



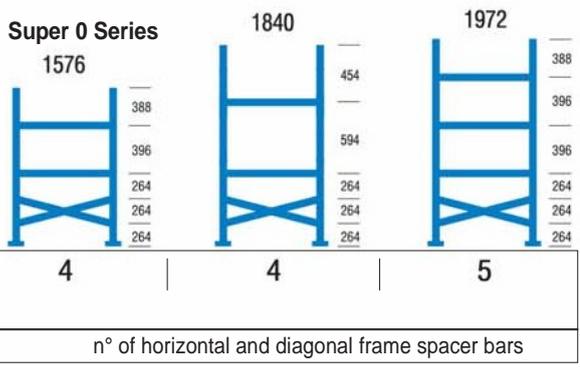
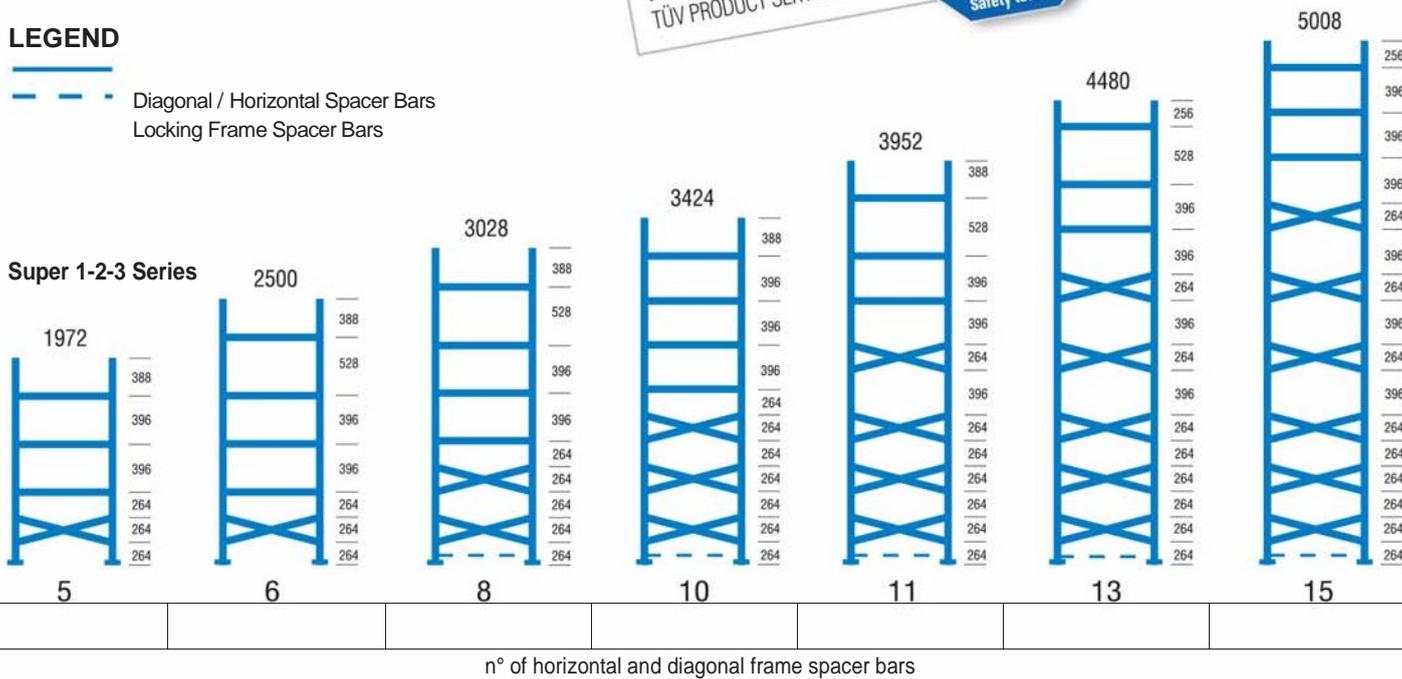
FRAME BRACING ASSEMBLY DIAGRAM

In depth 320 - 400- 500 - 600 - 700 - 800



LEGEND

— Diagonal / Horizontal Spacer Bars
 - - - Locking Frame Spacer Bars



Super 0 uprights and frames are allowed with the use of Super-ZERO beams and shelves, only. Bay lengths 900/1050/1200 mm only, with a max. load capacity of 200 daN per shelf, for uniformly distributed loads.

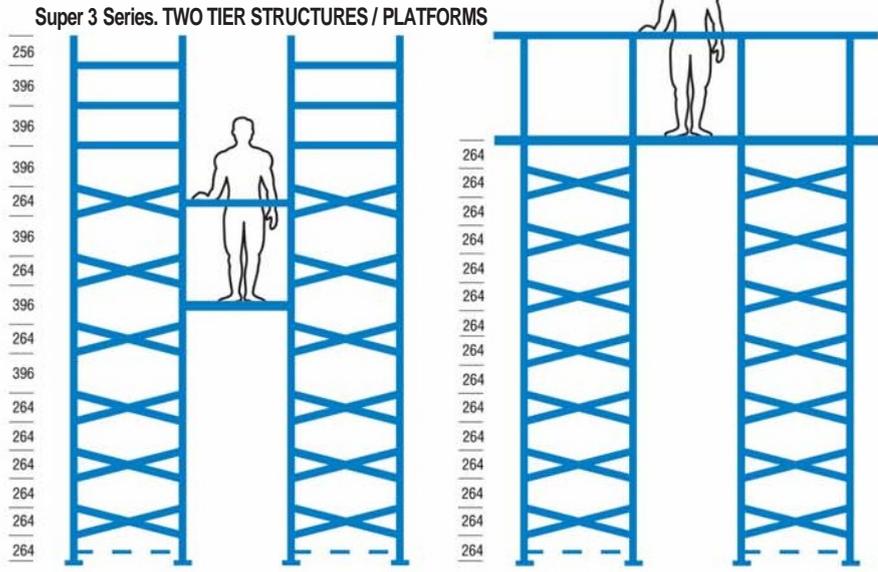
TWO TIER STRUCTURES PLATFORMS

In case of two tier structures with suspended walkways the frames are to be assembled as shown in case "A" at left (i.e. the standard frame assembly diagram). In case of platforms with continuous floor decking, the frames have to be assembled with pairs of diagonal spacer bars only, at centre distances of 264 mm, up to the level of the platform (see case "B" at left).

In both cases the frames must be securely bolted to the floor slab using the heavy duty base plates (art. n° 67006.95) and the locking frame spacer bars.

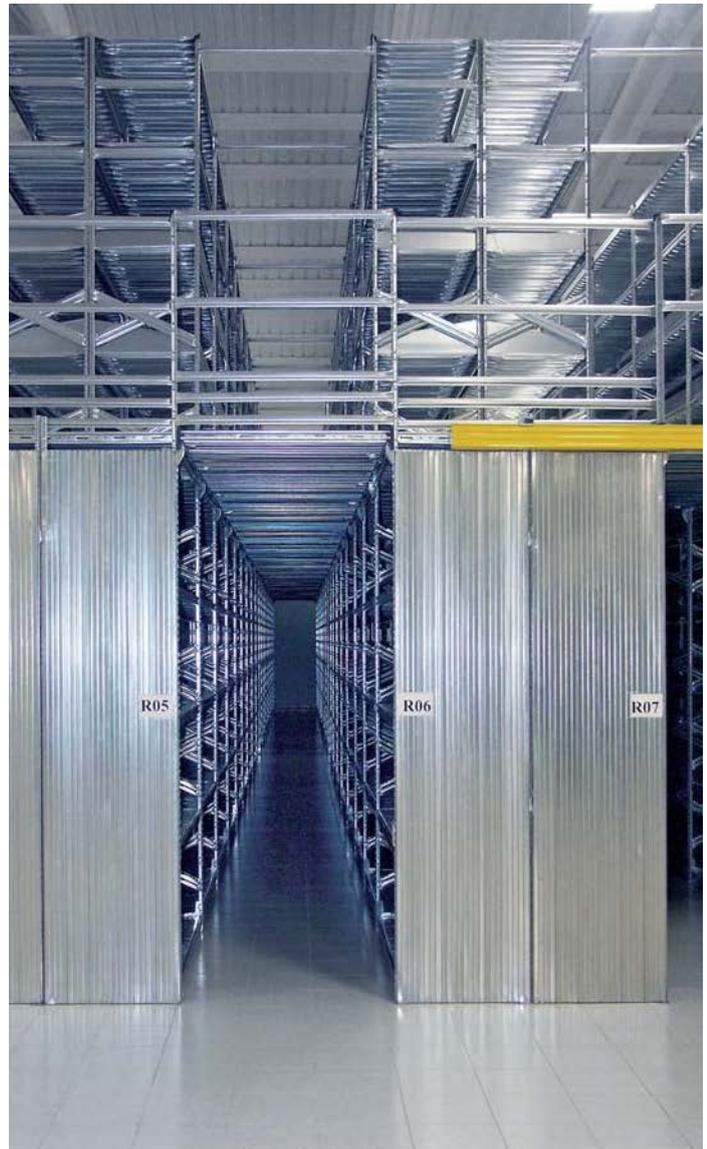
Staircases made from standard components and integrated into the two-tier-structure have to be reinforced in an appropriate way, using the reinforced Super 3 upright (art. n° 99230--.95) either side of the staircase. METALSISTEM strongly recommends to comply with all safety standards mentioned in this brochure.

The maximum load bearing capacity of walkways/decking within two-tier structures or platforms is 300 kg/m² and the maximum width of the walkways is 1200 mm. The maximum shelf bay length is 1500 mm.



CASE "A"
Two tier structure with suspended walkways

CASE "B"
Platform with continuous floor







THE PRODUCT

The fully adjustable Super 1-2-3 systems have been designed to meet the needs of light to medium duty storage. They are also highly suitable for the construction of two tier structures (with the Super 3 system).

The design of the various components is the result of rigorous technical testing and the highly specialised knowledge developed over years of experience in the field of metal processing.

This experience has enabled METALSISTEM to offer innovative products of the highest quality, highly competitively priced, and to produce a highly technical solution to the most important shelving problems, such as rapid as-



sembly, stability, low cost and load bearing capacity.

The design allows for high load bearing from light gauge materials. The use of high quality zinc coated steel ensures a high level of durability.

The structural components of the Super 1-2-3 systems are made from high tensile steel, certified according to EN 10204 3.1.



See more



on the web



The safety and the quality of the product has always been a primary aim of METALSISTEM and is recognised by TÜV PRODUCT SERVICE in Munich, one of the most rigorous EU commissions in the field of quality and safety certification. The product meets the requirements of the Equipment Safety Law.

Thanks to its attractive high-tech design, Super 1-2-3 shelving is trendy and pleasing to the eye. It can provide unique and cost effective solutions for shopfitting and applications in domestic environments as well. See examples at left as well as on page 34, 35 and overleaf.



