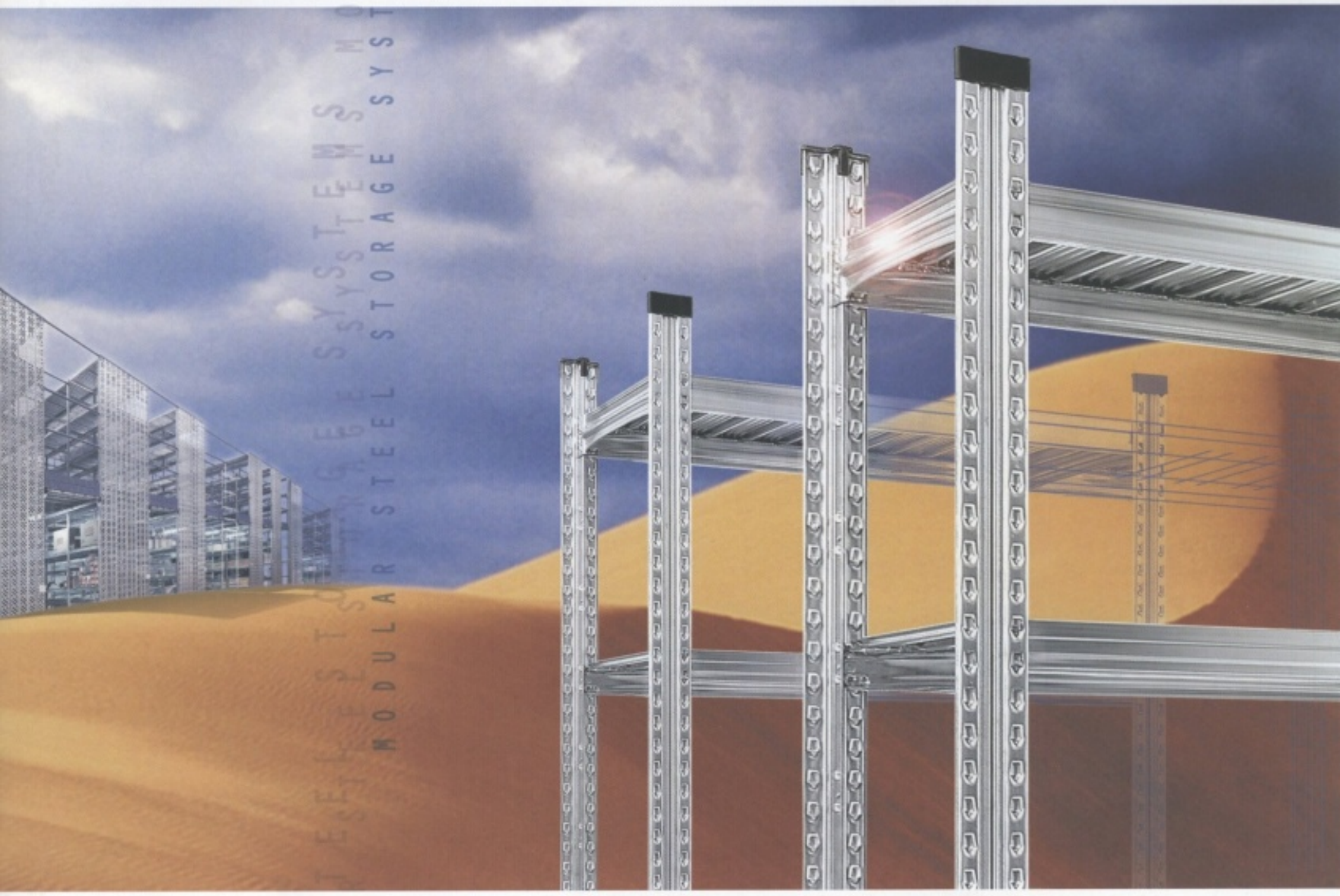
SUPER 1/2/3

PATENTED BOLTLESS SHELVING



METALSISTEM®

SISTEMI E STRUTTURE PER IL MAGAZZINO

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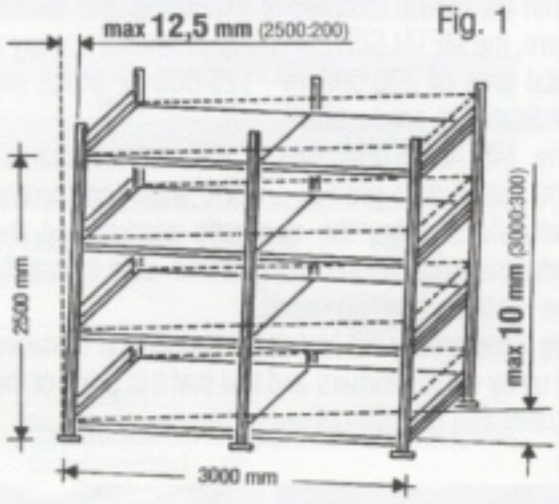
STANDARD SPECIFICATIONS CALCULATION AND SAFETY STANDARDS

The correct use of the product, both from the technical and design point of view indemnifies both the manufacturer and the customer in the event of improper use. Therefore, METALSISTEM recommends that customers follow its code of practice for design and utilisation of its products.

Ref. N°:	
System:	SUPER 2
Year of Construction:	1996
Frame Load Capacity (u.dl.):	2000 kg
Shelf Load Capacity (u.dl.):	200 kg
Weight of Load Unit:	10 kg
Distance between ground and first beam level:	700 mm

METALSISTEM declines all responsability for improper or non authorized use of the racking and its accessories.

Fig. 1



a) Floor slab loading.
Loading capability should be checked before installation.

b) Site installation. It is of utmost importance that installations are assembled by skilled labour only.

Fig. 2

Frames should be built in strict accordance with the assembly diagram shown at right. Particular attention should be paid to a proper assembly and location of security pins.

c) Rack alignment.
Once the shelving is assembled, it is necessary to align it vertically and horizontally. The perpendicular deviation should not exceed 1/200 of the height (with a maximum of 15 mm) and correspondingly the horizontal deviation 1/300 of the bay length. See fig. 1.

d) Load bearing capacity plate.
Load capacity plates should be fixed in a prominent position and show the product series, the year of construction, the maximum load per bay, per shelf and per sq.mt. (in the case of platforms and/or two-tier-structures), as well as the weight of the load units and the distance from the ground to the first load level.

e) Rack safety standard.
In the case of hand loaded static shelving, if the height of the frame is over 3 metres or exceeds over 5 times its depth, the frames must be securely bolted to the floor slab (using the heavy duty base plate art. 67006) and fitted with wall ties or overhead ties (see fig. 2). It is not allowed to use single sided shelving that exceeds over 8 times its depth, unless the frames are connected through walkways or fitted with wall ties or equivalent. The use of cross bracings (vertical and horizontal cross bracing) is necessary in the case of rack runs with frame heights over 3 metres, with less than 4 bays or with distances of more than 700 mm in height between the load levels. The frames must be securely bolted to the floor slab using the heavy duty base plates (art. 67006) and the locking frame spacer bars. As an alternative solution to the use of cross bracings customers may fit the shelving with wall ties or similar. This is valid only in case that the wall or the structure is adequate for that scope and provide an equal or better grade of constraint compared to cross bracing. Within seismic regions it is not allowed at all to use any type of wall ties or similar. For specific calculations and design customers should contact the Metalsistem Technical Department.

f) Installation design.
SUPER 123 structures are to be used as hand loaded shelving only and not as pallet racking, with forklifts, or with wheeled equipment on two-tier-structures. METALSISTEM declines all responsability for improper or non authorized use of the shelving and its accessories.

g) Two tier structures/platforms.
Two tier structures with suspended walkways are to be designed exclusively with the SUPER 3 system and must comply with all safety recommendations. In case of platforms with continuous floor/decking (see page 5 - case "B"), the frames are to be assembled as shown in the assembly diagram, i.e. using exclusively diagonal spacer bars, at centre distances of 264 mm, up to the level of the platform. Uprights must be assembled with locking frame spacer bars and heavy duty base plates (art. n° 67006), securely bolted to the floor slab. Staircases must be adequately reinforced and built with the reinforced SUPER 3 uprights only (art. n° 99230), either side of the staircase. The correct use of all safety components mentioned in this brochure is obligatory. The maximum load bearing capacity of walkways/decking within two-tier-structures and platforms is 300 kg/m², the maximum width of walkways is 1200mm, and the maximum shelf bay length is 1500 mm. The frames must be fitted with overhead ties (art. n° 67401).

h) Software reference.
The theoretical calculation is based on the EURO-CODE 3, using the safety factors recommended within the F.E.M. standards.The reference standards for the materials are the following:
-EN10204 - EN10142 - EN10147

i) Calculation. The calculation is executed with the ANSYS software and based on finite elements.

l) Frame load capacity. The frame load bearing capacities stated in this brochure are calculated in compliance with the following criteria: the first shelf level must be fitted at no more than 700 mm from the ground and the following levels at intervals not exceeding 500 mm, with a minimum of 4 interconnecting bays. Frames are to be bolted to the floor slab.

m) Shelf load bearing capacity.
Data for shelf load bearing capacities shown in the brochure are to be understood as referring to uniformly distributed loadings with a deflection equal to 1/200° of the shelf length.
The beam locking pins must always be fitted.

n) Custom-built applications.
The METALSISTEM Technical Department is at its customers' disposal for any specific calculation or custom-built application.
METALSISTEM reserves the right to apply technical changes to the product. Data, characteristics and dimensions given in this document are merely indicative.

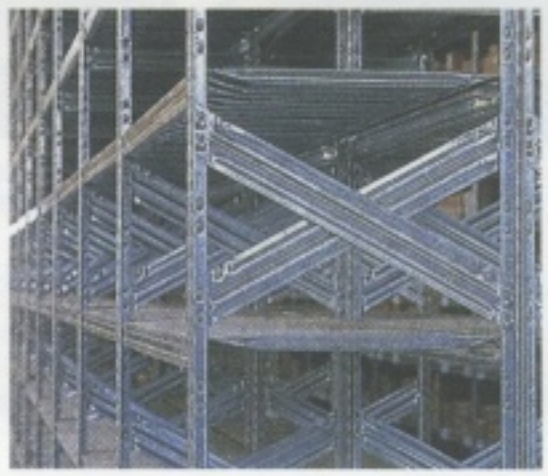


DIAGRAM FOR ASSEMBLING BRACING FOR FRAMES

320 - 400 - 500 - 600 - 700 - 800 mm in depth

SUPER 1/2/3 is made from certified steel and carries the approval mark of TÜV PRODUCT SERVICE GmbH

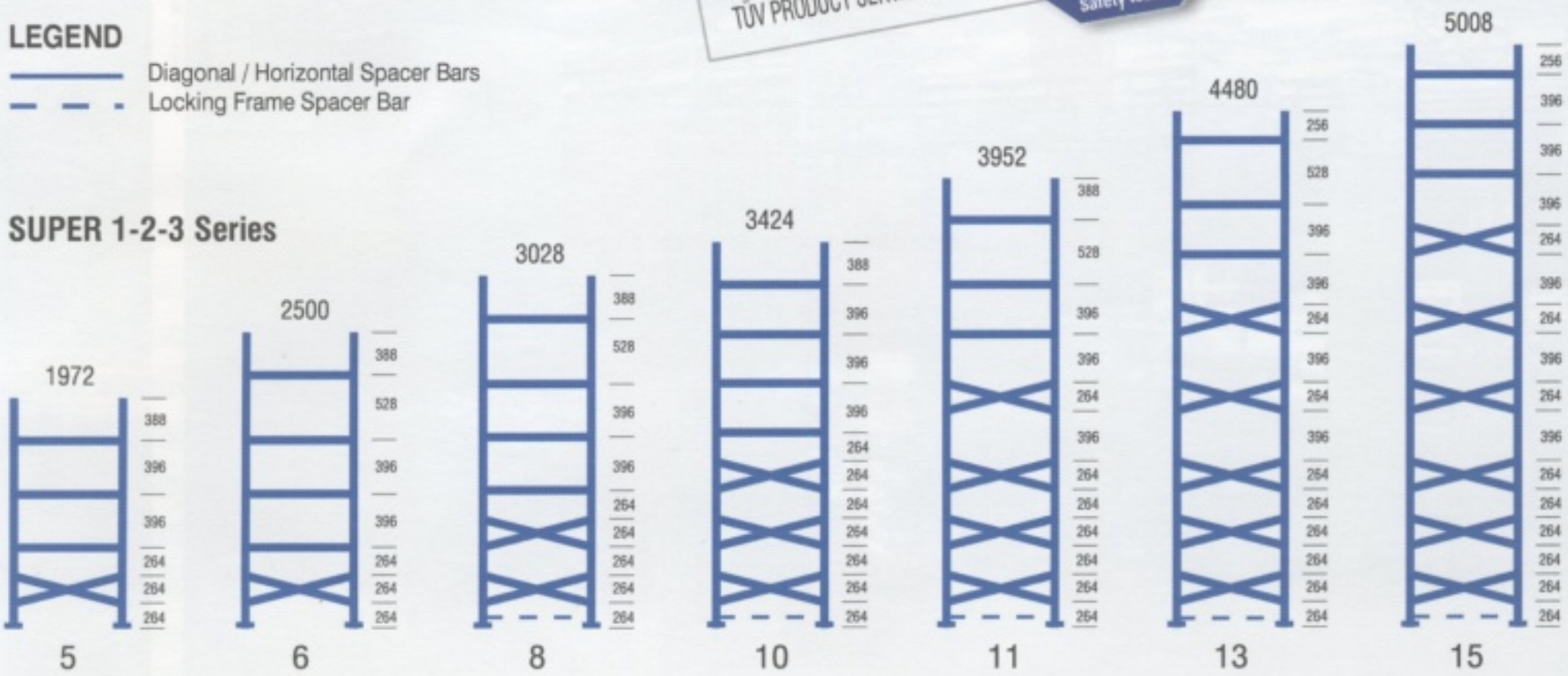
TÜV PRODUCT SERVICE — Production monitored Safety tested

LEGEND

Diagonal / Horizontal Spacer Bars

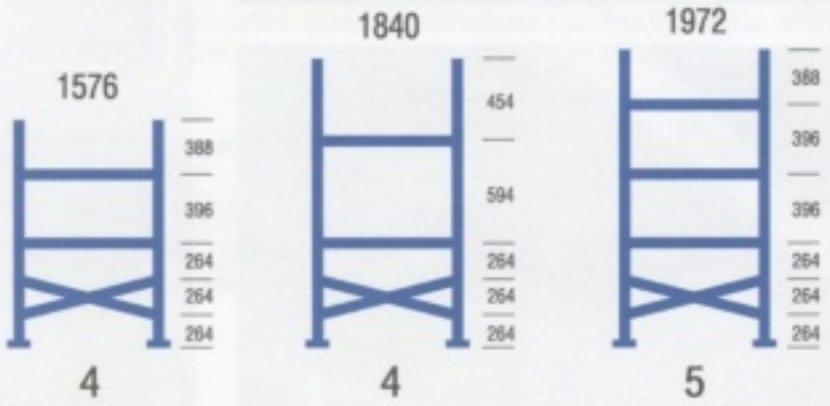
Locking Frame Spacer Bar

SUPER 1-2-3 Series



N° of spacer bars

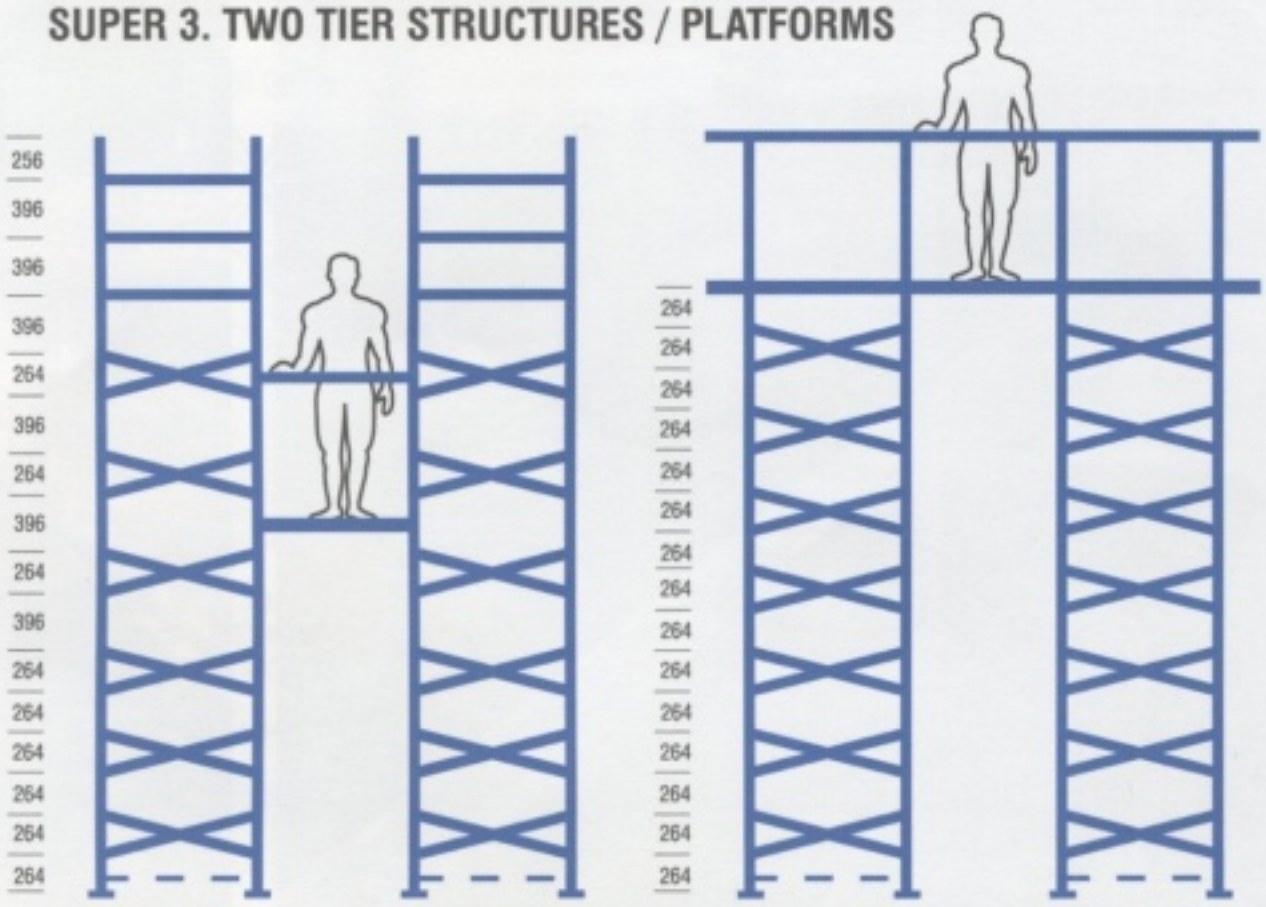
SUPER ZERO Series



N° of spacer bars

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

SUPER 3. TWO TIER STRUCTURES / PLATFORMS



CASE "A"
Two tier structure with suspended walkways

CASE "B"
Platform with continuous floor

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 the cases the frames must be securely bolted to the floor slab using the heavy duty base plates (art.n° 67006) 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) 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.

THE COMPANY TODAY

METALSISTEM products are now in use in a great many installations throughout the world, and after more than 30 years production, we value greatly the high level of trust that is placed in us by our customers and feel that it is proof of the quality of our products.
The shelving components are produced on fully automated production lines.
The folding and cold processing techniques developped by METALSISTEM are designed to obtain light and extremely strong components.
Lightness, strength and modular form, coupled with the ease of integrating and expanding already existing structures are but a few of the successful features of the METALSISTEM Industrial Storage Systems. Ideal storage solutions for a whole host of products supplied worldwide are created here thanks to a total commitment to research and development.
All METALSISTEM components are subjected to regular and rigorous technical tests. These cover both uniformly distributed and concentrated loadings.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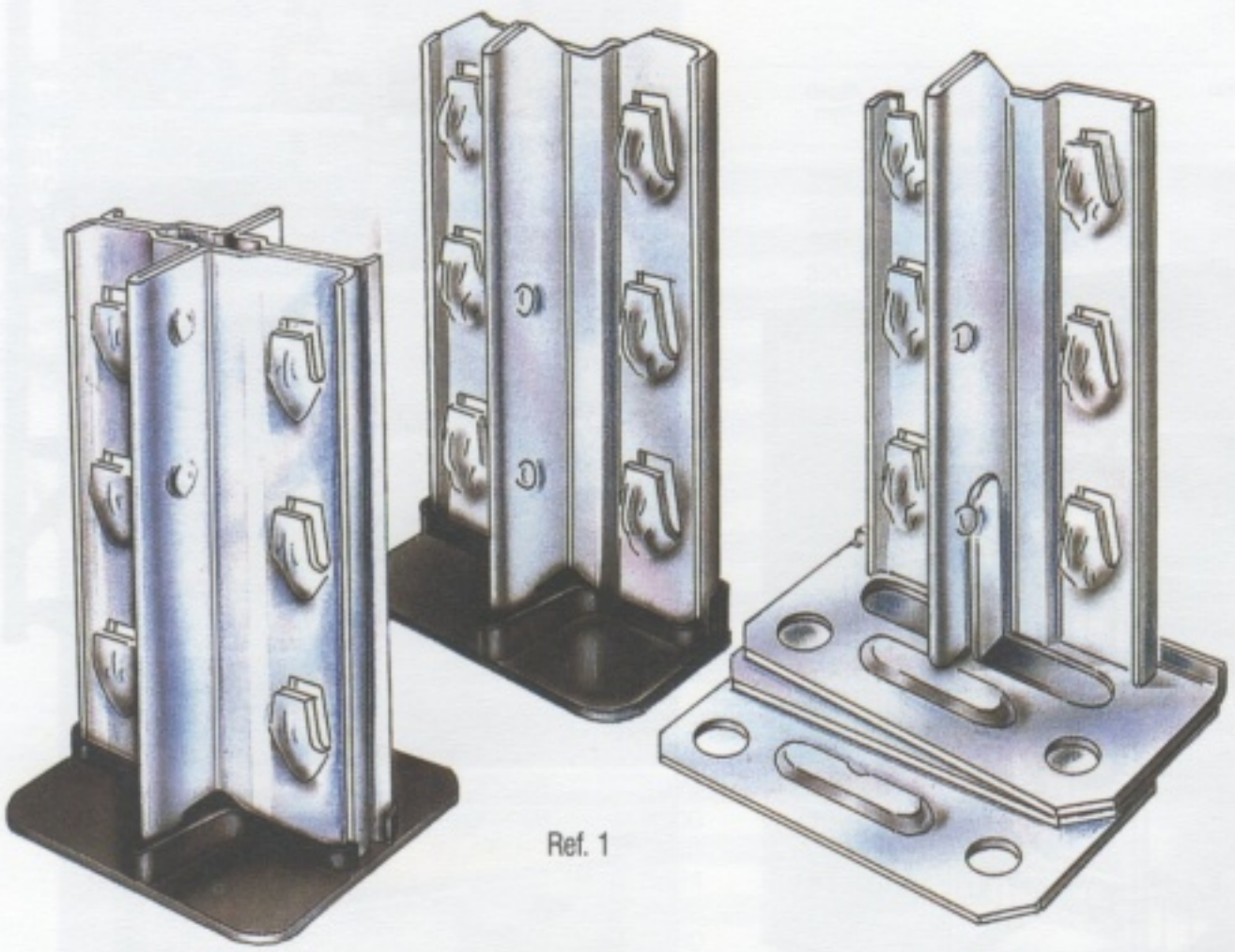
THE PRODUCT

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 METAL-SISTEM to offer innovative products of the highest quality, highly competitively priced, and to produce a highly technical solution to the most important

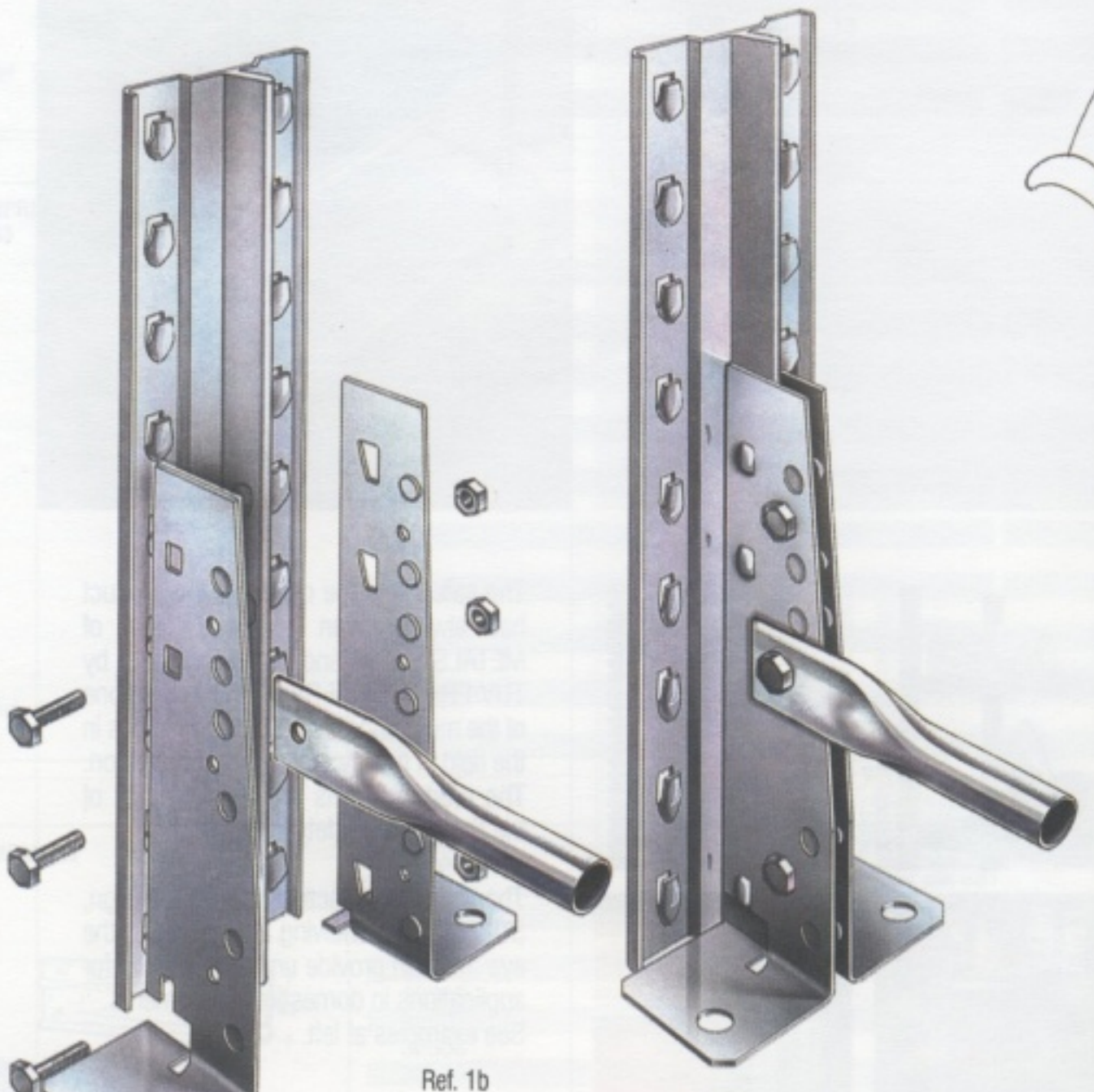
shelving problems, such as rapid assembly, stability, low cost and load bearing capacity.
The design allows for high load bearing from light gauge materials. The use of high quality zinc coated steel ensures a high level of durability.
The structural components of the SUPER 1/2/3 systems are made from high tensile steel, certified according to EN 10204 3.1B.

