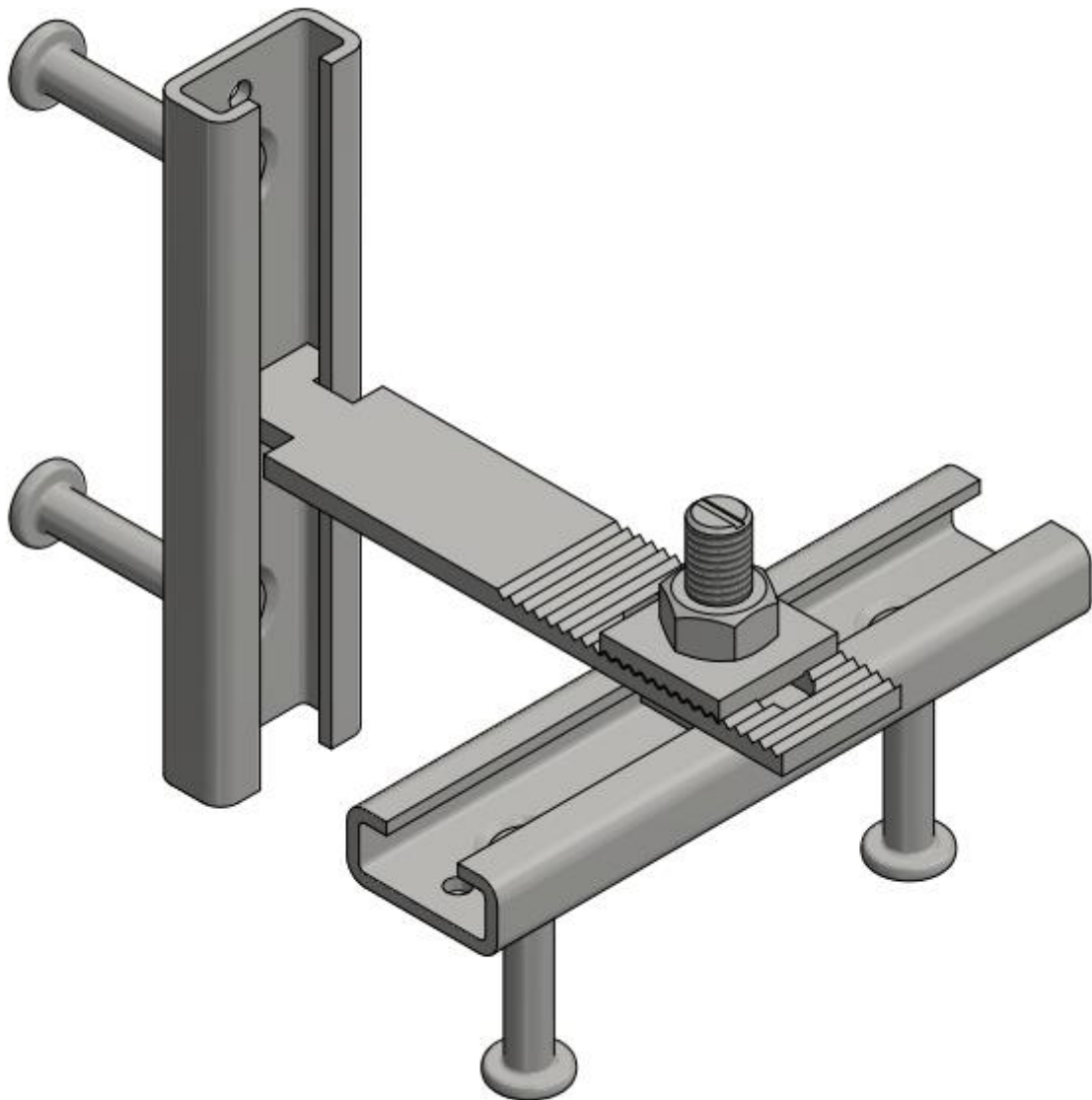


TECHNICAL DOCUMENTATION

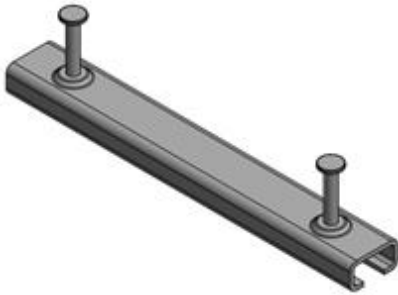


FIXING SYSTEMS | **ANCHOR RAILS**



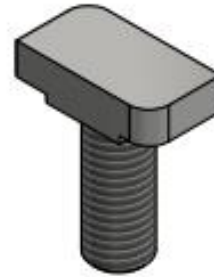
PRODUCT RANGE

RAIL ANCHOR



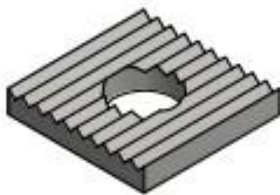
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HAMMER HEAD SCREW



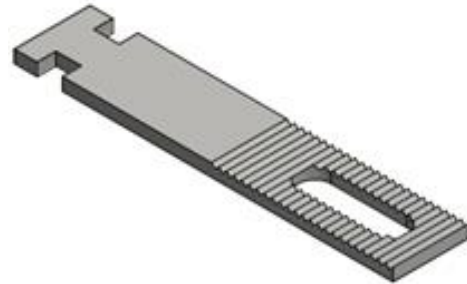
Page 4

