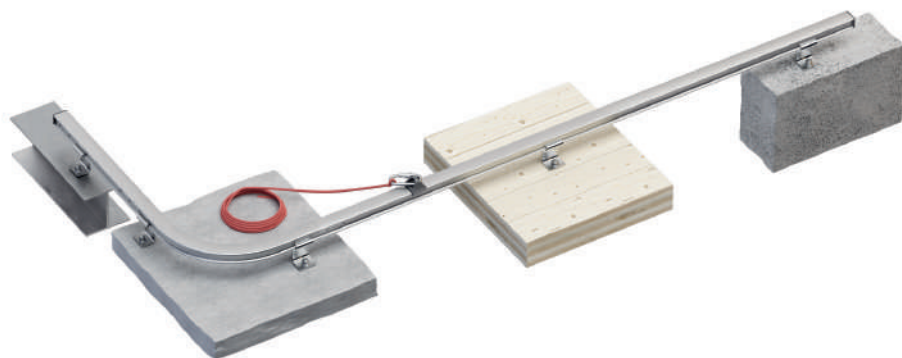
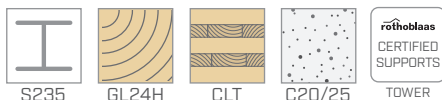
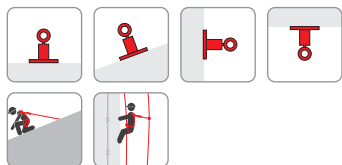


H-RAIL

INSTALLATION MANUAL



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



AS/NZS 1991.4:2009
AS/NZS 1991.2:2001



read also:



H-RAIL
Installation
Manual

+



H-RAIL
Safety
Regulations

=



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 Rotho Blaas só é permitida a pessoal especializado após a leitura e compreensão do **1** **MANUAL DE INSTALAÇÃO** e das **2** **NORMAS DE SEGURANÇA** na língua do respetivo país onde será utilizado.
- RU** К установке 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 Blaas 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 dopuštena je samo stručnom osoblju koje je prethodno pročitalo i razumjelo **1** **UPUTA ZA MONTAŽU** kao i **2** **PROPISE O SIGURNOSTI** na jeziku zemlje uporabe.
- HU** A Rotho Blaas terméket kizárólag hozzáértő személyzet szerelheti be és/vagy használhatja, az adott országnak megfelelő nyelvű **1** **TELEPÍTÉSI KÉZIKÖNYV** és **2** **BIZTONSÁGI SZABÁLYOK** elolvasása és megértése után.



TOOLS



(1) VINYLESTER CHEMICAL ANCHOR WITHOUT STYRENE

INFORMATIONS

Type	Name or logo of manufacturer/distributor
Rothoblaas	ROTHOBLAAS
H-RAIL	Batch number and year of manufacture
Related standard(s)	N/MM/YYYY
EN 795:2012 D	(N = lot number - MM = month - YYYY = year)
CEN/TS 16415:2013	
UNI 11578:2015 D	

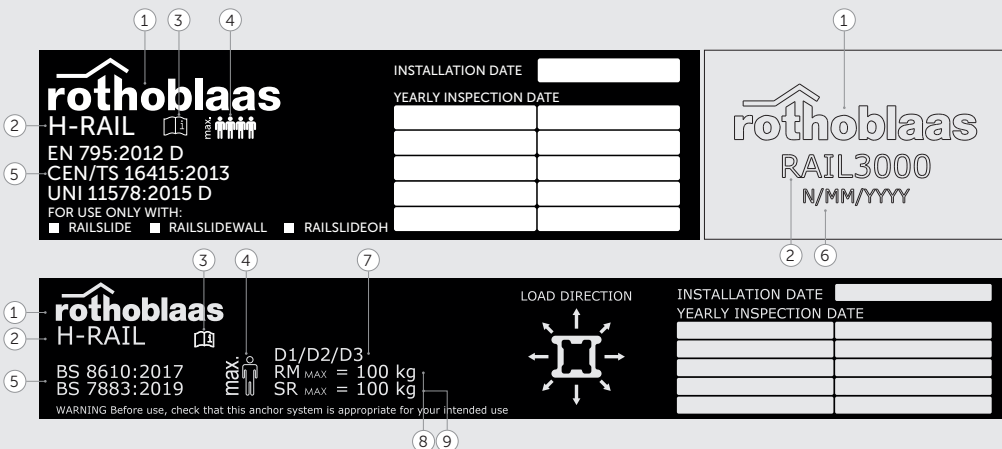
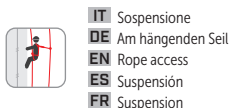
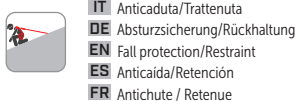
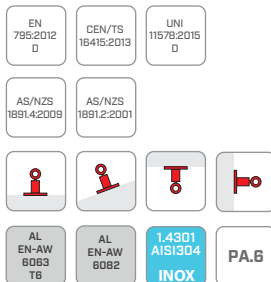
- IT** Verificare idoneità statica del sottofondo di montaggio!
- DE** Die statische Eignung des Montageuntergrundes sicherstellen!
- EN** Check the static suitability of the installation substrate!
- ES** ¡Compruebe la idoneidad estática del sustrato de montaje!
- FR** Vérifier l'adéquation statique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

SAFETY INSTRUCTIONS

- IS** Aðeins þjálfað starfsfólk má setja upp og/eða nota þessa Rotho Blaas-vöru eftir að hafa lesið og skilið **1** **UPPSETNINGARHANDBÓKAR** og **2** **REGLUGERDIR UM ÖRYGGI** á tungumáli þess lands sem varan er notuð í.
- LT** Produkta „Rotho Blaas“ montuoti ir (arba) naudoti leidžiama tik patyriusiam personalui, prieš tai pasikaicius ir supratus **1** **MONTAVIMO VADOVE** ir **2** **SAUGOS TAISYKLES** atitinkamos šalies, kurioje eksploatuojama, kalba.
- LV** Rotho Blaas produkta uzstādīšana un/vai lietošana ir atļauta tikai pieredzējušam darbiniekam pēc **1** **UZSTĀDĪŠANAS 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** **SIKKERHETSFORESKRIFTENE**, på det språket som brukes i landet produktet anvendes.
- PL** Instalację i/lub użytkowania produktu Rotho Blaas może dokonać wyłącznie doświadczony personel, który przeczytał i zrozumiał **1** **INSTRUKCJĘ INSTALACJI** oraz normy **2** **BEZPIECZEŃSTWA** w języku kraju użytkownika.
- 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** **NÁVODE 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** ürününen kullanıldığı ülke dilinde okuyup anladıktan sonra Rotho Blaas ürününen 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** نظراً لسلامة **2** لبلدة البلد المستخدم فيها المنتج



PRODUCT INFORMATION



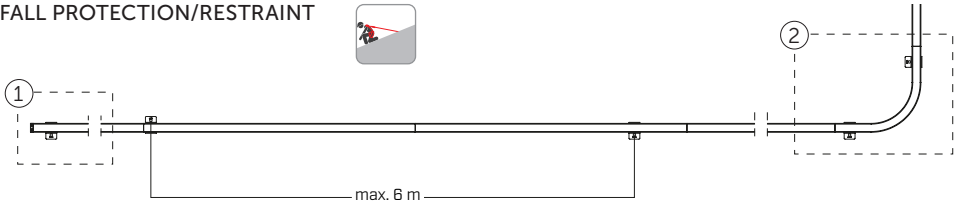
1. Manufacturer
2. Product name
3. Read the following instructions

4. Number of max. users allowed
5. Standards
6. Serial number

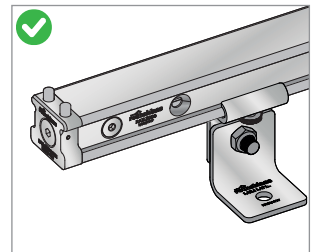
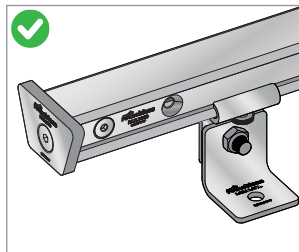
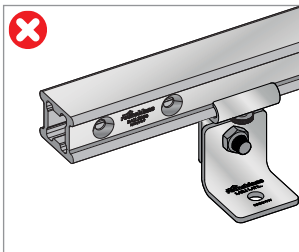
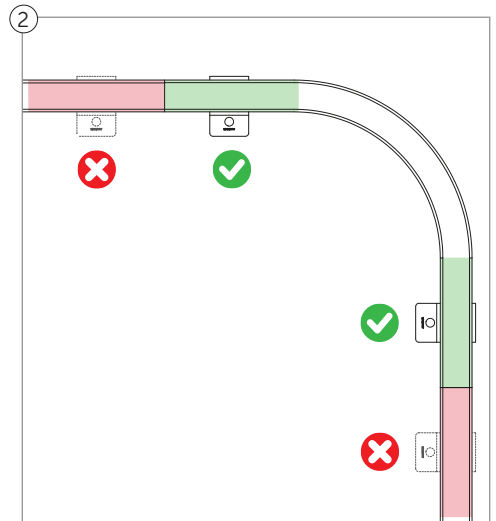
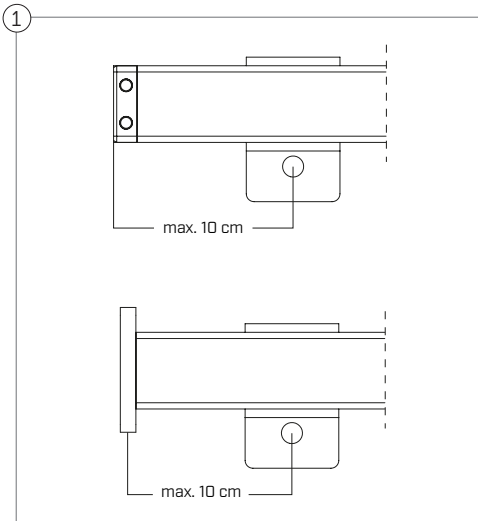
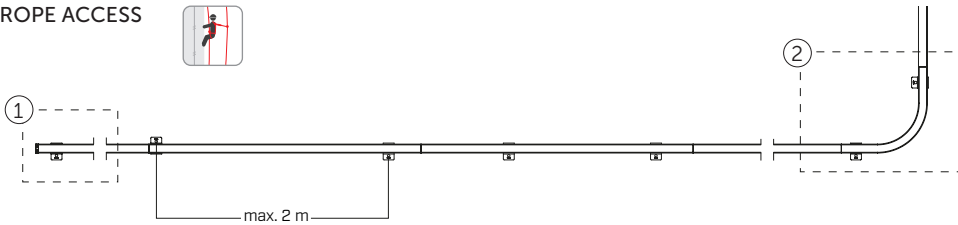
7. Type of use
8. Operator max. weight
9. System max. weight