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 E.C. 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 pleasing to the eye and can provide unique solutions for applications in domestic environments. See examples at left.



Ref. 1



Ref. 1b

ASSEMBLY INSTRUCTIONS

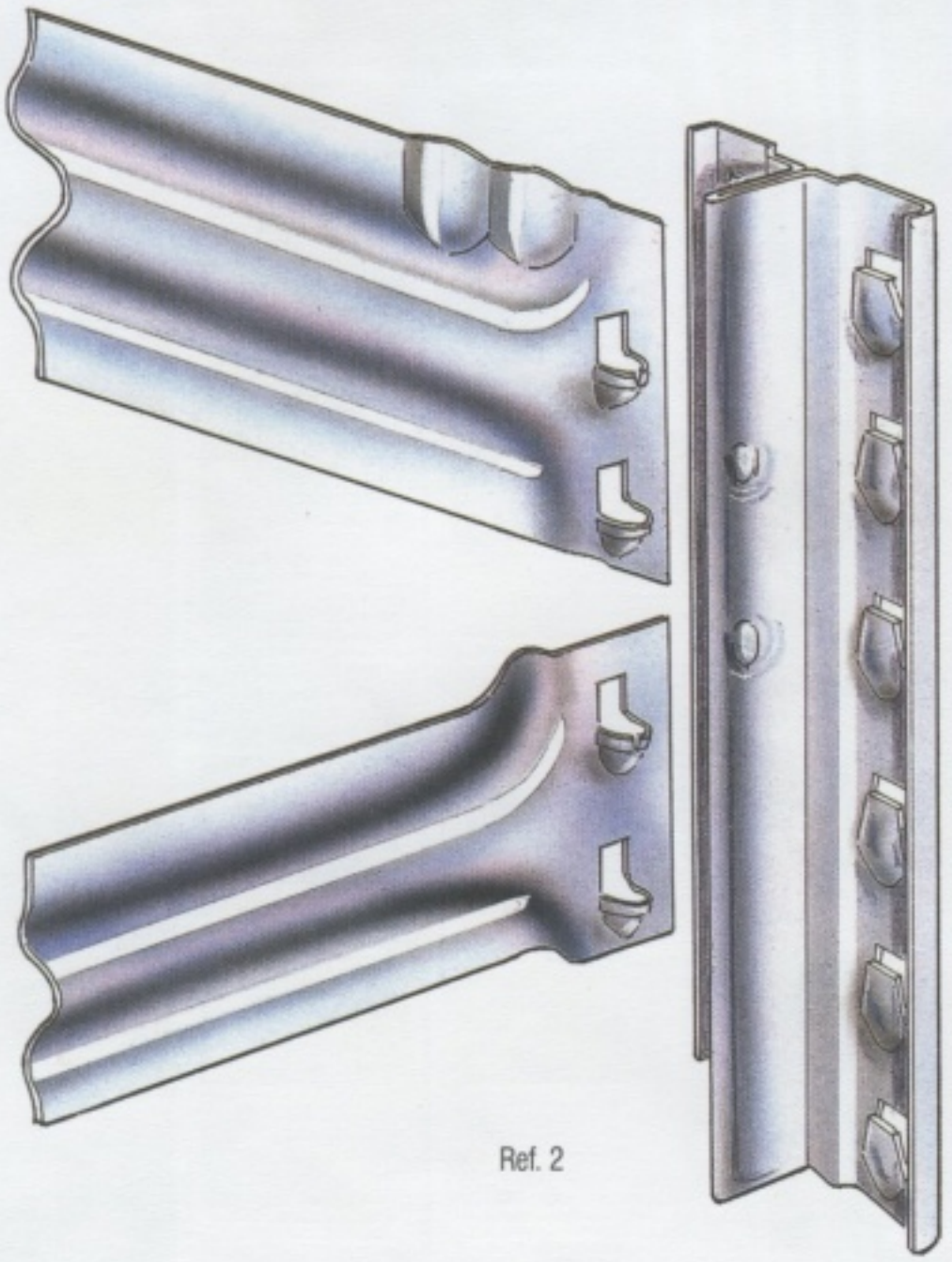
Base plates

Fit the metal base plate onto the upright, using pliers to guide the two tongues on the plate into the nibs on the upright. Then tap the base plate into the nibs with a hammer. Plastic base plates should be used for the SUPER 1 system only (Ref.1). Double plastic base plates are available for back-to-back bays.
These can also be used as top caps for double uprights (Ref.29).
Heavy duty base plates (Ref.1b) must be used in the following cases:
- when building platforms and/or two-tier structures with suspended walkways;

- when building staircases, under the uprights of the staircase;
- if the height of the shelving is over 3 metres or exceeds over 5 times the depth of the shelving;
In all the other cases customers may use the normal standard base plates.
Heavy duty base plates are always to be assembled in conjunction with locking frame spacer bars.

Spacer bars

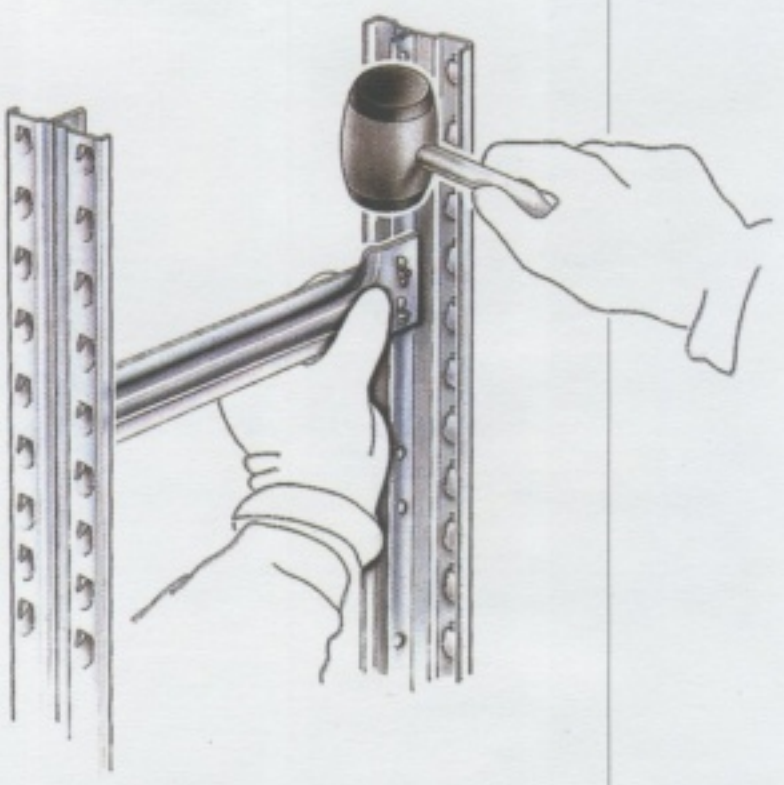
To fit spacer bars, refer to the diagram on pages 4/5 to determine the exact position and quantity.
Insert the horizontal and diagonal spacer bars into the grooves in the corner of the upright, locating the wide part of the slot over the nibs on the upright and keeping the spacer bars tight to the upright, in order to keep it square; then tap down into the narrow part of the slot alternating from side to side.
To achieve correct assembly, the spacer bar anti-release tongues should be closed (Ref.2).



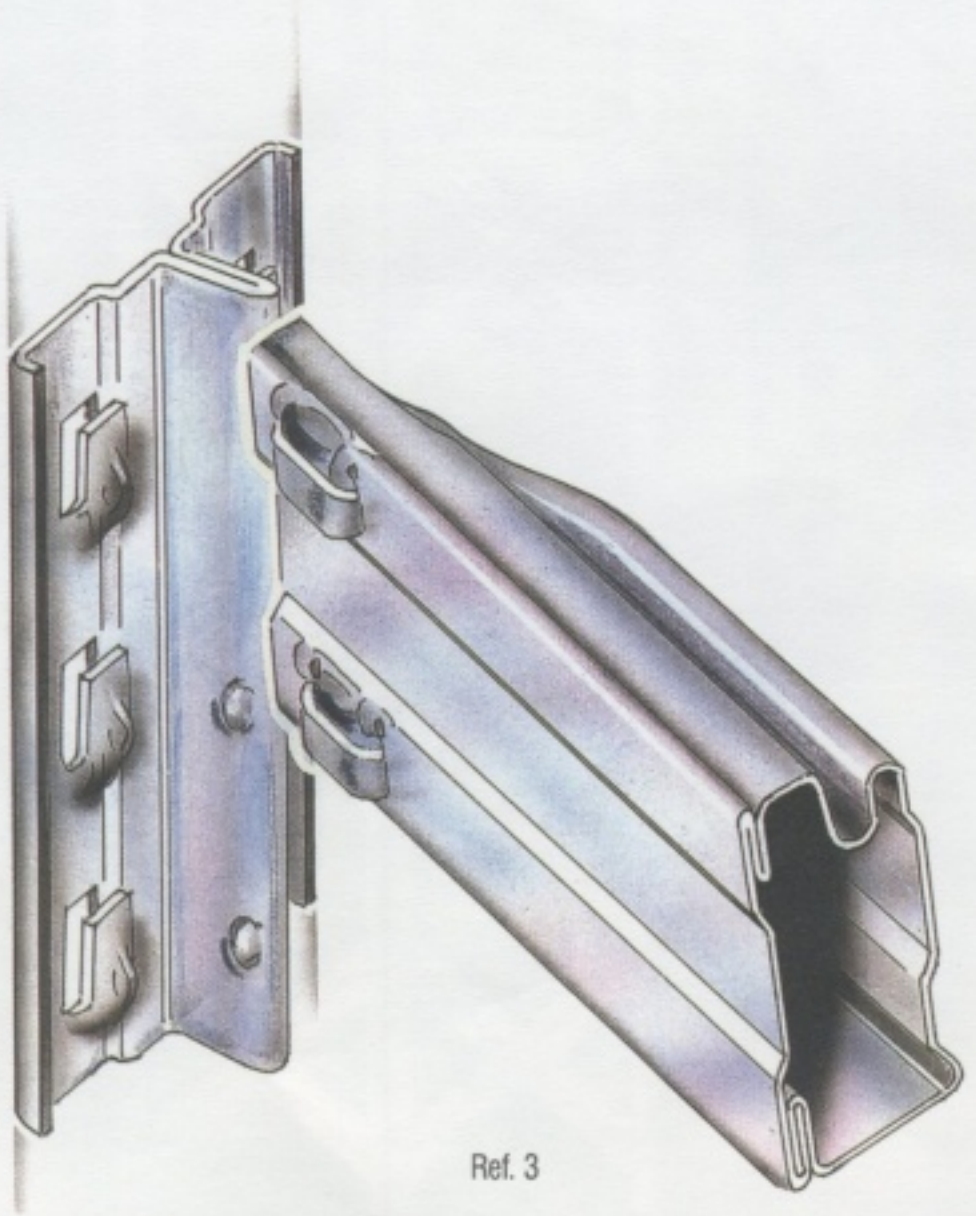
Ref. 2

Beams

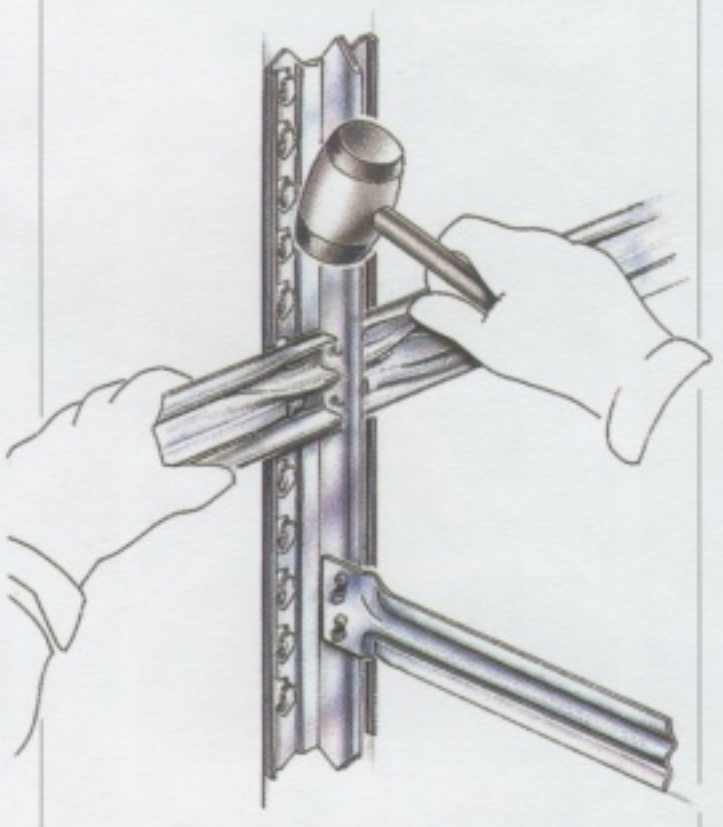
Take the frames, assembled with bracing and base plates: keep them as perpendicularly as possible and fit the beam by tapping it down onto the tongues, close to the upright,



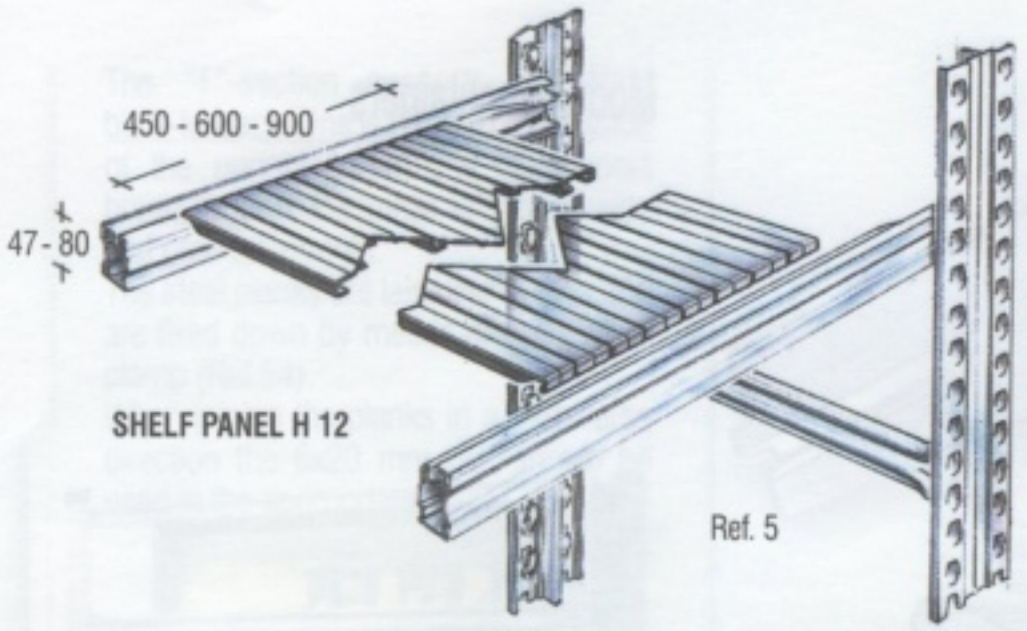
with a plastic-faced hammer to avoid damage to the beam (Ref. 3).
The beams, once assembled, should be secured with the respective beam locking pins (see page 21, Ref. 22).



Ref. 3

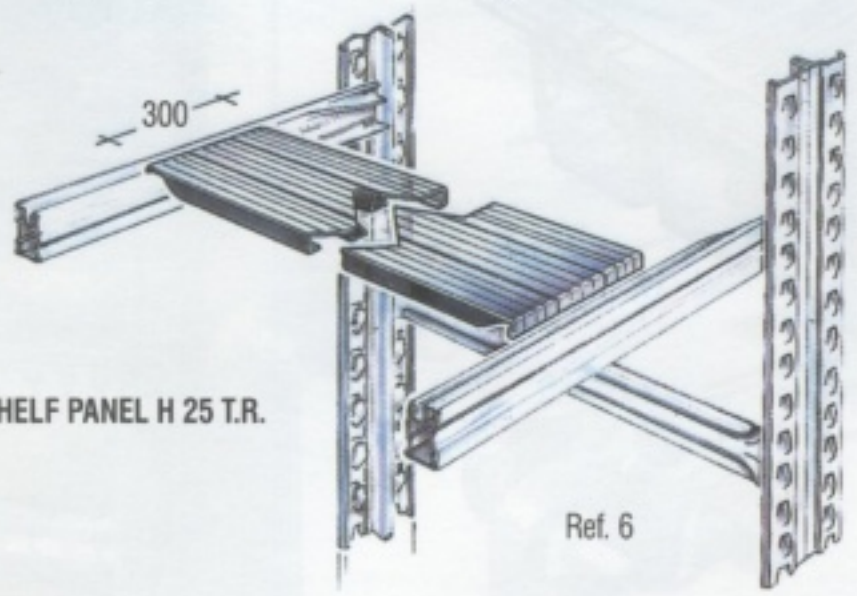


For the storage of tyres or round materials which are placed directly onto the beams, plastic strips are available to avoid damage to the products stored; these strips are fitted into the recess of the beams (see page 21, Ref. 21).



SHELF PANEL H 12

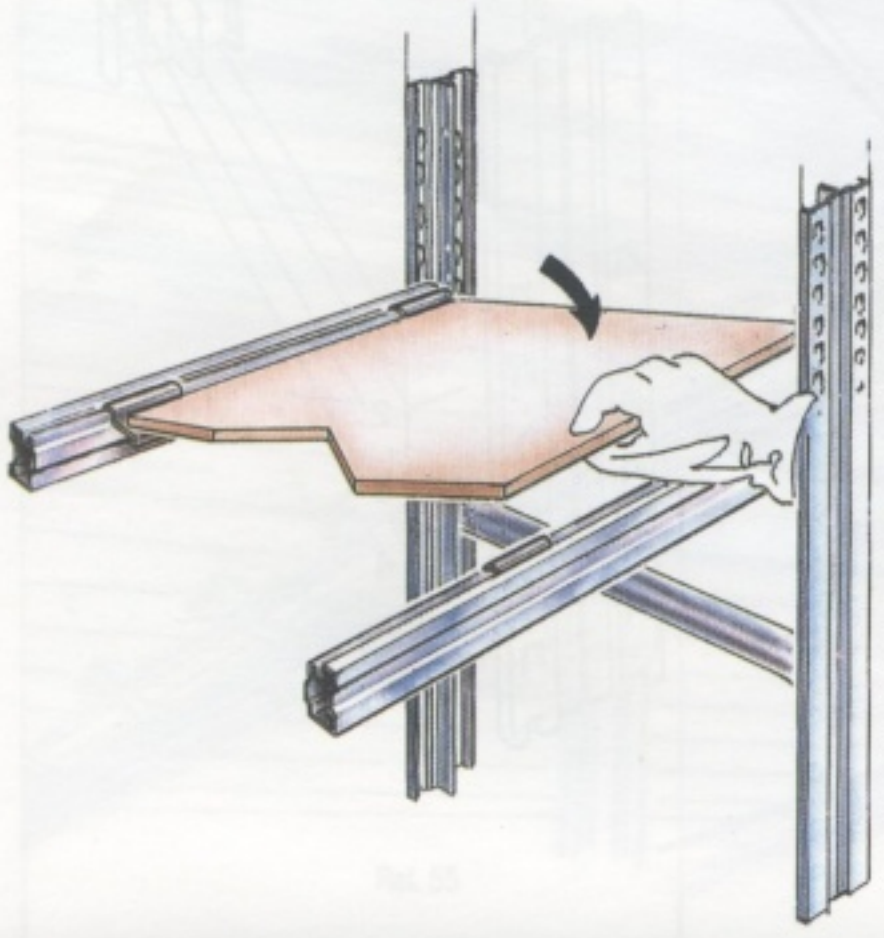
Ref. 5



SHELF PANEL H 25 T.R.

Ref. 6

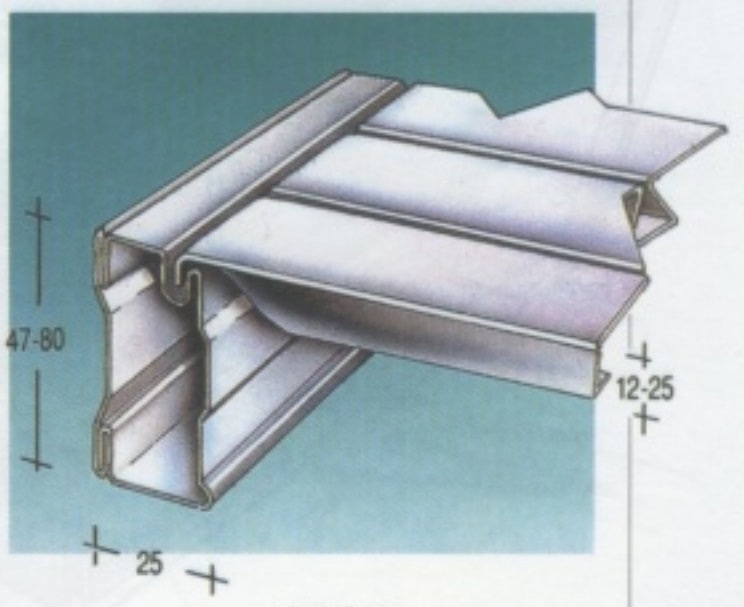
Ref. 60



Ref. 8

Shelves

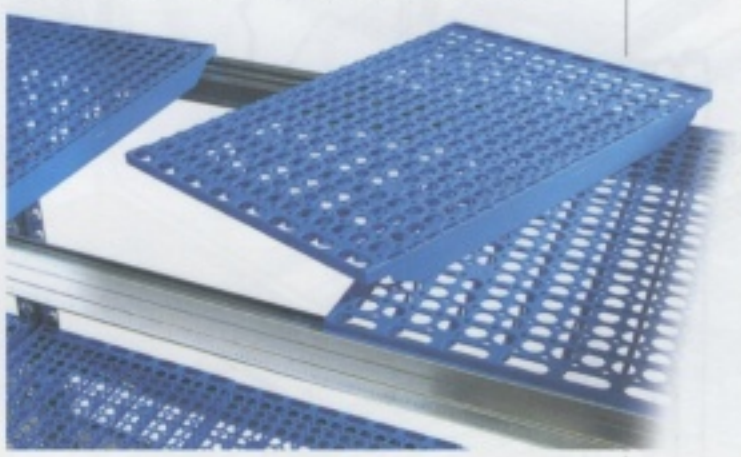
Shelves of profile 12 mm, 450-600-900 mm wide, are produced in depths varying from 320 to 700 mm.
Shelves of profile 25 mm and 300 mm wide are supplied in depths varying from 400 to 800 mm (Ref. 5-6).



Ref. 6 bis

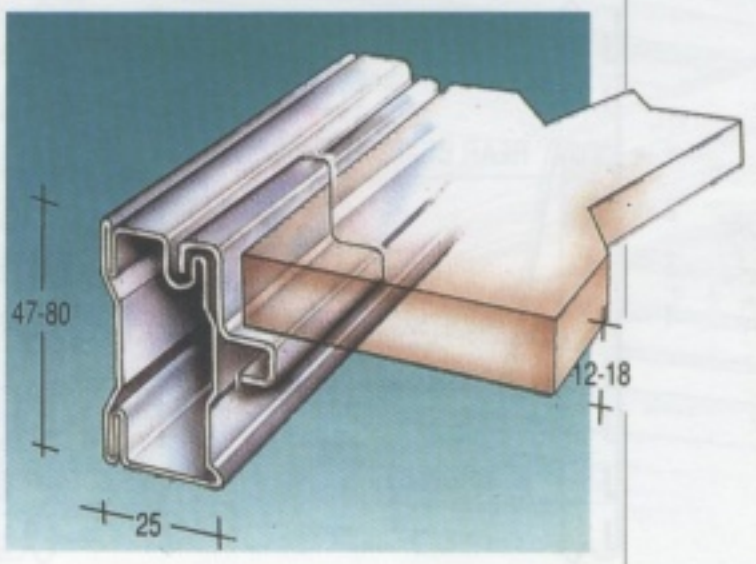
Perforated plastic shelf panels

The perforated plastic shelf panels are made from high quality polypropylene, suitable for use within the food sector. The perforation is > 50% of the shelf surface area. Available in two different colours: yellow and light blue, for frame depths 320, 400, 500 mm. (Ref. 60).

