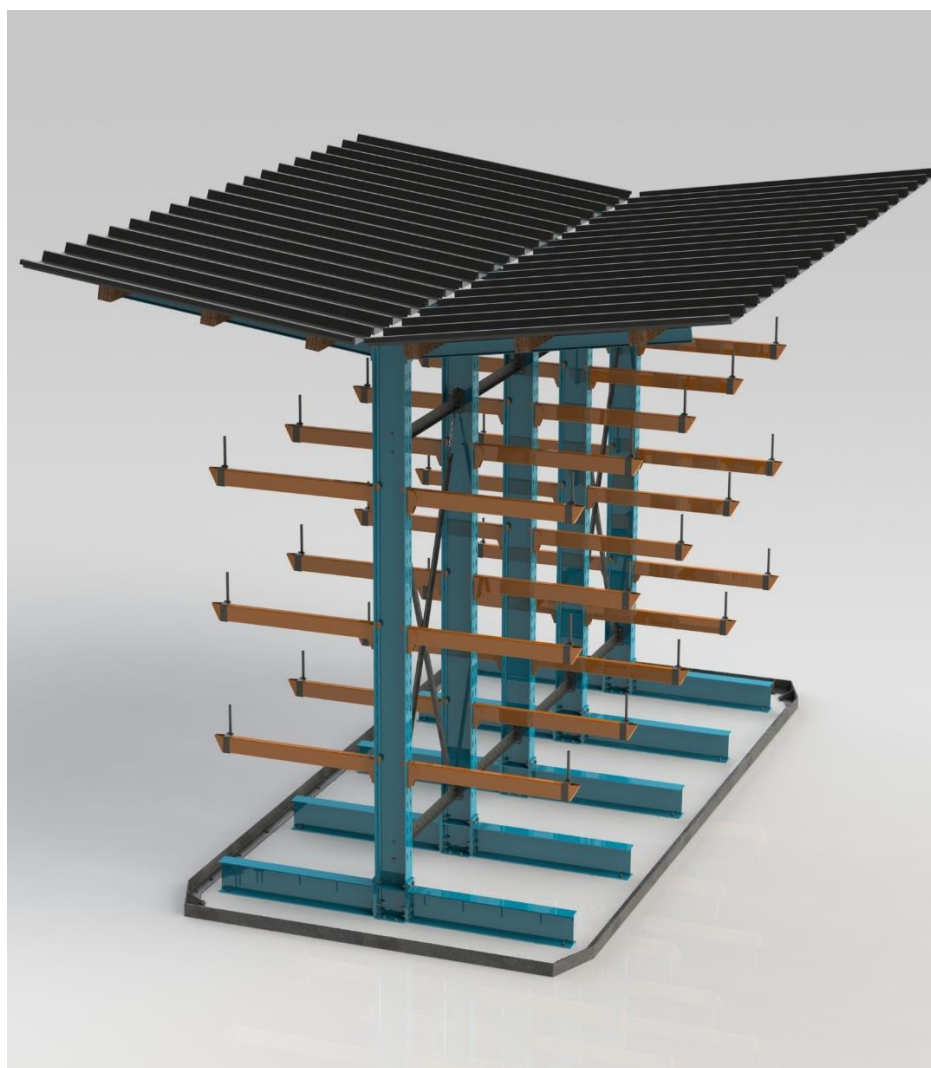
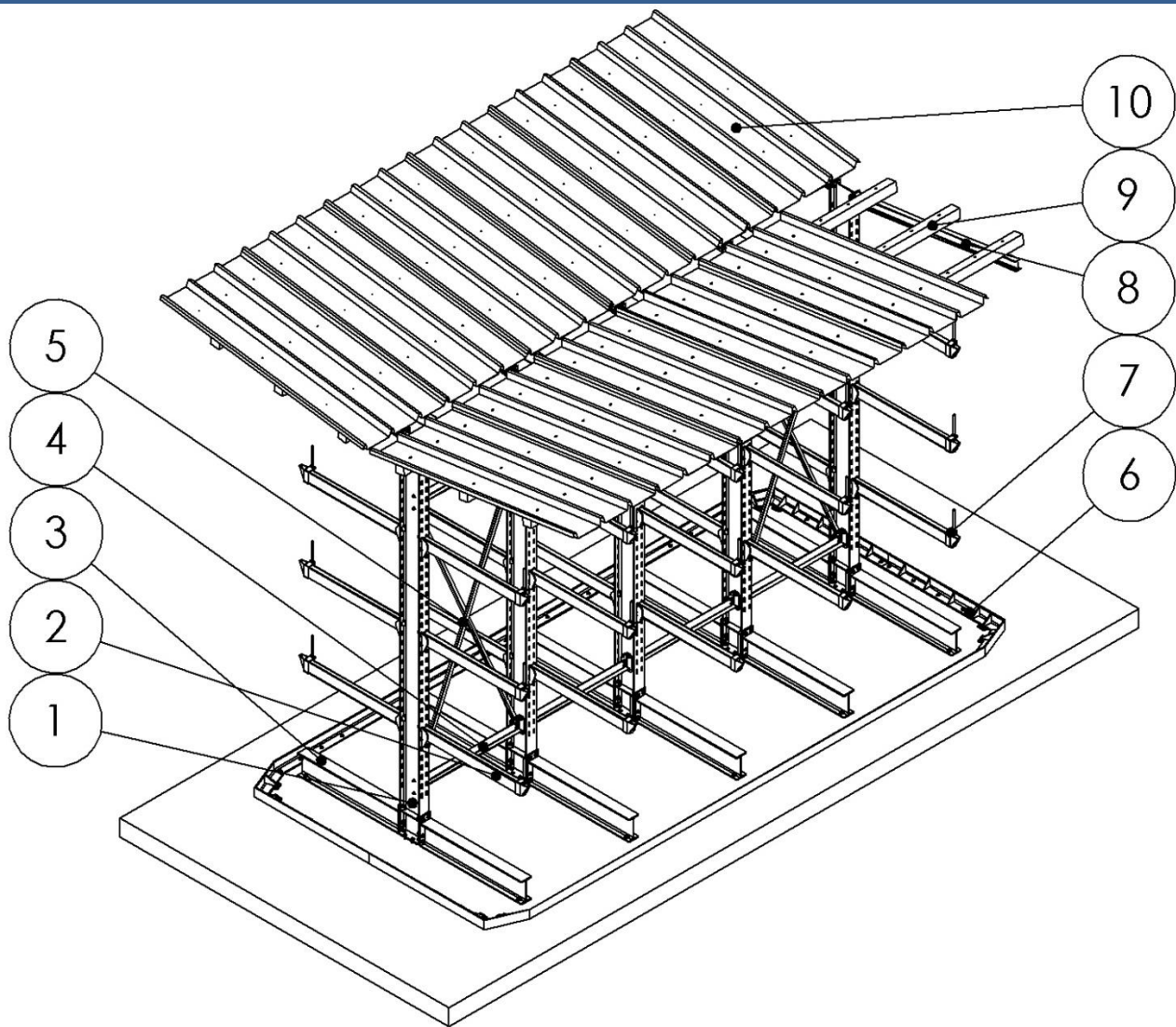


Draagarmstelling Cantilever racking Kragarmregal Rayonnage cantilever



Montage- en gebruikershandleiding
Instructions for assembly and use
Aufbau- und Betriebsanleitung
Instructions de montage et d'utilisation

Overzicht / Survy / Übersicht / Aperçu



1	Staander Column Ständer Mettre
2	Draagarm Cantilever Kragarm Bras
3	Staandervoet Column feet Standerfuß Pied
4	Horizontaalschoor Horizontal brace Horizontalverbinder Entretoise
5	Diagonaalschoor Cross bracing Diagonalverband Croisillons de liaison
Accessoires / Accessories / Zubehör / Accessoires	
6	Aanrijdbescherming Hit protection Anfahrerschutz Protection pied d'échelle
7	Afrolbeveiliging End stop Abrollsicherung Butée
8	Dakdrager Roof cantilever Dacharm Bras de toit
9	Dakligger Roof support Dachlänge Longérons de toit
10	Golfplaat Corrugated metal Trapezblech Tôle trapézoïdale

Inhoud / List of contents / Inhalt / Sommaire

Belangrijke richtlijnen Important regulations Unbedingt beachten Réglémentations importantes	
Normen Design norms Ausführung normen Normes de référence	4
Veiligheidsvoorschriften Accident prevention regulations Sicherheitsvorschriften Consignes de sécurité	4
Vloereigenschappen Flooring Aufstellfläche Qualité du sol	4
Draagvermogen Load Capacity Belastung Capacité de charge	4
Montage Assembly Montage Montage	
Staander & voet Column & feet Ständer & fuß Mettre & Pied	5
Schoring Shoring Spriessung Étayage	8
Draagarmen Cantilevers Kragarmen Bras	12
Nivellering Levelling Einfahren nivelage	13
Verankering Anchoring Verankerung Ancrage	14
Aanrijbescherming Hit protection Anfahrerschutz Protection pied d'échelle	15
Afolbeveiliging End stop Abrollsicherung Butée	16
Dak Roof Dach Toit	17
Gebruiksvoorschriften Use specifications Gebrauchsspezifikation spécification d'utilisation	
Belastingbord Load capacity board Belastungsschild Plaque de charge	20
Belading Loading Beladen Charger	21

Belangrijke richtlijnen / Important regulations / Unbedingt beachten / Réglémentations importantes

Normen
Design norms
Ausführung normen
Normes de référence

- NEN 5052
- NEN 5054
- NEN-EN 15629
- NEN-EN 15635
- Eurocode 0
- Eurocode 1
- Eurocode 3
- Bouwbesluit 2003
- AI 14
- RAL-RG 614
- BGR 234
- 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.
- Benutzer der Installation müssen die relevanten Gesundheits- und Sicherheitsvorschriften kalkulieren.
- En tant que responsable de l'exploitation, veuillez respecter les réglementations de sécurité en vigueur.

