

GUARD M INSTALLATION MANUAL



Fe: min 0.63 mm



NTC
2018

EN
ISO 14122-3

distributed by:
Rotho Blaas srl - Via Dell'Adige 2/1, 39040 Cortaccia (BZ) - ITALY
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ALSOLU - 89 rue Florent Evrard , 42100 Saint-Etienne - FRANCE



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MANUALE DI INSTALLAZIONE

DEFINIZIONE

Il parapetto GUARD M è un sistema di protezione collettiva anticaduta progettato per la protezione delle coperture metalliche con pendenza inferiore a 10°.

È la soluzione ideale per essere fissato sulle onde di lamiere grecate (interasse da 250 a 333 mm con uno spessore minimo di 63/100 - altre dimensioni su richiesta), senza tagli, o risigillature.

Il montaggio è semplice e veloce, grazie ai vari componenti pre-montati e ai corrimani superiori e correnti intermedi, che possono essere facilmente montati insieme.

NORMATIVE

Il parapetto su lamiere grecate GUARD rientra nel quadro della normativa europea **EN ISO 14122-3** del marzo 2017, Sicurezza del macchinario - Mezzi di accesso permanenti al macchinario - Parte 3: Scale, parapetti, e alla norma NF E85-015 del luglio 2019, elementi di impianti industriali - Mezzi di accesso permanenti.

Il parapetto su lamiere grecate GUARD è conforme ai requisiti delle norme **EN ISO 14122-3**.

RIFERIMENTI A NORMATIVE

- Un parapetto deve essere installato quando l'altezza di caduta supera i 2 m (verificare la normativa locale).
- L'altezza del corrimano superiore del parapetto deve essere di 1100 mm sopra la superficie del traffico.
- Lo spazio libero tra il corrimano e il corrente intermedio e tra il corrente intermedio e la tavola fermapiede non deve lasciar passare una sfera di 500 mm di diametro.
- Una tavola fermapiede con un'altezza minima di 100 mm deve essere installata a non più di 12 mm dalla zona di traffico e dal bordo della piattaforma.
- La distanza tra gli assi dei montanti deve essere limitata a max. 1500 mm. Tuttavia, se tale distanza è più elevata, occorre prestare particolare attenzione alla resistenza dell'ancoraggio dei montanti e dei dispositivi di fissaggio: consultare il nostro ufficio progettazione.
- Se il corrimano superiore viene interrotto, lo spazio libero tra due segmenti deve essere compreso tra 75 mm e 120 mm. In presenza di un'apertura più ampia, deve essere prevista una porta pedonale per garantire la continuità della sicurezza anticaduta del parapetto.
- Abbattibile: una linea vita deve essere installata prima del montaggio del parapetto abbattibile. Sarà utilizzato anche durante la sua implementazione e manutenzione.

USO - MANUTENZIONE

- L'installatore che installa il parapetto GUARD deve essere una persona qualificata e deve rispettare le regole di pratica relative ai lavori in altezza. Deve quindi garantire la sua sicurezza (uso di una linea di vita temporanea, DPI, cestino, ecc.)
- Prima di ogni uso, l'utente dovrà assicurarsi con un controllo visuale che il parapetto GUARD non presenti anomalie (urto, deformazione, corrosione...)
- Il parapetto GUARD non richiede alcuna manutenzione speciale, tuttavia, un controllo visivo deve essere effettuato almeno una volta all'anno da una persona autorizzata.
- Se il parapetto GUARD è installato in modo non corretto, danneggiato o se ha arrestato una caduta, il suo utilizzo deve essere immediatamente interrotto. Una persona autorizzata deve poi controllarlo e confermarne la restituzione per iscritto.
- Se il prodotto viene rivenduto al di fuori del primo paese di destinazione, è essenziale per la sicurezza dell'utente che il rivenditore fornisca il manuale tecnico nella lingua del paese di utilizzo del prodotto. Questi documenti potranno esservi forniti su richiesta contattando il fabbricante.
- Il parapetto GUARD è una protezione collettiva permanente che deve essere utilizzata da professionisti su una terrazza non accessibile al pubblico.
- L'uso di una tavola fermapiede GUARD è obbligatorio se la terrazza non ha muretto perimetrale o se il muretto è inferiore a 100 mm.
- Se il parapetto GUARD viene installato in un ambiente industriale inquinato, petrolchimico, navale, o in riva al mare, dovrà necessariamente essere sottoposto ad un trattamento superficiale adeguato come verniciatura a polvere, anodizzazione, etc.
- Ogni sezione deve essere composta da 2 montanti al minimo.
- Per garantire la conformità dell'installazione, essa deve essere eseguita secondo una planimetria elaborata dal nostro configuratore o dal nostro ufficio progettazione.

STOCCAGGIO

- I componenti in alluminio grezzo sono imballati a contatto l'uno con l'altro.
- L'azione della pioggia sulle confezioni non imballate provocherà l'ossidazione di questi componenti. Possono quindi apparire delle macchie superficiali. Queste non mettono in questione la qualità dell'alluminio, ma possono degradare l'aspetto estetico del parapetto.
- Si consiglia di disimballare le confezioni e di conservare i componenti separatamente l'uno dall'altro (nessun contatto tra di loro), oppure di conservare le confezioni ancora imballate in un luogo asciutto.

PARAPETTO SENZA TAVOLA FERMAPIEDE



con cordolo maggiore di 150 mm

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PARAPETTO CON TAVOLA FERMAPIEDE



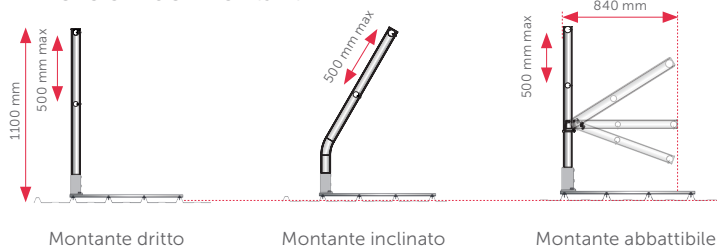
senza cordolo o inferiore a 150 mm

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DIMENSIONI

Dimensioni dei montanti:



MONTAGGIO OTTIMIZZATO

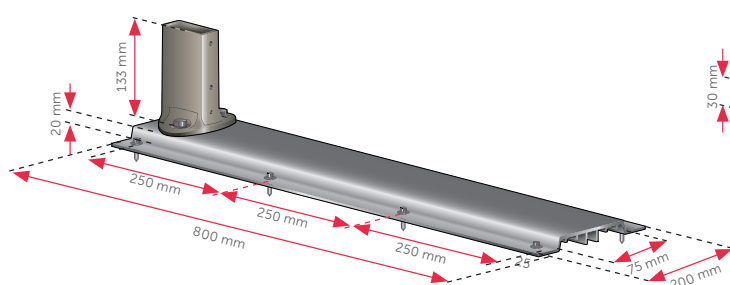
- Nuovi angoli (plastica e ALU) per corrimano rotondo;
- Nuovo tappo per corrimano rotondo;
- Montanti: asola nella parte superiore per ricevere il corrimano + fori preforati per facilitare il montaggio del corrimano e del corrente intermedio.



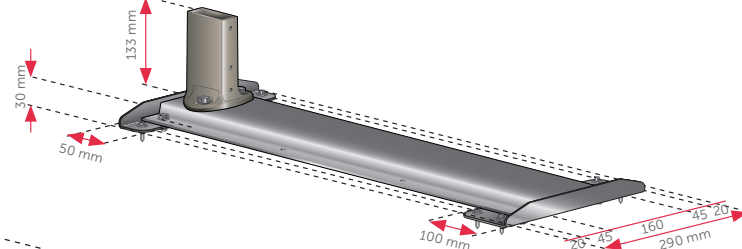
DIMENSIONI DELLA BASI

Per fissaggio su onde di lamiera grecate con interasse di 250 mm.

Base onda 250 mm per parapetto su lamiera grecate parallelo alle onde (escluse le viti e i bulloni fissati alla lamiera grecata)

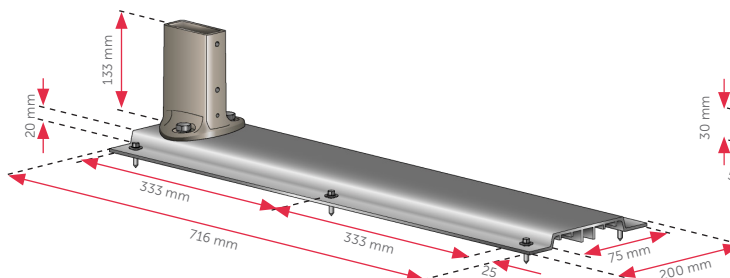


Base onda 250 mm per parapetto su lamiera grecate perpendicolare alle onde (escluse le viti e i bulloni fissati alla lamiera grecata)

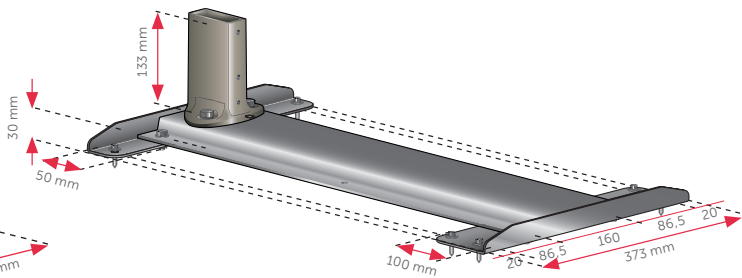


Per il fissaggio su lamiera grecata con passo 333 mm.

Base onda 333 mm per parapetto su lamiera grecate parallelo alle onde (escluse le viti e i bulloni fissati alla lamiera grecata)

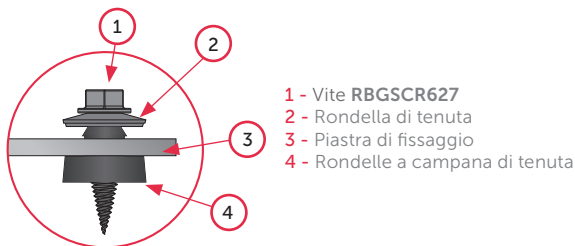


Base onda 333 mm per parapetto su lamiera grecate perpendicolare alle onde (escluse le viti e i bulloni fissati alla lamiera grecata)

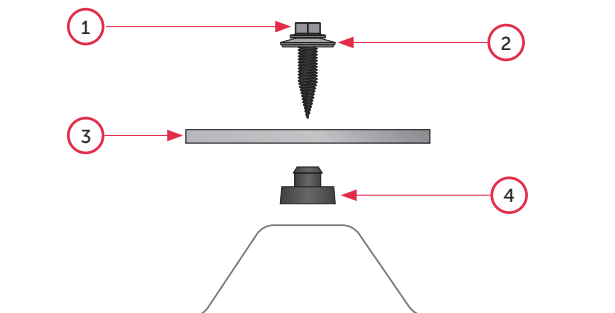


PRINCIPIO DI FISSAGGIO

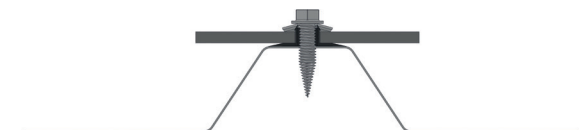
Il parapetto su lamiera grecata è fissato con viti **RBGSCR627**, con rondelle di tenuta e rondelle a campana per garantire l'impermeabilizzazione.



PRIMA DEL FISSAGGIO



DOPO IL FISSAGGIO



LA VITE RBGSCR627

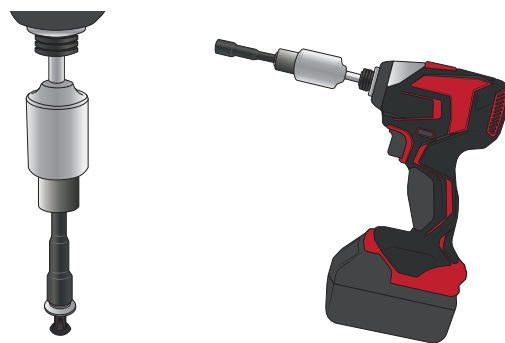
A differenza di una vite autoperforante standard con cui la materia della foratura è evacuata in trucioli, la vite **RBGSCR627** rigetta la materia verso l'interno, formando uno spessore, il quale aumenta la lunghezza d'impianto. Il valore limite di coppia di serraggio della vite **RBGSCR627** è elevato anche su spessori ridotti (> 5 N.m a fronte di una media di 1.5 N.m per le viti autoperforanti convenzionali).

Resistenze caratteristiche di assemblaggio della RBGSCR627	Lamiera S320 spessore 0,63 mm	Lamiera S320 spessore 0,75 mm
Valore PK in taglio con 1 vite RBGSCR627 (in DaN)	219	286
Valore PK alla rimozione con 1 vite RBGSCR627 (in DaN)	142	187
Carico limite alla rimozione della piastra con 8 viti RBGSCR627 (in DaN)	721	921

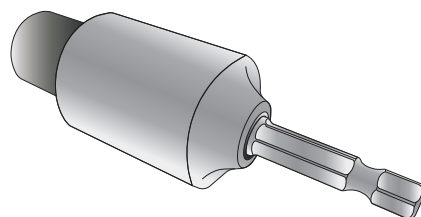
FISSAGGIO CON VITE RBGSCR627 + RONDELLA

Onde	Configurazione del parapetto	Quantità
250 mm	Parallelo alle onde	8 viti
	Perpendicolare alle onde	
333 mm	Parallelo alle onde	6 viti
	Perpendicolare alle onde	

OPZIONE



IL LIMITATORE DI COPPIA DB CONTROL 5 Nm



Per un fissaggio ottimale su lamiera grecata

Si consiglia l'uso di questo limitatore di coppia per rispettare la coppia di serraggio. Specificamente adattato alla coppia di serraggio di 5 Nm che caratterizza la vite **RBGSCR627**, il fissaggio su lamiera grecata è più sicuro.

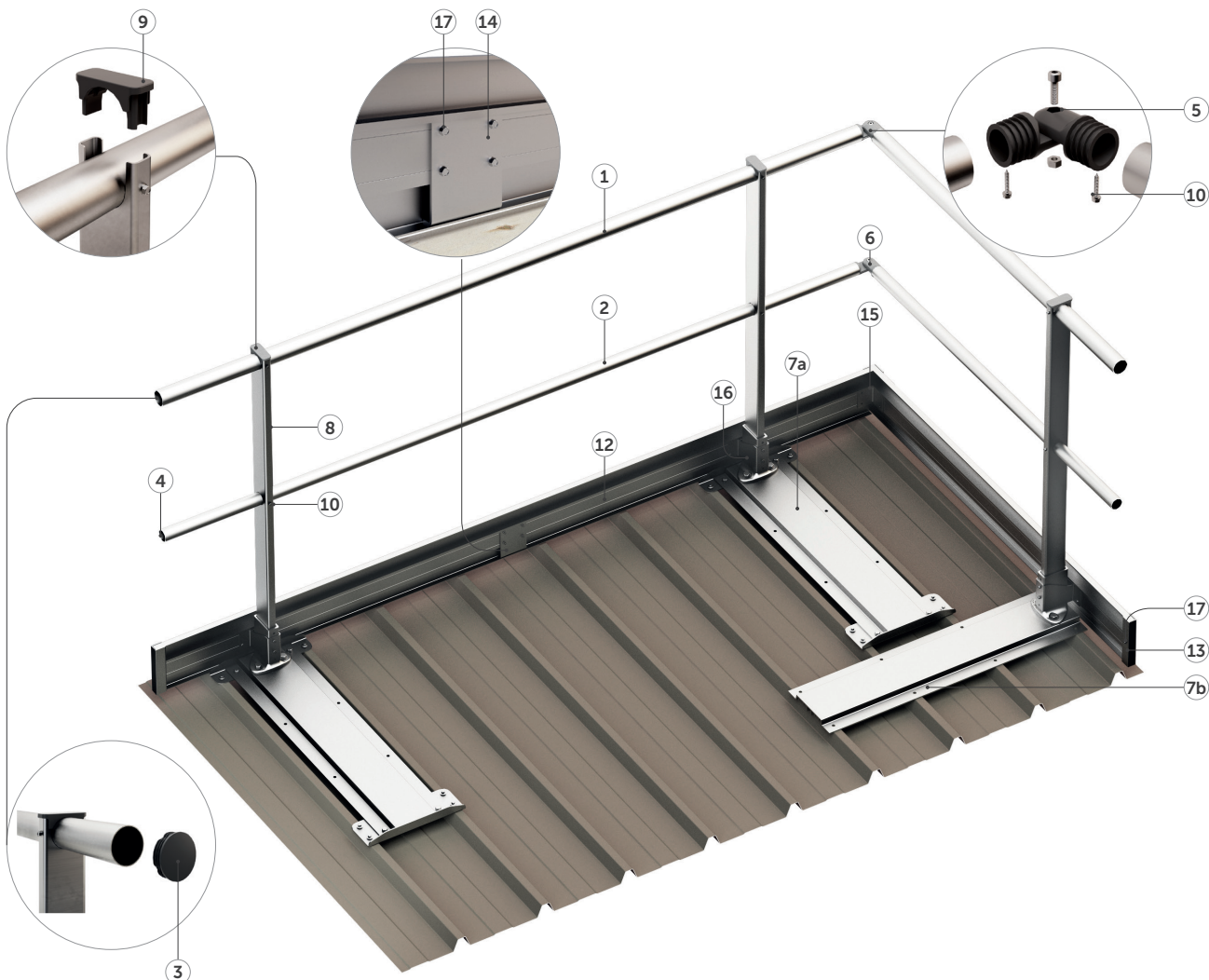
Il limitatore di coppia **DB CONTROL 5 Nm** + vite **RBGSCR627** con rondella di tenuta e rondella a campana ottimizza l'impermeabilizzazione e rende l'installazione semplice e veloce:

- 1 rivetto = 3 operazioni (foratura, impermeabilizzazione e crimpaggio)
- 1 vite autoforante = 1 operazione di avvitamento

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PARAPETTO FISSAGGIO SU LAMIERA GRECATA



CODICE	descrizione
1 RBGBAR45	corrimano Ø45 mm con ghiera incassabili L = 3000 mm
2 RBGBAR35	corrente intermedio Ø35 con ghiera incassabili L = 3000 mm
3 RBGCAP45	tappo per corrimano Ø45 mm
4 RBGCAP35	tappo per corrente intermedio Ø35 mm
5 RBGCOR45	angolo per corrimano Ø45 mm
6 RBGCOR35	angolo per corrente intermedio Ø35 mm
5-6 RBGCORAL	angolo in alluminio per corrimano e corrente intermedio (alternativo a RBGCOR45/RBGCOR35)
7a RBGBASE250PE	piastra per fissaggio a lamiera grecate passo 250 mm, GUARD perpendicolare alle greche (escluse viti)
7a RBGBASE333PE	piastra per fissaggio a lamiera grecate passo 333 mm, GUARD perpendicolare alle greche (escluse viti)
7b RBGBASE250PA	piastra per fissaggio a lamiera grecate passo 250 mm, GUARD parallelo alle greche (escluse viti)
7b RBGBASE333PA	piastra per fissaggio a lamiera grecate passo 333 mm, GUARD parallelo alle greche (escluse viti)
RBGSUP110	montante dritto H = 1105 mm incavo Ø45 mm
8 RBGSUP118	montante dritto H = 1182 mm incavo Ø45 mm
RBGSUP115II	montante inclinato H = 1157 mm incavo Ø45 mm

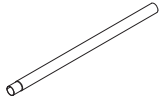
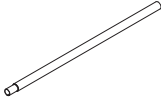
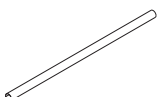
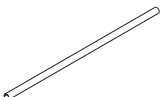
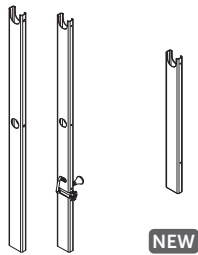
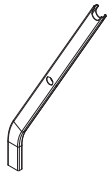
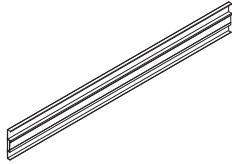
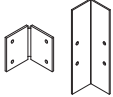
CODICE	descrizione
9 RBGCAP	tappo montante 68 x 28 mm incavo Ø45 mm
10 RBGSCR4825	vite autoforante 4,8 x 25 mm INOX
11 RBGSCR810	vite a grano M8 x 10 mm inclusa nella base
12 RBGTB	tavola fermapiiede 3000 x 150 x 19 mm
13 RBGTBCAP	tappo per tavola fermapiiede H = 150 mm
14 RBGTBJUN	connettore dritto tavola fermapiiede H = 150 mm
15 RBGTBCOR	rinvio d'angolo tavola fermapiiede H = 150 mm
16 RBGTBH	supporto per tavola fermapiiede H = 150 mm
17 RBGSCR4816	vite autoforante 4,8 x 16 mm INOX

Per fissaggio a muro:

RBGWALL45	elemento terminale per corrimano Ø45 mm
RBGWALL35	elemento terminale per corrente intermedio rotondo Ø35 mm
RBGWALLAL	elemento terminale in alluminio per corrimano e corrente intermedio

GUARD | componenti

CODICI E DIMENSIONI

GRUPPO	CODICE	descrizione	pz.	
CORRIMANI E CORRENTI INTERMEDI	RBGBAR45	corrimano Ø45 mm con ghiera incassabili L = 3000 mm	1	
	RBGBAR35	corrente intermedio Ø35 con ghiera incassabili L = 3000 mm	1	
	RBGBAR45F	corrimano senza ghiera incassabili Ø45 mm L = 3000 mm	1	
	RBGBAR35F	corrente intermedio senza ghiera incassabili Ø35 mm L = 3000 mm	1	
	RBGCAP	tappo montante 68 x 28 mm incavo Ø45 mm	1	
MONTANTI	RBGSUP100	montante dritto H = 1028 mm incavo Ø45 mm	1	
	RBGSUP110	montante dritto H = 1105 mm incavo Ø45 mm	1	
	RBGSUP118	montante dritto H = 1182 mm incavo Ø45 mm	1	
	RBGSUP110F	montante abbattibile H = 1105 mm incavo Ø45 mm	1	
	RBGSUP100F	montante abbattibile H = 1010 mm incavo Ø45 mm	1	
	RBGSUP130	montante dritto H = 1300 mm incavo Ø45 mm	1	
	RBGSUP760WH NEW	montante dritto altezza 760 mm senza corrente intermedio	1	
	RBGSUP115I	montante inclinato H = 1157 mm incavo Ø45 mm	1	
TAVOLA FERMAPIEDE ED ACCESSORI	RBGTB	tavola fermapiede 3000 x 150 x 19 mm	1	
	RBGTBJUN	connettore dritto di tavola fermapiede H = 150 mm	1	
	RBGTBCOR	riinvio d'angolo tavola fermapiede H = 150 mm	1	
	RBGTBCAP	tappo per tavola fermapiede H = 150 mm	1	
	RBGTBW	supporto per tavola fermapiede H = 150 mm per GUARD W	1	
	RBGTBH	supporto per tavola fermapiede H = 150 mm	1	

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CODICI E DIMENSIONI

GRUPPO	CODICE	descrizione	pz.	
BASI STANDARD	RBGBASEW	base per autoportante GUARD W dritta con gamba di sostegno	1	
	RBGBASEWI	base per autoportante GUARD W inclinata con gamba di sostegno	1	
	RBGBASEWFCR	gamba di sostegno curva destra a 25° per angolo	1	
	RBGBASEWFCL	gamba di sostegno curva sinistra a 25° per angolo	1	
	RBGBASEWFR	gamba di sostegno con curva a destra per parapetto abbattibile	1	
	RBGBASEWFL	gamba di sostegno con curva a sinistra per parapetto abbattibile	1	
	RBGBASEWF	base per autoportante GUARD W con fori	1	
	RBGBASEWIFCR NEW	gamba di sostegno per montante inclinato curva destra 25°	1	
	RBGBASEWIFCL NEW	gamba di sostegno per montante inclinato curva sinistra 25°	1	
	RBGBASEWE	cuneo di bloccaggio per GUARD W (ricambio)	1	
	RBGWEIGHT	contrapeso di plastica 12,5 kg per GUARD W	3	
	RBGBASEV	piastra di base fissaggio a parete GUARD V	1	

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CODICI E DIMENSIONI

GRUPPO	CODICE	descrizione	pz.	
BASI STANDARD	RBGBASEVD	piastra di base fissaggio a muro sporgente GUARD VD	1	
	RBGDIST	pezzo distanziatore GUARD V-VD + 35 mm	1	
	RBGBASEH	piastra di base fissaggio orizzontale dipinto di grigio GUARD H	1	
	RBGBASEZ	base Z alluminio standard per muro perimetrale senza isolante GUARD Z	1	
	RBGBASEZ70 NEW	base GUARD Z con isolante spessore 70 mm	1	
	RBGBASEZ100 NEW	base GUARD Z con isolante spessore 100 mm	1	
	RBGBASEZ130 NEW	base GUARD Z con isolante spessore 130 mm	1	
	RBGBASEZ160 NEW	base GUARD Z con isolante spessore 160 mm	1	

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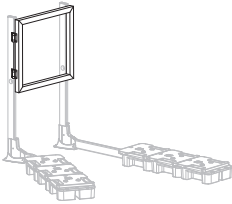
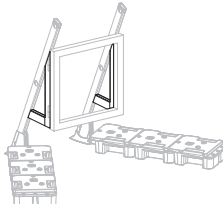
CODICI E DIMENSIONI

GRUPPO	CODICE	descrizione	pz.	
BASI PER FISSAGGIO SU LAMIERA GRECATA	RBGBASE250PA	piastra per fissaggio a lamiera grecate passo 250 mm, GUARD parallelo alle greche (escluse viti)	1	
	RBGBASE333PA	piastra per fissaggio a lamiera grecate passo 333 mm, GUARD parallelo alle greche (escluse viti)	1	
	RBGBASE250PE	piastra per fissaggio a lamiera grecate passo 250 mm, GUARD perpendicolare alle greche (escluse viti)	1	
	RBGBASE333PE	piastra per fissaggio a lamiera grecate passo 333 mm, GUARD perpendicolare alle greche (escluse viti)	1	
ACCESSORI	RBGCAP45	tappo per corrimano Ø45 mm	1	
	RBGCAP35	tappo per corrente intermedio Ø35 mm	1	
	RBGCOR45	angolo per corrimano Ø45 mm	1	
	RBGCOR35	angolo per corrente intermedio Ø35 mm	1	
	RBGWALL45	elemento terminale per corrimano Ø45 mm	1	
	RBGWALL35	elemento terminale per corrente intermedio Ø35 mm	1	
	RBGCORAL	angolo in alluminio per corrimano	1	
	RBGWALLAL	elemento terminale in alluminio per corrimano	1	
	RBGBASEHKIT	kit d'impermeabilizzazione per base GUARD H	1	
	RBGWEDGE	cuneo in plastica per spessoramento	1	
VITI DI FISSAGGIO	RBGSCR4816	vite autoperforante 4,8 x 16 mm INOX	25	
	RBGSCR4825	vite autoperforante 4,8 x 25 mm INOX	25	
	RBGSCR4832	vite autoperforante 4,8 x 32 mm INOX	25	
	RBGSCR4850	vite autoperforante 4,8 x 50 mm INOX	25	
	RBGSCR627	vite autoforante per lamiera INOX 6 x 27 mm	25	
	RBGSCR810	vite a grano M8 x 10 (ricambio)	10	
	RBGSCRWAS	rondella di tenuta	25	
	RBGBASEWFKIT NEW	kit per unione RBGBASEWF e RBGBASEWFR / RBGBASEWFL	-	

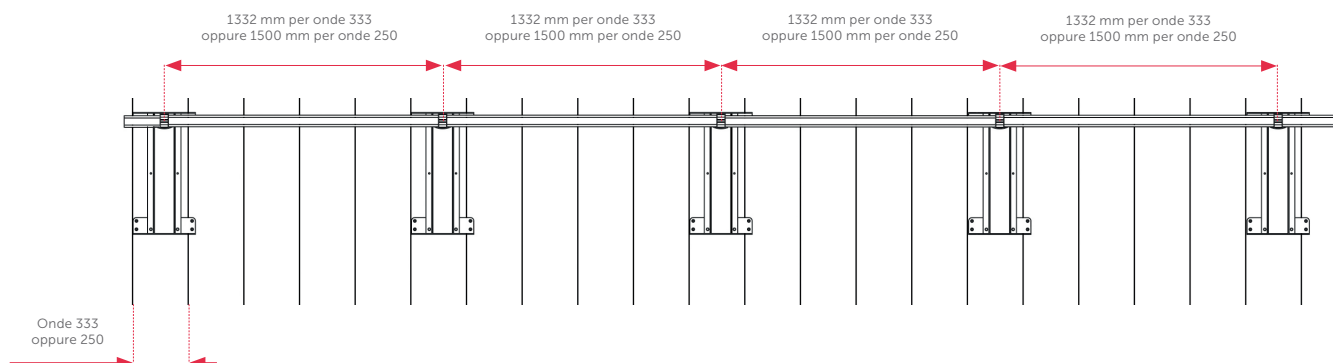
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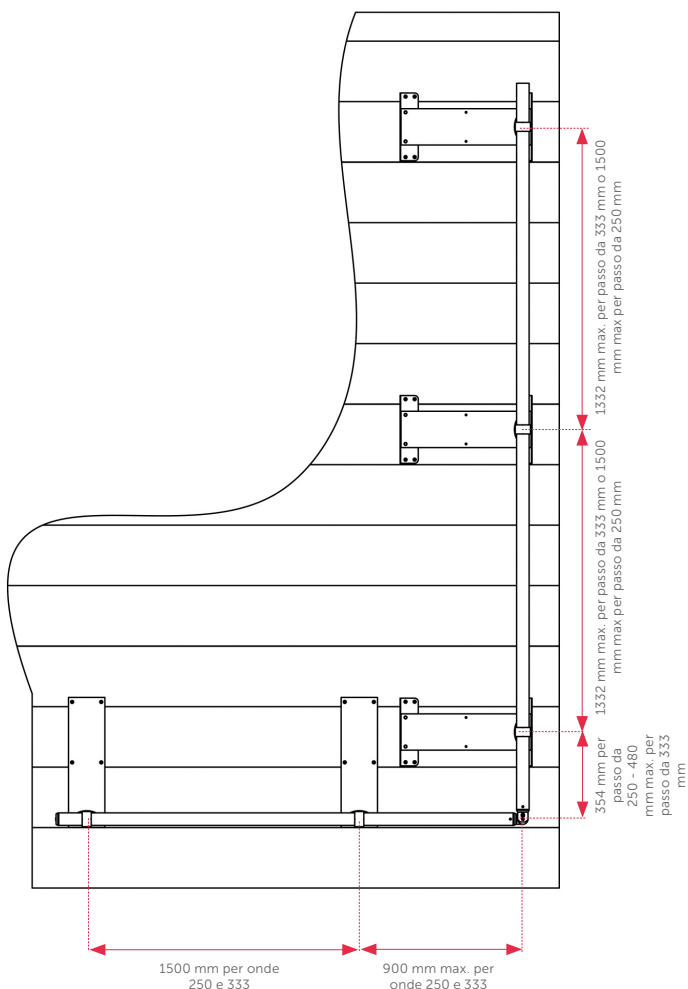
CODICI E DIMENSIONI

