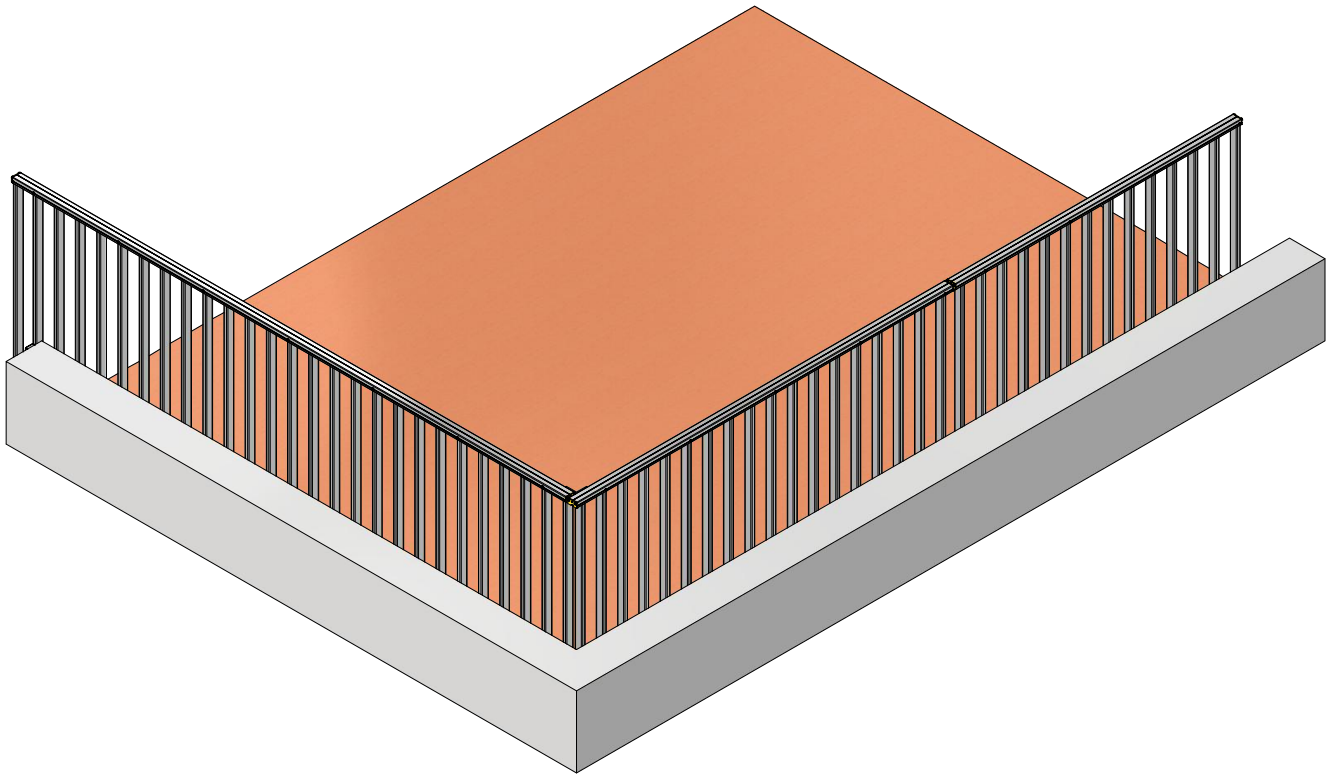


BALCONY RAILING

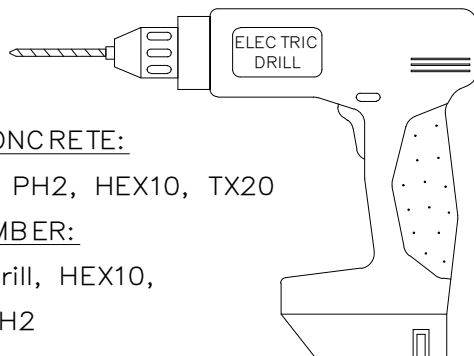
MOLDE PARAPET MOUNTED

INSTALLATION MANUAL



INNOR 

NECESSARY AND ADDITIONAL HELPFUL ITEMS FOR INSTALLATION:



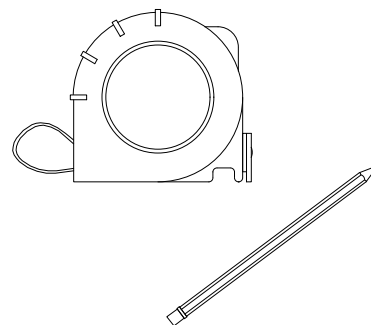
Drillbits for CONCRETE:

SDS plus M10, PH2, HEX10, TX20

Drillbits for TIMBER:

Ø6mm wood drill, HEX10,

TX40, TX20, PH2

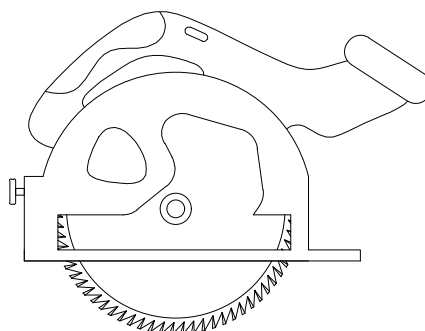


Measuring tape & pencil

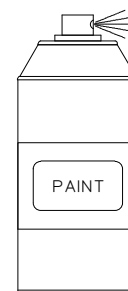
Electric drill for TIMBER
Hammer drill for CONCRETE



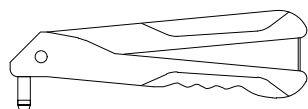
Soapy water spray
(Optional)



Angular saw
cold cut



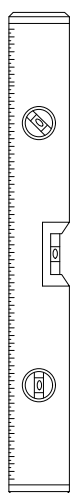
Repair paint
(Optional)



Riveting pliers



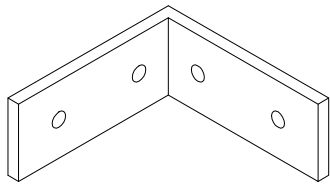
CAUTION



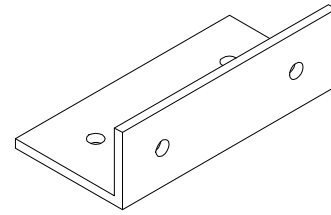
Level

- **READ THE WHOLE INSTALLATION MANUAL BEFORE STARTING.**
- Handle all parts with care – aluminium frames can bend or scratch easily.
- Railings are powder coated, paint can be damaged if profiles are left on uneven surfaces and not handled properly.
- Balcony railing installations have to follow the requirements set by a country's legislation. Innore takes no responsibility of damage and casualties that have occurred due to non-compliant installation.
- Do not install during windy weather conditions.
- Safety is number one priority when dealing with heights, always use personal protective equipment.

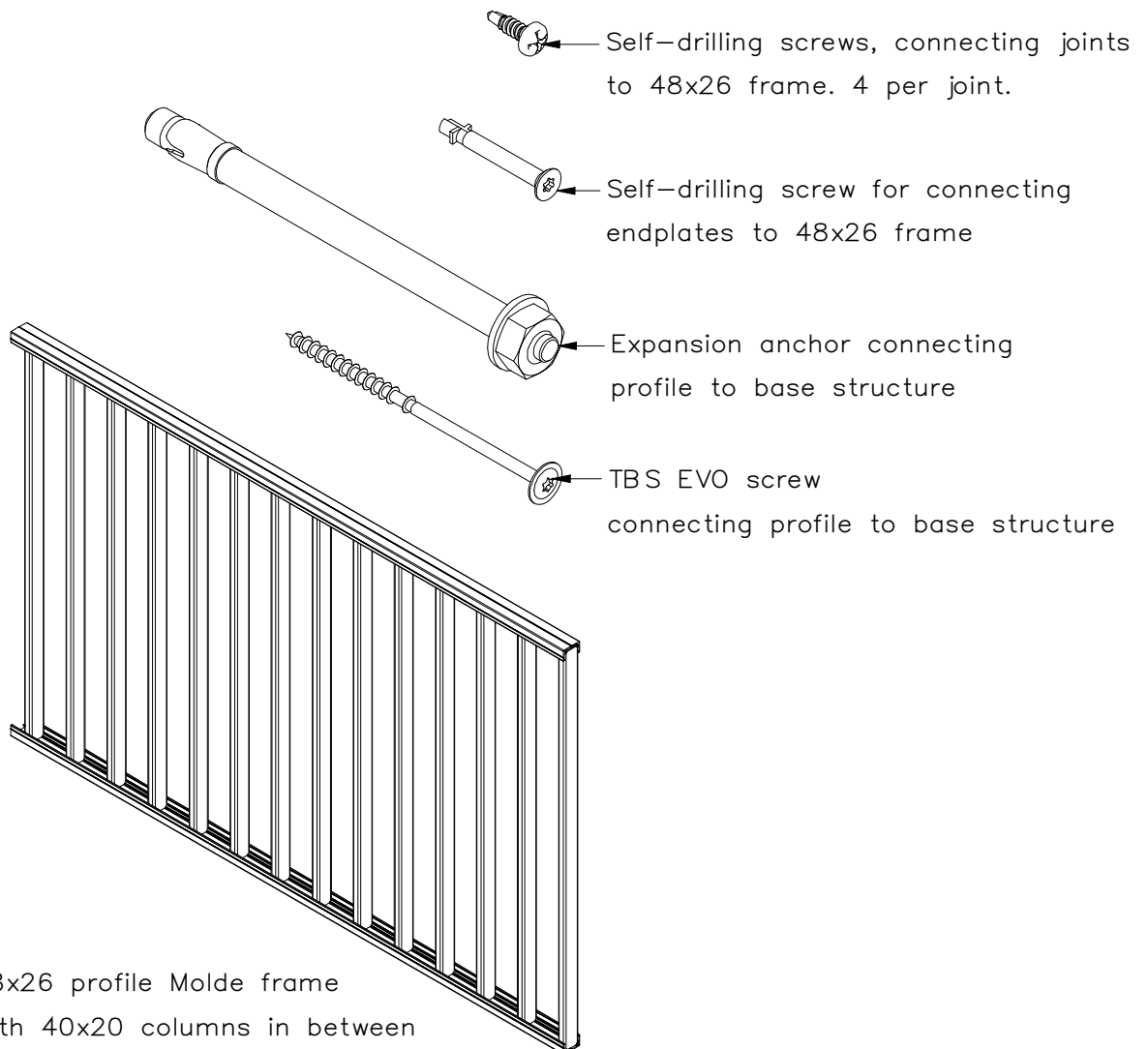
LIST OF DIFFERENT COMPONENTS:



