



MECANO

MODULAR MEZZANINE



[**www.rosss.it**](http://www.rosss.it)



made to last,
made to resist,
made in italy.

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QUALITY READY TO BE ASSEMBLED

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AND MANY MORE ADVANTAGES

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ROSSS MECANO

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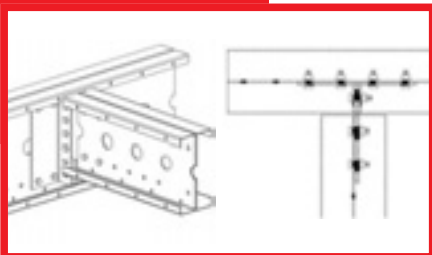
QUALITY READY TO BE ASSEMBLED

ADVANTAGES OF MECANO COMPARED TO MEZZANINES WITH HOT SHAPED PROFILES:

GREATER SAFETY: NO WELDING REQUIRED

THE ENTIRE STRUCTURE IS BOLTED TOGETHER

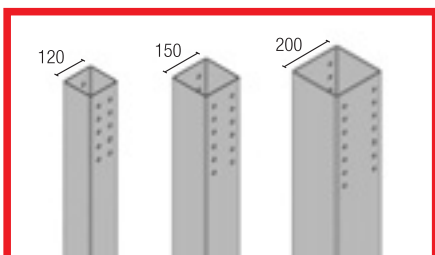
Welding is a technical process that requires a high degree of professional skill and can therefore also be subject to potential errors with serious consequences for the safety of the mezzanines themselves. For this reason, we have completely eliminated welding from our products.



GREATER FLEXIBILITY: DRILLED COMPONENTS

THE ENTIRE STRUCTURE IS ASSEMBLED ON SITE

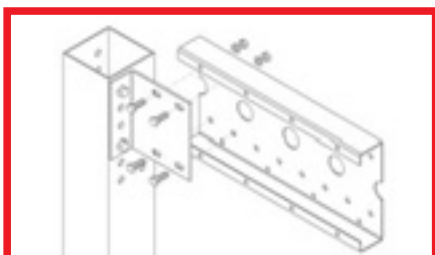
The entire structure has been designed and created to be assembled and modified at any time on the installation site without the need to be returned to the plant. Furthermore, the drilled holes in the beams facilitate the movement of the installations.



EASY ASSEMBLY: COLD SHAPED

THE STRUCTURAL ELEMENTS ARE LIGHTER

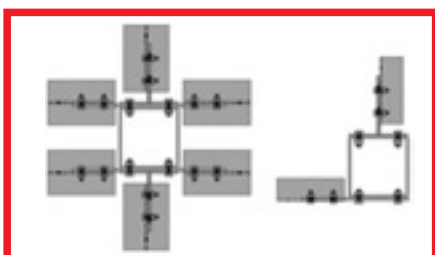
The lightweight, cold shaped profiles allow for easier and quicker assembly.



MORE OPTIONS: MODULAR ELEMENTS

FOR SUBSEQUENT EXPANSION OF THE STRUCTURE

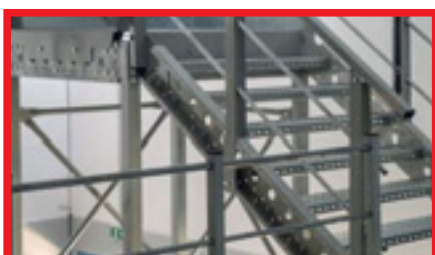
All the Mecano elements are modular to allow the structure to be expanded or modified easily and cost-effectively at any time.



EASY EARTHQUAKE-RESISTANT UPGRADES

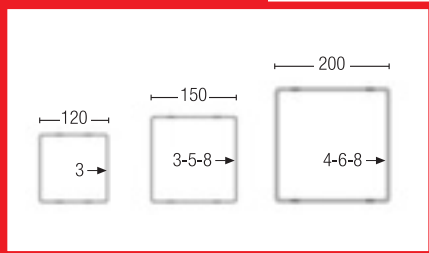
SIMPLIFIED INSERTION OF DIAGONAL BRACING

Thanks to its modular nature, it is easy to add diagonal bracing to the Mecano structure for seismic adaptations/improvements.



