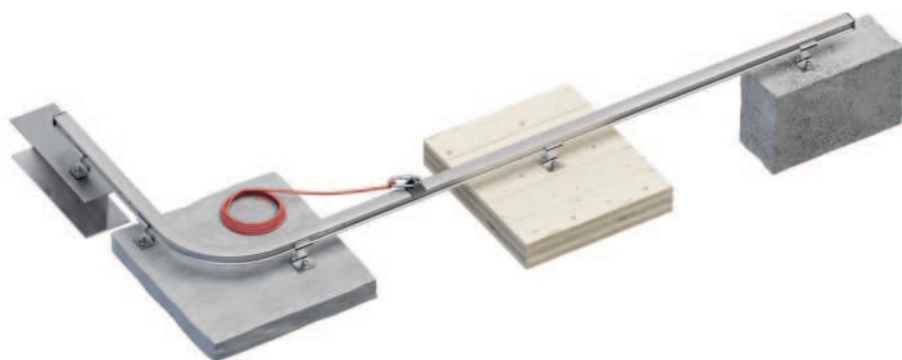
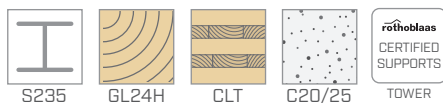
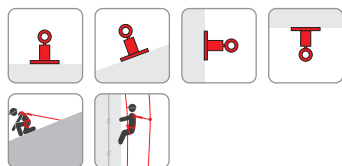


H-RAIL

INSTALLATION MANUAL



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



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



/SPAN

 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

17

D

E

E

F

P

R

C

D

E

E

F

H

H



SELF-LOCKING
NUT



M12



VGS EVO

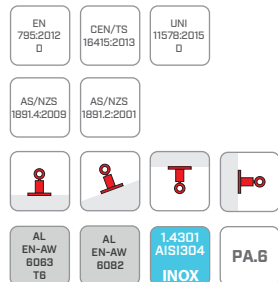
[1] VINYLESTER CHEMICAL
ANCHOR WITHOUT STYRENE

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** **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 perskaicius ir supratęs **1** **MONTAVIMO VADOVĖ** ir **2** **SAUGOS TAISYKLES** atitinkamos šalies, kurioje eksploatuojama, kalbą.
- 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** **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** **INSTRUKCJĘ INSTALACJI** oraz normy **2** **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** **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** 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** نظراً لسلامة **2** لبلد المستخدم فيها المنتج.



PRODUCT INFORMATION

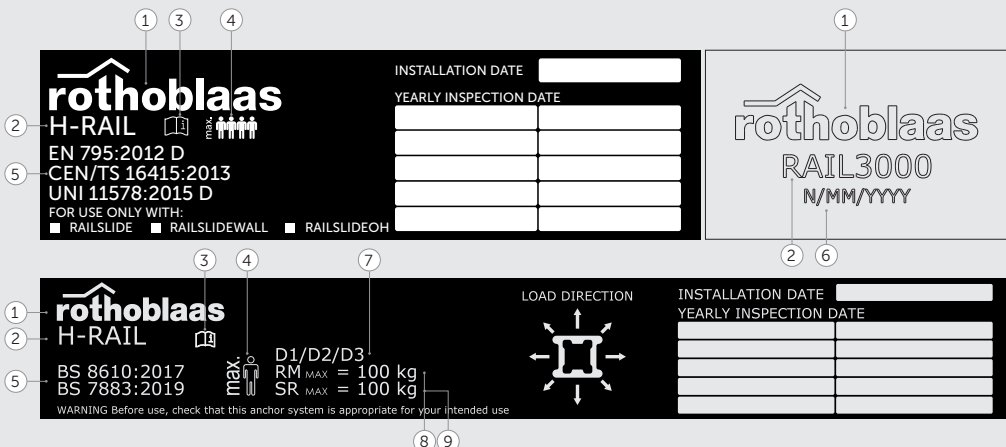


EN 795:2012 D
CEN/TS 16415:2013
UNI 11578:2015 D

AS/NZS 1891.4:2009
AS/NZS 1891.2:2001

IT Anticaduta/Trattenuta
DE Absturzsicherung/Rückhaltung
EN Fall protection/Restraint
ES Anticaida/Retención
FR Antichute / Retenue

IT Sospensione
DE Am hängenden Seil
EN Rope access
ES Suspensión
FR Suspension



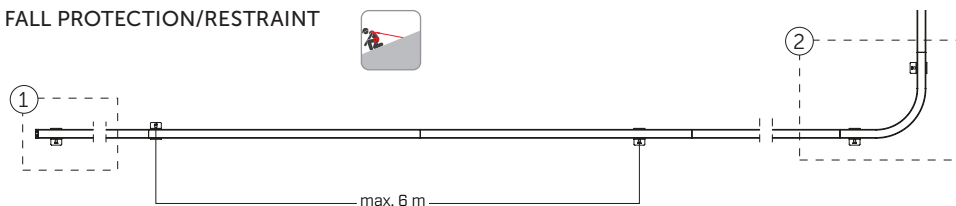
1. Manufacturer
2. Product name
3. Read the following instructions

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

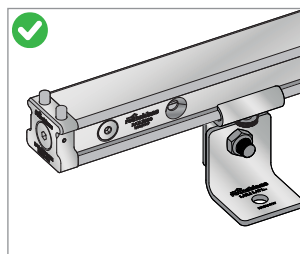
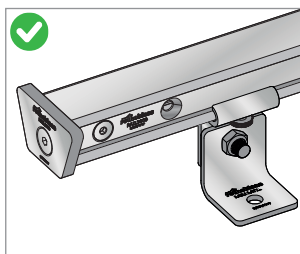
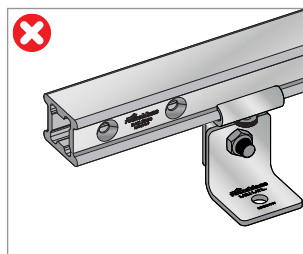
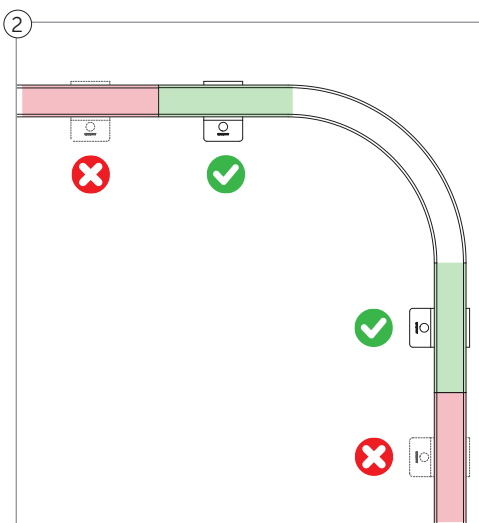
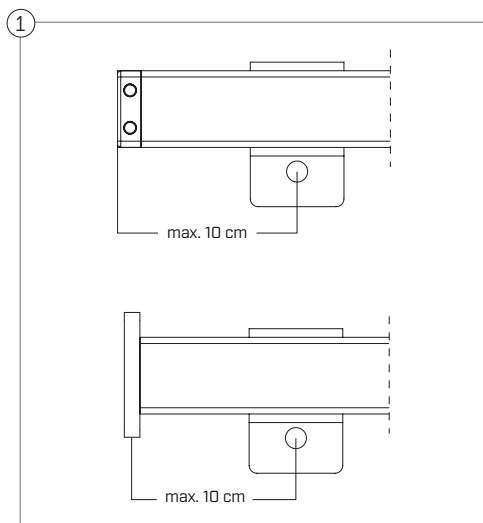
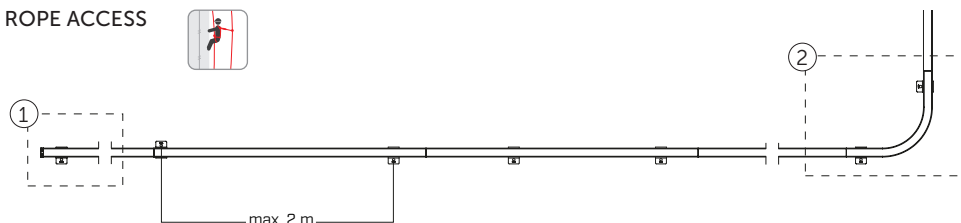
7. Type of use
8. Operator max. weight
9. System max. weight

■ TECHNICAL DATA

FALL PROTECTION/RESTRAINT

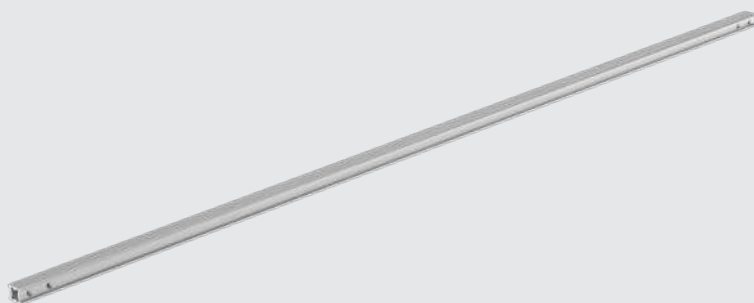
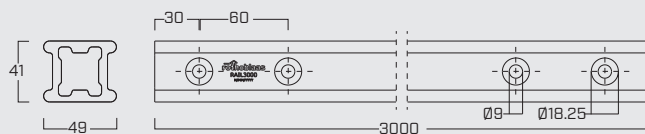