Veiligheidsvoorschriften
Accident prevention regulations
Sicherheitsvorschriften
Consignes de sécurité

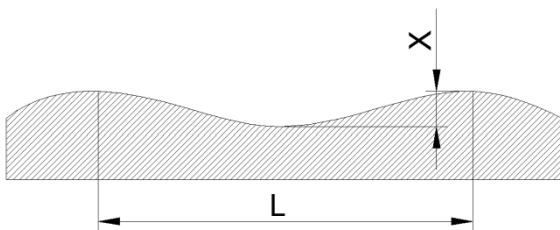
- | | | | |
|--|---|--|---|
| <ul style="list-style-type: none"> Stelling dient door deskundig personeel te worden gemonteerd. Wijzigingen in de stellingconfiguratie mogen enkel na statische berekeningen worden genomen. Beschadigde onderdelen dienen direct te worden vervangen in overleg met de fabrikant. Elke stelling dient te zijn voorzien van informatie over de draagvermogen van de stelling. | <ul style="list-style-type: none"> Stage must be assembled by qualified specialist personnel. Modifications may only be undertaken after static calculation and clearance by the manufacturer. Any damaged load-bearing components must be replaced immediately after consultation with the manufacturer. All racks must be equipped with a notice about load capacity or the installation. | <ul style="list-style-type: none"> Die Montage muss von qualifiziertem Fachpersonal durchgeführt werden. Umbauten dürfen nur nach statischer Berechnung und Freigabe vom Hersteller vorgenommen werden Bei Beschädigung von tragenden Teilen sind diese nach Rücksprache mit dem Hersteller sofort zu ersetzen. Jedes Regal ist mit Belastungsschildern oder einem Anlagenschild auszustatten. | <ul style="list-style-type: none"> Le montage doit être effectué par un personnel spécialisé dûment qualifié. Toute modification ne peut être entreprise qu'après un calcul statique et une autorisation effectués par le constructeur. En cas d'endommagement de parties portantes, celles-ci doivent être immédiatement remplacées après consultation du constructeur. Chaque étagère doit être pourvue de panneaux mentionnant la charge ou d'un panneau indicateur. |
|--|---|--|---|

Vloereigenschappen
Flooring
Aufstellfläche
Qualité du sol

Minimum kwaliteit van de betonvloer
Minimum quality of the concrete flooring
Betongüte des Hallenbodens min
Sol de béton de qualité minimum de

C20/25 DIN 1045

- Vloeroneffenheden volgens DIN 18202
- For evenness of installation surface see DIN 18202
- Ebenheit des Untergrundes nach DIN 18202
- Planéité du sous-sol selon DIN 18202



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

Draagvermogen
Load Capacity
Belastung
Capacité de charge

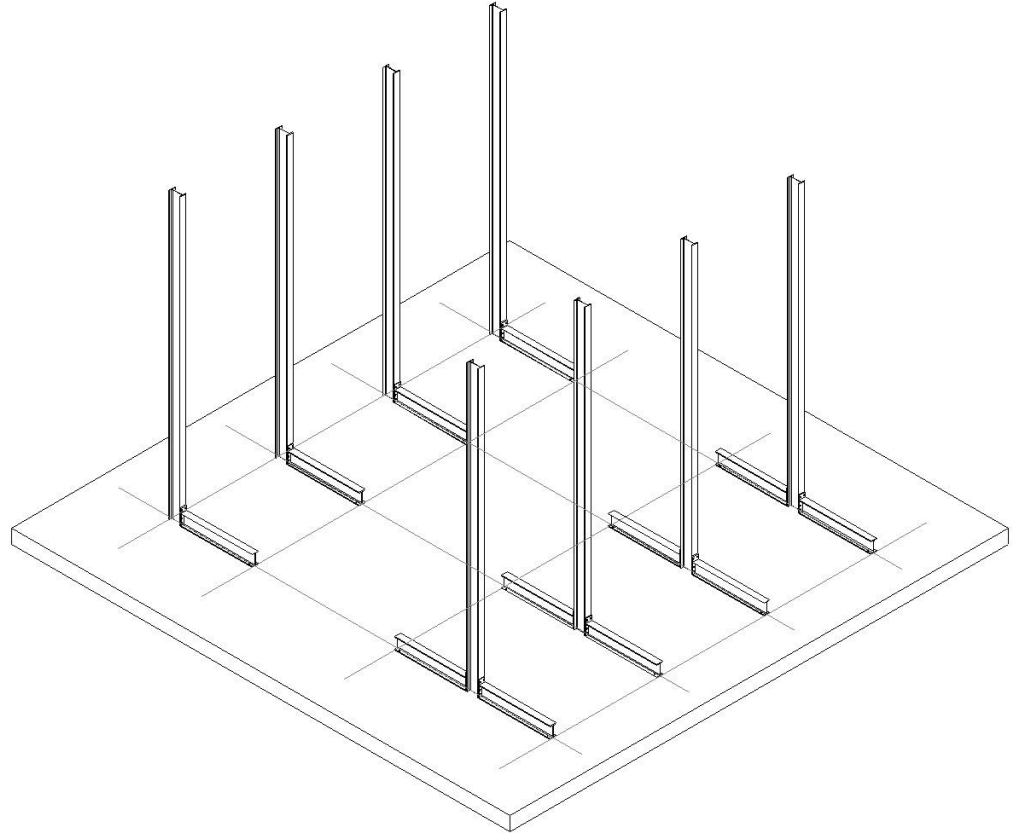
- | | | | |
|---|--|--|---|
| <ul style="list-style-type: none"> Stellingen zijn berekend op een sneeuwbelasting van max. 75 kg/m² en een windbelasting gebied I terreincategorie III zoals in Eurocode 1 | <ul style="list-style-type: none"> Outdoor cantilever racks are mainly designed for max. 75 kg/m² snow load and wind load zone I terrain type III as in Eurocode 1 | <ul style="list-style-type: none"> Die Kragarmregale im Freien sind im Regelfall für max. 75 kg/m² schneelasten sowie für Windlastzone I Geländekategorie III gemäß Eurocode 1 | <ul style="list-style-type: none"> Pour une installation à l'extérieur, les bras sont, en règle générale, conçus pour une charge de neige d'un max. de 75 kg/m² ainsi que pour une zone de pression de vent I catégorie de terrain III selon Eurocode 1 |
|---|--|--|---|

1.0 Staander posities aftekenen

1.0 Draw in rack position

1.0 Regalposition aufzeichnen

1.0 Tracer le positionnement de l'étagère

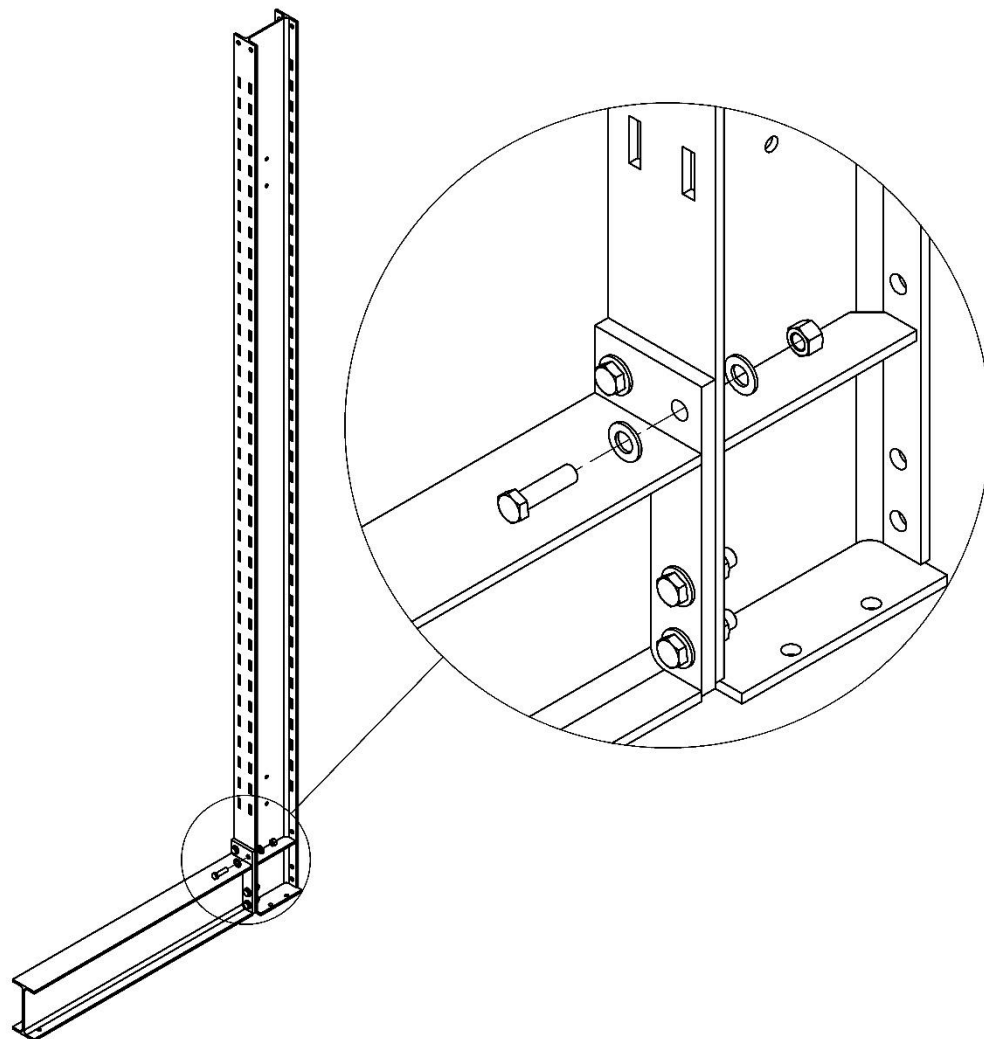


2.0 Staander enkelzijdig monteren

2.0 Bolting one-sided rack

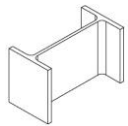




2.0 Ständer einseitig verschrauben

2.0 Visser les montants simples



(1) Indoor/outdoor rack
(1) Partie intérieure/extérieure
(1) Lato interno/esterno

(2) Galvanised
(2) Zingué
(2) Zincato

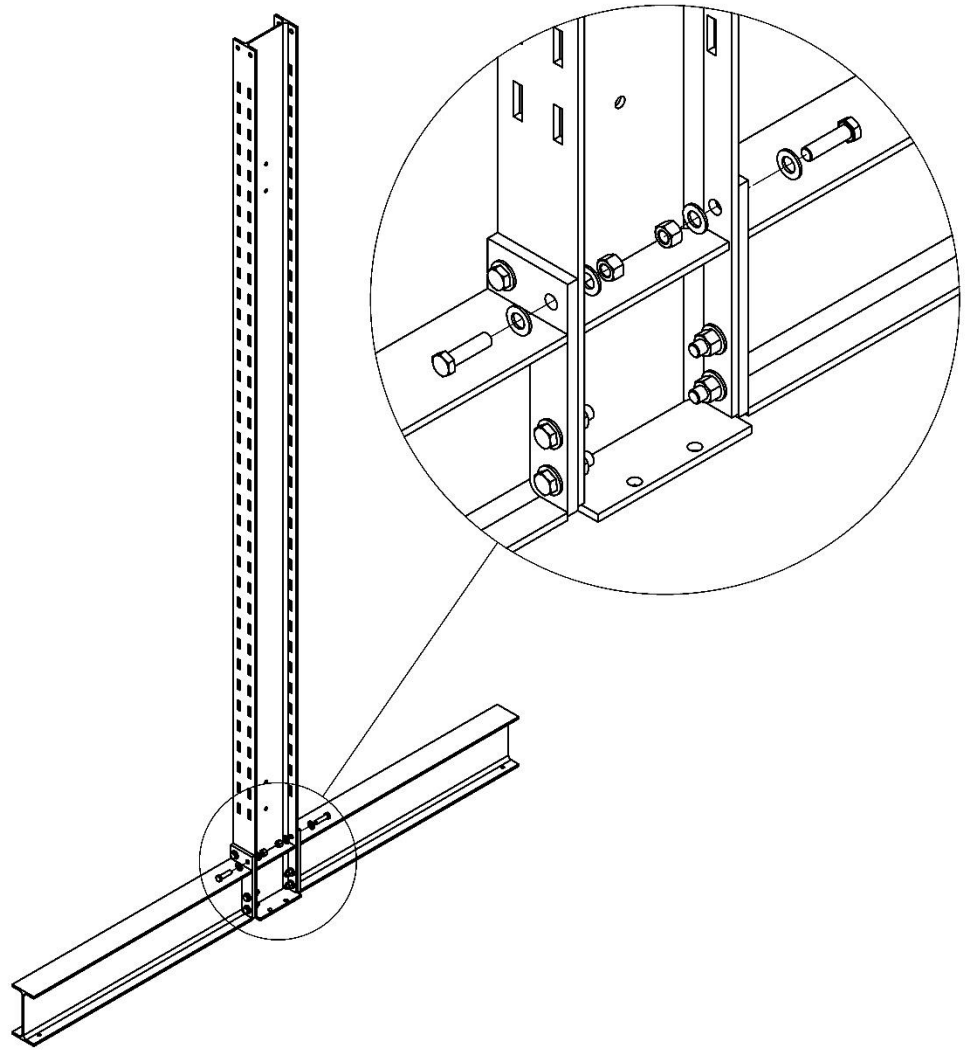
Binnen/buiten stelling (1)		Verzinkt (2)			
	Nr.	 DIN 931/10.9	 DIN 934/10.9	 DIN 125	
160	6x	M12X40	M12	Ø 13	100 Nm
180	6x	M16x60	M16	Ø 17	250 Nm
200	6x	M16x60	M16	Ø 17	250 Nm
220	6x	M16x60	M16	Ø 17	250 Nm
240	6x	M16x60	M16	Ø 17	250 Nm
270	6x	M20x70	M20	Ø 21	450 Nm
300	6x	M20x70	M20	Ø 21	450 Nm

