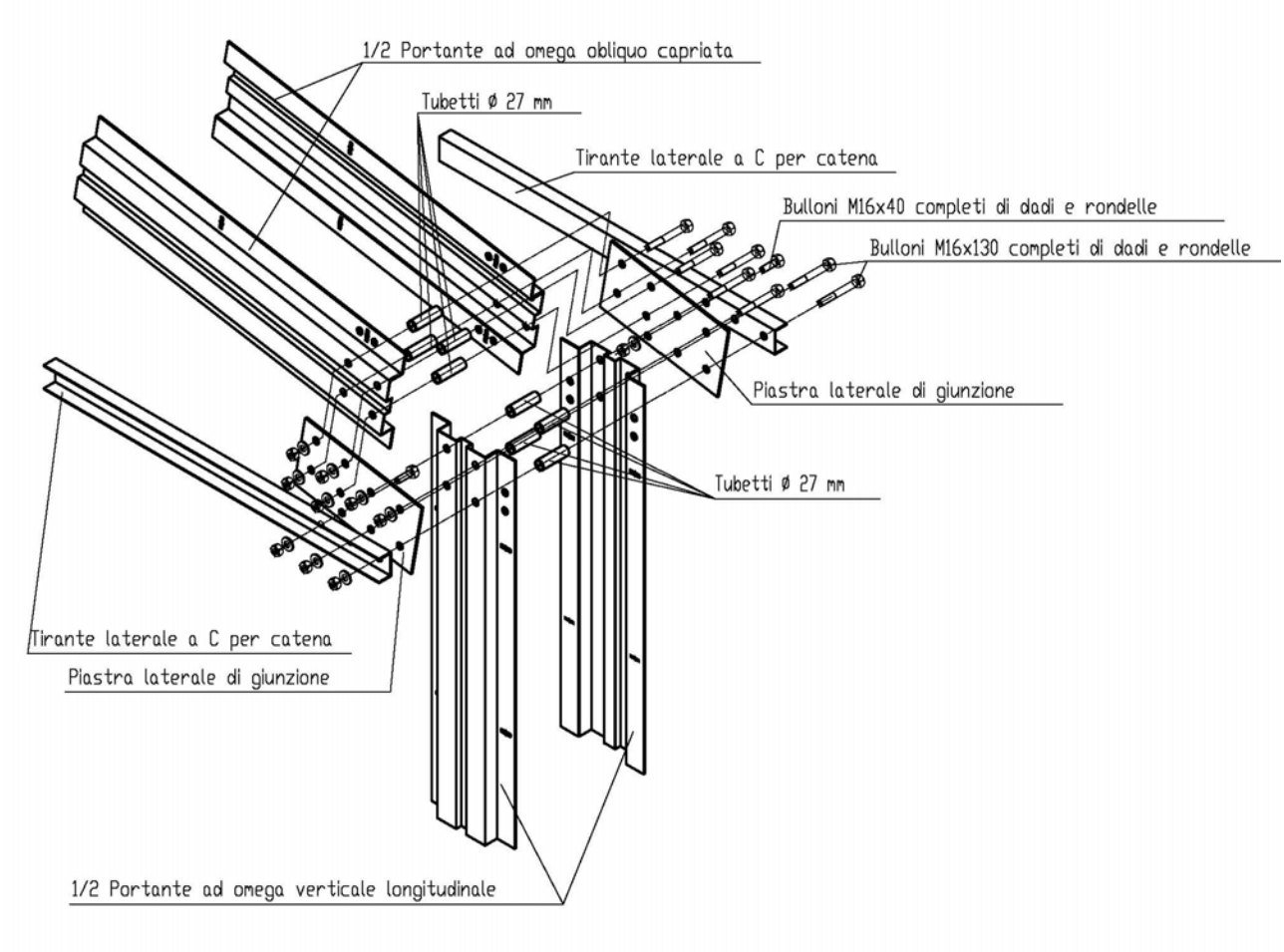
Bearing structure



Post – Basement detail



Diagonal bearing structures – truss detail



Post – truss detail

Insulated shed

Non-insulated shed


SLL Warehouse