Corner Solutions

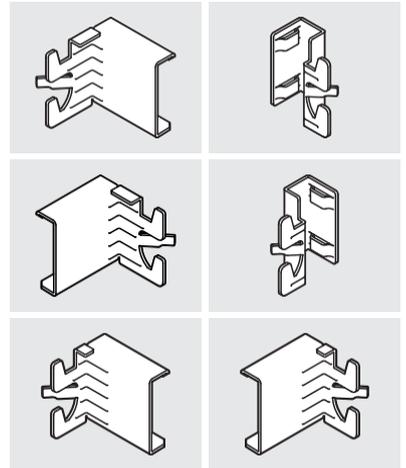
Corner solutions allow for the best possible use of available storage space, especially within small and awkward rooms.

By means of 4 dedicated brackets, both left and right sided corners can be created without the need of inserting additional frames which would hinder full access to the shelving levels.

"T"-shaped peninsular configurations may also be created by coupling left and right sided beam connection brackets. With appropriate consideration, this application may also be used to close off end corridors of 2-tier-installations.

Applications are limitless!

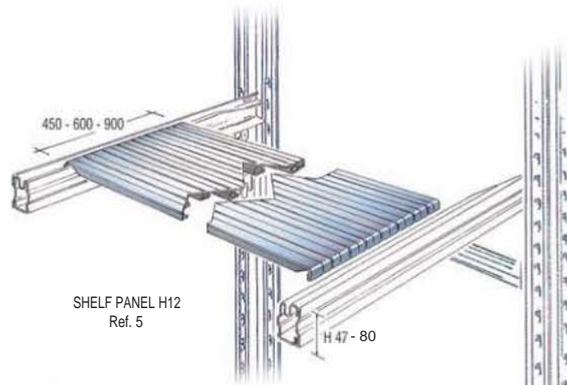
For a correct layout, load bearing capacities and technical specifications referring to corner solutions, please refer to page 53 of this brochure (Ref. 67).



Shelves H12 and H25

Shelves of profile 12 mm, 450-600-900 mm wide, are produced in depths varying from 320 to 700 mm.

Shelves of profile 25 mm and 300 mm wide are supplied in depths varying from 400 to 800 mm (Ref. 5-6).

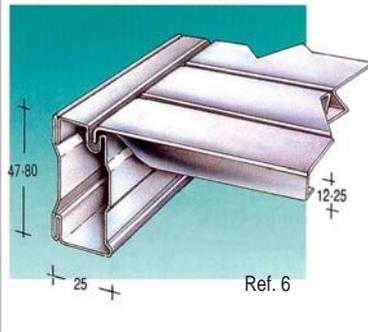


SHELF PANEL H12
Ref. 5

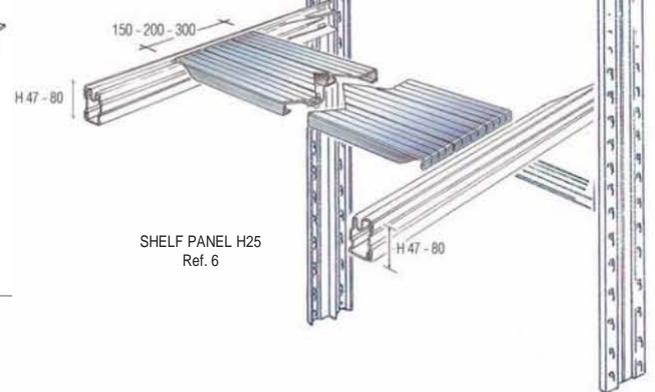
Perforated Plastic Shelf Panels

The standard range of perforated plastic shelf panels in 150-200-300 mm width is made from high quality polypropylene according to the RoHS directive, suitable for use within the food sector and RoHS compliant. The shelf panels are perforated at >50% of their surface.

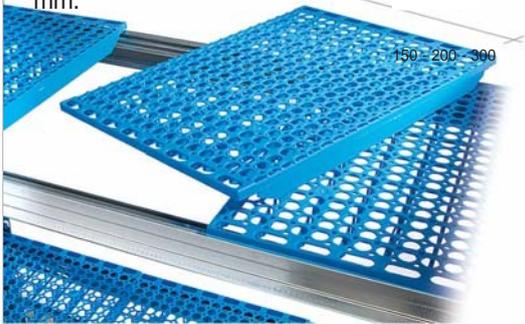
Available in six different colours: white, yellow, light blue, blue, dark green and black, for frame depths 320-400-500-600 mm.



Ref. 6

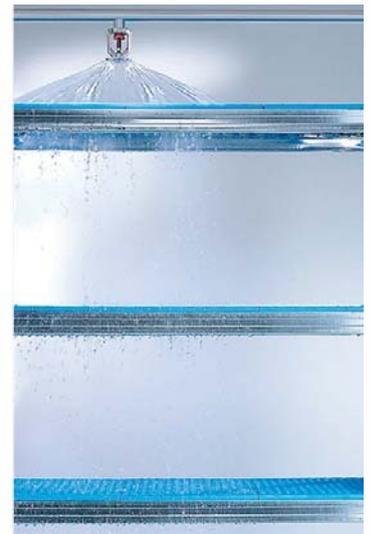


SHELF PANEL H25
Ref. 6



Ref. 60

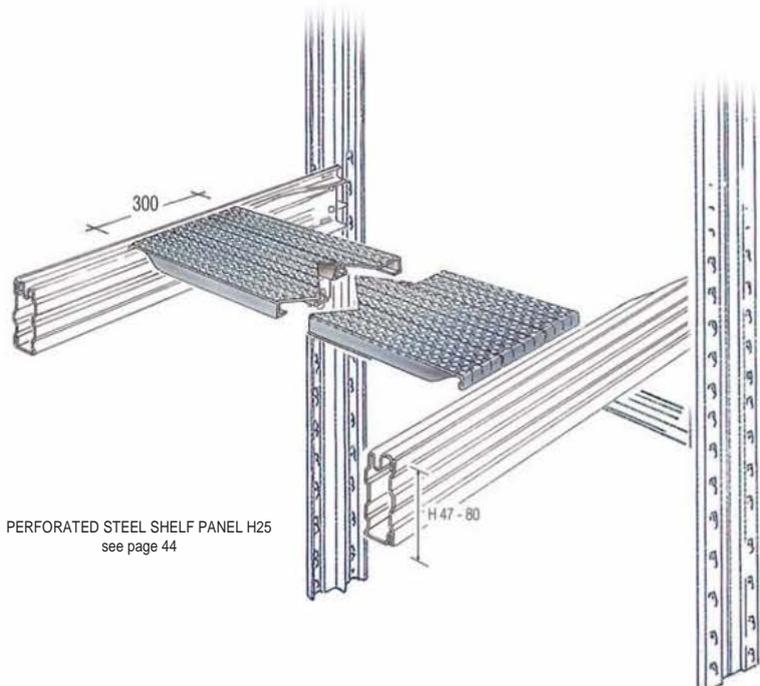
Specific FROST shelf panels in light green colour are also available for use within cooling rooms. For correct ordering and load bearing capacities, please refer to page 46 and 47 of this brochure.



See page 11 and page 46/47

Perforated Steel Shelf Panels

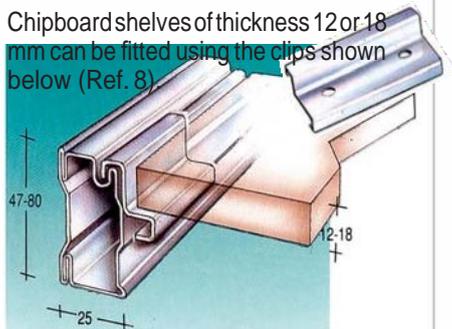
Perforated steel shelves of profile 25 mm in 300 mm width, perforated at 50%. For installations equipped with sprinkler systems. Hole diameter 6.5 mm. For correct ordering and load bearing capacities, please refer to page 44 of this brochure.