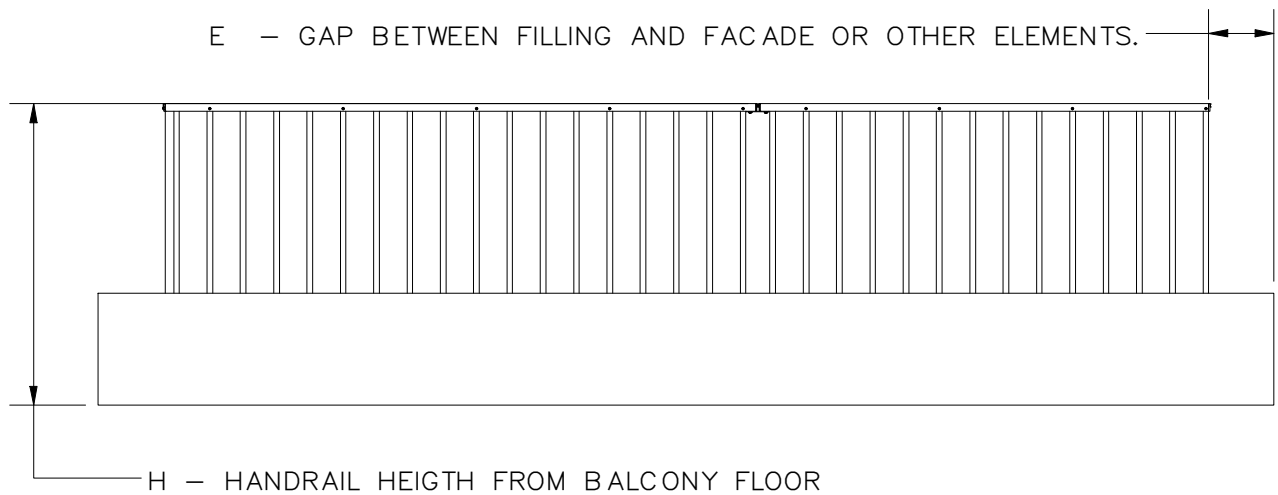
Angle bracket, connecting 2
48x26 frames in balcony **corner**



