

H-RAIL

INSTALLATION MANUAL



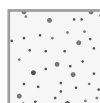
S235



GL24H

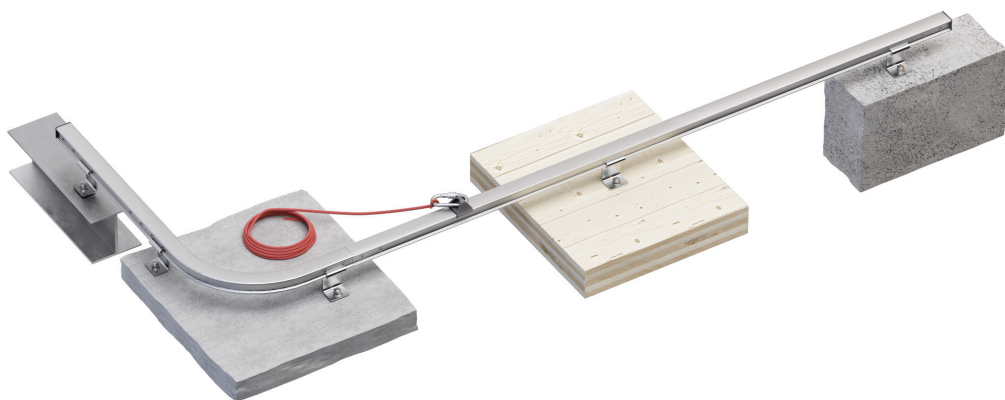


CLT



C20/25

rothoblaas
CERTIFIED
SUPPORTS



EN 795:2012 D
CEN/TS 16415:013
UNI 11578:2015 D



⚠ read also:



H-RAIL
Installation
Manual

+



H-RAIL
Safety
Regulations

=



EN
795:2012
D

CEN/TS
16415:2013

UNI
11578:2015
D

AS/NZS
1891.4:2009

AS/NZS
1891.2:2001

SAFETY INSTRUCTIONS

IT L'installazione e/o utilizzo del prodotto Rotho Blaas è permessa solo a personale esperto previa lettura e comprensione del **1 MANUALE D'INSTALLAZIONE** e delle **2 NORME DI SICUREZZA** nella lingua del relativo Paese di utilizzo.

DE Die Installation und/oder die Verwendung des Produkts von Rotho Blaas ist ausschließlich Fachpersonal vorbehalten, nachdem es das **1 INSTALLATIONSHANDBUCH** und die **2 SICHERHEITSVORSCHRIFTEN** in der Sprache des Verwendungslandes gelesen und verstanden hat.

EN Only qualified personnel may install and/or use this Rotho Blaas product, after reading and understanding the **1 INSTALLATION MANUAL** and the **2 SAFETY REGULATIONS**, in the language of the country of use.

ES La instalación y/o el uso del producto Rotho Blaas solo están permitidos al personal experto después de haber leído y comprendido el **1 MANUAL DE INSTALACIÓN** y las **2 NORMAS DE SEGURIDAD** en el idioma del país en el que se utiliza.

FR Seul le personnel expérimenté peut installer et/ou utiliser ce produit Rotho Blaas, après avoir lu et compris le **1 MANUEL D'INSTALLATION** et les **2 NORMES DE SÉCURITÉ** dans la langue du pays où le produit est utilisé.

PT A instalação e/ou utilização do produto RothoBlaas só é permitida a pessoal especializado após a leitura e compreensão do **1 INFORMAÇÕES NECESSÁRIAS** e das **2 NORMAS DE SEGURANÇA** na língua do respetivo país onde será utilizado.

RU Кустановке и (или) использованию продукции Rotho Blaas допускается только высококвалифицированный персонал после обязательного прочтения и усвоения **1 РУКОВОДСТВО ПО УСТАНОВКЕ** и **2 ПРАВИЛ ТЕХНИКИ БЕЗОПАСНОСТИ** на языке соответствующей страны использования.

CS Instalace a/nebo použití výrobku Rotho Blaas je povoleno pouze odborným osobám po přečtení a pochopení **1 NÁVODU K INSTALACI** a **2 BEZPEČNOSTNÍCH PŘEDPISŮ** v jazyce příslušné země použití.

DA Kun kvalificeret personale må installere og/eller bruge dette Rotho Blaas-produkt efter at have læst og forstået den **1 INSTALLATIONSMANUALEN** og **2 SIKKERHEDSFORSKRIFTERNE** på brugerens sprog.

EL Η εγκατάσταση ή/και η χρήση του προϊόντος Rotho Blaas επιτρέπεται μόνο σε έμπειρο προσωπικό που έχει διαβάσει και κατανοήσει τις **1 ΕΓΧΕΙΡΙΔΙΟ ΕΓΚΑΤΑΣΤΑΣΗΣ** και τους **2 ΚΑΝΟΝΙΣΜΟΥΣ ΑΣΦΑΛΕΙΑΣ** στη γλώσσα της σχετικής χώρας χρήσης.

ET Antud Rotho Blaasi toodet tohib paigaldada ja / või kasutada ainult kvalifitseeritud personal, kes on lugenud kasutamise riigi keeles **1 PAIGALDUSJUHENDIS** ja **2 OHUTUSESKIRJU** ning nendest aru saanud.

FI Tämän Rotho Blaas -tuotteen asennus ja/tai käyttö on sallittu vain asiantuntevan henkilöstön toimesta sen jälkeen, kun he ovat lukeneet ja ymmärtäneet **1 ASENNUSOHJEIDEN** ja **2 TURVALLISUUSMÄÄRÄYKSET** käyttömaan kielellä.

HR Postavljanje i/ili uporaba proizvoda Rotho Blaas dopuštene je samo stručnom osoblju koje je prethodno pročitao i razumjelo **1 UPUTA ZA MONTAŽU** kao i **2 PROPISE O SIGURNOSTI** na jeziku zemlje uporabe.



1
H-RAIL
Installation
Manual

+



2
H-RAIL
Safety
Regulations

SAFETY INSTRUCTIONS

HU A Rotho Blaas terméket kizárólag hozzáértő személyzet szerelheti be és/vagy használhatja, az adott országnak megfelelő nyelvű **1 TELEPÍTÉSI KEZIKÖNYV** és **2 BIZTONSÁGI SZABÁLYOK** elolvasása és megértése után.

IS Aðeins þjálfað starfsfólk má setja upp og/eða nota þessa Rotho Blaas-vöru eftir að hafa lesið og skilið **1 UPPSETNINGARHANDBOKAR** og **2 REGLUGERÐIR UM ÖRYGGI** á tungumáli þess lands sem varan er notuð í.

LT Produktą „Rotho Blaas” montuoti ir (arba) naudoti leidžiama tik patyrusiam personalui, prieš tai perskačius ir supratus **1 MONTAVIMO VADOVE** ir **2 SAUGOS TAISYKLES** atitinkamos šalies, kurioje eksploatuojama, kalbą.

LV Rotho Blaas produktu uzstādīšana un/vai lietošana ir atļauta tikai pieredzējušam darbiniekam pēc **1 UZSTADĪŠANAS ROKASGRĀMATĀ** un **2 DROŠĪBAS NOTEIKUMU** izlasīšanas un izpratnes attiecīgās valsts valodā, kurā produkts tiks lietots.

NL De installatie en/of het gebruik van het product Rotho Blaas is voorbehouden aan uitsluitend vakbekwaam personeel dat de **1 INSTALLATIEHANDLEIDING** en de **2 VEILIGHEIDSVOORSCHRIFTEN** in de taal van het land van gebruik gelezen en begrepen heeft.

NO Dette Rotho Blaas-produktet skal bare installeres og/eller brukes av kvalifisert personell som har lest og forstått **1 INSTALLASJONSHÅNDBOKEN** og **2 SIKKERHETSFORSKRIFTENE**, på det språket som brukes i landet produktet anvendes.

PL Instalacji i/lub użytkowania produktu Rotho Blaas może dokonać wyłącznie doświadczony personel, który przeczytał i zrozumiał **1 MANUAL DE INSTALAÇÃO** oraz **2 NORMY BEZPIECZEŃSTWA** w języku kraju użytkowania.

RO Instalarea și/sau utilizarea produsului Rotho Blaas este permisă numai personalului expert, după ce a citit și înțeles **1 MANUALUL DE INSTALARE** și **2 NORMELE DE SIGURANȚĂ** în limba țării de utilizare a produsului.

SK Inštalácia a/alebo používanie produktu Rotho Blaas je povolené len skúsenému personálu po predchádzajúcom prečítaní a pochopení **1 NAVODE NA INŠTALÁCIU** a **2 BEZPEČNOSTNÝCH NORIEM** v jazyku príslušnej krajiny používania.

SL Ta proizvod Rotho Blaas lahko namesti in/ali uporablja samo izkušeno osebe, ki je prebralo in razume vse **1 NAVODILIH ZA VGRADNJO** in **2 VARNOSTNE PREDPISE** v jeziku države njegove uporabe.

SV Endast erfaren personal får installera och/eller använda den här Rotho Blaas-produkten efter att **1 INSTALLATIONSANVISNINGARNA** och **2 SÄKERHETSFORESKRIFTER** har lästs igenom på språket i installationslandet.

TR Sadece yetkili personel, **1 KURULUM KILAVUZUNDA VE 2 GÜVENLİK MEVZUATINI** ürünün kullanıldığı ülke dilinde okuyup anladıktan sonra Rotho Blaas ürününü kurabilir ve/veya kullanabilir.

JA Rotho Blaas製品の施工および使用は、資格を有する専門家のみに許可されています。施工および使用の前に、必ず使用する国の言語で**1設置マニュアル**と**2安全規則**をお読み下さい。

ZH 只有具备合格资质的人员在阅读并理解以使用国的语言编写的**1安装手册**和**2安全规程**后才能安装和/或使用该Rotho Blaas产品。

AR يمكن فقط للفنيين المؤهلين باستخدام أو تركيب منتج Rotho Blaas بعد قراءة وفهم دليل التثبيت **1** نظم السلامة **2** بلغة البلد المستخدم فيها المنتج



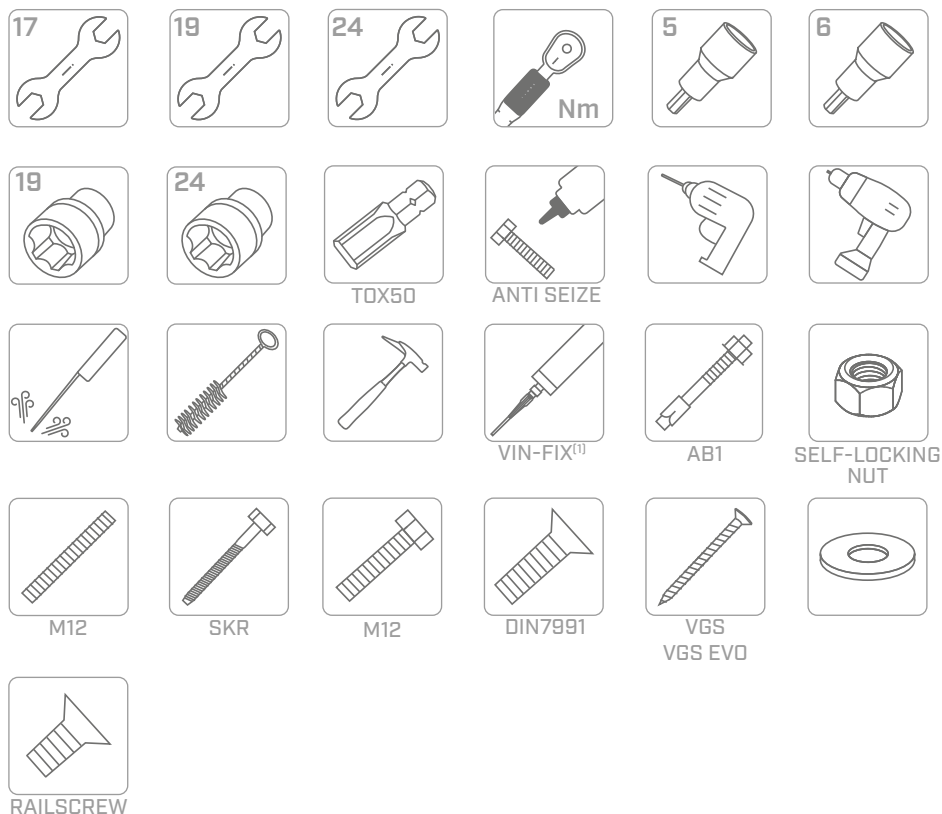
1
H-RAIL
Installation
Manual

+



2
H-RAIL
Safety
Regulations

TOOLS



⁽¹⁾ VINYLESTER CHEMICAL ANCHOR WITHOUT STYRENE

INFORMATION

Type

Rothoblaas
H-RAIL

Related standard(s)

EN 795:2012 D
CEN/TS 16415:2013
UNI 11578:2015 D

Name or logo of manufacturer/distributor

ROTHOBLAAS

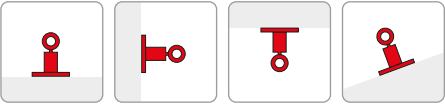
Batch number and year of manufacture

N/MM/YYYY

(N = lot number - MM = month - YYYY = year)

PRODUCT INFORMATION

EN 795:2012 D	CEN/TS 16415:2013	UNI 11578:2015 D	AS/NZS 1891.4:2009	AS/NZS 1891.2:2001
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AL EN-AW 6063 T6	AL EN-AW 6082	1.4301 AISI304 INOX	PA.6
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EN 795:2012 D
CEN/TS 16415:013
UNI 11578:2015 D 

- IT** ⚠ Verificare idoneità statica del sottofondo di montaggio!
- DE** ⚠ Die statische Eignung des Montageuntergrundes sicherstellen!
- EN** ⚠ Check the static suitability of the installation substrate!
- ES** ⚠ ¡Compruebe la idoneidad estática del sustrato de montaje!
- FR** ⚠ Vérifier l'adéquation statique du substrat d'assemblage!


rothoblaas

H-RAIL  

EN 795:2012 D
CEN/TS 16415:2013
UNI 11578:2015 D

FOR USE ONLY WITH:

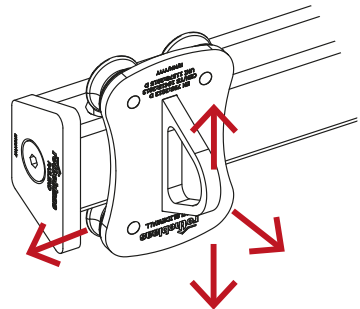
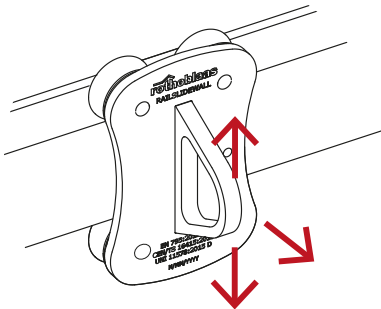
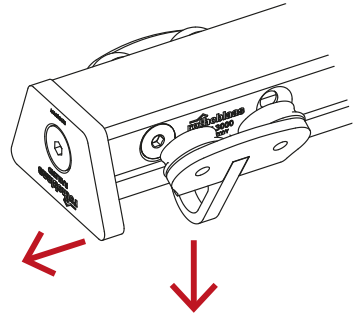
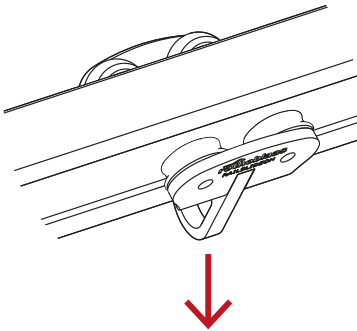
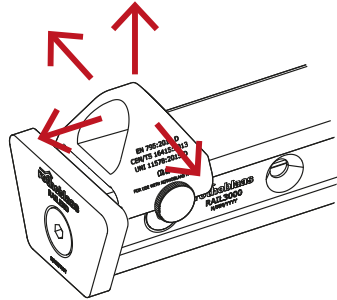
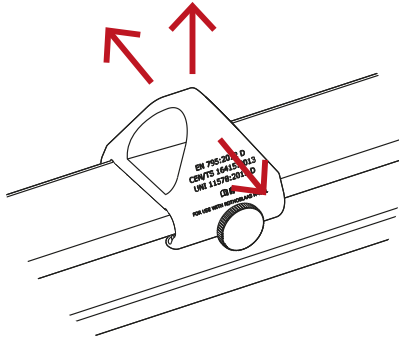
■ RAILSLIDE ■ RAILSLIDEWALL ■ RAILSLIDEOH