■ TECHNICAL DATA

FALL PROTECTION/RESTRAINT

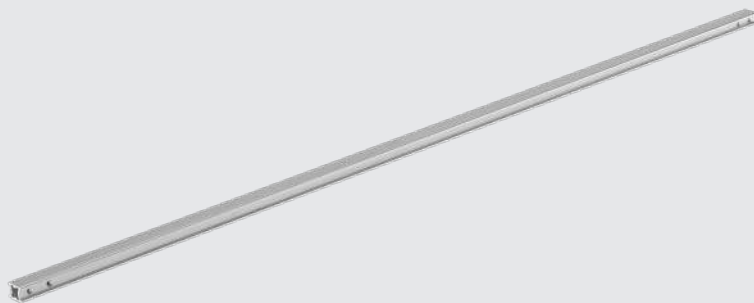
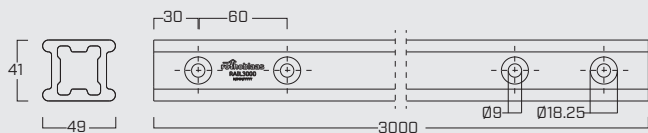


ROPE ACCESS



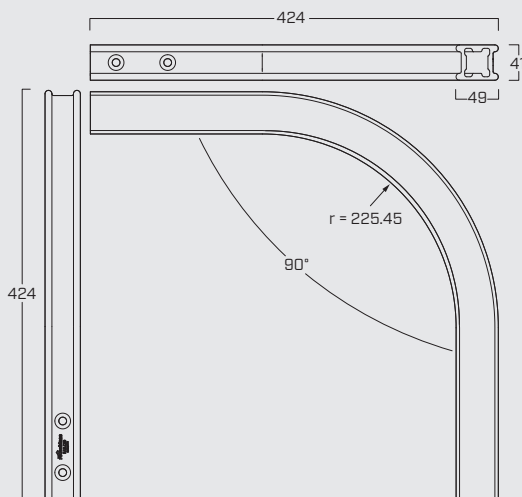
■ RAIL3000

AL
EN-AW
6063
T6

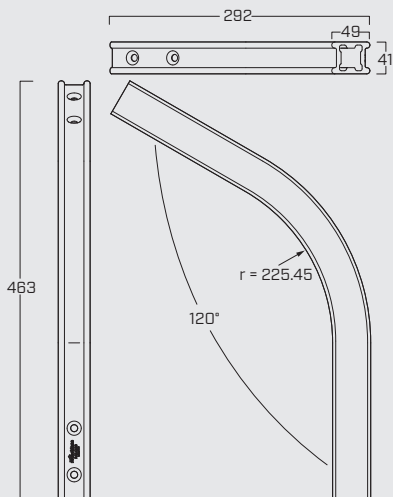


■ RAILC90

AL
EN-AW
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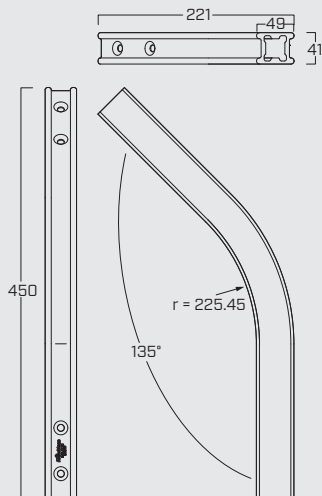
■ RAILC120



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■ RAILC135

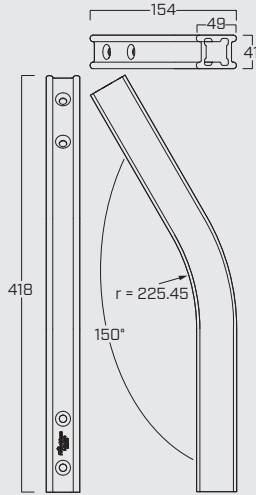


AL
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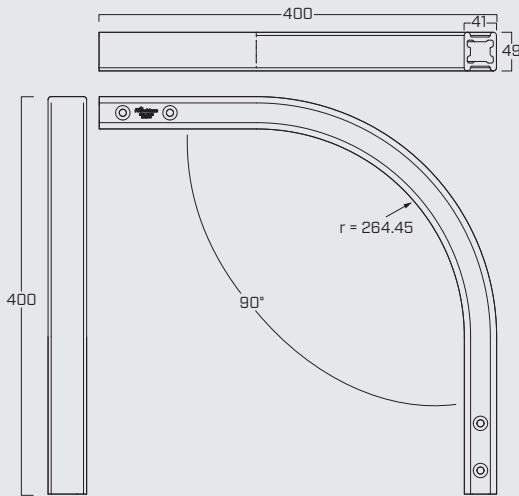
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EN-AW
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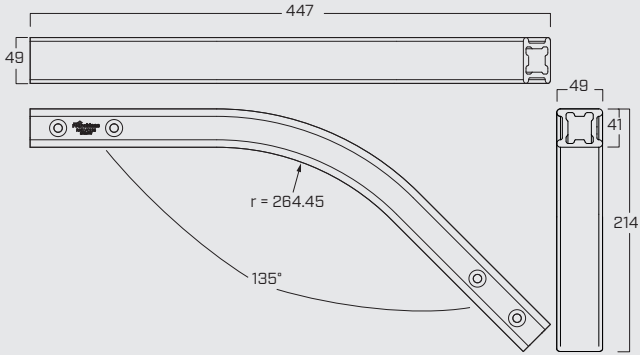
RAILVC90

AL
EN-AW
6063
T6



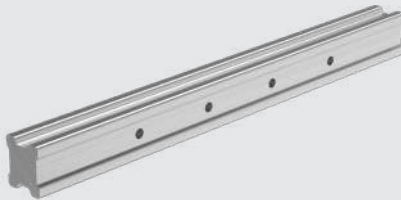
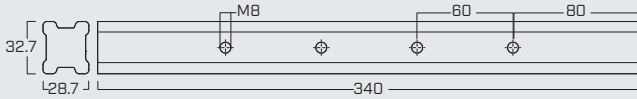
■ RAILVC135

AL
EN-AW
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T6



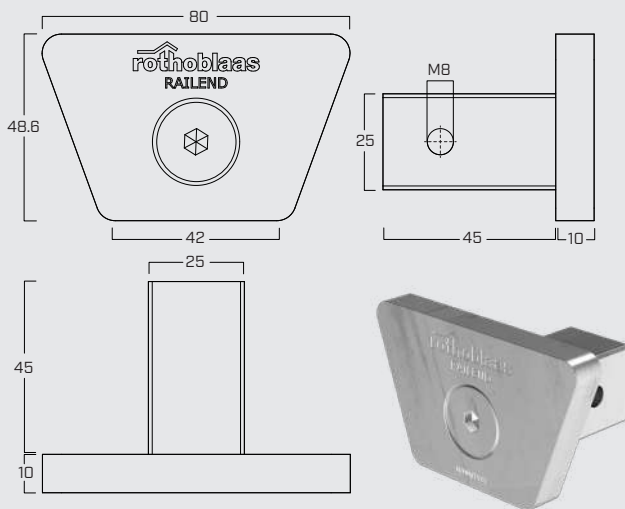
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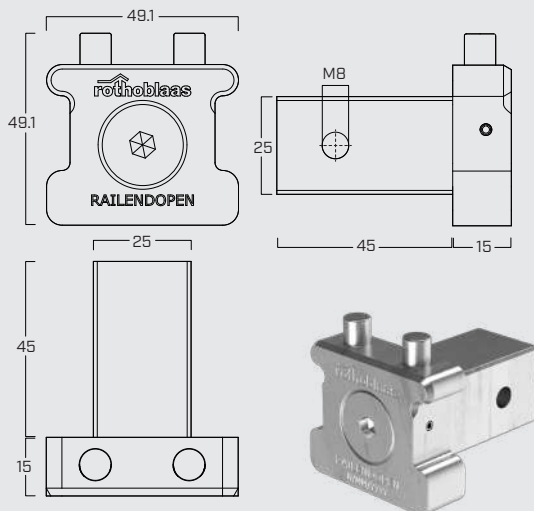
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AISI304
INOX



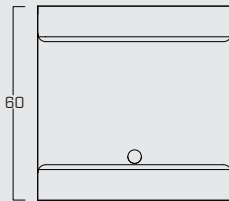
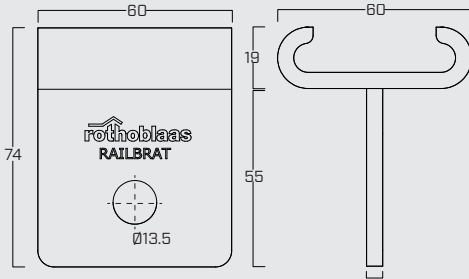
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1.4301
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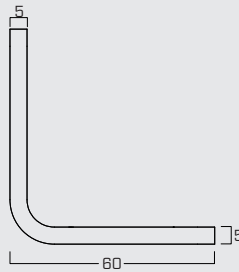
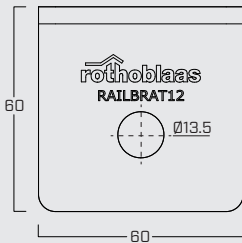
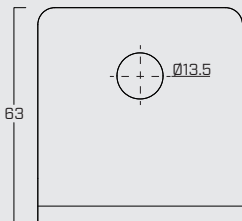
■ RAILBRAT



■ RAILBRAT12



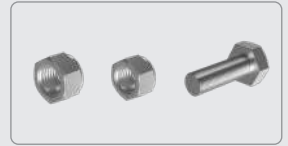
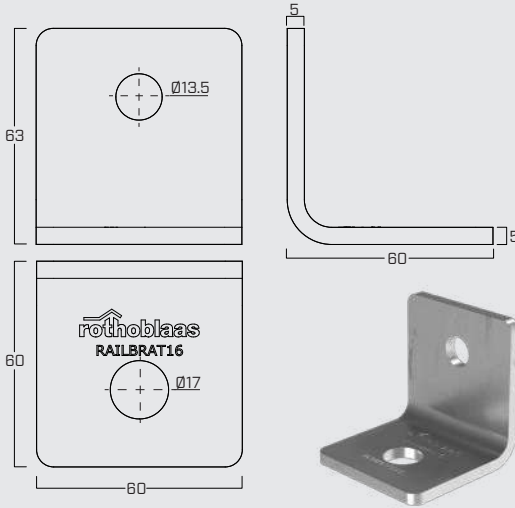
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INCLUDED IN THE PACKAGE