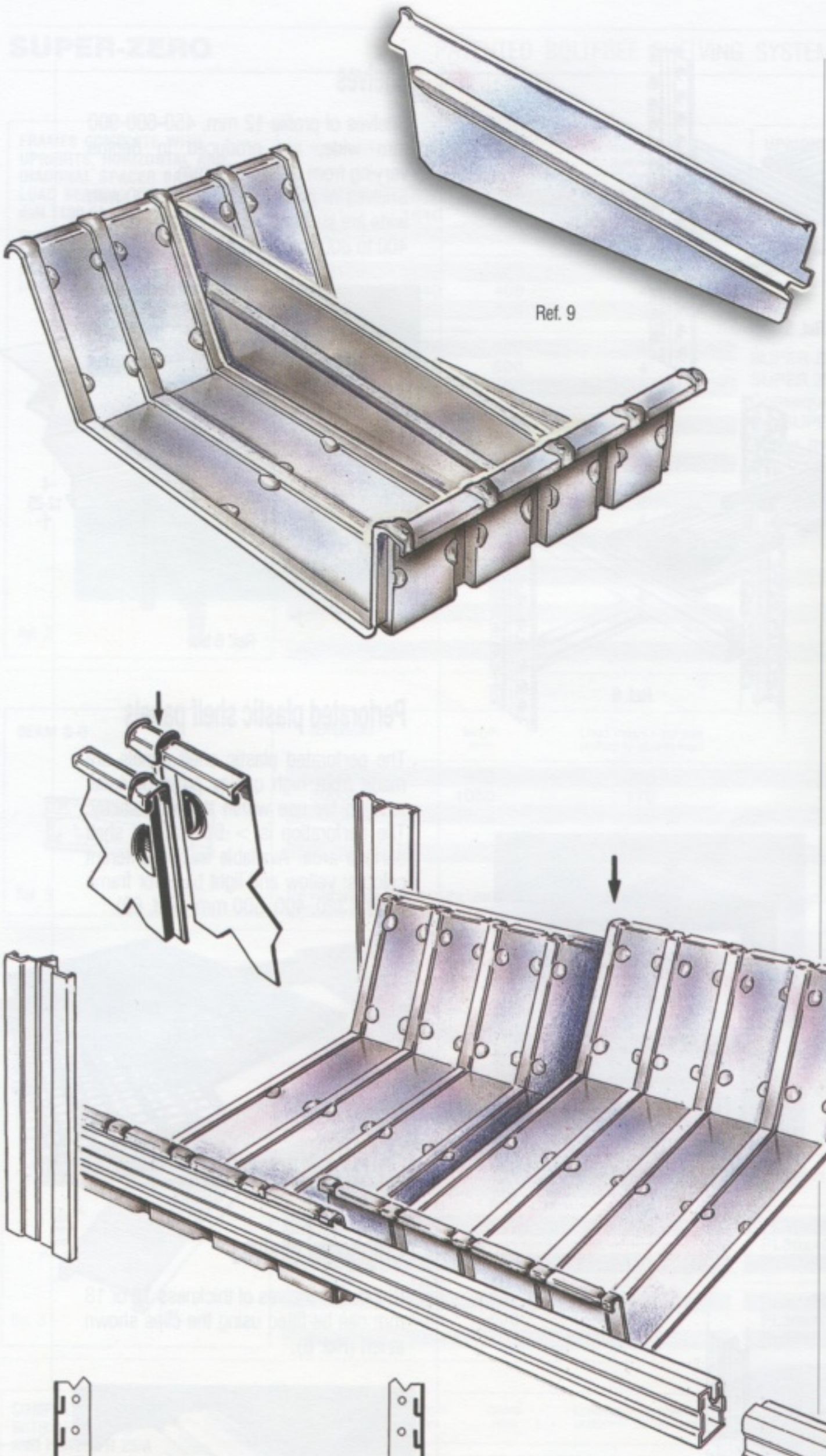


Chipboard shelves

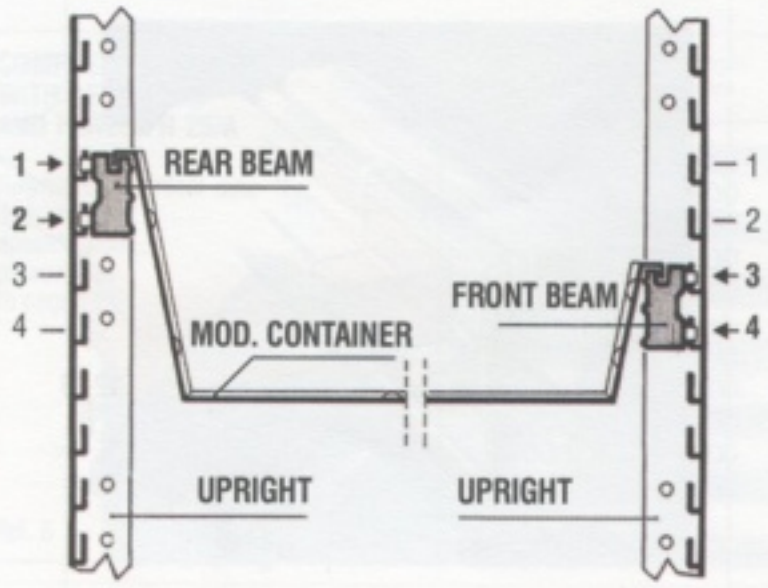
Chipboard shelves of thickness 12 or 18 mm can be fitted using the clips shown at left (Ref. 8).



Modular containers



Ref. 9

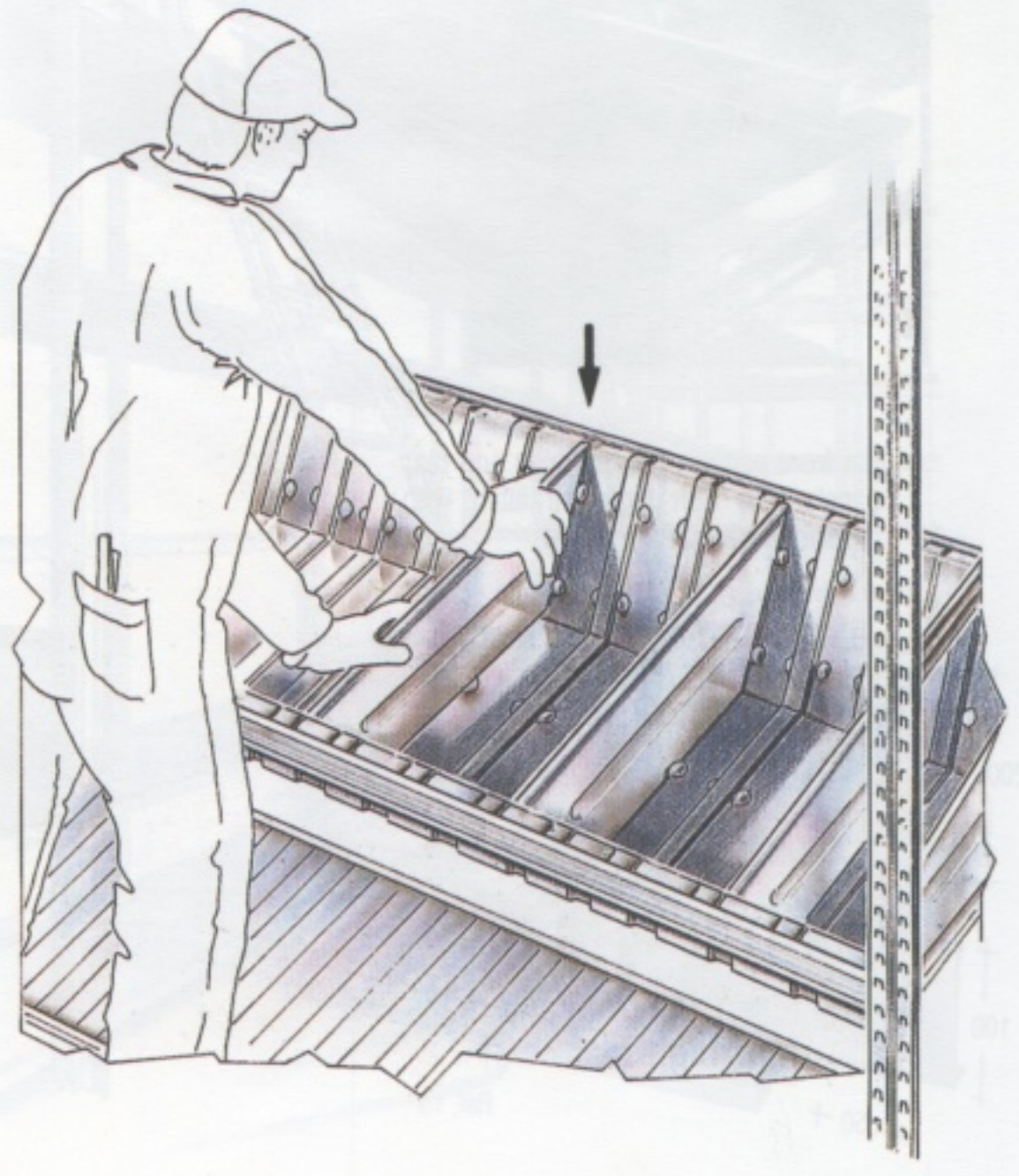


Ref. 10

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.
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).

When exceeding the depth of 800 mm, it is advisable to use back-to-back bays, to increase stability.

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

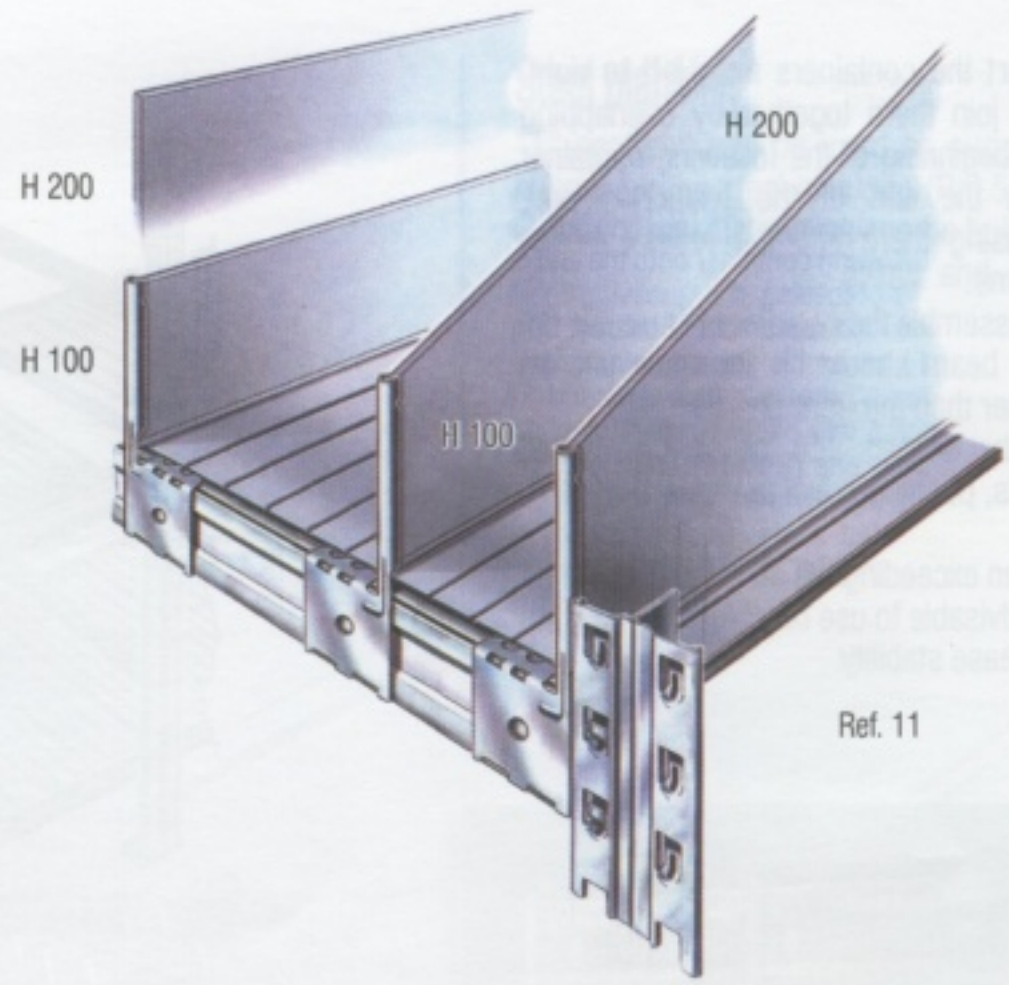


DIVIDERS

A large range of dividers is available.

Vertical sliding dividers

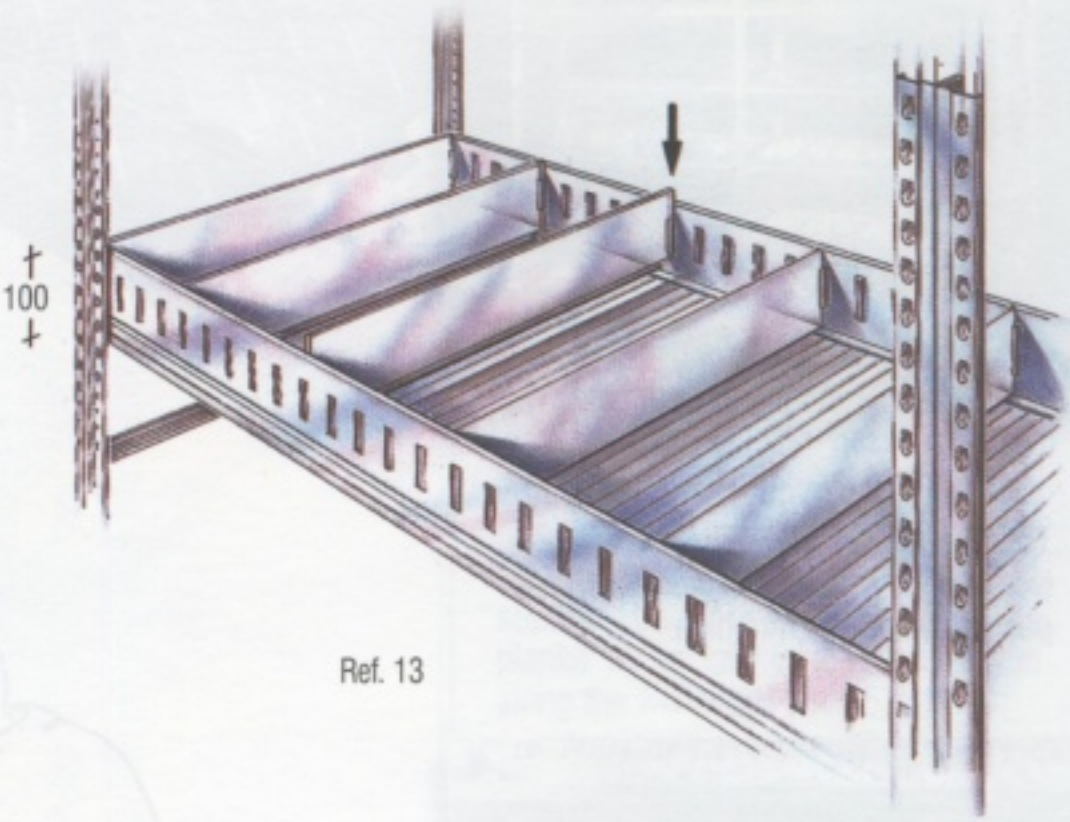
These have been designed to separate loose items (Ref. 11). The concept of these dividers is based on the following components: a couple of clips (version at right/at left), and vertical dividers, available for all frame depths and in two different heights (H=100mm / H=200 mm), as well as in the profiled version (H200/100 mm).



Ref. 11

Shelf trays

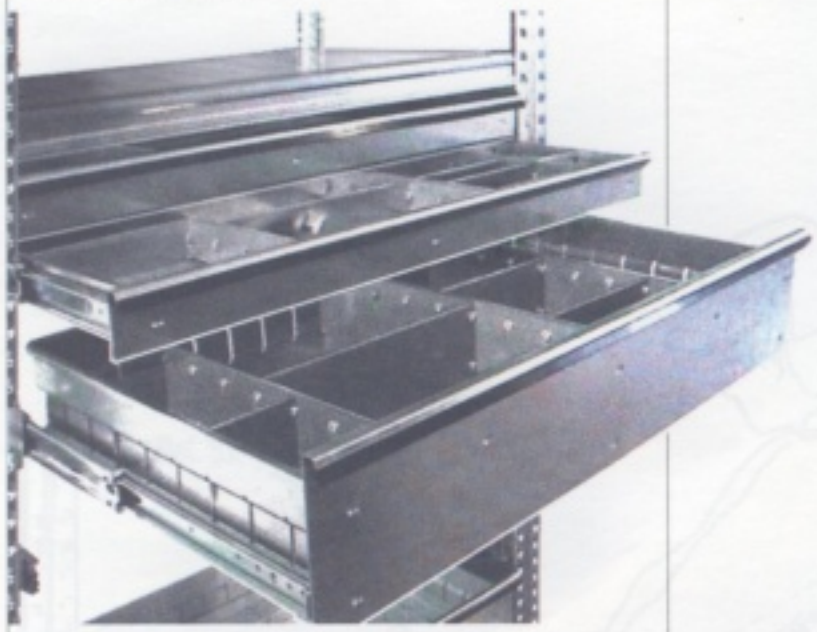
These comprise a bin front and rear panel 100 mm high placed on a normal shelf with adjustable dividers from 320 to 600 mm in depth (Ref. 13).



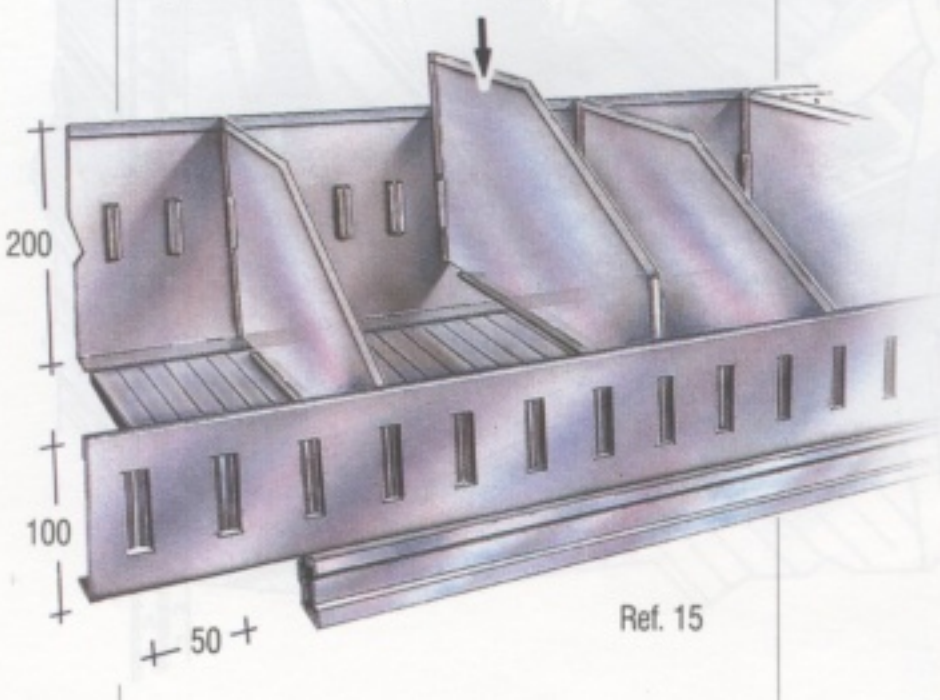
Ref. 13

Chest of drawers

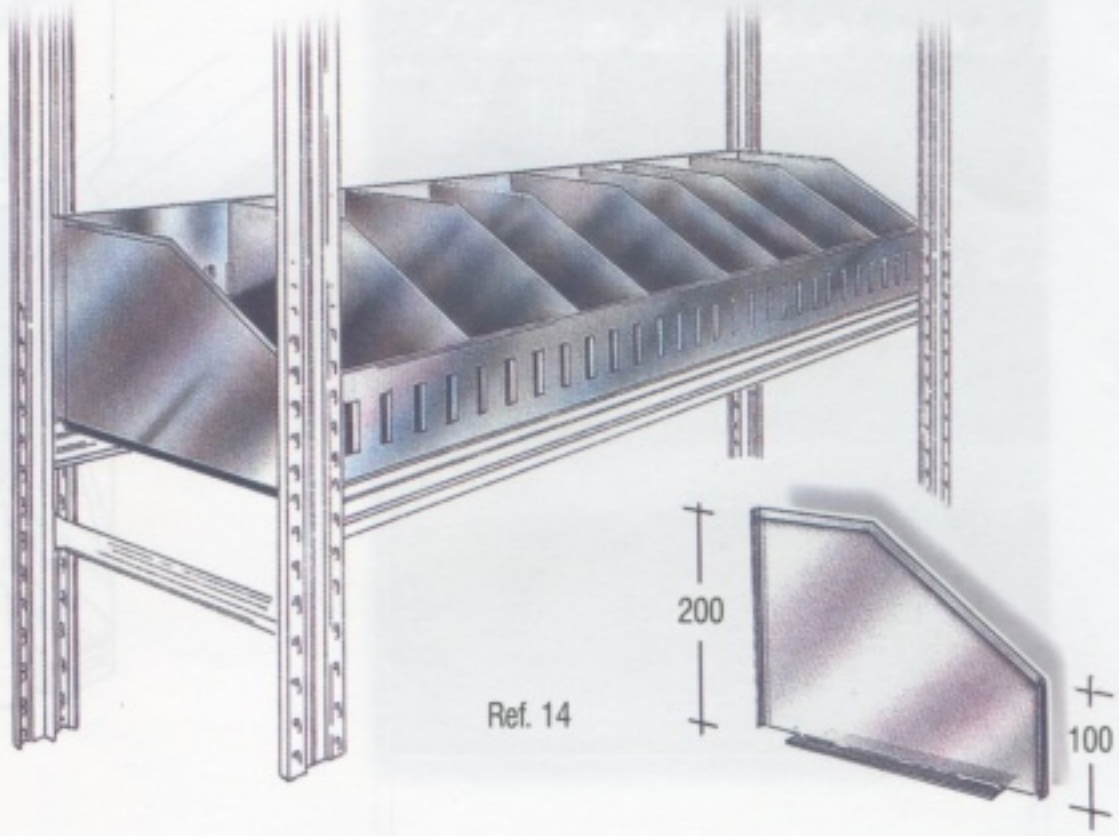
The modular drawers are fully integrated with the SUPER 1-2-3 series and are located directly on the frames.
A cost effective solution for the storage of small items.



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



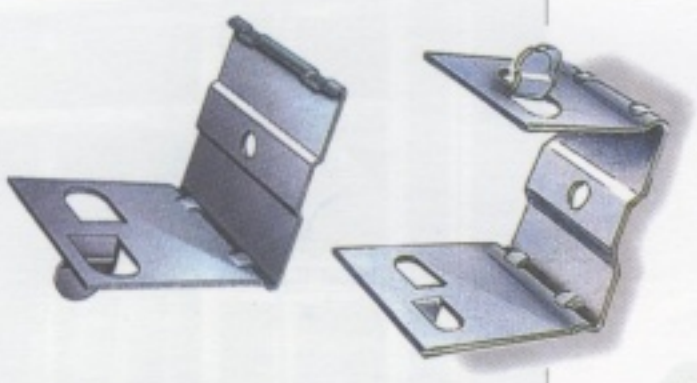
Ref. 15



Ref. 14

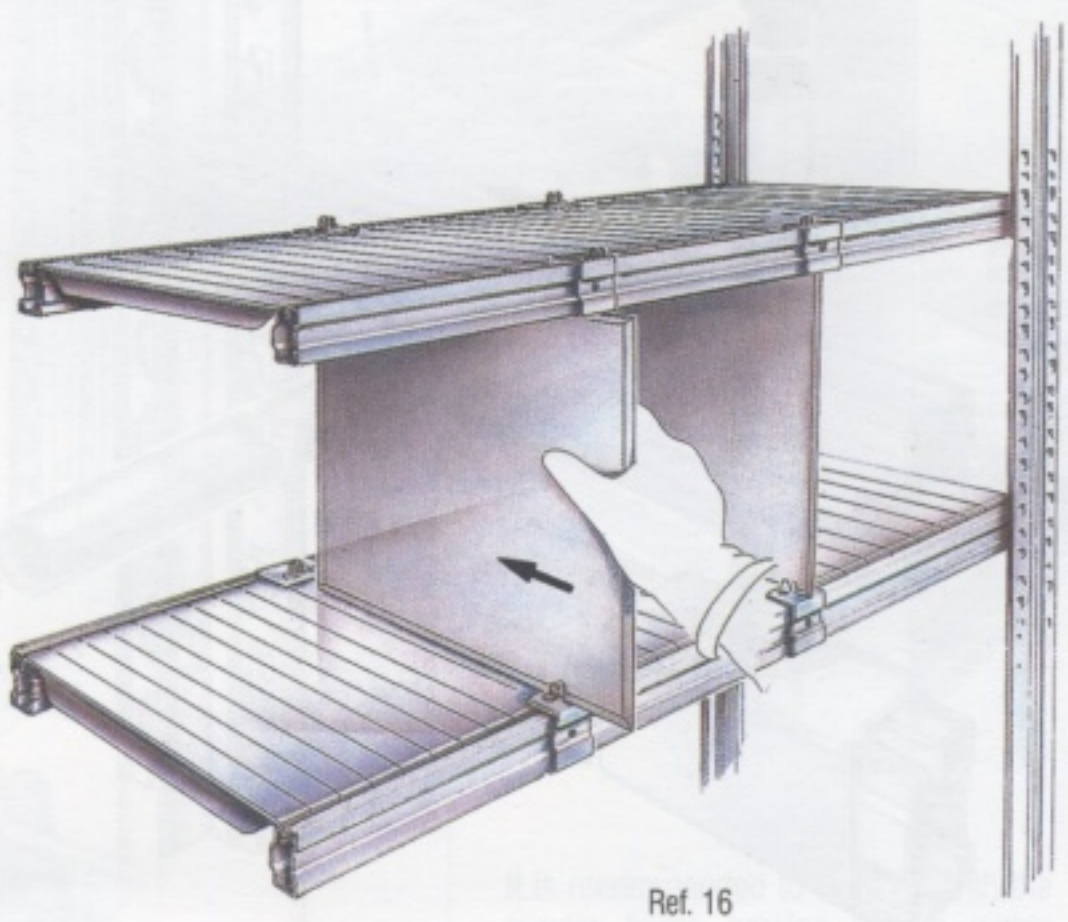
Plastic Bins "Bull Series"

Open fronted plastic bins are also available for the storage of loose items. More information on page 51.