ROPE ACCESS



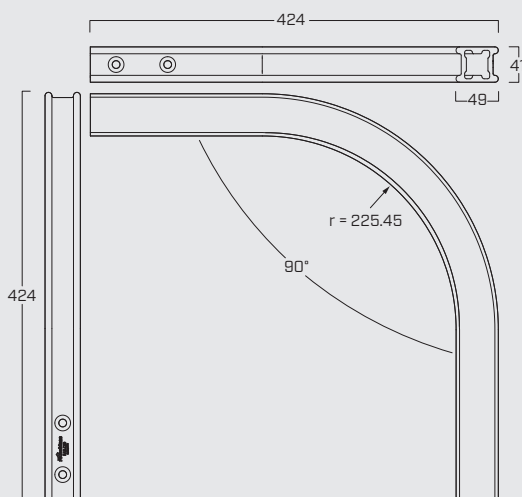
RAIL3000

AL
EN-AW
6063
T6

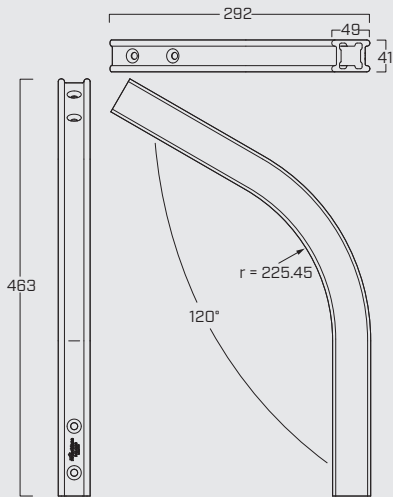


RAILC90

AL
EN-AW
6063
T6



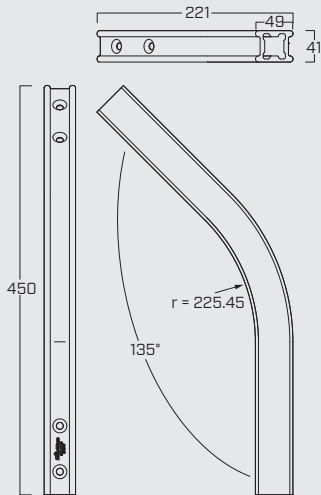
RAILC120



AL
EN-AW
6063
T6



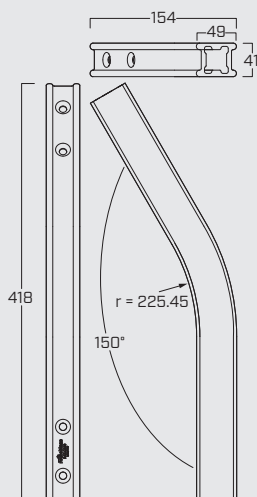
RAILC135



AL
EN-AW
6063
T6

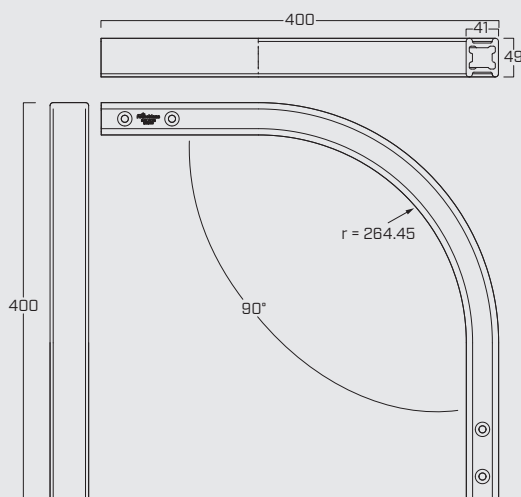


RAILC150



AL
EN-AW
6063
T6

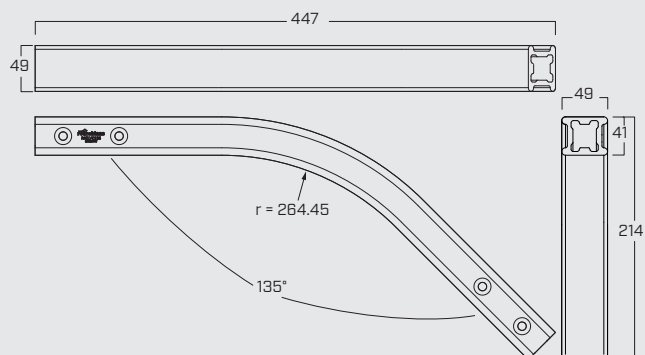
RAILVC90



AL
EN-AW
6063
T6

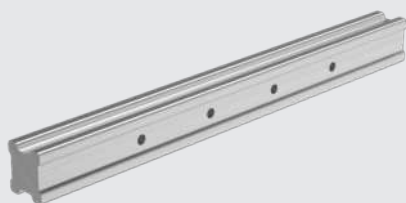
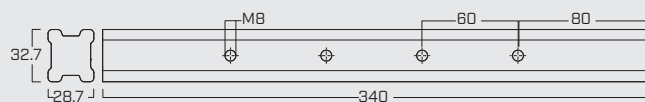
RAILVC135

AL
EN-AW
6063
T6



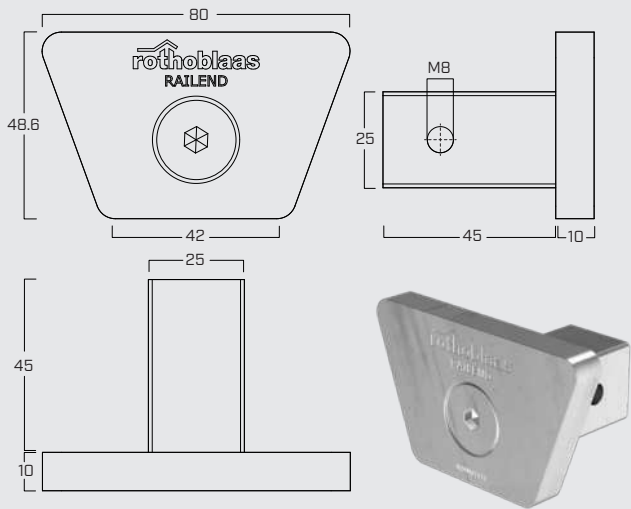
RAILJUN

AL
EN-AW
6062



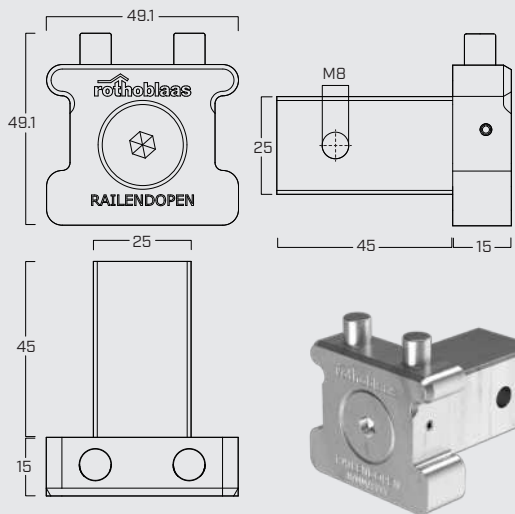
RAILEND

1.4301
AISI304
INOX



RAILVC90

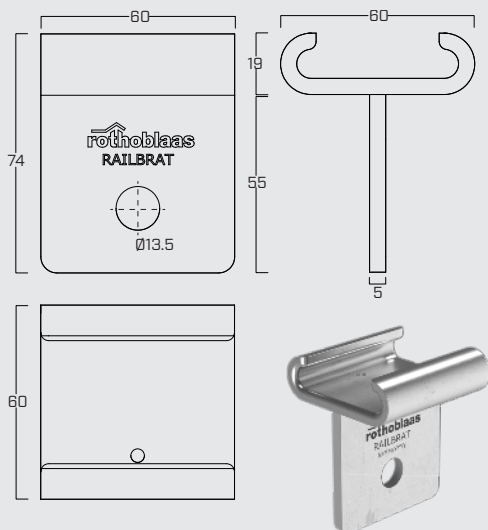
1.4301
AISI304
INOX



RAILBRAT



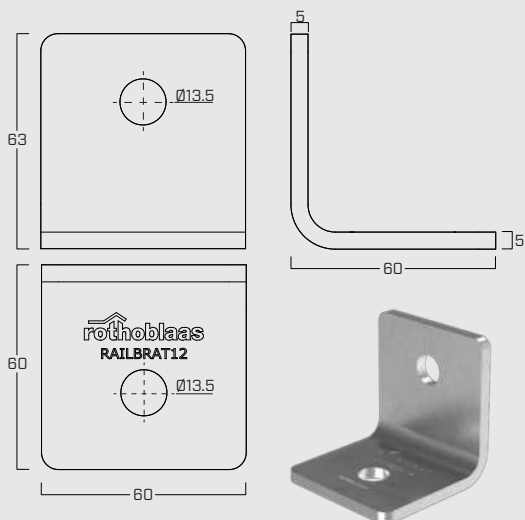
1.4301
AISI304
INOX



RAILBRAT12

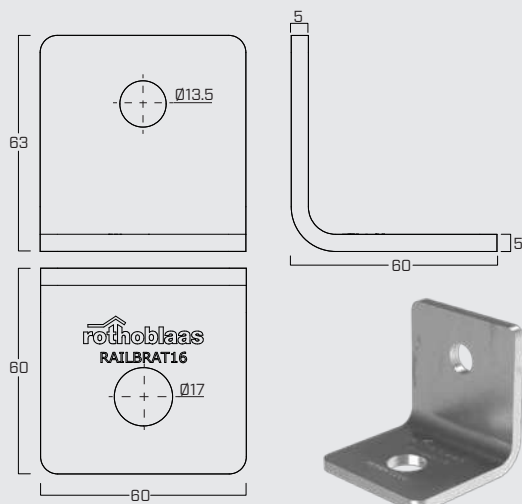


1.4301
AISI304
INOX



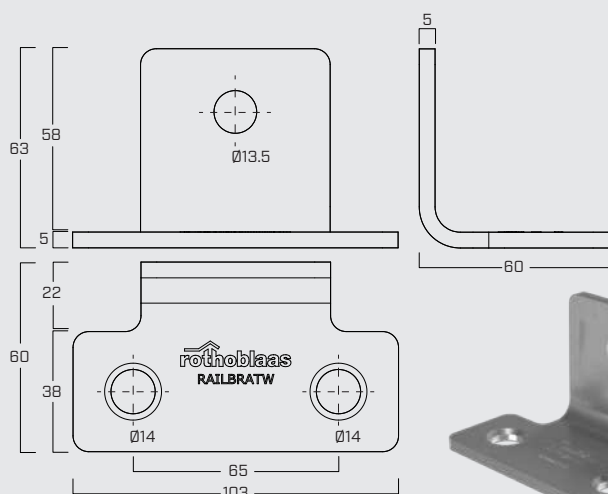
INCLUDED IN THE PACKAGE

■ RAILBRAT16

1.4301
AISI304
INOX

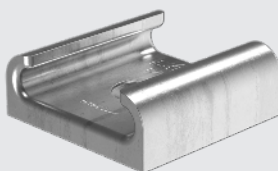
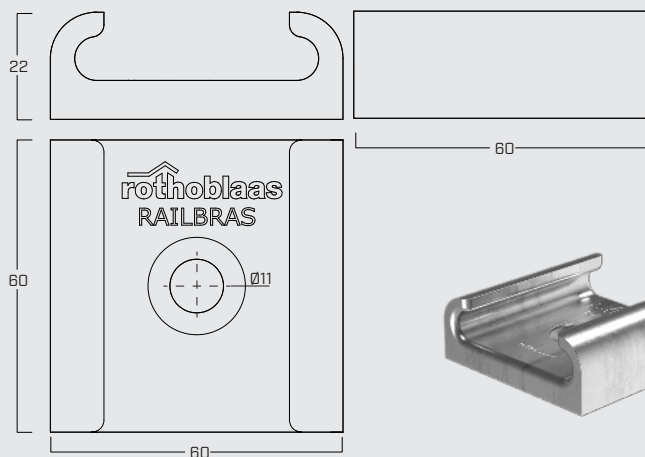
INCLUDED IN THE PACKAGE

