

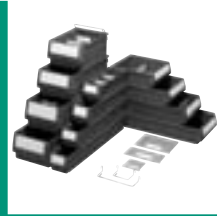
*Unser Lieferprogramm ...
Notre gamme de produits ...
Onze productengamma ...
Our range of products ...*



*Regalsysteme
Rayonnages
Magazijnstellingen
Shelving and racking*



*Kommissioniersysteme
Systèmes de préparation
de commandes
Orderverzamelssystemen
Order picking systems*



*Kästen und Behälter
Bacs et conteneurs
Kunststoffbakken
Bins and containers*



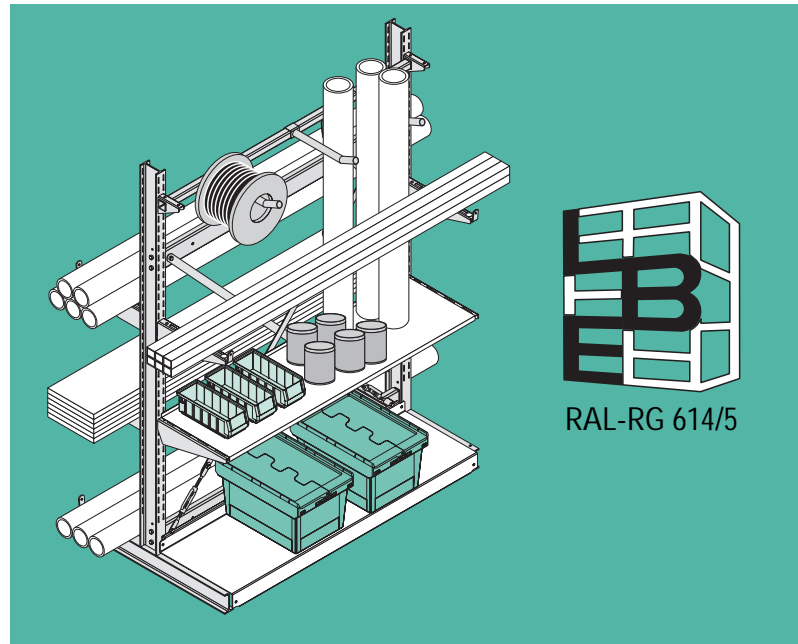
*Betriebseinrichtungen
Equipement général
Bedrijfsinrichtingen
Workshop equipment*



*Umwelttechnik
Protection de
l'environnement
Milieuvriendelijke opslag
Environmental protection*

Technische Änderungen vorbehalten. Modifications techniques réservées. Technische wijzigingen voorbehouden. Technical modifications reserved.

Kragarmregal Rayonnage cantilever Draagarmstelling Cantilever racking



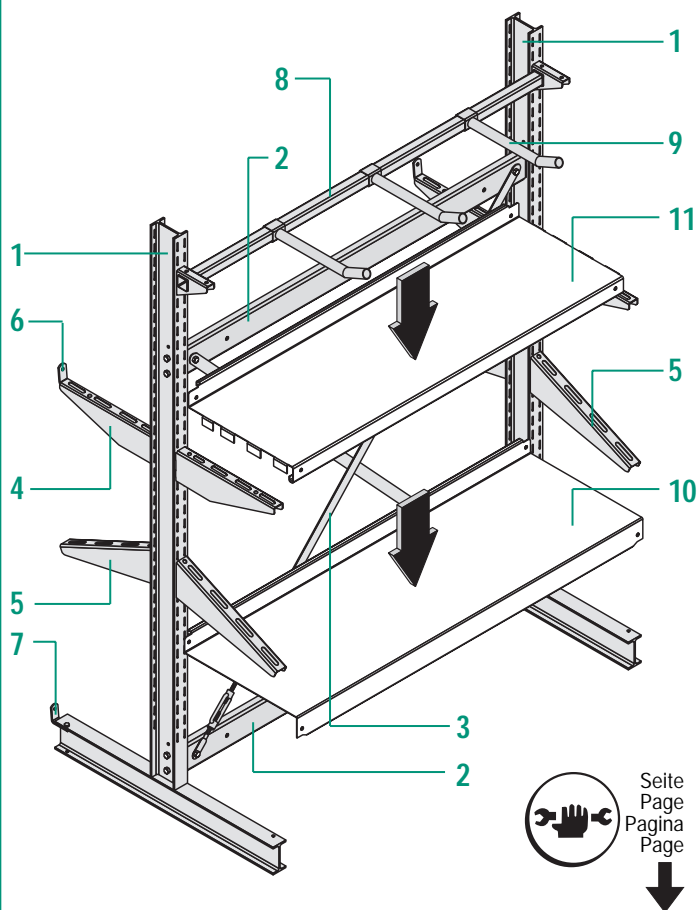
RAL-RG 614/5

**Aufbau- und Betriebsanleitung
Instructions de montage et d'utilisation
Richtlijnen en montagehandleiding
Instructions for assembly and use
KR 29**

Stand
05-2004

DIN EN ISO 9001

Übersicht / Aperçu / Overzicht / Survey



1	Ständer aufstellen Mettre debout les montants Staanders oprichten Set up columns	8
2	Horizontalverbinder Entretoise Stabilitätsligger Connector beam	9
3	Diagonalverband Croisillon Kruisschoor Cross bracing	10-11
4	Kragarm gerade Bras droit Rechte draagarm Straight arm	12
	Type L+S	
5	Kragarm schräg Bras incliné Schuine draagarm Inclined arm	12
6	Abrollsicherung Kragarm Butée de bras Afrolbeveiliging draagarm End stop for arms	13
7	Abrollsicherung Ständerfuß Butée de pied Afrolbeveiliging voor staandervoet End stop for column feet	13
8	Aufhängung für Rohrkrugarm Support pour bras cylindriques Draagprofiel voor ronde draagarmen Support rail for tubular arms	14-15
9	Rohrkrugarm Bras cylindrique Ronde draagarm Tubular arm	14-15
10	Sockelboden Tablette au sol Vloerlegbord Floor shelf	16-17
11	Fachboden Tablette Legbord Shelf	18

Inhalt / Sommaire / Inhoud / List of contents

Unbedingt beachten Règlémentations importantes Belangrijke richtlijnen Important regulations	4-7	
Sicherheitsvorschriften Consignes de sécurité Veiligheidsvoorschriften Accident prevention regulations	4	
Montage Montage Montage Assembly	4	
Aufstellfläche Qualité du sol Vloereigenschappen Flooring	4	
Belastung Capacité de charge Draagvermogen Load capacity	5	
Nivellierung Mise à niveau Nivellering Levelling	6	
Grund- /Anbaufeld Travée de départ/d'extension Start-/Aanbouwwak Starter/Extension bay	7	
Montage Montage Montage Assembly	8-18	
Ständer aufstellen Mettre debout les montants Staanders oprichten Set up columns	8	
Horizontalverbinder Entretoise Stabilitätsligger Connector beam	9	
Diagonalverband Croisillon Kruisschoor Cross bracing	10-11	
Kragarm Bras Draagarm Arm	12	
Kragarm schräg Bras incliné Schuine draagarm Inclined arm	12	
Abrollsicherungen Butées Afrolbeveiligingen End stops	13	
Rohrkrugarm Bras cylindrique Ronde draagarm Inclined arm	14-15	
Sockelboden Tablette au sol Vloerlegbord Floor shelf	16-17	
Fachboden Tablette Legbord Shelf	18	
Belastungen Capacités de charge Draagvermogen Load capacities	19-23	
Belastungsaufkleber Autocollant indiquant la charge admissible Belastingsooklevers Load capacity labels	19	
Belastungen Capacité de charge Draagvermogen Load capacity	20-23	



Sicherheitsvorschriften
Consignes de sécurité
Veiligheidsvoorschriften
Accident prevention regulations



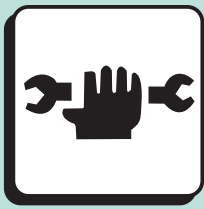
BGR 234 (ZH 1/428)

"Richtlinien für Lagereinrichtungen und -geräte der Berufsgenossenschaften".

En tant que responsable de l'exploitation, veuillez respecter les réglementations de sécurité en vigueur.

Gebruikers dienen rekening te houden met de geldige nationale veiligheidsvoorschriften inzake magazijninrichtingen.

Users of the installation have to observe the relevant health and safety regulations.



Montage
Montage
Montage
Assembly

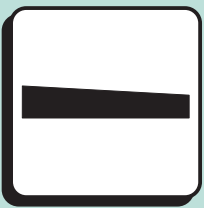


Montage und Projektplanung müssen von qualifizierten Fachkräften durchgeführt werden. Regalumbauten dürfen nur in unbelastetem Zustand vorgenommen werden. Beschädigte Bauteile müssen unter Berücksichtigung aller Sicherheitsvorkehrungen ausgewechselt werden.