GRUPPO	CODICE	descrizione	pz.	
KIT CANCELLETTI DI SICUREZZA	RBGGATE600	portello di sicurezza 500 mm di altezza con cerniere montate L = 600 mm	1	
	RBGGATE1100	portello di sicurezza 500 mm di altezza con cerniere larghezza L = 1100 mm	1	
	RBGGATEWISUP NEW	supporto per cancello montante inclinato	1	
MANUALI	RBGUARDHMAN	manuale per GUARD H	1	
	RBGUARDVMAN	manuale per GUARD V	1	
	RBGUARDMMAN	manuale per GUARD M	1	
	RBGUARDZMAN	manuale per GUARD Z	1	
	RBGUARDWMAN	manuale per GUARD W	1	

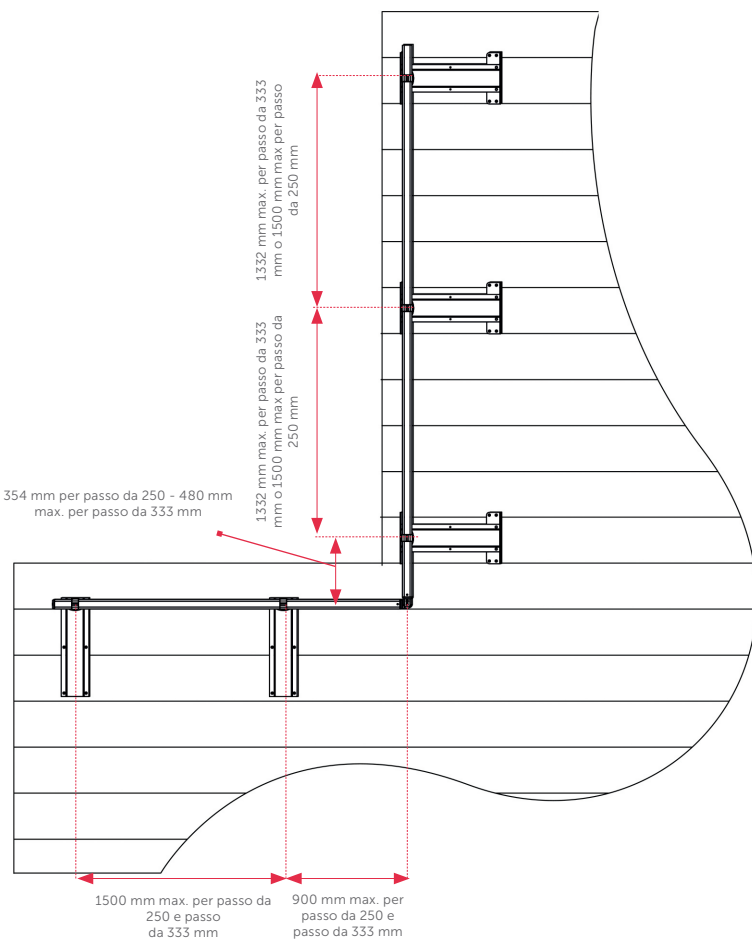
IMPIANTO DEL PARAPETTO AUTOPORTANTE GUARD (EN 14122-3)



ANGOLO INTERNO

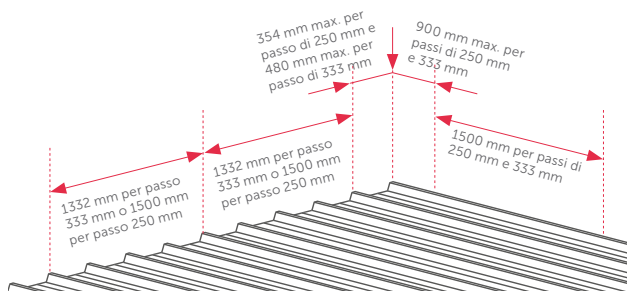


ANGOLO ESTERNO

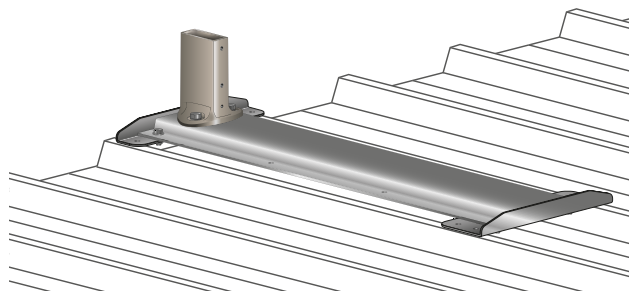


INSTALLAZIONE DEL PARAPETTO SU LAMIERA GRECATA

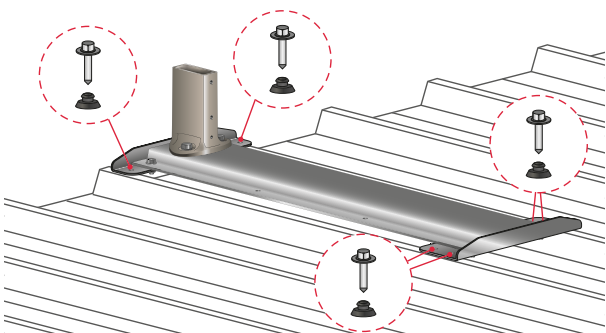
Il montaggio del parapetto autoportante GUARD richiede almeno due persone.
È meglio cominciare l'installazione dove si trova un angolo.



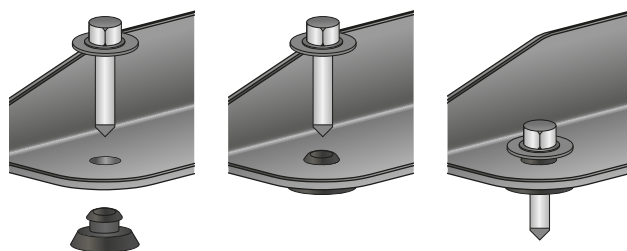
1 - Realizzare le marcature con una cordicella per la collocazione delle basi



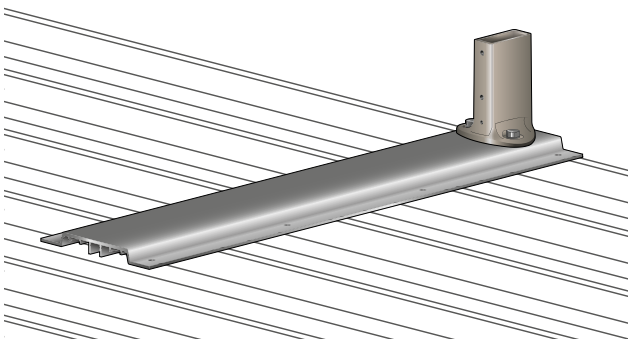
2 - Posizionare le piastre di montaggio, passo 250 mm o passo 333 mm, per parapetto fissaggio su lamiera grecate perpendicolare alle onde



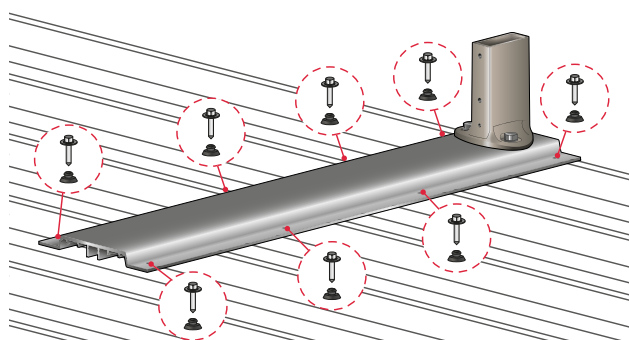
3 - Le basi con passo da 250 mm e 333 mm per parapetto su lamiera grecate possono essere fissate, perpendicolarmente alle onde, con 6 viti **RBGSCR627** con rondelle a campana



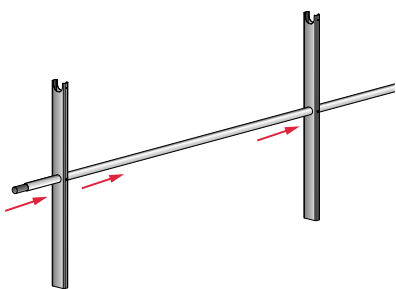
4 - Far rientrare la rondella a campana nel foro da sotto la piastra, quindi avvitare strettamente la vite **RBGSCR627** contro la rondella in modo che il fissaggio sia completamente sigillato. Si consiglia di utilizzare il limitatore di coppia **DB CONTROL 5 Nm** (cf nomenclatura pag. 9) per garantire i vostri fissaggi.



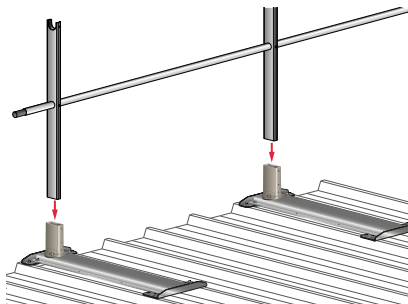
5 - Posizionare le piastre di montaggio, passo 250 mm o passo 333 mm, per parapetto con fissaggio su lamiera grecate parallelamente alle onde



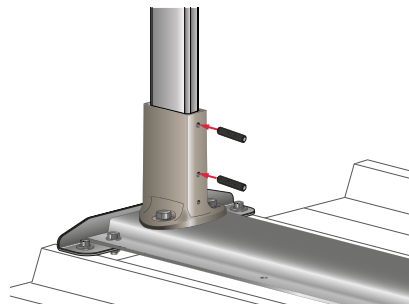
6 - **ATTENZIONE:** la base parapetto su lamiera grecate 250 mm si fissa con 8 viti **RBGSCR627** (+rondelle a campana), la base parapetto su lamiera grecate 333 mm si fissa con 6 viti **RBGSCR627**



7 - Inserire un corrente intermedio in 2 montanti



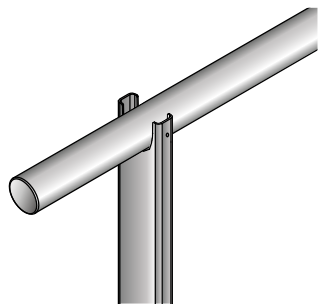
8 - Inserire i montanti nelle basi



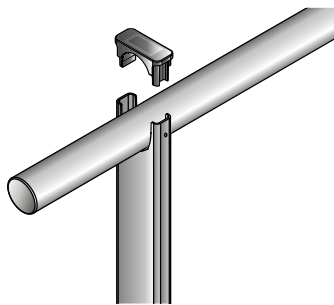
9 - Avvitare le viti grano a testa esagonale delle basi

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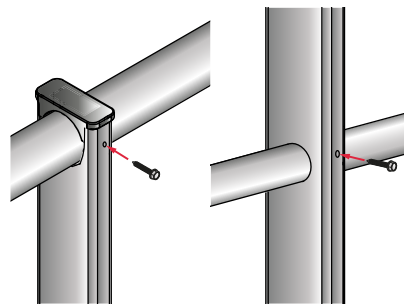
manufactured by:
ALSOLU - 89 rue Florent Evrard, 42100 Saint-Etienne - FRANCE



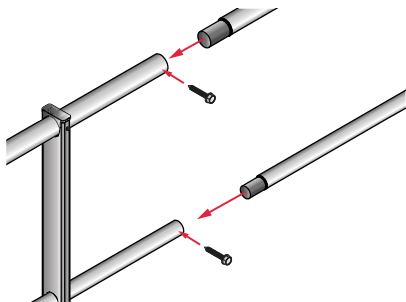
10 - Inserire il corrimano sui montanti



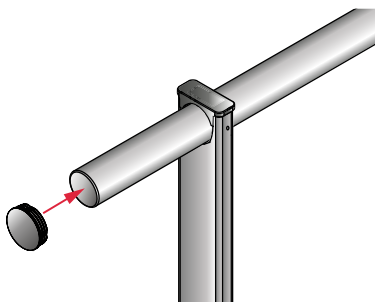
11 - Clipsare nella parte superiore del montante



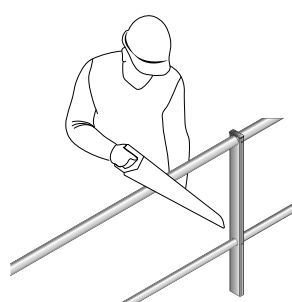
12 - Avvitare le viti autoforanti 4,8 x 25 sul montante a livello del corrimano e del corrente intermedio



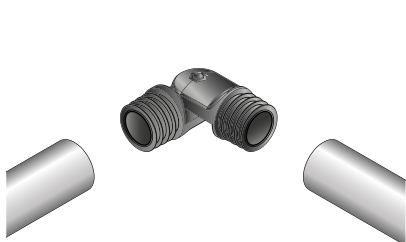
13 - Assemblare corrimani e correnti intermedi delle sezioni montate con viti 4,8x16



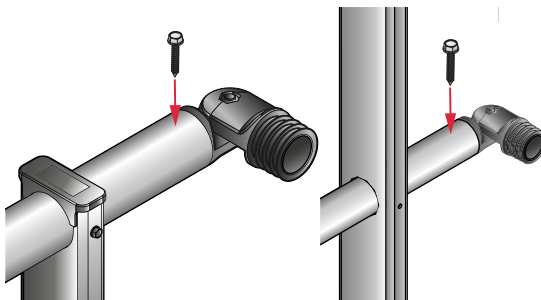
14 - Infine, inserire tappi o elementi terminali murali su corrimani e correnti intermedi



15 - Regolare l'ultima sezione tagliando l'eccesso

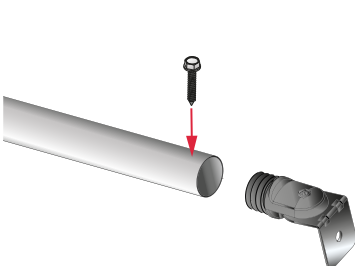


16 - Inserire gli angoli dei corrimani e dei correnti intermedi

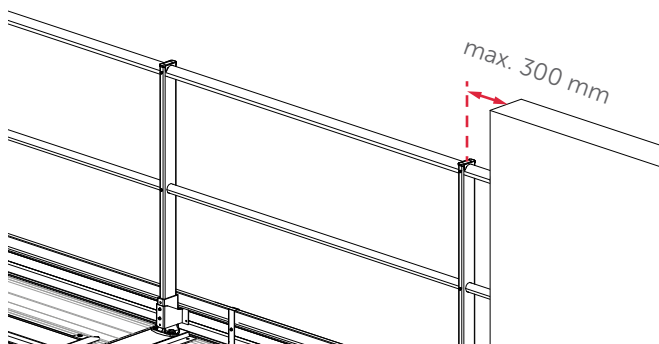


17 - Fissare gli angoli con le viti autoforanti 4,8 x 25

■ INSTALLAZIONE DEGLI ELEMENTI DI FISSAGGIO MURALI

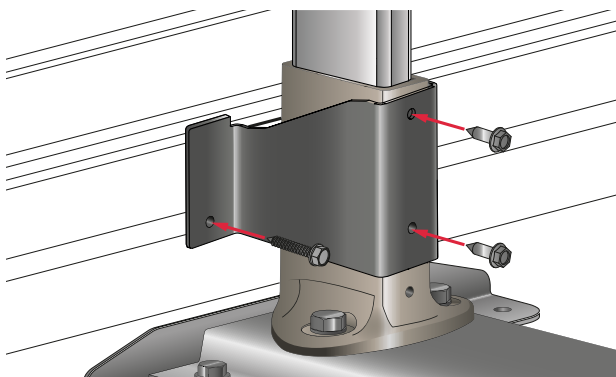


1 - Inserire gli angoli dei corrimani e dei correnti intermedi

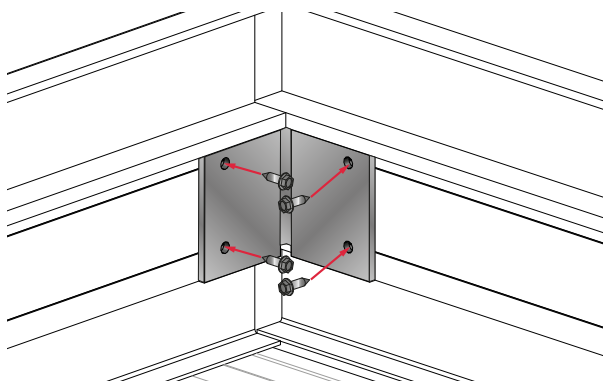


2 - Inserire gli angoli dei corrimani e dei correnti intermedi

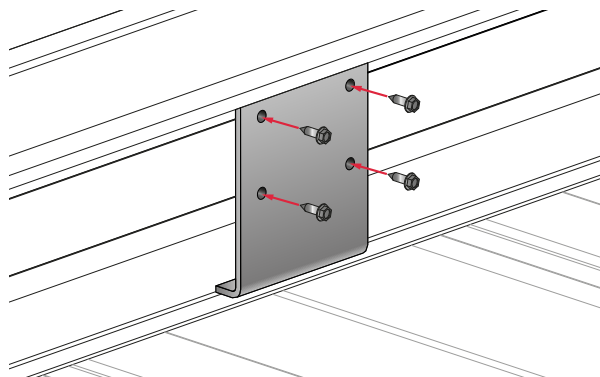
FISSAGGIO DELL'ASSE FERMAPIEDE



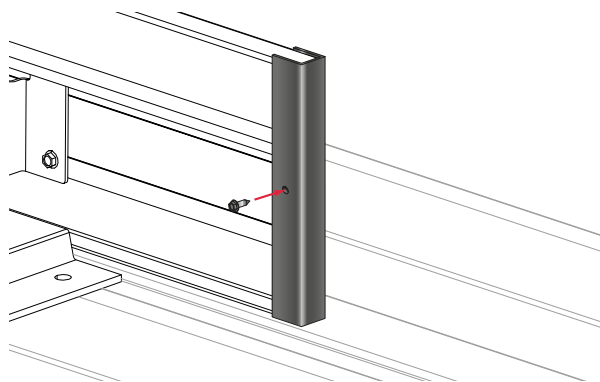
- 1** - Rimuovere i grani testa esagonale M8x10 preassemblati nella base di fissaggio al suolo e posizionare il supporto di montaggio dell'asse fermapiede sulla piastra di montaggio. Poi, fissarlo con 2 viti autoperforante 4,8 x 25, e fissare l'asse fermapiede al supporto con altre 2 viti autofilettanti 4,8 x 16 (1 su ciascun lato del supporto).



- 3** - Per gli angoli, fissare i connettori interni ed esterni con 8 viti autoperforanti 4,8 x 16



- 2** - Fissare i componenti della tavola fermapiede tra loro attraverso i connettori e 4 viti autoperforanti 4,8 x 16



- 3** - Infine, fissare i tappi della tavola fermapiede con 1 vite autoperforante 4,8 x 16

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INSTALLATIONSANLEITUNG

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DEFINITION

Das Geländer GUARD M ist ein kollektives Absturzsicherungssystem, das zum Schutz von Metalldächern mit einer Neigung von weniger als 10° entwickelt wurde.

Es ist die ideale Lösung für eine Befestigung an den Wellen von Trapezblechen (Achsabstand von 250-333 mm mit einer Mindeststärke von 63/100 - weitere Abmessungen auf Anfrage) ohne Schnitte oder Neuabdichtungen.

Die Montage gestaltet sich dank der verschiedenen vormontierten Komponenten und des oberen Handlaufs und der Mittelläufe, die mühelos zusammengesteckt werden können, einfach und schnell.

NORMEN

Das Geländer auf Trapezblechen GUARD unterliegt der EU-Norm **EN ISO 14122-3** vom März 2017 „Sicherheit von Maschinen - Ortsfeste Zugänge zu maschinellen Anlagen - Teil 3: Treppen, Treppenleitern und Geländer“ sowie der Norm NF E85-015 vom Juli 2019 „Bestandteile von Industrieanlagen - ortsfeste Zugänge.“

Das Geländer auf Trapezblechen GUARD entspricht den Anforderungen der Normen **EN ISO 14122-3**.

RECHTLICHE VERWEISE

- Ein Geländer muss installiert werden, wenn die Fallhöhe 2 Meter überschreitet (lokale Vorschriften überprüfen).
- Die Höhe des oberen Geländer-Handlaufs muss 1100 mm über der Verkehrsfläche liegen.
- Der Freiraum zwischen Handlauf und Mittellauf sowie zwischen Mittellauf und Fußleiste muss so sein, dass eine Kugel mit einem Durchmesser von 500 mm nicht hindurchpasst.
- In einem Abstand von höchstens 12 mm von der Verkehrsfläche und der Plattformkante muss eine Fußleiste mit einer Mindesthöhe von 100 mm montiert werden.
- Der Abstand zwischen den Achsen der Pfosten darf höchstens 1500 mm betragen. Sollte dieser Abstand jedoch größer sein, ist besonders auf die Festigkeit der Verankerung für die Pfosten und Befestigungsmittel zu achten: Wenden Sie sich an unser Planungsbüro.
- Wenn der obere Handlauf unterbrochen ist, darf der Freiraum zwischen zwei Segmenten des Handlaufs zwischen 75 mm und 120 mm liegen. Bei einer breiteren Öffnung muss eine Fußgängertür vorgesehen sein, um die Kontinuität der Absturzsicherung des Geländers zu gewährleisten.
- Klappbare Ausführung: Vor der Montage des klappbaren Geländers muss ein Seilsystem installiert werden. Es wird auch während seiner Fertigstellung und Wartung verwendet.

VERWENDUNG - WARTUNG

- Der Monteur des Geländers GUARD muss entsprechend qualifiziert sein und die Praxisregeln für Arbeiten in der Höhe beachten. Er muss daher für die eigene Sicherheit sorgen (Einsatz von temporärem Seilsystem, PSA, Korb usw.).
- Vor jeder Verwendung muss der Benutzer per Sichtkontrolle prüfen, dass das Geländer GUARD keine Anomalien aufweist (Stöße, Verformungen, Korrosion usw.).
- Für das Geländer GUARD ist keine spezielle Wartung erforderlich; jedoch muss es mindestens einmal jährlich von einer befugten Person auf Sicht geprüft werden.
- Wenn das Geländer GUARD falsch installiert wird, beschädigt ist oder einen Sturz abgefangen hat, muss die Verwendung sofort eingestellt werden. Eine befugte Person muss es daraufhin überprüfen und die Rückgabe schriftlich bestätigen.
- Wenn das Produkt außerhalb des Hauptbestimmungslandes weiterverkauft wird, ist es für die Sicherheit des Anwenders unerlässlich, dass der Händler die technische Anleitung in der Sprache des Landes bereitstellt, in dem das Produkt verwendet wird. Diese Unterlagen können auf Anfrage durch den Hersteller zur Verfügung gestellt werden.
- Das Geländer GUARD ist eine permanente kollektive Schutzzeineinrichtung, die von Fachleuten auf Terrassen verwendet wird, welche für die Öffentlichkeit nicht zugänglich sind.
- Wenn die Terrasse keine Begrenzungsmauer aufweist bzw. diese niedriger als 100 mm ist, muss in jedem Fall eine Fußleiste GUARD verwendet werden.
- Bei der Montage des Geländers GUARD in einer verschmutzten Industrie-, Petrochemie-, Marine- oder Meeresumgebung muss seine Oberfläche entsprechend behandelt, d. h. einer Pulverlackierung, Eloxierung usw. unterzogen werden.
- Jeder Abschnitt muss mindestens 2 Pfosten aufweisen.
- Um die Konformität der Installation zu gewährleisten, muss sie nach einem von unserem Konfigurator oder Planungsbüro erstellten Plan ausgeführt werden.

LAGERUNG

- Die unbehandelten Aluminiumteile sind in der Verpackung nicht voneinander getrennt.
- Regeneinwirkung auf unverpackte Güter begünstigt die Oxidation dieser Komponenten. Daher kann es zu Flecken auf der Oberfläche kommen. Sie beeinträchtigen zwar nicht die Qualität des Aluminiums, evtl. aber das Erscheinungsbild des Geländers.
- Es empfiehlt sich, die Verpackungen zu öffnen und die Komponenten getrennt voneinander zu lagern (ohne dass sie sich berühren) oder die Verpackungen noch verschlossen an einem trockenen Ort aufzubewahren.

GELÄNDER OHNE FUSSLEISTE



mit Attika über 150 mm

GELÄNDER MIT FUSSLEISTE



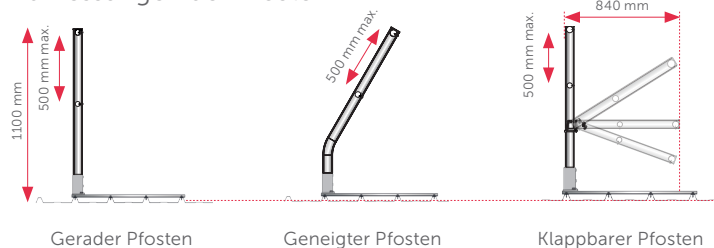
ohne Attika oder unter 150 mm

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ABMESSUNGEN

Abmessungen der Pfosten:



Gerader Pfosten

Geneigter Pfosten

Klappbarer Pfosten

OPTIMIERTE MONTAGE

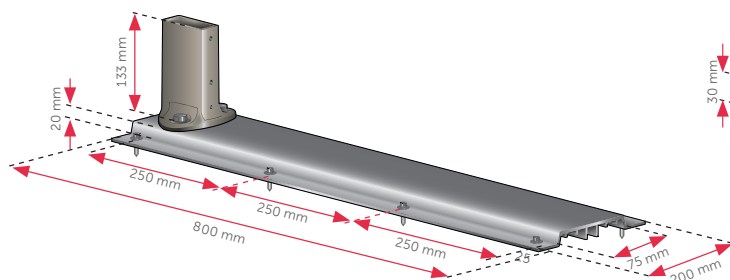
- Neue Winkelstücke (Kunststoff und ALU) für runden Handlauf;
- Neue Kappe für runden Handlauf;
- Pfosten: Langloch oben für die Aufnahme des Handlaufs + vorgebohrte Löcher zur einfacheren Montage des Handlaufs und des Mittellaufs.



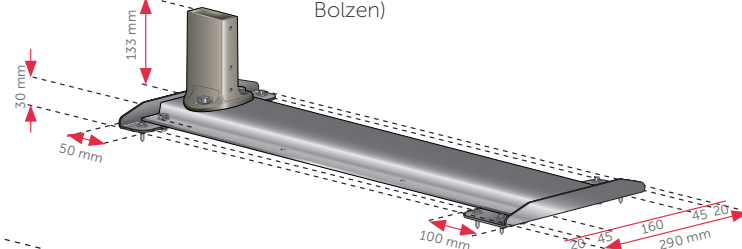
GRUNDPLATTENABMESSUNGEN

Zur Befestigung an Wellen von Trapezblechen mit einem Achsabstand von 250 mm.

Wellenbasis 250 mm für Geländer an Trapezblechen parallel zu den Wellen (ohne am Trapezblech befestigte Schrauben und Bolzen)

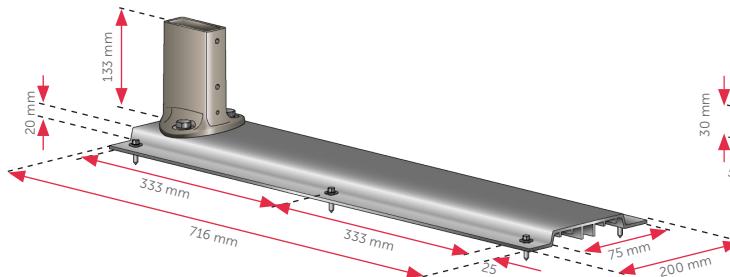


Wellenbasis 250 mm für Geländer an Trapezblechen senkrecht zu den Wellen (ohne am Trapezblech befestigte Schrauben und Bolzen)

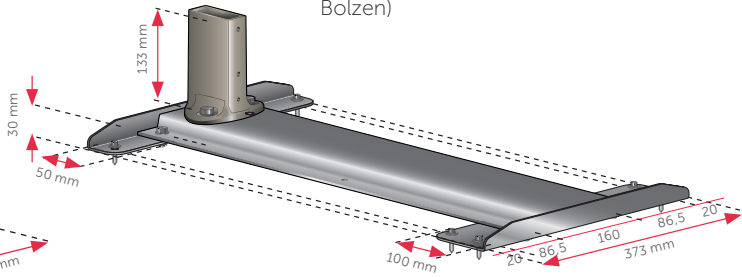


Zur Befestigung am Trapezblech mit Raster 333 mm.

Wellenbasis 333 mm für Geländer an Trapezblechen parallel zu den Wellen (ohne am Trapezblech befestigte Schrauben und Bolzen)

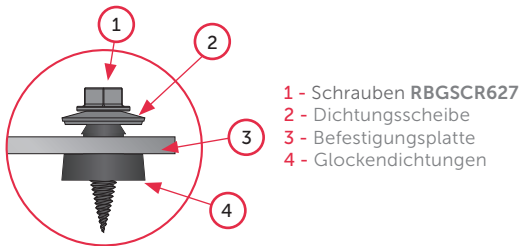


Wellenbasis 333 mm für Geländer an Trapezblechen senkrecht zu den Wellen (ohne am Trapezblech befestigte Schrauben und Bolzen)

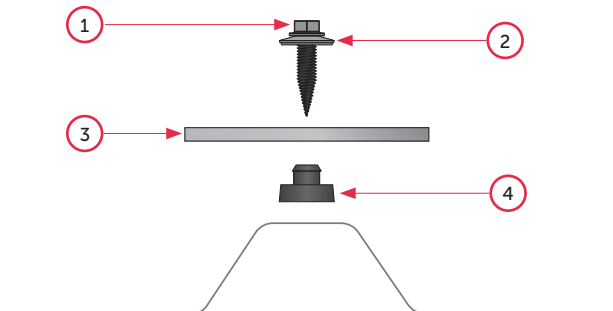


BEFESTIGUNGSKONZEPT

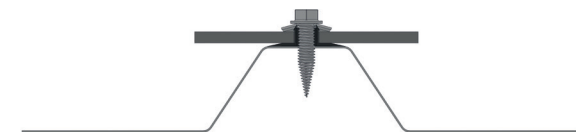
Das Geländer auf Trapezblechen ist mit **RBGSCR627** Schrauben, mit Dichtungsscheiben und Glockendichtungen befestigt, um die Abdichtung zu gewährleisten.



VOR DER BEFESTIGUNG



NACH DER BEFESTIGUNG



RBGSCR627-SCHRAUBE

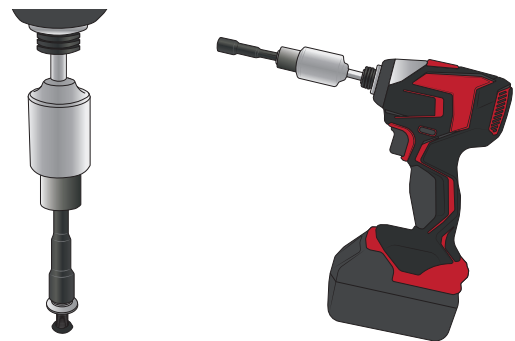
Im Gegensatz zu einer standardmäßigen selbstbohrenden Schraube, bei der das Bohrmaterial als Späne ausgeworfen wird, stößt die Schraube **RBGSCR627** das Material nach innen ab und bildet eine Stärke, welche die Eindrehlänge erhöht. Der Grenzwert für das Anzugsmoment der Schraube **RBGSCR627** ist selbst bei geringen Stärken hoch (> 5 Nm im Vergleich zu einem Durchschnitt von 1,5 Nm für herkömmliche selbstbohrende Schrauben).

