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# HAVEN SICHERHEITSGELÄNDER / SAFETY RAIL

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## ARTIKELÜBERSICHT / ARTICLE OVERVIEW:

GR-001-1



GR-002



GR-003  
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GR-005-1-3  
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GR-006-1



GR-019 HAVEN RIVET

GR-007-1



GR-008



GR-009-1 (2x GR-006-1)



GR-010



GR-011



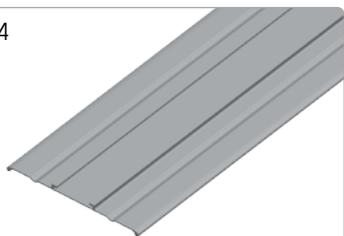
GR-012



GR-013



GR-014



GR-015



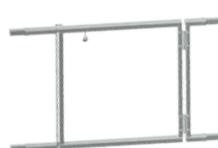
GR-016



GR-017



GR-018

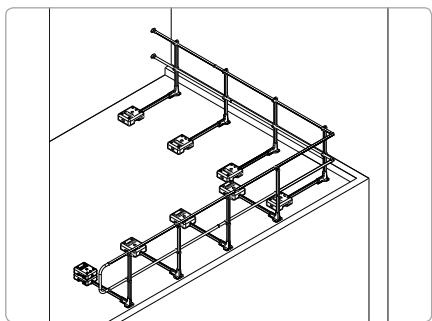


GR-021

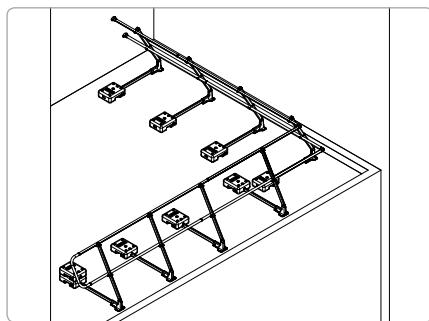


## MODELLÜBERSICHT / MODEL OVERVIEW:

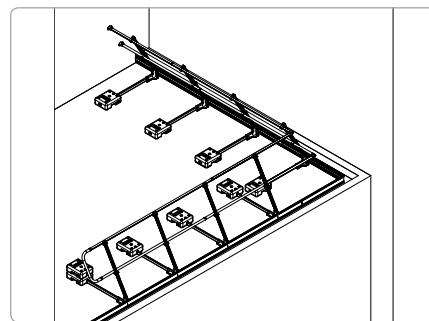
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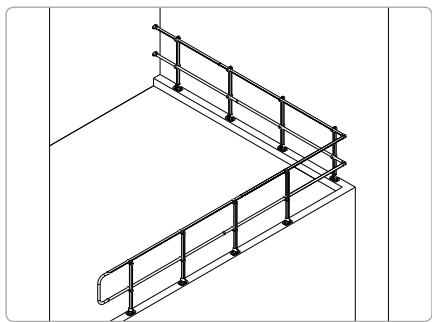
COUNTERWEIGHT



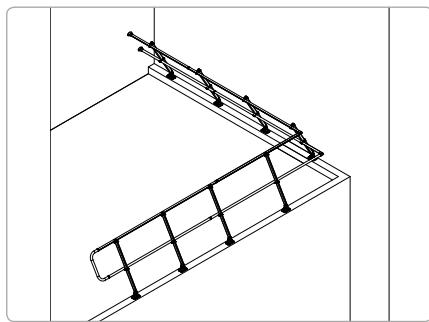
COUNTERWEIGHT 30°



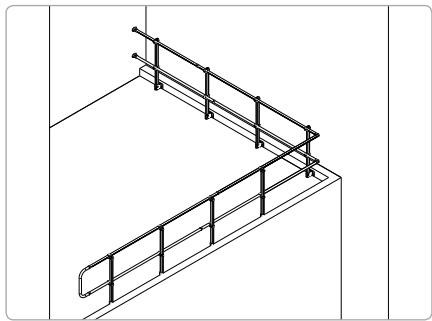
COUNTERWEIGHT 30° KICKBOARD



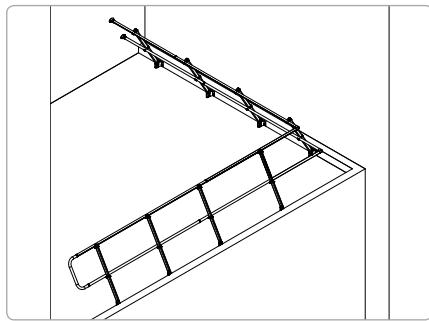
H-BRACKET



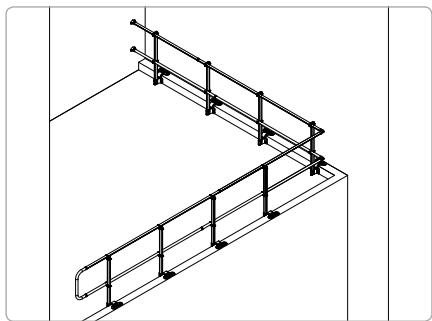
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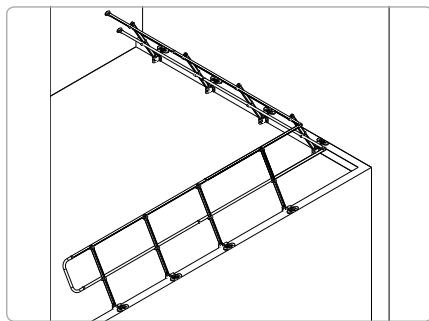
V-BRACKET



V-BRACKET 30°

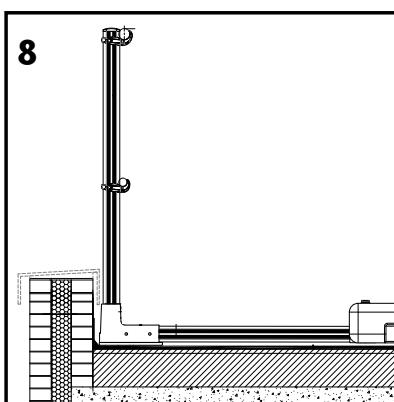
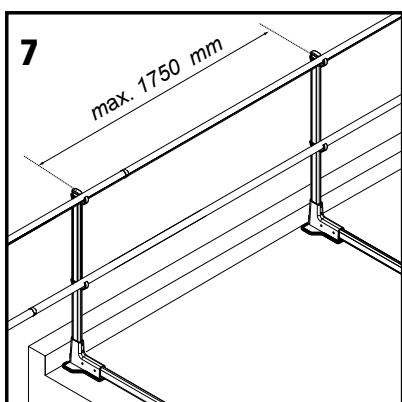
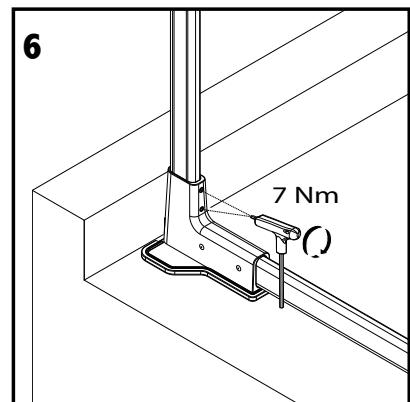
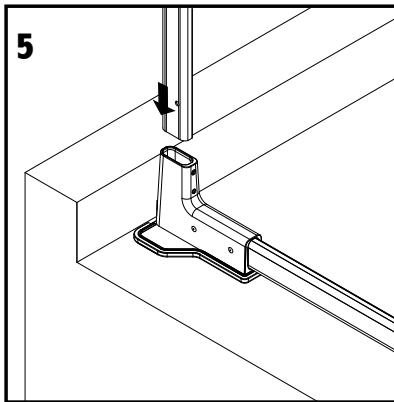
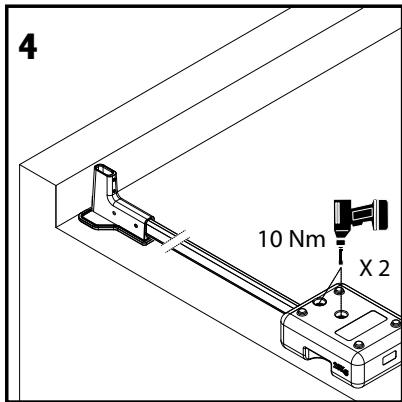
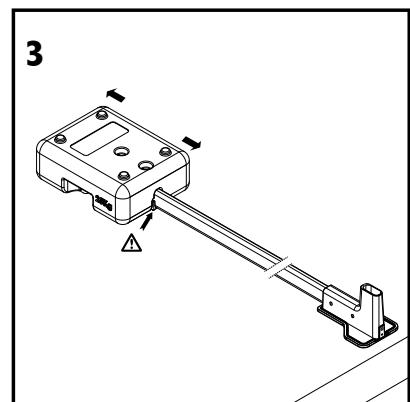
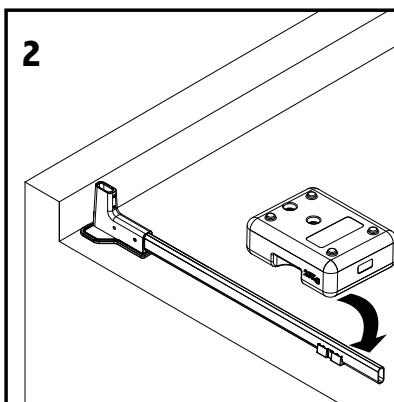
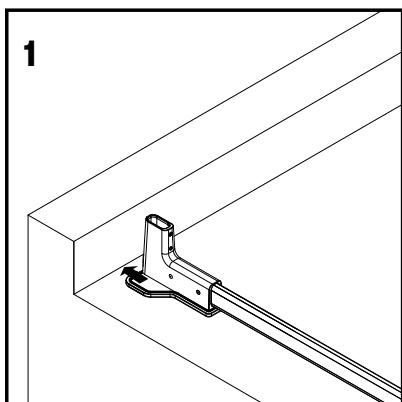
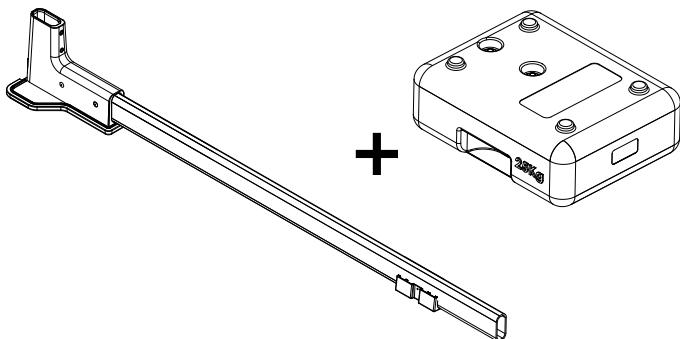


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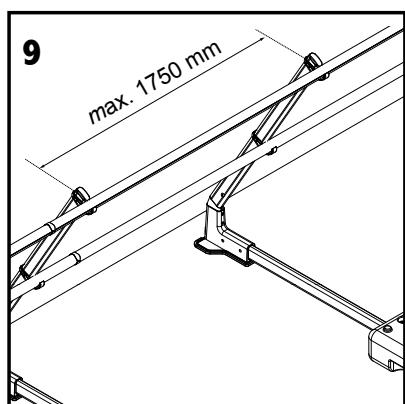
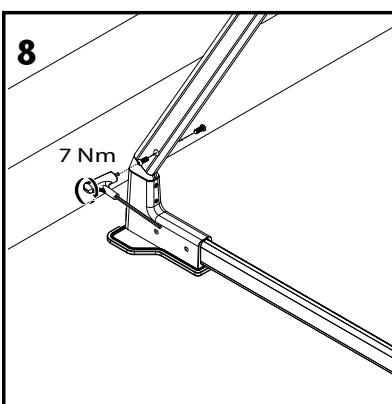
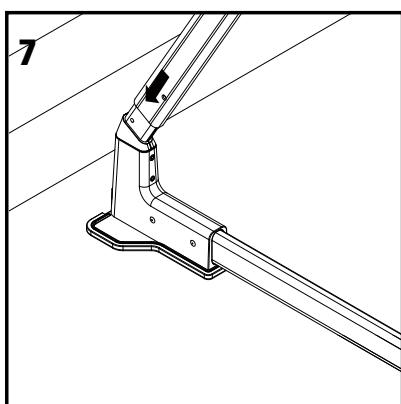
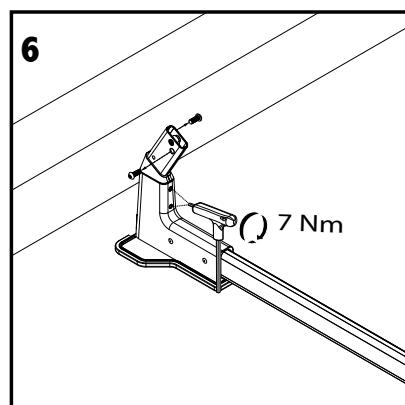
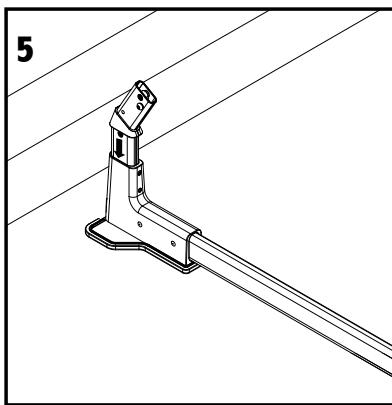
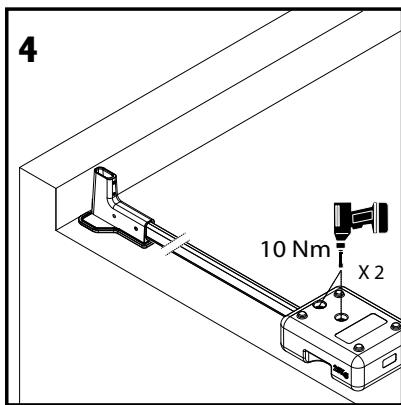
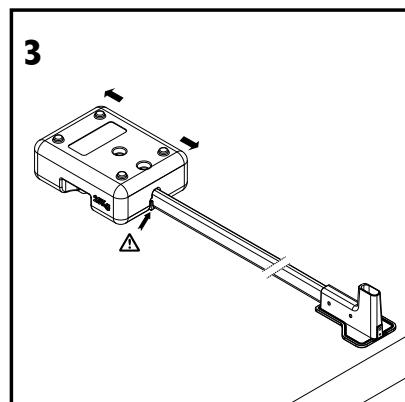
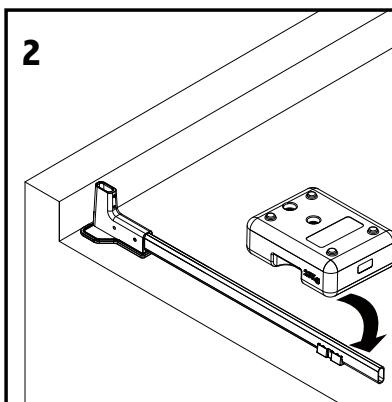
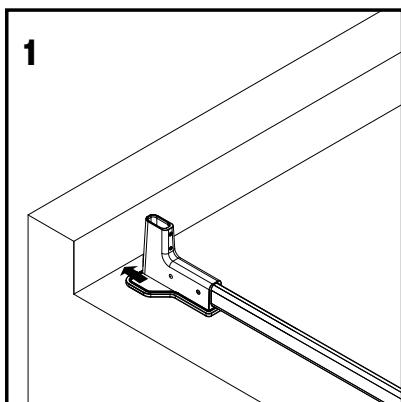
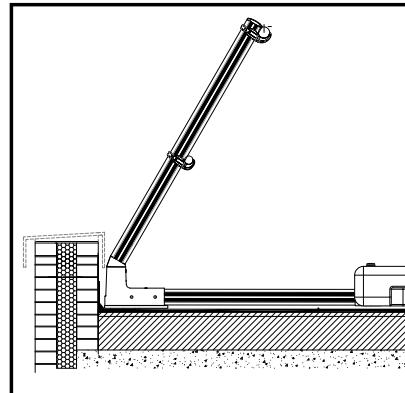
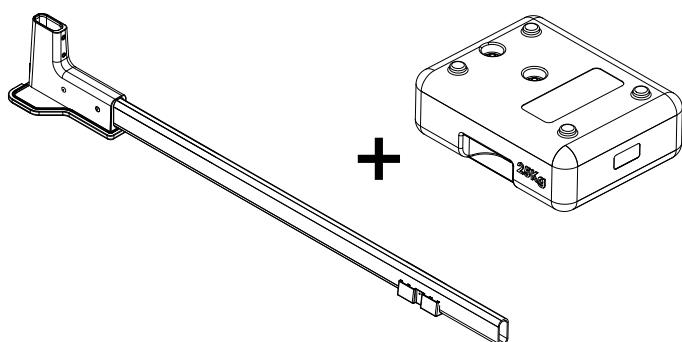