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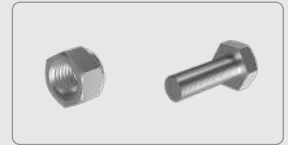
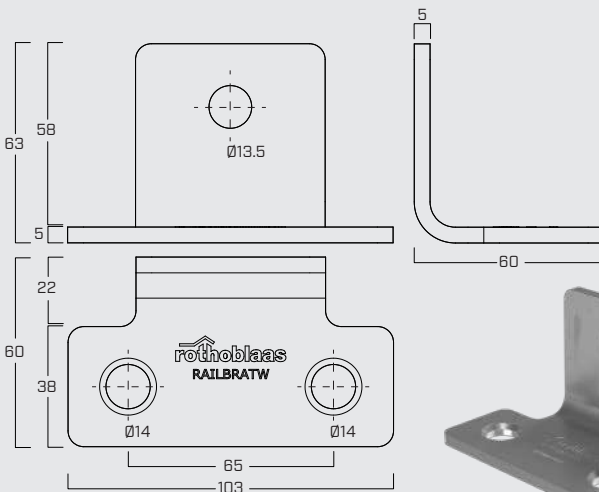
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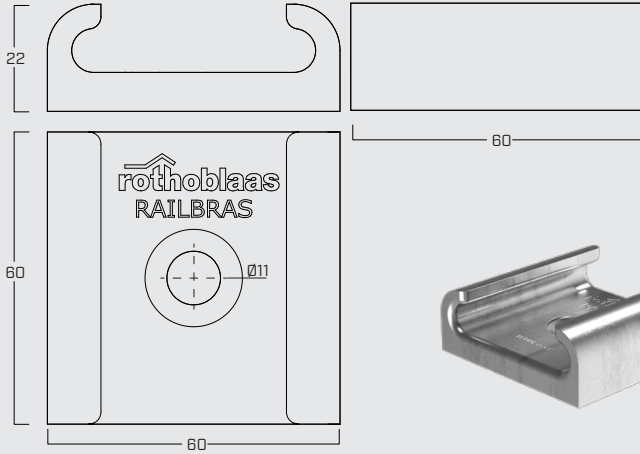
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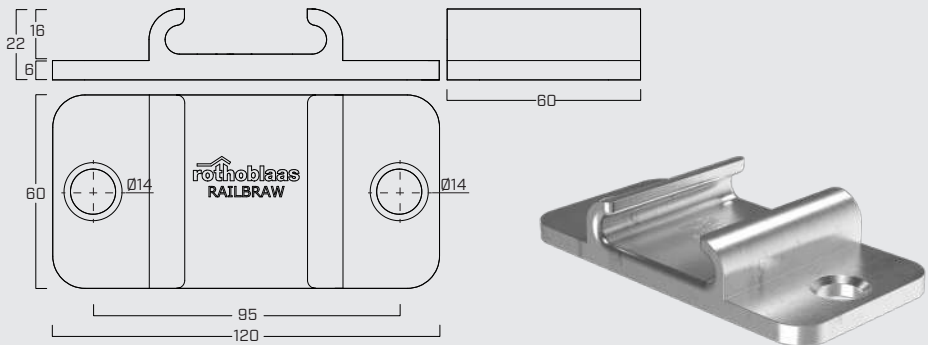
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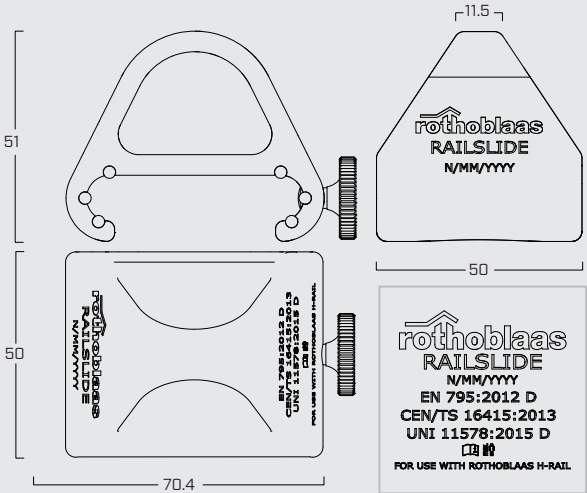


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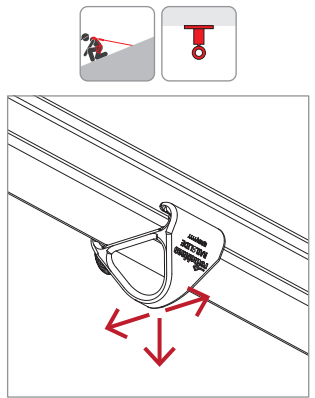
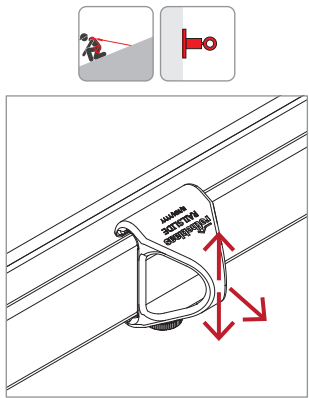
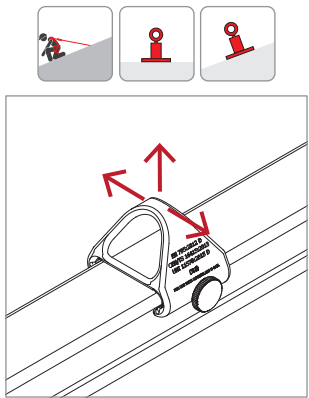


RAILSLIDE

PA.6
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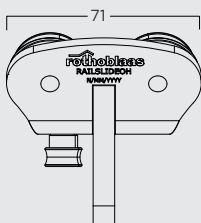
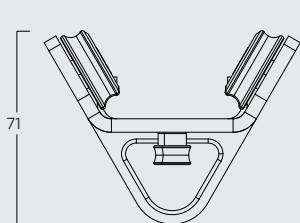


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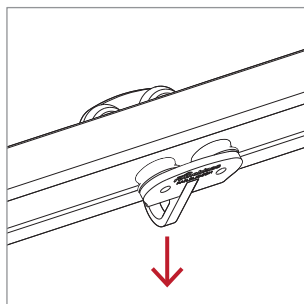
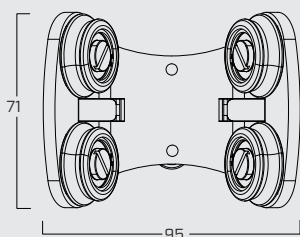


RAILSLIDEOH

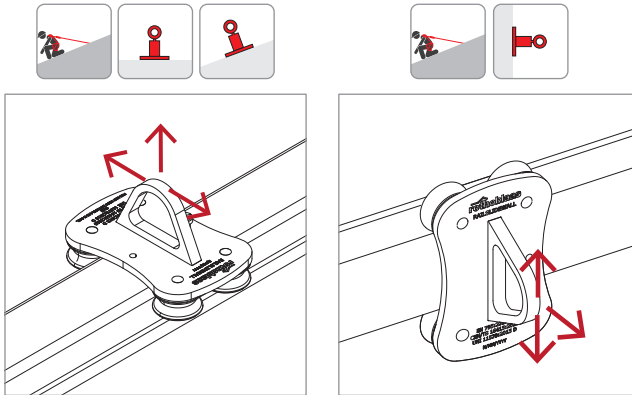
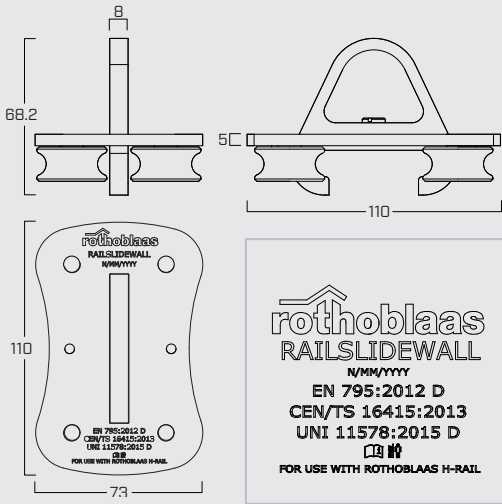
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AISI304
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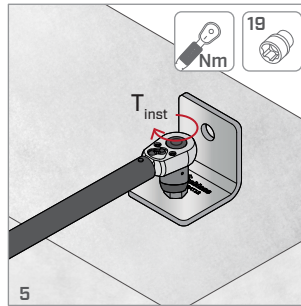
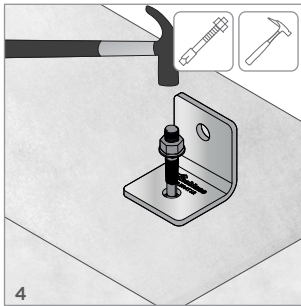
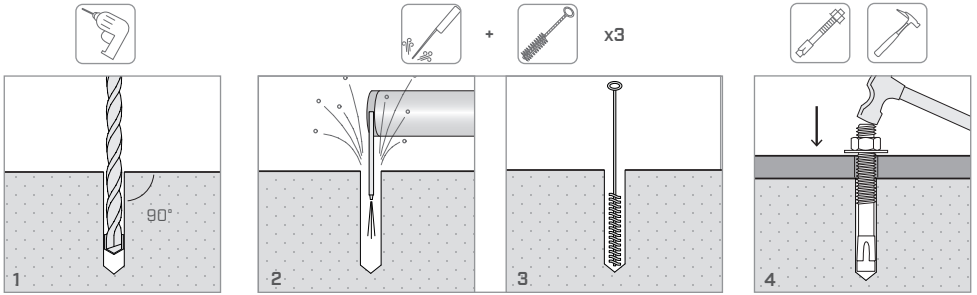
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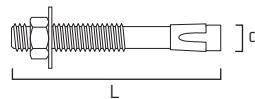
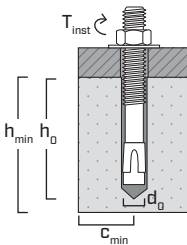
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CONCRETE INSTALLATION
RAILBRAT12

