

MODULAR STEEL STORAGE SYSTEMS

UNIRACK

USA / USB / USM / USP / USR

PATENTED MODULAR SHELVING



MODULAR



METALSISTEM[®]
SISTEMI E STRUTTURE PER IL MAGAZZINO

THE GROUP



Founded in 1968, METALSISTEM commenced its activities specialising in the design and production of machinery for the cold profiling of metals.

The experience gathered, numerous highly innovative patents resulting from intense research and development and the considerable market success of the first range of cold form zinc coated profiles quickly channelled METALSISTEM into the production of the latter of its activities.

Today the METALSISTEM Group is an articulated network of companies with its head office and main production facility in Rovereto, Italy.

The Group has consolidated its position as one of the major industries within the Material Handling Sector.

Through products and services aimed at providing complete assistance for all warehousing, product showcasing and sales outlet requirements, the companies of the METALSISTEM Group are able to offer their customers a wide range of products of the highest quality, highly competitively priced, with very rapid delivery times and a first class back up service, as well as tailor made solutions providing efficient and rational use of internal storage areas and material handling environments.

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 storage and shelving systems.

The success of the METALSISTEM Group is the result of a precise managerial choice based on research of new production technologies and continuous development and innovation of its product range.

A direction which has produced numerous international patents (testament to the uniqueness of the METALSISTEM product), continuing improvements in safety, quality and versatility.

METALSISTEM's company strategy is to offer products of the highest quality, very competitively priced, with rapid delivery times backed up by a first class service.

The numerous product lines are conceived and designed by METALSISTEM's internal Research and Development Centre, as are the profiling lines and equipment required for their manufacture.

The automated production facilities for the cold profiling of metals have enabled METALSISTEM to achieve one of the highest levels of productivity in the world, today.

Rigorous laboratory tests are conducted on the prime material entering production, and on the final product, thus ensuring the continuing evolution of efficiency and quality standards.

All products have elevated structural characteristics and ensure high quality standards recognised by the most important European certification bodies, such as Germany's TÜV Product Service GmbH, Austria's Ö-NORM, Rome's I.S.P.E.S.L., ACAI/CISI (Associazione Costruttori Acciaio Italiani - Sezione Costruttori Italiani di Scaffalatura Industriale), the latter of which METALSISTEM has membership, and others.

The company's ISO 9001 quality assurance system is certified by RINA.

With an annual turnover of exceeding 260 Million Euro, the METALSISTEM Group premises occupy a total area of 230.000 m², 125.000 of which are dedicated to production.

The METALSISTEM Group affiliated companies and distributors provide a world wide commercial network covering the domestic market and the industrialised nations of the world, able to satisfy the most demanding needs.

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 and reliability of our products.



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. It is of utmost importance that installations are assembled by skilled labour only.

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

Ref. N°:

System:

UNIRACK USM

Year of Construction: **2010**

Frame Load Capacity (u.d.l.): **4200 daN**

Shelf Load Capacity (u.d.l.): **420 daN**

Distance between ground and first beam level: **700mm** N° Levels: **10**

Weight of Load Unit: **10 daN**

a. Floor slab loading.

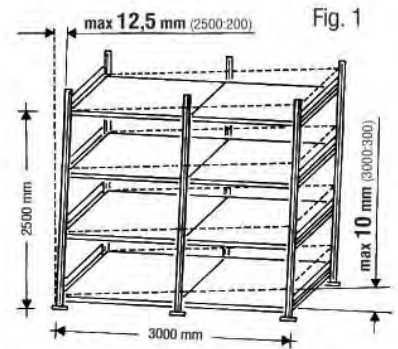
Loading capability should be checked before installation.

b. Site installation.

It is of utmost importance that installations are assembled by skilled labour only. Frames should be built in strict accordance with the assembly diagram shown in this brochure. 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 20 mm) and correspondingly the horizontal deviation 1/300 of the bay length. See fig. 1.



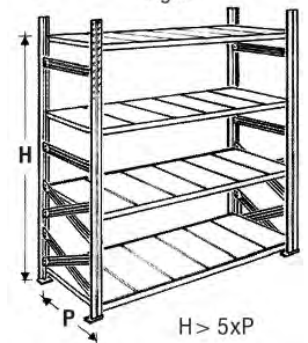
d. Load bearing capacity plate.

Load capacity plates should be fixed in a prominent position and show the product series, the year of construction, the maximum load per frame, 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, the distance from the ground to the first load level and the total number of load levels.

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 metal base plates art.SLACC001 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.

Fig. 2



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 metal base plates art.SLACC001.

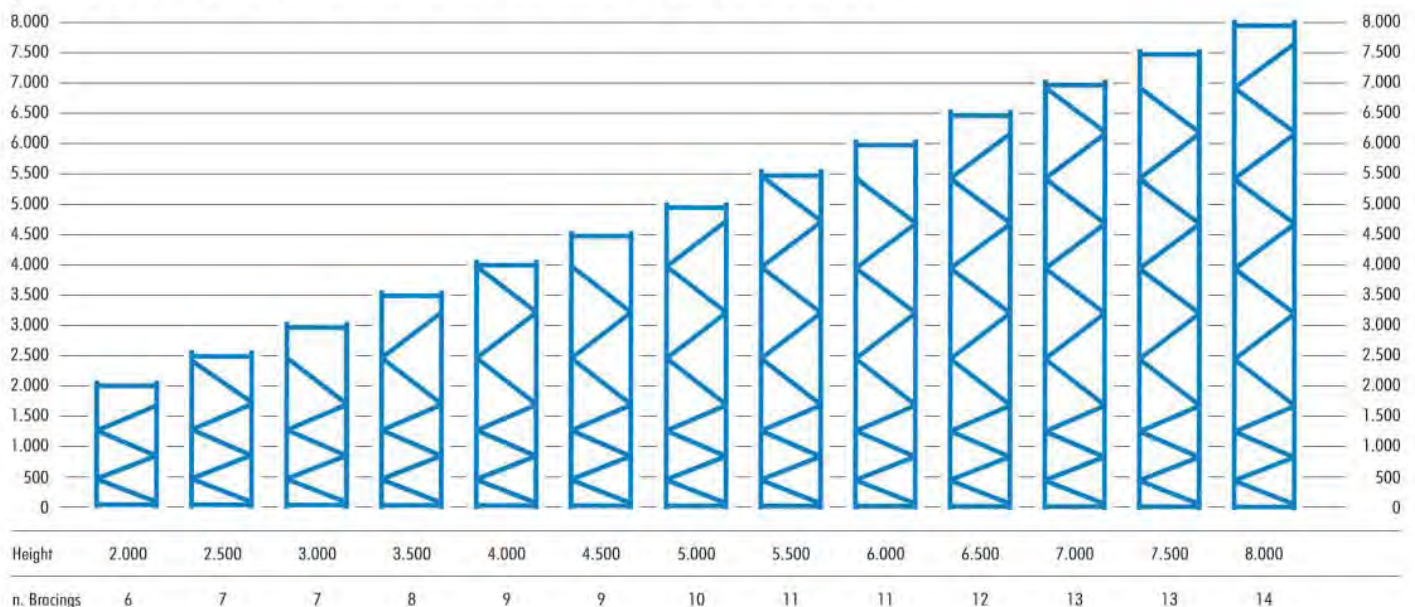
As an alternative solution to the use of cross bracings, customers may fit the shelving with wall ties or similar.

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.



DIAGRAM FOR ASSEMBLING BRACING UNIRACK USA - USB - USM - USR- USP



f. Installation design.

UNIRACK 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 responsibility for improper or non authorized use of the shelving and its accessories.

g. Two tier structures/platforms.

Two tier structures with suspended walkways or platforms with continuous floor/decking are to be designed exclusively with USM-USR series or with the reinforced USM-R/USR-R series and must comply with all safety recommendations. The correct use of all safety components mentioned in this brochure is mandatory. Staircases built with modular UNIRACK components and integrated into shelving structures must be adequately reinforced and built with reinforced USR-uprights (article code n° USR0000/R). The frame bracing pattern of staircase frames may be interrupted at walkway level only (at a height of approx. 2.400 mm from ground), adding a horizontal frame spacer bar below and on top of the interruption. The uprights of staircase frames are to be bolted to the floor slab using two dowels M8x50 (article code n° 00040).

The maximum load bearing capacity of walkways/decking within two-tier structures and platforms is 300 daN/m² and the maximum width of walkways is 1200 mm. The max. shelf bay length is 1500 mm. The frames must be fitted with overhead ties.

For installations designed with seismic criteria, it is mandatory to use a shelf combination S3/H25-B at walkway level and to add a horizontal frame spacer bar into the frames.

h. Software reference.

The theoretical calculation is based on the EUROCODE 3, using the safety factors recommended within the F.E.M. standards.

The reference standards for the materials are the following:

- EN10204 - EN10346.

i. Calculation.

The calculation is executed with the ANSYS software and based on finite elements. Guide lines followed as basis for the calculation are those of the Italian "CISI" organization (CISI = Association of Italian Manufacturers of Steel Shelving).

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. The standard design and calculation referring to the UNIRACK series is valid for hand loaded shelving only, without any seismic criteria. In case of UNIRACK installations designed for MINILOAD applications or UNIRACK installations designed for seismic areas, please refer to METALSISTEM's Technical Department.

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.

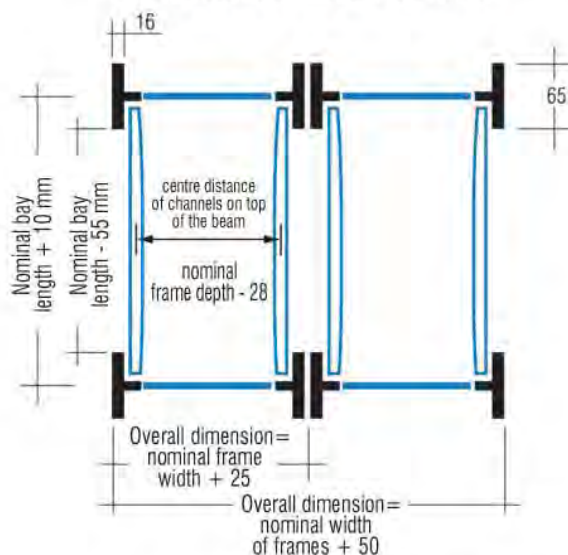
The METALSISTEM Technical Department is at its customers' disposal for any specific calculation or custom-built application.

UNIRACK is made from certified steel and carries the approval mark of TÜV PRODUCT SERVICE GmbH.

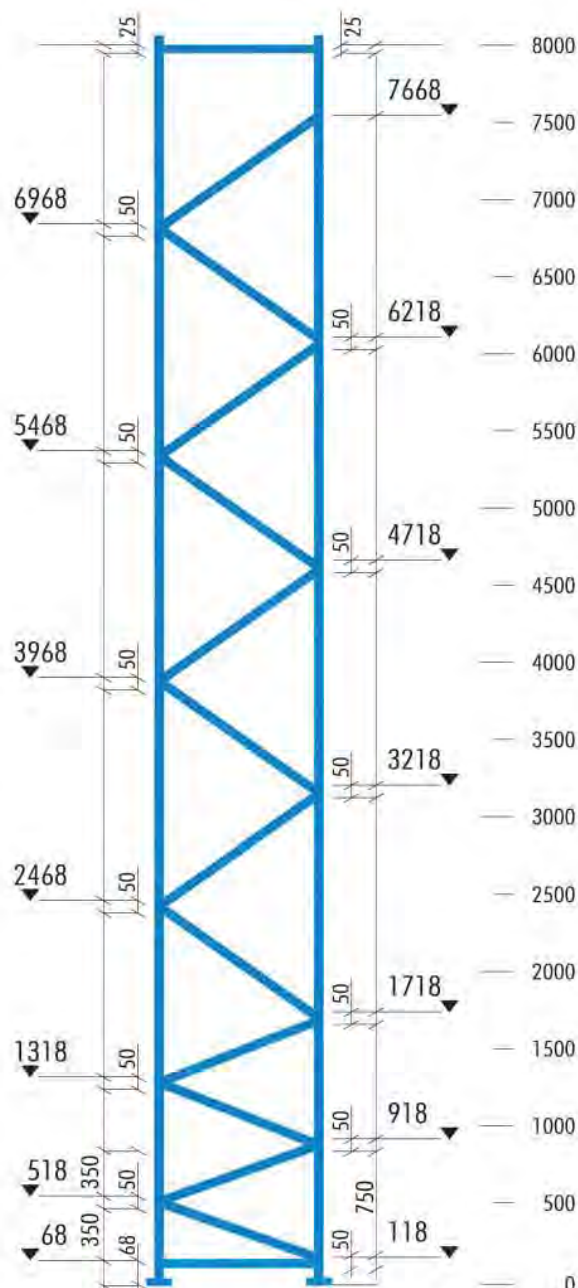


METALSISTEM reserves the right to apply technical changes to the product. Data, characteristics and dimensions given in this document are merely indicative.

DIMENSIONS FOR THE DESIGN OF USA-USB-USM-USR SERIES



IMPORTANT: ensure the two uprights of the frame to be perfectly parallel, before tightening the bolts.





THE COMPANY TODAY

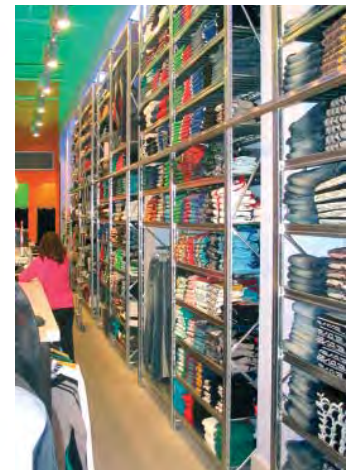
METALSISTEM products are now in use in a great many installations throughout the world, and after more than 40 years production, we value greatly the high level of trust that is placed in us by our customers and feel that it is proof of the quality of our products.

Our customers are able to alter and extend their existing installations with the same components and the greatest of ease.

Product development, production and turnover is steadily increasing.

Delivery and installation of even major projects can be achieved very quickly. This is possible due to the high rate of production coupled with an extensive network of distributors world-wide, extreme ease of assembly and a very rapid installation time.

The practical structural testings are verified by rigorous commissions in the field of quality and safety certification.





THE PRODUCT

The UNIRACK USA-USB-USM-USR-USP structures have been designed and implemented to meet the needs of light to medium duty storage: they are also highly suited to the construction of single, two and even three tier structures up to a height of 8 metres with frame loadings up to 4800 daN (in USR version).

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.

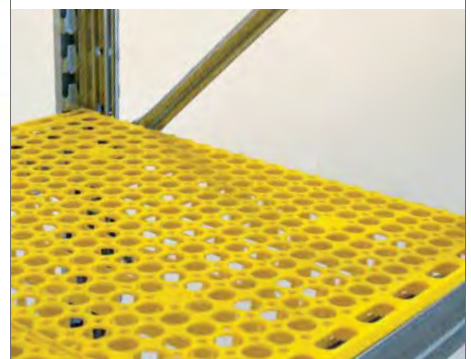
This experience has enabled METAL-SISTEM to offer innovative products of the highest quality, highly competitively priced, and to produce a highly technical solution to the most important shelving problems, such as rapid assembly, stability, low cost and load bearing capacity.

The special 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 versatility of the system allows the easy use of dividers and modular containers for storage and separation of small loose parts.

The structural components of the UNIRACK systems are made from high tensile steel, certified according to EN 10204 3.1.





The safety and the quality of the product have always been a primary aim of METALSISTEM and are recognised by TÜV PRODUCT SERVICE in Munich, one of the most rigorous E.C. commissions in the field of quality and safety certification. Thanks to its attractive high-tech design UNIRACK shelving is trendy and pleasing to the eye. It can provide unique solutions for shopfitting and applications in domestic environments.

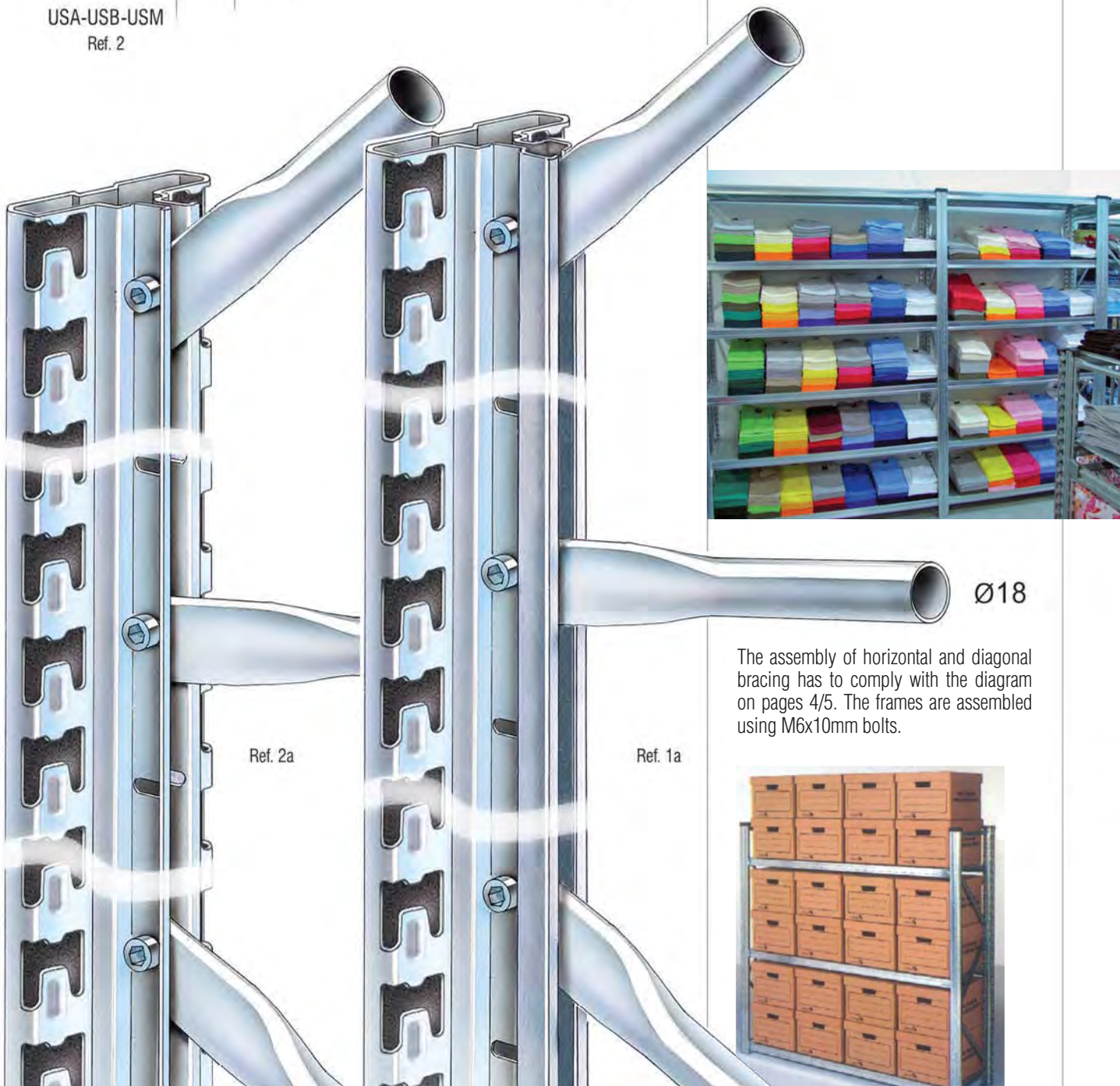


ASSEMBLY INSTRUCTIONS

Uprights and frames

The USA-USB-USM-USR frame components are interchangeable. Beams are located on the inside of the uprights (Ref.1,2). The USP series (Ref.1b) is used to locate H30 solid shelves into the vertical slots in the upright. Using steel of varying gauge, the three frame types have different load capacities:

Series USP : 2300 daN
Series USA : 2600 daN
Series USB : 3000 daN
Series USM : 4200 daN
Series USR : 4800 daN

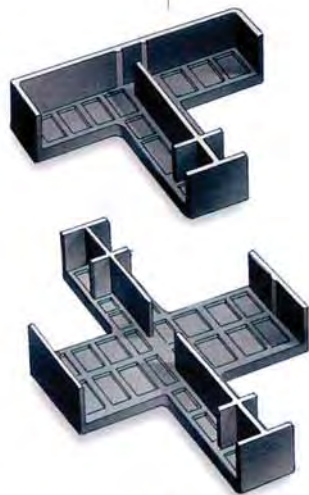


The assembly of horizontal and diagonal bracing has to comply with the diagram on pages 4/5. The frames are assembled using M6x10mm bolts.



Base plates

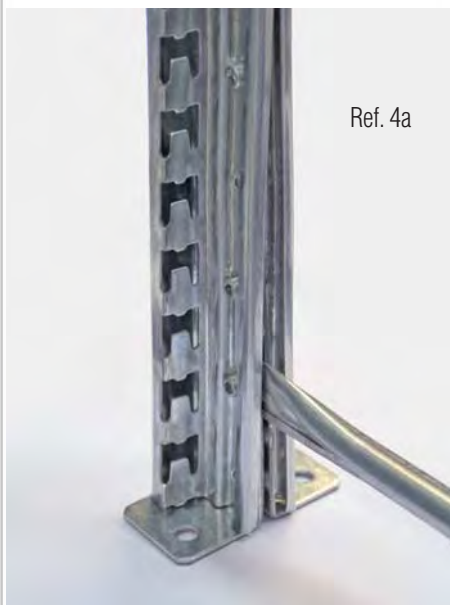
Plastic base plates are fitted by pressing them onto the uprights. They are recommended only for the USA and USP series. In any case, the safety standards as per point e) on page 4 must be adhered to. Plastic bases can also be used as top caps to finish off the uprights.



Metal base plates can be fitted in two different positions:

- a) turned inwards, flush with the front face of the upright,
- b) turned outwards, both can be bolted to the floor slab.

The metal base plates are fastened to the uprights by means of 6x10mm bolts. (Ref.4)



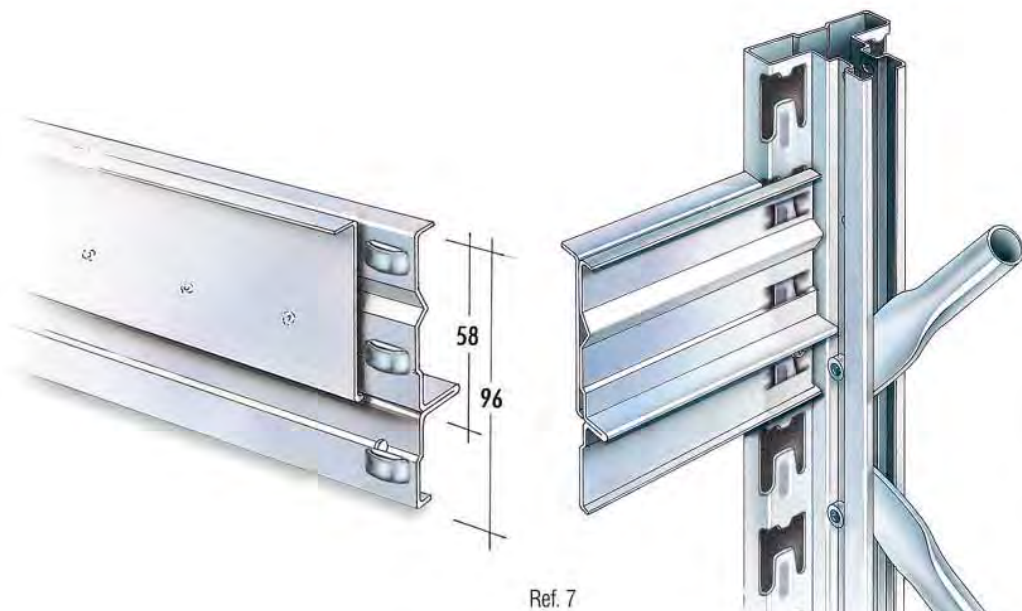
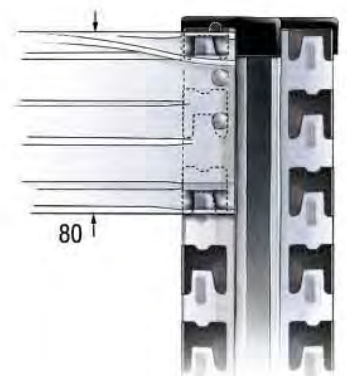
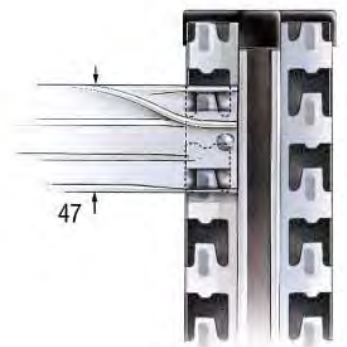
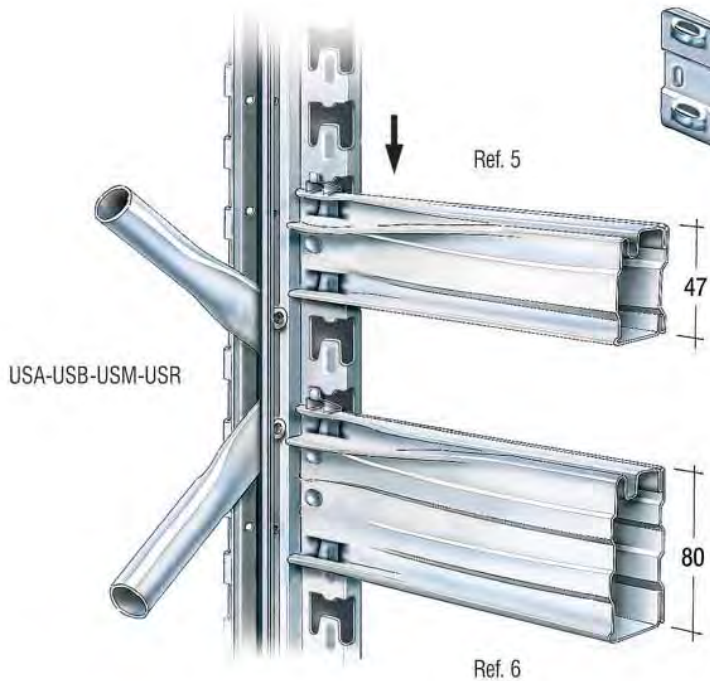
Ref. 4a

Heavy duty base plates are used for installations designed with seismic criteria or for special applications. They are fastened to the upright by 2 screws and bolted to the floor slab using 2 dowels M8x50 mm.