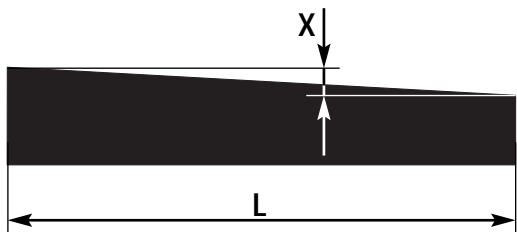
Le planning du projet et le montage doivent être effectués par des personnes qualifiées. Toute transformation de la configuration se fait uniquement à partir de rayonnages non-chargés. Remplacer les pièces endommagées en respectant les consignes de sécurité.

De projectplanning en de montage van de stelling dienen door deskundig personeel te worden uitgevoerd. Wijzigingen in de stellingconfiguratie mogen uitsluitend in onbelaste toestand gebeuren. Bij het vervangen van beschadigde onderdelen moet steeds rekening gehouden worden met de veiligheidsvoorschriften.

Project planning and assembly are to be effected by qualified personnel. Before making any changes in the racking configuration, the racking installation must be uncharged. Damaged components are to be replaced in observance of all relevant safety regulations.



Aufstellfläche
Qualité du sol
Vloereigenschappen
Flooring

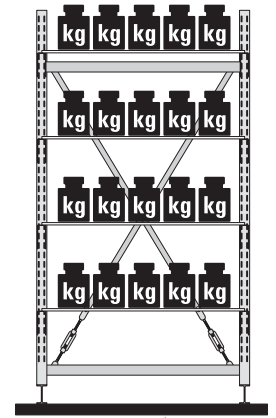
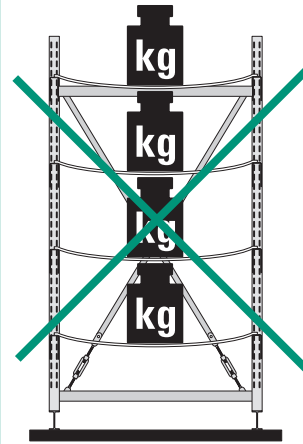
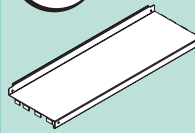


Betongüte des Hallenbodens min. **B25**
 Sol de béton d'une qualité minimum de **DIN 1045**
 Minimum kwaliteit van de betonvloer
 Minimum quality of the concrete flooring

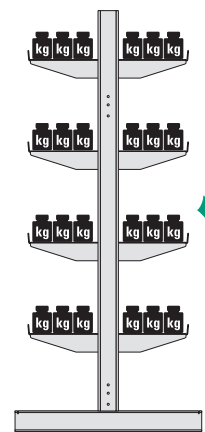
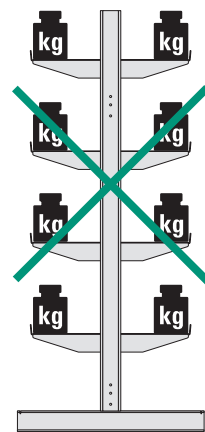
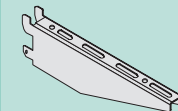
L	X
< 1 m	max. 4 mm
> 1 m → < 4 m	max. 10 mm
> 4 m → < 15 m	max. 12 mm
> 15 m	max. 15 mm



Belastung
Capacité de charge
Draagvermogen
Load capacity



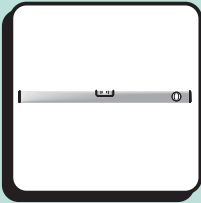
Belastung
Capacité de charge
Draagvermogen
Load capacity



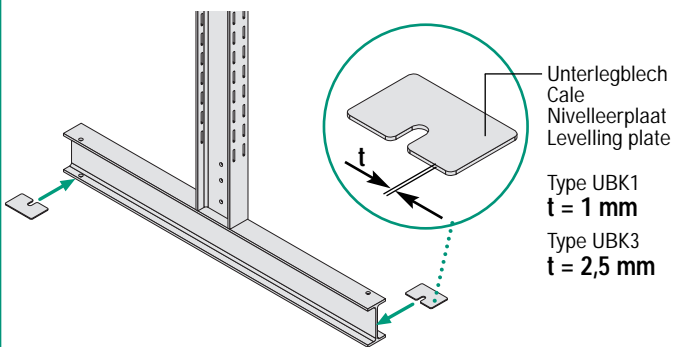
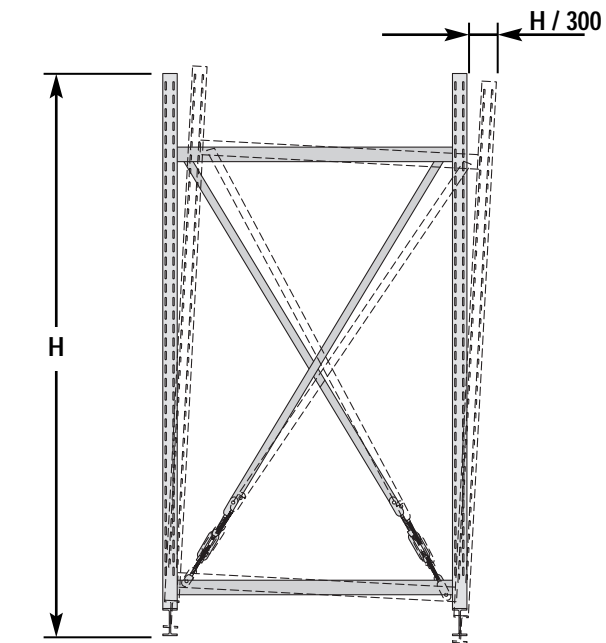
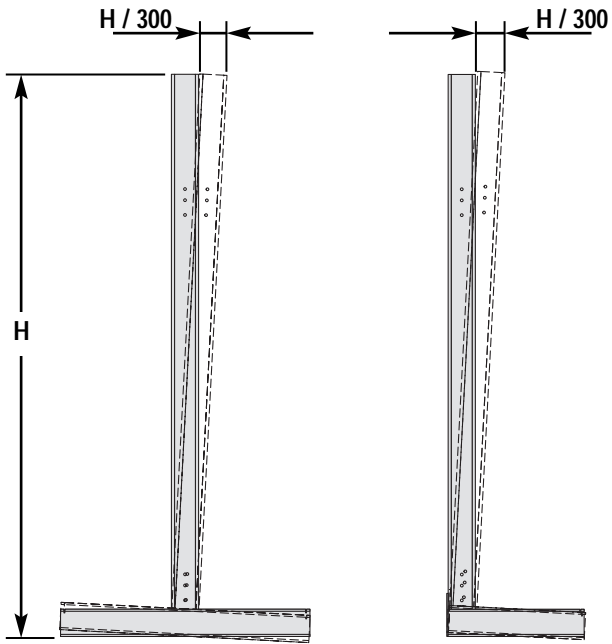
! Gleichmäßig verteilte Last!
! Charges uniformément réparties!
! Gelijkmatic verdeelde belasting!
! Evenly distributed loads!

Belastungstabellen auf Seite
 Tableaux indiquant capacités de charge page
 Belastingstabellen op pagina
 Load capacity labels on page

20-23



Nivellierung
Mise à niveau
Nivellering
Levelling



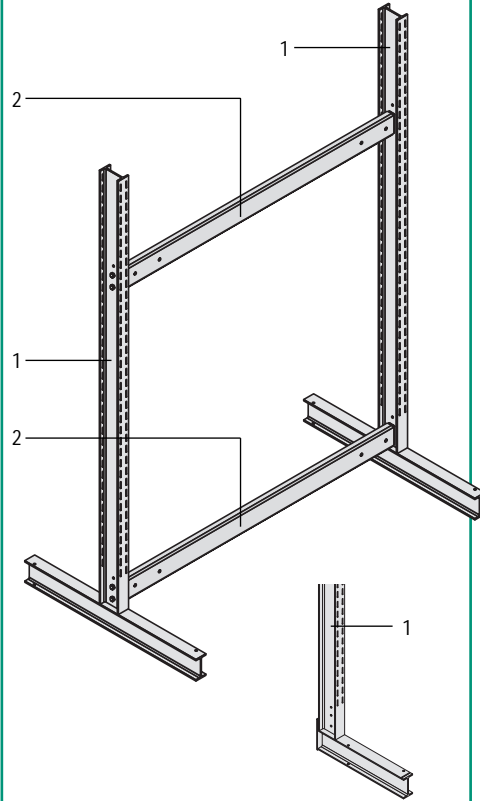
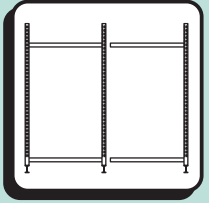
Unterlegblech
 Cale
 Nivelleerplaat
 Levelling plate
 Type UBK1
 $t = 1 \text{ mm}$
 Type UBK3
 $t = 2,5 \text{ mm}$



Unterlegbleche bei Bedarf bestellen
 Cales peuvent être fournies sur demande
 Nivelleerplaten op aanvraag leverbaar
 Levelling plates can be supplied upon request