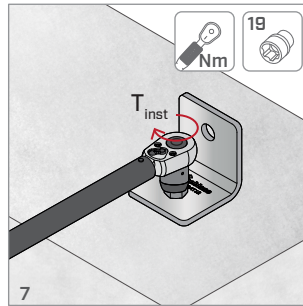
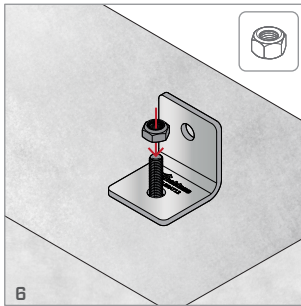
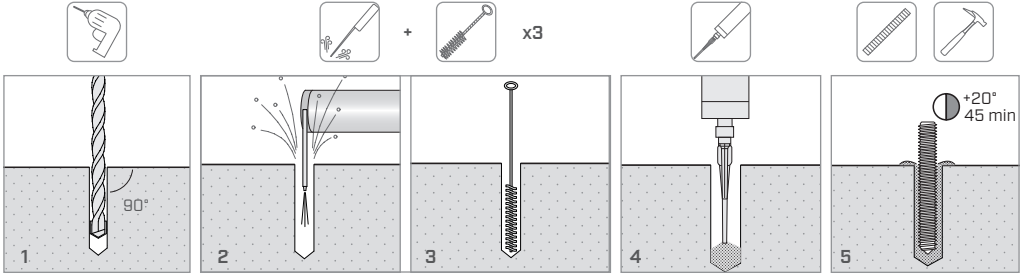


AB112100

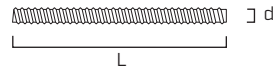
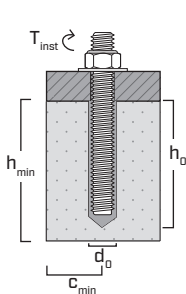


d	$=$	12 mm	d_0	$=$	12 mm
L	$=$	100 mm	h_0	\geq	85 mm
T_{inst}	$=$	60 Nm	h_{min}	$=$	140 mm
			c_{min}	$=$	70 mm

CONCRETE INSTALLATION
RAILBRAT12

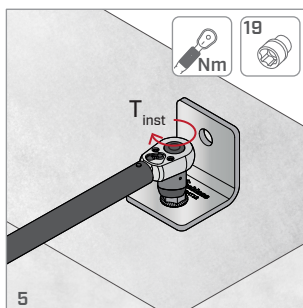
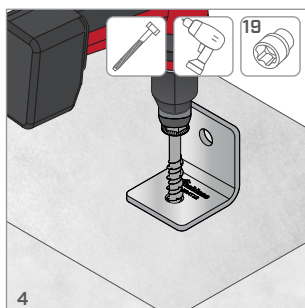
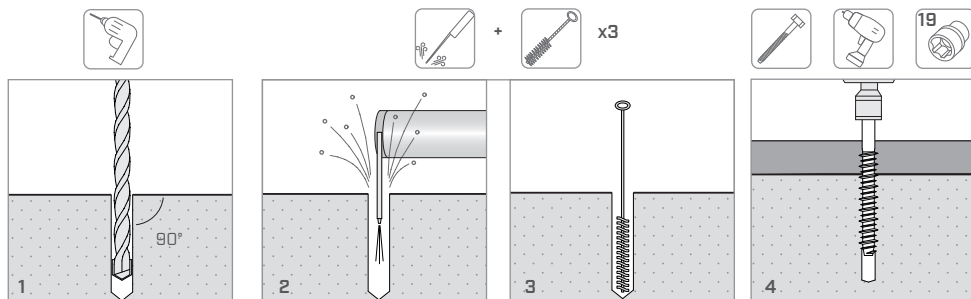
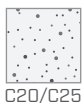


M12 x L - 5.8

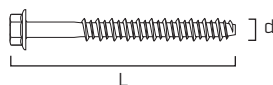
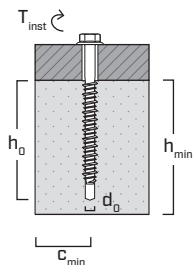


d	=	M12	d_0	=	14 mm
L	≥	100 mm	h_0	=	$L - 30$
T_{inst}	=	40 Nm	h_{min}	=	$h_0 + 30$ mm
			c_{min}	=	60 mm

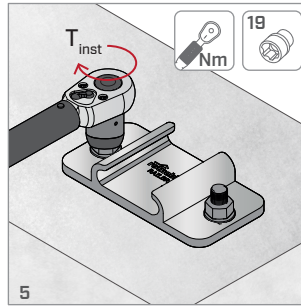
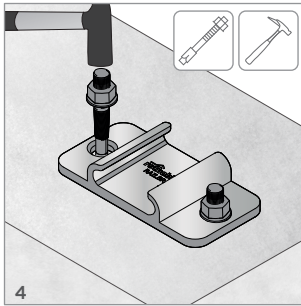
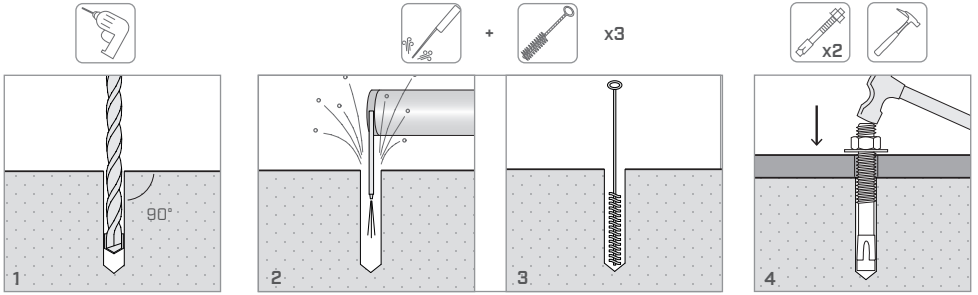
RAILBRAT12



SKRCE1290



d	$=$	12 mm	d_0	$=$	10 mm
L	$=$	90 mm	h_0	$=$	100 mm
T_{inst}	$=$	80 Nm	h_{min}	$=$	130 mm
			c_{min}	$=$	96 mm



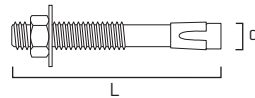
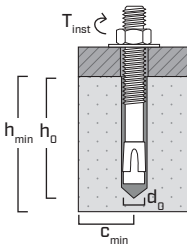
AB112100

(2 pcs)



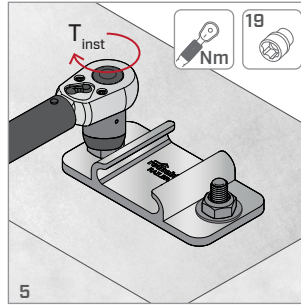
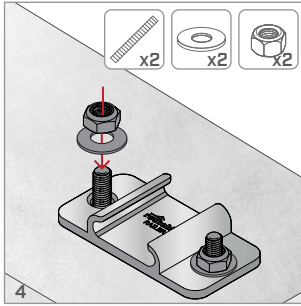
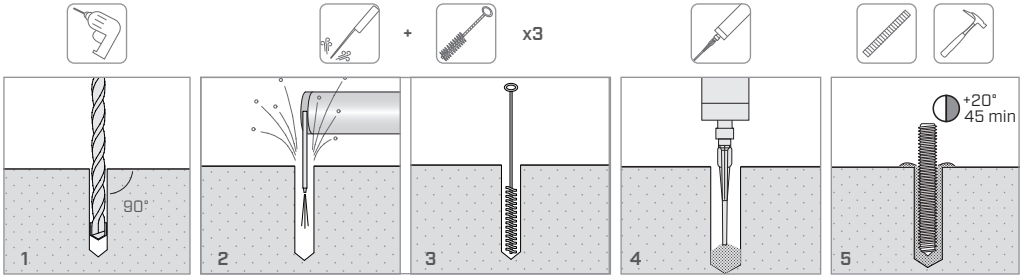
AB1

ETA-17/0481

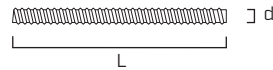
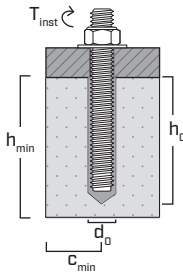


d	$=$	12 mm	d_0	$=$	12 mm
L	$=$	100 mm	h_0	\geq	85 mm
T_{inst}	$=$	60 Nm	h_{min}	$=$	140 mm
			c_{min}	$=$	70 mm

CONCRETE INSTALLATION
RAILBRAW



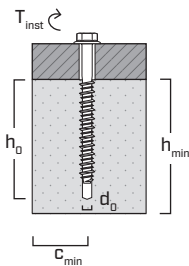
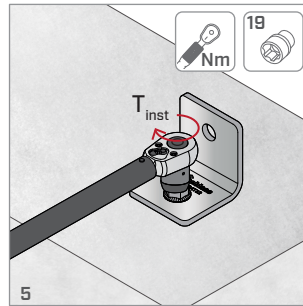
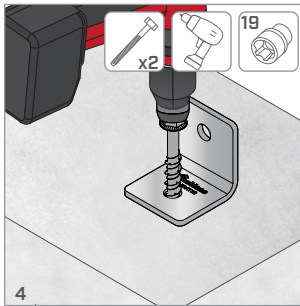
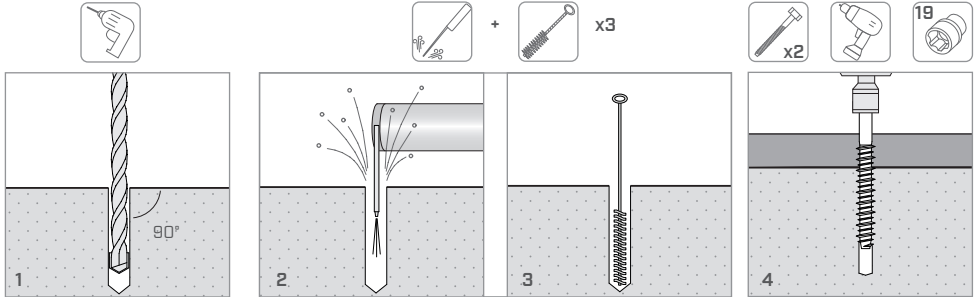
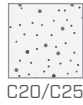
M12 x L - 5.8 min
 (2 pcs)



d =	M12	d ₀ =	14 mm
L ≥	100 mm	h ₀ =	L - 30 mm
T _{inst} =	40 Nm	h _{min} =	h ₀ + 30 mm
		c _{min} =	60 mm

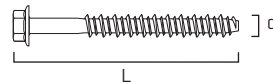
CONCRETE INSTALLATION

RAILBRAW



SKRCE1290

(2 pcs)