When using heavy duty metal base plates, the first shelf level is set at a height of 226 mm from ground. (Ref. 4a)

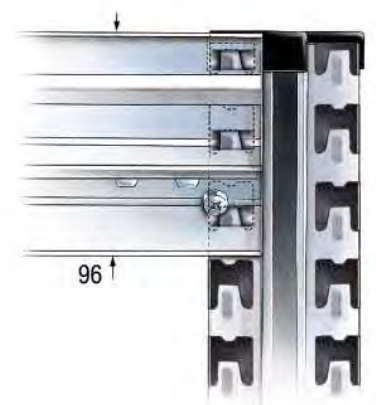


Ref. 4



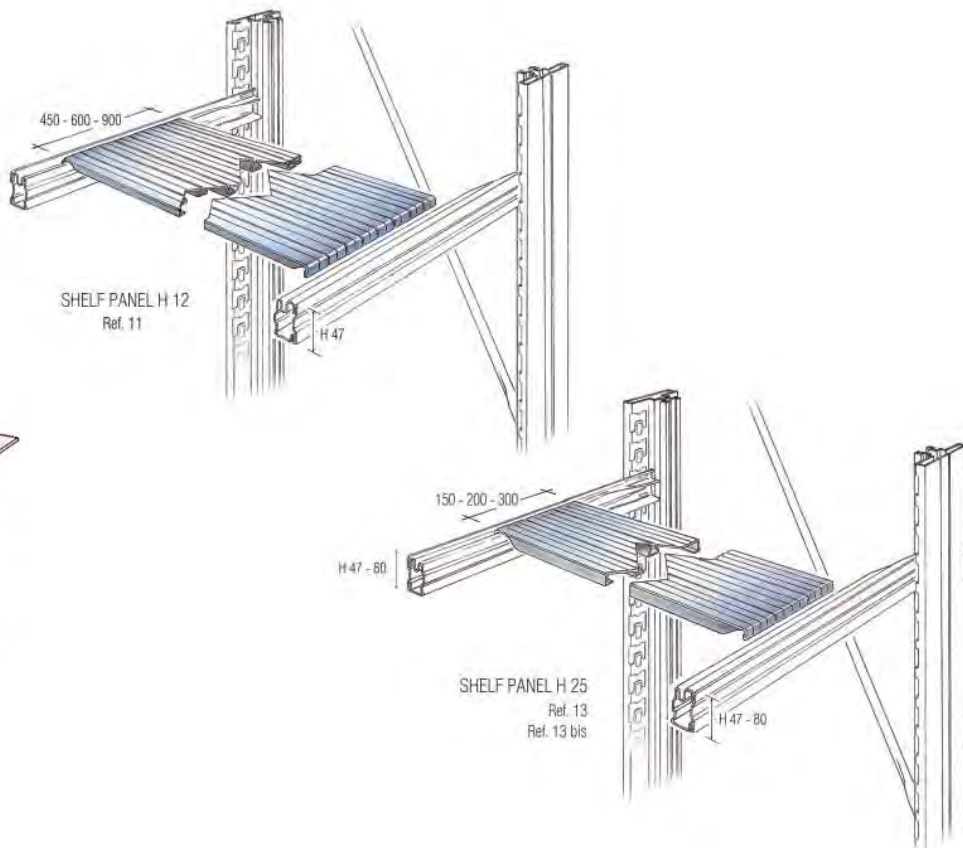
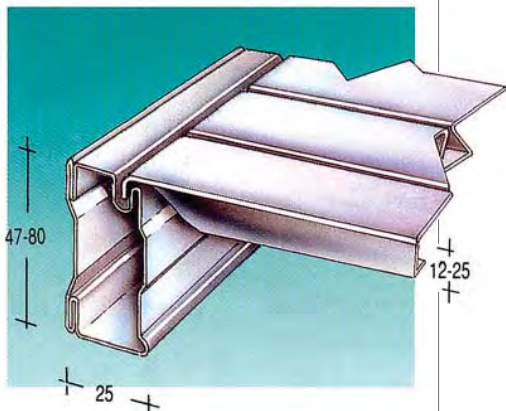
Beams

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.5). The beams are compatible on the four frame types USA-USB-USM-USR except the USP series which can be fitted with the solid shelves H30 only. Each type of beam H47/80, the tubular beams and the T-section support bars, once assembled, must be secured with the respective locking pin (see page 21).



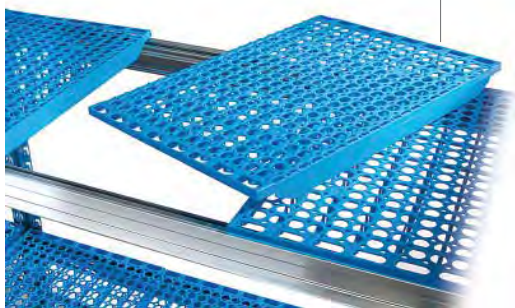
Shelves H12 and H25

Shelves of profile 12 mm, 450-600-900 mm wide, are produced in depths varying from 320 to 700 mm (Ref.11). Shelves of profile 25 mm and 300-200-150 mm wide are supplied in depths varying from 400 to 800 mm (Ref. 13/bis).



Perforated Plastic Shelf Panels

The standard range of perforated plastic shelf panels in 150-200-300mm width is made from high quality polypropylene, suitable for use within the food sector, perforated at > 50% of the shelf surface area. Available in four different colours: white, yellow, light blue and blue, for frame depths 320, 400, 500 mm.



See page 9 and page 41

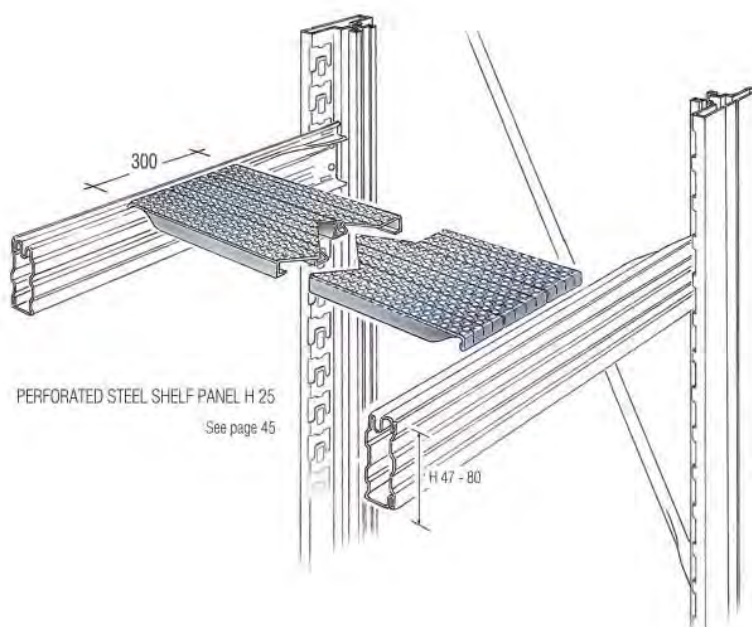


Specific FROST panels in light green colour are available for use within cooling rooms.

ECO shelf panels in black colour, made from recycled polypropylene, feature utmost cost efficiency. ECO shelf panels are not compatible with the food sector. For correct ordering and load bearing capacities, please refer to page 41 of this brochure.

Perforated Steel Shelf Panels

Perforated shelves of profile 25 mm, 300 mm wide, perforated at 50%. For installations equipped with sprinkler systems. For correct ordering and load bearing capacities, please refer to page 45 of this brochure.



See page 45



Roller Shelves

Roller shelves are available to build light duty dynamic storage applications such as carton flow, using a gravity feed rear load design.

Each roller shelf unit consists 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. Carton flow always keeps items within reach. Inventory is easier to monitor and control since products are fully visible at all times.

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.

For more information and load bearing capacities of the rollers, please refer to page 51 of this brochure.

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.

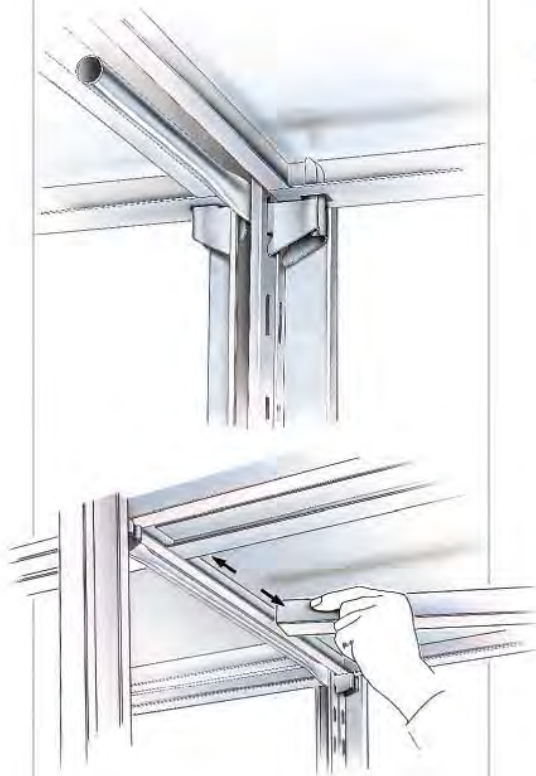
A "T"-section support bar placed at the picking side of the run provides both support for the flow tracks and an end stop for the cartons.

Restocking and picking typically offer the greatest opportunity for improving efficiency within order picking operations. With carton flow rack systems, products are automatically rotated on a first in first out basis and labour savings of up to 75% can be realized almost immediately. Because items are picked from the front and stocked from the rear, both functions can be performed without interference and with minimized travel.

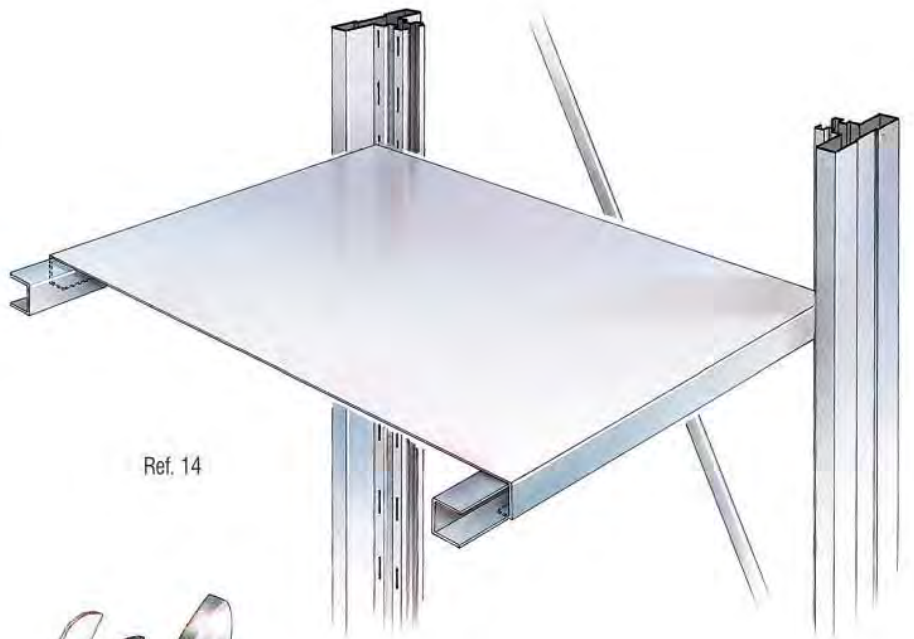


Solid shelves

The solid shelves H30 mm are located on four shelf clips as shown below. Shelf levels are adjustable in 50 mm increments.



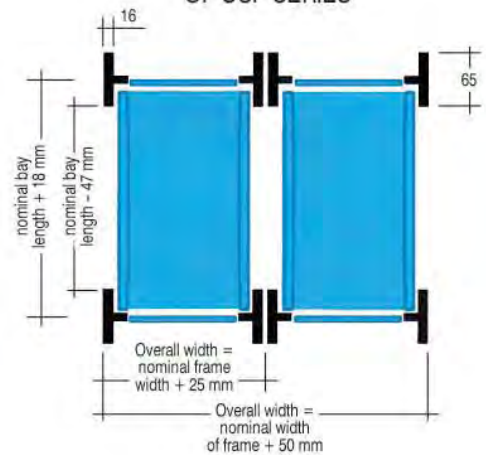
Solid shelves H30 mm can be used on uprights of the USP series only. It is possible to add two reinforcers to increase the load capacity of the shelf (Ref.14). Reinforcers must be located against the two edges of the shelf.



Ref. 14

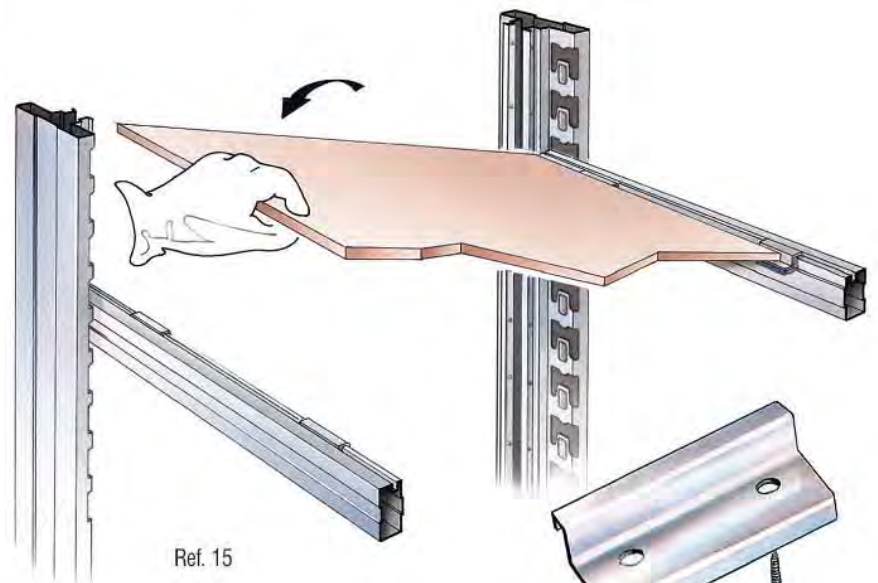
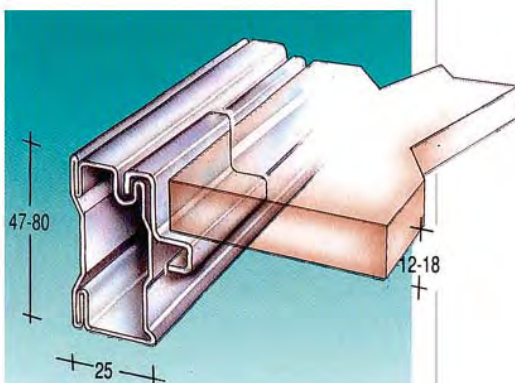


DIMENSIONS FOR THE DESIGN OF USP SERIES



Chipboard shelves

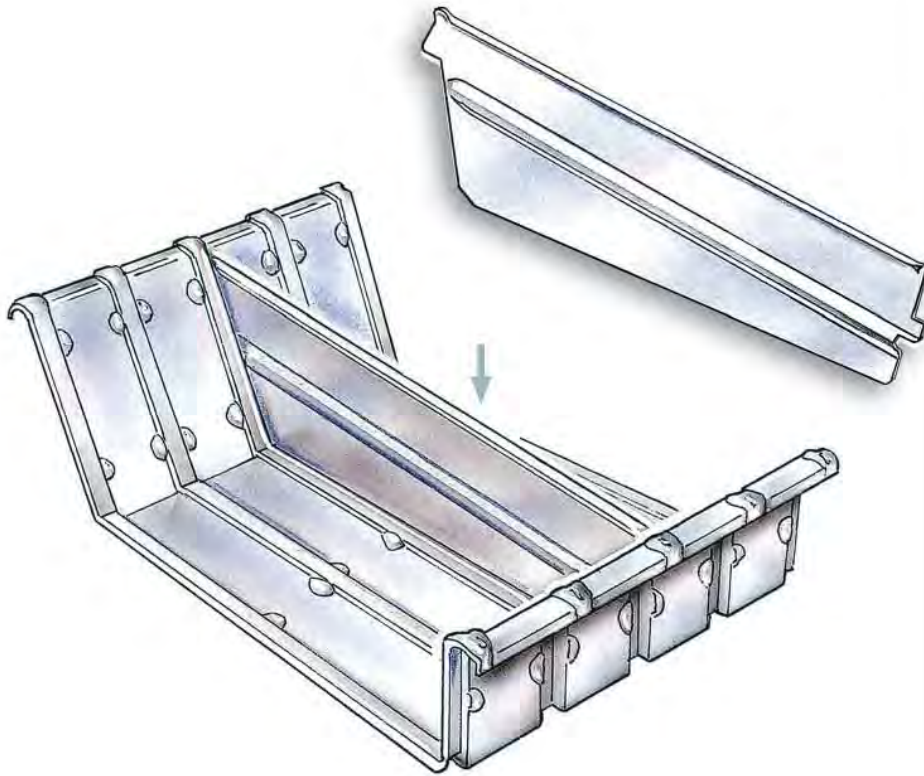
Chipboard shelves of thickness 12 or 18 mm can be fitted using the clips shown at right (Ref.15).



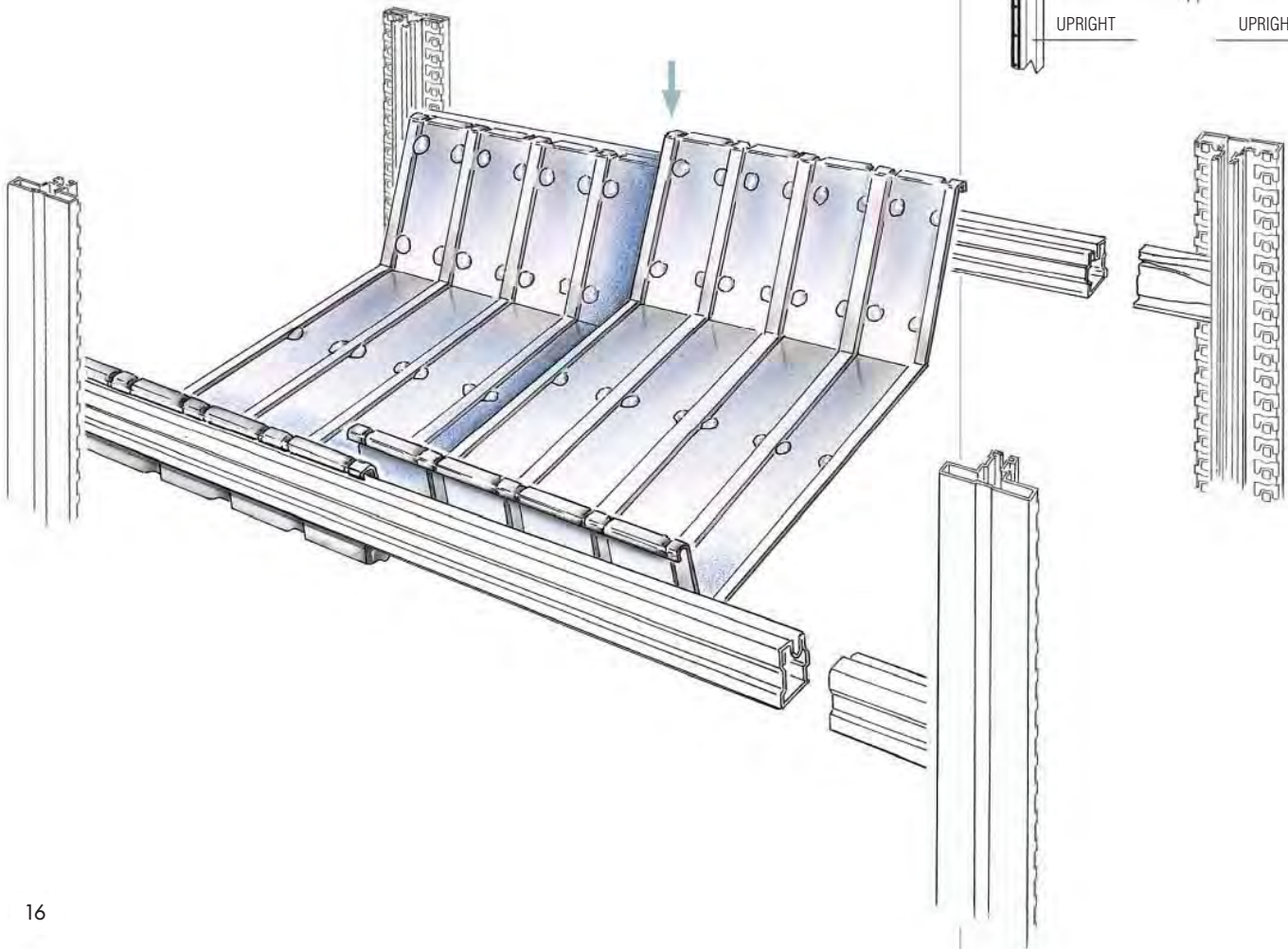
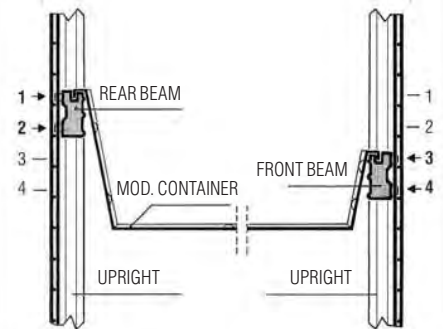
Ref. 15

Modular containers

Insert the container 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 H47/H80. To assemble the containers correctly, the rear beam should be fitted two pitches higher than the front one (Ref.16).



Ref. 16



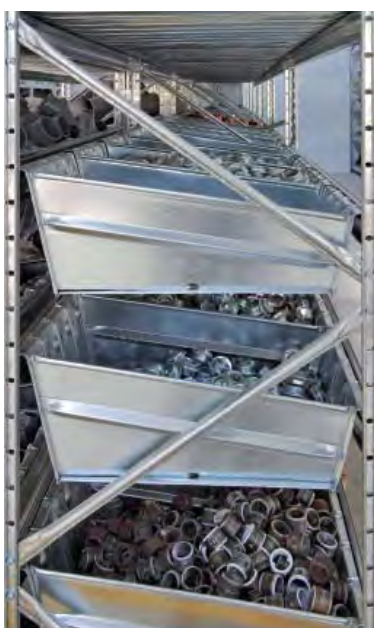
Fit the dividers into the special slotted seats, pushing down to locate (Ref.16). Modular containers and dividers are supplied to a maximum depth of 800 mm.



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



Ref. 16



DIVIDERS

A large range of dividers is available.

Vertical sliding dividers

These have been designed to separate loose items (Ref. 17).

The concept of these dividers is based on the following components: a couple of clips (version at right/at left) available for H47 beams, 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).



Shelf trays

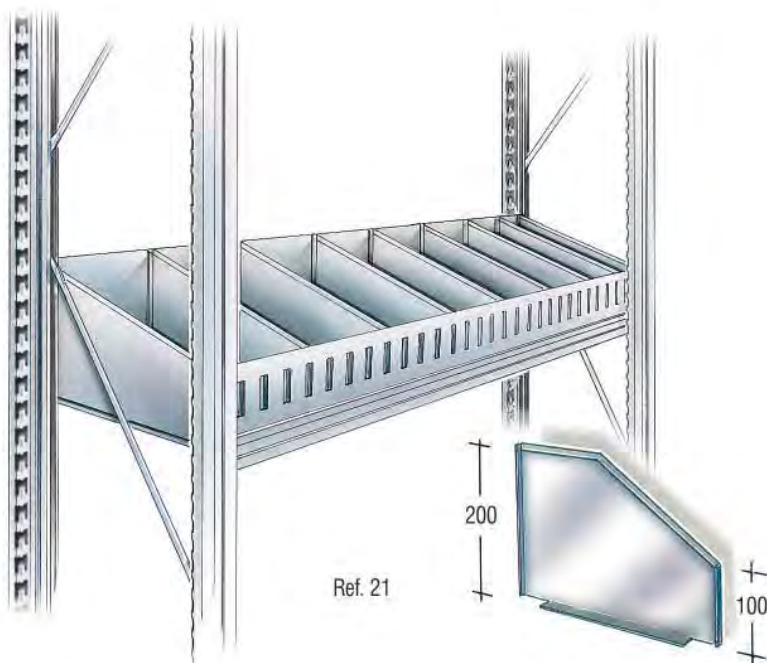
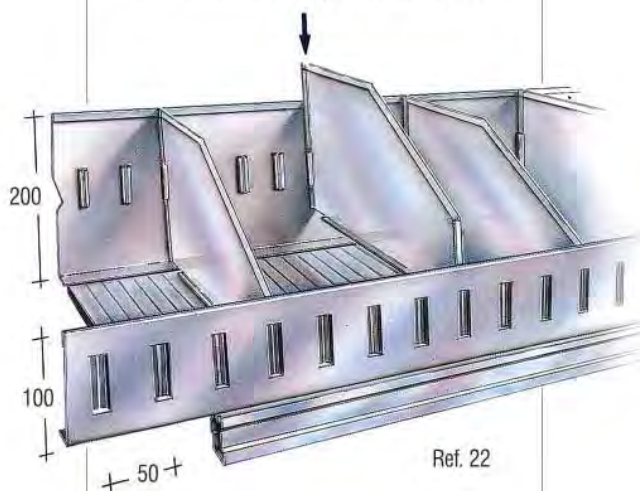
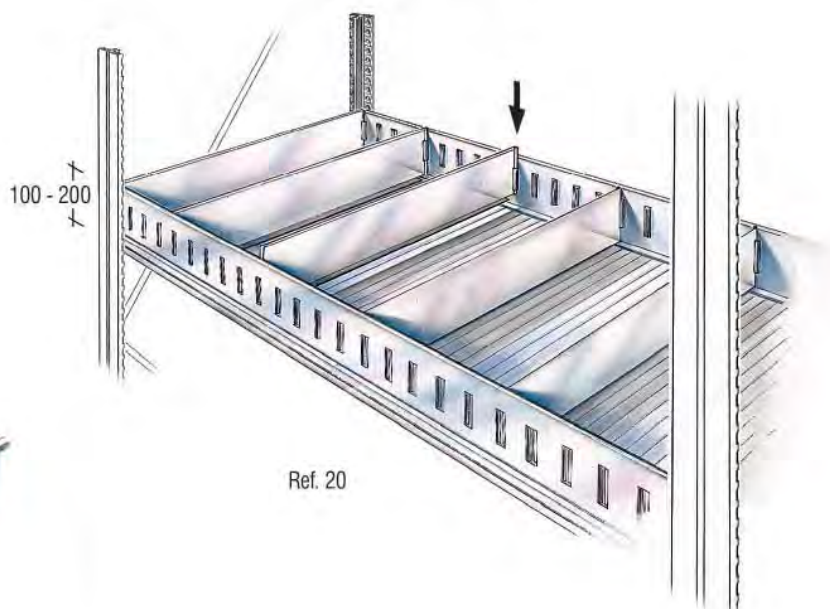
These comprise a bin front and rear panel 100 mm high placed on a normal shelf with adjustable dividers from 320 to 800 mm in depth (Ref. 20). Bin front panels 100 mm high and rear panels 200 mm high are fitted with profiled dividers (Ref. 21/22).

