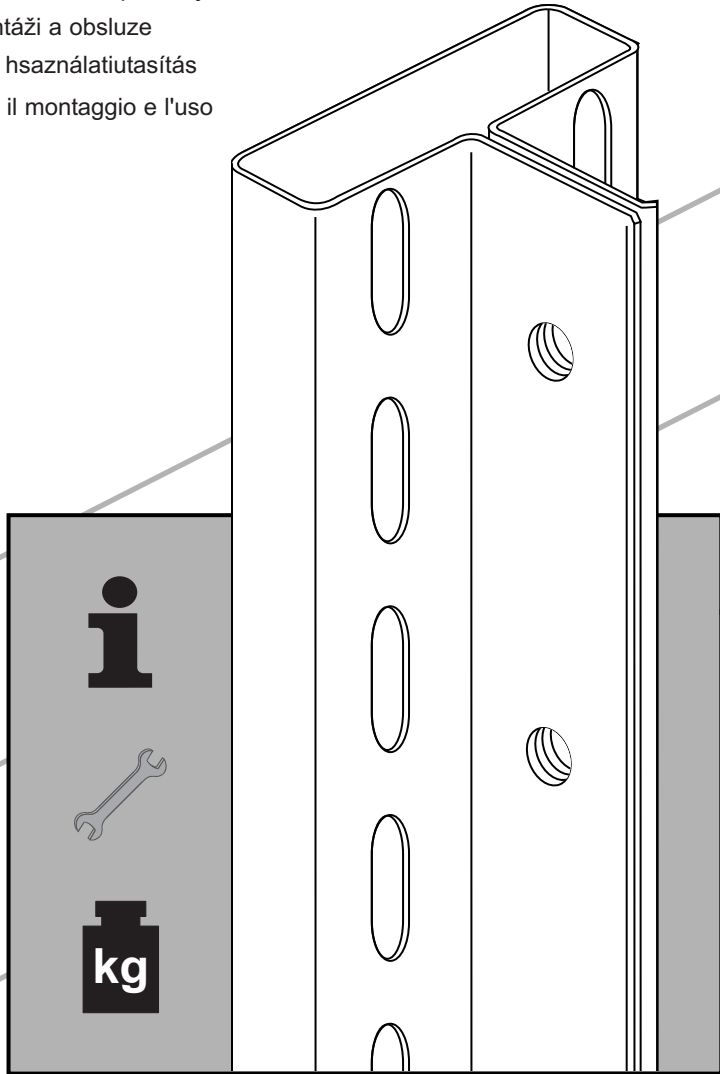


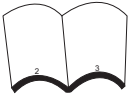
- Ⓜ GB Assembly and operating instructions
- Ⓜ F Instructions de montage et de service
- Ⓜ PL Instrukcja montazu i eksploatacji
- Ⓜ CZ Návod k montáži a obsluze
- Ⓜ HU Felépítési és használati utasítás
- Ⓜ I Istruzioni per il montaggio e l'uso

# META-CLIP

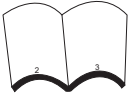
## Steckregal (System)



Stand 07.2012



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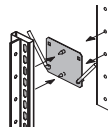
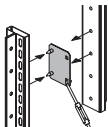
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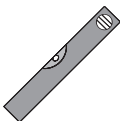
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Montagereihenfolge  
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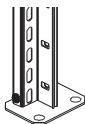
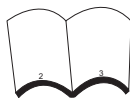
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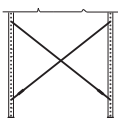


Fußverdüblung  
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Fixation des pieds par chevilles  
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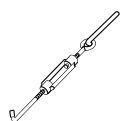
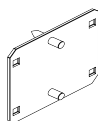
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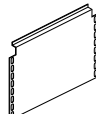
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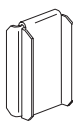
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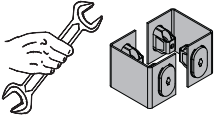
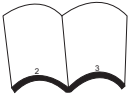
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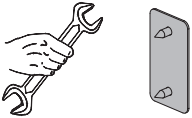
Profilklammer  
Profile clip  
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Klamra do łączenia profili  
Profilová spojka  
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Profilverbinder  
 Profile connectors  
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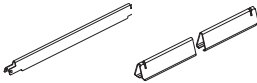
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**L80, S100,  
 V150, V230  
 MS230 //,  
 MS330 //**

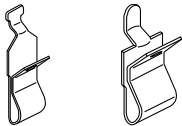
Fachboden + Fachbodenbelastungen  
 Shelf + Load capacity per shelf  
 Fond de casier + Capacité de charge par tablette  
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 Polclapok + polclaptherhelések  
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Tiefenunterzug / Längsunterzug  
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 Hlubokovými výztuhami / Podélnými výztuhami  
 Kereszt merevítőve / Hosszanti merevítővel  
 Trave continua / Trave longitudinale

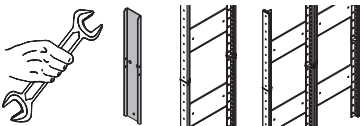
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Abdeckbodenträger  
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 Krycí háček police  
 Es fedőpolcartató  
 Superficie: giallo  
 Portaripiano per ripiano di copertura

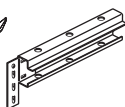
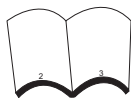
Fachbodenträger  
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 Ocelový háček police  
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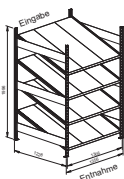
Stufenholm / A-Unterzug / Spannplatte  
Stepped post / A-bearer / Particle board  
Montant à paliers / A-renforcement / Panneau de particules  
Trawers / Podciąg A / Płyta wiórowa  
Podélník / A-výztuha / dřevotříska  
Lépcsős gerenda / A-merevítő / faforgácslap  
Corrente a scaletta / trave ad A / Pannello in truciolare

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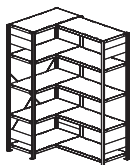
META-Compact Bürosteckregal  
Meta-Compact quick-fit office shelving  
Rayons enfichables de double bureau Meta-Compact  
Regał biurowy wtykowy Meta-Compact  
Meta-Compact kancelářský regál  
Meta-Compact összeilleszhető irodai állvány  
Scaffale da ufficio CLIP

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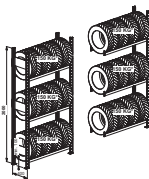
Clip Schrägbodenregal  
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Clip regál se šikmými policemi  
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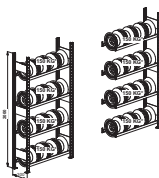
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Rohová polička  
Sarokpolc  
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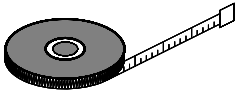
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Tyre rack  
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Regál na pneumatiky  
Autógumi polc  
Scaffale per pneumatici

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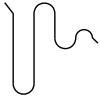


Felgenreagal  
Wheel rack  
Rayonnage pour jantes  
Regał na felgi  
Regál na disky  
Autófelni polc  
Scaffale per cerchioni

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Maßband / Measuring tape / Mètre / Taśma miernicza / Pásmo /  
Mérőszalag / Metro a nastro



Schnur / Cord / Mètre-ruban / Sznur / Provázek / Zsinór / Cordone



Kreide / Chalk / Craie / Kreda / Křída / Kréta / Gesso



Lot / Plumbline / Fil à plomb / Pion / Olovnice / Fűggőbón / Saldare



Wasserwaage / Water level / Niveau à bulle d'air / Poziomica /  
Vodováha / Vízmérték / Livella a bolla d'aria



Schlagbohrmaschine / Percussion drill / Perceuse à percussion /  
Wiertarka udarowa / Přiklepová vrtačka / Ütvefűrógép / Impact Drill



**Ø 8 + Ø 6**

Schlagbohrer Ø 8 + Ø 6 / Percussion drill bits Ø 8 + Ø 6 / Foret à  
percussion Ø 8 + Ø 6 / Wiertła udarowe Ø 8 + Ø 6 / Vrták Ø 8 + Ø  
6 / Ütvefűró Ø 8 + Ø 6 / Trapano a percussione Ø 8 + Ø 6



Kunststoff- oder Gummihammer / Plastic or rubber hammer /  
Marteau en plastique ou en caoutchouc / Młotek plastikowy lub  
gumowy / Plastová nebo gumová palička / Műanyag- vagy  
gumikalapács / Martello di gomma

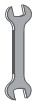


**SW 4**

Innensechskant-Schlüssel SW 4 / Spanner for hexagonal socket-  
headed screws / Clé mâle coudée pour vis à six pans creux / Klucz  
imbusowy SW 4 / Vnitřní 6-hranný imbus.klíč - vel. 4 / Imbuszkulcs  
SW 4 / Chiave a brugola SW 4



Schraubendreher / Screwdriver / Tournevis / Śrubokręt / Šroubovák  
/ Csavarhúzó / Cacciavite



**SW 10**

Maul- und Steckschlüssel SW 10 / Open-jawed and box spanners, sizes 10 /  
Clé à fourche et clé à pipe (à douille), ouverture 10 / Klucze: płaski i  
nasadowy SW 10 / Stranový a nástrčný klíč - vel. 10 / Villáskulcs, dugóskulcs  
SW 10 / Chiave inglese SW 10



Lesen Sie vor dem Aufbau Ihrer META - Regale unbedingt die in dieser Anleitung aufgeführten Informationen.

Bitte halten Sie sich bei dem Aufbau und bei der späteren Nutzung exakt an die Angaben in dieser Anleitung, den Hinweisen in unseren Auftragspapieren sowie den Belehrungen durch unser Fachpersonal.

Die von META gelieferte Regalteile dürfen nur ihrem Verwendungszweck entsprechend eingesetzt werden. Für unsachgemäßen Einsatz, Nutzung oder Montage übernimmt META keine Gewährleistung.

Alle Angaben in dieser Anleitung gelten nicht für Regale in Außenaufstellung, bzw. Regale, die zusätzlich durch Wind, Schnee, Erdbeben oder andere Zusatzlasten beaufschlagt sind. In solchen Fällen ist eine individuelle Dimensionierung durch den Hersteller erforderlich.

Durch Umbau, bzw. Neuaufstellung unserer Regale an einem anderen Ort können sich die Bedingungen für die Nutzung und Belastung ändern.

Bei Umbau der Regalanlage bzw. Unstimmigkeiten beim Aufbau, sind META-Fachleute zu Rate zu ziehen.

Der Aufbau sowie der Umbau der Regale darf nur im unbelasteten Zustand nach unseren beiliegenden Aufbau- und Bedienungsanleitungen vorgenommen werden.

Die Beladung der Regale darf erst nach völligem Montageabschluss vorgenommen werden.

Der Aufbau der Regale sollte durch mindestens 2 Personen erfolgen. Gute Dienste leistet dabei ein hüfthöher Tisch, oder zwei freistehende Böcke, auf denen die Bauteile zur Vormontage aufgelegt werden können.

Beim Zusammenbau der Einzelteile darf keine rohe Gewalt durch Einschlagen mit einem Metallhammer, oder durch Hebelstangen angewendet werden. Verwenden Sie grundsätzlich einen Gummihammer oder eine weiche Holzzwischenlage.

Um Personen- und Sachschäden abzuwenden, haben wir uns als Hersteller von Regalanlagen den vom RAL anerkannten Güte- und Prüfbestimmungen der RAL-RG 614 unterworfen.

Bei der Planung von Regalanlagen sind die "Richtlinien für Lagereinrichtungen und -geräte BGR 234" des Hauptverbandes der gewerblichen Berufsgenossenschaften, Stand 10/88, sowie die einschlägigen Arbeitsstättenverordnungen verbindlich und die allgemeinen Unfallverhütungsvorschriften zu beachten.

Von META werden die maximalen Stützlasten und Flächenpressungen am Fußboden vorgegeben. Sie als Betreiber müssen dafür Sorge tragen, dass diese Belastungen vom Boden des Aufstellplatzes sicher aufgenommen werden können. Bei fehlenden Angaben darf META von einer zulässigen Fußbodenpressung von mindestens 50 Kg/cm<sup>2</sup> ausgehen.

Verkehrswege in Regaleinrichtungen sind mindestens 1,25m, Nebengänge mindestens 0,75m breit auszulegen. Der Sicherheitsabstand zu Fördermitteln muss mindestens 0,50m auf jeder Seite betragen.

Die angegebenen, maximal möglichen Fach- und Feldlasten dürfen nicht überschritten werden.

Regale mit einer Fachlast von mehr als 200 Kg oder einer Feldlast von mehr als 1.000Kg müssen mit einem Typenschild gekennzeichnet sein. Typenschildangaben: Hersteller, Baujahr oder Kommissionsnummer, zulässige Fach- und Feldlasten. Das mitgelieferte Typenschild ist deutlich sichtbar anzubringen.

Bei korrosionsaktiven Industrieböden (z.B. Magnesitböden) muss eine Isolierung der Stützenfußbereiche vorgesehen werden. Die Gebrauchsanleitung der Fußbodenhersteller ist verbindlich zu beachten.

Regalanlagen dürfen nur nach den ihrer Bestimmung zugrunde liegenden Maßgaben belastet werden. Die Beladung der Regale sollte gleichmäßig vorgenommen werden, da die statische Auslegung auf der Annahme einer gleichmäßig verteilten Flächenbelastung beruht. Punktförmige Stoßlasten und Schiebelasten sind daher grundsätzlich zu vermeiden.

Regalrahmen und -fächer, insbesondere Fachböden dürfen nicht von Personen betreten werden.

Beschädigte und verformte tragende Bauteile einer Regalanlage müssen umgehend ausgetauscht werden, da die Belastbarkeit nur im einwandfreien Zustand von META garantiert wird.

Gemäß §10 Prüfung der Arbeitsmittel des Gerätes- und Produktsicherheitsgesetzes unterliegen Regale der Prüfpflicht.

Wir empfehlen:

- monatliche Prüfung auf Beschädigung durch den Betreiber und
- jährliche Inspektion durch den Hersteller

### **Jährliche Inspektionspflicht für Lagereinrichtungen**

**Der Arbeitgeber ist dazu verpflichtet, sämtliche Lagereinrichtungen - d.h. elektrisch angetriebene sowie statische Regale - systematisch und regelmäßig zu inspizieren. Wenn vom Regalhersteller aufgrund der Konstruktion oder der Einsatzbedingungen keine verschärften Inspektionen gefordert werden, sind die Regelungen der BGR 234 sowie der Norm DIN EN 15512, DIN EN 15620, DIN EN 15629 und im Besonderen der DIN EN 15635 einzuhalten. Laut der Betriebsicherheitsverordnung (BetrSichV) trägt der Arbeitgeber die Verantwortung für die Sicherheit seiner Lagereinrichtung. Regale müssen somit mindestens alle 12 Monate durch einen Experten inspiziert werden. META bietet diese Experteninspektion durch einen verbandsgeprüften Regalinspektor an. Zu näheren Informationen: [www.regalinspektion.de](http://www.regalinspektion.de)**

Auf verzinkten Regalböden oder Paneelen dürfen nicht unmittelbar Lebensmittel gelagert werden.

Die maximal zulässigen Bodenunebenheiten am Aufstellort sind der DIN 18202, Tabelle 3, Zeile 3 zu entnehmen.



## Safety Rules for the mounting and handling of META racks.

Please read the information presented in this guideline thoroughly before you start mounting your META racks. Please follow in the course of mounting and during the utilization of the racks exactly the advice given in these guide-lines and follow the instructions in our order documents as well as the advice given by our technical experts.

The rack components supplied by META are allowed to be utilized only in the framework of the technical purpose intended. META does not accept any warranty for improper handling, utilization or mounting.

All details in these instructions do not apply to outdoor racks or racks that are additionally subject to stress by wind, snow, earthquakes or other additional loads. In such cases, individual dimensioning by the manufacturer is essential.

It is possible that the conditions for the utilization of the racks are changed, when they are placed at a different location, when they are altered in their construction or when they are newly erected.

In case the construction of the racks is altered or when difficulties are encountered during erection, you are strongly advised to ask for META experts to assist you.

Mounting and erection work is allowed to be carried out only when the racks are empty, according to our Mounting and Handling Instruction Sheets attached.

The racks are permitted to be loaded only after the mounting work has completely been completed.

For the mounting of the racks, a minimum of two persons is required. Very useful in this connection is a table with a height up to the hips, or two free standing horses, on which the individual components can be placed for the preliminary mounting.

When joining the various components, it is not allowed to use great force to forcibly insert by means of a metal hammer or by using a lever. On principle, use only a rubber hammer or a soft wooden intermediary layer.

We, as the manufacturer of racking constructions, have submitted and dedicated ourselves to the Quality and Testing Regulations RAL-RG 614, recognized by the RAL Institute, in order to prevent injuries of persons and material damage.

In the course of planning rack installations, the "Guidelines for Storage Installations and devices BGR 234" of the Main Association of the industrial trade organizations, status 10/88, as well as the relevant regulations governing the prevailing conditions at the workplace are binding, and the general regulations for the prevention of accidents must be adhered to.

META states the maximum supporting loads and the pressures allowed to be exerted on the surfaces of the areas at the ground. The customer and user must ensure that the bearing capacity of the ground at the place of mounting can safely withstand these loads. Unless specific details are made to the contrary, META assumes that the minimum permissible floor pressure is 50 kg/ cm<sup>2</sup>.

The minimum width for traffic aisles in racking constructions is 1.25 m, the minimum width of sub-aisles is 0.75 m. The minimum safety distance between the means of transportation and the racks must be 0.50 m on either side.

The maximum possible shelf and field loads as stated are not allowed to be exceeded.

Racks with a shelf load of more than 200 kg or a field load of more than 1000 kg must be equipped with a name plate.

The necessary details on this name plate are as follows: Manufacturer, year of construction or number of commissioning, admissible shelf and field loads. The name plate supplied must be attached at a conspicuous place of the construction.

In the case of corrosive active industrial floors (e.g. magnesite floors), an insulation of the support base areas must be provided for. The instructions for use, issued by the floor manufacturers, must be strictly observed.

Racking constructions are allowed to be loaded only in strict compliance with the purpose intended on the basis of the details specified. Loading of the racks should be carried out in a uniform manner, because the static design is based on assumption that the area loading will be effected uniformly. Impact loads on certain points only and sliding loads must, on principle, be avoided.

Persons are not allowed to stand or walk on the racking frames and shelves.

Bearing components that are damaged or deformed out of shape must be replaced without delay because the nominal load capacity is warranted by META on the condition that the complete construction is in perfect shape.

According to §10 Testing of Equipment of the Appliance and Product Safety Act, the testing of racks is obligatory.

We recommend:

- monthly inspection for damage performed by the plant operator and
- yearly inspection by the manufacturer

### Mandatory annual inspections for warehouse equipment

The employer is obligated to inspect all of its warehouse equipment - including all electric-powered vehicles as well as static racking - systematically and at regular intervals. Providing that the racking manufacturer does not stipulate that additional inspections are to be made due to the specific design of the racking or its conditions of use, the following regulations must be met: BGR 234 (stipulated by the German employer's liability insurance association) as well as Standards DIN EN 15512, DIN EN 15620, DIN EN 15629 and, in particular, DIN EN 15635. According to the terms of the German Ordinance on Industrial Safety and Health (BetrSichV), the Employer is responsible for the safety of its racking equipment. For this reason, racking systems must be inspected by an expert every 12 months. META offers an expert inspection service conducted by an Association-certified racking inspection body. For more information, please go to [www.regalinspektion.de](http://www.regalinspektion.de).

Food is not allowed to be placed directly on galvanized shelves or panels. For the maximum permissible deviations from levelness conditions at the place of mounting, see DIN 18202, Table 3, line 3.





Avant de procéder au dressage de vos rayonnages META, veuillez lire impérativement les informations et "règles de sécurité" fournies dans les présentes instructions. Veuillez également, aussi bien lors du dressage que l'utilisation ultérieure de vos rayonnages, vous conformer exactement aux informations fournies dans les présentes instructions, aux indications figurant dans nos documents de commande ainsi qu'aux enseignements fournis par notre personnel technique.

Les éléments de rayonnage livrés par META ne doivent être utilisés que conformément à leur destination. META décline toute responsabilité pour tous les dommages qui résulteraient d'une exploitation, d'une utilisation ou d'un montage incorrects du rayonnage.

Toutes les indications fournies dans les présentes instructions ne s'appliquent pas aux rayonnages implantés à l'extérieur ou à ceux qui sont soumis à la charge supplémentaire du vent, de la neige, d'un tremblement de terre ou à toute autre charge supplémentaire. Dans les cas suscités, un dimensionnement individuel par les soins du constructeur sera nécessaire.

La reconstruction et le nouveau dressage de nos rayonnages sur un autre site sont susceptibles d'entraîner la modification des conditions d'utilisation et de charge.

Faites appel à des spécialistes de META à toute reconstruction de l'installation à rayonnages ou en cas d'irrégularités lors du dressage.

Le dressage et la reconstruction des rayonnages ne doivent être effectués que lorsque ces derniers sont vides, conformément à nos instructions de dressage et d'utilisation ci-jointes.

Le chargement des rayonnages ne doit être effectué qu'après la fin totale des travaux de montage.

Le dressage des rayonnages doit être effectué par deux personnes au moins. De précieux services vous seront fournis dans ce contexte par une table présentant la hauteur de la hanche ou de deux chevalets librement implantés, sur lesquels vous pourrez poser les éléments pour le montage préliminaire.

Au moment de l'assemblage des différents éléments, il ne vous est pas permis d'exercer une violence brute, par exemple par des frappes à l'aide d'un marteau métallique ou par l'utilisation d'une barre de relevage utilisée comme bras de levier. D'une manière générale, utilisez une massette en caoutchouc ou une lame intercalaire en bois tendre.

Dans le but de vous éviter les dégâts humains et matériels, nous nous sommes conformé comme constructeur d'installation de rayonnages aux dispositions de qualité et d'essai RAL-RG 614, reconnues par le RAL.

L'étude des installations de rayonnage est soumise obligatoirement aux "directives relatives aux installations et appareils de stockage BGR 234" du Regroupement principal des unions professionnelles industrielles, situation 10/88 ; conformez-vous également aux ordonnances afférentes relatives aux lieux du travail et aux dispositions générales relatives à la prévention des accidents de travail.

La société META vous indique les valeurs maximales pour la charge d'appui verticale et la pression superficielle au plancher. En votre qualité d'exploitant du rayonnage, vous êtes tenus de prendre les mesures nécessaires afin que ces charges exercées au sol du lieu de dressage puissent être supportées sûrement. Dans le cas de l'absence d'information, la société META admettra une pression superficielle minimale sur le plancher de 50 Kg/cm<sup>2</sup>. Au sein des installations de rayonnages, vous devez dimensionner les voies de circulation à une largeur minimale de 1,25 m et de 0,75 m pour les passages secondaires. La distance

de sécurité minimale vis-à-vis des engins de transport doit être de 0,50 m sur les deux côtés.

Il ne vous est pas permis de dépasser les charges maximales possibles par casier et par niveau, telles qu'elles sont indiquées.

Les rayonnages dotés d'une charge par niveau supérieur à 200 kg ou une charge par casier supérieure à 1.000 kg doivent impérativement être repérés par une plaque signalétique. Indications sur la plaque signalétique : Constructeur, année de construction ou numéro de commission, charges par casier et par niveau autorisées. La plaque signalétique fournie avec le rayonnage doit être montée à un endroit bien visible.

Sur les sols industriels favorisant la corrosion (par exemple les planchers magnésiens), il sera nécessaire de prévoir un isolement des zones de pieds des appuis. Les instructions du fabricant du plancher doivent être respectées obligatoirement.

Les installations de rayonnages ne doivent être soumises aux charges que conformément aux prescriptions conformes à leur destination. Le chargement des rayonnages doit être effectué uniformément, car la conception statique se fonde sur la présomption d'une charge superficielle uniformément répartie. Par conséquent, évitez en général les charges par à-coups et les charges coulissantes ponctuelles.

Il n'est pas permis aux personnes d'accéder aux cadres et aux casiers des rayonnages, notamment aux fonds de casier.

Remplacez impérativement et immédiatement les pièces porteuses endommagées et déformées d'une installation de rayonnages, car la capacité de charge ne vous est garantie par META que dans l'état technique impeccable de ces éléments.

Conformément à l'article 10 portant sur l'examen des moyens de travail de la Loi sur la sécurité des appareils et des produits, les rayonnages sont soumis à l'obligation de contrôle.