■ RAILBRATW

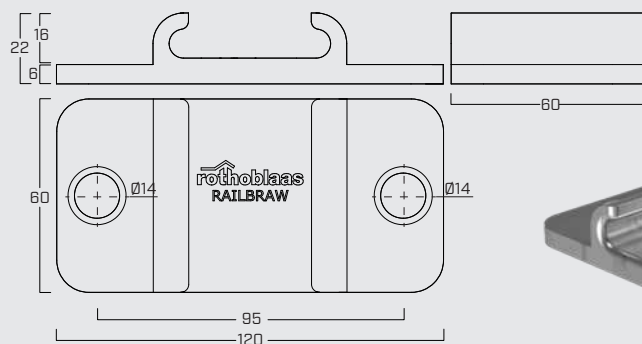
1.4301
AISI304
INOX

INCLUDED IN THE PACKAGE

■ RAILBRAS



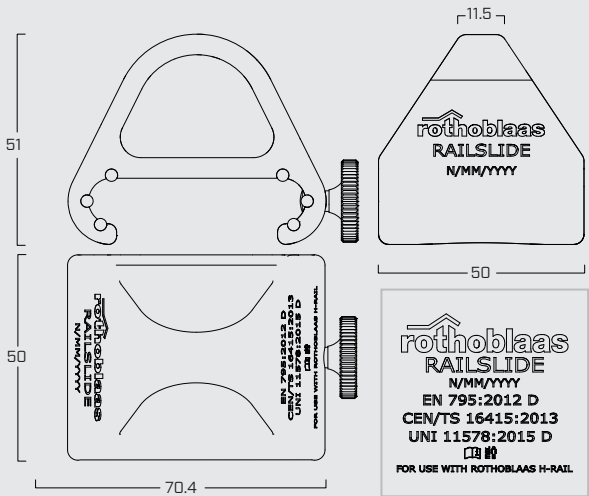
■ RAILBRAW



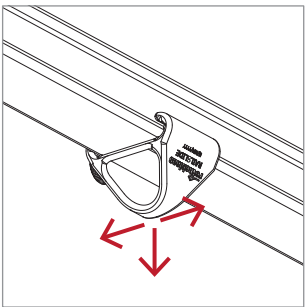
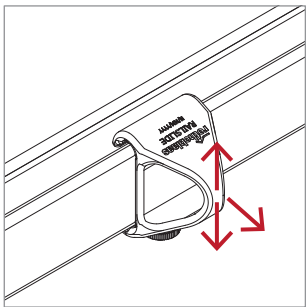
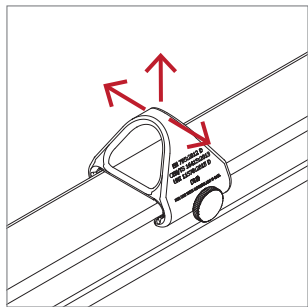
RAILSLIDE

PA.6

1.4301
AISI304
INOX

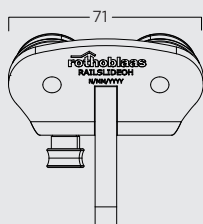
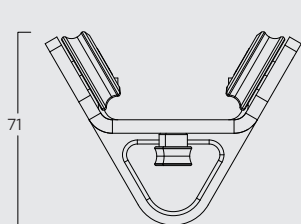


INCLUDED IN THE PACKAGE
RAILOCKSCREW

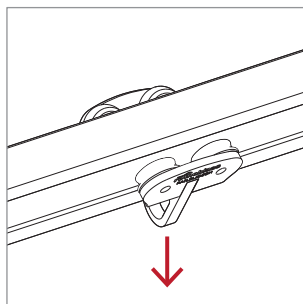
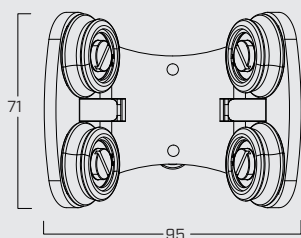


RAILSLIDEOH

1.4301
AISI304
INOX

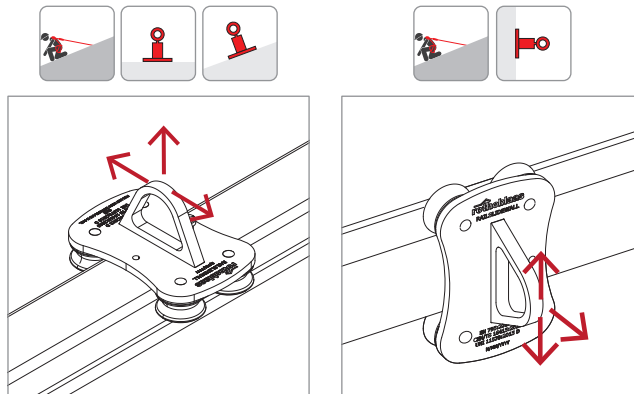
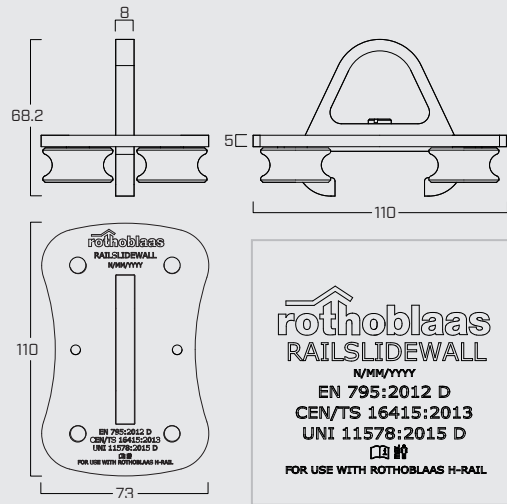


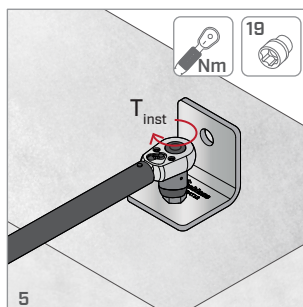
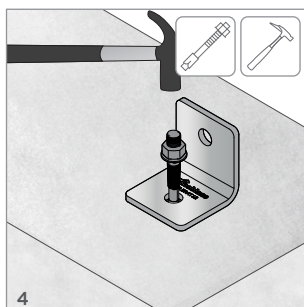
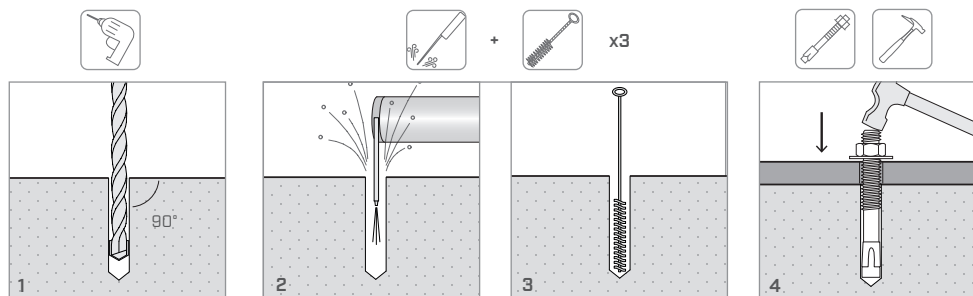
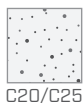
INCLUDED IN THE PACKAGE



RAILSLIDEWALL

1.4301
AISI304
INOX

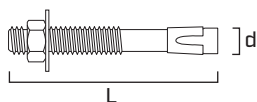
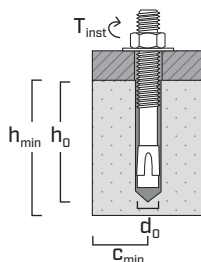




AB112100



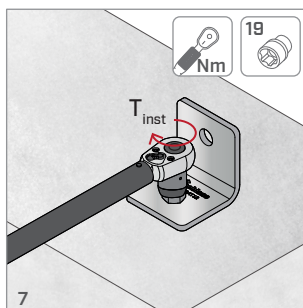
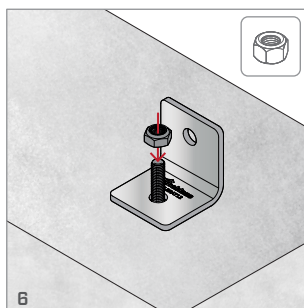
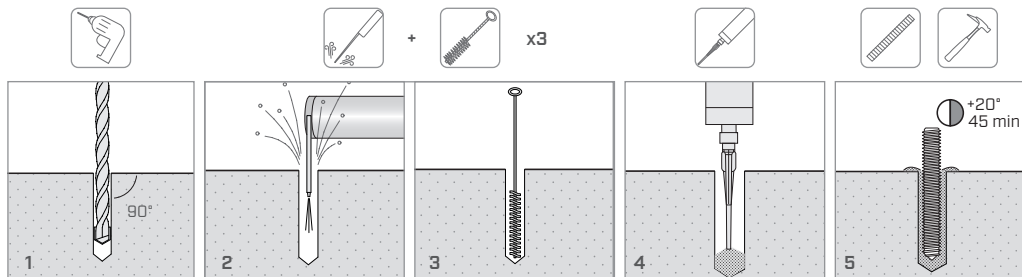
ETA-17/0481



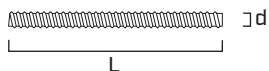
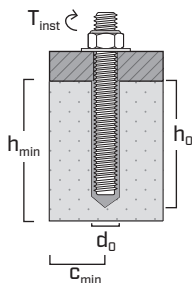
d	$=$	12 mm	d_0	$=$	12 mm
L	$=$	100 mm	h_0	$\geq$	85 mm
T_{inst}	$=$	60 Nm	h_{min}	$=$	140 mm
			c_{min}	$=$	70 mm