INSTALLATION DATE

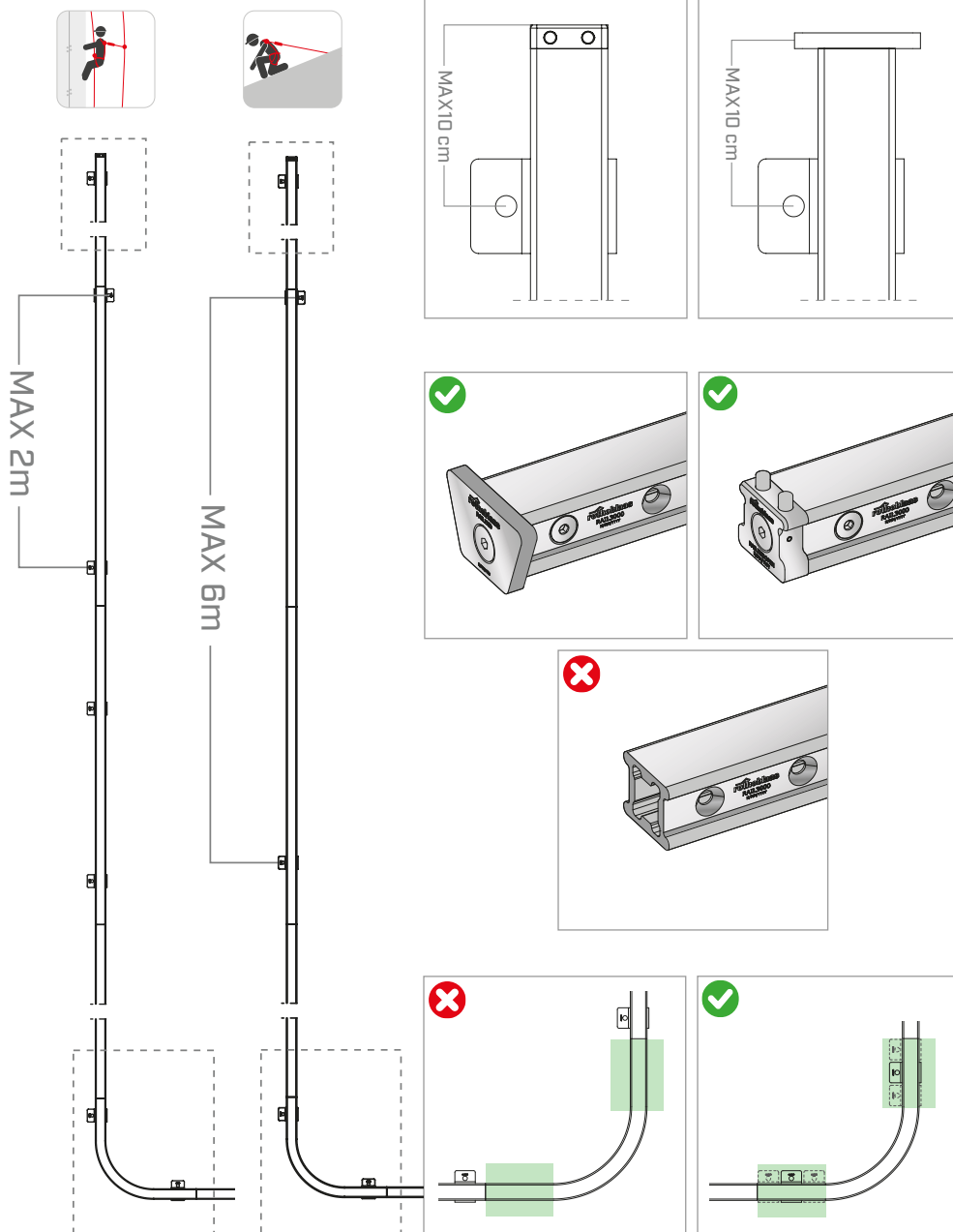
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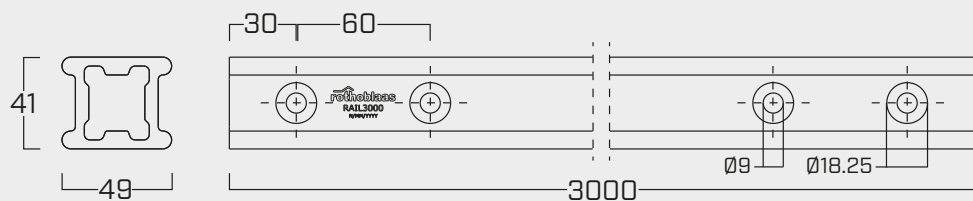

rothoblaas
RAIL3000
N/MM/YYYY

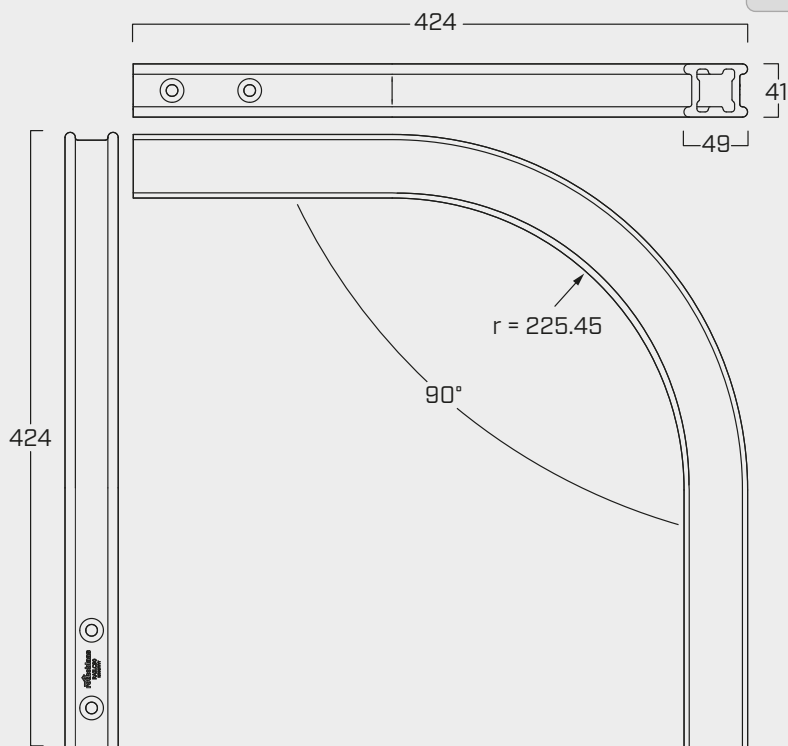
■ LOAD TEST MODELS



TECHNICAL DATA

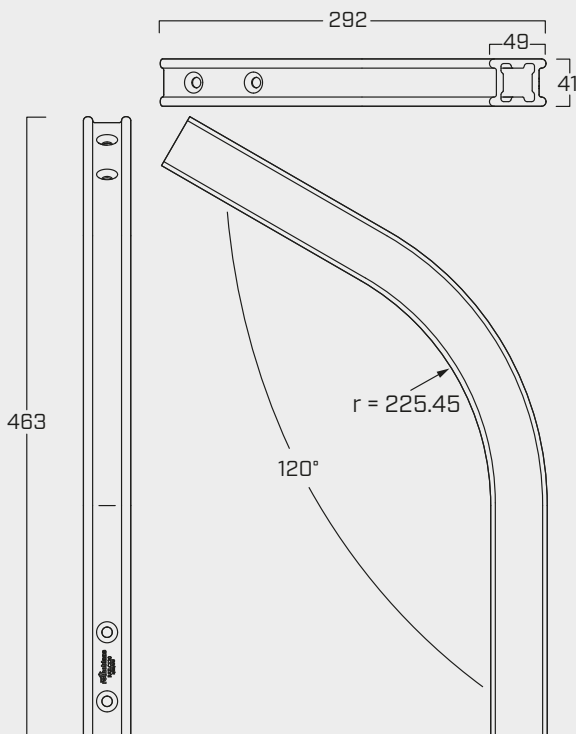


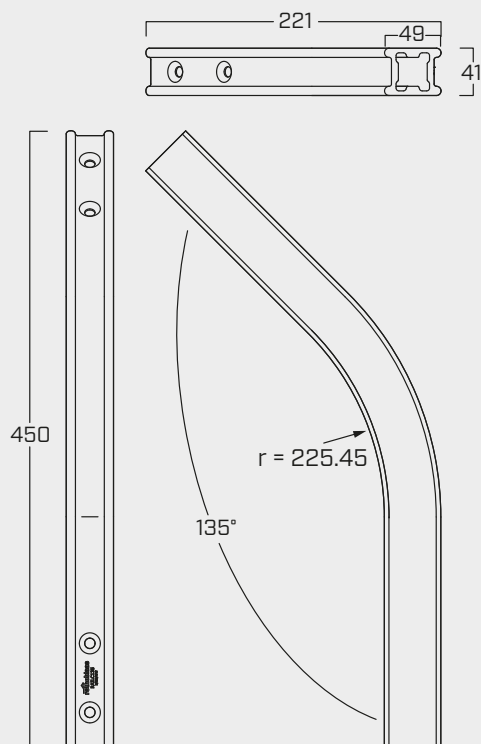




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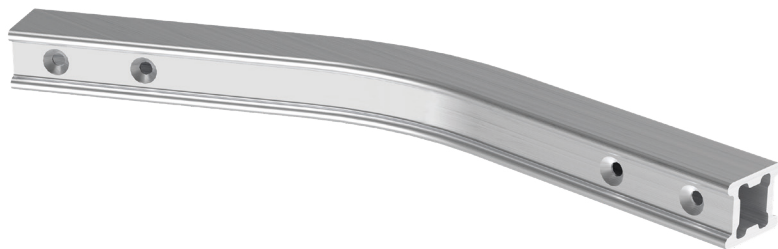
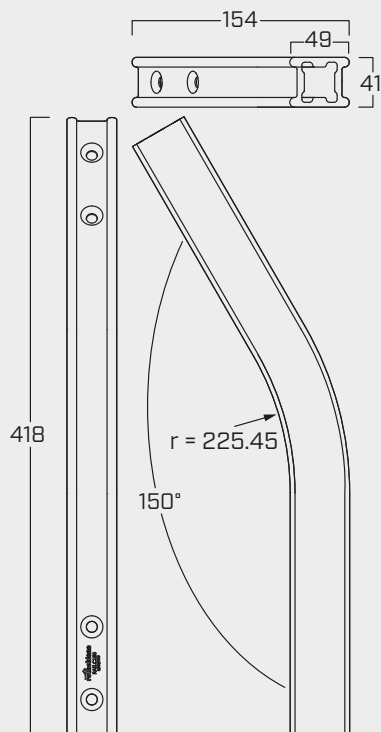
AL
EN-AW
6063
T6





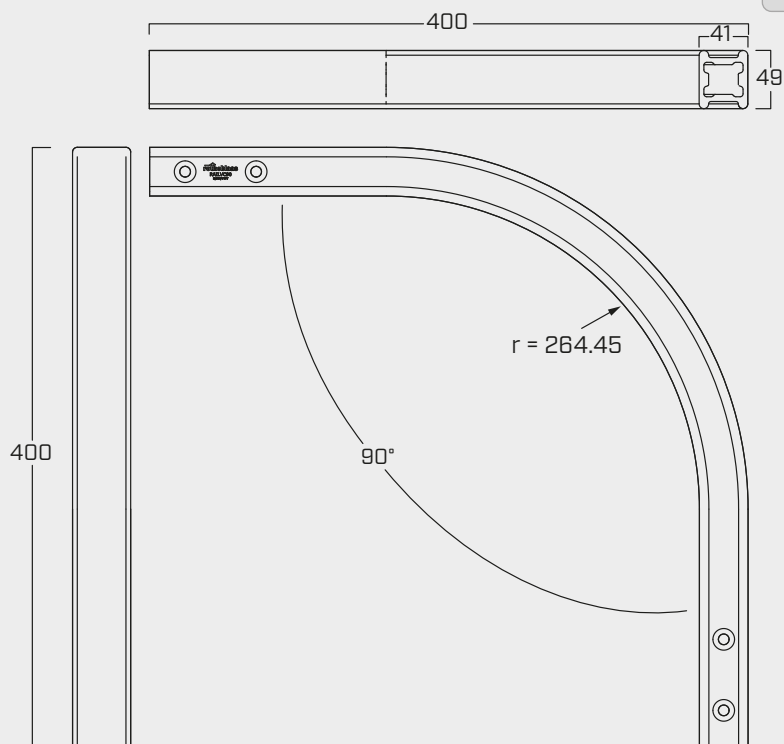
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AL
EN-AW
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T6



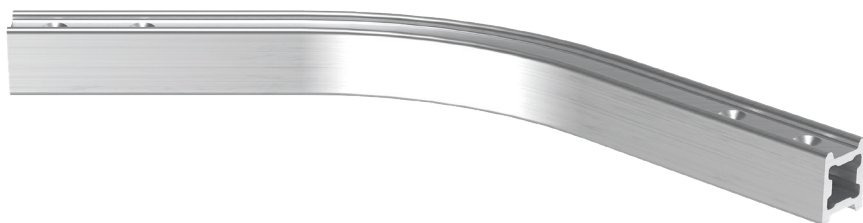
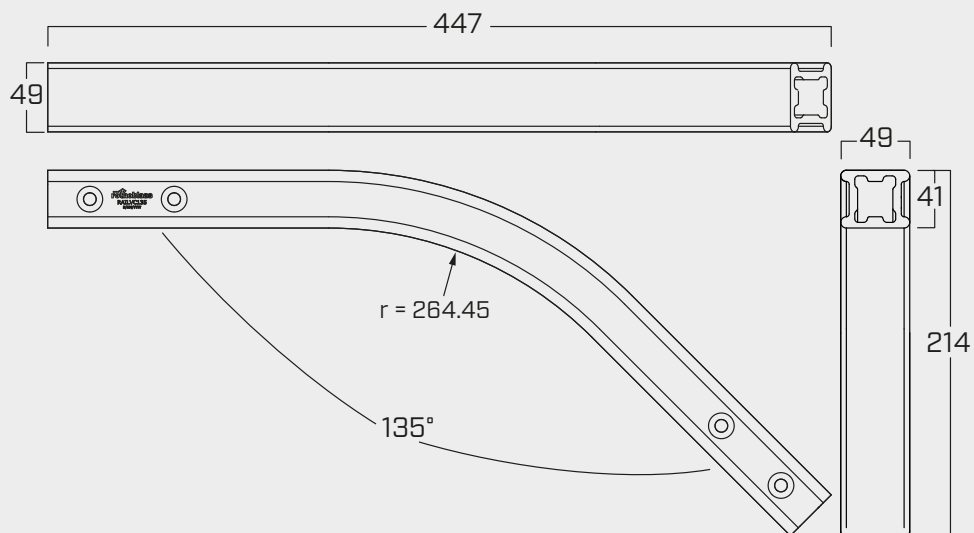
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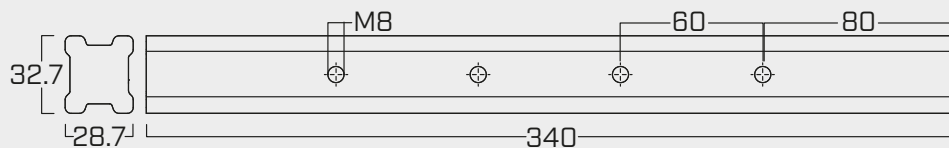
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T6