Angle bracket, connecting 2
48x26 frames in the **middle** of balcony



OVERALL REGULATIONS

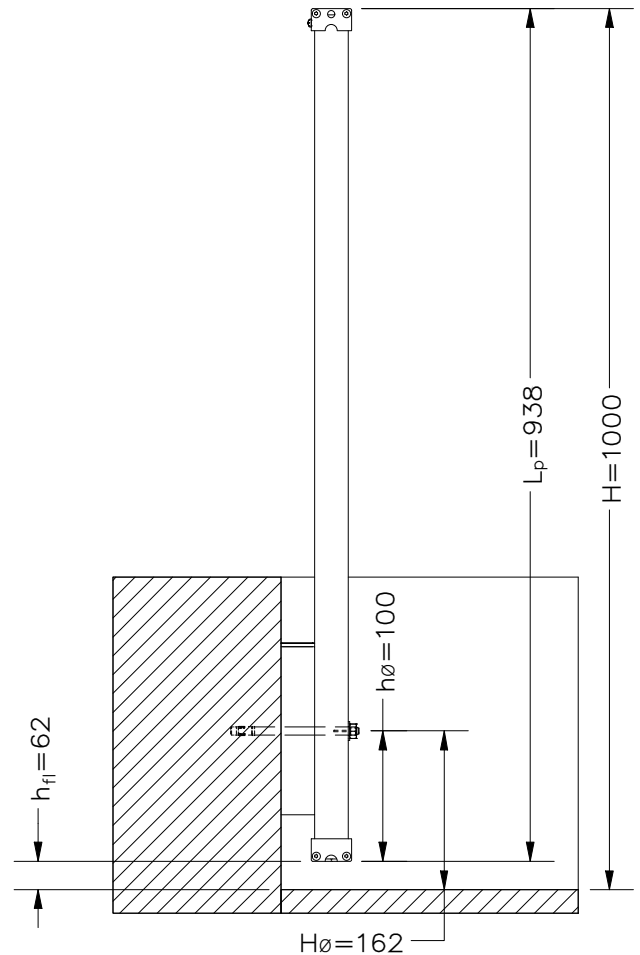
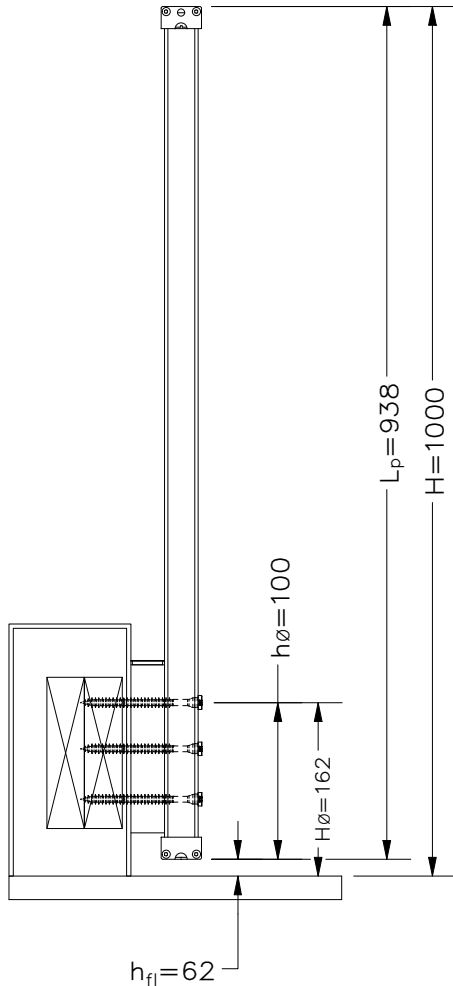


	Norway	Finland	Estonia	Sweden	Denmark	Germany
H (m)	1 or 1.2	1 or 1.2	1 or 1.2	1.1	1 or 1.2	1 or 1.2
E (mm)	Max 100	Max 50	Max 50	Max 50	Max 100	Max 100

STEP 1. CALCULATE THE HEIGHT OF DRILL HOLES

MIN. STRUCTURE THICKNESS, TIMBER, 100mm
 MIN. STRUCTURE HEIGHT, TIMBER, 180mm

C25/30 CONCRETE
 MIN. 120mm CONCRETE THICKNESS
 MIN. 350mm CONCRETE HEIGHT



H = Given measure of the end column height from ground floor
 L_p = Given column length
 $h_{fi} = H - L_p$, Where end result gives column distance from ground
 h_{\emptyset} = Given hole is already predrilled
 $H_{\emptyset} = h_{\emptyset} + h_{fi} =$ Hole center from ground

EXAMPLE OF CALCULATION.

$H = 1000\text{mm}$
 $L_p = 938\text{mm}$ Column length
 $h_{fi} = H - L_p = 62\text{mm}$ Height from floor to bottom of column
 $h_{\emptyset} = 100\text{mm}$ Hole center from bottom of column
 $H_{\emptyset} = h_{\emptyset} + h_{fi} = 162\text{mm}$ Hole center from floor ground

STEP 2. MARK THE DRILL HOLES TO BALCONY

Fasten frame to base structure with fasteners according to your project.