Chest of drawers

The modular drawers are fully integrated with the UNIRACK series and are located directly on the frames.



The drawers provide a cost effective solution for the storage of small items.





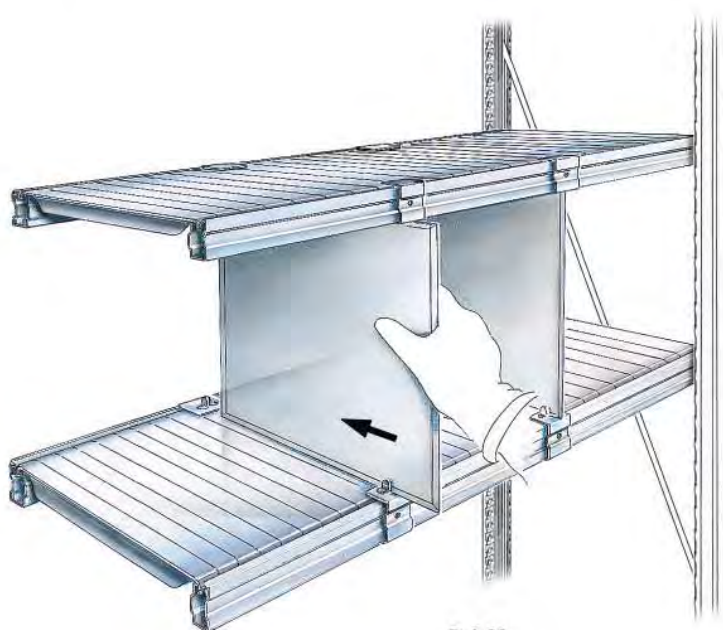
Plastic Bins "Bull Series"

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

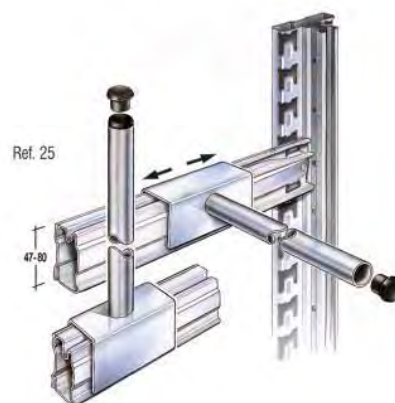
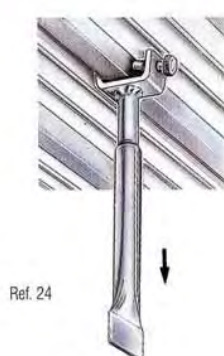


Fixed height dividers

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. 23).



Ref. 23



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.24).

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 onto the beams anywhere in the length (not suited for hanging loads) (Ref.25).



ACCESSORIES

PVC top caps

Should be fitted always to the upright top, both when supporting handrails and normal shelves (Ref.28).

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. 27/28). The garment hanging shelving can be designed on a single or double entry basis and equipped with shelves as well (see pictures).

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 pages 8-9). In this case, please refer to the technical handbook to identify correct use and respective load bearing capacity, as tyre storage introduces dynamic loads into the structure. In the case that the tyres will be stored on H-47-mm beams, it is obligatory to use the US-M series for the frames and the SUPER-3 version of the beams.

Maximum allowed bay length: 1200 mm.
Maximum allowed frame depth 400 mm, to ensure safe storage and prevent torsional deflection of the beams.



Plastic strip for glass shelves

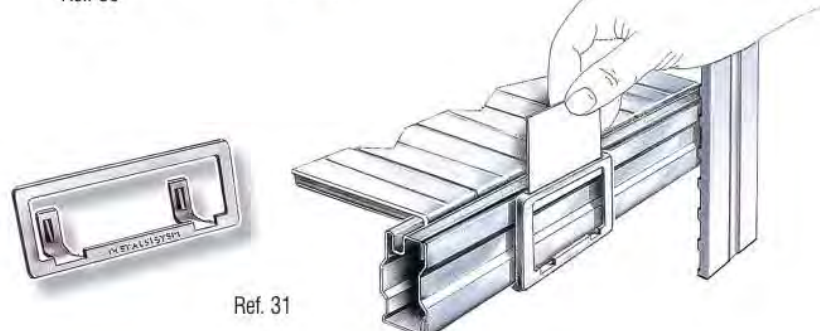
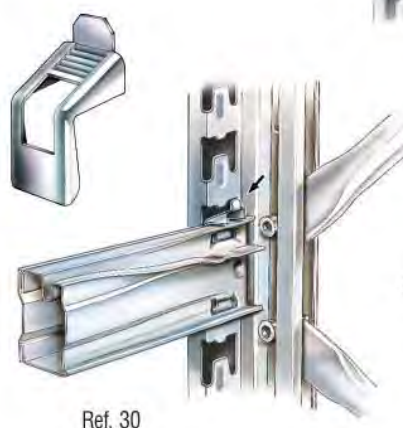
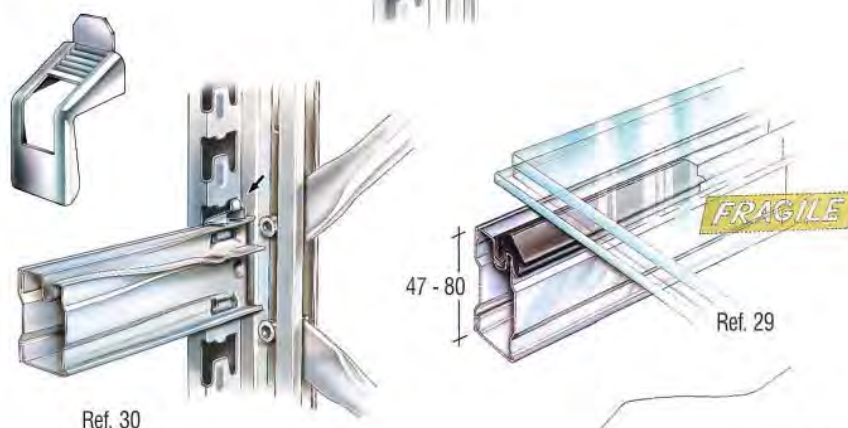
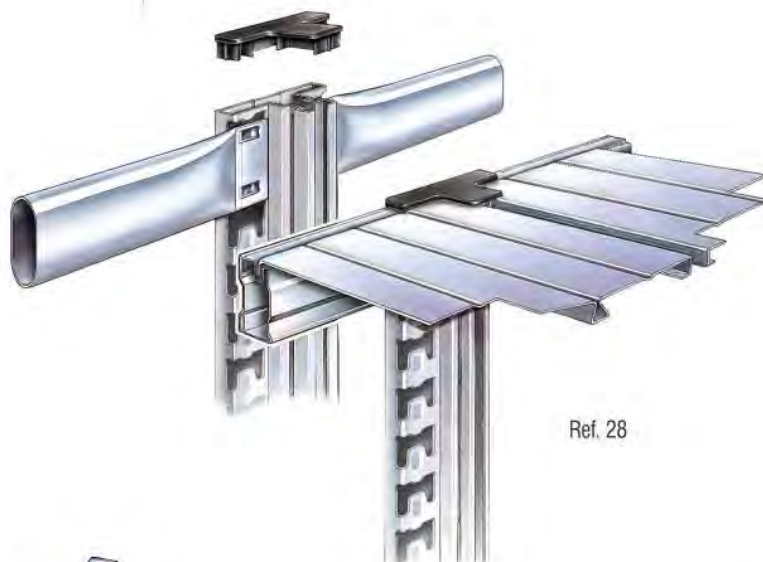
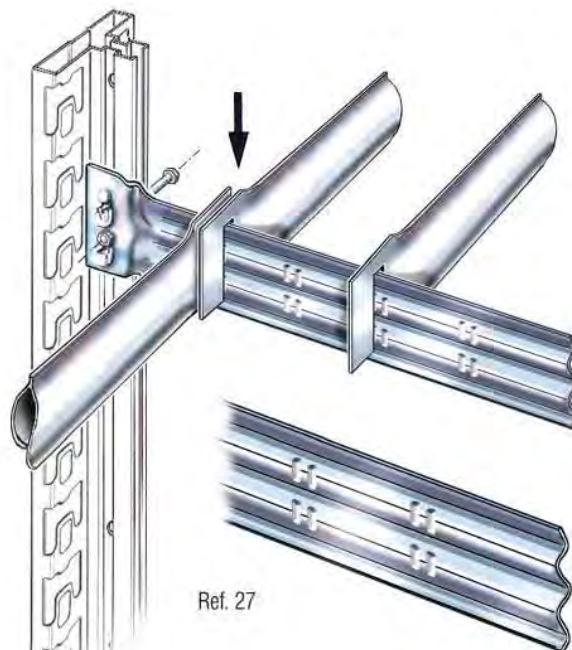
It can be fitted on the beams H47/H80 in order to protect glass shelves or delicate materials. (Ref. 29).

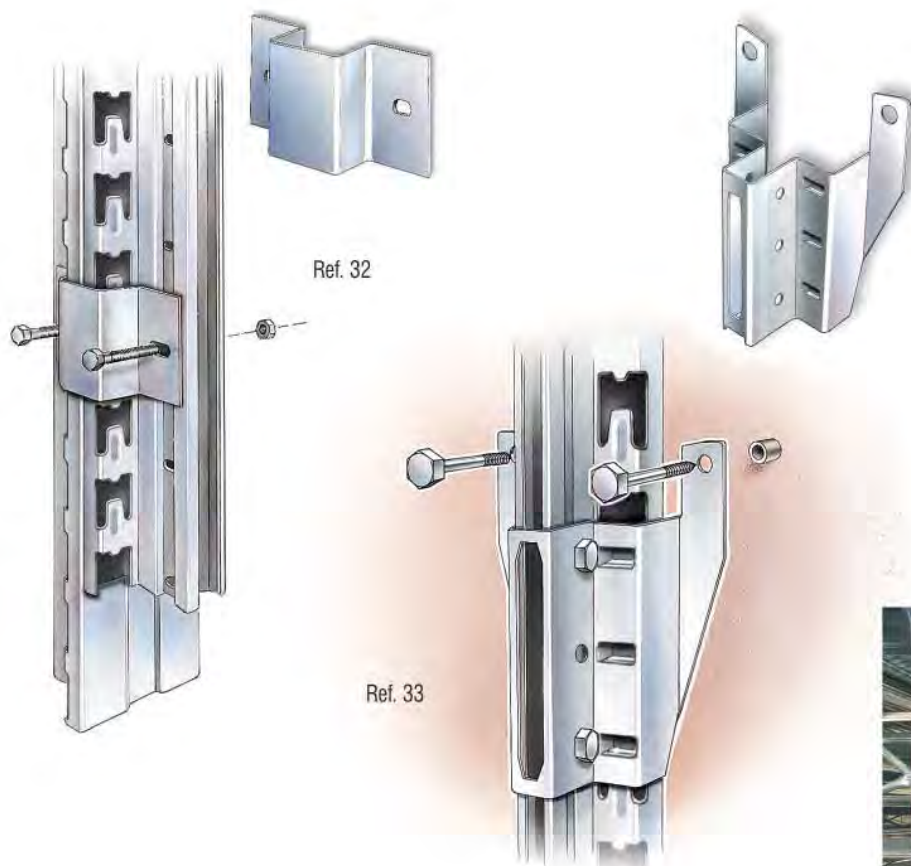
Security pins

In order to prevent accidental lifting of the beams and shelves, the security pins must be used in all applications (Ref.30). 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 mm. (Ref. 31).



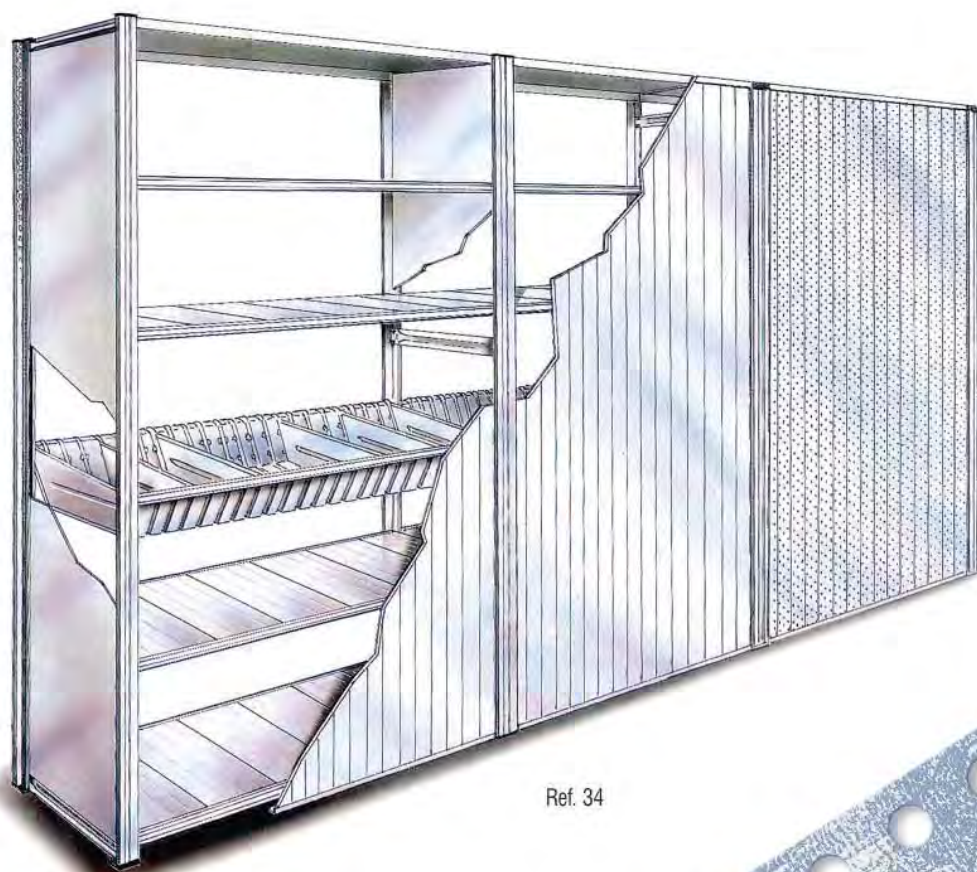


Frames back to back clamps

They are used to fix the frames together when building back-to-back bays to improve stability. They are located at mid height (Ref. 32).

Wall fastening brackets

This component (article nr.SLACC131) is located by means of wall dowels 8x50 mm (art.n°00040) and bolts 6x35 mm (art.n°69816), providing a method to fix the frames to a wall for stability (Ref.33).



CLADDING H25

Back panels H25 are produced in two standard sizes (300x25 mm and compensation panels 240x25 mm) and in varying heights of 1485-1940-2480 mm.

Back claddings in any dimension can be built up in a modular form, using channel profiles "U" (art. nr. 69800) and "H" (art. nr. 69803) as end and middle joints (Ref.38). In the case of the standard modular back panels being lower than the respective frame, "H" section profiles may be used at the bottom of the panels, to achieve equal height (Ref.38).

Ref. 34

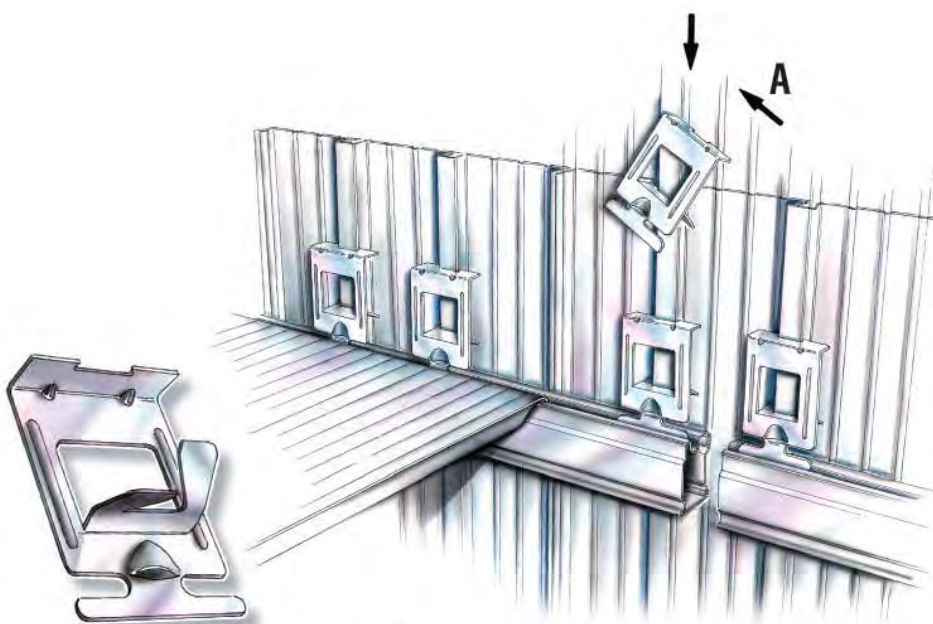
Punched hole back panels H25 (according to European Standard) are also available, similar to those described before, with 5 mm holes at 25 mm centres.

The H25 mm cladding panels are assembled and fixed to H47/H80 mm beams by means of fastening clips (Art. nr. 68108) (Ref.35).

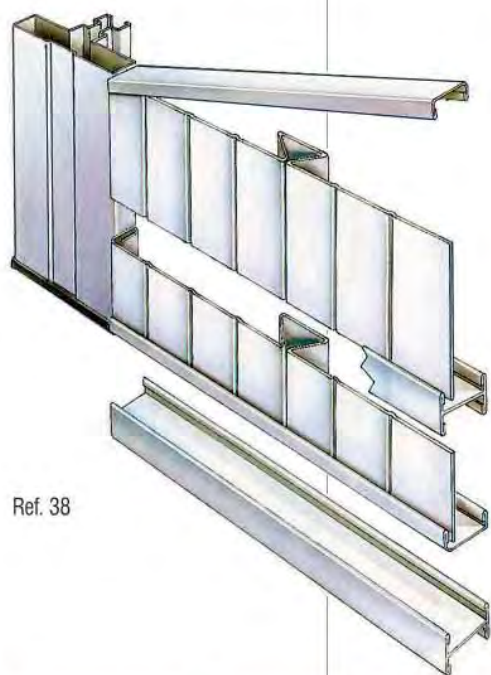
Cladding between back-to-back bays is fitted in the same manner as described above (Ref.36). For cladding between back-to-back bays, the 240 mm wide compensation panels must be used (see drawing on page 25).

Channel and joint profiles for back cladding

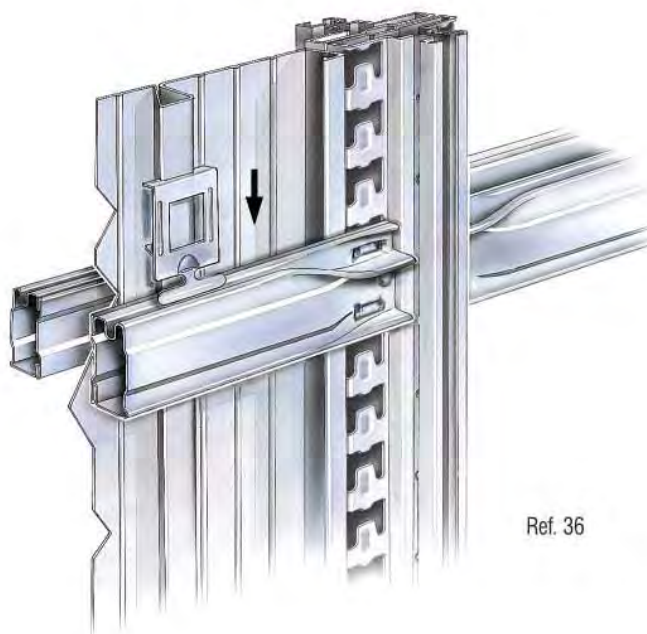
The channel profiles "U" and "H" can be used as end and middle joints for H25 back cladding (Ref.38).



Ref. 35



Ref. 38



Ref. 36





Ref. 37

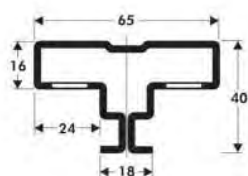
Side and End Frame Cladding

This type of cladding is produced in heights 1368-1468-1868-2368-2468 mm for all frame depths. Thus, side and end frame claddings of any dimensions can be provided. Fixing is made by means of 6x10 mm screws (Ref.37).

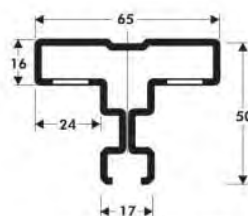


Ref. 39

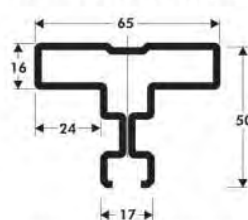




UPRIGHT SECTION
SERIES USA - USB - USM



UPRIGHT SECTION SERIES USR

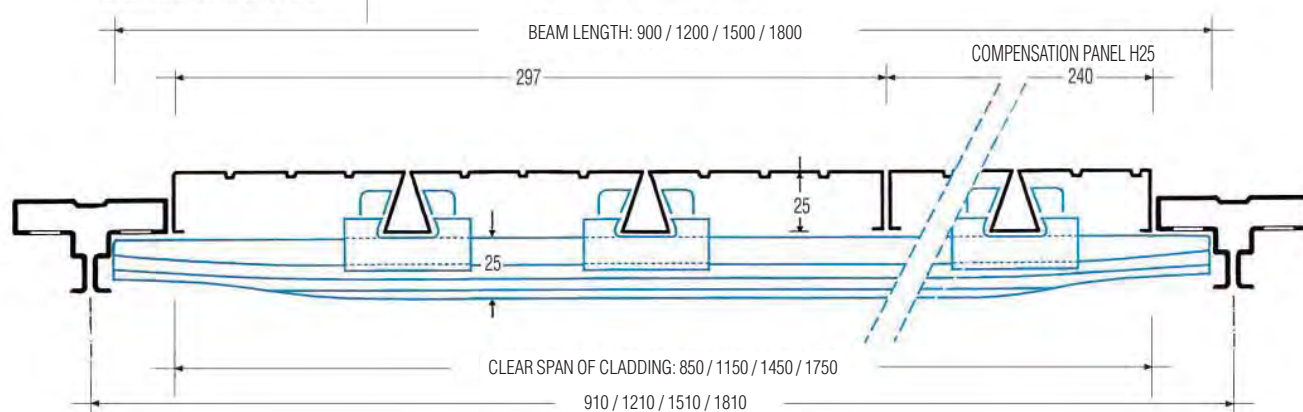


UPRIGHT SECTION SERIES USP
to locate H30 solid shelves

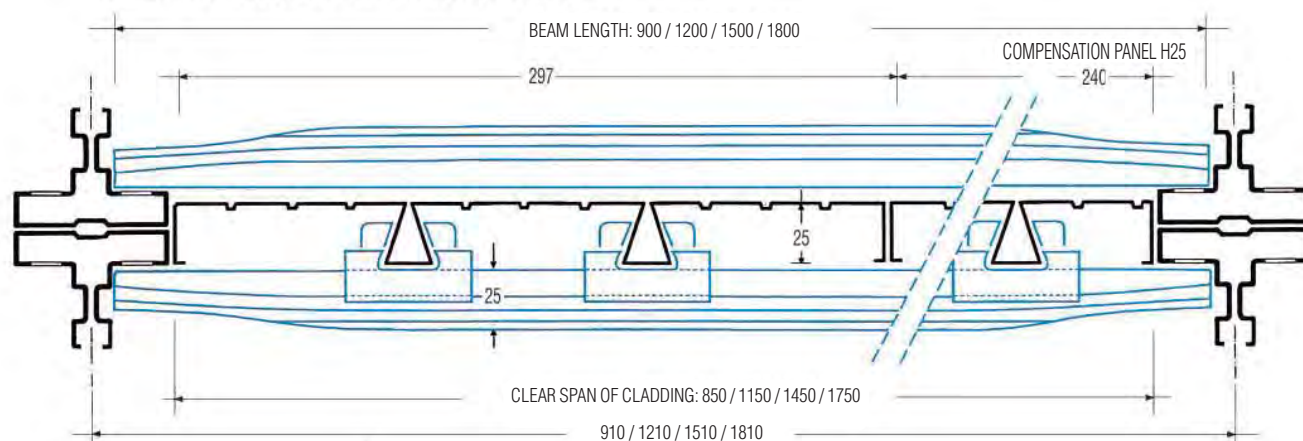


The sketches shown below explain the make up and assembly of H25 cladding. They can be used in conjunction with H47/H80 beams only.