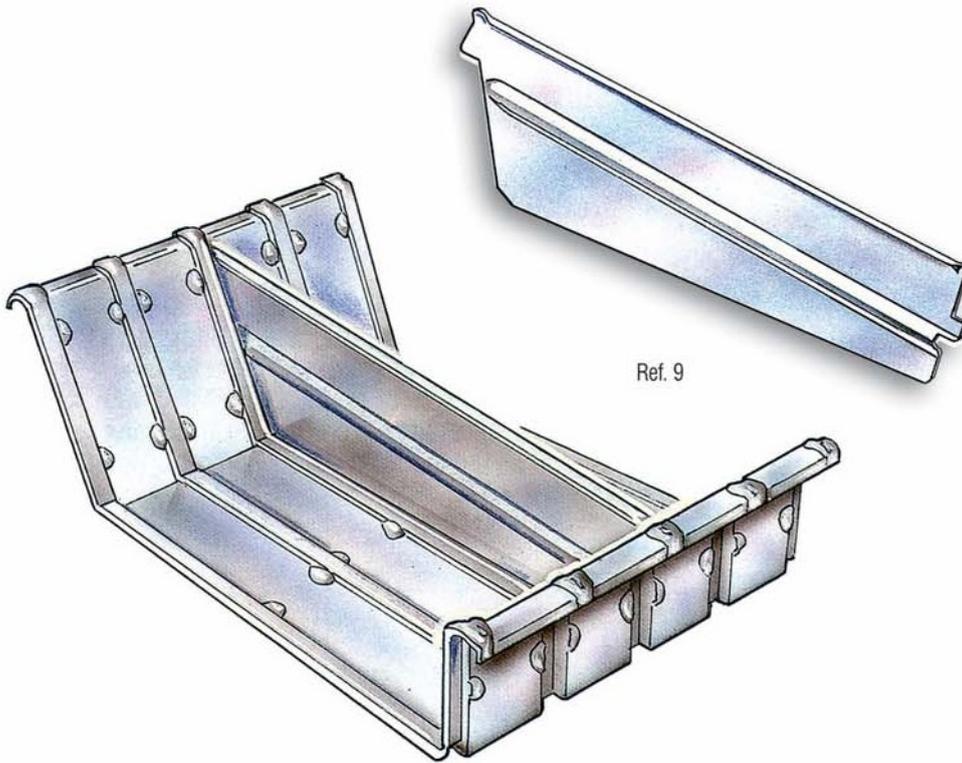


PERFORATED STEEL SHELF PANEL H25
see page 44

Chipboard Shelves

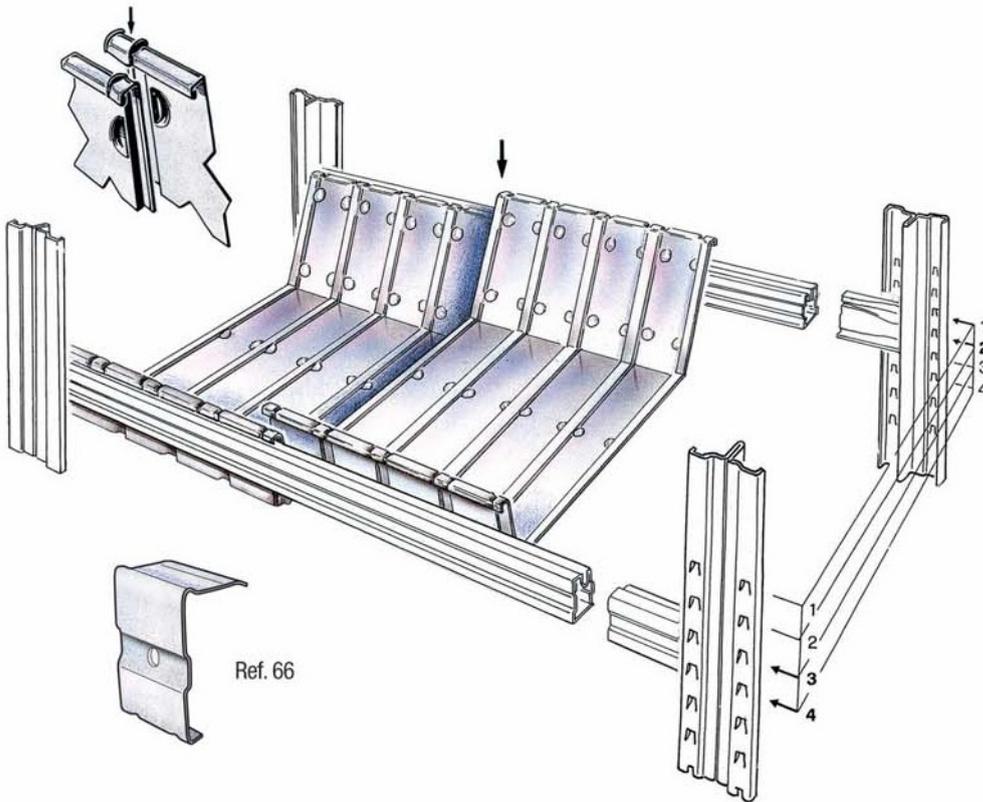
Chipboard shelves of thickness 12 or 18 mm can be fitted using the clips shown below (Ref. 8).





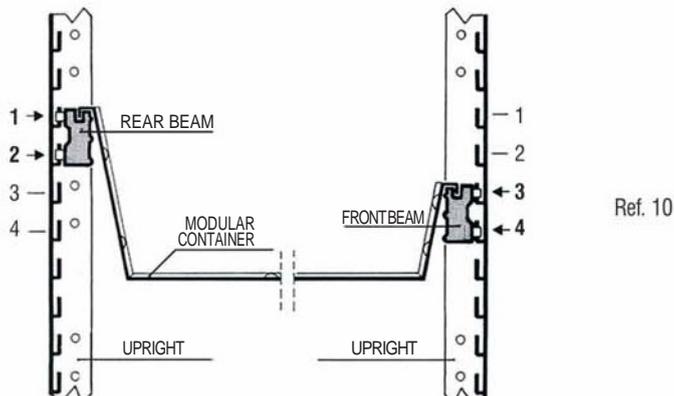
Modular Containers

Insert the containers from left to right, and join them together by overlapping the beginning of the following container onto the end of the preceding one, pressing them into the recess of the beams.



Fastening Clip for Modular Containers

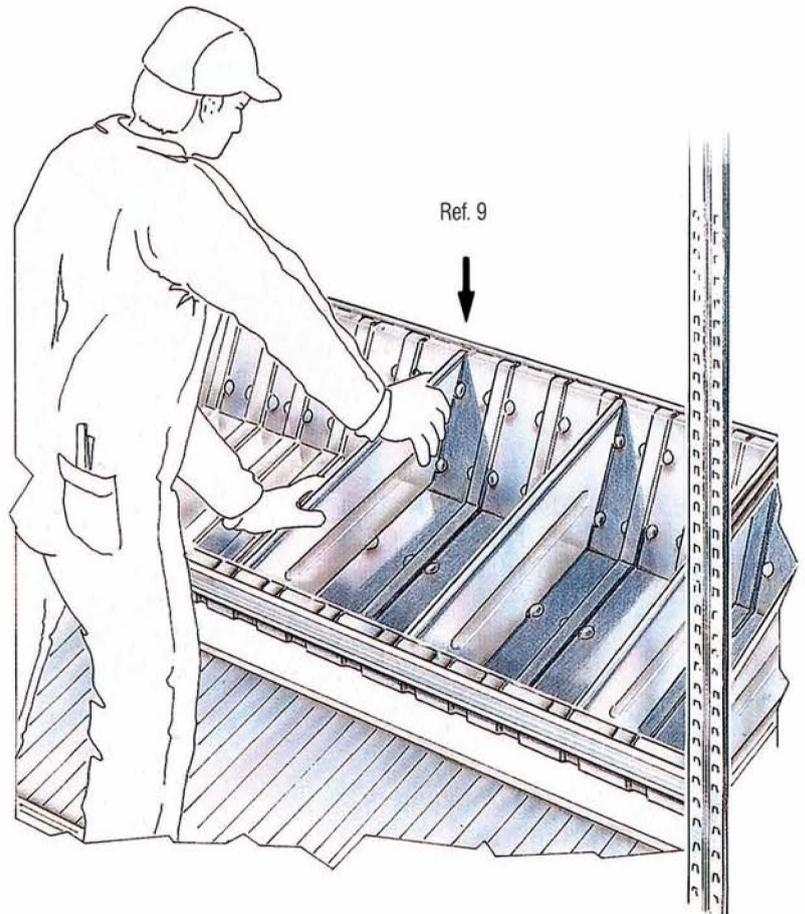
This clip prevents the modular containers from being accidentally unseated from their position (Ref. 66). Skip the first container to the left of the bay and fix each of the following modular containers using a pair of clips positioned on the second rib at the front and at the back of the container.



To assemble the containers correctly, the rear beam should be fitted two pitches higher than the front one (Ref. 10). Fit the dividers into the special slotted seats, pushing down to locate (Ref. 9).



The capacity of the containers can be increased by fitting bin front and rear panels 200 or 300 mm high.

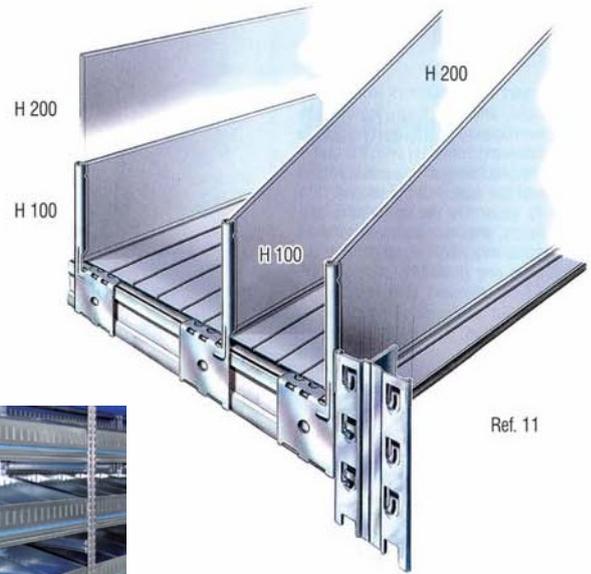


DIVIDERS

A large range of dividers is available.

Vertical Sliding Dividers

These have been designed to separate boxed items (Ref. 11). The concept of these dividers is based on the following components: a pair of clips, left and right, and vertical dividers, available for all frame depths and in two different heights (H100 mm / H200 mm), as well as in trapezoidal version (H200/100 mm).



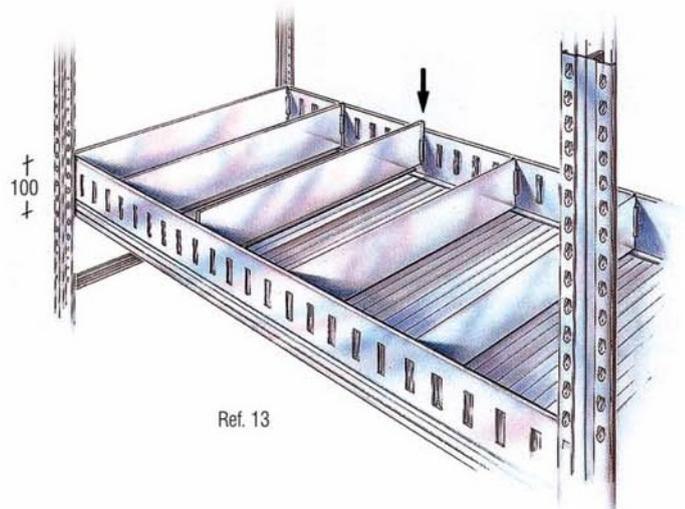
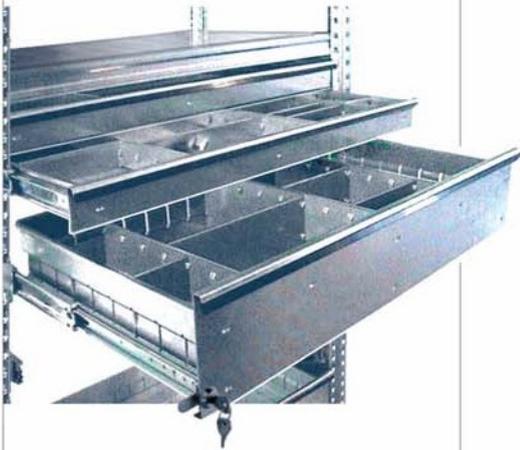
Shelf Trays

These comprise of a bin front and rear panel 100 mm high placed on a normal shelf with adjustable dividers from 320 to 800 mm in depth (Ref. 13).



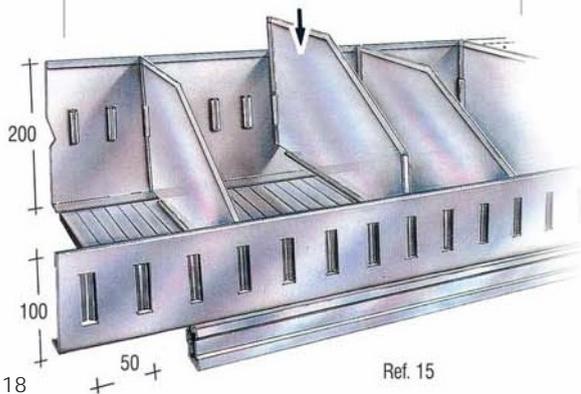
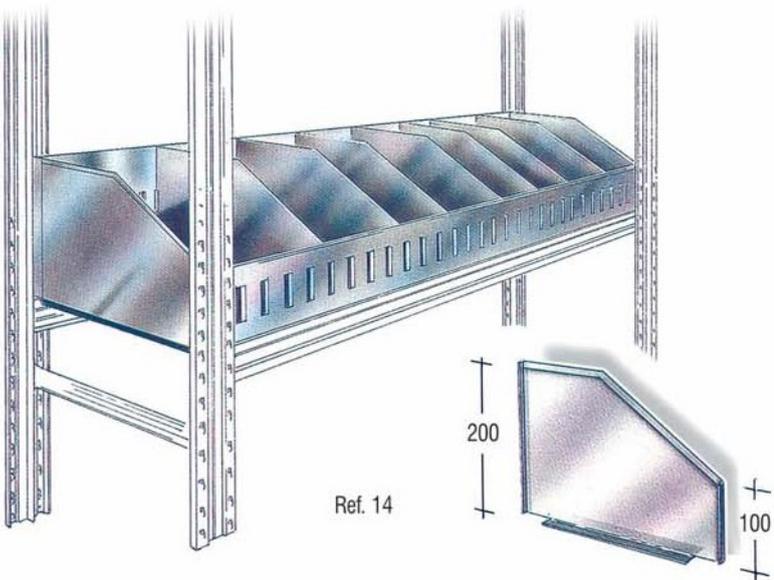
Modular Drawers

The modular drawers are fully integrated with the Super 1-2-3 series and are located directly on the frames.