Use a level to get the best outcome.

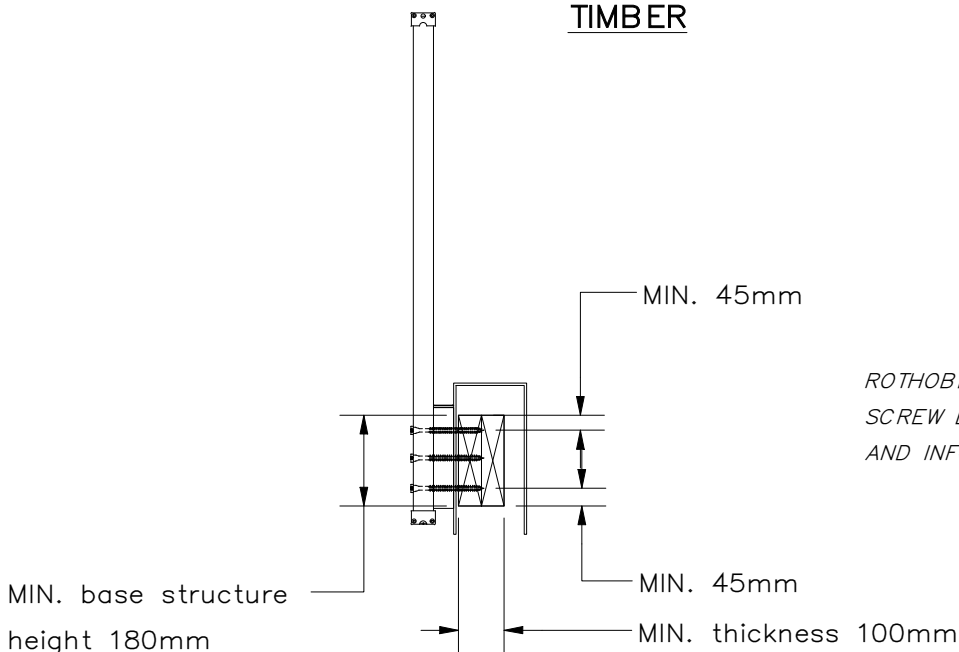
Important: ensure all fixing holes follow the handrail height.

If the base surface is not even, the railing will not be straight.

Typically, the lowest point is measured first,

and the same level is then marked across balcony with a laser.