BACK CLADDING H 25



BACK CLADDING H 25 FOR BACK-TO-BACK BAYS



TWO TIER STRUCTURES WITH SUSPENDED WALKWAYS USM-USR (max. load bearing capacity=300 daN/m²)

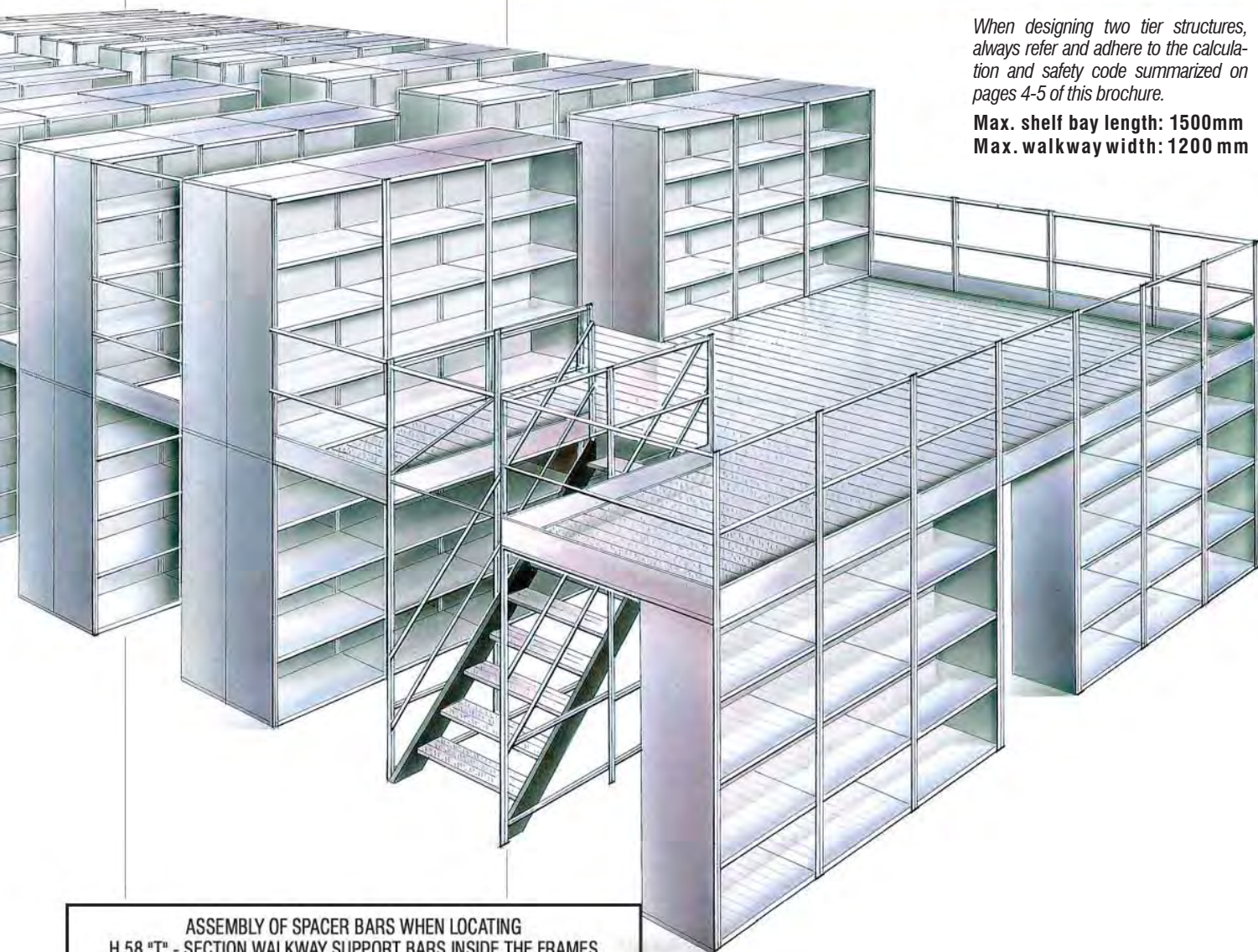
Two tier structures, even varied and complex have been designed and perfected by METALSISTEM combining light with high strength, in the METALSISTEM tradition.

Two tier structures up to a height of 8000 mm can be designed.



When designing two tier structures, always refer and adhere to the calculation and safety code summarized on pages 4-5 of this brochure.

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



ASSEMBLY OF SPACER BARS WHEN LOCATING H 58 "T" - SECTION WALKWAY SUPPORT BARS INSIDE THE FRAMES

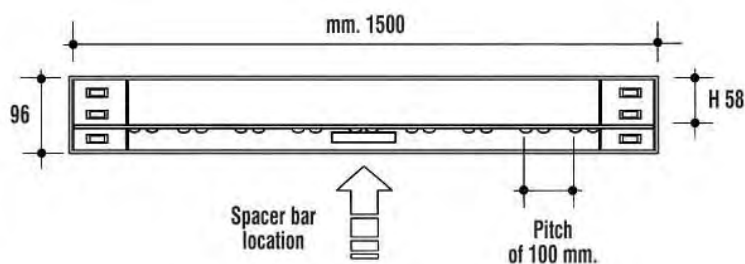
L 900 : NO SPACER BAR

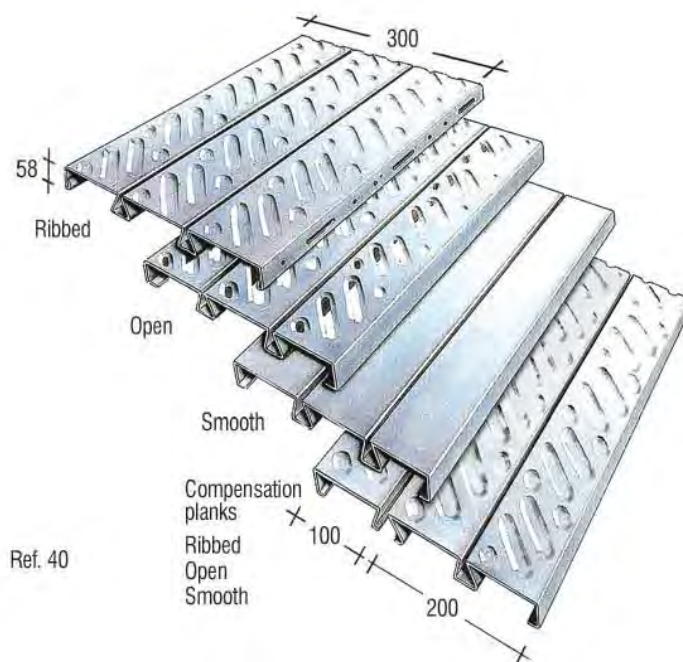
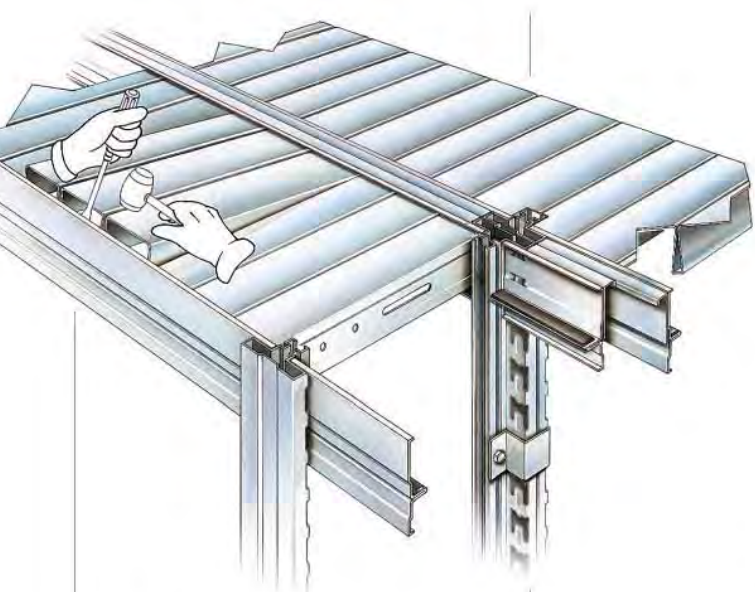
L 1200 : ONE SPACER BAR AT THE CENTRE

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 in the technical addendum.



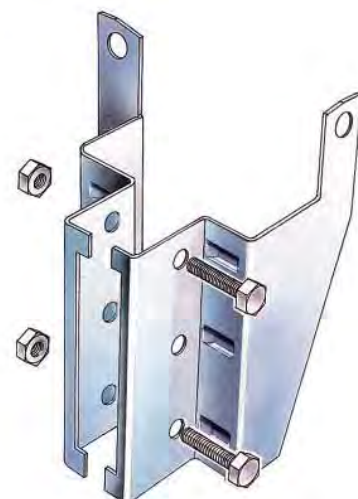
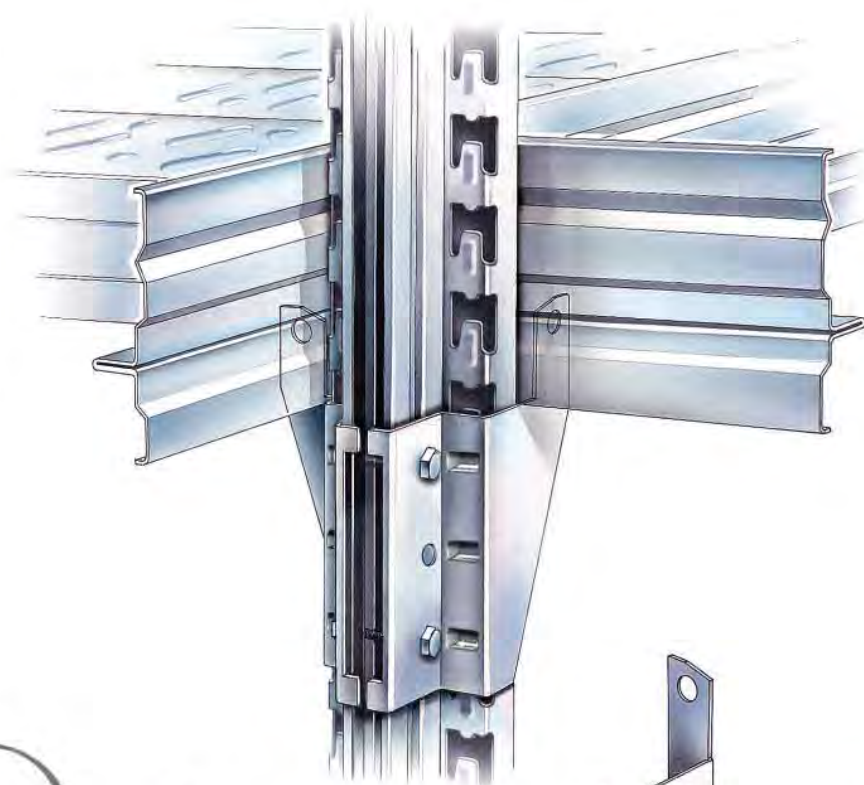


Steel planks

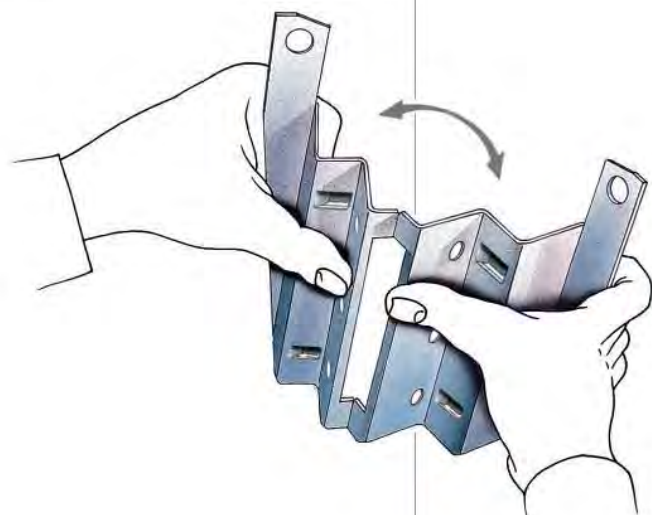
These can be supplied with three different surfaces: ribbed, open and smooth, together with compensation panels and fastening components. The steel planks are inserted into the "T" section supports by levering between the panel and the support (Ref. 40). There are two types of steel planks: one for walk-through 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.

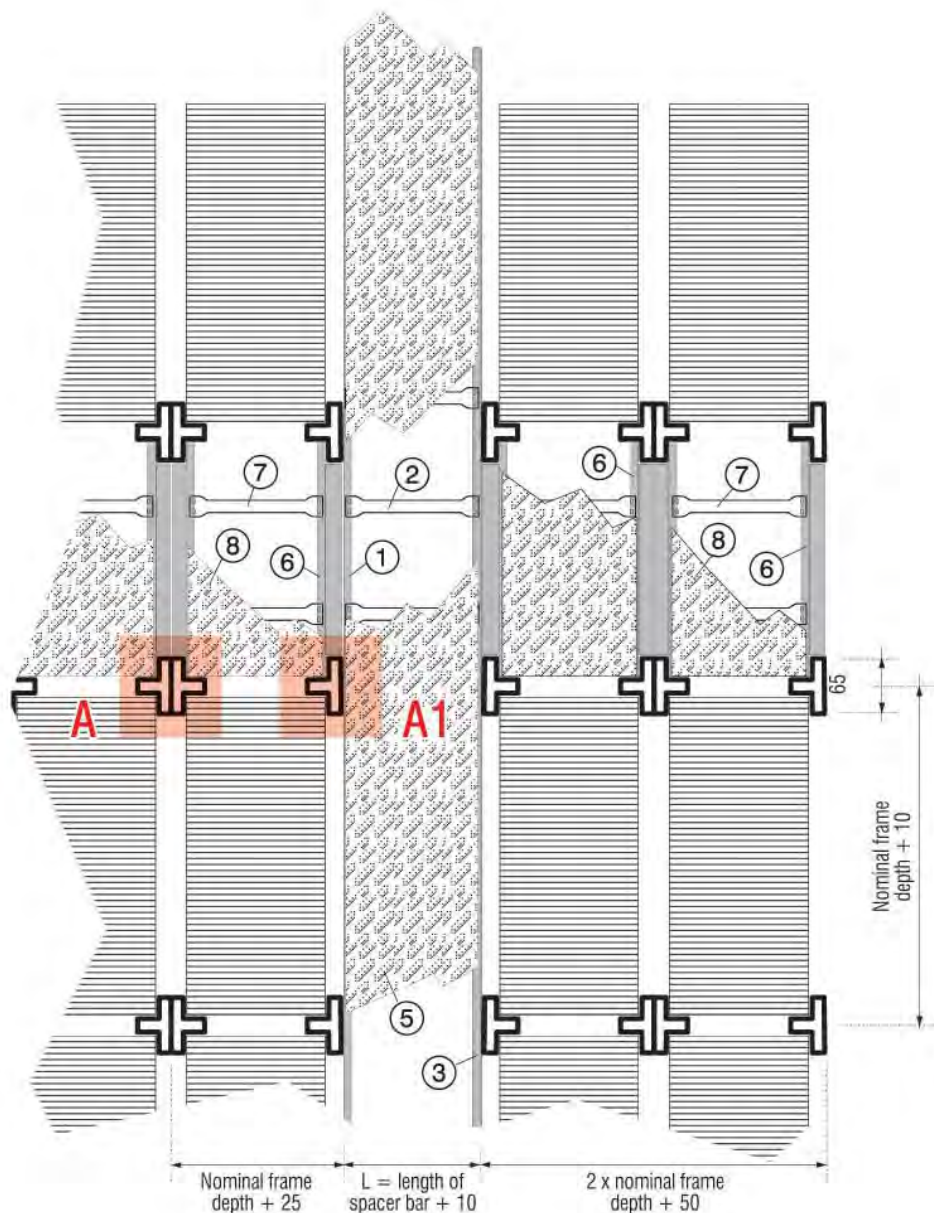
"T-Section" Support bracket - at 90°

"T-Section" support bars can be located at 90° by assembling one half of a wall fastening bracket (art. nr. SLACC131) and one half of a "T-section" support bracket (art. nr. SLACC130) (Ref. 41).



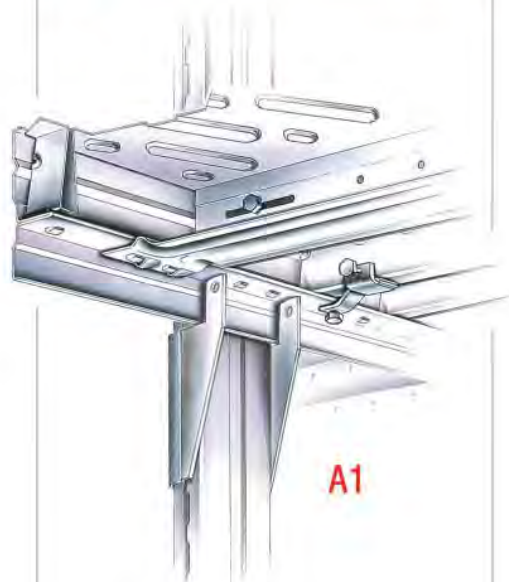
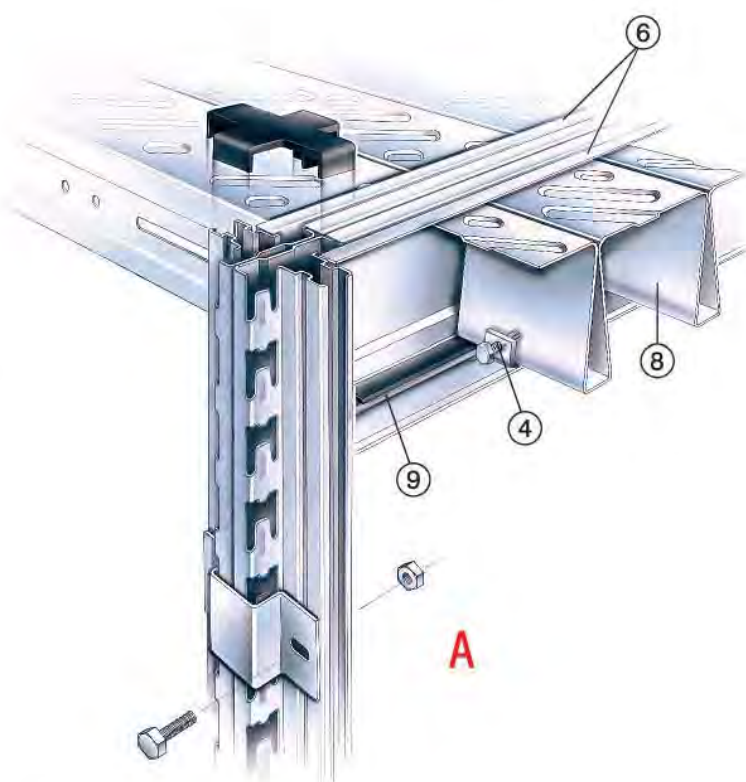
Ref. 41





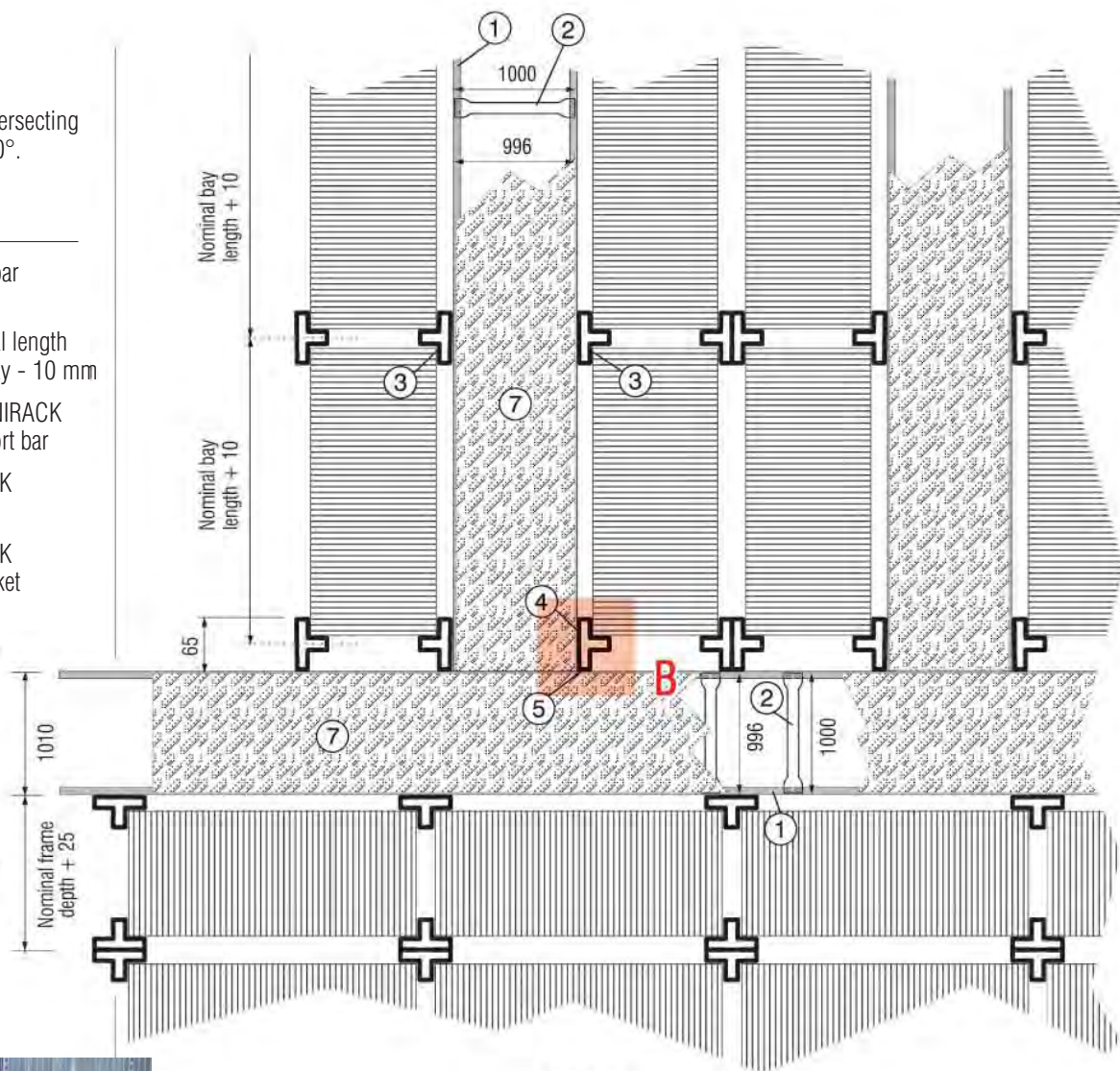
CONFIGURATION ...where intersecting aisles combine with main walkways.

ID	Article nr.	Description
1.	67015	T-section support bar H58 - walkway
2.	99044	Spacer bar - special length L=length of walkway - 10 mm
3.	SLACC130	Support bracket UNIRACK for T-section support bar
4.	69829+69824+69861	Clamp and bracket for beams up to 20 mm
5.	69707	Steel planks H58 "walkway" L=length of special spacer bar (see ID - nr. 2)
6.	SLACC222 SLACC224 SLACC226	T-section support bar H58 -inner frames
7.	99044	Spacer bar - special depth L=nominal frame depth - 10 mm
8.	69704	Steel planks H58 "inner frames" L=nominal frame depth
9.	67021	Noise dampening strip



CONFIGURATION ...where intersecting aisles meet with walkways at 90°.

ID	Article nr.	Description
1.	67015	T-section support bar H58 - walkway
2.	99044	Spacer bar - special length L=width of walkway - 10 mm
3.	SLACC130	Support bracket UNIRACK for T-section support bar
4.	SLACC130	Half of the UNIRACK support bracket
5.	SLACC131	Half of the UNIRACK wall fastening bracket
6.	69829+69824+69861	Clamp and bracket for beams up to 20 mm
7.	69707	Steel planks H58 "walkway" L=length of special spacer bar (see ID - nr. 2)
8.	67021	Noise dampening strip



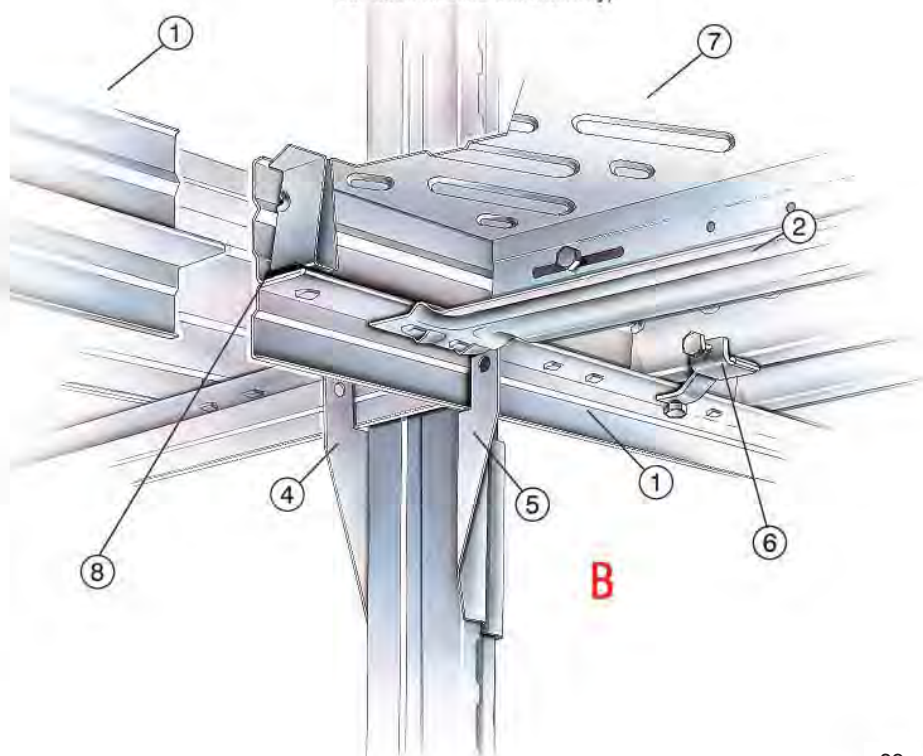
Modular Sliding Gate

The modular METALSISTEM sliding gates are supplied preassembled. The guide rail for the sliding gate is made from a USP-upright profile supplied in standard lengths of 4500 mm which has to be cut to size on site according to individual needs.

For available dimensions and ordering, please refer to page 48.

Example:

1010 mm = width of walkway
1000 mm = length of spacer bar of walkway
996 mm = real length of steel planks for walkway (when ordering please specify the dimension of the spacer bar used to build the walkway).