Z-BRACKET 30°

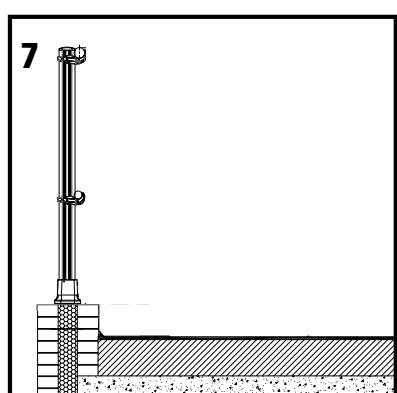
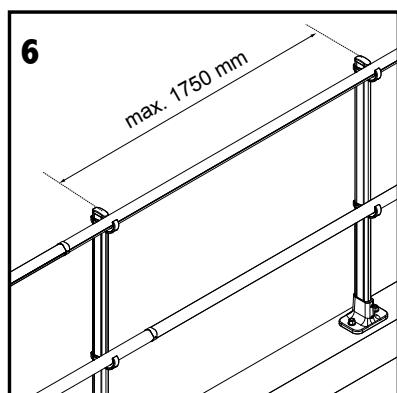
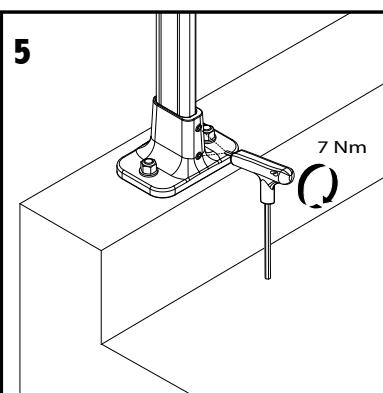
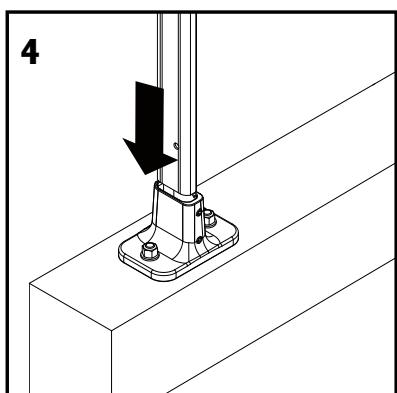
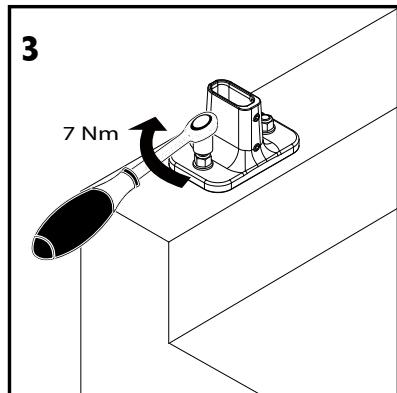
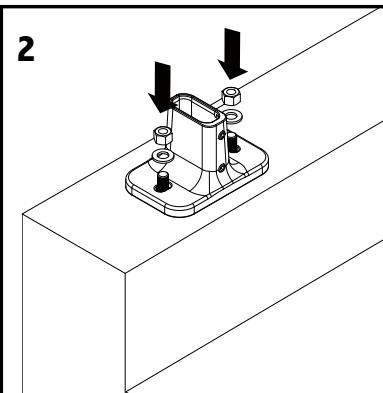
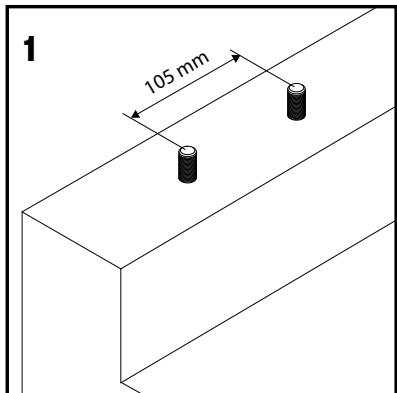
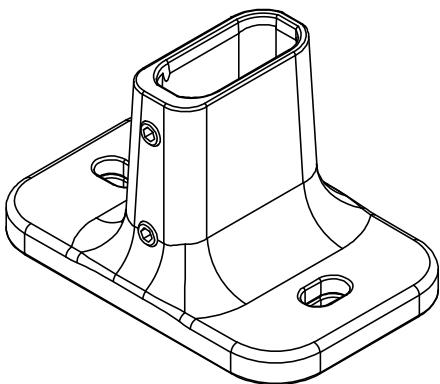
# AUFBAU-ANLEITUNG / SETUP INSTRUCTION: COUNTERWEIGHT



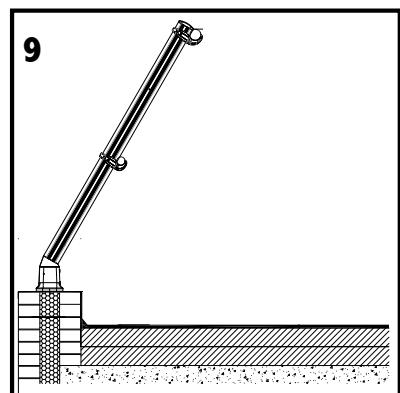
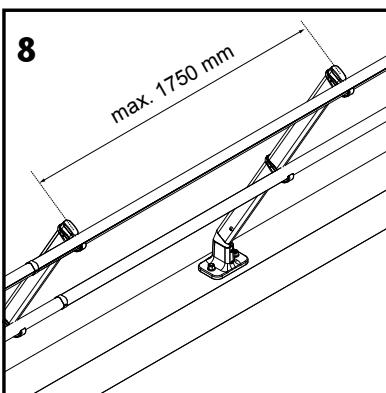
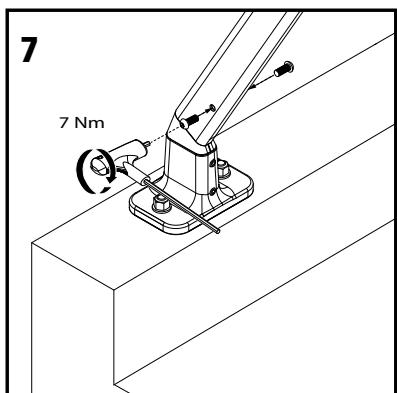
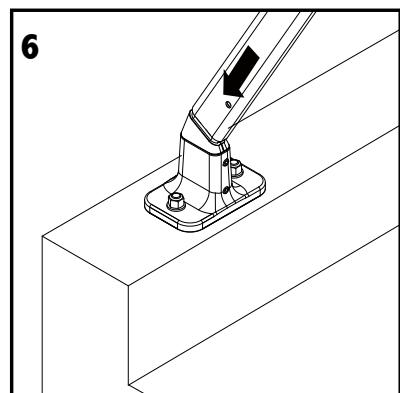
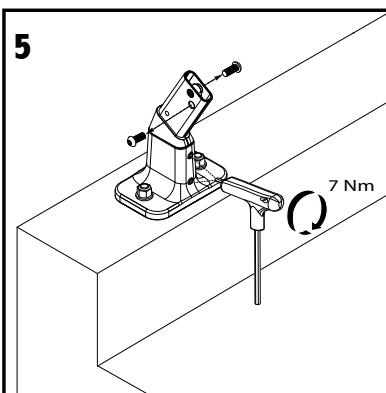
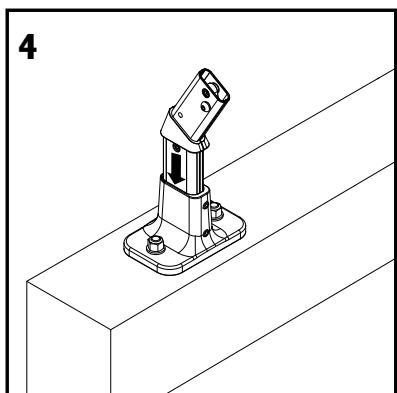
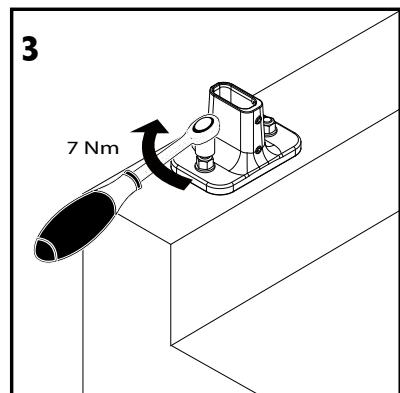
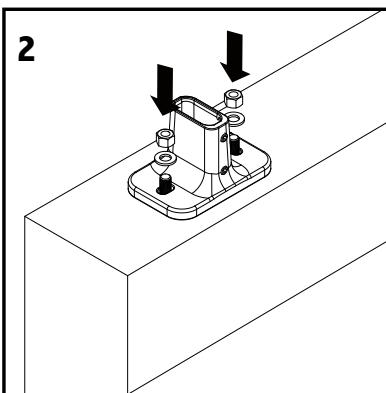
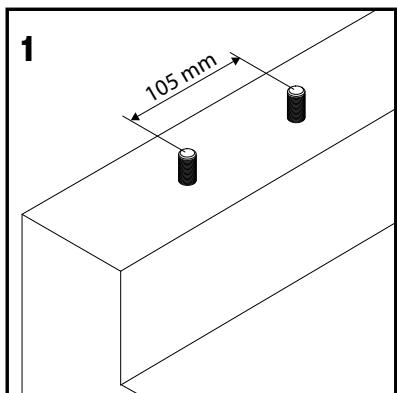
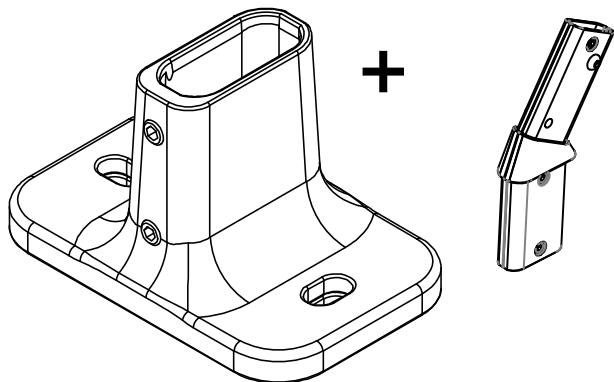
# AUFBAU-ANLEITUNG / SETUP INSTRUCTION: COUNTERWEIGHT 30°



# AUFBAU-ANLEITUNG / SETUP INSTRUCTION: H-BRACKET

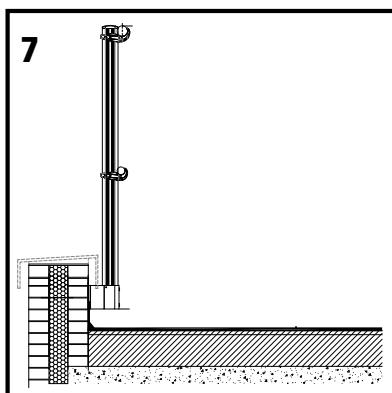
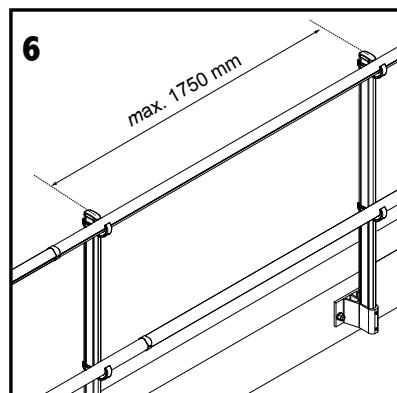
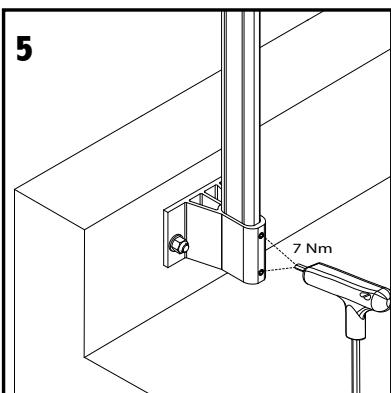
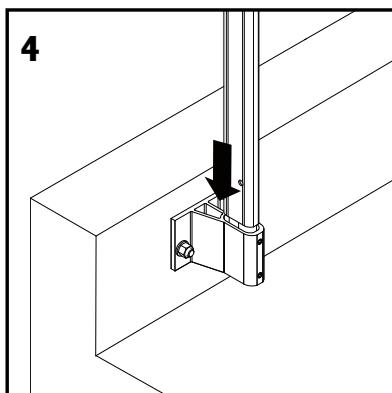
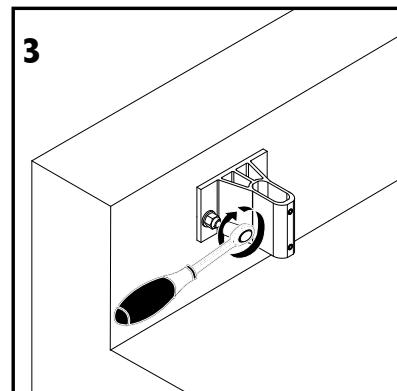
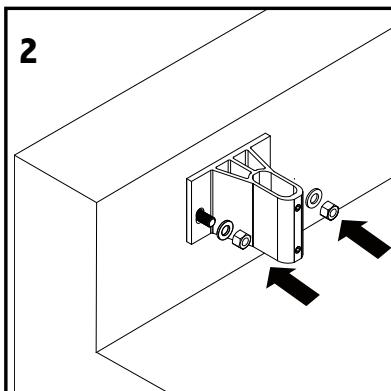
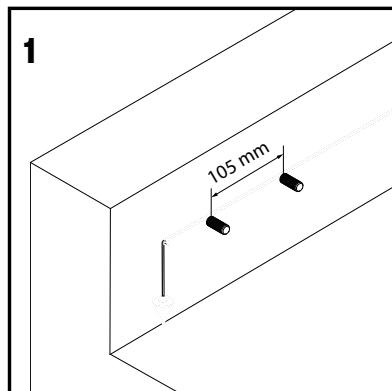
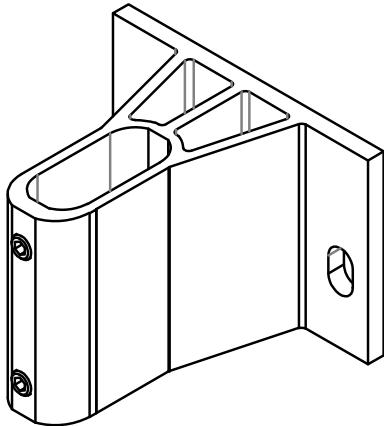