3.0 Staander dubbelzijdig monteren

3.0 Bolting two-sided rack

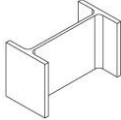




3.0 Ständer zweiseitig verschrauben

3.0 Visser les montants doubles



(1) Indoor/outdoor rack
 (1) Innen- und Außenbereich
 (1) Partie intérieure/extérieure

(2) Galvanized
 (2) Verzinkt
 (2) Zingué

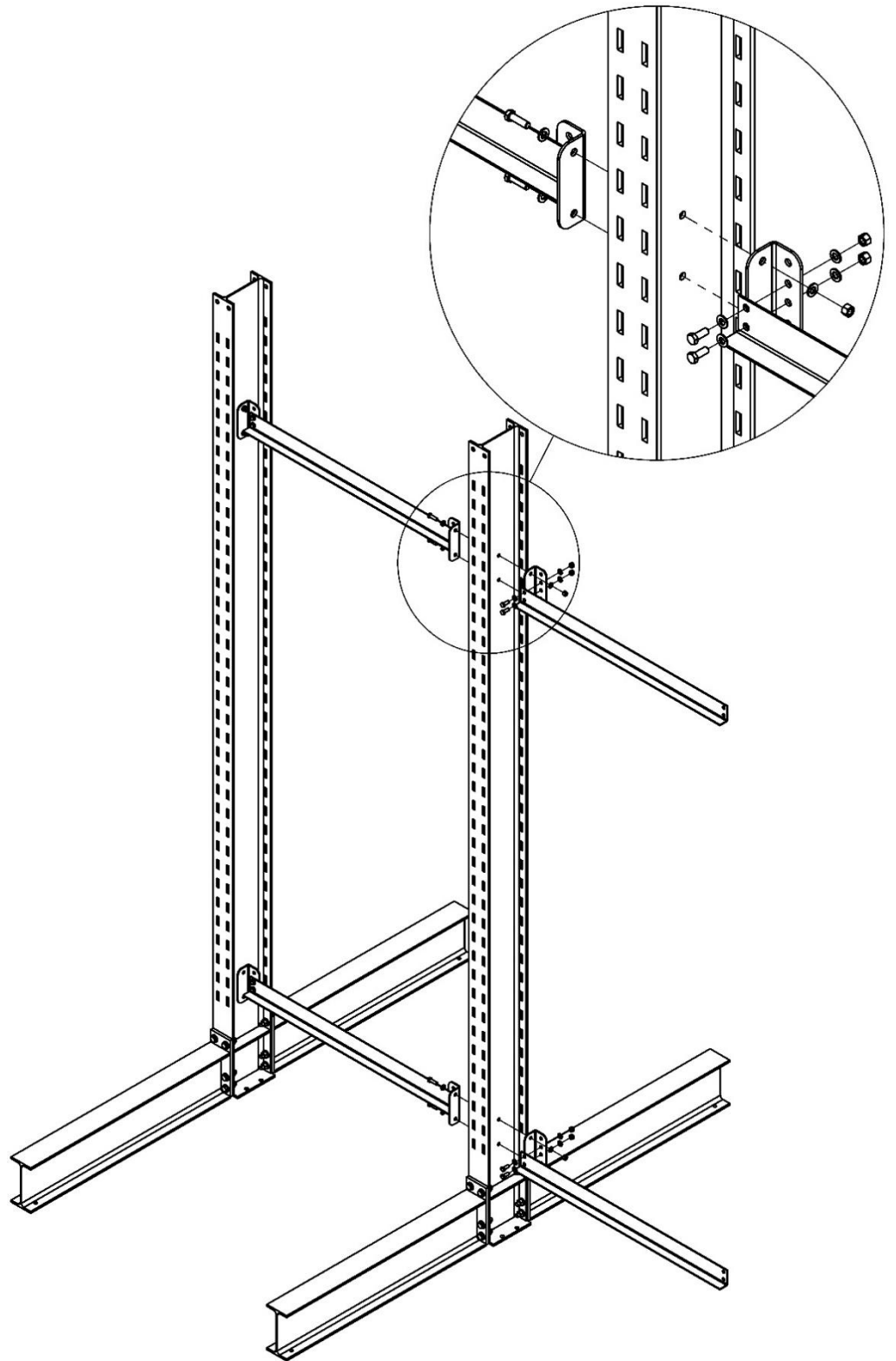
Binnen/buiten stelling (1)		Verzinkt (2)			
	Nr.	 DIN 931/10.9	 DIN 934/10.9	 DIN 125	
160	6x	M12X40	M12	Ø 13	100 Nm
180	6x	M16x60	M16	Ø 17	250 Nm
200	6x	M16x60	M16	Ø 17	250 Nm
220	6x	M16x60	M16	Ø 17	250 Nm
240	6x	M16x60	M16	Ø 17	250 Nm
270	6x	M20x70	M20	Ø 21	450 Nm
300	6x	M20x70	M20	Ø 21	450 Nm