HAMMER HEAD SQUARE PLATE



Page 5

HAMMER HEAD TOOTH PLATE

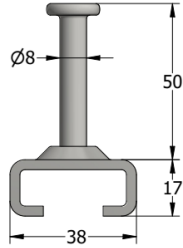
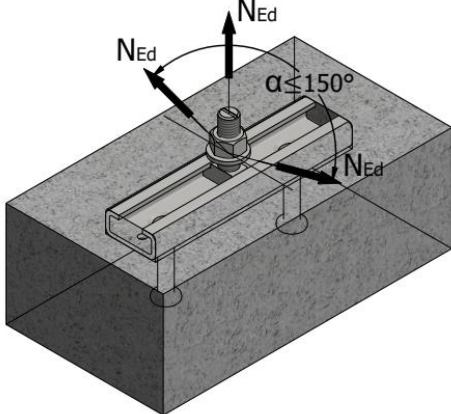
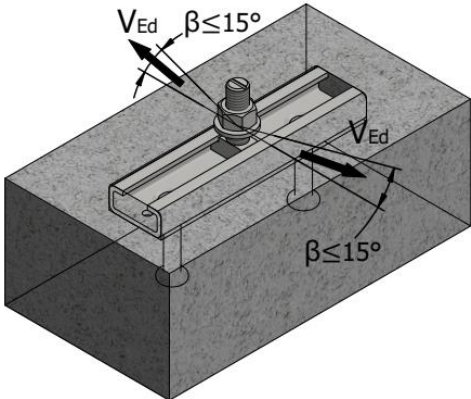


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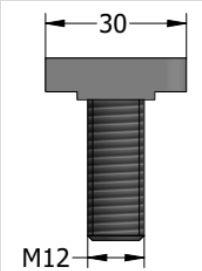
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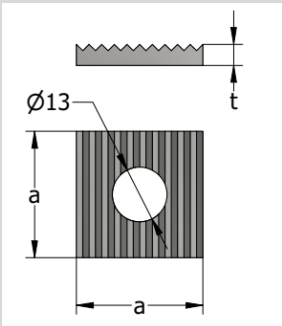
RAIL ANCHOR TW-38/17