Charakteristische Montagewiderstände für RBGSCR627	Blech S320 Stärke 0,63 mm	Blech S320 Stärke 0,75 mm
PK-Wert beim Schneiden mit 1 Schraube RBGSCR627 (in DaN)	219	286
PK-Wert beim Entfernen mit 1 Schraube RBGSCR627 (in DaN)	142	187
Grenzbelastung beim Entfernen der Platte mit 8 Schrauben RBGSCR627 (in DaN)	721	921

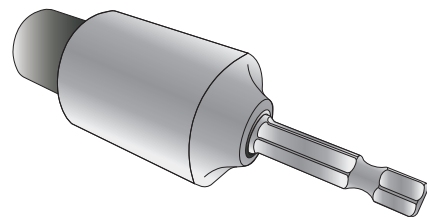
BEFESTIGUNG MIT SCHRAUBE RBGSCR627 + UNTERLEGSCHETBE

Wellen	Konfiguration des Geländers	Menge
250 mm	Parallel zu den Wellen	8 Schrauben
	Senkrecht zu den Wellen	
333 mm	Parallel zu den Wellen	6 Schrauben
	Senkrecht zu den Wellen	

OPTION



DER DREHMOMENTBEGRENZER DB CONTROL 5 Nm



Zur optimalen Befestigung auf Trapezblechen

Für die Einhaltung des Anzugsmoments wird dieser Drehmomentbegrenzer empfohlen. Er ist speziell auf das Anzugsmoment von 5 Nm der Schraube **RBGSCR627** abgestimmt und sorgt auf diese Weise für eine sicherere Befestigung auf Trapezblechen. Der Drehmomentbegrenzer **DB CONTROL 5 Nm** + Schraube **RBGSCR627** mit Dichtungsscheibe und Glockendichtung optimiert die Abdichtung und ermöglicht eine schnelle und einfache Montage:

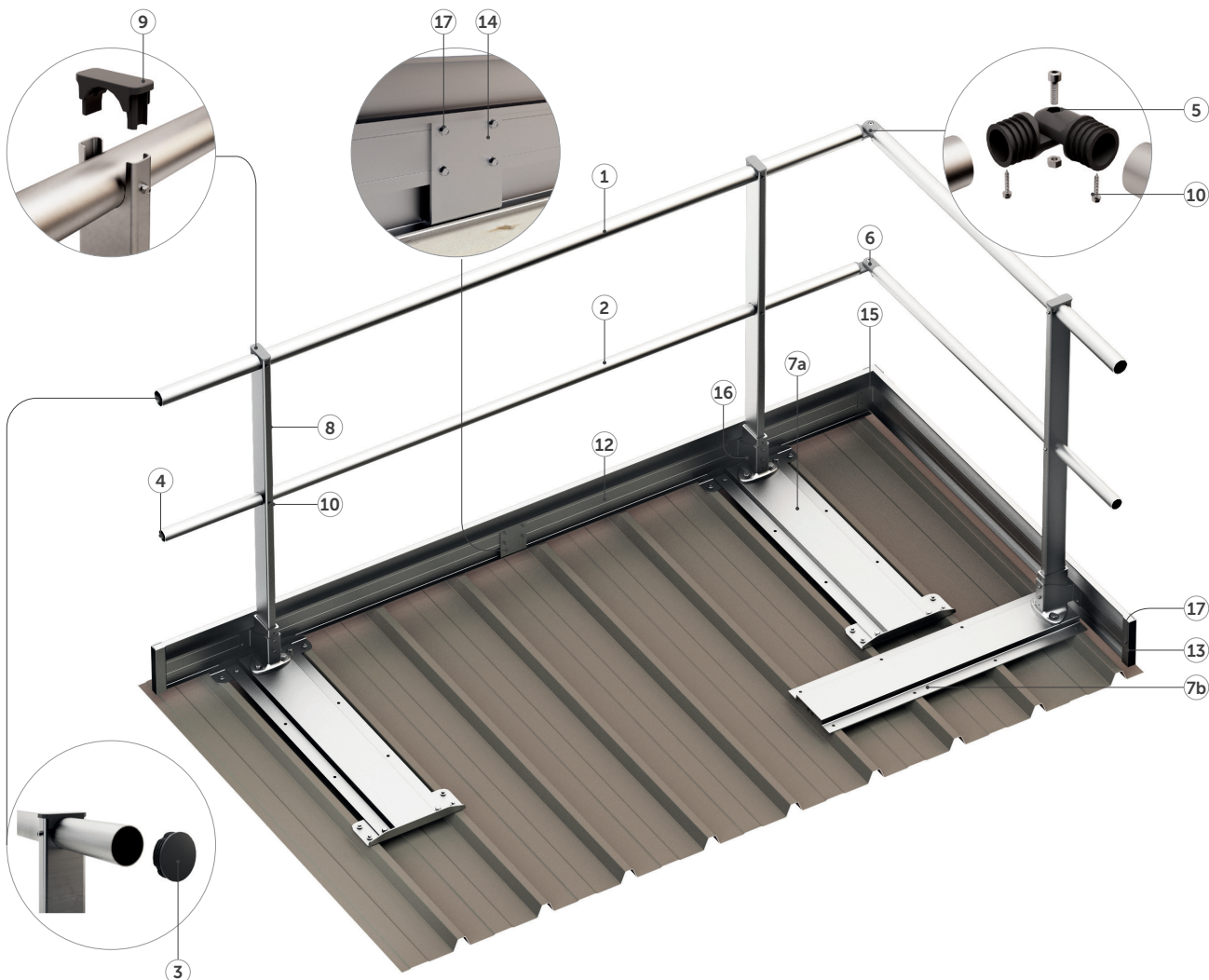
- 1 Niete = 3 Arbeitsgänge (Bohren, Abdichten und Crimpen)
- 1 selbstbohrende Schraube = 1 Schraubvorgang

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GUARD M

GELÄNDER FÜR BEFESTIGUNG AN TRAPEZBLECH



ART.-NR.	Beschreibung
1 RBGBAR45	Handlauf Ø45 mm mit verjüngter Aufnahme L = 3000 mm
2 RBGBAR35	Mittellauf Ø35 mm mit verjüngter Aufnahme L = 3000 mm
3 RBGCAP45	Kappe für Handlauf Ø45 mm
4 RBGCAP35	Kappe für Mittellauf Ø35 mm
5 RBGCOR45	Winkelstück für Handlauf Ø45 mm
6 RBGCOR35	Winkelstück für Mittellauf Ø35 mm
5-6 RBGCORAL	Winkelstück aus Aluminium für Handlauf und Mittellauf (alternativ zu RBGCOR45 / RBGCOR35)
7a RBGBASE250PE	Trapezblech-Befestigungsplatte, Abstand 250 mm, GUARD senkrecht zu den Profilen (ohne Schrauben)
7a RBGBASE333PE	Trapezblech-Befestigungsplatte, Abstand 333 mm, GUARD senkrecht zu den Profilen (ohne Schrauben)
7b RBGBASE250PA	Trapezblech-Befestigungsplatte, Abstand 250 mm, GUARD parallel zu den Profilen (ohne Schrauben)
7b RBGBASE333PA	Trapezblech-Befestigungsplatte, Abstand 333 mm, GUARD parallel zu den Profilen (ohne Schrauben)

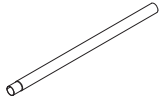
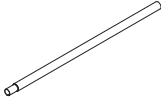
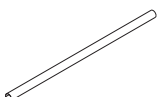
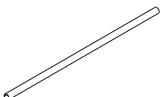
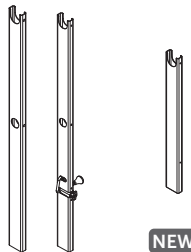
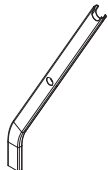
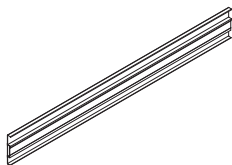
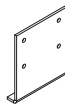
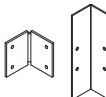
ART.-NR.	Beschreibung
RBGSUP110	Gerader Pfosten H = 1105 mm mit Aufnahme Ø45 mm
8 RBGSUP118	Gerader Pfosten H = 1182 mm mit Aufnahme Ø45 mm
RBGSUP115II	Geneigter Pfosten H = 1157 mm mit Aufnahme Ø45 mm
ART.-NR.	Beschreibung
9 RBGCAP	Pfostenkappe 68 x 28 mm mit Aufnahme Ø45 mm
10 RBGSCR4825	Selbstbohrende Schraube 4,8 x 25 mm Edelstahl
11 RBGSCR810	Stiftschraube M8 x 10 mm im Lieferumfang der Grundplatte
12 RBGTB	Fußleiste 3000 x 150 x 19 mm
13 RBGTBCAP	Kappe für Fußleiste H = 150 mm
14 RBGTBJUN	Gerader Verbinder Fußleiste H = 150 mm
15 RBGTBCOR	Winkelstück Fußleiste H = 150 mm
16 RBGTBH	Halterung Fußleiste H = 150 mm
17 RBGSCR4816	Selbstbohrende Schraube 4,8 x 16 mm Edelstahl

Für Wandbefestigung:

RBGWALL45	Endstück für Handlauf Ø45 mm
RBGWALL35	Endstück für Mittellauf, rund Ø35 mm
RBGWALLAL	Endstück aus Aluminium für Handlauf und Mittellauf

GUARD | Komponenten

ARTIKELNUMMERN UND ABMESSUNGEN

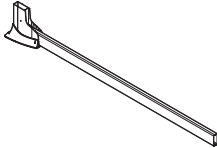
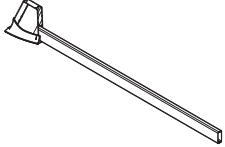
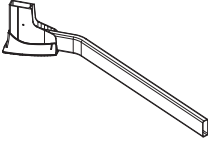
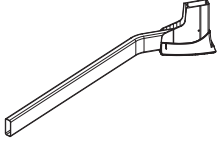
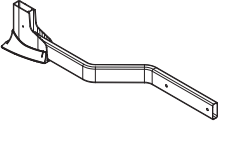
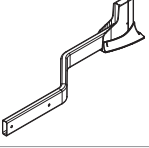
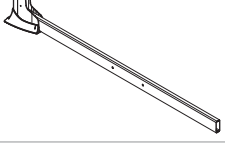
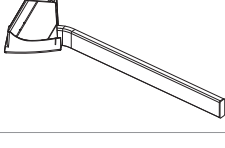
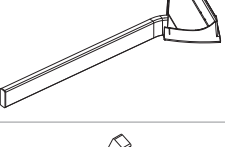
GRUPPE	ART.-NR.	Beschreibung	Stk.	
HANDLÄUFE UND MITTELLÄUFE	RBGBAR45	Handlauf Ø45 mm mit verjüngter Aufnahme L = 3000 mm	1	
	RBGBAR35	Mittellauf Ø35 mm mit verjüngter Aufnahme L = 3000 mm	1	
	RBGBAR45F	Handlauf ohne verjüngte Aufnahme Ø45 mm L = 3000 mm	1	
	RBGBAR35F	Mittellauf ohne verjüngte Aufnahme Ø35 mm L = 3000 mm	1	
	RBGCAP	Pfostenkappe 68 x 28 mm mit Aufnahme Ø45 mm	1	
PFOSTEN	RBGSUP100	Gerader Pfosten H = 1028 mm mit Aufnahme Ø45 mm	1	
	RBGSUP110	Gerader Pfosten H = 1105 mm mit Aufnahme Ø45 mm	1	
	RBGSUP118	Gerader Pfosten H = 1182 mm mit Aufnahme Ø45 mm	1	
	RBGSUP110F	Klappbarer Pfosten H = 1105 mm mit Aufnahme Ø45 mm	1	
	RBGSUP100F	Klappbarer Pfosten H = 1010 mm mit Aufnahme Ø45 mm	1	
	RBGSUP130	Gerader Pfosten H = 1300 mm mit Aufnahme Ø45 mm	1	
	RBGSUP760WH NEW	Gerader Pfosten Höhe 760 mm ohne Mittellauf	1	
	RBGSUP115I	Geneigter Pfosten H = 1157 mm mit Aufnahme Ø45 mm	1	
FUSSLEISTE UND ZUBEHÖR	RBGTB	Fußleiste 3000 x 150 x 19 mm	1	
	RBGTBJUN	Gerader Verbinder Fußleiste H = 150 mm	1	
	RBGTBCOR	Winkelstück Fußleiste H = 150 mm	1	
	RBGTBCAP	Kappe für Fußleiste H = 150 mm	1	
	RBGTBW	Halterung Fußleiste H = 150 mm für GUARD W	1	
	RBGTBH	Halterung Fußleiste H = 150 mm	1	

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GUARD | Komponenten

ARTIKELNUMMERN UND ABMESSUNGEN

GRUPPE	ART.-NR.	Beschreibung	Stk.	
STANDARD-GRUNDPLATTEN	RBGBASEW	Grundplatte für gerades selbsttragendes Geländer GUARD W mit Stützfuß	1	
	RBGBASEWI	Grundplatte für geneigtes selbsttragendes Geländer GUARD W mit Stützfuß	1	
	RBGBASEWFCR	Stützfuß mit Biegung rechts, 25° je Winkel	1	
	RBGBASEWFCL	Stützfuß mit Biegung links, 25° je Winkel	1	
	RBGBASEWFR	Stützfuß mit Biegung rechts für klappbares Geländer	1	
	RBGBASEWFL	Stützfuß mit Biegung links für klappbares Geländer	1	
	RBGBASEWF	Grundplatte für selbsttragendes GUARD W mit Löchern	1	
	RBGBASEWIFCR NEW	Stützfuß für geneigten Pfosten, Biegung rechts 25°	1	
	RBGBASEWIFCL NEW	Stützfuß für geneigten Pfosten, Biegung links 25°	1	
	RBGBASEWE	Sicherungskeil für GUARD W (Ersatz)	1	
	RBGWEIGHT	Gegengewicht aus Kunststoff 12,5 kg für GUARD W	3	
	RBGBASEV	Grundplatte für Wandbefestigung GUARD V	1	

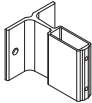
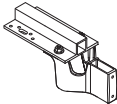
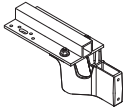
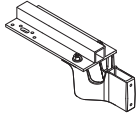
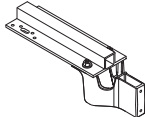
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ARTIKELNUMMERN UND ABMESSUNGEN

GRUPPE	ART.-NR.	Beschreibung	Stk.	
STANDARD-GRUNDPLATTEN	RBGBASEVD	Grundplatte für Befestigung an Attikawand GUARD VD	1	
	RBGDIST	Abstandhalter GUARD V-VD + 35 mm	1	
	RBGBASEH	Grundplatte für horizontale Befestigung, grau lackiert GUARD H	1	
	RBGBASEZ	Grundplatte Z Aluminium Standard für Außenwand ohne Dämmung GUARD Z	1	
	RBGBASEZ70 NEW	Grundplatte GUARD Z mit Dämmung Stärke 70 mm	1	
	RBGBASEZ100 NEW	Grundplatte GUARD Z mit Dämmung Stärke 100 mm	1	
	RBGBASEZ130 NEW	Grundplatte GUARD Z mit Dämmung Stärke 130 mm	1	
	RBGBASEZ160 NEW	Grundplatte GUARD Z mit Dämmung Stärke 160 mm	1	

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GUARD | Komponenten

ARTIKELNUMMERN UND ABMESSUNGEN

GRUPPE	ART.-NR.	Beschreibung	Stk.	
GRUNDPLATTEN FÜR BEFESTIGUNG AN TRAPEZBLECH	RBGBASE250PA	Trapezblech-Befestigungsplatte, Abstand 250 mm, GUARD parallel zu den Profilen (ohne Schrauben)	1	
	RBGBASE333PA	Trapezblech-Befestigungsplatte, Abstand 333 mm, GUARD parallel zu den Profilen (ohne Schrauben)	1	
	RBGBASE250PE	Trapezblech-Befestigungsplatte, Abstand 250 mm, GUARD senkrecht zu den Profilen (ohne Schrauben)	1	
	RBGBASE333PE	Trapezblech-Befestigungsplatte, Abstand 333 mm, GUARD senkrecht zu den Profilen (ohne Schrauben)	1	
ZUBEHÖR	RBGCAP45	Kappe für Handlauf Ø45 mm	1	
	RBGCAP35	Kappe für Mittellauf Ø35 mm	1	
	RBGCOR45	Winkelstück für Handlauf Ø45 mm	1	
	RBGCOR35	Winkelstück für Mittellauf Ø35 mm	1	
	RBGWALL45	Endstück für Handlauf Ø45 mm	1	
	RBGWALL35	Endstück für Mittellauf, rund Ø35 mm	1	
	RBGCORAL	Winkelstück aus Aluminium für Handlauf	1	
	RBGWALLAL	Endstück aus Aluminium für Handlauf	1	
	RBGBASEHKIT	Abdichtungssatz für Grundplatte GUARD H	1	
	RBGWEDGE	Kunststoffkeil zum Unterlegen	1	
BEFESTIGUNGSSCHRAUBEN	RBGSCR4816	Selbstbohrende Edelstahlschrauben 4,8 x 16 mm	25	
	RBGSCR4825	Selbstbohrende Edelstahlschrauben 4,8 x 25 mm	25	
	RBGSCR4832	Selbstbohrende Edelstahlschrauben 4,8 x 32 mm	25	
	RBGSCR4850	Selbstbohrende Edelstahlschrauben 4,8 x 50 mm	25	
	RBGSCR627	Selbstbohrende Edelstahlschraube für Blech 6 x 27 mm	25	
	RBGSCR810	Stiftschraube M8 x 10 (Ersatz)	10	
	RBGSCRWAS	Dichtungsscheibe	25	
	RBGBASEWFKIT	NEW Verbindungssatz RBGBASEWF und RBGBASEWFR / RBGBASEWFL	-	

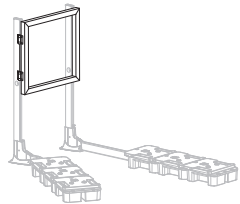
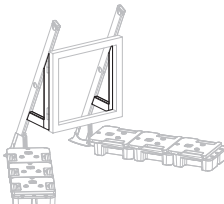
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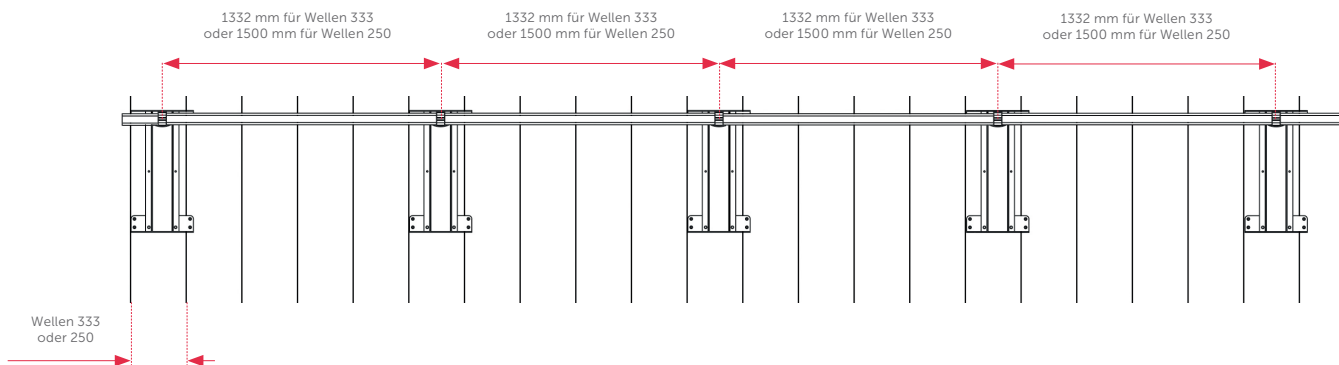
ARTIKELNUMMERN UND ABMESSUNGEN

GRUPPE	ART.-NR.	Beschreibung	Stk.	
MONTAGESATZ SICHERHEITSTÜREN GELÄNDER	RBGGATE600	Schutztür Höhe 500 mm mit montierten Scharnieren L = 600 mm	1	
	RBGGATE1100	Schutztür Höhe 500 mm mit Scharnieren L = 1100 mm	1	
	RBGGATEWISUP NEW	Halterung für Tür, geneigter Pfosten	1	
BEDIENUNGSANLEITUNG	RBGUARDHMAN	Bedienungsanleitung für GUARD H	1	
	RBGUARDVMAN	Bedienungsanleitung für GUARD V	1	
	RBGUARDMMAN	Bedienungsanleitung für GUARD M	1	
	RBGUARDZMAN	Bedienungsanleitung für GUARD Z	1	
	RBGUARDWMAN	Bedienungsanleitung für GUARD W	1	

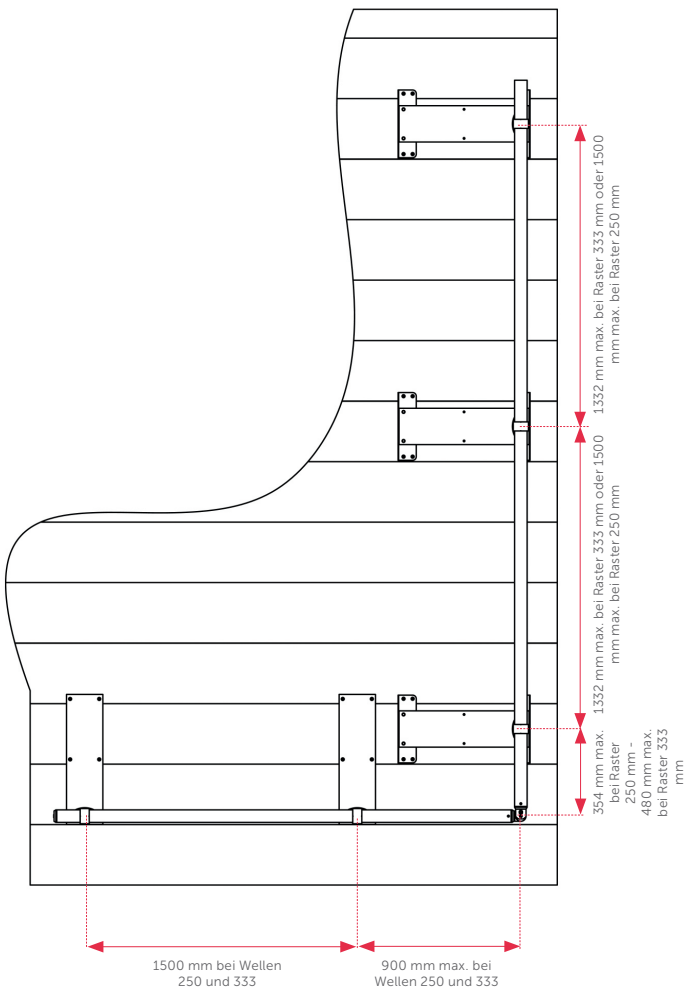
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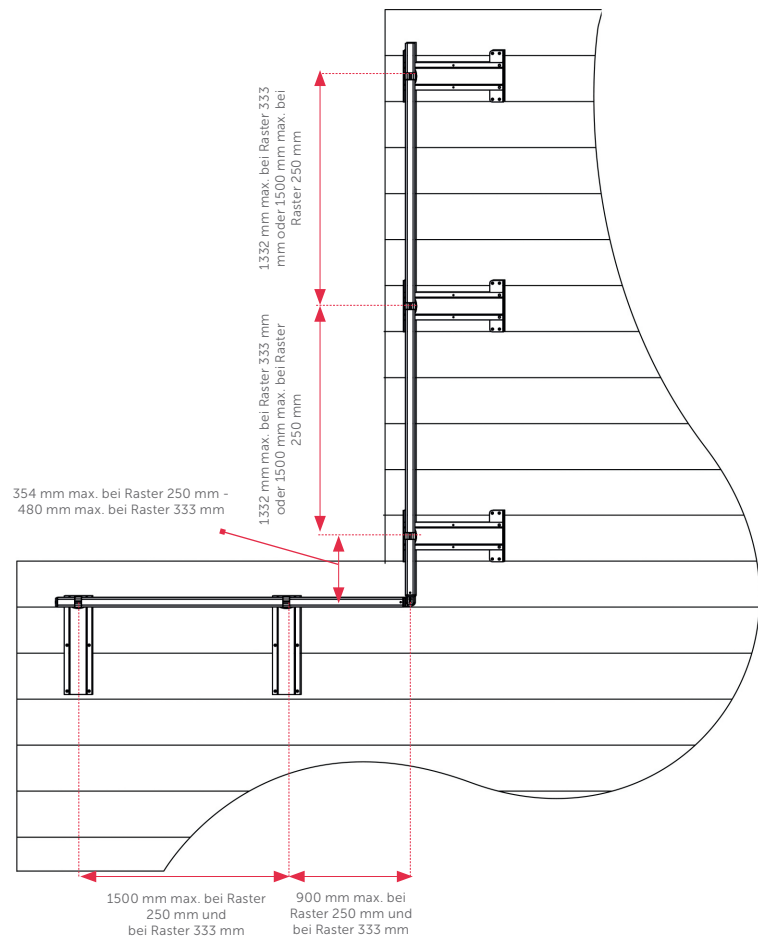
ANLAGE DES SELBSTTRAGENDEN GELÄNDERS GUARD (EN 14122-3)



INNENECKE

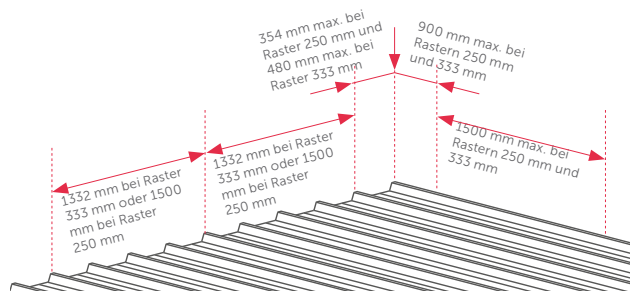


AUSSENECKE

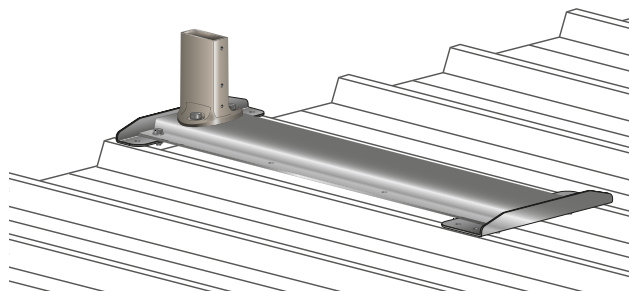


MONTAGE DES GELÄNDERS AUF TRAPEZBLECH

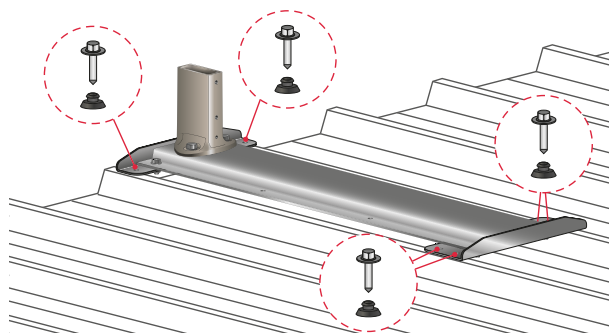
Für die Montage des selbsttragenden Geländers GUARD werden mindestens zwei Personen benötigt. Es empfiehlt sich, die Montage dort zu beginnen, wo sich ein Winkelstück befindet.



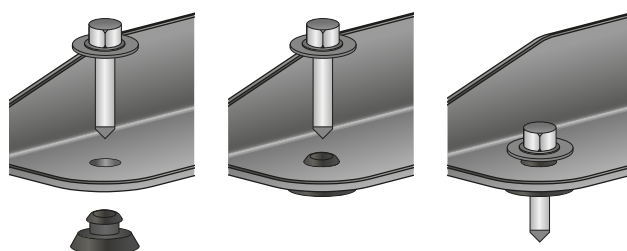
1 - Mit einer Schnur die Markierungen für den Standort der Grundplatten vornehmen



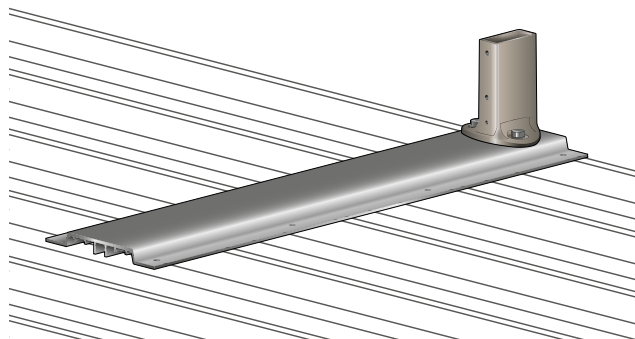
2 - Die Montageplatten mit Raster 250 mm oder mit Raster 333 mm für Geländer mit Befestigung an Trapezblechen senkrecht zu den Wellen positionieren



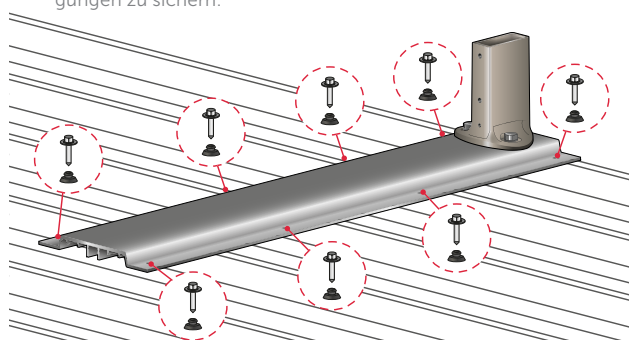
3 - Die Grundplatten mit einem Raster von 250 mm und 333 mm für Geländer an Trapezblechen können senkrecht zu den Wellen mit 6 Schrauben **RBGSCR627** und Glockendichtungen befestigt werden



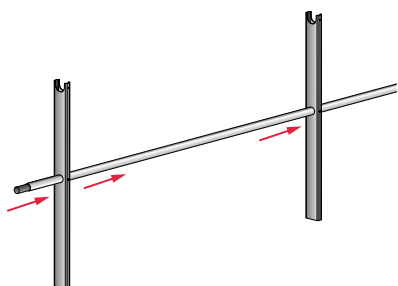
4 - Die Glockendichtung von der Unterseite der Platte in das Loch einführen und die Schraube **RBGSCR627** fest gegen die Unterlegscheibe eindrehen, sodass die Befestigung vollständig abgedichtet ist. Dabei empfiehlt sich die Verwendung des **DB CONTROL 5 Nm** Drehmomentbegrenzers (vgl. Nomenklatur S. 9), um die Befestigungen zu sichern.



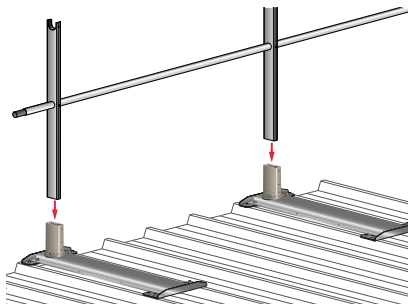
5 - Die Montageplatten mit Raster 250 mm oder mit Raster 333 mm für Geländer mit Befestigung an Trapezblechen parallel zu den Wellen positionieren



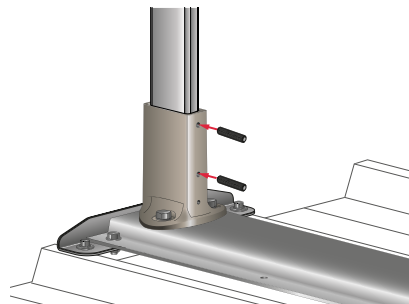
6 - **ACHTUNG:** Die Grundplatte des Geländers an Trapezblechen zu 250 mm wird mit 8 **RBGSCR627** Schrauben (+ Glockendichtungen) befestigt; die Grundplatte des Geländers an Trapezblechen zu 333 mm wird mit 6 **RBGSCR627** Schrauben verankert.