4.0 Schoring horizontaal monteren

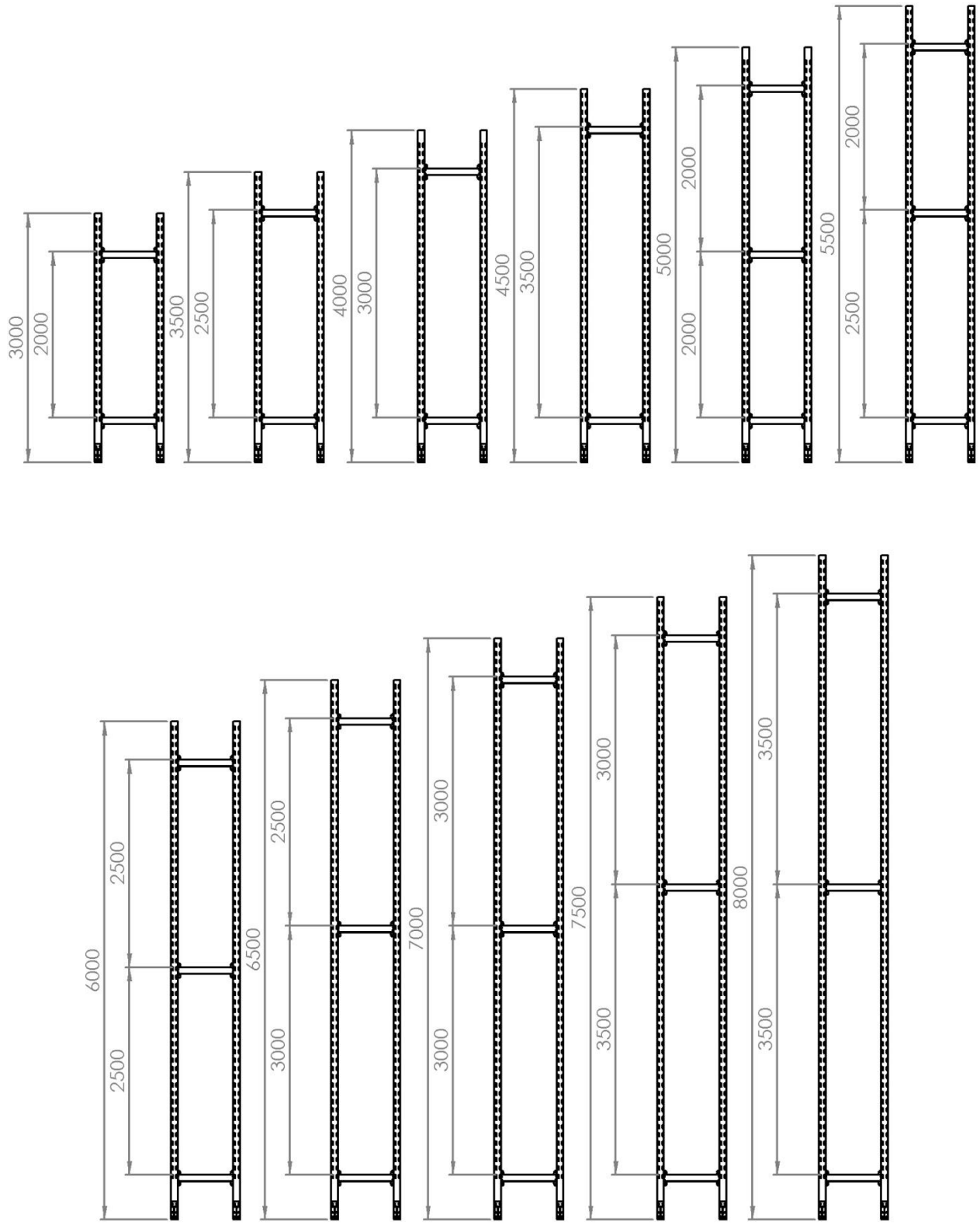
4.0 Assemble
horizontal brace

4.0 Horizontalverbinder
monteren

4.0 Monter entretoise



			
DIN 933/10.9	DIN 934/10.9	DIN 125	
M12X40	M12	Ø 13	100 Nm
M12X25	M12	Ø 13	100 Nm



5.0 Schoring diagonaal monteren

5.0 Assemble Cross bracing

5.0 Diagonalverband montieren

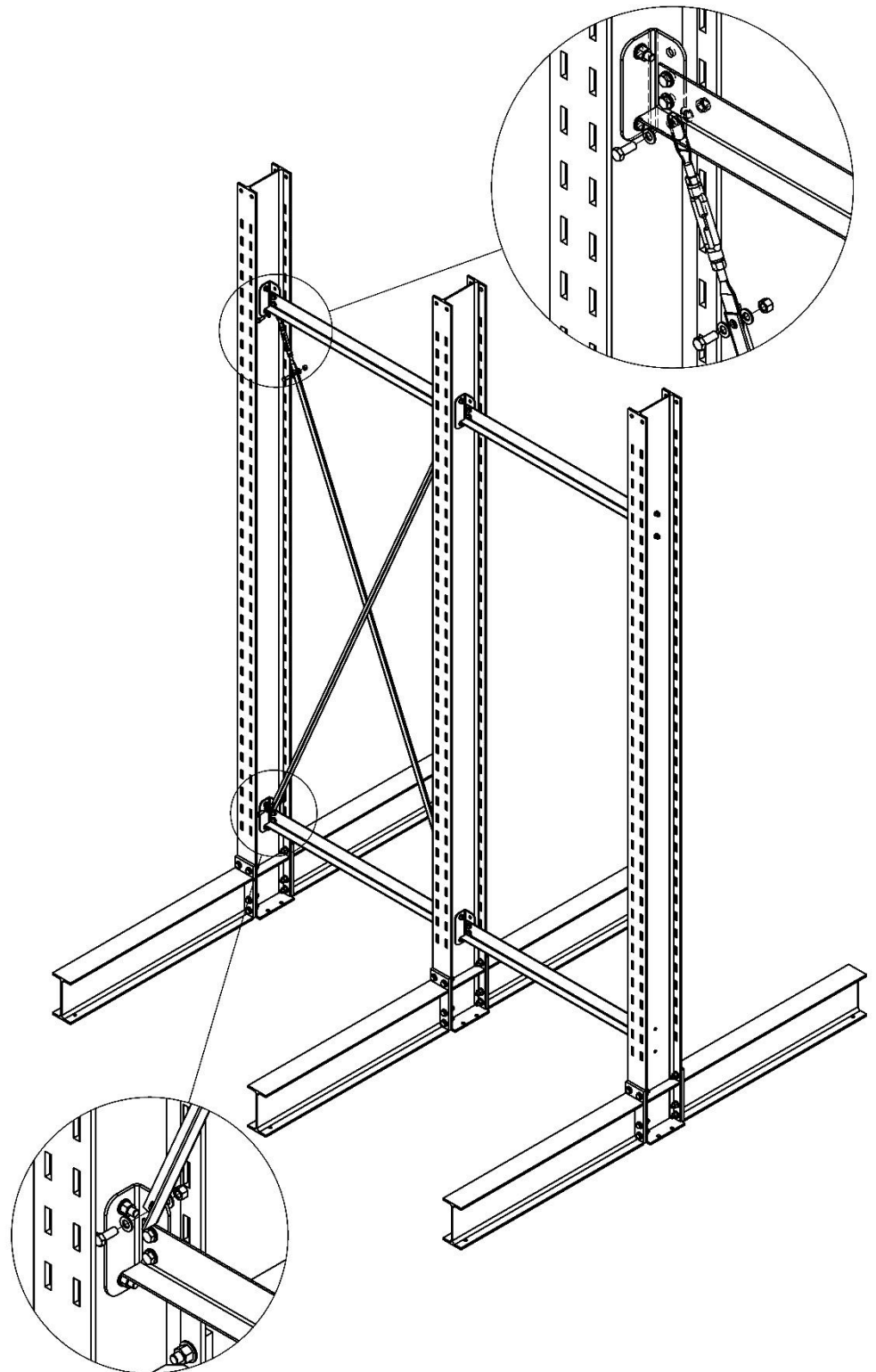
5.0 Monter croisillons de liaison





Binnen toepassing / inside use
/ binenbereich / demande
intérieure

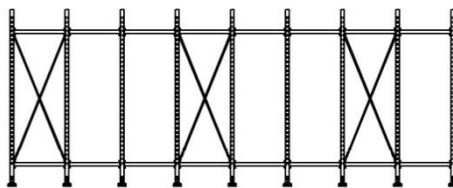
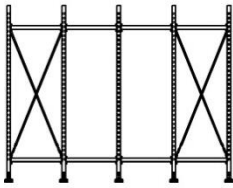
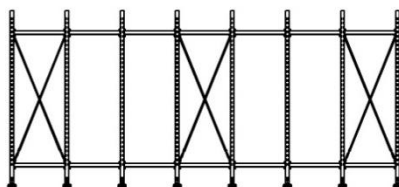
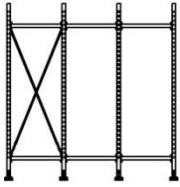
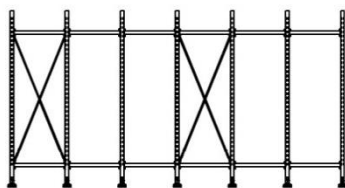
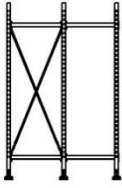
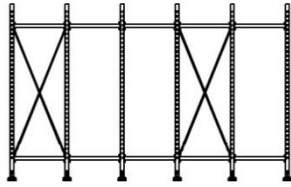
- Per 5 secties, 1 kruisschoor
- For every 5 bays, 1 cross bracing
- Je 5 Felder = 1 diagonalverband
- Par 5 travées = 1 croisillon

buiten toepassing / outside
use / outdooreinsatz /
inappleble

- Per 3 secties, 1 kruisschoor
- For every 3 bays, 1 cross bracing
- Je 3Felder = 1 diagonalverband
- Par 3 travées = 1 croisillon

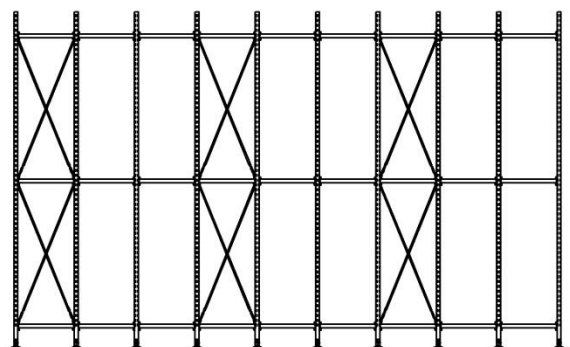
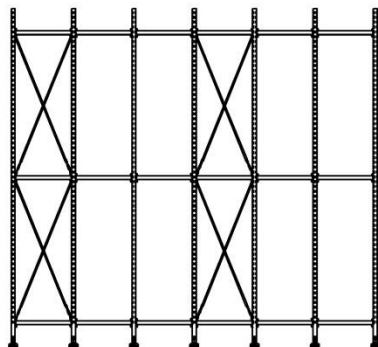
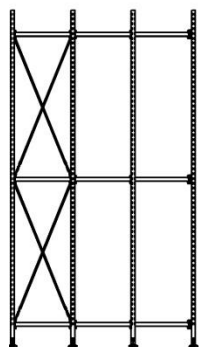
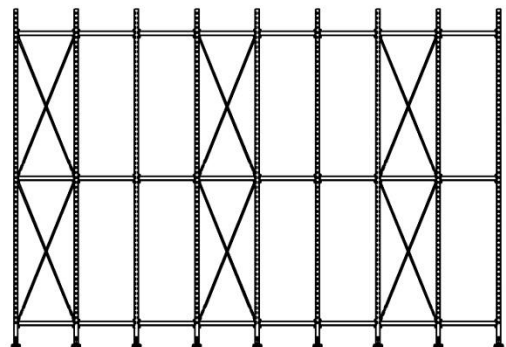
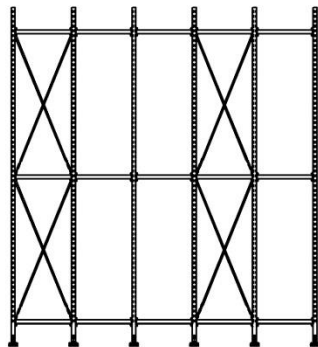
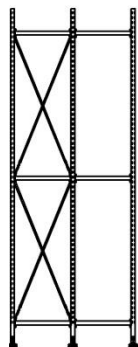
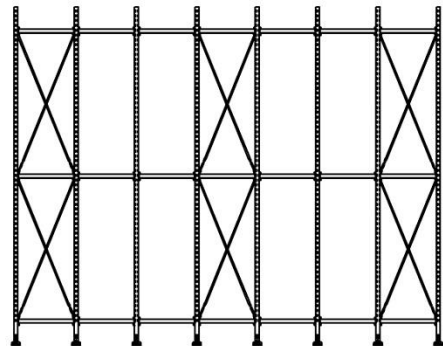
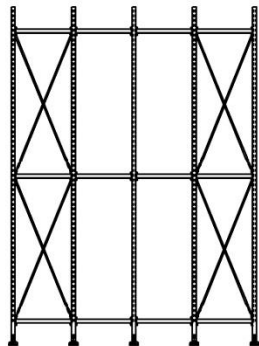
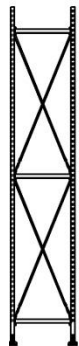
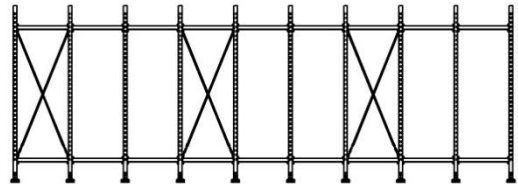