Type of the rail	TW - 38 / 17
Model	
Channel Anchor 38-17-100-TV	48315
Channel Anchor 38-17-150-TV	47431
Dimensions for the rail anchor	8 x 50
Hammer head designation	HHS - 38
Thread	M12
Material	S235 hot-dip galvanised
Filler	Foam material
Admissible load	
Concrete quality \geq C20/25	
Length 100 ÷ 150	
Tension load $\alpha \leq 150^\circ$ 9.8 kN	Shear load $\beta \leq 15^\circ$ 5.5 kN
	

HAMER HEAD SCREW HHS:

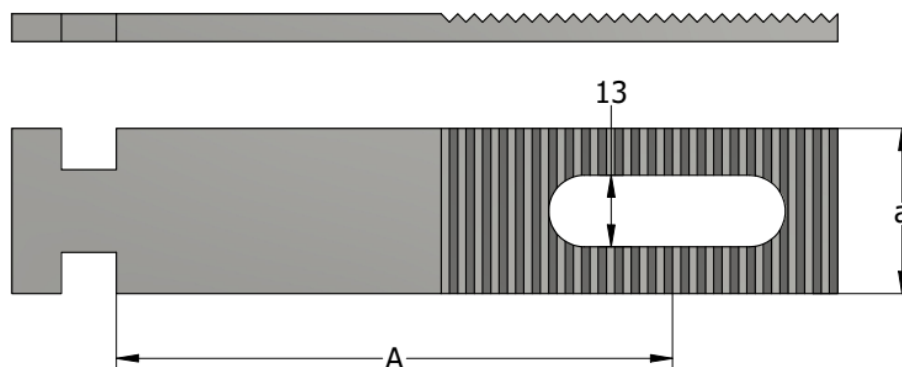
Type of hammer head screw 	Material grade 4.6 galvanised min. 12µm		Recommended torque value [Nm]
	Article number	Dimensions	
	47571	M12 x 30 + nut	25
	65738	M12 x 40 + nut	
	47559	M12 x 50 + nut	

HAMMER HEAD SQUARE PLATE HHSP:

Type of hammer head square plate 	Material steel S235JR EN 10025		
	Article number	Dimensions	
		a [mm]	t [mm]
65737	30	4	

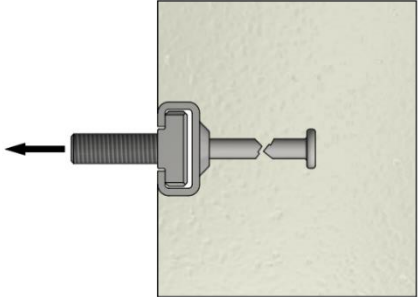
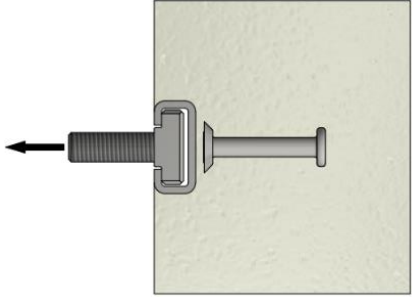
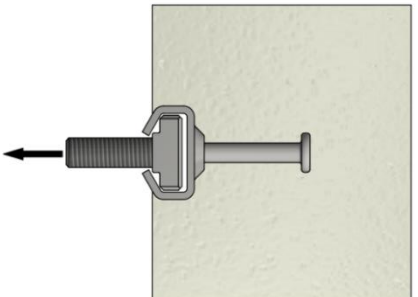
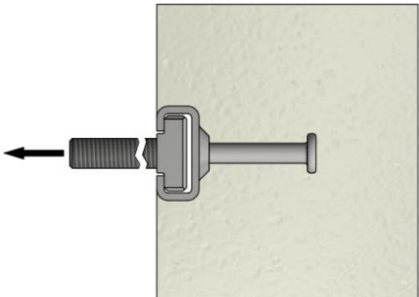
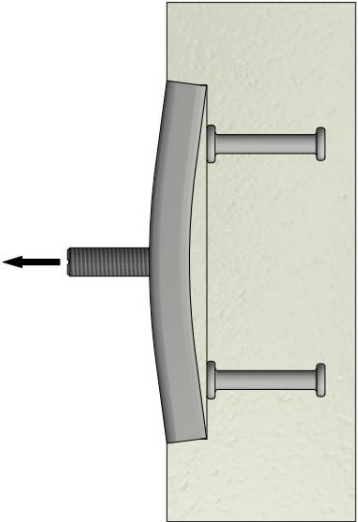
HAMMER HEAD TOOTH PLATE HHP:

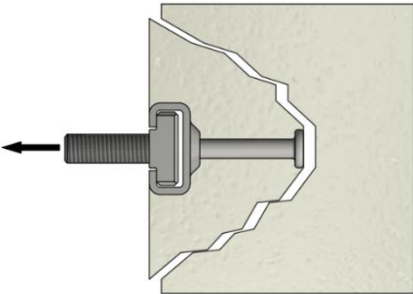
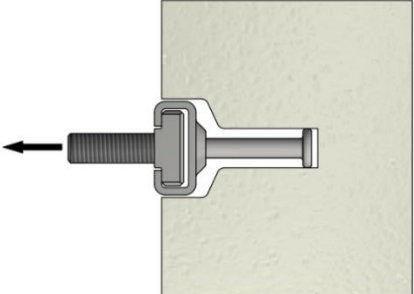
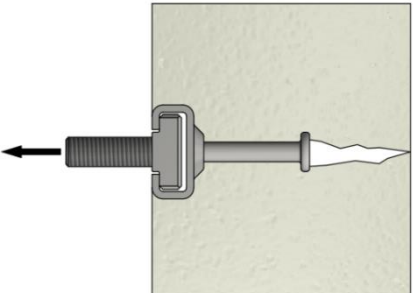
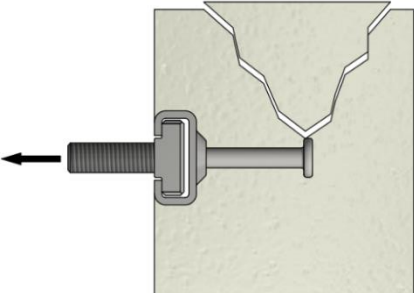
The hammer head plate with serration connects two rail anchors embedded in concrete elements. For three-dimensional adjustability, the rail anchors must be positioned in the concrete at a right angle to each other. The tooth plate is made of steel S235JR EN 10025.

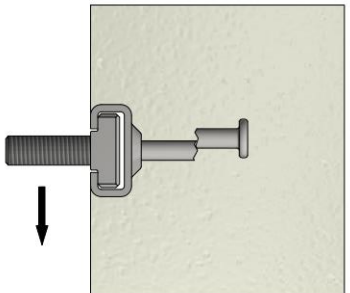
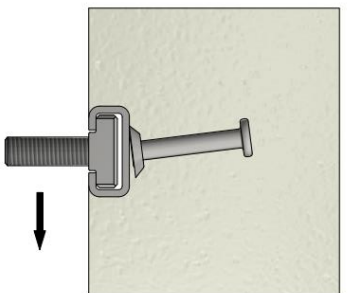
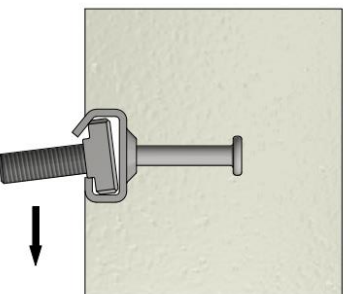
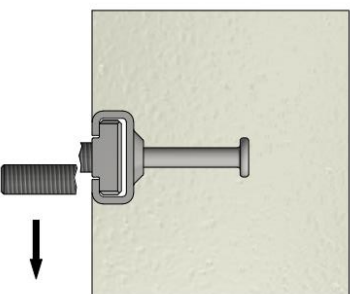