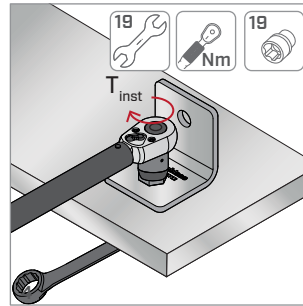
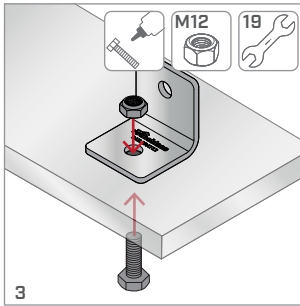
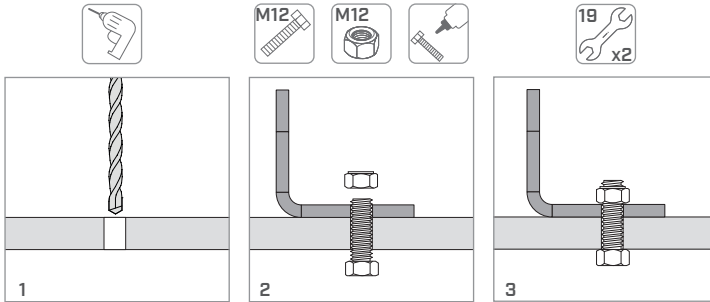


d	$= 12 \text{ mm}$	d_0	$= 10 \text{ mm}$
L	$= 90 \text{ mm}$	h_0	$= 100 \text{ mm}$
T_{inst}	$= 80 \text{ Nm}$	h_{min}	$= 130 \text{ mm}$
		c_{min}	$= 95 \text{ mm}$

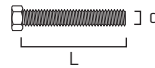
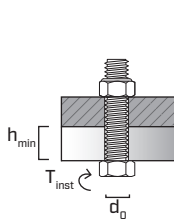


STEEL INSTALLATION

RAILBRAT12

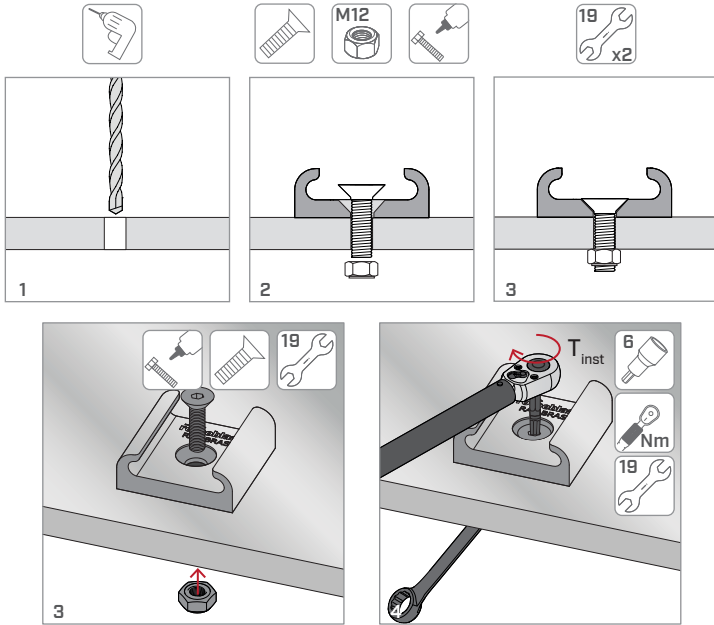


DIN 933
M12 x L - A2-70

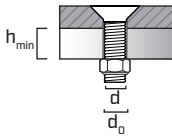
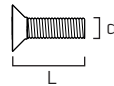


d	=	M12		d_0	=	12,5	mm
L	≥	35	mm	h_{min}	=	5	mm
T_{inst}	=	30	Nm				

STEEL INSTALLATION
RAILBRAS



DIN7991
M10 x L - A2-70



d =	M10	d ₀ =	10,5 mm
L ≥	35 mm	h _{min} =	5 mm
A2-70 ▶	T _{inst} = 15 Nm		



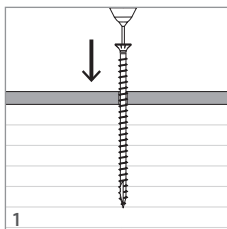
GL24H



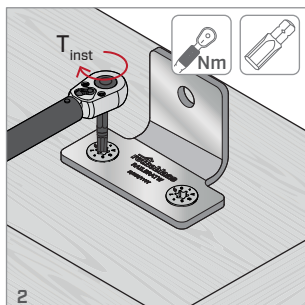
VGS1150
VGSEVO1150



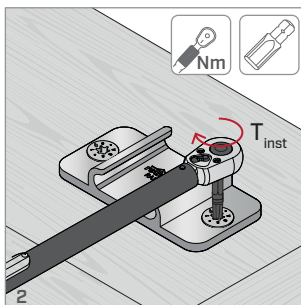
TX50



RAILBRATW

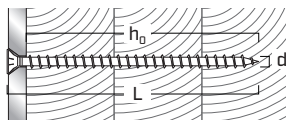
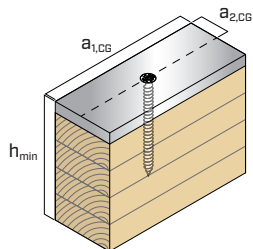


RAILBRAU



VGS1150/ VGSEVO1150

(2 pcs)



d	=	11	mm	h ₀	=	145	mm
L	=	150	mm	h _{min}	>	h ₀	
T _{inst}	=	30	Nm	a _{1,CG}	=	110	mm
				a _{2,CG}	=	44	mm

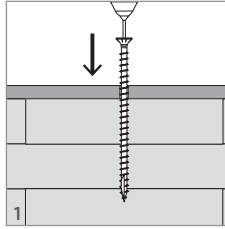
TIMBER INSTALLATION
RAILBRATW-RAILBRAW



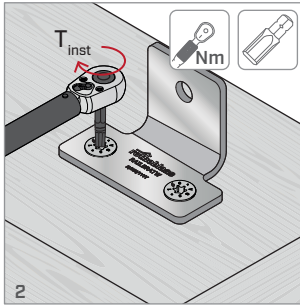
VGS13150
 VGSEVO13150



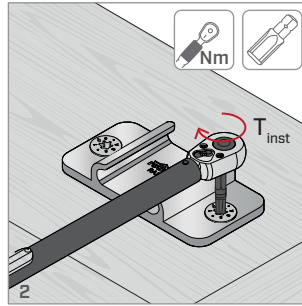
TX50



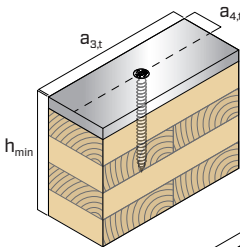
RAILBRATW



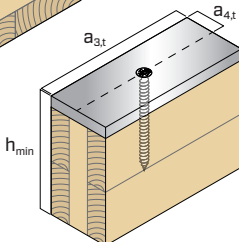
RAILBRAW



EDGE SURFACE

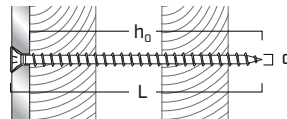


PLANE SURFACE



VGS13150/ VGSEVO13150

(2 pcs)



d = 13 mm	$h_0 \geq 145$ mm
L = 150 mm	$h_{min} \geq h_0$
$T_{inst} = 50$ Nm	

PLANE SURFACE

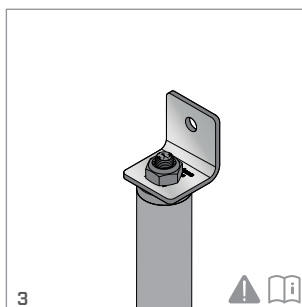
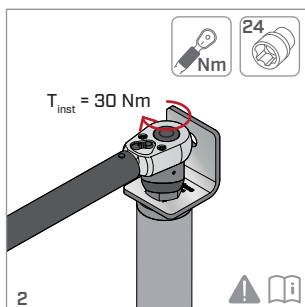
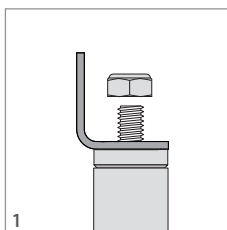
$a_{3t} = 66$ mm
$a_{4t} = 66$ mm

EDGE SURFACE

$a_{3t} = 132$ mm
$a_{4t} = 66$ mm

TOWER INSTALLATION

RAILBRAT16



TOWER SUBSTRUCTURES



S235



GL24H



CLT



C20/25



TOWER
TOWER22
TOWERA2



CLT



C20/25



C45/55



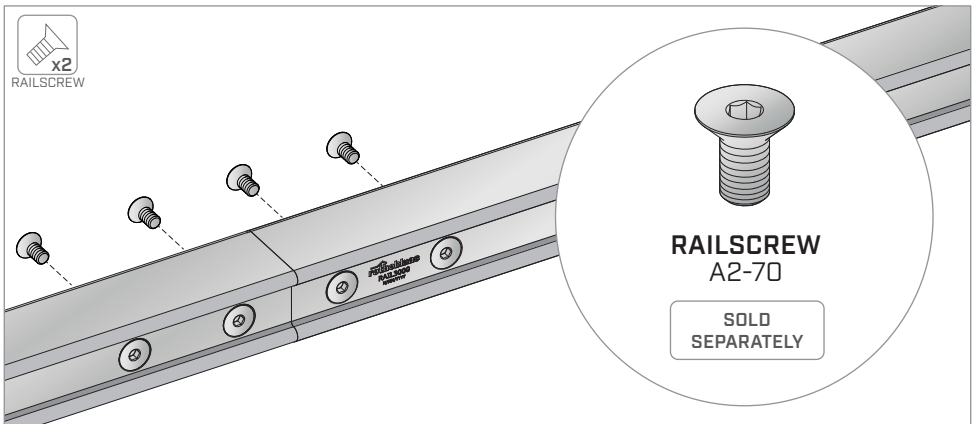
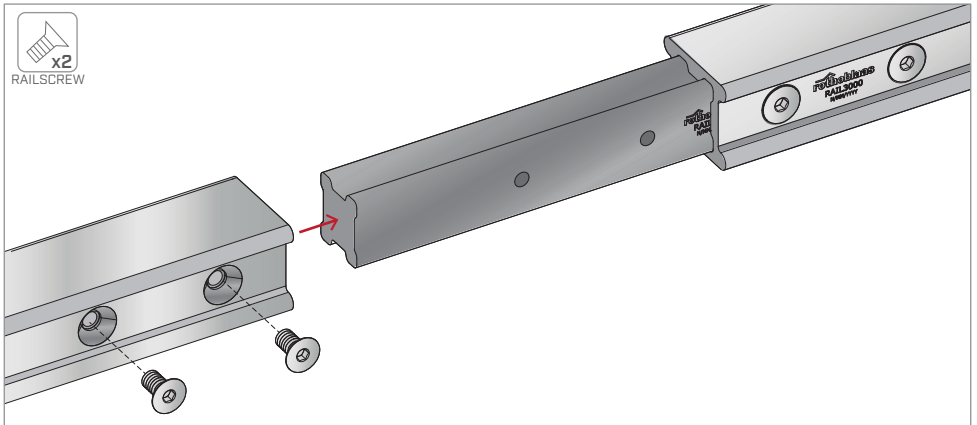
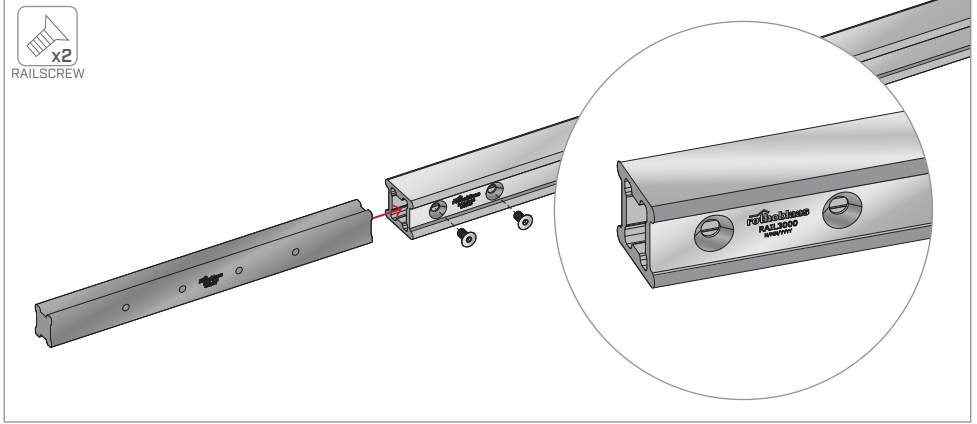
Fe: min 0,75 mm