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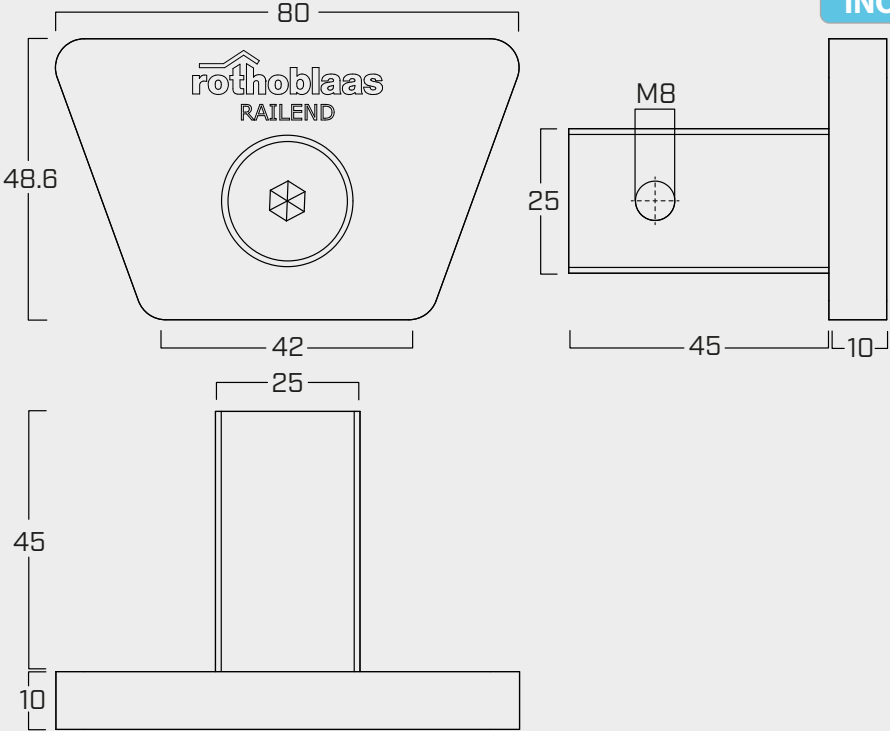
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T6





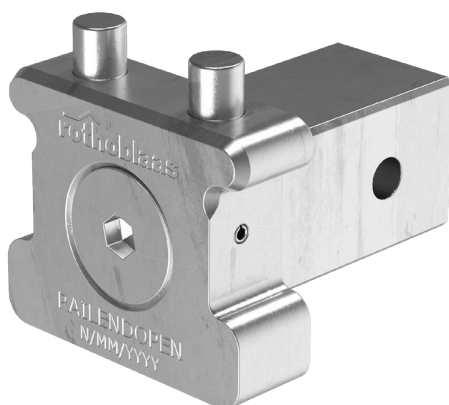
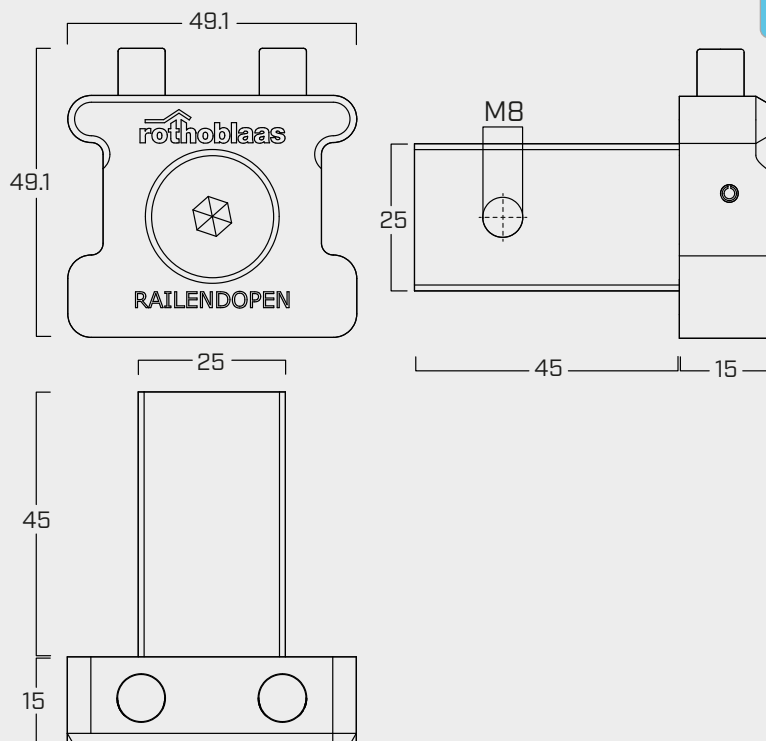
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AISI304
INOX

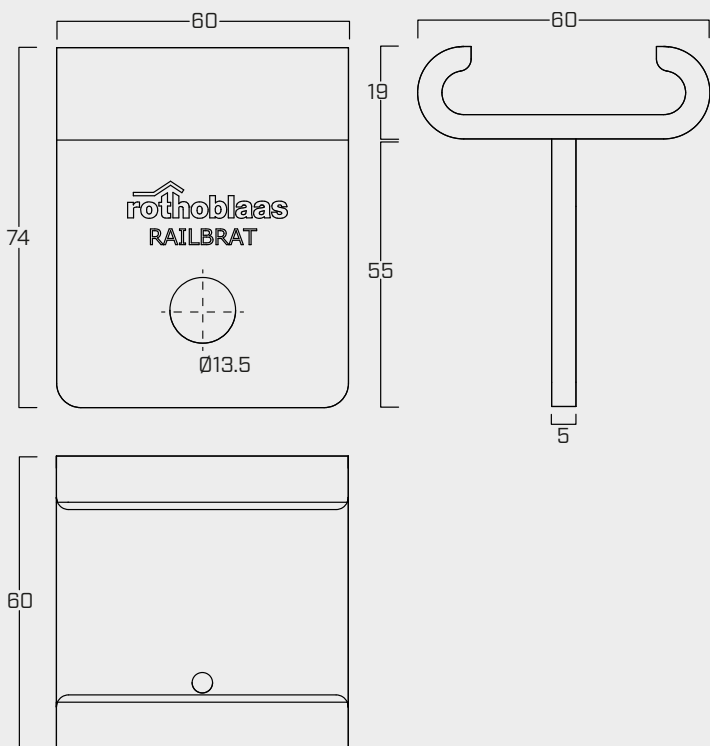


RAILENDOPEN

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AISI304
INOX



RAILBRAT

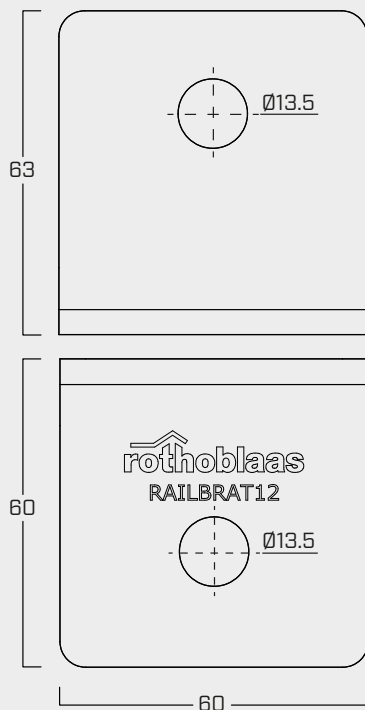


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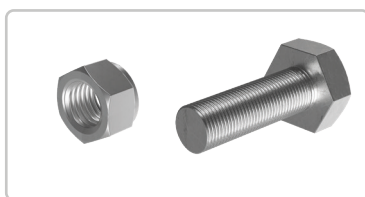
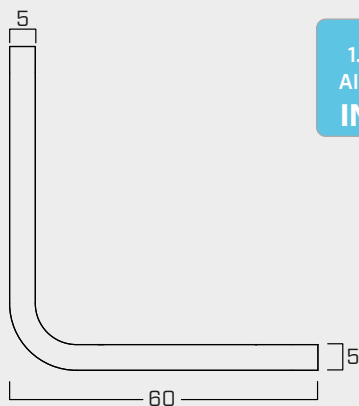


H-RAIL COMPONENTS

RAILBRAT12



1.4301
AISI304
INOX

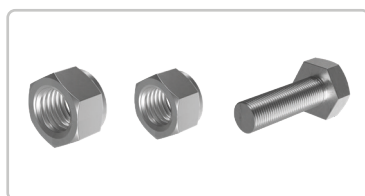
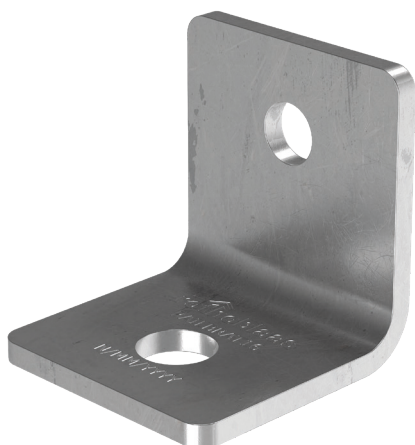
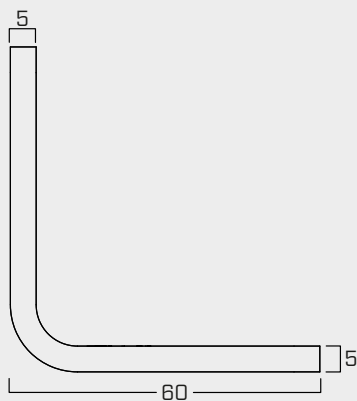
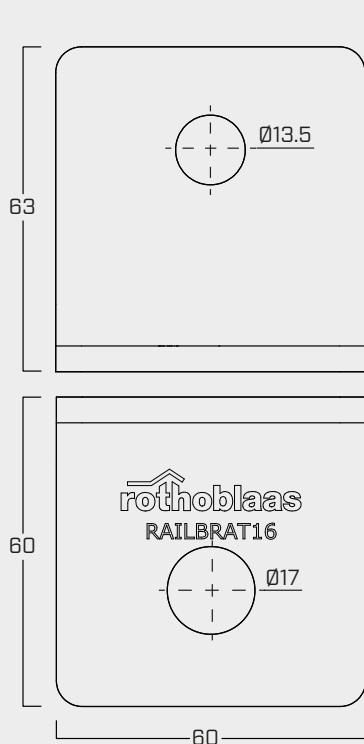


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RAILBRAT16

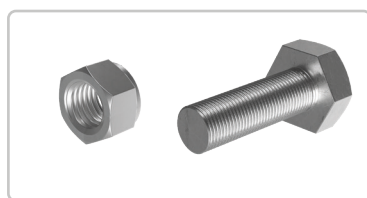
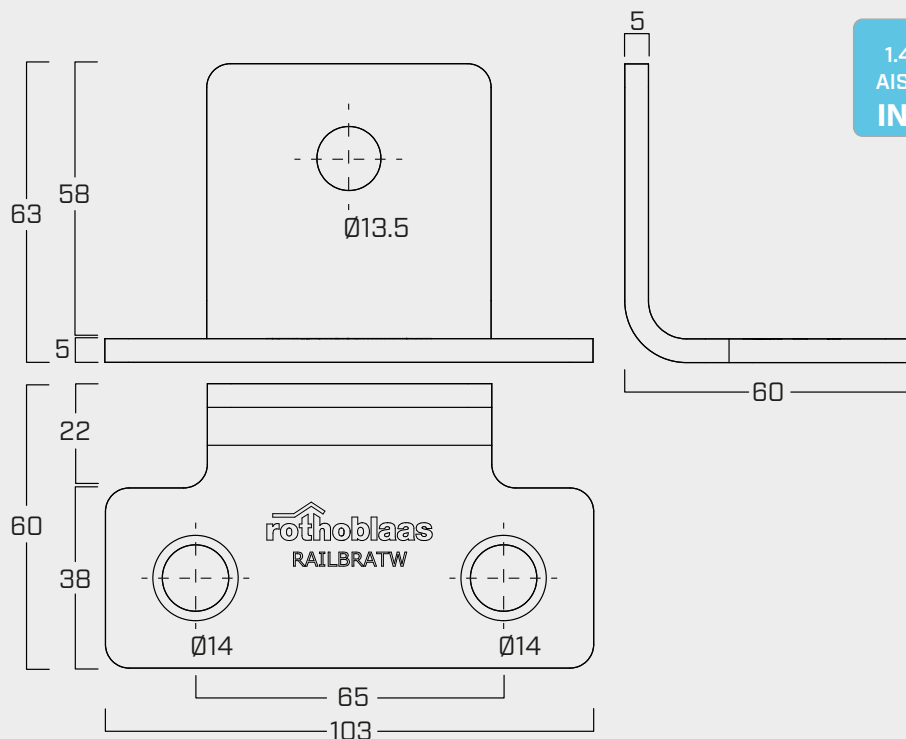


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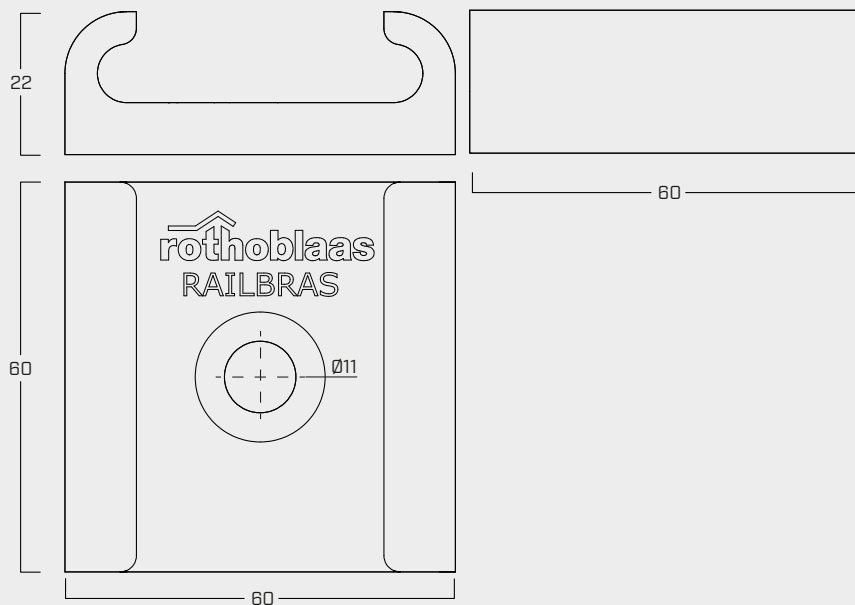