7 - Einen Mittellauf in 2 Pfosten einsetzen



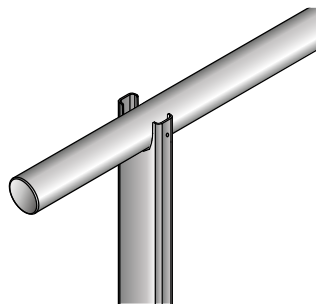
8 - Die Pfosten in die Grundplatten einsetzen



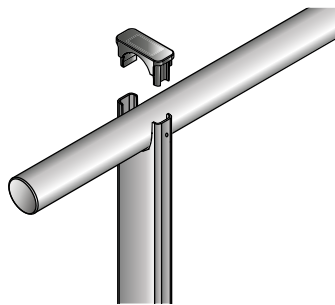
9 - Die Innensechskant-Stiftschrauben der Grundplatten anziehen

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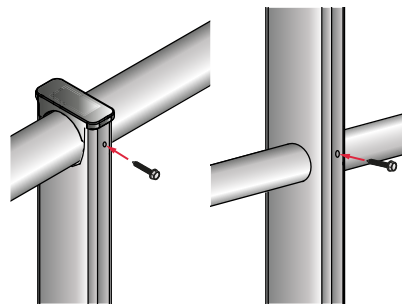
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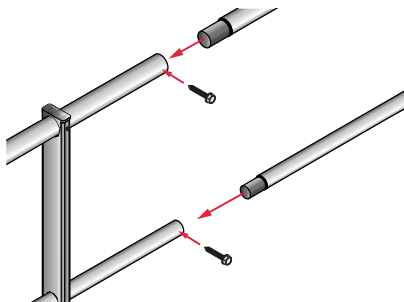
10 - Den Handlauf auf den Pfosten ablegen



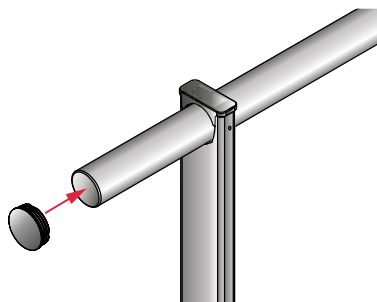
11 - Im oberen Bereich des Postens befestigen



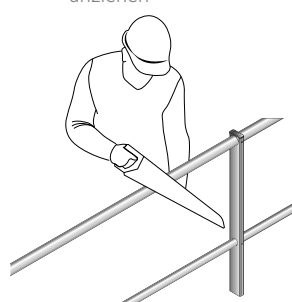
12 - Die selbstbohrenden Schrauben 4,8 x 25 am Pfosten auf der Höhe des Handlaufs und des Mittellaufs anziehen



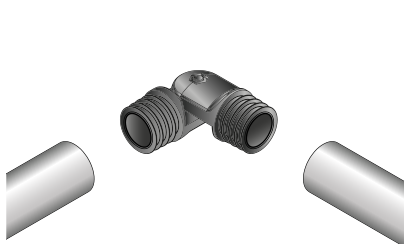
13 - Die Handläufe und die Mittelläufe der montierten Abschnitte mit Schrauben 4,8 x 16 einbauen



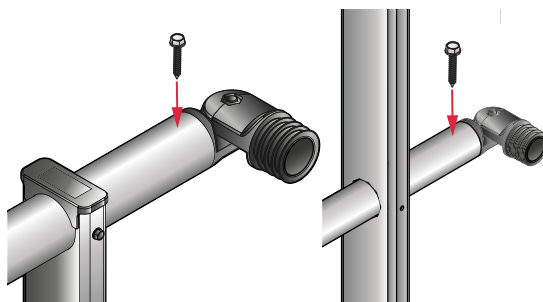
14 - Abschließend Zapfen oder Wandabschlüsselemente an den Handläufen und Mittelläufen einsetzen



15 - Den letzten Abschnitt durch Abschneiden des Überstands anpassen

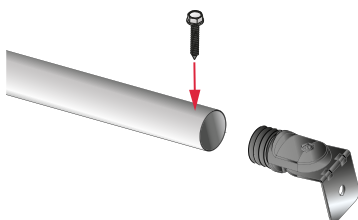


16 - Die Winkelstücke der Handläufe und der Zwischenläufe einsetzen

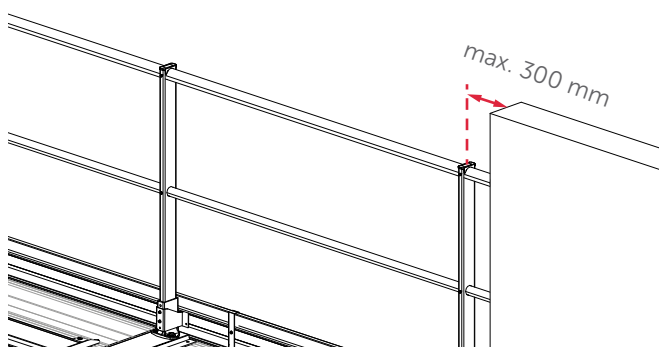


17 - Die Winkelstücke mit selbstbohrenden Schrauben 4,8 x 25 befestigen

■ EINBAU DER WANDBEFESTIGUNGEN

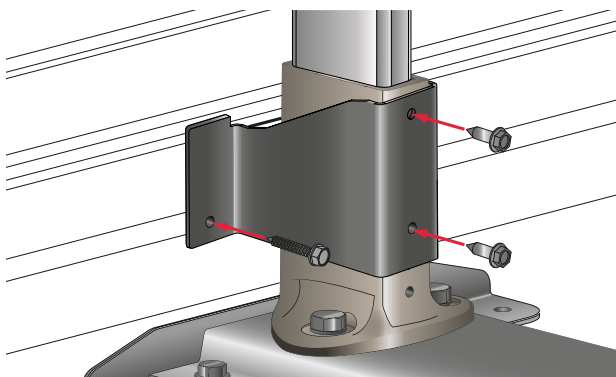


1 - Die Winkelstücke der Handläufe und der Zwischenläufe einsetzen

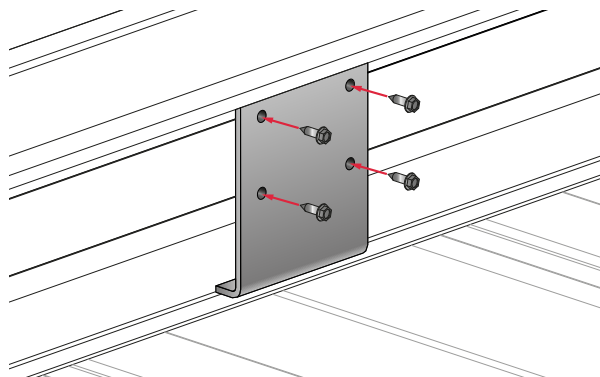


2 - Die Winkelstücke der Handläufe und der Zwischenläufe einsetzen

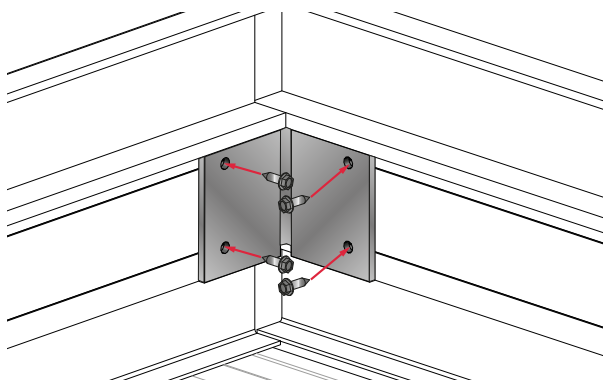
BEFESTIGUNG DER BORDBRETTACHSE



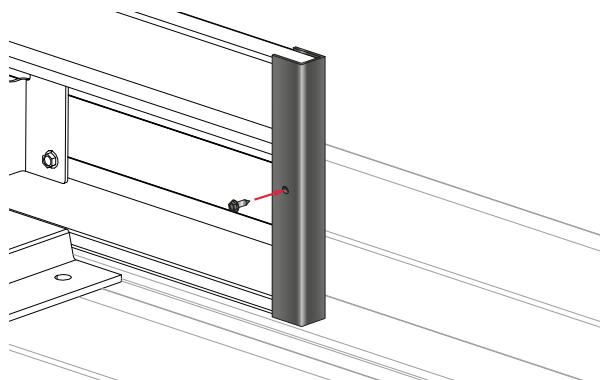
- 1 - Die in der Grundplatte zur Bodenbefestigung vormontierten Innensechskant-Stiftschrauben M8x10 entfernen und die Montagehalterung der Fußleistenachse auf der Montageplatte positionieren. Dann mit 2 selbstbohrenden Schraube 4,8 x 25 befestigen und die Fußleistenachse mit 2 weiteren selbstbohrenden Schrauben 4,8 x 16 (1 an jeder Seite der Halterung) an der Halterung befestigen.



- 2 - Die Fußleistenkomponenten mit den Verbindern und 4 selbstbohrenden Schrauben 4,8 x 16 untereinander befestigen



- 3 - Für die Winkelstücke die internen und externen Verbindler mit 8 selbstbohrenden Schrauben 4,8 x 16 befestigen



- 3 - Abschließend die Fußleistenkappen mit 1 selbstbohrenden Schraube 4,8 x 16 befestigen

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INSTALLATION MANUAL

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DEFINITION

The GUARD M railing is a collective fall protection system designed to protect metal roofs with a slope of less than 10°. It is the ideal solution for fastening on trapezoidal metal sheet waves (spacing from 250 to 333 mm with a minimum thickness of 63/100 - other dimensions on request), without cutting or re-sealing.

Assembly is quick and easy, thanks to the various pre-assembled components and the upper and middle rails, which can be easily assembled together.

STANDARDS

The GUARD trapezoidal metal sheet railing falls within the framework of the European standard **EN ISO 14122-3** of March 2017, Safety of machinery - Permanent means of access to machinery - Part 3: Stairs, stepladders and guard-rails, and to the standard NF E85-015 of July 2019, Elements of industrial plants - Permanent means of access.

The GUARD trapezoidal metal sheet railing complies with the requirements of **EN ISO 14122-3**.

REFERENCE TO STANDARDS

- A railing must be installed when the fall height exceeds 2 meters (check local regulations).
- The height of the upper handrail must be 1100 mm above the impact sound surface.
- The clearance between the handrail and the intermediate rail and between the intermediate rail and the toe board must not allow a ball of 500 mm diameter to pass through.
- A toe board with a minimum height of 100 mm must be installed no more than 12 mm from the impact sound area and the edge of the platform.
- The distance between the axes of the uprights must be limited to max. 1500 mm. However, if this distance is greater, special attention must be paid to the strength of the anchor of the upright and fasteners: consult our design office.
- If the upper handrail is interrupted, the clearance between two segments must be between 75 mm and 120 mm. If there is a larger opening, a pedestrian door must be provided to ensure the continuity of the railing's fall protection.
- Retractable: a lifeline must be installed before the retractable railing is assembled. It will also be used during its implementation and maintenance.

USE - MAINTENANCE

- The installer installing the GUARD railing must be a qualified person and must comply with the rules of practice relating to working at height. He must therefore ensure his own safety (use of a temporary lifeline, PPE, basket, etc.)
- Prior to use, the user must visually check the GUARD railing for any anomalies (shock, deformation, corrosion, etc..)
- The GUARD railing does not require any special maintenance, however a visual check must be carried out at least once a year by an authorised person.
- If the GUARD railing is incorrectly installed, damaged or has arrested a fall, its use must be discontinued immediately. An authorised person must then check it and confirm its return in writing.
- If the product is resold outside the first country of destination, it is essential for the user's safety that the reseller provides the technical manual in the language of the country where the product will be used. These documents can be provided to you on request by contacting the manufacturer.
- The GUARD railing is a permanent collective protective equipment to be used by professionals on terraces that are not accessible to the public.
- The use of a GUARD toe board is compulsory if the terrace does not have a perimeter wall or if the wall is less than 100 mm.
- If the GUARD railing is installed in a polluted industrial, petrochemical, naval, or seashore environment, it will necessarily have to undergo a suitable surface treatment such as powder coating, anodising, etc.
- Each section must consist of at least 2 uprights.
- To guarantee the conformity of the installation, it must be carried out according to a layout drawn up by our configurator or design office.

STORAGE

- The raw aluminium components are packed in contact with each other.
- The action of rain, on unopened packages, will cause oxidation of these components. Surface stains may then appear. These do not call into question the quality of the aluminium but can degrade the aesthetic appearance of the railing.
- We recommend unpacking the packages and storing the components separately from each other (no contact between them), or storing the packages still packed in a dry place.

RAILING WITHOUT TOE BOARD



with curb greater than 150 mm

RAILING WITH TOE BOARD



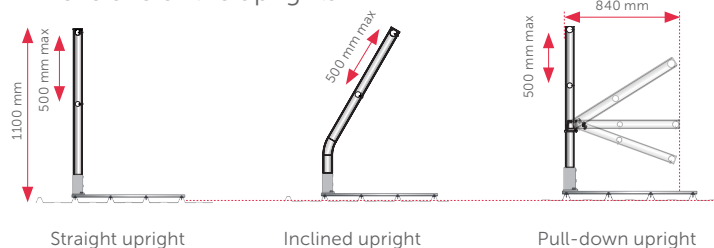
without curb or less than 150 mm

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DIMENSIONS

Dimensions of the uprights:



Straight upright

Inclined upright

Pull-down upright

OPTIMISED ASSEMBLY

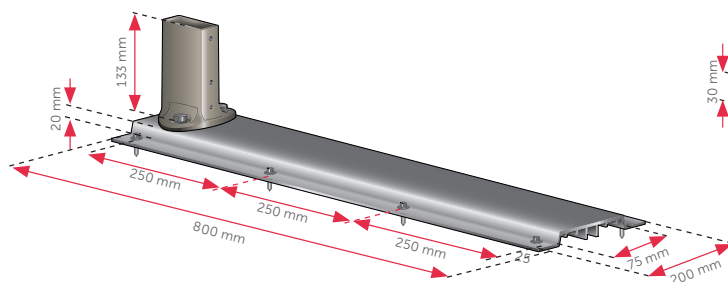
- New angle brackets (plastic and ALU) for round handrail;
- New cap for round handrail;
- Uprights: slot in the upper part of the handrail + pre-drilled holes to facilitate the assembly of the handrail and the intermediate rail.



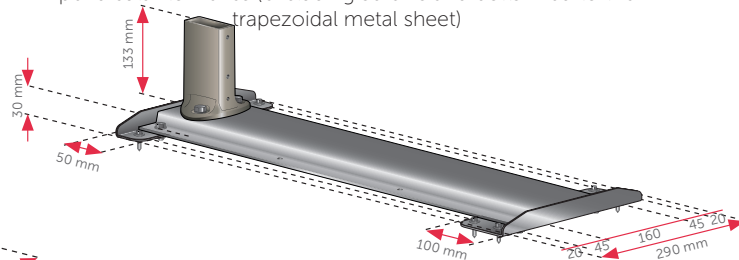
BASE DIMENSIONS

For fastening on trapezoidal metal sheet waves with 250 mm spacing.

250 mm wave base for railing on trapezoidal metal sheet parallel to waves (excluding screws and bolts fixed to the trapezoidal sheet)

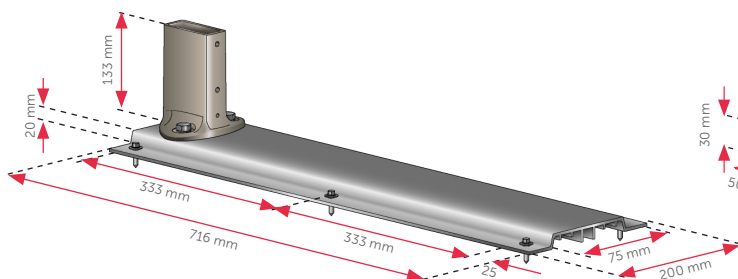


250 mm wave base for railing on trapezoidal metal sheet perpendicular to waves (excluding screws and bolts fixed to the trapezoidal metal sheet)

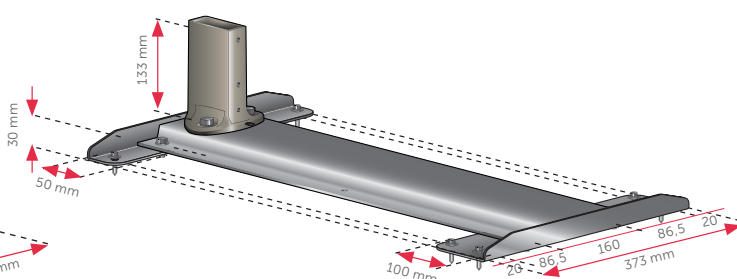


For fastening on trapezoidal metal sheet with 333 mm pitch.

333 mm wave base for railing on trapezoidal metal sheet parallel to waves (excluding screws and bolts fixed to the trapezoidal metal sheet)

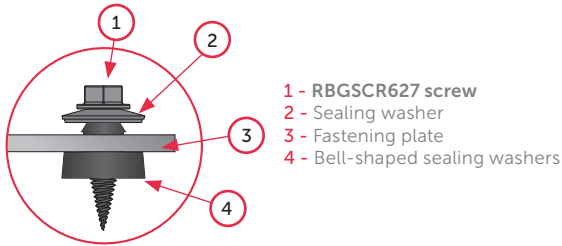


333 mm wave base for railing on trapezoidal metal sheet perpendicular to waves (excluding screws and bolts fixed to the trapezoidal metal sheet)



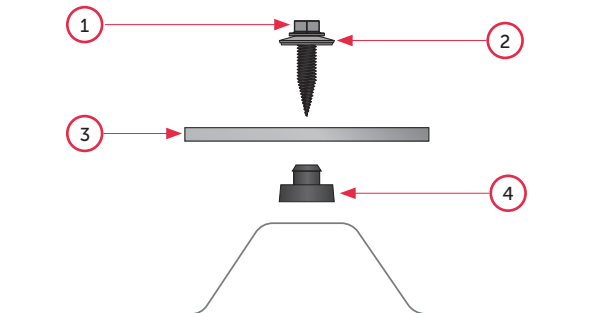
FASTENING PRINCIPLE

The railing on trapezoidal metal sheet is fixed with **RBGSCR627** screws, with sealing washers and bell-shaped washers to ensure waterproofing.

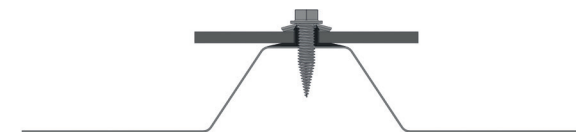


- 1 - RBGSCR627 screw
- 2 - Sealing washer
- 3 - Fastening plate
- 4 - Bell-shaped sealing washers

BEFORE FASTENING



AFTER FASTENING



RBGSCR627 SCREW

Unlike a standard self-drilling screw with which the drilling material is evacuated into chips, the **RBGSCR627** screw rejects the material inwards, forming a shim, which increases the installation length. The tightening torque limit of the **RBGSCR627** screw is high even on small thickness (> 5 N.m compared to an average of 1.5 N.m for conventional self-drilling screws).

Characteristic assembly resistances of RBGSCR627	S320 metal sheet thickness 0.63 mm	S320 metal sheet thickness 0.75 mm
PK value in cut with 1 screw RBGSCR627 (in DaN)	219	286
PK value at removal with 1 screw RBGSCR627 (in DaN)	142	187
Limit load when removing the plate with 8 screws RBGSCR627 (in DaN)	721	921

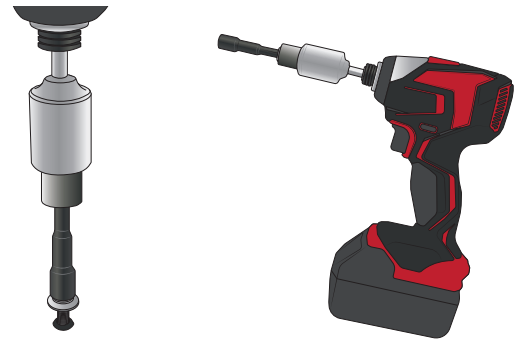
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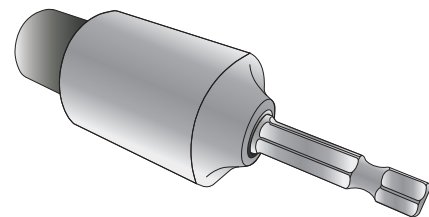
FASTENING WITH RBGSCR627 SCREWS + WASHER

Waves	Railing configuration	Quantity
250 mm	Parallel to the waves	8 screws
	Perpendicular to the waves	
333 mm	Parallel to the waves	6 screws
	Perpendicular to the waves	

OPTION



THE DB CONTROL TORQUE LIMITER 5 Nm



For optimum fastening on trapezoidal sheet metal

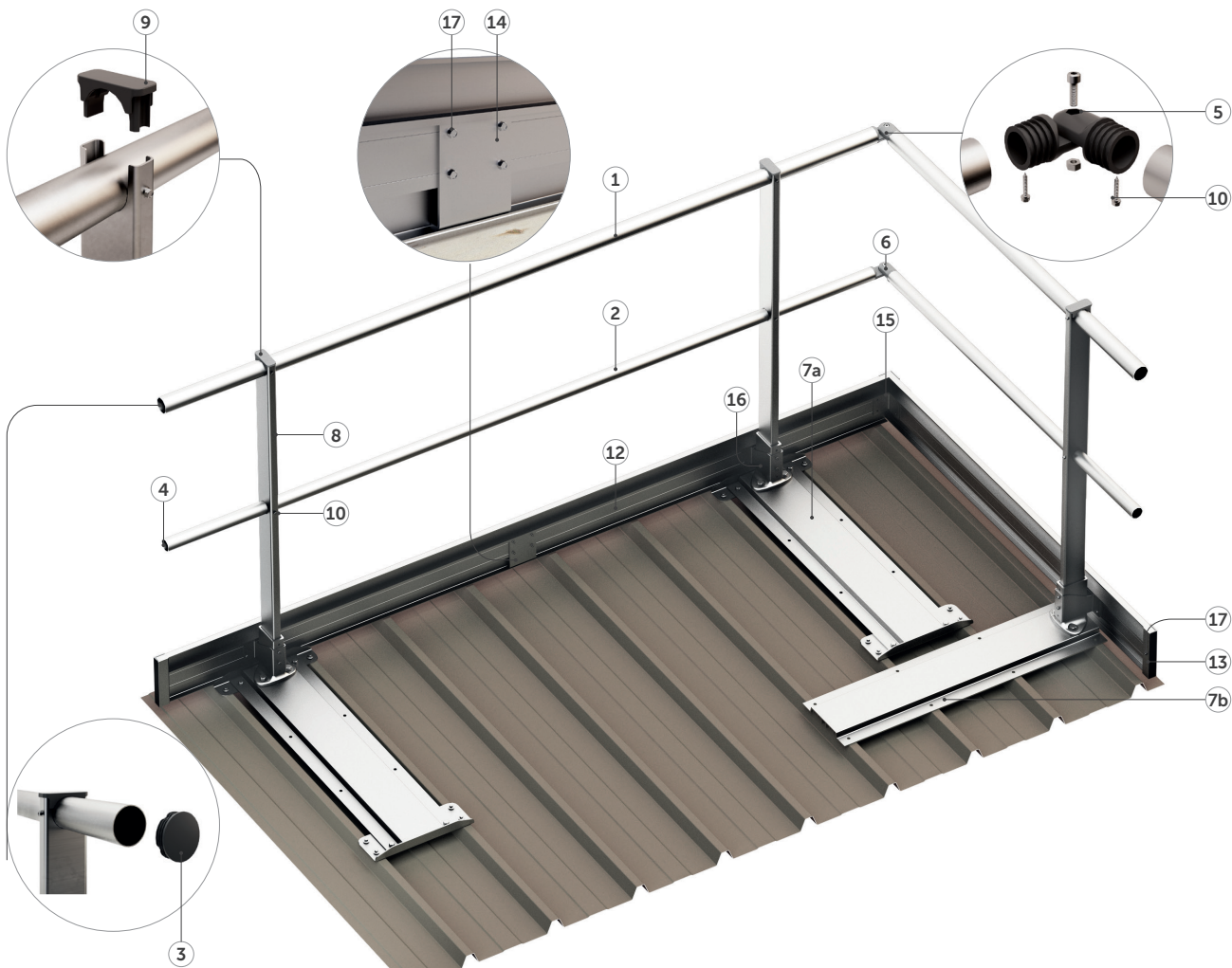
It is recommended to use this torque limiter in order to comply with the tightening torque. Specifically adapted to the 5 Nm tightening torque of the **RBGSCR627** screw, fastening on trapezoidal metal sheets is more secure.

The **DB CONTROL** torque limiter 5 Nm + screw **RBGSCR627** with sealing washer and bell-shaped washer optimises sealing and makes installation quick and easy:

- 1 rivet = 3 operations (drilling, sealing and crimping)
- 1 self-drilling screw = 1 screwing operation

GUARD M

RAILING FASTENING ON TRAPEZOIDAL METAL ROOF



CODE	description
1 RBGBAR45	Ø45 mm handrail with flush-mounted ring nuts L = 3000 mm
2 RBGBAR35	Ø35 intermediate rail with flush-mounted ring nuts L = 3000 mm
3 RBGCAP45	cap for handrail Ø45 mm
4 RBGCAP35	cap for intermediate rail Ø35 mm
5 RBGCOR45	angle bracket for handrail Ø45 mm
6 RBGCOR35	angle bracket for intermediate rail Ø35 mm
5-6 RBGCORAL	aluminium angle bracket for handrail and intermediate rail (alternative to RBGCOR45/RBGCOR35)
7a RBGBASE250PE	plate for fastening to trapezoidal sheet metal, pitch 250 mm, GUARD perpendicular to the frets (excluding screws)
7a RBGBASE333PE	plate for fastening to trapezoidal sheet metal, pitch 333 mm, GUARD perpendicular to trapezoidal sheet metal (excluding screws)
7b RBGBASE250PA	plate for fastening to trapezoidal sheet metal, pitch 250 mm, GUARD parallel to trapezoidal sheet metal (excluding screws)
7b RBGBASE333PA	plate for fastening to trapezoidal sheet metal, pitch 333 mm, GUARD parallel to trapezoidal sheet metal (excluding screws)

CODE	description
RBGSUP110	straight upright H = 1105 mm groove Ø45 mm
8 RBGSUP118	straight upright H = 1182 mm groove Ø45 mm
RBGSUP115II	inclined upright H = 1157 mm groove Ø45 mm
CODE	description
9 RBGCAP	upright cap 68 x 28 mm groove Ø45 mm
10 RBGSCR4825	stainless steel self-drilling screw 4,8 x 25 mm
11 RBGSCR810	M8 x 10 mm grub screw included in the base
12 RBGTB	toe board 3000 x 150 x 19 mm
13 RBGTBCAP	cap for toe board H = 150 mm
14 RBGTBJUN	straight connector toe board H = 150 mm
15 RBGTBCOR	angle bracket for toe board H = 150 mm
16 RBGTBH	support for toe board H = 150 mm
17 RBGSCR4816	stainless steel self-drilling screw 4,8 x 16 mm

For wall fastening:

RBGWALL45	end element for handrail Ø45 mm
RBGWALL35	end element for round intermediate rail Ø35 mm
RBGWALLAL	aluminium end element for handrail and intermediate rail

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GUARD | components

CODES AND DIMENSIONS

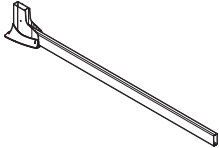
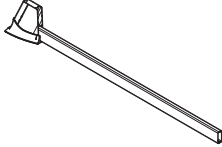
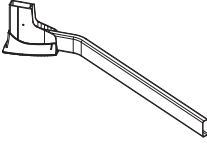
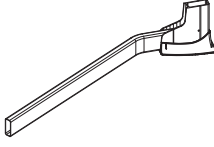
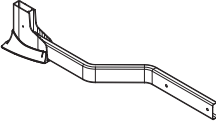
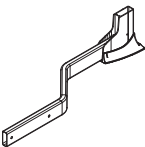
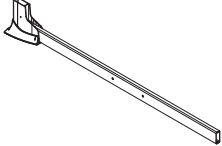
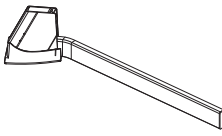
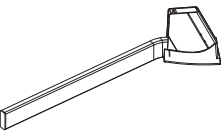
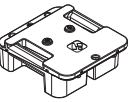
GROUP	CODE	description	pcs	
HANDRAILS AND INTERMEDIATE RAILS	RBGBAR45	Ø45 mm handrail with flush-mounted ring nuts L = 3000 mm	1	
	RBGBAR35	Ø35 intermediate rail with flush-mounted ring nuts L = 3000 mm	1	
	RBGBAR45F	handrail without flush-mounted ring nuts Ø45 mm L = 3000 mm	1	
	RBGBAR35F	intermediate rail without flush-mounted ring nuts Ø35 mm L = 3000 mm	1	
	RBGCAP	upright cap 68 x 28 mm groove Ø45 mm	1	
STRUTS	RBGSUP100	straight upright H = 1028 mm groove Ø45 mm	1	
	RBGSUP110	straight upright H = 1105 mm groove Ø45 mm	1	
	RBGSUP118	straight upright H = 1182 mm groove Ø45 mm	1	
	RBGSUP110F	pull-down upright H = 1105 mm groove Ø45 mm	1	
	RBGSUP100F	pull-down upright H = 1010 mm groove Ø45 mm	1	
	RBGSUP130	straight upright H = 1300 mm groove Ø45 mm	1	
	RBGSUP760WH NEW	straight strut 760 mm high without intermediate rail	1	
	RBGSUP115I	inclined upright H = 1157 mm groove Ø45 mm	1	
TOE BOARD AND ACCESSORIES	RBGTB	toe board 3000 x 150 x 19 mm	1	
	RBGTBJUN	straight connector of toe board H = 150 mm	1	
	RBGTBCOR	angle bracket for toe board H = 150 mm	1	
	RBGTBCAP	cap for toe board H = 150 mm	1	
	RBGTBW	support for toe board H = 150 mm for GUARD W	1	
	RBGTBH	support for toe board H = 150 mm	1	

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GUARD | components

CODES AND DIMENSIONS

GROUP	CODE	description	pcs	
STANDARD BASES	RBGBASEW	base for self-supporting GUARD W straight with support leg	1	
	RBGBASEWI	base for self-supporting GUARD W inclined with support leg	1	
	RBGBASEWFCR	support leg curved at right at 25° per angle	1	
	RBGBASEWFCL	support leg curved at left at 25° per angle	1	
	RBGBASEWFR	support leg with curve at right for folding railing	1	
	RBGBASEWFL	support leg with curve at left for folding railing	1	
	RBGBASEWF	base for self-supporting GUARD W with holes	1	
	RBGBASEWIFCR NEW	support leg for 25° right-hand bend inclined strut	1	
	RBGBASEWIFCL NEW	support leg for 25° left-hand bend inclined strut	1	
	RBGBASEWE	locking wedge for GUARD W (spare part)	1	
	RBGWEIGHT	plastic counterweight 12,5 kg for GUARD W	3	
	RBGBASEV	bottom plate for wall fastening GUARD V	1	

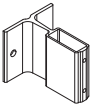
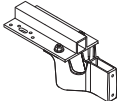
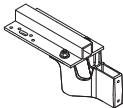
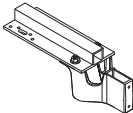
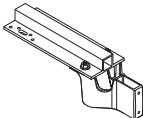
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GUARD | components