			
DIN 933/10.9	DIN 934/10.9	DIN 125	
M12X25	M12	Ø 13	100 Nm



**Binnen toepassing / inside use /
binenbereich / demande intérieure**

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

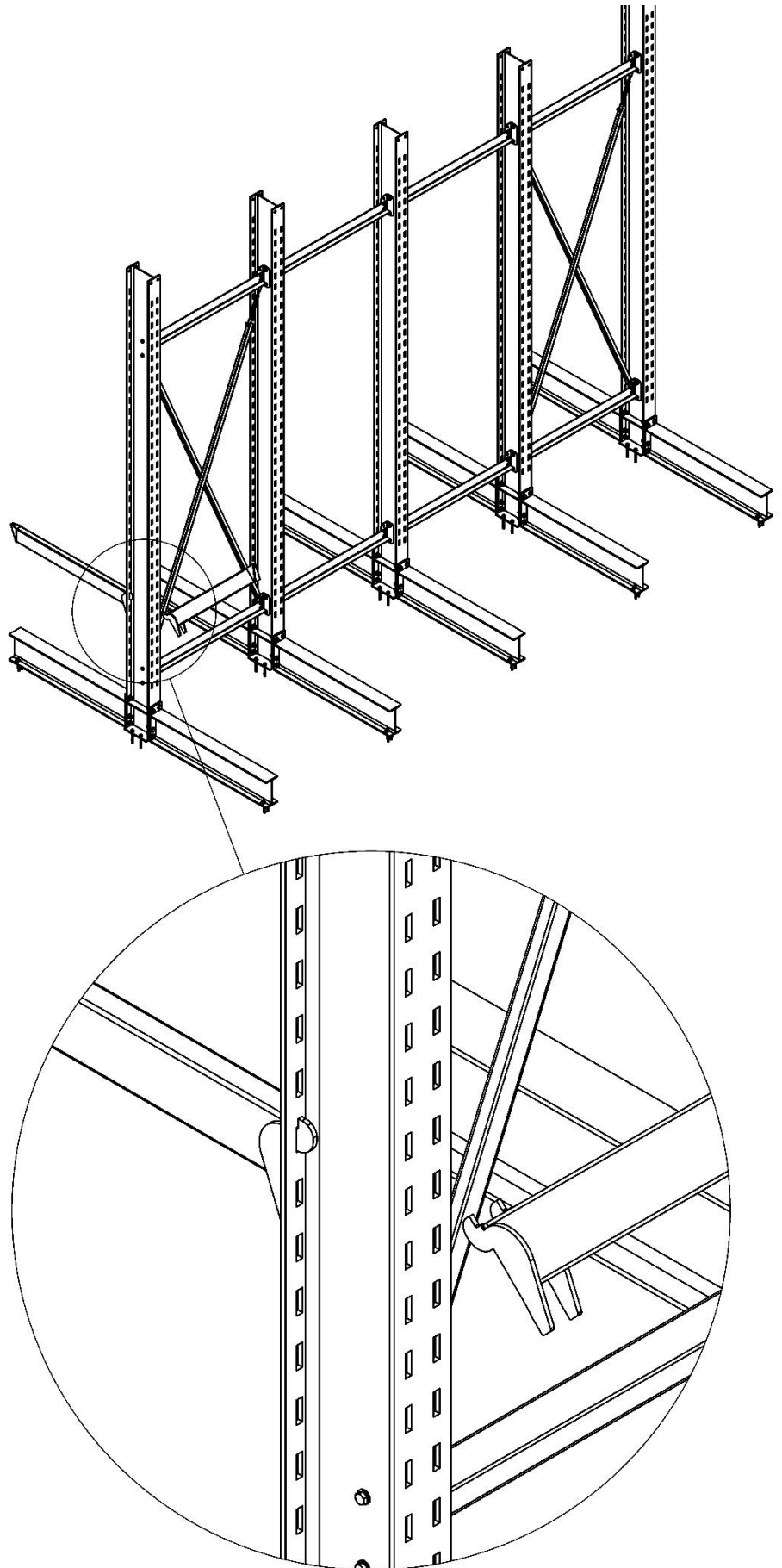


6.0 Inhaken draagarm

6.0 Hook in arm

6.0 Einhängen kragarm

6.0 Emboîter le bras



7.0 Stelling uitwaterpassen

Verticale afwijkingen afstellen met opvulplaten en spanwartels

7.1 Cantilever rack adjustment

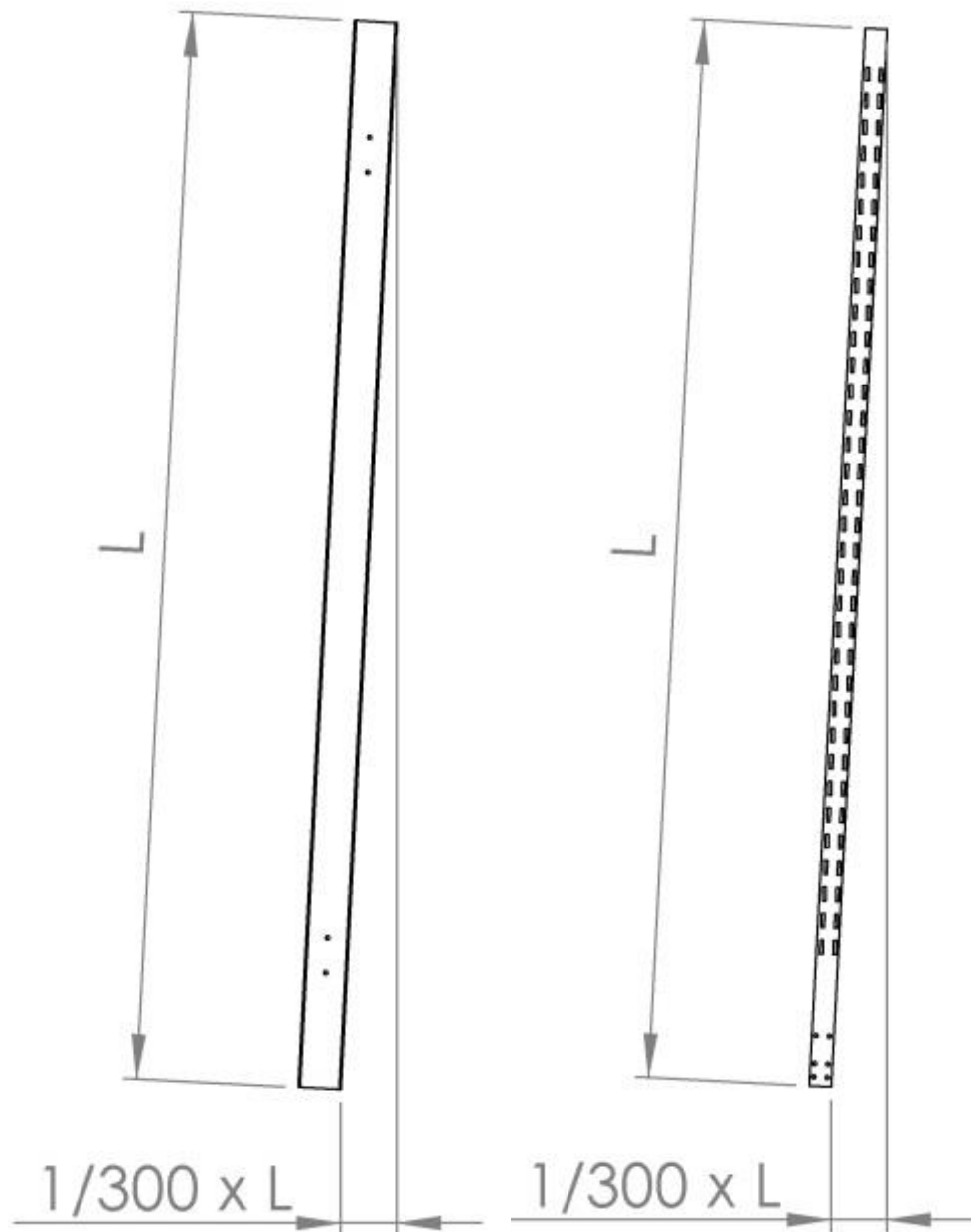
Vertical deviation should be adjusted with underlay plates and turnbuckle

7.1 Kragarmregal ausrichten

vertikale abweichungen mit unterlegblechen und spannschloss justieren

7.0 Positionnement de l'étagère cantilever

Égaliser les écarts verticaux au moyen de plaques métalliques et d'un tendeur à vis



8.0 Stelling verankeren

4 ankers per staandervoet

8.0 Rack anchorage

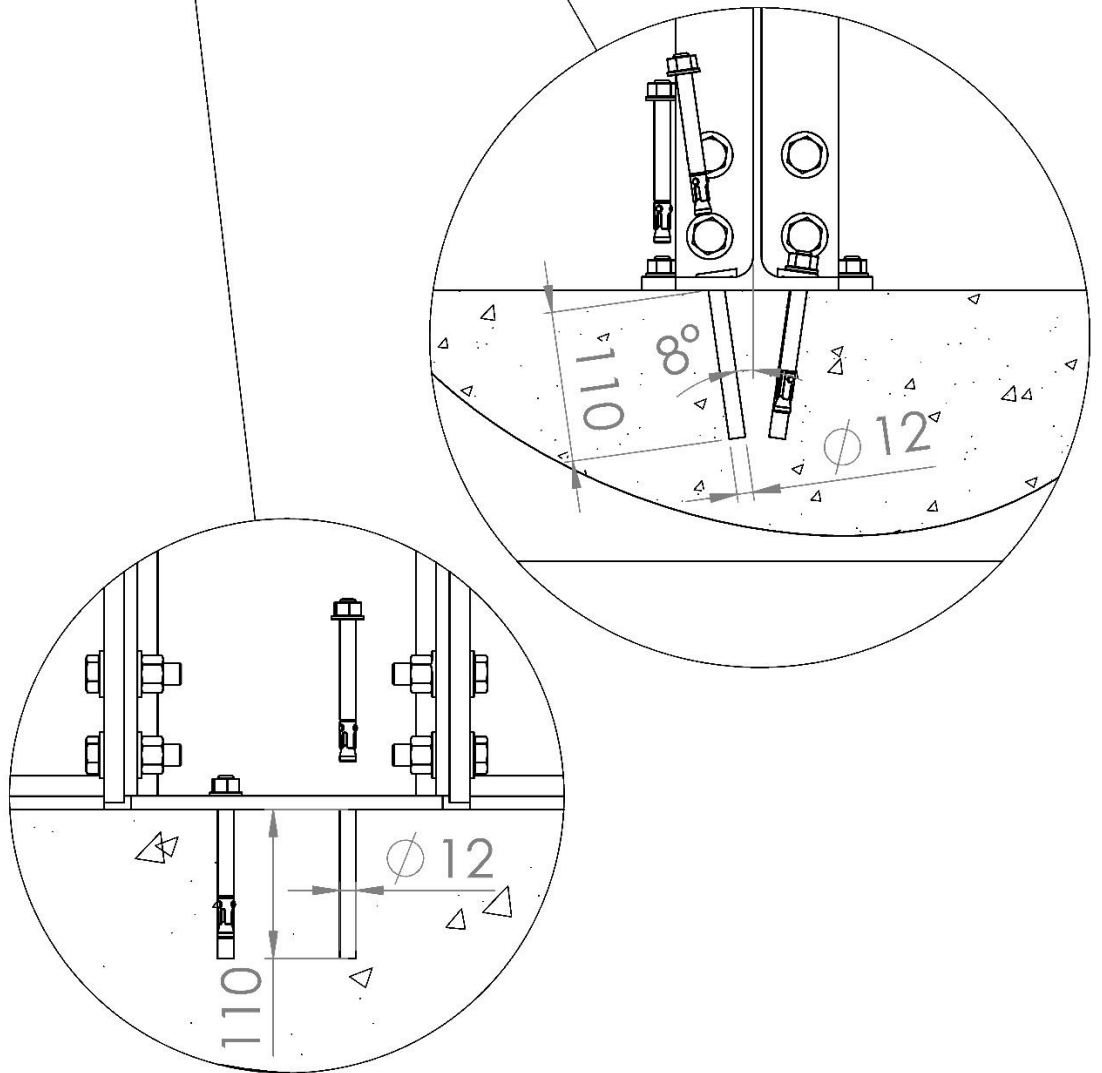
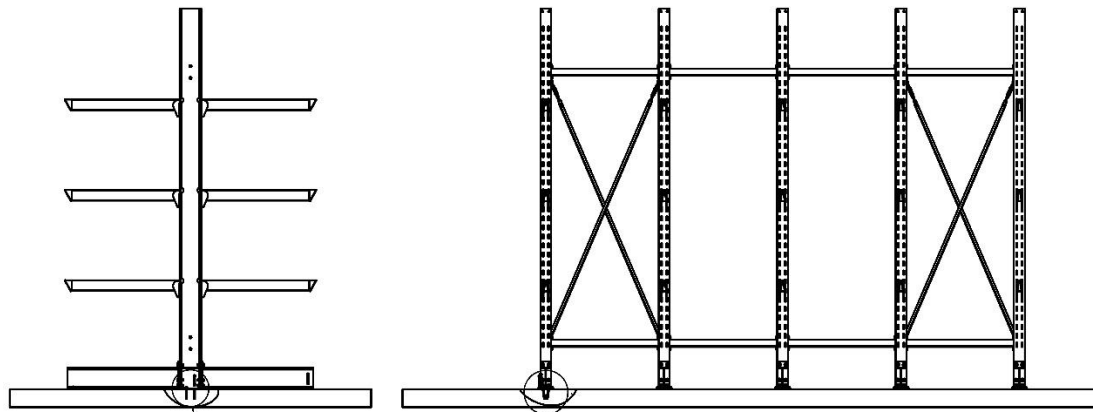
4 steel anchors per rack foot