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RAILBRAS



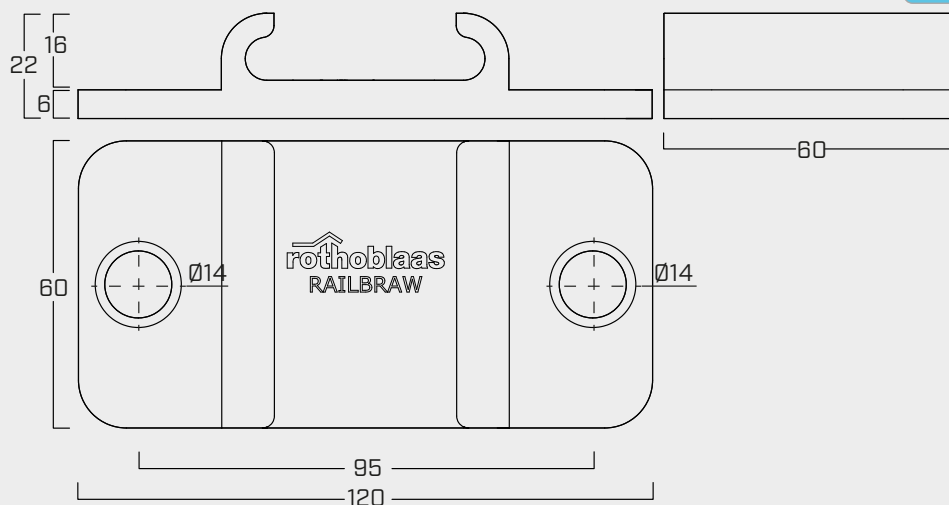
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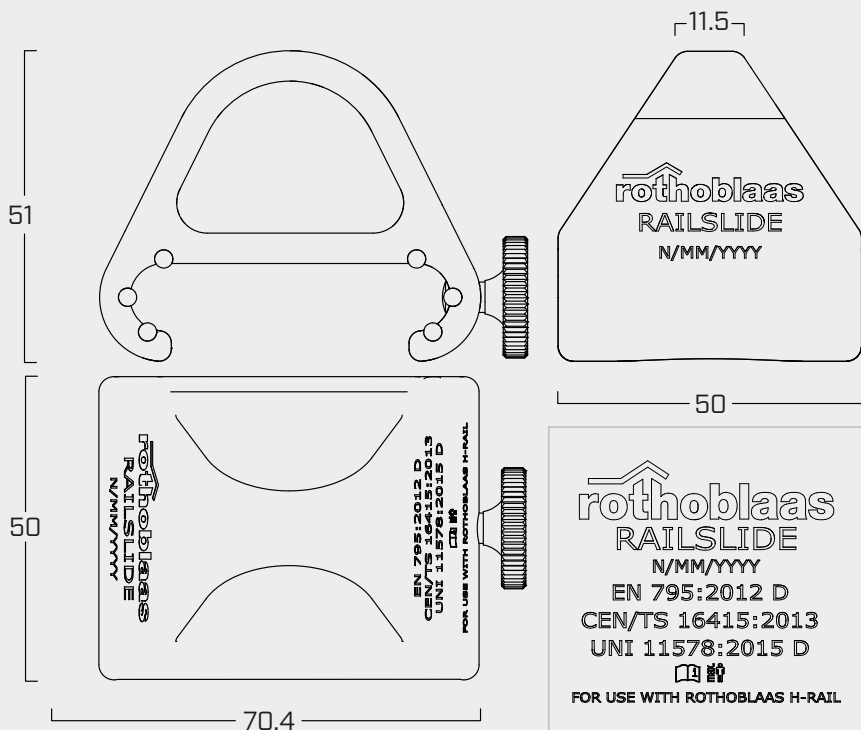
RAILBRAW



1.4301
AISI304
INOX



RAILSLIDE



1.4301
AISI304
INOX

PA.6

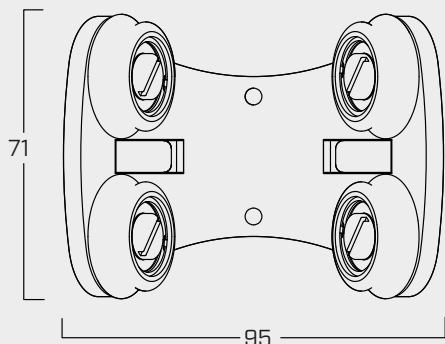
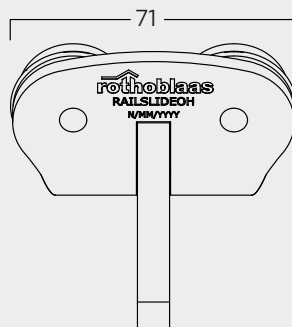
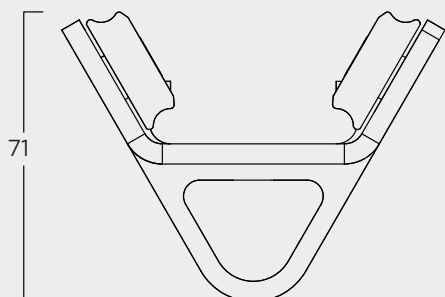


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RAILLOCKSCREW

RAILSLIDEOH



1.4301
AISI304
INOX



rothoblaas
RAILSLIDEOH
N/MM/YYYY
EN 795:2012 D
CEN/TS 16415:2013
UNI 11578:2015 D
FOR USE WITH ROTHOBLAAS H-RAIL

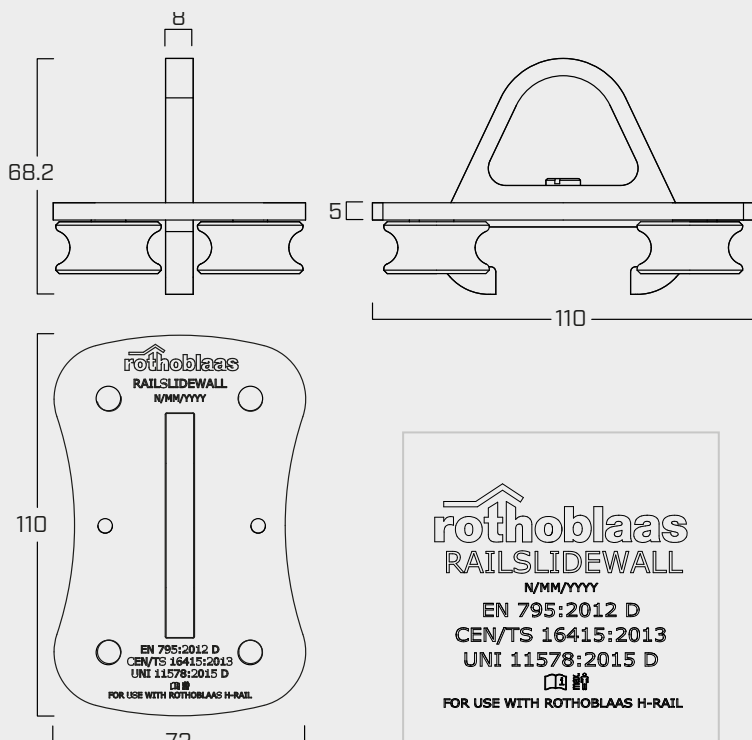


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RAILSLIDEWALL



1.4301
AISI304
INOX

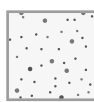


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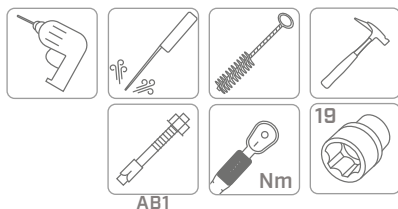
SUBSTRUCTURE INSTALLATION

CONCRETE INSTALLATION

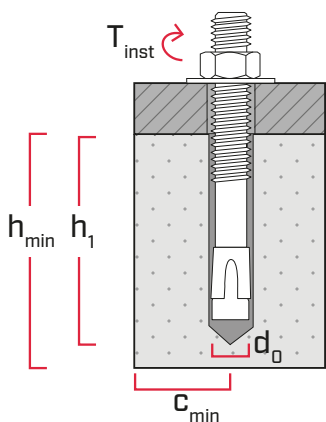
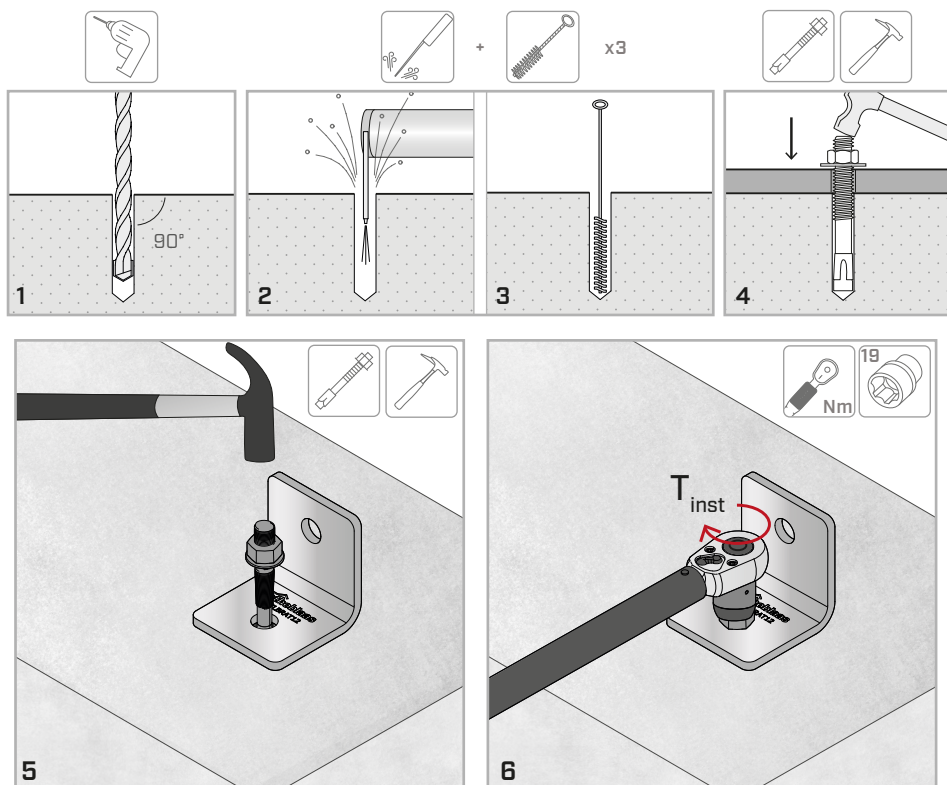
RAILBRAT12



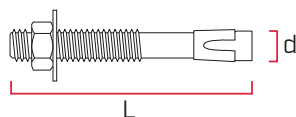
C20/25



AB1



AB1 12 x 100 mm



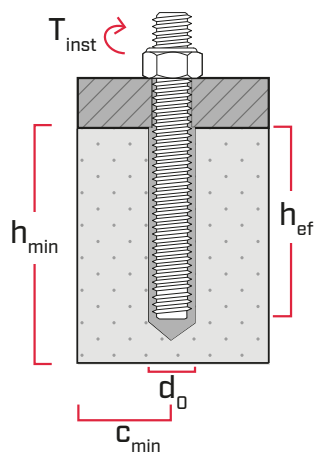
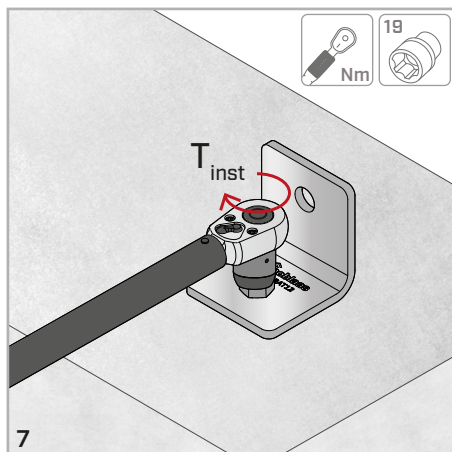
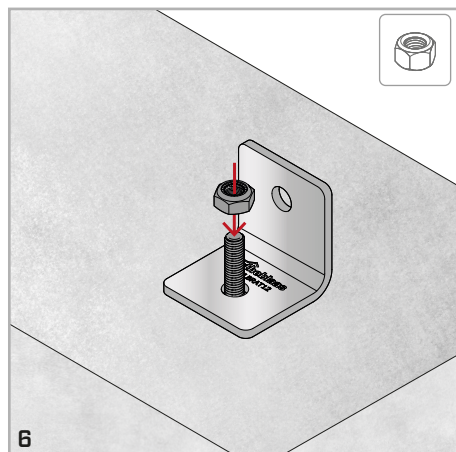
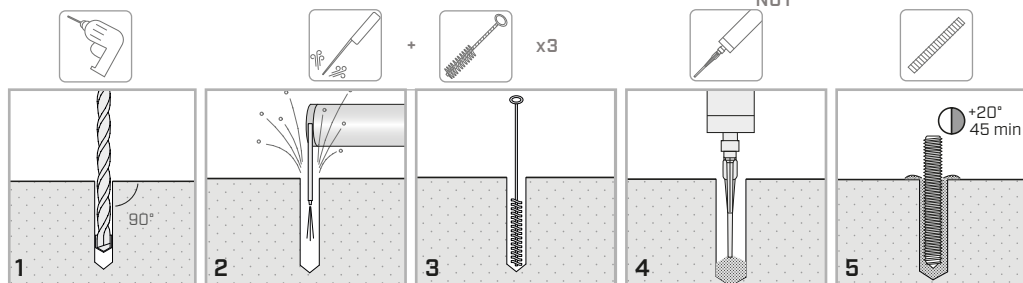
d	$=$	12 mm	d_0	$=$	12 mm
L	$=$	100 mm	h_1	$\geq$	85 mm
T_{inst}	$=$	60 Nm	h_{min}	$\geq$	140 mm
			c_{min}	$\geq$	70 mm

CONCRETE INSTALLATION

RAILBRAT12



SELF-LOCKING
NUT



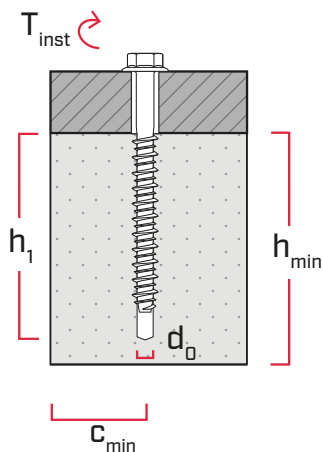
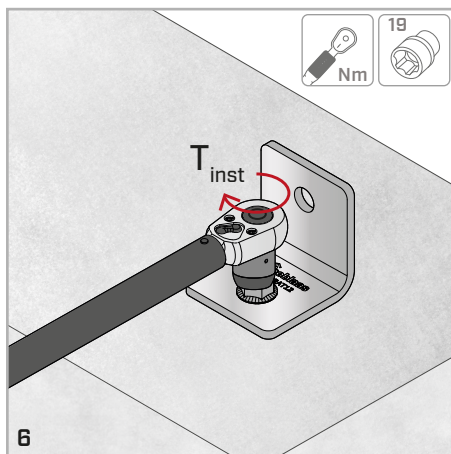
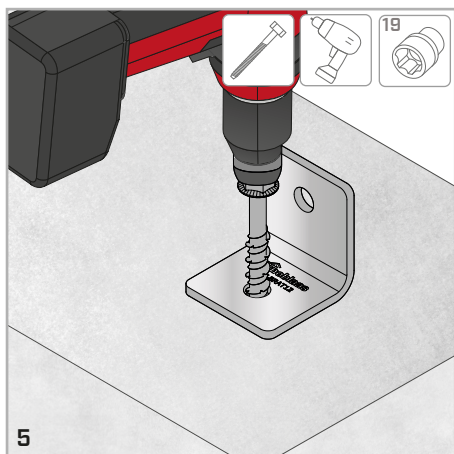
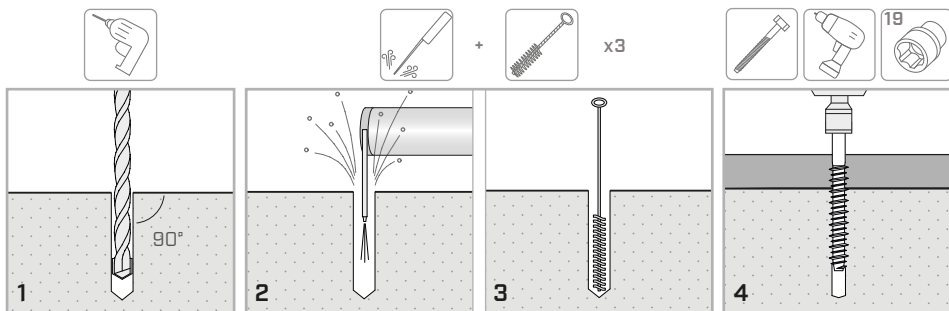
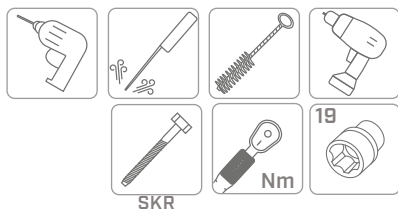
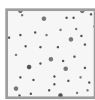
M12 - 5.8 min