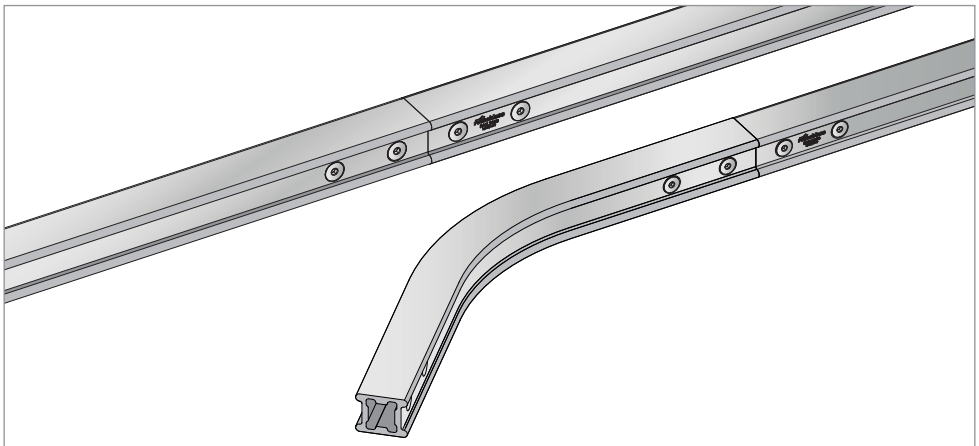
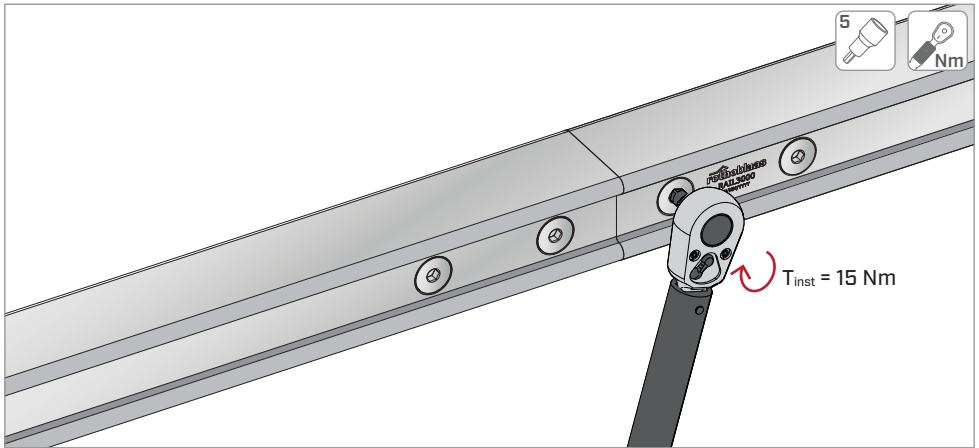
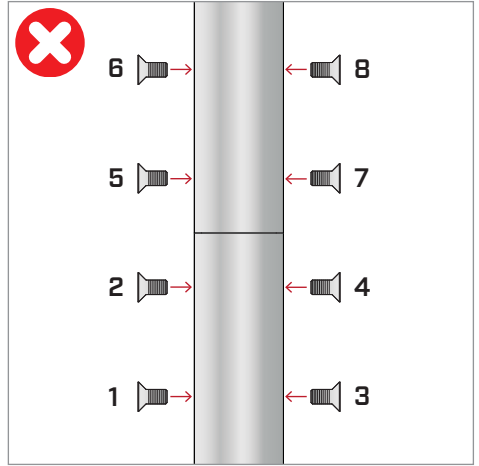
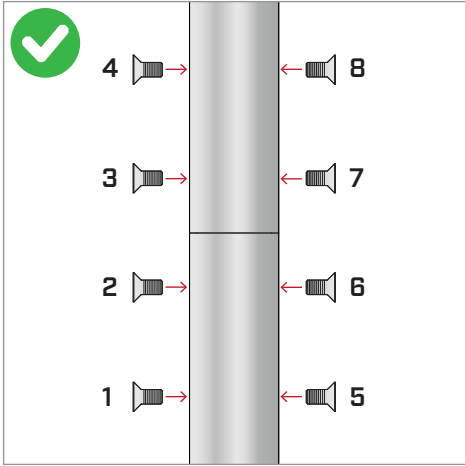


TOWERXL

RAIL INSTALLATION

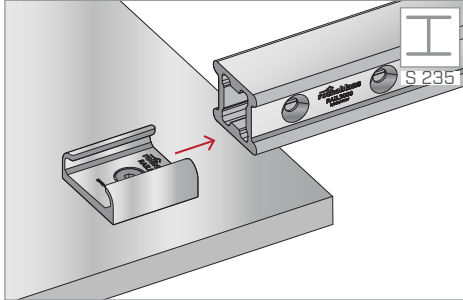
RAIL3000 + RAILJUN





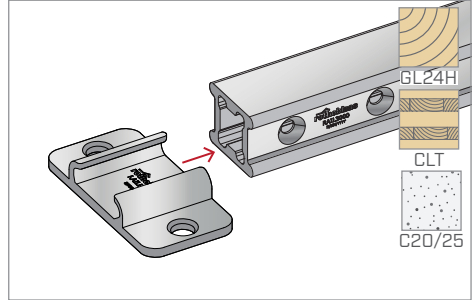
■ SUPPORT INSTALLATION

RAILBRAS + RAIL3000



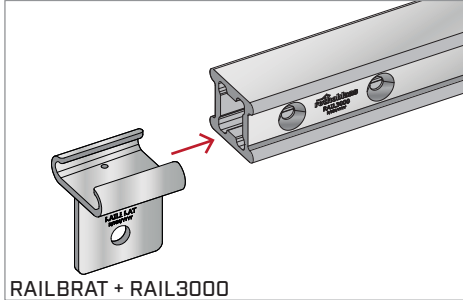
STEEL INSTALLATION ► PAG.42

RAILBRAW + RAIL3000

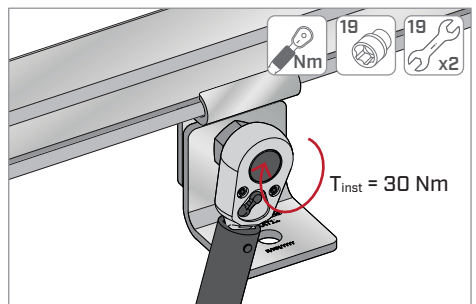
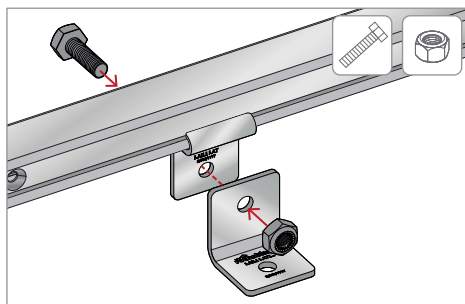
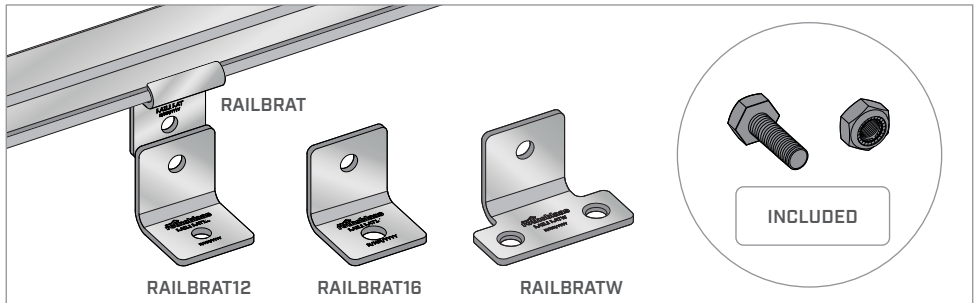
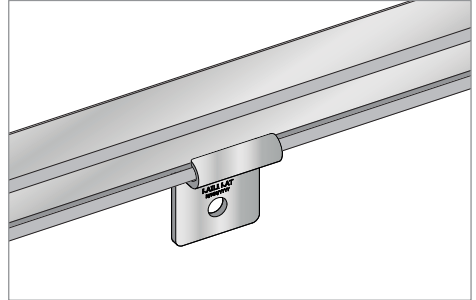


