



# More than just fasteners!

All of our flat roofing services

Bringing it together.

# Our expertise for your flat roof

**Flat roofs have mostly been used in the industrial sector over the last few decades. This kind of roof has many advantages and is gaining popularity in private construction, too. In order to professionally install a flat roof, you need sound knowledge of assembly operation, especially when it comes to the fastening elements to be used.**

EJOT is your competent partner in choosing the optimal fastening solution and will support you every step of the way with comprehensive services, throughout the planning stage as well as on the construction site.

## **Construction challenges**

Despite what the name suggests, flat roofs are usually not completely flat, but have a slight slope, so that rainwater can drain off in a predetermined direction. The structure of the flat roof and in particular the waterproofing membrane, which functions as a seal and a roof covering, need to be processed especially thoroughly.

When choosing a fastener, it is important to take into account not only the load bearing capacity, but also the resistance to ageing, the corrosion protection, and the question of possible thermal bridges.

## **Fastening solutions**

Whether for mounting on concrete or aerated concrete, on wood or on metal sections – different substrates each require specific fastening solutions. With slope insulation, for example, the waterproofing must be fixed with an insulation thickness suited to the fastener, which is an additional element of planning and installation not to be underestimated. A simpler and more economical alternative is a flat roofing fastener which is height-adjustable.



## Side note: Does stainless steel always have to be used?

The roof sealing standard DIN EN 18531 states that stainless steel fastenings must be used for roofs of application class K2. The technical guideline requires stainless steel for renovation of existing roof constructions. And the VOB always requires stainless steel, as a rule.

Accordingly, stainless steel fasteners can only be dispensed with if the project is a new construction in application class K1 for which the VOB/B has not been agreed between the client and contractor.

But beware: Even if a corrosion-protected fastener with an organic coating is sufficient according to current regulations, there is always the risk that the fasteners will corrode. This may happen, for example, if moisture gets into the insulation during construction due to the weather conditions, or if the corrosion-protective coating of the fastener is damaged. So, if in doubt, it is better to continue using stainless steel fasteners. Better safe than sorry.

### **Strong partner at your side**

Not only does EJOT provide the perfect fastening solution for every application and every substrate, we also support you in your next flat roof project with a wide range of services.