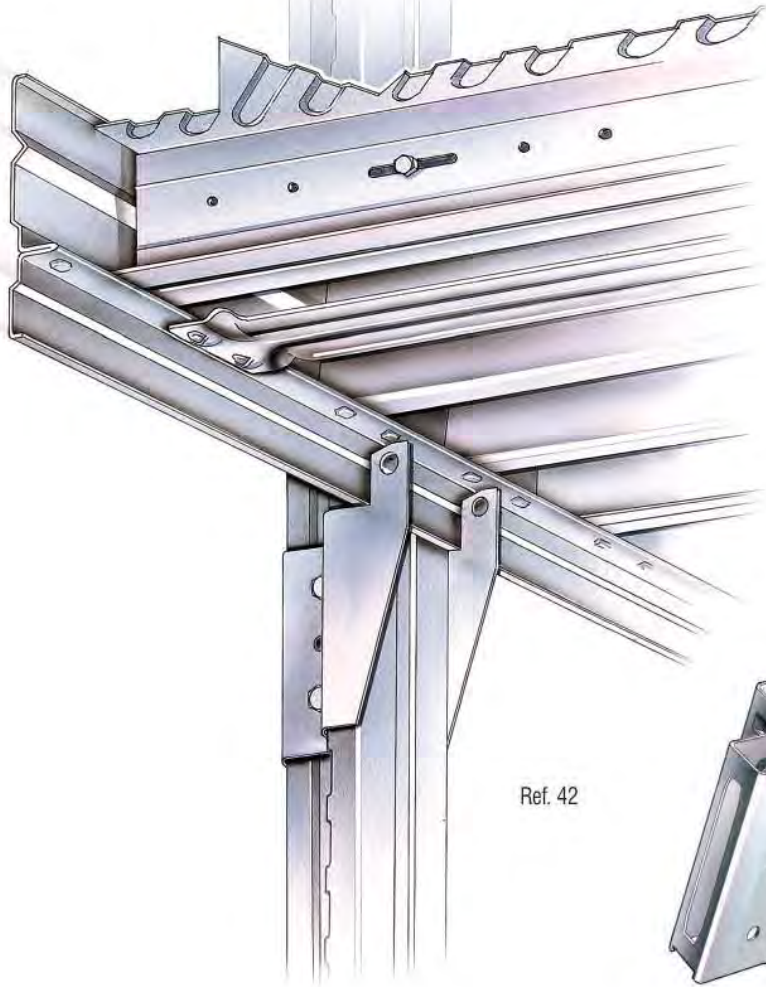
Assembly instructions

Two-tier structures

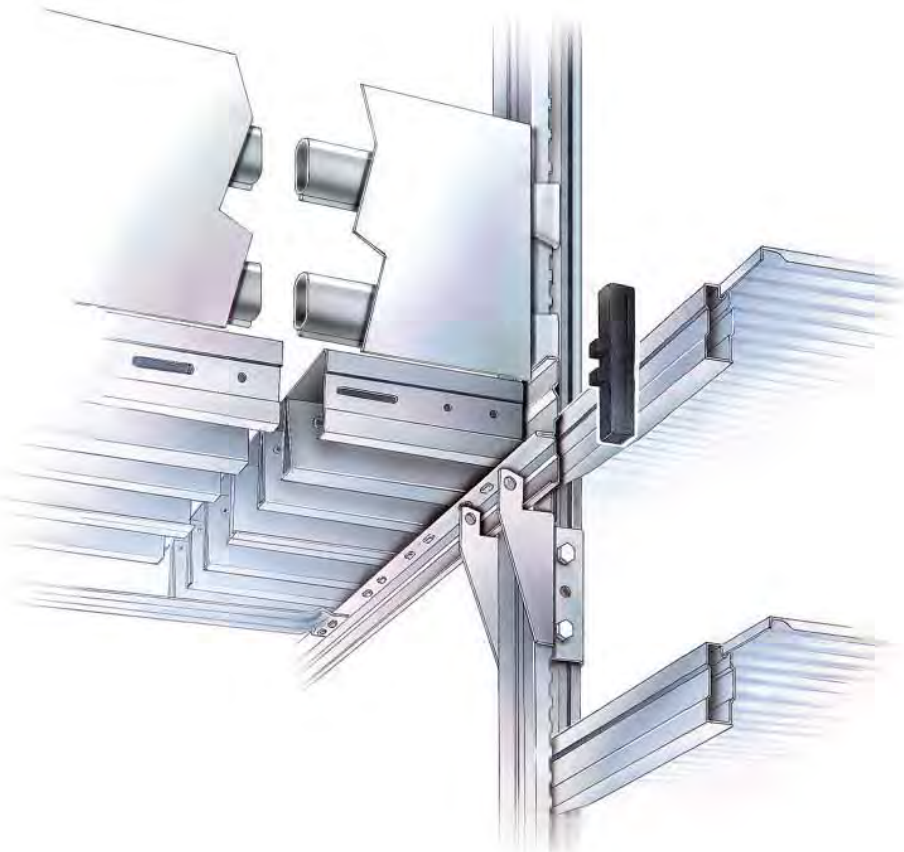
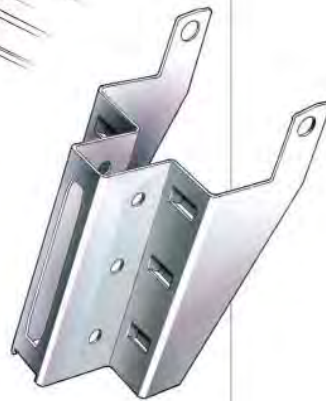
The "T-section" support bracket used for two tier structures makes construction very easy and rapid and is located onto the uprights by bolts & nuts 6x30mm (Ref. 42).

Assemble the "T-section" support bars by fitting spacer bars (art.nr.99044) underneath, at approximately 80 cm centres. When ordering, the length of these spacer bars should be indicated referring to the overall width of the walkway -10 mm.

A noise dampening adhesive strip is fitted onto the "T-section" support bars, beneath the walkway panels.



Ref. 42



Handrails and kickboards

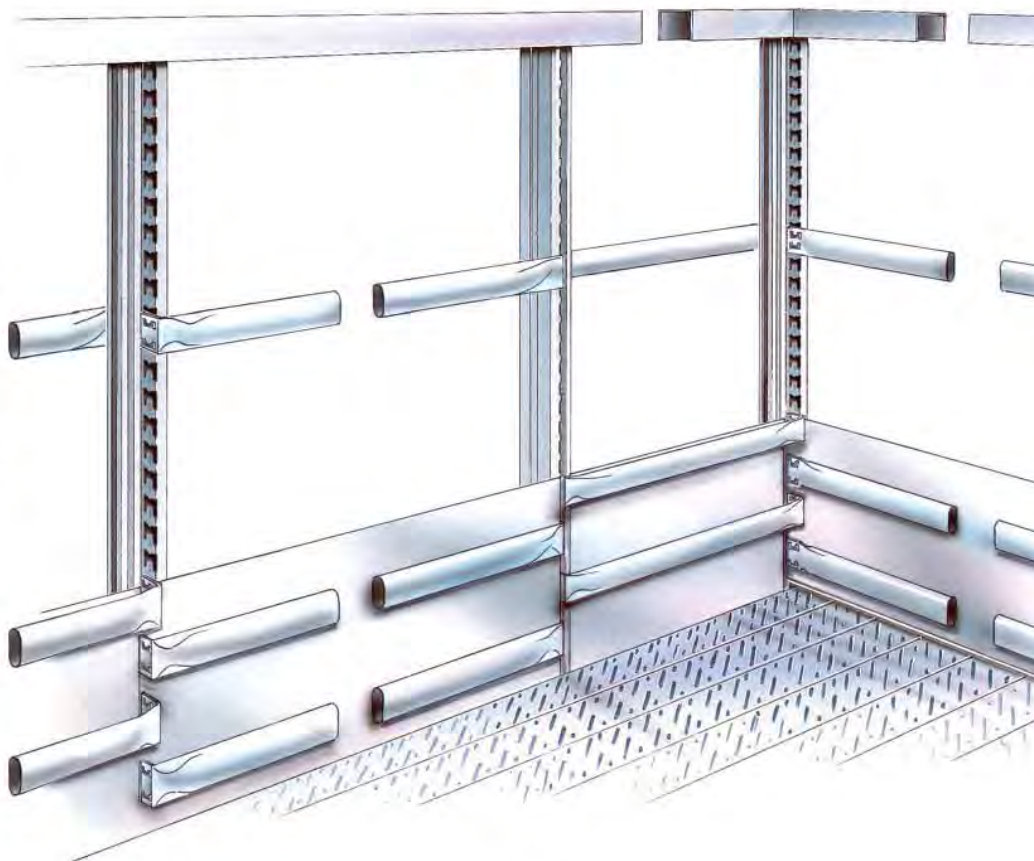
Handrail, knee rail and kickboard dimensions are specified at project design stage (Ref. 43).



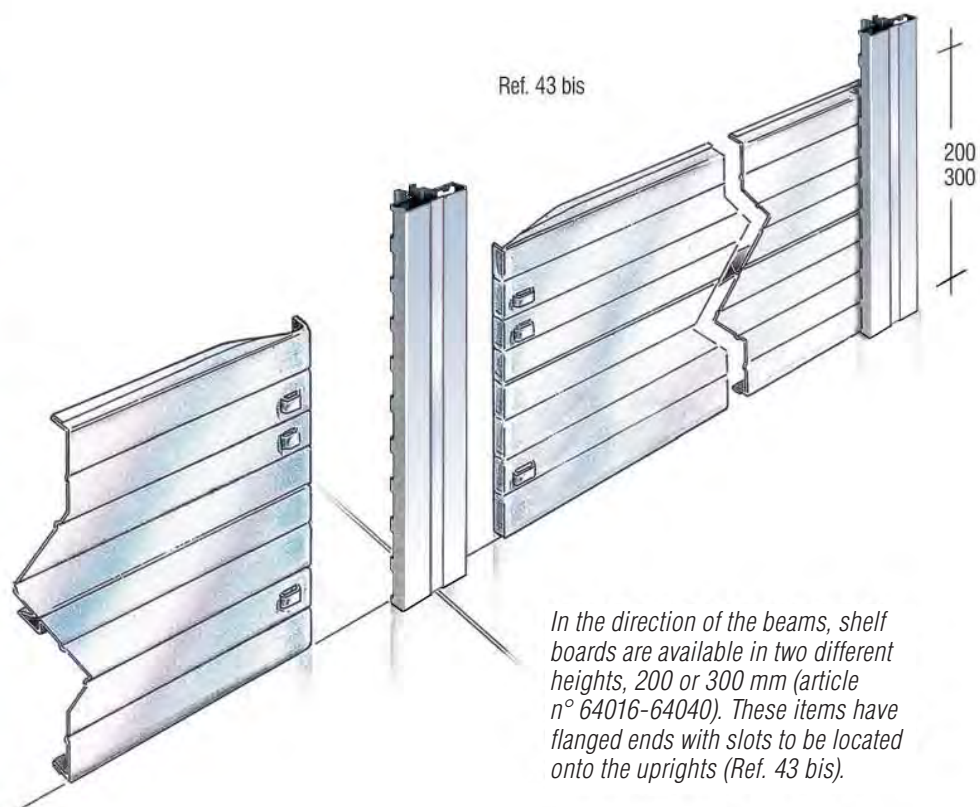
Kickboards

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 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.



Ref. 43



Ref. 43 bis

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. 43 bis).



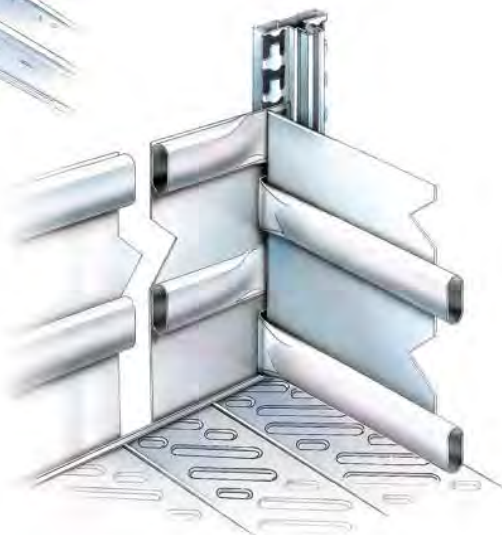
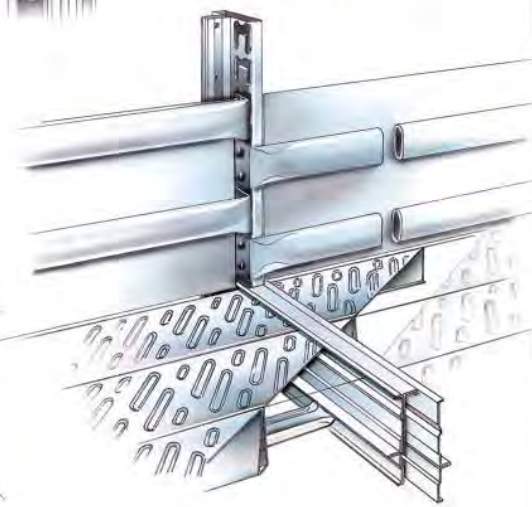
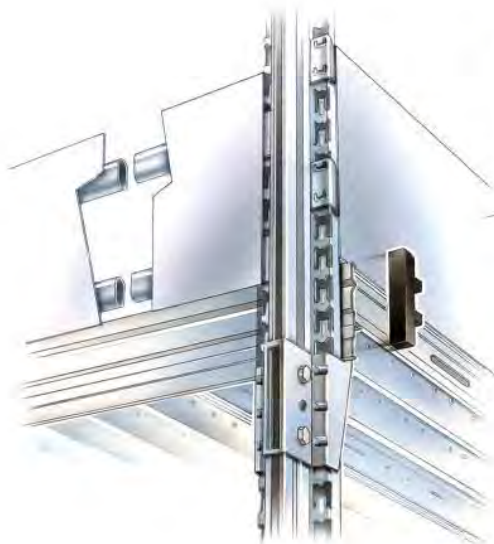
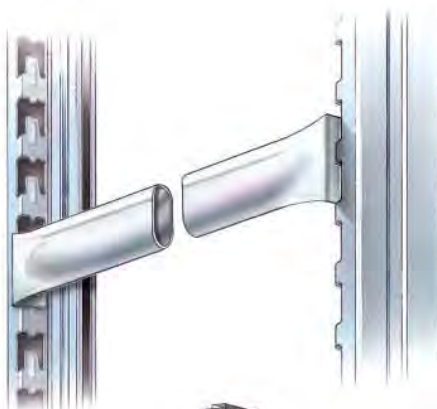
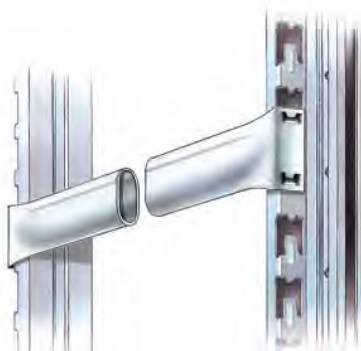
Handrails

The handrails made from oval shaped profiles (Ref. 44) are assembled as follows:

- n°1 tubular handrail
- n°1 tubular kneerail
- n°1 kickboard, made from two oval shaped profiles and finished off with a metal sheet element located onto these profiles.

The use of the beam retaining clips is mandatory.

Ref. 44



Art. nr. 36501 -36510



Cod. 67402



Cod. SLACC118

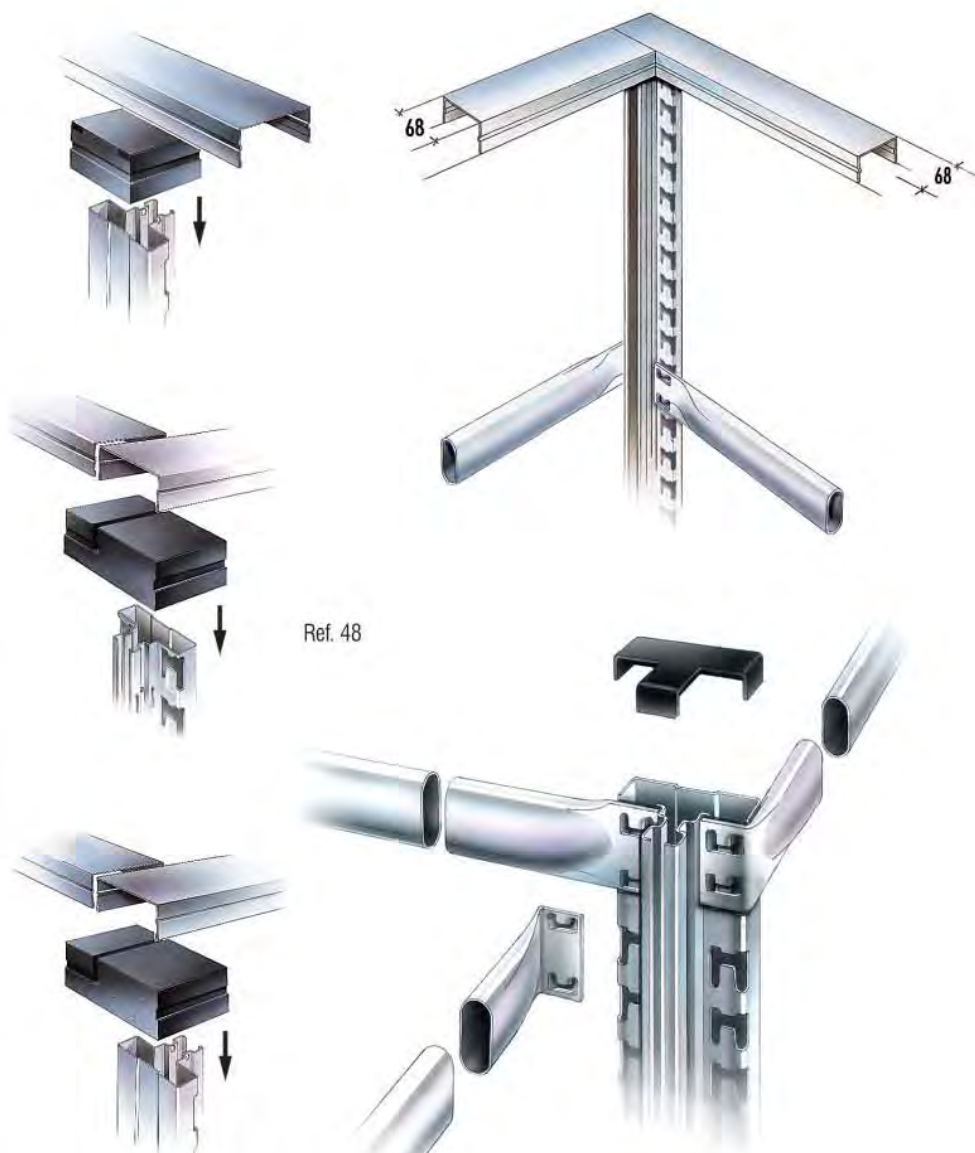
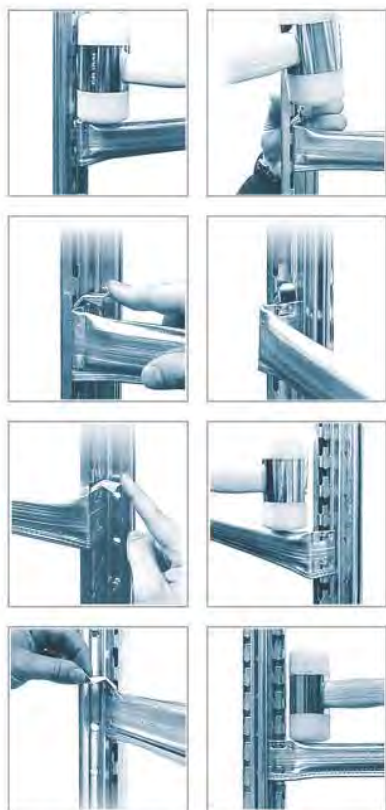
When ordering, customers should pay attention to the following instructions and indicate:

- the length of the special spacer bar of the walkway, when ordering art.n° SLACC118 (for example: overall width of walkway 1010 mm, length of spacer bar and handrail 1000 mm);
- the nominal frame width, when ordering art.nr. 67402;
- the nominal bay length, in case of art. nr. 36501 - 36504 - 36507 - 36510.

For correct ordering of these items, please also refer to page 48 of this brochure.

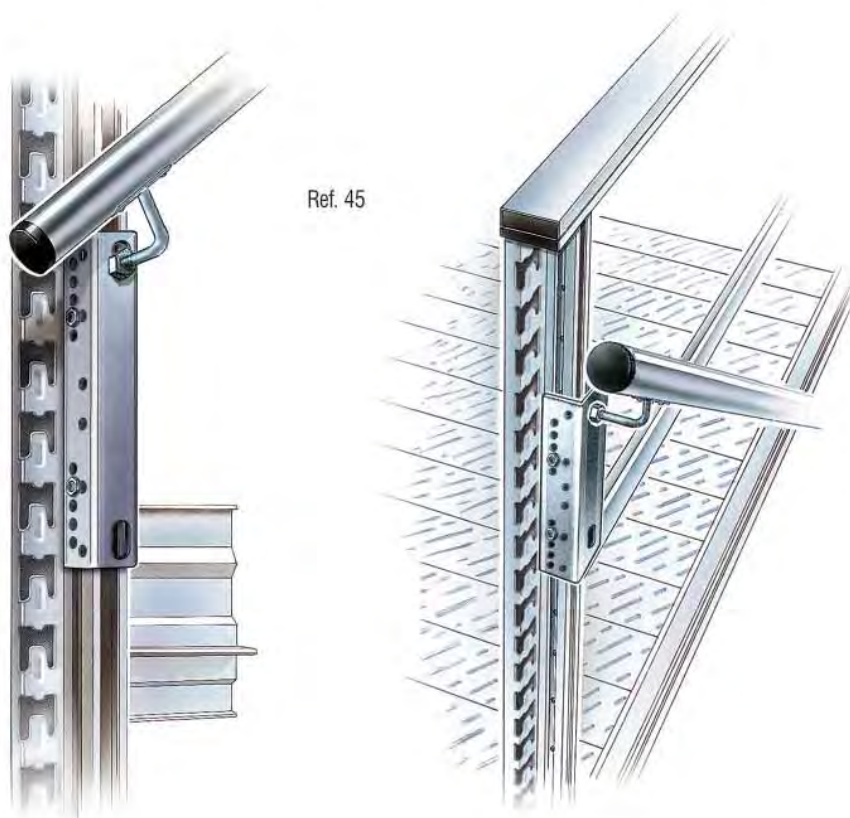
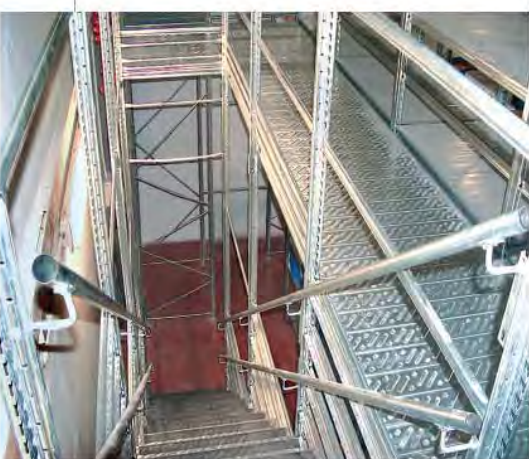
As an alternative to the oval shaped profiles, "U"-section profiles are available as well (Ref. 48).

The "U"-section profiles, 68 mm wide (Art. n° 69808) come in a standard length of 4000 mm and are assembled in conjunction with special PVC supports (Art. n° SLACC076 - SLACC077 - SLACC078).