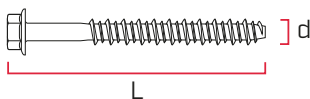
d	=	12 mm	d ₀	=	14 mm
L	≥	h _{ef} + 25 mm	h _{ef}	=	70 mm
T _{inst}	=	40 Nm	h _{min}	=	h _{ef} + 30 ≥ 100mm
			c _{min}	≥	60 mm

CONCRETE INSTALLATION

RAILBRAT12



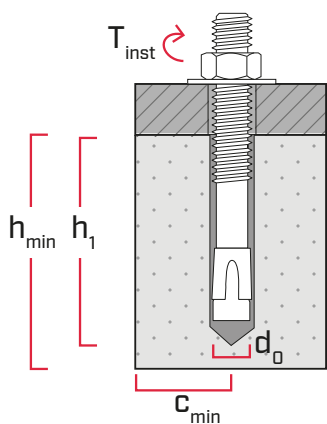
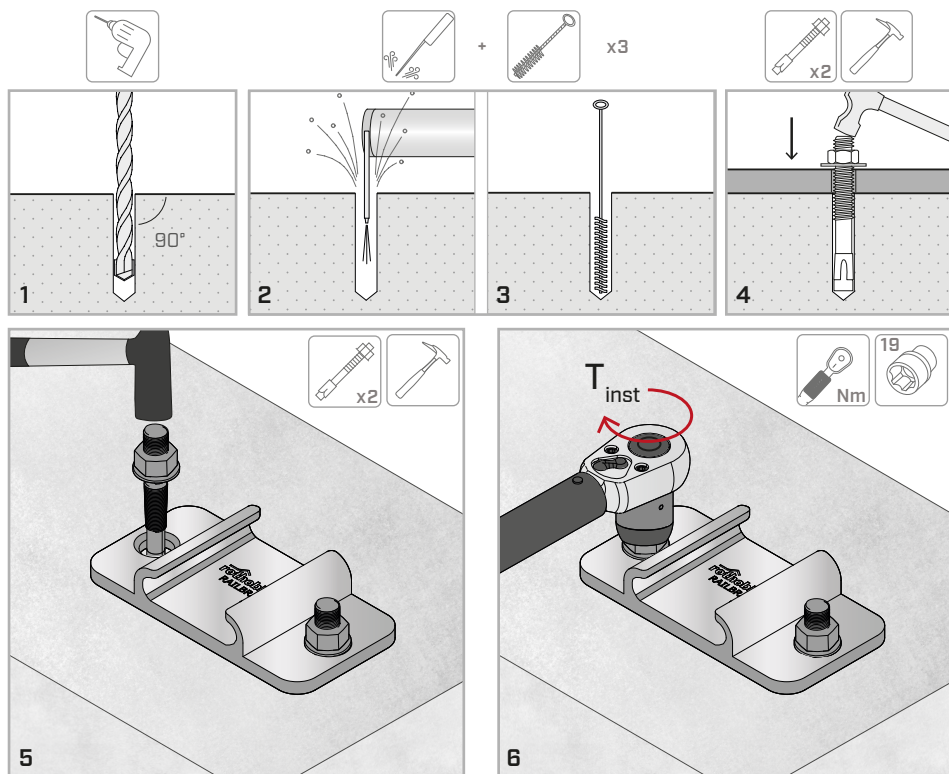
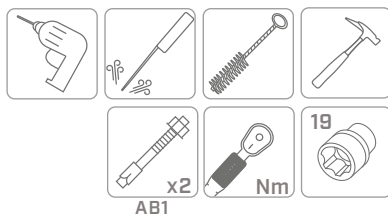
SKR CE 12 x 90 mm



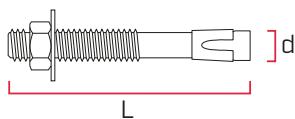
d	$=$	12 mm	d_0	$=$	10 mm
L	$=$	90 mm	h_1	$=$	100 mm
T_{inst}	$=$	80 Nm	h_{min}	$\geq$	130 mm
			c_{min}	$\geq$	96 mm

CONCRETE INSTALLATION

RAILBRATW



2 x AB1 12 x 100 mm



d	=	12 mm	d ₀	=	12 mm
L	=	100 mm	h ₁	≥	85 mm
T _{inst}	=	60 Nm	h _{min}	≥	140 mm
			c _{min}	≥	70 mm

CONCRETE INSTALLATION

RAILBRATW



C20/25



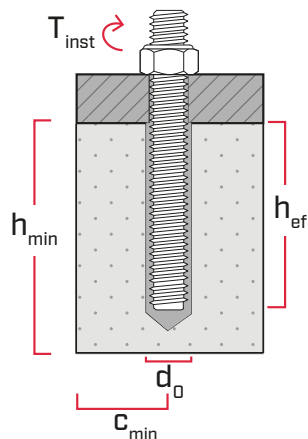
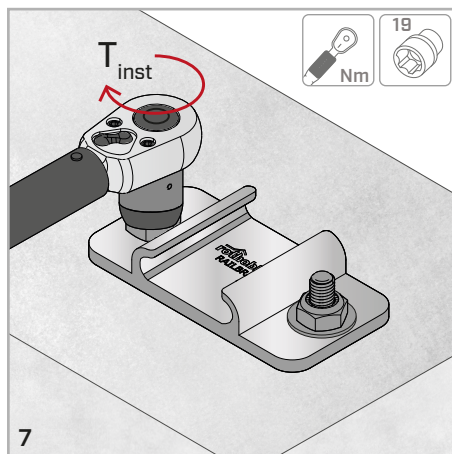
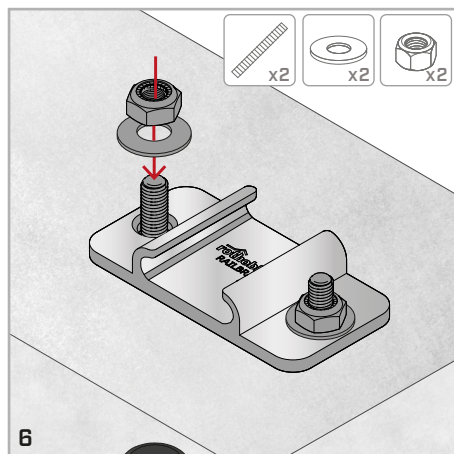
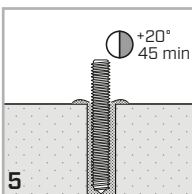
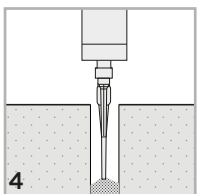
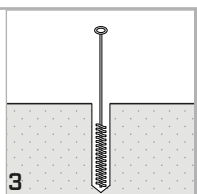
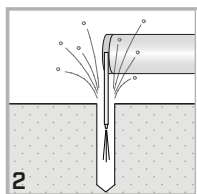
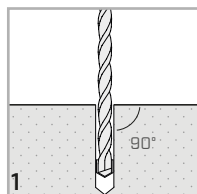
SELF-LOCKING
NUT



x3



x2



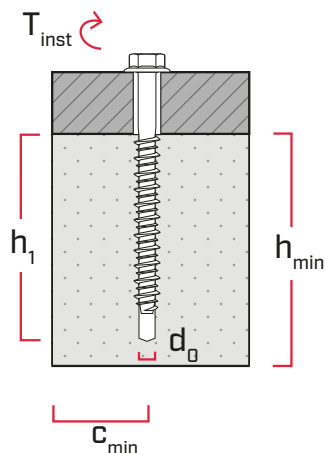
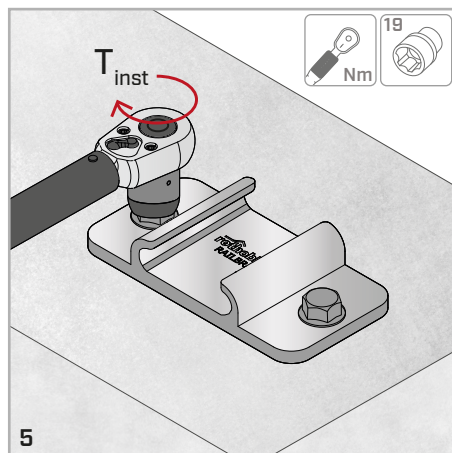
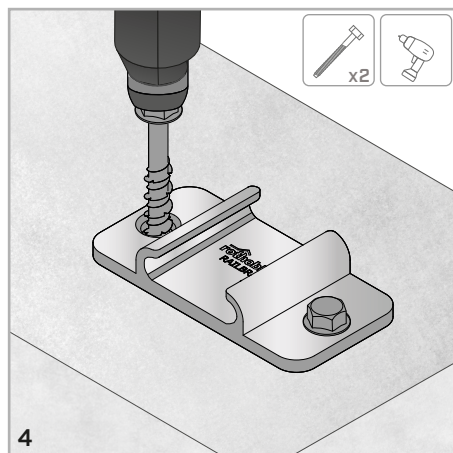
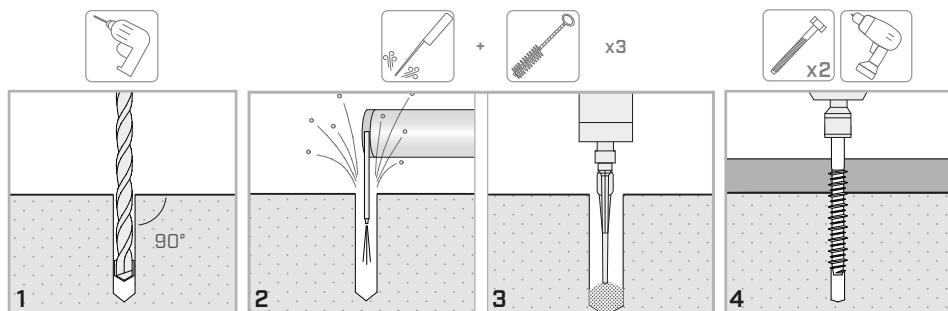
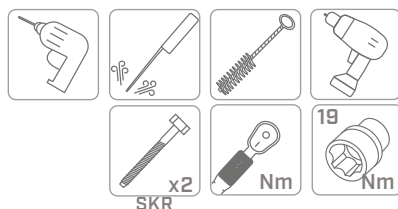
2 x M12 - 5.8 min



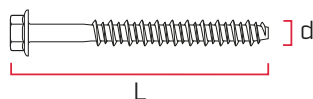
d	=	12 mm	d ₀	=	14 mm
L	≥	h _{ef} + 25 mm	h _{ef}	=	70 mm
T _{inst}	=	40 Nm	h _{min}	=	h _{ef} + 30 ≥ 100 mm
			c _{min}	≥	60 mm

CONCRETE INSTALLATION

RAILBRATW



2 x SKR CE 12 x 90 mm



d	$= 12 \text{ mm}$	d_0	$= 10 \text{ mm}$
L	$= 90 \text{ mm}$	h_1	$= 100 \text{ mm}$
T_{inst}	$= 80 \text{ Nm}$	h_{min}	$\geq 130 \text{ mm}$
		c_{min}	$\geq 96 \text{ mm}$

STEEL INSTALLATION

RAILBRAT12



S 235



M12



SELF-LOCKING
NUT



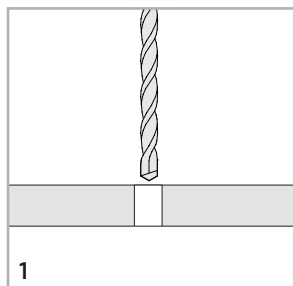
19
x2



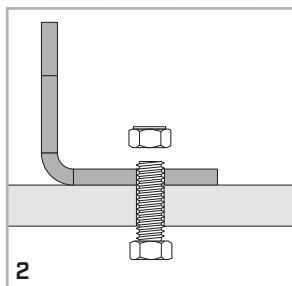
Nm



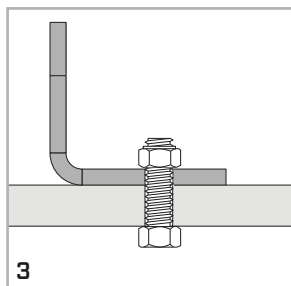
19



1



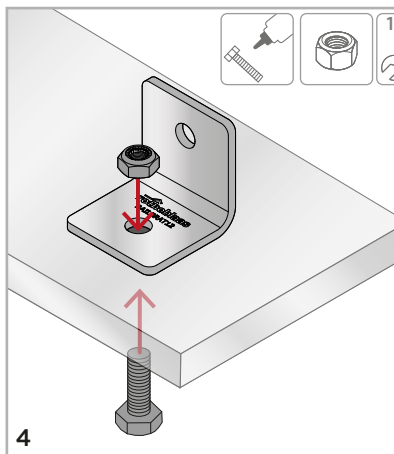
2



3



19
x2



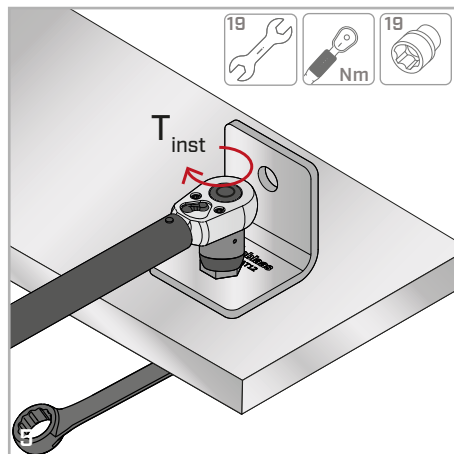
4



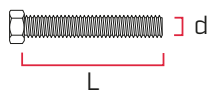
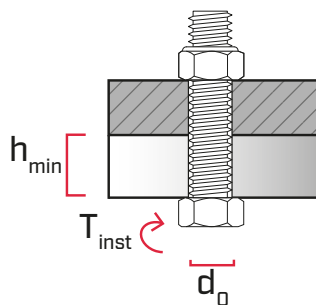
Nm



19



M12 - A2-70



d	=	12 mm	d ₀	=	12,5 mm
L	≥	h _{min} + 25 mm	h _{min}	≥	5 mm
A2-70	▶	T _{inst} = 30 Nm			