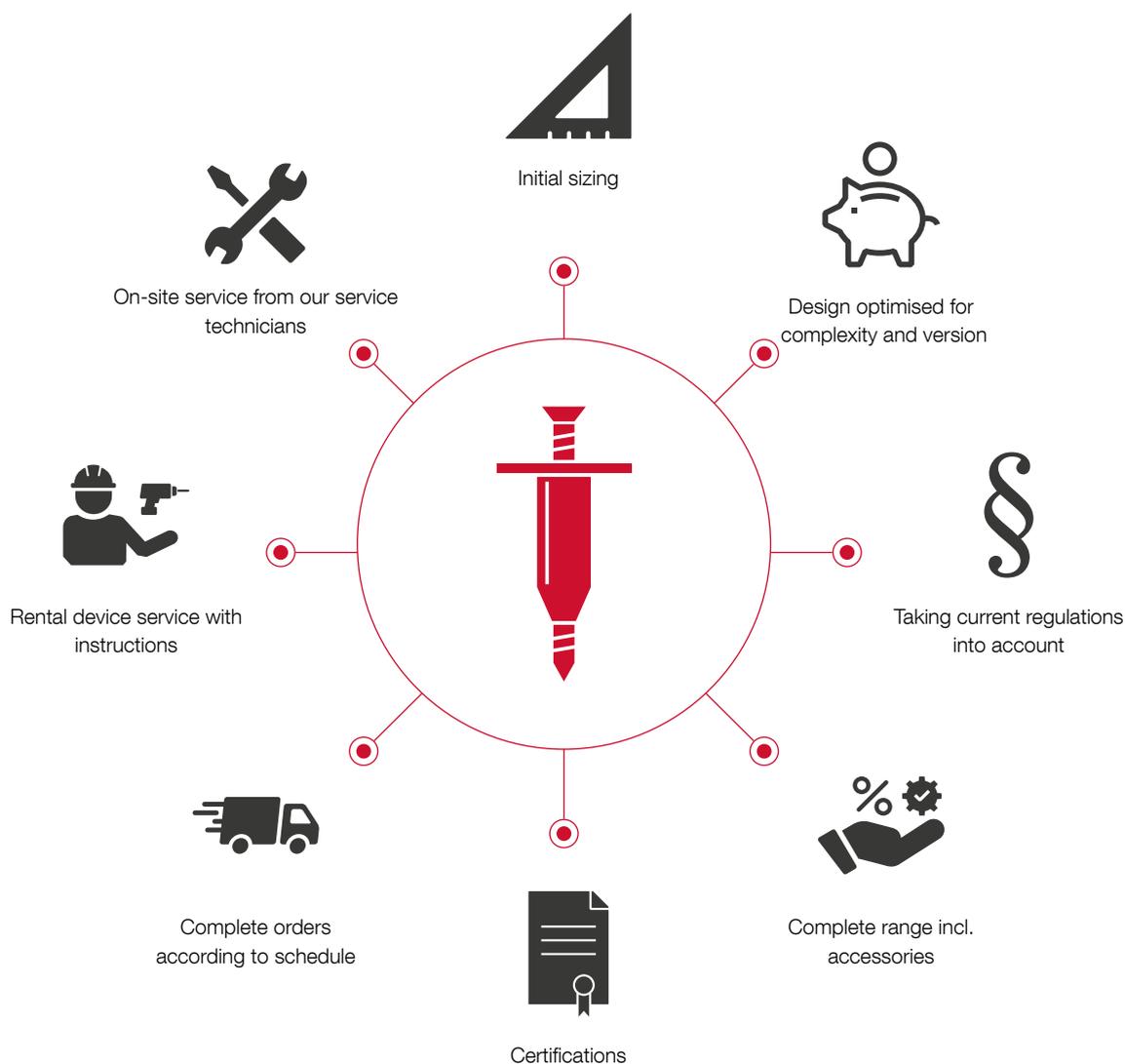
Taking into account the applicable standards and regulations, our application engineers help to find a project-specific and economical solution for the most suitable flat roof.

In addition to professional advisory services, we also provide services such as pre-dimensioning with material takeoff, our rental device service and on-site support from the EJOT service technicians.

Discover our range of services and get in touch with us directly. We look forward to your inquiry and are happy to offer you our advisory services!



# We offer more than just fasteners!





# Our services in detail



## Initial sizing

Using the project information provided and the results of numerous wind uplift tests with all reputable roofing membrane manufacturers, we will complete your pre-dimensioning, taking into account the optimal design loads.



## Design optimised for complexity and version

Our very cost-effective initial sizings are then checked to see if the workload can be reduced. The fewer different products and versions need to be installed, the more efficient your work will be, as time, money and valuable resources are saved.



## Taking the rules into account

In consideration of the relevant standards and guidelines, we will recommend you suitable fastening solutions for your project. Feel free to get in touch with us for competent service if you are using stainless steel in a flat roof.



## Complete range incl. accessories

We offer more than just fasteners! Along with attractive conditions, our offer always includes optional accessories, too. Whether it is special tools, installation tools, or even an automated anchor installation tool, we've got it covered.



### Certifications

We will provide you with all the relevant paperwork for your documentation – whether approvals, test certificates or required regulations.



### Complete orders according to schedule

We will send you your complete order at your chosen time and to your chosen location. Do you temporarily have a crane on the construction site for handling bulky building materials such as insulation material or roofing membranes? Then why not lift the fasteners and automated anchor installation tool onto the roof too? Our delivery dates make it possible.



### Rental device service with instructions

We are happy to rent out installation tools to you for the duration of the construction phase so that you can process our fastening elements. For technicians who are not yet familiar with our installation tools, our service technicians will come to your building site to instruct you.



### On-site service from our service technicians

If you have any questions during installation on the construction site, we are there for you. Our service technicians will support you with tips and tricks on site and help you to find common solutions.