CONCRETE INSTALLATION

RAILBRAT12

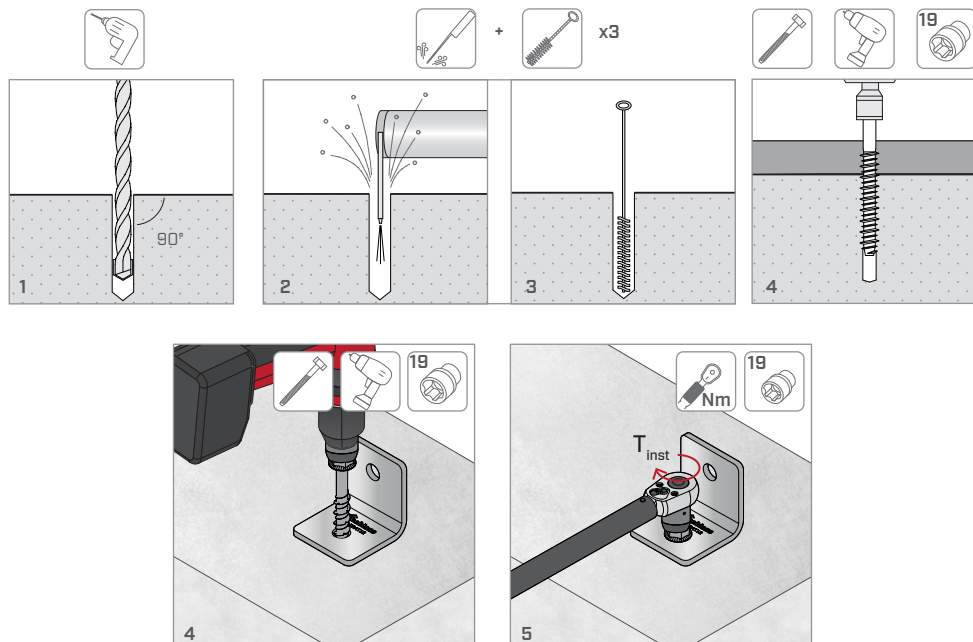
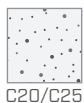


M12 x L - 5.8

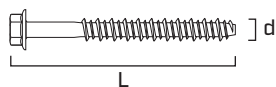
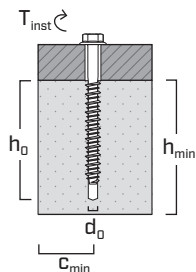


d	$=$	M12	d_0	$=$	14 mm
L	$\geq$	100 mm	h_0	$=$	$L - 30$
T_{inst}	$=$	40 Nm	h_{min}	$=$	$h_0 + 30$ mm
			c_{min}	$=$	60 mm

RAILBRAT12

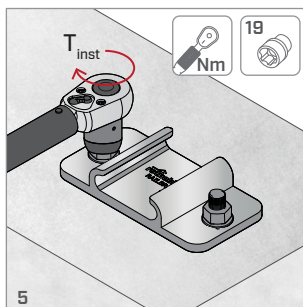
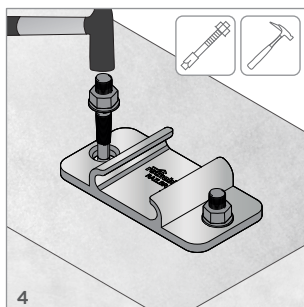
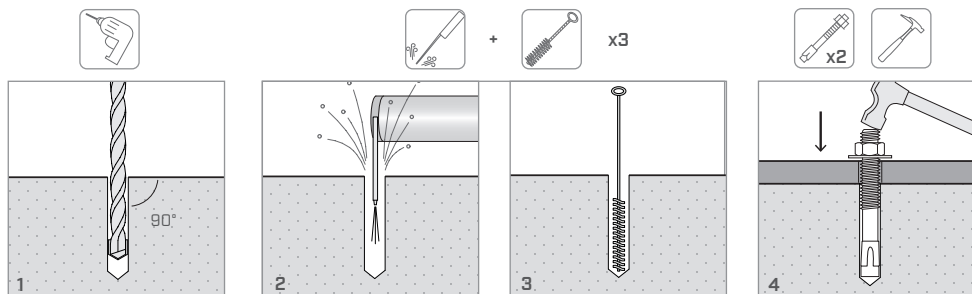
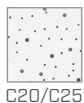


  **SKR CE**
ETA-18/0279
ETA-19/0100

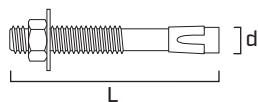
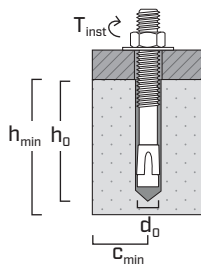


d	$=$	12 mm	d_0	$=$	10 mm
L	$=$	90 mm	h_0	$=$	100 mm
T_{inst}	$=$	80 Nm	h_{min}	$=$	130 mm
			c_{min}	$=$	96 mm

CONCRETE INSTALLATION
RAILBRAW

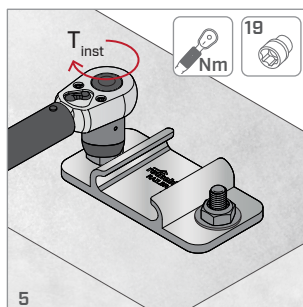
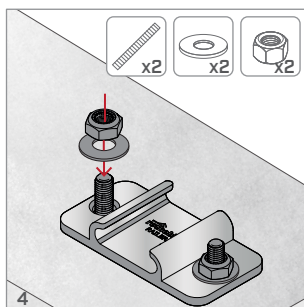
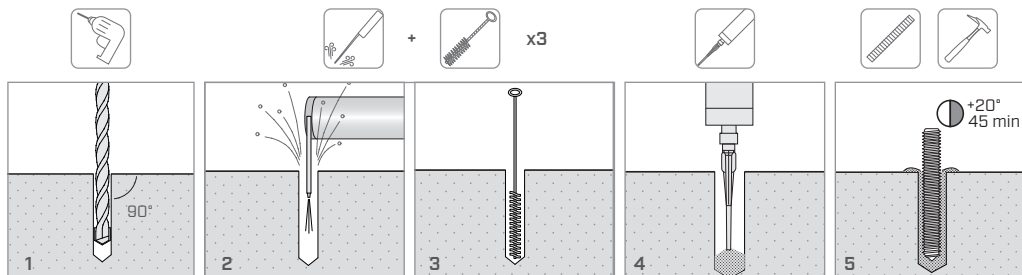


AB112100
(2 pcs)

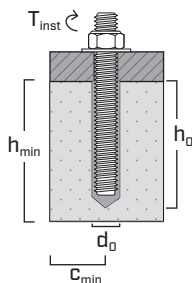


d	$=$	12 mm	d_0	$=$	12 mm
L	$=$	100 mm	h_0	$\geq$	85 mm
T_{inst}	$=$	60 Nm	h_{min}	$=$	140 mm
			c_{min}	$=$	70 mm

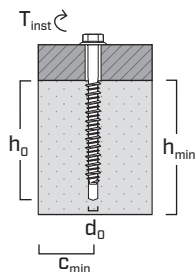
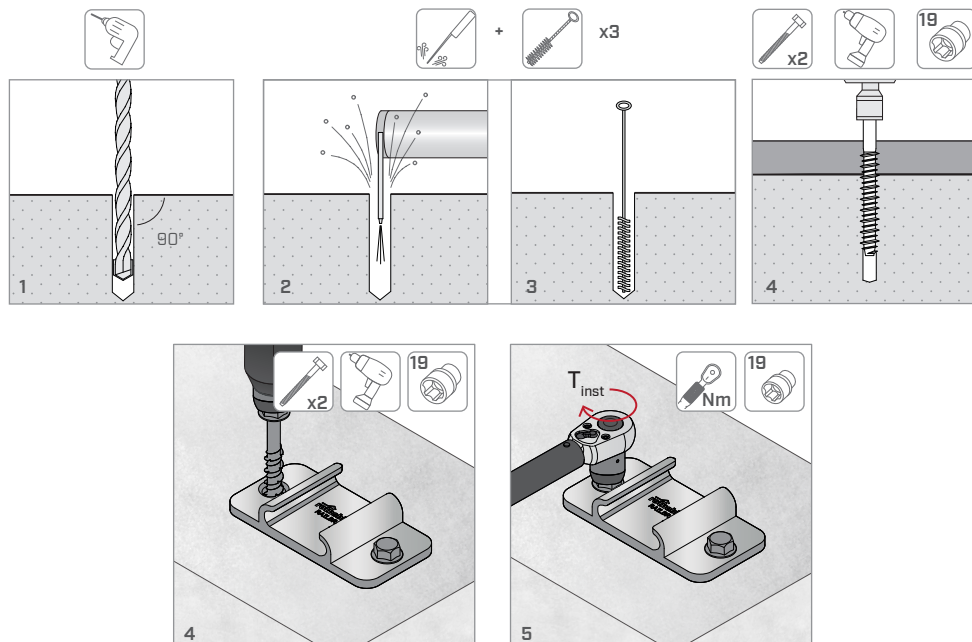
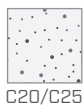
CONCRETE INSTALLATION RAILBRAW



M12 x L - 5.8 min
(2 pcs)

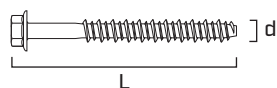


d	=	M12	d_0	=	14 mm
L	≥	100 mm	h_0	=	$L - 30$ mm
T_{inst}	=	40 Nm	h_{min}	=	$h_0 + 30$ mm
			c_{min}	=	60 mm



SKRCE1290

(2 pcs)

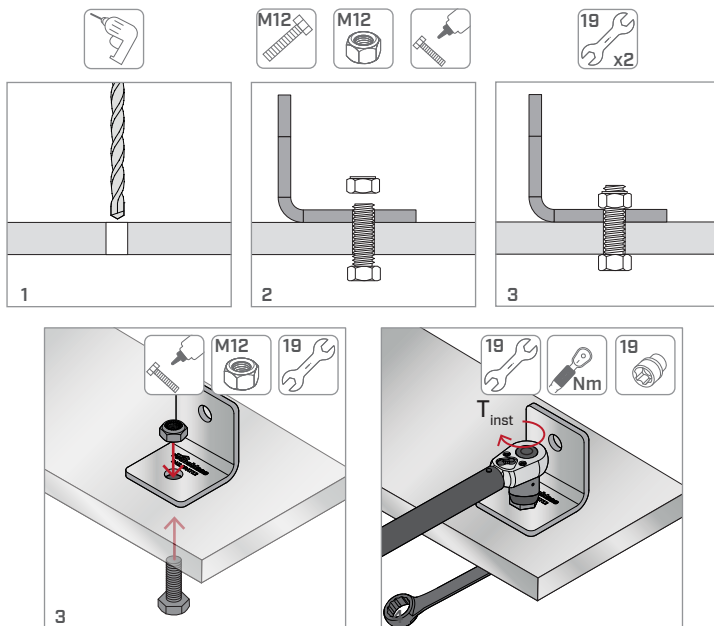


d	$=$	12 mm	d_0	$=$	10 mm
L	$=$	90 mm	h_0	$=$	100 mm
T_{inst}	$=$	80 Nm	h_{min}	$=$	130 mm
			c_{min}	$=$	95 mm