AND MANY MORE ADVANTAGES

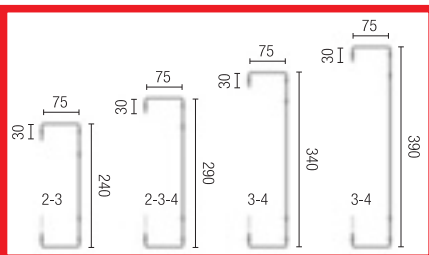
COMPARED TO OTHER MEZZANINES CREATED WITH COLD SHAPED PROFILES:



MORE FLEXIBILITY: 3 TYPES OF COLUMNS

TO CREATE STRUCTURES WITH ANY TYPE OF STRUCTURAL FRAMEWORK

Three types of profiles with different thicknesses make it possible to select the most appropriate column size for your specific requirements. This flexibility means that the column can be correctly sized for any type of structural framework: it allows multi-level mezzanine floors to be created which, upon request, comply with the new earthquake-resistant criteria.



GREATER FLEXIBILITY: 4 PROFILES FOR BEAMS

TO CREATE STRUCTURES WITH ANY TYPE OF FRAMEWORK

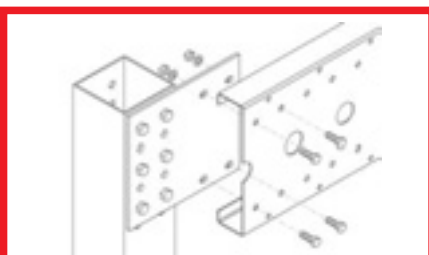
The 4 beam profiles available make Mecano a flexible system, able to meet the most diverse requirements.



GREATER LOAD BEARING CAPACITY: WIDE RANGE OF SECTIONS

INCREASE IN PERFORMANCE AND FREE OPENINGS

The extensive range of available sections, both for the beams and for the columns, allows mezzanines to be built which have a greater load bearing capacity and more free openings – even over 7 metres – with the consequent advantages that this brings in terms of usage.



BETTER PERFORMANCE: DIRECT BEAM CONNECTION TO THE COLUMNS

INCREASE IN PERFORMANCE AND FREE OPENINGS

Mecano has been designed in such a way to allow the beams to be directly connected to the columns in the two main directions. This feature prevents any eccentricity in the static layout, a particularly important characteristic in high risk seismic areas.



EARTHQUAKE-RESISTANT

PATENTS, ROSSS CULTURE AND TECHNICAL SOLUTIONS

The ROSSS engineering department is highly experienced in the construction of earthquake-resistant structures, as demonstrated by the patent obtained for anti-seismic structures in collaboration with the University of Florence and Athens and the wide range of technical solutions which can be applied to the MECANO structure to ensure your safety in high-risk seismic areas.



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THE TREADABLE SURFACE OF A MECANO MEZZANINE: FLEXIBLE AND SAFE



The treadable surface of the MECANO mezzanine can be made in different materials depending on the specific needs of the Client:

1. GALVANISED CORRUGATED STEEL SHEET:

For elevated overloads, corrugated sheet is used together with a concrete jet or MDF chipboard panels. This makes the surface trolley-mountable.



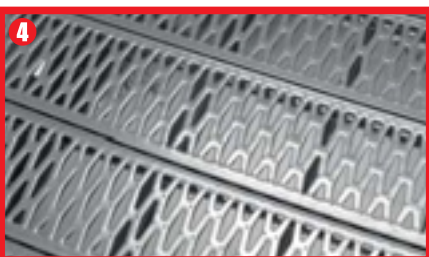
2. STRUCTURAL FLAME RETARDANT CHIPBOARD:

This is a highly resistant chip-based product thanks to its high mechanical performance. The surface consists of a panel with a density of 720 kg/m³ and a white melamine covered bottom surface. The top surfaces can be supplied with a non-slip finish in grey, white or granite-effect.



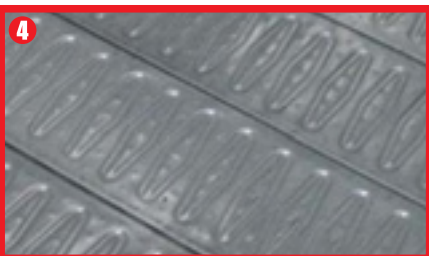
3. MDF:

These are medium density fibre panels obtained by compressing wood fibre which is compacted by the application of a special synthetic resin binder. The top and bottom surfaces of the panel are smooth and do not require any further treatment. It has no structural characteristics and can be used exclusively as a contact finish on perforated grating or corrugated sheet. This surface is trolley-mountable.



4. TREADABLE SURFACE IN GALVANISED STEEL:

This treadable surface is not trolley-mountable and is available in perforated or textured grating. It reduces the risk of slipping and its mechanical performance ensures optimal load bearing capacities.



The floor area of the MECANO mezzanine is surrounded by anti-fall perimeter guards such as bannisters, handrails and foot boards with the access steps and swing gates for loading and unloading material available upon request.