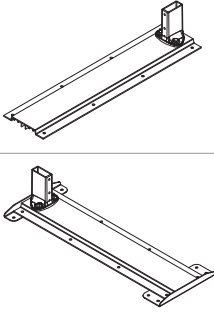
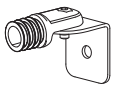
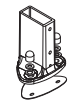
CODES AND DIMENSIONS

GROUP	CODE	description	pcs	
STANDARD BASES	RBGBASEVD	bottom plate for fastening on projecting wall GUARD VD	1	
	RBGDIST	spacer piece GUARD V-VD + 35 mm	1	
	RBGBASEH	bottom plate horizontal fastening painted grey GUARD H	1	
	RBGBASEZ	standard aluminium base Z for perimeter wall without insulation GUARD Z	1	
	RBGBASEZ70 NEW	GUARD Z base with 70 mm thick insulation	1	
	RBGBASEZ100 NEW	GUARD Z base with 100 mm thick insulation	1	
	RBGBASEZ130 NEW	GUARD Z base with 130 mm thick insulation	1	
	RBGBASEZ160 NEW	GUARD Z base with 160 mm thick insulation	1	

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GUARD | components

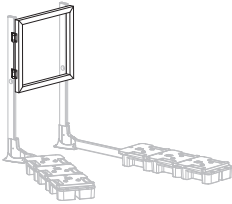
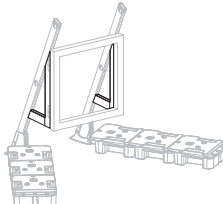
CODES AND DIMENSIONS

GROUP	CODE	description	pcs	
BASES FOR FASTENING ON TRAPEZOIDAL METAL ROOF	RBGBASE250PA	plate for fastening to trapezoidal sheet metal, pitch 250 mm, GUARD parallel to trapezoidal sheet metal (excluding screws)	1	
	RBGBASE333PA	plate for fastening to trapezoidal sheet metal, pitch 333 mm, GUARD parallel to trapezoidal sheet metal (excluding screws)	1	
	RBGBASE250PE	plate for fastening to trapezoidal sheet metal, pitch 250 mm, GUARD perpendicular to the frets (excluding screws)	1	
	RBGBASE333PE	plate for fastening to trapezoidal sheet metal, pitch 333 mm, GUARD perpendicular to trapezoidal sheet metal (excluding screws)	1	
ACCESSORIES	RBGCAP45	cap for handrail Ø45 mm	1	
	RBGCAP35	cap for intermediate rail Ø35 mm	1	
	RBGCOR45	angle bracket for handrail Ø45 mm	1	
	RBGCOR35	angle bracket for intermediate rail Ø35 mm	1	
	RBGWALL45	end element for handrail Ø45 mm	1	
	RBGWALL35	end element for intermediate rail Ø35 mm	1	
	RBGCORAL	aluminium angle bracket for handrail	1	
	RBGWALLAL	aluminium end element for handrail	1	
	RBGBASEHKIT	waterproofing kit for base GUARD H	1	
	RBGWEDGE	plastic wedge for shimming	1	
FASTENING SCREWS	RBGSCR4816	stainless steel self-drilling screw 4,8 x 16 mm	25	
	RBGSCR4825	stainless steel self-drilling screw 4,8 x 25 mm	25	
	RBGSCR4832	stainless steel self-drilling screw 4,8 x 32 mm	25	
	RBGSCR4850	stainless steel self-drilling screw 4,8 x 50 mm	25	
	RBGSCR627	self-drilling screw for stainless steel sheet 6 x 27 mm	25	
	RBGSCR810	grub screw M8 x 10 (spare part)	10	
	RBGSCRWAS	sealing washer	25	
	RBGBASEWFKIT NEW	kit for joining RBGBASEWF and RBGBASEWFR / RBGBASEWFL	-	

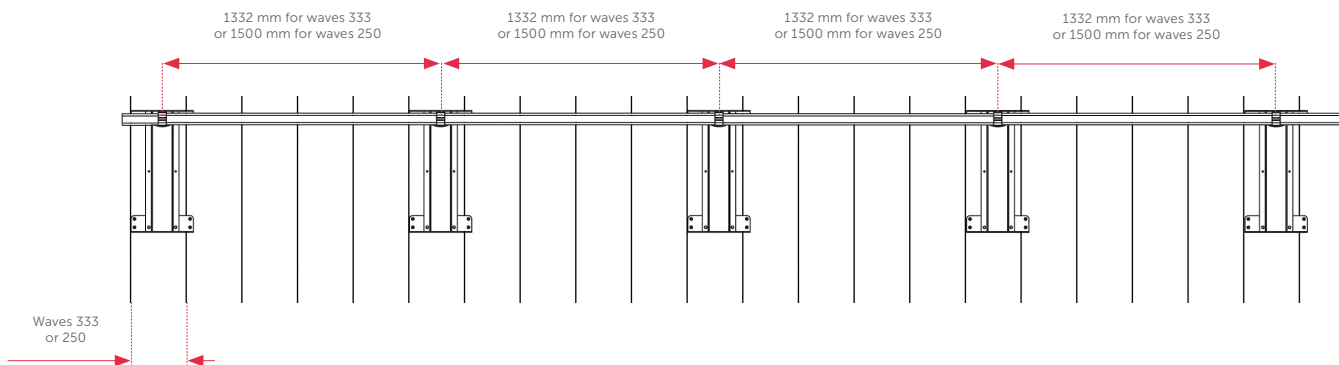
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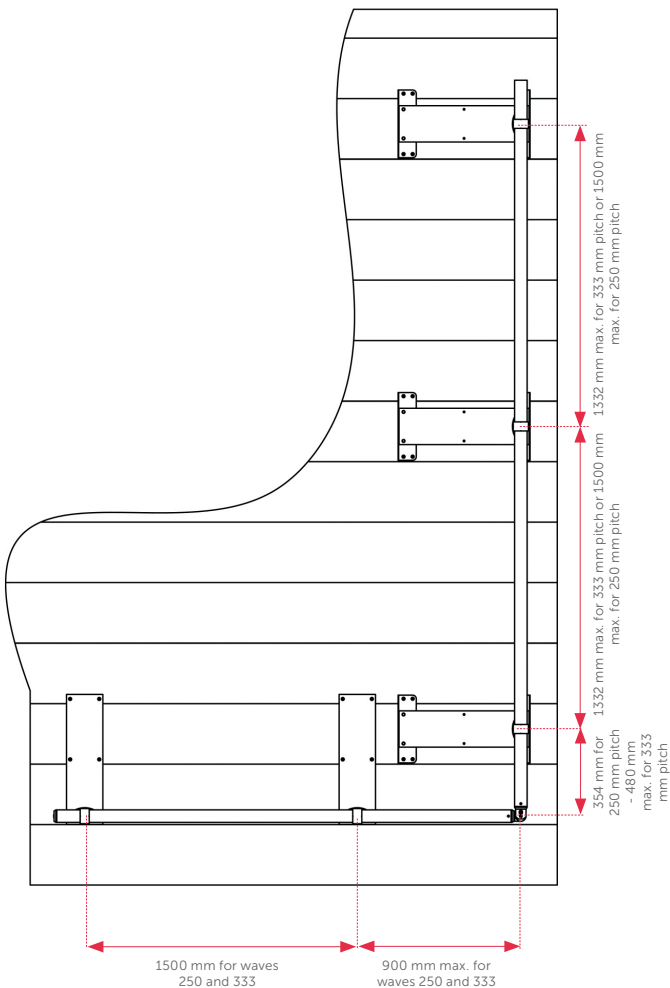
CODES AND DIMENSIONS

GROUP	CODE	description	pcs	
SAFETY GATES KIT	RBGGATE600	safety door 500 mm height with hinges assembled L = 600 mm	1	
	RBGGATE1100	safety door 500 mm height with hinges width L = 1100 mm	1	
	RBGGATEWISUP NEW	support for inclined strut gate	1	
MANUALS	RBGUARDHMAN	manual for GUARD H	1	
	RBGUARDVMAN	manual for GUARD V	1	
	RBGUARDMMAN	manual for GUARD M	1	
	RBGUARDZMAN	manual for GUARD Z	1	
	RBGUARDWMAN	manual for GUARD W	1	

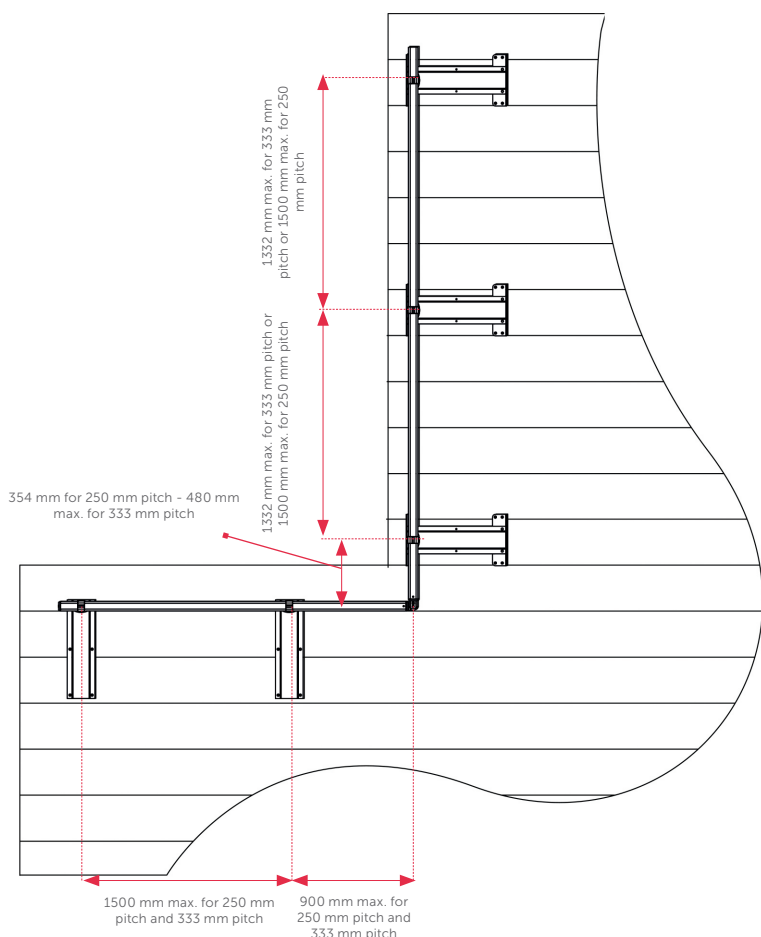
■ GUARD SELF-SUPPORTING RAILING INSTALLATION [EN 14122-3]



INTERNAL CORNER

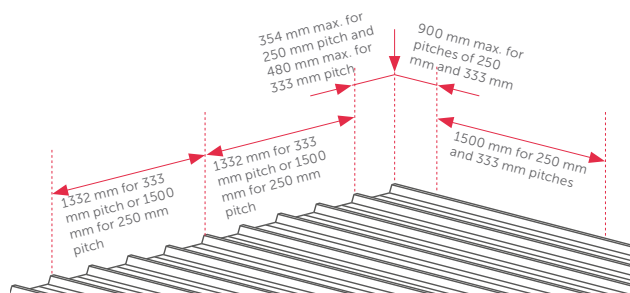


EXTERNAL CORNER

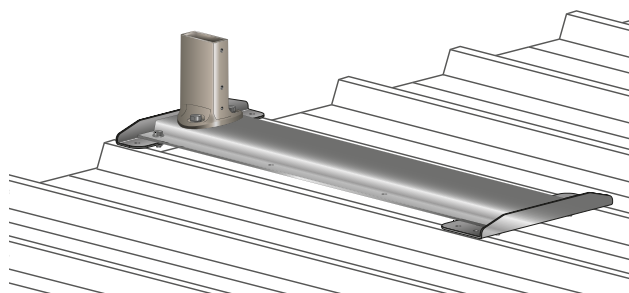


RAILING INSTALLATION ON TRAPEZOIDAL METAL SHEET

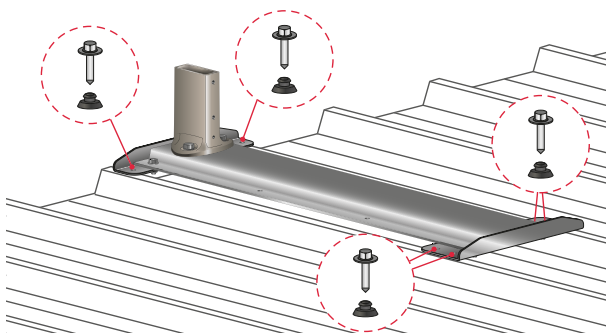
At least two people are required to assemble the GUARD self-supporting railing.
It is best to start the installation from where a corner is located.



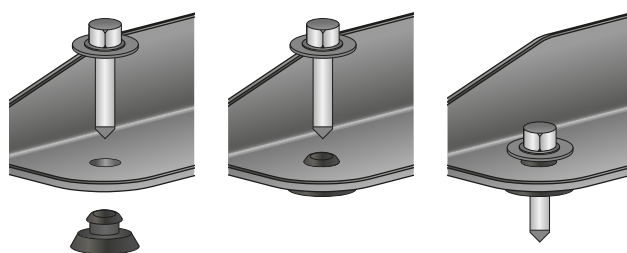
1 - Make the markings with a guiding line for placing the bases



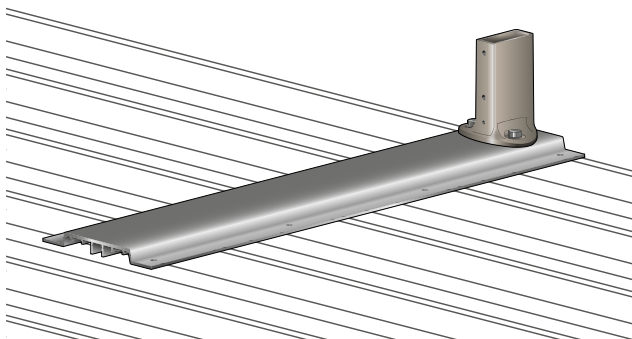
2 - Position the mounting plates, pitch 250 mm or pitch 333 mm, for railing fastening on trapezoidal metal sheets perpendicular to the waves



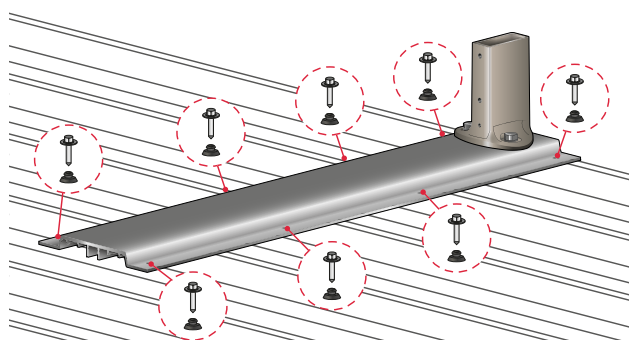
3 - The bases with 250 mm and 333 mm pitch for railing on trapezoidal metal sheet can be fastened, perpendicular to the waves, with 6 **RBGSCR627** screws with bell washers



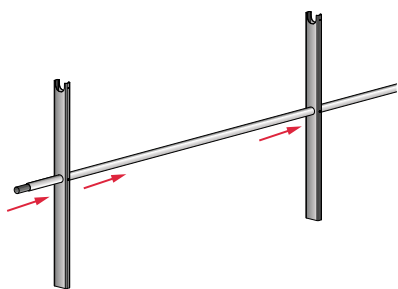
4 - Insert the bell-shaped washer into the hole from underneath the plate, then screw the **RBGSCR627** screw tightly against the washer so that the fastening is completely sealed. We recommend using the **DB CONTROL 5 Nm** torque limiter (see nomenclature on page 9) to secure your fastenings.



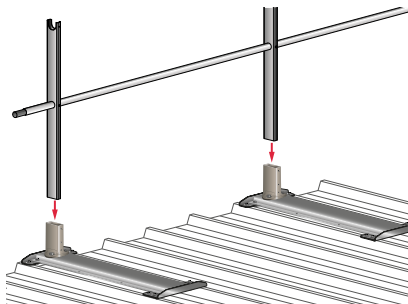
5 - Position the mounting plates, pitch 250 mm or pitch 333 mm, for railing with trapezoidal metal sheet fastening parallel to the waves



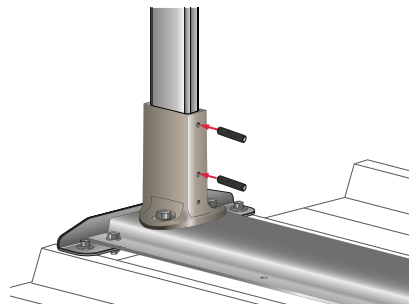
6 - **ATTENTION:** the railing base on 250 mm trapezoidal metal sheet is fixed with 8 **RBGSCR627** screws (+ bell washers), the railing base on 333 mm trapezoidal metal sheet is fixed with 6 **RBGSCR627** screws



7 - Insert an intermediate rail into 2 uprights



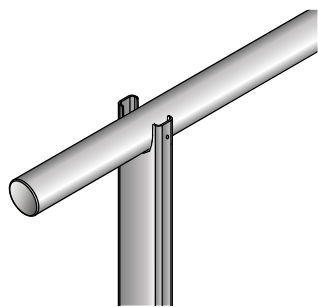
8 - Insert the uprights into the bases



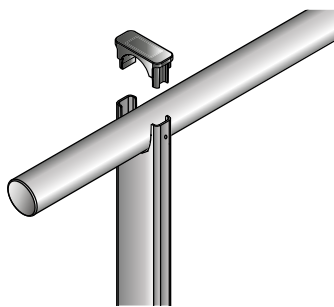
9 - Tighten the hexagon socket head cap screws of the bases

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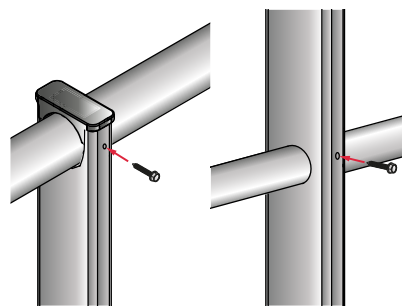
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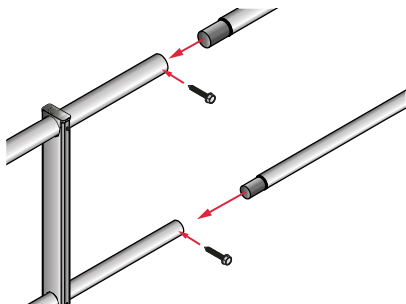
10 - Insert the handrail on the uprights



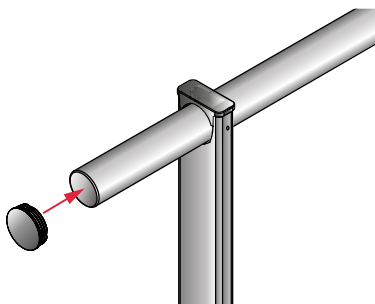
11 - Clip in the upper part of the upright



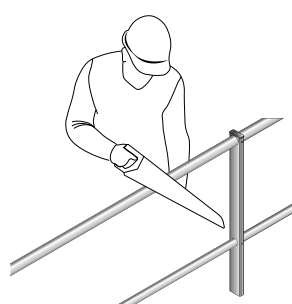
12 - Screw the 4,8 x 25 self-drilling screws on the upright at the level of the handrail and the intermediate rail



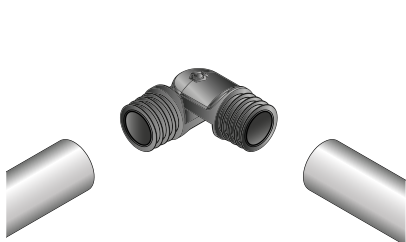
13 - Assemble the handrails and intermediate rails of the assembled sections with 4,8x16 screws.



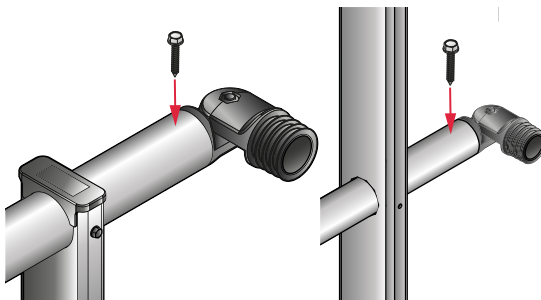
14 - Finally, insert plugs or wall end elements on handrails and intermediate rails



15 - Adjust the last section by cutting off the excess

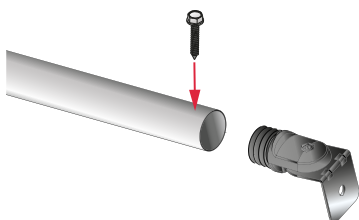


16 - Insert the angle brackets of the handrails and intermediate rails

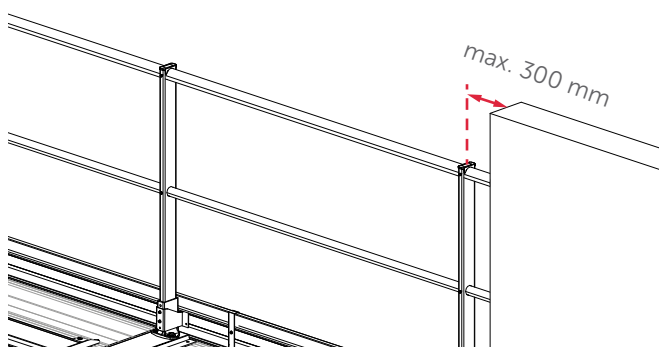


17 - Fasten the angle brackets with 4,8 x 25 self-drilling screws

■ INSTALLATION OF WALL FASTENERS

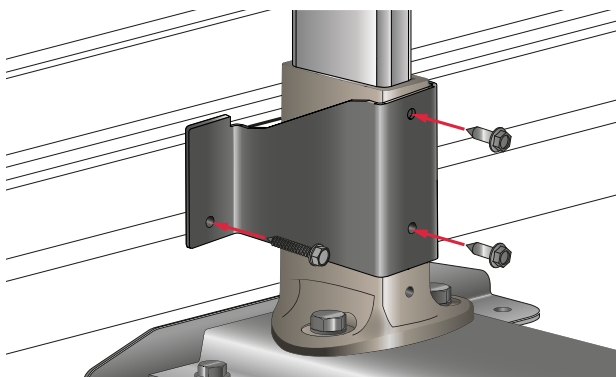


1 - Insert the angle brackets of the handrails and intermediate rails

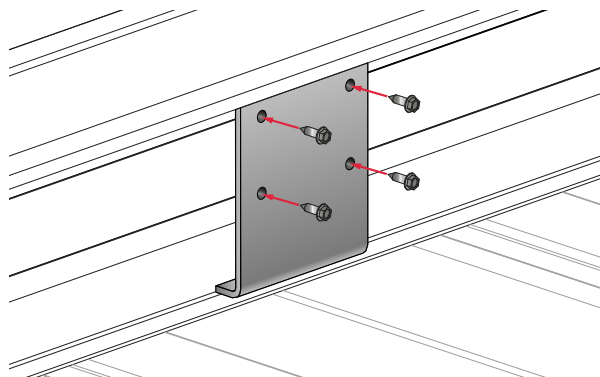


2 - Insert the angle brackets of the handrails and intermediate rails

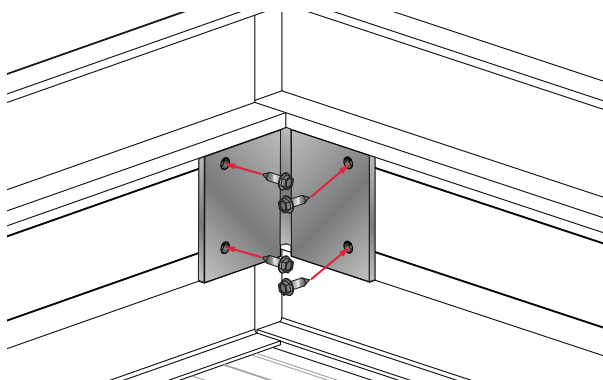
TOE BOARD FASTENING



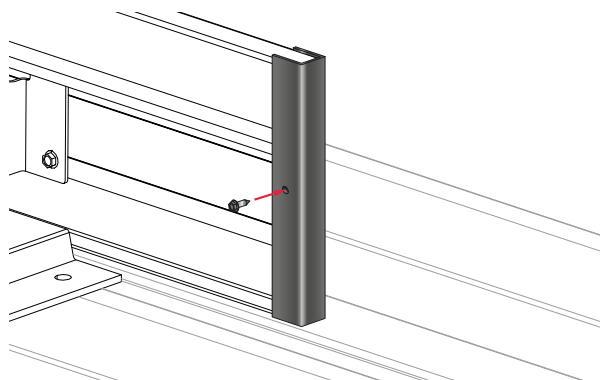
- 1** - Remove the pre-assembled M8x10 hexagonal head grub screws in the ground fastening base and place the toe board mounting support on the mounting plate. Then, secure it with 2 self-drilling screws 4,8 x 25, and fasten the toe board to the support with 2 more self-tapping screws 4,8 x 16 (1 on each side of the support).



- 2** - Fasten the components of the toe board together using the connectors and 4 self-drilling screws 4,8 x 16



- 3** - For the angle brackets, fasten the internal and external connectors with 8 self-drilling screws 4,8 x 16.



- 3** - Finally, fasten the caps of the toe board with 1 self-drilling screw 4,8 x 16

MANUAL DE INSTALACIÓN

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DEFINICIÓN

La baranda GUARD M es un sistema de protección colectiva anticaída, diseñado para proteger al operario durante el trabajo en cubiertas metálicas con una pendiente inferior a 10°.

Es la solución ideal para fijarse sobre las ondas de las chapas trapezoidales (interjeje de 250 a 333 mm y espesor mínimo de 63/100 - otras dimensiones bajo pedido), sin cortes ni resellados.

El montaje es fácil y rápido, gracias a los distintos componentes premontados y a los pasamanos superiores y a las barras intermedias, que se pueden montar fácilmente juntos.

NORMATIVAS

La baranda GUARD sobre chapas trapezoidales entra en el ámbito de aplicación de la norma europea **EN ISO 14122-3** de marzo 2017, «Seguridad de las máquinas. Medios de acceso permanentes a máquinas. Parte 3: Escaleras, escalas de escalones y guardacuerpos», y de la norma NF E85-015 de julio de 2019 «Elementos de instalación industriales – Medios de acceso permanentes».

La baranda GUARD sobre chapas trapezoidales es conforme con los requisitos de las normas **EN ISO 14122-3**.

REFERENCIA A NORMAS

- Las barandas se deben instalar siempre que la altura de caída sea superior a 2 metros (comprobar la normativa local).
- El pasamanos superior de la baranda debe quedar a una altura de al menos 1100 mm de la superficie de circulación.
- Entre el pasamanos y la barra intermedia y entre esta y el rodapié debe haber una distancia que no deje pasar una esfera de 500 mm de diámetro.
- Instalar un rodapié con una altura mínima de 100 mm a menos de 12 mm de la superficie de circulación y del borde de la plataforma.
- La distancia entre los ejes de los montantes debe ser de 1500 mm como máximo. Sin embargo, si esta distancia es mayor, se debe prestar una especial atención a la resistencia del anclaje de los montantes y de los dispositivos de fijación: consultar con nuestro Departamento de Diseño.
- Si el pasamanos superior se interrumpe, el espacio libre entre los dos tramos debe estar comprendida entre 75 mm y 120 mm. Si la distancia es mayor, se deberá instalar una puerta peatonal para garantizar la continuidad de la seguridad anticaída de la baranda.
- Abatible: en caso de baranda abatible, antes de su montaje hay que instalar una línea de vida. Dicha línea también se utilizará durante el montaje y el mantenimiento de la baranda.

USO - MANTENIMIENTO

- El instalador de la baranda GUARD tiene que ser una persona debidamente cualificada y debe respetar las normas de buenas prácticas para los trabajos en altura. Por lo tanto, debe garantizar su propia seguridad (uso de una línea de vida temporal, EPI, cesta portapersonas, etc.).
- Antes de cada uso, el usuario controlar visualmente la baranda GUARD para asegurarse de que no presente ninguna anomalía (golpe, deformación, corrosión...).
- La baranda GUARD no requiere ningún mantenimiento especial; sin embargo, es aconsejable que una persona autorizada realice un control visual al menos una vez al año.
- Si la baranda GUARD no está bien instalada, está dañada o se ha utilizado para detener una caída, se debe dejar de usar de inmediato. Luego, una persona autorizada deberá controlarla y confirmar por escrito que se puede utilizar de nuevo.
- Si el producto se revende fuera del primer país de destino, para garantizar la seguridad del usuario es esencial que el distribuidor suministre el manual técnico en el idioma del país donde vaya a usarse el producto. Si se solicita, estos documentos los puede proporcionar el fabricante.
- La baranda GUARD es una protección colectiva permanente que debe ser utilizada por profesionales en terrazas no accesibles al público.
- El uso de un rodapié GUARD es obligatorio si la terraza no tiene murete perimetral o si la altura de este es inferior a 100 mm.
- Si la baranda GUARD se instala en un ambiente industrial contaminado, petroquímico o naval o bien cerca del mar, debe someterse obligatoriamente a un tratamiento superficial adecuado, como pintura en polvo, anodizado, etc.
- Cada sección debe estar compuesta por al menos 2 montantes.
- Para garantizar la conformidad de la instalación, esta se debe realizar según un plano elaborado por nuestro configurador o por nuestro Departamento de Diseño.

ALMACENAMIENTO

- Los componentes de aluminio bruto se empaquetan en contacto entre sí.
- La acción de la lluvia en los paquetes sin embalar provocará su oxidación. Por lo tanto, es posible que aparezcan manchas superficiales. Estas manchas no afectan la calidad del aluminio, pero pueden perjudicar el aspecto estético de la baranda.
- Se aconseja desembalar los productos y guardar los componentes en el almacén separados (sin contacto entre ellos) o bien guardar los componentes empaquetados en un lugar seco.

BARANDA SIN RODAPIÉ



con murete perimetral superior a 150 mm

BARANDA CON RODAPIÉ



sin murete perimetral o inferior a 150 mm

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DIMENSIONES

Dimensiones de los montantes:



Montante recto

Montante inclinado

Montante abatible

MONTAJE OPTIMIZADO

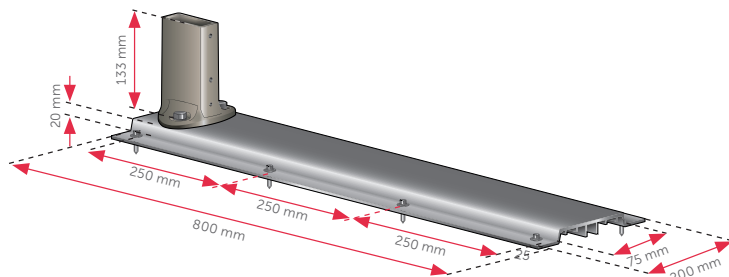
- Nuevos ángulos (plástico y ALU) para pasamanos redondo.
- Nuevo tapón para pasamanos redondo.
- Montantes: alojamiento en la parte superior para el pasamanos + agujeros ya hechos para facilitar el montaje del pasamanos y de la barra intermedia.



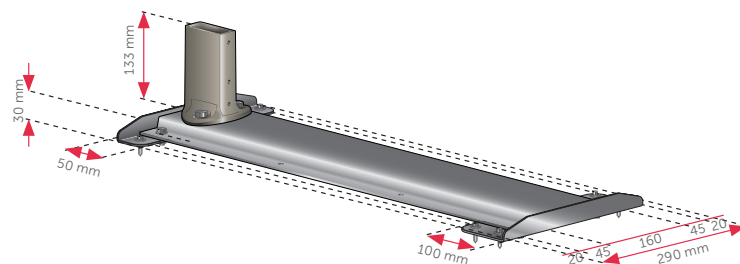
DIMENSIONES DE LA BASE

Para fijarse sobre ondas de chapas trapezoidales con paso de 250 mm.