Grundfeld
Travée de départ
Startvak
Starter bay

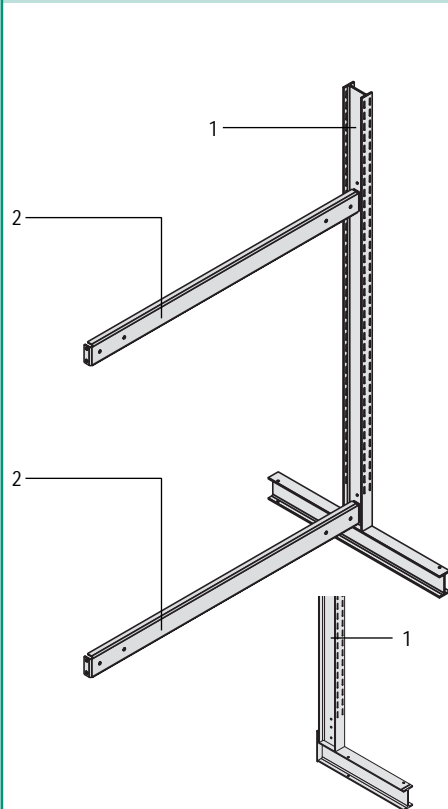
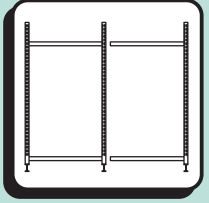


1 Ständer
 (einseitig / doppelseitig)
 Montant
 (simple/double face)
 Staander
 (enkel-/dubbelzijdig)
 Column
 (single/double sided)

2 Horizontalverbinder
 Entretoise
 Stabiliteitsligger
 Connector beam

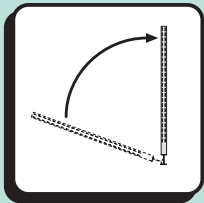


Anbaufeld
Travée d'extension
Aanbouwvak
Extension bay



1 Ständer
 (einseitig / doppelseitig)
 Montant
 (simple/double face)
 Staander
 (enkel-/dubbelzijdig)
 Column
 (single/double sided)

2 Horizontalverbinder
 Entretoise
 Stabiliteitsligger
 Connector beam



Ständer aufstellen Mettre debout les montants Staaners oprichten Set up columns



1.



Aufrißlinie
Marquer la position de l'in-
stallation
Stellingpositie markeren
Mark position of racking

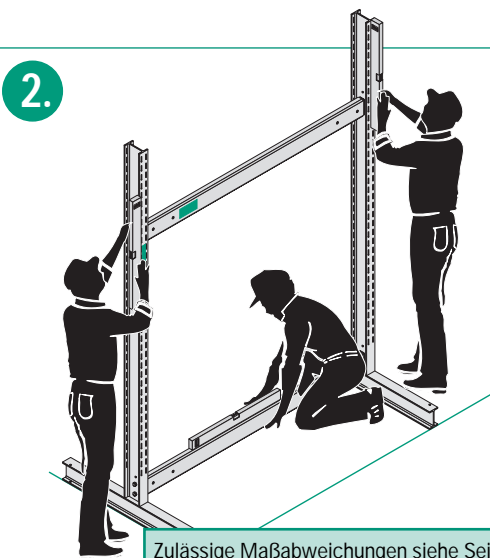
Belastungsaufkleber müssen von der Regalbedien-
seite gut lesbar sein!

Placer les autocollants indiquant la charge admissi-
ble de manière bien visible au côté de prélèvement!

Belastingopklevers goed zichtbaar aan de picking-
zijde plaatsen!

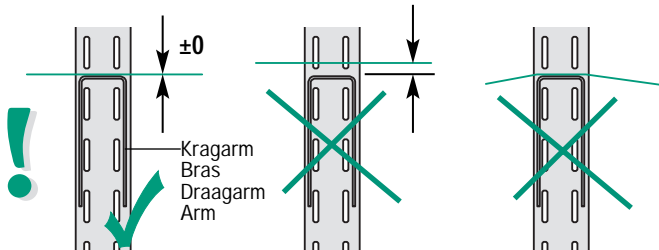
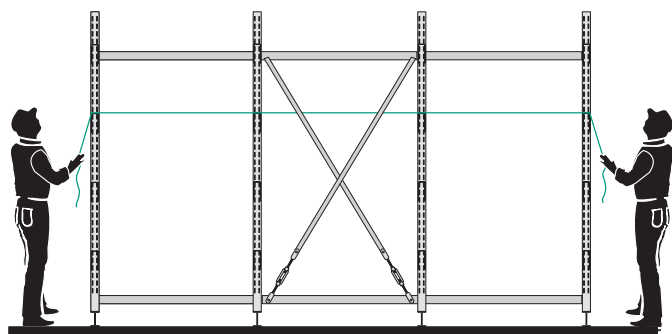
Stick load capacity labels readily visible to the pik-
ing front!

2.



Zulässige Maßabweichungen siehe Seite
Variations dimensionnelles admissibles voir page
Toelaatbare maatafwijkingen zie pagina
Admissible deviations see page

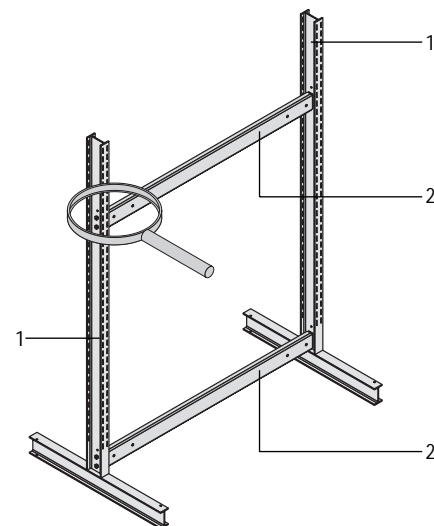
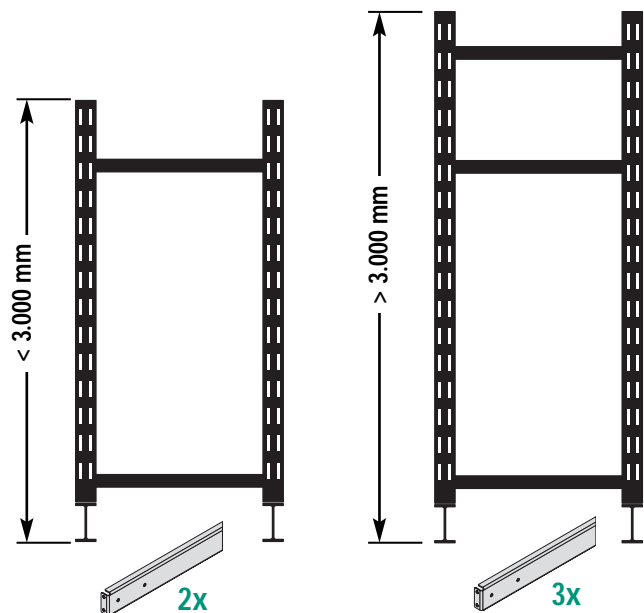
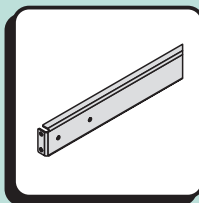
6



8



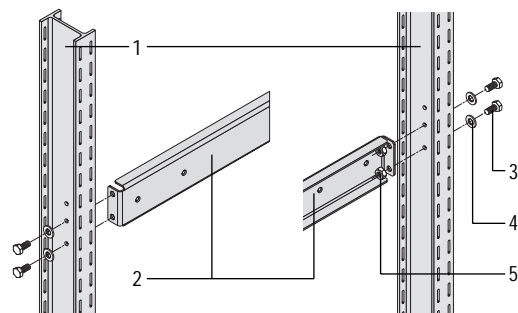
Horizontalverbinder Entretoise Stabiliteitsligger Connector beam



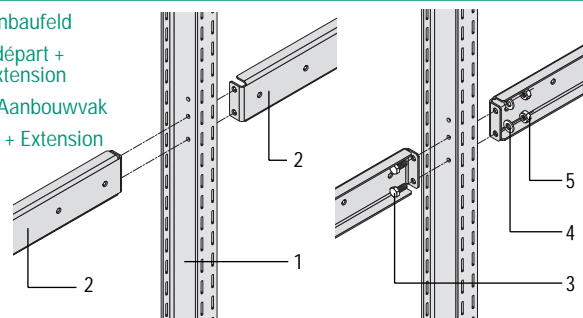
- 1 Ständer
Montant
Staaner
Column
- 2 Horizontalverbinder
Entretoise
Stabiliteitsligger
Connector beam



Grundfeld
Travée de départ
Startvak
Starter bay



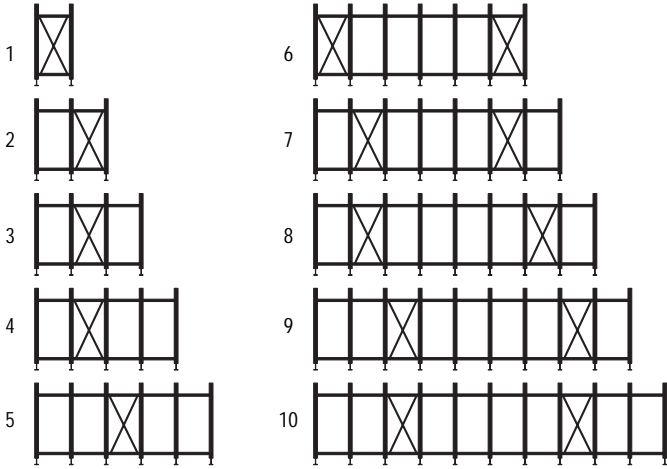
Grund- + Anbaufeld
Travée de départ +
Travée d'extension
Startvak + Aanbouwvak
Starter bay + Extension
bay