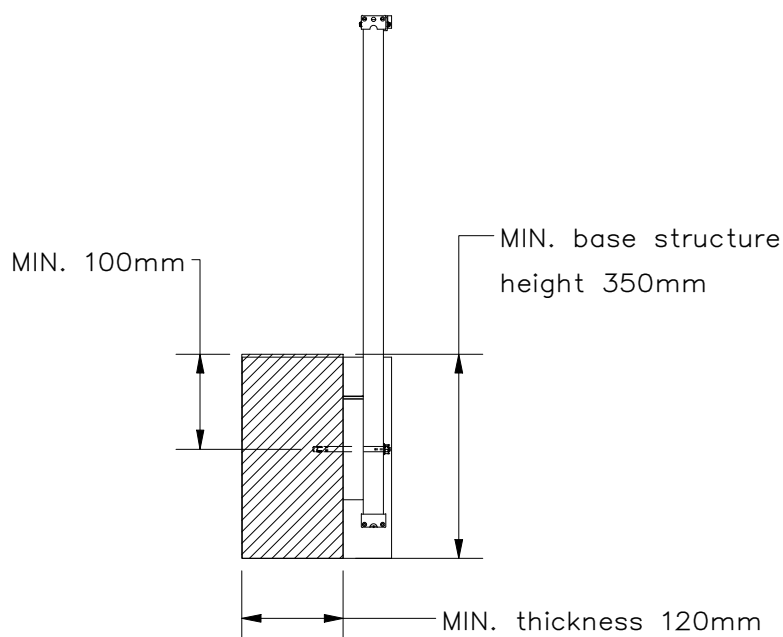
TIMBER



ROTHOBLAAS TBS EVO
SCREW DATASHEETS
AND INFORMATION



CONCRETE



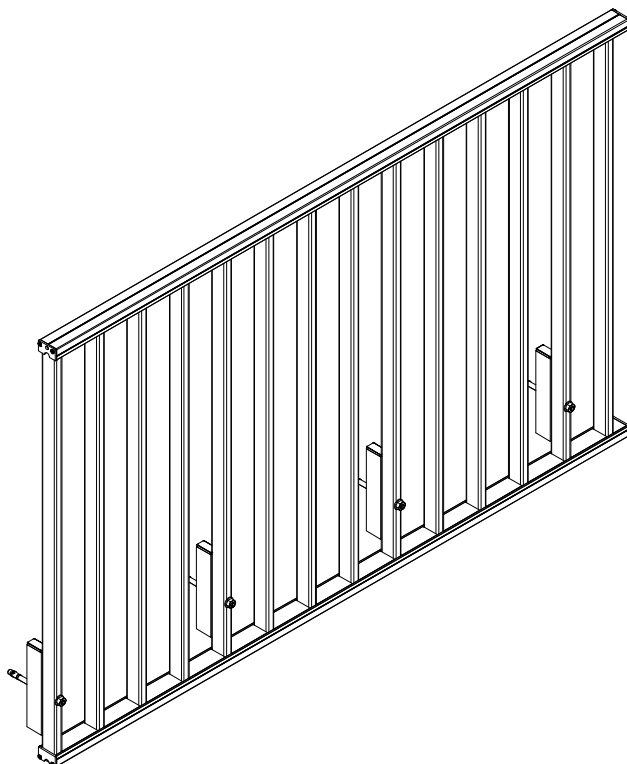
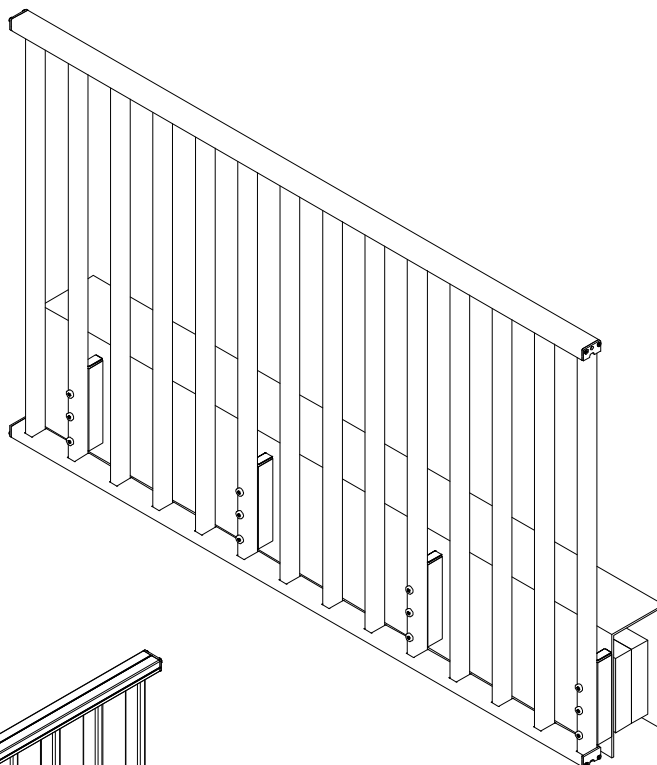
HILTI HSA-R WEDGE
ANCHOR
DATASHEETS AND
INFORMATION

STEP 3. FIX 26x48 MOLDE FRAMES TO PARAPET.

1. Molde frame has already been assembled according to ordered dimensions.
 2. It is recommended to have an assistant for this step, or use distance blocks when fastening the frame to parapet.
 3. Follow the height given from configurator and your calculations to position the railing at the correct height.
 4. Use either expansion anchor or TBS EVO screw to connect frame to parapet.
- In case you use timber screws, follow the height of upper screw you get from step 1 – calculations.