Staircase Handrail

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



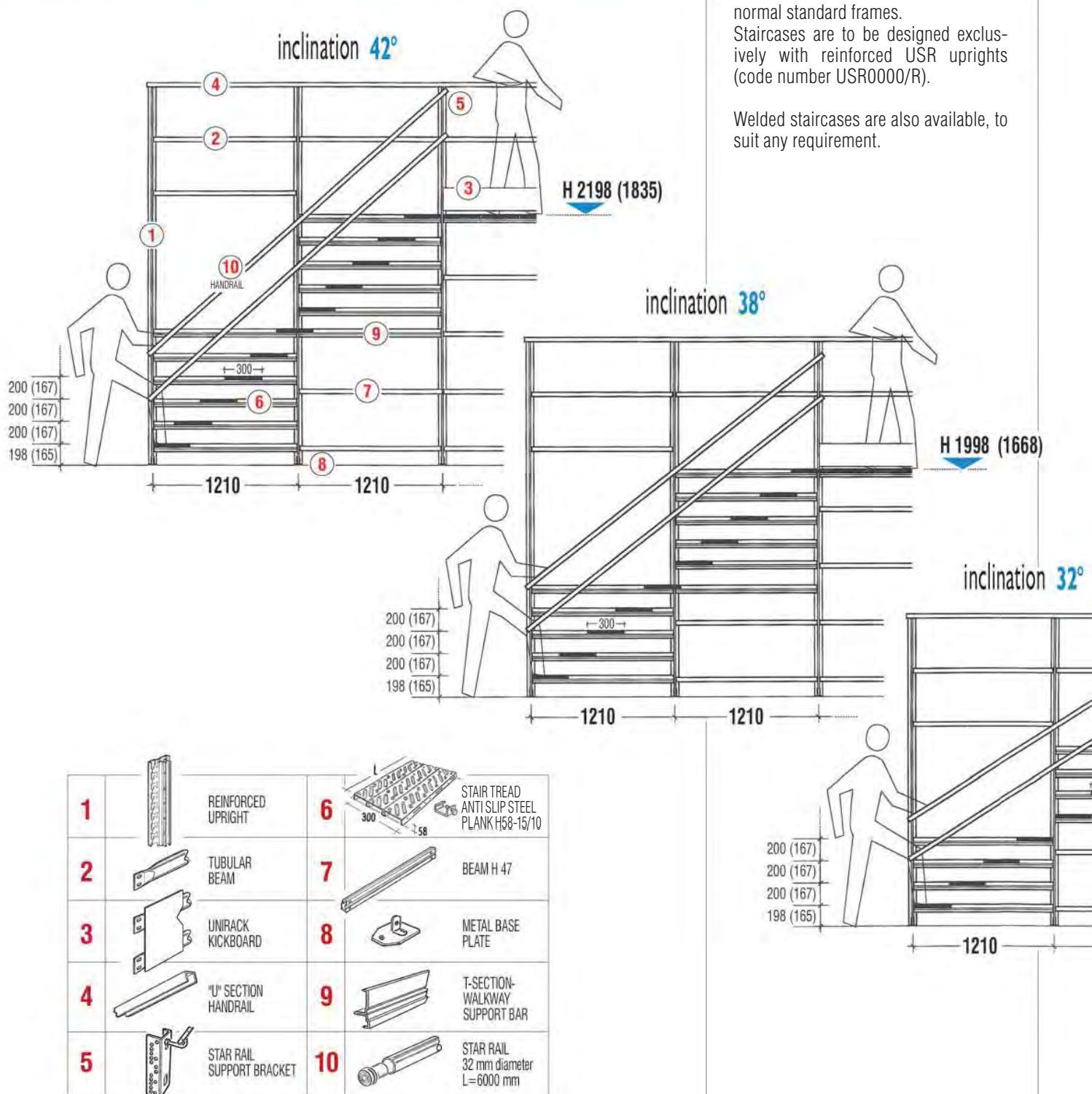


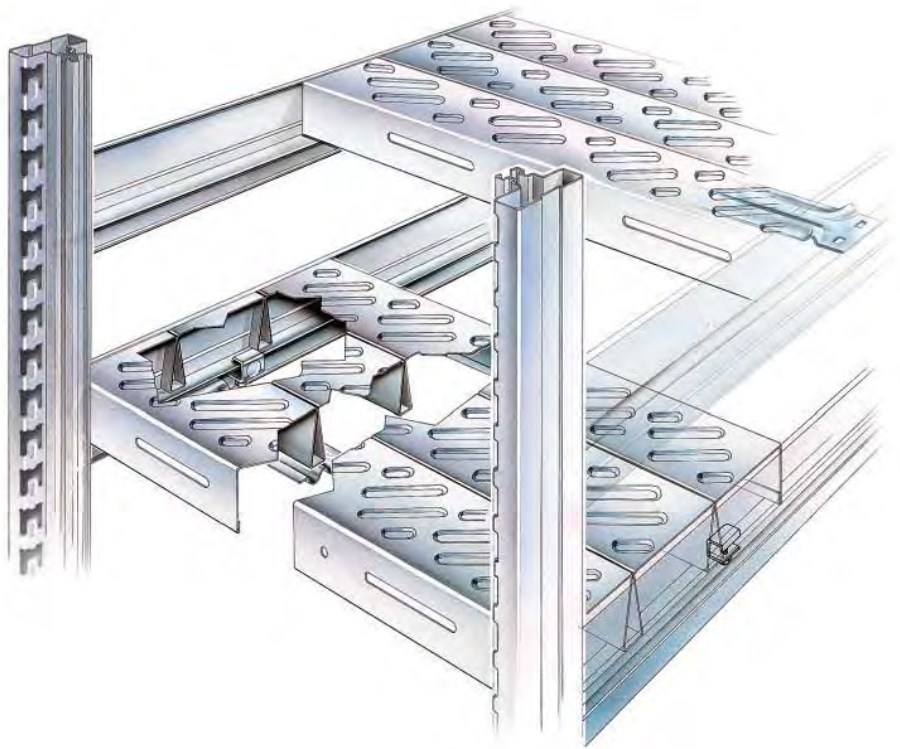
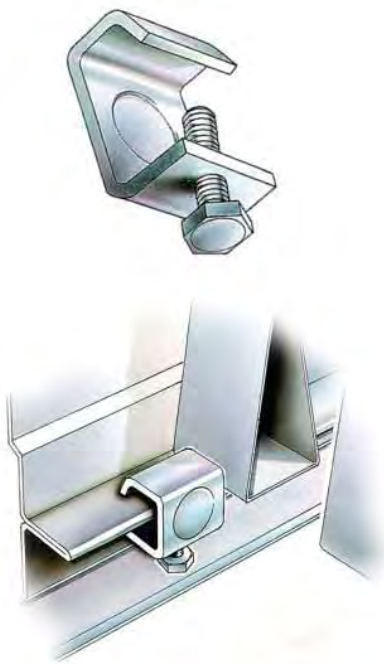
STAIRCASES

These can be built using standard components. The length of the stair treads is specified as a steel plank "inner frame" with a dimension between uprights (i.e. the nominal frame depth). The stair treads are made from anti slip steel planks and are to be fixed with four special clips (Art. nr. 69829 + 69824). 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.

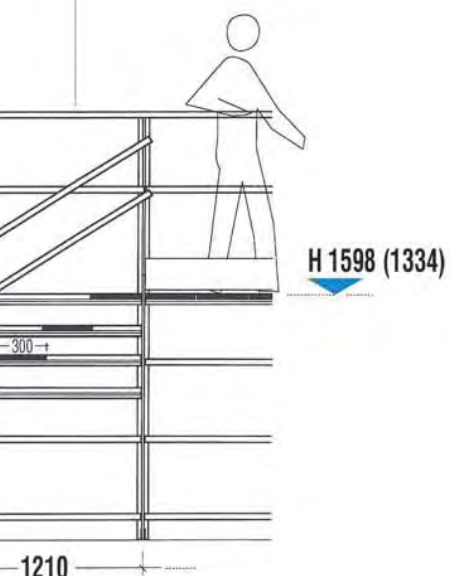
Staircases are to be designed exclusively with reinforced USR uprights (code number USR0000/R).

Welded staircases are also available, to suit any requirement.



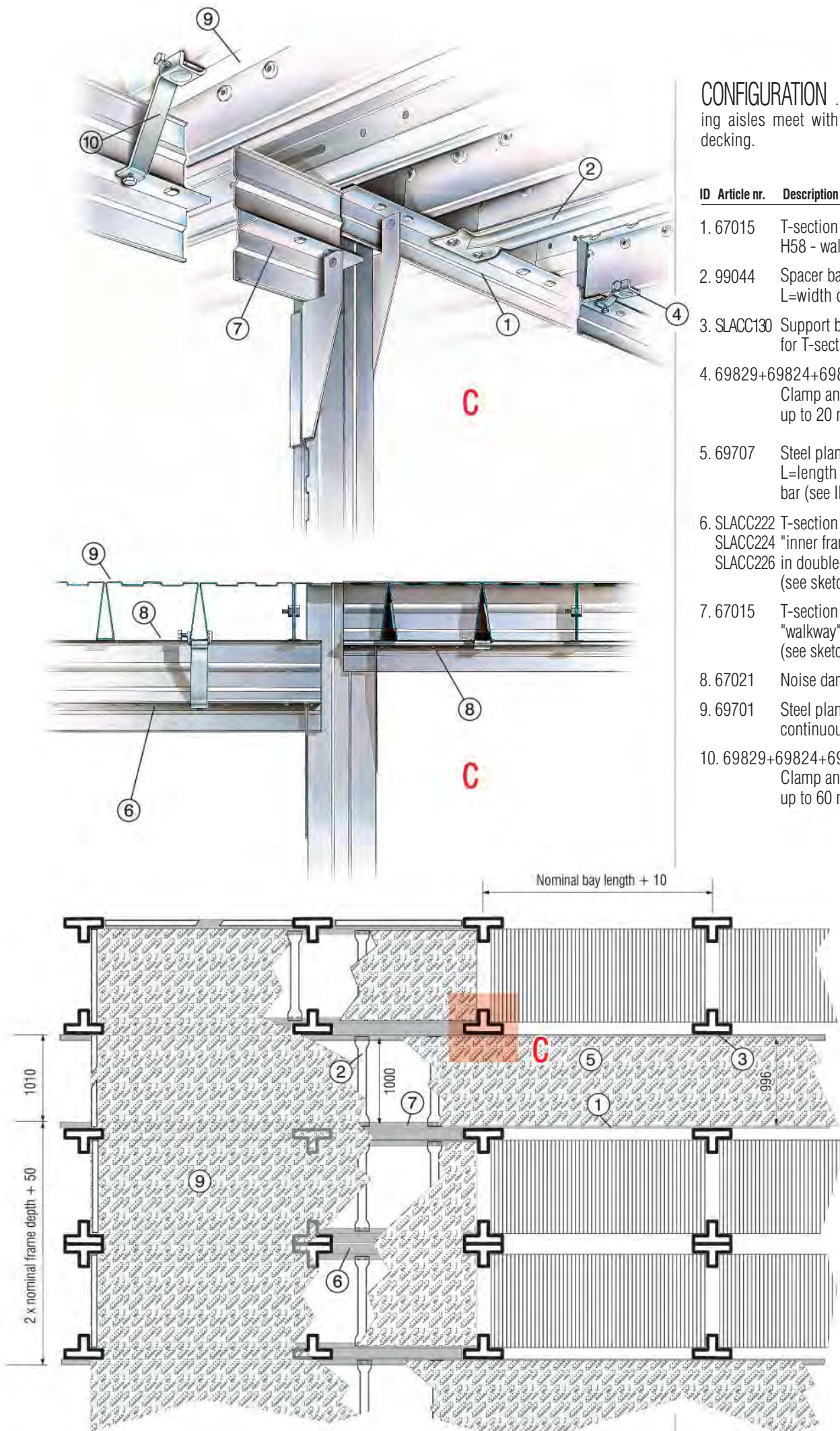


Additional reinforcing profiles must be used either side of the staircase, i.e. for uprights that are not supported by frame bracing.
It is recommended to continue with the regular frame bracing pattern within the frames, as soon as possible.



CONFIGURATION ...where intersecting aisles meet with continuous steel decking.

ID	Article nr.	Description
1.	67015	T-section support bar H58 - walkway
2.	99044	Spacer bar - special length L=length of walkway - 10 mm
3.	SLACC130	Support bracket UNIRACK for T-section support bar
4.	69829+69824+69861	Clamp and bracket for beams up to 20 mm
5.	69707	Steel planks H58 "walkway" L=length of special spacer bar (see ID - nr. 2)
6.	SLACC222 SLACC224 SLACC226	T-section support bar H58 "inner frames" in double-version (see sketch at left)
7.	67015	T-section support bar H58 "walkway" in double-version (see sketch at left)
8.	67021	Noise dampening strip
9.	69701	Steel planks H58 - continuous steel decking
10.	69829+69824+69863	Clamp and bracket for beams up to 60 mm



Steel planking

"T"- section support bars H58 can be used as support beams for the steel planking (Ref.52).

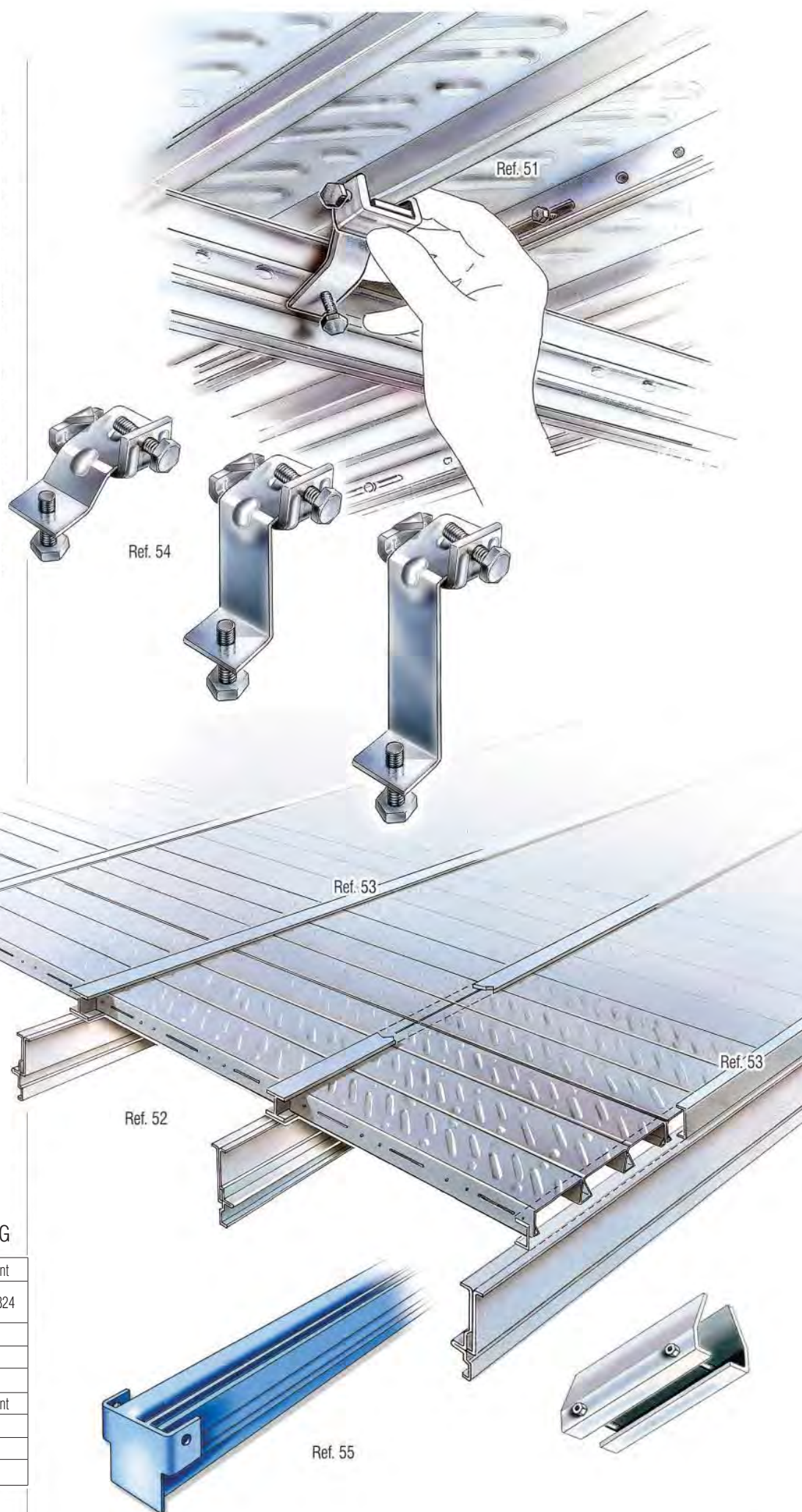
Floors of any dimension can be built in conjunction with "H" joints and "U" section channels. They are used as end and middle joints (Ref.53).

The "T"-section supports are fitted back-to-back. One is fitted on the outside of the uprights 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.51/54).

The joining piece (art.nr.69813) with two 6x35 mm bolts (art.nr.69816) is used to connect the planks in a longitudinal direction.

When joining the planks in a transverse direction, the 6x20 mm bolts should be used in the appropriate holes.



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. 55).

Ordering dimension is the clear span of the walkway -10mm.

ACCESSORIES FOR STEEL PLANKING

For beams up to 60 mm in height	Component
Bracket & bolt 8mm for clamps 20/40/60 mm	69829+69824
Clamp for beams up to 20 mm + bolt 8 mm	69861
Clamp for beams up to 40 mm + bolt 8 mm	69862
Clamp for beams up to 60 mm + bolt 8 mm	69863
Longitudinal connection	Component
Joint for longitudinal connection (single item)	69813
Bolt & nut 6x35	69816
Joint for traverse direction bolt & nut 6x20	69825

Mobile Shelving

UNIRACK shelving series are highly suited to achieve modular and cost effective mobile shelving applications as shown in the pictures on this page and on page 6.

For the design and ordering of mobile shelving installations please refer to the MOBIBASIC Technical Manual <MT16>.

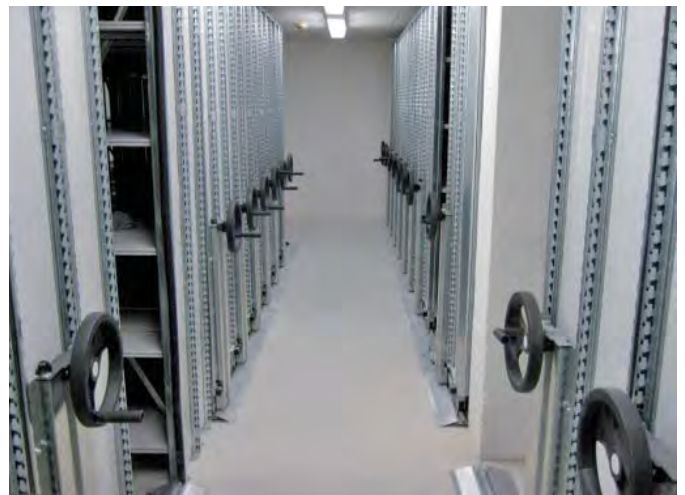
Sliding doors are ideal for areas with limited corridor width and can be used to create closed spaces or cupboards.



They are lockable and available for both static or mobile shelving installations in 900-1200-1500 mm standard bays at heights of 2000 or 2500 mm. See page 39.

Mobile Ladders

Mobile Ladders are available in 2000 mm (5 step), 2500 mm (7 step) and 3000 mm (9 step) height and can be supplied with guide rail and curves to adapt them to any environment (Ref. 56).



Ref. 56

SERIES: USP for solid shelves

PATENTED ADJUSTABLE SHELVING SYSTEM

FRAMES- SERIES USP COMPLETE WITH UPRIGHTS, HORIZONTAL AND DIAGONAL BRACING LOAD BEARING CAPACITY 2300 daN EACH.

Regarding technical data, standard specifications and assembly diagram, please refer to pages 4/5 of the UNIRACK brochure.



Ref. 1b

component	height mm	depth mm
USP03X20	2000	320
USP03X25	2500	320
USP03X30	3000	320
USP03X35	3500	320

USP04X20	2000	400
USP04X25	2500	400
USP04X30	3000	400
USP04X35	3500	400

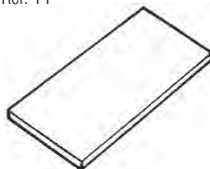
USP05X20	2000	500
USP05X25	2500	500
USP05X30	3000	500
USP05X35	3500	500

USP06X20	2000	600
USP06X25	2500	600
USP06X30	3000	600
USP06X35	3500	600

The frames of the USP series can be used with solid shelves H30 only.

SOLID SHELVES H 30 USP SERIES

Ref. 14



SHELF CLIP USP SERIES



REINFORCER FOR H 30 SOLID SHELVES, ZINC COATED USP SERIES

component	length mm	depth mm	load capacity daN unif. distr. load
SLPIA083	800	320	120
SLPIA084	800	400	120
SLPIA085	800	500	120
SLPIA086	800	600	120

SLPIA103	1000	320	100
SLPIA104	1000	400	100
SLPIA105	1000	500	100
SLPIA106	1000	600	100

SLPIA123	1200	320	80
SLPIA124	1200	400	80
SLPIA125	1200	500	80
SLPIA126	1200	600	80

The solid shelves can be used with USP frame series only.

SLACC023

SLRIN080	800
SLRIN100	1000
SLRIN120	1200



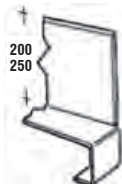
UPRIGHT USP FOR H 30 SOLID SHELVES



Ref. 1b

component	height mm
USP2000	2000
USP2500	2500
USP3000	3000
USP3500	3500

VERT. SLID. DIVIDERS FOR SOLID SHELVES H 30 USP SERIES



component	height mm	depth mm
SLDS3020	200	320
SLDS3025	250	320

SLDS4020	200	400
SLDS4025	250	400

SLDS5020	200	500
SLDS5025	250	500

SLDS6020	200	600
SLDS6025	250	600



ITEM:

Single Sided Plastic Bin Trolley

Double Sided Plastic Bin Trolley

component	00005598	00005179
dimension <LxDxH> mm:	720 x 390 x 1210	1120 x 500 x 1240
load levels:	6 single sided levels	7 double sided levels

Description: trolley on four rubber rimmed swivelling castors, two with brakes.

Designed to accommodate BULL plastic bin series on 6 or 7 levels in height, respectively.

Suited for BULL-1 to BULL-3 plastic bin series.

The trolleys are supplied preassembled in kit form; the kit does not contain the modular plastic bins, these need to be ordered separately.

ACCESSORIES/COMPONENTS

UNIRACK SERIES

PATENTED ADJUSTABLE SHELVING SYSTEM

LOCKABLE DOOR, GREY RAL 7001



component	length x height mm
68201	900x2000H
68204	1200x2000H
68207	1500x2000H

68210	900x2500H
68213	1200x2500H
68216	1500x2500H

LOCKABLE SLIDING DOOR

- standard surface finish: powder coated blue, RAL 5010
- other colours are available upon request
- see also METALSISTEM INFORMA n° 583



bay length x height mm	Static UNIRACK shelving component	Mobile shelving application MOBIBASIC component
900x2000H	SLACC400	MB300
1200x2000H	SLACC402	MB302
1500x2000H	SLACC404	MB304

900x2500H	SLACC410	MB310
1200x2500H	SLACC412	MB312
1500x2500H	SLACC414	MB314



MOBILE LADDER

Ref. 56 page 38



component	nominal height mm	steps
00008879	2000	5
00008880	2500	7
00008881	3000	9

MOBILE LADDER GUIDE RAIL

Ref. 56 page 38



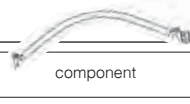
component	length mm	component	length mm
00008894	900	00008898	1500
00008895	1050	00008899	1650
00008896	1200	00008900	1800
00008897	1350		

RAIL FASTENING SET



00008889

RAIL CURVE



00008890

SERIES: USA

PATENTED ADJUSTABLE SHELVING SYSTEM

FRAMES- SERIES USA COMPLETE WITH UPRIGHTS, HORIZONTAL AND DIAGONAL BRACING LOAD BEARING CAPACITY 2600 daN EACH.

Regarding technical data,
standard specifications
and assembly diagram,
please refer
to pages 4/5 of the
UNIRACK brochure.



Ref. 2a

component	height mm	depth mm
USA03x20	2000	320
USA03x25	2500	320
USA03x30	3000	320
USA03x35	3500	320
USA04x20	2000	400
USA04x25	2500	400
USA04x30	3000	400
USA04x35	3500	400
USA05x20	2000	500
USA05x25	2500	500
USA05x30	3000	500
USA05x35	3500	500

component	height mm	depth mm
USA06x20	2000	600
USA06x25	2500	600
USA06x30	3000	600
USA06x35	3500	600
USA07x20	2000	700
USA07x25	2500	700
USA07x30	3000	700
USA07x35	3500	700
USA08x20	2000	800
USA08x25	2500	800
USA08x30	3000	800
USA08x35	3500	800

UPRIGHT USA

Ref. 2



component	height mm
USA2000	2000
USA2500	2500
USA3000	3000
USA3500	3500

BEAM S-O

Ref. 5



component	length mm	Load <daN> per pair uniformly distrib.load
30001L	900	200
30003L	1050	170
30004L	1200	150

The load bearing capacity of the beams is to be understood as referring to uniformly distributed loads, per pair of beams. The load bearing indication is valid and applicable for a use of the beams with modular shelves and/or modular containers only.

BEAM S1

Ref. 5



component	length mm	Load <daN> per pair uniformly distrib.load
30001	900	280
30003	1050	235
30004	1200	205
30005	1350	180
30007	1500	145
30008	1650	120

BEAM S1G

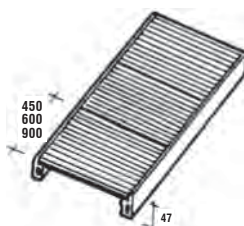
Ref. 6



component	length mm	Load <daN> per pair uniformly distrib.load
32604	1500	350
32607	1800	310

COMPLETE SHELVES WITH BEAMS S-O AND PANELS H 12 MM

Regarding technical data
and standard specifications,
please refer to pages 4/5.

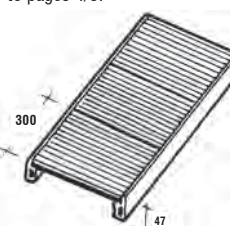


Ref. 11

component	length mm	depth mm	Load capacity <daN> uniformly distrib.load
80001	900	320	200
80004	900	400	200
80007	900	500	185
80010	900	600	150
80013	900	700	130
80014	1050	320	170
80015	1050	400	170
80016	1050	500	170
80017	1050	600	170
80018	1050	700	155
80019	1200	320	150
80022	1200	400	150
80025	1200	500	150
80028	1200	600	150
80031	1200	700	150

COMPLETE SHELVES WITH BEAMS S-O AND PANELS H 25/A

Regarding technical data
and standard
specifications,
please refer
to pages 4/5.

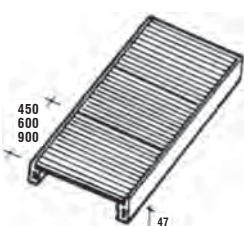


Ref. 13

component	length mm	depth mm	Load capacity <daN> uniformly distrib.load
80004A	900	400	200
80007A	900	500	200
80010A	900	600	200
80013A	900	700	200
80022A	1200	400	150
80025A	1200	500	150
80028A	1200	600	150
80031A	1200	700	150

COMPLETE SHELVES WITH BEAMS S1 AND PANELS H 12 MM

Regarding technical data
and standard specifications,
please refer to pages 4/5 .

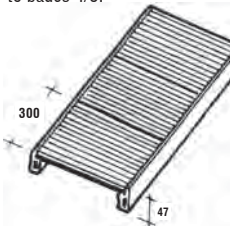


Ref. 11

component	length mm	depth mm	Load capacity <daN> uniformly distrib.load
80501	900	320	280
80504	900	400	235
80507	900	500	185
80510	900	600	150
80513	900	700	130
80519	1200	320	205
80522	1200	400	205
80525	1200	500	205
80528	1200	600	205
80531	1200	700	180
80537	1500	320	145
80540	1500	400	145
80543	1500	500	145
80546	1500	600	145
80549	1500	700	145


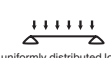

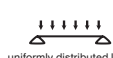


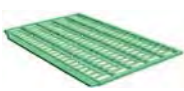



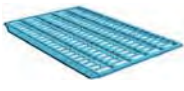
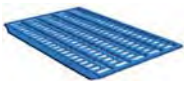


COMPLETE SHELVES WITH BEAMS S1 AND PANELS H 25/A

Regarding technical data
and standard
specifications,
please refer
to pages 4/5.