STEEL INSTALLATION

RAILBRAS



S 235



DIN7991



SELF-LOCKING
NUT



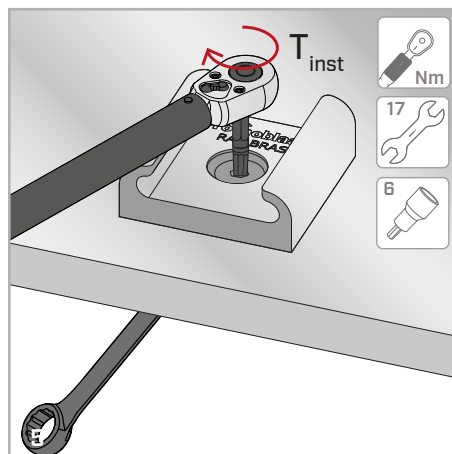
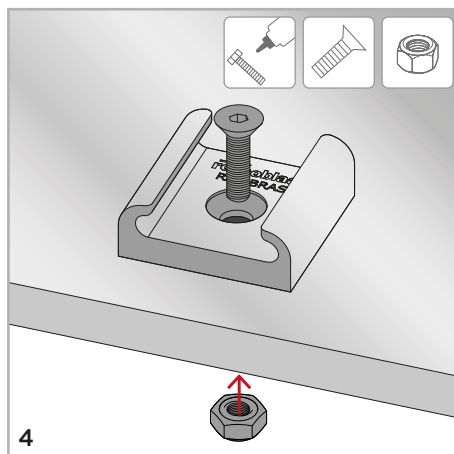
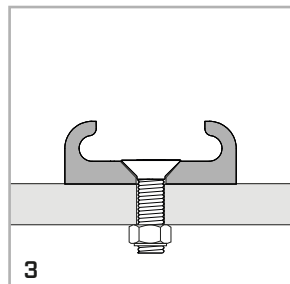
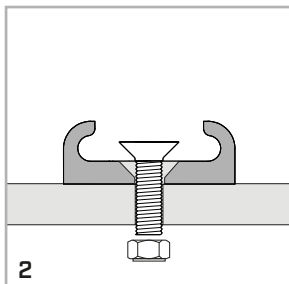
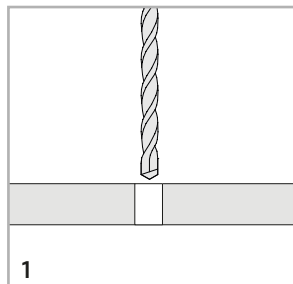
17



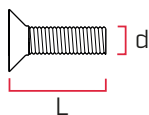
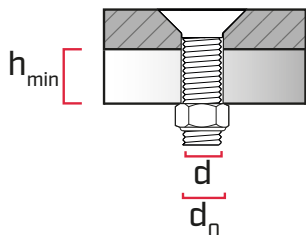
Nm



6



DIN7991 M10 - A2-70



$d = 10 \text{ mm}$
 $L \geq h_{min} + 30 \text{ mm}$
 A2-70 $T_{inst} = 15 \text{ Nm}$

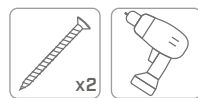
$d_0 = 10,5 \text{ mm}$
 $h_{min} \geq 5 \text{ mm}$

WOOD INSTALLATION

RAILBRATW - RAILBRAW



GL24H

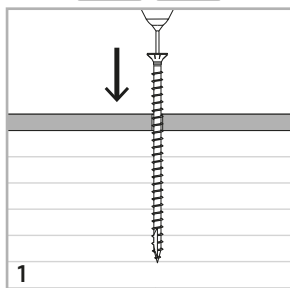


x2

VGS11150
VGSEVO11150

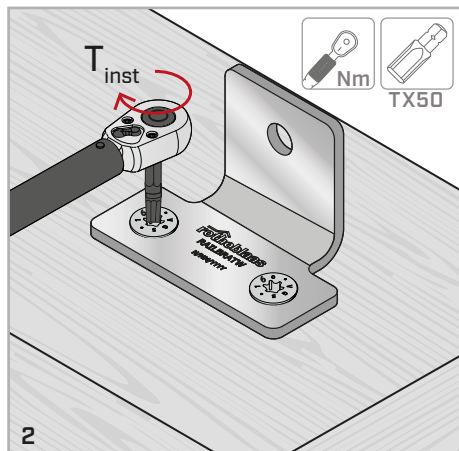


TX50



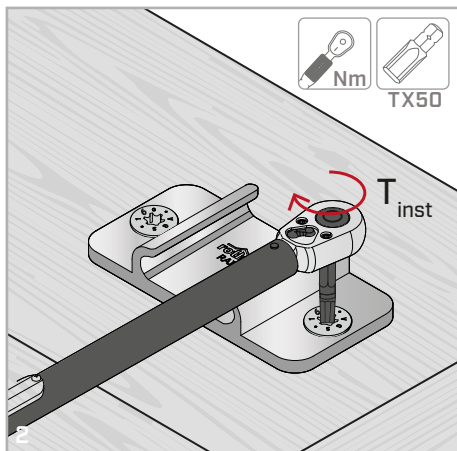
1

RAILBRATW

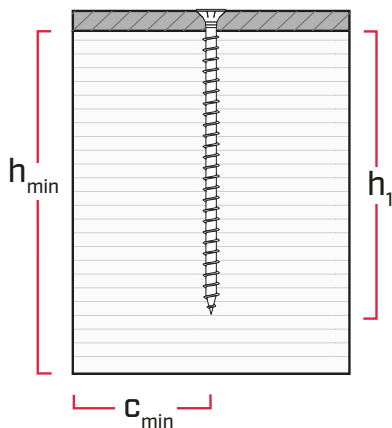


2

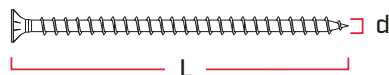
RAILBRAW



2



2 x VGS (EVO) 11 x 150 mm



d	=	11 mm		h_{min}	≥	145 mm
L	=	150 mm		h_{min}	≥	h_1
T_{inst}	=	30 Nm		c_{min}	≥	110 mm

WOOD INSTALLATION

RAILBRATW - RAILBRAW



CLT



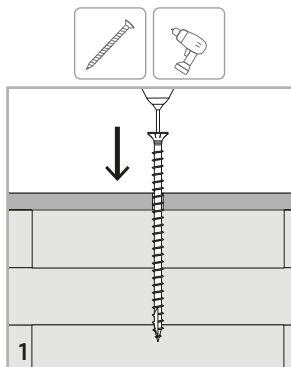
x2
VGS13150
VGSEVO13150



Nm

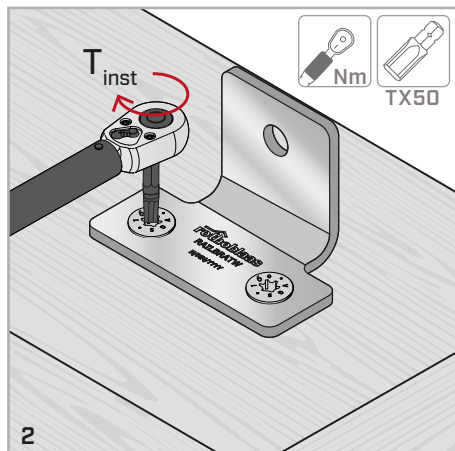


TX50



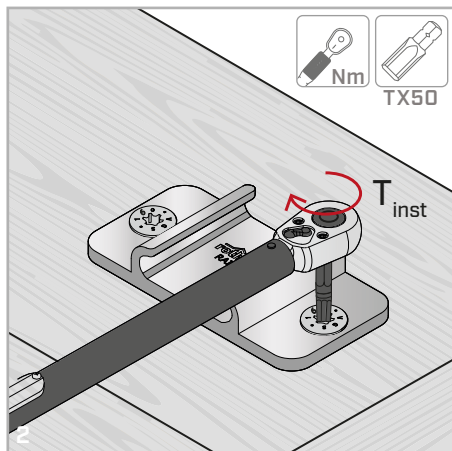
1

RAILBRATW

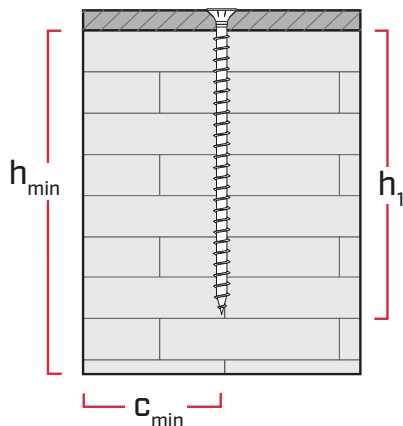


2

RAILBRAW



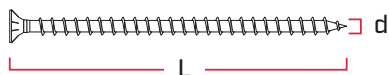
2



2 x VGS (EVO) 13 x 150 mm



VGS
VGS EVO
ETA-11/0030



d	=	13 mm		h_1	≥	145 mm
L	=	150 mm		h_{min}	≥	h_1
T_{inst}	=	50 Nm		c_{min}	≥	130 mm

TOWER INSTALLATION

RAILBRAT16



TOWER
TOWER22
TOWERA2



TOWERXL



M16
SELF-LOCKING
NUT



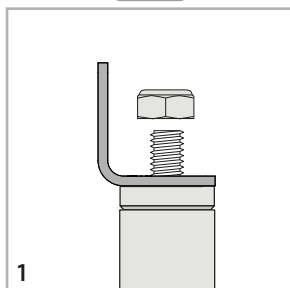
Nm



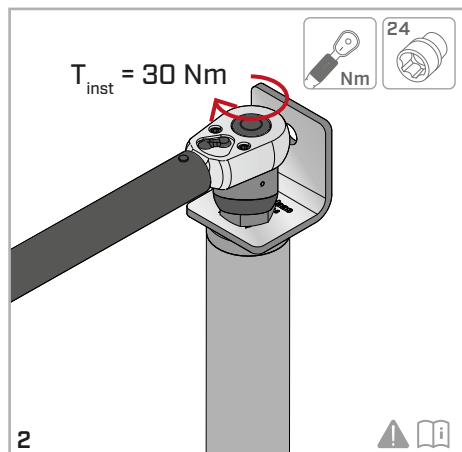
24



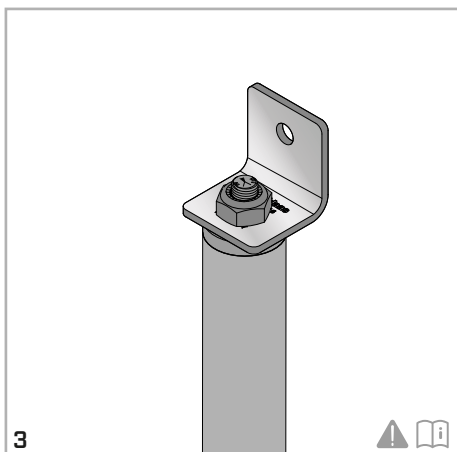
24



1



2



3

TOWER SUBSTRUCTURES



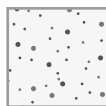
S235



GL24H



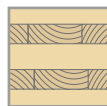
CLT



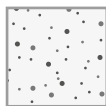
C20/25



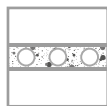
TOWER
TOWER22
TOWERA2



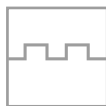
CLT



C20/25



C45/55



Fe: min 0,75 mm

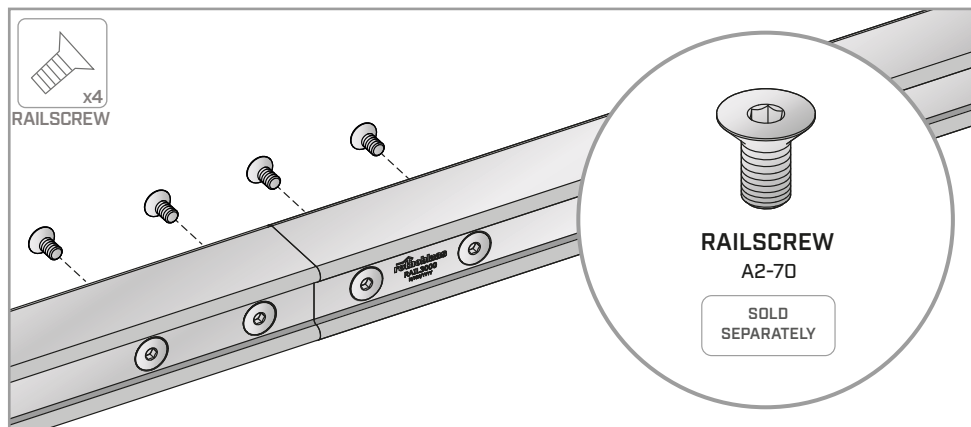
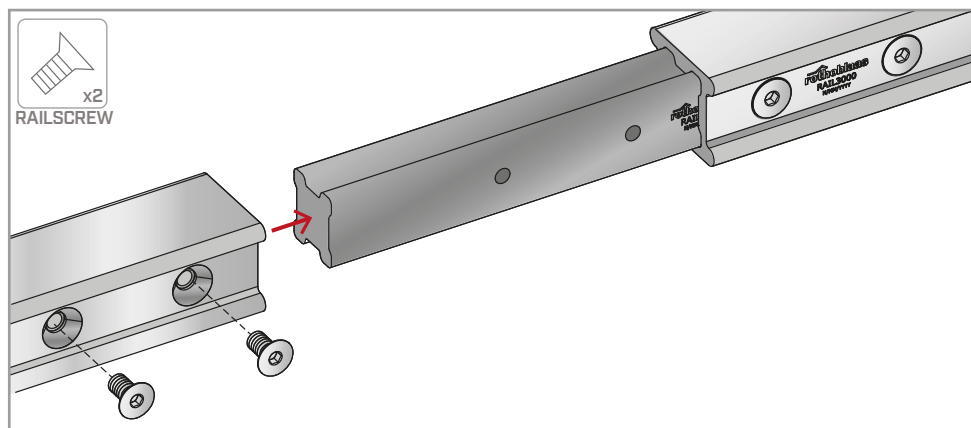
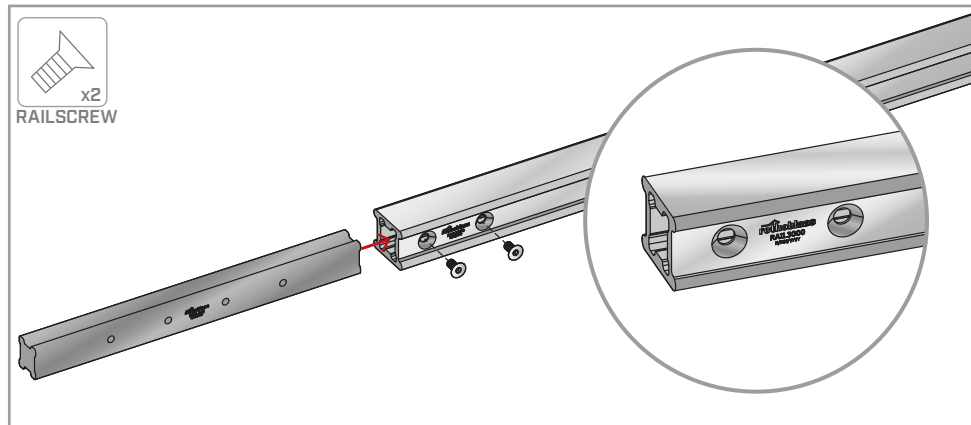