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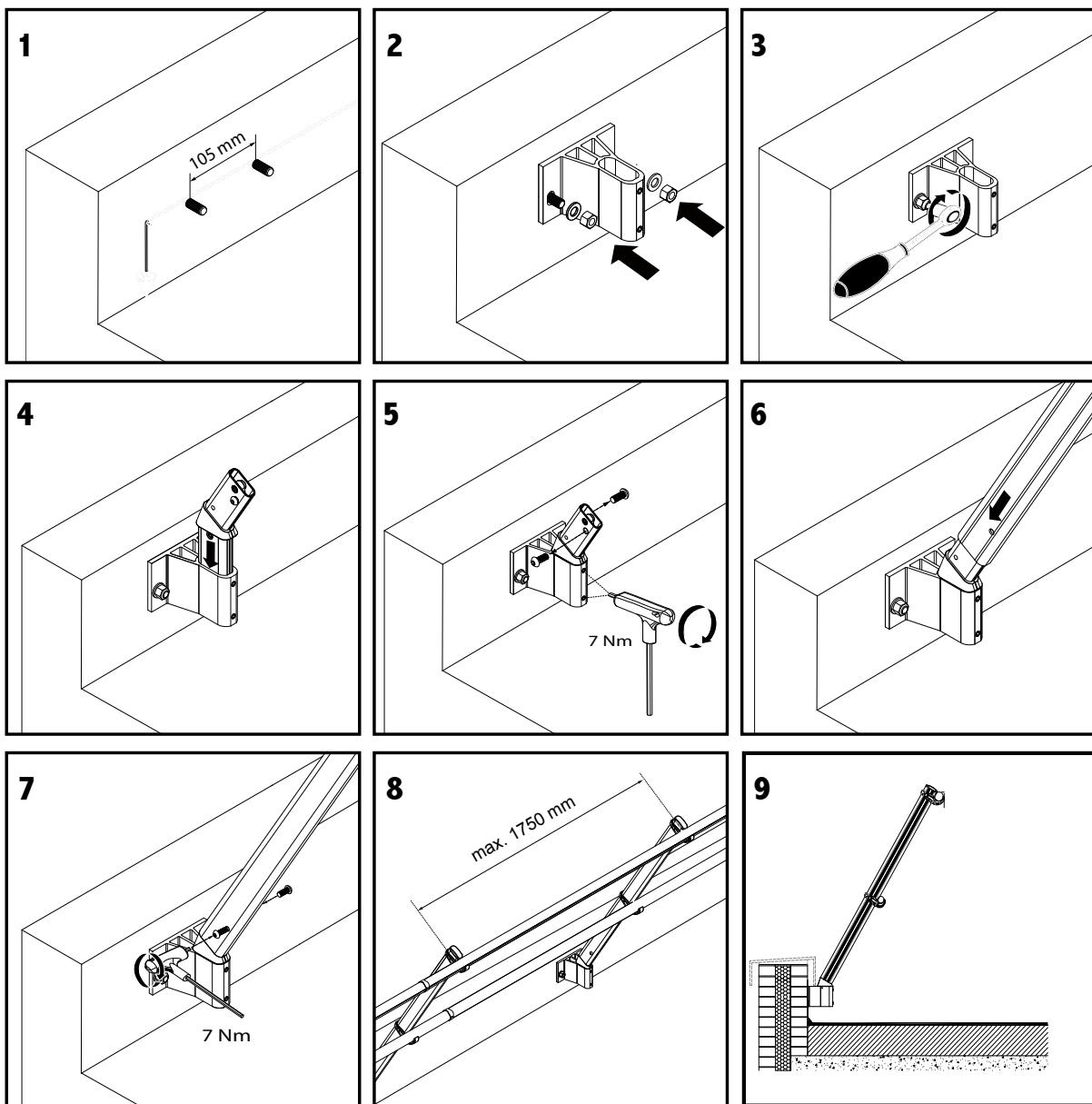
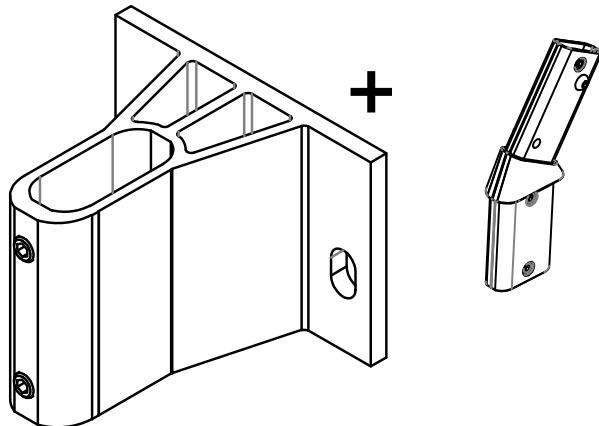


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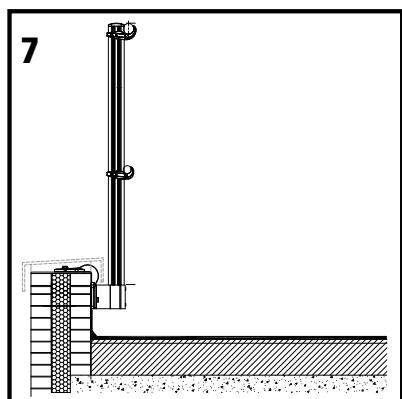
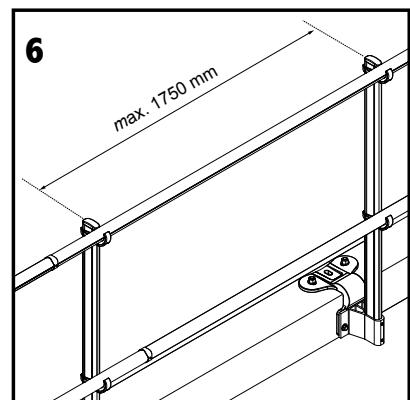
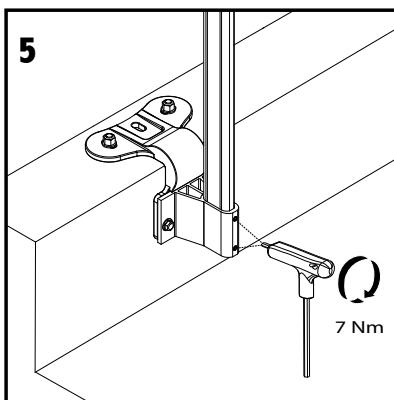
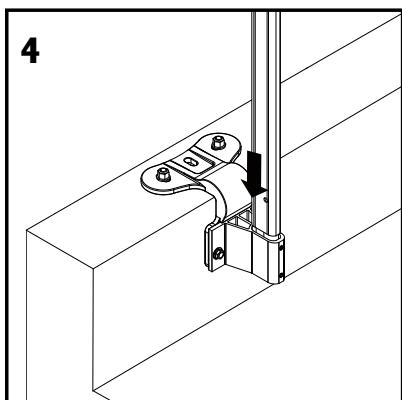
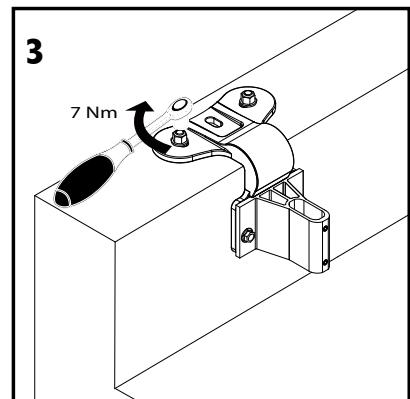
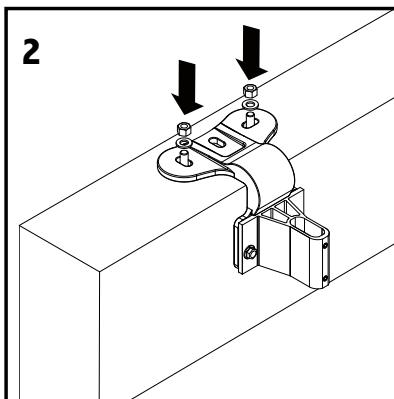
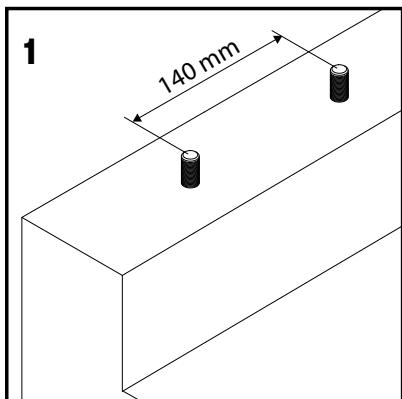
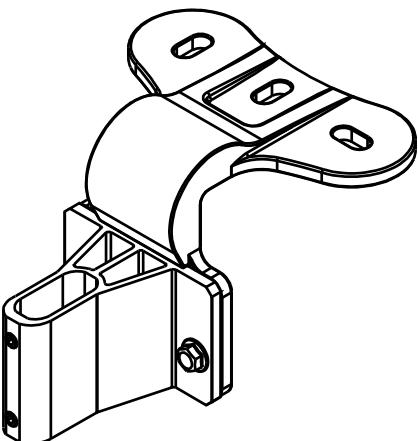
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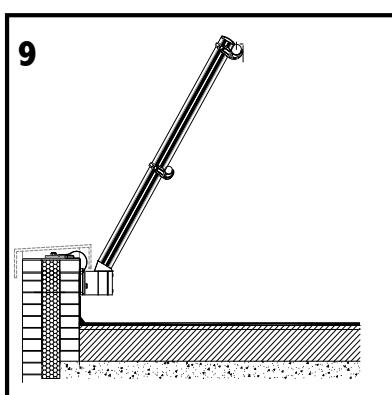
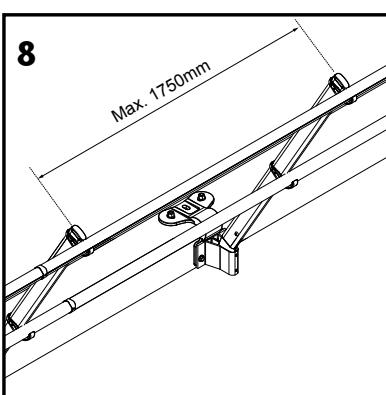
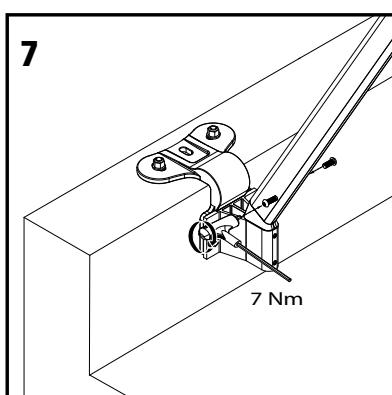
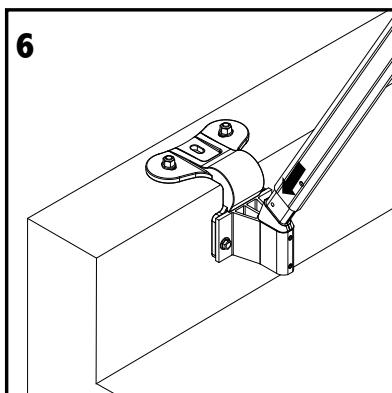
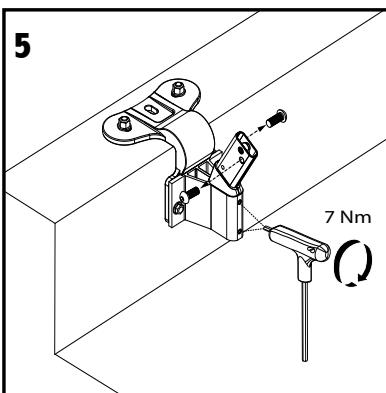
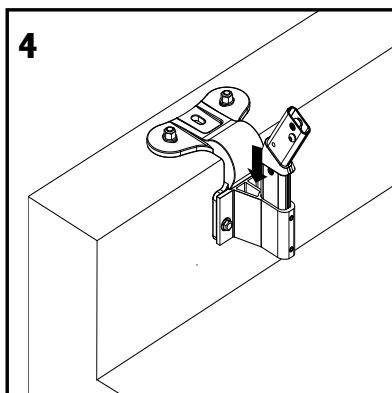
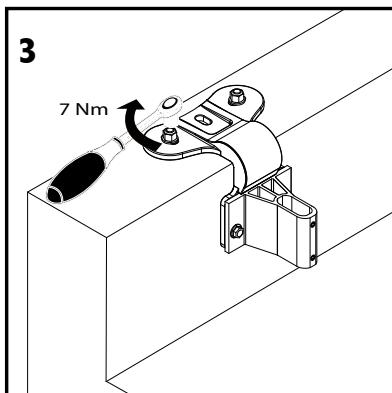
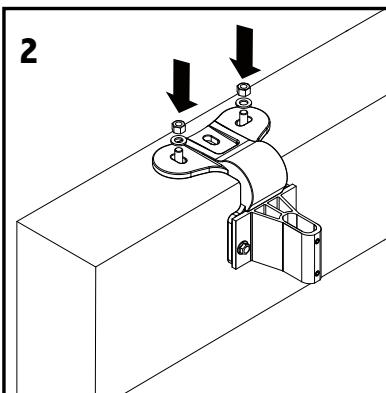
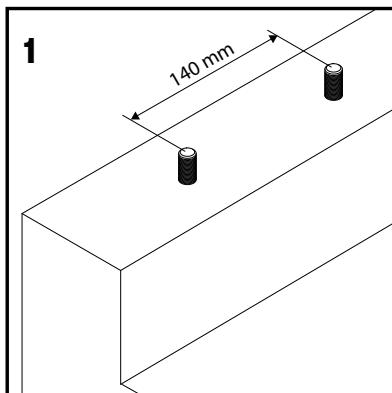
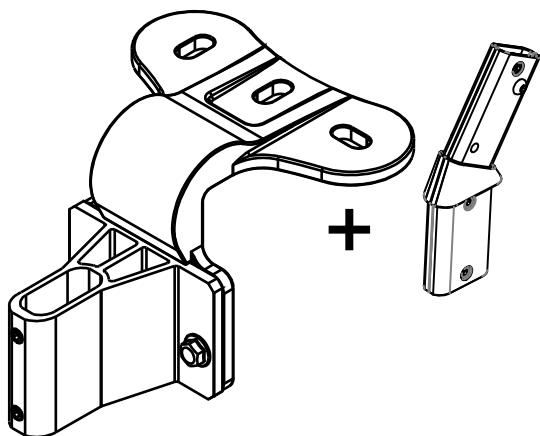
# AUFBAU-ANLEITUNG / SETUP INSTRUCTION: V-BRACKET 30°