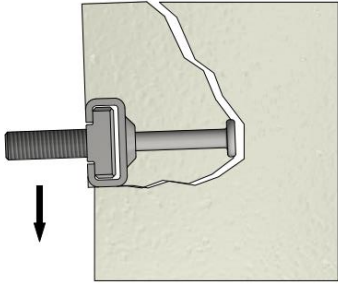
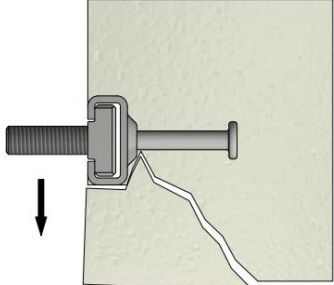
Wind-anchor type	Corrosion protection	Article number	Dimension mm		Hole
			A	a	
HHP-38/17 x 50 Zn	Galvanised	47485	50	30	13 x 55
HHP-38/17 x 100 Zn	Galvanised	47457	100	30	13 x 55
HHP-38/17 x 150 Zn	Galvanised	65736	150	30	13 x 55

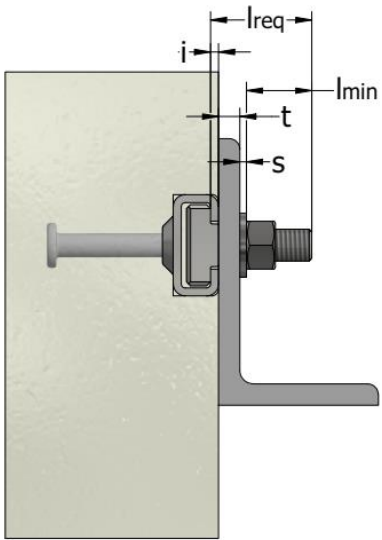
RAIL ANCHOR VERIFICATION ACCORDING TO CEN/TS 1992-4 / EN 1992-4

TENSION LOADS	
Steel failure	
Steel failure of the rail anchor 	Failure of the channel anchor connection 
Channel lip failure – local flexure 	Hammer head bolt failure 
Failure due to flexure of the channel 	