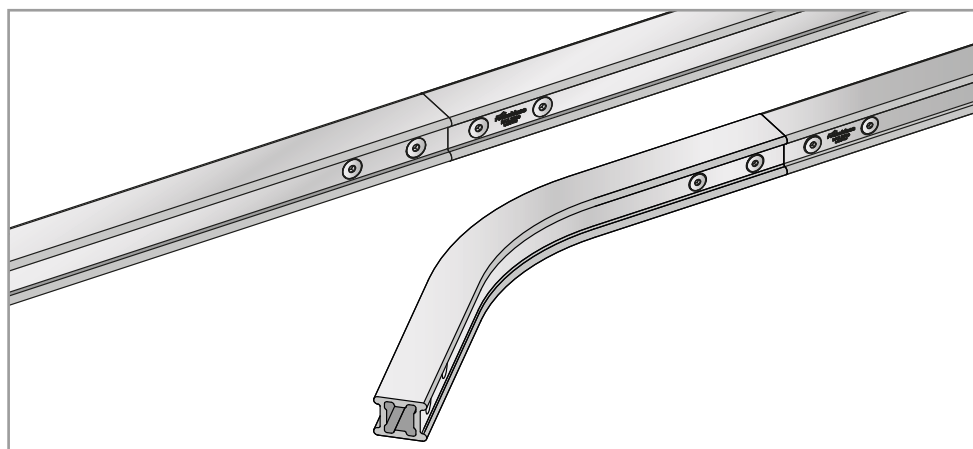
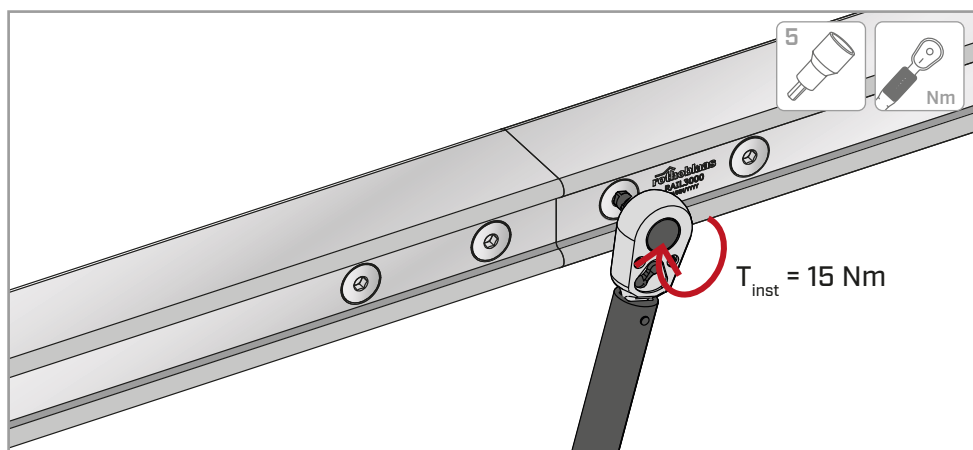
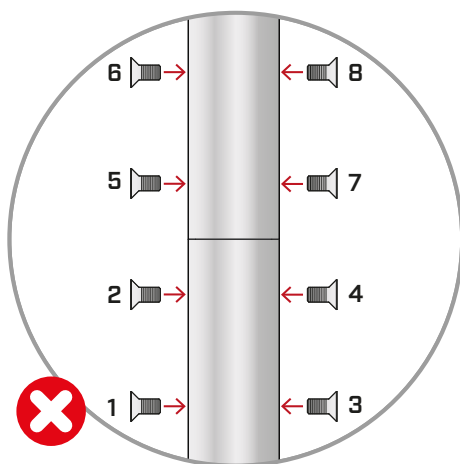
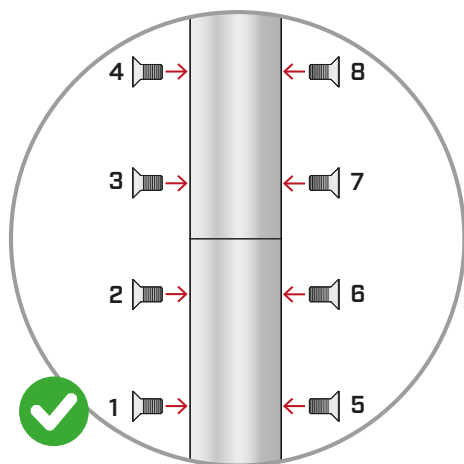
TOWERXL

H-RAIL INSTALLATION

RAIL INSTALLATION

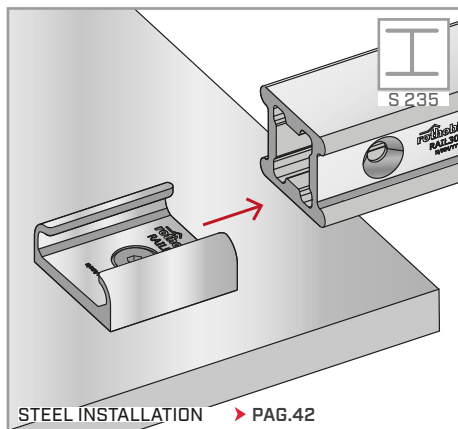
RAIL3000 + RAILJUN



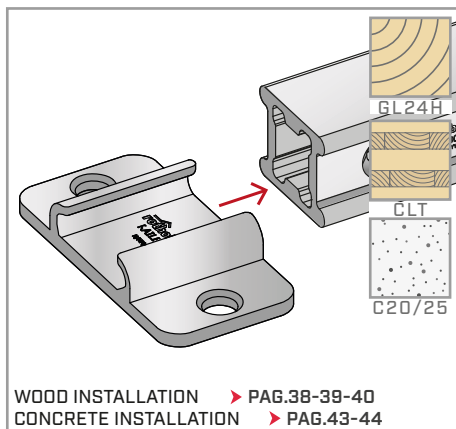


SUPPORT INSTALLATION

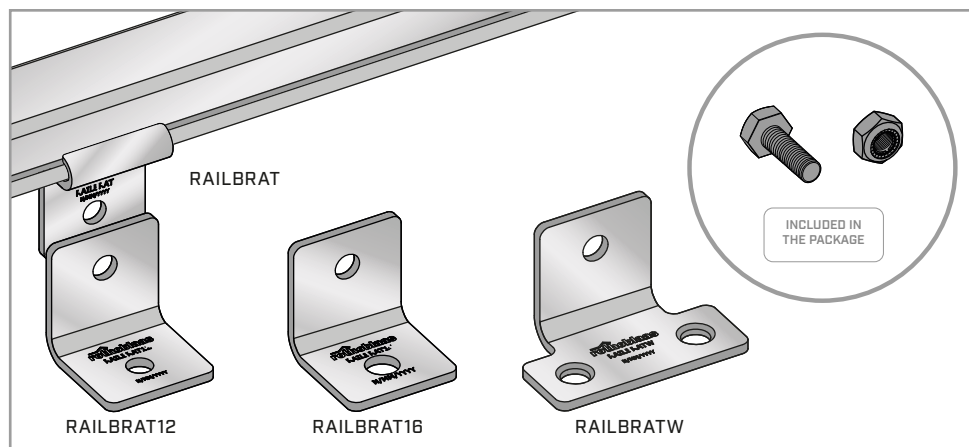
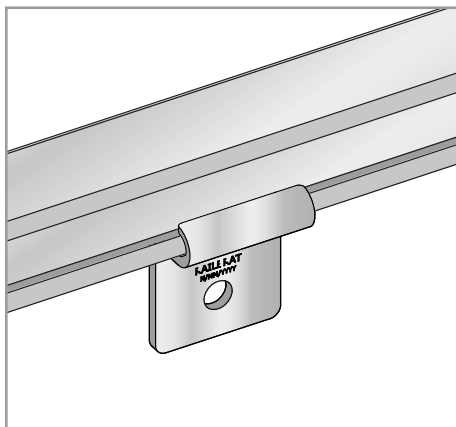
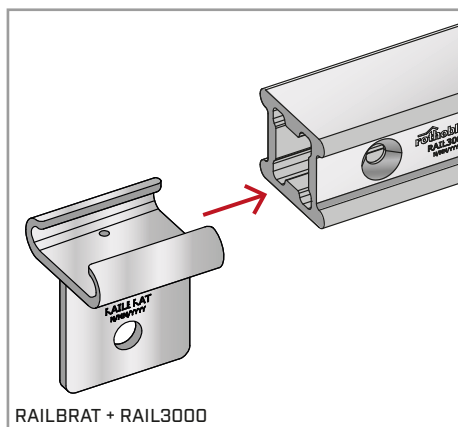
RAILBRAS + RAIL3000

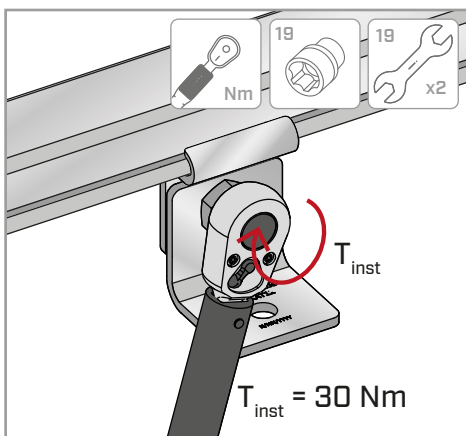
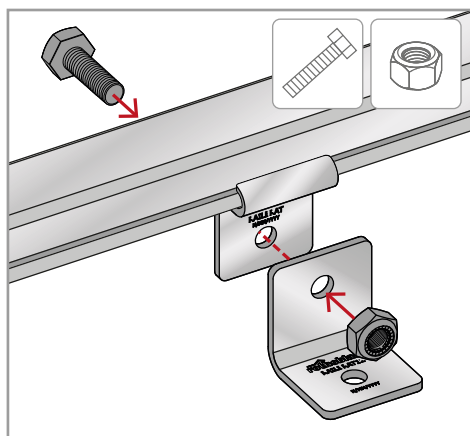


RAILBRAW + RAIL3000

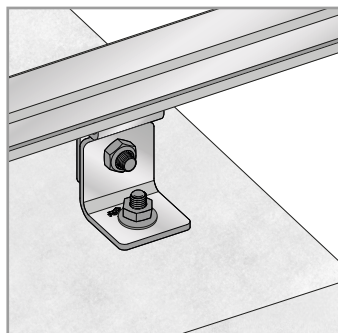


RAILBRAT





SUBSTRUCTURE INSTALLATION

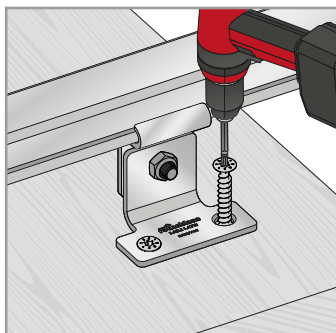


RAILBRAT + RAILBRAT12

CONCRETE INSTALLATION
➤ PAG.35-36-37

RAILBRAT + RAILBRAT16

TOWER INSTALLATION
➤ PAG.45



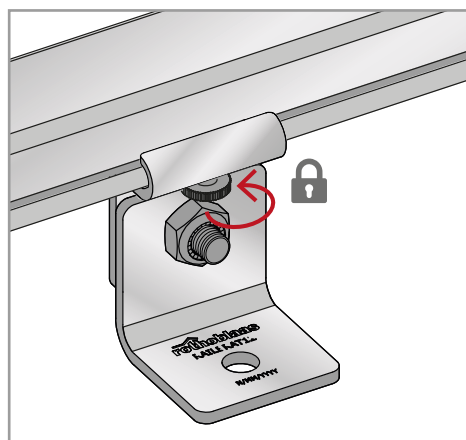
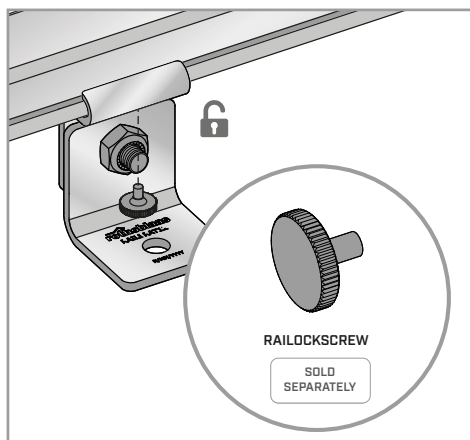
RAILBRAT + RAILBRATW

GL24H INSTALLATION
➤ PAG.43

STEEL INSTALLATION
➤ PAG.35-36-37

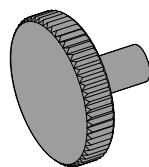
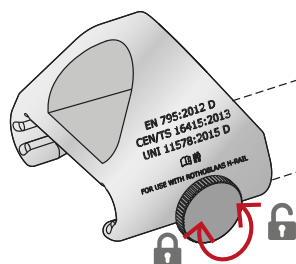
CLT INSTALLATION
➤ PAG.44

RAILOCKSCREW INSTALLATION



SHUTTLE INSTALLATION

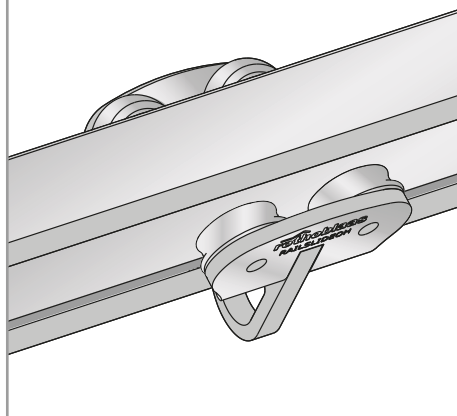
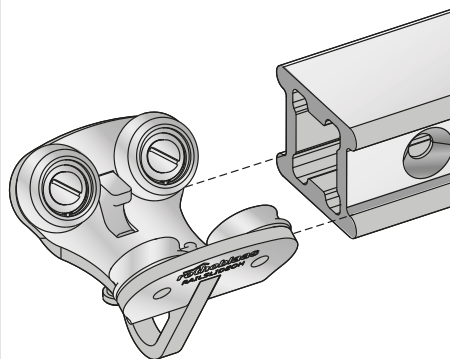
RAIL + RAILSLIDE



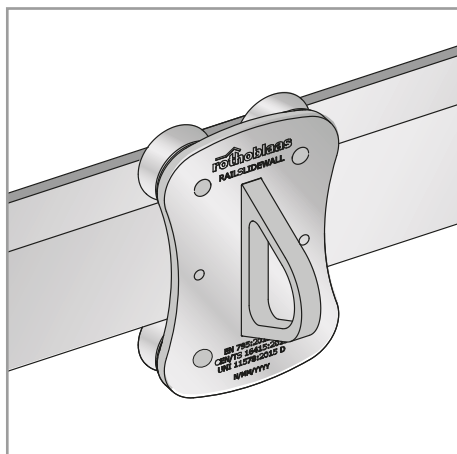
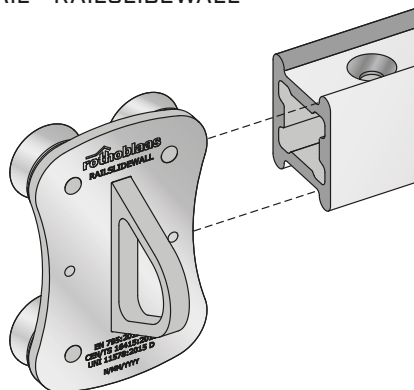
RAILOCKSCREW

INCLUDED IN
THE PACKAGE

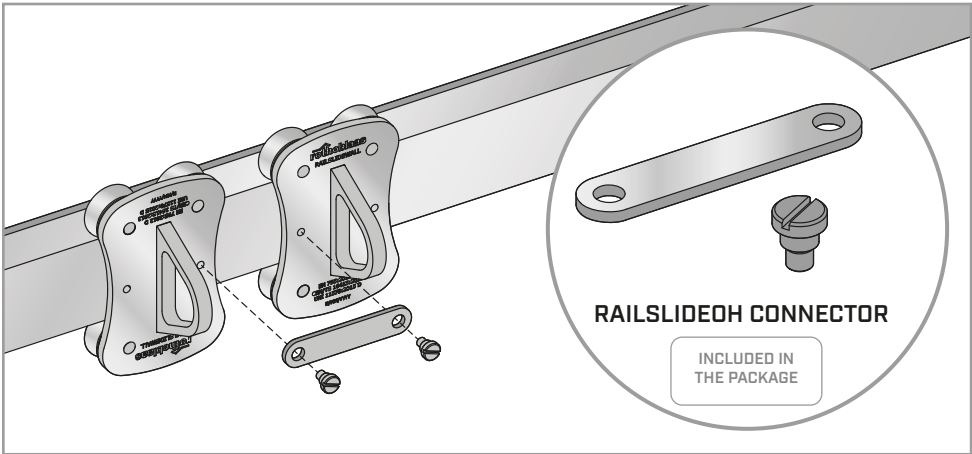
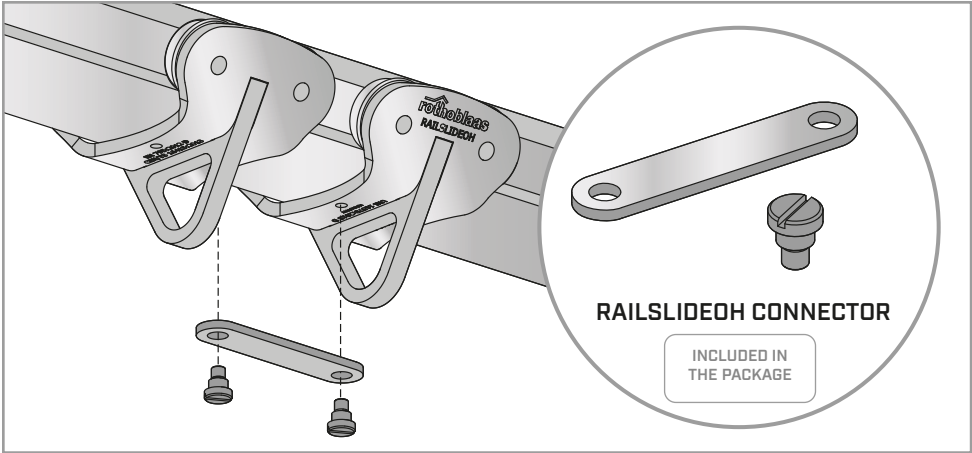
RAIL + RAILSLIDEOH