Nous vous recommandons :

-un contrôle mensuel de la présence éventuelle de dommages par l'exploitant

et -une inspection annuelle par le constructeur

#### **Obligation d'inspection annuelle pour les installations de rayonnages**

L'employeur est tenu d'effectuer une inspection systématique et régulière de toutes les installations de rayonnages - c'est-à-dire les rayonnages à commande électrique et statiques. Si le constructeur du rayonnage n'exige pas d'inspections plus rigoureuses en raison de la construction du rayonnage ou de ses conditions d'exploitation, les inspections doivent se conformer aux règlements BGR 234 ainsi qu'aux de normes DIN EN 15512, DIN EN 15620, DIN EN 15629 et, particulièrement, à la norme DIN EN 15635. En vertu de l'ordonnance allemande relative à la sécurité dans les entreprises (BetrsichV), l'employeur est responsable de la sécurité de ses rayonnages. Les rayonnages doivent ainsi faire l'objet d'une inspection par un expert au moins une fois tous les 12 mois. META propose ces inspections d'expert par les soins d'un inspecteur de rayonnage agréé par le regroupement professionnel. Pour de plus amples informations : [www.regalinspektion.de](http://www.regalinspektion.de).

Il ne vous est pas permis de stocker des aliments directement sur les fonds de casier zingués ou sur les panneaux de lambris.

Les inégalités de sol maximales au lieu de dressage du rayonnage vous sont indiquées par la norme DIN 18202, tableau 3, ligne 3.



Przed przystąpieniem do montażu regałów firmy META należy przeczytać informacje zawarte w tej instrukcji. Podczas montażu i w trakcie późniejszej eksploatacji należy dokładnie przestrzegać podanych tu zaleceń, jak również wskazówek zawartych w dokumentacji zlecenia oraz instrukcji naszego wykwalifikowanego personelu.

Części regałów dostarczone przez META mogą być wykorzystane tylko zgodnie z ich przeznaczeniem. META nie ponosi odpowiedzialności za niewłaściwe zastosowanie, użytkowanie lub montaż regałów.

Dane przedstawione w tej instrukcji nie dotyczą regałów, które są montowane i eksploatowane na zewnątrz budynków i narażone na dodatkowe obciążenia w wyniku działania czynników atmosferycznych, takich jak wiatr, śnieg, trzęsienie ziemi itp. W takich przypadkach konieczne jest indywidualne dobranie wymiarów konstrukcji przez producenta. W przypadku przebudowy regałów lub ich ustawienia w nowym miejscu mogą zmienić się warunki dotyczące użytkowania i obciążenia. W przypadku przebudowy regałów lub niezgodności związanych z montażem należy zasięgnąć rady specjalistów META. Montaż i przebudowę regałów można wykonywać tylko w stanie nieobciążonym zgodnie z załączonymi instrukcjami montażu i eksploatacji. Załadunek regałów możliwy jest tylko po całkowitym zakończeniu montażu.

Montaż regałów powinien być wykonywany przez co najmniej 2 osoby. Pomocny jest przy tym stół sięgający na wysokość bioder lub dwie wolnostojące podpory, na których można położyć elementy konstrukcji.

Podczas składania konstrukcji nie wolno z dużą siłą wbić elementów metalowym młotkiem lub podważać przy użyciu prętów. W tym celu należy używać młotka gumowego lub miękkiej przekładki drewnianej.

Wszystkie regały – niezależnie od stosunku wysokości do głębokości – należy zakotwić.

W trosce o zapewnienie bezpieczeństwa eksploatacji nasze regały spełniają wymogi dotyczące jakości i bezpieczeństwa określone w normie RAL-RG 614.

Planując regały należy przestrzegać „Wytucznych dotyczących wyposażenia magazynów oraz urządzeń magazynowych BGR 234” głównego zakładu ubezpieczeń branży przemysłowej, stan z 10/88, jak również właściwych rozporządzeń o miejscach pracy oraz ogólnych przepisów dotyczących zapobieganiu wypadkom.

META podaje maksymalne obciążenia wsporników i nacisk wywierany na podłoże przez obciążony regał. Państwo jako użytkownicy zobowiązani są zadbać o to, by obciążenia te mogły być bezpiecznie przejmowane przez posadzkę w miejscu ustawienia regału. W przypadku braku danych dotyczących posadzki META przyjmuje parametr dopuszczalnego nacisku min. 50 kg/cm<sup>2</sup>.

Drogi komunikacyjne pomiędzy regałami muszą mieć szerokość min. 1,25m, a przejścia boczne – min. 0,75m. W

przypadku zastosowania urządzeń transportowych należy zapewnić odstęp min. 0,50m z każdej strony.

Nie wolno przekraczać podanych maksymalnie dopuszczalnych obciążeń półek i pól regałowych.

Regały o dopuszczalnym obciążeniu półek większym niż 200 kg lub obciążeniu pola większym niż 1.000 kg muszą być oznaczone tabliczką znamionową. Tabliczka powinna zawierać następujące dane: nazwa producenta, rok produkcji, dopuszczalne obciążenie półek i pola regału. Dołączoną tabliczkę znamionową należy umieścić w widocznym miejscu.

W przypadku posadzek przemysłowych aktywnych korozji nie (np. posadzek magnezytowych) należy zadbać o izolację stóp regałów. Należy przestrzegać zaleceń zawartych w instrukcji użytkowania podanych przez producenta posadzki.

Regały można obciążać tylko zgodnie z podanymi wskazówkami dotyczącymi ich przeznaczenia. Regały powinny być obciążone w sposób równomierny, ponieważ obliczenia statyczne opierają się na założeniu równomiernego rozkładu obciążenia. Należy unikać punktowych obciążeń spowodowanych uderzeniami lub przesuwaniem.

Zabronione jest wchodzenie na ramy i do gniazd regałowych, a w szczególności stawanie na półkach.

Uszkodzone lub zdeformowane elementy nośne konstrukcji regału należy niezwłocznie wymienić, ponieważ META gwarantuje obciążalność tylko elementów w należytym stanie. Zgodnie z §10 ustawy o bezpieczeństwie urządzeń i produktów, dotyczącym kontroli środków pracy, regały podlegają obowiązkowi kontroli.

Zalecamy: - comiesięczną kontrolę przeprowadzaną przez użytkownika w celu wykrycia ewentualnych uszkodzeń oraz - coroczną kontrolę przeprowadzaną przez producenta Obowiązek corocznej kontroli wyposażenia magazynu Pracodawca zobowiązany jest do regularnego i systematycznego kontrolowania całego wyposażenia magazynu – tj. regałów napędzanych elektrycznie i regałów statycznych. Jeżeli ze względu na konstrukcję regałów lub warunki eksploatacji producent regałów nie wymaga przeprowadzania zastrzonych kontroli, należy przestrzegać regulacji BGR 234 oraz norm DIN EN 15512, DIN EN 15620, DIN EN 15629, a w szczególności normy DIN EN 15635. Zgodnie z rozporządzeniem o bezpieczeństwie w procesie produkcji (BetrsichV) pracodawca ponosi odpowiedzialność za bezpieczeństwo wyposażenia swojego magazynu. Regały muszą więc być poddawane kontroli przez eksperta co najmniej raz na 12 miesięcy. META oferuje możliwość przeprowadzenia takiej kontroli przez certyfikowanego inspektora. Więcej informacji na stronie: [www.regalinspektion.de](http://www.regalinspektion.de).

Niedopuszczalne jest składowanie artykułów spożywczych bezpośrednio na półkach lub panelach ocynkowanych. Maksymalnie dopuszczalne nierówności posadzki w miejscu ustawienia regału podane są w normie DIN 18202, tabela 3, wiersz 3.

Před sestavováním vašich META--regálů si bezpodmínečně přečtěte informace uvedené v tomto návodu. Při sestavování a pozdějším používání se držte tohoto návodu, jakož i pokynů z našich podkladů k objednávce a poučení našeho odborného personálu.

Dodané regálové díly META smí být používány jen k účelům, ke kterým jsou vyrobeny. Za nevhodné použití nebo montáž nepřebírá META žádnou zodpovědnost.

Všechny údaje v tomto návodu neplatí pro regály k venkovnímu umístění, resp. regály, které jsou navíc vystaveny větru, sněhu, zaměťesení nebo jiným nepříznivým vlivům. V takových případech je nutné individuální dimenzování výrobcem.

Přestavováním resp. novým umístováním našich regálů na jiném místě může dojít ke změně podmínek pro užití a zatížení. Při přestavování regálů resp. při nejasnostech s jejich přestavováním se s dotazem obraťte na odborníky firmy META. Montáž jakož i přestavování regálů se může uskutečnit pouze v rozebraném stavu podle našeho návodu k montáži a obsluze. Zatížení regálů lze provést teprve po kompletním dokončení montáže.

Montáž regálů by měly provádět min. 2 osoby. Lze využít i pomoci dvou volně stojících koz, na které se během montáže dají položit.

Při sestavování jednotlivých dílů nesmí být použito hrubé násilí zatlokáním kovovým kladivem nebo užito páčidlo. Používejte zásadně jen gumové kladivo nebo měkkou dřevěnou podložku.

Abychom zabránili materiálním škodám či zranění lidí, podrobili jsme jako výrobci regály uznávaným testům RAL a RAL-RG 614 .

Při plánování regálů je třeba dbát příslušných "směrnic pro skladovací zařízení a přístroje BGR 234" průmyslových odborů, článku 10/88, jakož i příslušných ustanovení a bezpečnostních předpisů.

META udává maximální možné zatížení a tlak na police. Jako uživatel musíte dbát na dodržení těchto povolených hodnot. Při chybějících údajích může META vycházet z povoleného tlaku 50 Kg/cm<sup>2</sup>.

Provozní prostor mezi regály musí být min. 1,25m, vedlejší průchody min. 0,75m. Bezpečnostní odstup k dopravnímu prostředku musí být min. 0,50m na každé straně.

Uvedené maximální možné hodnoty zatížení polic nesmí být překročeny.

Regály se zatížením polic více než 200 kg nebo se zatížením sloupců více než 1.000 kg musí být opatřeny typovým štítkem. Údaje na typovém štítku: výrobce, rok výroby nebo číslo zakázky, povolené nosnosti polic a sloupců. Dodaný typový štítek musí být viditelně umístěn.

U snadno korodujících podlah (např. podlahy z magnezitu) musí být opěrné nohy v místě kontaktu s podlahou opatřeny izolací. Je třeba dbát pokynů výrobce podlah. Regály smí být zatíženy jen do hodnot pro ně určených. Náklad na regálech musí být rovnoměrně rozložen, aby bylo možné zaručit statiku celého regálu. Je třeba vyvarovat se pouze bodovému zatížení.

Osobám je zakázáno vstupovat na rám i police regálů.

Poškozené a deformované nosné díly regálové konstrukce musí být neodkladně vyměněny, neboť nosnost je firmou META zaručena jen v bezvadném stavu.

Doporučujeme:

- provozovateli měsíční kontroly poškození a
- každoroční inspekci výrobce

#### Každoroční povinnost inspekce pro regálová zařízení

Zaměstnavatel je povinen systematicky a pravidelně kontrolovat veškerá regálová zařízení - tzn. elektricky poháněné či statické regály. Pokud nejsou výrobcem regálů z důvodu konstrukce či podmínek užití vyžadovány žádné další zpřísněné kontroly, je třeba dodržovat zákonná nařízení a normy DIN EN 15512, DIN EN 15620, DIN EN 15629 a zvláště DIN EN 15635. Podle nařízení k dodržování bezpečnosti v podnicích a provozech nese za skladovací zařízení odpovědnost zaměstnavatel. Regály tak musí být zkontrolovány odborníkem minimálně každých 12 měsíců. META nabízí k těmto odborným inspekcím vyškoleného a prověřeného inspektora. Více na [www.meta-regaly.cz](http://www.meta-regaly.cz)

Na pozinkovaných policích či panelech nesmí být přímo uloženy žádné potraviny.

Maximálně přípustné nerovnosti terénu v bodě umístění jsou uvedeny v DIN 18202, tab. 3, řádek 3.

META – állványainak felállítása előtt olvassa el mindenképpen az ebben az útmutatásban szereplő információkat. Tartsa magát a felépítésnél és a későbbi használatnál pontosan ennek az útmutatónak az utasításaihoz, a megbízási papírjaink utasításaihoz és a szakszemélyzetünk instrukcióihoz.

A META által szállított állványokat csak a rendeltetésüknek megfelelően szabad használni. A szakszerűtlen bevetésért, használatért vagy felszerelésért a META nem vállal felelősséget.

Mindezek az utasítások nem érvényesek olyan állványokra, amelyeket szabadterén állítottak fel, illetve amelyeket szél, hó, földregés vagy egyéb többletterhelés ér. Ilyen esetekben az előállító helyzetre szabott dimenzionálása szükséges.

Átépítés, ill. más helyen való újrafelállítás miatt megváltozhatnak a használat és a terhelés feltételei. Az állványlétesítmények átépítése, ill. nézeteltérések esetén a META szakembereitől kell tanácsot kérni. Az állványok feltöltését csak a szerelés teljes befejezése után szabad elvégezni.

Az állványok felépítését legalább 2 személynek kellene végeznie. Eközben jó szolgálatot tehet egy csipőmagas asztal, két szabadon álló bak, amikre a darabokat fel lehet helyezni az előszerelés idejére.

Az összeszerelésnél nem szabad nyers erőszakot alkalmazni fémkalapáccsal ütlegeléssel vagy emelőkarok alkalmazásával. Alapvetően csak gumikalapácsot vagy egy puha fa kőzetétet használjon.

Minden állványt függetlenül a magasságának és a mélységének az arányától dűbelezni kell.

A személyi és vagyoni károk elkerülése végett, mint állványlétesítmények gyártója az RAL által elfogadott minőségi és ellenőrzési előírásoknak, az RAL-RG 614-nek vetjük alá magunkat.

Állványlétesítmények tervezésénél az ipari szakmai egyesületek főszövetségének „Raktárberendezések és készülékek BGR 234” 10/88 szerinti állását, továbbá a hatályos munkahelyi rendeleteket kötelezően és az általános balesetmegelőzési szabályokat kell figyelembe venni.

A META megadja a maximális állványlábak terhelését és a talajnyomását. Önnek, mint üzemeltetőnek kell arról gondoskodnia, hogy ezeket a terheléseket a felállítási hely talaja biztonságosan fel tudja venni. Hiányzó adatok esetében a META abból indulhat ki, hogy a megengedett talajnyomás legalább 50 kg/cm<sup>2</sup>.

Állványlétesítményekben a közlekedő utakat legalább 1,25 m, a mellékutakat pedig 0,75 m szélesre kell létesíteni. A szállítóeszközök minden oldalon legalább 0,50 m távolságot kell tartsanak.

A megadott maximális polc- és mezőterheléseket nem szabad túllépni.

A Multipal Rácsos szerkezetű keretének szerelésénél ügyelni kell arra, hogy a csavarokat ne húzzák túl. A

csavarokat először csak kézzel kell előszerelni, és később egy csavarkulccsal 1 - 2 fordulásnyira meghúzni.

A 200 kg-ot meghaladó polcterhelésű, illetve 1000 kg-ot meghaladó mezőterhelésű állványokat típusablával kell jelölni. A típusablá adatai: Gyártó, gyártás éve, bizományszám, polc- és mezőterhelés. A csomagban szállított típusablát jól látható helyen kell felszerelni.

Korrózióaktív ipari talajnál (pl.: magnezit talaj) a állványlábak területének szigetelését is elő kell irányozni. A talaj gyártójának használati utasítását kötelező jelleggel kell figyelembe venni.

Állványlétesítményeket csak a rendeltetésüknek megfelelő mértékben szabad megterhelni. Az állványok terhelését egyenletesen kellene elvégezni, mivel a statikai méretezés egyenletes felületi terhelésen alapszik. A pontszerű ütközési terhelést és a tolóterheléseket mindig kerülni kell.

Az állványkeretekre és –polcokra, különösen a polcok lemezére nem szabad lépni.

Az állványlétesítmény sérült és deformálódott tartóelemeit azonnal ki kell cserélni, mivel a META a terhelhetőséget csak kifogástalan állapotban tudja garantálni.

A német "Készülék és termékbiztonsági" törvény "Munkaeszközök ellenőrzéséről" szóló 10. §-ának az értelmében az állványok az ellenőrzési kötelezettség hatálya alá esnek.

A következőket ajánljuk:

- A sérülések havonkénti ellenőrzése az üzemeltető által, és
- évenkénti ellenőrzés a gyártó által.

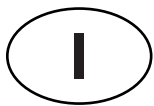
#### Raktárlétesítmények éves ellenőrzési kötelezettsége

A munkaadó köteles az összes raktárlétesítményt, tehát az elektromosan üzemeltetett és a statikus állványokat szisztematikusan és rendszeresen szemléltetni. Amennyiben a gyártó a konstrukció vagy a felhasználási körülmények miatt nem követel meg szigorított szemléltetést, akkor a BGR 234, DIN EN 15512, DIN EN 15620, DIN EN 15629 és különösképpen a DIN EN 15635 előírásait kell betartani. A német "Üzembiztonsági rendelet" (BetrsichV) értelmében a munkaadót terheli a felelősség a raktárlétesítmény biztonságáért. Ennek értelmében az állványokat legkésőbb 12 havonta szakember által kell szemléltetni. A META ezt a szakszemléltetést egy a szövetség által vizsgáztatott állványellenőr személyében ajánlja fel. További információkért forduljon a:

[www.regalinspektion.de](http://www.regalinspektion.de)

A horganyzott polcokon és a fémpaneleken nem szabad közvetlenül élelmiszert tárolni.

A felállítás helyén a megengedett legnagyobb talajegyenletlenségek a DIN 18202 3. táblázatának 3. sorában található meg.



Prima del montaggio del vostro scaffale META, leggere assolutamente le informazioni contenute in queste istruzioni.

Per il montaggio e il successivo utilizzo, invitiamo a rispettare scrupolosamente le specifiche delle presenti istruzioni, le indicazioni contenute nella nostra documentazione riguardo all'ordine, e le istruzioni date dal nostro personale specializzato.

Tutte le parti di scaffale fornite da META possono essere utilizzate esclusivamente in modo corrispondente alla loro destinazione d'uso. META non si assume alcuna responsabilità per l'impiego, lo sfruttamento e il montaggio inappropriati.

Tutte le indicazioni delle presenti istruzioni non si applicano agli scaffali montati in esterni, ovvero a scaffali che subiscono un'ulteriore sollecitazione da vento, neve, terremoti o altri carichi aggiuntivi. In casi del genere è necessario un dimensionamento personalizzato a cura del produttore.

La trasformazione, ovvero il montaggio in una nuova posizione, possono modificare le condizioni per l'utilizzo e il carico dei nostri scaffali.

In caso di trasformazione dell'impianto di scaffali, ovvero in caso di incongruenze in fase di montaggio, deve essere consultato il personale specializzato di META.

Il montaggio e la trasformazione degli scaffali deve avvenire secondo le istruzioni per il montaggio e l'uso allegate, ed esclusivamente in assenza di carico. Gli scaffali possono essere caricati soltanto in seguito al completamento totale del montaggio.

Il montaggio degli scaffali deve essere effettuato da almeno due persone. Un buon ausilio è dato da un tavolo ad altezza della vita, o due cavalletti su cui appoggiare le parti dello scaffale per il premontaggio.

Nel comporre i singoli pezzi non deve essere adottata forza mediante colpi di martello metallico o leve. Va utilizzato fondamentalmente un martello di gomma o un morbido tramezzo di legno.

Al fine di prevenire danni a persone e cose, come produttori di scaffalature ci siamo sottoposti alle norme di qualità e controllo RAL-RG 614.

Nella progettazione di scaffalature devono essere rispettate le "direttive per arredi e apparecchi da magazzino BGR (Regole del consorzio professionale)

234" del consorzio delle associazioni di categoria, aggiornate al 10/88, le pertinenti disposizioni riguardanti il posto di lavoro, e le prescrizioni generali antinfortunistiche.

META indica i carichi massimi per montante e le pressioni superficiali sul pavimento. In qualità di utilizzatori, siete tenuti ad assicurarvi che i carichi sul pavimento del luogo di montaggio possano essere sostenuti in modo sicuro. Se mancano indicazioni specifiche, META è autorizzato a sopporre una pressione superficiale ammessa del pavimento di almeno 50 kg/cm<sup>2</sup>.

I percorsi di transito all'interno di sistemi di scaffalature devono essere predisposti con una larghezza minima di 1,25 m, i percorsi laterali di almeno 0,75 m. La distanza di sicurezza da mezzi di movimentazione deve essere di almeno 0,50 m su ogni lato.

Le portate massime indicate per ripiano e campata non possono essere superate.

Gli scaffali con portata ripiano superiore a 200 kg, o con portata a campata superiore a 1.000 kg, devono essere dotati di targhetta corrispondente. Indicazioni della targhetta: produttore, anno di fabbricazione o numero di commissione, carichi ripiano e campata ammessi. La targhetta fornita con lo scaffale deve essere collocata in modo chiaramente visibile.

In caso di pavimenti industriali corrosivi (ad es. pavimento in magnesite), deve essere apportato un isolamento nell'ambito dei piedi di appoggio. Devono essere assolutamente osservate le istruzioni per l'uso del produttore del pavimento.

Le scaffalature possono essere caricate esclusivamente secondo le indicazioni pertinenti alla loro destinazione d'uso. Gli scaffali dovrebbero essere caricati in modo equilibrato, dato che i calcoli statici suppongono che il carico sia distribuito egualmente sulla superficie. I carichi dinamici puntiformi e i carichi di spinta sono pertanto fondamentalmente da evitare.

Le cornici e gli scomparti degli scaffali, in particolare i piani, non devono essere calpestati da persone.

Gli elementi portanti danneggiati o deformati di una scaffalatura devono immediatamente essere sostituiti, giacché la resistenza al carico può essere garantita da META solo in condizioni ineccepibili.

A norma dell'art 10, "Controllo degli strumenti di lavoro", della legge per la sicurezza delle apparecchiature e dei prodotti, gli scaffali sono sottoposti all'obbligo di controllo.

Consigliamo:

- controllo mensile di eventuali danni, a cura dell'utilizzatore, e
- ispezione annuale da parte del produttore

#### **Obbligo di ispezione annuale per le attrezzature di magazzino**

**Il datore di lavoro è tenuto a ispezionare periodicamente in modo sistematico tutti gli impianti di magazzino, ossia scaffalature statiche e movimentate elettricamente. Nel caso in cui, a motivo della costruzione o delle condizioni d'uso, non vengano richieste ispezioni severe al produttore di scaffali, devono essere rispettate le regolamentazioni del BGR 234 e dei di norma DIN EN 15512, DIN EN 15620, DIN EN 15629 e in particolare DIN EN 15635. Secondo la direttiva sulla sicurezza delle aziende (BetrSichV) il datore di lavoro è responsabile per la sicurezza degli arredi di magazzino. Gli scaffali devono dunque essere ispezionati da un esperto almeno ogni 12 mesi. META offre tale ispezione da parte di un esperto mediante un ispettore di scaffali certificato dall'associazione (di categoria). Per maggiori informazioni: [www.regalinspektion.de](http://www.regalinspektion.de)**

È vietato depositare alimenti direttamente su piani o pannelli zincati.

Le accidentalità massime del pavimento ammesse sul posto di installazione dello scaffale sono riportate in DIN 18202, tabella 3, riga 3.