8.0 Verankerung

4 Stahlanker je Ständerfuß

8.0 Ancrage

4 ancras en acier par pied de montant



	M12x100
	Ø14 DIN 435
	70 Nm

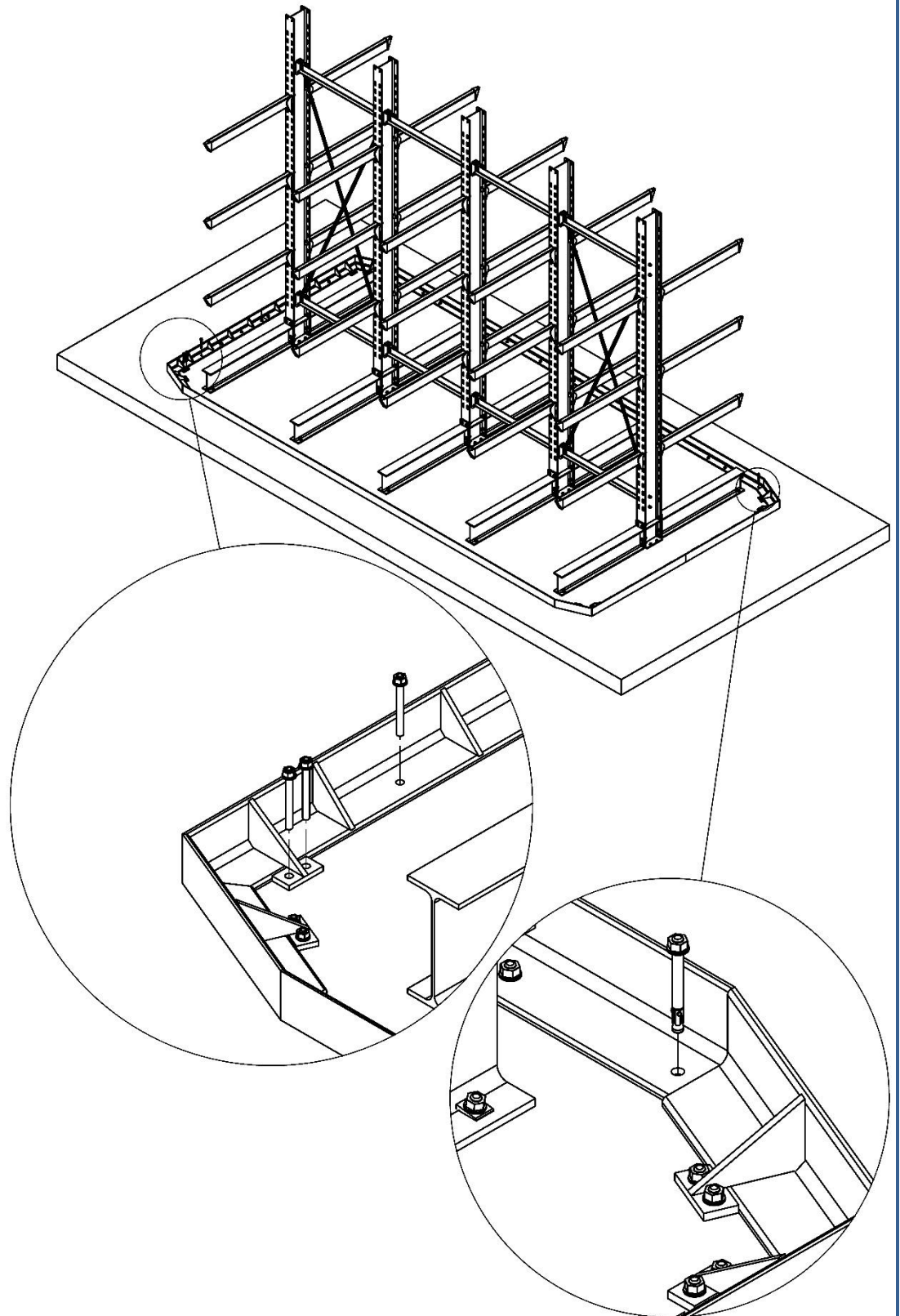
9.0 Aanrijdbescherming



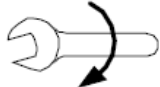
9.0 Hit protection

9.0 Anfahrschutz

9.0 Protection pied d'échelle

- (1) - Chemisch ankers
- Chemical anchors
- Verbundanker
- Ancrage chimique



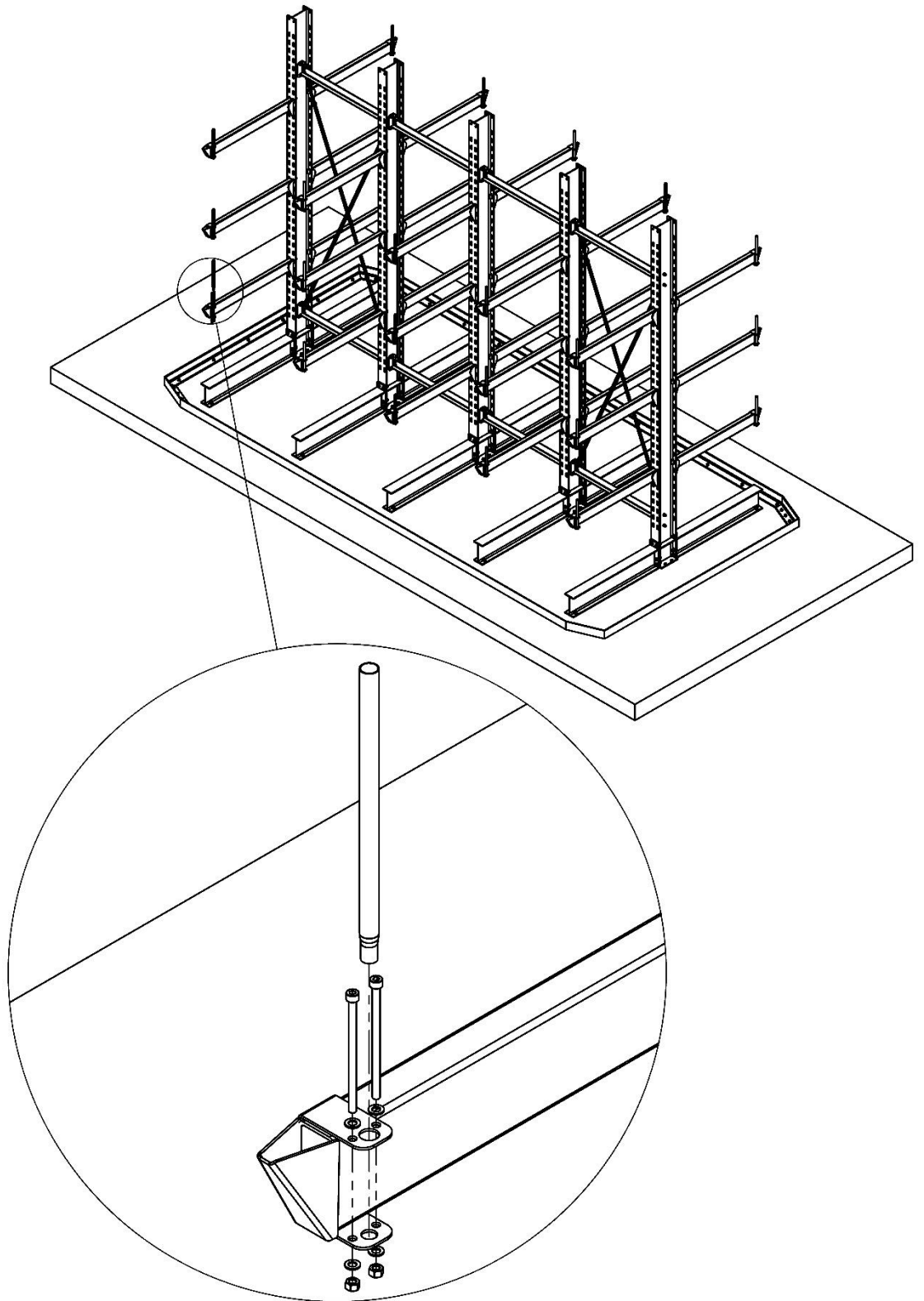
	M12x100
 (1)	M12x100
	70 Nm

10.0 Afolbeveiliging

10.0 End stop

10.0
Abrollsicherung

10.0 Butée



11.0 Dak

11.0 Roof

11.0 Dach