# AUFBAU-ANLEITUNG / SETUP INSTRUCTION: Z-BRACKET

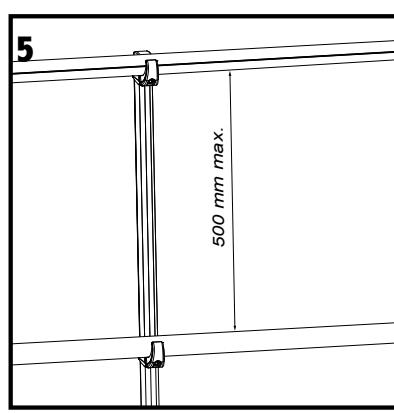
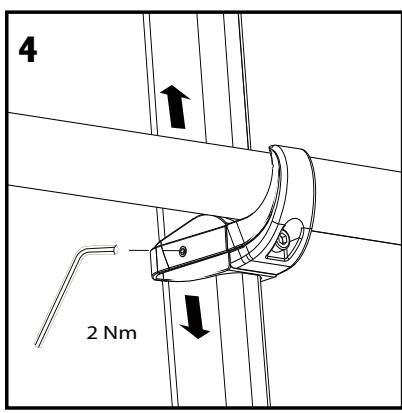
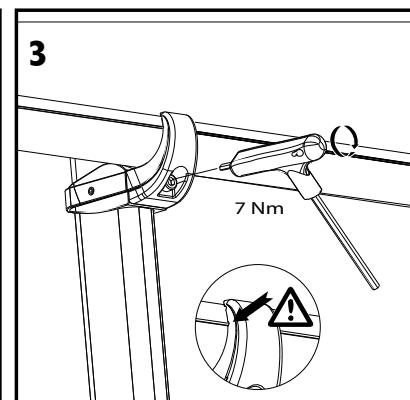
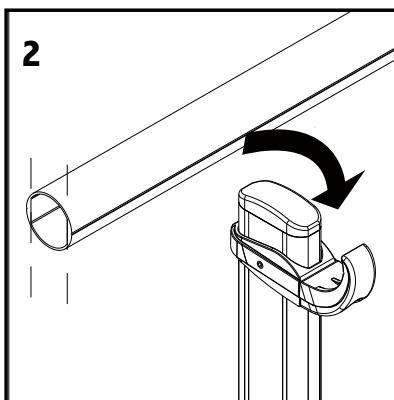
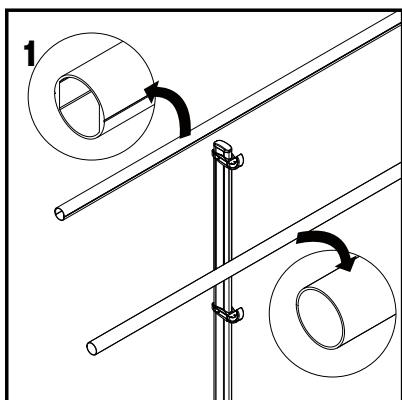
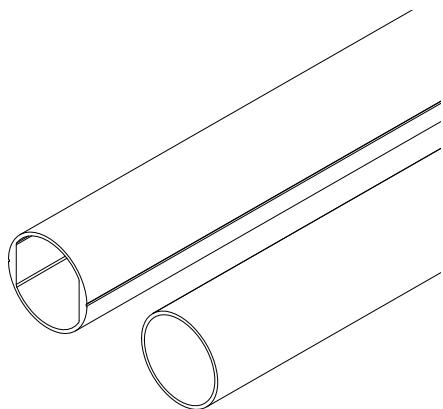


# AUFAU-ANLEITUNG / SETUP INSTRUCTION: Z-BRACKET 30°



# AUFBAU-ANLEITUNG / SETUP INSTRUCTION: FIXING

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# AUFBAU-ANLEITUNG / SETUP INSTRUCTION: FIXING

## Load on the fixing

in daN

Span (m)

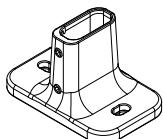
**1,75**

**Inclined upright**



**Straight upright**

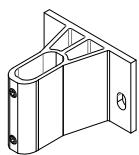
**H type Bracket**



h (mm)	daN
600	380
700	442
800	504
900	567
1000	629
1100	667

h (mm)	daN
600	346
700	401
800	455
900	509
1000	563
1100	617

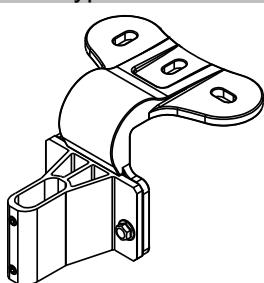
**V type Bracket**



h (mm)	daN
600	351
700	423
800	495
900	567
1000	639
1100	683

h (mm)	daN
600	263
700	325
800	388
900	450
1000	513
1100	575

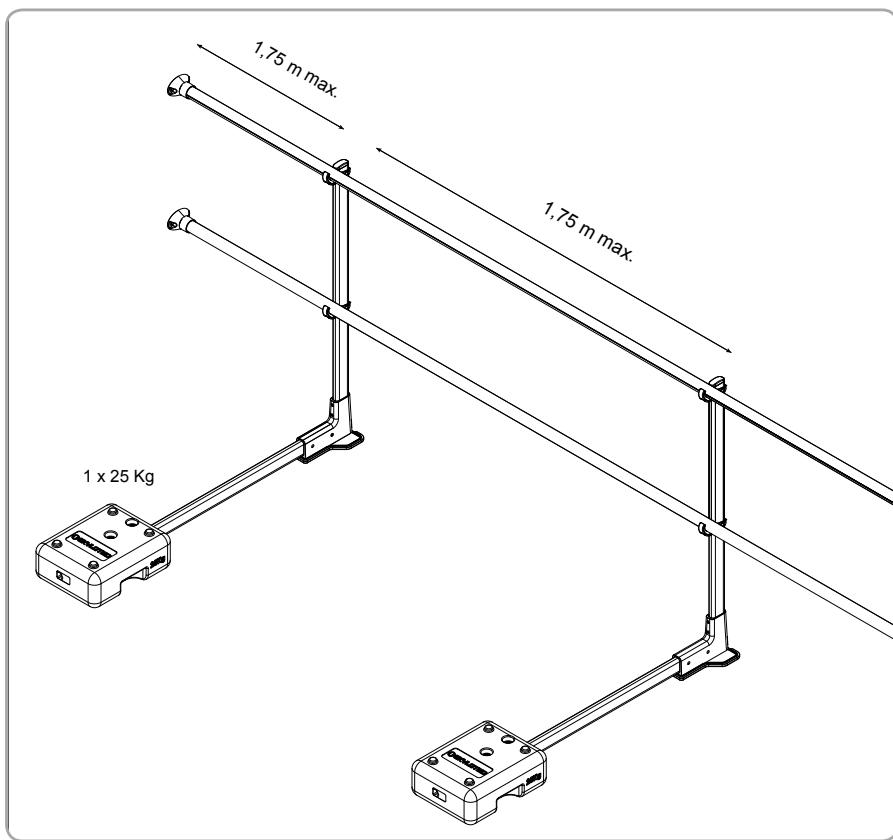
**Z type Bracket**



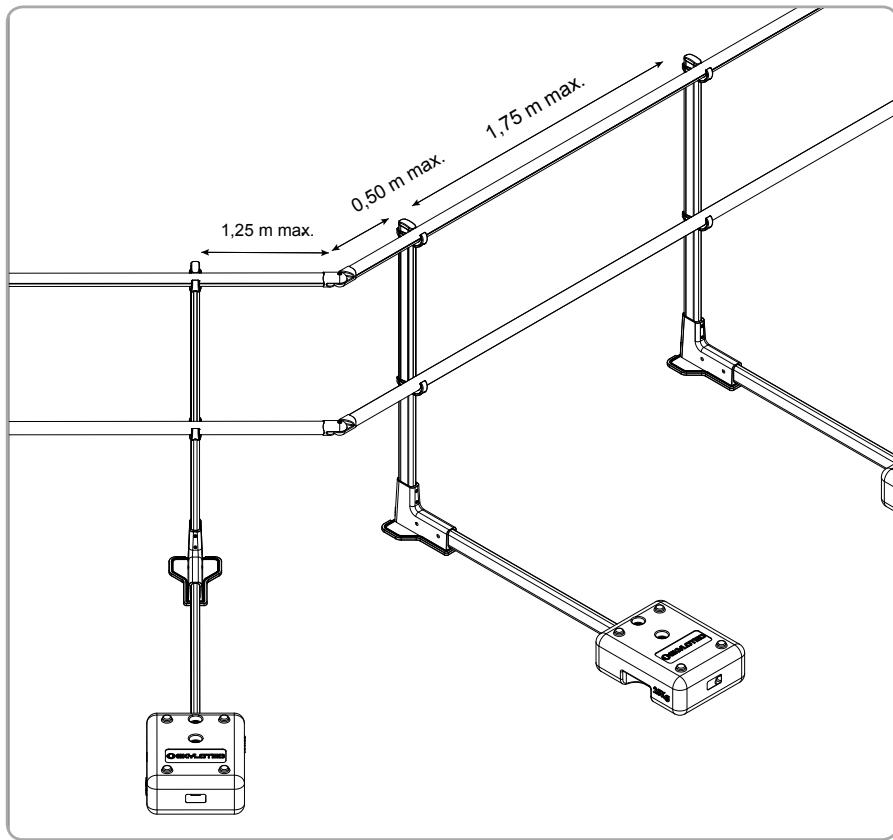
h (mm)	daN
600	858
700	988
800	1119
900	1251
1000	1383
1100	1442