Base con paso de 250 mm para barandilla sobre chapa trapezoidal, paralela a la ondas (tornillos y pernos de fijación a la chapa trapezoidal no incluidos)

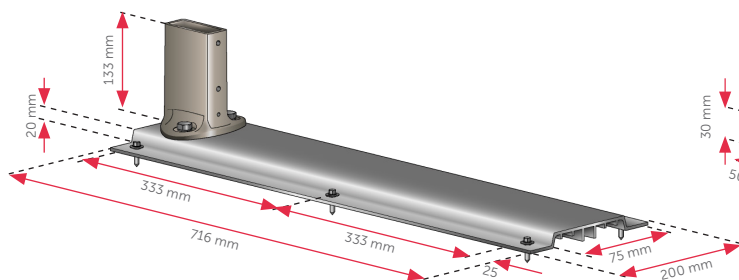


Base con paso de 250 mm para barandilla sobre chapa trapezoidal, perpendicular a la ondas (tornillos y pernos de fijación a la chapa trapezoidal no incluidos)

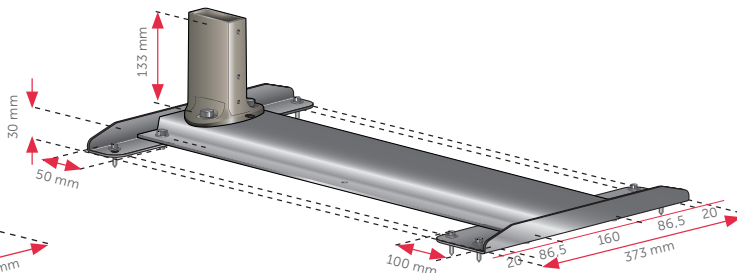


Para fijarse sobre ondas de chapas trapezoidales con paso de 333 mm.

Base con paso de 333 mm para barandilla sobre chapa trapezoidal, paralela a la ondas (tornillos y pernos de fijación a la chapa trapezoidal no incluidos)



Base con paso de 333 mm para barandilla sobre chapa trapezoidal, perpendicular a la ondas (tornillos y pernos de fijación a la chapa trapezoidal no incluidos)

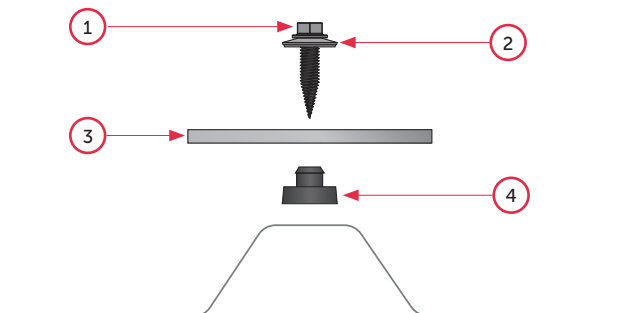


PRINCIPIO DE FIJACIÓN

La baranda sobre chapas trapezoidales se fija con tornillos **RBGSCR627**, arandelas de estanquidad y arandelas cónicas para garantizar la impermeabilización.



ANTES DE LA FIJACIÓN



DESPUÉS DE LA FIJACIÓN



TORNILLO RBGSCR627

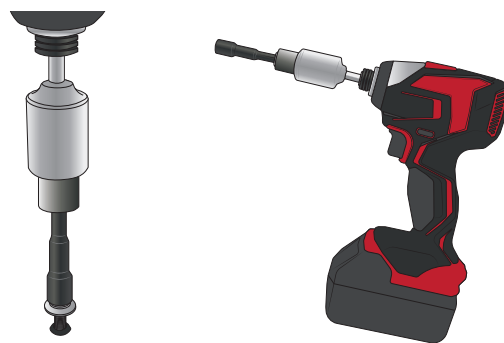
A diferencia de un tornillo autoperforante estándar con el cual el material de perforación se elimina en forma de virutas, el tornillo **RBGSCR627** empuja el material hacia el interior, con lo cual se forma un reborde que aumenta la longitud de instalación. El valor límite del par de apriete del tornillo **RBGSCR627** es elevado, incluso en espesores reducidos (> 5 Nm frente a 1,5 Nm de promedio de los tornillos autoperforantes clásicos).

Resistencias características de ensamblado del RBGSCR627	Chapa S320 espesor 0,63 mm	Chapa S320 espesor 0,75 mm
Valor PK en corte con 1 tornillo RBGSCR627 (en DaN)	219	286
Valor PK en la extracción con 1 tornillo RBGSCR627 (en DaN)	142	187
Carga límite en la extracción de la placa con 8 tornillos RBGSCR627 (en DaN)	721	921

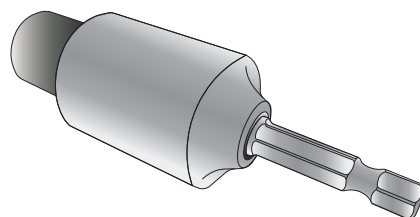
FIJACIÓN CON TORNILLO RBGSCR627 + ARANDELA

Ondas	Configuración de la baranda	Cantidad
250 mm	Paralela a las ondas	8 tornillos
	Perpendicular a las ondas	
333 mm	Paralela a las ondas	6 tornillos
	Perpendicular a las ondas	

OPCIÓN



LIMITADOR DE PAR DB CONTROL 5 Nm



Para una fijación óptima a la chapa trapezoidal

Se aconseja utilizar este limitador de par con el fin de respetar el par de apriete. Como está específicamente diseñado para lograr el par de apriete de 5 Nm que caracteriza al tornillo **RBGSCR627**, la fijación a la chapa trapezoidal es más segura.

Si se utiliza el limitador de par **DB CONTROL 5 Nm** para el tornillo **RBGSCR627** con arandela de estanquidad y arandela cónica, se optimiza la impermeabilización y se facilita y agiliza la instalación:

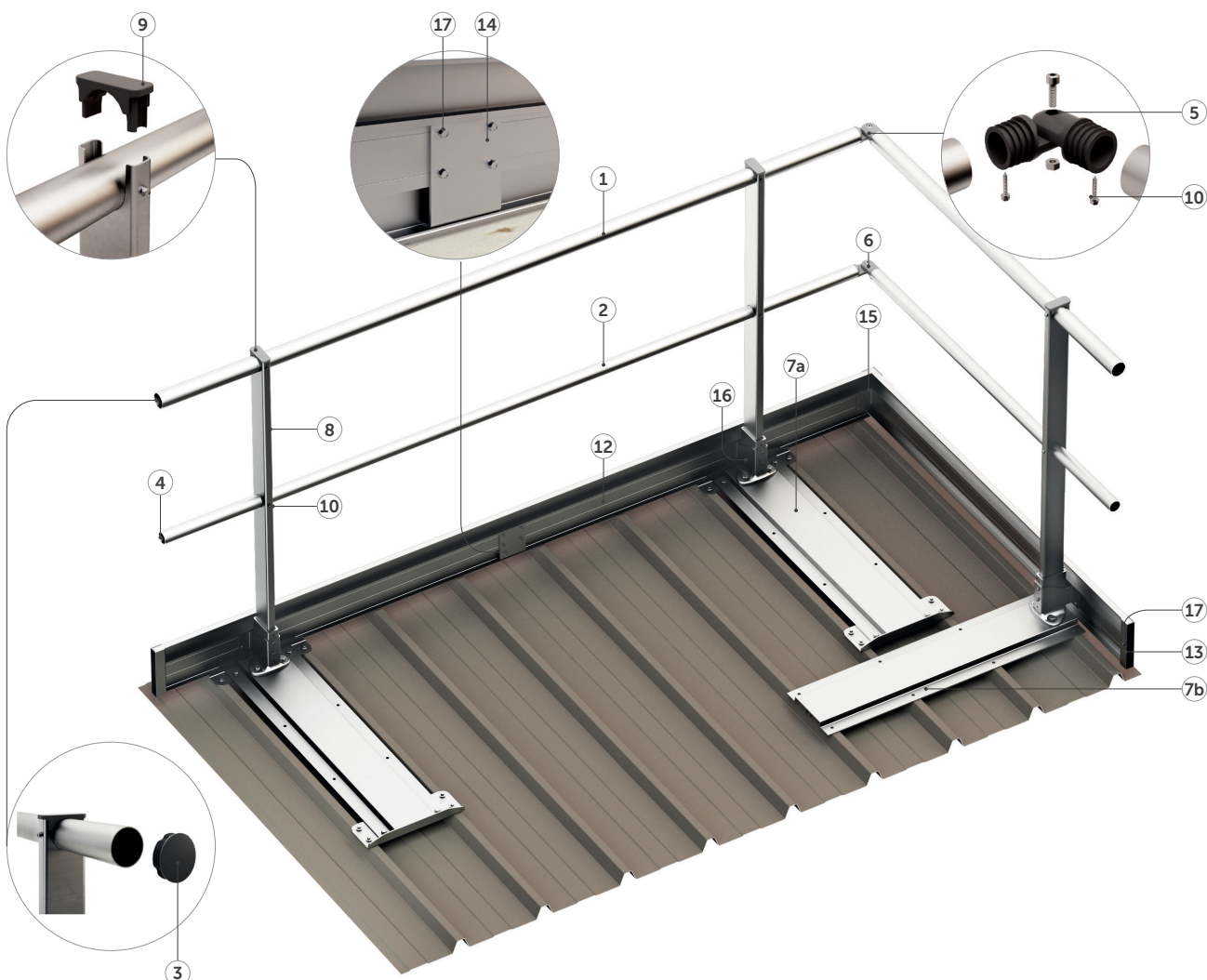
- 1 remache = 3 operaciones (perforación, impermeabilización y engaste)
- 1 tornillo autoperforante = 1 operación de atornillado

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GUARD M

BARANDA PARA FIJACIÓN A CHAPA TRAPEZOIDAL



CÓDIGO	descripción
1 RBGBAR45	pasamanos Ø45 mm con virolas empotrables L = 3000 mm
2 RBGBAR35	barra intermedia Ø35 mm con virolas empotrables L = 3000 mm
3 RBGCAP45	tapón para pasamanos Ø45 mm
4 RBGCAP35	tapón para barra intermedia Ø35 mm
5 RBGCOR45	ángulo para pasamanos Ø45 mm
6 RBGCOR35	ángulo para barra intermedia Ø35 mm
5-6 RBGCORAL	ángulo de aluminio para pasamanos y barra intermedia (alternativo a RBGCOR45/RBGCOR35)
7a RBGBASE250PE	placa para fijación a chapas trapezoidales con paso de 250 mm, GUARD perpendicular a las grecas (tornillos no incluidos)
7a RBGBASE333PE	placa para fijación a chapas trapezoidales con paso de 333 mm, GUARD perpendicular a las grecas (tornillos no incluidos)
7b RBGBASE250PA	placa para fijación a chapas trapezoidales con paso de 250 mm, GUARD paralelo a las grecas (tornillos no incluidos)
7b RBGBASE333PA	placa para fijación a chapas trapezoidales con paso de 333 mm, GUARD paralelo a las grecas (tornillos no incluidos)

CÓDIGO	descripción
RBGSUP110	montante recto H = 1105 mm hueco Ø45 mm
8 RBGSUP118	montante recto H = 1182 mm hueco Ø45 mm
RBGSUP115II	montante inclinado H = 1157 mm hueco Ø45 mm
CÓDIGO	descripción
9 RBGCAP	tapón montante 68 x 28 mm hueco Ø45 mm
10 RBGSCR4825	tornillo autoperforante 4,8 x 25 mm de acero inoxidable
11 RBGSCR810	tornillo prisionero M8 x 10 mm incluido en la base
12 RBGTB	rodapié 3000 x 150 x 19 mm
13 RBGTBCAP	tapón para rodapié H = 150 mm
14 RBGTBJUN	conector recto rodapié H = 150 mm
15 RBGTBCOR	reenvío de ángulo rodapié H = 150 mm
16 RBGTBH	soporte para rodapié H = 150 mm
17 RBGSCR4816	tornillo autoperforante 4,8 x 16 mm de acero inoxidable

Para fijación a pared:

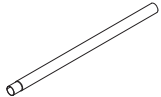
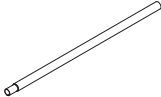
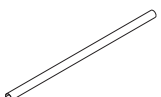
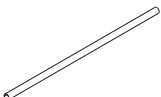
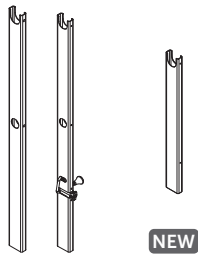
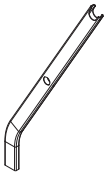
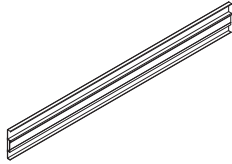
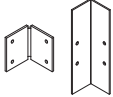
RBGWALL45	elemento terminal para pasamanos Ø45 mm
RBGWALL35	elemento terminal para barra intermedia redonda Ø35 mm
RBGWALLAL	elemento terminal de aluminio para pasamanos y barra intermedia

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GUARD | componentes

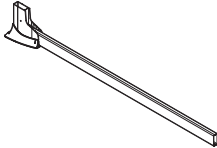
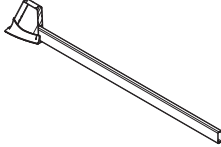
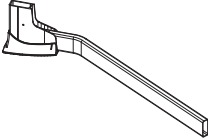
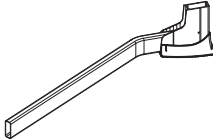
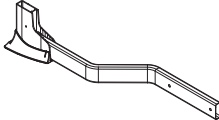
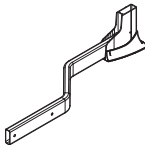
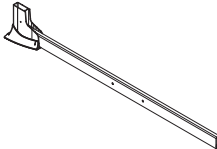
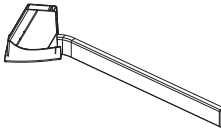
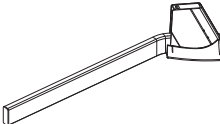
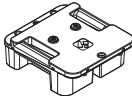
CÓDIGOS Y DIMENSIONES

GRUPO	CÓDIGO	descripción	unid.	
PASAMANOS Y BARRAS INTERMEDIAS	RBGBAR45	pasamanos Ø45 mm con violas empotrables L = 3000 mm	1	
	RBGBAR35	barra intermedia Ø35 con violas empotrables L = 3000 mm	1	
	RBGBAR45F	pasamanos sin violas empotrables Ø45 mm L = 3000 mm	1	
	RBGBAR35F	barra intermedia sin violas empotrables Ø35 mm L = 3000 mm	1	
	RBGCAP	tapón montante 68 x 28 mm hueco Ø45 mm	1	
MONTANTES	RBGSUP100	montante recto H = 1028 mm hueco Ø45 mm	1	
	RBGSUP110	montante recto H = 1105 mm hueco Ø45 mm	1	
	RBGSUP118	montante recto H = 1182 mm hueco Ø45 mm	1	
	RBGSUP110F	montante abatible H = 1105 mm hueco Ø45 mm	1	
	RBGSUP100F	montante abatible H = 1010 mm hueco Ø45 mm	1	
	RBGSUP130	montante recto H = 1300 mm hueco Ø45 mm	1	
	RBGSUP760WH NEW	montante recto altura 760 mm sin barra intermedia	1	
	RBGSUP115I	montante inclinado H = 1157 mm hueco Ø45 mm	1	
RODAPÍES Y ACCESORIOS	RBGTB	rodapié 3000 x 150 x 19 mm	1	
	RBGTBJUN	conector recto de rodapié H = 150 mm	1	
	RBGTBCOR	reenvío de ángulo rodapié H = 150 mm	1	
	RBGTBCAP	tapón para rodapié H = 150 mm	1	
	RBGTBW	soporte para rodapié H = 150 mm para GUARD W	1	
	RBGTBH	soporte para rodapié H = 150 mm	1	

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CÓDIGOS Y DIMENSIONES

GRUPO	CÓDIGO	descripción	unid.	
BASES ESTÁNDARES	RBGBASEW	base para baranda autoportante GUARD W recta con pata de sostén	1	
	RBGBASEWI	base para baranda autoportante GUARD W inclinada con pata de sostén	1	
	RBGBASEWFCR	pata de sostén con curva a la derecha a 25° para ángulo	1	
	RBGBASEWFCL	pata de sostén con curva a la izquierda a 25° para ángulo	1	
	RBGBASEWFR	pata de sostén con curva a la derecha para baranda abatible	1	
	RBGBASEWFL	pata de sostén con curva a la izquierda para baranda abatible	1	
	RBGBASEWF	base para baranda autoportante GUARD W con agujeros	1	
	RBGBASEWIFCR NEW	pata de sostén para montante inclinado con curva a la derecha a 25°	1	
	RBGBASEWIFCL NEW	pata de sostén para montante inclinado con curva a la izquierda a 25°	1	
	RBGBASEWE	cuña de bloqueo para GUARD W (recambio)	1	
	RBGWEIGHT	contrapeso de plástico 12,5 kg para GUARD W	3	
	RBGBASEV	placa base fijación a pared GUARD V	1	

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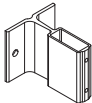
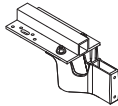
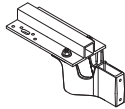
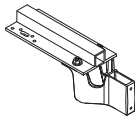
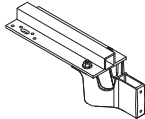
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GUARD | componentes

CÓDIGOS Y DIMENSIONES

GRUPO	CÓDIGO	descripción	unid.	
BASES ESTÁNDARES	RBGBASEVD	placa base fijación a pared saliente GUARD V	1	
	RBGDIST	elemento distanciador GUARD V-VD + 35 mm	1	
	RBGBASEH	placa base fijación horizontal pintada en gris GUARD H	1	
	RBGBASEZ	base en Z de aluminio estándar para pared perimetral sin aislante GUARD Z	1	
	RBGBASEZ70 NEW	base GUARD Z con aislante espesor 70 mm	1	
	RBGBASEZ100 NEW	base GUARD Z con aislante espesor 100 mm	1	
	RBGBASEZ130 NEW	base GUARD Z con aislante espesor 130 mm	1	
	RBGBASEZ160 NEW	base GUARD Z con aislante espesor 160 mm	1	

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CÓDIGOS Y DIMENSIONES

GRUPO	CÓDIGO	descripción	unid.	
BASES PARA FIJACIÓN A CHAPA TRAPEZOIDAL	RBGBASE250PA	placa para fijación a chapas trapezoidales con paso de 250 mm, GUARD paralelo a las grecas (tornillos no incluidos)	1	
	RBGBASE333PA	placa para fijación a chapas trapezoidales con paso de 333 mm, GUARD paralelo a las grecas (tornillos no incluidos)	1	
	RBGBASE250PE	placa para fijación a chapas trapezoidales con paso de 250 mm, GUARD perpendicular a las grecas (tornillos no incluidos)	1	
	RBGBASE333PE	placa para fijación a chapas trapezoidales con paso de 333 mm, GUARD perpendicular a las grecas (tornillos no incluidos)	1	
ACCESORIOS	RBGCAP45	tapón para pasamanos Ø45 mm	1	
	RBGCAP35	tapón para barra intermedia Ø35 mm	1	
	RBGCOR45	ángulo para pasamanos Ø45 mm	1	
	RBGCOR35	ángulo para barra intermedia Ø35 mm	1	
	RBGWALL45	elemento terminal para pasamanos Ø45 mm	1	
	RBGWALL35	elemento terminal para barra intermedia Ø35 mm	1	
	RBGCORAL	ángulo de aluminio para pasamanos	1	
	RBGWALLAL	elemento terminal de aluminio para pasamanos	1	
	RBGBASEHKIT	kit de impermeabilización para base GUARD H	1	
	RBGWEDGE	cuña de plástico para relleno	1	
TORNILLOS DE FIJACIÓN	RBGSCR4816	tornillo autoperforante 4,8 x 16 mm de acero inoxidable	25	
	RBGSCR4825	tornillo autoperforante 4,8 x 25 mm de acero inoxidable	25	
	RBGSCR4832	tornillo autoperforante 4,8 x 32 mm de acero inoxidable	25	
	RBGSCR4850	tornillo autoperforante 4,8 x 50 mm de acero inoxidable	25	
	RBGSCR627	tornillo autoperforante para chapa de acero inoxidable 6 x 27 mm	25	
	RBGSCR810	tornillo prisionero M8 x 10 mm (recambio)	10	
	RBGSCRWAS	arandela de estanquidad	25	
	RBGBASEWFKIT NEW	kit de unión RBGBASEWF y RBGBASEWFR / RBGBASEWFL	-	

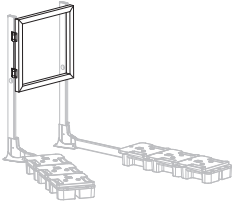
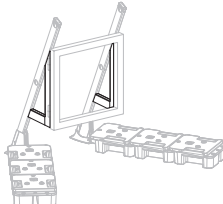
distributed by:

Rotho Blaas GmbH - Etschweg 2/1 - 39040 Kurtatsch (BZ) – ITALIEN

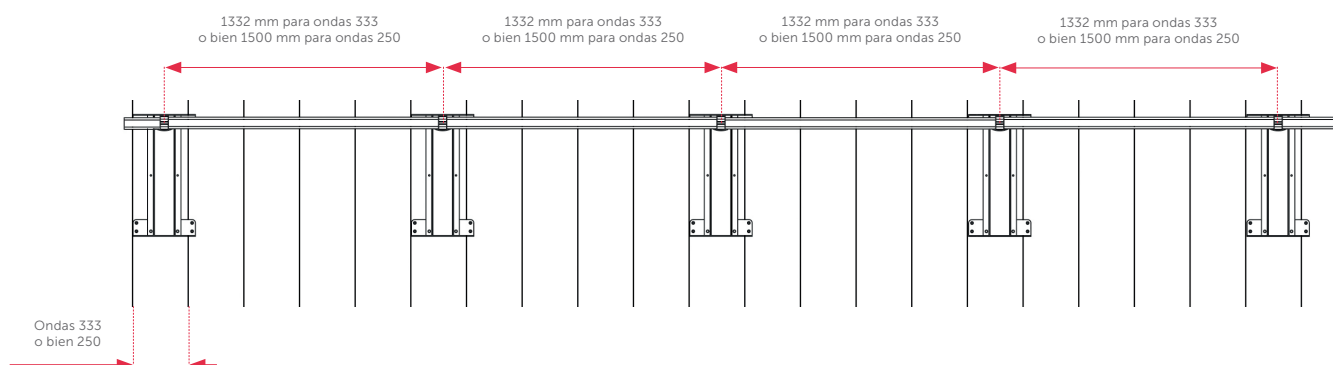
manufactured by:

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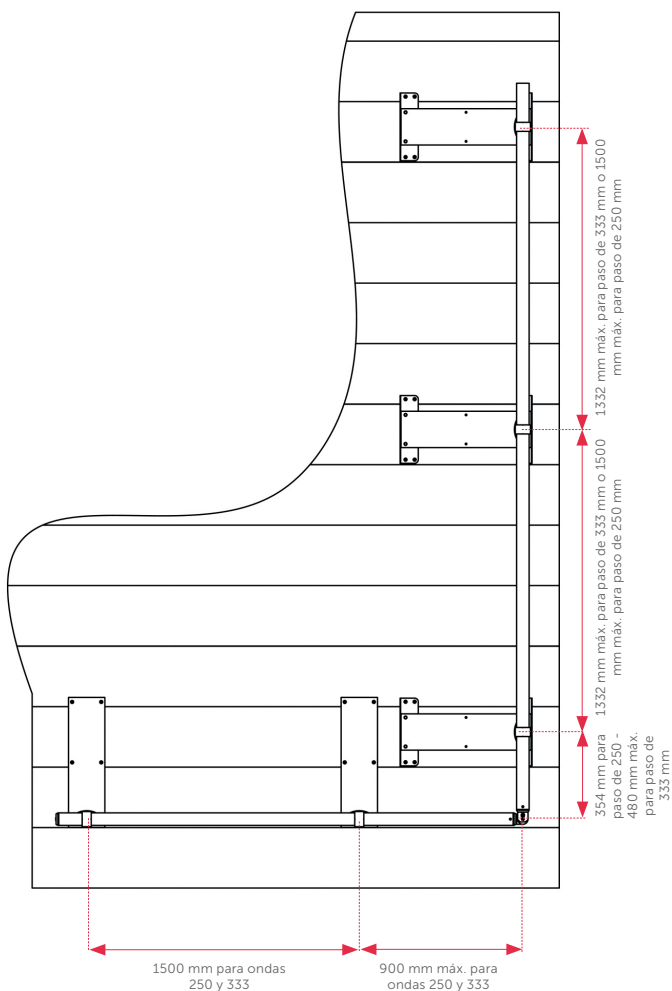
CÓDIGOS Y DIMENSIONES

GRUPO	CÓDIGO	descripción	unid.	
KIT CANCELAS DE SEGURIDAD	RBGGATE600	cancela de seguridad de 500 mm de altura con bisagras montadas L = 600 mm	1	
	RBGGATE1100	cancela de seguridad de 500 mm de altura con bisagras montadas L = 1100 mm	1	
	RBGGATEWISUP NEW	soporte para cancela montante inclinado	1	
MANUALES	RBGUARDHMAN	manual para GUARD H	1	
	RBGUARDVMAN	manual para GUARD V	1	
	RBGUARDMMAN	manual para GUARD M	1	
	RBGUARDZMAN	manual para GUARD Z	1	
	RBGUARDWMAN	manual para GUARD W	1	

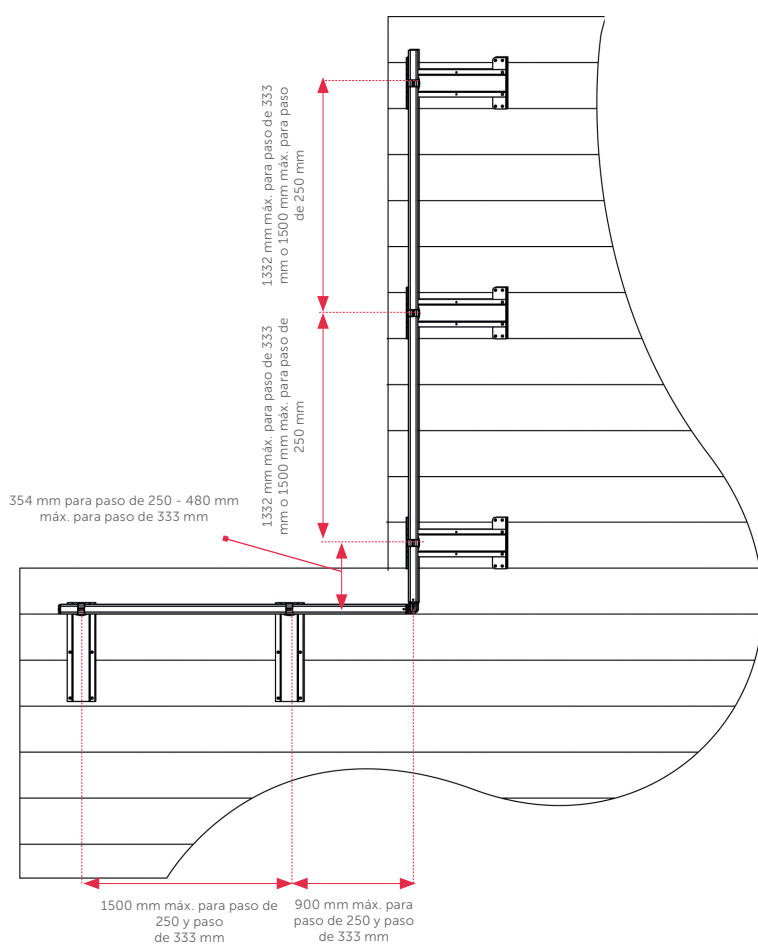
■ INSTALACIÓN DE LA BARANDA AUTOPORTANTE GUARD (EN 14122-3)



ÁNGULO INTERNO

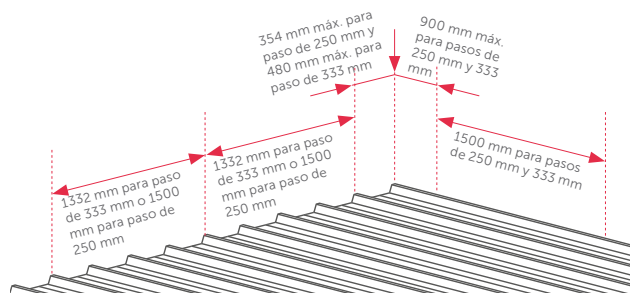


ÁNGULO EXTERNO

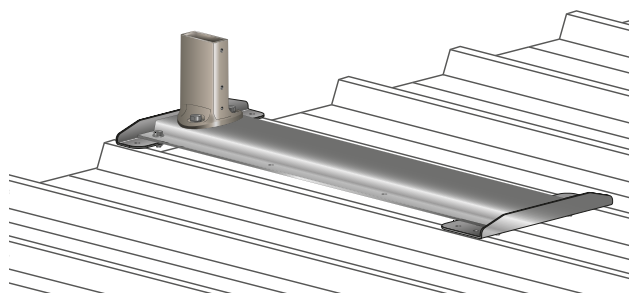


INSTALACIÓN DE LA BARANDA SOBRE CHAPA TRAPEZOIDAL

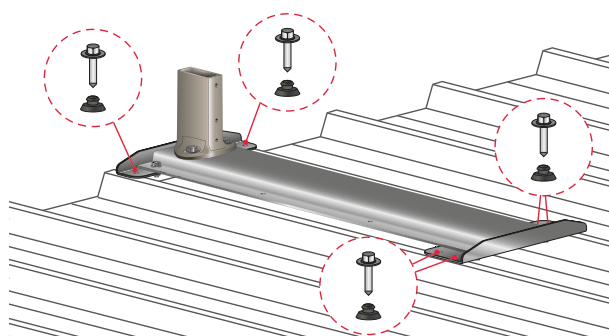
Para montar la baranda autoportante **GUARD** se necesitan al menos dos personas. Es mejor empezar la instalación por una esquina.