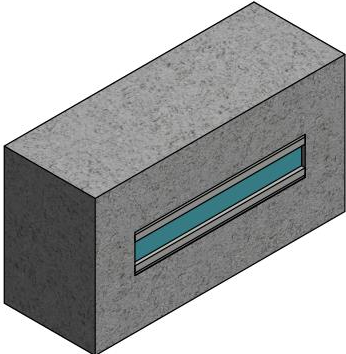
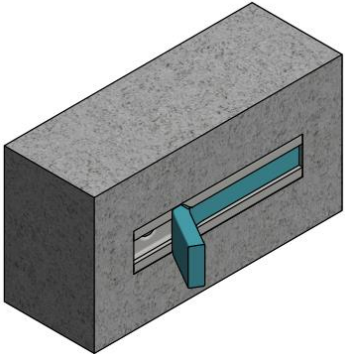
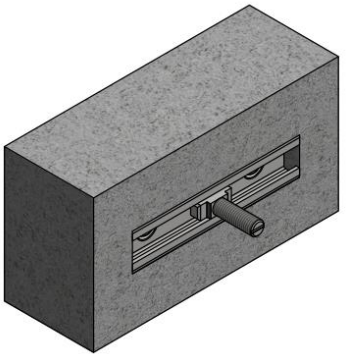
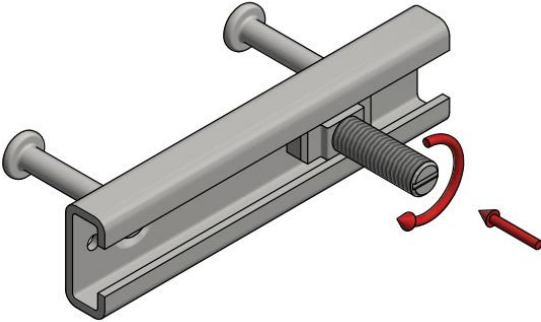
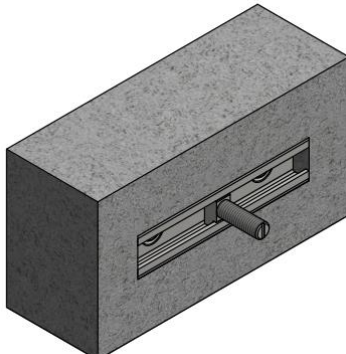
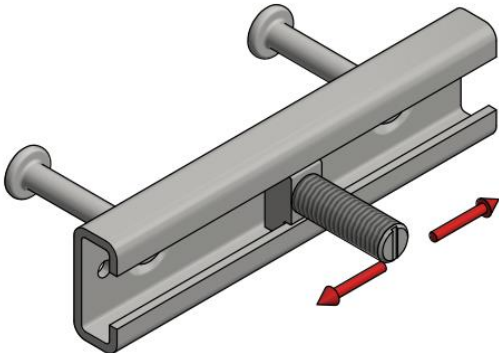
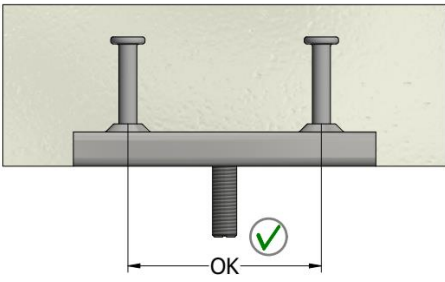
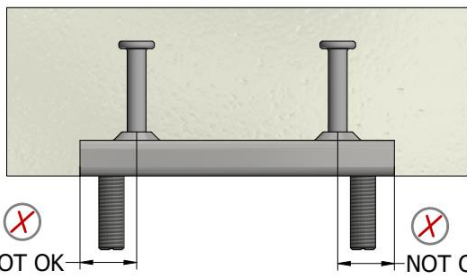
TENSION LOADS	
Concrete failure	
Concrete cone failure	Pull-out failure
	
Splitting - failure	Blow-out - failure
	

SHEAR LOADS	
Steel failure	
Steel failure of the rail anchor	Failure of channel anchor connection
	
Channel lip failure – local flexure	Hammer head bolt failure
	

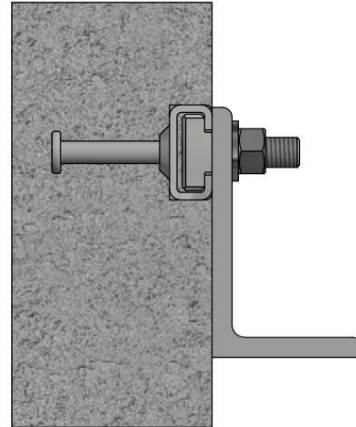
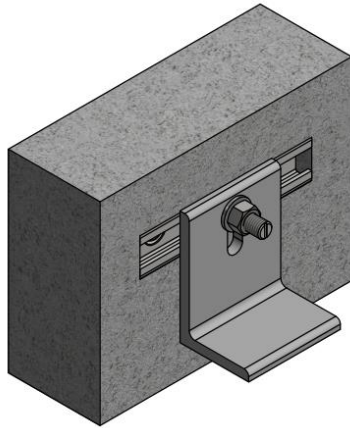
SHEAR LOADS	
Concrete failure	
Concrete pry-out failure 	Concrete edge failure 

Bolt length calculation	
	$l_{req} = i + t + s + l_{min}$ <p> l_{req} – required bolt length i – profile lip thickness t – thickness of fixed element s – washer thickness l_{min} – nut height EN 4032 + overhang approx. 5mm. </p>