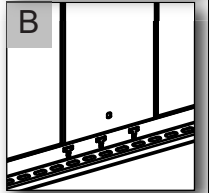
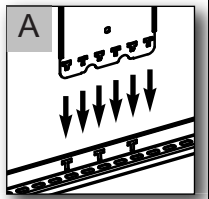
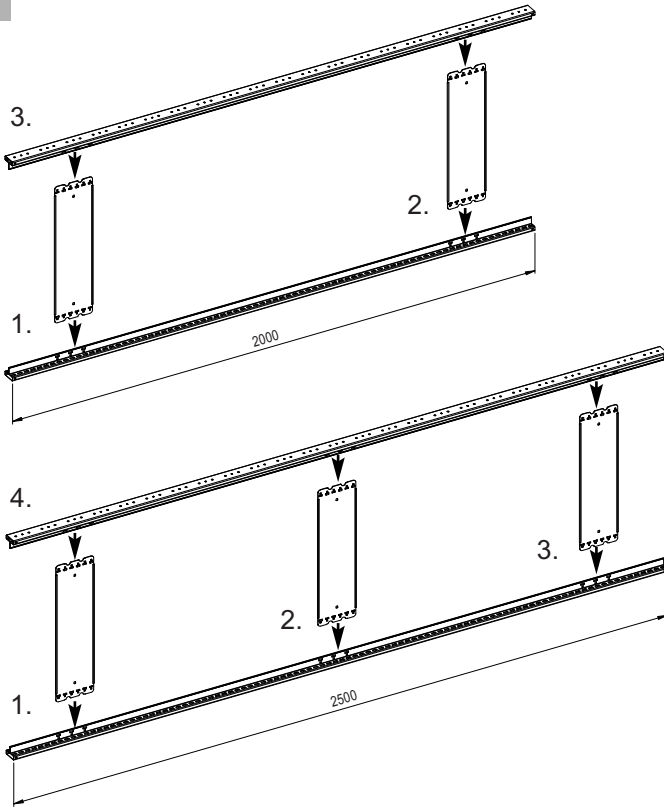


# S3

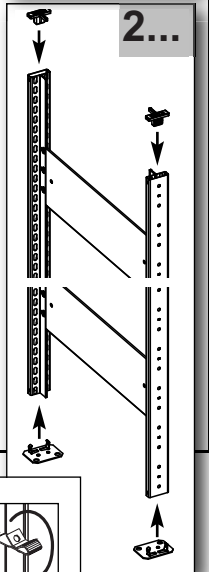
**META**

Das Lagersystem

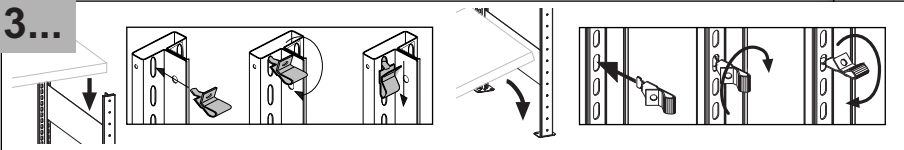
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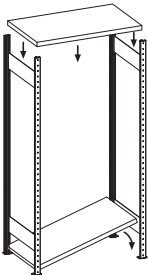
2...



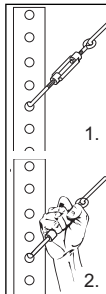
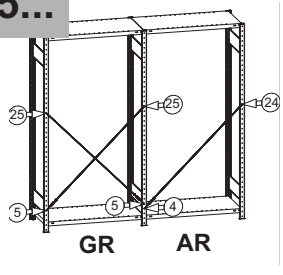
3...



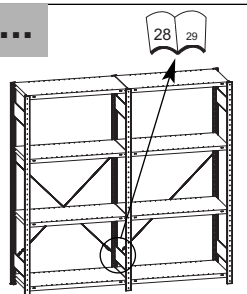
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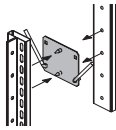
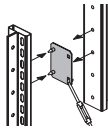
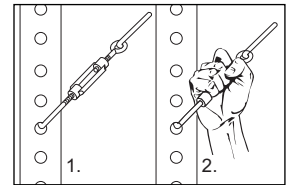
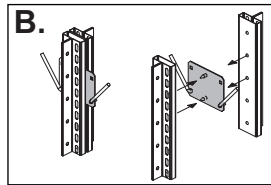
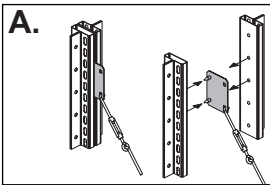
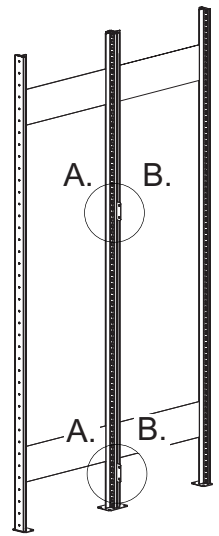
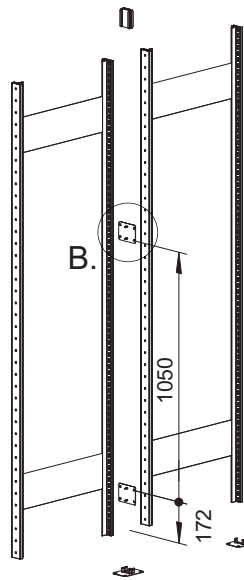
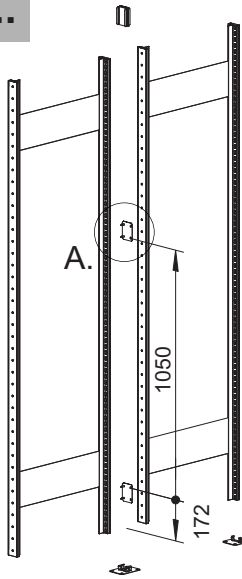
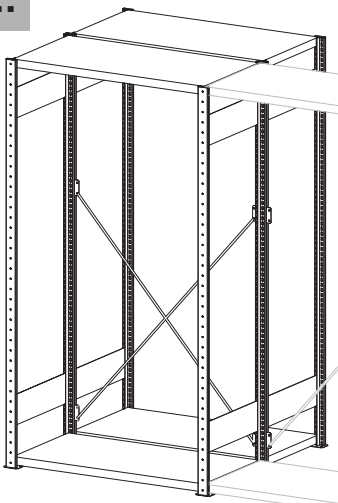
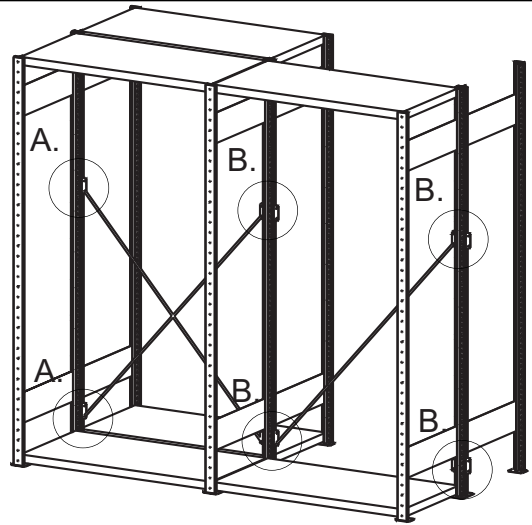


5...



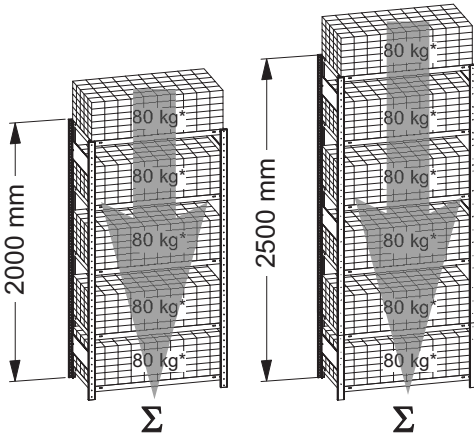
6...



**2...****3...****4...**



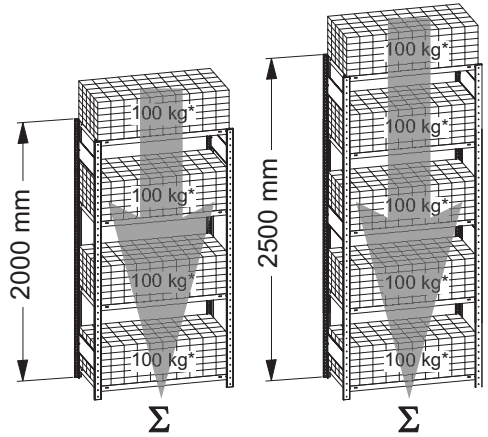
## L80



\* $\Sigma$  = max. 80 kg  
 $\Sigma$  = max. 1100 kg

\* $\Sigma$  = max. 80 kg  
 $\Sigma$  = max. 1290 kg

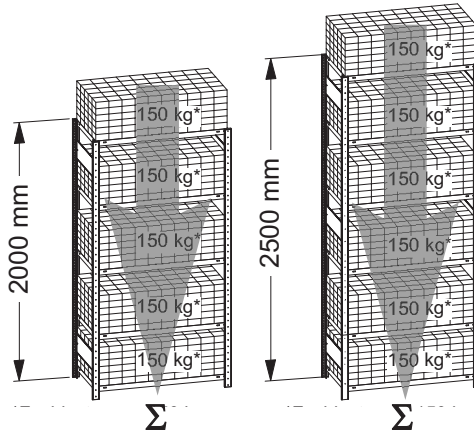
## S100



\* $\Sigma$  = max. 100 kg  
 $\Sigma$  = max. 1100 kg

\* $\Sigma$  = max. 100 kg  
 $\Sigma$  = max. 1380 kg

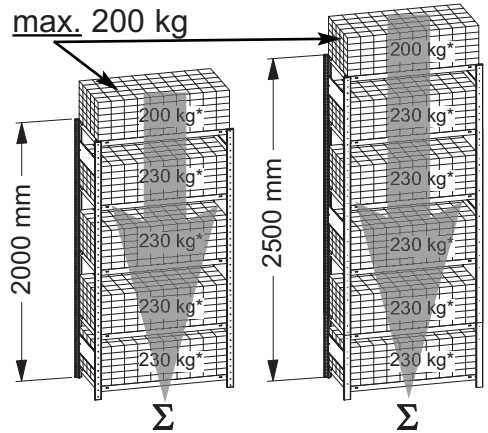
## V150



\* $\Sigma$  = max. 150 kg  
 $\Sigma$  = max. 1100 kg

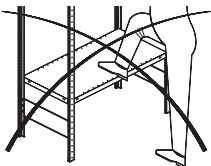
\* $\Sigma$  = max. 150 kg  
 $\Sigma$  = max. 1380 kg

## MS230 / V230

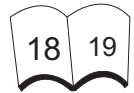
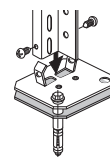


\* $\Sigma$  = max. 230 kg  
 $\Sigma$  = max. 1100 kg

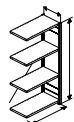
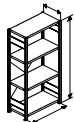
\* $\Sigma$  = max. 230 kg  
 $\Sigma$  = max. 1380 kg



H : T  $\geq$  5 : 1

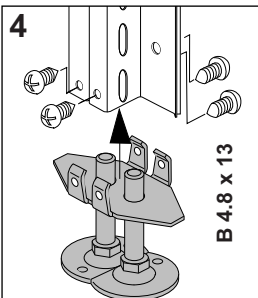
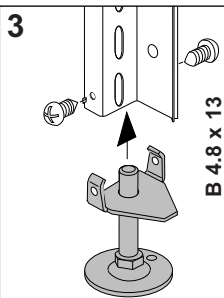
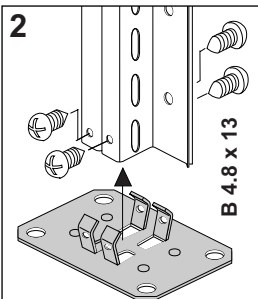
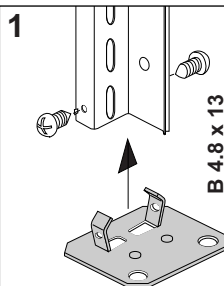
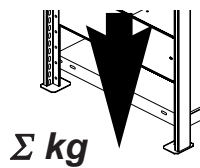
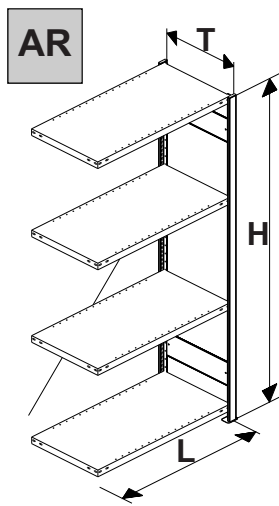
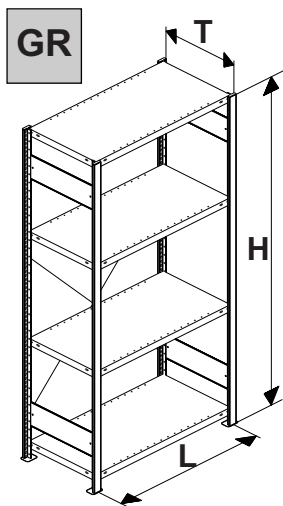






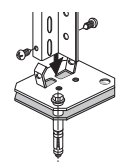
**META**

Das Lagersystem

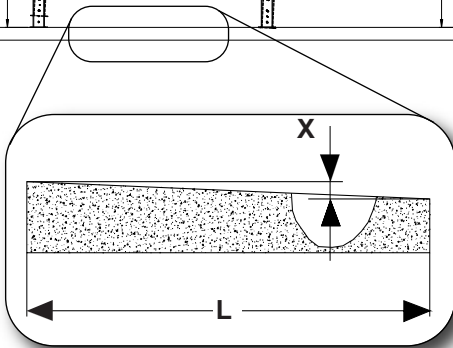
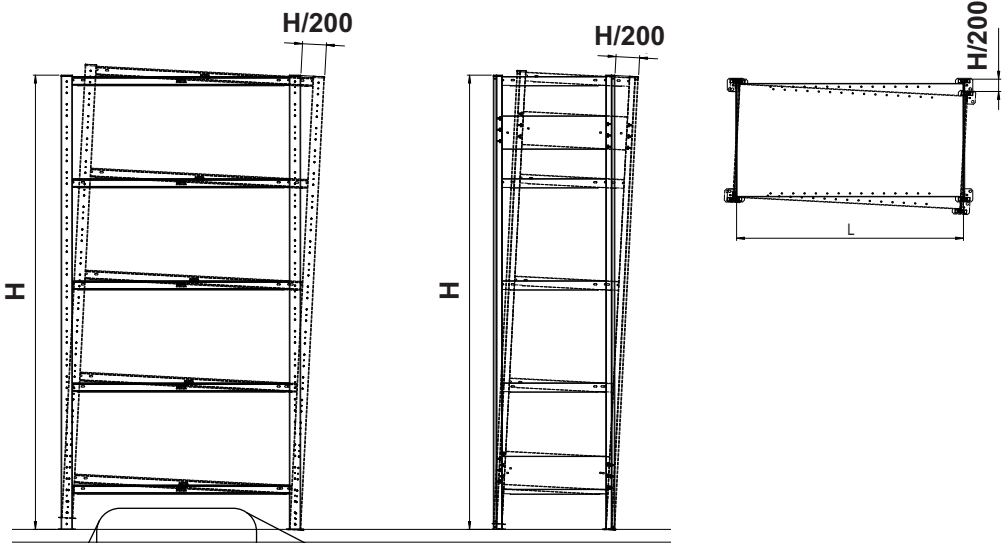
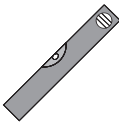


$\geq 800$

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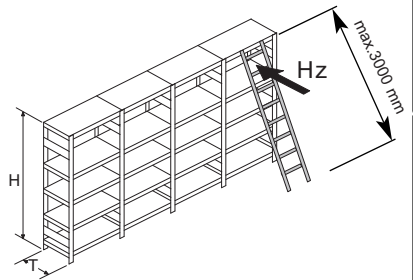
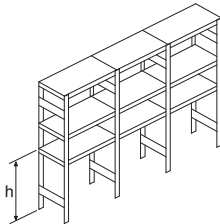
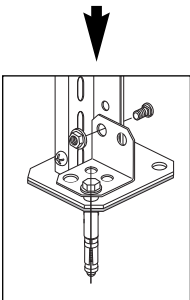


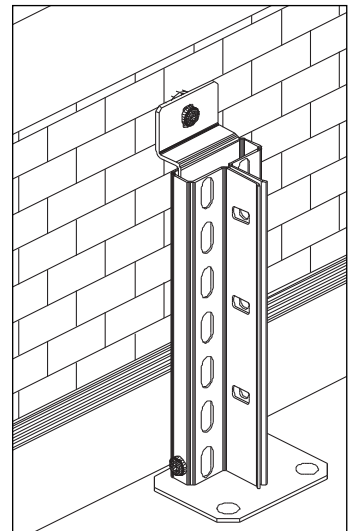
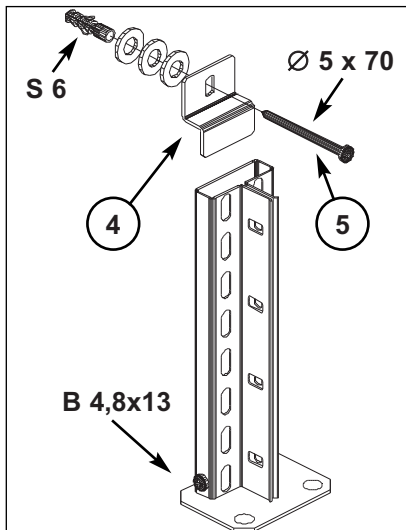
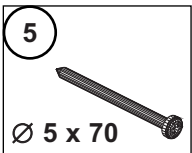
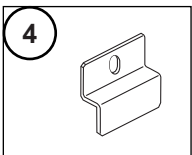
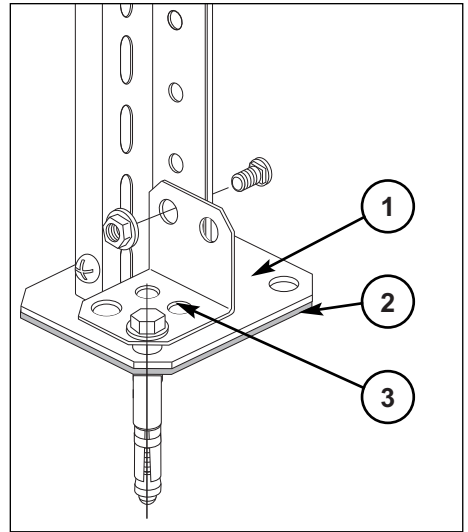
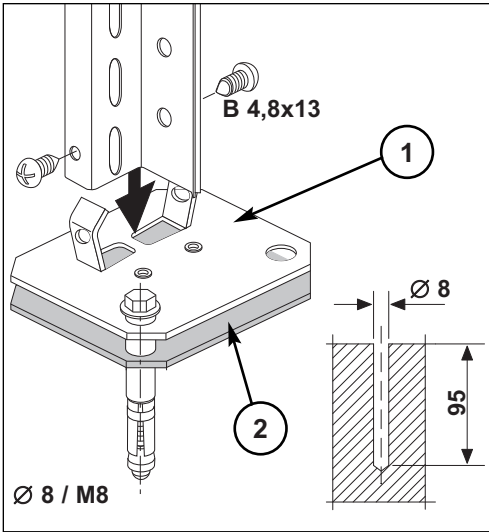
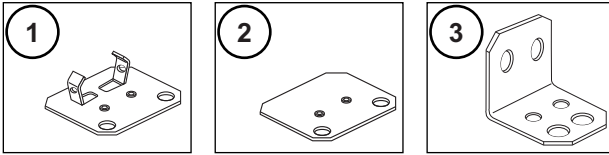
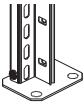
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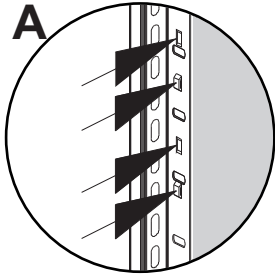
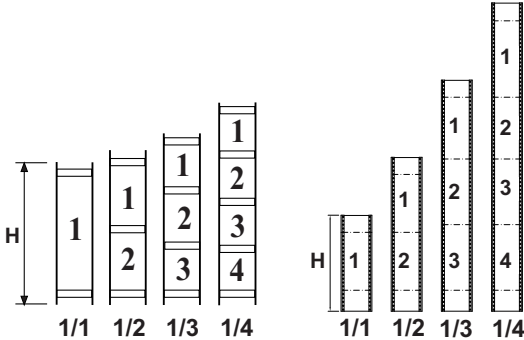
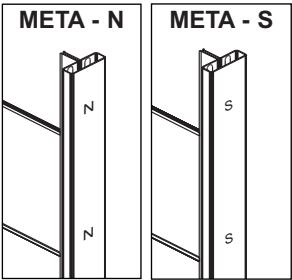
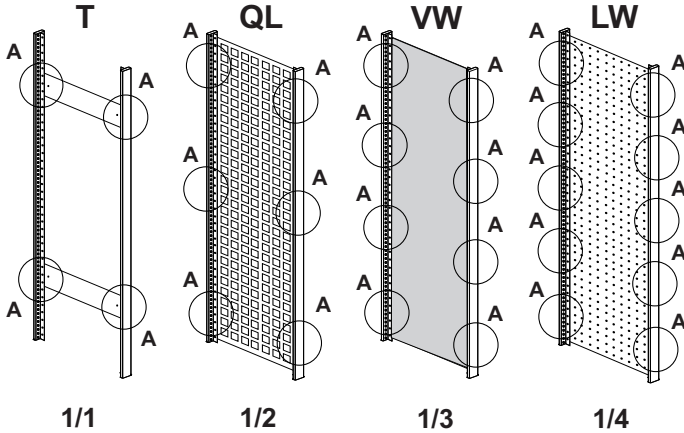


DIN 18202	
L m	X mm
< 1,0	max. 4
> 1,0 - 4,0	max. 10
> 4,0 - 10,0	max. 12
> 10,0 - 15,0	max. 15

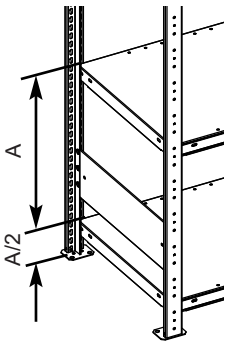
**H : T ≥ 5 : 1**  
**h : ≥ 600 mm**  
**Hz : ≥ 5 kg**



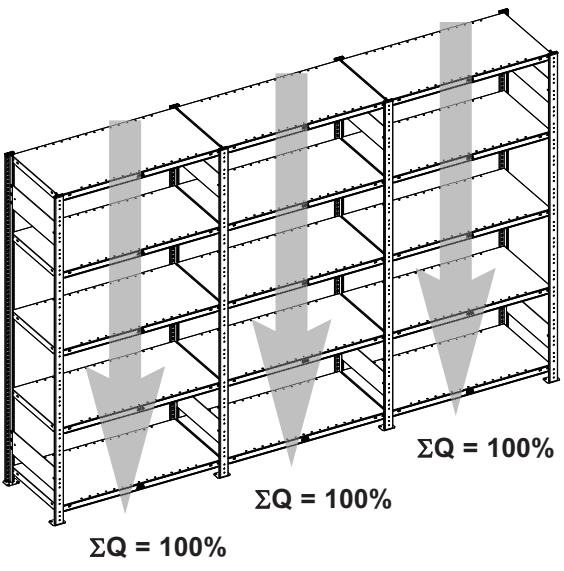
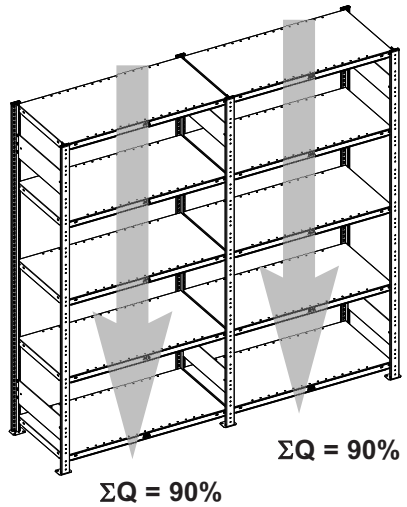
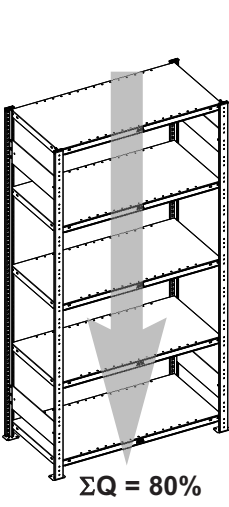




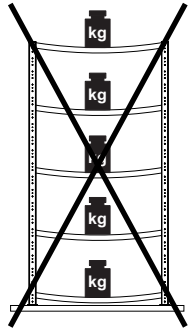
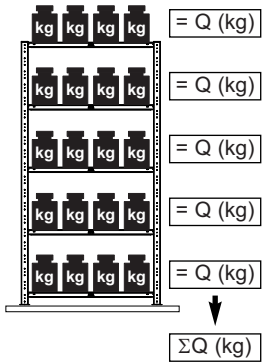
**T** **QL / VW / LW**



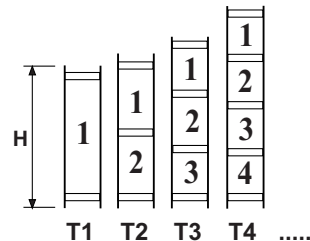
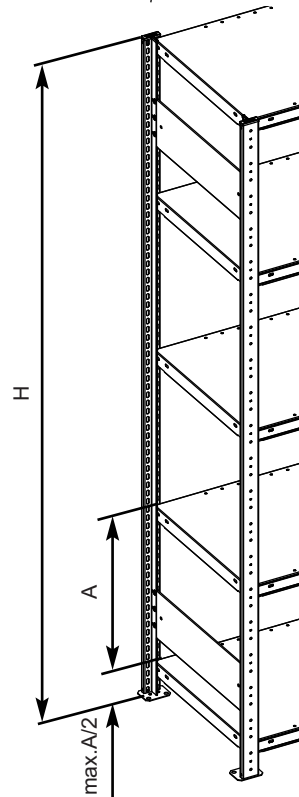
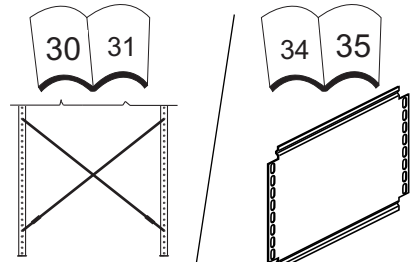
$A/2 \geq 600\text{mm} = \Sigma Q \text{ (kg)}$  ?