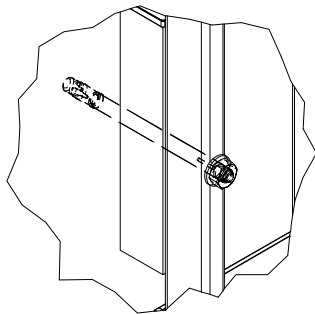
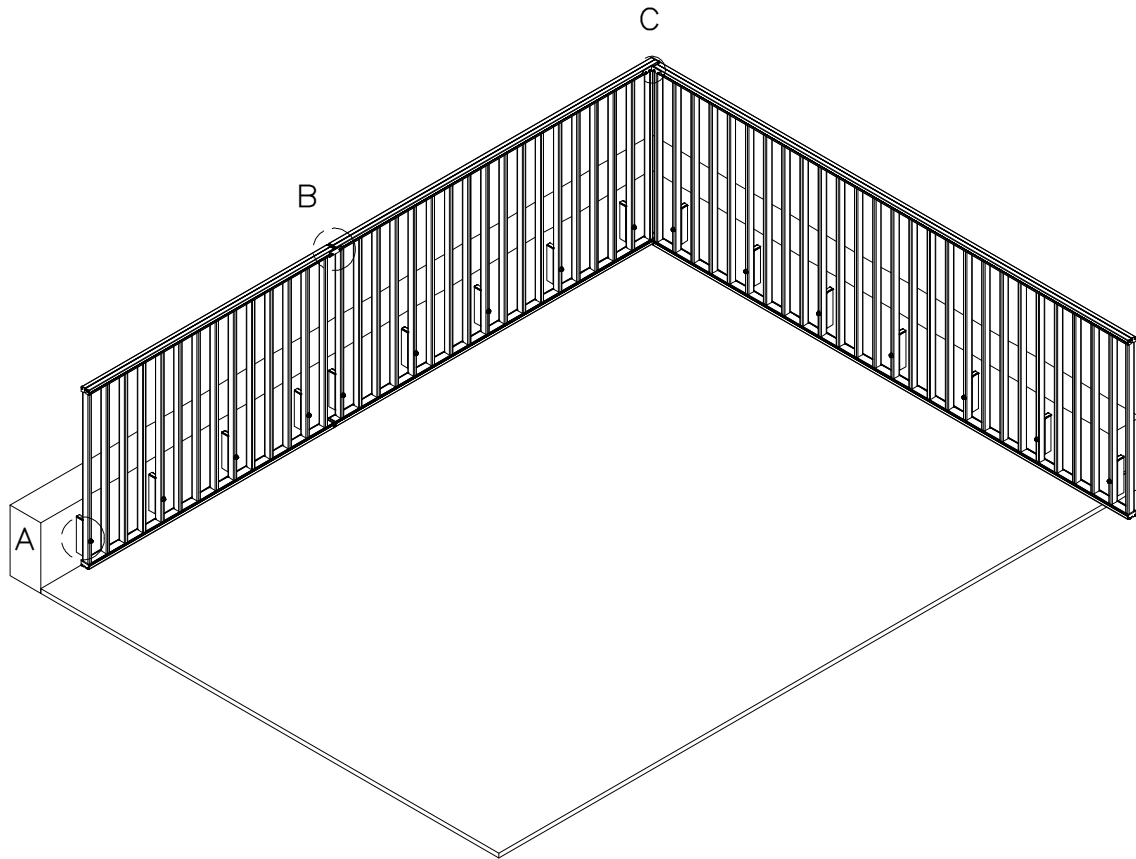
TIMBER

TIMBER – Predrill holes
Ø6 and use roof sealant.



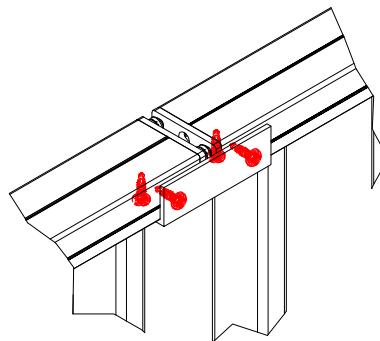
CONCRETE

CONNECTIONS



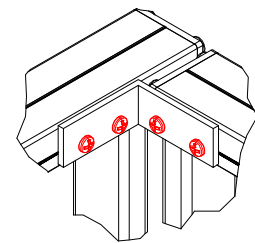
DETAIL A

Expansion anchors (in case of concrete base) connecting frame to base structure



DETAIL B

Angle bracket in between of frames is connected with 4 self-drilling screws to the frame to stiffen the whole structure.