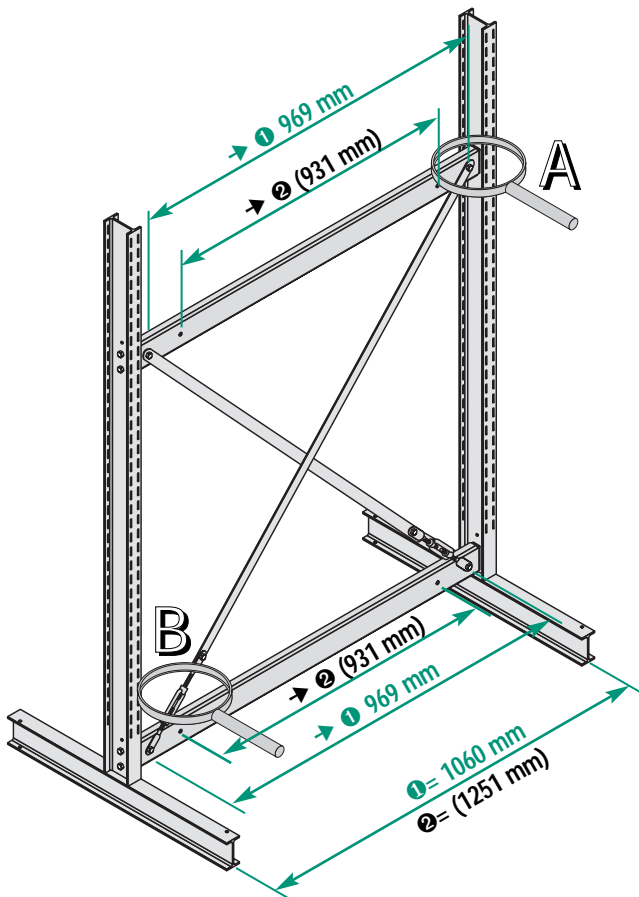
9



Diagonalverband
Croisillon
Kruisschoor
Cross bracing



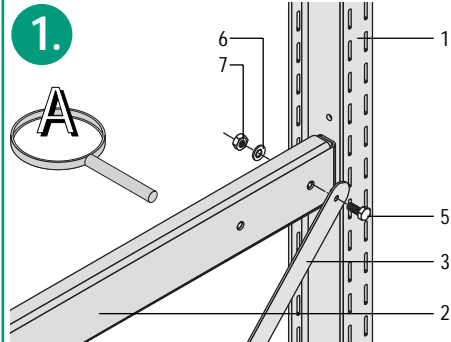
Je 5 Felder = 1 Diagonalverband
 Par 5 travées = 1 croisillon
 Per 5 secties = 1 kruisschoor
 For every 5 bays = 1 cross bracing



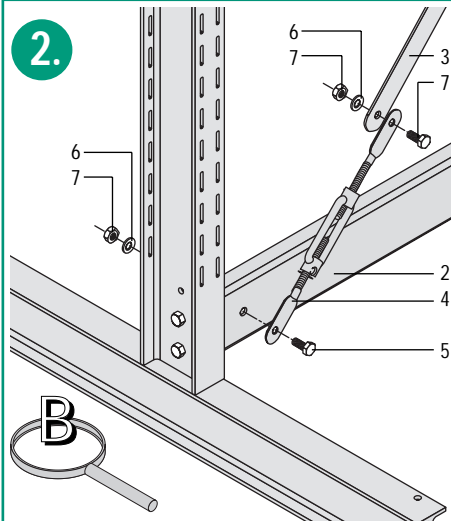
- 1 = Ständermitte
 Entraxe
 Asmaat
 Distance between column feet
- 2 = Ständermitte für Langgutlagerung
 Entraxe pour stockage de charges longues
 Asmaat voor opslag van lange lasten
 Distance between column feet for storage of long loads



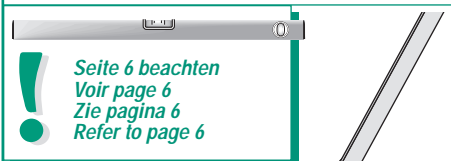
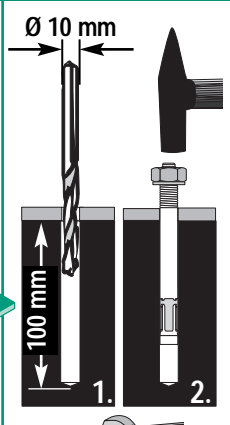
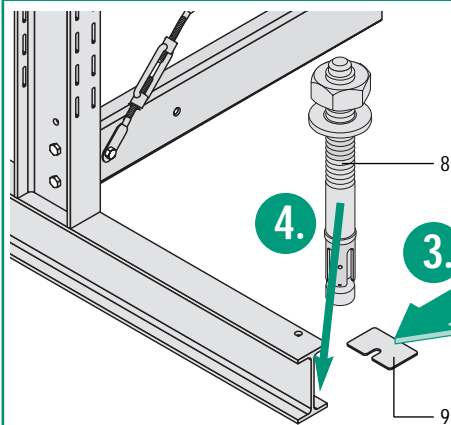
Diagonalverband
Croisillon
Kruisschoor
Cross bracing



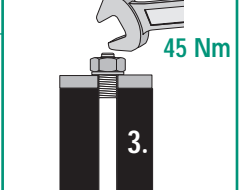
- 1 Ständer
 Montant
 Staander
 Column
- 2 Horizontalverbinder
 Entretoise
 Stabiliteitsligger
 Connector beam
- 3 Diagonalstrebe
 Contreventement
 Schoor
 Brace



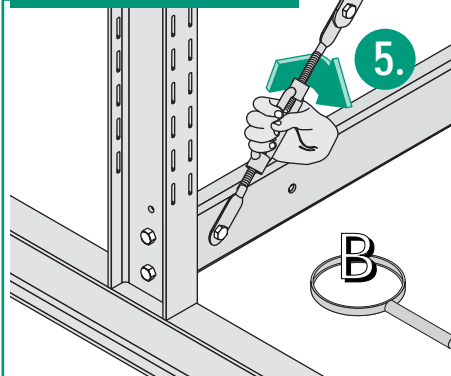
- 4 Spannschloß
 Tendeur
 Spanner
 Tension jack
- 5 Schraube
 Boulon
 Bout
 Bolt
M10x25
- 6 Scheibe
 Rondelle
 Sluistring
 Washer
Ø10,5
- 7 Mutter
 Ecrou
 Moer
 Nut
M10

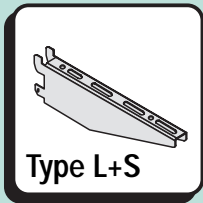


Seite 6 beachten
 Voir page 6
 Zie pagina 6
 Refer to page 6

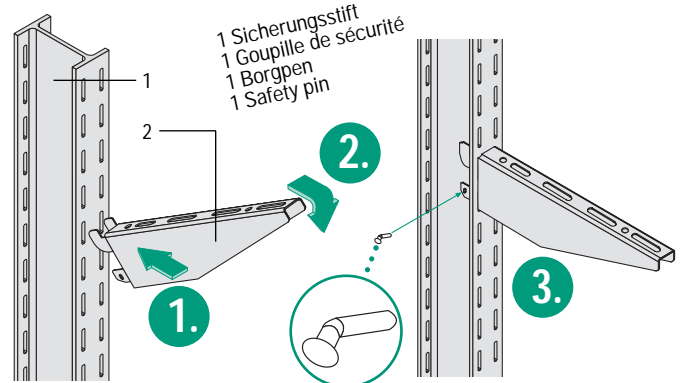


- 8 Bolzenanker
 Cheville
 Vloeranker
 Floor anchor
M10/15
- 9 Futterblech
 Cale
 Nivellegeplaat
 Levelling plate

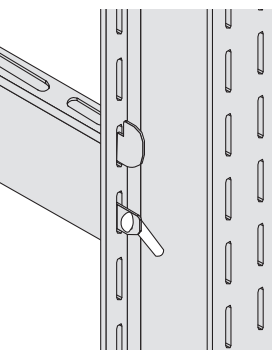




**Kragarm
Bras
Draagarm
Arm**

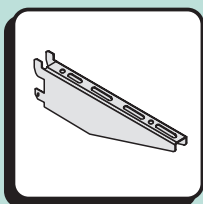


- 1 Sicherungsstift
1 Goupille de sécurité
1 Borgpen
1 Safety pin

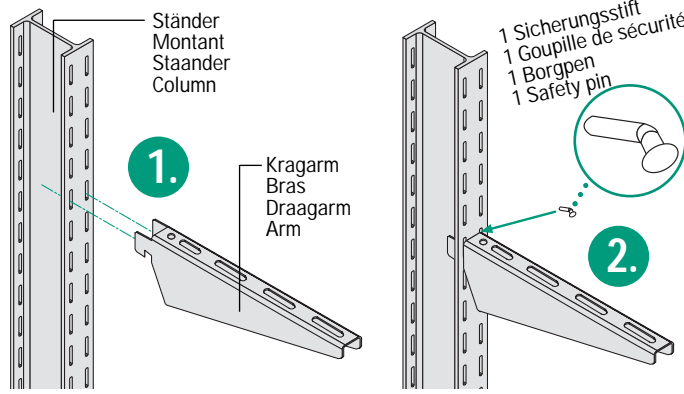


- 1 Ständer
Montant
Staander
Column
- 2 Kragarm
Bras
Draagarm
Arm

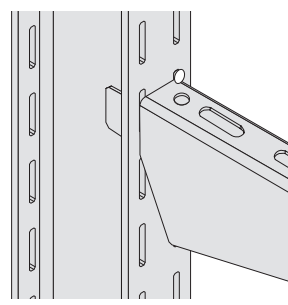
Nach dem Einhängen den Kragarm sofort sichern!
Emboiter le bras et bloquer le immédiatement avec une goupille de sécurité!
Draagarm inhaken en onmiddellijk met een borgpen tegen uitliften beveiligen!
Hook in arm and secure it immediately with a safety pin!