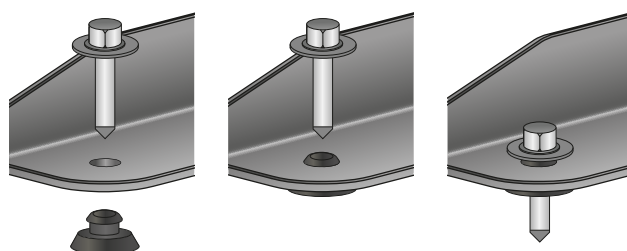
1 - Marcar la posición de las bases con una cuerda



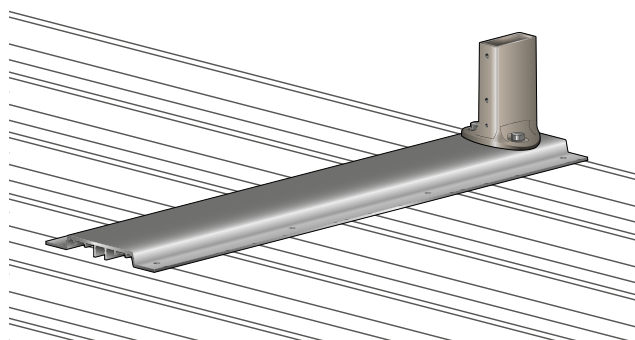
2 - Colocar las placas de montaje, con paso de 250 mm o 333 mm, para fijar la baranda a las chapas trapezoidales perpendicularmente a las ondas



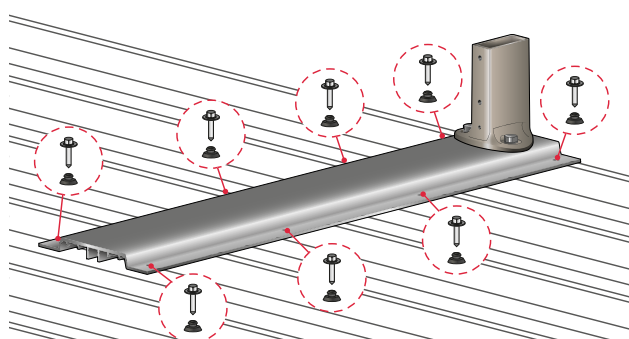
3 - Las bases con paso de 250 mm y 333 mm para fijar la baranda a las chapas trapezoidales se pueden fijar, perpendicularmente a las ondas, con 6 tornillos **RBGSCR627** y correspondientes arandelas cónicas



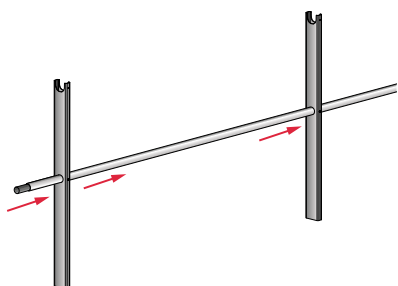
4 - Introducir la arandela cónica en el orificio de debajo la placa y enroscar bien el tornillo **RBGSCR627** contra la arandela de manera que la fijación quede bien sellada. Se aconseja utilizar el limitador de par **DB CONTROL 5 Nm** (cf. nomenclatura pág. 9) para garantizar las fijaciones.



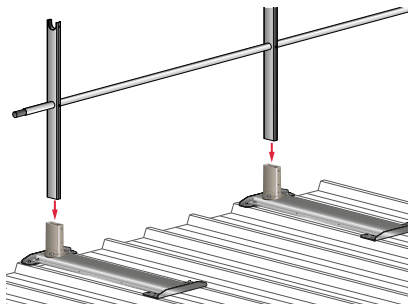
5 - Colocar las placas de montaje, con paso de 250 mm o 333 mm, para fijar la baranda a las chapas trapezoidales paralelamente a las ondas



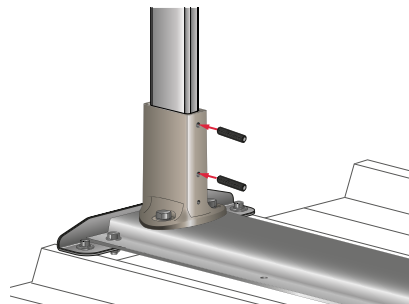
6 - **ATENCIÓN:** la base de la baranda sobre chapas trapezoidales con paso de 250 mm debe fijarse con 8 tornillos **RBGSCR627** (+arandelas cónicas) mientras que en chapas trapezoidales con paso de 333 mm debe fijarse con 6 tornillos **RBGSCR627**



7 - Colocar una barra intermedia entre dos montantes



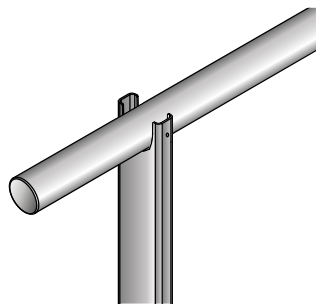
8 - Insertar los montantes en las bases



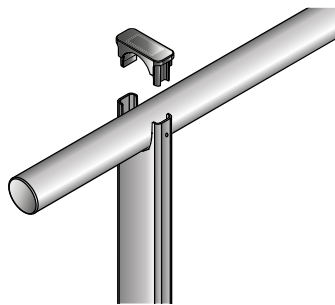
9 - Enroscar los tornillos prisioneros de cabeza hexagonal de las bases

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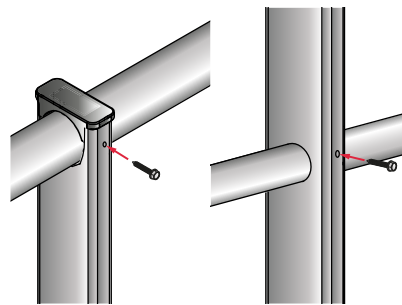
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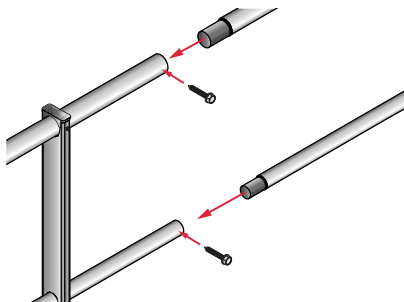
10 - Colocar el pasamanos en los montantes



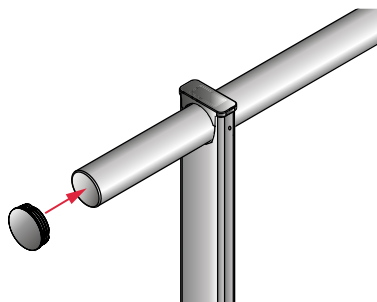
11 - Poner el tapón en la parte superior del montante



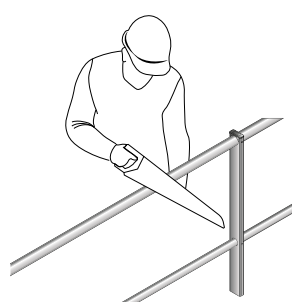
12 - Enroscar los tornillos auto perforantes 4,8 x 25 que fijan el pasamanos y la barra intermedia al montante



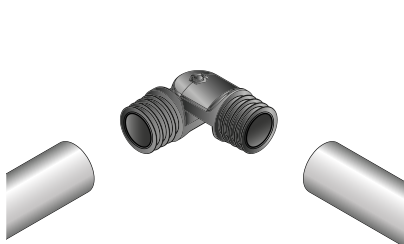
13 - Acoplar los pasamanos y las barras intermedias de las secciones montadas y fijarlos con tornillos 4,8x16



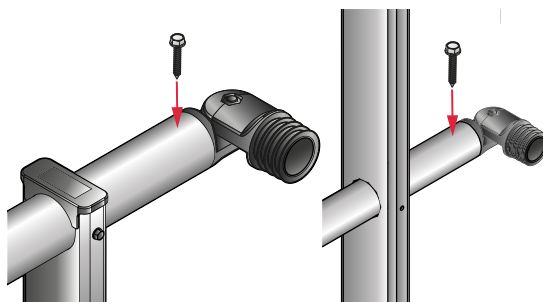
14 - Por último, poner los tapones o los elementos terminales de la pared en los pasamanos y barras intermedias



15 - Ajustar la última sección cortando la parte sobrante

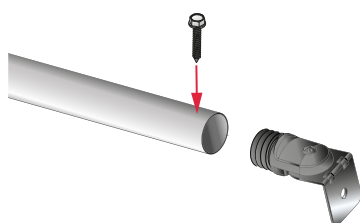


16 - Introducir los ángulos en los pasamanos y las barras intermedias

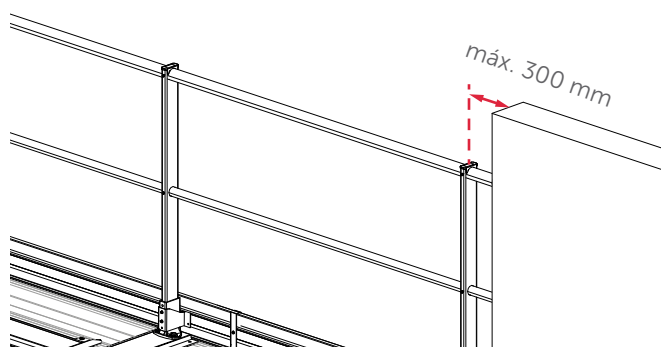


17 - Fijar los ángulos con tornillos auto perforantes 4,8 x 25

■ INSTALACIÓN DE LOS ELEMENTOS DE FIJACIÓN A LA PARED

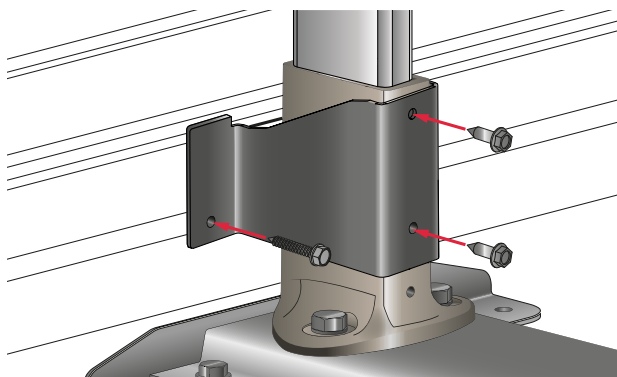


1 - Introducir los ángulos en los pasamanos y las barras intermedias

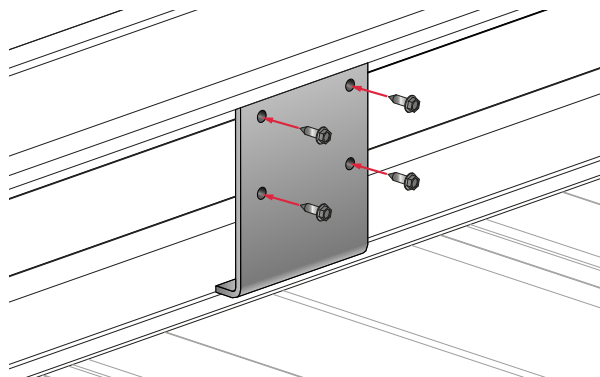


2 - Introducir los ángulos en los pasamanos y las barras intermedias

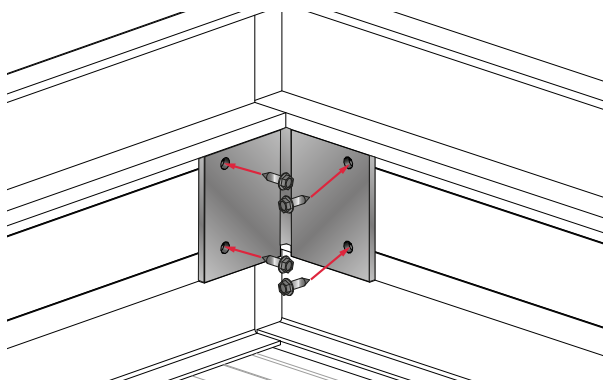
FIJACIÓN DEL RODAPIÉ



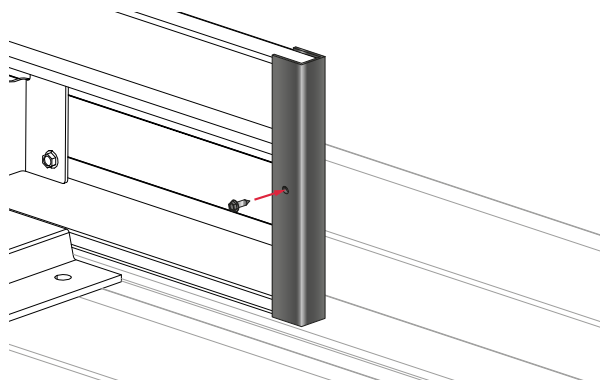
- 1 - Quitar los pernos de cabeza hexagonal M8x10 preensamblados en la base de fijación al suelo y colocar el soporte de montaje del rodapié a la placa de montaje. Luego, fijarlo con 2 tornillos autoperforantes 4,8 x 25 y fijar el rodapié al soporte con otros 2 tornillos autorroscantes 4,8 x 16 (1 en cada lado del soporte).



- 2 - Fijar los componentes del rodapié entre sí mediante los conectores y 4 tornillos autoperforantes 4,8 x 16



- 3 - Para los ángulos, fijar los conectores internos y externos con 8 tornillos autoperforantes 4,8 x 16.



- 3 - Por último, fijar los tapones de los rodapiés con 1 tornillo auto-perforante 4,8 x 16

MANUEL D'INSTALLATION

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DÉFINITION

Le garde-corps GUARD M est un système de protection collective antichute, conçu pour la protection des toitures métalliques avec une pente inférieure à 10°.

Cette solution est idéale pour être fixée sur des ondes en tôle nervurée (entraxe de 250 à 333 mm avec une épaisseur minimale de 63/100 - autres dimensions sur demande), sans découpe ni scellement ultérieur.

Le montage est simple et rapide, grâce aux différents éléments pré-assemblés et aux lisses supérieures et sous-lisses intermédiaires, qui s'emboîtent facilement.

RÉGLEMENTATIONS

Le garde-corps sur tôle nervurée GUARD est conforme à la norme européenne **EN ISO 14122-3** de mars 2017, Sécurité des machines - Moyens d'accès permanents aux machines - Partie 3 : Escaliers, échelles à marches et garde-corps, et à la norme NF E85-015 de juillet 2019, Éléments d'installation industriels - Moyens d'accès permanents.

Le garde-corps sur tôle nervurée GUARD est conforme aux exigences des normes **EN ISO 14122-3**.

RÉFÉRENCES RÉGLEMENTAIRES

- Un garde-corps doit être installé lorsque la hauteur de chute dépasse 2 m (vérifier la réglementation locale).
- La hauteur de la lisse supérieure du garde-corps doit être au moins 1 100 mm au-dessus de la surface de passage.
- L'espace libre entre la lisse et la sous-lisse intermédiaire et entre la sous-lisse et la plinthe ne doit pas pouvoir laisser passer une sphère de 500 mm de diamètre.
- Une plinthe d'une hauteur minimale de 100 mm doit être installée à une distance maximale de 12 mm de la zone de passage et du bord de la plate-forme.
- La distance entre les axes des montants doit être limitée à 1500 mm max. Toutefois, si cette distance est supérieure, une attention particulière doit être portée à la résistance de l'ancrage des montants et des dispositifs de fixation : veuillez consulter notre bureau d'études.
- Si la lisse supérieure est interrompue, l'espace libre entre deux sections doit être compris entre 75 mm et 120 mm. En présence d'une ouverture plus large, une porte pour piétons doit être prévue pour assurer la continuité de la sécurité antichute du garde-corps.
- Rabattable : une ligne de vie doit être installée avant de monter le garde-corps rabattable. Elle sera également utilisée lors de sa mise en place et de sa entretien.

UTILISATION - ENTRETIEN

- L'installateur qui installe le garde-corps GUARD doit être une personne qualifiée respectant les règles pratiques relatives aux travaux en hauteur. Il doit donc s'assurer de sa sécurité (utilisation d'une ligne de vie temporaire, EPI, nacelle, etc...)
- Avant l'utilisation, l'utilisateur doit s'assurer à travers un contrôle visuel que le garde-corps GUARD ne présente aucune anomalie (choc, déformation, corrosion...)
- Le garde-corps GUARD n'exige aucun entretien particulier, toutefois un contrôle visuel doit être effectué au moins une fois par an, par une personne autorisée.
- Si le garde-corps GUARD est mal installé, endommagé ou s'il a permis d'arrêter une chute, son utilisation doit être immédiatement interrompue. Une personne autorisée doit alors le vérifier et confirmer sa restitution par écrit.
- Si le produit est revendu hors du premier pays de destination, il est essentiel, pour la sécurité de l'utilisateur, que le revendeur fournisse le manuel technique dans la langue du pays d'utilisation du produit. Ces documents pourront être fournis sur demande en contactant le fabricant.
- Le garde-corps GUARD est une protection collective permanente qui doit être utilisée par des professionnels sur une terrasse non accessible au public.
- L'utilisation d'une plinthe garde-pieds GUARD est obligatoire si la terrasse n'a pas de muret périmétrique ou si le muret est inférieur à 100 mm.
- Si le garde-corps GUARD est installé dans un milieu pollué industriel, pétrochimique, naval, ou en bord de mer, il devra nécessairement être soumis à un traitement de surface approprié comme le revêtement par poudre, anodisation, etc.
- Chaque section doit être composée de 2 montants au minimum.
- Pour garantir la conformité de l'installation, celle-ci doit être réalisée selon un plan élaboré par notre configurateur ou notre bureau d'études.

STOCKAGE

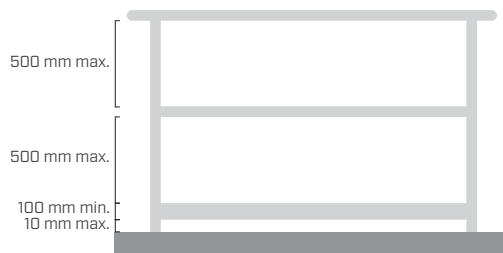
- Les composants en aluminium brut sont conditionnés en contact les uns avec les autres.
- L'action de la pluie sur les paquets non emballés favorisera l'oxydation de ces composants. Des taches peuvent donc apparaître à la surface. Celles-ci ne mettent pas en cause la qualité de l'aluminium mais peuvent nuire à l'aspect esthétique du garde-corps.
- Il est conseillé de déballer les paquets et de conserver les composants séparés les uns des autres (aucun contact entre eux), ou de conserver les paquets encore emballés dans un endroit sec.

GARDE-CORPS SANS PLINTHE GARDE-PIEDS



avec bord supérieur de 150 mm

GARDE-CORPS AVEC PLINTHE GARDE-PIEDS



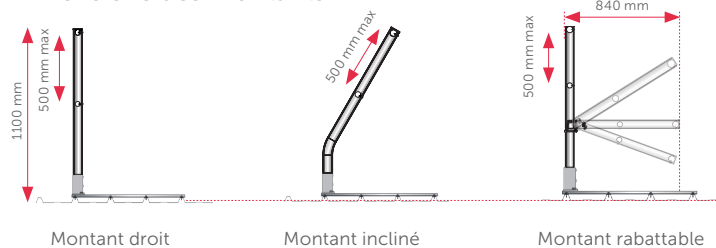
sans bord ou inférieur à 150 mm

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DIMENSIONS

Dimensions des montants :



Montant droit

Montant incliné

Montant rabattable

MONTAGE OPTIMISÉ

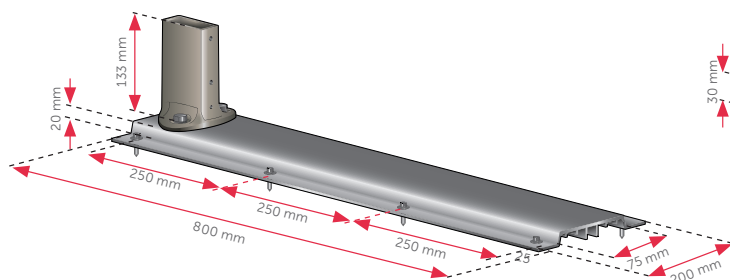
- Nouveaux angles (plastique et ALU) pour lisse ronde ;
- Nouveau bouchon pour lisse ronde ;
- Montants : fente dans la partie supérieure pour recevoir la lisse + trous pré-perçés pour faciliter le montage de la lisse et de la sous-lisse.



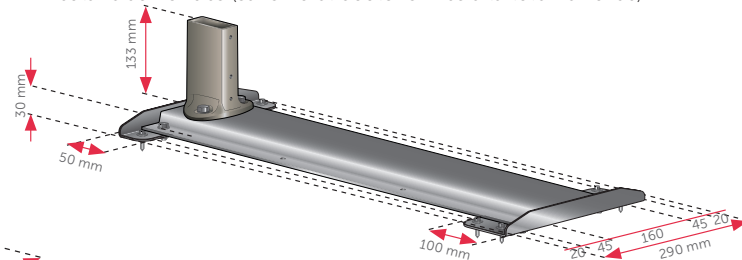
DIMENSIONS DE LA BASE

Pour une fixation sur ondes de tôle nervurée avec entraxe de 250 mm.

Base onde 250 mm pour garde-corps sur tôle nervurée parallèle aux ondes (sans vis et boulons fixés à la tôle nervurée)

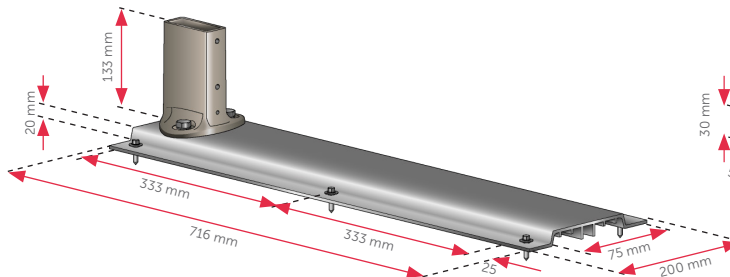


Base onde 250 mm pour garde-corps sur tôle nervurée perpendiculaire aux ondes (sans vis et boulons fixés à la tôle nervurée)

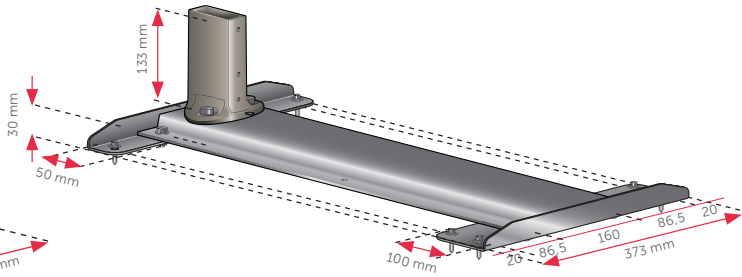


Pour une fixation sur tôle nervurée avec pas 333 mm.

Base onde 333 mm pour garde-corps sur tôle nervurée parallèle aux ondes (sans vis et boulons fixés à la tôle nervurée)

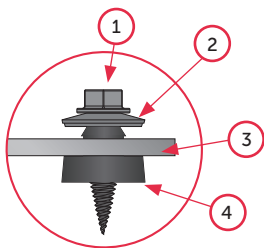


Base onde 333 mm pour garde-corps sur tôle nervurée perpendiculaire aux ondes (sans vis et boulons fixés à la tôle nervurée)



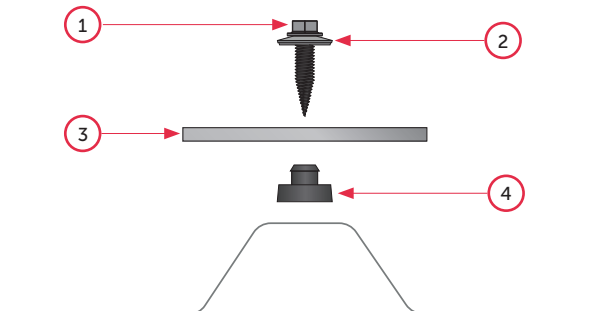
PRINCIPE DE FIXATION

Le garde-corps sur tôle nervurée est fixé avec des vis **RBGSCR627**, des rondelles d'étanchéité et des rondelles cuvette pour garantir l'imperméabilisation.

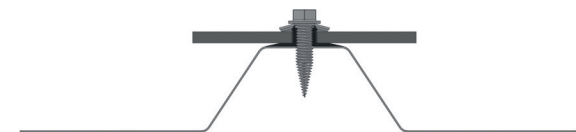


- 1 - Vis **RBGSCR627**
- 2 - Rondelle d'étanchéité
- 3 - Plaque de fixation
- 4 - Rondelle cuvette d'étanchéité

AVANT LA FIXATION



APRÈS LA FIXATION



LA VIS RBGSCR627

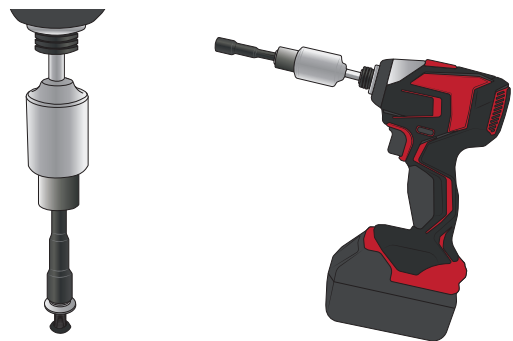
Contrairement à une vis autoforeuse standard avec laquelle la matière percée est évacuée en copeaux, la vis **RBGSCR627** rejette la matière vers l'intérieur, formant une cale qui augmente la longueur d'implantation. La valeur limite de couple de serrage de la vis **RBGSCR627** est élevée même sur des épaisseurs réduites (> 5 N.m contre une moyenne de 1,5 N.m pour les vis autoforeuses conventionnelles).

Résistances des caractéristiques d'assemblage de RBGSCR627	Tôle S320 épaisseur 0,63 mm	Tôle S320 épaisseur 0,75 mm
Valeur PK en coupe avec 1 vis RBGSCR627 (en DaN)	219	286
Valeur PK au retrait avec 1 vis RBGSCR627 (en DaN)	142	187
Charge limite au retrait de la plaque avec 8 vis RBGSCR627 (en DaN)	721	921

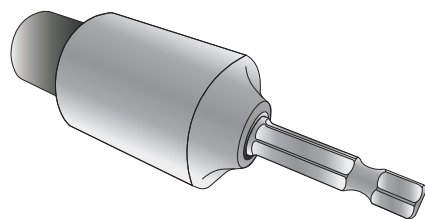
FIXATION AVEC VIS RBGSCR627 + RONDELLE

Ondes	Configuration du garde-corps	Quantité
250 mm	Parallèle aux ondes	8 vis
	Perpendiculaire aux ondes	
333 mm	Parallèle aux ondes	6 vis
	Perpendiculaire aux ondes	

OPTION



LE LIMITEUR DE COUPLE DB CONTROL 5 Nm



Pour une fixation optimale sur tôle nervurée

L'utilisation de limiteur de couple est conseillée pour respecter le couple de serrage. Spécialement adapté au couple de serrage de 5 Nm qui caractérise la vis **RBGSCR627**, la fixation sur tôle nervurée est plus sûre.

Le limiteur de couple **DB CONTROL 5 Nm** + vis **RBGSCR627** avec rondelle d'étanchéité et rondelle cuvette optimise l'imperméabilisation et rend l'installation simple et rapide :

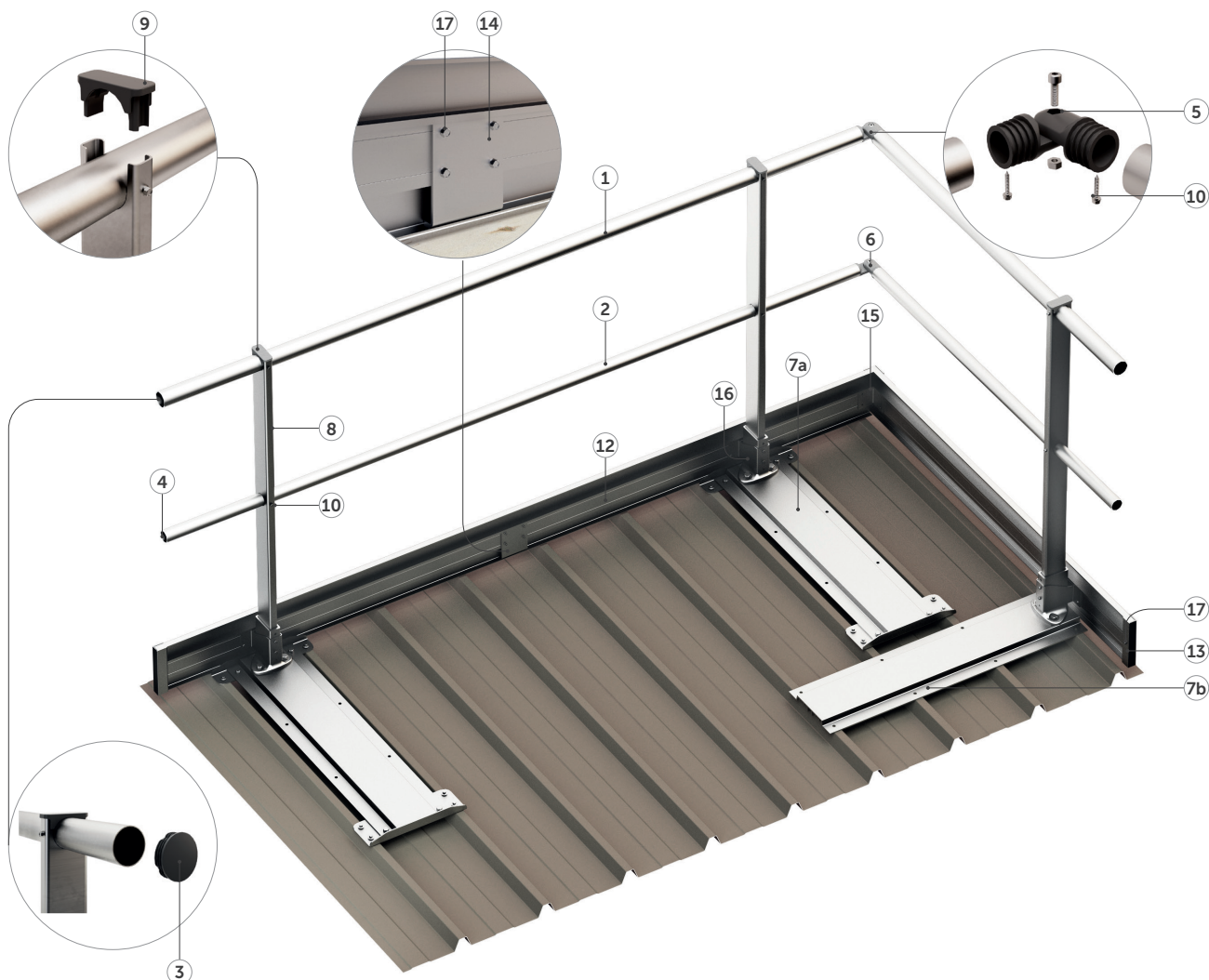
- 1 rivet = 3 opérations (perçage, imperméabilisation et serrage)
- 1 vis autoforeuse = 1 opération de vissage

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GUARD M

GARDE-CORPS FIXATION SUR TÔLE BAC ACIER



CODE	description
1 RBGBAR45	lisse Ø45 mm avec bagues encastrables L = 3000 mm
2 RBGBAR35	sous-lisse Ø35 mm avec bagues encastrables L = 3000 mm
3 RBGCAP45	bouchon pour lisse Ø45 mm
4 RBGCAP35	bouchon pour sous-lisse Ø35 mm
5 RBGCOR45	angle pour lisse Ø45 mm
6 RBGCOR35	angle pour sous-lisse Ø35 mm
5-6 RBGCORAL	coin en aluminium pour lisse et sous-lisse (alternatif à RBGCOR45/ RBGCOR35)
7a RBGBASE250PE	plaque pour fixation sur tôle bac acier pas 250 mm, GUARD perpendiculaire aux nervures (sans vis)
RBGBASE333PE	plaque pour fixation sur tôle bac acier pas 333 mm, GUARD perpendiculaire aux nervures (sans vis)
7b RBGBASE250PA	plaque pour fixation sur tôle bac acier pas 250 mm, GUARD parallèle aux nervures (sans vis)
RBGBASE333PA	plaque pour fixation sur tôle bac acier pas 333 mm, GUARD parallèle aux nervures (sans vis)
RBGSUP110	montant droit H = 1105 mm cavité Ø45 mm
8 RBGSUP118	montant droit H = 1182 mm cavité Ø45 mm
RBGSUP115II	montant incliné H = 1157 mm cavité Ø45 mm