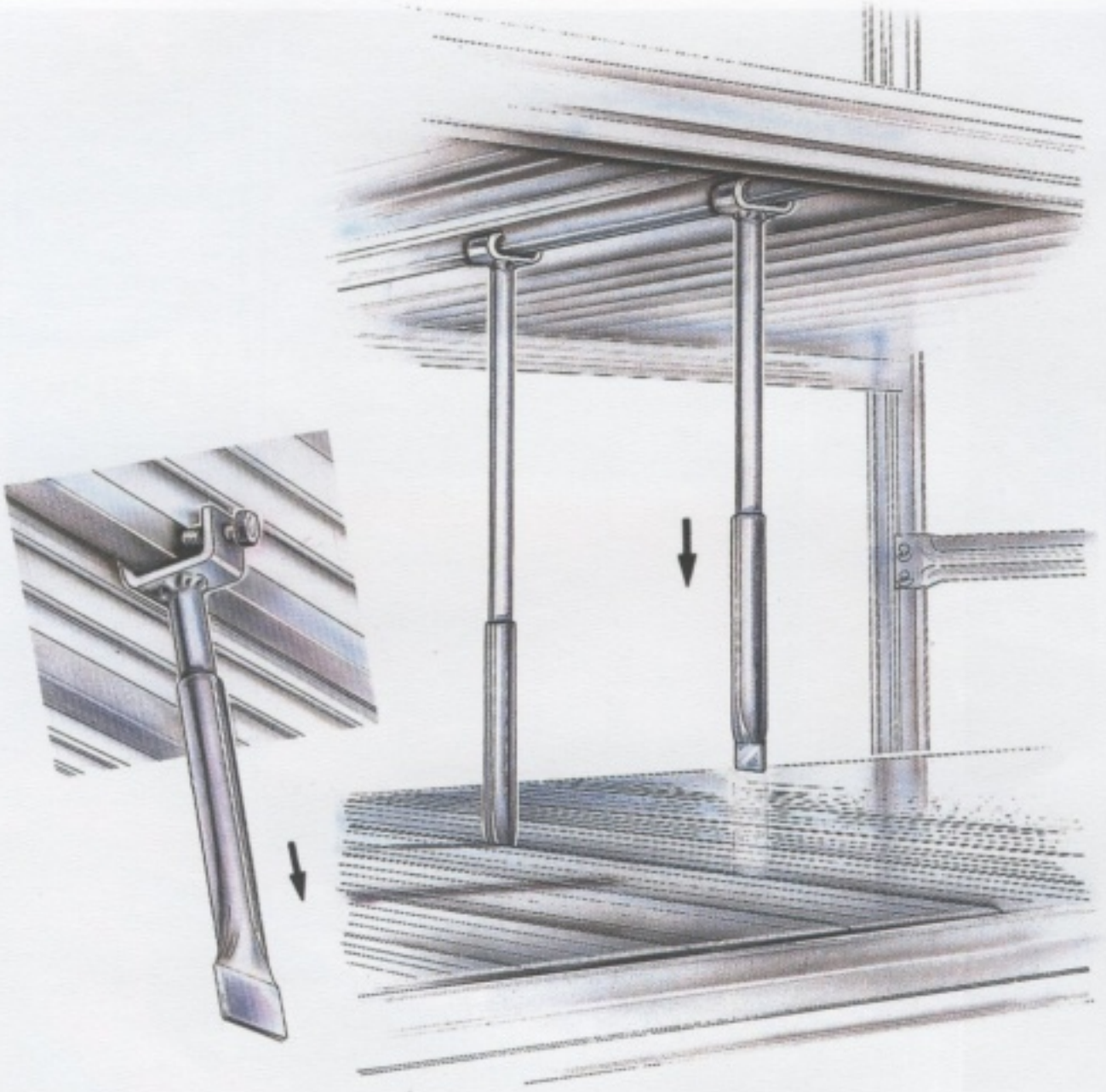


Fixed height dividers

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).



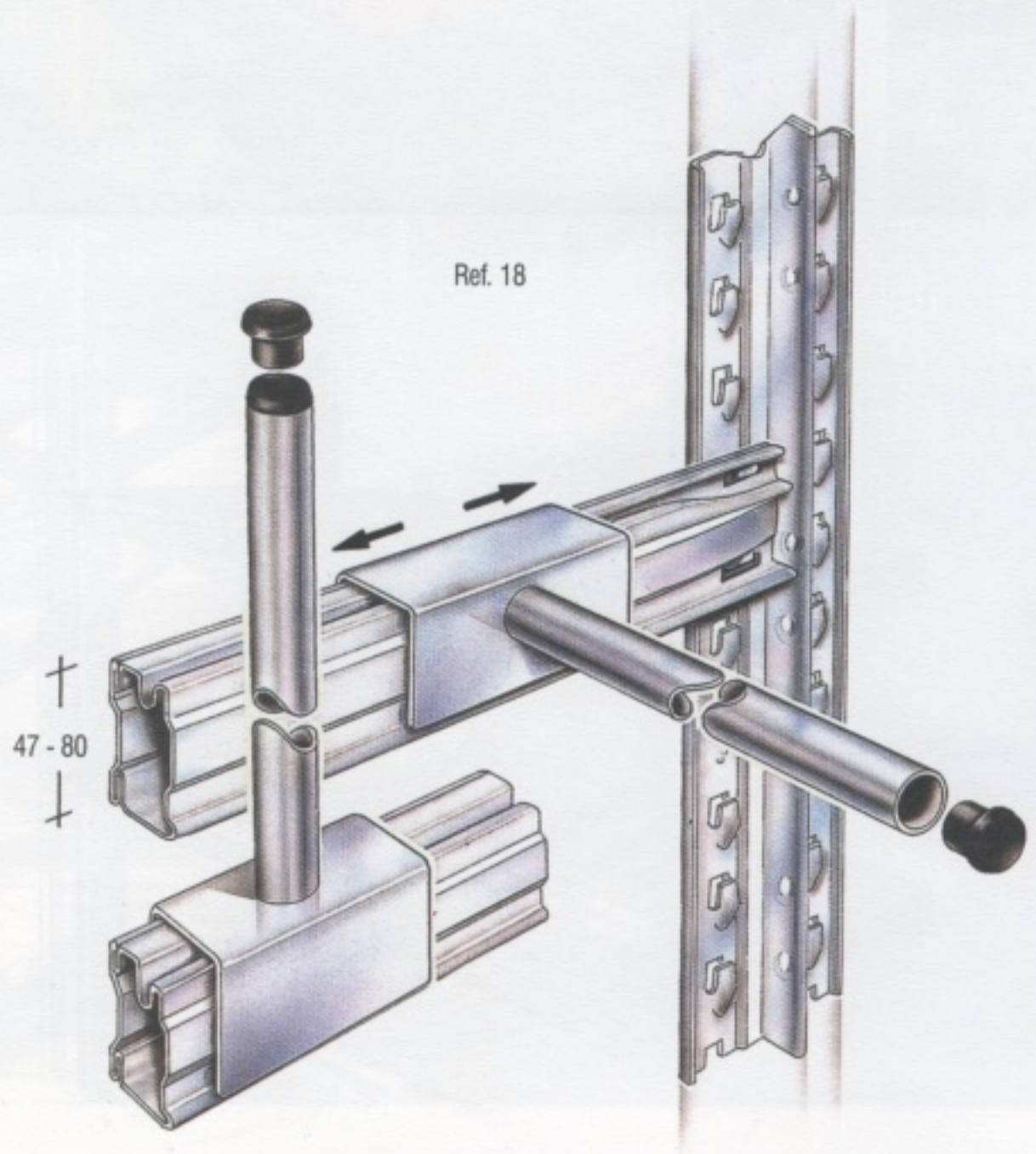
Ref. 16



Ref. 17

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 (8MA). A minimum of two tubes should be used for each division (Ref.17).



Ref. 18

Dividers for exhaust pipes

Spigots designed for the separation of tubes, exhausts and conduits, etc. They are used both vertically and horizontally and are fitted on to the beams anywhere in the length (not suited for hanging loads) (Ref.18).

ACCESSORIES

P.V.C. 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 hanger 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 H-47-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: 400 mm, to ensure safe storage and to prevent torsional deflection of the beams.

Plastic strip for glass shelves.

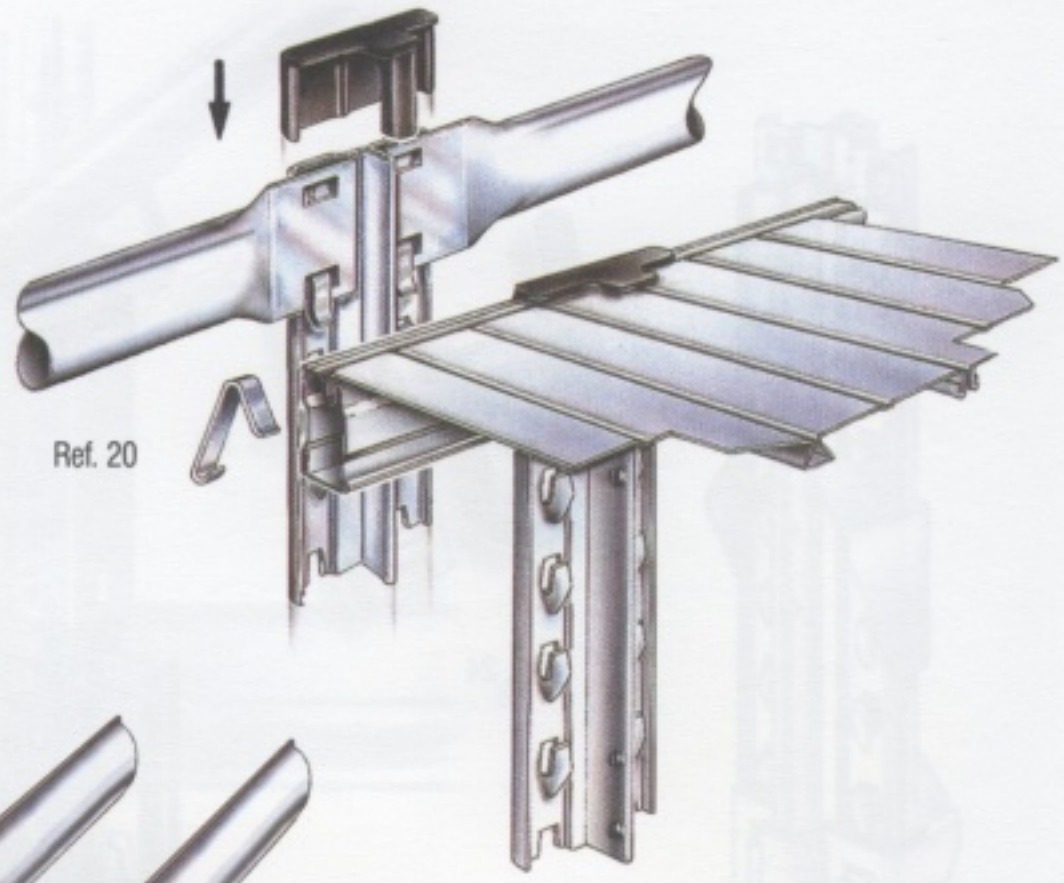
It can be fitted on the beams in order to protect glass shelves or delicate materials (Ref.21).

Security pins.

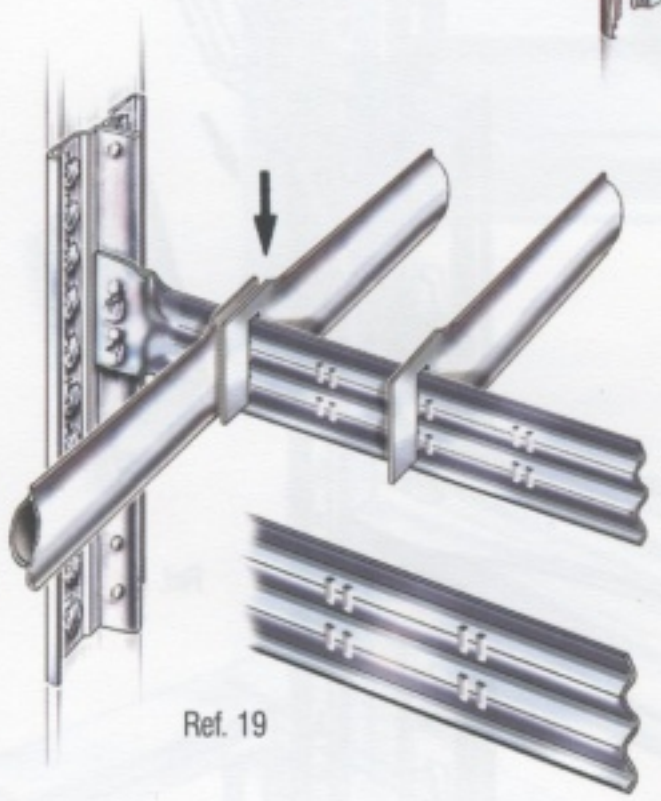
In order to prevent accidental lifting of the beams and shelves, the security pins should be used in all applications (Ref.22). Assembly instructions as per the sketch at right.

Label Holder

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



Ref. 20



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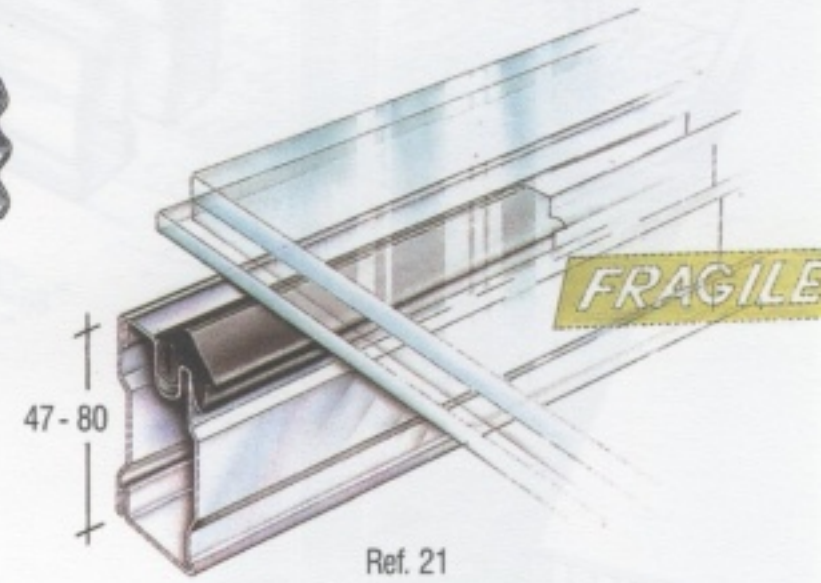

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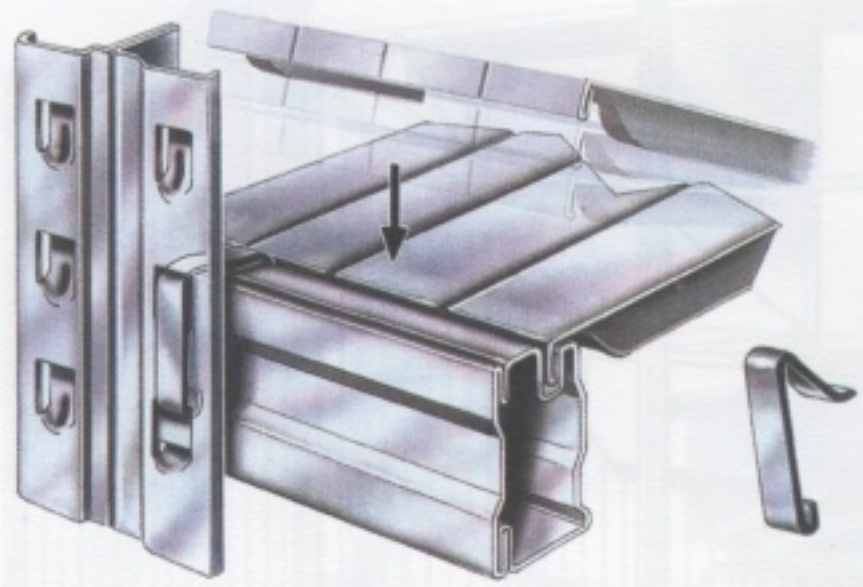

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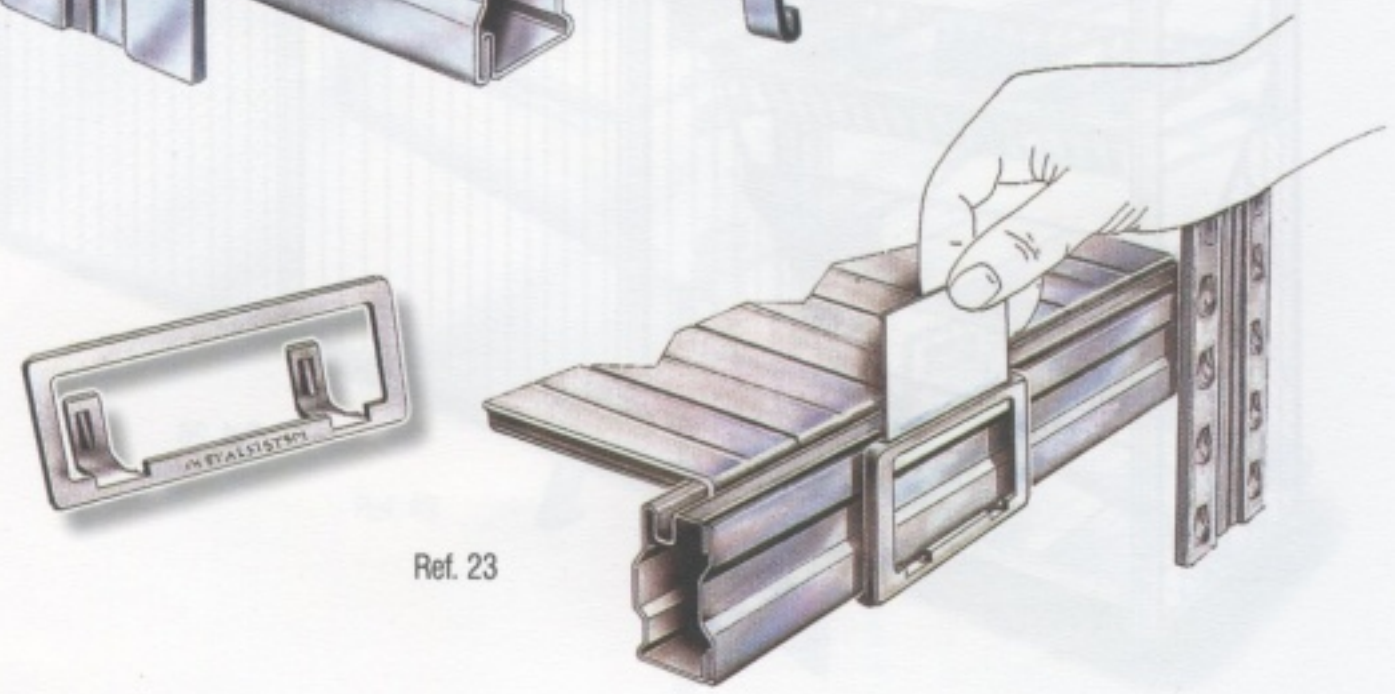

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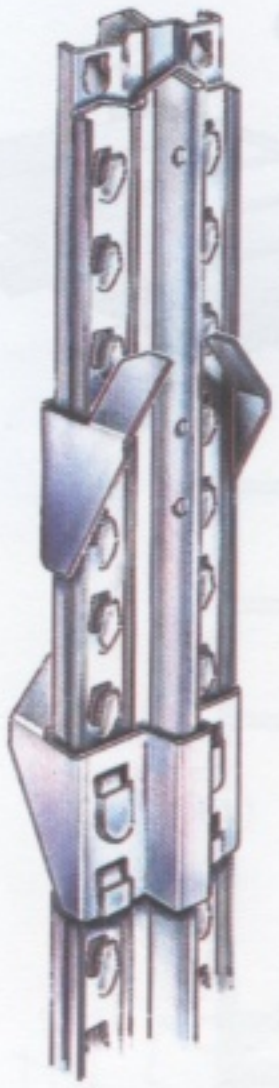
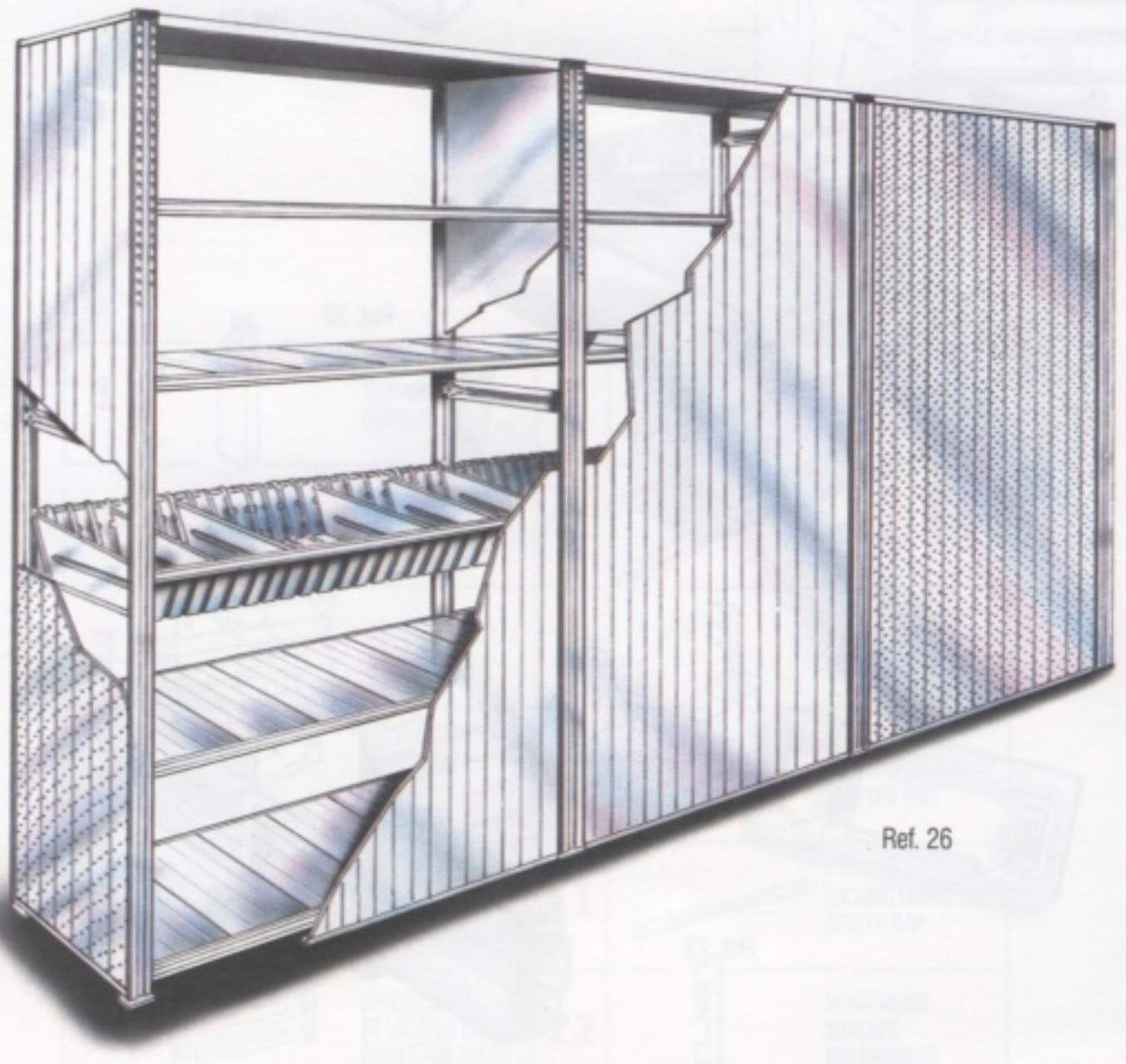


Ref. 24

Ref. 25



Ref. 26

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 ad mid height (Ref. 24).

Security pins for beams in back-to-back bays

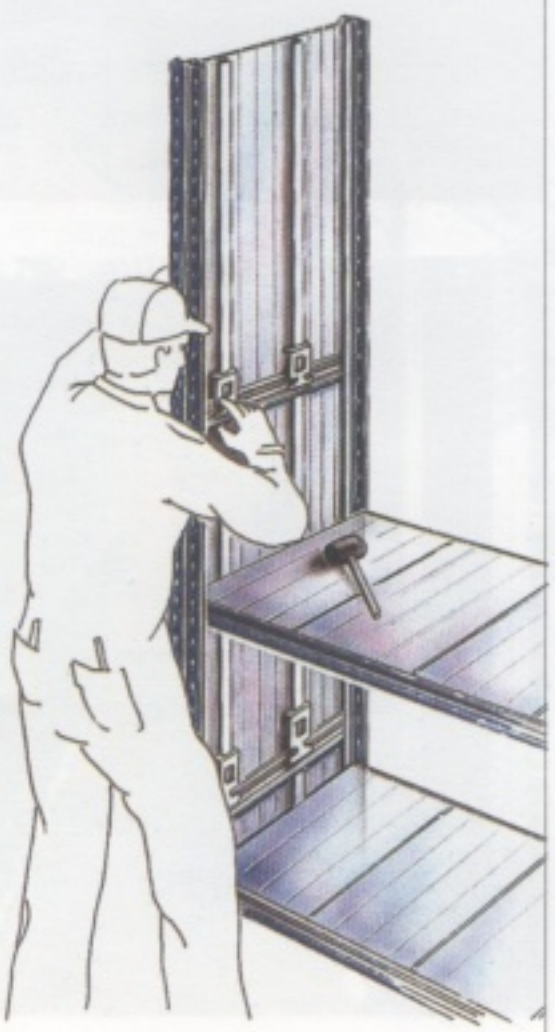
They are used to prevent accidental lifting of the beams when building back-to-back bays (Ref. 25).