Ref. 13

component	length mm	depth mm	Load capacity <daN> uniformly distrib.load
80504A	900	400	280
80507A	900	500	280
80510A	900	600	280
80513A	900	700	280
80516A	900	800	230
80522A	1200	400	205
80525A	1200	500	205
80528A	1200	600	205
80531A	1200	700	205
80534A	1200	800	180
80540A	1500	400	145
80543A	1500	500	145
80546A	1500	600	145
80549A	1500	700	145
80552A	1500	800	130
















METALSISTEM's plastic shelf panels are made from high quality polypropylene. The perforation is > 50% of the shelf surface area. The load capacity of "FROST" shelf panels is lower when used within a temperature range of 0°C up to 30°C. This is due to the fact that the "FROST" shelf panels are made from specific materials and additives to achieve a higher grade of suppleness and thus ensure suitability for use within cold temperatures.				For use within a temperature range of -30°C up to 0°C		For use within a temperature range of 0°C up to 30°C		
Colour	Component	Dimension L x D <mm>		uniformly distributed load 	Impact Load 	uniformly distributed load 	Impact Load 	
		light green	PL30x32D1 300x320	50 daN	1,2 joule	30 daN	3,0 joule	yes
			PL30x40D1 300x400					
			PL30x50D1 300x500					
		white	PL30x32C1 300x320	not applicable		67 daN	1,2 joule	yes
			PL30x40C1 300x400					
			PL30x50C1 300x500					
		yellow	PL30x32A1 300x320					
			PL30x40A1 300x400					
			PL30x50A1 300x500					
		light blue	PL30x32B1 300x320					
			PL30x40B1 300x400					
			PL30x50B1 300x500					
		blue	PL30x32B2 300x320					
			PL30x40B2 300x400					
			PL30x50B2 300x500					
		black	PL30x32N1 300x320	not applicable		67 daN	1,2 joule	no
			PL30x40N1 300x400					
			PL30x50N1 300x500					

Additionally to the perforated plastic shelf panels in 300 mm width, compensation panels in 150 mm and 200 mm width are also available to suit bay lengths of 1050/1350/1650 mm. The load bearing capacities for these compensation shelf panels are indicated below and refer to uniformly distributed loads:

150/200 mm compensation shelf panel of the STANDARD/ECO range: 40daN/shelf panel

150/200 mm compensation shelf panel of the FROST series, within a temperature range of -30°C up to 0°C: 30daN/shelf panel

150/200 mm compensation shelf panel of the FROST series, within a temperature range of 0°C up to 30°C: 20daN/shelf panel

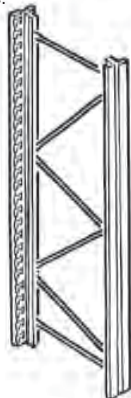
Compensation Shelf Panel 200mm width		Range		Compensation Shelf Panel 150mm width	
Component	Dimension L x D <mm>			Component	Dimension L x D <mm>
PL20x32D1 200x320 PL20x40D1 200x400 PL20x50D1 200x500		light green		light green	
PL15x32D1 150x320 PL15x40D1 150x400 PL15x50D1 150x500					
PL20x32C1 200x320 PL20x40C1 200x400 PL20x50C1 200x500		white		white	
PL15x32C1 150x320 PL15x40C1 150x400 PL15x50C1 150x500					
PL20x32A1 200x320 PL20x40A1 200x400 PL20x50A1 200x500		yellow		yellow	
PL15x32A1 150x320 PL15x40A1 150x400 PL15x50A1 150x500					
PL20x32B1 200x320 PL20x40B1 200x400 PL20x50B1 200x500		light blue		light blue	
PL15x32B1 150x320 PL15x40B1 150x400 PL15x50B1 150x500					
PL20x32B2 200x320 PL20x40B2 200x400 PL20x50B2 200x500		blue		blue	
PL15x32B2 150x320 PL15x40B2 150x400 PL15x50B2 150x500					
PL20x32N1 200x320 PL20x40N1 200x400 PL20x50N1 200x500		black		black	
PL15x32N1 150x320 PL15x40N1 150x400 PL15x50N1 150x500					

SERIES: USB

PATENTED ADJUSTABLE SHELVING SYSTEM

FRAMES- SERIES USB COMPLETE WITH UPRIGHTS, HORIZONTAL AND DIAGONAL BRACING LOAD BEARING CAPACITY 3000 daN EACH.

Regarding technical data, standard specifications and assembly diagram, please refer to pages 4/5 of the UNIRACK brochure.



Ref. 2a

component	height mm	depth mm	component	height mm	depth mm
USB03X20	2000	320	USB06X20	2000	600
USB03X25	2500	320	USB06X25	2500	600
USB03X30	3000	320	USB06X30	3000	600
USB03X35	3500	320	USB06X35	3500	600
USB03X40	4000	320	USB06X40	4000	600
USB03X45	4500	320	USB06X45	4500	600
USB04X20	2000	400	USB07X20	2000	700
USB04X25	2500	400	USB07X25	2500	700
USB04X30	3000	400	USB07X30	3000	700
USB04X35	3500	400	USB07X35	3500	700
USB04X40	4000	400	USB07X40	4000	700
USB04X45	4500	400	USB07X45	4500	700
USB05X20	2000	500	USB08X20	2000	800
USB05X25	2500	500	USB08X25	2500	800
USB05X30	3000	500	USB08X30	3000	800
USB05X35	3500	500	USB08X35	3500	800
USB05X40	4000	500	USB08X40	4000	800
USB05X45	4500	500	USB08X45	4500	800

UPRIGHT USB



Ref. 2

component	height mm
USB2000	2000
USB2500	2500
USB3000	3000
USB3500	3500
USB4000	4000
USB4500	4500

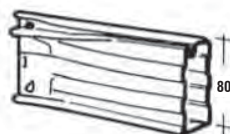
BEAM S2



Ref. 5

component	length mm	Load <daN> per pair uniformly distrib.load
31501	900	390
31503	1050	335
31504	1200	275
31505	1350	220
31507	1500	175
31508	1650	145

BEAM S2G



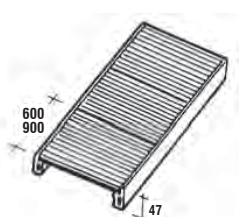
Ref. 6

component	length mm	Load <daN> per pair uniformly distrib.load
34004	1500	520
34007	1800	430

The load bearing capacity of the beams is to be understood as referring to uniformly distributed loads, per pair of beams. The load bearing indication is valid and applicable for a use of the beams with modular shelves and/or modular containers only.

COMPLETE SHELVES WITH BEAMS S2 AND PANELS H 12

Regarding technical data and standard specifications, please refer to pages 4/5.

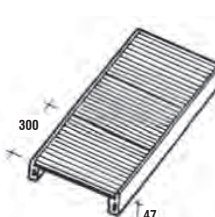


Ref. 11

component	length mm	depth mm	Load capacity <daN> uniformly distrib.load
81001	900	320	305
81004	900	400	235
81007	900	500	185
81010	900	600	150
81013	900	700	130
81019	1200	320	275
81022	1200	400	275
81025	1200	500	260
81028	1200	600	210
81031	1200	700	180
81037	1500	320	175
81040	1500	400	175
81043	1500	500	175
81046	1500	600	175
81049	1500	700	175

COMPLETE SHELVES WITH BEAMS S2 AND PANELS H 25/A

Regarding technical data and standard specifications, please refer to pages 4/5.

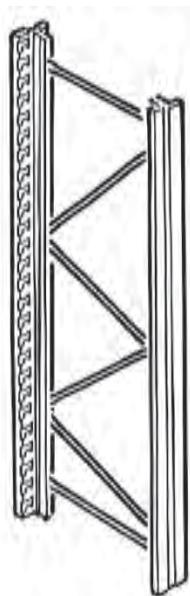


Ref. 13

component	length mm	depth mm	Load capacity <daN> uniformly distrib.load
81504A	900	400	390
81507A	900	500	390
81510A	900	600	345
81513A	900	700	285
81516A	900	800	230
81522A	1200	400	275
81525A	1200	500	275
81528A	1200	600	275
81531A	1200	700	275
81534A	1200	800	250
81540A	1500	400	175
81543A	1500	500	175
81546A	1500	600	175
81549A	1500	700	175
81552A	1500	800	160

**FRAMES- SERIES USM
COMPLETE WITH UPRIGHTS,
HORIZONTAL AND DIAGONAL
BRACING
LOAD BEARING CAPACITY 4200
daN EACH.**

Regarding technical data,
standard specifications
and assembly diagram,
please refer to pages 4/5
of the UNIRACK brochure.

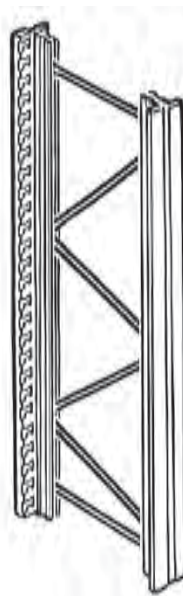


Ref. 2a

component	height mm	depth mm
USM03X20	2000	320
USM03X25	2500	320
USM03X30	3000	320
USM03X35	3500	320
USM03X40	4000	320
USM03X45	4500	320
USM03X50	5000	320
USM03X55	5500	320
USM03X60	6000	320
USM03X65	6500	320
USM03X70	7000	320
USM04X20	2000	400
USM04X25	2500	400
USM04X30	3000	400
USM04X35	3500	400
USM04X40	4000	400
USM04X45	4500	400
USM04X50	5000	400
USM04X55	5500	400
USM04X60	6000	400
USM04X65	6500	400
USM04X70	7000	400
USM05X20	2000	500
USM05X25	2500	500
USM05X30	3000	500
USM05X35	3500	500
USM05X40	4000	500
USM05X45	4500	500
USM05X50	5000	500
USM05X55	5500	500
USM05X60	6000	500
USM05X65	6500	500
USM05X70	7000	500
USM06X20	2000	600
USM06X25	2500	600
USM06X30	3000	600
USM06X35	3500	600
USM06X40	4000	600
USM06X45	4500	600
USM06X50	5000	600
USM06X55	5500	600
USM06X60	6000	600
USM06X65	6500	600
USM06X70	7000	600
USM07X20	2000	700
USM07X25	2500	700
USM07X30	3000	700
USM07X35	3500	700
USM07X40	4000	700
USM07X45	4500	700
USM07X50	5000	700
USM07X55	5500	700
USM07X60	6000	700
USM07X65	6500	700
USM07X70	7000	700
USM08X20	2000	800
USM08X25	2500	800
USM08X30	3000	800
USM08X35	3500	800
USM08X40	4000	800
USM08X45	4500	800
USM08X50	5000	800
USM08X55	5500	800
USM08X60	6000	800
USM08X65	6500	800
USM08X70	7000	800

**FRAMES- SERIES USR
COMPLETE WITH UPRIGHTS,
HORIZONTAL AND DIAGONAL
BRACING
LOAD BEARING CAPACITY
4800 daN EACH.**

Regarding technical data,
standard specifications
and assembly diagram,
please refer to pages 4/5
of the UNIRACK brochure.



Ref. 1a

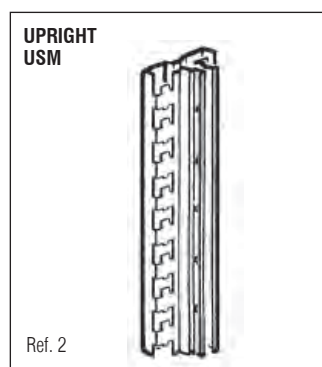
component	height mm	depth mm
USR04X20	2000	400
USR04X25	2500	400
USR04X30	3000	400
USR04X35	3500	400
USR04X40	4000	400
USR04X45	4500	400
USR04X50	5000	400
USR04X55	5500	400
USR04X60	6000	400
USR04X65	6500	400
USR04X70	7000	400
USR04X75	7500	400
USR04X80	8000	400
USR05X20	2000	500
USR05X25	2500	500
USR05X30	3000	500
USR05X35	3500	500
USR05X40	4000	500
USR05X45	4500	500
USR05X50	5000	500
USR05X55	5500	500
USR05X60	6000	500
USR05X65	6500	500
USR05X70	7000	500
USR05X75	7500	500
USR05X80	8000	500
USR06X20	2000	600
USR06X25	2500	600
USR06X30	3000	600
USR06X35	3500	600
USR06X40	4000	600
USR06X45	4500	600
USR06X50	5000	600
USR06X55	5500	600
USR06X60	6000	600
USR06X65	6500	600
USR06X70	7000	600
USR06X75	7500	600
USR06X80	8000	600
USR07X20	2000	700
USR07X25	2500	700
USR07X30	3000	700
USR07X35	3500	700
USR07X40	4000	700
USR07X45	4500	700
USR07X50	5000	700
USR07X55	5500	700
USR07X60	6000	700
USR07X65	6500	700
USR07X70	7000	700
USR07X75	7500	700
USR07X80	8000	700
USR08X20	2000	800
USR08X25	2500	800
USR08X30	3000	800
USR08X35	3500	800
USR08X40	4000	800
USR08X45	4500	800
USR08X50	5000	800
USR08X55	5500	800
USR08X60	6000	800
USR08X65	6500	800
USR08X70	7000	800
USR08X75	7500	800
USR08X80	8000	800

Note: Reinforced UNIRACK FRAMES are also available, for installations within seismic areas, for MINILOAD applications, for the construction of two-tier constructions with frame depths > 800mm, for applications with a need for frames of increased rigidity. For the calculation and design of such installations, customers should contact METALSISTEM's Technical Department.

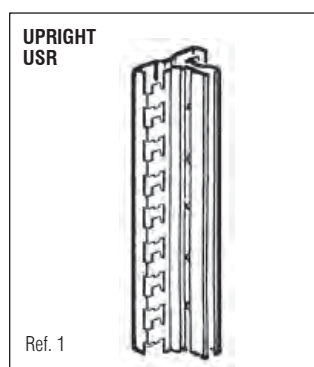
Reinforced UNIRACK frames are built with bracing items made from rectangular tubes with flanged ends, bolted onto the UNIRACK uprights.

UNIRACK USM-R series are available in frame depths of 400-1000 mm - **UNIRACK USR-R series** are available in frame depths of 400-1200 mm;

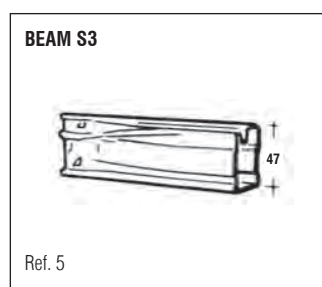
Modular Shelf Panels H25/B and H25/C for frame depths 900-1200 mm are also available and must be used for the reinforced UNIRACK frame series "USM-R and USR-R" only and exclusively. For more information, see als METALSISTEM INFORMA n° 574 and the technical table <TRCL01 Rev.1 dated 04.03.10>.



component	height mm
USM2000	2000
USM2500	2500
USM3000	3000
USM3500	3500
USM4000	4000
USM4500	4500
USM5000	5000
USM5500	5500
USM6000	6000
USM6500	6500
USM7000	7000

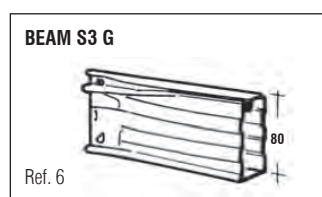


component	height mm
USR2000	2000
USR2500	2500
USR3000	3000
USR3500	3500
USR4000	4000
USR4500	4500
USR5000	5000
USR5500	5500
USR6000	6000
USR6500	6500
USR7000	7000
USR7500	7500
USR8000	8000



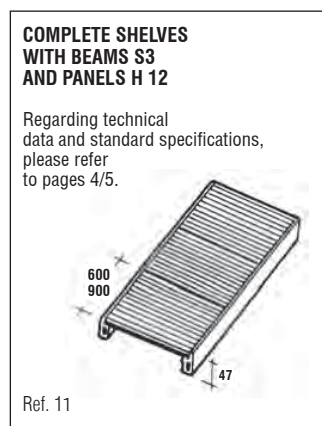
component	length mm	Load <daN> per pair uniformly distrib.load
32501	900	450
32503	1050	385
32504	1200	320
32505	1350	255
32507	1500	205
32508	1650	170
32510	1800	140

The load bearing capacity of the beams is to be understood as referring to uniformly distributed loads, per pair of beams. The load bearing indication is valid and applicable for a use of the beams with modular shelves and/or modular containers only.



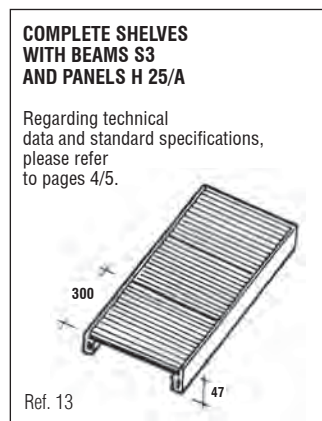
component	length mm	Load <daN> per pair uniformly distrib. load
35004	1500	640
35007	1800	530

The load bearing capacity of the beams is to be understood as referring to uniformly distributed loads, per pair of beams. The load bearing indication is valid and applicable for a use of the beams with modular shelves and/or modular containers only.



component	length mm	depth mm	Load capacity <daN> uniformly distrib.load	component	length mm	depth mm	Load capacity <daN> uniformly distrib.load
82001	900	320	305	82037	1500	320	205
82004	900	400	235	82040	1500	400	205
82007	900	500	185	82043	1500	500	205
82010	900	600	150	82046	1500	600	205
82013	900	700	130	82049	1500	700	205

82019	1200	320	320	82055	1800	320	140
82022	1200	400	320	82058	1800	400	140
82025	1200	500	260	82061	1800	500	140
82028	1200	600	210	82064	1800	600	140
82031	1200	700	180	82067	1800	700	140

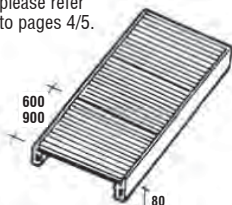


component	length mm	depth mm	Load capacity <daN> uniformly distrib.load	component	length mm	depth mm	Load capacity <daN> uniformly distrib.load
82504A	900	400	450	82540A	1500	400	205
82507A	900	500	420	82543A	1500	500	205
82510A	900	600	345	82546A	1500	600	205
82513A	900	700	285	82549A	1500	700	205
82516A	900	800	230	82552A	1500	800	180

82522A	1200	400	320	82564A	1800	400	140
82525A	1200	500	320	82567A	1800	500	140
82528A	1200	600	320	82570A	1800	600	140
82531A	1200	700	320	82573A	1800	700	140
82534A	1200	800	290				

**COMPLETE SHELVES
WITH BEAMS S1G
AND PANELS H 12 mm**

Regarding technical data and standard specifications, please refer to pages 4/5.



component	length mm	depth mm	Load capacity <daN> uniformly distrib.load
83116	1500	320	350
83119	1500	400	350
83122	1500	500	315
83125	1500	600	260
83128	1500	700	220
83131	1800	320	310
83134	1800	400	310
83137	1800	500	310
83140	1800	600	305
83143	1800	700	260

**COMPLETE SHELVES
WITH BEAMS S1G
AND PANELS H 25/A**

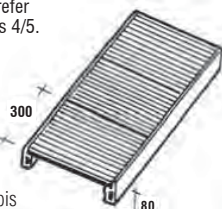
Regarding technical data and standard specifications, please refer to pages 4/5.



component	length mm	depth mm	Load capacity <daN> uniformly distrib.load
83340A	1500	400	350
83343A	1500	500	350
83346A	1500	600	350
83349A	1500	700	350
83352A	1500	800	350
83364A	1800	400	310
83367A	1800	500	310
83370A	1800	600	310
83373A	1800	700	310

**COMPLETE SHELVES
WITH BEAMS S2G
AND PANELS H 25/A**

Regarding technical data and standard specifications, please refer to pages 4/5.



Ref. 13 bis

component	length mm	depth mm	Load capacity <daN> uniformly distrib.load
83540A	1500	400	520
83543A	1500	500	520
83546A	1500	600	520
83549A	1500	700	520
83552A	1500	800	425
83564A	1800	400	430
83567A	1800	500	430
83570A	1800	600	430
83573A	1800	700	430

**COMPLETE SHELVES
WITH BEAMS S3G
AND PANELS H 25/A**

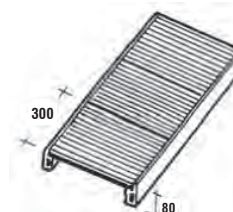
Regarding technical data and standard specifications, please refer to pages 4/5.

Ref. 13 bis


**COMPLETE SHELVES
WITH BEAMS S3G
AND PANELS H 25/B**

Regarding technical data and standard specifications, please refer to pages 4/5.

Ref. 13 bis

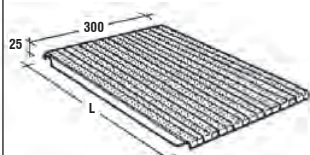


component	length mm	depth mm	Load capacity <daN> uniformly distrib.load
84540A	1500	400	640
84543A	1500	500	640
84546A	1500	600	640
84549A	1500	700	475
84552A	1500	800	425
84564A	1800	400	530
84567A	1800	500	530
84570A	1800	600	530
84573A	1800	700	530

component	length mm	depth mm	Load capacity <daN> uniformly distrib.load
84540B	1500	400	640
84543B	1500	500	640
84546B	1500	600	640
84549B	1500	700	550
84552B	1500	800	475
84564B	1800	400	530
84567B	1800	500	530
84570B	1800	600	530
84573B	1800	700	530

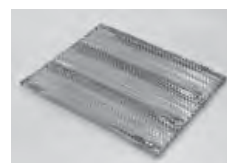
**PERFORATED SHELF PANEL
300 MM WIDE - H 25 MM
WITH FLANGED ENDS
PERFORATION 50% OF SURFACE**

Regarding technical data and standard specifications, please refer to pages 4/5.



Page 13

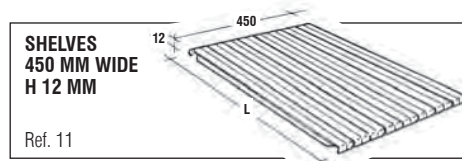
component H25/C	load capacity <daN> uniformly distrib. load	depth mm	component H25/D	load capacity <daN> uniformly distrib. load
52521	150	400	52541	180
52524	150	500	52544	180
52527	120	600	52547	150
52530	95	700	52550	120
52533	70	800	52553	85



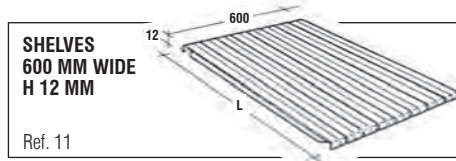
The load bearing capacities indicated in this table refer to uniformly distributed loads <daN> per shelf panel.

The load bearing capacity of a complete shelf will be given by the smallest value between the load bearing capacity per pair of beams against the sum of load bearing capacities of the number of shelf panels in the bay. If the load capacity per pair of beams is lower compared to the sum of shelf panels, then the lower data will apply.

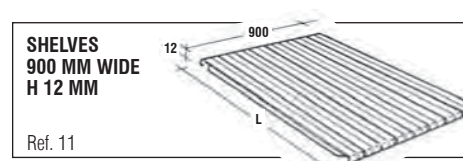
We recommend care when using containers with steel runners or steel foot plates or other items introducing point loads: due to the perforated shelf surface, the shelf panels are not suited to accept point loads. See also METALSISTEM INFORMA n° 577.



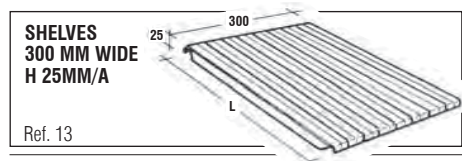
component	depth mm
51701	320
51704	400
51707	500
51710	600
51713	700



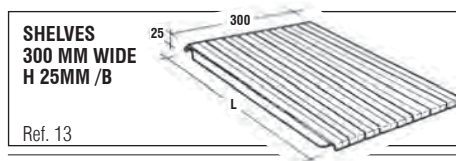
component	depth mm
51101	320
51104	400
51107	500
51110	600
51113	700



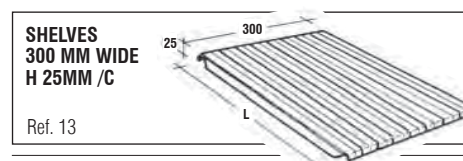
component	depth mm
51601	320
51604	400
51607	500
51610	600
51613	700



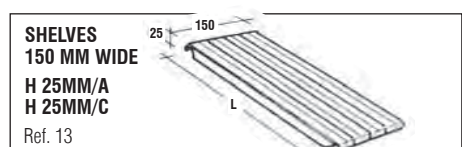
component	depth mm
52301	400
52304	500
52307	600
52310	700
52313	800



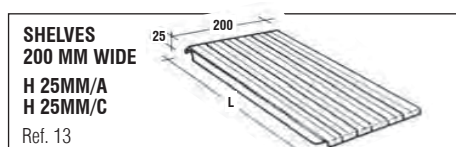
component	depth mm
52401	400
52404	500
52407	600
52410	700
52413	800



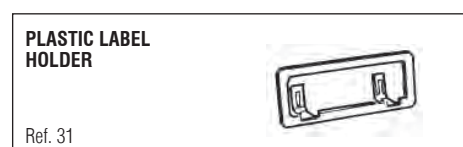
component	depth mm
52501	400
52504	500
52507	600
52510	700
52513	800



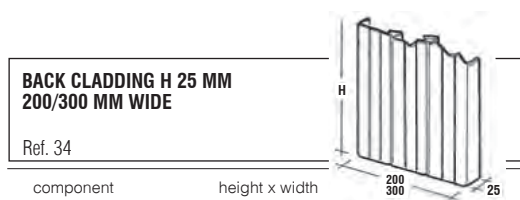
H25/A component	depth mm	H25/C component
52271	400	52471
52274	500	52474
52277	600	52477
52280	700	52480
52283	800	52483



H25/A component	depth mm	H25/C component
52290	400	52490
52292	500	52492
52294	600	52494
52296	700	52496
52298	800	52498



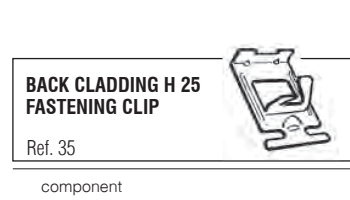
component
67008



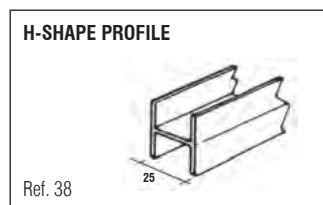
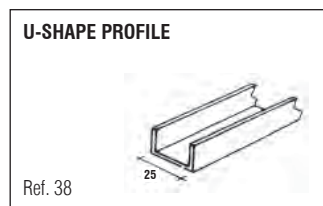
component	height x width mm
62001	1485x200
62004	1940x200
62007	2480x200
62501	1485x300
62504	1940x300
62507	2480x300



component	height x width mm
62701	1485x200
62704	1940x200
62707	2480x200
62901	1485x300
62904	1940x300
62907	2480x300

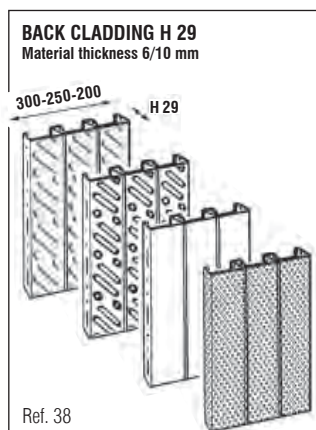


component
68108



component	length mm
for H25	69800
for H29	69801
for H58	69807
for H68	69808

component	length mm
for H25	69803
for H29	69804
for H58	69810



component	depth mm	version
63101	300	smooth
63104	300	perforated
63107	300	ribbed
63110	300	punchholed
63111	200	smooth
63114	200	perforated
63117	200	ribbed
63120	200	punchholed
63121	250	smooth
63127	250	ribbed
63130	250	punchholed

METAL BASE PLATE

Ref. 4



component

SLACC001

SHIMS FOR UNIRACK UPRIGHTS



component

SLACC079

PLASTIC TOP CAP AND CLAMPING FOR DOUBLE UPRIGHT

Ref. 4

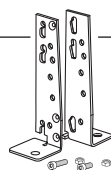


component

SLACC064

HEAVY DUTY BASE PLATE

Ref. 4a



component

67006

BEAM LOCKING PIN

Ref. 30



component

SLACC000

PLASTIC TOP CAP FOR SINGLE UPRIGHT

Ref. 28



component

SLACC063

HORIZONTAL BRACE

Ref. 1a, 2a

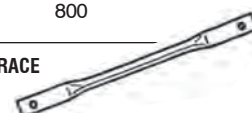


component	depth mm
-----------	----------

SLTRA030	320
SLTRA040	400
SLTRA050	500
SLTRA060	600
SLTRA070	700
SLTRA080	800

SHORT DIAGONAL BRACE

Ref. 1a, 2a

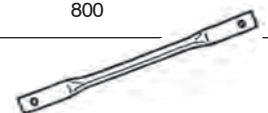


component	depth
-----------	-------

SLDIC030	320
SLDIC040	400
SLDIC050	500
SLDIC060	600
SLDIC070	700
SLDIC080	800

DIAGONAL BRACE

Ref. 1a, 2a

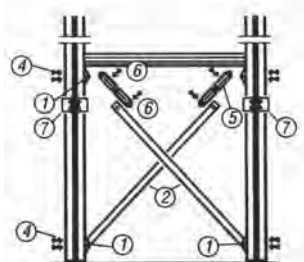
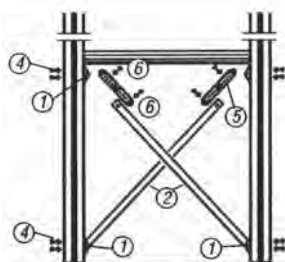
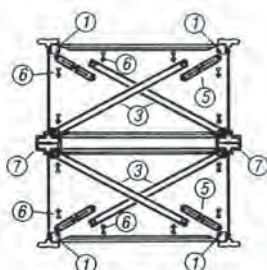
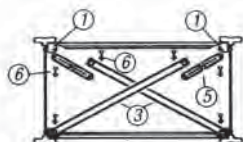


component	depth
-----------	-------

SLDIA040	400
SLDIA050	500
SLDIA060	600
SLDIA070	700
SLDIA080	800

CROSS BRACING UNIRACK SHELVING

Regarding design, calculation, assembly instructions and ordering, please refer to the technical manual "ISQ03_04/C-012 - CROSS BRACINGS FOR LIGHT DUTY SHELVING"



CROSS BRACING UNIRACK SERIES

Cross bracings (horizontal and vertical ones) have to be used in UNIRACK shelving structures with frame heights exceeding 3000 mm. The sketches shown above explain the make up and assembly of the cross bracing concept referring to a 3000 mm high frame within a single and double sided shelving row.