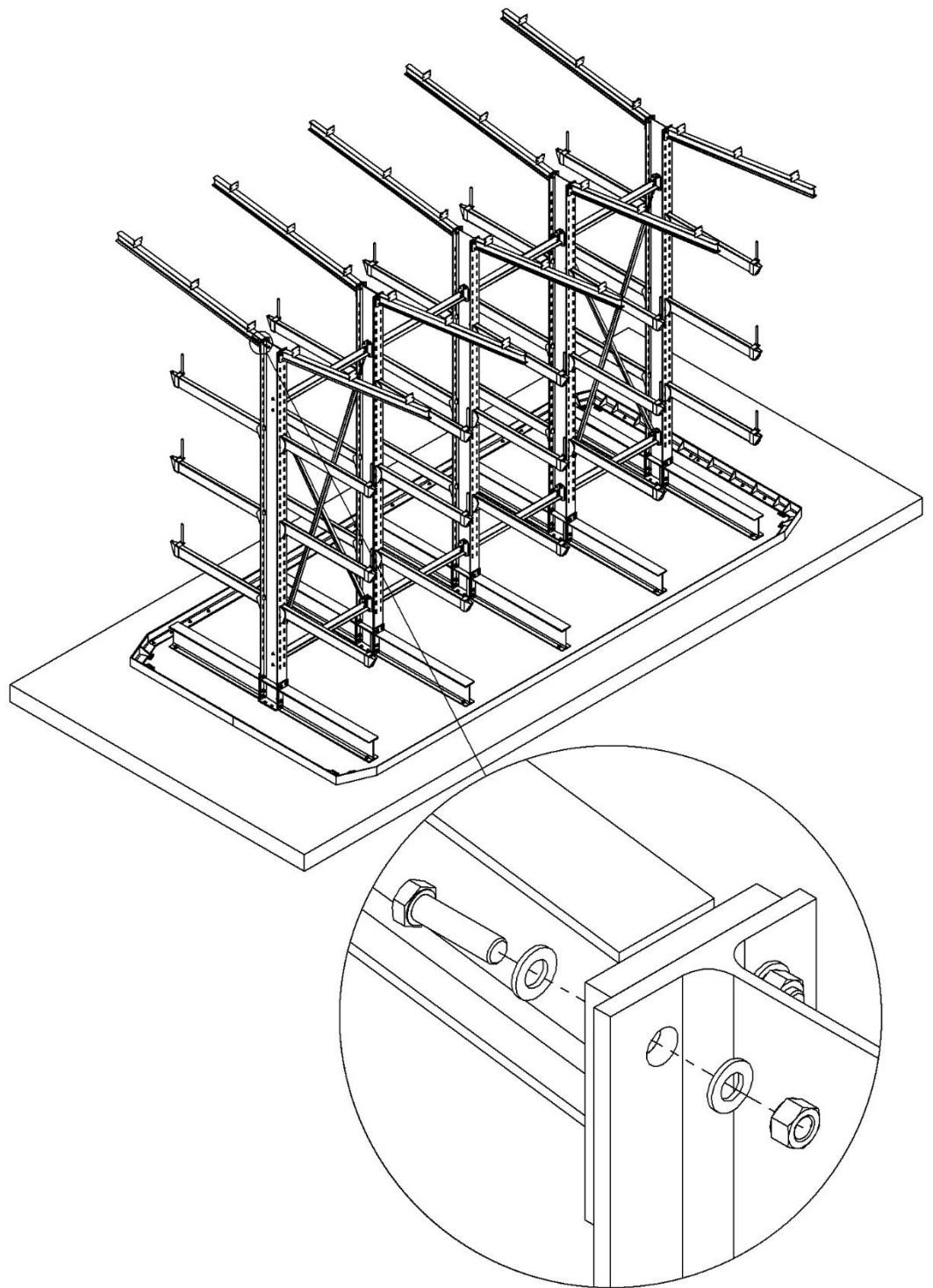
11.0 Toiture





11.1 Dakdrager

11.1 Roof cantilever

11.1 Dacharm

11.1 Arbre de la toiture



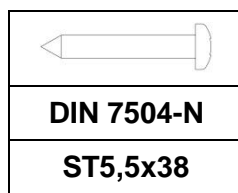
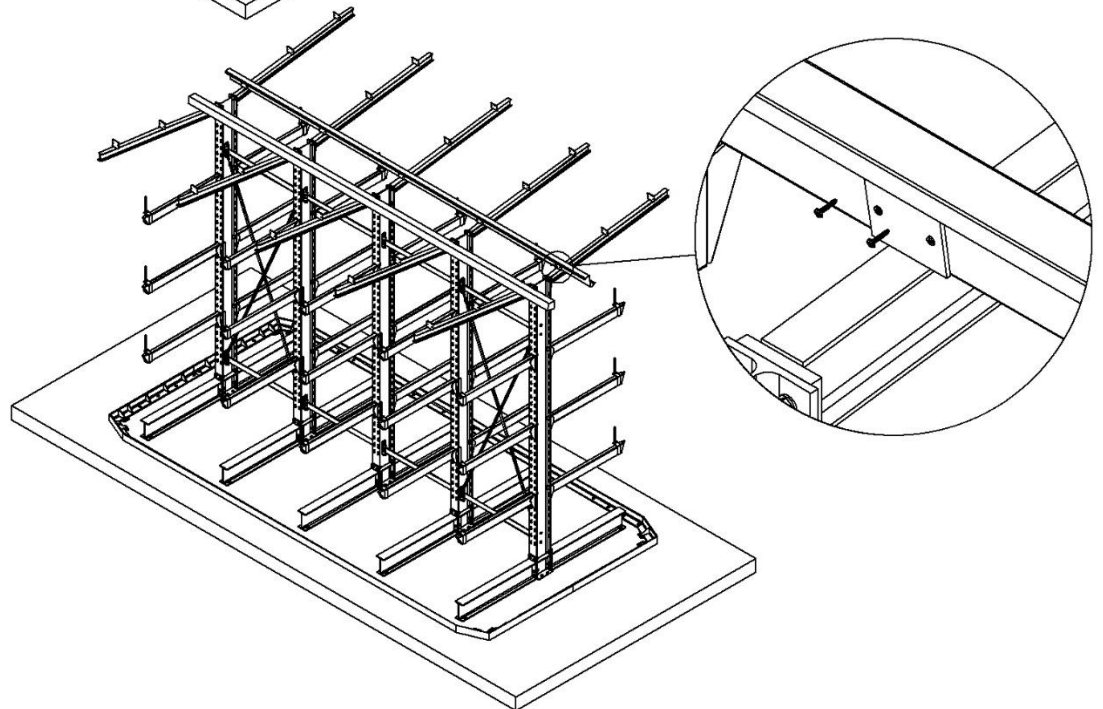
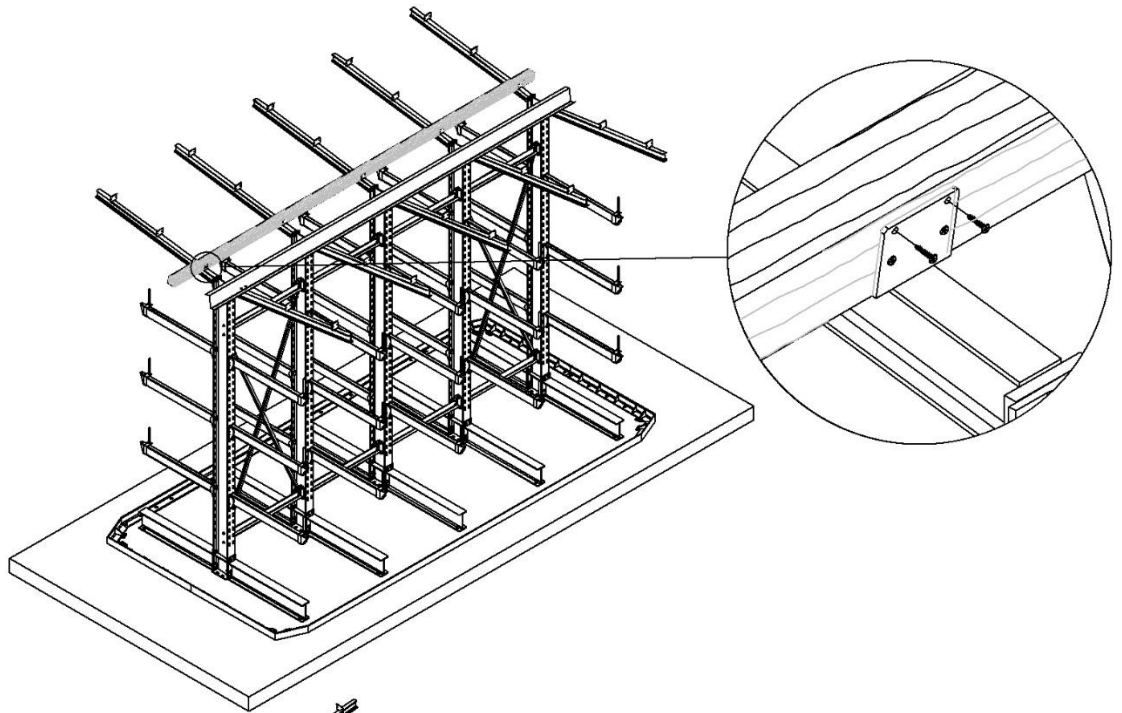
			
DIN 933/8.8	DIN 934/8.8	DIN 125	
M16X40	M16	Ø 17	250 Nm

11.2 Dakligger & Golfplaat

11.2 Roof support
& Corrugated metal

11.2 Dachlänge
& Trapezblech

11.2 Longerons de
toit & Tôle
trapézoïdale

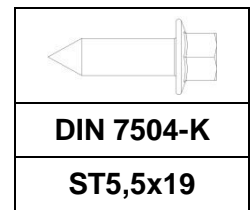
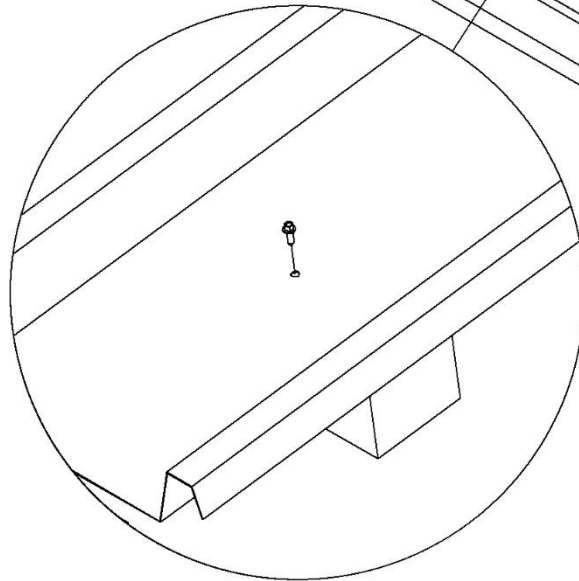
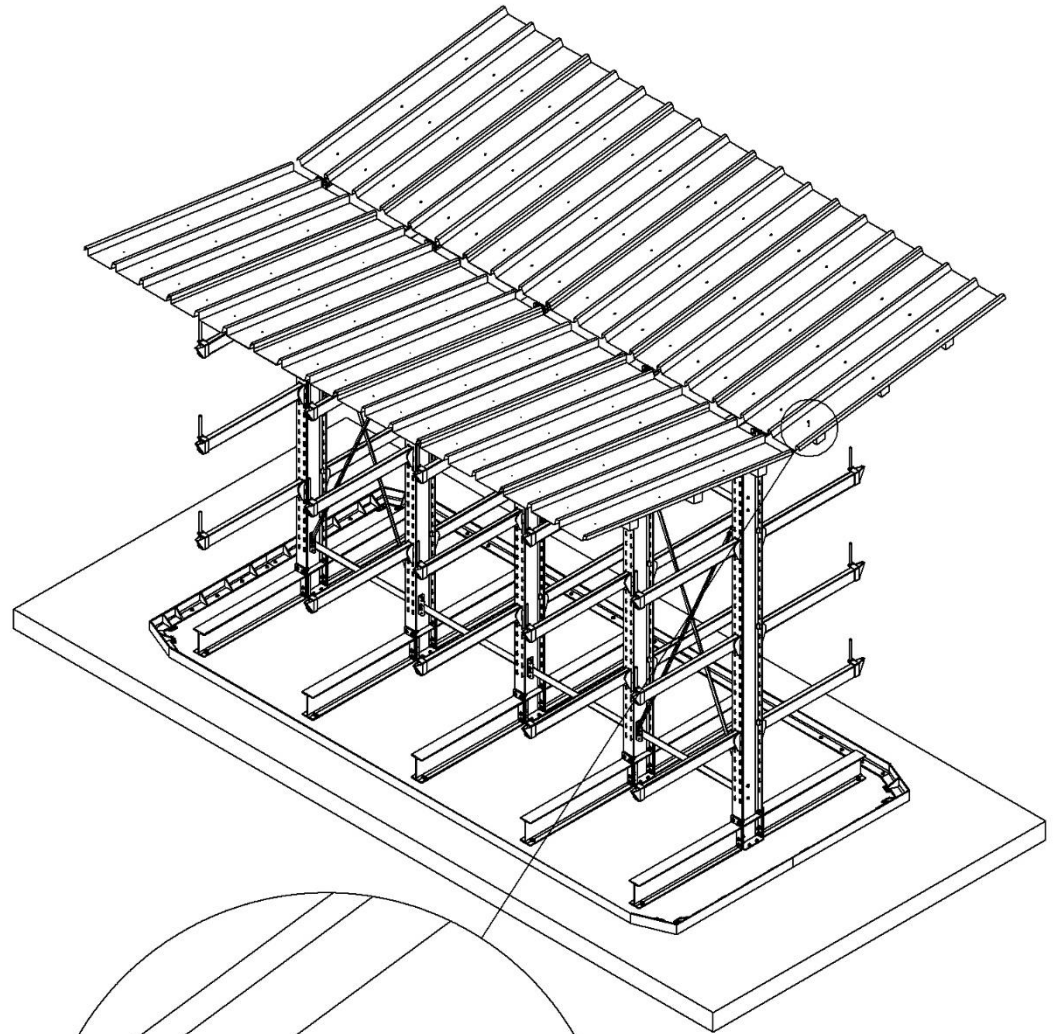