RAIL + RAILSLIDEWALL



SHUTTLE CONNECTION





RAILSCREW

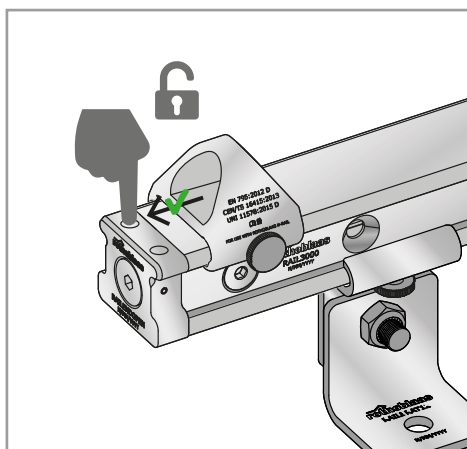
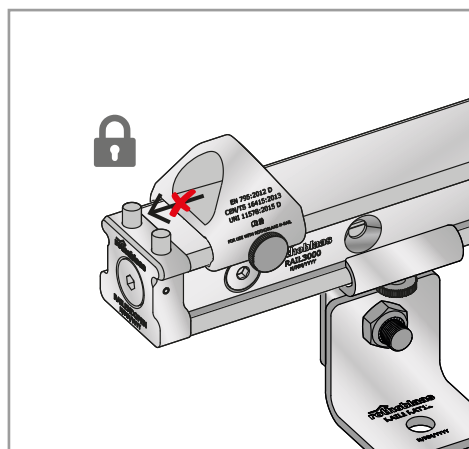
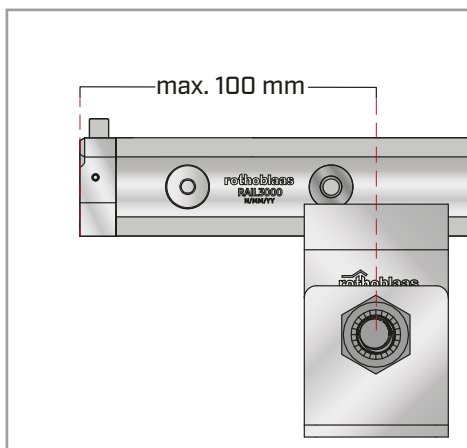
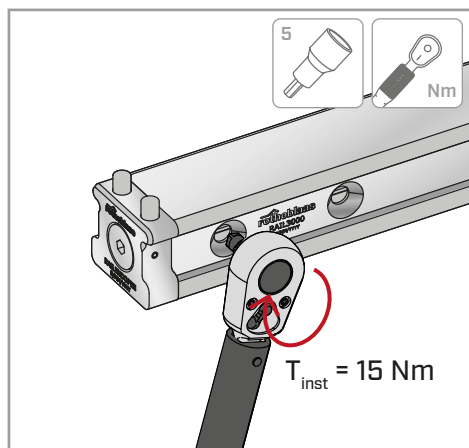
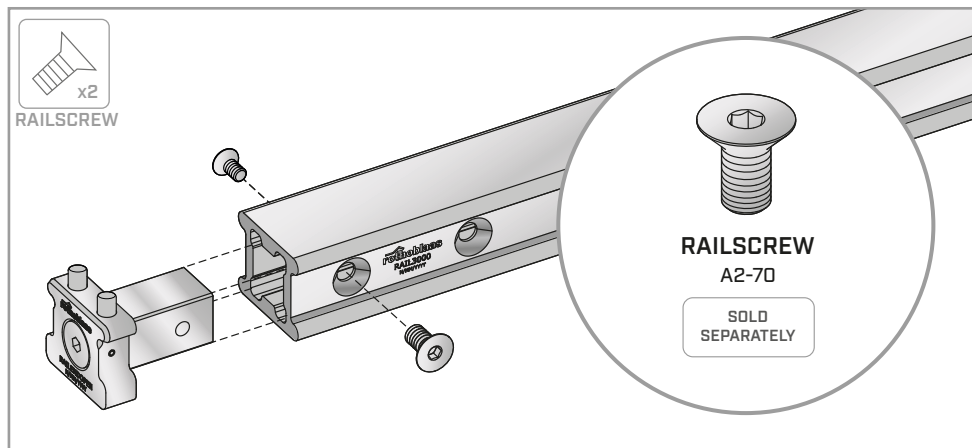
**SOLD
SEPARATELY**



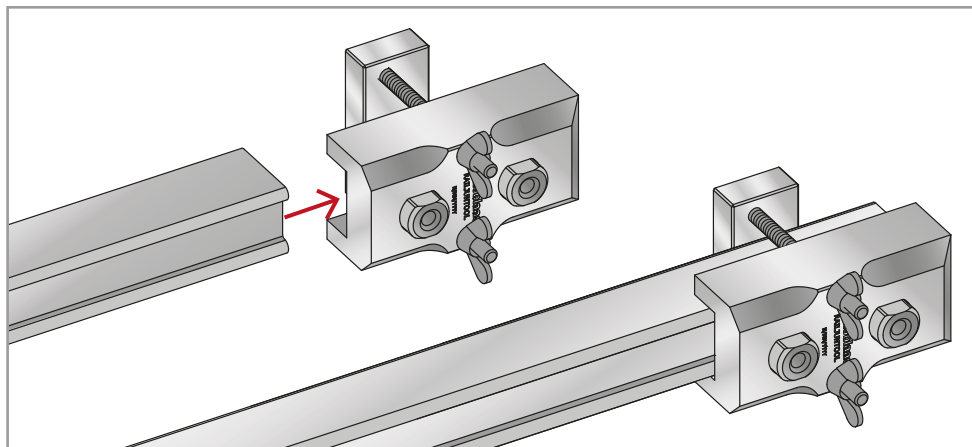
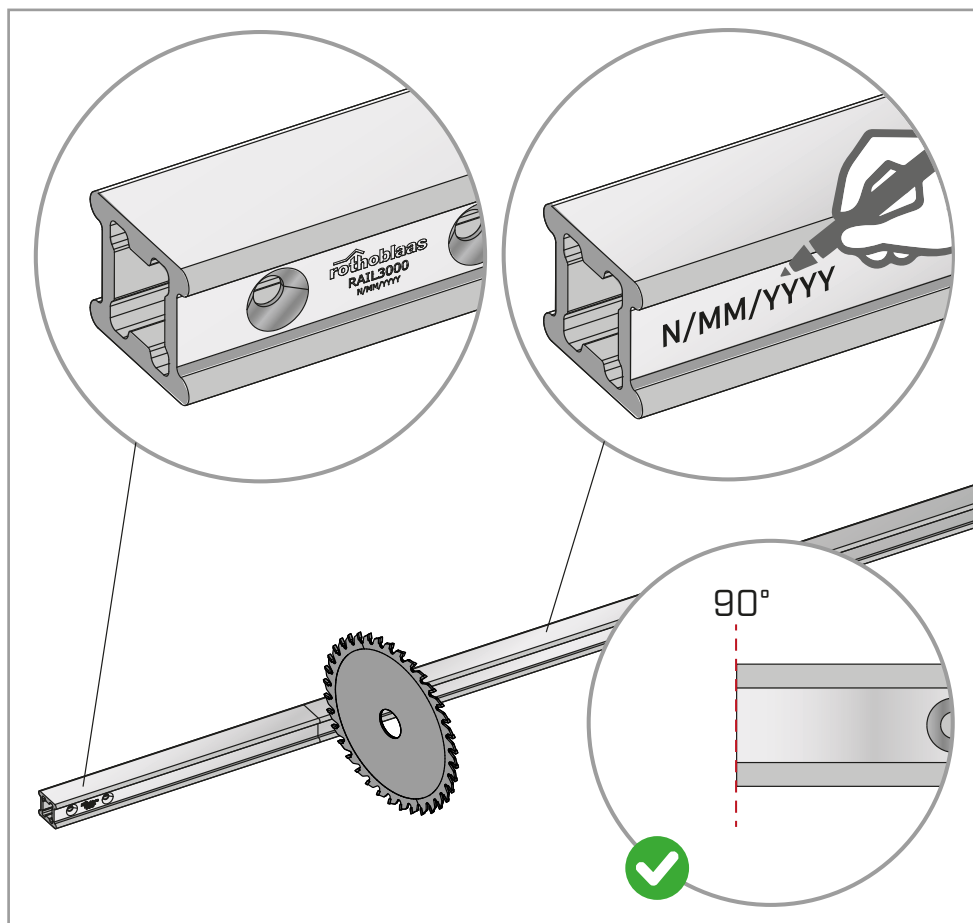
Nm

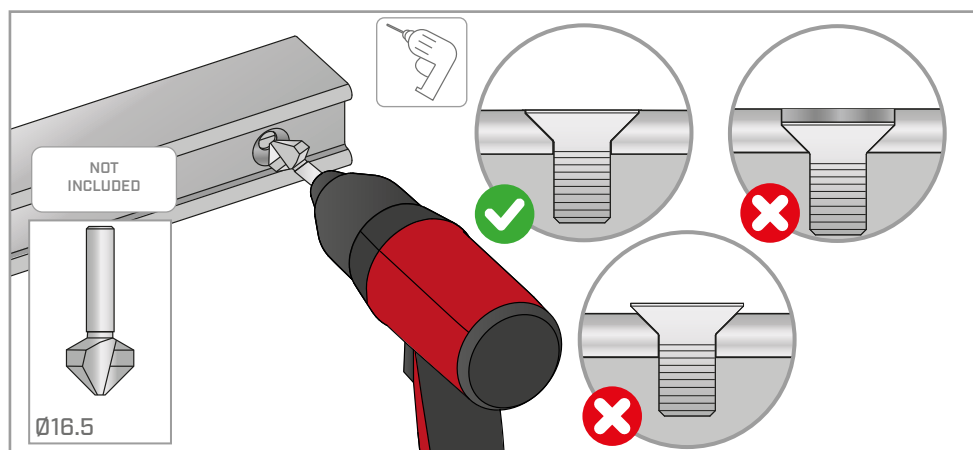
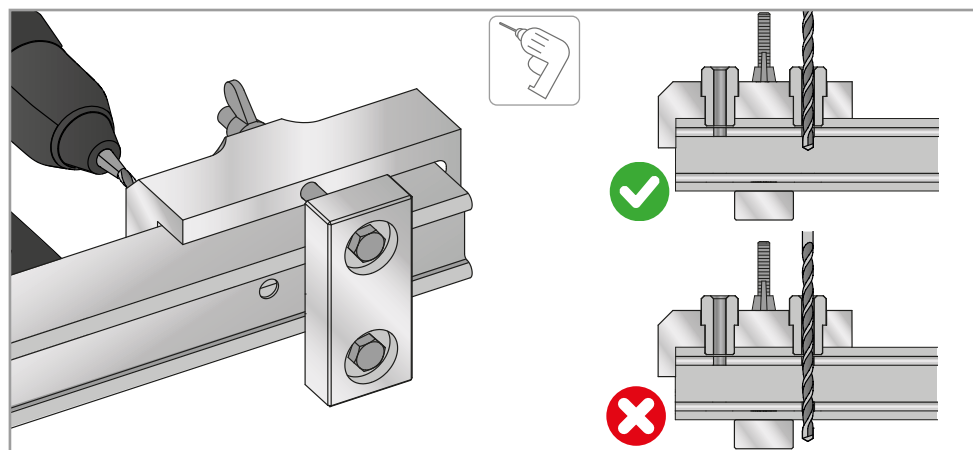
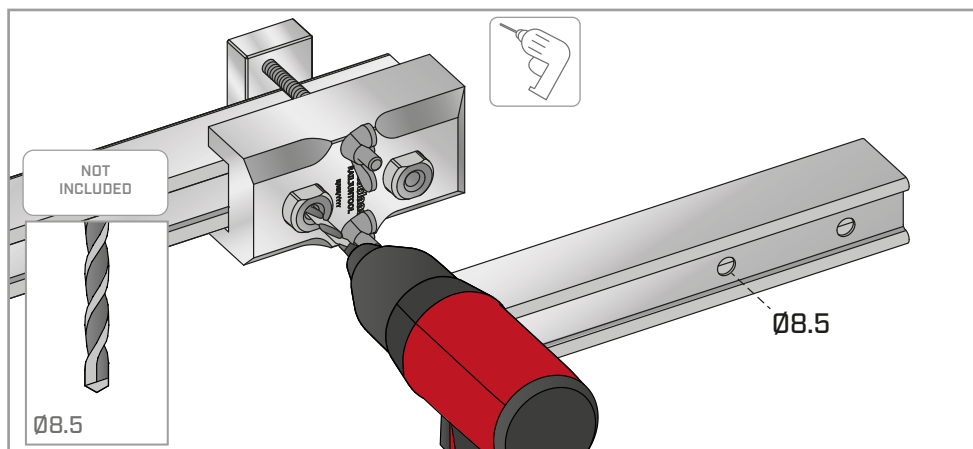
$$T_{inst} = 15 \text{ Nm}$$

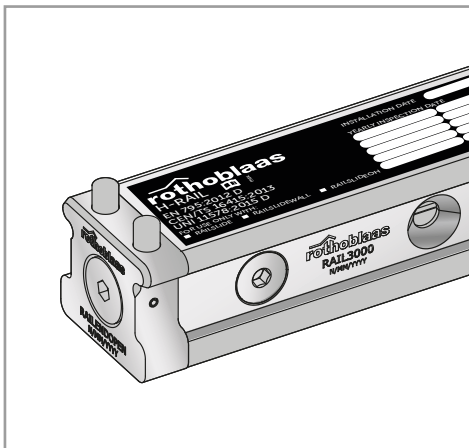
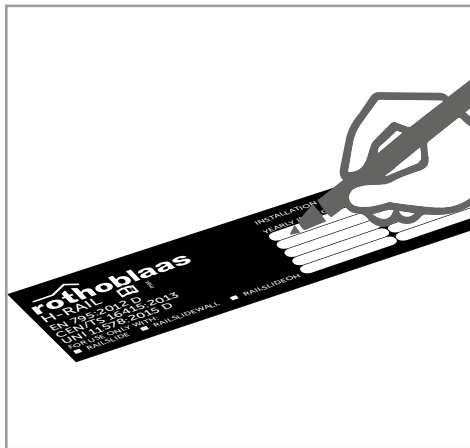

RAILENDOPEN INTSTALLATION



RAIL3000 CUT AND RAILJUNTOOL USE









Rotho Blaas SRL

06-23

Via dell'Adige N.2/1 | 39040, Cortaccia (BZ) | Italia
Tel: +39 0471 81 84 00 | Fax: +39 0471 81 84 84
info@rothoblaas.com | www.rothoblaas.com