The drawers provide a cost effective solution for the storage of small items and may be fitted with a key lock.

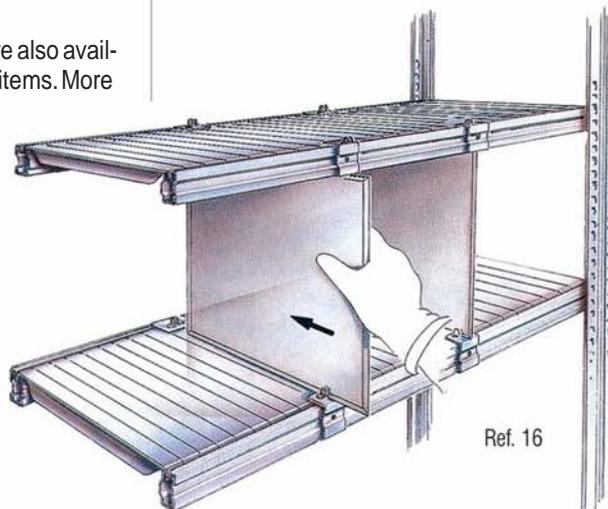
Bin front panels 100 mm high and rear panels 200 mm high are fitted with trapezoidal dividers (Ref. 14/15).





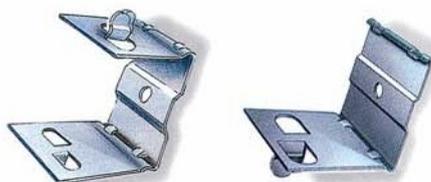
Plastic Line

Open fronted plastic bins are also available for the storage of loose items. More information on page 55.



Fixed Height Dividers

Available in three different heights: 244-344-444 mm. They can be inserted in any position on the shelf by means of spring clips located on the beams H47 (Ref. 16).





Telescopic Tube Dividers

Used for the separation of cylindrical components or materials difficult to store (windscreens and panels, etc.). They comprise 2 tubes of 18 mm diameter sliding one inside the other. They are fixed to the upper shelf by means of a clamp/screw connection (8mm). A minimum of two tubes should be used for each division (Ref. 17).

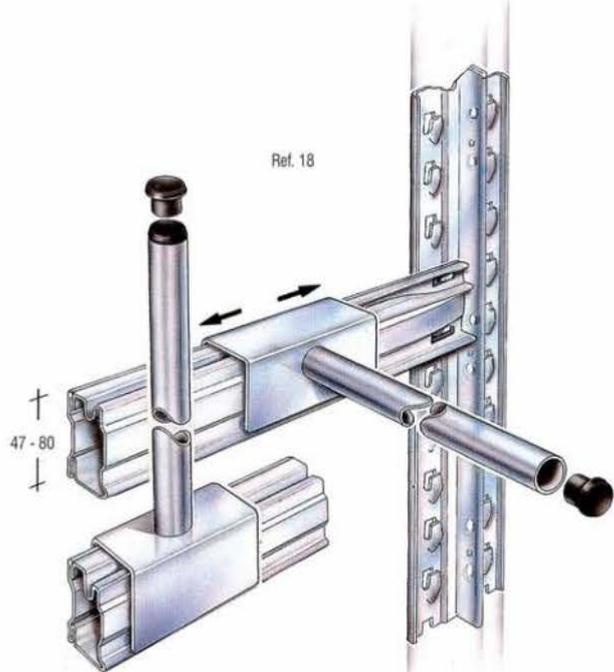


Ref. 17



Dividers for Exhaust Pipes

Spigots designed for the separation of tubes, exhausts and conduits, etc. Dividers for exhaust pipes are supplied for both vertical and horizontal divisions fitted directly to the beam (not to be loaded) (Ref. 18).



Ref. 18

Label Holder

It can be located in any position on both H47 and H80 beams. Dimensions 100x40 mm (Ref. 23).

ACCESSORIES

PVC Top Caps

PVC top caps are to be fitted onto the top of the upright, in all applications (Ref. 20).

Oval shaped Tubes and Beams

The oval shaped beams and tubes are compatible with most types of hooks and provide a cost effective solution to garment storage and for hanging loads (Ref. 19/20). The garment hanging shelving can be designed on a single or double entry basis and equipped with shelves. The oval tubes fitted onto the spacer bars alone will not stabilise the structure in the horizontal plane and have to be combined with beams above and below.



Tyre Storage

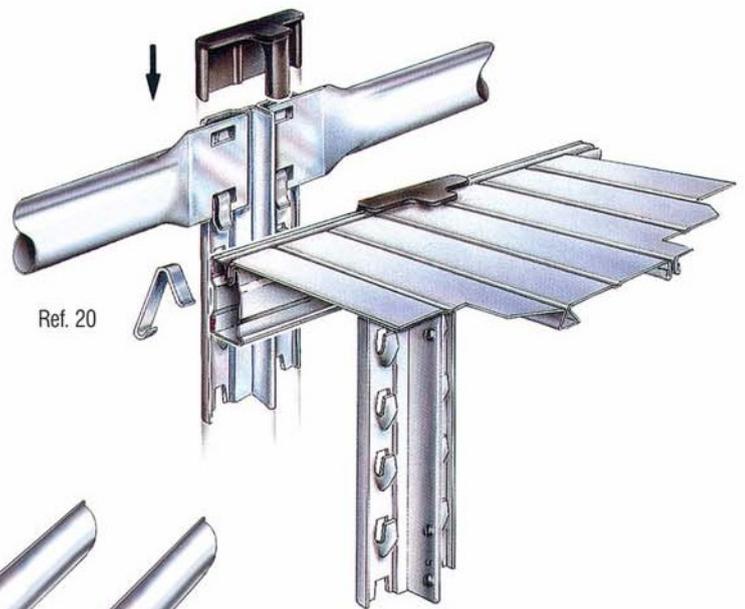
The oval shaped beams can also be used for the storage of tyres (see page 10). In this case, please refer to the technical handbook to identify correct use and appropriate load capacities. In the case that the tyres will be stored on H47 mm beams, it is obligatory to use the Super 3 version only and exclusively, both for the beams and the frames. Maximum allowed bay length: 1200 mm. Maximum allowed frame depth: 400mm, to ensure safe storage and to prevent torsional deflection of the beams.

Plastic Strip for Glass Shelves

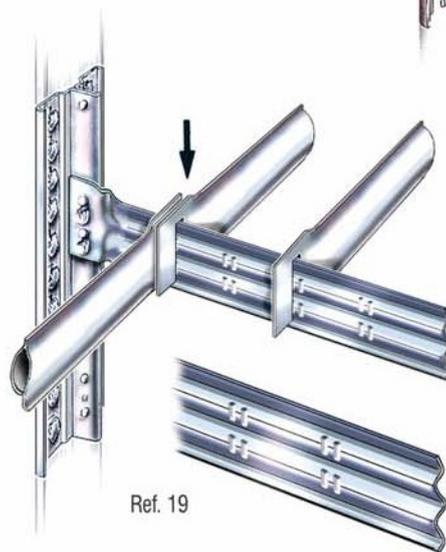
It can be fitted on the beams in order to protect glass shelves or delicate materials (Ref. 21).

Security Pins

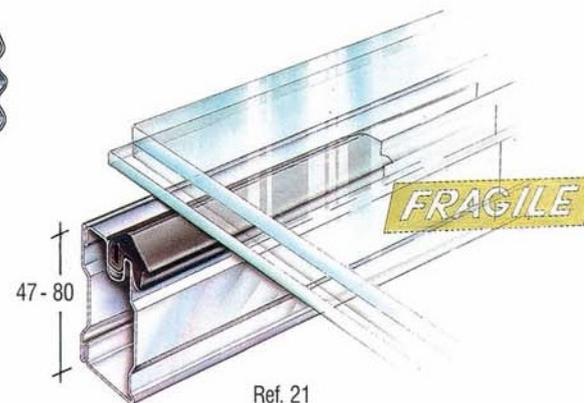
In order to prevent accidental lifting of the beams and shelves, the security pins should be used in all applications (Ref. 22). Assembly instructions as per the sketch at right.



Ref. 20



Ref. 19



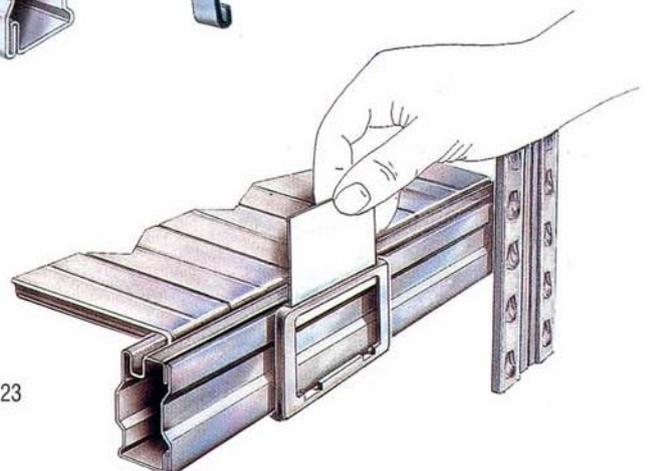
Ref. 21

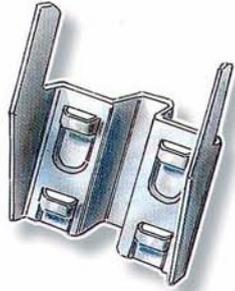
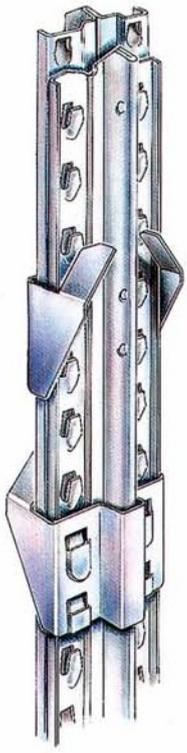


Ref. 22

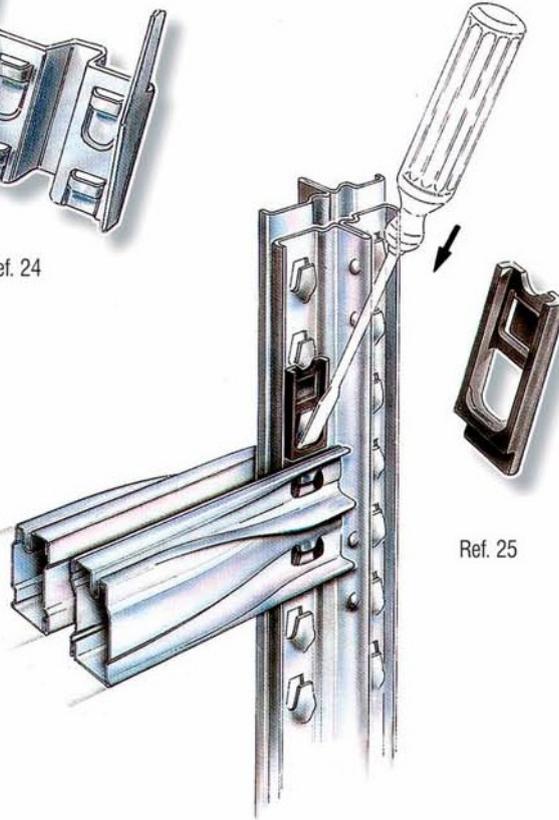


Ref. 23





Ref. 24



Ref. 25

Frame back-to-back Clips

They are used to fix the frames together when building back-to-back bays to improve stability. They are located at mid height (Ref. 24).