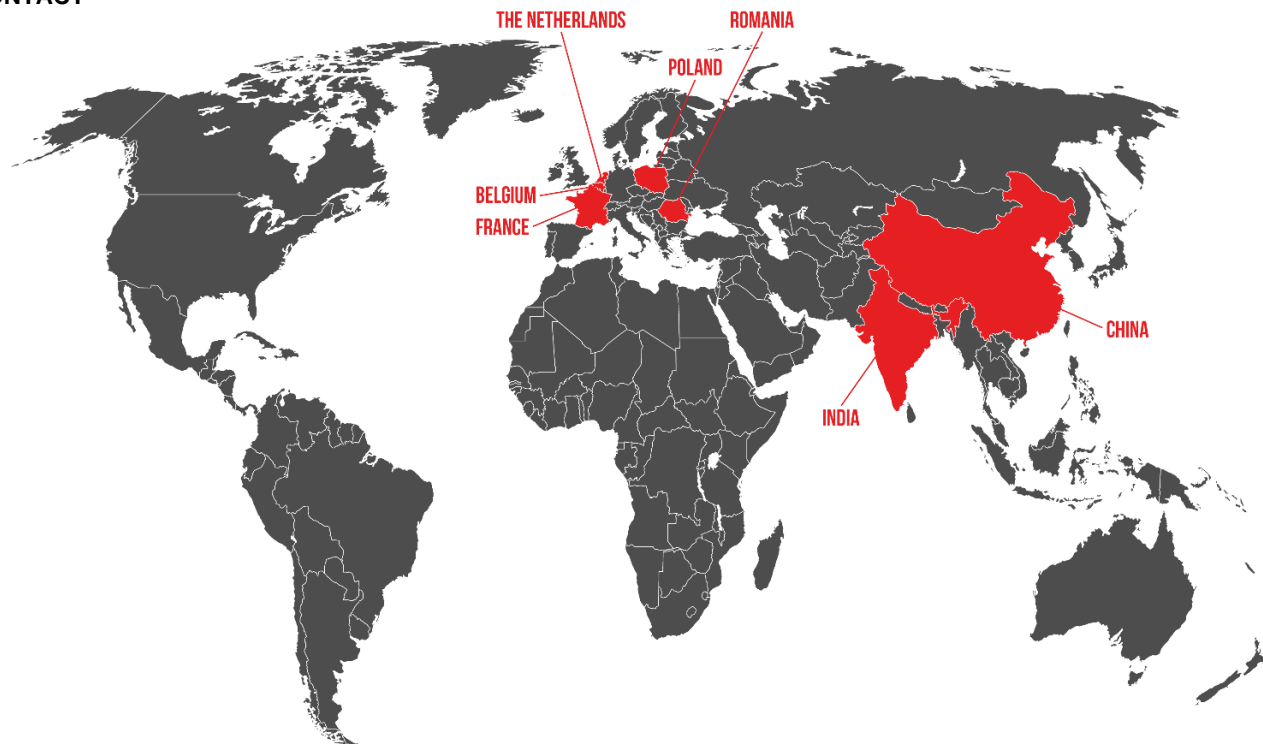
MOUNTING INSTRUCTIONS FOR HAMMER HEAD SCREW IN RAIL ANCHORS

<p>1. Anchor rail cast-in</p>	<p>2. Removing the foam strip using a tool e.g., a screwdriver</p>
	
<p>3. Align the hammer head screw and insert anywhere in the channel slot.</p>	<p>3. Align the hammer head screw and insert anywhere in the channel slot.</p>
	
<p>4. Place and turn the bolt 90°</p>	<p>4. Place and turn the bolt 90°</p>
	
	

5. Screw on the nut. The bolt head must be in close contact with both channel lips and secured by tightening to the required value using a torque wrench.



CONTACT



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