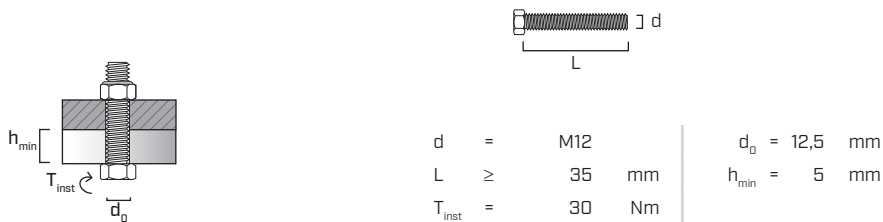


STEEL INSTALLATION

RAILBRAT12

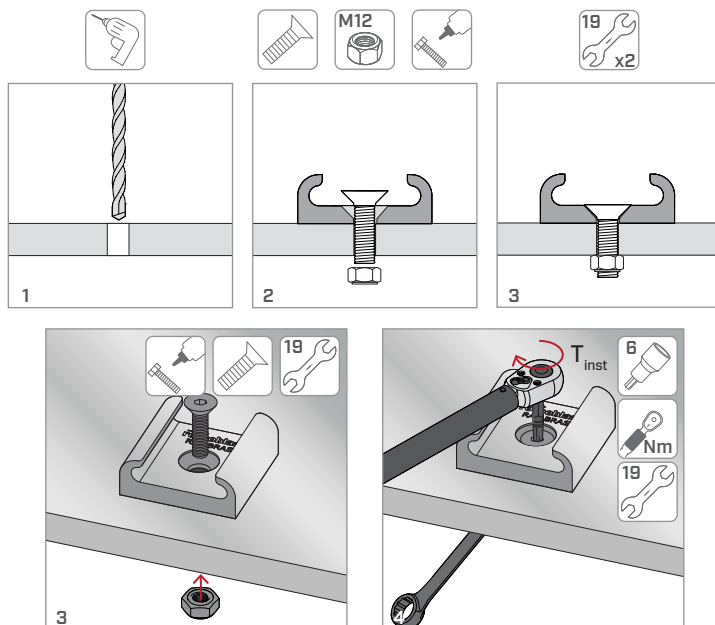


DIN 933
M12 x L - A2-70

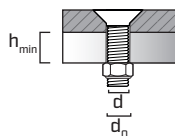
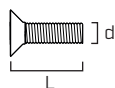


STEEL INSTALLATION

RAILBRAS



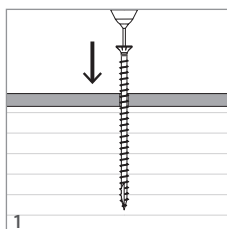
DIN7991
M10 x L - A2-70



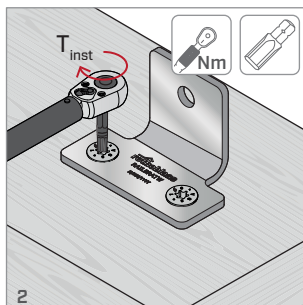
$d =$	M10	$d_0 = 10,5 \text{ mm}$
$L \geq$	35 mm	$h_{min} = 5 \text{ mm}$
A2-70 ►	$T_{inst} = 15 \text{ Nm}$	



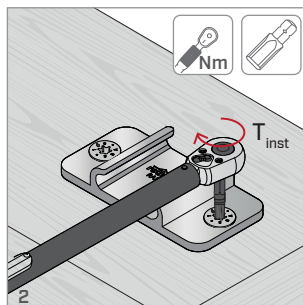
VGS11150
VGSEVO11150



RAILBRATW

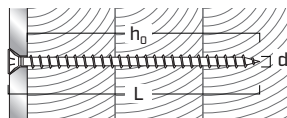
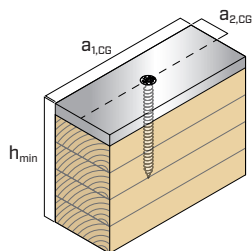


RAILBRAW



VGS11150/ VGSEVO11150

(2 pcs)



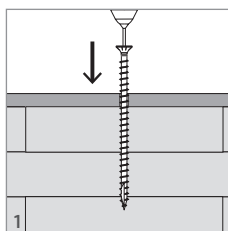
d	=	11	mm	h_0	=	145	mm
L	=	150	mm	h_{min}	>	h_0	
T_{inst}	=	30	Nm	$a_{1,CG}$	=	110	mm
				$a_{2,CG}$	=	44	mm

TIMBER INSTALLATION

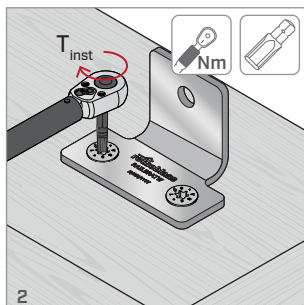
RAILBRATW-RAILBRAW



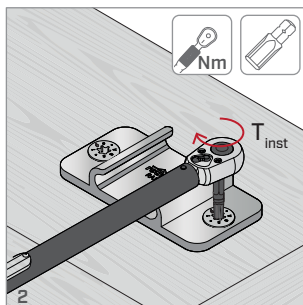
VGS13150
VGSEVO13150



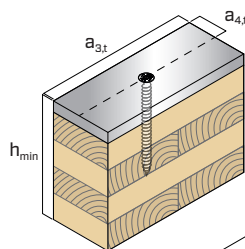
RAILBRATW



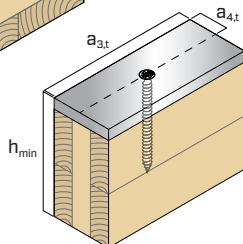
RAILBRAW



EDGE SURFACE

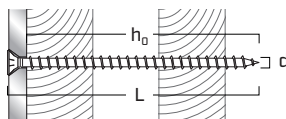


PLANE SURFACE



VGS13150/ VGSEVO13150

(2 pcs)



d = 13 mm
L = 150 mm
T_{inst} = 50 Nm

$h_0 \geq 145$ mm
 $h_{min} \geq h_0$

PLANE SURFACE

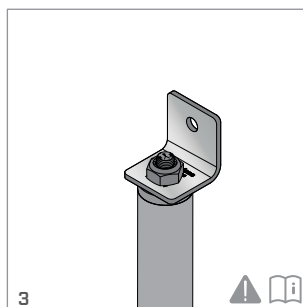
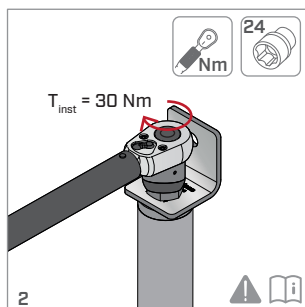
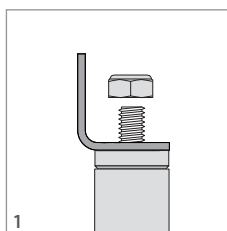
a_{3,t} = 66 mm
a_{4,t} = 66 mm

EDGE SURFACE

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

TOWER INSTALLATION

RAILBRAT16



TOWER SUBSTRUCTURES



S235



GL24H



CLT



C20/25



TOWER
TOWER22
TOWERA2



CLT



C20/25



C45/55



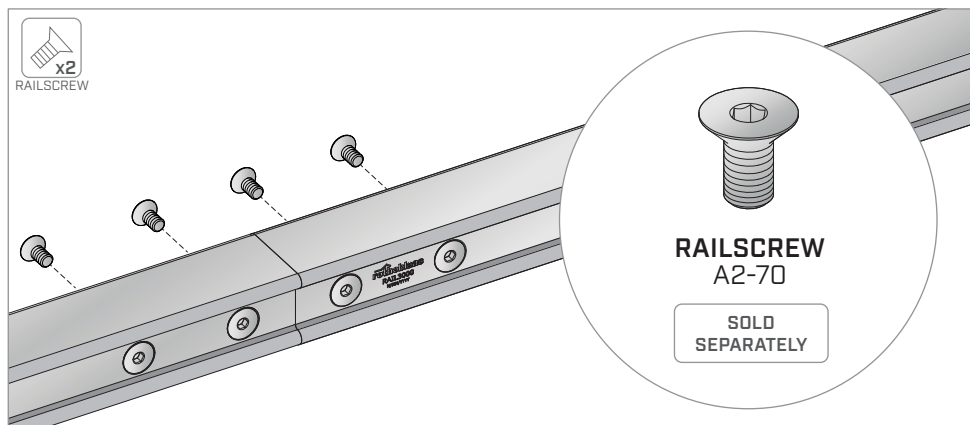
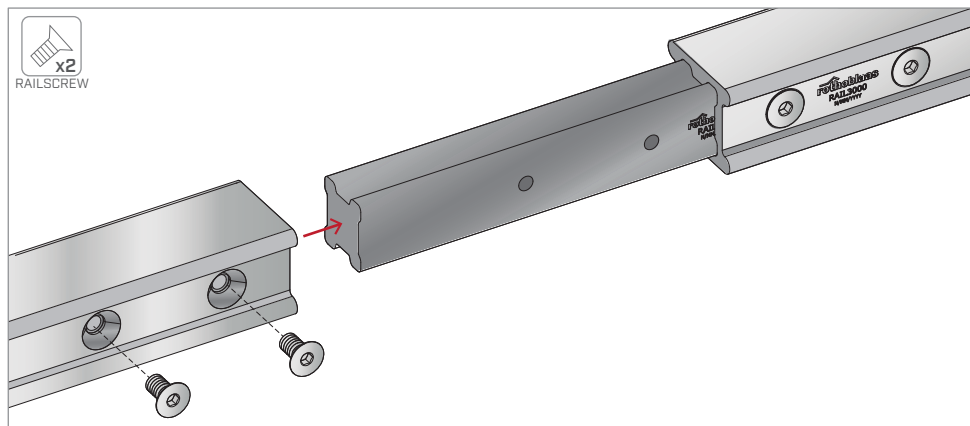
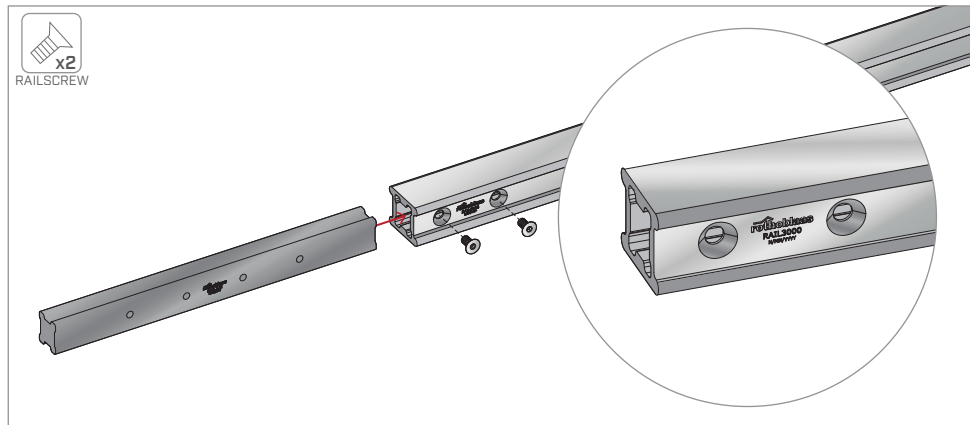
Fe: min 0,75 mm