Security Pins for Beams in back-to-back Bays

They are used to prevent accidental lifting of the beams when building back-to-back bays (Ref. 25).

Fastening Clips for Shelf Panels

These fastening clips are an optional accessory, used to prevent shelf panels from being accidentally unseated from their position. They may also be used as a locking mechanism for the shelf panels to be firmly kept at a given position or at a distance to achieve 50% opening of the surface or alike. The clips press the shelf panels against the beams providing the added benefit of stiffening the entire system. They are assembled by hand and can easily be disassembled with the aid of a flat-bladed screwdriver as shown in the pictures (Ref. 66). Please refer to METALSISTEM Informa n° 672 for additional information.



Ref. 66



Ref. 66

CLADDINGENDPANELSH25

End panels H25 are manufactured in two standard sizes (200-300 mm wide) and in standard heights of 14485-1940-2480-2980 mm (Ref. 26). End and middle joints are also available to build multiple cladding heights and/or to finish off the cladding panels at their upper end (Ref. 31). In case of the cladding panels being lower than the respective frame, "H"-section profiles may be used at the bottom of the cladding panels, to achieve equal height (Ref. 31).



Ref. 26

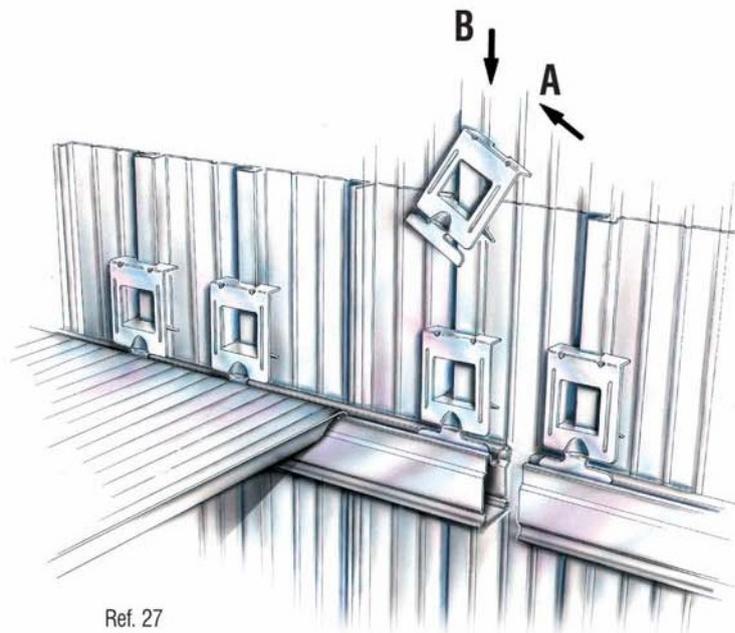
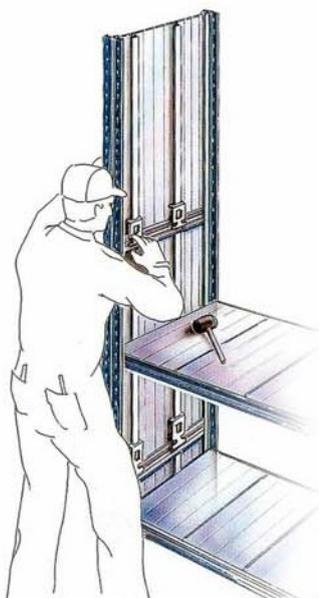


In case of the panels being lower than the respective frame, "H"-section profiles may be used at the bottom of the panels, to achieve equal height (Ref. 31).

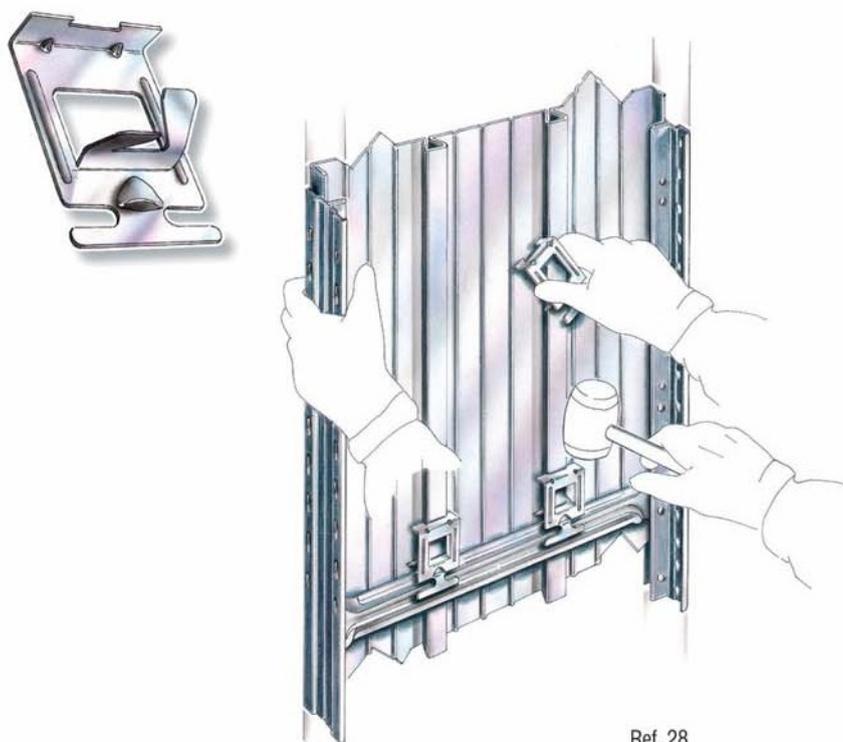


Punched hole panels H25 are also available, according to European Standards (i.e. hole diameter of 5 mm, at 25 mm centre distance).

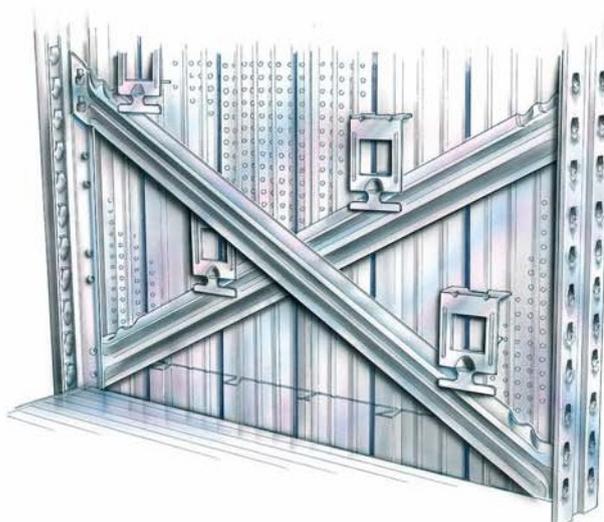
Special clips are used to fasten the cladding panels. For end panels it is the clip art. code n° 68107.95 (Ref. 28), for back panels H29 mm it is the clip art. code n° 68108.95 and for back panels H12 mm the clip 67010.95 (Ref. 27).