WOOD INSTALLATION ► PAG.38-39-40
CONCRETE INSTALLATION ► PAG.43-44

RAILBRAT

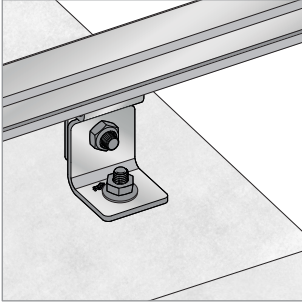


RAILBRAT + RAIL3000



SUBSTRUCTURE INSTALLATION

RAILBRAT + RAILBRAT12

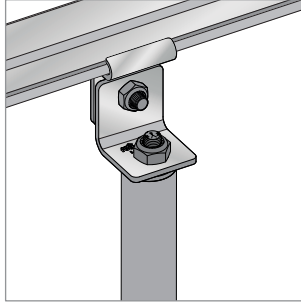


CONCRETE INSTALLATION
▶ PAG.35-36-37



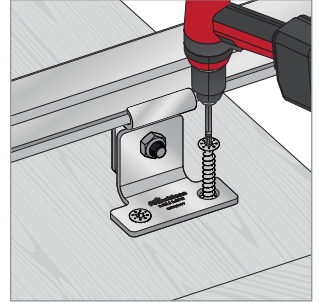
STEEL INSTALLATION
▶ PAG.35-36-37

RAILBRAT + RAILBRAT16



TOWER INSTALLATION
▶ PAG.45

RAILBRAT + RAILBRATW

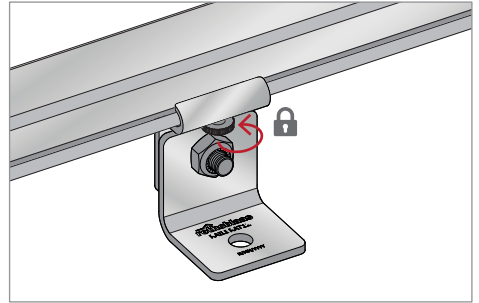
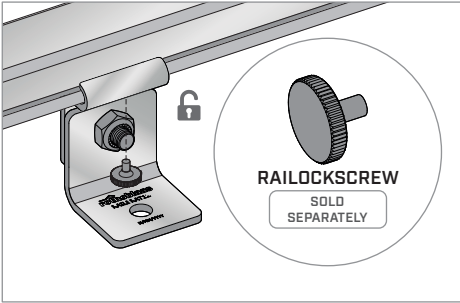


GL24H INSTALLATION
▶ PAG.43



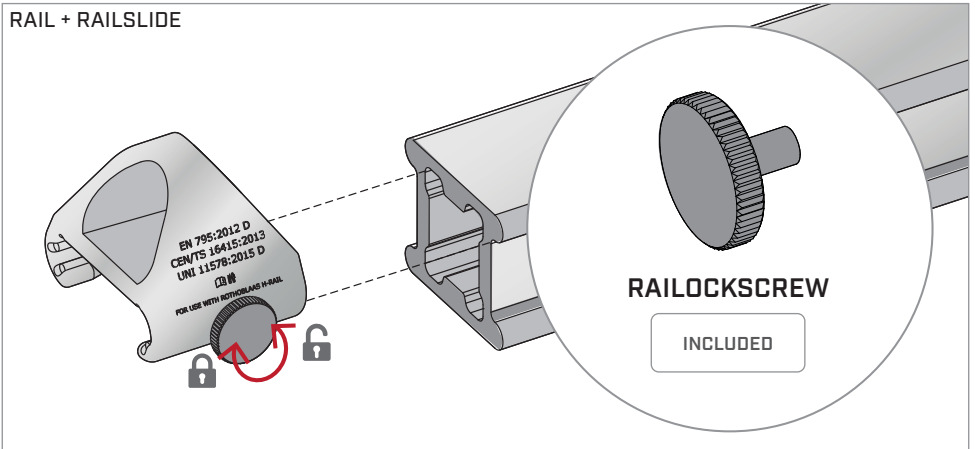
CLT INSTALLATION
▶ PAG.44

RAILOCKSCREW INSTALLATION

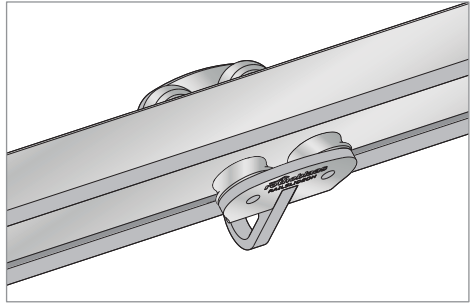
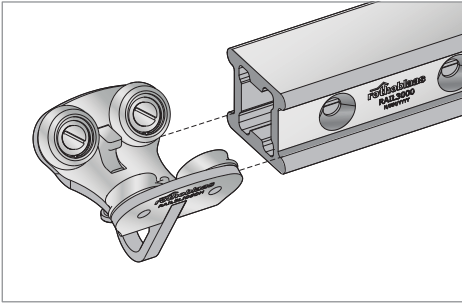


SHUTTLE INSTALLATION

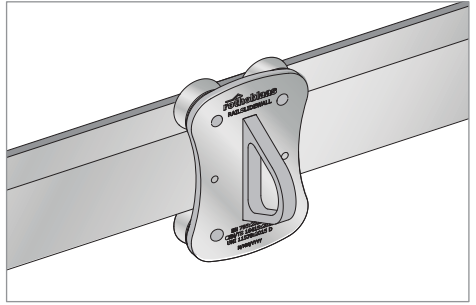
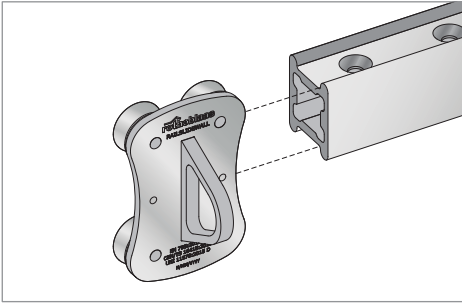
RAIL + RAILSLIDE



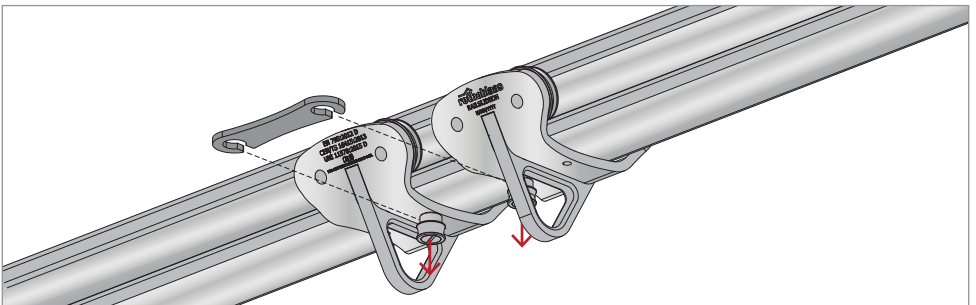
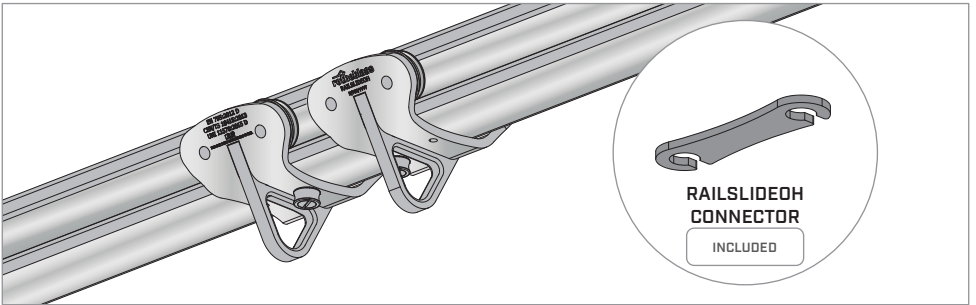
RAIL + RAILSLIDE0H



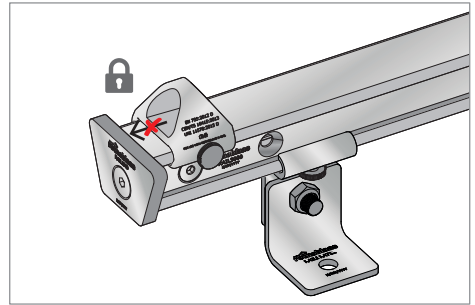
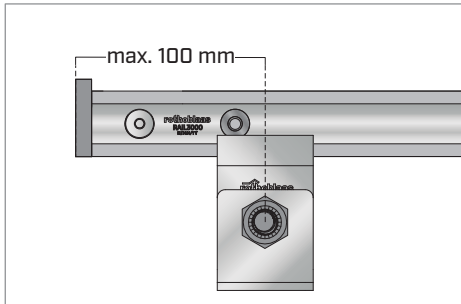
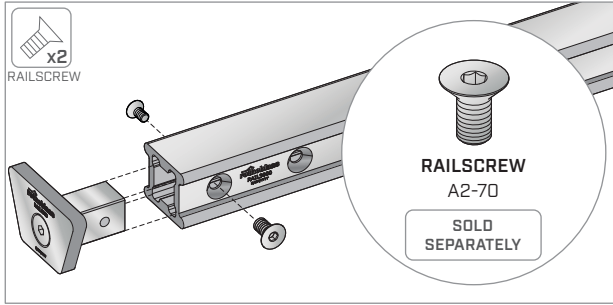
RAIL + RAILSLIDEWALL



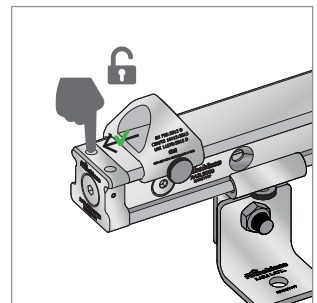
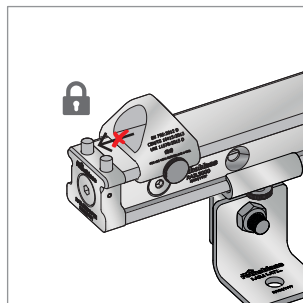
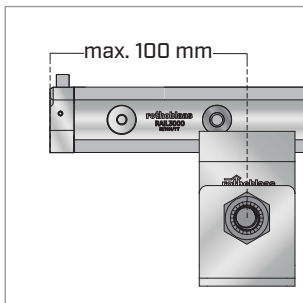
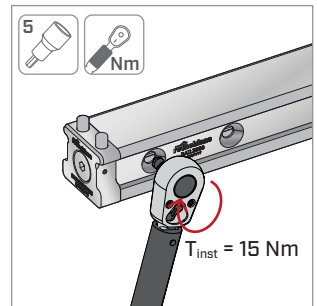
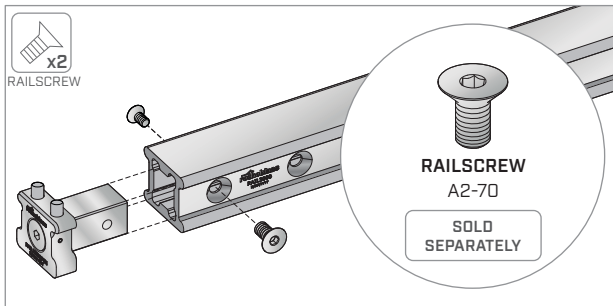
■ SHUTTLE CONNECTION