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MECANO THE MODULAR MEZZANINE

4 DIFFERENT SOLUTIONS FOR TREADABLE SURFACES

GALVANISED CORRUGATED STEEL SHEET
STEEL CERTIFIED S250GD
MDF
STRUCTURAL FLAME RETARDANT
CHIPBOARD

4 PROFILES FOR THE BEAMS

TO CREATE STRUCTURES WITH ANY TYPE
OF STRUCTURAL FRAMEWORK

3 TYPES OF COLUMNS

TO CREATE STRUCTURES WITH ANY
TYPE OF STRUCTURAL FRAMEWORK

CROSS BRACING

SIMPLIFIED INSERTION OF BRACING DIAGONAL STRUTS

EASY
EARTHQUAKE-RESISTANT
UPGRADES

SUSPENDED CROSS BRACING

DOUBLE GATES



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THE SIMPLE AND EFFECTIVE SOLUTION WHICH ADAPTS WITH GREAT VERSATILITY TO YOUR LOGISTICAL NEEDS

COLD SHAPED
EASIER ASSEMBLY

NO WELDING
GREATER SAFETY

DRILLED COMPONENTS

ALL THE STRUCTURES ARE ASSEMBLED ON SITE

MODULAR ELEMENTS

MORE OPTIONS

SWING GATE

DIRECT BEAM CONNECTION TO THE COLUMNS

GREATER LOAD BEARING CAPACITY



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CERTIFIED QUALITY

ROSSS: THE FIRST IN ITALY IN THIS SECTOR
TO OBTAIN THE FOLLOWING CERTIFICATIONS:
ISO 9001 - ISO 14001 - EMAS - SA 8000

1**ISO 9001 QUALITY CERTIFICATION**

THE FIRST IN ITALY IN THE METAL SHELVING SECTOR

2**ENVIRONMENTAL QUALITY SYSTEM CERTIFICATION
ISO 14001 AND EMAS**

THE FIRST IN ITALY IN THE METAL SHELVING SECTOR

3**ETHICS CERTIFICATION SA8000**

THE FIRST IN ITALY IN THE METAL SHELVING SECTOR

ROSSS ALSO OBTAINED THE FOLLOWING
CERTIFICATIONS:

4**SHELVING PRODUCT CERTIFICATION**

FOR COMMERCIAL SHOPFITTING IN COMPLIANCE WITH STANDARD UNI 11262-1

5**PROCESSING CENTRE CERTIFICATE**

N°1826/11

6**CERTIFICATE OF CONFORMITY**

OF FACTORY PRODUCTION CONTROL ACCORDING TO STANDARD EN 1090-1 WITHIN
SYSTEM 2+

7**PRODUCT CERTIFICATION**

ACCORDING TO UNI EN 15512

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Certificato IT08/0100

Il sistema di gestione di

ROSSS S.p.A.

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 Viale Kennedy, 174 - 50038 Scarperia (FI) - Italia
 Via E. Mattei, 7 - 50038 Scarperia (FI) - Italia
 Strada Pelosa, 183 - 36100 VICENZA - Italia

è stato verificato ed è risultato conforme ai requisiti di

SA 8000:2008

Per le seguenti attività

progettazione, fabbricazione, installazione e
 di strutture metalliche per la gestione degli
 commerciali; leggere ad incastro verniciate e
 drive-in, gravità, cantilever, compatibili per
 soppelichi, magazzini verticali, magazzini a
 L, arredi per negozi, banchi cassa e vendita.

Questo certificato è valido dal 30/12/2010 fino al 30/12/2013.
 Il livello soddisfacente dell'attività di sorveglianza periodica.
 Ricertificazione da eseguirsi entro il 30/12/2013.
 Rev. 1. Certificata dal 30/12/2004.

Autorizzato da
 Stefano Bertozzi




SGS ITALIA S.p.A. - Sistema & Services Certification
 Via G. Galilei, 1/A - 20129 MILANO - Italy
 T +39 02 73 93 1 F +39 02 70 10 94 89 www.sgs.com

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ATTESTATO

si attesta che:
 we certify that:

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 Email rossss@rosss.it - www.rosss.it

Organizzazione Scaffalature Industriali della ACAI da
 (registered member of the Italian Steel Constructors Association) in
 procedure relative al programma di autoqu
 it complies with all the proceedings of CISI self certification prog
 ed è pertanto autorizzata ad utilizzare il ma
 and is authorized to use the "CISI Quality & Safety" mark



**Qualità
 sicurezza**

libera per
 per promotional
 ato dall'azie
 commerciali.
 come di buo
 ing racking systems
 sture regolar
 prodotto sicur
 (rev. n° 172/04 conc
 ACAI

**CERTIFICATO DEL SISTEMA
 PER LA QUALITÀ
 IT SYSTEM CERTIFICATE**

Il sistema di gestione per la Qualità dell'Organizzazione:
 The Quality Management System of the Organization

ROSSS S.p.A.