11.2 Dakligger & Golfplaat

11.3 Roof support
& Corrugated metal

11.3 Dachlänge
& Trapezblech

11.3 Longerons de
toit & Tôle
trapézoïdale

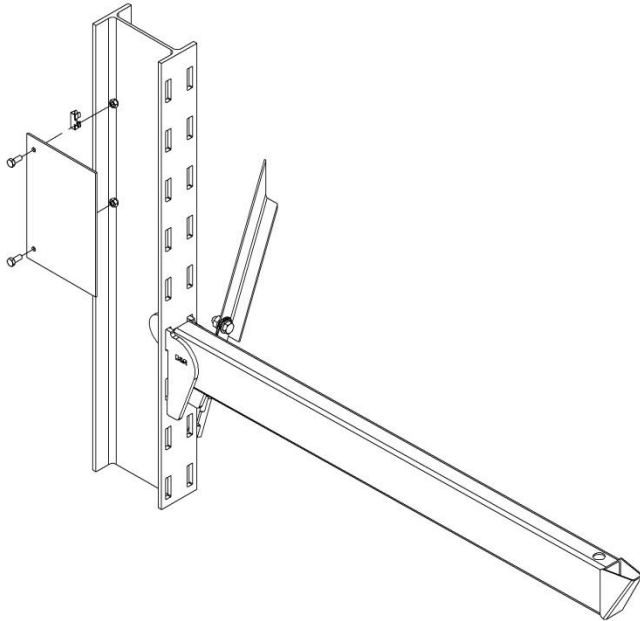


DIN 7504-K

ST5,5x19

Gebruiksvoorschriften / Use specifications / Gebrauchsspezifikation spécification d`utilisation

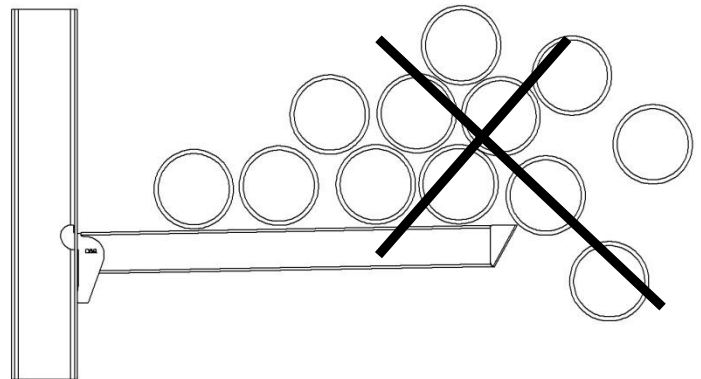
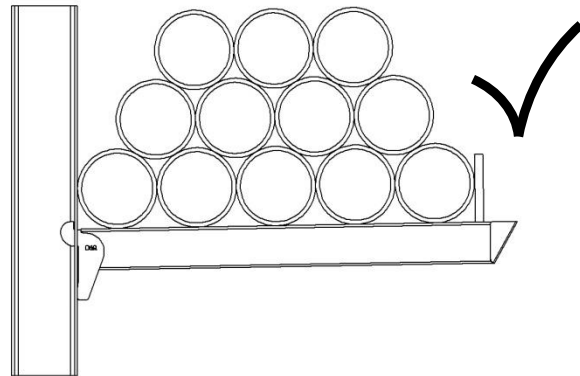
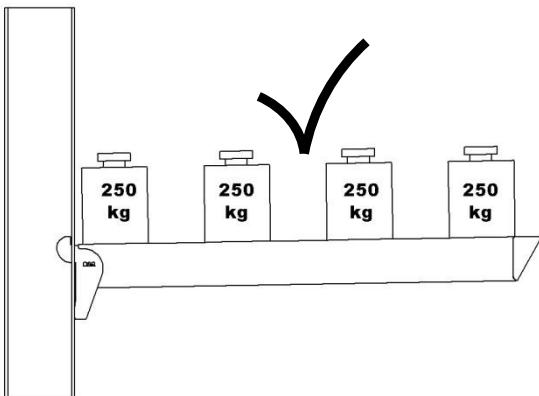
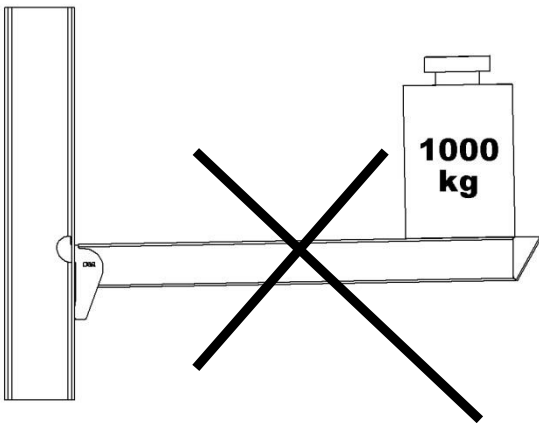
Belastingsbord
Load capacity board
Belastungsschild
Plaque de charge

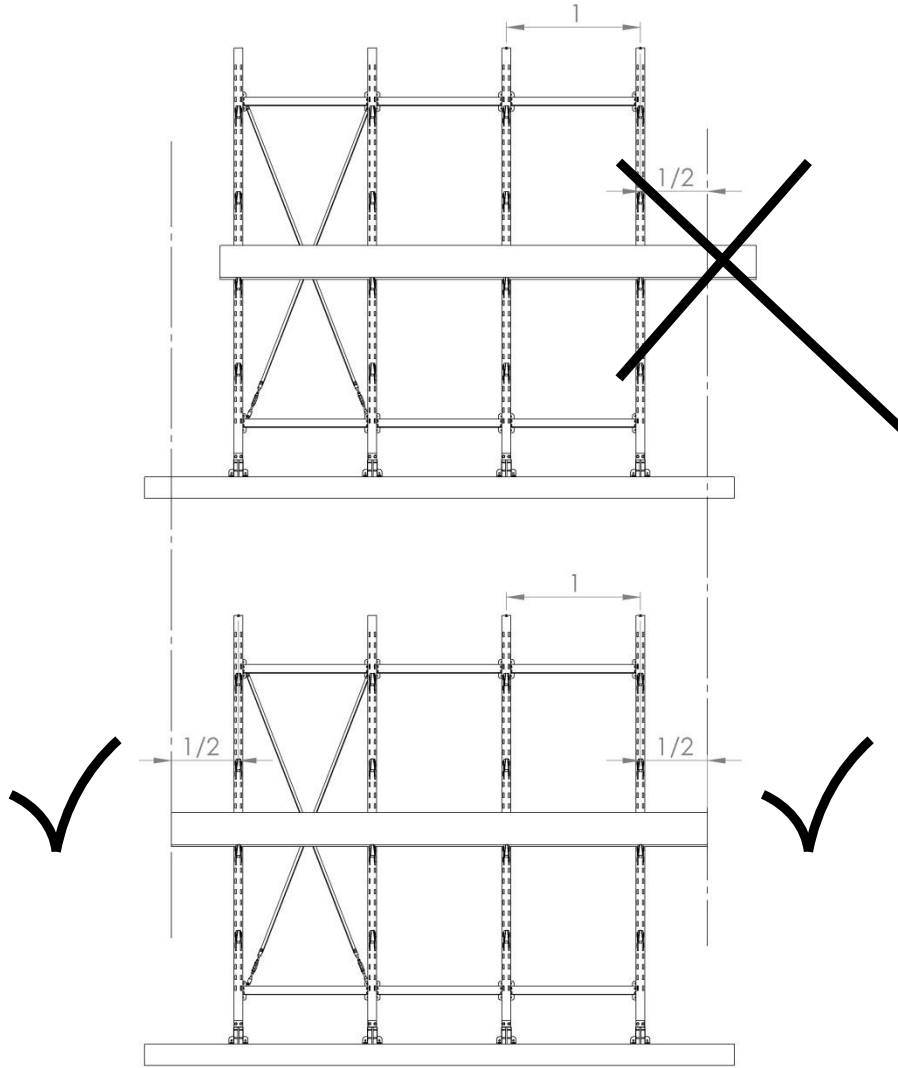


- Op staander monteren op ooghoogte
- Screw to pillar at eye height
- In Augenhöhe mit Ständer verschrauben
- Visser sur montant à hauteur des yeux

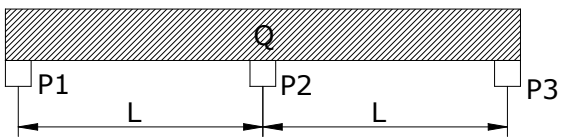
Opgave belastingcapaciteit
Load capacity data
Belastungsangabe
Indication de capacité de charge

Goederen borgen
Securing goods
Ware sichern
Sécuriser la marchandise

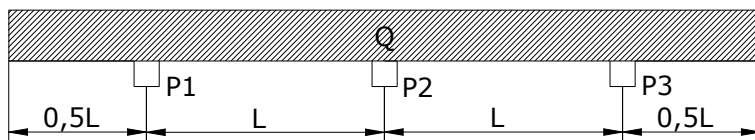




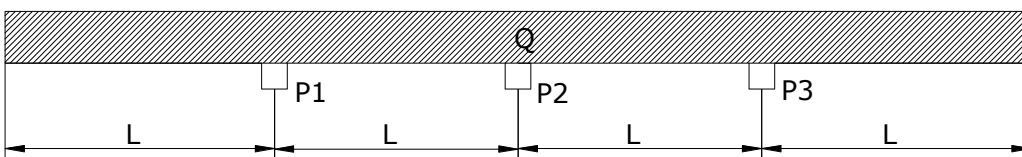
Q= Equal spread load
 P= Load per arm
 F= Total load



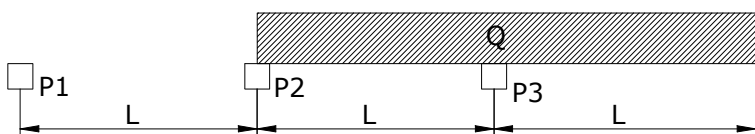
$$\begin{aligned} P1 &= 0,2 Q \\ P2 &= 0,6 Q \\ P3 &= 0,2 Q \end{aligned}$$



$$\begin{aligned} P1 &= 0,35 Q \\ P2 &= 0,30 Q \\ P3 &= 0,35 Q \end{aligned}$$



$$\begin{aligned} P1 &= 0,5 Q \\ P2 &= 0,0 Q \\ P3 &= 0,5 Q \end{aligned}$$



$$\begin{aligned} P1 &= 0,0 Q \\ P2 &= 0,0 Q \\ P3 &= 1,0 Q \end{aligned}$$