$\Sigma \text{ kg} = Q \text{ (kg)}$



	H (mm)		A (mm)				
			450 mm	600 mm	800 mm	1000 mm	
<b>T1 VW1</b>	2000	MHN	1560	1520	1440	1220	
		MHS					
	2200	MHN	1260	1230	1180	1010	
		MHS					
	2500	MHN	960	930	900	790	
		MHS					
<b>T2 VW2</b>	2000	MHN	2410	2330	2180	1900	
		MHS					
	2200	MHN	2280	2240	2110	1800	
		MHS					
	2500	MHN	2160	2120	1920	1720	
		MHS					
	3000	MHN	2020	2020	1870	1530	
		MHS					
	<b>T3 VW3</b>	2500	MHN	2410	2320	2210	1920
			MHS				
		3000	MHN	2160	2110	2020	1890
			MHS				
3500		MHN	2080	1980	1910	1790	
		MHS					
4000		MHN	1840	1790	1680	1500	
		MHS					
4200		MHN	1750	1700	1630	1440	
		MHS					
<b>T4 VW4</b>	3500	MHN	2300	2200	2100	1920	
		MHS					
	4000	MHN	2100	2060	1890	1740	
		MHS					
	4200	MHN	2080	2030	1850	1660	
		MHS					
	4500	MHN	2020	1970	1830	1590	
		MHS					
	5000	MHN	1600	1500	1400	1300	
		MHS					
<b>T5 VW5</b>	4000	MHN	2420	2330	2100	1970	
		MHS					
	4200	MHN	2350	2250	2020	1900	
		MHS					
	4500	MHN	2280	2210	1980	1800	
		MHS					
	5000	MHN	2150	2040	1890	1700	
		MHS					
<b>T6 VW6</b>	4500	MHN	2320	2260	2030	1910	
		MHS					
	5000	MHN	2180	2100	1980	1820	
		MHS					



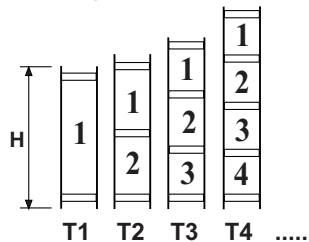
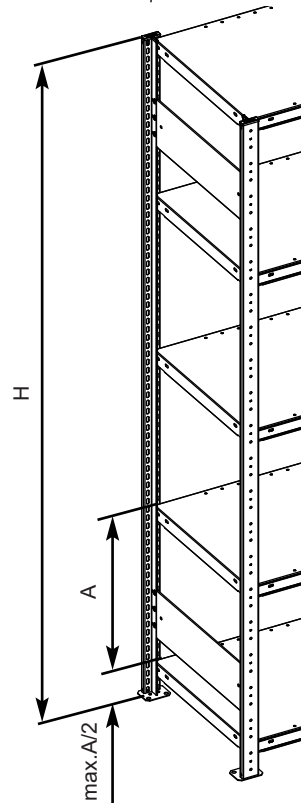
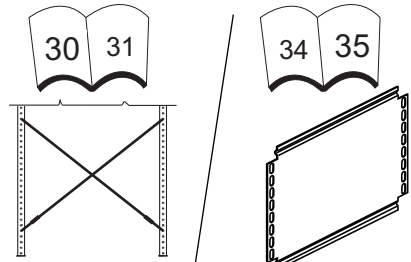


V150 / V230 / MS-II

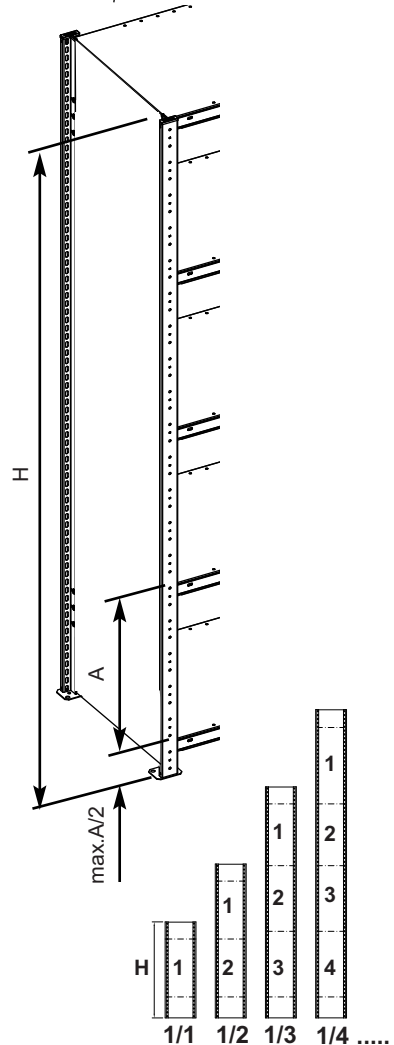
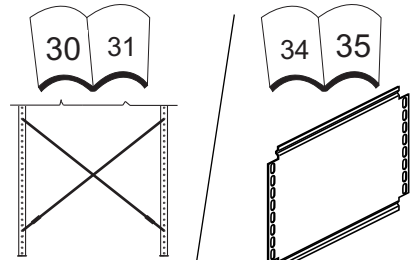
+  
T1 - T6**META**

Das Lagerssystem

	H(mm)		A (mm)				
			450 mm	600 mm	800 mm	1000 mm	
<b>T1</b>	2000	MHN	1560	1550	1500	1260	
		MHS	2240	2210	2120	1820	
	2200	MHN	1260	1250	1230	1080	
		MHS	1780	1710	1540	1120	
	2500	MHN	960	950	940	810	
		MHS	1350	1310	1240	1030	
<b>T2</b>	2000	MHN	2450	2420	2250	1930	
		MHS	3620	3520	2880	2410	
	2200	MHN	2440	2380	2220	1810	
		MHS	3460	3350	2710	2340	
	2500	MHN	2400	2340	2200	1780	
		MHS	3370	3250	2650	2250	
	3000	MHN	2020	2020	2020	1540	
		MHS	2670	2600	2500	2160	
	<b>T3</b>	2500	MHN	2790	2740	2410	2000
			MHS	3800	3700	3590	3150
		3000	MHN	2600	2520	2320	1930
			MHS	3600	3450	3180	2850
3500		MHN	2160	2110	2010	1820	
		MHS	3140	3050	2800	2320	
4000		MHN	1890	1850	1780	1520	
		MHS	3000	2800	2470	2230	
4200		MHN	1800	1750	1620	1467	
		MHS	2680	2560	2410	2160	
<b>T4</b>	3500	MHN	2340	2290	2140	1980	
		MHS	3490	3420	2970	2870	
	4000	MHN	2160	2140	1930	1760	
		MHS	3340	3300	2940	2660	
	4200	MHN	2110	2070	1870	1660	
		MHS	3240	3130	2900	2620	
	4500	MHN	2050	1990	1880	1620	
		MHS	3100	2930	2710	2520	
	5000	MHN	1620	1550	1450	1370	
		MHS	2970	2800	2560	2370	
<b>T5</b>	4000	MHN	2470	2430	2160	1980	
		MHS	3681	3570	3420	3240	
	4200	MHN	2380	2330	2070	1900	
		MHS	3640	3510	3250	3010	
	4500	MHN	2350	2300	1980	1820	
		MHS	3600	3530	3160	2880	
	5000	MHN	2160	2080	1890	1750	
		MHS	3180	3130	3020	2740	
<b>T6</b>	4500	MHN	2370	2330	2210	2000	
		MHS	3780	3640	3340	3020	
	5000	MHN	2230	2170	2010	1930	
		MHS	3700	3580	3280	2880	



	H (mm)		A (mm)			
			450 mm	600 mm	800 mm	1000 mm
<b>VW1</b>	2000	MHN	1820	1750	1610	1400
		MHS	2240	2210	2120	2030
	2200	MHN	1550	1440	1320	1260
		MHS	1900	1850	1600	1450
	2500	MHN	1208	1140	1030	980
		MHS	1500	1440	1280	1200
<b>VW2</b>	2000	MHN	2450	2420	2250	2150
		MHS	3720	3620	3030	2800
	2200	MHN	2440	2380	2220	2090
		MHS	3590	3440	2990	2730
	2500	MHN	2400	2340	2200	2050
		MHS	3420	3310	2810	2580
3000	MHN	2020	2020	2020	1960	
	MHS	2930	2860	2720	2470	
<b>VW3</b>	2500	MHN	2790	2740	2410	2230
		MHS	4130	4030	3810	3610
	3000	MHN	2670	2580	2320	2150
		MHS	3880	3760	3590	3510
	3500	MHN	2350	2300	2120	2030
		MHS	3510	3350	3080	2860
4000	MHN	2230	2060	1980	1790	
	MHS	3420	3290	2990	2750	
4200	MHN	2150	1980	1810	1630	
	MHS	3210	2990	2850	2650	
<b>VW4</b>	3500	MHN	2660	2550	2380	2210
		MHS	3980	3860	3300	3190
	4000	MHN	2510	2380	2150	1960
		MHS	3850	3670	3270	3080
	4200	MHN	2420	2300	2080	1850
		MHS	3670	3520	3230	3020
4500	MHN	2320	2220	2090	1810	
	MHS	3510	3390	3120	2960	
5000	MHN	2060	1810	1620	1530	
	MHS	3380	3260	2960	2750	
<b>VW5</b>	4000	MHN	2750	2700	2400	2200
		MHS	4210	3970	3810	3620
	4200	MHN	2650	2590	2300	2120
		MHS	4120	3950	3780	3530
	4500	MHN	2620	2560	2200	2030
		MHS	4090	3930	3650	3410
5000	MHN	2480	2310	2100	1930	
	MHS	3750	3520	3360	3230	
<b>VW6</b>	4500	MHN	2640	2550	2420	2180
		MHS	4280	4150	3780	3510
	5000	MHN	2540	2380	2150	2030
		MHS	4160	4070	3690	3380





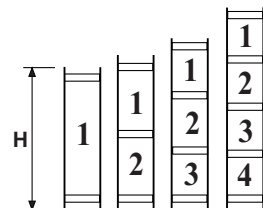
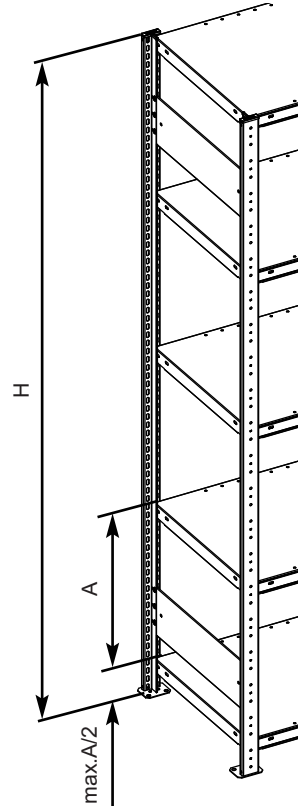
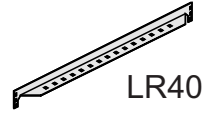


S100 / V150 / V230 / MS-II

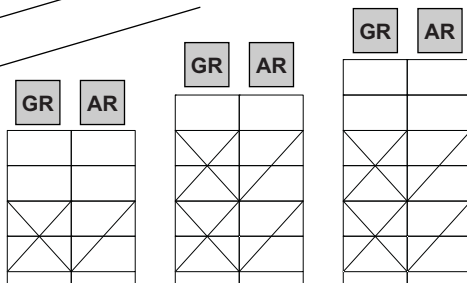
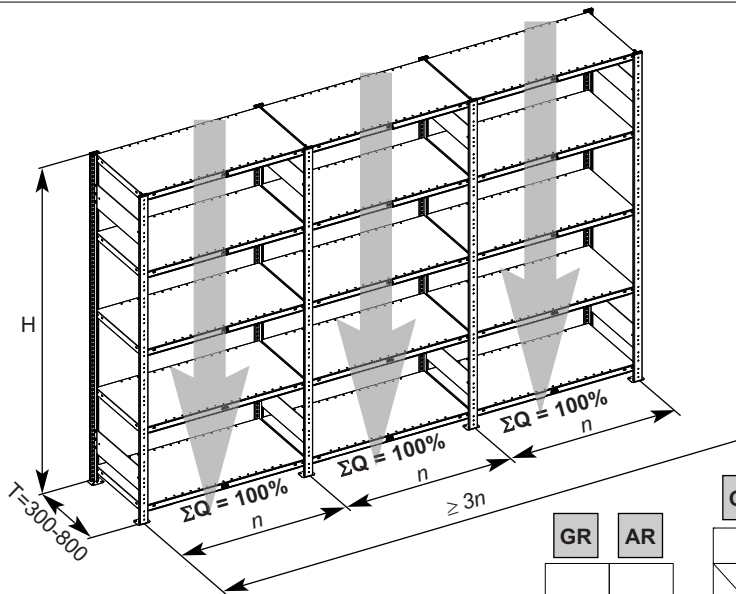
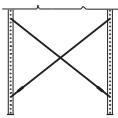
+  
T1- T4**META**

Das Lagerssystem

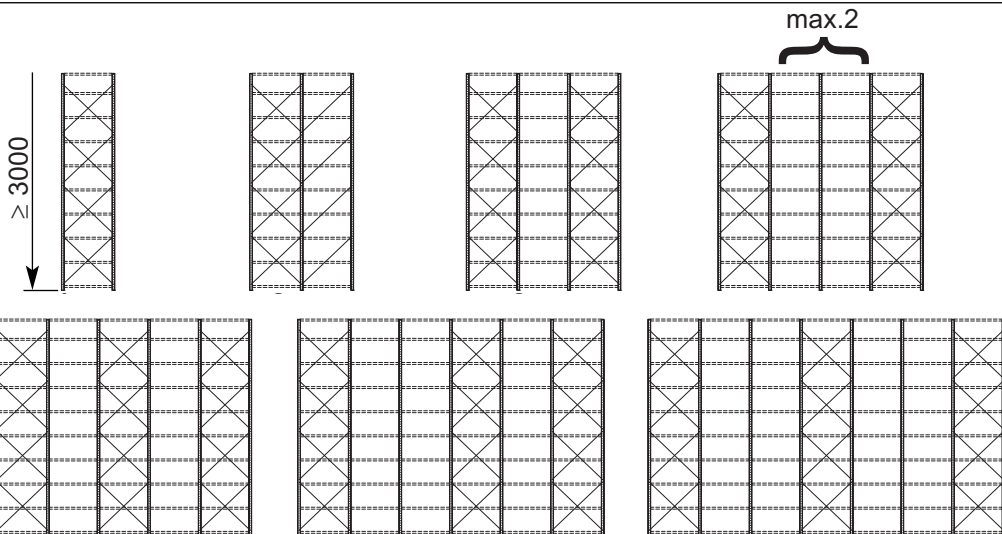
	H (mm)		A (mm)				
			450 mm	600 mm	800 mm	LRE	
T1	2000	MHN	1030	820	710	2	
		MHS	1500	1220	950	2	
		MHN	1470	1120	950	3	
		MHS	1650	1280	1050	3	
	2200	MHN	1000	800	710	2	
		MHS	1490	1190	910	2	
	2500	MHN	825	690	580	2	
		MHS	1330	1150	870	2	
T2	2000	MHN	1100	850	730	2	
		MHS	1530	1250	970	2	
	2200	MHN	1050	820	700	2	
		MHS	1500	1210	930	2	
	2500	MHN	1230	950	840	3	
		MHS	1780	1420	1120	3	
		MHN	1770	1330	1090	4	
		MHS	2320	1920	1240	4	
	3000	MHN	1560	1150	870	4	
		MHS	2140	1680	1140	4	
	T3	2200	MHN	1220	1060	920	2
			MHS	1930	1650	980	2
2500		MHN	1250	990	870	3	
		MHS	1850	1390	1180	3	
3000		MHN	1640	1310	1020	4	
		MHS	2270	1750	1150	4	
3500		MHN	1640	1330	1060	5	
		MHS	2320	1710	1230	5	
4000		MHN	1650	1160	850	6	
		MHS	2110	1450	1040	6	
4200		MHN	1660	1390	930	6	
		MHS	2040	1380	950	6	
4500	MHN	1420	1080	780	6		
	MHS	1850	1320	830	6		
T4	3000	MHN	1680	1430	1080	4	
		MHS	2360	1670	1230	4	
	3500	MHN	1680	1360	1120	5	
		MHS	2410	1770	1340	5	
	4000	MHN	1720	1250	890	6	
		MHS	2230	1890	1080	6	
	4200	MHN	1710	1180	860	6	
		MHS	2200	1620	1020	6	
	4500	MHN	1520	1050	810	6	
		MHS	2410	1550	950	8	
	5000	MHN	1510	1150	820	8	
		MHS	2320	1420	1010	8	



T1 T2 T3 T4 .....



$\leq H$	2000mm 2200mm	2500mm	3000mm
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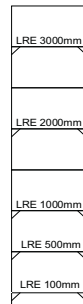
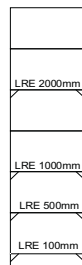
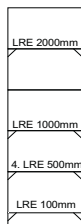
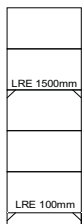
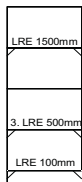
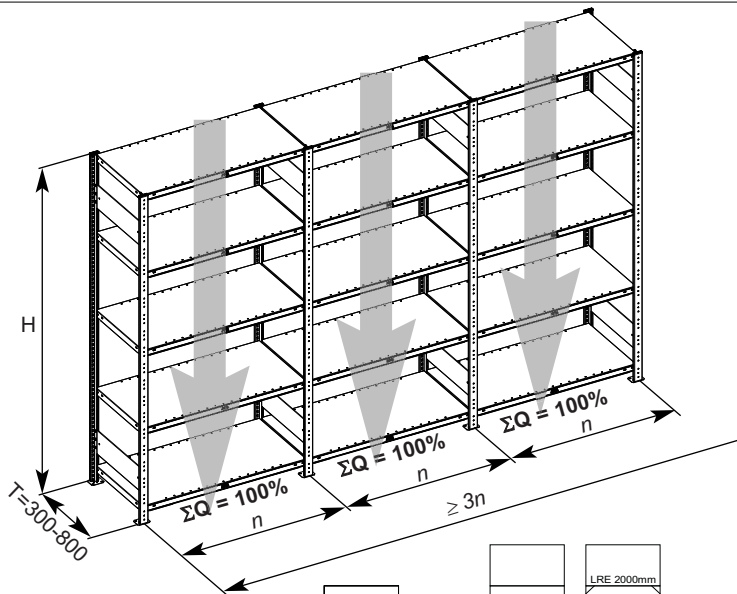




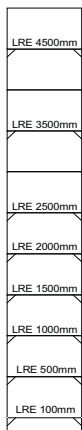
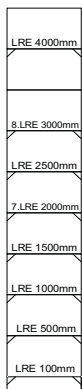
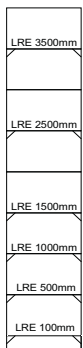
LR40

**META**

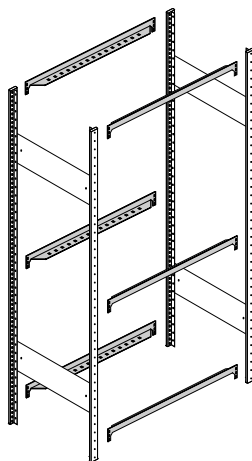
Das Lagersystem

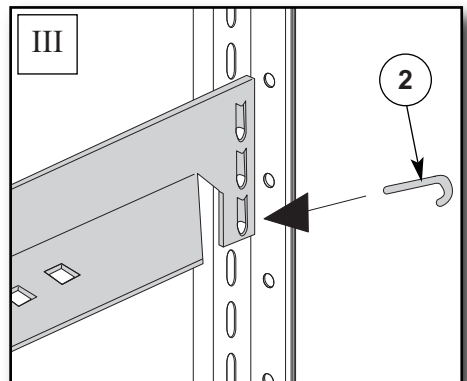
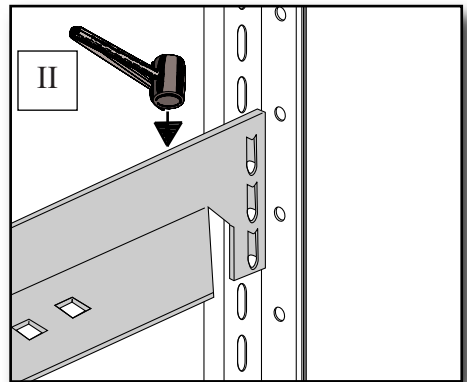
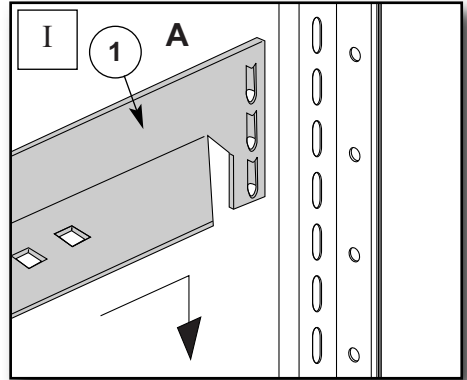
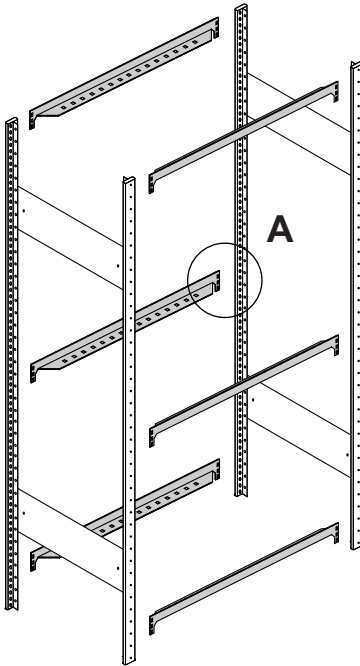
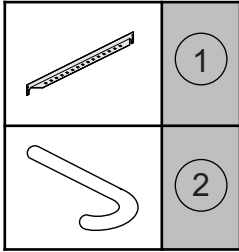
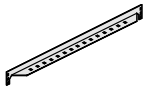


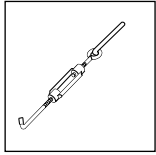
$\leq H$	2000mm 2200mm	2500mm	3000mm	3500mm
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$\leq H$	4000mm 4200mm	4500mm	5000mm
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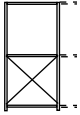






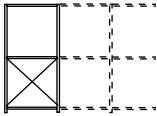
GR

1.



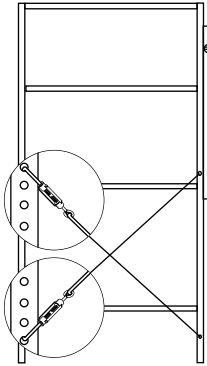
1(GR) .....

2.



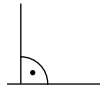
1(GR) .....

1.

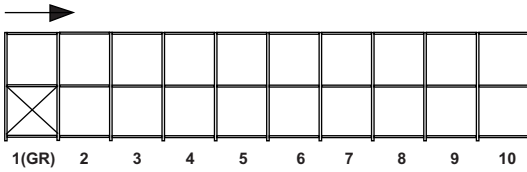


1

2

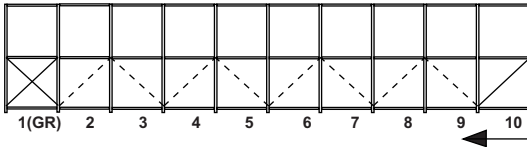


3.