**Kragarm schräg
Bras incliné
Schuine draagarm
Inclined arm**



- 1 Ständer
Montant
Staander
Column
- 1 Sicherungsstift
1 Goupille de sécurité
1 Borgpen
1 Safety pin
- 2 Kragarm
Bras
Draagarm
Arm

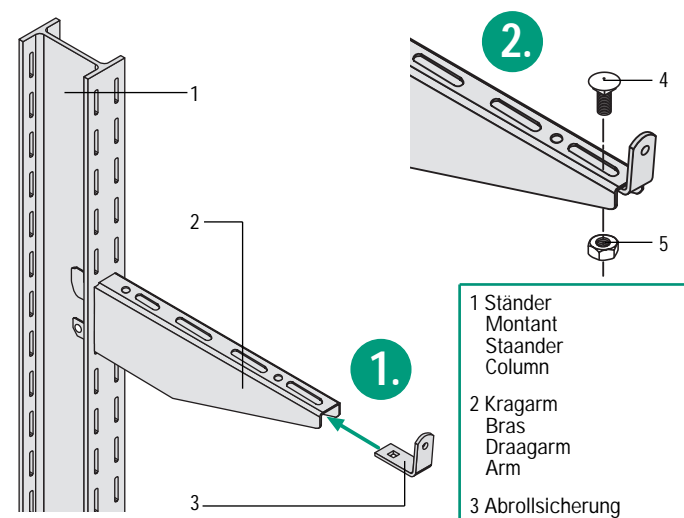
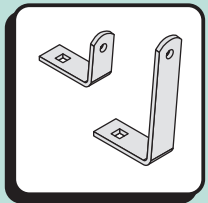


Nach dem Einhängen den Kragarm sofort sichern!
Emboiter le bras et bloquer le immédiatement avec une goupille de sécurité!
Draagarm inhaken en met een borgpen onmiddellijk tegen uitliften beveiligen!
Hook in arm and secure it immediately with a safety pin!

**! Pro Kragarm wird 1 Sicherungsstift eingesetzt!
1 goupille de sécurité par bras!
1 borgpen per draagarm!
1 safety pin per arm!**



**Abrollsicherungen
Butées
Afrolbeveiligingen
End stops**



- 1 Ständer
Montant
Staander
Column
- 2 Kragarm
Bras
Draagarm
Arm
- 3 Abrollsicherung
Butée de bras
Afrolbeveiliging voor draagarm
End stop for arm
- 4 Schraube
Boulon
Bout
Bolt
- 5 Mutter
Ecrou
Moer
Nut



M10x20

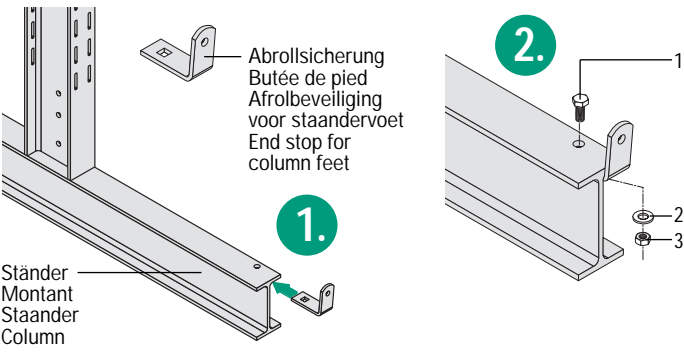
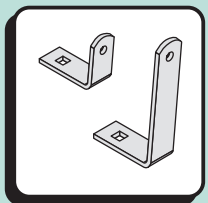


M10

Auch als Kragarmteiler verwendbar!
Sert également de séparateur pour bras!
Kan ook als draagarm separatie worden ingezet!
Can also be used as divider for arms!



**Abrollsicherungen
Butées
Afrolbeveiligingen
End stops**



- 1 Ständer
Montant
Staander
Column
- 2 Kragarm
Bras
Draagarm
Arm
- 3 Abrollsicherung
Butée de pied
Afrolbeveiliging voor staandervoet
End stop for column feet
- 1 Schraube
Boulon
Bout
Bolt
- 2 Scheibe
Rondelle
Sluiring
Washer
- 3 Mutter
Ecrou
Moer
Nut



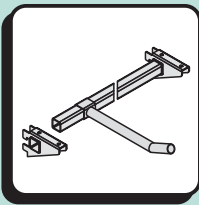
M10x25



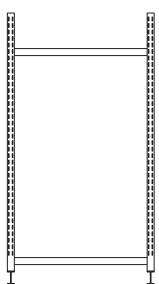
Ø10,5



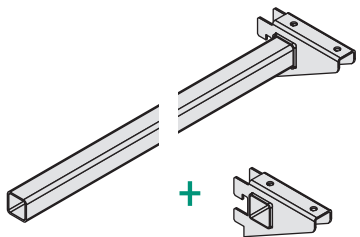
M10



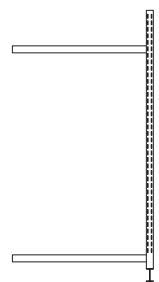
Rohrkragarm
Bras cylindrique
Ronde draagarm
Tubular arm



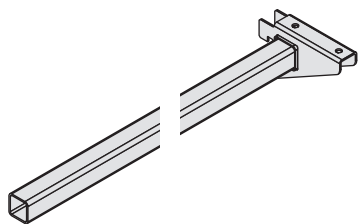
=



+



=



1 Ständer
Montant
Staander
Column

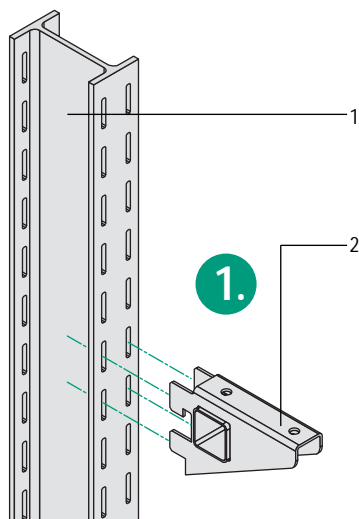
2 Kurzkragarm
Bras court
Korte draagarm
Short arm

3 Kurzkragarm mit
Traverse

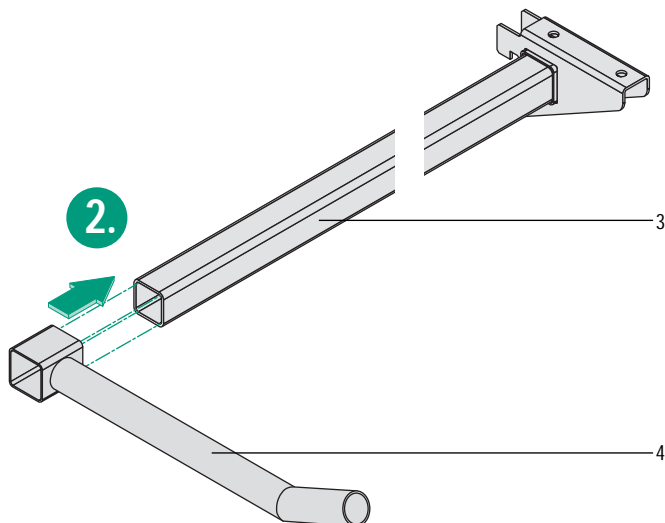
Bras court avec
support

Korte draagarm met
draagprofiel

Short arm with support
rail



1.