# Quick and simple project processing

## Data collection

We will take note of your unique and non-project-related preferences for flat roof planning and processing – from preferred roofing membranes, membrane widths and strengths to types of fastener, edge fastening solutions and your favourite installation tools. You can then share information with us regarding the specific project, such as whether it is a new building, extension or renovation; the building data, terrain category, supporting structure, roof set-up, plans for laying and for slopes, the site address, and the contact person's mobile number. And we'll take it from there.

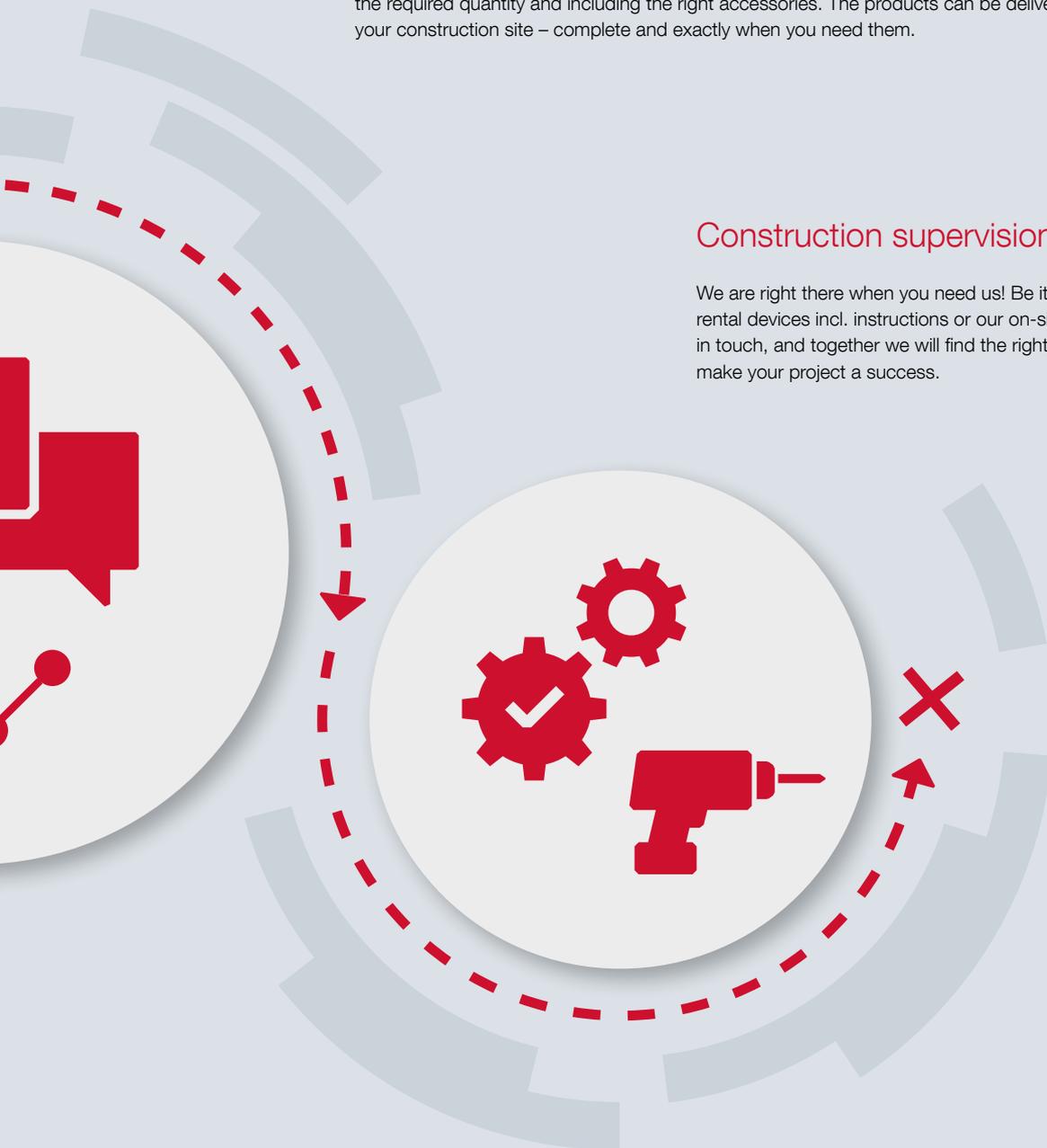


## Planning phase

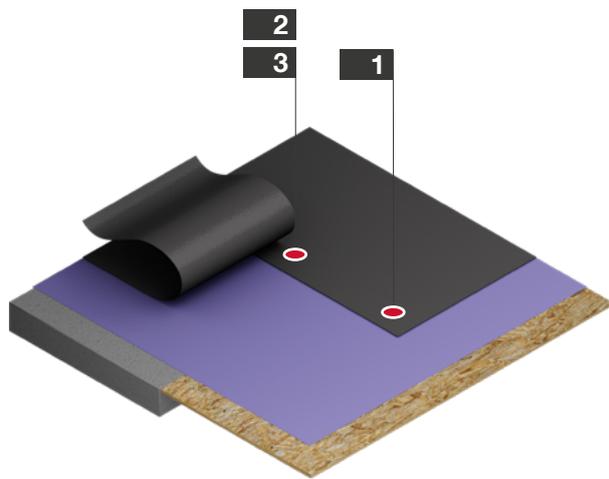
Using your preferences and the key project data, our application research department will create your initial sizing incl. material extracts. This initial sizing is then economically optimised, aiming to make the workload as small as possible. So our offer contains the ideal fasteners for your project in the required quantity and including the right accessories. The products can be delivered straight to your construction site – complete and exactly when you need them.