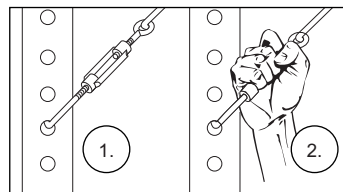
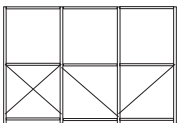
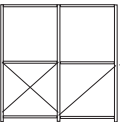
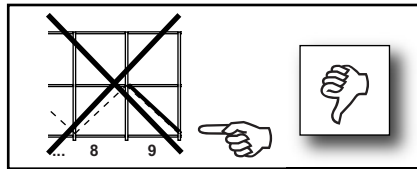
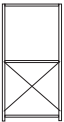


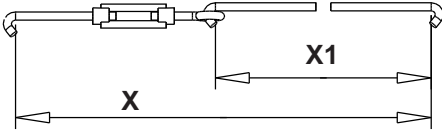
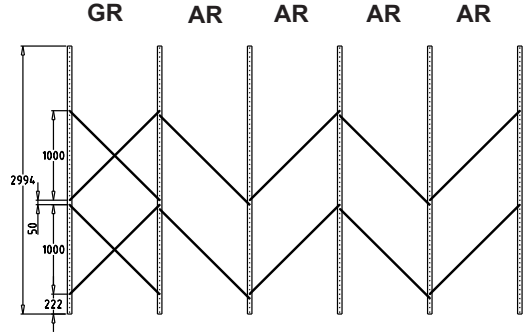
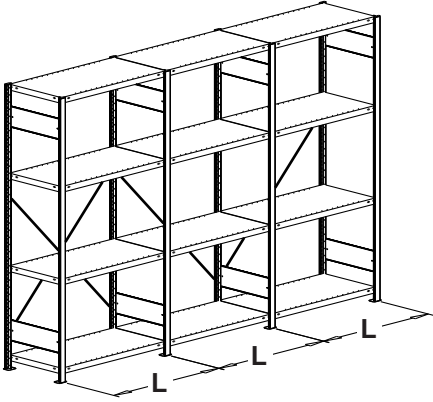
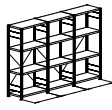
1(GR) 2 3 4 5 6 7 8 9 10

4.



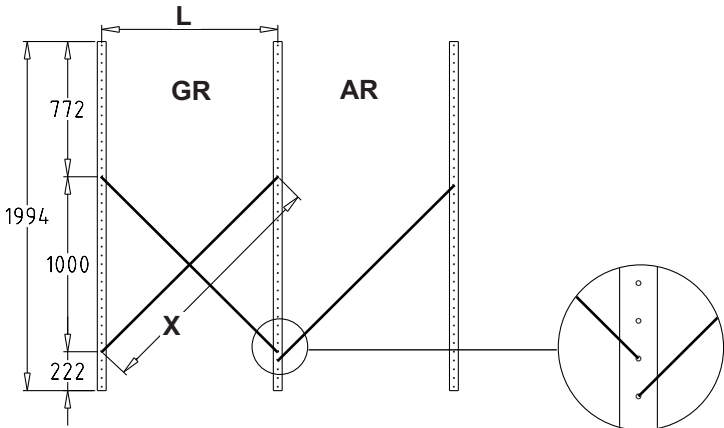
1(GR) 2 3 4 5 6 7 8 9 10

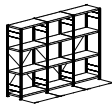




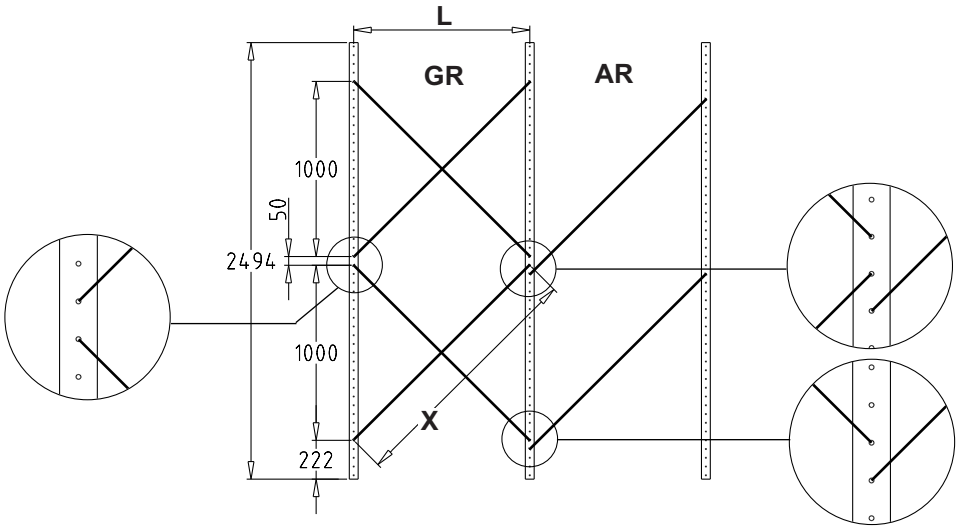
L	X	X 1
1000	1418	1277
1300	1645	1504

2000 x 1000 / 1300

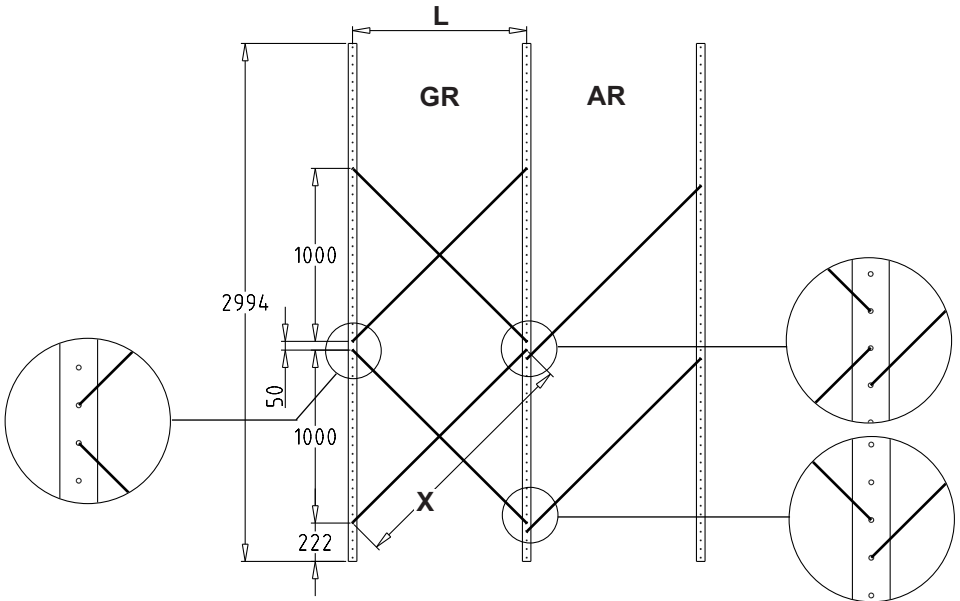


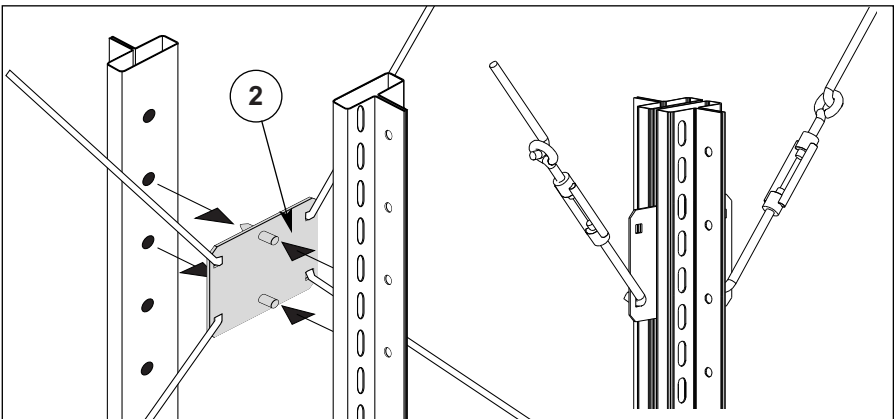
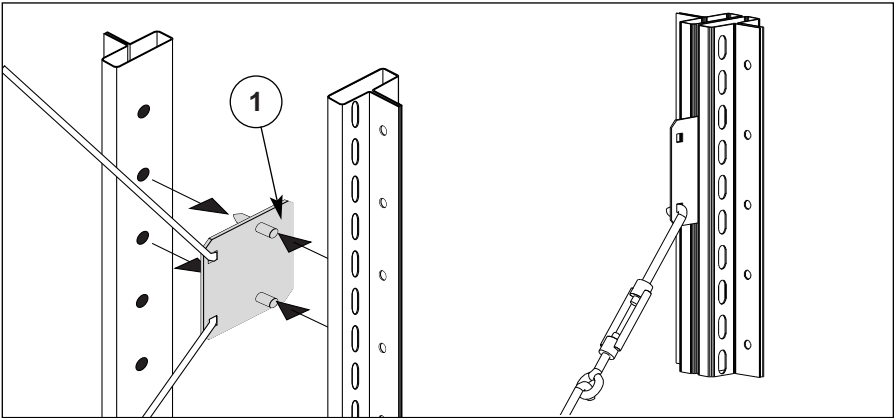
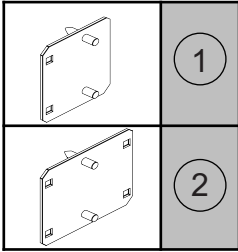
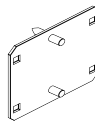
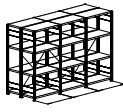


**2500 x 1000 / 1300**

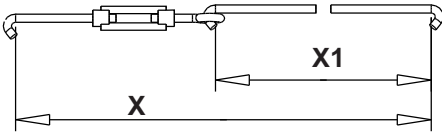
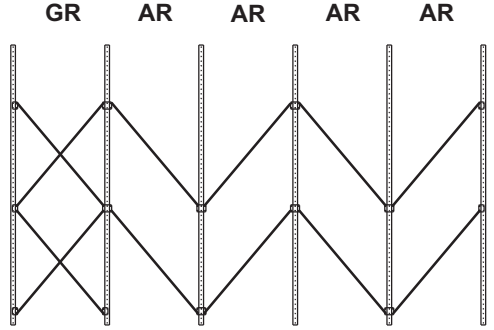
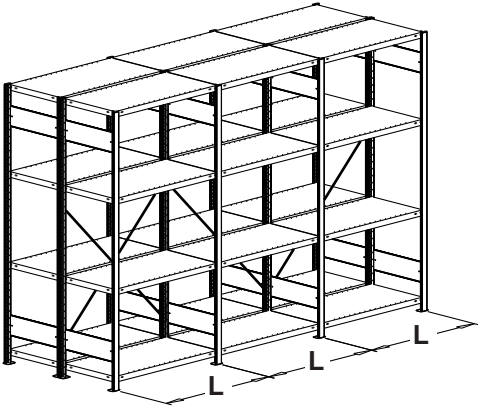
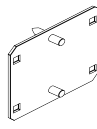
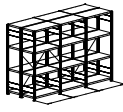
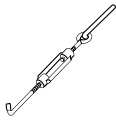


**3000 x 1000 / 1300**



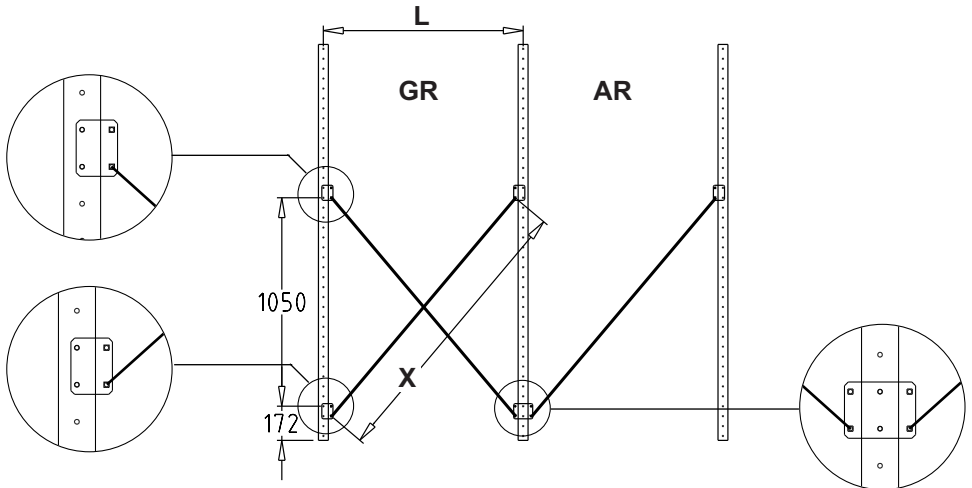


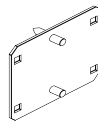
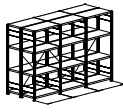
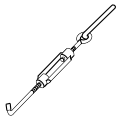




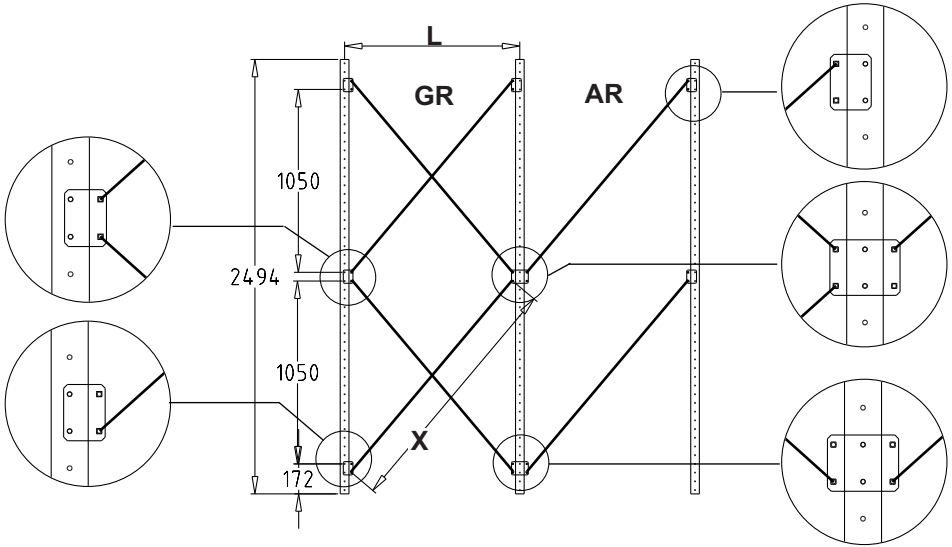
L	X	X 1
1000	1418	1267
1300	1645	1494

2000 x 1000 / 1300

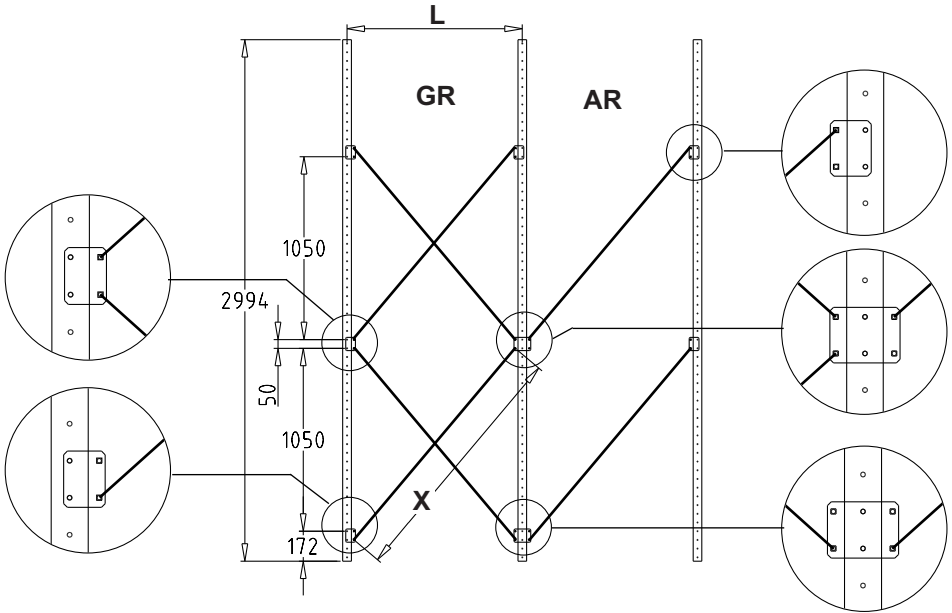


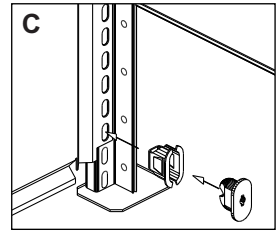
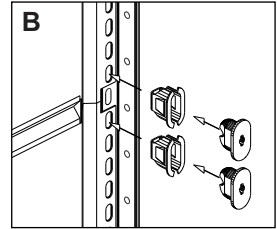
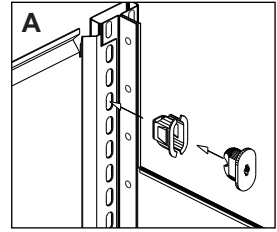
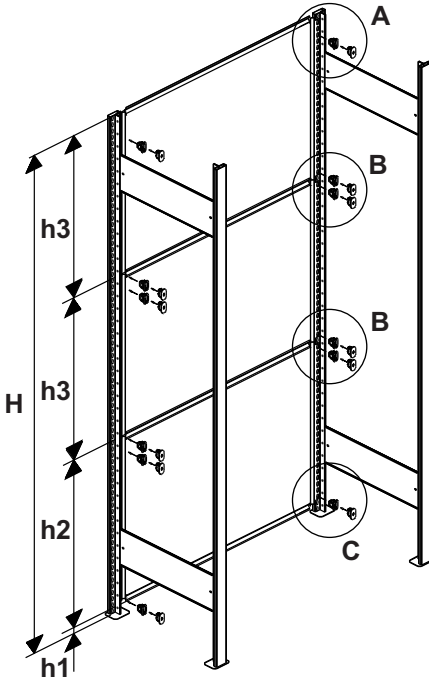
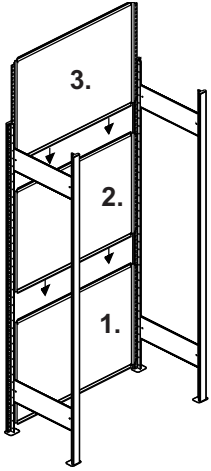
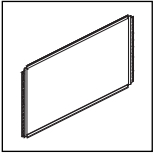
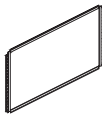


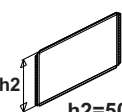
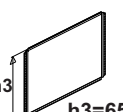
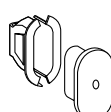
**2500 x 1000 / 1300**

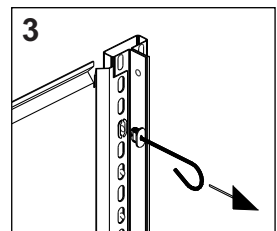
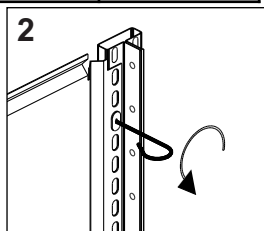
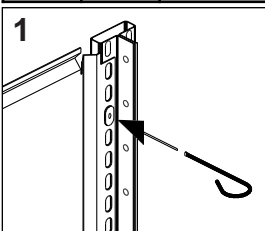


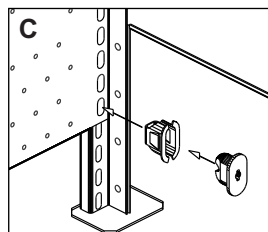
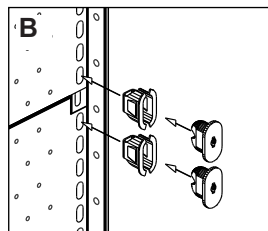
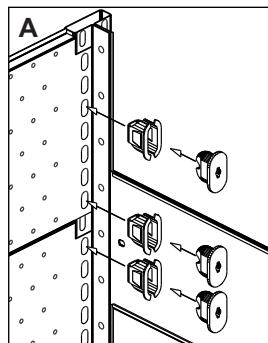
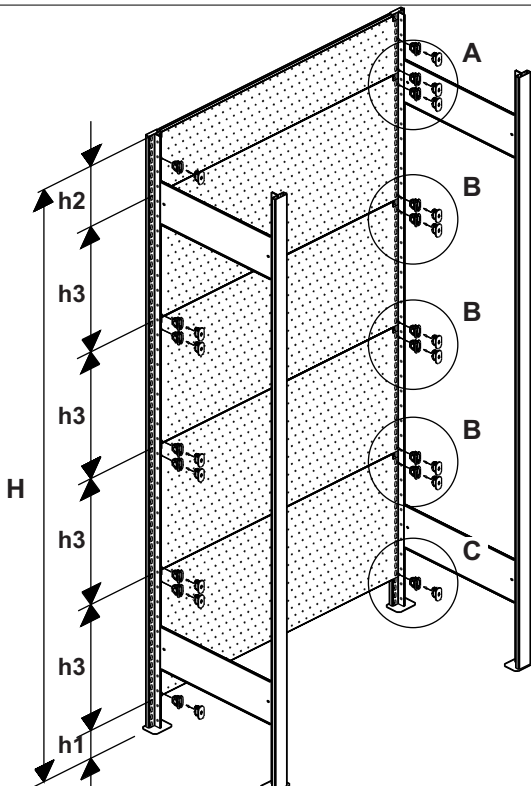
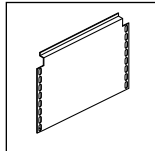
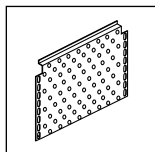
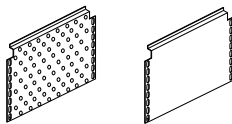
**3000 x 1000 / 1300**

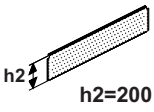
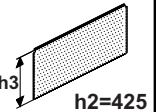
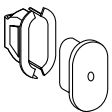


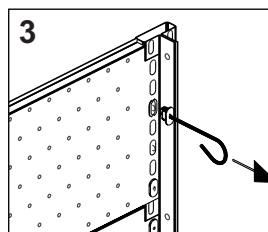
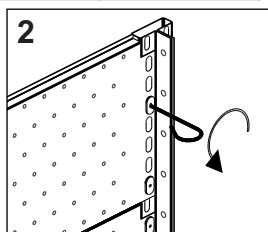
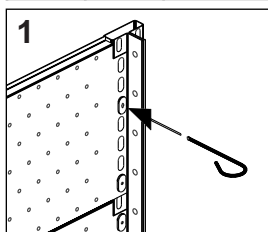


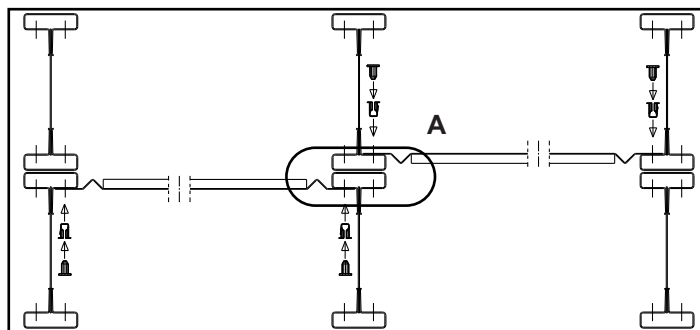
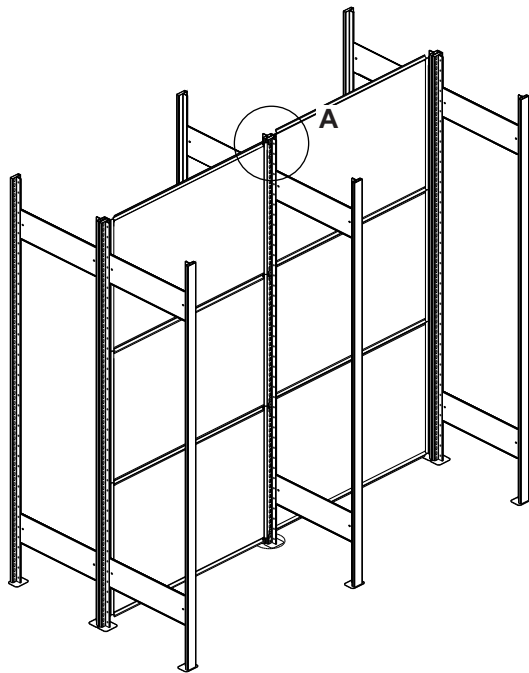
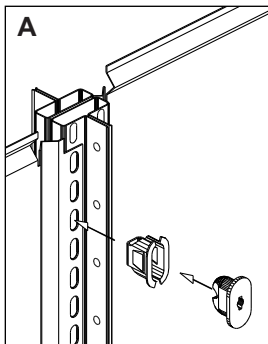
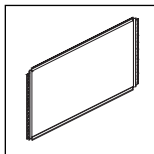
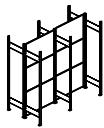
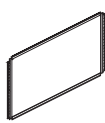
H	h1	h2	h3	
		 h2=500	 h3=650	
mm	mm	<i>n</i>	<i>n</i>	<i>n</i>
2000	25	-	3	12
2200		3	1	16
2500		1	3	16
3000		2	3	20