**Certificato di Registrazione
 Registration Certificate**



ROSSS S.p.A.
 Viale Kennedy 97, 174
 50038 Scarperia (FI)

N. Registrazione
 Registration Number

Data di registrazione
 Registration date

**FABBRICAZIONE DI STRUTTURE METALLICHE E DI PARTI DI STRUTTURE
 MANUFACTURE OF METAL STRUCTURES AND PARTS OF STRUCTURES**

Questa Organizzazione ha adottato un sistema di gestione ambientale conforme al Regolamento di attuazione del principio di miglioramento continuo delle proprie prestazioni ambientali e di pubblicare un dichiarazione ambientale è stata verificata e la dichiarazione ambientale è stata convalidata. L'Organizzazione è stata registrata secondo lo schema EMAS e pertanto è autorizzata a utilizzare il marchio EMAS. Questo certificato ha validità soltanto se l'Organizzazione risulta iscritta nell'elenco nazionale di EMAS.

This Organization has established an environmental management system according to EU-Regulation and to publish an environmental statement, has an environmental statement validated by a verifier, is registered under EMAS and therefore is authorized to use the EMAS logo. This certificate has validity only if the Organization is listed into the national EMAS Register.

È conforme alla norma in compliance with the standard

UNI EN ISO 9001:2008
 ISO 9001:2008

**CERTIFICATO DEL SISTEMA
 DI GESTIONE AMBIENTALE
 ENVIRONMENTAL MANAGEMENT SYSTEM CERTIFICATE**

Si dichiara che il Sistema di Gestione Ambientale dell'Organizzazione:
 We certify that the Environmental Management System of the Organization

ROSSS S.p.A.

Reg. No: 087 - E

Indirizzo/Address

Viale Kennedy, 97
 50038 Scarperia FI Italia

- Viale Kennedy, 174 50038 Scarperia (FI) Italia
- Via Mattei, 7, 13 15 50038 Scarperia (FI) Italia

È conforme alla norma in compliance with the standard

UNI EN ISO 14001:2004
 ISO 14001:2004

IGQ
 ISTITUTO ITALIANO DI
 GARANZIA DELLA QUALITÀ

**Certificato di prodotto
 P113**

RELASCIATO A:
ROSSS Spa
 Via Kennedy, 97 50030 Scarperia FI

PER I PRODOTTI

**FABBRICAZIONE COMMERCIALE DI ACCIAIO SECONDO LA NORMA UNI 11262-1
 SHOPFITTING**

cui prestazioni sono indicate nell'allegato al presente certificato.

IL PRESENTE CERTIFICATO È SOGGETTO AL RISPETTO DEL REGOLAMENTO PER LA CERTIFICAZIONE DI PRODOTTO E DELLO SCHEMA CERTIFICATIVO IGQ SC015.

IL PRESENTE CERTIFICATO È VALIDO SOLO SE ACCOMPAGNATO DAL RELATIVO ALLEGATO.

La validità del certificato è subordinata al superamento delle verifiche di sorveglianza annuali.



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MECANO

MEZZANINE DESIGN REGULATIONS

THE MEZZANINE IS A METAL CONSTRUCTION AND THEREFORE IT MUST BE DESIGNED IN FULL COMPLIANCE WITH THE TECHNICAL REGULATIONS PROVIDED FOR METAL CONSTRUCTIONS:

MIN. DECREE 14/01/08:

“Approval of new technical standards for constructions”

EXPLANATORY CIRCULAR 617 DATED 02/02/09:

Technical standards for constructions, explanatory circular.

EN 1993 EUROCODE 3:

“Design of steel structures”.

EN 1998 EUROCODE 8:

“Design of structures for earthquake resistance”.



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PIONEERS IN THE CONSTRUCTION OF EARTHQUAKE- RESISTANT SYSTEMS

**ROSSS HAS CARRIED OUT ITS
FIRST EARTHQUAKE PROOF
WAREHOUSE IN 1996**

JULY 1996

ROSSS installed the first earthquake-resistant system in 1996 in Bologna and in 1997 in Umbria.

MAY 2006

ROSSS carried out important shaking table tests at the University of Athens.