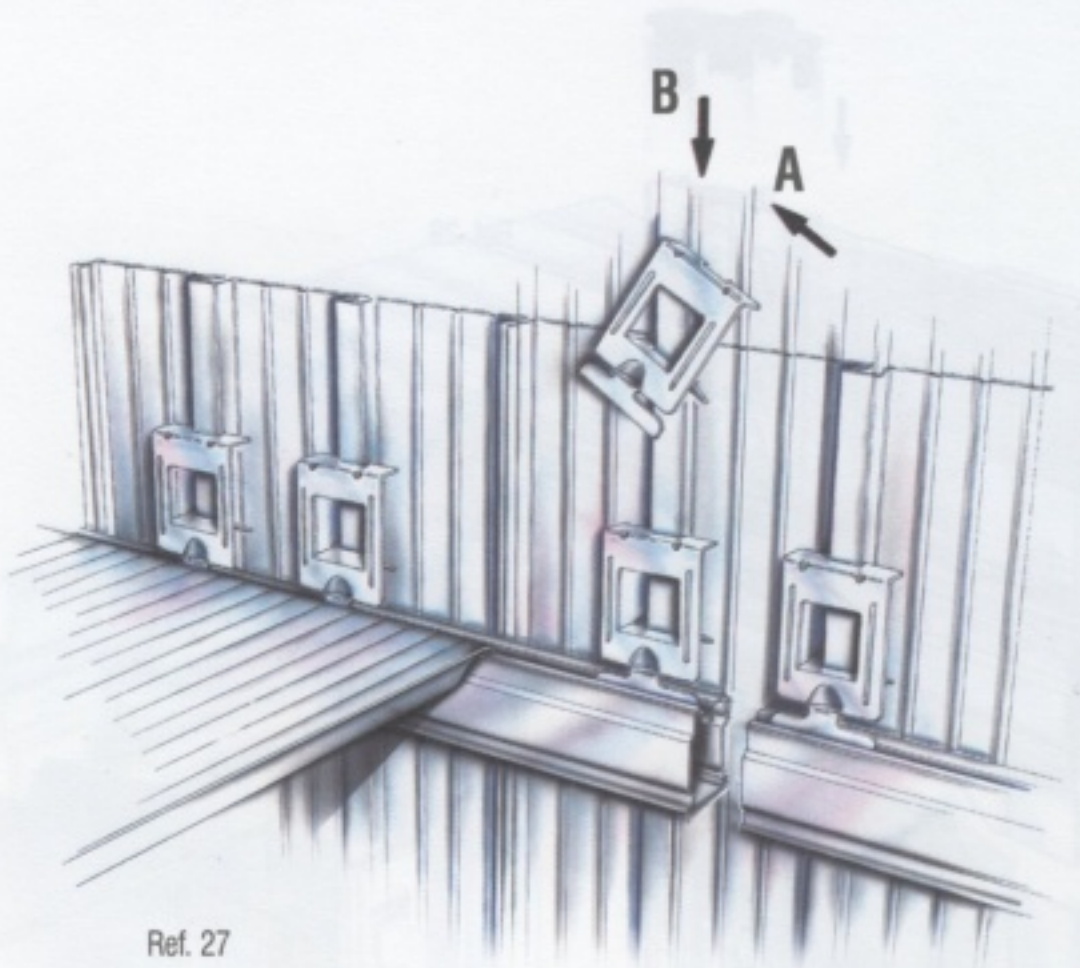
CLADDING BACK AND END PANELS H25

Back and end panels are produced in two standard sizes (200 wide x 25 mm profile and 300 wide x 25 mm) and in varying heights of 1485-1940-2480 mm. Back and end claddings in any dimension can be built up in a modular form, using channel profiles "U" and "H" as end and middle joints (Ref. 26).

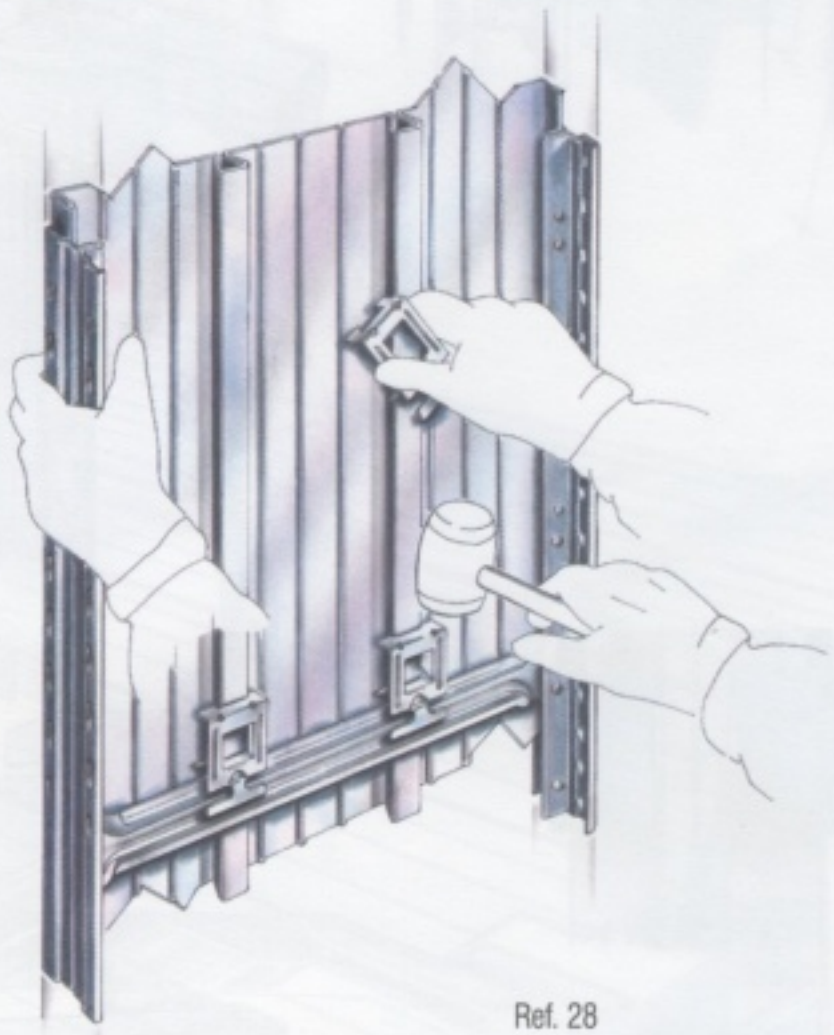
In the case of the standard modular back/end panels being lower than the respective frame, "H"-section profiles may be used at the bottom of the panels, to achieve equal height (Ref. 31).

Punched hole back and end panels H25 (according to European Standard) are also available, similar to those described before, with 5 mm holes at 25 mm centres.
Special fixing clips are used to fasten the back cladding (Art. 68108 - Ref. 27) and frame end panels (Art. 68107 - Ref. 28).

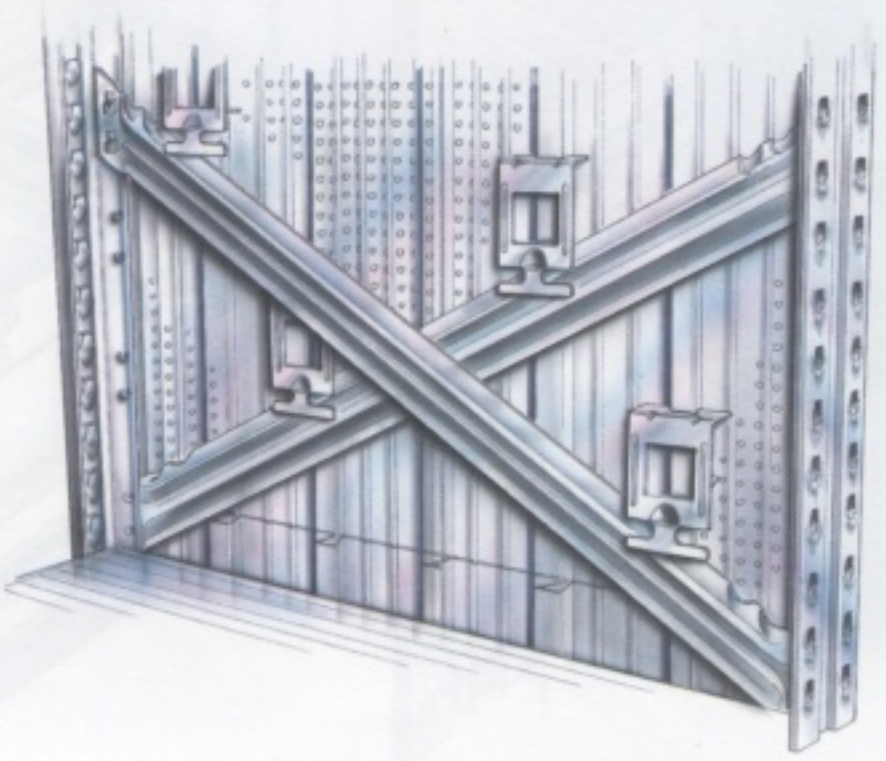




Ref. 27



Ref. 28



Ref. 29

Ref. 30

Ref. 31

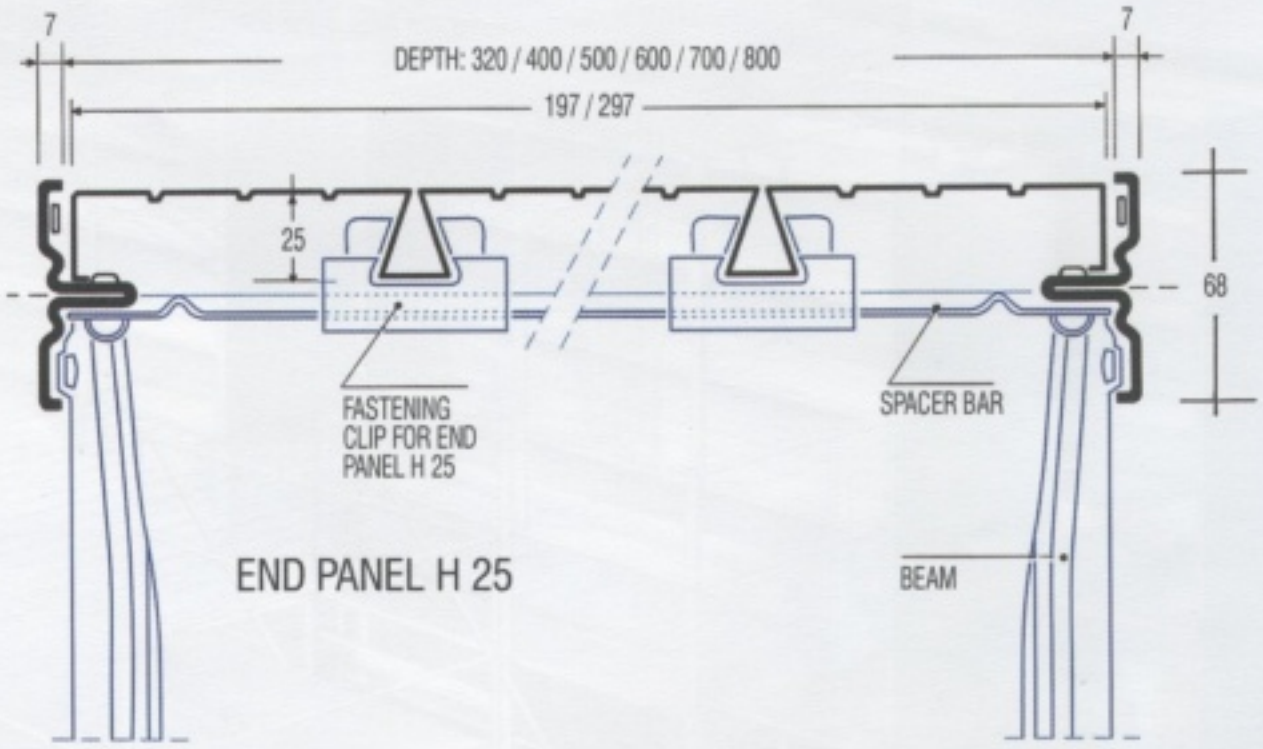
Back panels H 12 for back-to-back bays

These panels are produced in 600 and 900 mm wide modules and respective compensation panels and in varying heights of 1485-1940-2480 mm (Ref. 29). Any combination in height in the case of back-to-back bays can be made by locating a couple of SUPER 1 beams at junction points, as shown in the sketch at the bottom at left (Ref. 31).

Side cladding

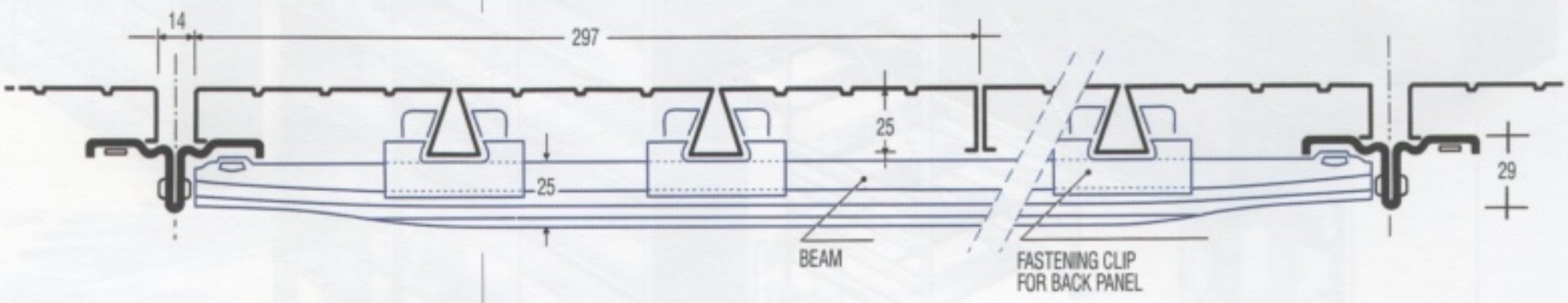
This type of cladding can be used to enclose individual bays within shelving runs and is available for all frame depths. Side cladding panels are fitted between the diagonal spacer bars of the frames. Side frame claddings of any height can be provided combining modular standard cladding panels locating "H" section middle joints (Ref. 30).
When ordering side frame claddings, the respective frames should be built with diagonal spacer bars only; i.e. the horizontal spacer bars have to be replaced with diagonals.

The sketches shown below and beside explain the design and assembly of the various cladding components.

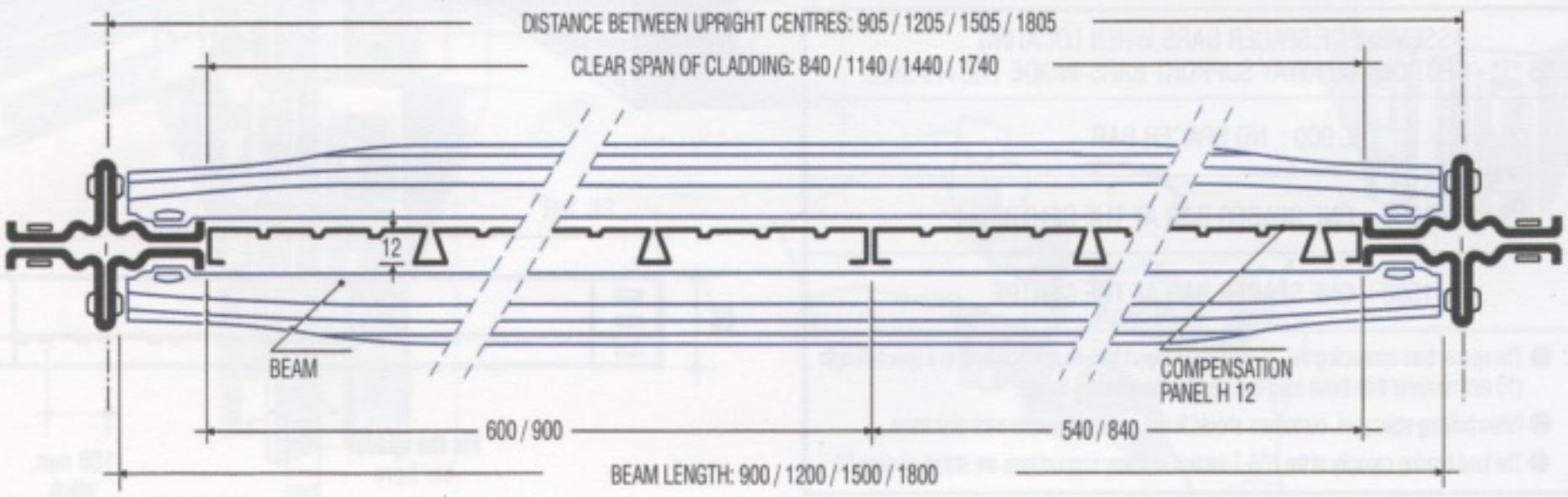


END PANEL H 25

BACK PANEL H 25

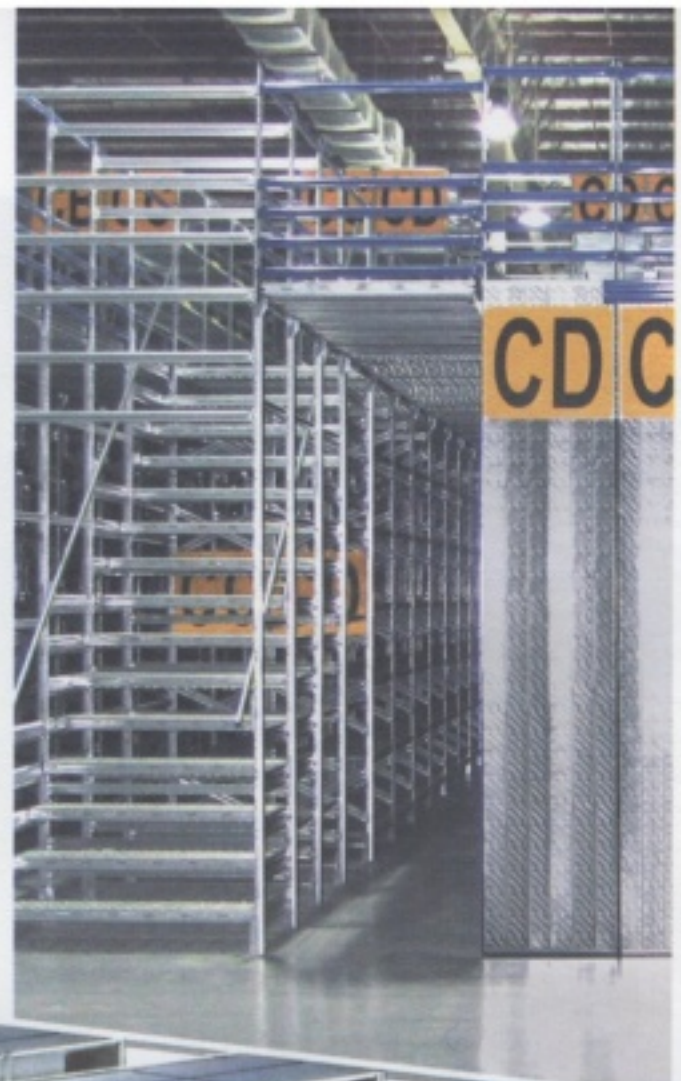


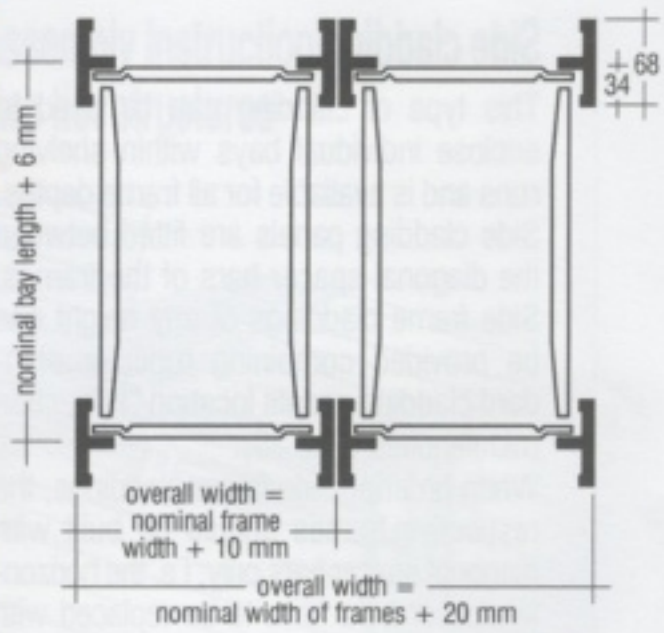
BACK PANEL H 12 FOR BACK-TO-BACK BAYS



SUPER 3
Two-tier-structures with suspended walkways
(max. load bearing capacity = 300 daN/m²)

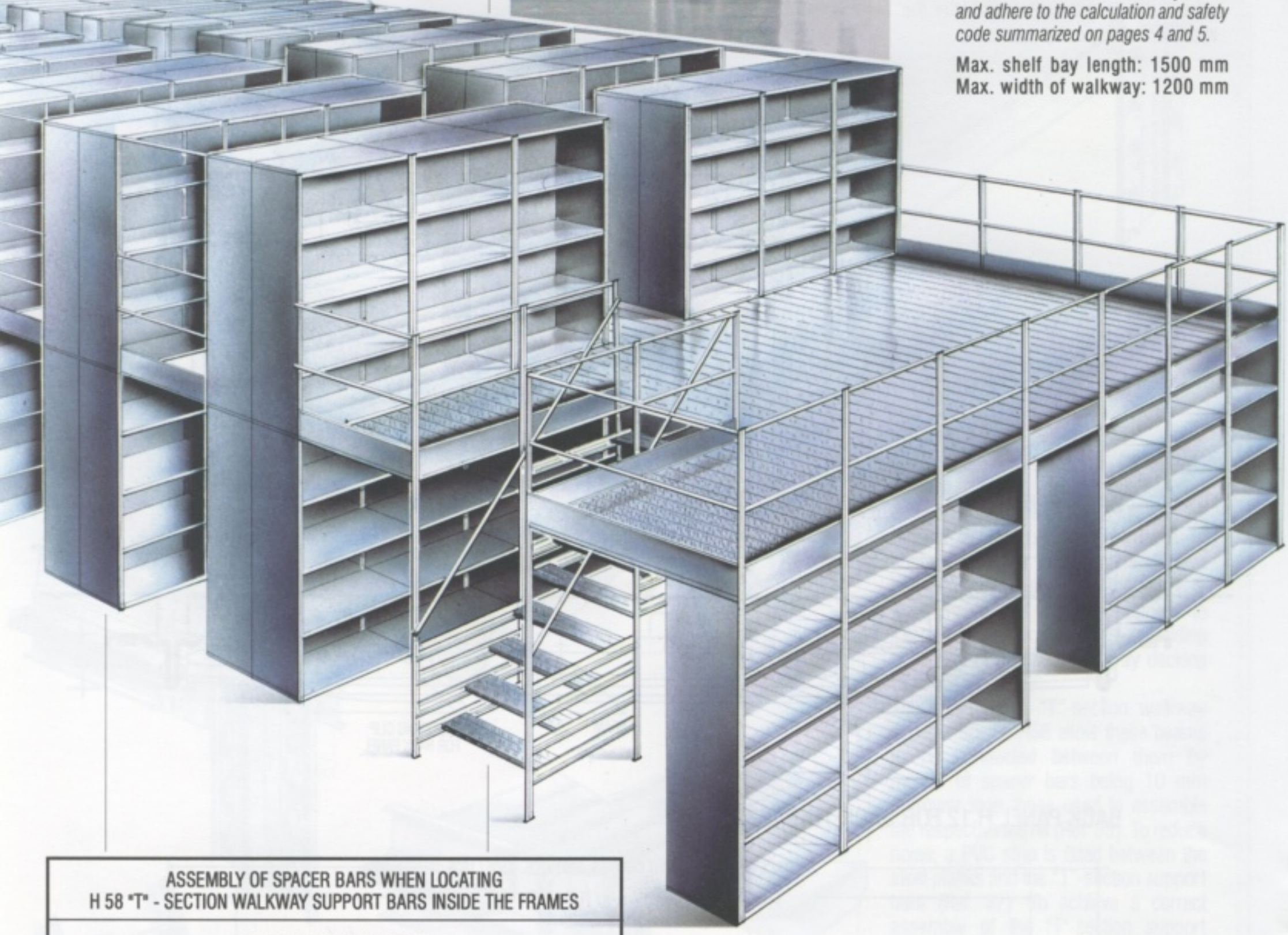
Two tier structures, even varied and complex have been designed by METAL-SISTEM combining light weight with high strength in the METALSISTEM tradition, avoiding any type of bolting or welding.





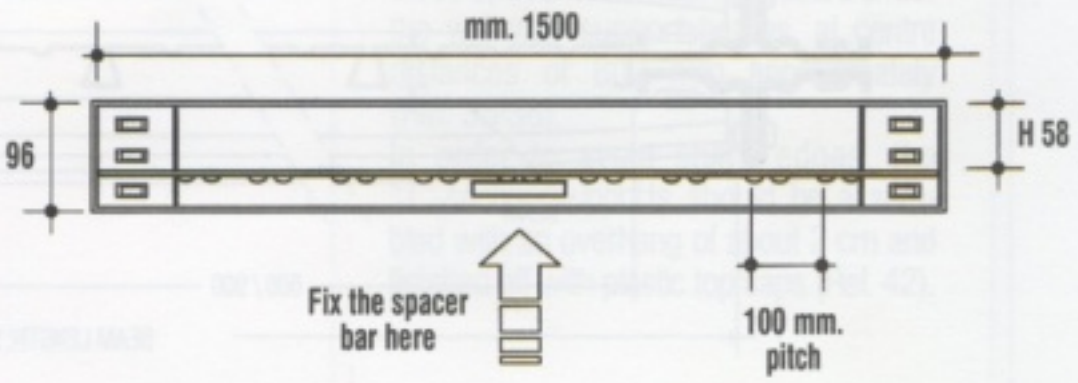
When designing two tier structures, consider the dimensions and details of the sketch shown above. Always refer and adhere to the calculation and safety code summarized on pages 4 and 5.