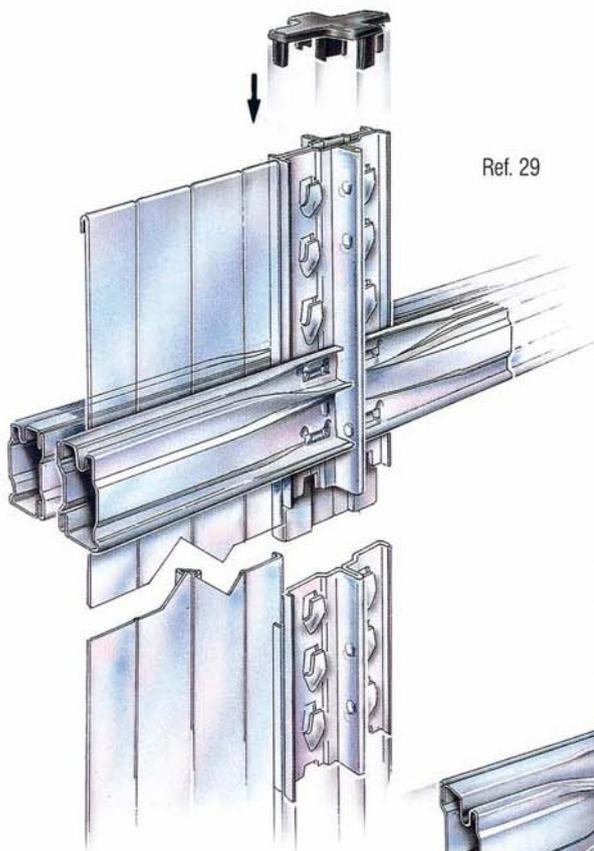


Ref. 27

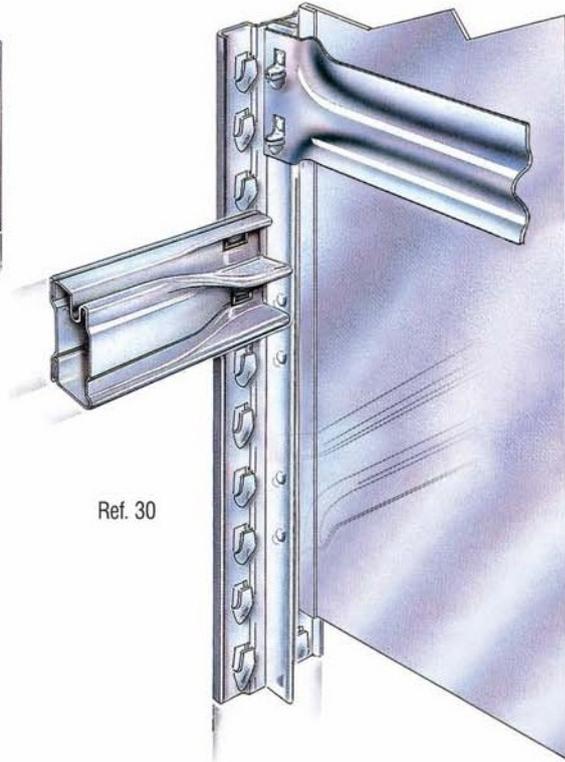


Ref. 28





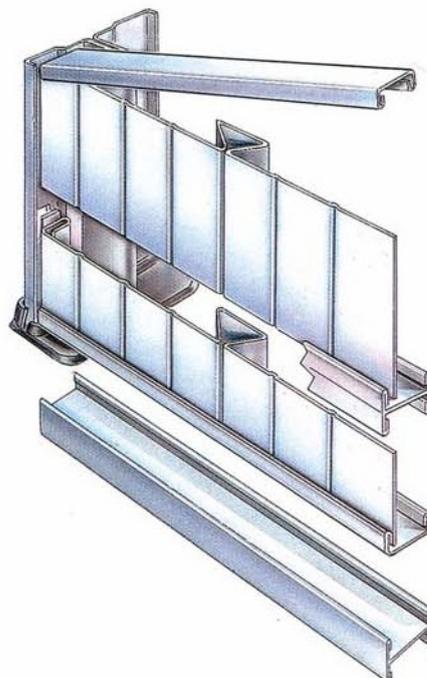
Ref. 29



Ref. 30



Ref. 31



Side Cladding

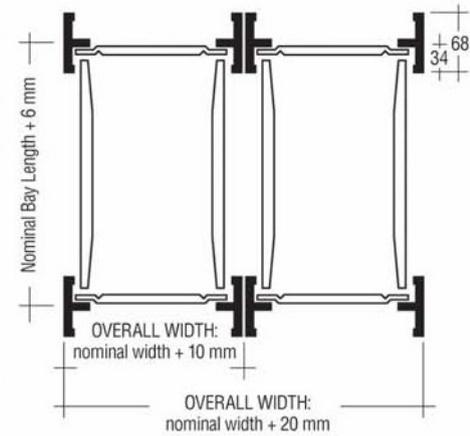
This type of cladding may be used to enclose individual bays within shelving runs. Available for frame depths up to 600 mm. Side cladding panels are fitted between the diagonal spacer bars of the frames.

An additional top spacer bar must be added to the standard frame (Ref. 30).



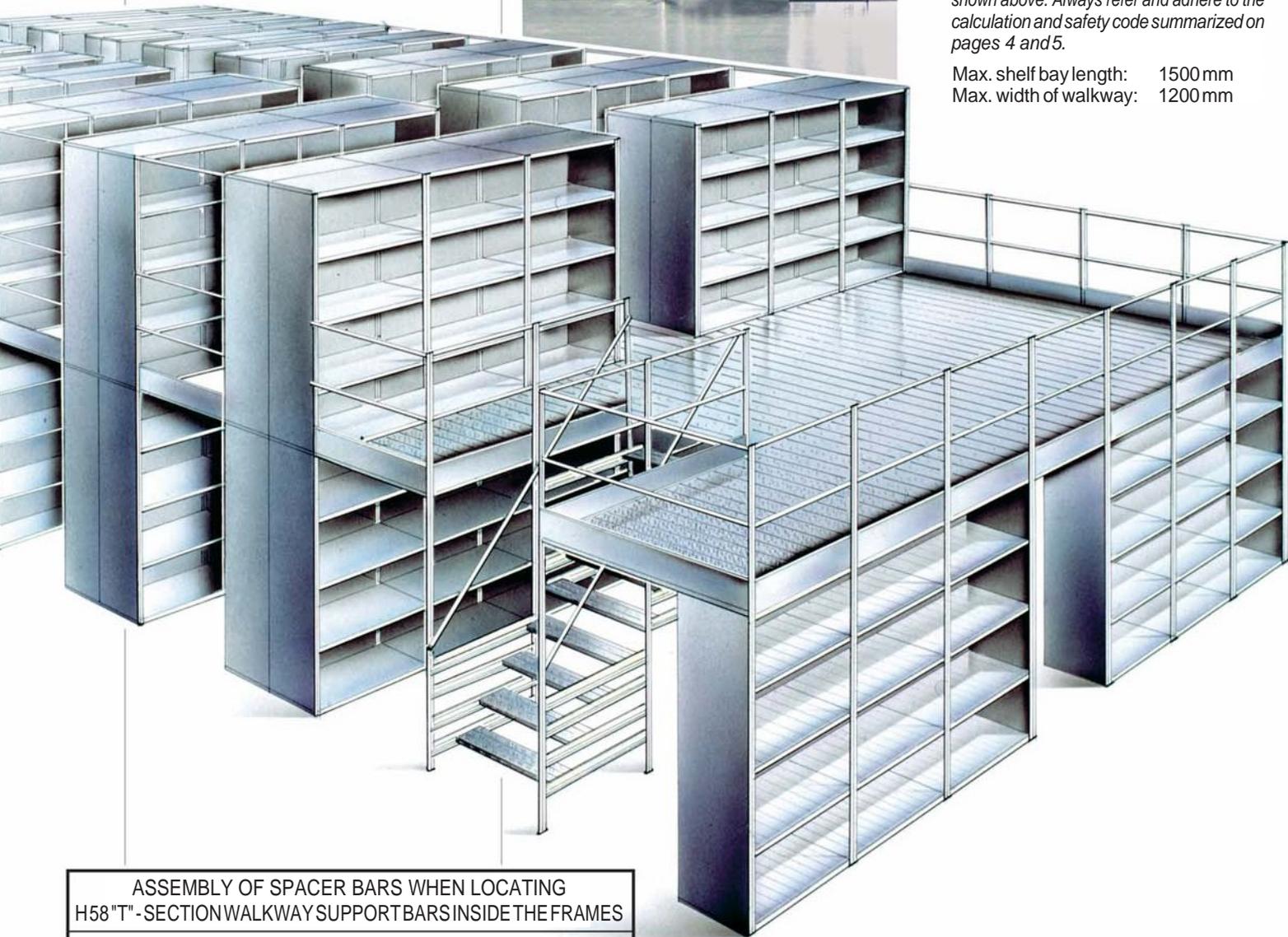
Super 3 Two-Tier-Structures with suspended walkways (max. load bearing capacity = 300 daN/m²)

Two tier structures, even varied and complex have been designed by METALSISTEM combining light weight with high strength in the METALSISTEM tradition, avoiding any type of bolting or welding.



When designing two tier structures, consider the dimensions and details of the sketch shown above. Always refer and adhere to the calculation and safety code summarized on pages 4 and 5.

Max. shelf bay length: 1500 mm
Max. width of walkway: 1200 mm



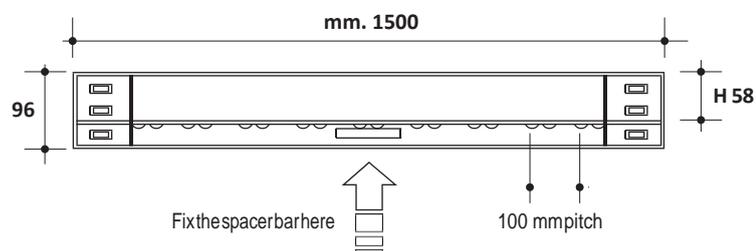
ASSEMBLY OF SPACER BARS WHEN LOCATING H58 "T"-SECTION WALKWAY SUPPORT BARS INSIDE THE FRAMES

L 900 : NO SPACER BAR

L 1200 : ONE SPACER BAR AT THE CENTRE

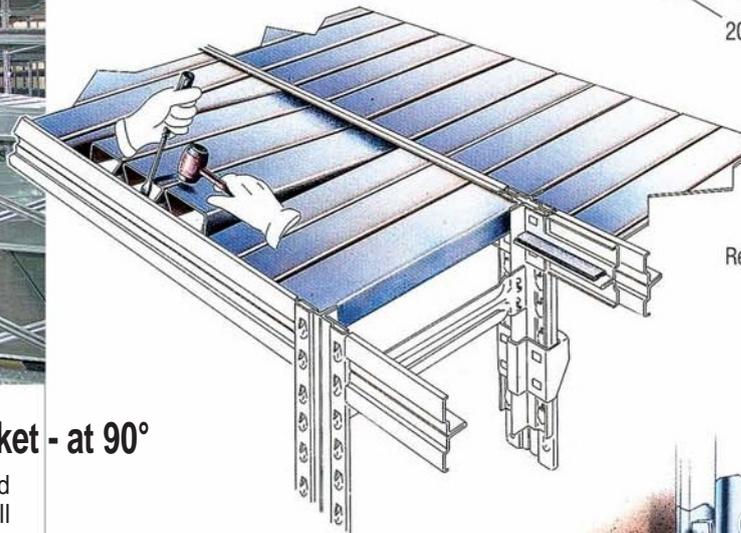
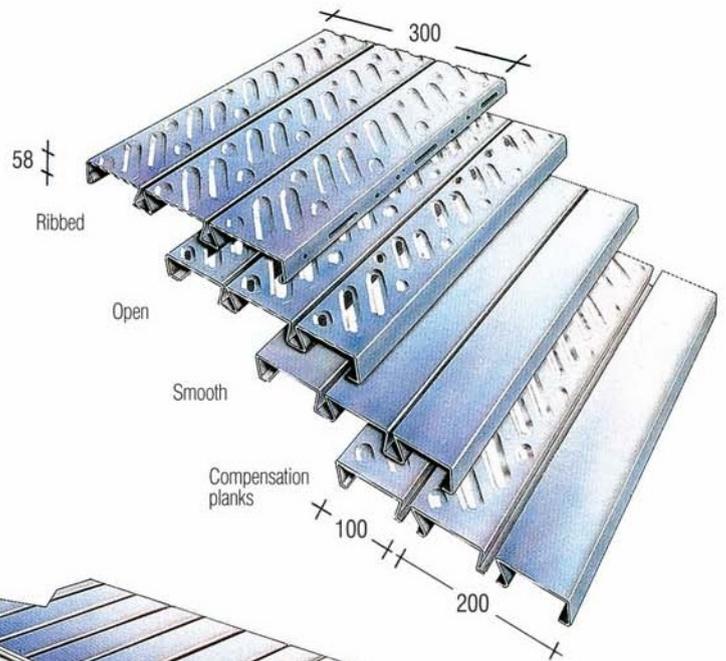
L 1500 : ONE SPACER BAR AT THE CENTRE

NOTE: • The spacer bars connecting the "T"-walkway support bars must be ordered in a special length (10mm narrower than those used to assemble the standard frame).
• When building staircases, customers should fit one spacer bar under each stair tread.