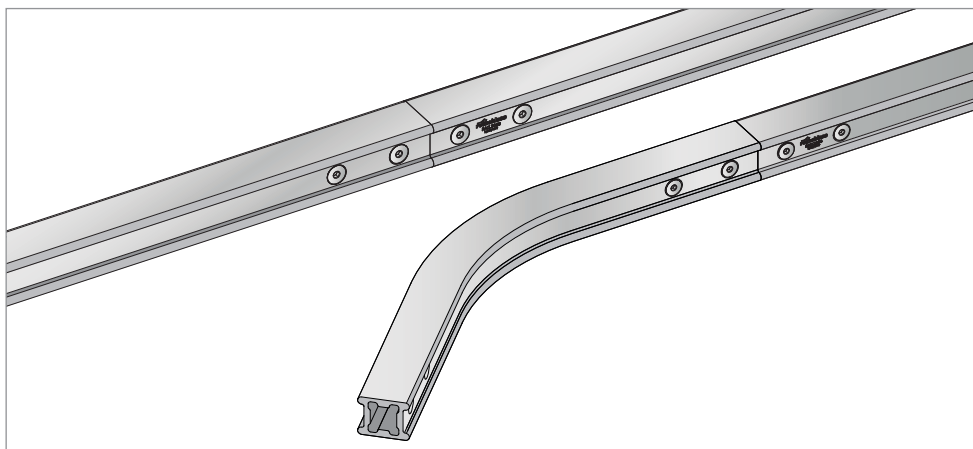
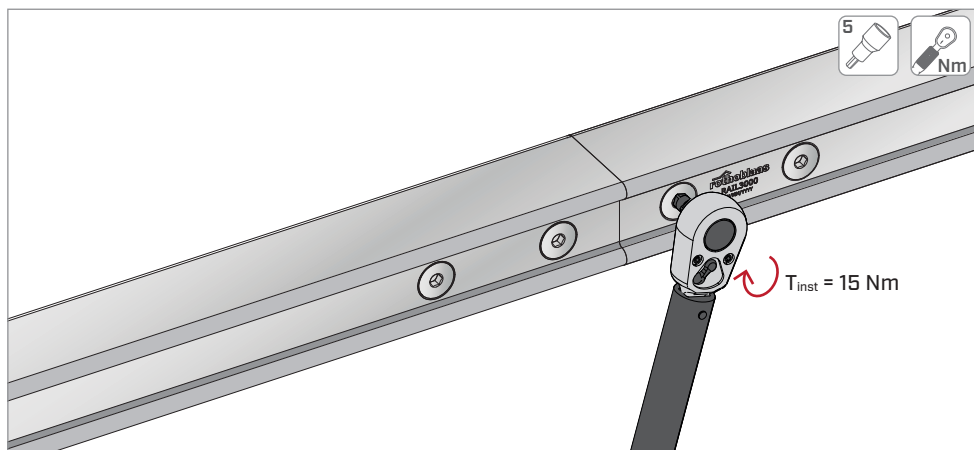
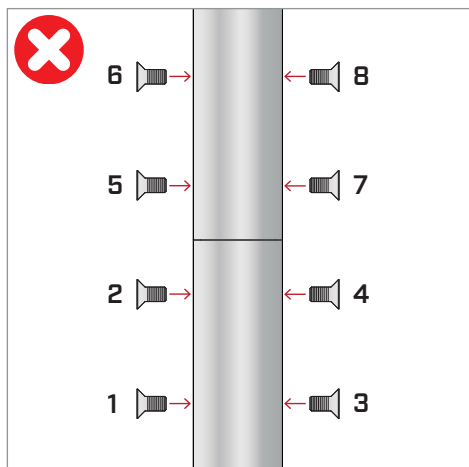
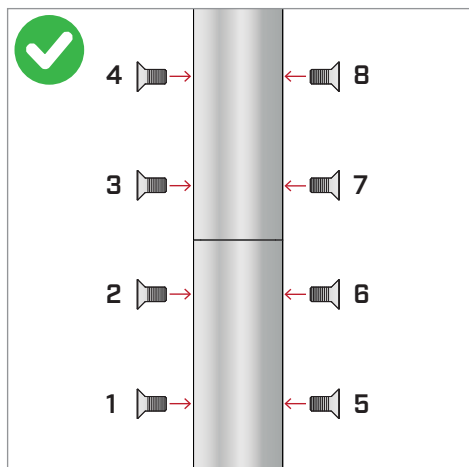


TOWERXL

■ RAIL INSTALLATION

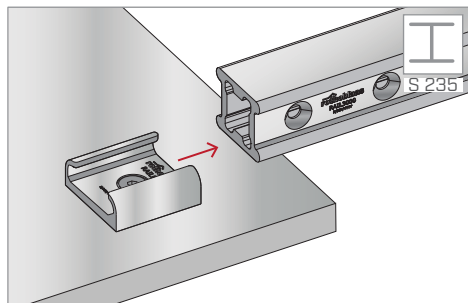
RAIL3000 + RAILJUN





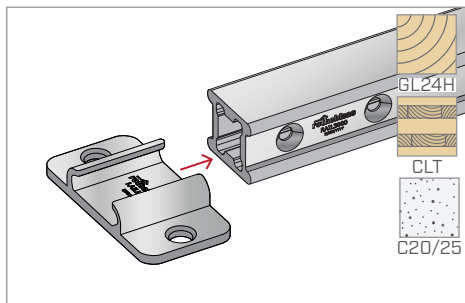
■ SUPPORT INSTALLATION

RAILBRAS + RAIL3000



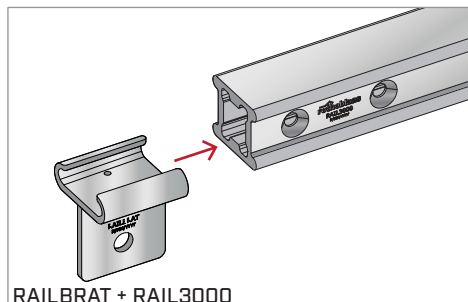
STEEL INSTALLATION ► PAG.42

RAILBRAW + RAIL3000

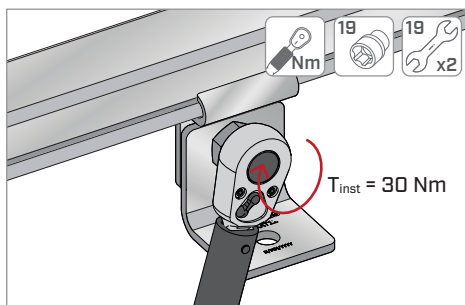
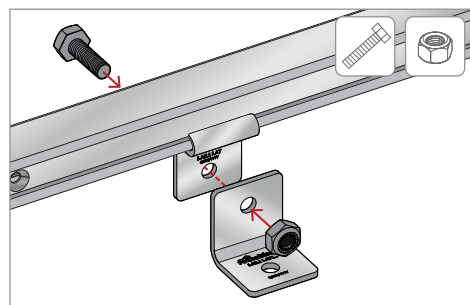
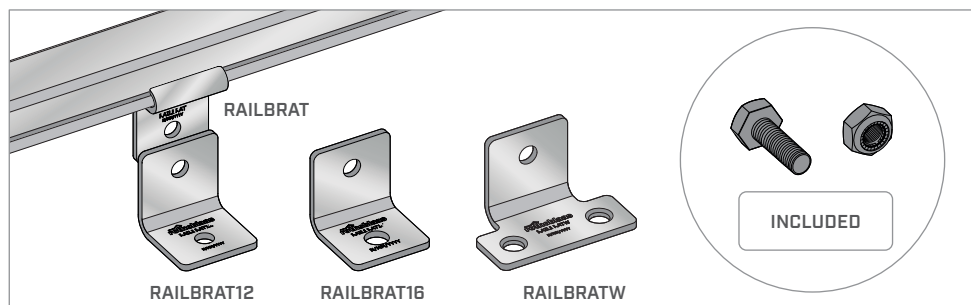
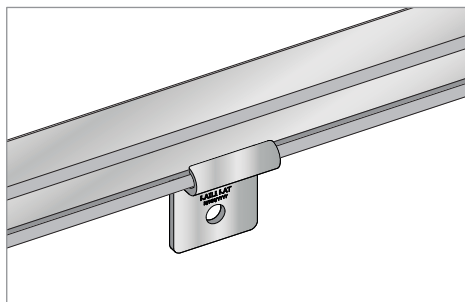