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



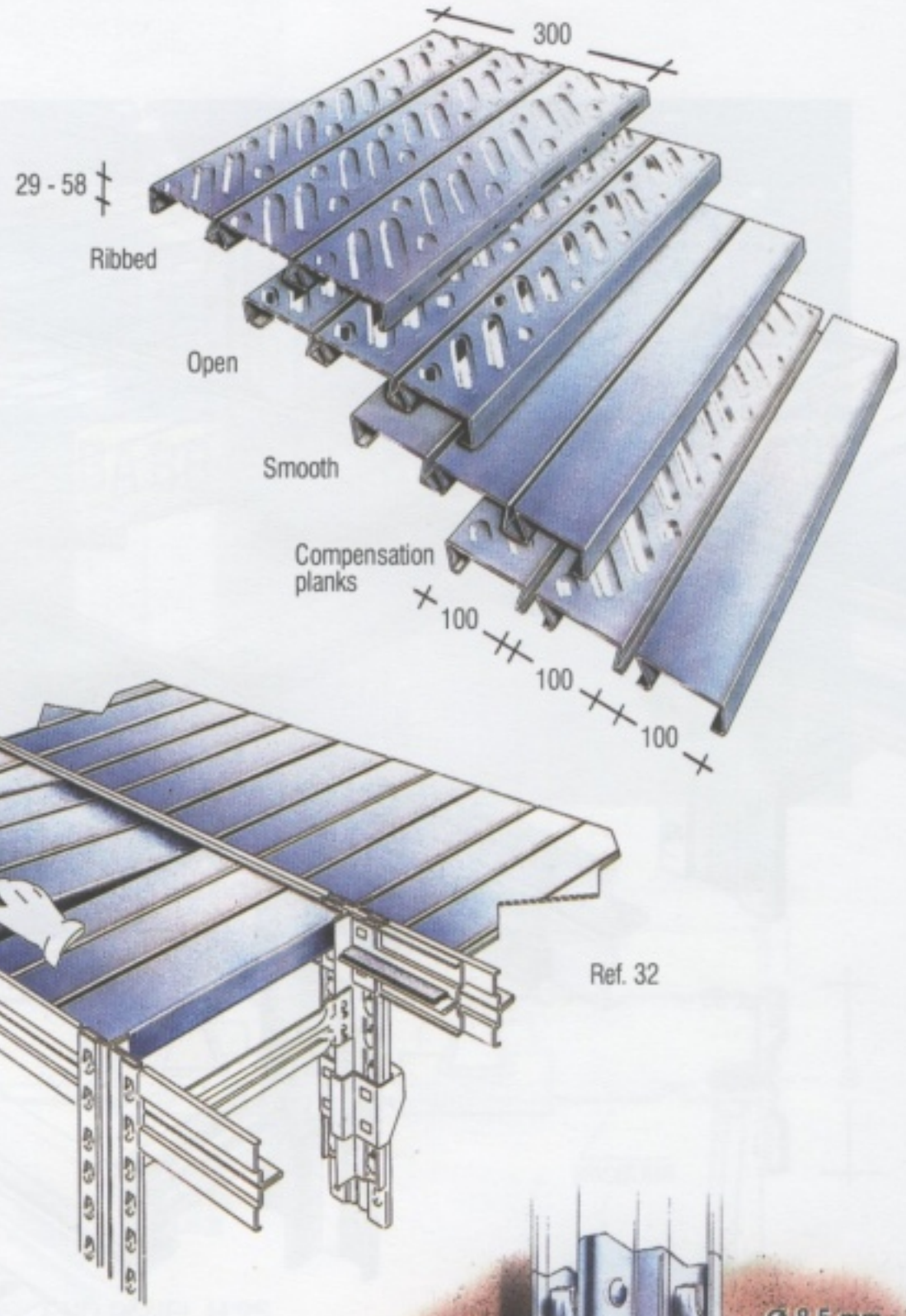
ASSEMBLY OF SPACER BARS WHEN LOCATING H 58 "T" - SECTION WALKWAY SUPPORT BARS INSIDE THE FRAMES
L 900 : NO SPACER BAR
L 1200 : ONE SPACER BAR AT THE CENTRE
L 1500 : ONE SPACER BAR AT THE CENTRE

NOTE:
- The spacer bars connecting the "T"-walkway support bars must be ordered in a special length (10 mm narrower than those used to assemble the standard frame).
- When building staircases, customers should fit one spacer bar under each stair tread.
- The load bearing capacity of the H58-T-section walkway support bars are stated on page 50.



Steel planks

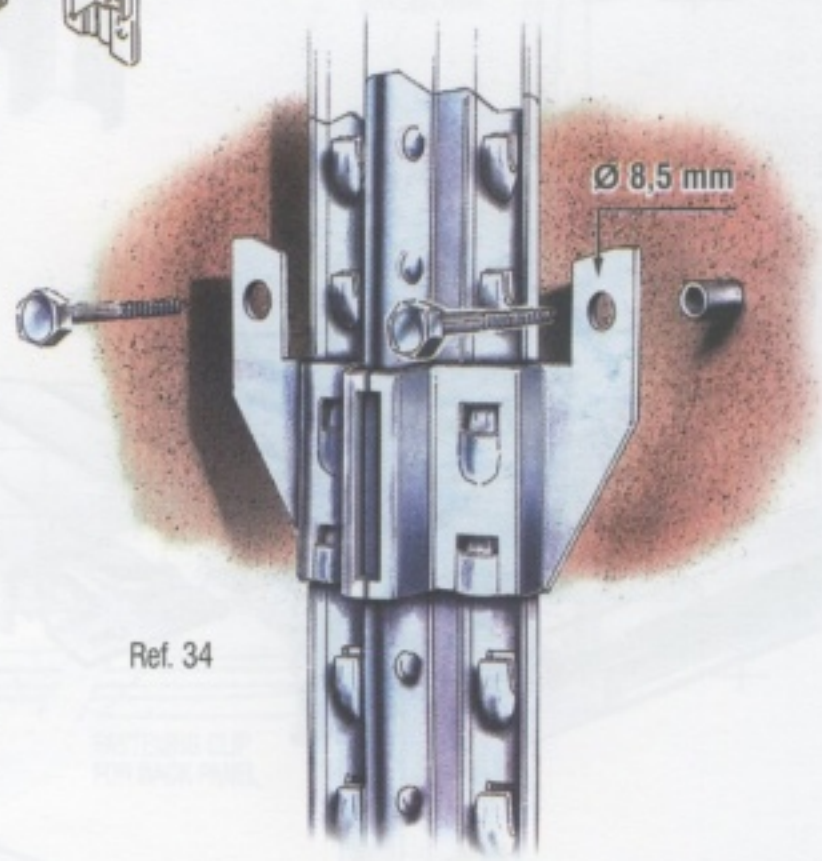
These can be supplied with three different surfaces: ribbed, open and smooth, together with compensation panels and fastening components. The steel planks are inserted into the "T" section supports by levering between the panel and the support (Ref.32). There are two types of steel planks: one for walk-through 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).



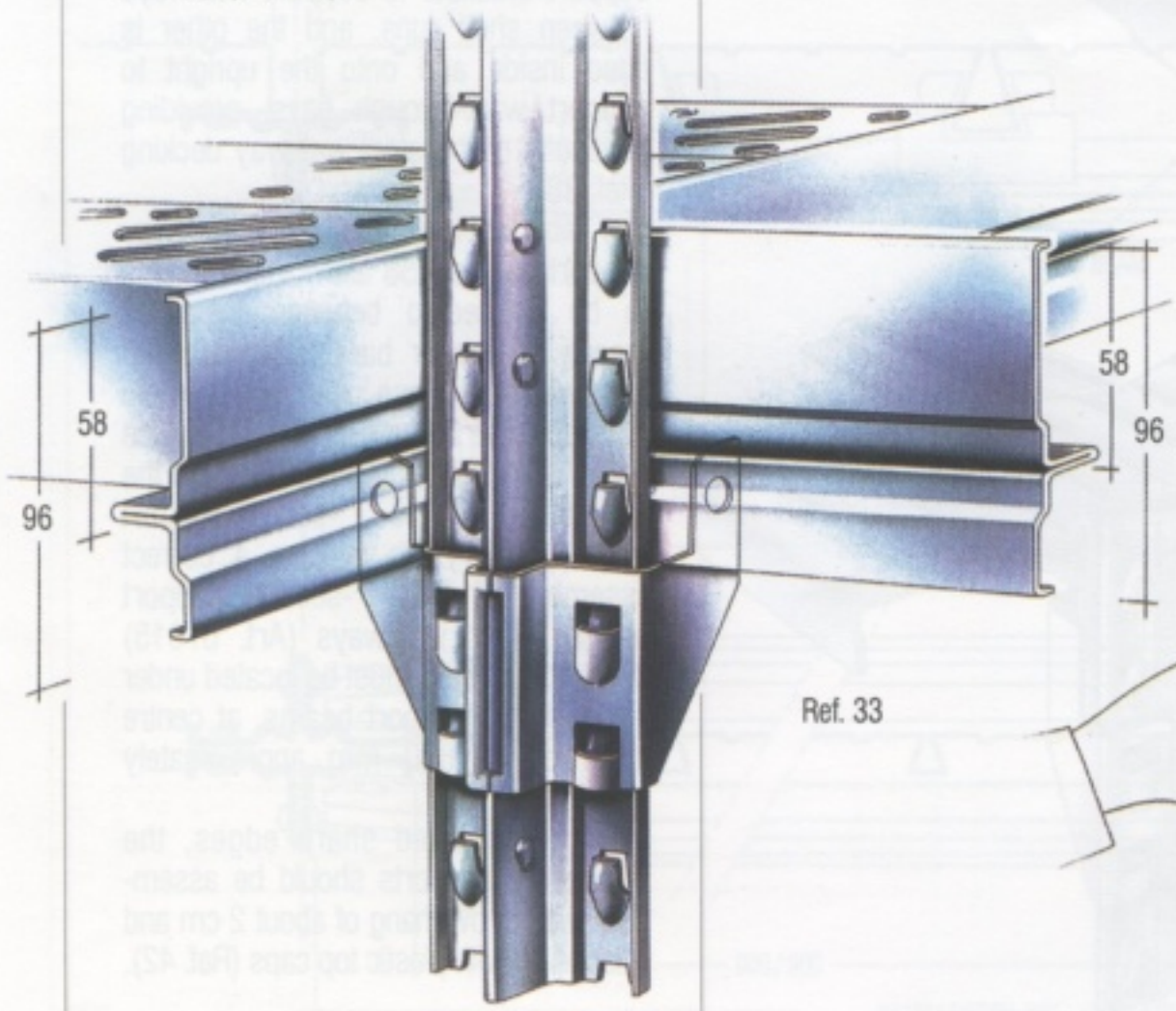
Ref. 32

"T-Section" Support Bracket - at 90°

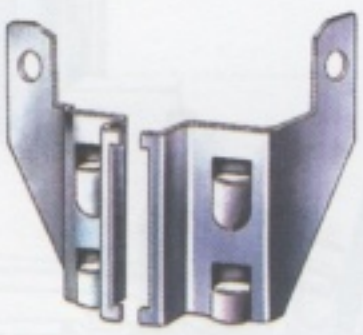
"T-Section" support bars can be located at 90° by assembling one half of a wall fastening bracket (art.nr. 65022) (Ref. 34) and one half of a "T-section" support bracket (art.nr. 67022) (Ref. 33).
Wall fastening brackets are also available, similar to the above, providing a method to fix the frames to a wall for stability (Ref. 34).



Ref. 34

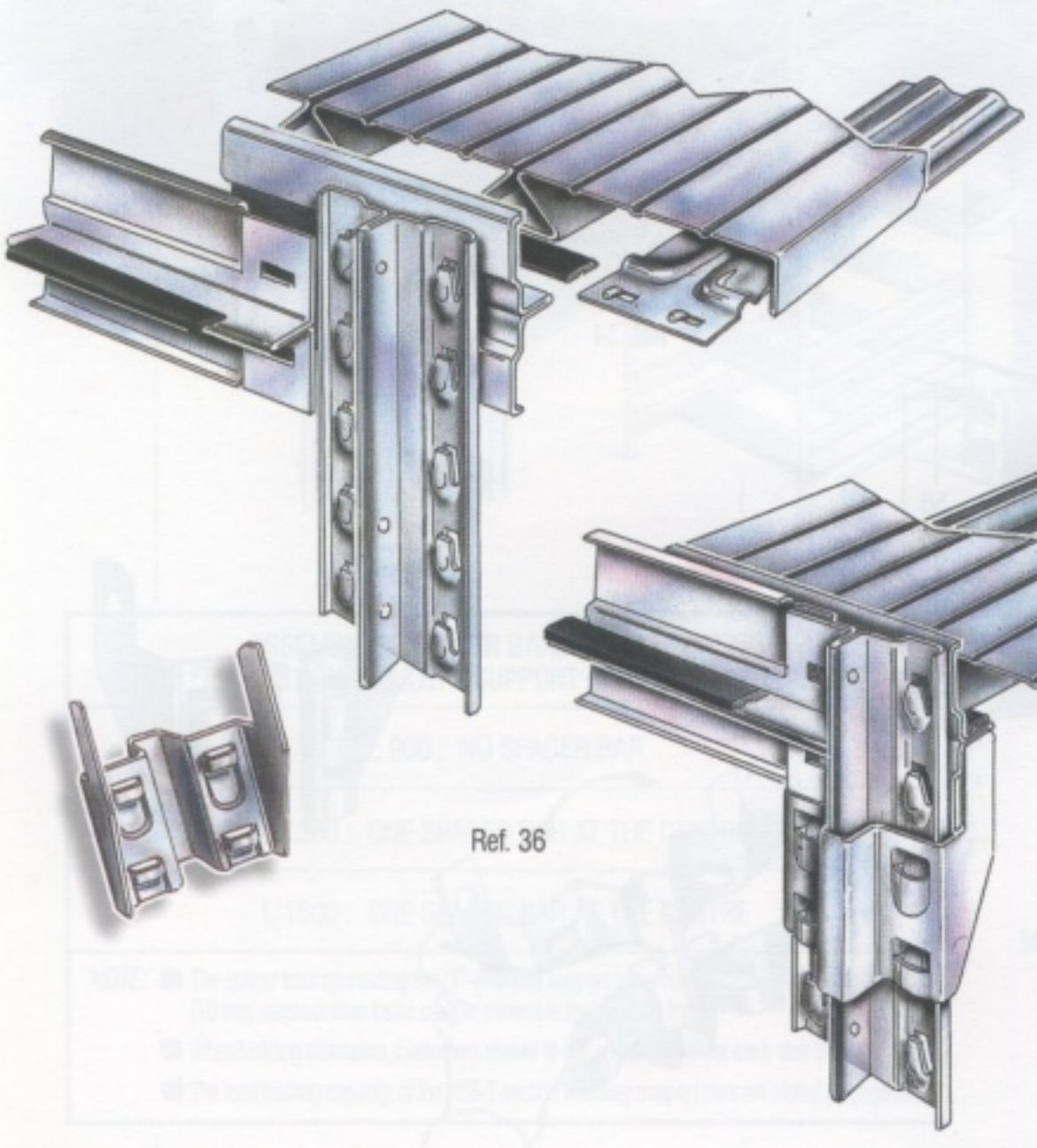


Ref. 33



Assembly instructions
Two tier structures

Ref. 35



Ref. 36

There are two types of "T"-section walkway supports for the construction of two-tier-structures: one is fitted on the outside of the upright by means of support brackets to support walkways between shelf runs, and the other is fitted inside and onto the upright to support walk-through bays, providing continuity of the steel walkway decking (Ref. 38).

The nibs on the "T"-section walkway support beams H58 allow these beams to be connected between them by means of spacer bars being 10 mm narrower than those used to assemble the respective frame (Ref. 35). To reduce noise, a PVC strip is fitted between the steel planks and the "T"-section support bars (Ref. 37). To achieve a correct assembly of the "T"-section support beams within walkways (Art. 67015) these spacer bars must be located under the walkway support beams, at centre distances of 800 mm approximately (Ref. 35/36).

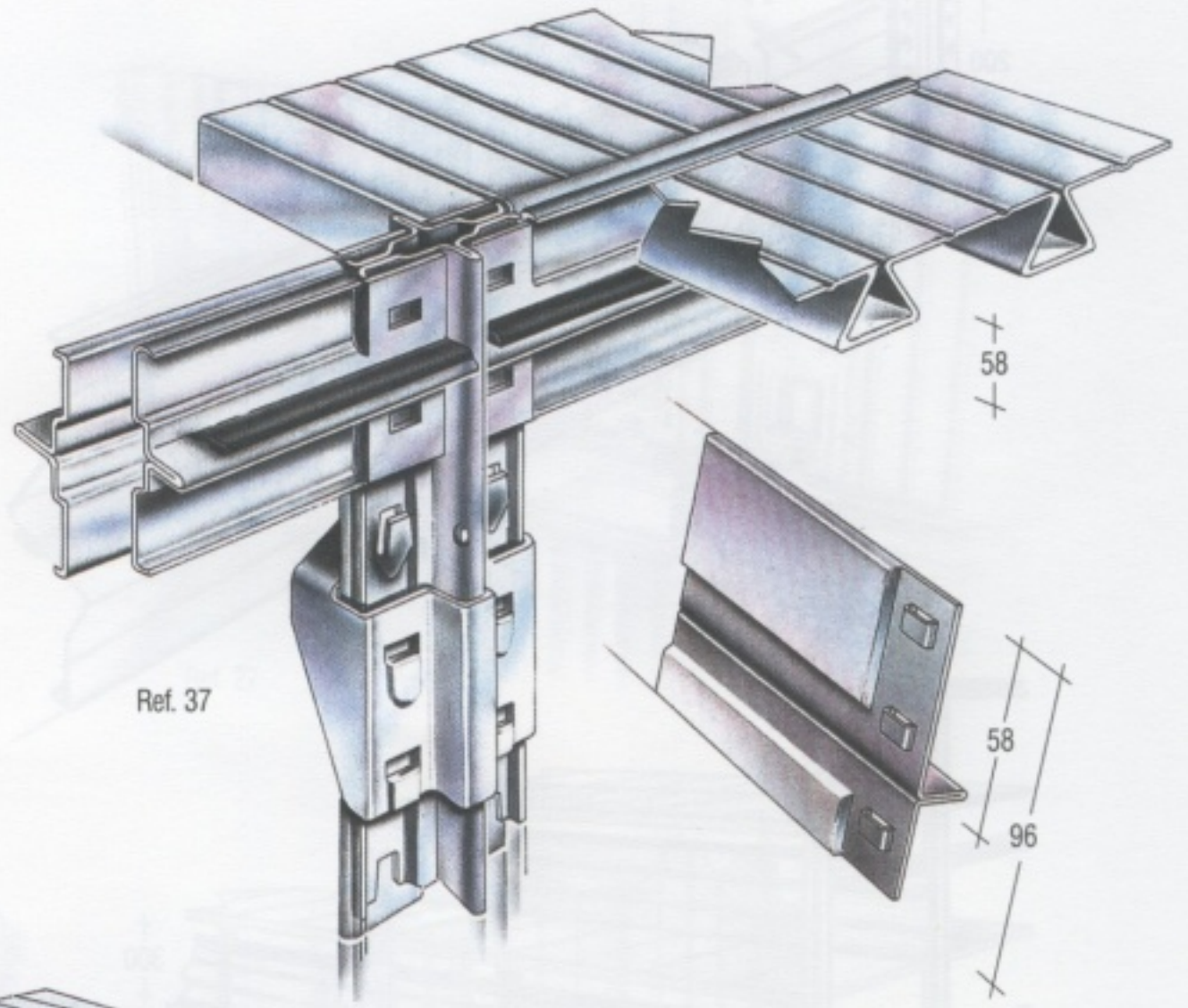
In order to avoid sharp edges, the "T"-section supports should be assembled with an overhang of about 2 cm and finished off with plastic top caps (Ref. 42).

For fixing back-to-back frames together, use the two-tier support bracket, bending the tongues behind the second upright, as shown on Ref. 37.

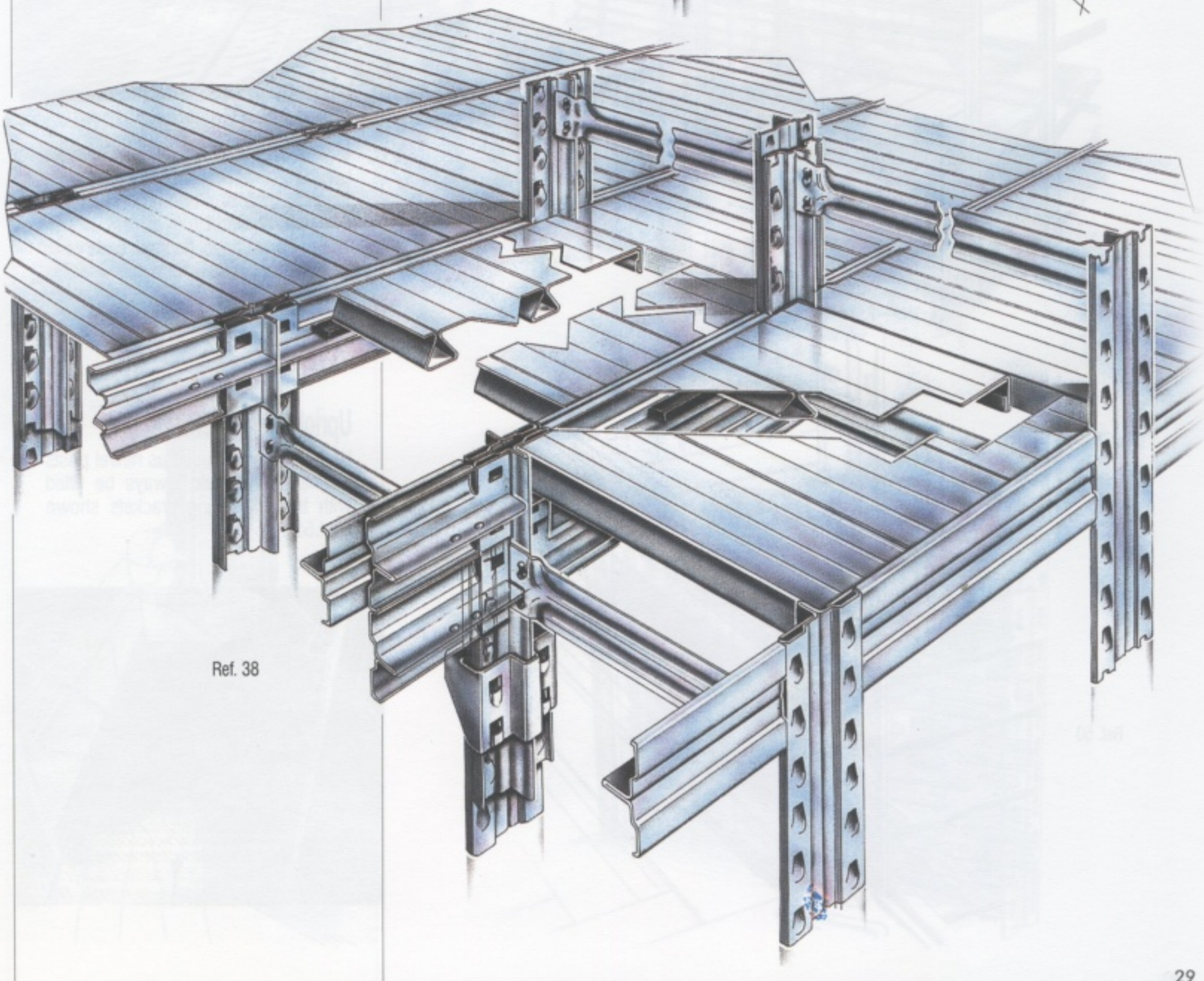
When designing two-tier structures, remember that the overall width of every frame and every walkway will be about 10 mm more than the length of the spacer bar used. Also, when calculating the total length of runs, allow for approximately 6 mm of "creep" per bay (see page 26).

When using any other type of flooring, it is important to note that the floor panel itself will be 4 mm narrower than the spacer bars used to assemble the walkways and respectively 12 mm narrower than the spacer bars used to assemble walk-through-bays.

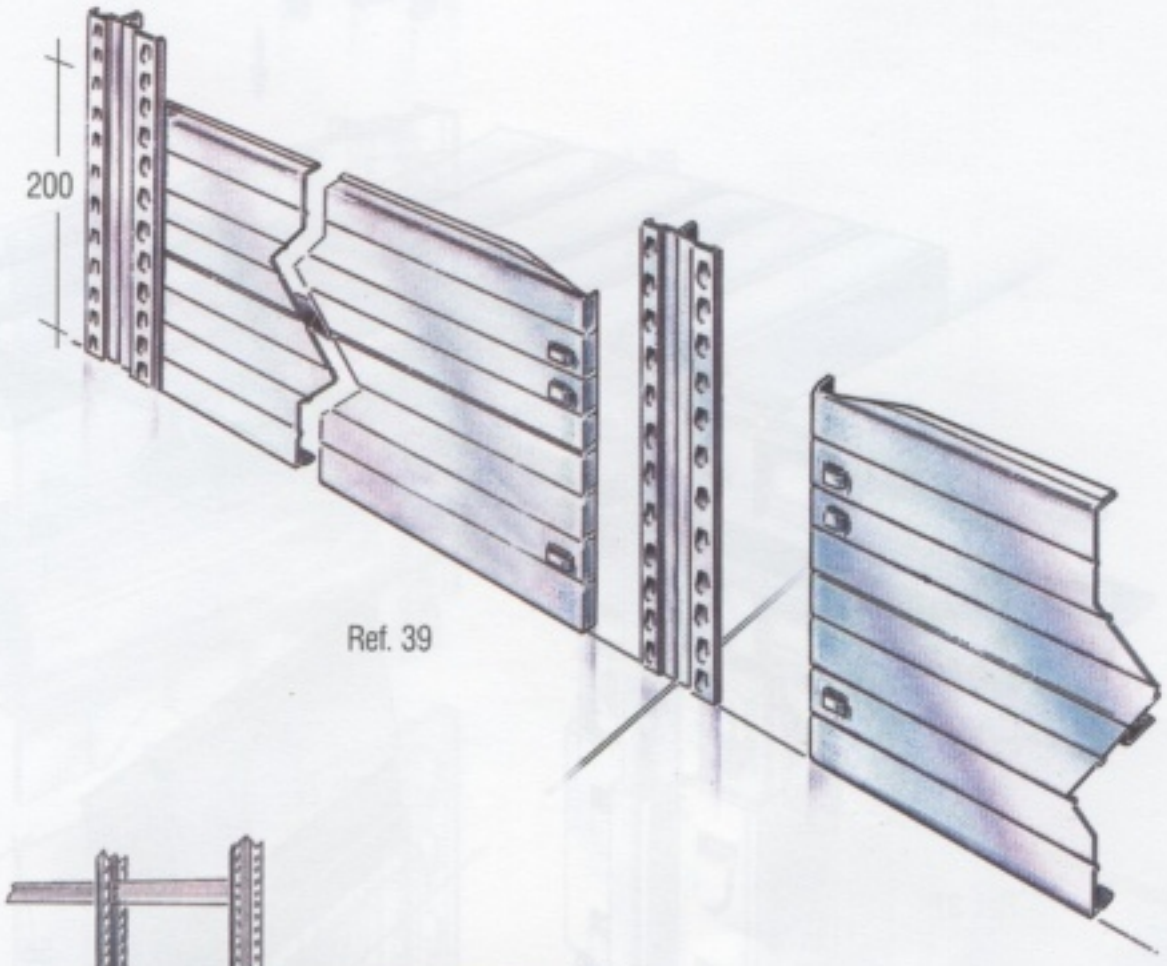
In all cases, only SUPER 3 components should be used when designing two-tier-structures.