h (mm)	daN
600	595
700	712
800	828
900	945
1000	1062
1100	1178

## MODELLÜBERSICHT / MODEL OVERVIEW: JUNCTION

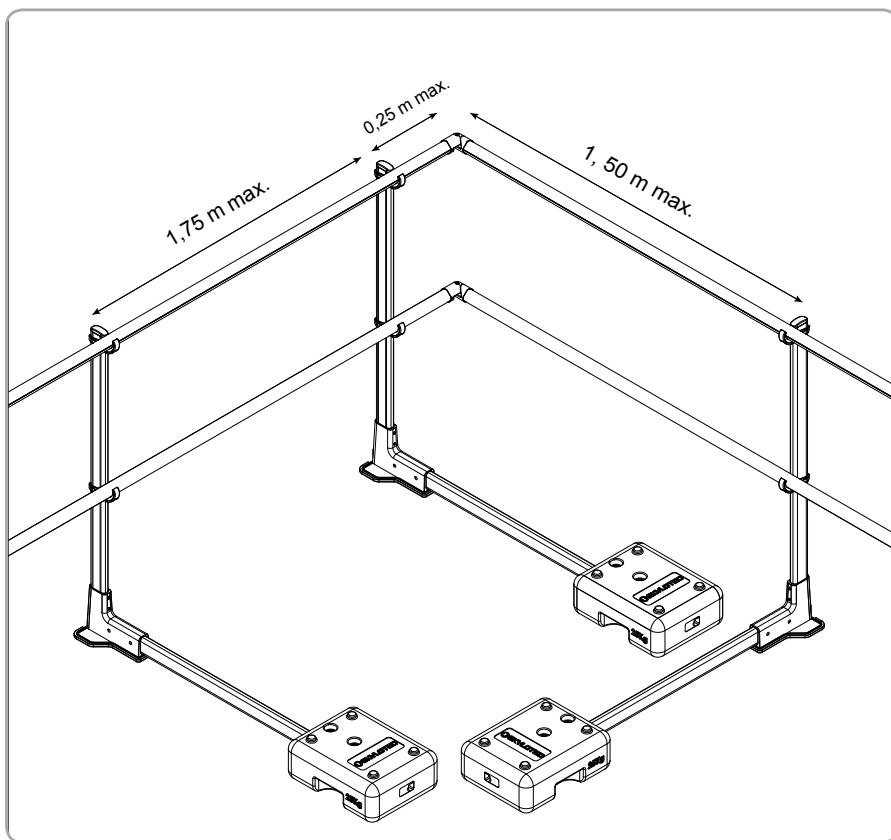


JUNCTION 1

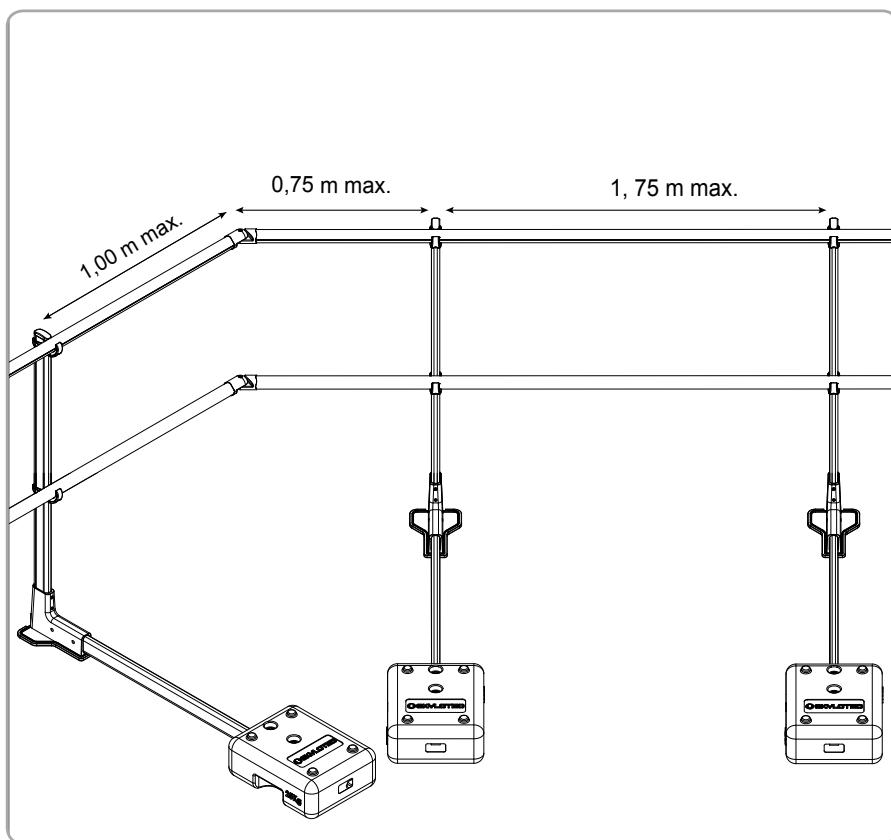


JUNCTION 2

## MODELLÜBERSICHT / MODEL OVERVIEW: JUNCTION

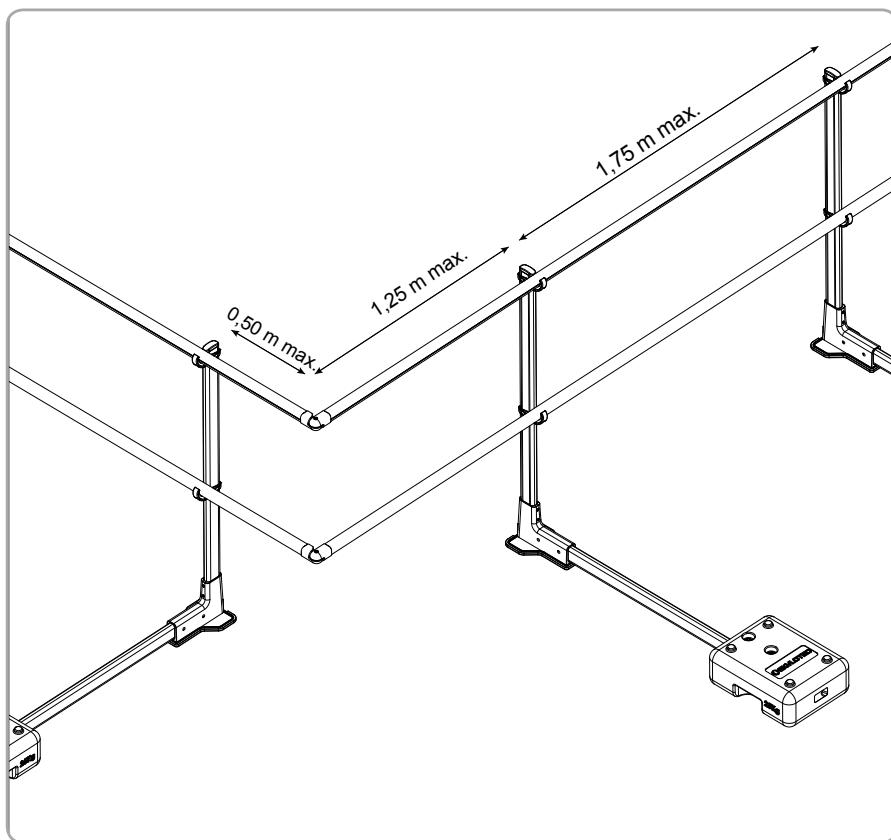


JUNCTION 3

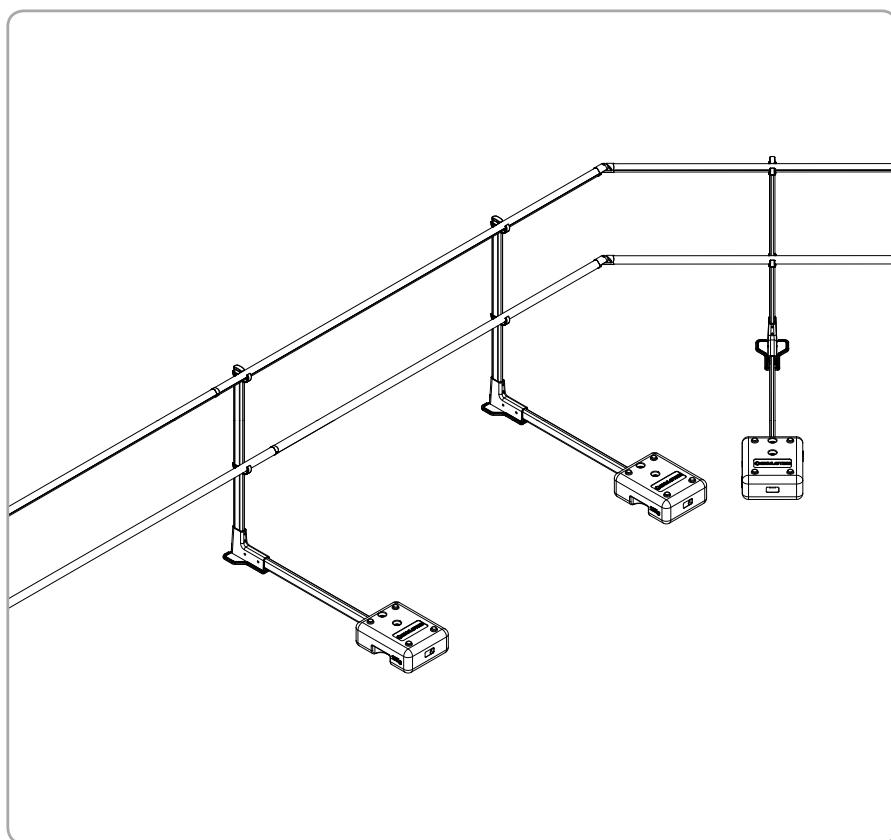


JUNCTION 4

## MODELLÜBERSICHT / MODEL OVERVIEW: JUNCTION

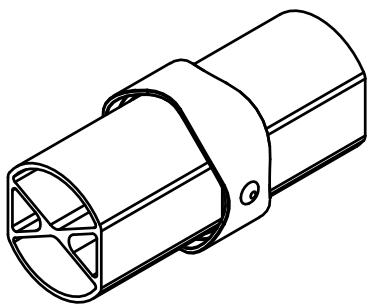


JUNCTION 5

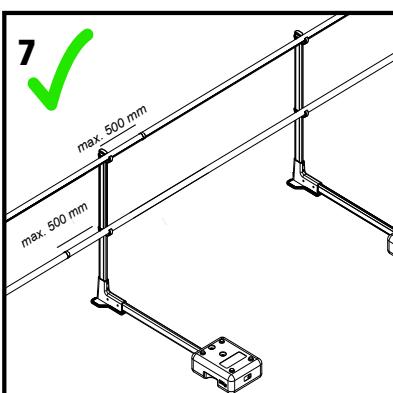
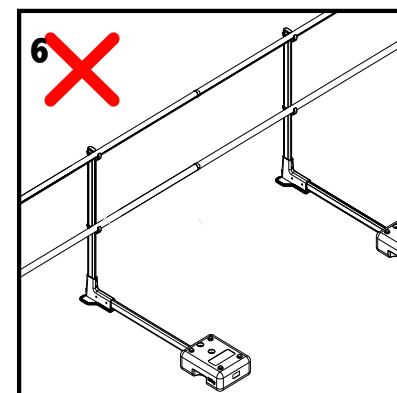
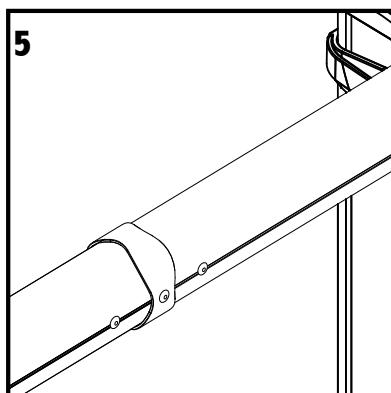
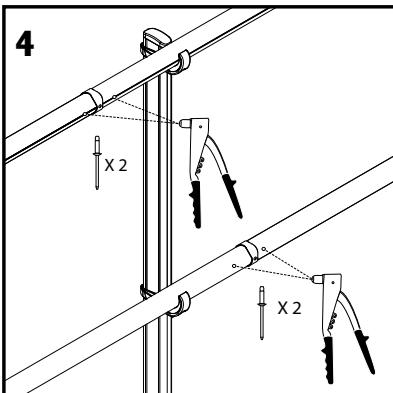
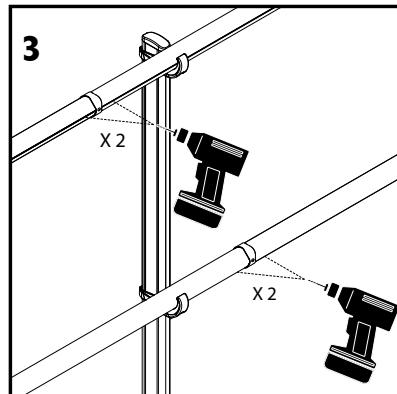
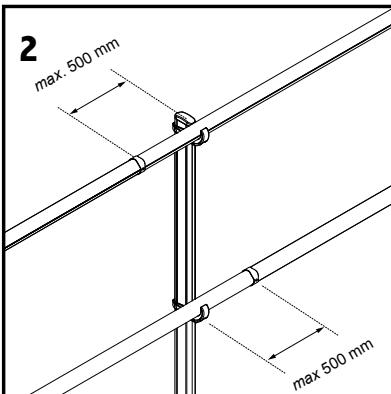
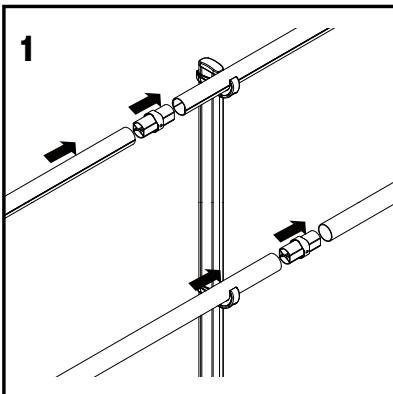


JUNCTION 6

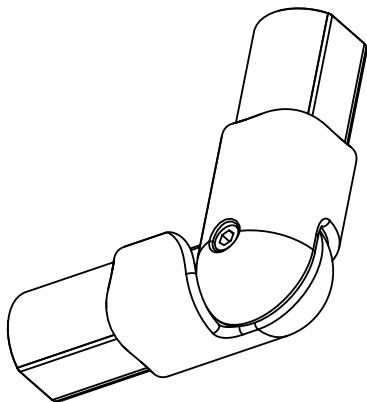
# AUFBAU-ANLEITUNG / SETUP INSTRUCTION: JUNCTION



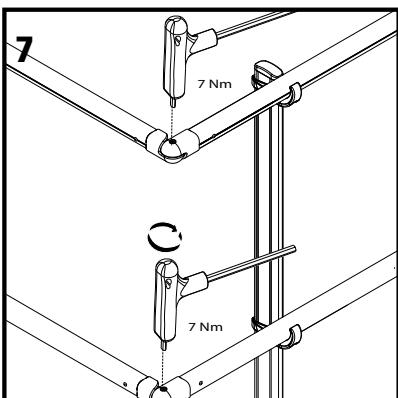
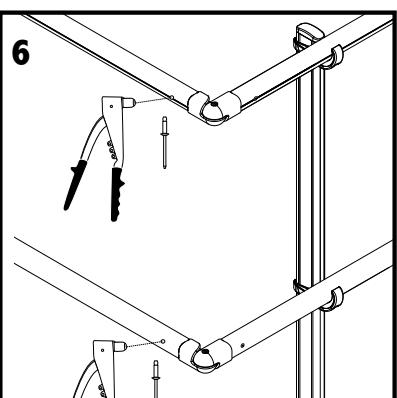
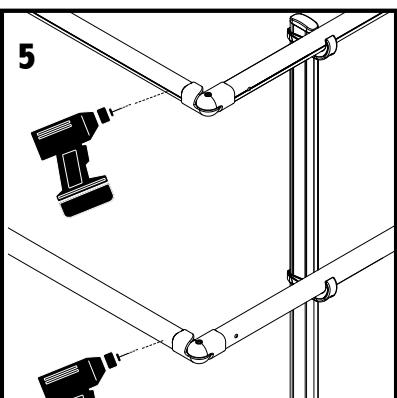
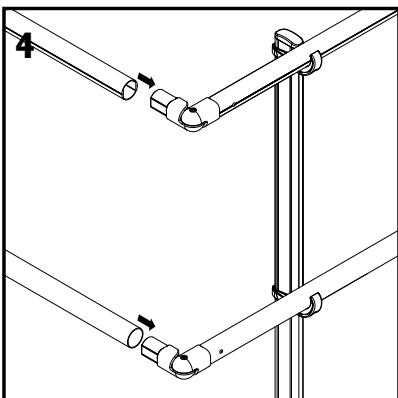
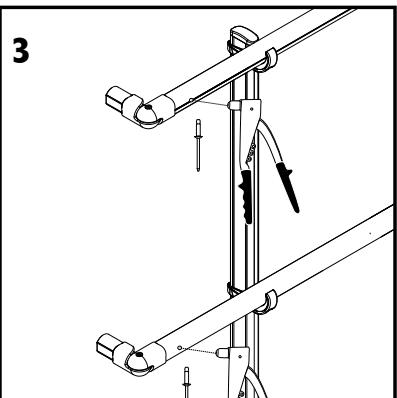
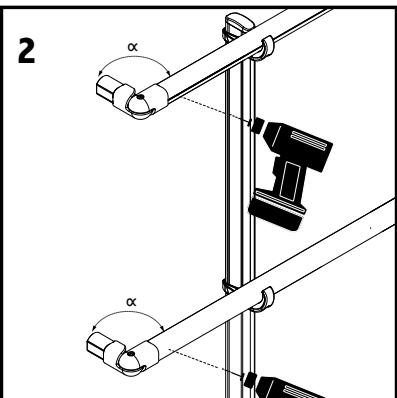
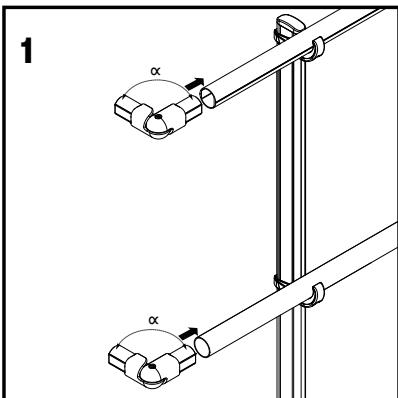
+ GR-019 HAVEN RIVET <-> GR-020 HAVEN SCREW