WOOD INSTALLATION ► PAG.38-39-40
CONCRETE INSTALLATION ► PAG.43-44

RAILBRAT

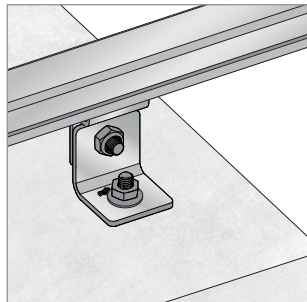


RAILBRAT + RAIL3000



SUBSTRUCTURE INSTALLATION

RAILBRAT + RAILBRAT12

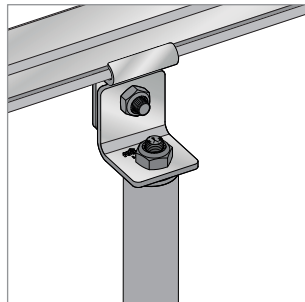


CONCRETE INSTALLATION
➤ PAG.35-36-37



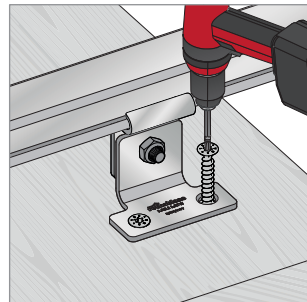
STEEL INSTALLATION
➤ PAG.35-36-37

RAILBRAT + RAILBRAT16



TOWER INSTALLATION
➤ PAG.45

RAILBRAT + RAILBRATW

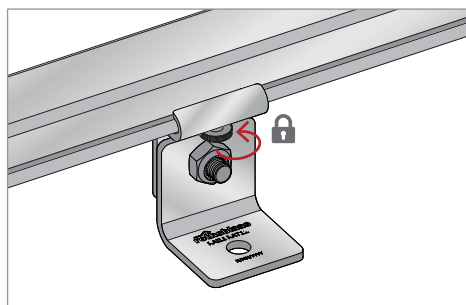
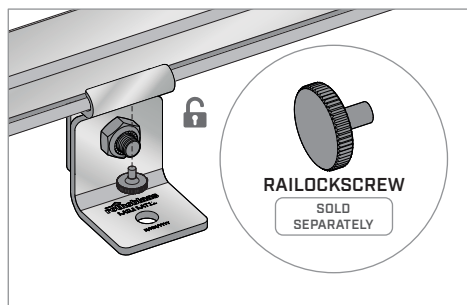


GL24H INSTALLATION
➤ PAG.43



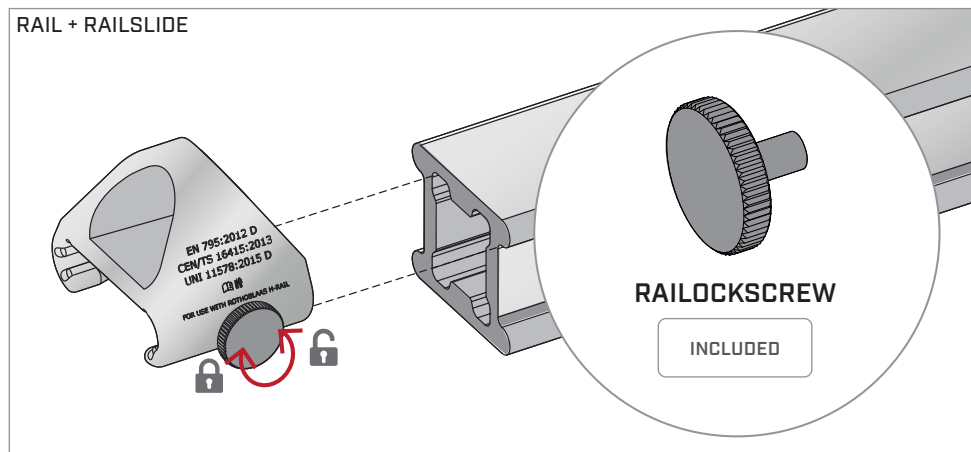
CLT INSTALLATION
➤ PAG.44

RAILOCKSCREW INSTALLATION

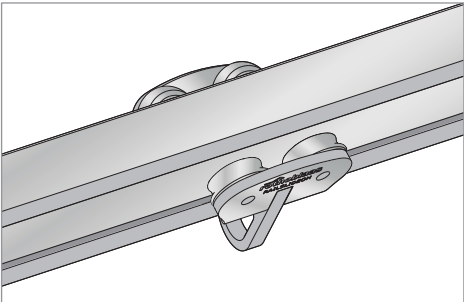
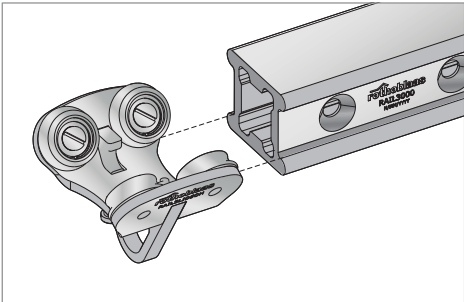


SHUTTLE INSTALLATION

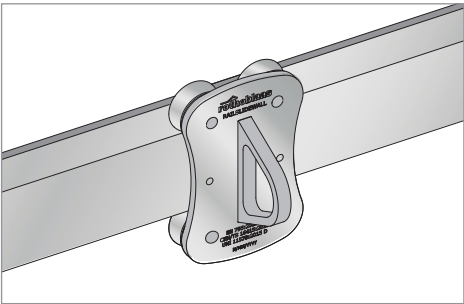
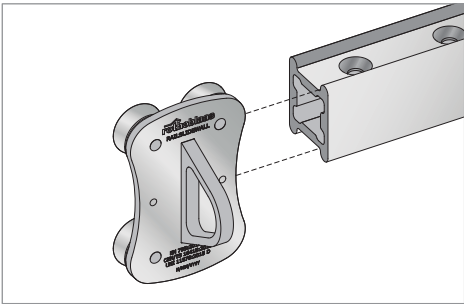
RAIL + RAILSLIDE



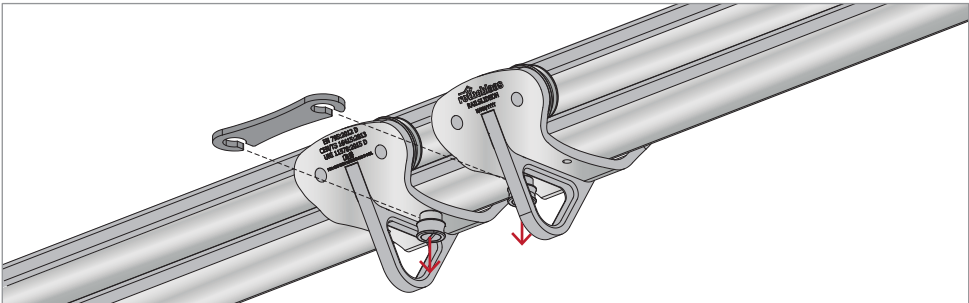
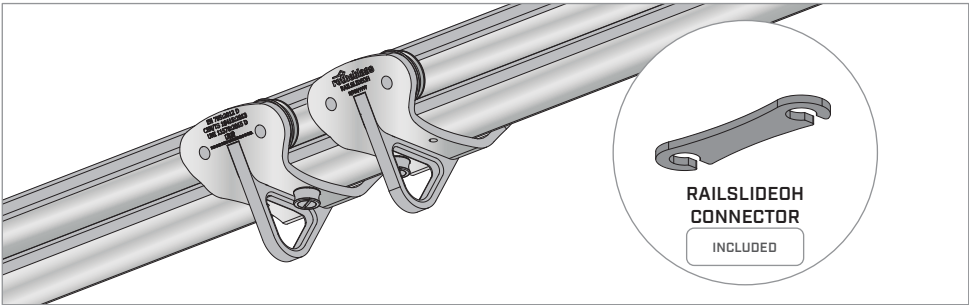
RAIL + RAILSLIDE0H



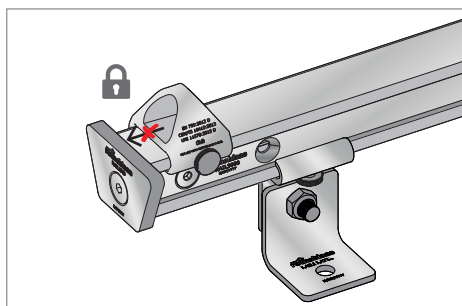
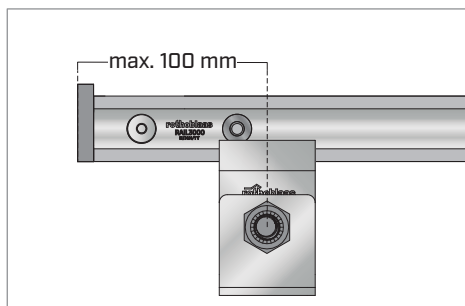
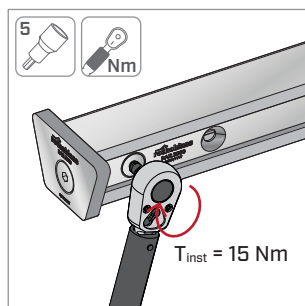
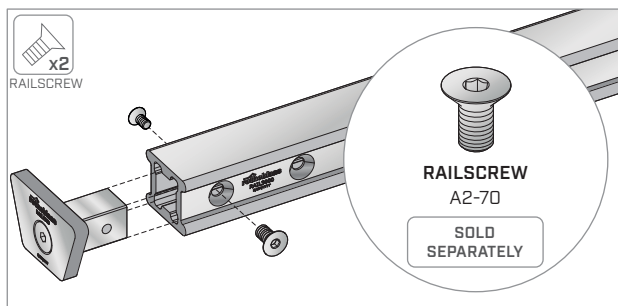
RAIL + RAILSLIDEWALL



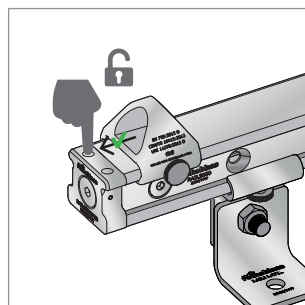
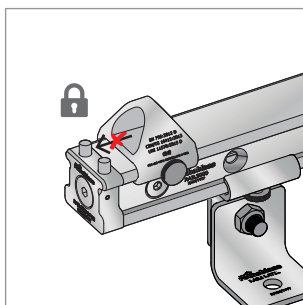
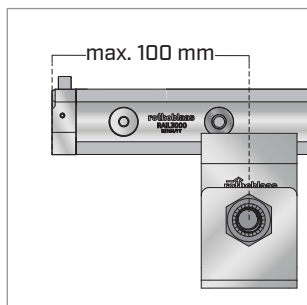
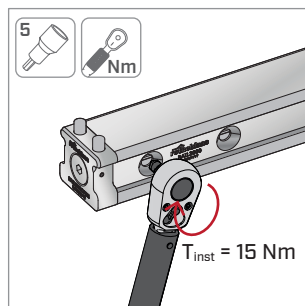
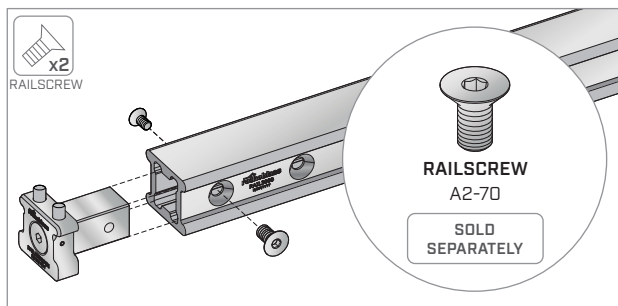
■ SHUTTLE CONNECTION