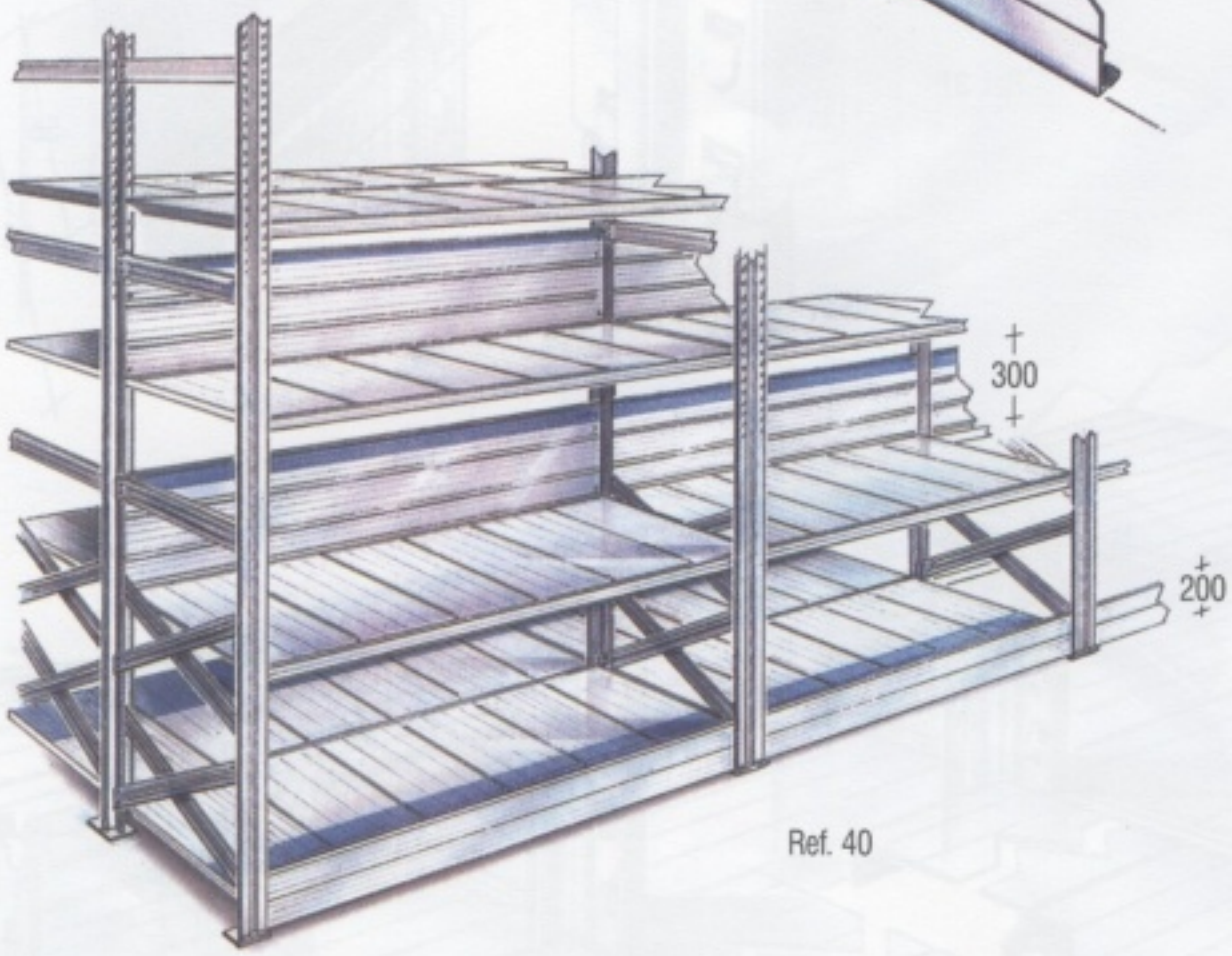
Ref. 37



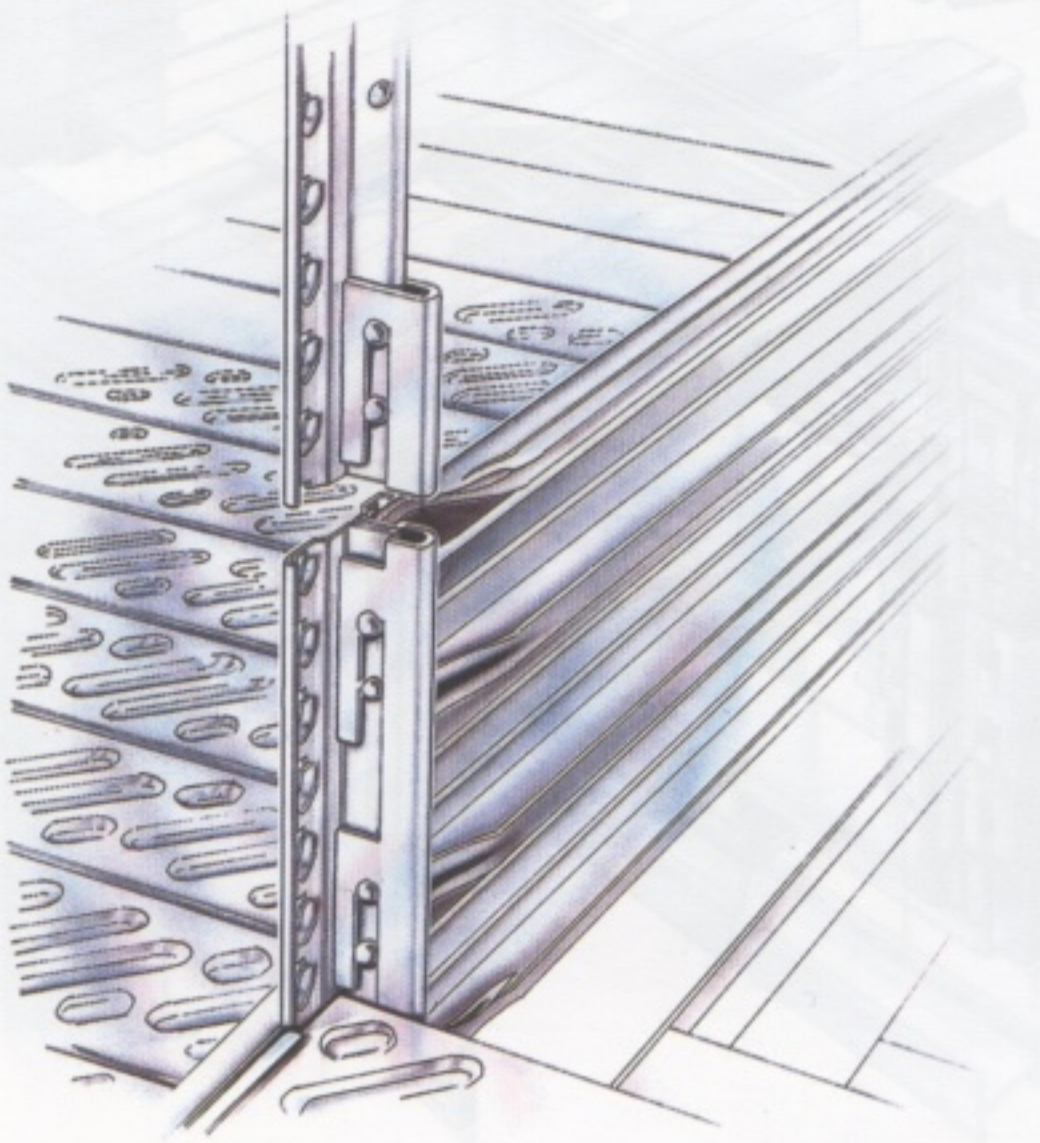
Ref. 38



Ref. 39



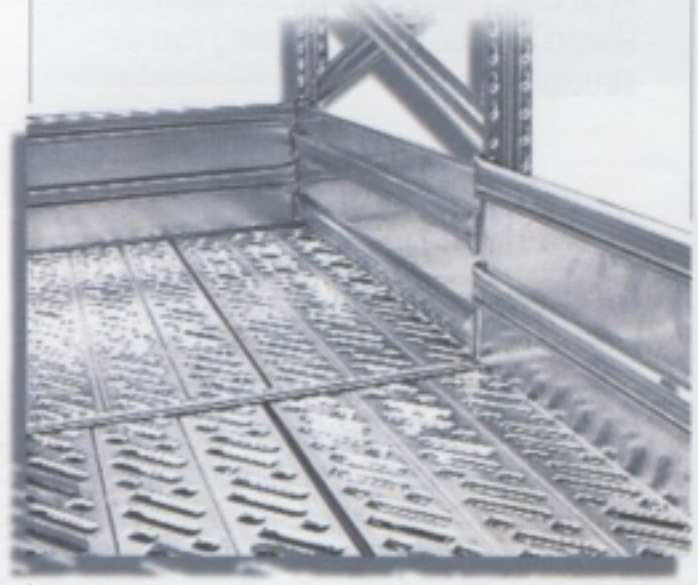
Ref. 40



Ref. 50

Kickboards

Three different types of kickboards are available: for use in the direction of the beams, at the end of a run within uprights, or for walkway ends.
Kickboards are made from two oval shaped tubes (the same items used to build the handrails) fixed to the uprights and finished off with a metal sheet element located onto the oval shaped tubes by self tapping screws.
For correct ordering of these items and dimensions, please see instructions on page 48 of this brochure.
The use of beam retaining clips is mandatory.



In the direction of the beams, shelf boards are available in two different heights, 200 or 300 mm (article n° 64016-64040).
These items have flanged ends with slots to be located onto the uprights (Ref. 39).

Upright reinforcement

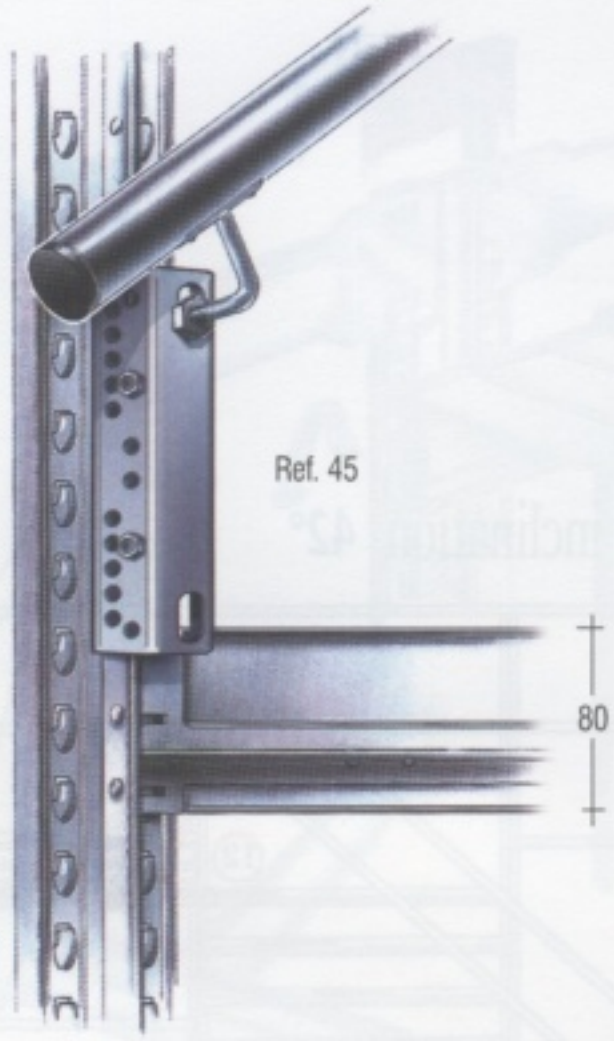
Uprights that are used as newel posts for handrail should always be fitted with the reinforcing brackets shown (Ref.50).

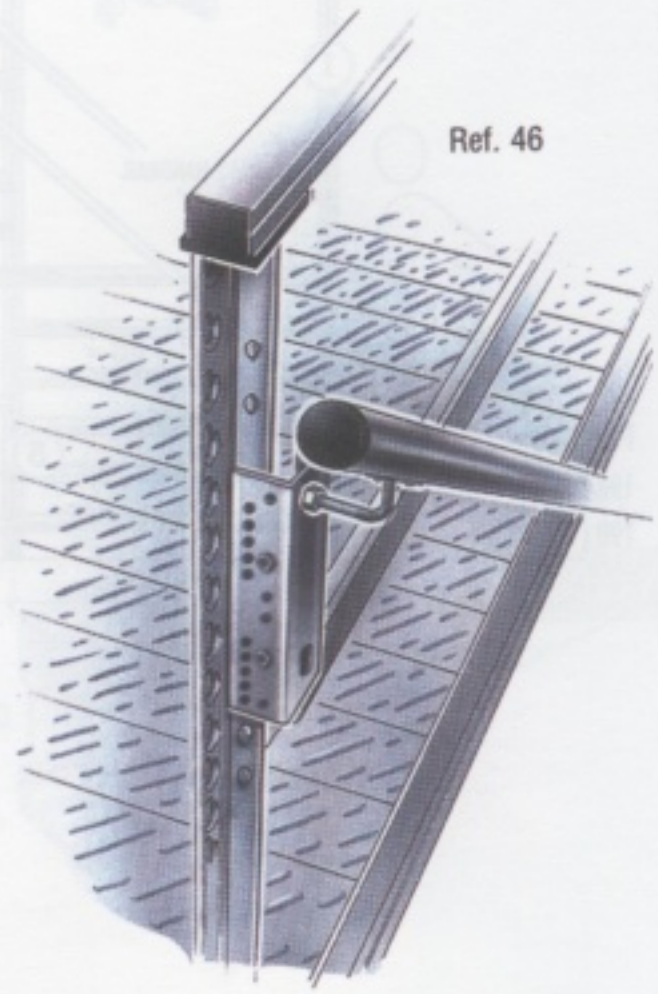
Hand rails

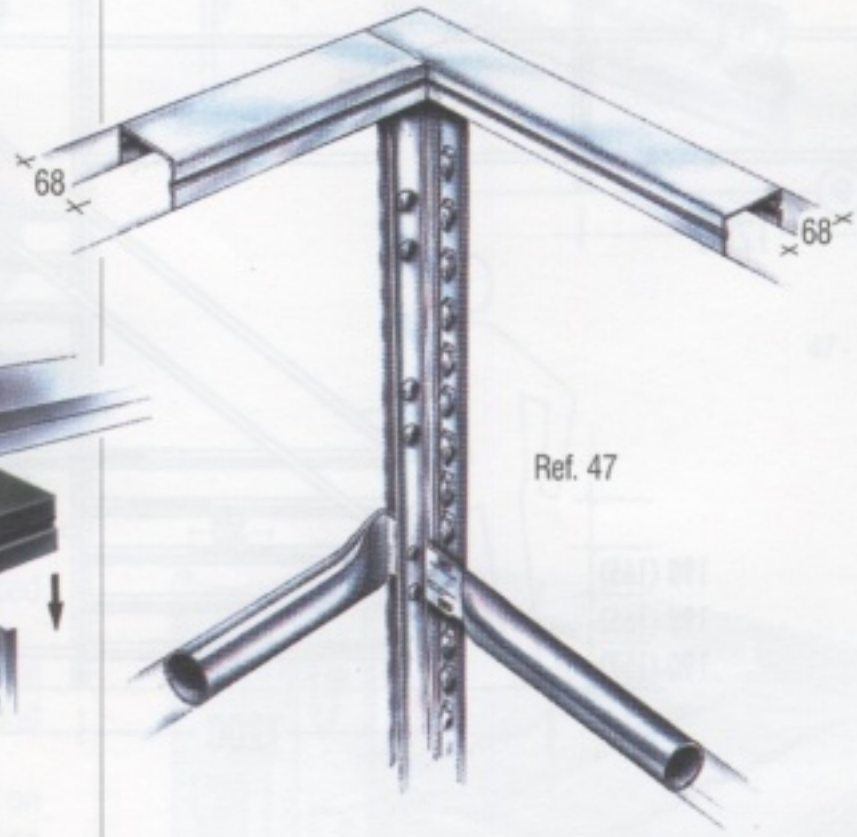
Hand rails and knee rails are made from oval shaped beams. For correct ordering of these items, please see instructions on page 48 of this brochure.
The use of beam retaining clips and upright tops caps is mandatory.
Handrails on two-tier structures can also be built with "U"-section profiles assembled in conjunction with special P.V.C. supports.
These supports can also be used to finish off the handrails at their ends (Ref. 47-48).

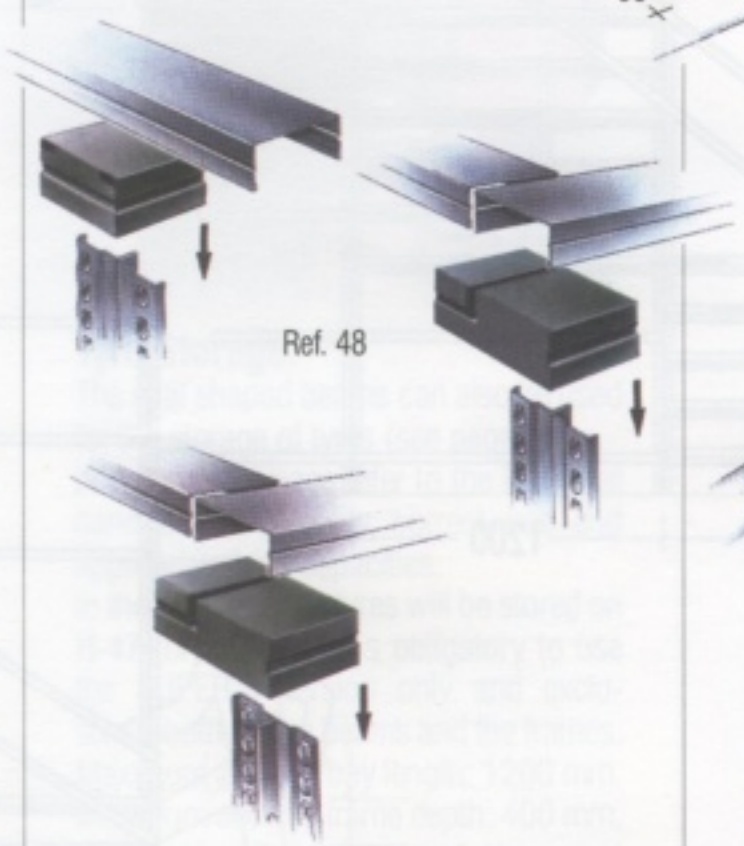
Staircase handrails

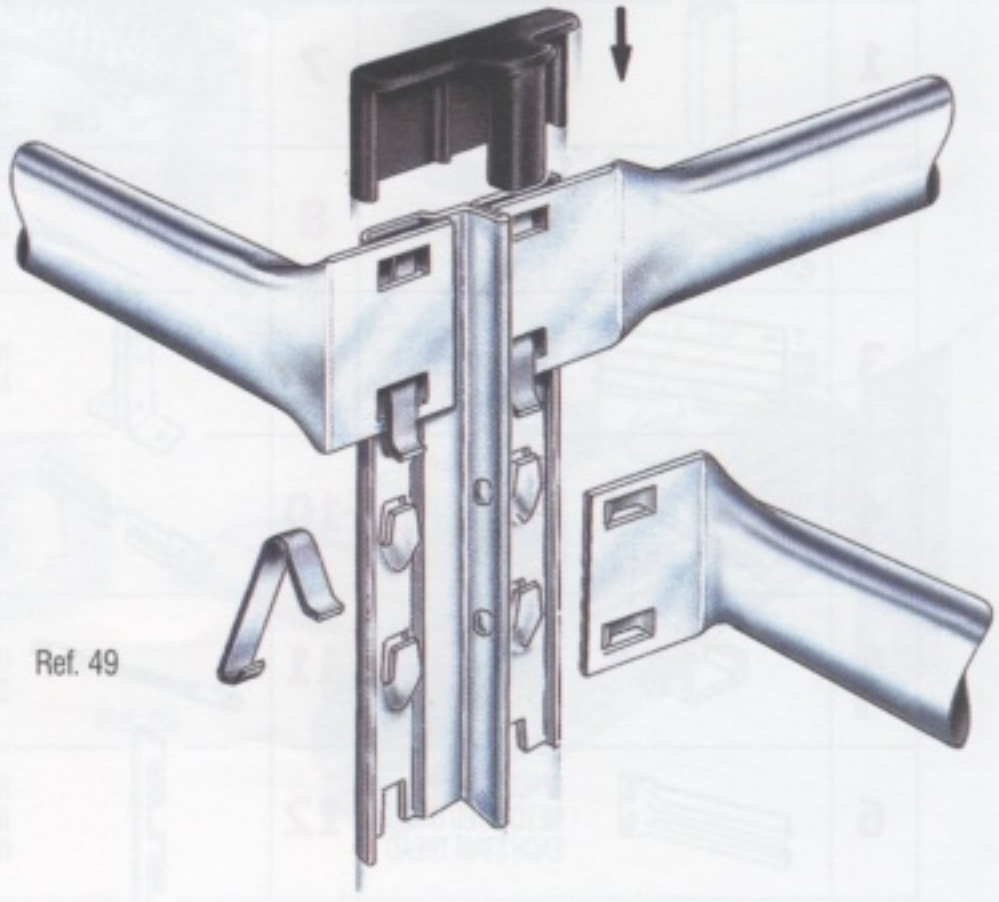
Thanks to the handrail support bracket (Ref. 45), the staircase handrail can be easily located on the uprights, without any need to drill holes.