2006-2014

ROSSS collaborated with the Faculty of Engineering at the University of Florence and with CISI to draft the first standard on earthquake-resistant pallet racking.

MAY 2012

ROSSS designed TREE CHEESE, the first earthquake-resistant shelving system specifically for the dairy industry.

SEPTEMBER 2012

ROSSS delivered the first TREE CHEESE earthquake-resistant warehouses to dairy companies struck just four months earlier by the earthquake in Emilia and Lombardy.



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MECANO

CASE HISTORY: CPL CONCORDIA

IS ONE OF THE MAJOR ITALIAN PLAYERS IN THE PROVISION OF ENERGY SERVICES.

CUSTOMER REQUIREMENTS

To make better use of the available space in the plant by creating a specific area used for filing and storing materials: the company's offices are located on the ground floor of the building.

Create an earthquake-resistant structure.

THE SOLUTION CREATED BY ROSSS

A MECANO earthquake-resistant mezzanine on two levels:

The mezzanine has an area of 20 m x 20 m and is on two levels: the first level is 3.50 m above ground level, while the second is 6.5 m above ground level.

A dual ramp ladder on two levels, together with a goods lift; these allow the transport and movement of materials and people throughout the entire area of the mezzanine.

Mixed treadable surfaces:

the first level of the mezzanine was built with a textured grating to mitigate noise and prevent the accumulation of dirt. The second level consists of perforated grating flooring to facilitate any necessary fire prevention operations.

Mezzanine finish: galvanised steel painted with RAL 7038.



CPL CONCORDIA SOC. COOP.

ENERGY SERVICES
MODENA, ITALY



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ROSS MECANO

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MECANO

CASE HISTORY: LIBRARY AND DIOCESAN ARCHIVE OF FONTI

THE DIOCESE OF GUBBIO IS HOME TO IMPORTANT ANTIQUE BOOKS AND DOCUMENTS.

CUSTOMER REQUIREMENTS

The mezzanine, located in an important architectural context, was created to be used as a reading room. Gubbio is located in a high risk seismic area.

To create an earthquake-resistant structure to house books and documents and which would be in-keeping with the specific architectural context.

THE SOLUTION CREATED BY ROSS

A MECANO earthquake-resistant mezzanine equipped with two mechanical Train shelving systems destined to store books and documents: The Mecano mezzanine, with an area of 70 m² was designed to comply with the building layout; for this reason the mezzanine was created with slightly inclined sides.

The Mecano mezzanine is equipped with three vertical cross stays and five horizontal stays to stiffen the structure, making it more stable in the event of an earthquake.

The two Train compactible archives located above the Mecano mezzanine are used to conserve and store books and documents. The Train compactible system – 2.5m high and with seven load bearing levels – provides a total of 270 linear metres of filing.



LIBRARY AND DIOCESAN ARCHIVE OF FONTI

GUBBIO (PG), ITALY

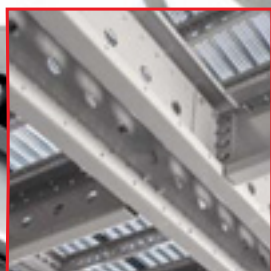


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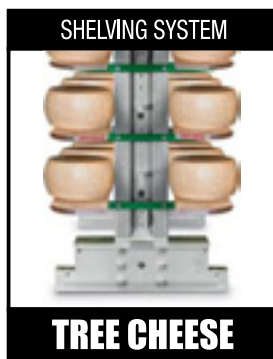
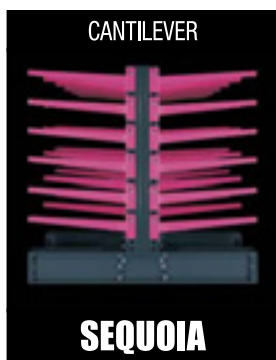


MECANO



BETTY BLUE QUARTO INFERIORE - BOLOGNA, ITALY





STORAGES AND ARCHIVES FOR THE NEW QUALITY WAREHOUSE

RESEARCH, PRODUCTION, DISTRIBUTION OF METAL STRUCTURES FOR THE MANAGEMENT OF INDUSTRIAL AND COMMERCIAL AREAS: **MOBILE BASES FOR ARCHIVES AND WAREHOUSES, IRON FIST PALLETS RACK AND DRIVE-IN, KOMPRESSOR, ROTOMAT, UNIMONDIAL, UNIZING EASY, SEQUOIA CANTILEVER, SHOPFITTING, SALES AND CHECK-OUT COUNTERS, MECANO, SELF-SUPPORTING WAREHOUSES, TREE CHEESE.**