# AUFBAU-ANLEITUNG / SETUP INSTRUCTION: CORNER



+ GR-019 HAVEN RIVET <-> GR-020 HAVEN SCREW

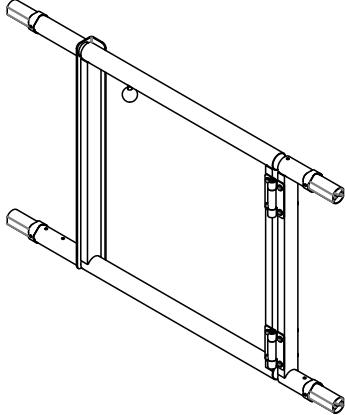


# AUFBAU-ANLEITUNG / SETUP INSTRUCTION: GATE

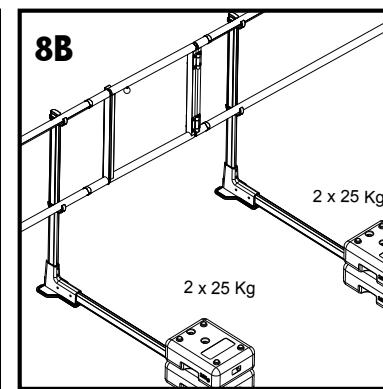
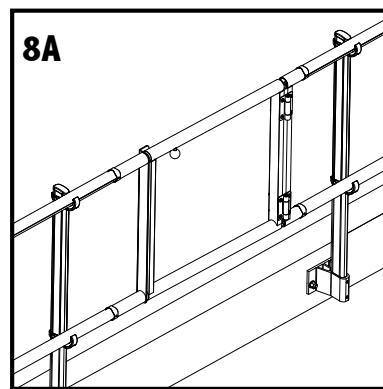
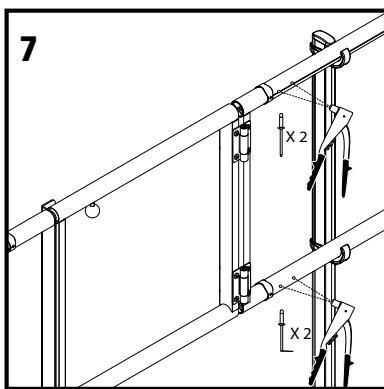
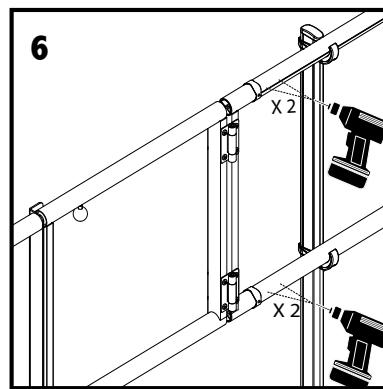
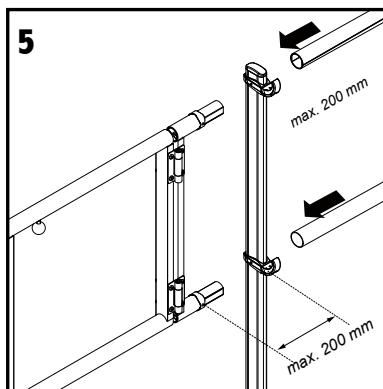
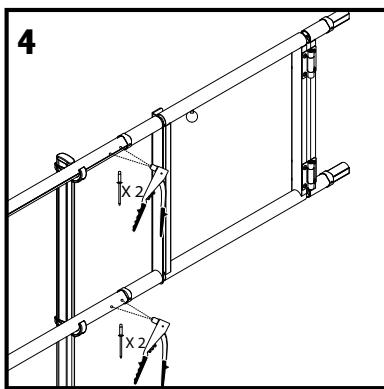
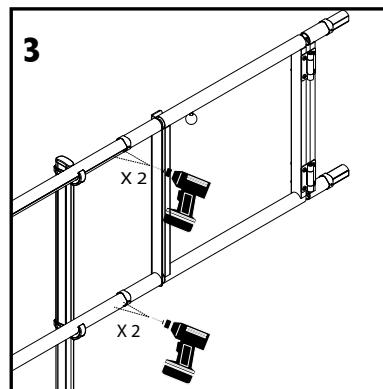
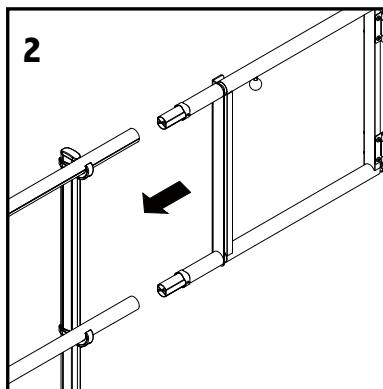
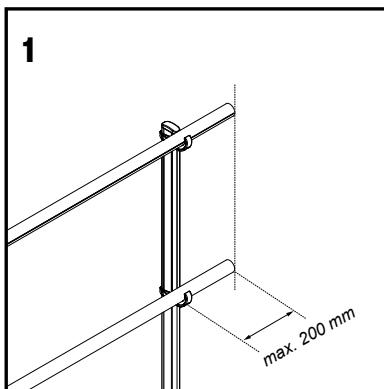


NIE im letzten Feld des Systems einbauen

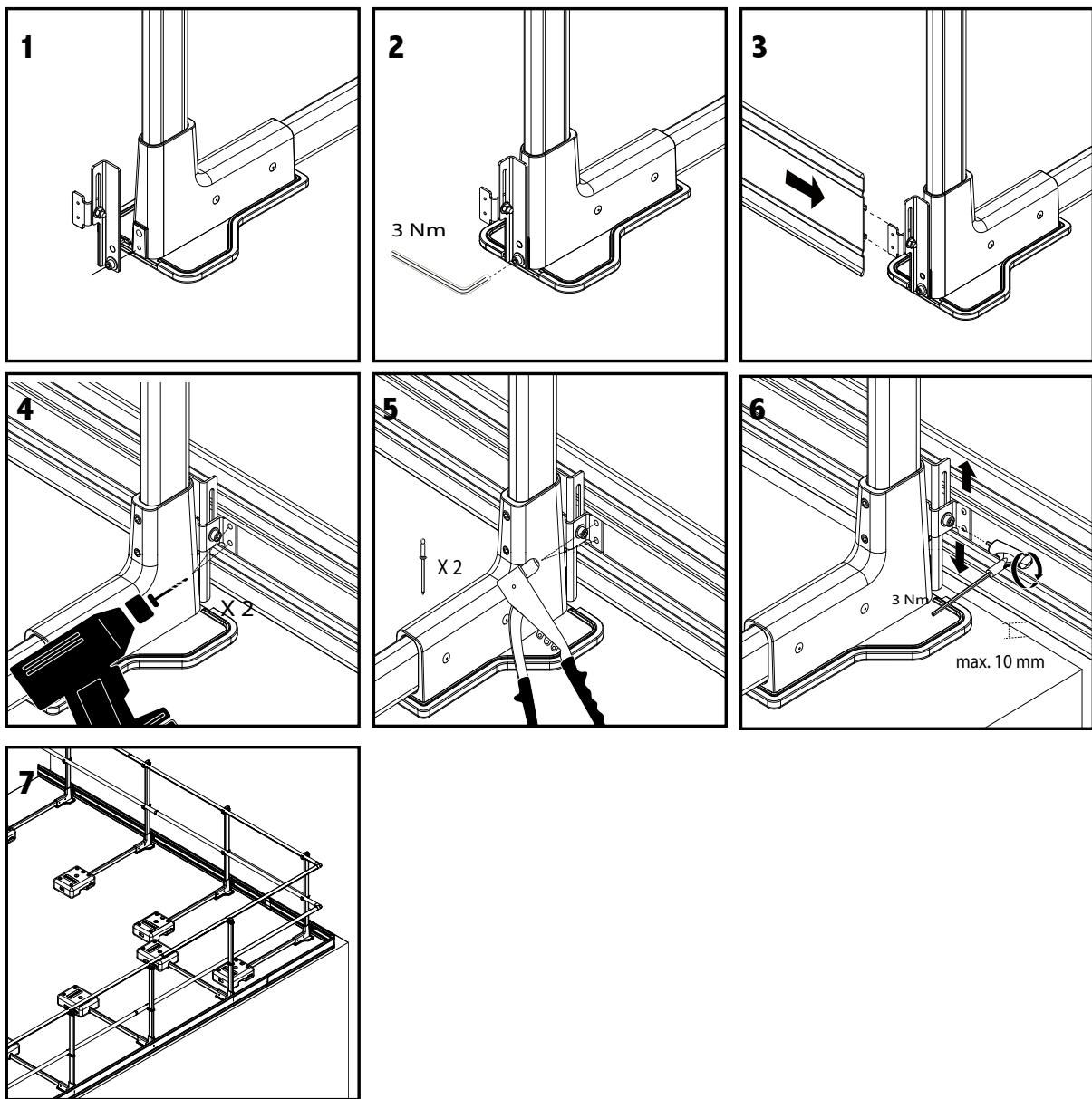
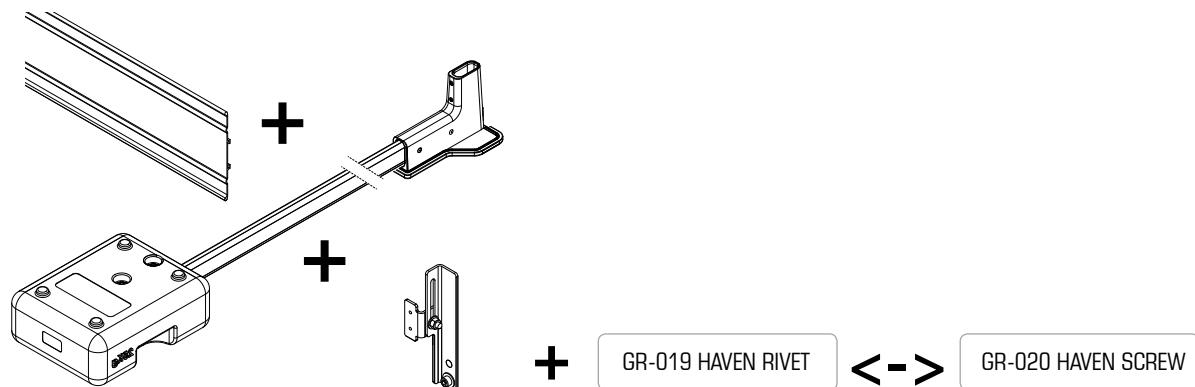
NEVER install in the last field of the system



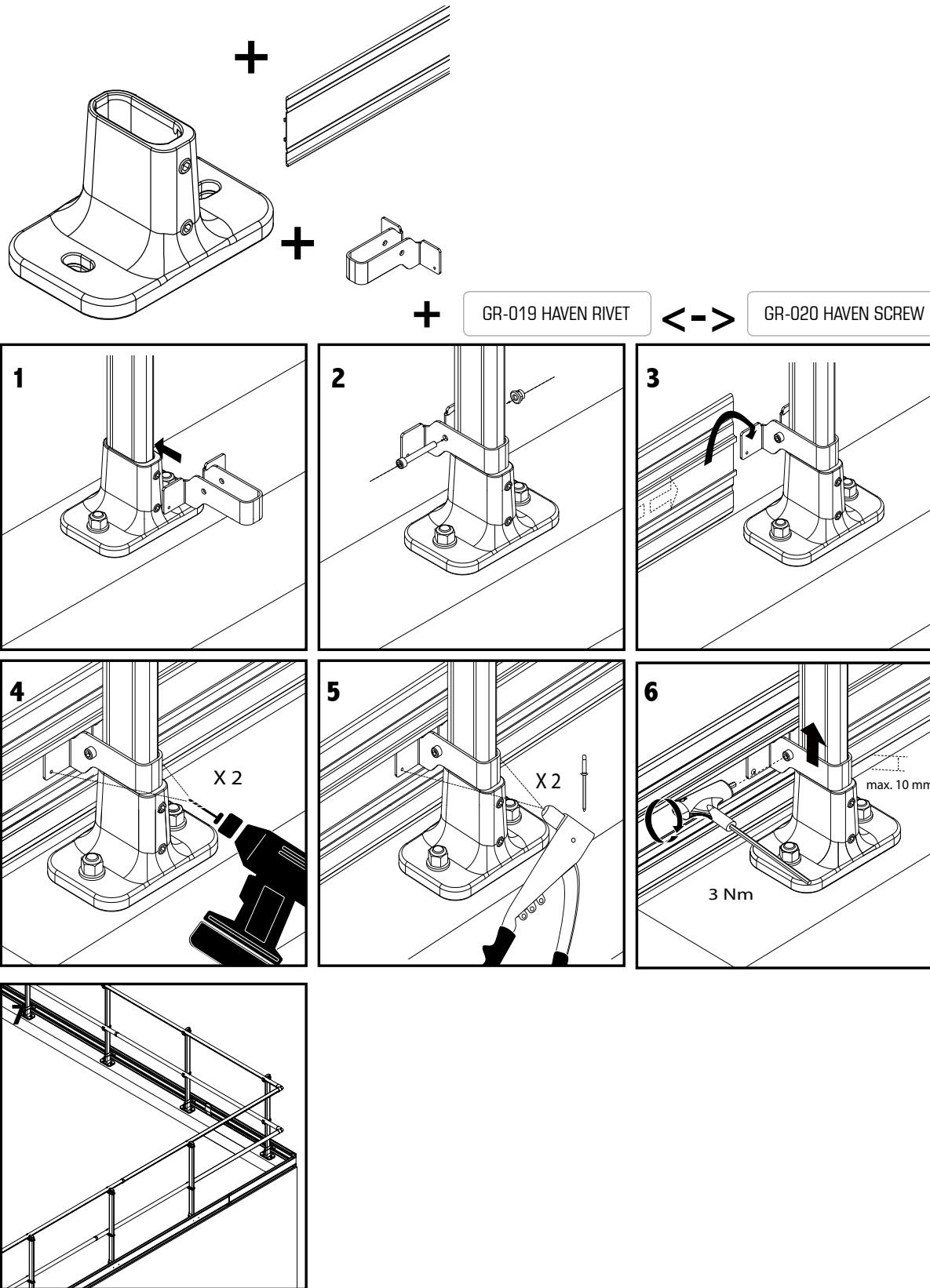
+ GR-019 HAVEN RIVET <-> GR-020 HAVEN SCREW