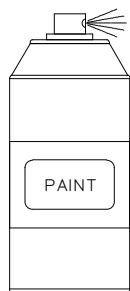
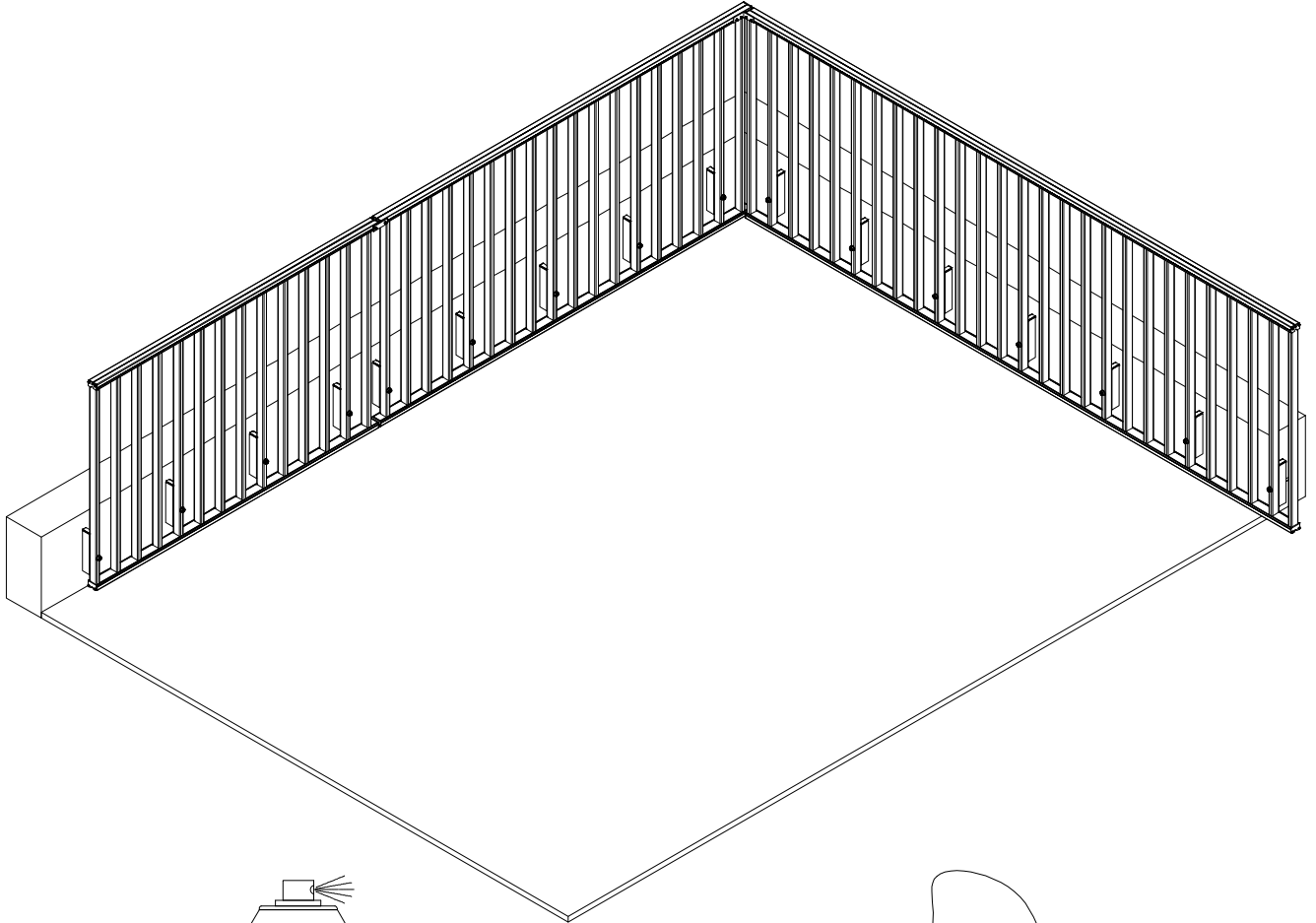
DETAIL C

Angle bracket in between frames in the corner of the balcony is connected with 4 self-drilling screws to the frame to stiffen the whole structure.

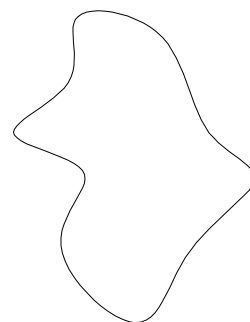
FINISH THE BALCONY ASSEMBLY

Clean railing with microfiber cloth.

If any damage has occurred during installation to painted parts, repair paint with correct ral code can be used!



RE-PAIN T IF NEEDED



CLEAN THE ASSEMBLY

Enjoy your new Innore railing and stay safe!
Designed for safety, built to last.

Thank you for choosing Innore railing systems – Your Innore railing is designed and manufactured in Estonia with a focus on safety, durability, and timeless design.

Keep your railing in perfect condition:

- Clean regularly with mild detergent and water.
- Check fasteners and joints periodically.
- Avoid harsh chemicals or abrasive cleaners.
- Follow detailed steps in the Maintenance Guide.

For detailed information, see:

Maintenance Guide:

If you have any questions or need assistance, don't hesitate to contact us:

Email: info@innore.ee

Website: www.innore.eu

We're here to help you keep your railing safe, beautiful, and long-lasting.
Stay safe – and enjoy your view!