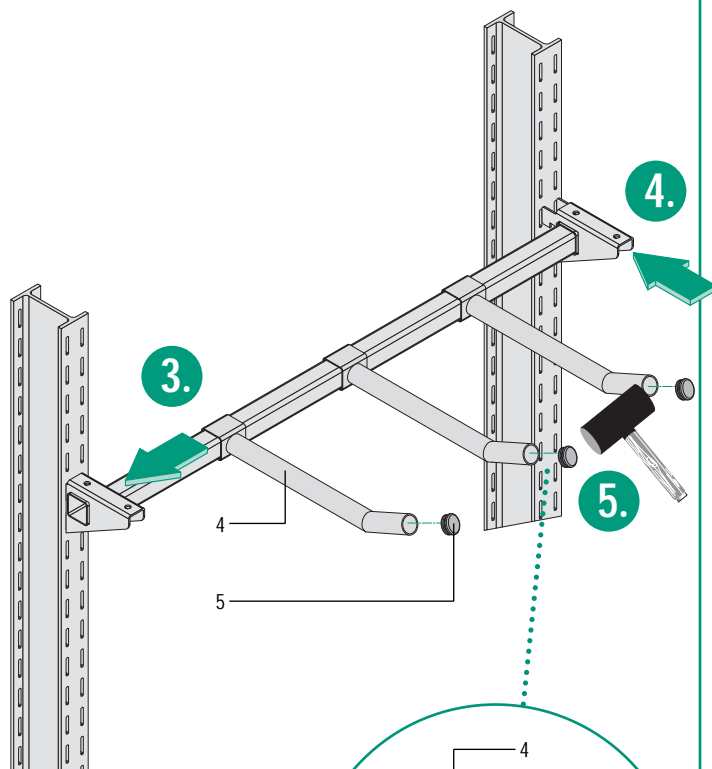
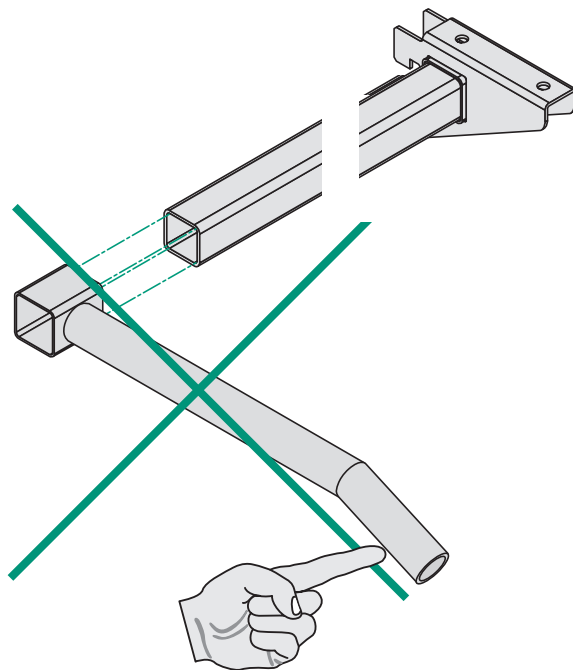
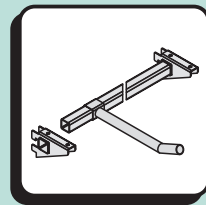
2.

3

4



Rohrkragarm
Bras cylindrique
Ronde draagarm
Tubular arm



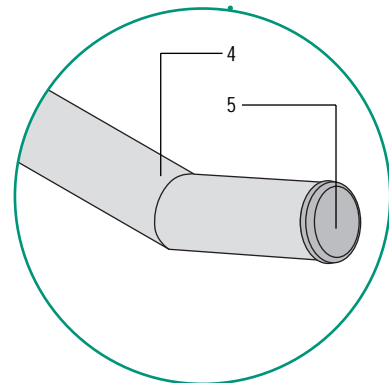
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3.

5.

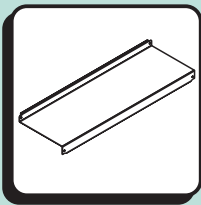
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5

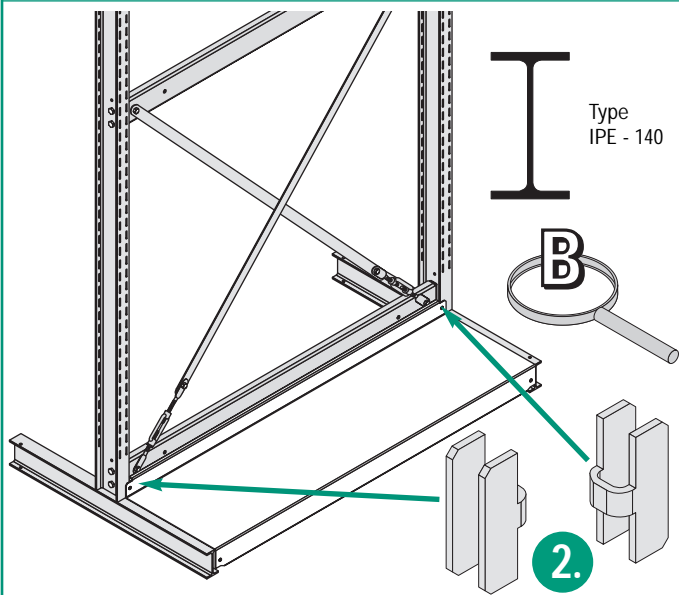
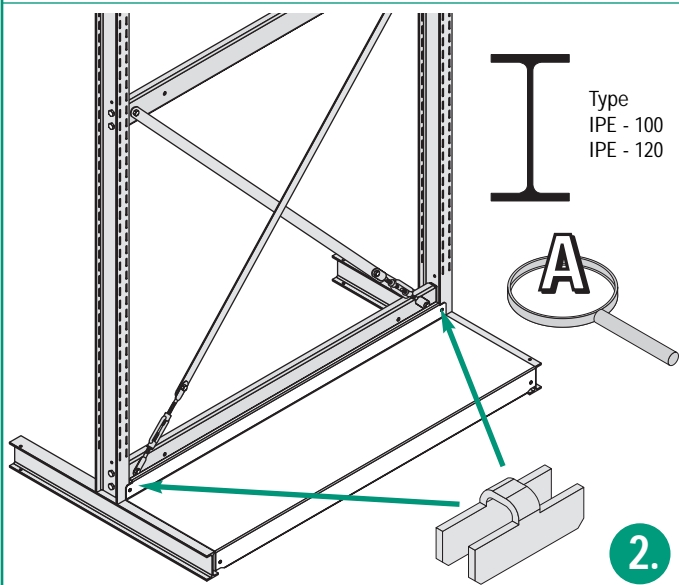
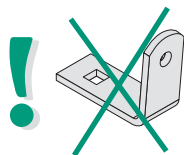
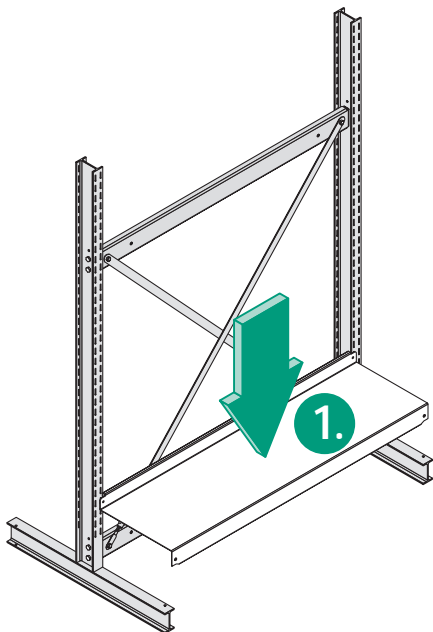


4 Rohrkragarm
Bras cylindrique
Ronde draagarm
Tubular arm

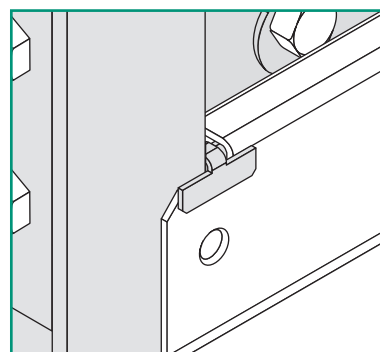
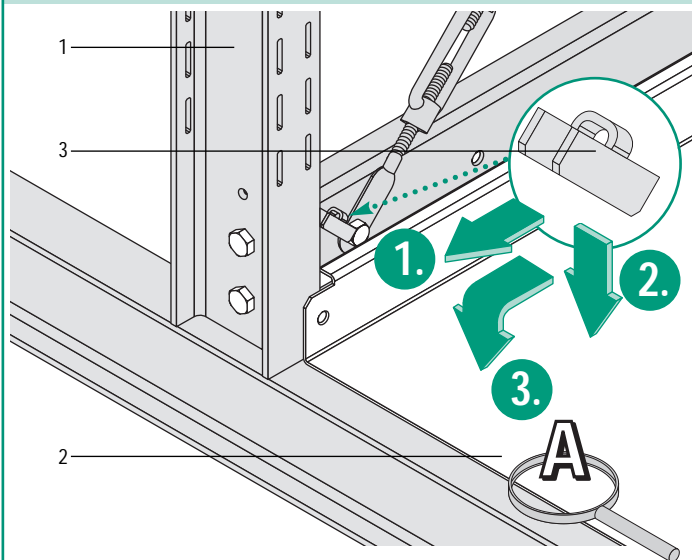
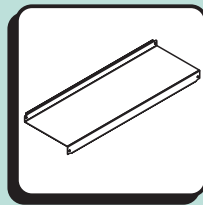
5 Schutzstopfen
Bouchon de
recouvrement
Afdekkap
Protection cap