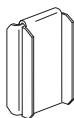




H	h1	h2	h3	
		 h2=200	 h3=425	
mm	mm	<i>n</i>	<i>n</i>	<i>n</i>
2000	90	1	4	20
2200		2	4	24
2500	15	6	3	36
3000		-	7	28

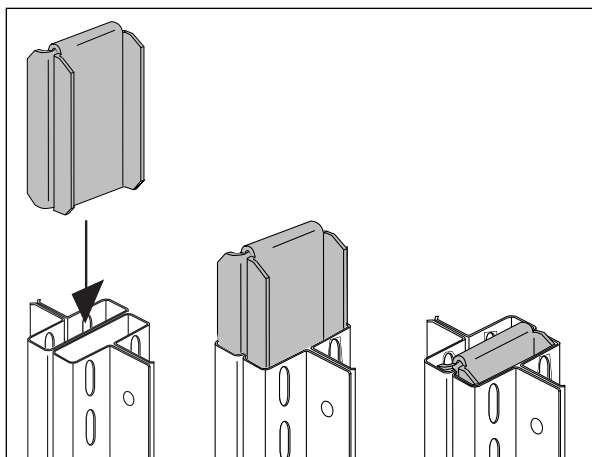
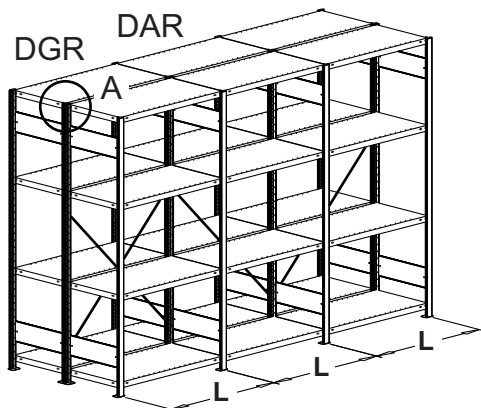
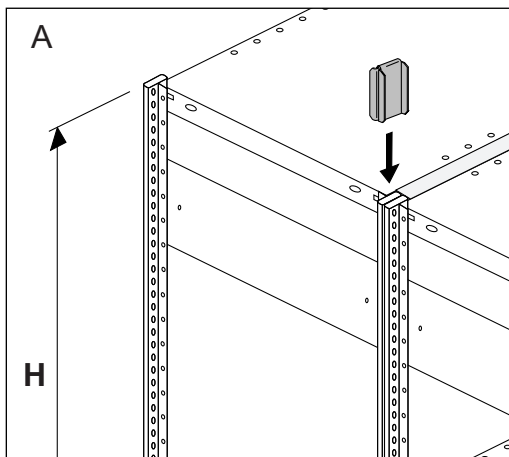
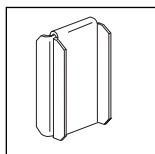


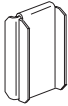


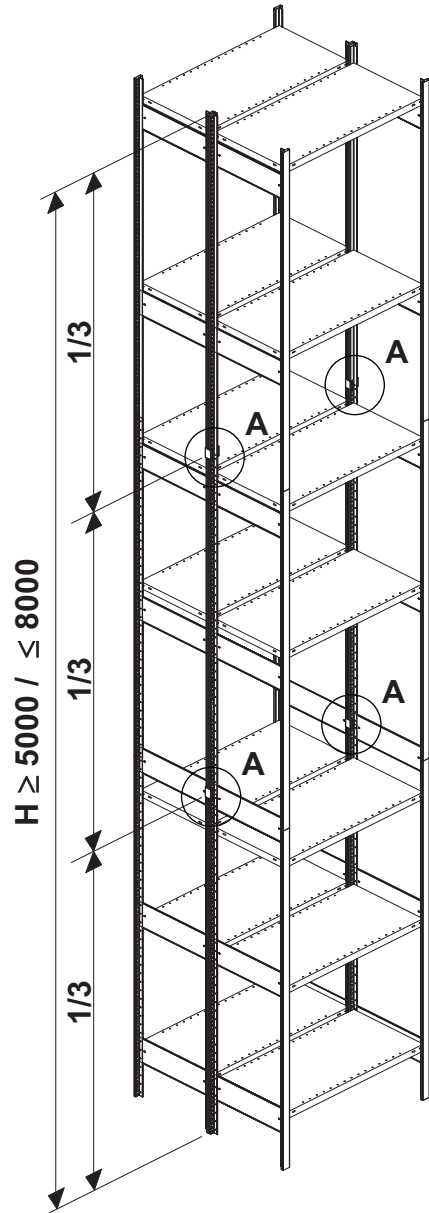
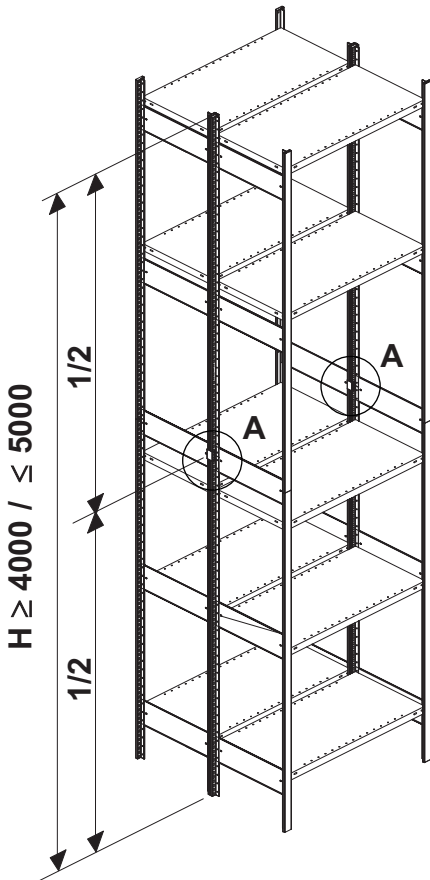
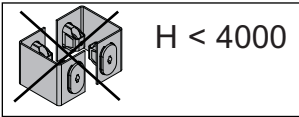
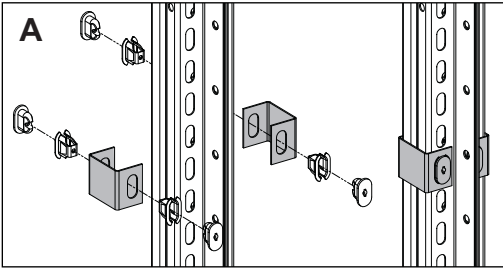
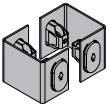


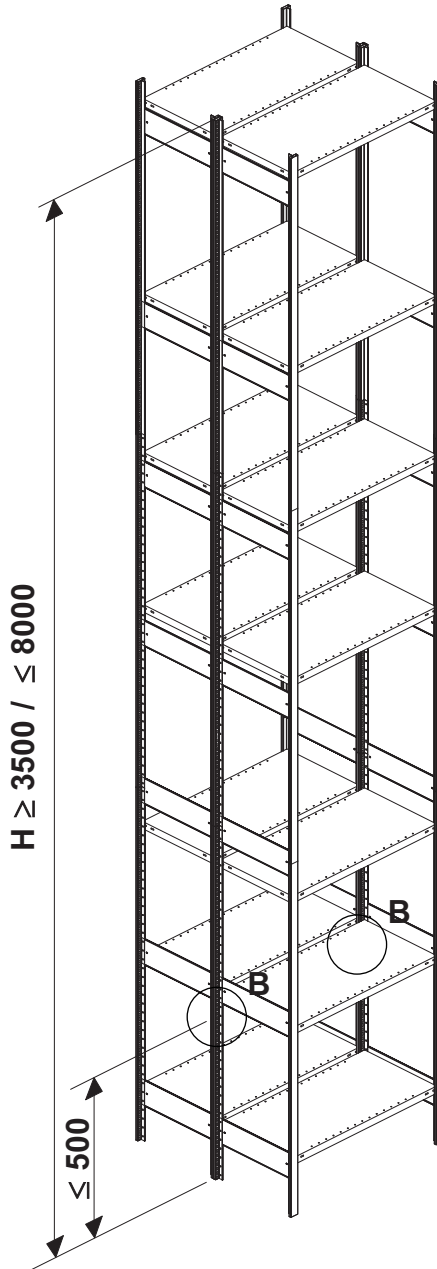
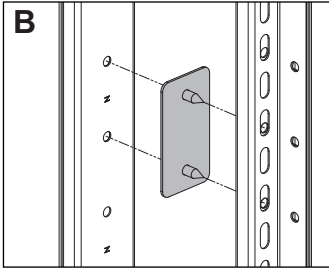
**META**

Das Lagersystem

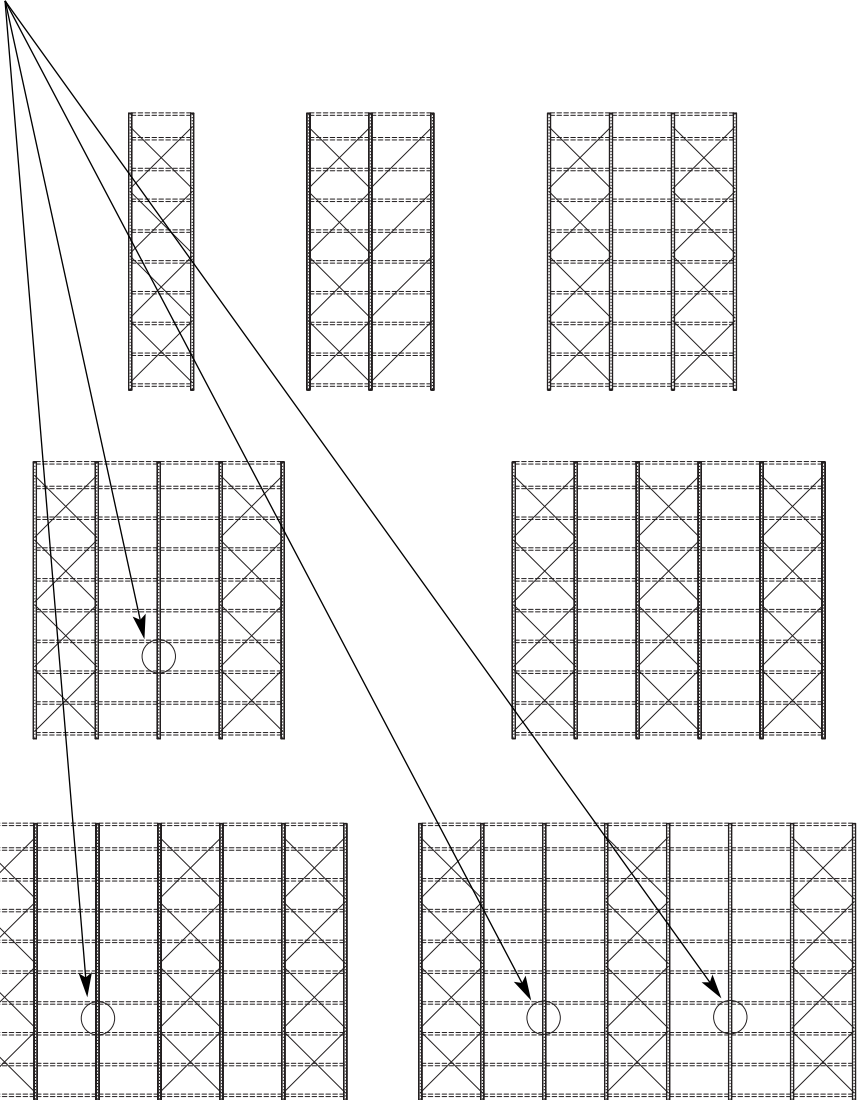
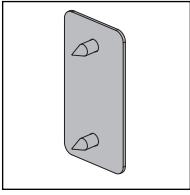


H		
	DGR	DAR
2000	2	1
2200		
2500		
3000		
3500		
4000		
4300		
4500		
5000		





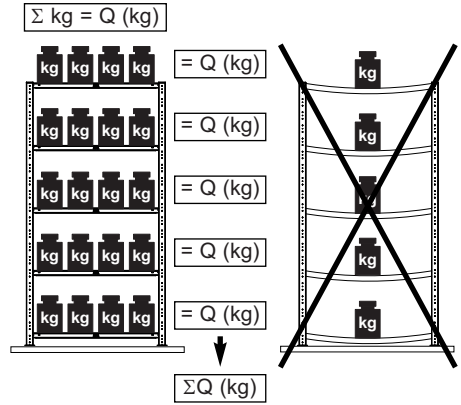






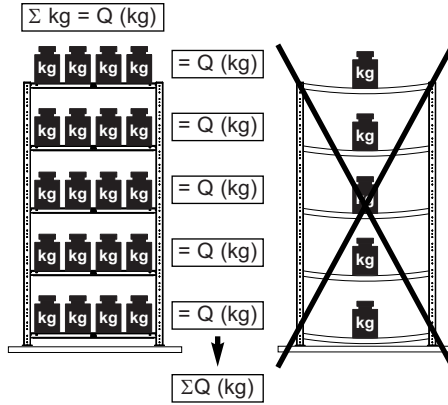
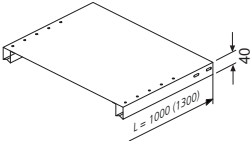
# L80, S100, V150, V230

<b>L80</b> Compact  	<b>S100</b> 	<b>V150 / V230</b> 
 <b>i</b> 46 47	 <b>i</b> 46 47	



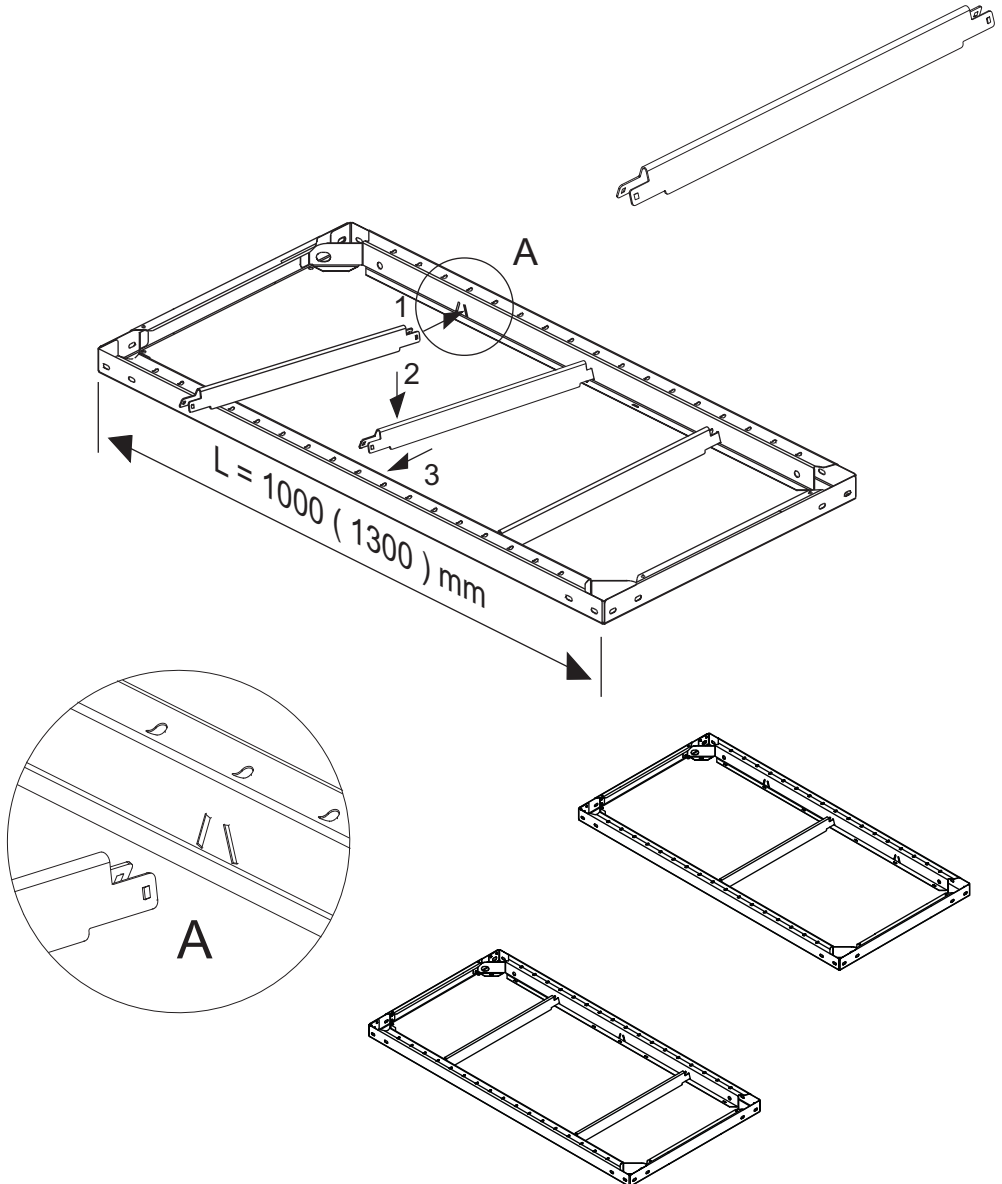
B x T mm	= Q (kg)						Kurzboden
	L 80	S 100	V 150	V 150 1 St.	V 230	V 230 1 St.	
750 x 300	80						120
750 x 400	80						120
750 x 500	80						120
750 x 600	80						120
600 x 500							160
800 x 400							160
1000 x 300	80	100	150	200	230	230	
1000 x 400	80	115	150	200	230	230	
1000 x 500	80	110	150	200	230	230	
1000 x 600	80	100	150	200	230	230	
1250 x 300	80						
1250 x 400	80						
1250 x 500	80						
1250 x 600	80						

MS 230 II, MS 330 //



Typ		B x T mm					
MS 230 II.	1000 x 300	230	280	300			
	1000 x 400	230	280	300			
	1000 x 500	230	280	300			
	1000 x 600	230	280	300			
	1000 x 800	230					
	1300 x 300	230			330		
	1300 x 400	230			330	400	
	1300 x 500	230			330	400	
	1300 x 600	230			250	270	
MS 330 II.	1000 x 400	330	380	400			
	1000 x 500	330	380	400			
	1000 x 600	330	380	400			

MS 230 II + MS 330 II.: L = 1000 ( 1300 ) mm

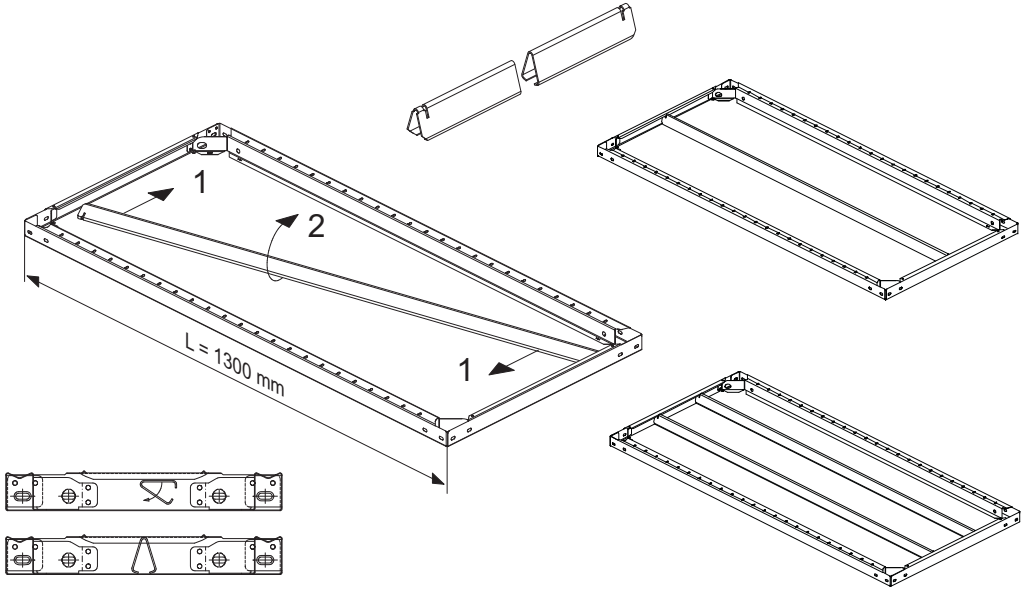




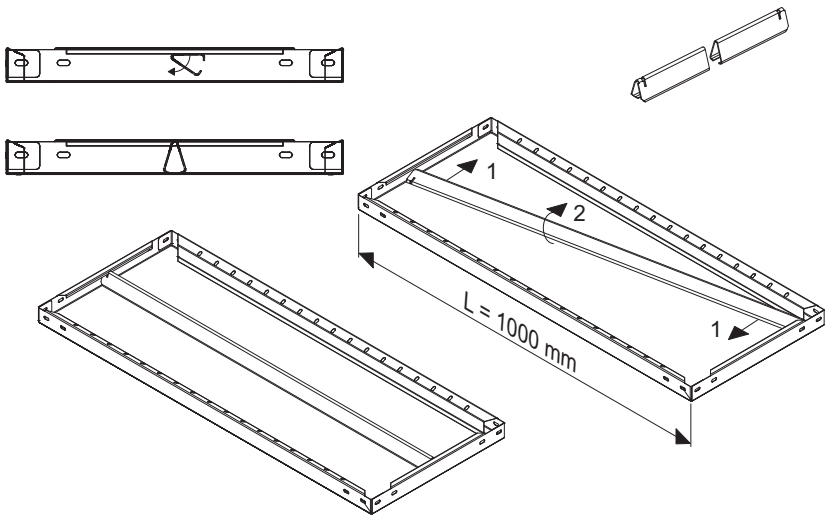
V 150, V 230,  
MS 230 //, MS 330 //

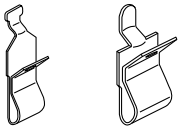


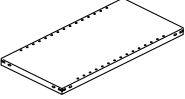


MS 230 II + MS 330 II.: L = 1300 mm

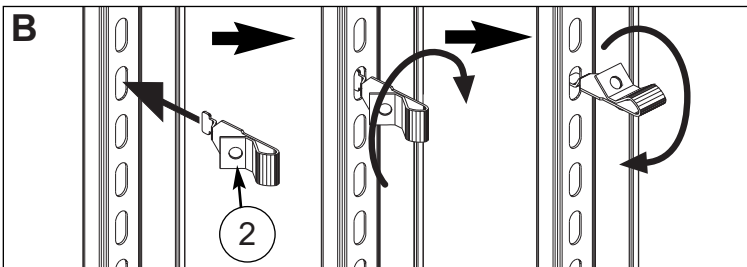
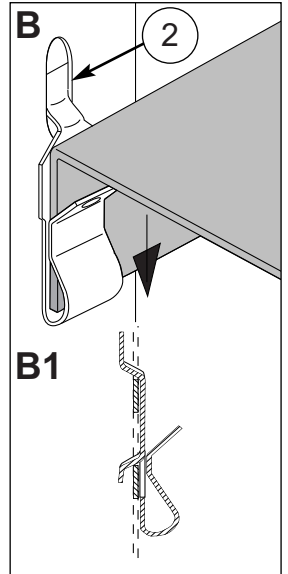
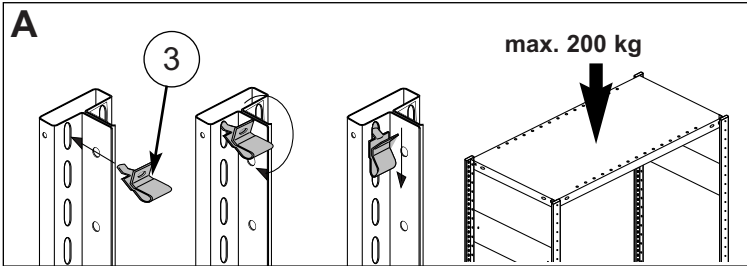
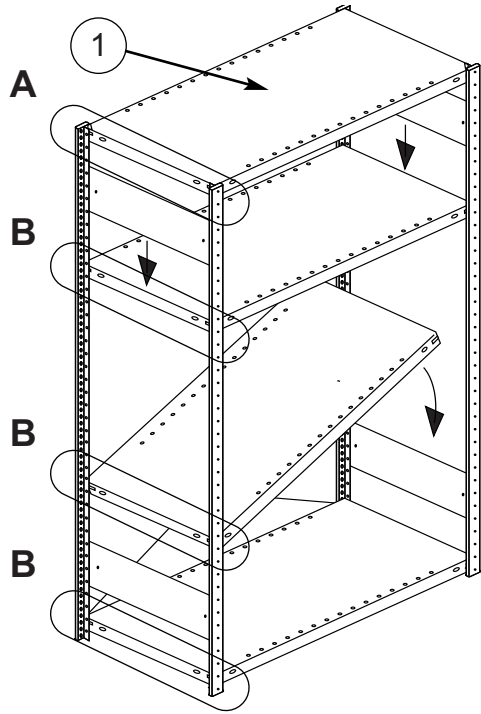