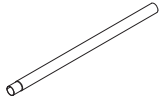
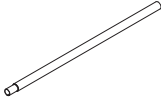
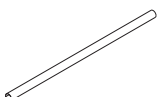
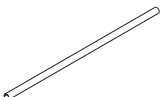
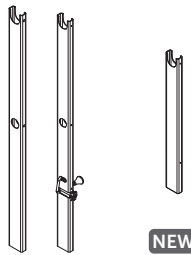
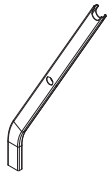
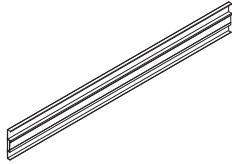
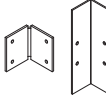
CODE	description
9 RBGCAP	bouchon montant 68 x 28 mm cavité Ø45 mm
10 RBGSCR4825	vis autoforeuses 4,8 x 25 mm INOX
11 RBGSCR810	vis sans tête M8 x 10 mm incluse dans la base
12 RBGTB	plinthe garde-pieds 3000 x 150 x 19 mm
13 RBGTBCAP	bouchon pour plinthe garde-pieds H = 150 mm
14 RBGTBJUN	raccord droit pour plinthe garde-pieds H = 150 mm
15 RBGTBCOR	jonction d'angle pour plinthe garde-pieds H = 150 mm
16 RBGTBH	support pour plinthe garde-pieds H = 150 mm
17 RBGSCR4816	vis autoforeuses 4,8 x 16 mm INOX

Pour fixation murale :

RBGWALL45	élément terminal pour lisse Ø45 mm
RBGWALL35	élément terminal pour sous-lisse ronde Ø35 mm
RBGWALLAL	élément terminal en aluminium pour lisse et sous-lisse

GUARD | composants

CODES ET DIMENSIONS

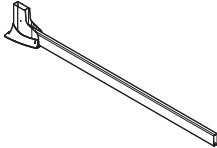
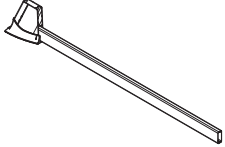
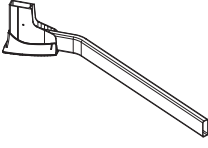
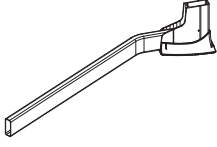
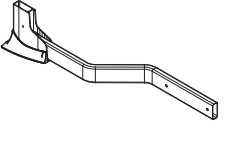
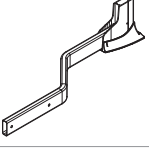
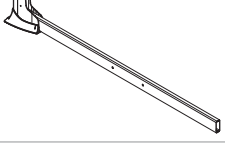
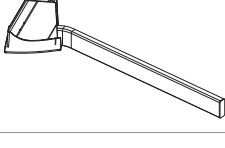
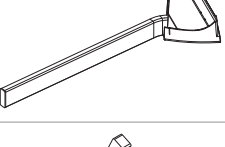
GROUPE	CODE	description	pcs.	
LISSES ET SOUS-LISSES	RBGBAR45	lisse Ø45 mm avec bagues encastrables L = 3000 mm	1	
	RBGBAR35	sous-lisse Ø35 mm avec bagues encastrables L = 3000 mm	1	
	RBGBAR45F	lisse sans bagues encastrables Ø45 mm L = 3000 mm	1	
	RBGBAR35F	sous-lisse sans bagues encastrables Ø35 mm L = 3000 mm	1	
	RBGCAP	bouchon montant 68 x 28 mm cavité Ø45 mm	1	
MONTANTS	RBGSUP100	montant droit H = 1028 mm cavité Ø45 mm	1	
	RBGSUP110	montant droit H = 1105 mm cavité Ø45 mm	1	
	RBGSUP118	montant droit H = 1182 mm cavité Ø45 mm	1	
	RBGSUP110F	montant rabattable H = 1105 mm cavité Ø45 mm	1	
	RBGSUP100F	montant rabattable H = 1010 mm cavité Ø45 mm	1	
	RBGSUP130	montant droit H = 1300 mm cavité Ø45 mm	1	
	RBGSUP760WH NEW	montant droit hauteur 760 mm sans sous-lisse intermédiaire	1	
	RBGSUP115I	montant incliné H = 1157 mm cavité Ø45 mm	1	
PLINTHE GARDE-PIEDS ET ACCESSOIRES	RBGTB	plinthe garde-pieds 3000 x 150 x 19 mm	1	
	RBGTBJUN	raccord droit pour plinthe garde-pieds H = 150 mm	1	
	RBGTBCOR	jonction d'angle pour plinthe garde-pieds H = 150 mm	1	
	RBGTBCAP	bouchon pour plinthe garde-pieds H = 150 mm	1	
	RBGTBW	support pour plinthe garde-pieds H = 150 mm pour GUARD W	1	
	RBGTBH	support pour plinthe garde-pieds H = 150 mm	1	

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CODES ET DIMENSIONS

GROUPE	CODE	description	pcs.	
BASES STANDARDS	RBGBASEW	base pour autoportant GUARD W droite avec pied d'appui	1	
	RBGBASEWI	base pour autoportant GUARD W inclinée avec pied d'appui	1	
	RBGBASEWFCR	pied d'appui courbé à droite à 25° pour angle	1	
	RBGBASEWFCL	pied d'appui courbé à gauche à 25° pour angle	1	
	RBGBASEWFR	pied d'appui avec coude à droite pour garde-corps rabattable	1	
	RBGBASEWFL	pied d'appui avec coude à gauche pour garde-corps rabattable	1	
	RBGBASEWF	base pour autoportant GUARD W avec trous	1	
	RBGBASEWIFCR NEW	pied d'appui pour montant incliné courbé à droite 25 °	1	
	RBGBASEWIFCL NEW	pied d'appui pour montant incliné courbé à gauche 25 °	1	
	RBGBASEWE	cale de blocage pour GUARD W (pièce de rechange)	1	
	RBGWEIGHT	contre-poids en plastique 12,5 kg pour GUARD W	3	
	RBGBASEV	plaque de base fixation murale GUARD V	1	

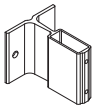
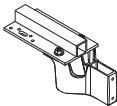
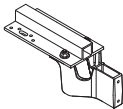
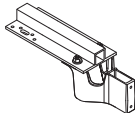
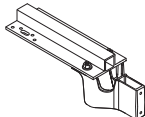
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CODES ET DIMENSIONS

GROUPE	CODE	description	pcs.	
BASES STANDARDS	RBGBASEVD	plaque de base fixation murale saillante GUARD VD	1	
	RBGDIST	élément espaceur GUARD V-VD + 35 mm	1	
	RBGBASEH	plaque de base fixation horizontale peinte en gris GUARD H	1	
	RBGBASEZ	base Z aluminium standard pour mur périmétrique sans isolant GUARD Z	1	
	RBGBASEZ70 NEW	base GUARD Z avec isolant épaisseur 70 mm	1	
	RBGBASEZ100 NEW	base GUARD Z avec isolant épaisseur 100 mm	1	
	RBGBASEZ130 NEW	base GUARD Z avec isolant épaisseur 130 mm	1	
	RBGBASEZ160 NEW	base GUARD Z avec isolant épaisseur 160 mm	1	

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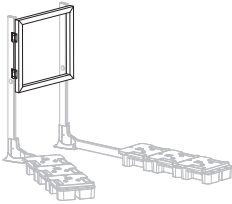
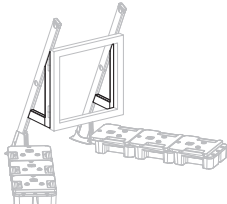
CODES ET DIMENSIONS

GROUPE	CODE	description	pcs.	
BASES POUR FIXATION SUR TÔLE BAC ACIER	RBGBASE250PA	plaque pour fixation sur tôle bac acier pas 250 mm, GUARD parallèle aux nervures (sans vis)	1	
	RBGBASE333PA	plaque pour fixation sur tôle bac acier pas 333 mm, GUARD parallèle aux nervures (sans vis)	1	
	RBGBASE250PE	plaque pour fixation sur tôle bac acier pas 250 mm, GUARD perpendiculaire aux nervures (sans vis)	1	
	RBGBASE333PE	plaque pour fixation sur tôle bac acier pas 333 mm, GUARD perpendiculaire aux nervures (sans vis)	1	
ACCESSOIRES	RBGCAP45	bouchon pour lisse Ø45 mm	1	
	RBGCAP35	bouchon pour sous-lisse Ø35 mm	1	
	RBGCOR45	angle pour lisse Ø45 mm	1	
	RBGCOR35	angle pour sous-lisse Ø35 mm	1	
	RBGWALL45	élément terminal pour lisse Ø45 mm	1	
	RBGWALL35	élément terminal pour sous-lisse Ø35 mm	1	
	RBGCORAL	coin en aluminium pour lisse	1	
	RBGWALLAL	élément terminal en aluminium pour lisse	1	
	RBGBASEHKIT	kit d'imperméabilisation pour base GUARD H	1	
	RBGWEDGE	coin de calage en plastique	1	
VIS DE FIXATION	RBGSCR4816	vis autoforeuses 4,8 x 16 mm INOX	25	
	RBGSCR4825	vis autoforeuses 4,8 x 25 mm INOX	25	
	RBGSCR4832	vis autoforeuses 4,8 x 32 mm INOX	25	
	RBGSCR4850	vis autoforeuses 4,8 x 50 mm INOX	25	
	RBGSCR627	vis autoforeuse pour tôle INOX 6 x 27 mm	25	
	RBGSCR810	vis sans tête M8 x 10 (pièce de rechange)	10	
	RBGSCRWAS	rondelle d'étanchéité	25	
	RBGBASEWFKIT NEW	kit pour union RBGBASEWF et RBGBASEWFR / RBGBASEWFL	-	

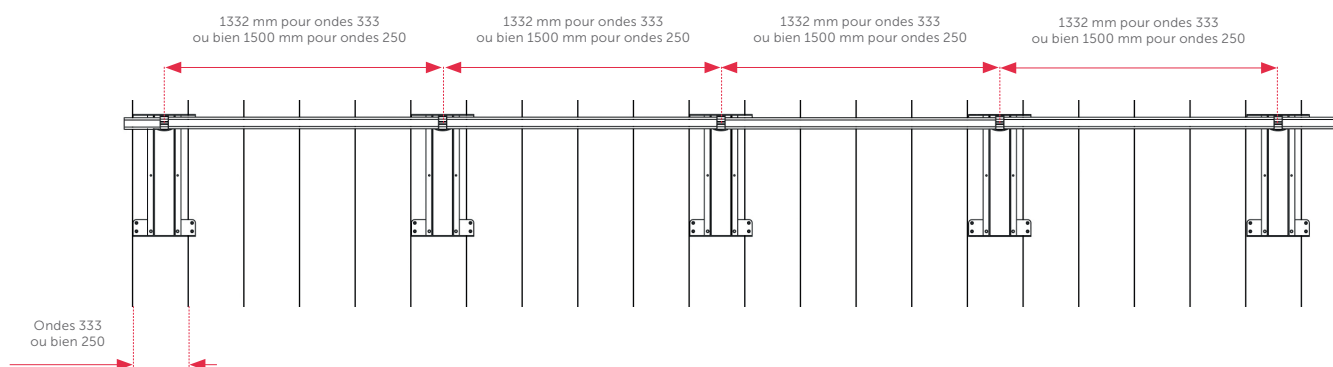
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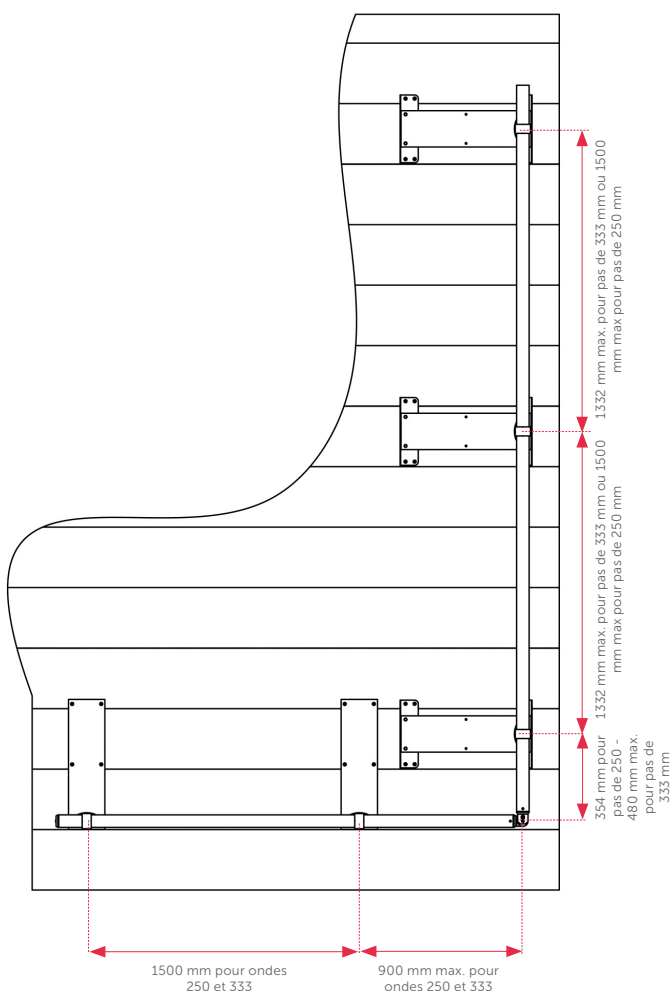
CODES ET DIMENSIONS

GROUPE	CODE	description	pcs.	
KIT PORTAILS DE SÉCURITÉ	RBGGATE600	porte de sécurité 500 mm de hauteur avec charnières montées L = 600 mm	1	
	RBGGATE1100	porte de sécurité 500 mm de hauteur avec charnières largeur L = 1100 mm	1	
	RBGGATEWISUP NEW	support pour portillon montant incliné	1	
MANUELS	RBGUARDHMAN	manuel pour GUARD H	1	
	RBGUARDVMAN	manuel pour GUARD V	1	
	RBGUARDMMAN	manuel pour GUARD M	1	
	RBGUARDZMAN	manuel pour GUARD Z	1	
	RBGUARDWMAN	manuel pour GUARD W	1	

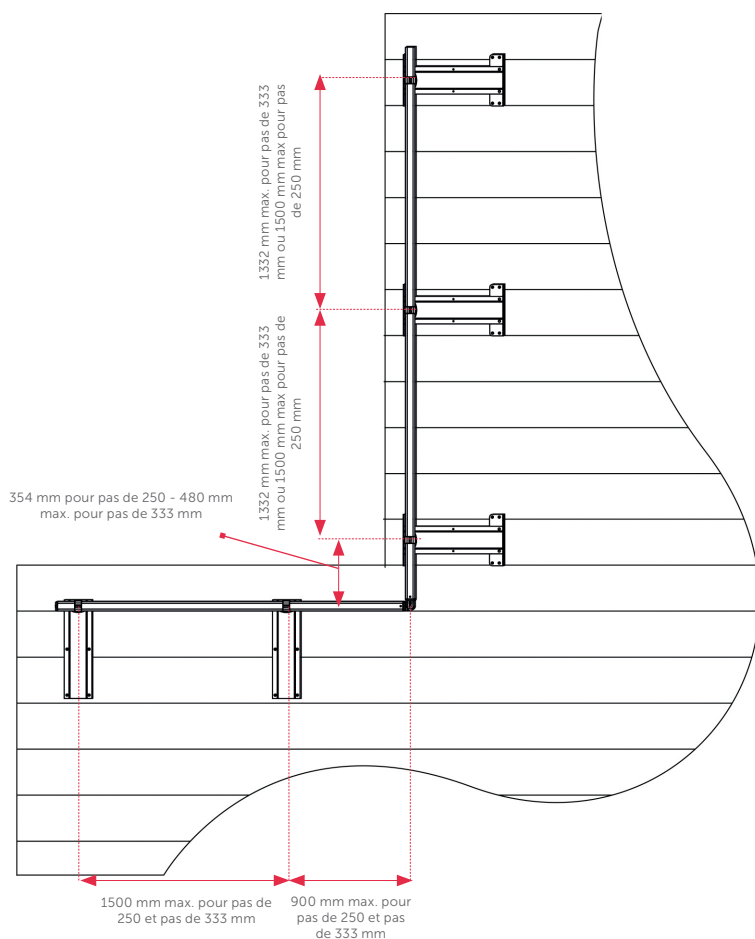
SYSTÈME DU GARDE-CORPS AUTOPORTANT GUARD (EN 14122-3)



ANGLE INTERNE

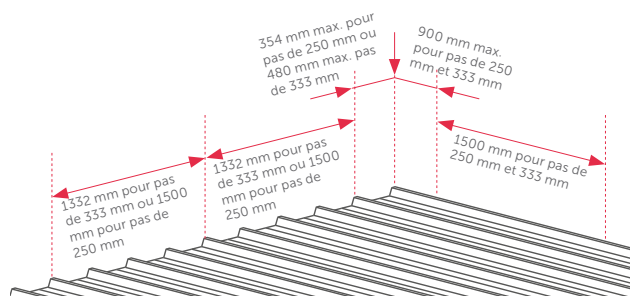


ANGLE EXTERNE

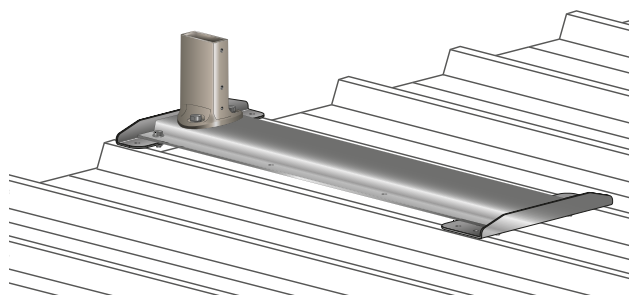


INSTALLATION DU GARDE-CORPS SUR TÔLE NERVURÉE

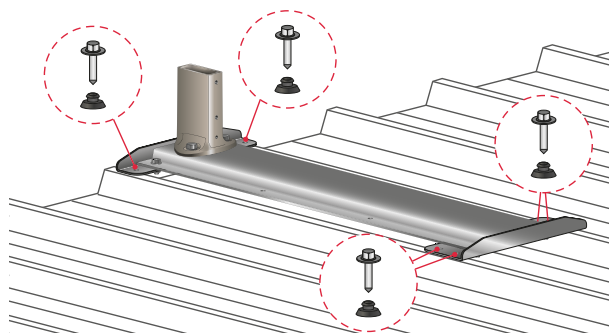
Le montage du garde-corps autoportant GUARD exige la présence d'au moins deux personnes. Il est préférable de commencer l'installation dans un angle.



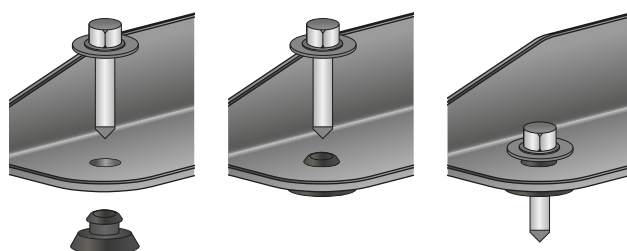
1 - Réaliser les marquages avec une ficelle pour l'emplacement des bases



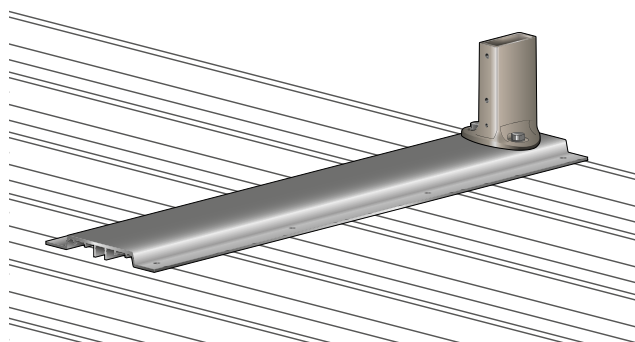
2 - Positionner les plaques de montage, pas 250 mm ou pas 333 mm, pour garde-corps avec fixation sur tôle nervurée perpendiculaire aux ondes



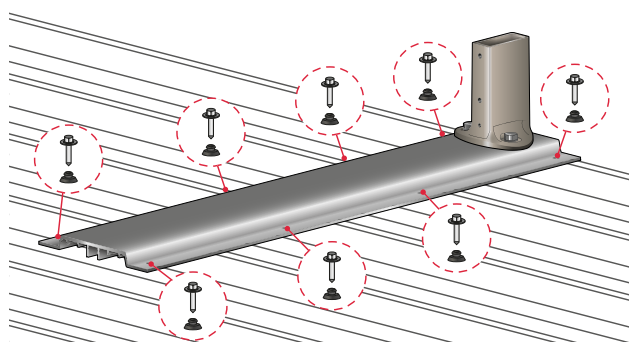
3 - Les bases avec pas de 250 mm et 333 mm pour garde-corps sur tôle nervurée peuvent être fixées, perpendiculairement aux ondes, avec 6 vis **RBGSCR627** avec rondelles cuvette



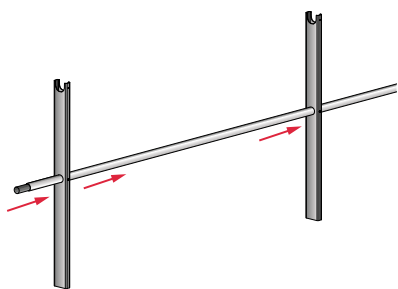
4 - Insérer la rondelle cuvette dans le trou situé sous la plaque, puis visser fermement la vis **RBGSCR627** contre la rondelle de manière à ce que la fixation soit complètement scellée. Il est conseillé d'utiliser le limiteur de couple **DB CONTROL 5 Nm** (cf nomenclature page 9) pour garantir vos fixations.



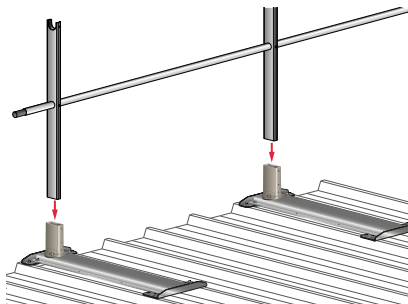
5 - Positionner les plaques de montage, pas 250 mm ou pas 333 mm, pour garde-corps avec fixation sur tôle nervurée parallèlement aux ondes



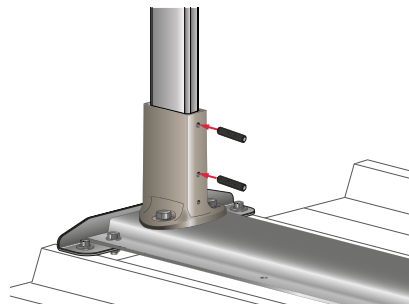
6 - ATTENTION : la base garde-corps sur tôle nervurée 250 mm se fixe avec 8 vis **RBGSCR627** (+rondelles cuvette), la base garde-corps sur tôle nervurée 333 mm se fixe avec 6 vis **RBGSCR627**



7 - Insérer une sous-lisse dans 2 montants



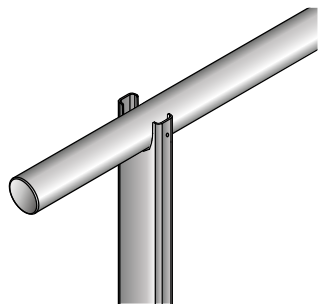
8 - Insérer les montants dans les bases



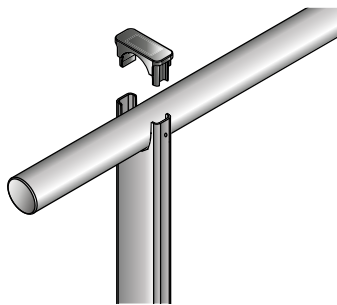
9 - Visser les vis à tête hexagonale des bases

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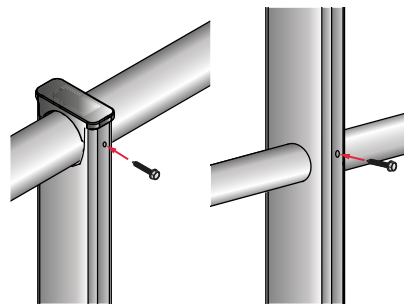
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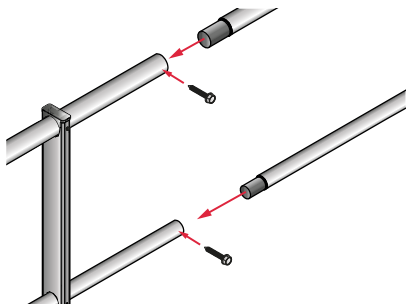
10 - Insérer la lisse sur les montants



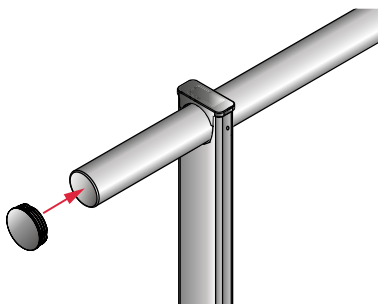
11 - Clipser la partie supérieure du montant



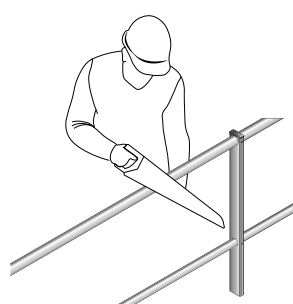
12 - Visser les vis autoforeuses 4,8 x 25 sur le montant au niveau de la lisse et de la sous-lisse



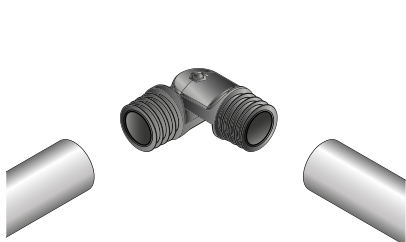
13 - Assembler les lisses et les sous-lisses des sections montées avec des vis 4,8x16



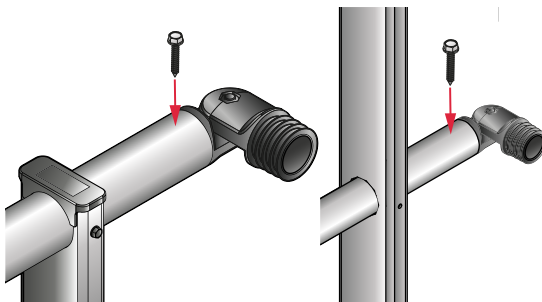
14 - Puis insérer des bouchons ou des éléments terminaux sur lisses et sous-lisses intermédiaires



15 - Régler la dernière section en coupant l'excédent

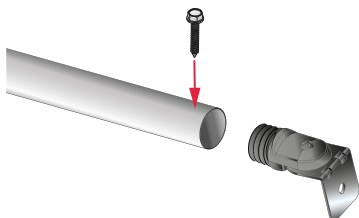


16 - Insérer les angles des lisses et des sous-lisses

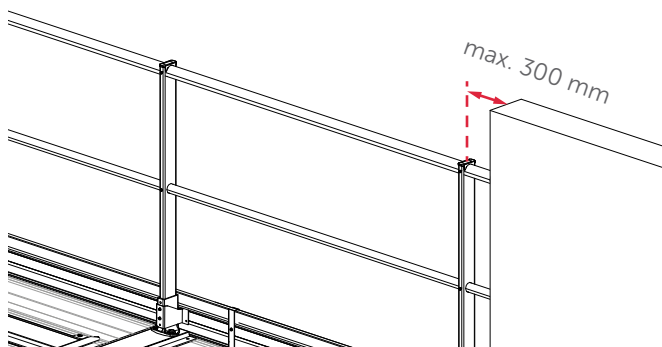


17 - Fixer les angles avec des vis autoforeuses 4,8 x 25

■ INSTALLATION DES ÉLÉMENTS DE FIXATION MURAUX

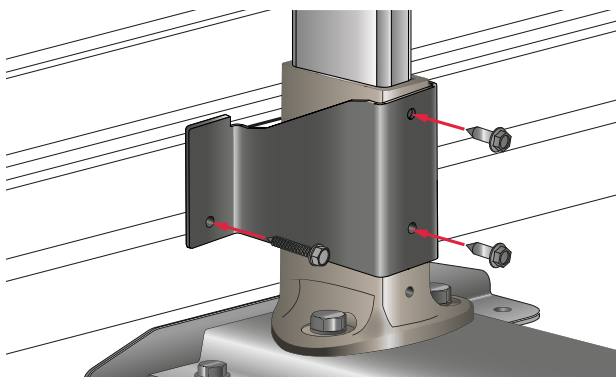


1 - Insérer les angles des lisses et des sous-lisses

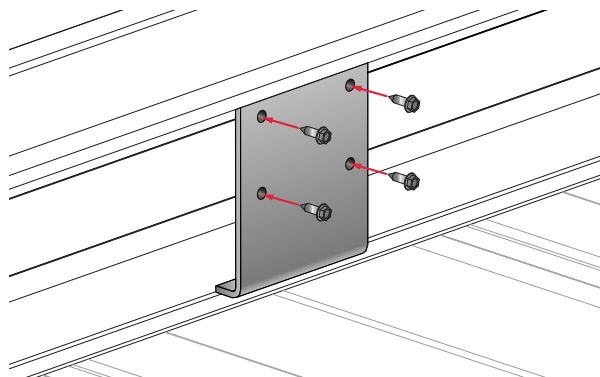


2 - Insérer les angles des lisses et des sous-lisses

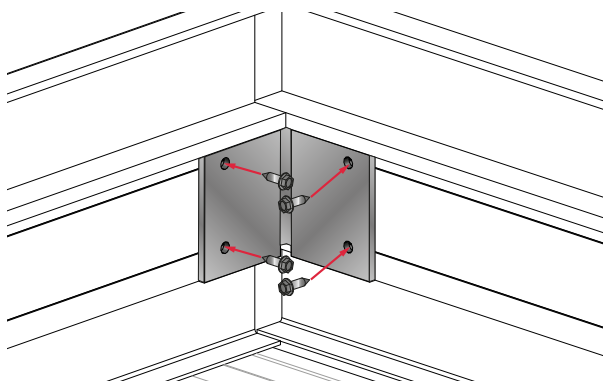
■ FIXATION DE L'AXE DE LA PLINTHE



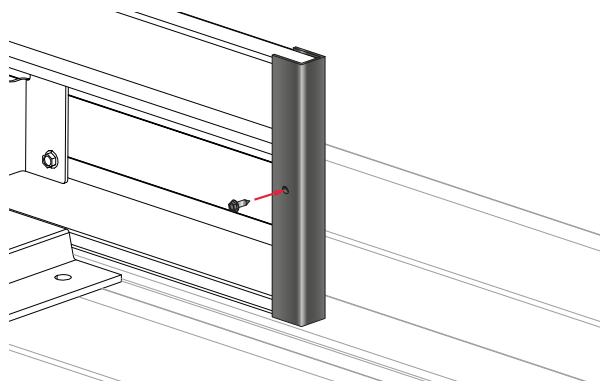
- 1** - Retirer les vis à tête hexagonale M8x10 pré-assemblées sur la base de fixation au sol et positionner le support de montage de l'axe garde-pieds sur la plaque de montage. Puis le fixer avec 2 vis autoforeuse 4,8 x 25, et fixer l'axe garde-pieds sur le support avec 2 autres vis autoforeuses 4,8 x 16 (1 sur chaque côté du support).



- 2** - Fixer les composants de la plinthe garde-pieds entre eux avec les connecteurs et 4 vis autoforeuses 4,8 x 16



- 3** - Pour les angles, fixer les connecteurs internes et externes avec 8 vis autoforeuses 4,8 x 16



- 3** - Enfin, fixer les bouchons de la plinthe avec 1 vis autoforeuse 4,8 x 16



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