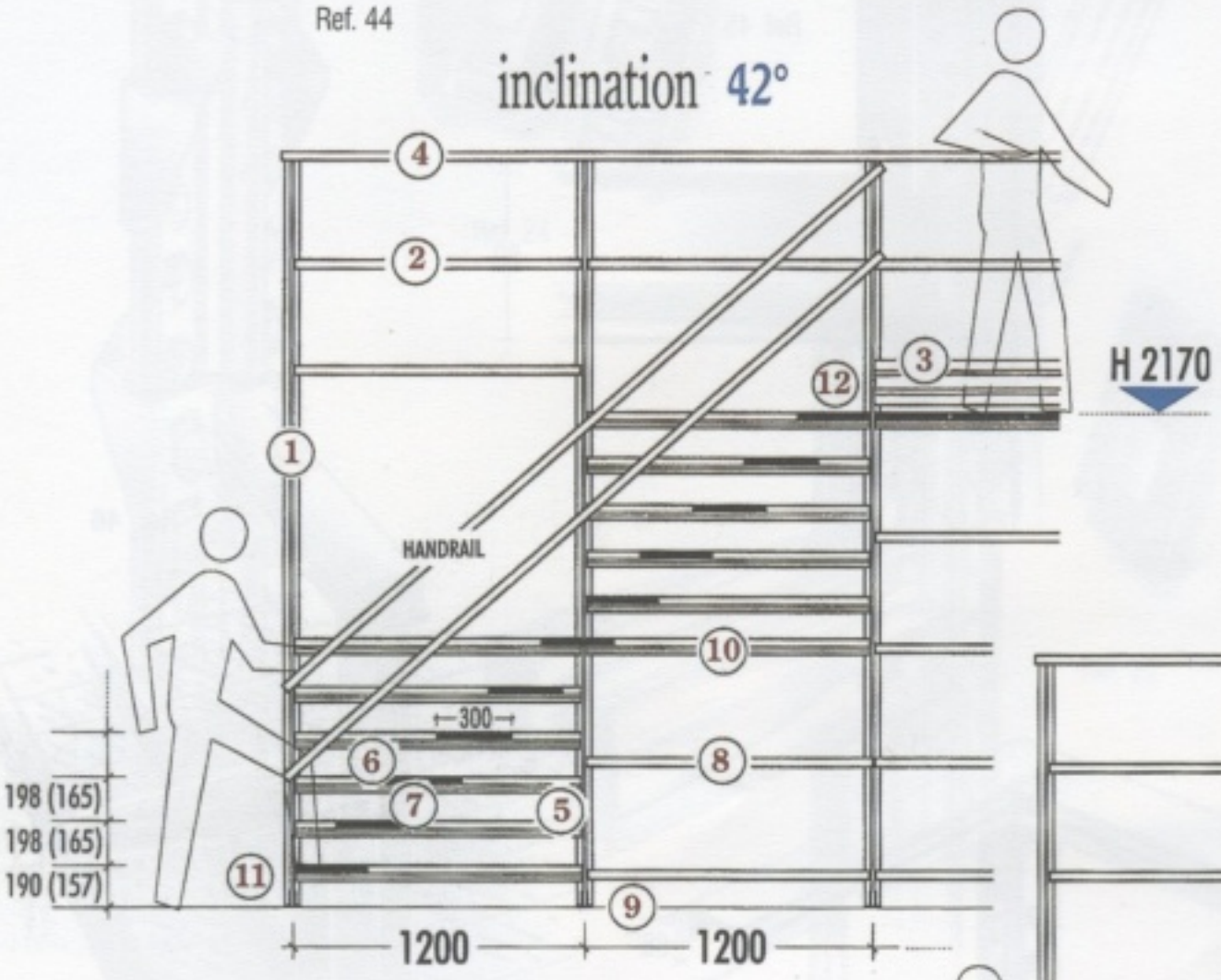


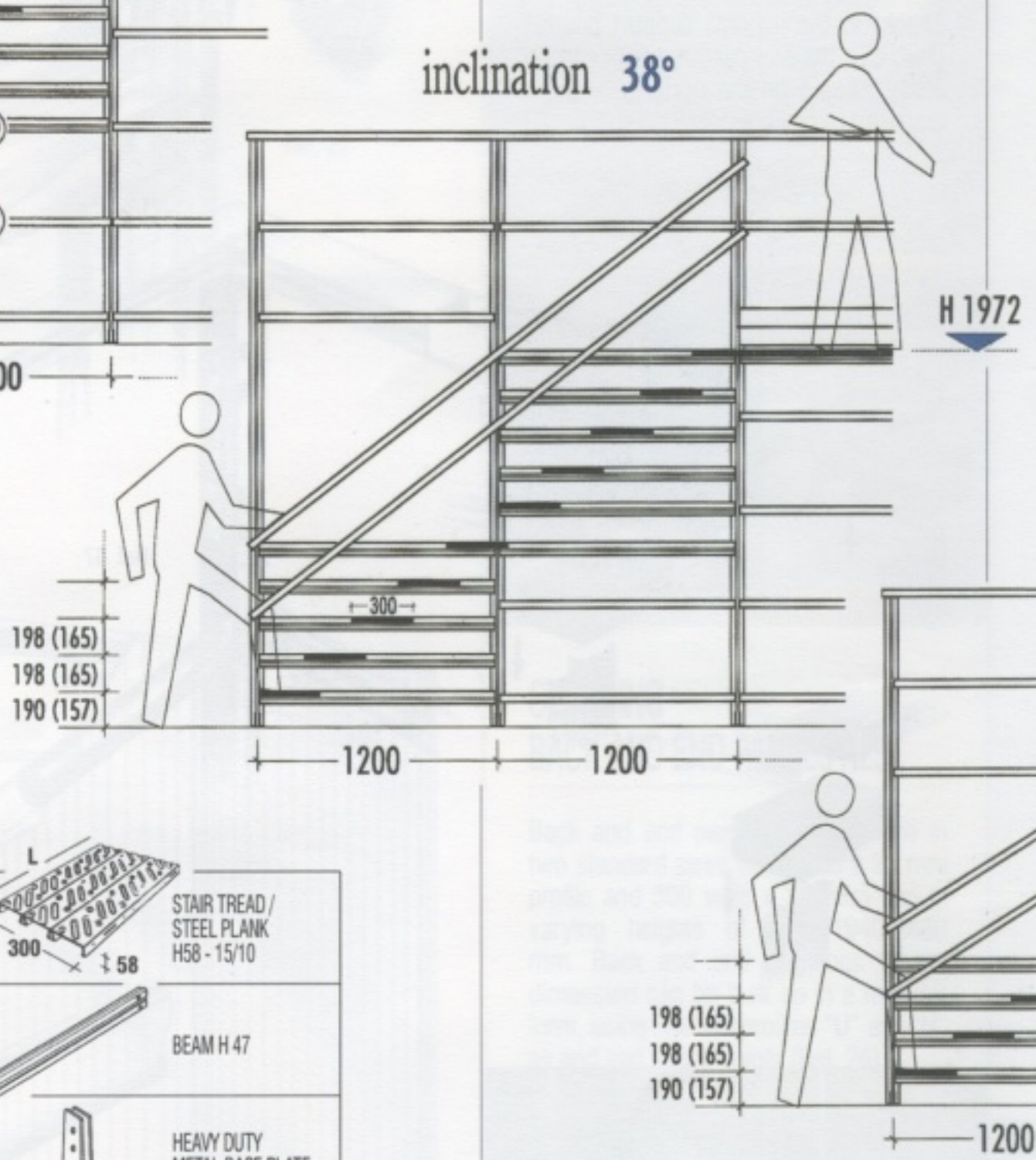


STAIRCASES

These can be built using standard components. The length of the stair treads is specified as a steel plank with a dimension between uprights. The stair treads will be fixed with two special clips (Art. n° 69829).
To improve the stability and load bearing capacity of the staircase, the "T" section beams H58 should be assembled by fitting one spacer bar under each stair tread. These spacer bars will be 10 mm narrower than those used to assemble normal standard frames.

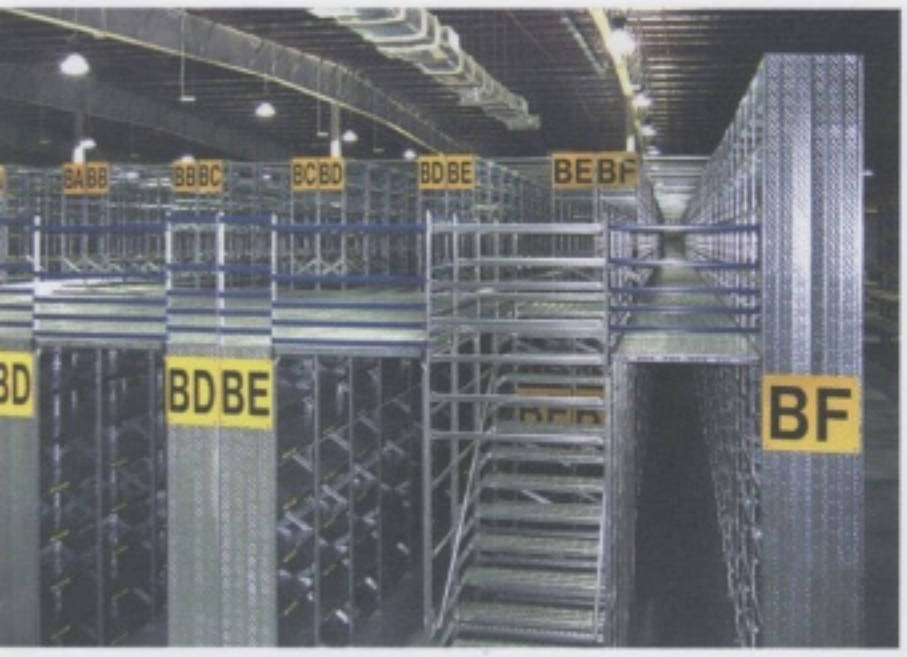
Ref. 44

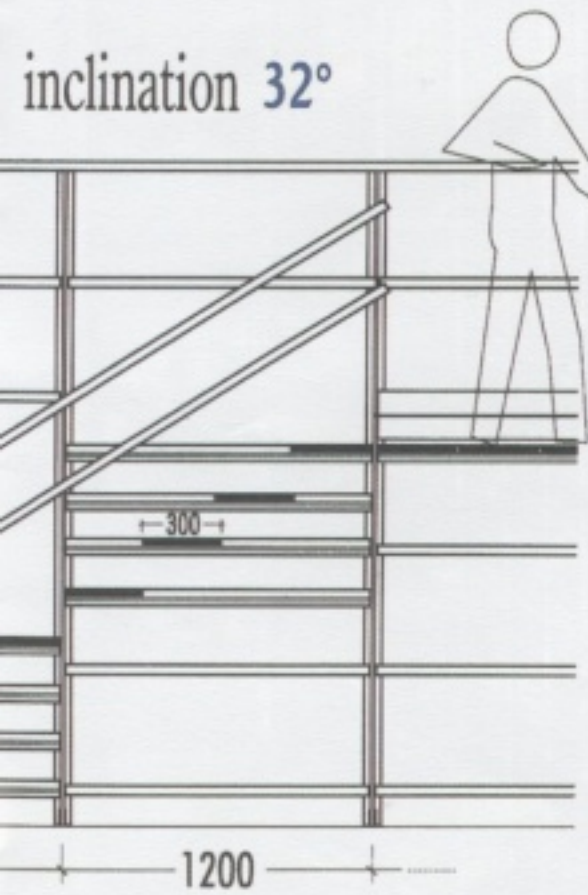


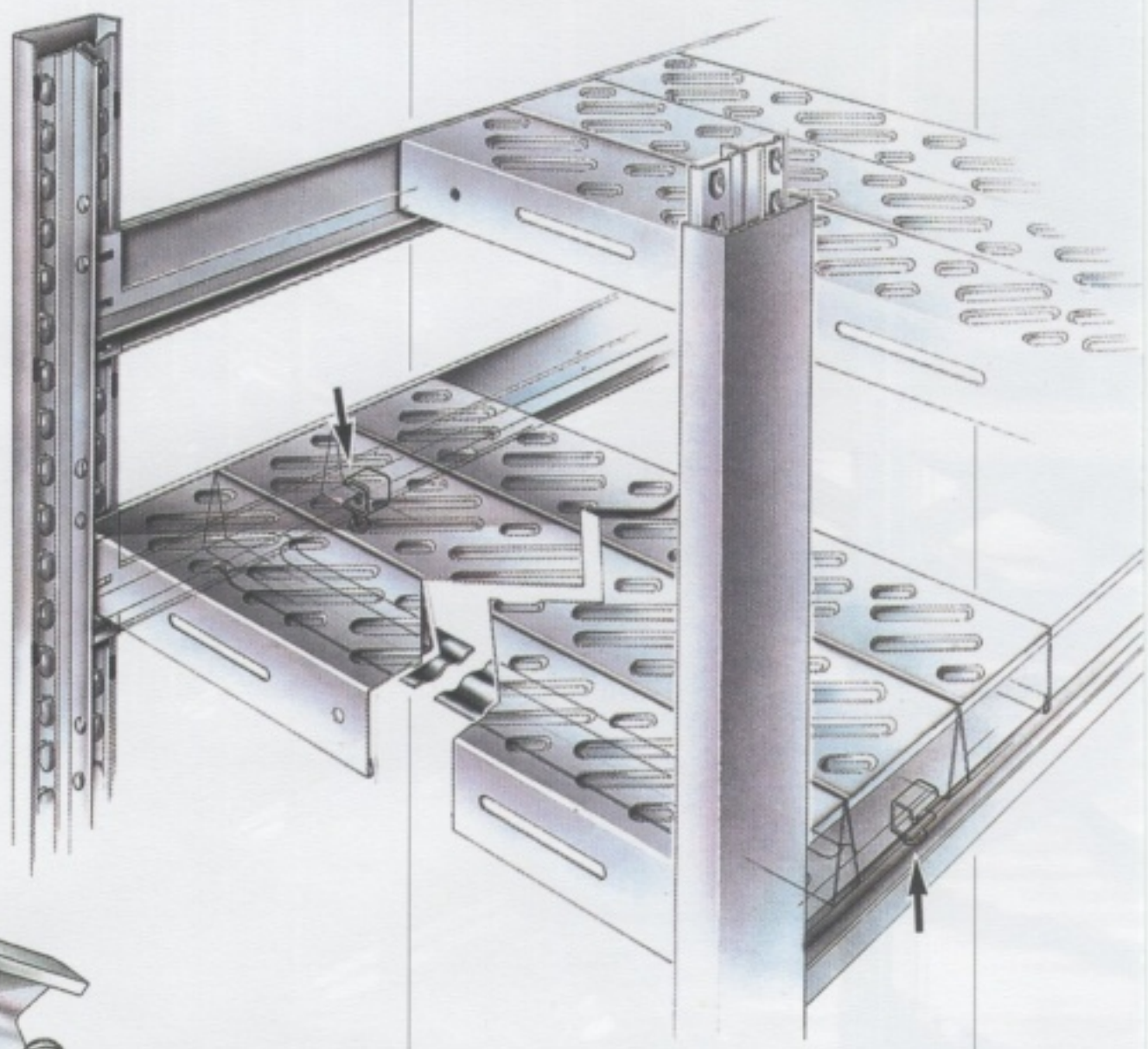


1	REINFORCED UPRIGHT	7	STAIR TREAD / STEEL PLANK H58 - 15/10
2	TUBULAR BEAM	8	BEAM H 47
3	SHELF BOARD	9	HEAVY DUTY METAL BASE PLATE
4	"U" SECTION HANDRAIL	10	T-SECTION-WALKWAY SUPPORT BAR
5	BRACKET/CLIP	11	LOCKING FRAME SPACER BAR
6	SPACER BAR TO BE LOCATED UNDER EACH STAIR TREAD	12	REINFORCING BRACKET FOR UPRIGHTS

The reinforced upright version (Art.nr. 99230 = SUPER-3 upright, welded with a "U"-profile on its front face) must be used either side of the staircase, i.e. for uprights that are not supported by frame bracing.







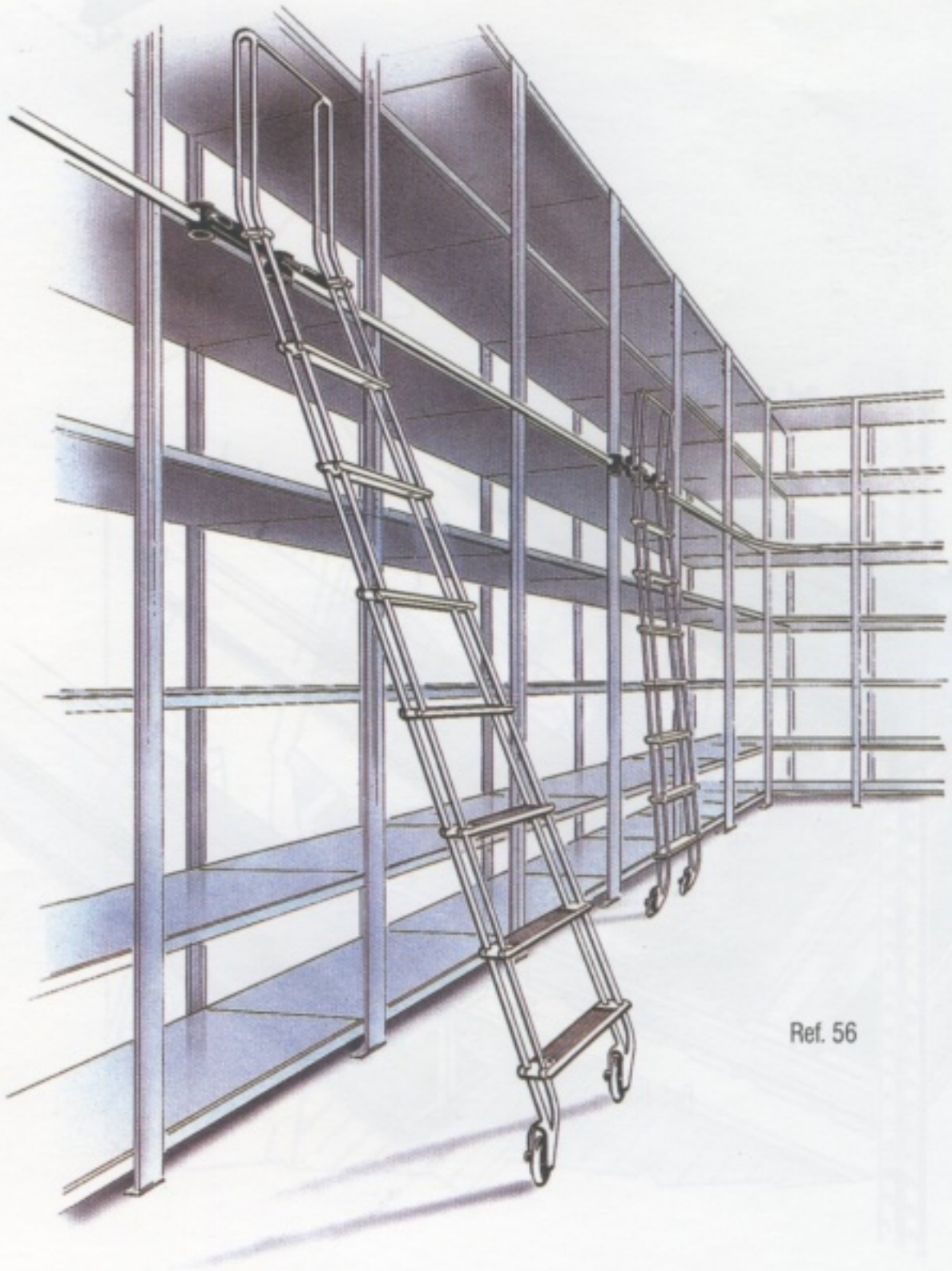
It is recommended to continue with the regular frame bracing pattern within these frames, as soon as possible.

Mobile Shelving

Thanks to its attractive high-tech design, SUPER 1-2-3 is also a highly suitable and cost effective mobile shelving solution, that can be applied to all environments.

Mobile Ladders

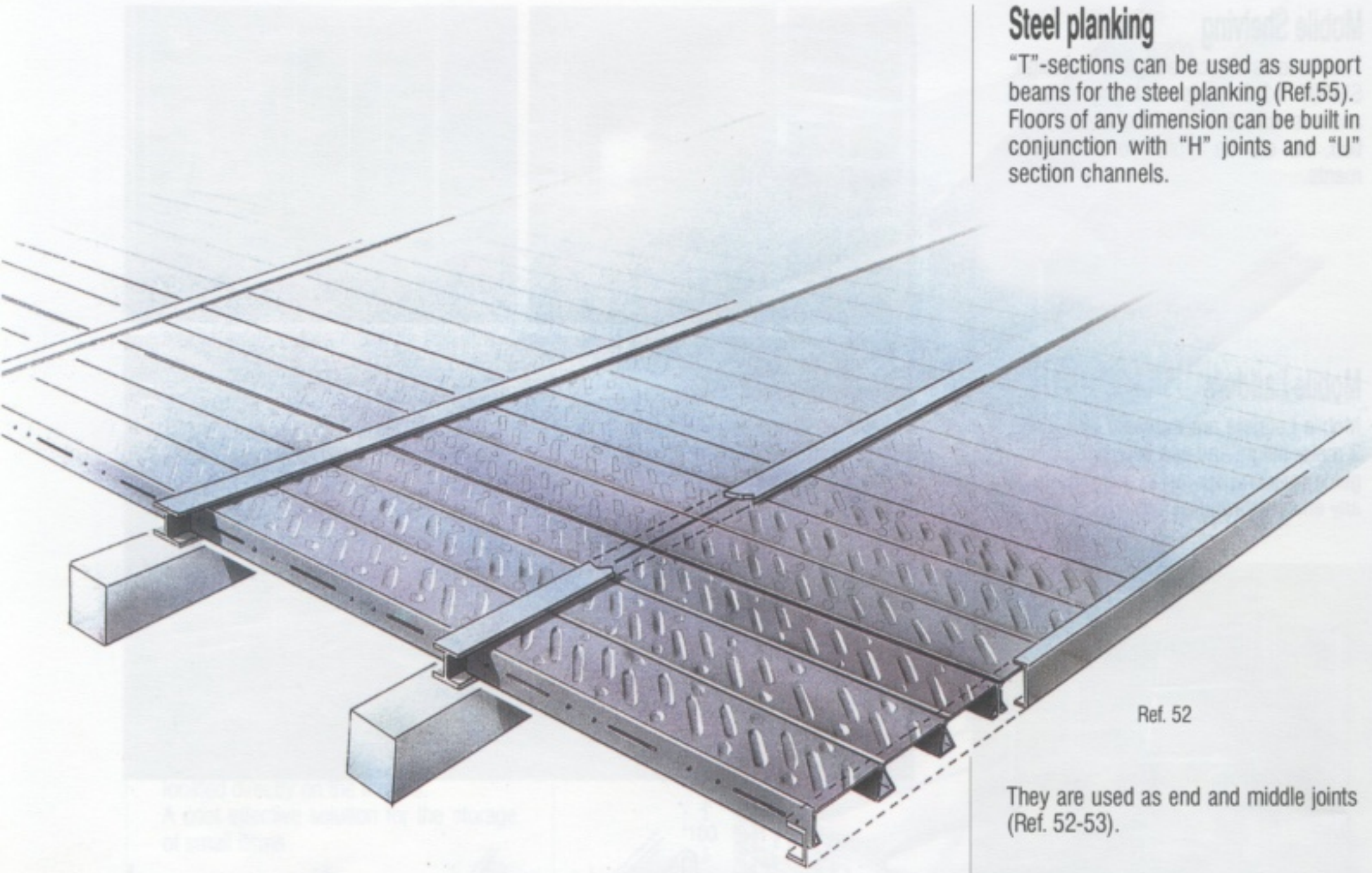
Mobile Ladders are available in 2.5 and 3 meter height and can be supplied with guide rails and curves to adapt them to any environment (Ref. 56).



Ref. 56

Steel planking

"T"-sections can be used as support beams for the steel planking (Ref.55). Floors of any dimension can be built in conjunction with "H" joints and "U" section channels.

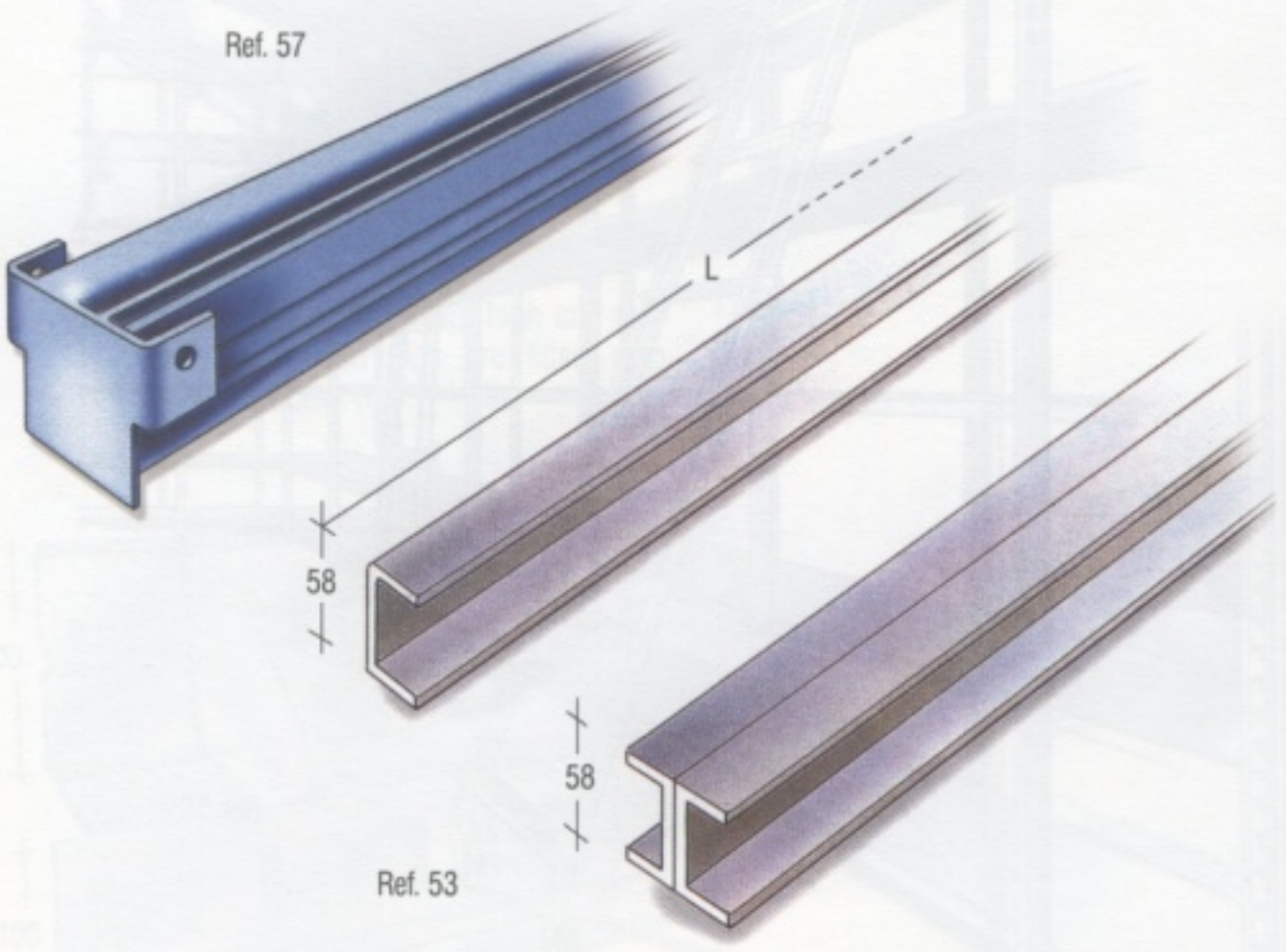


Ref. 52

They are used as end and middle joints (Ref. 52-53).

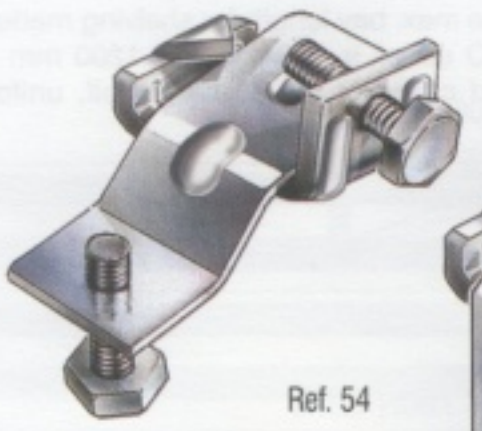
The 70-mm-section walkway beam (art. 99253B) provides an alternative solution to the use of the "T"-section support bars. It enables the steel planks to be laid in length direction along the walkways (Ref. 57).

Ref. 57



Ref. 53

The "T"-section supports are fitted back-to-back. One is fitted on the outside of the upright by means of support brackets, and the other is fitted inside and onto the upright.
The steel planks are laid over the top and are fixed down by means of the special clamp (Ref.54).
When joining the planks in a transverse direction the 6x20 mm bolt should be used in the appropriate holes.



Ref. 54

Ref. 55

METALSISTEMA® IGQ FEM section X














SUPER MODULAR STEEL STORAGE SYSTEMS

1/2/3

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SISTEMI E STRUTTURE PER IL MAGAZZINO

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