V 150 + V 230: L = 1000 mm

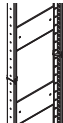




	1
	2
	3



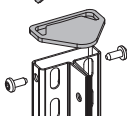
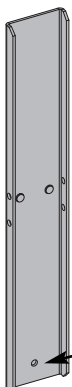




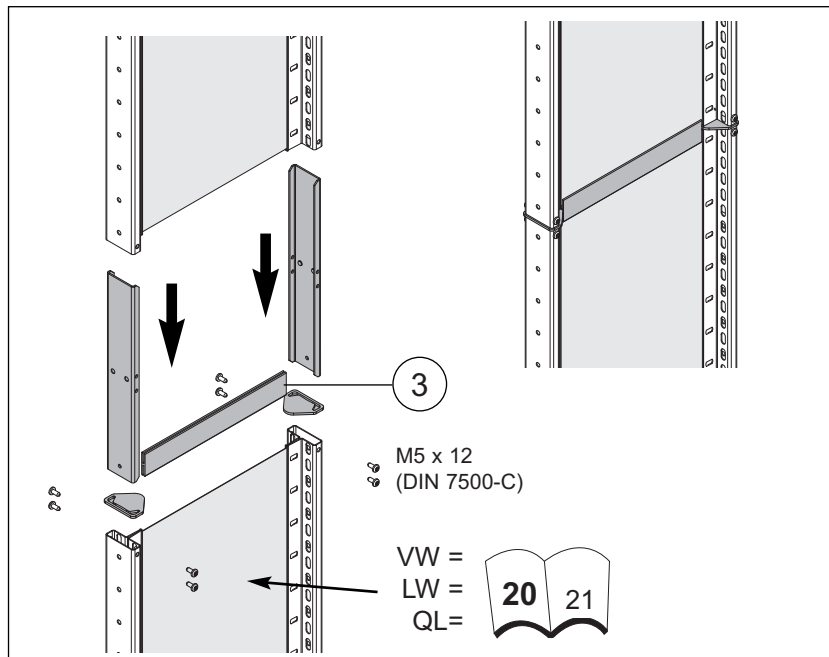
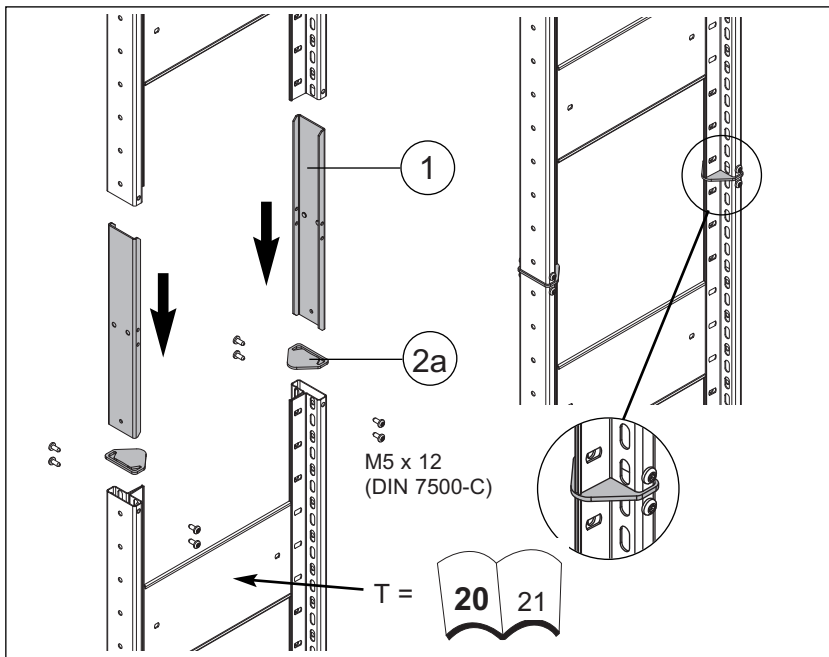
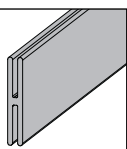
1



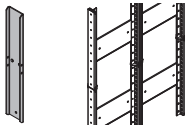
2a



3







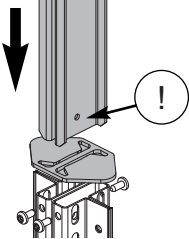
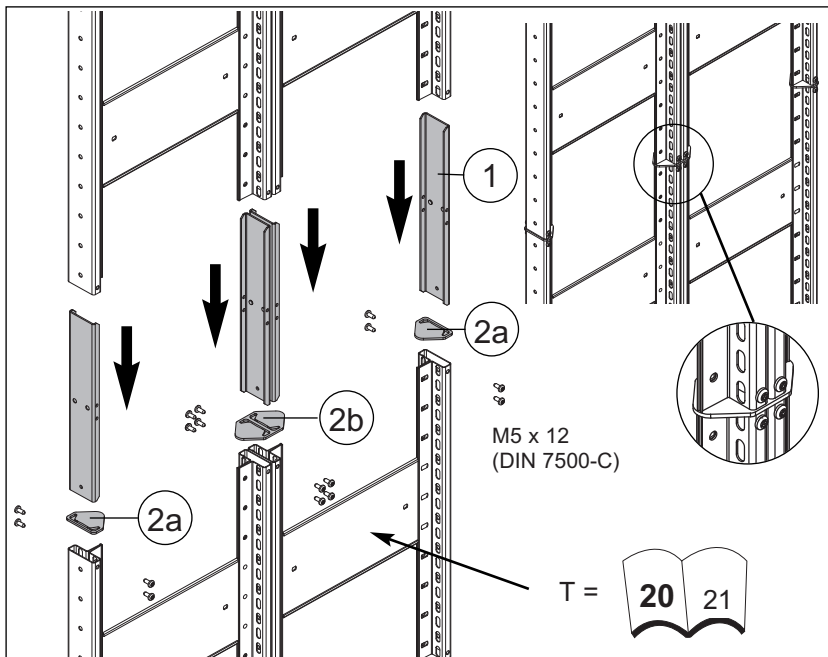
1



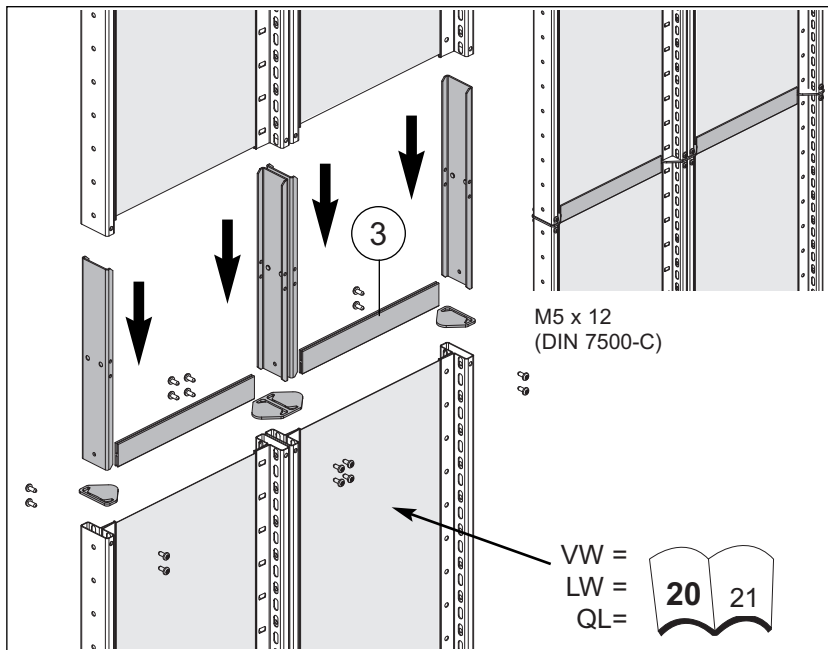
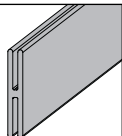
2a

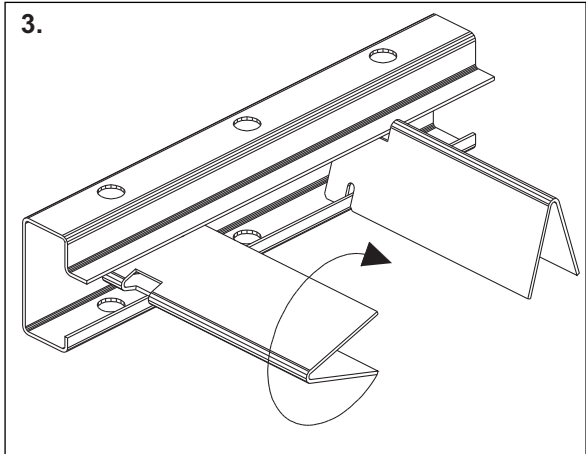
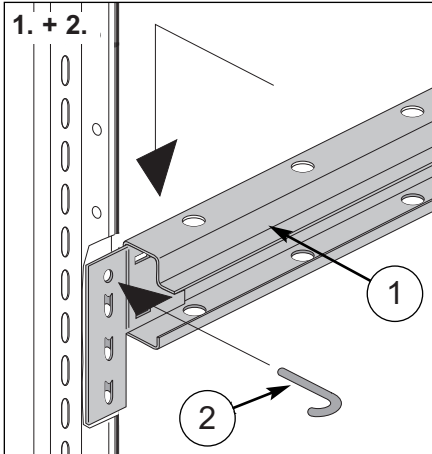
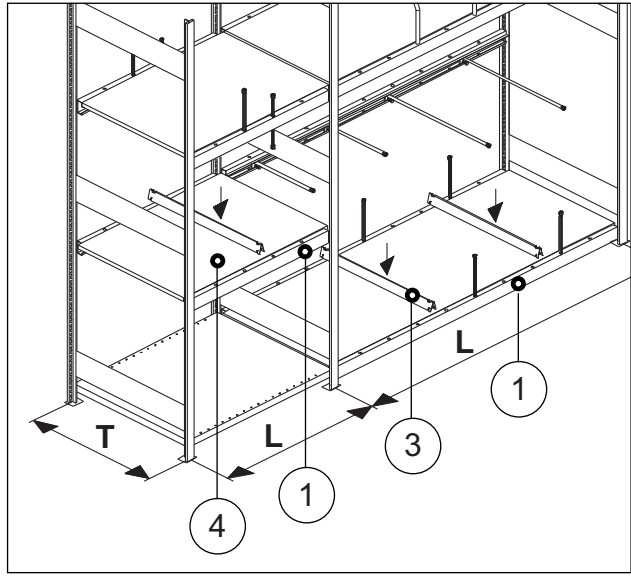
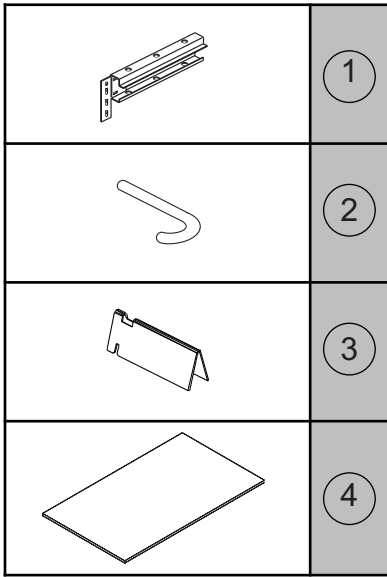
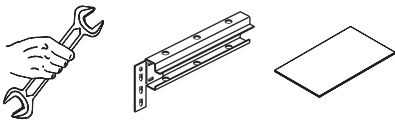







2b

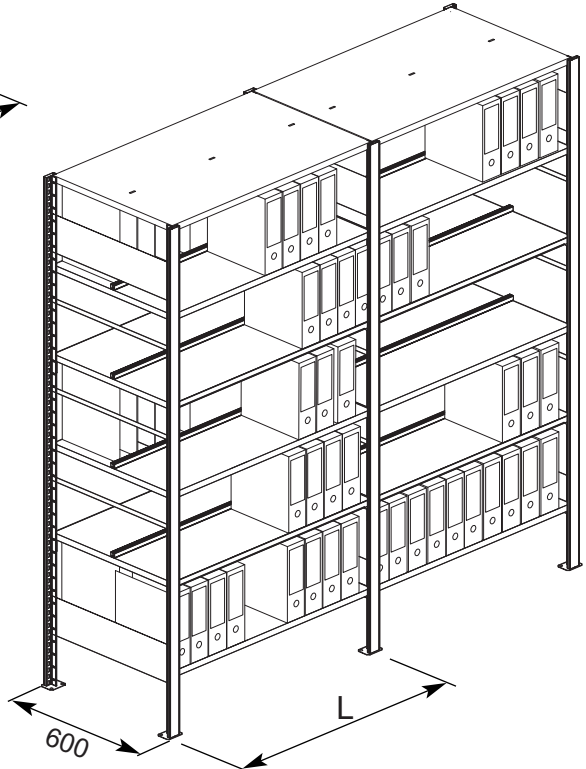
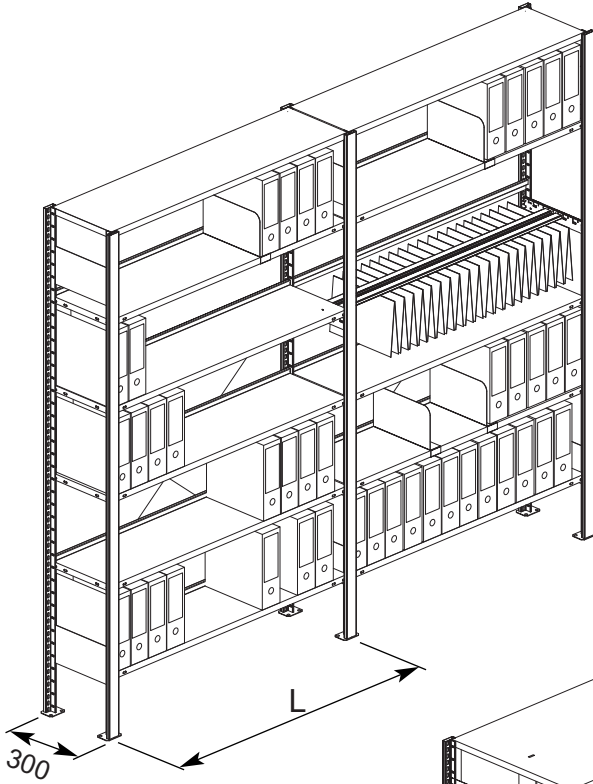
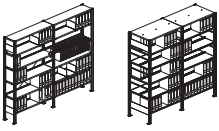


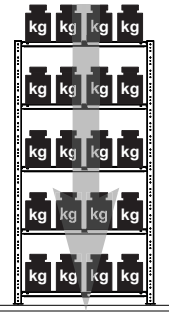
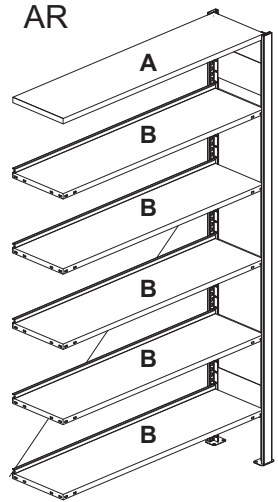
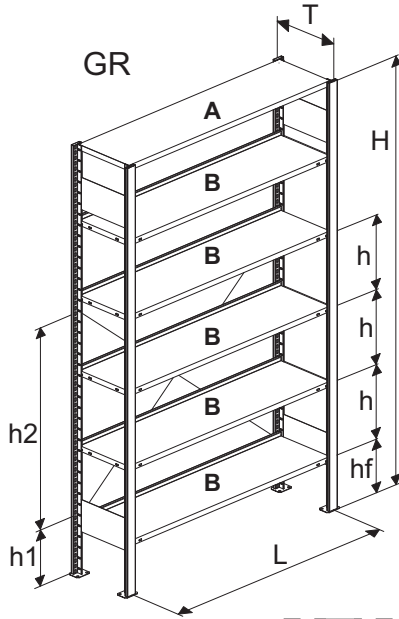
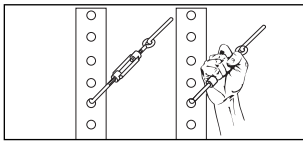
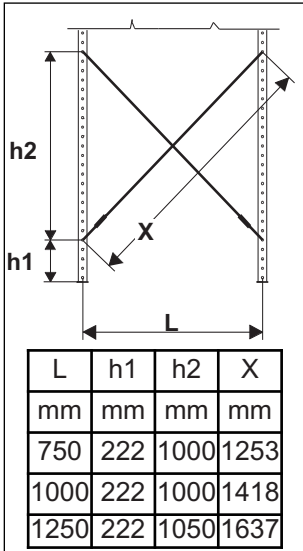
3



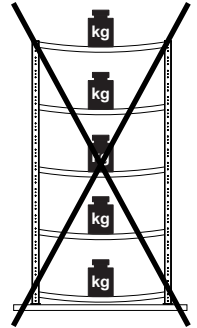


		 <b>400 KG</b>			
L	T				
mm	mm	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>
1000	800	2	4	1	1
1300				1	
2000				2	

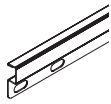




Σ max. 900 KG


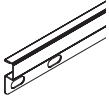
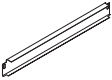


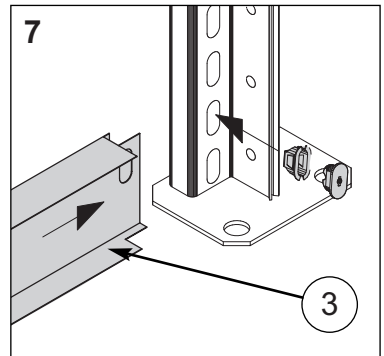
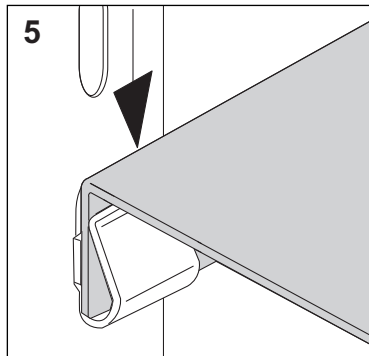
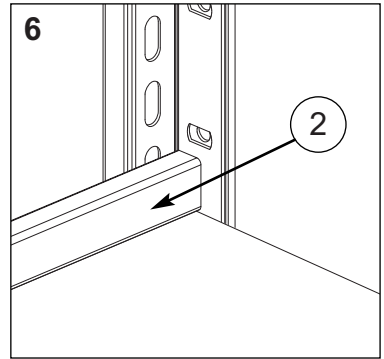
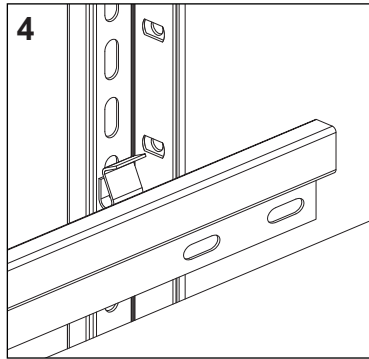
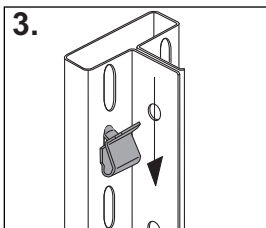
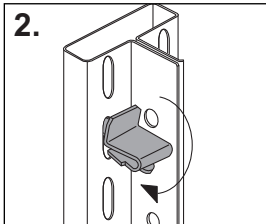
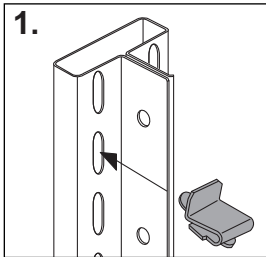
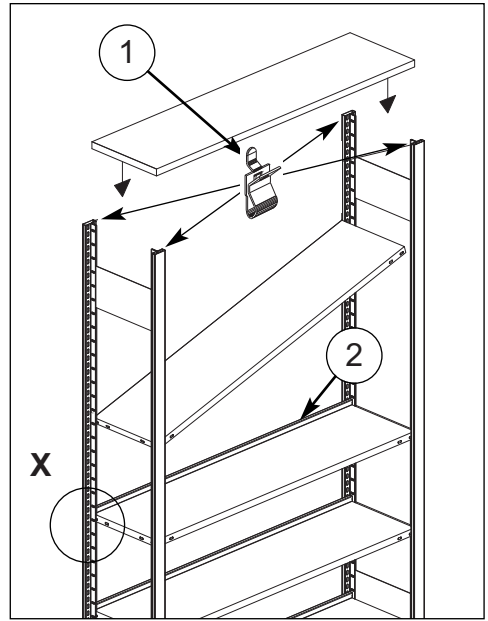
L	T	H	h	hf	Σ		Σ		Σ		
					n	kg	n	kg	L=750	L=1000	L=1250
mm	mm	mm	mm	mm					n	n	n
750 1000 1250	300	1850	350	100	5	80	1	80	45 (9*5)	60 (12*5)	75 (15*5)
		2200			6	80		80	54 (9*6)	72 (12*6)	90 (15*6)
		2550			7	80		80	63 (9*7)	84 (12*7)	105 (15*7)
		2500	7	80	80	63 (9*7)		84 (12*7)	105 (15*7)		



**META**

Das Lagersystem

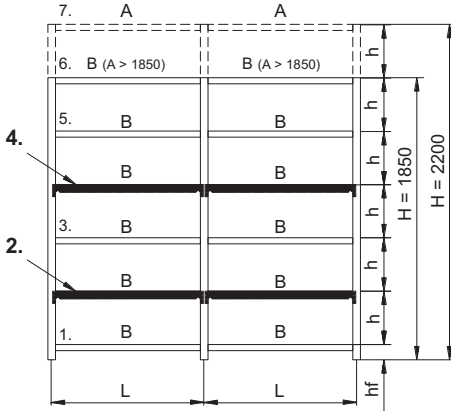
	1
	2
	3





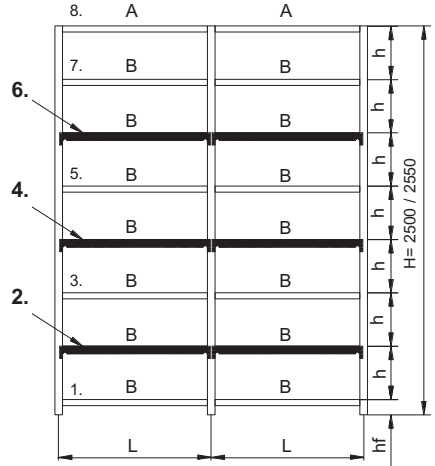
**GR**

**AR**



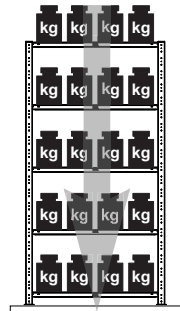
**GR**

**AR**

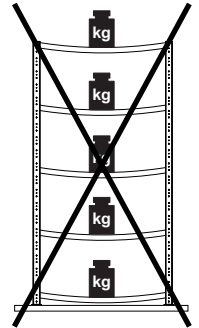


**i** H = 1850mm / 2200mm  
2. / 4.

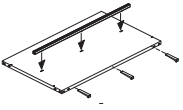
H = 2500mm / 2550mm  
2. / 4. / 6.