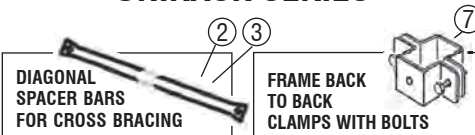
MACROCODE SLACC012 for single sided shelving. The macrocode SLACC012 comprises all components shown in the sketch, except items 2-3

MACROCODE SLACC013 for double sided shelving. The macrocode SLACC013 comprises all components shown in the sketch, except items 2-3

item	Macrocode SLACC012 q.ty
SLACC089	6
68053	8
00020	28
00027	12
00035	12
00036	4

item	Macrocode SLACC013 q.ty
SLACC089	10
68053	12
00020	44
00027	20
00035	18
00036	6
SLACC010	2

CROSS BRACING UNIRACK SERIES



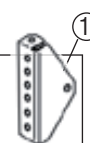
component

68049

component

SLACC010

CROSS BRACING FASTENING BRACKET



component

SLACC089

TURNBUCKLE (1/2 component) FOR CROSS BRACING



component

68053

SCREW 6x30 mm



component

00027

SCREW 6x16 mm



component

00035

SCREW 6x70 mm



component

00036

NUT 6 mm



component

00020

FIXED HEIGHT DIVIDERS

Ref. 23

component	depth mm	height mm	component	depth mm	height mm
67720	320	244	67760	320	444
67722	400	244	67762	400	444
67724	500	244	67764	500	444
67726	600	244	67766	600	444
67728	700	244	67768	700	444
67730	800	244	67770	800	444
CLIPS FOR FIXED HEIGHT DIVIDERS Ref. 23					
component					
67740	320	344	68110	double-sided	
67742	400	344	68111	single-sided	
67744	500	344			
67746	600	344			
67748	700	344			
67750	800	344			

SIDE CLADDING

Ref. 37/39

component	height x depth mm	component	height x depth mm
SLACC331	1368 x 320	SLACC361	1368 x 600
SLACC332	1468 x 320	SLACC362	1468 x 600
SLACC333	1868 x 320	SLACC363	1868 x 600
SLACC334	2368 x 320	SLACC364	2368 x 600
SLACC335	2468 x 320	SLACC365	2468 x 600
SLACC341	1368 x 400	SLACC371	1368 x 700
SLACC342	1468 x 400	SLACC372	1468 x 700
SLACC343	1868 x 400	SLACC373	1868 x 700
SLACC344	2368 x 400	SLACC374	2368 x 700
SLACC345	2468 x 400	SLACC375	2468 x 700
SLACC351	1368 x 500	SLACC381	1368 x 800
SLACC352	1468 x 500	SLACC382	1468 x 800
SLACC353	1868 x 500	SLACC383	1868 x 800
SLACC354	2368 x 500	SLACC384	2368 x 800
SLACC355	2468 x 500	SLACC385	2468 x 800

OVAL SHAPED BEAMS

Ref. 44

component	Mat. Gauge mm	Load Cap. (daN) u.d.l. per beam	Length mm	component	Mat. Gauge mm	Load Cap. (daN) u.d.l. per beam
36501	10/10	175	900	36801	18/10	295
36504	10/10	120	1200	36804	18/10	200
36507	10/10	75	1500	36807	18/10	130
36510	10/10	52	1800	36810	18/10	90

Regarding design and load bearing capacity please refer to "METALSISTEM INFORMA" n° 292. In the case that the oval shaped beams are used for tyre storage, please follow the indications provided with "METALSISTEM INFORMA" n° 353.

MODULAR SLIDING GATE

Page 29 - METALSISTEM INFORMA n° 547

component	nominal width / serviceable span mm	overall height from walkway level - mm
00010780	1500	1118
00010781	2000	1118

OVAL HANDRAIL TUBE

Page 31/32

component	
SLACC118	for walkway end
67402	for inside end frame

KICK BOARD

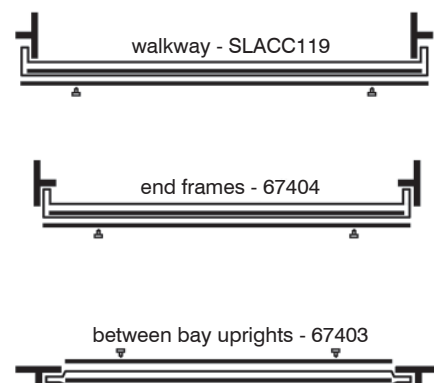
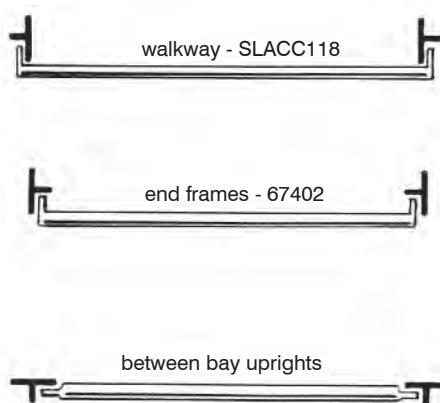
Page 31/32

component	
SLACC119	for walkway end
67404	for inside end frame
67403	between bay uprights

The kick boards are made from two oval tubular beams (the same used to create the handrails) fixed to the uprights and a sheet metal element fastened to the oval tubular beams with self tapping screws (art.n° VITAUFOR).

For walkway ends, order art.n° SLACC119 specifying the length of the spacer bars used to build the walkway. For end frames, order art. n° 67404, specifying the nominal frame depth. As for longitudinal kick boards, order art.n° 67403, specifying the nominal bay length.

For walkway ends, order art. n° SLACC118, specifying the length of the spacer bars used to build the walkway. In the case of end frames, order art. n° 67402, specifying the nominal frame depth. For handrails between bay uprights order the oval tubular beam in material gauge 10/10 mm, article numbers 36501-36510 (see above).


SPACER BAR FOR INSERT TUBES

Ref. 27

component	depth mm	Q.ty of notches to locate oval insert tubes
SLACC121	320	3
SLACC122	400	5
SLACC123	500	7
SLACC124	600	9
SLACC125	700	11
SLACC126	800	13

OVAL INSERT TUBES FOR SPACER BARS

Ref. 27

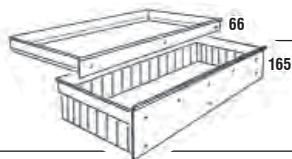
component	length mm
67421	900
67424	1200
67427	1500
67430	1800
Att.: regarding design and load bearing capacity please refer to "Metalsistem Informa" n° 296	

ROW SPACER TIE BAR (clear span)

component	depth mm
SLACC117	clear span

DRAWER

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component	length mm	height mm	depth mm
67830	900	66	400
67831	900	66	500
67832	900	66	600

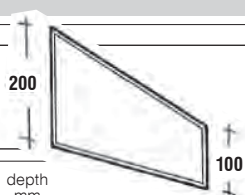
67833	1200	66	400
67834	1200	66	500
67835	1200	66	600

67836	900	165	400
67837	900	165	500
67838	900	165	600

67839	1200	165	400
67840	1200	165	500
67841	1200	165	600

TRAPEZ.SLIDING DIVIDER

Ref. 17



component	depth mm
67170	320
67172	400
67174	500
67176	600
67178	700
67180	800

CLIPS FOR SLIDING DIVIDERS (one pair)

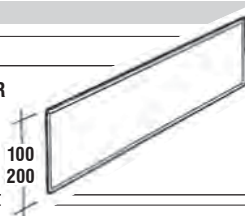
Ref. 17



component
68109 (one pair)

SLIDING DIVIDER H100/200 MM

Ref. 17

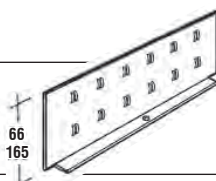


component	depth mm	height mm
67200	320	100
67204	400	100
67206	500	100
67208	600	100
67210	700	100
67212	800	100

67220	320	200
67222	400	200
67224	500	200
67226	600	200
67228	700	200
67230	800	200

PERFORATED DRAWER WALL

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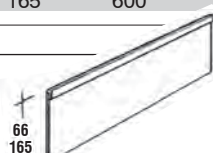


component	height mm	depth mm
67842B	66	400
67843B	66	500
67844B	66	600

67842A	165	400
67843A	165	500
67844A	165	600

DIVIDER FOR DRAWER

Page 18



component	height mm	length mm
67845B	66	50
67846B	66	100
67847B	66	150

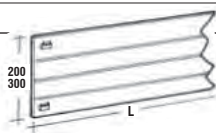
67848B	66	200
67849B	66	300
67850B	66	400

67845A	165	50
67846A	165	100
67847A	165	150

67848A	165	200
67849A	165	300
67850A	165	400

SHELF BOARD

Ref. 43 bis

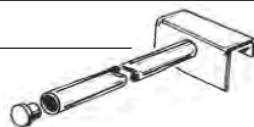


component	height x length mm
64016	200 x 900
64019	200 x 1200
64022	200 x 1500
64025	200 x 1800

64031	300 x 900
64034	300 x 1200
64037	300 x 1500
64040	300 x 1800

DIVIDER FOR EXHAUST PIPES

Ref. 25



component
67301 horizontal
67302 vertical

TELESCOPIC TUBE DIVIDERS inner and outer

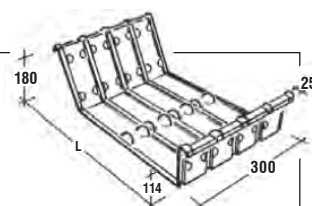
Ref. 24



component	height mm
67290	280 inner
67293	280 outer
67296	560 inner
67299	560 outer

MODULAR CONTAINERS

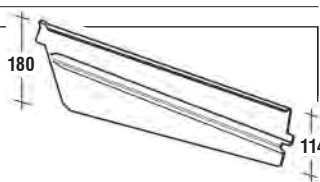
Ref. 16



component	depth mm	load capacity daN
61017	320	90
61018	400	90
61019	500	70
61020	600	65
61021	700	60
61022	800	60

DIVIDERS FOR MODULAR CONTAINERS

Ref. 16



component	depth mm
61517	320
61518	400
61519	500
61520	600
61521	700
61522	800

BIN FRONT OR REAR FOR SHELF TRAYS

Ref. 20

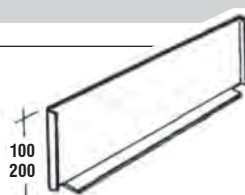


component	height x length mm
64101	100 x 900
64104	100 x 1000
64107	100 x 1200
64110	100 x 1500

64113	200 x 900
64116	200 x 1000
64119	200 x 1200
64122	200 x 1500

DIVIDER H100/ H200 FOR SHELF TRAYS

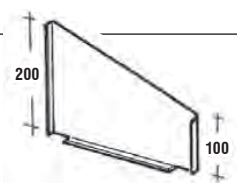
Ref. 20



component	depth mm	height mm	component	depth mm	height mm
67151	320	100	67152	320	200
67154	400	100	67153	400	200
67157	500	100	67155	500	200
67160	600	100	67156	600	200
67162	700	100	67158	700	200
67164	800	100	67159	800	200

PROFIED DIVIDERS H 200/100 FOR SHELF TRAYS

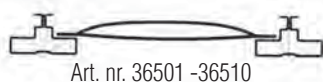
Ref. 21/22



component	depth mm	component	depth mm
67181	320	67190	600
67184	400	67192	700
67187	500	67194	800

THE PARAPET ELEMENTS

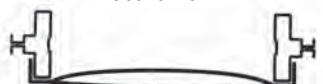
Ref. 44



Art. nr. 36501 -36510



Cod. 67402



Cod. SLACC118

UNIRACK - handrails are assembled as follows:

n. 1 tubular handrail

n. 1 tubular kneerail

Kickboards composed of two oval beams + one sheet element

When ordering, please indicate:

- 1.) the length of the special spacer bar of the walkway, in case of handrails for the walkway
- 2.) the nominal frame width, in case of handrails for "inner frames"
- 3.) the nominal bay length, in case of handrails in longitudinal direction.

SPACER BAR FOR T-SECTION
SUPPORT BARS;
special length

Page 29

component	description
99044	for walkway
99046	for inner frame

HANDRAIL SUPPORT BRACKET
FOR STAIRCASES

Ref. 45

q.ty

macrocode	65001	1
composed of:		

handrail support	65002	1
runner support	65004	1
m 10 nut	00059	2
3,5x13mm self tapping screw	00017	2
M6x20 hex bolt 8,8 DIN933 Zp	00005	2
M6 nut DIN934 Zp	00020	2

PVC PLUG
FOR HANDRAIL

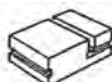
Ref. 45

component

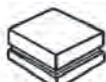
65016

PVC PARAPET JOINTS

Ref. 48



SLACC077



SLACC076



SLACC078

component	description
SLACC077	JOINT AT 90° "INNER FRAMES"
SLACC076	LONGITUDINAL JOINT
SLACC078	JOINT AT 90° "WALKWAY"

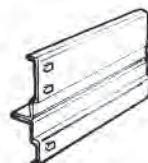
T-SECTION SUPPORT BAR
BRACKET UNIRACK

Ref. 42



component

SLACC130

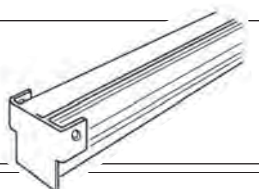
T-SECTION SUPPORT BAR - H58
FOR "INNER FRAMES"

Pages 28 - 29 - 38

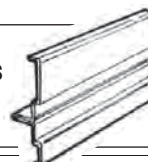
component	length mm
SLACC222	900
SLACC224	1200
SLACC226	1500

WALKWAY BEAM

Ref. 55

component length
mm

99253B for correct use, assembly and load bearing capacity indication please refer to the document "ISTM-025"

WALKWAY SUPPORT
T-SECTION H58 FOR WALKWAYS
LENGTH = 6200 MM

Ref. 41

component

67015

TOP CAP FOR T-SECTION
SUPPORT BAR H58

Page 31

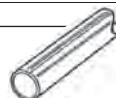


component

67026

HANDRAIL TUBE Ø 32 MM
LENGTH = 6000 MM

Ref. 45

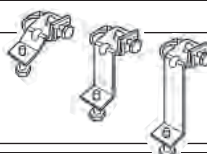


component

65019

STEEL PLANK
FIXING BRACKET

Ref. 54 page 37



component

steel plank clamp	69829
m8x16 bolt	69824

bracket up to 20 mm + m8x20 bolt	69861
bracket up to 40 mm + m8x20 bolt	69862
bracket up to 60 mm + m8x25 bolt	69863

PLASTIC STRIP
LENGTH = 3000 MM

Ref. 29



component

67020

NOISE DAMPENING ADHESIVE STRIP
LENGTH = 10 METERS

Page 28



component

67021

CHIPBOARD CLIP

Ref. 15

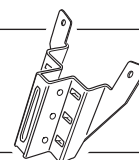


component

67025

WALL BRACKET UNIRACK

Ref. 33

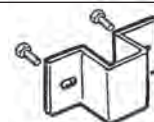


component

SLACC131

FRAME BACK TO BACK
CLAMPS WITH BOLTS

Ref. 32



component

SLACC010

NUT AND BOLT



dimension mm	bolt code n°	nut code n°
6x10 mm	00001	00020
6x20 mm	00005	00020
6x30 mm	00003	00020
6x35 mm	00006	00020

FLOOR FIXING
DOWEL

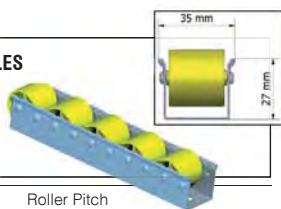
component	length mm
00040	8 x 50

SELFDILLING
SCREW

component	length mm
00016	6 x 18
00017	3,5 x 13

FLOW TRACK PROFILES

see page 14



Article Code N° Roller Pitch <mm>

00004816	33
00004817	49,5
00004818	66
00004819	82,5
00004820	99

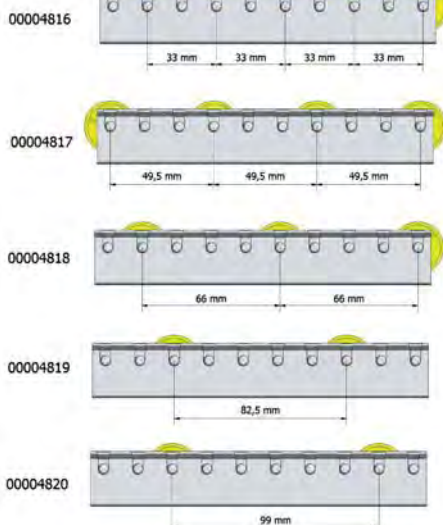
C-SECTION PROFILE H 29
FOR FLOW TRACKS

see page 14

Article Code N° Bay Length <mm>

00005175	900
00005176	1200
00005177	1500

Article Code N°

RUNWAY DIVIDER
FOR ROLLER SHELVES

see page 14

Article Code N° Runway Depth <mm>

00007963	624
00006421	1285

The maximum load bearing capacity of a single roller is 3 daN. Please refer to the Technical Manual MT07 to view the load bearing capacity table of single flow track profiles as well as flow track cut pitches.

BULL SERIES - PLASTIC BINS Page 19

COLOURS	BULL 1	BULL 2	BULL 3	BULL 4 BULL 4/D	BULL 5	BULL 6 BULL 6/D	BULL 7 BULL 7/D
green ●	●	●	●	●	●	●	●
blue ●	●	●	●	●	●		
red ●	●	●	●	●	●		
yellow ●	●	●	●	●	●		
grey ●	●	●	●	●	●		

Open fronted bins with very strong structure. Easily to be placed one upon another.
Large front label holder.
Made from high density polyethylene, for use in environments ranging from -40°C up to +80°C. Fracture and breakage proof.
Resistant to acids, oils, solvents and detergents.
Ergonomic line with comfortable handles for lifting.
Base completely flat and anti-skid.
Full length return to clip to louvred panels.
Brilliant colours and agreeable design.

BULL 1



L. 105 x D. 88/70 x H. 54

Package of 100 pcs.

BULL 2



L. 105 x D. 167/140 x H. 82

Package of 48 pcs.

BULL 3



L. 144 x D. 237/190 x H. 123

Package of 38 pcs.

BULL 4



L. 205 x D. 345/270 x H. 164

Package of 24 pcs.

BULL 5



L. 298 x D. 485/400 x H. 189

Package of 12 pcs.

BULL 4/D



L. 406 x D. 345/270 x H. 164
can be equipped with 1, 2 or 3 mobile dividers
Package of 8 pcs.

BULL 6/D
BULL 6

L. 372 x D. 600/460 x H. 250

Package of 4 pcs.

BULL 7
BULL 7/D

L. 442 x D. 700/540 x H. 300

Package of 4 pcs.

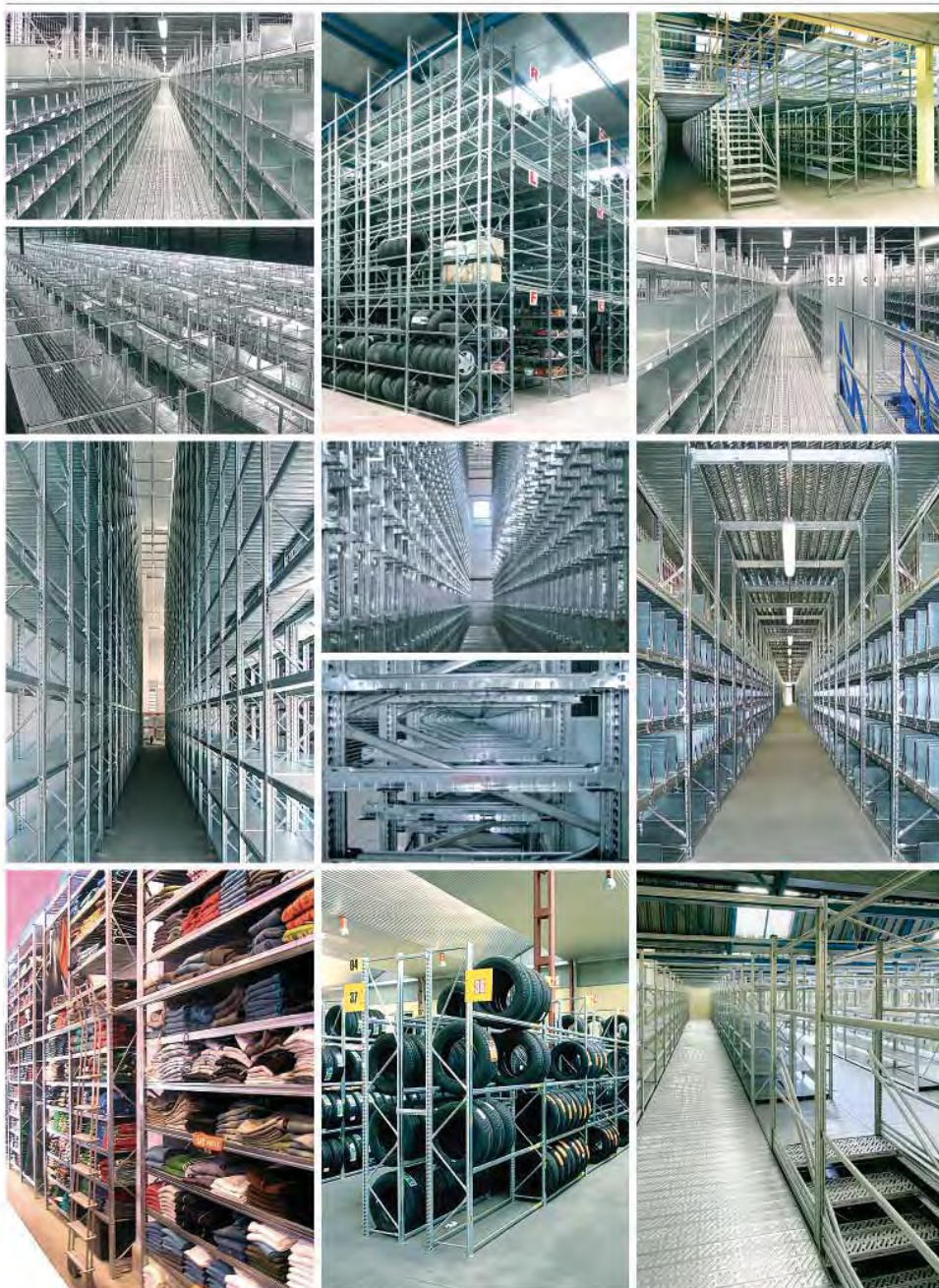
● = available without fixed divider



= available with fixed divider

* = horizontal connection element
(only for BULL 6 - 6/D and BULL 7 - 7/D)

UNIRACK



MODULAR STEEL STORAGE SYSTEMS