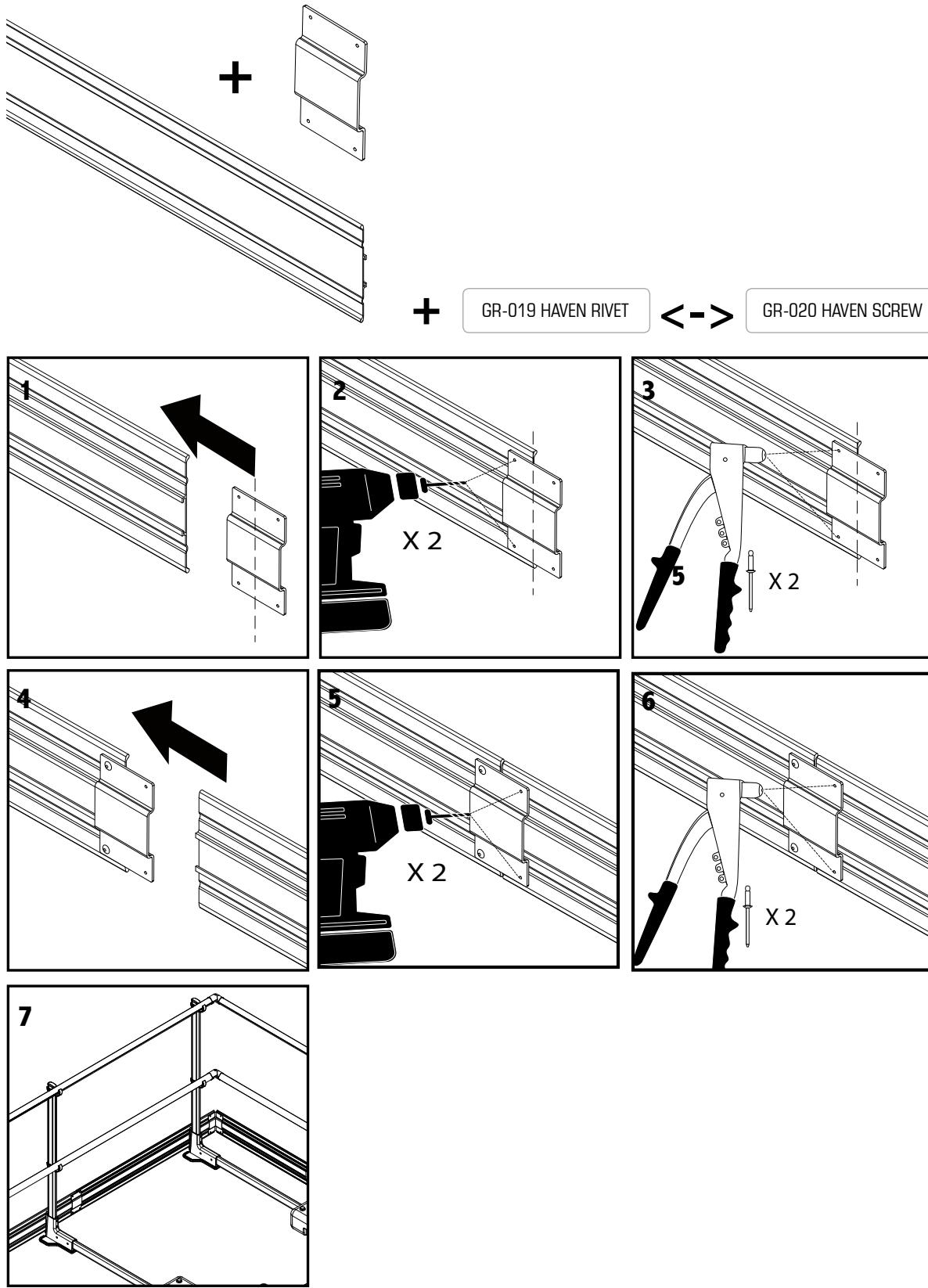
# AUFBAU-ANLEITUNG / SETUP INSTRUCTION: KICKBOARD COUNTERWEIGHT



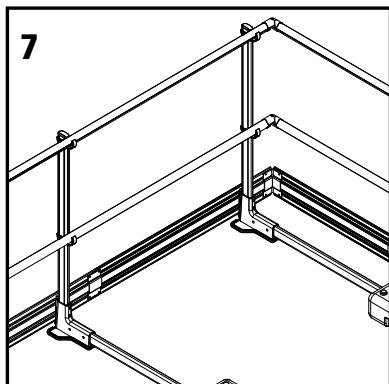
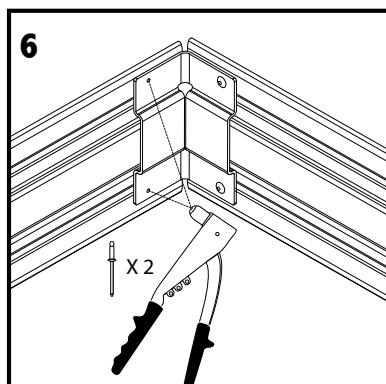
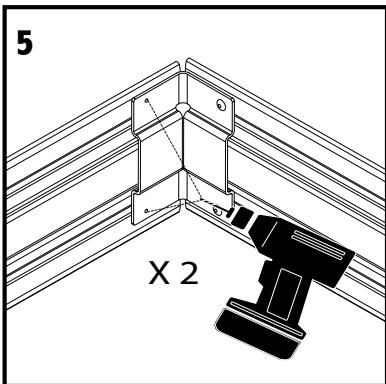
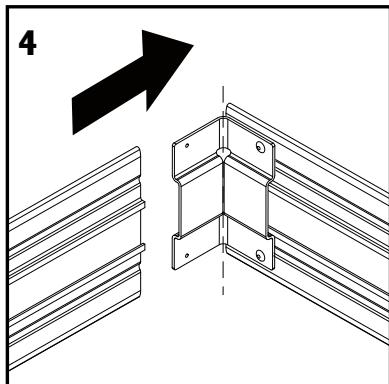
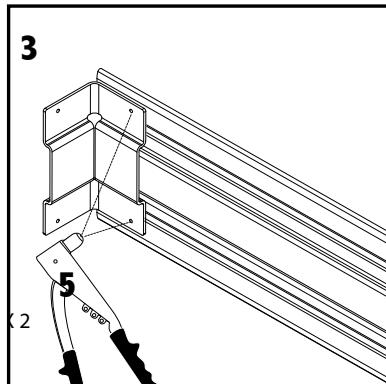
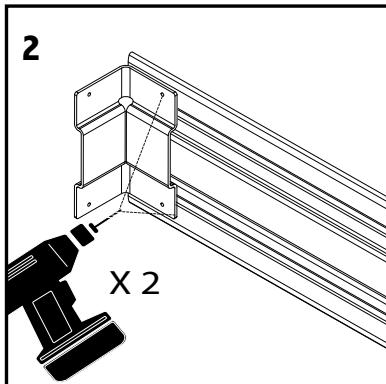
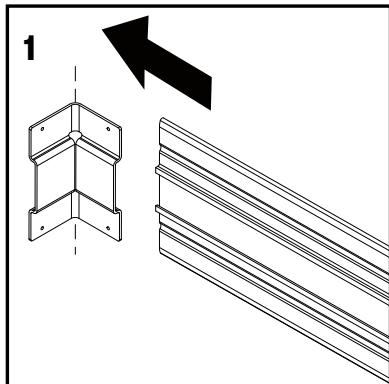
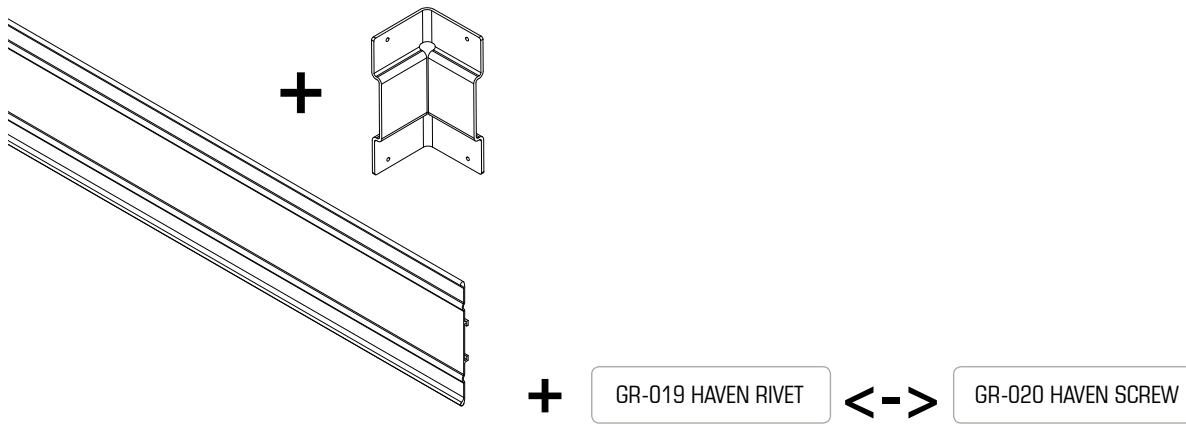
# AUFBAU-ANLEITUNG / SETUP INSTRUCTION: KICKBOARD H-BRACKET



# AUFBAU-ANLEITUNG / SETUP INSTRUCTION: KICKBOARD JUNCTION

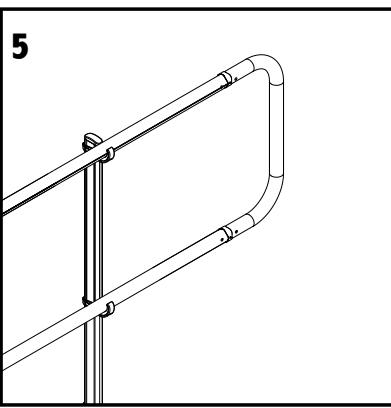
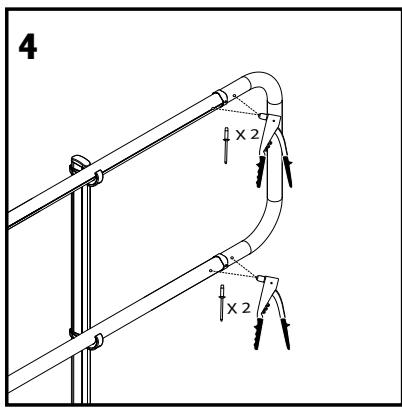
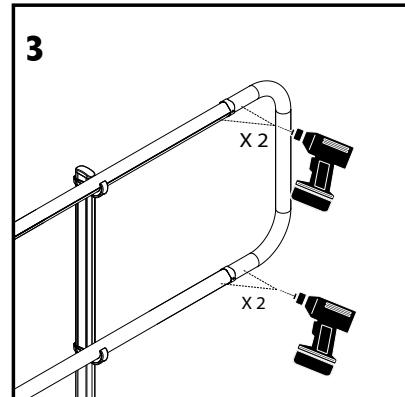
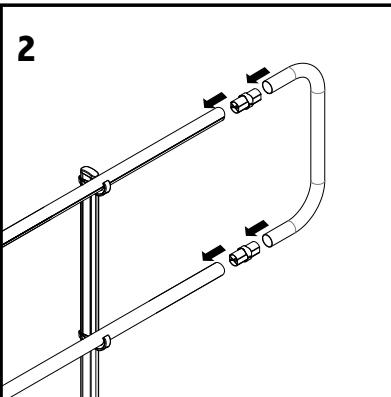
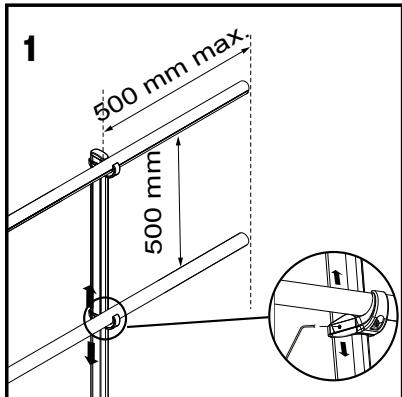
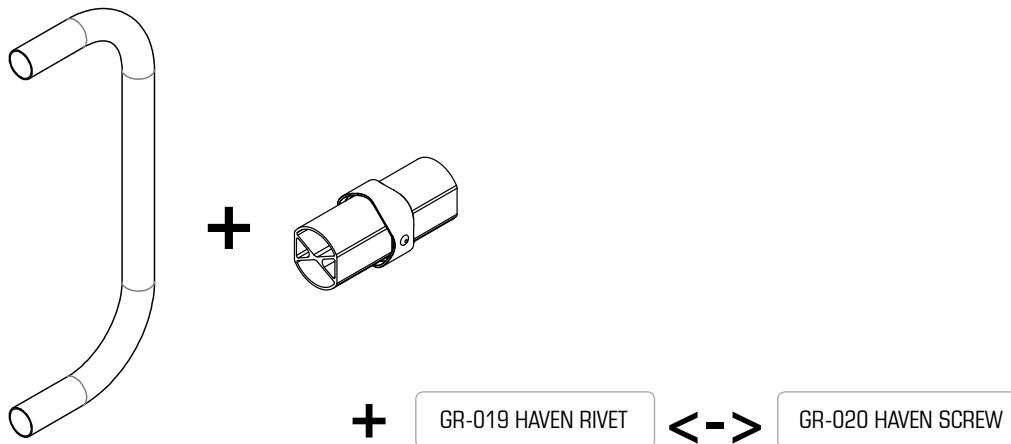