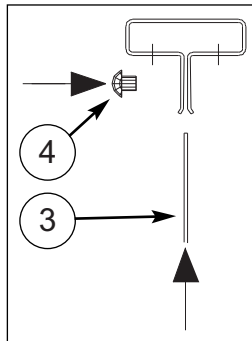
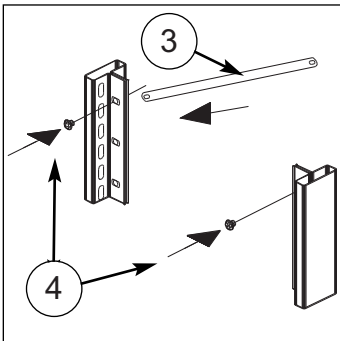
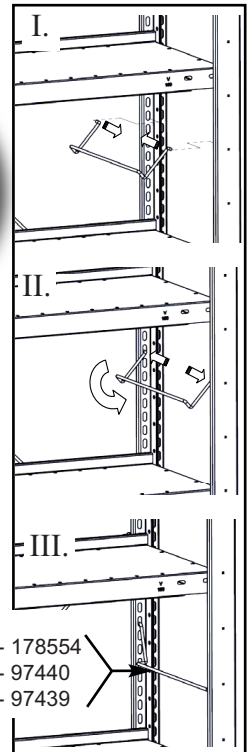
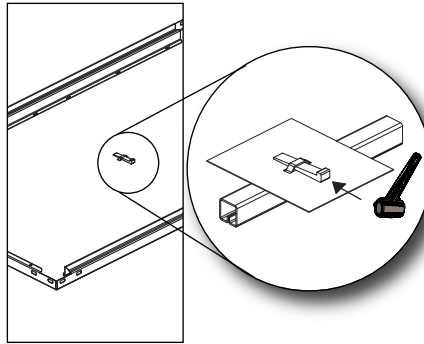
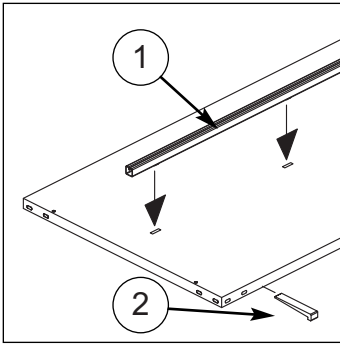
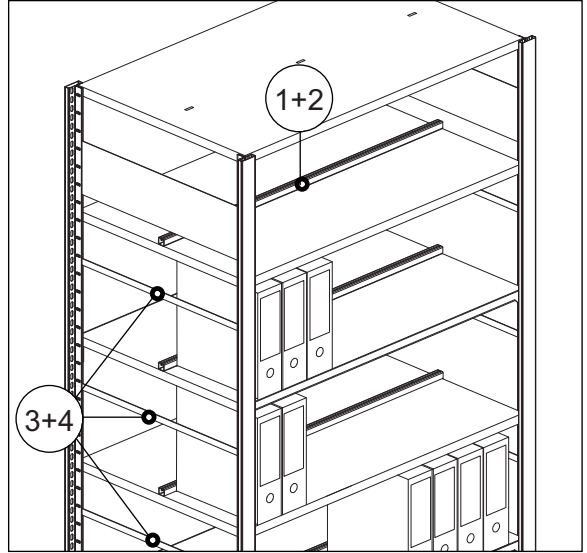
max. 900 KG



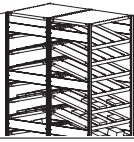
L	T	H	h	hf	Σ		Σ		Σ		
					n	kg	n	kg	L=750	L=1000	L=1250
mm	mm	mm	mm	mm					n	n	n
750 1000 1250	600	1850	350	100	5	80	1	80	90 (18*5)	120 (24*5)	150 (30*5)
		2200			6	80		80	108 (18*6)	144 (24*6)	180 (30*6)
		2550			7	100		80	126 (18*7)	168 (24*7)	210 (30*7)
		2500		7	100	80		126 (18*7)	168 (24*7)	210 (30*7)	



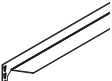



	1
	2
	3
	4

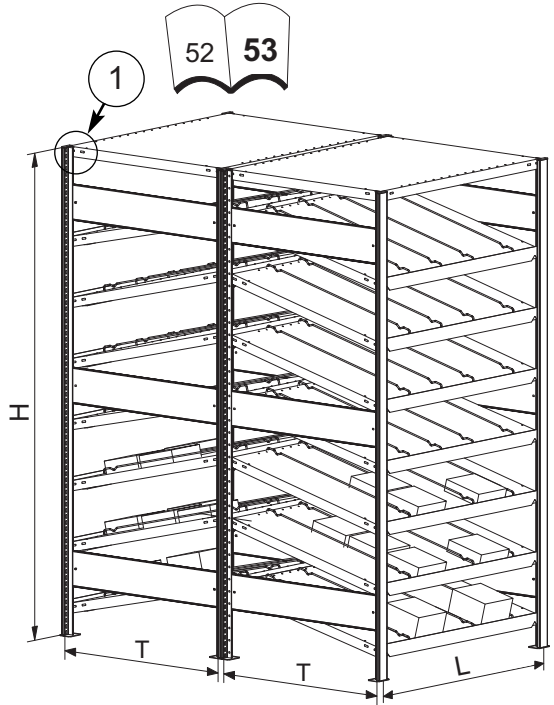
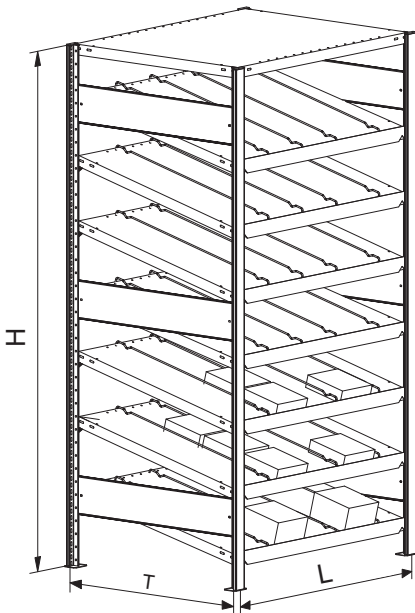


Nr.  
 T=600 - 178554  
 T=600 - 97440  
 T=300 - 97439

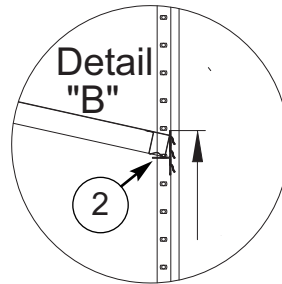
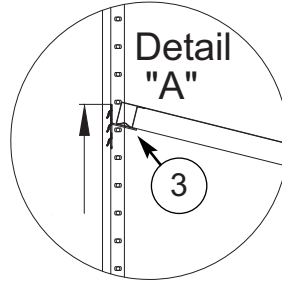
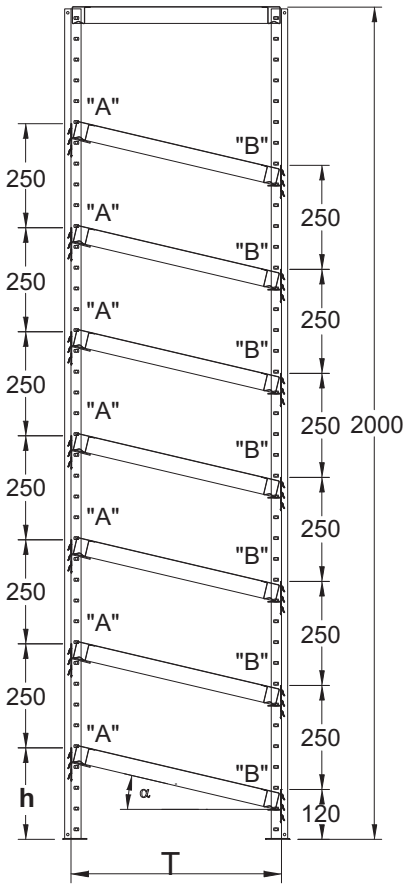
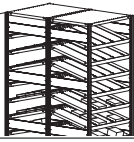


	1
	2
LR 50	
	3
LR 14°	
	4

H (mm)	L (mm)	T (mm)	h (mm)	$\alpha$
2000	1000 1300	300	195	ca. 17°
		400	195	ca. 12°
		500	220	ca. 12°
		600	245	ca. 13°
		800	270	ca. 12°







max: 200 KG



max: 200 KG



max: 200 KG



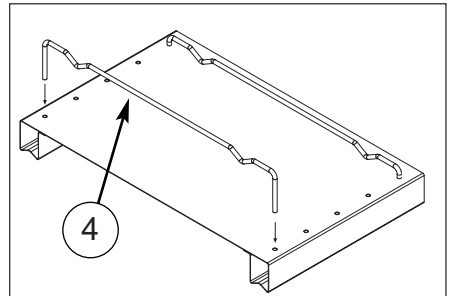
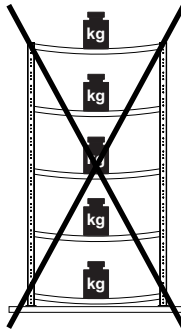
max: 200 KG

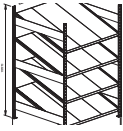


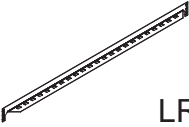
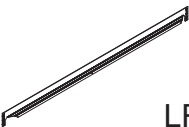
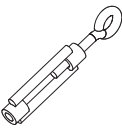
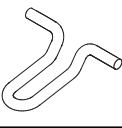
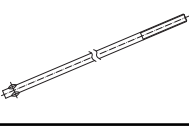
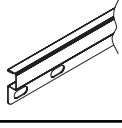
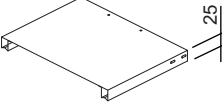
max: 200 KG

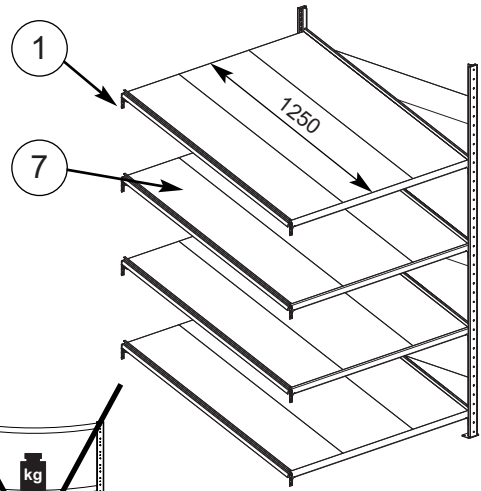
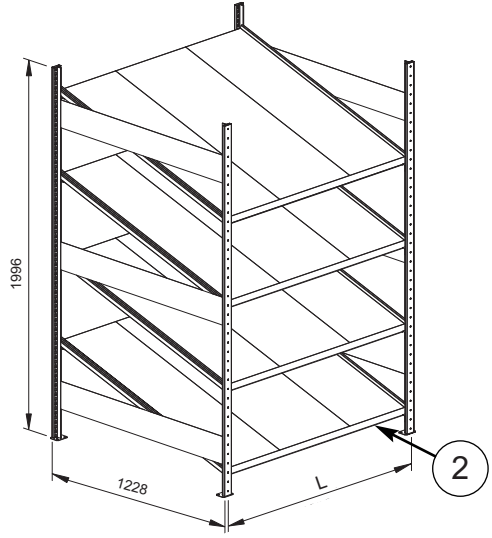


**max. 1400 KG**

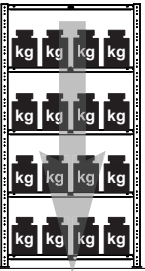




	①
LR40	
	②
LR-Z	
	③
	④
	⑤
	⑥
L80	
	⑦



max: 200 KG

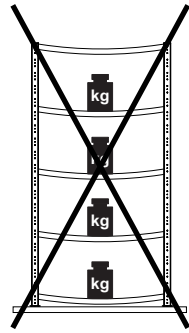


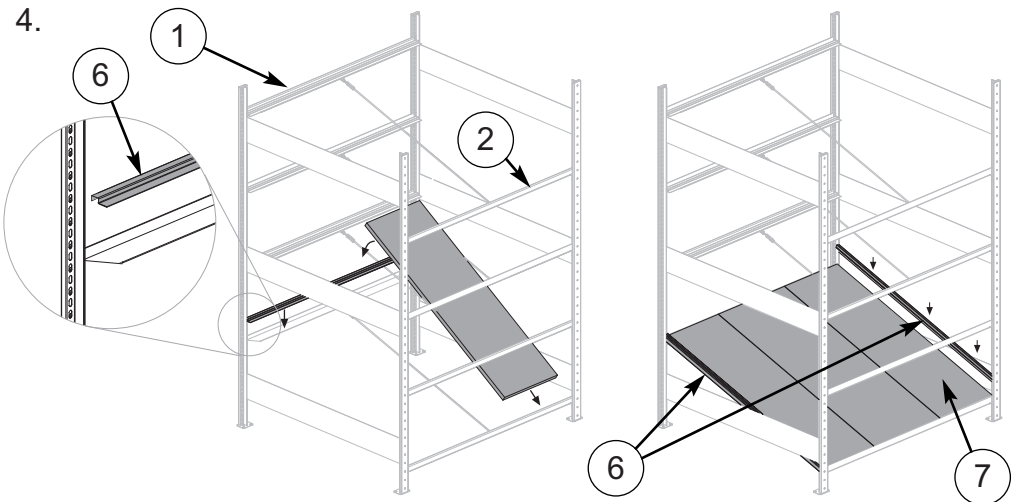
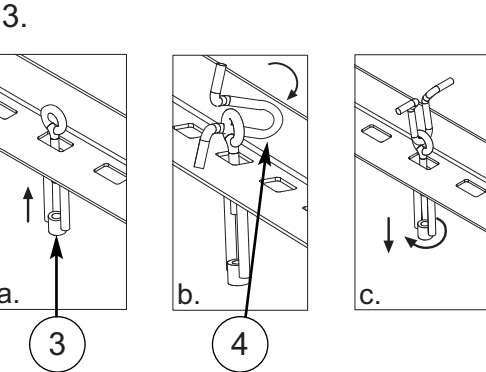
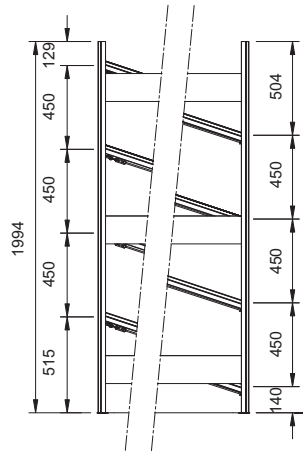
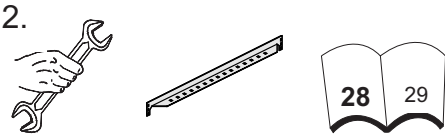
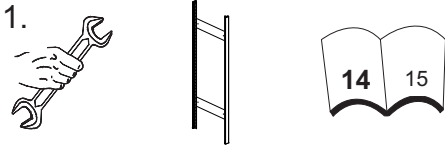
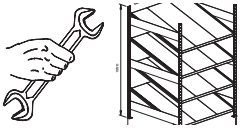
**max. 1200 KG**

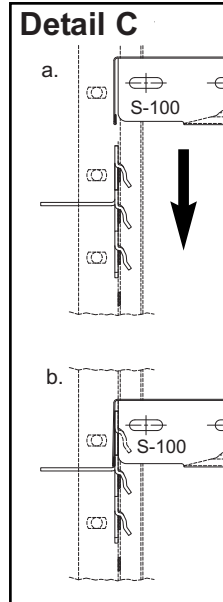
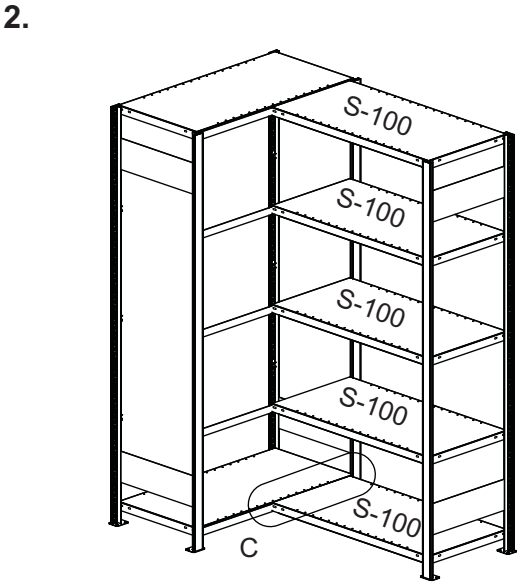
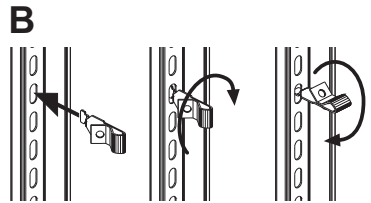
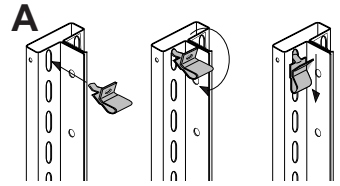
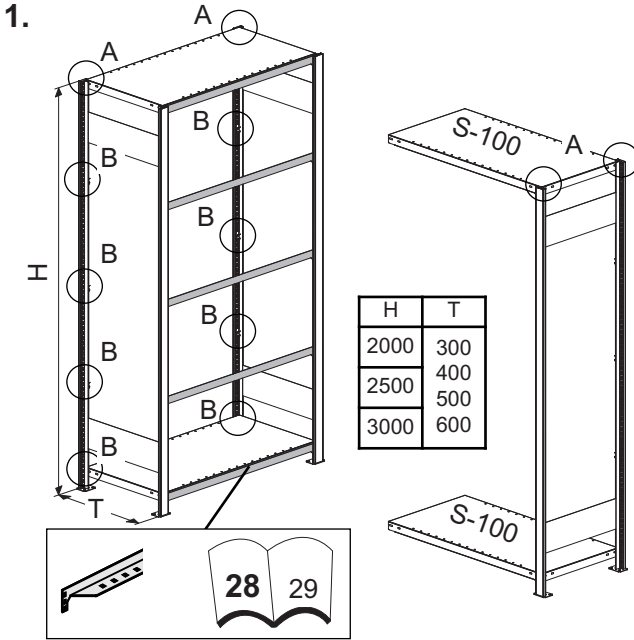
max: 200 KG

max: 200 KG

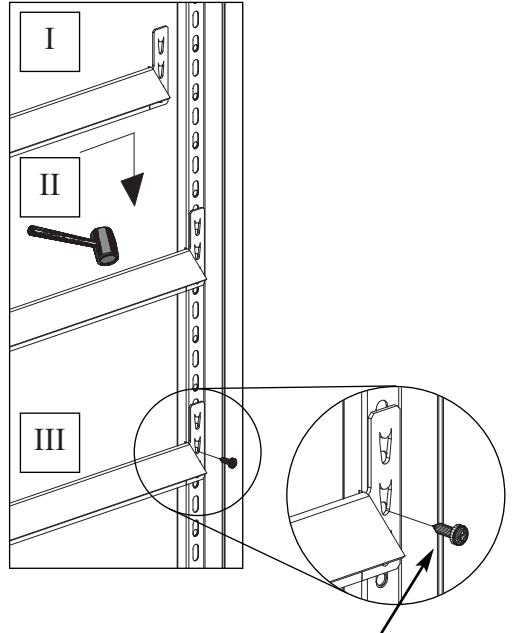
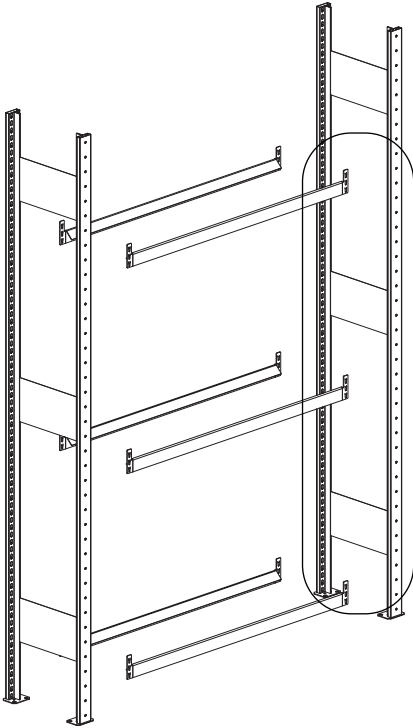
max: 200 KG



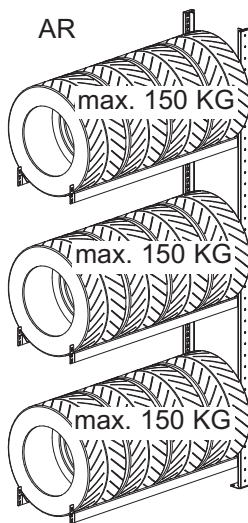
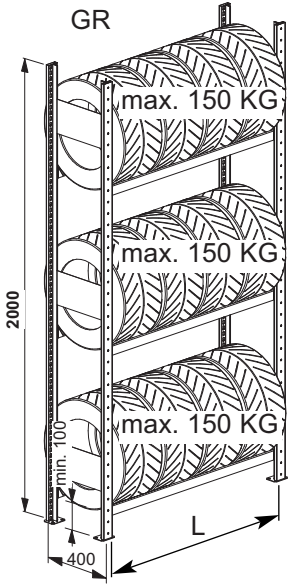




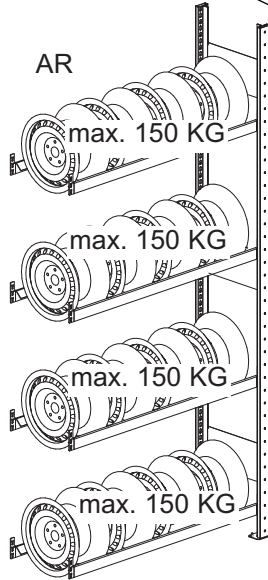
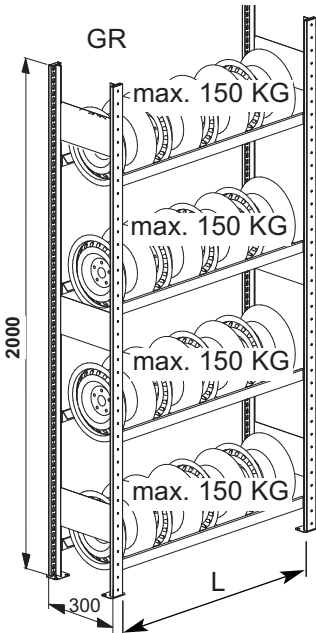
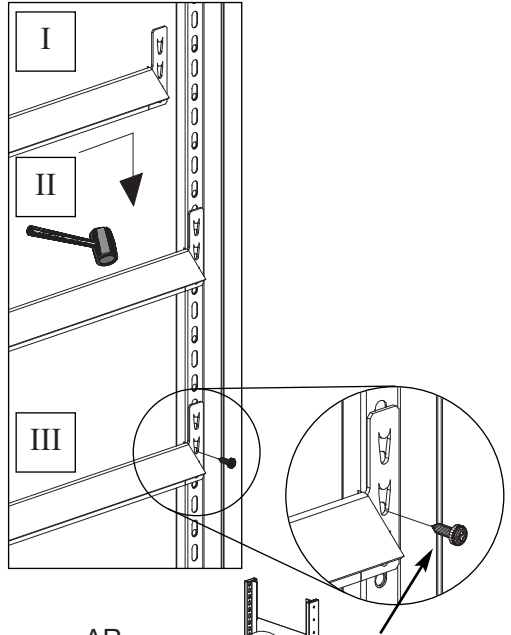
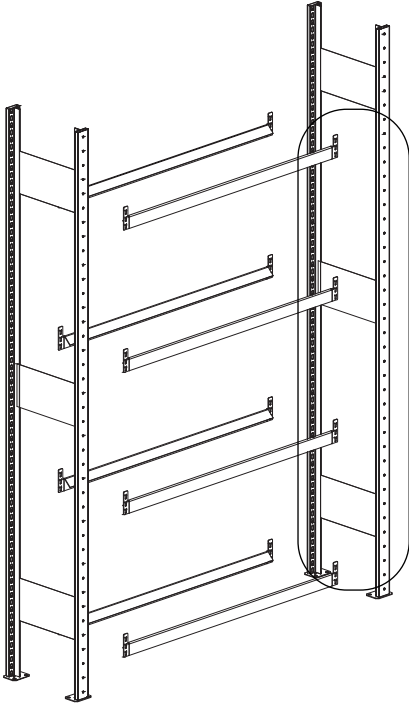




St 4,8 x 13  
DIN 7981 C vzk



L =  
1000 mm  
1300 mm



St 4,8 x 13  
DIN 7981 C vzk

L =  
1000 mm  
1300 mm