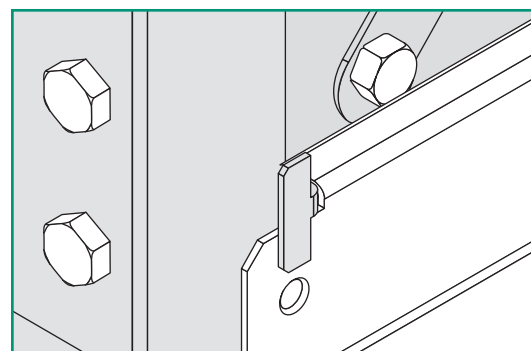
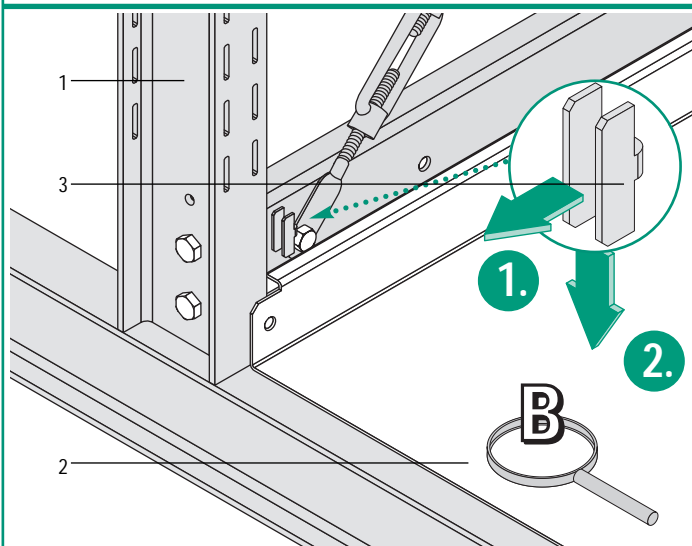
Sockelboden
Tablette au sol
Legbord op staandervoet
Bottom shelf

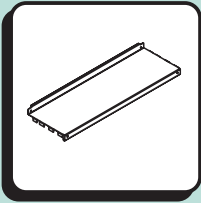


Sockelboden
Tablette au sol
Legbord op staandervoet
Bottom shelf

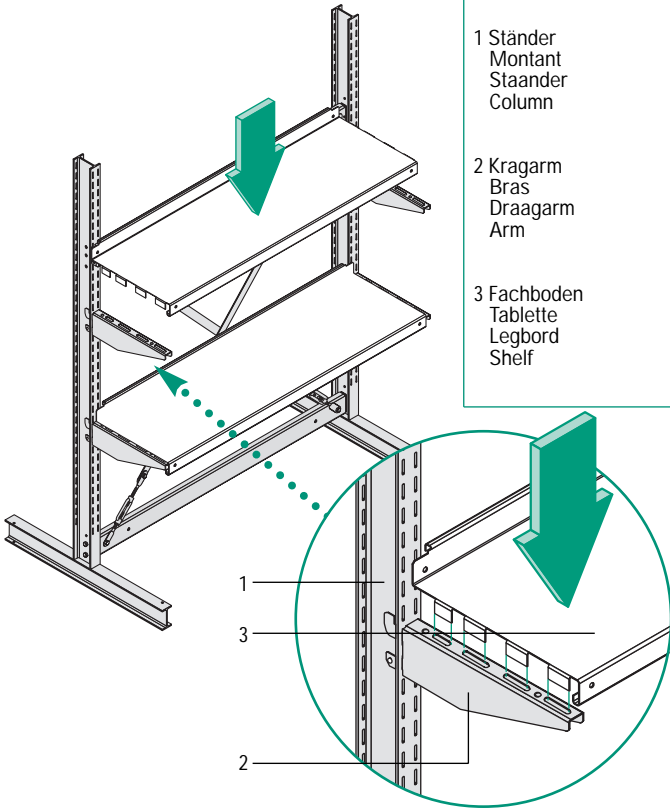


- 1 Ständer
Montant
Staander
Column
- 2 Sockelboden
Tablette au sol
Legbord op staandervoet
Bottom shelf
- 3 Clip
Clip
Clip
Clip



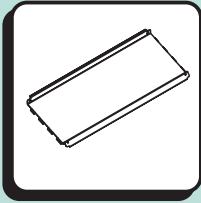


**Fachboden
Tablette
Legbord
Shelf**

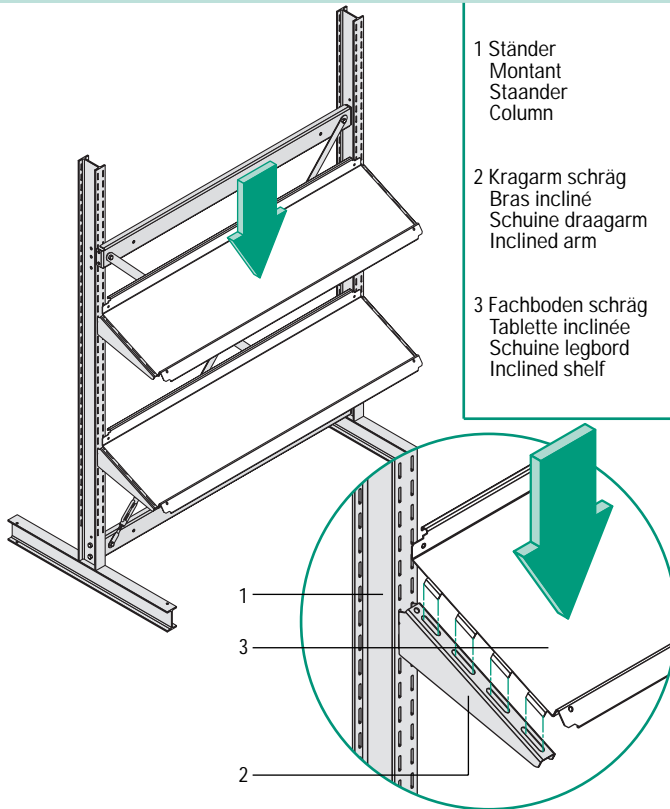


- 1 Ständer
Montant
Staander
Column
- 2 Kragarm
Bras
Draagarm
Arm
- 3 Fachboden
Tablette
Legbord
Shelf

- 1
- 3
- 2



**Fachboden schräg
Tablette inclinée
Schuine legbord
Inclined shelf**

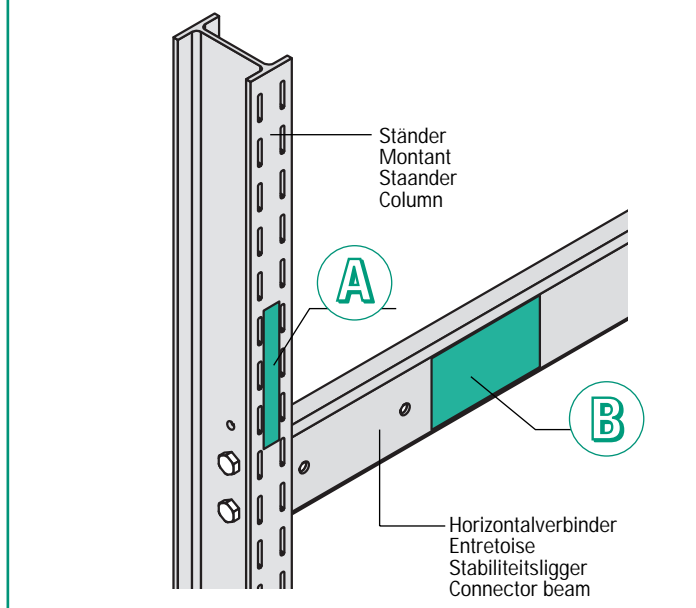


- 1 Ständer
Montant
Staander
Column
- 2 Kragarm schräg
Bras incliné
Schuine draagarm
Inclined arm
- 3 Fachboden schräg
Tablette inclinée
Schuine legbord
Inclined shelf

- 1
- 3
- 2



**Belastungsaufkleber
Autocollant indiquant la
charge admissible
Belastingsofklever
Load capacity label**



IPE-140

H= 2500mm
L= 400mm

**max.
4.800
kg**

29.378

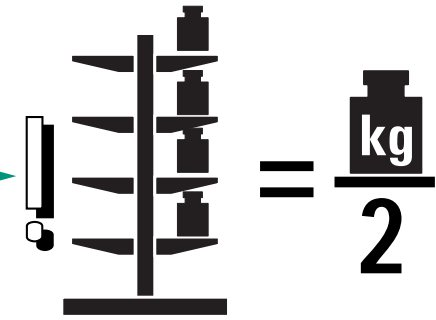
! **2**

Installation

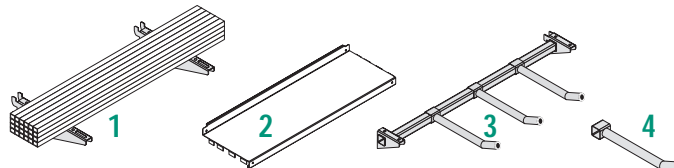
Type

i Seite
Page
Pagina
Page

20-21



Installation	mm	400	500	600	850
1	kg/	550	430	330	300
2	kg/	360	360	330	—
	max.	180 kg			max. 60 kg