# AUFBAU-ANLEITUNG / SETUP INSTRUCTION: KICKBOARD CORNER

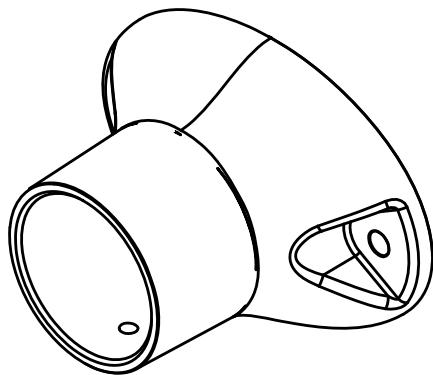


# AUFBAU-ANLEITUNG / SETUP INSTRUCTION: FREE END PART

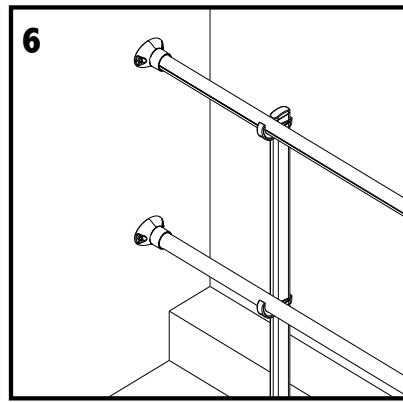
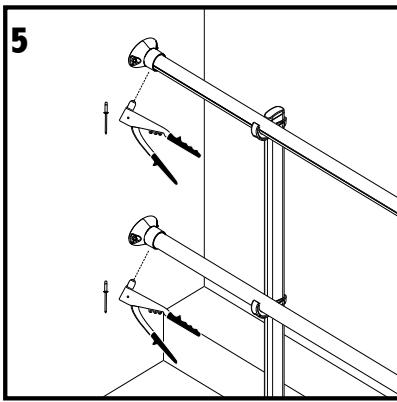
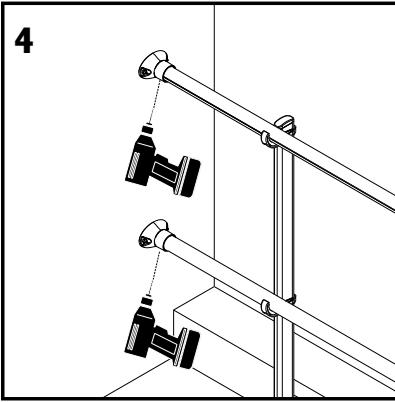
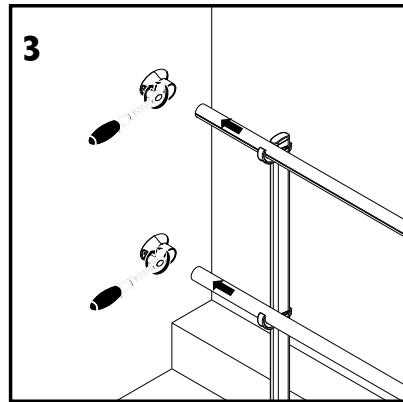
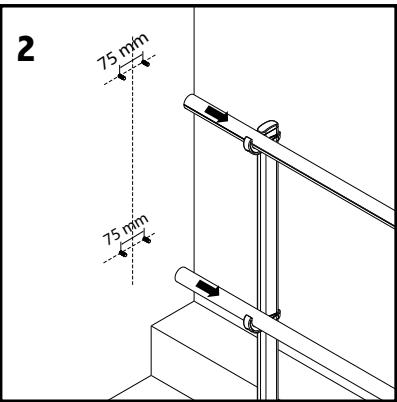
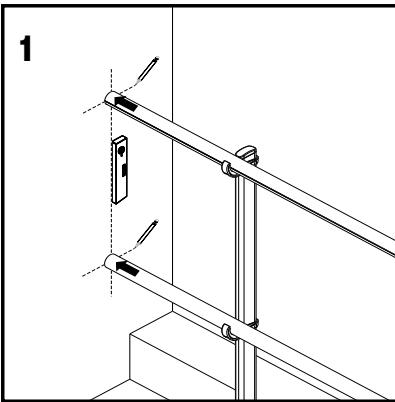
Layout EN ISO 14122-3



# AUFBAU-ANLEITUNG / SETUP INSTRUCTION: WALL END PART



+ GR-019 HAVEN RIVET <- -> GR-020 HAVEN SCREW



## AUFBAU-ANLEITUNG / SETUP INSTRUCTION: GENERAL

Das Sicherheitsgeländer „HAVEN“ von SKYLOTEC entspricht je nach Konfiguration/Layout den geltenden Normen EN ISO 14122-3:2001 und EN 13374-A:2013. Dieses Geländersystem dient der Realisierung eines Kollektivschutzes. Es dient allerdings nicht dazu, Flächen für den öffentlichen Zugang zu umwehren. Ausschließlich einem unterwiesenen Personenkreis ist das Arbeiten in den geschützten Bereichen gestattet.

Verwenden Sie die verschiedenen Bauteile ausschließlich für den vorgesehenen Verwendungszweck und realisieren Sie einen beschädigungsfreien Transport sowie eine ordnungsgemäß, dem Material entsprechende Lagerung. Fehlende Schraubverbindungen können durch eine Fachkraft und mit von SKYLOTEC gelieferten Ersatzteilen ersetzt werden. Verformte oder beschädigte Teile müssen außer Betrieb genommen und ersetzt werden. Bei Unklarheiten bitte Rücksprache mit SKYLOTEC halten.

Montieren Sie die Bauteile ausschließlich entsprechend der in dieser Montageanleitung gegebenen Hinweisen. Nietverbindungen (HAVEN RIVET), welche laut dieser Montageanleitung zur Verbindung der verschiedenen Bauteile abgebildet sind, können alternativ auch mithilfe von SKYLOTEC zur Verfügung gestellten selbstschneidenden Schrauben (HAVEN SCREW), ausgeführt werden. Die Demontage geschieht in umgekehrter Reihenfolge, Schraubverbindungen müssen gelöst/getrennt und die Nietverbindung ausgebohrt werden. Achten Sie auch hier wieder auf eine ordnungsgemäß Lagerung und einen beschädigungsfreien Transport.

Die Grundkonfiguration des Systems entspricht dem Layout der EN ISO 14122-3 Norm mit 500 mm Abstand zwischen Geländerholm und Knieleiste und zwischen Knieleiste und Boden. Das System kann bis zu einer Dachneigung von 10° eingesetzt werden und muss je nach Einsatzfall den Normen entsprechend eingerichtet

und verwendet werden. In der Konfiguration nach EN ISO 14122-3 kann das System 30° geneigt eingesetzt werden. Wenn keine Attika >150 mm oder eine ähnliche bauliche Abtrennung zwischen Geländer und Absturzkante liegt, muss ein Bordbrett verwendet werden. Wenn keine Attika vorhanden ist, muss die freistehende Variante mit einem Mindestabstand von 1 m zur Absturzkante montiert werden. Es muss stets eine Bewertung der Standsicherheit in Verbindung mit einer Risikoanalyse durchgeführt werden. Je nach Aufbausituation ist die Eigensicherung gegen Absturz zu beachten. Aus dem System in freistehender Version resultiert eine Belastung von 18,41 kg pro Meter.

Nach dem Sturz einer Person oder dem Fall eines Gegenstandes gegen oder in das Seitenschutzsystem sowie dessen Zubehörteile, darf das Seitenschutzsystem nur dann weiterhin verwendet werden, wenn es durch eine fachkundige Person überprüft wurde.

Öffnungen zwischen Seitenschutzsystemen und anderen Konstruktionen müssen so klein wie möglich sein, dürfen aber 120 mm bei Geländerholmen und 10 mm für das Bordbrett nicht überschreiten.

Diese Anleitung wurde mit größter Sorgfalt erstellt, kann aber nicht alle möglichen Variationsmöglichkeiten abbilden, und hat daher keinen Anspruch auf Vollständigkeit. Die SKYLOTEC GmbH haftet nicht für etwaige Anwendungs- und Nutzerfehler, die durch eine Fehlinterpretation der hier gezeigten Vorgehensweisen entstehen könnten.

## SET-UP INSTRUCTIONS GENERAL INFORMATION

The HAVEN safety rail from SKYLOTEC complies with the EN ISO 14122-3:2001 and EN 13374-A:2013 standards, depending on the configuration/layout. This safety rail is for the purpose of group protection. However, it is not suitable for protecting areas to allow public access. Working in the protected areas is authorised solely for trained persons. Use the various components exclusively for their intended purpose and transport them safely without causing any damage. They should be stored in a suitable way to protect the materials. Missing screw connections may be replaced by an expert with replacement parts supplied by SKYLOTEC. Deformed or damaged parts must be taken out of service and replaced. If you are in any doubt, please contact SKYLOTEC.

Assemble the components in accordance with these set-up instructions. Rivet connections (HAVEN RIVET), which are shown connecting the various components in these set-up instructions, can alternatively be carried out using the self-tapping screws (HAVEN SCREW) supplied by SKYLOTEC. Disassembly takes place in the reverse sequence, screw connections must be unscrewed/removed and the rivet connection drilled out. Once again, make sure the parts are stored correctly and transported safely without causing any damage. The basic configuration of the system complies with the layout of the EN ISO 14122-3 standard with a 500mm gap between the top rail and the knee rail and between the knee rail and the ground. The system can be used on a roof pitch up of up to 10° and must be set up and used in accordance with standards, depending on the application. In the configuration complying with EN ISO 14122-3, the system can be used at a 30° angle. If there is no Attica > 150 mm or similar construction to provide a division between the railing and the fall edge, a toe board must be used. If there is no Attica, the free-standing version must be assembled with a minimum distance of 1m from the free edge.

An assessment of structural stability must always be carried out in connection with a risk analysis. Depending on the construction situation, attention should be paid to individual fall protection. The free-standing version of the system will withstand loads of 14.41 kg per metre. After the fall of a person or of an object into or against the side protection system or its components, the side protection system should only be used again once it has been checked by an expert.

Openings between side protection systems and other constructions must be as small as possible but must not exceed 120 mm for top rails and 10 mm for the toe board.

Particular attention has been paid to producing these instructions. However it is not possible to show all the potential versions and these instructions do not therefore claim to be exhaustive. SKYLOTEC GmbH shall not be liable for any usage or application error, which may arise from the misinterpretation of the methods shown here.

## MANUEL DE MONTAGE GÉNÉRALITÉS

Le garde-corps de sécurité HAVEN de SKYLOTEC est conforme aux normes EN ISO 14122-3:2001 et EN 13374-A:2013 en vigueur, en fonction des configurations. Ce système de rambarde permet la mise en place d'une protection collective. Il ne doit pas être utilisé pour entourer les zones d'accès public. Seul le personnel qualifié est autorisé à travailler dans les zones protégées. Veillez à ne pas utiliser les différents éléments à des fins différentes que celles prévues, à ne pas endommager le matériel lors de son transport et à le stocker de manière adaptée au matériau.

Les boulons manquants doivent être remplacés par un personnel qualifié qui utilise les pièces de rechange fournies par SKYLOTEC. Toute pièce déformée ou endommagée ne doit plus être utilisée et doit être remplacée. En cas de doute, veuillez vous adresser à SKYLOTEC.

Veuillez respectivement exclusivement les instructions de montage de ce manuel. Les jointures rivées (HAVEN RIVET), qui sont conçues pour connecter les différents éléments d'après ce guide, sont disponibles alternativement avec des vis autotaraudeuses fournies par SKYLOTEC (HAVEN SCREW). Le démontage s'effectue en suivant les étapes dans l'ordre inverse. Les assemblages vissés doivent être desserrés/séparés et les jointures rivées doivent être alésées.

Veuillez à ne rien endommager lors du transport et à stocker le matériel de manière appropriée. La configuration de base du système est conforme aux plans de la norme EN ISO 14122-3 avec un écart de 500 mm entre le garde-corps et le garde-genou et entre le garde-genou et le sol. Le système peut être utilisé pour des inclinaisons de toit allant jusqu'à 10° et doit être installé et utilisé de manière conforme à la norme en fonction des cas. La configuration selon la norme EN ISO 14122-3 autorise une utilisation du système jusqu'à une倾inacion de 30°. S'il n'existe aucun attique > 150 mm ou toute autre séparation entre le garde-corps et le vide, il convient d'utiliser une surface d'appui.

En l'absence d'attique, il convient de laisser un écart minimal de 1 m entre le vide et le montage. Une évaluation de la sécurité doit être systématiquement réalisée ainsi qu'une analyse des risques. En fonction de la situation, une attention toute particulière doit être portée à la sécurité individuelle. Le système en pose libre engendre une charge de 18,41 kg par mètre.

Après la chute d'une personne ou d'un objet contre ou dans le système de protection latérale et ses accessoires, ce dernier doit être contrôlé par une personne qualifiée avant de pouvoir être réutilisé. Les ouvertures entre les systèmes de protection latérale et autres constructions doivent être aussi petites que possible. Elles ne peuvent cependant pas dépasser 120 mm pour les garde-corps et 10 mm pour les surfaces d'appui.

Ce manuel a été élaboré avec le plus grand soin, il ne peut toutefois pas décrire toutes les variantes possibles et ne prétend pas être exhaustif. La société SKYLOTEC GmbH ne peut être tenue responsable de toute erreur d'utilisation ou de la part de l'utilisateur résultant d'une mauvaise interprétation des indications décrites dans le présent manuel.

## ISTRUZIONI DI MONTAGGIO GENERALE

Il parapetto di sicurezza HAVEN della SKYLOTEC corrisponde, a seconda della configurazione/del layout, alle norme EN ISO 14122-3:2001 e EN 13374-A:2013 in vigore. Questo sistema di parapetti serve per realizzare un dispositivo di protezione collettiva. Esso tuttavia non serve a circoscrivere le superfici per l'accesso pubblico. È consentito lavorare nell'area protetta esclusivamente a un gruppo di persone appositamente istruite. Utilizzare i diversi elementi costruttivi solamente per le modalità di impiego previste e provvedere a un trasporto che non comporti danni nonché a uno stoccaggio corretto e adeguato al materiale.

I collegamenti a vite mancanti possono essere sostituiti da uno specialista, con i pezzi di ricambio forniti dalla SKYLOTEC. Le parti deformate o danneggiate devono essere messe fuori servizio e sostituite. In caso di dubbi, si prega di contattare SKYLOTEC.

Montare i componenti seguendo scrupolosamente le indicazioni contenute nelle presenti istruzioni di montaggio. I collegamenti tramite rivetti (HAVEN RIVET), illustrati nelle presenti istruzioni di montaggio per accoppiare i diversi componenti, in alternativa possono essere realizzati anche con le viti autofilettanti (HAVEN SCREW), messe a disposizione dalla SKYLOTEC. Lo smontaggio si effettua procedendo nell'ordine inverso; le viti devono essere allentate/separate mentre i rivetti devono essere perforati.

Anche in questo caso provvedere a uno stoccaggio regolare e a un trasporto che non comporti danni al materiale. La configurazione di base del sistema corrisponde al layout della norma EN ISO 14122-3, con una distanza di 500 mm fra il parapetto e il corrente intermedio e fra il corrente intermedio e la superficie di calpestio. Il sistema può essere usato per inclinazioni del tetto fino a 10° e a seconda della modalità di impiego, deve essere installato e utilizzato nel rispetto delle normative. Nella configurazione conforme alla norma EN ISO 14122-3, il sistema può essere impiegato con un'inclinazione di 30°.

Se non è presente nessuna alzata > 150 mm o un elemento divisorio architettonico simile fra il parapetto e il bordo di caduta, è necessario utilizzare un bordo di arresto al piede. Se non è presente alcuna alzata, la variante indipendente deve essere montata con una distanza minima di 1 m dal bordo di caduta. È necessario effettuare sempre una valutazione della stabilità insieme a un'analisi dei rischi. A seconda della situazione di montaggio, prestare attenzione ai dispositivi di protezione individuale anticaduta. Da questo sistema nella versione indipendente risulta un carico di 18,41 kg al metro.

Dopo la caduta di una persona o di un oggetto contro o nel sistema di protezione laterale e dei relativi accessori, il sistema di protezione laterale può essere ulteriormente utilizzato solo se controllato da una persona esperta.

Le aperture fra i sistemi di protezione laterali e le altre costruzioni devono essere più piccole possibile e non possono superare 120 mm per il corrimano e 10 mm per il bordo di arresto al piede.

Le presenti istruzioni sono state redatte con la massima cura, ma non possono contemplare tutte le possibili varianti e quindi non devono essere considerate esaustive. La SKYLOTEC GmbH non è responsabile per eventuali errori di applicazione e dell'utente, derivanti da un'errata interpretazione delle procedure qui descritte.