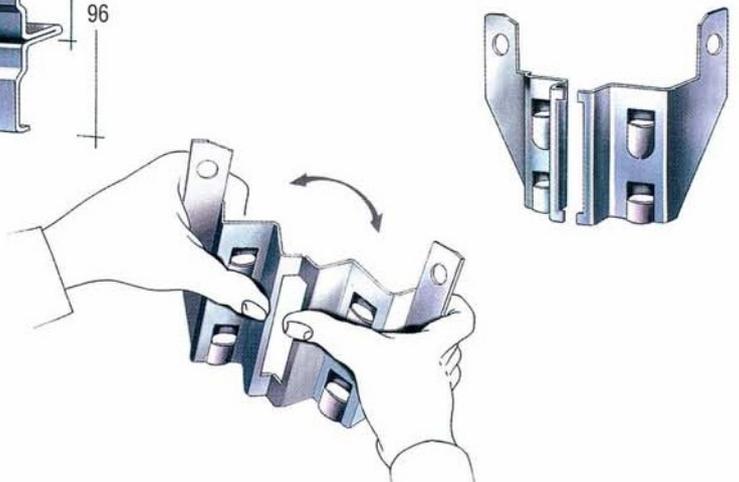
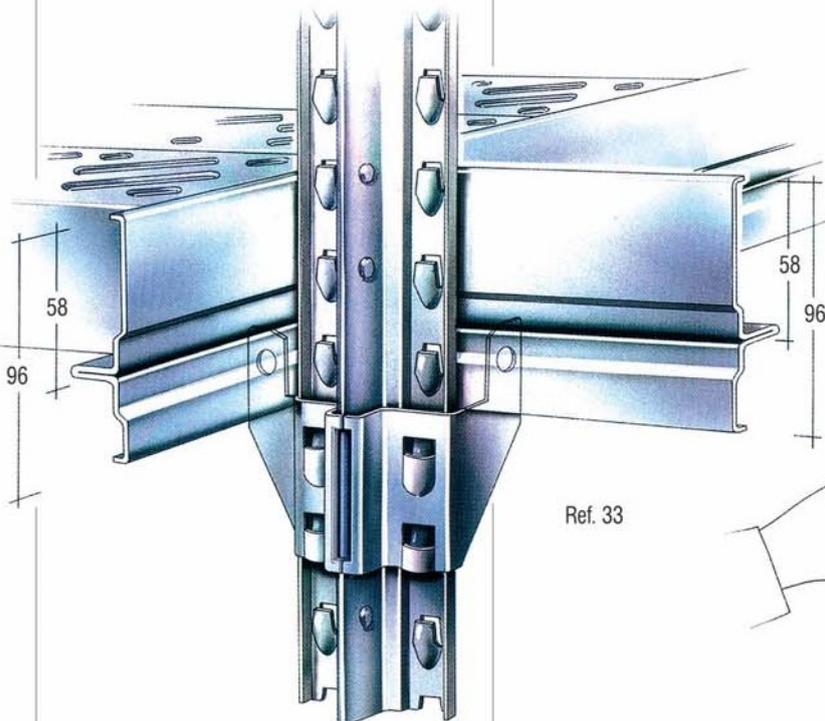
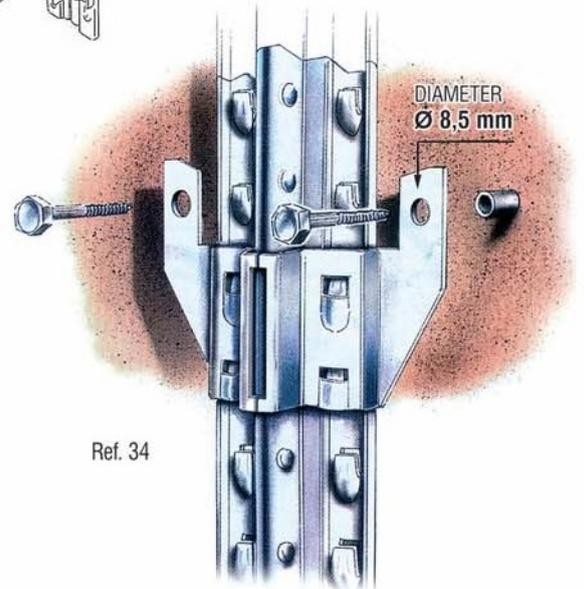
Steel Planks

These can be supplied with three different surfaces: ribbed, open and smooth, together with compensation panels and fastening components. The steel planks are inserted into the "T"-section supports by levering between the panel and the support (Ref. 32). There are two types of steel planks: one for walk-through bays and one for walkways. When ordering, always refer to the length of the respective spacer bar used for building the walkway or the frames (see page 48).



"T"-Section Support Bracket - at 90°

"T"-Section support bars can be located at 90° by assembling one half of a wall fastening bracket (art. n° 65022.95 - Ref. 34) and one half of a "T"-section support bracket (art. n° 67022.95 - Ref. 33). Wall fastening brackets are also available, similar to the above, providing a method to fix the frames to a wall for stability (Ref. 34).



Staircase Handrails

The handrail tube is a square profile in \varnothing 32x32 mm section, available in both stainless steel and zinc coated version. The fastening of the handrail onto the uprights is made by nylon components and brackets, as shown in the picture below (Ref. 45).

The necessary components have been included into a macro code, for easy ordering. Please refer to page 52 of this brochure.

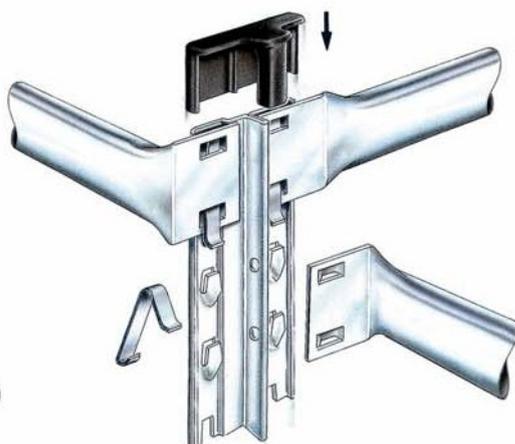
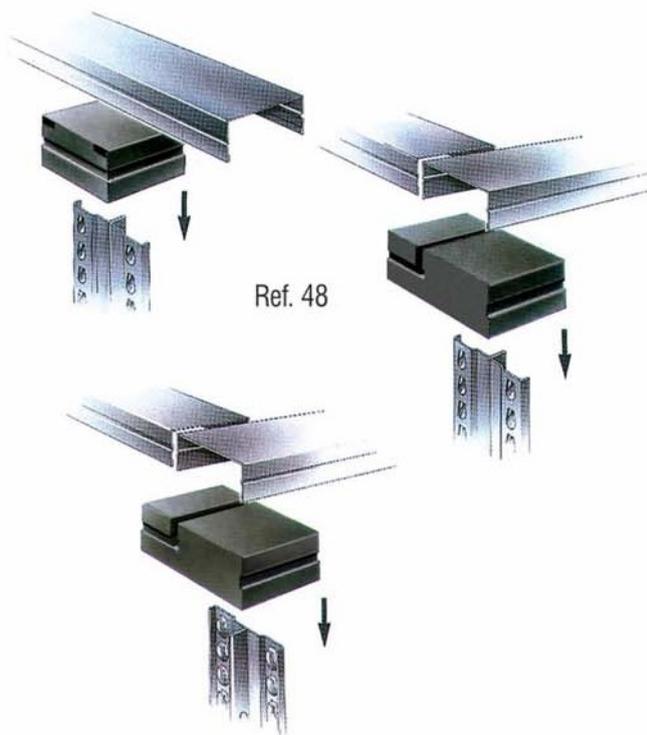
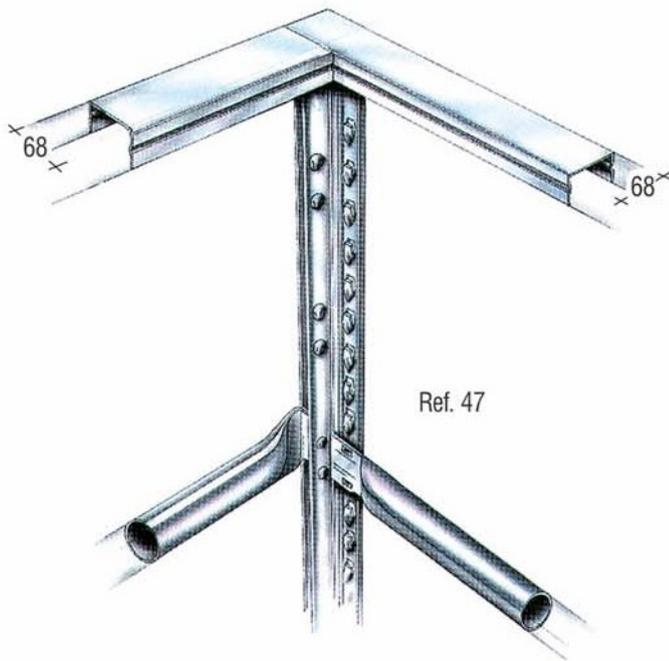


Hand Rails

Hand rails and knee rails are made from oval shaped beams (Ref. 49). For correct ordering of these items, please see instructions on page 50 of this brochure. The use of beam retaining clips and upright tops caps is mandatory.

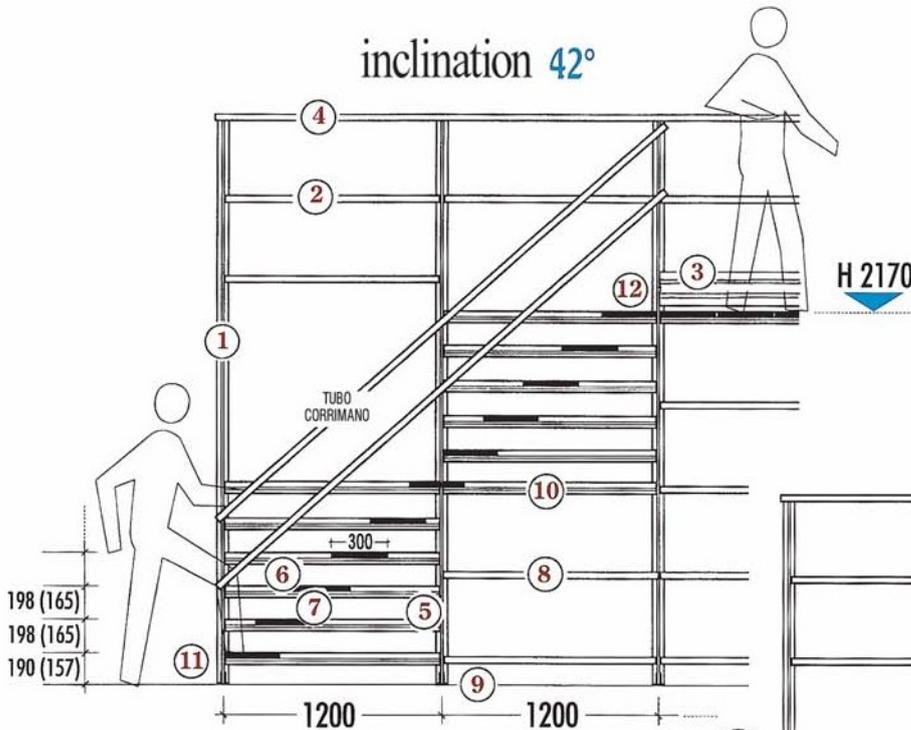
Handrails on two-tier structures may also be built with "U"-Section profiles assembled in conjunction with special PVC supports (Ref. 47-48).