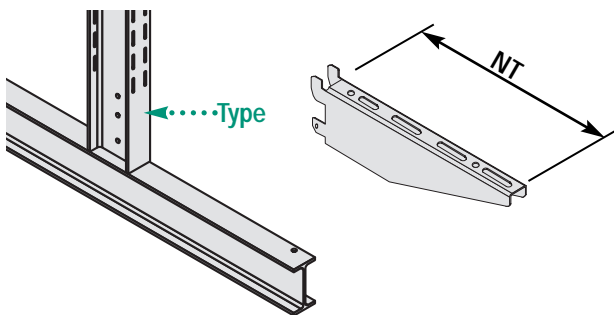
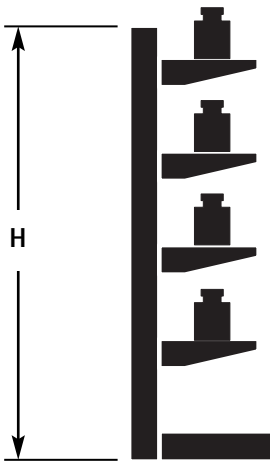


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22-23



Ständer einseitig
Montant simple face
Enkelzijdige staander
Single sided column

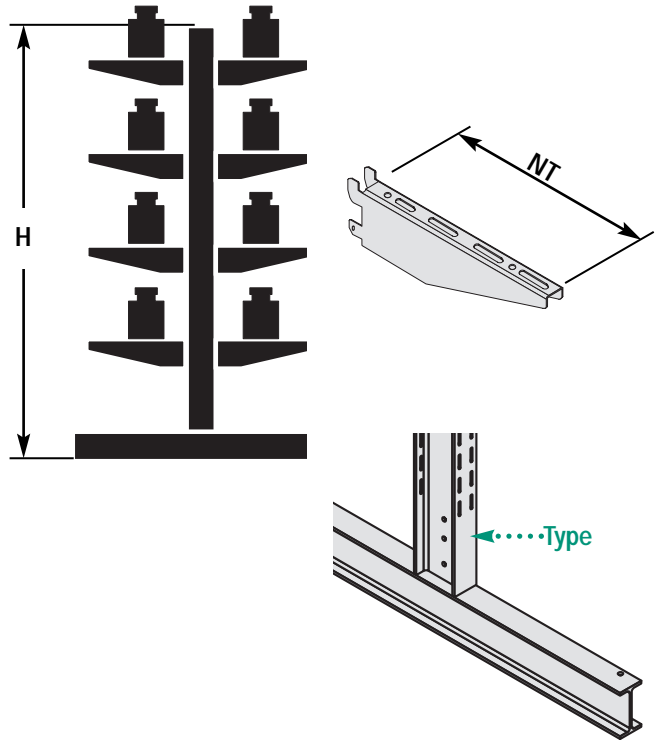


Ständer einseitig / Montant simple face
Enkelzijdige staander / Single sided column

Type I	H (mm)	NT (mm)			
		400	500	600	850
IPE 100	1.980	1.000 kg	850 kg	725 kg	—
IPE 120	2.480	1.400 kg	1.225 kg	1.075 kg	—
IPE 140	2.500	2.400 kg	2.050 kg	1.775 kg	1.350 kg
	3.220	2.225 kg	1.850 kg	1.600 kg	1.150 kg
	3.700	1.900 kg	1.600 kg	1.375 kg	1.000 kg

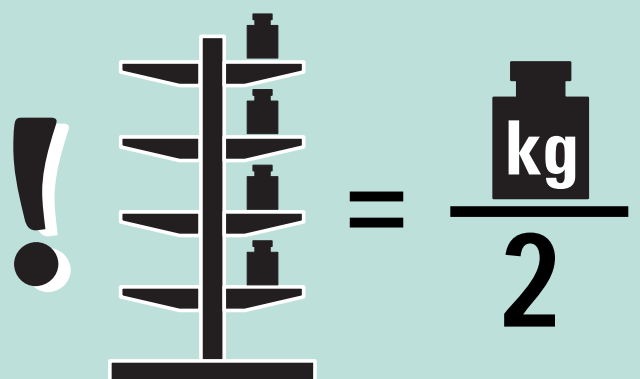


Ständer doppelseitig
Montant double face
Dubbelzijdige staander
Double sided column



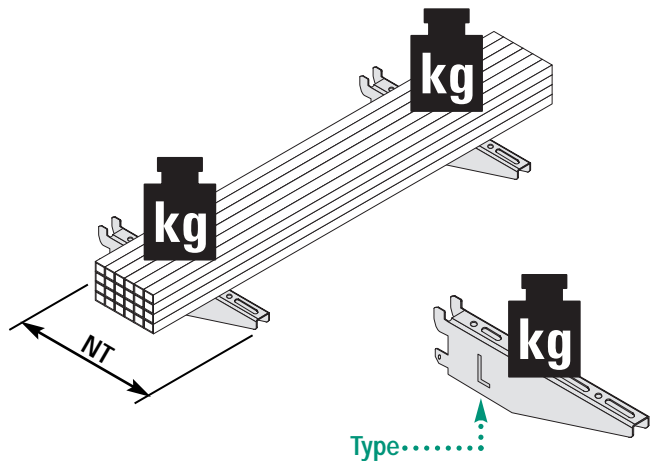
Ständer doppelseitig / Montant double face
Dubbelzijdige staander / Double sided column

Type I	H (mm)	NT (mm)			
		400	500	600	850
IPE 100	1.980	2.000 kg	1.700 kg	1.450 kg	—
IPE 120	2.480	2.800 kg	2.450 kg	2.150 kg	—
IPE 140	2.500	4.800 kg	4.100 kg	3.550 kg	2.700 kg
	3.220	4.450 kg	3.700 kg	3.200 kg	2.300 kg
	3.700	3.800 kg	3.200 kg	2.750 kg	2.000 kg





Langgut
Charges longues
Lange lasten
Long loads

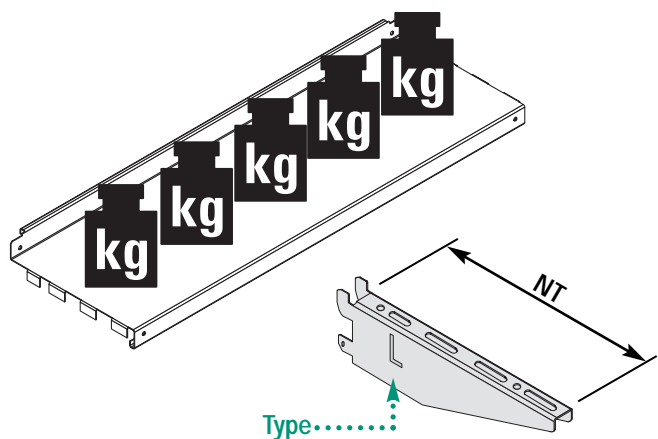


Type.....

Type	NT (mm)			
	400	500	600	850
L	220 kg	175 kg	140 kg	-
S	550 kg	430 kg	330 kg	300 kg



Fachboden
Tablette
Legbord
Shelf

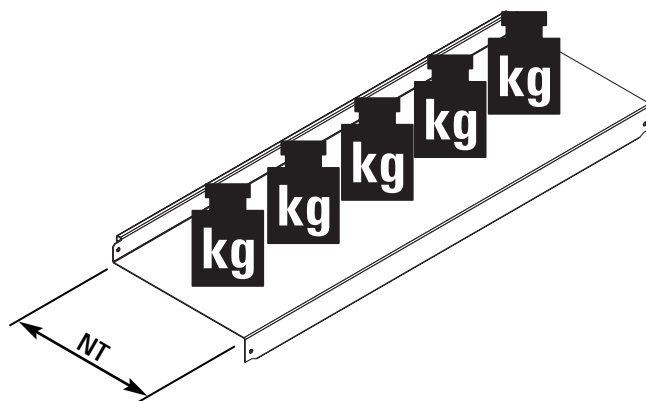


Type.....

Type	NT (mm)			
	400	500	600	850
L	220 kg	175 kg	140 kg	-
S	360 kg	360 kg	330 kg	-



Socketboden
Tablette au sol
Legbord op staandervoet
Bottom shelf

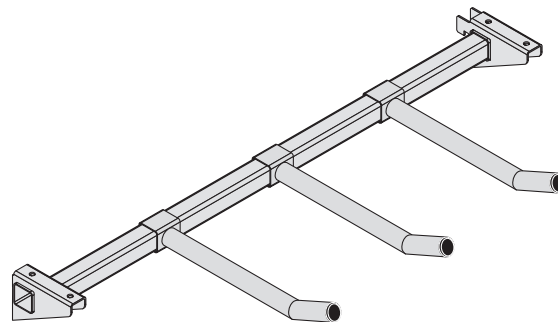


NT (mm)

400	500	600	850
460 kg	420 kg	370 kg	-



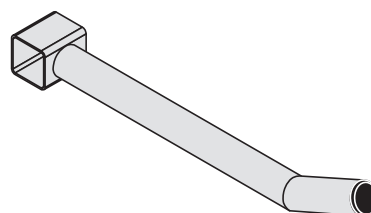
Ringgut
Bobines
Bobijnen
Coils



max. 180 kg



Ringgut
Bobines
Bobijnen
Coils



max. 60 kg