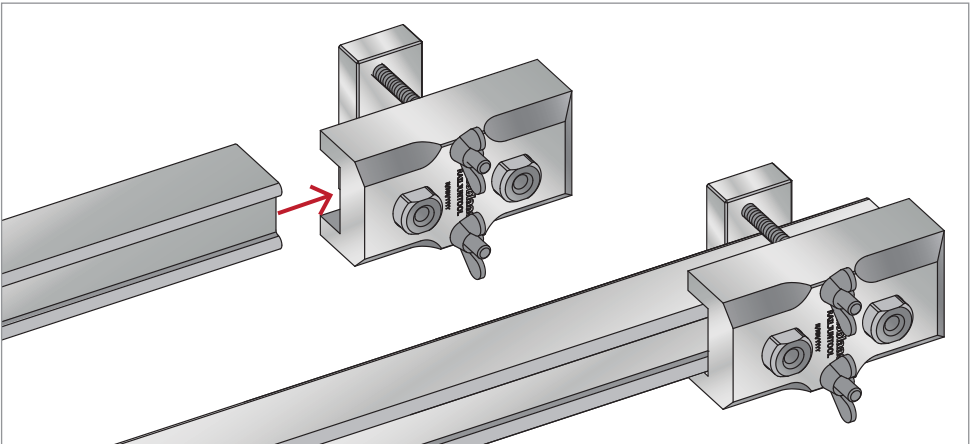
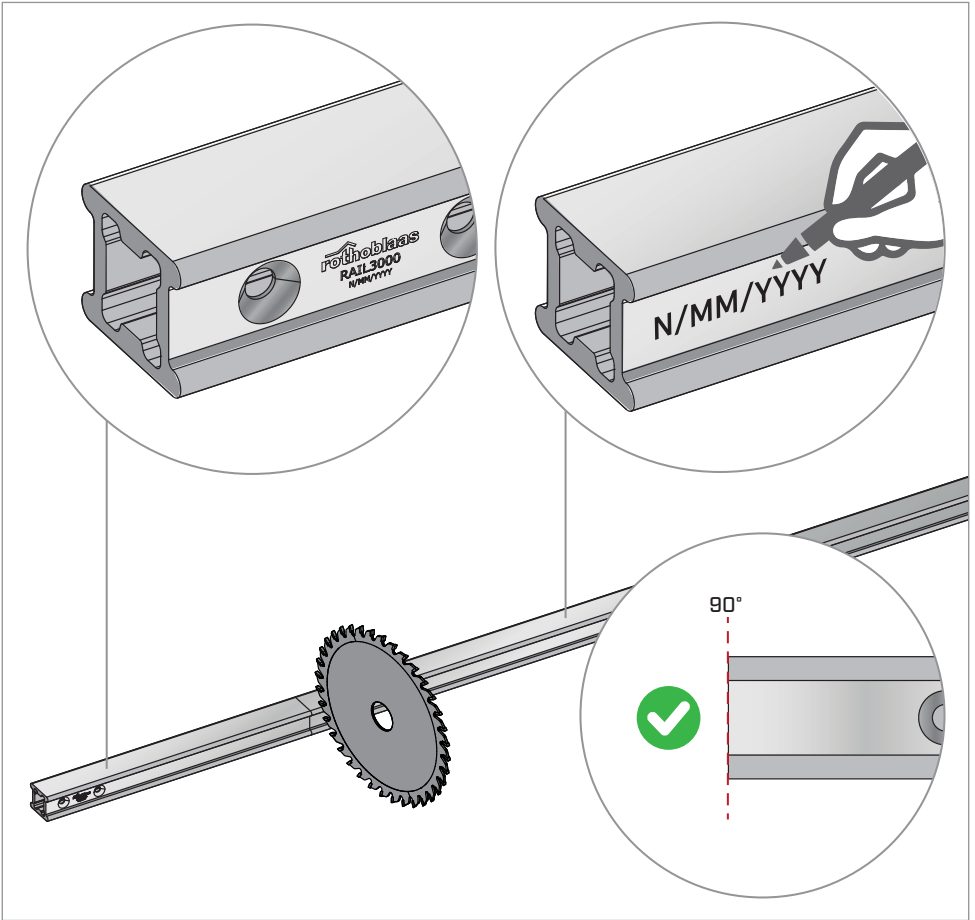
RAILEND INSTALLATION

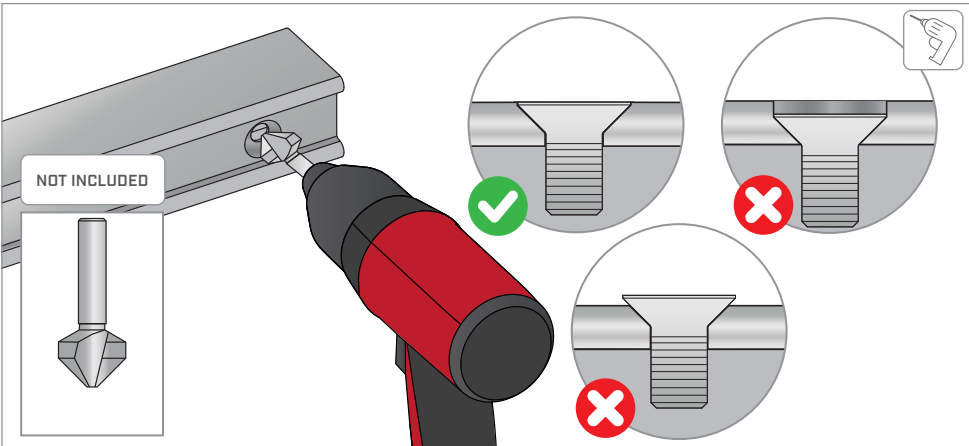
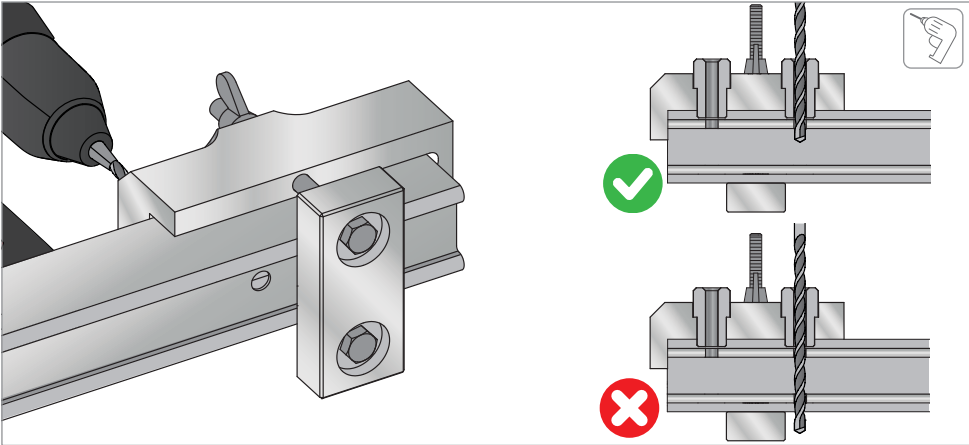
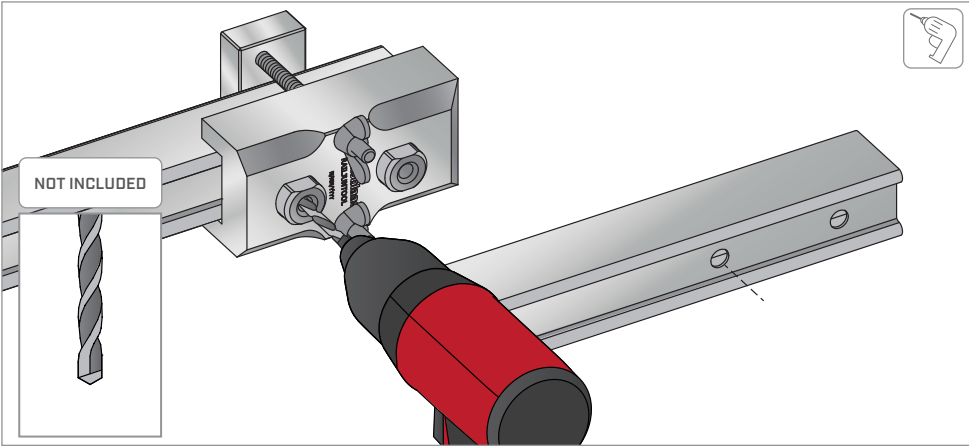


RAILENDOPEN INTSTALLATION

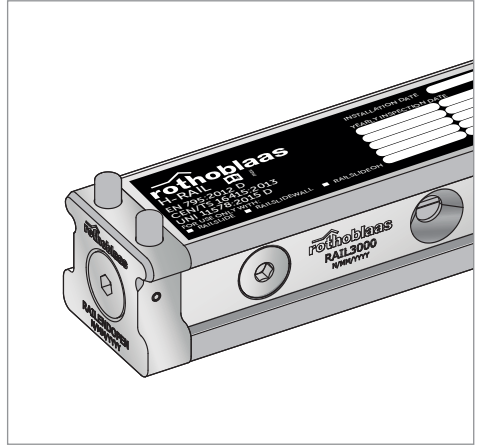
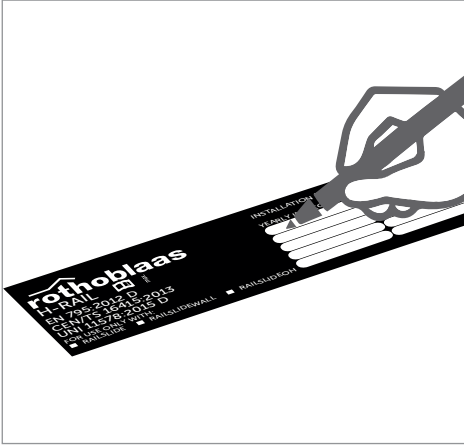


■ RAIL3000 CUT AND RAILJUNTOOL USE





RAILPLATE





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06-24

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