These supports can also be used to finish off the handrails at their ends.

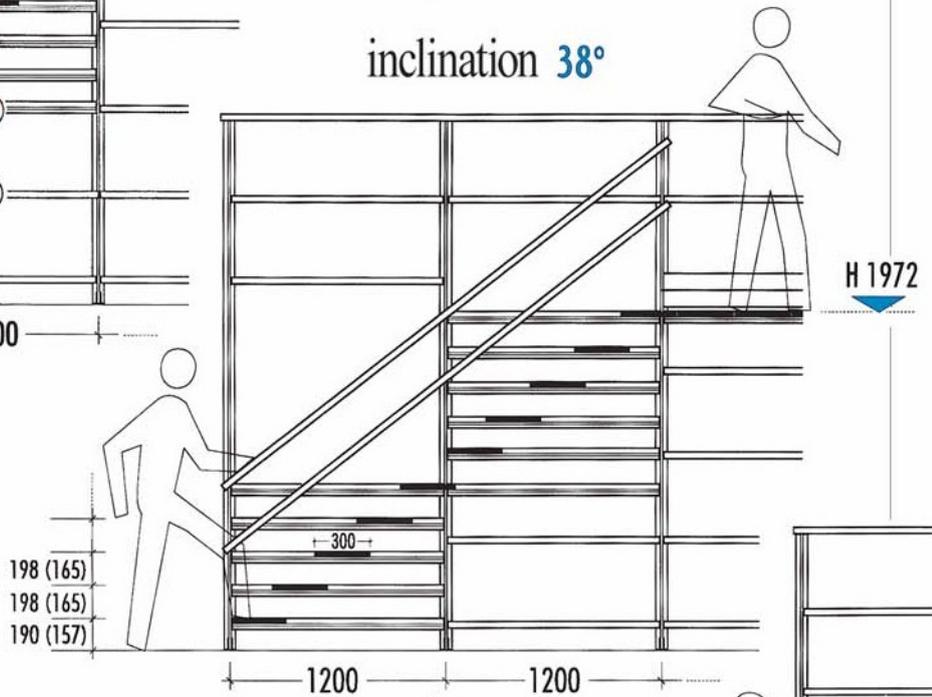


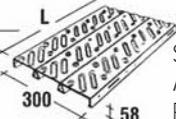
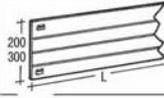
Ref. 44

inclination 42°



inclination 38°



1		REINFORCED UPRIGHT	7		STAIR TREAD ANTI SLIP STEEL PLANK H58 - 15/10
2		TUBULAR BEAM	8		BEAM H47
3		SHELFBOARD	9		HEAVY DUTY STEEL BASE PLATE
4		"U"-SECTION HANDRAIL	10		T-SECTION WALKWAY SUPPORT BAR
5		BRACKET/CLIP	11		LOCKING FRAME SPACER BAR
6		SPACER BAR TO BE LOCATED UNDER EACH STAIR TREAD	12		REINFORCING BRACKET FOR UPRIGHTS

STAIRCASES

Staircases can be built using standard components and integrated into Super 3 two-tier structures. The stair treads are fixed with four clamps/screws each (art. n° 69829.95 + 00056.20).

Under each stair tread, one spacer bar has to be assembled into the "T"-section support bar H58, to improve the overall stability of the construction.

Staircases have to be adequately reinforced. It is mandatory to use reinforced uprights (art. n° 99230--95 Unirack upright profile in variable height, riveted back-to-back onto the Super 3 upright). The Super 3 uprights needs to be

equipped with the heavy duty metal base plate (art. n° 67006.95) whereas the Unirack profile is assembled with the standard metal base plate (art. n° SLACC001.95). Plastic top caps are to be located on top of the Super 3 uprights whereas the Unirack upright is already finished off with its upper top cap and will come preassembled, ready for use. Super 3 uprights are available in a 132 mm pitch in height and may be or



Trendy Shopfitting and Display Solutions

Achieved with standard modular Super 1-2-3-shelving components. See pictures at left and at right.

Super 1-2-3 Shelving System integrated with Euroscacco Shelf Panels

The Super 1-2-3 shelving series can be integrated with Euroscacco shelf panels. This combination provides specific advantages for shopfitting applications, such as an enhanced choice among various display solutions.

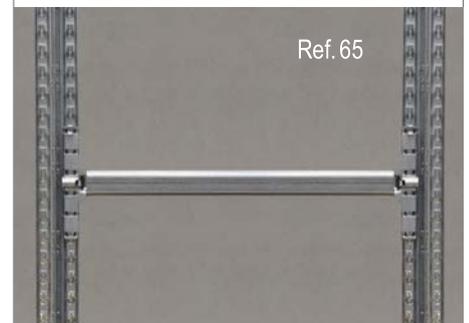
Euroscacco shelf panels can be equipped and customised with a huge array of accessory items, such as wire dividers and front risers. This system is available for frames of the Super 1 series with a maximum height of 2500 mm.

Euroscacco shelves are available in smooth and perforated version, in 1000-1250-1333 mm length, to suit frame depths ranging from 300 to 700 mm, providing a load bearing capacity of 70 daN per shelf, for uniformly distributed loads. Super 1 frames, when integrated with Euroscacco shelf panels, require vertical bracing or the use of the reinforcement bar (please refer to page 41).



Reinforcement Bars

This solution couples two connection brackets with a standard 40x20 mm oval section to create a reinforced connection between two uprights of a shelving bay, substantially increasing the stiffness of the shelving row (Ref. 65). This is an ideal solution for a wide range of



Mobile Shelving

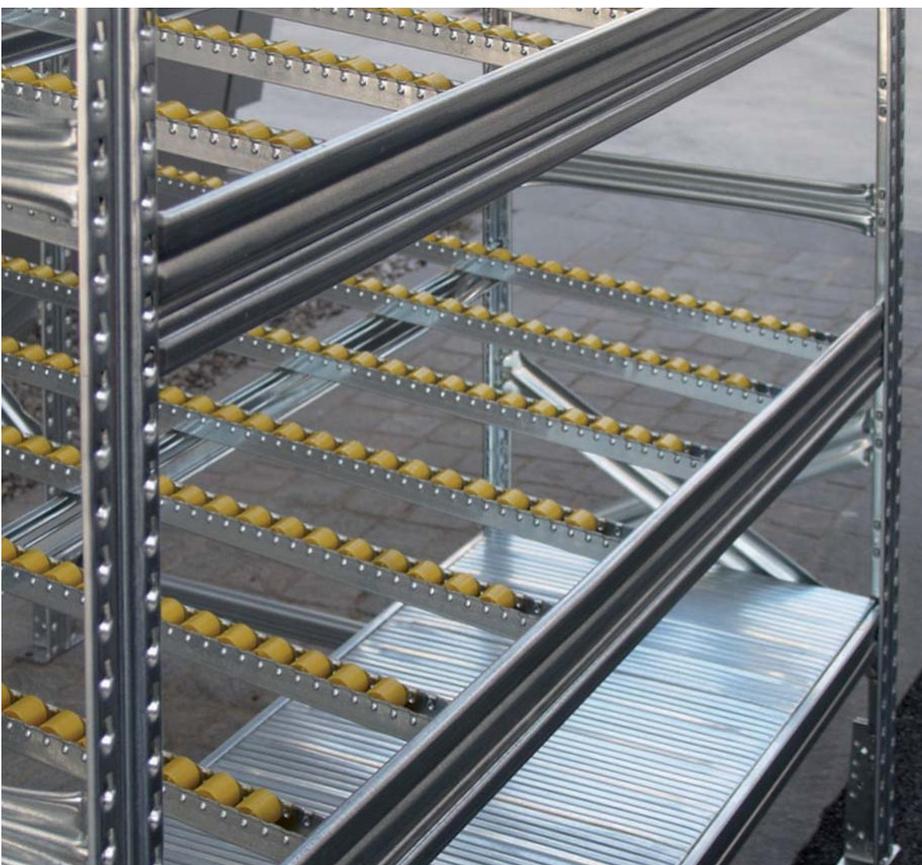
Thanks to its attractive high-tech design, Super 1-2-3 is also a highly suitable and cost effective system to achieve mobile shelving applications. For the design and ordering of mobile shelving installations, please refer to the MOBIBASIC Technical Manual <Doc: MT16>.

Modular Sliding Doors

Sliding Doors are ideal for areas with limited corridor width and can be used to create closed spaces or cupboards. Sliding doors are supplied preassembled and are available in the standard METALSISTEM colour range. A lock is supplied as a standard accessory with every door. Sliding doors are available for 900-1200-1500 mm bay lengths, in two different heights: 2000 and 2500 mm.

The sliding rails are made to match the height of the shelving beams on top and at the bottom of the shelving bay. In case of MOBIBASIC mobile shelving installations, the rails are fixed directly to the MOBIBASIC chassis and to the shelving beam on top of the bay, to ensure a dust proof connection. For more information and ordering, please refer to page 53.





Carton Flow

Carton flow beds consist of one or more inclined runways equipped with specially designed roller tracks. Merchandise is loaded in the rear of each runway and moves toward the picking station. As an item is removed from the front, the item directly behind it slides forward in place of the previous and rolls to the front, thus allowing merchandise to remain better organized and easier to find/pick. METALSISTEM's carton flow is an economic, modular and functional solution based on standard components alone, allowing flow track beds to be created up to depths of 4 metres. The flow track profiles are made from certified, galvanised, high tensile steel and are manufactured in lengths ranging from 359 to 4022 mm at a cut pitch of 33 mm. Yellow rollers made from polypropylene are inserted into the tracks at varying pitches of either 33, 49.5, 66, 82.5 or 99 mm, according to the application requirements. The track profiles are inserted into sceenstrips that are fastened with clamps/screws (art. 69829.95/00056.20) at centre distances of approx. 1000 mm.

The support for the roller shelves is provided by frames placed at fixed intervals set by oval tubes, (the same standard components used for walkway parapet elements) thus ensuring that the beams will be aligned at a constant inclination of approximately 8% from the rear to the front side of the system. However, the most suitable degree of inclination depends on the type of packaging and weight of the load unit and the overall length of the roller track. A "T"-section support bar placed at the picking side of the run provides both support for the flow tracks and an end stop for the cartons. For more information please refer to page 54 of this brochure.

Removable Divider

The roller beds can be equipped with removable dividers that make use of the 32/4 zinc-coated profile. They are installed by pressure therefore, the width of lanes can be changed easily.

The divider can cover the entire length of the roller bed but can also be used as partial start or end roller bed division.