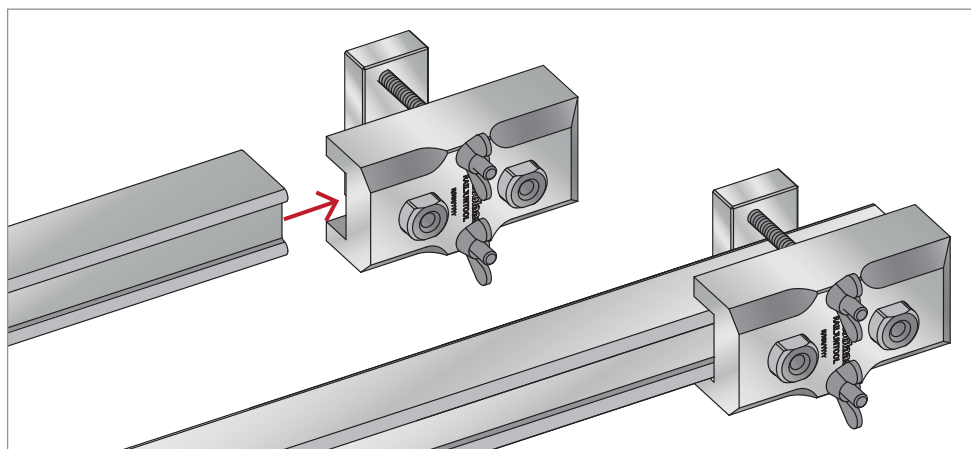
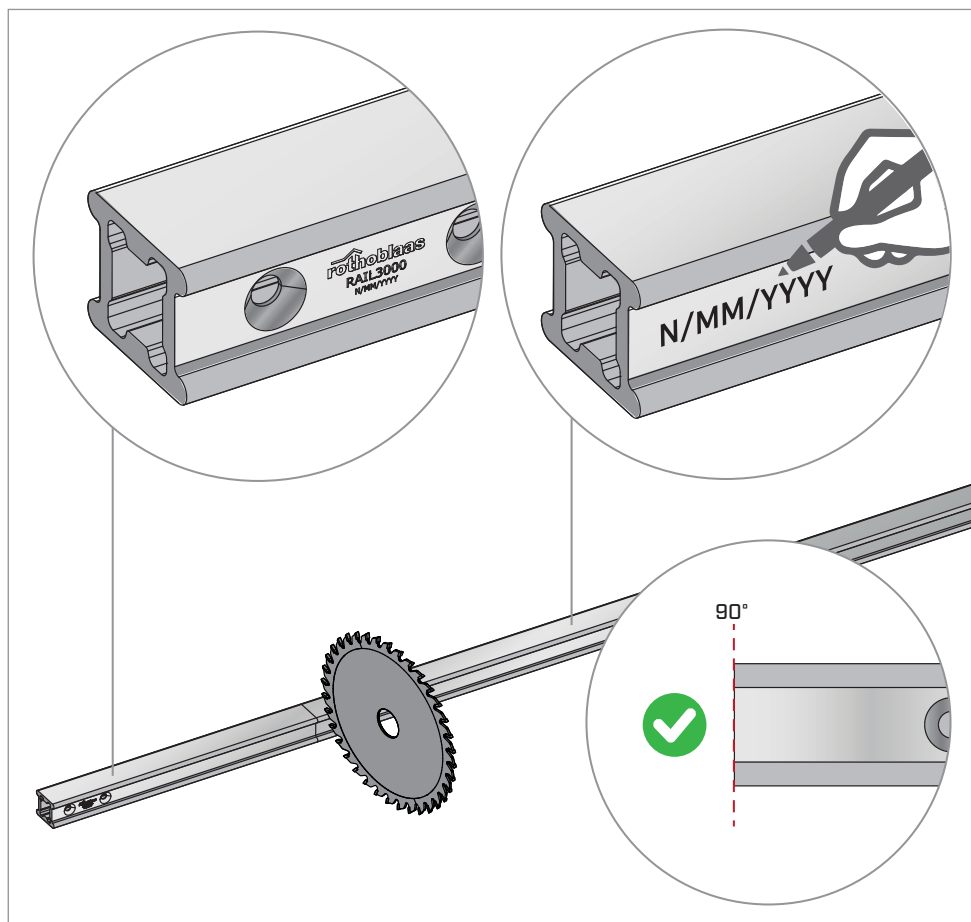
RAILEND INSTALLATION

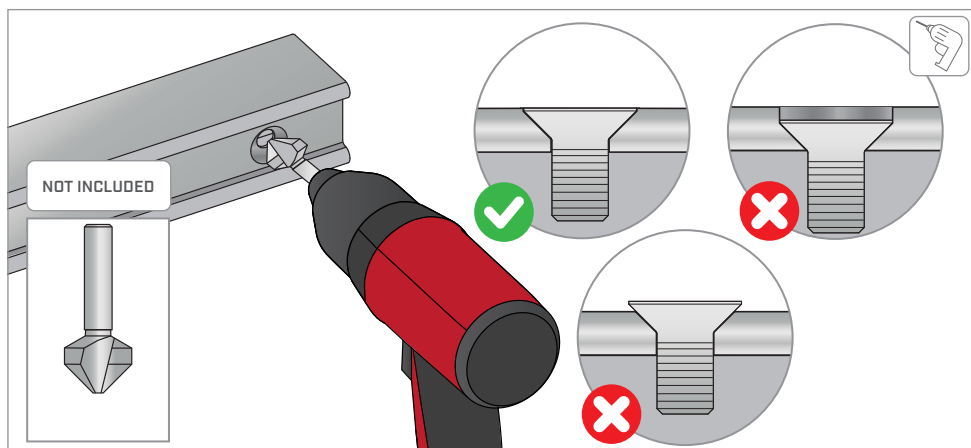
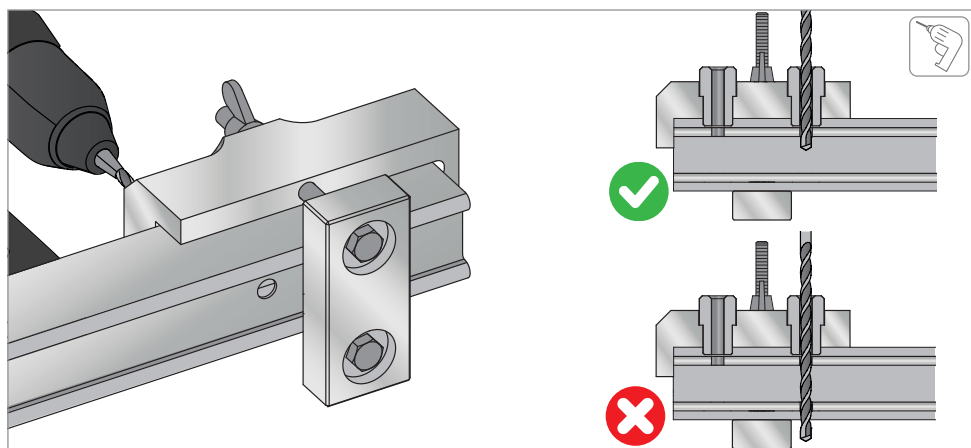
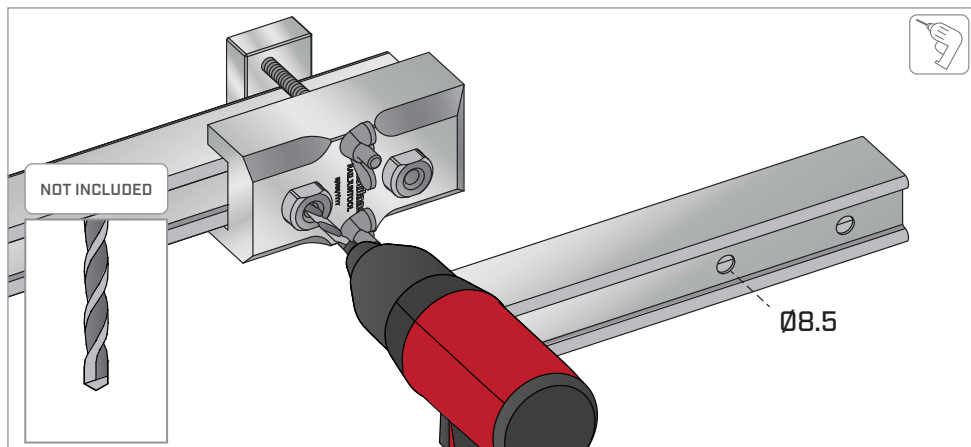


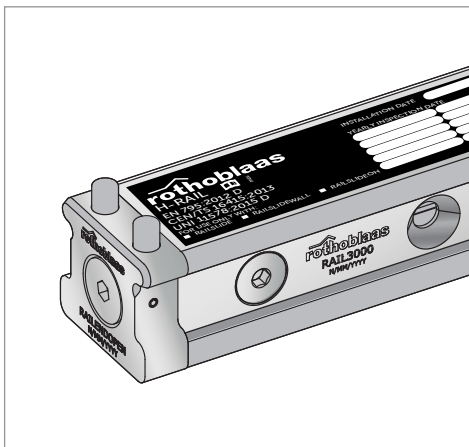
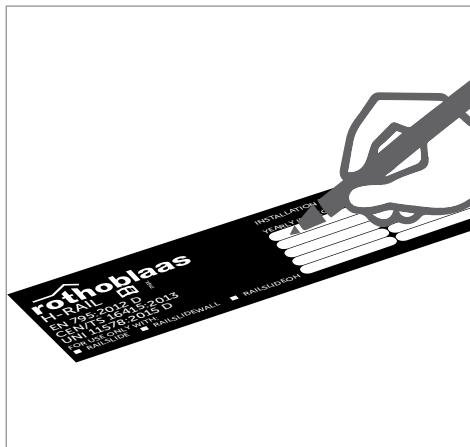
RAILENDOPEN INTSTALLATION



■ RAIL3000 CUT AND RAILJUNTOOL USE









Rotho Blaas SRL

06-24

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