## Construction supervision

We are right there when you need us! Be it on-site advice, rental devices incl. instructions or our on-site service. Get in touch, and together we will find the right solutions to make your project a success.

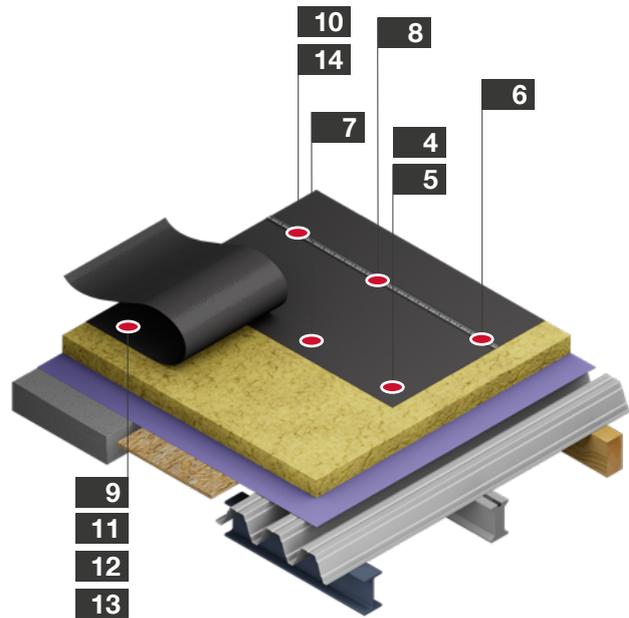


# Our product portfolio



## Schematic drawing of a flat roof set-up:

On the right hand side of the overview you will find fastening products to choose from



## Descriptions

Roof surfaces with a pitch below 5° are flat roofs. They should have a minimum inclination of 2% (DIN 18531 waterproofing of roofs - sealings for non-utilised roofs).

## Design

The most common design is the single-sheet, non-ventilated flat roof.

Layer design of the non-ventilated flat roof (warm roof):

- > Sealing (if required with separation layer)
- > Thermal insulation
- > Vapour barrier sheeting
- > Structural deck (e.g. trapezoidal steel sheet)

## Mechanical fixing

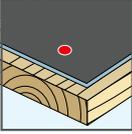
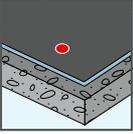
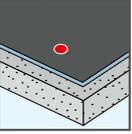
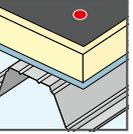
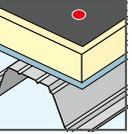
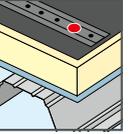
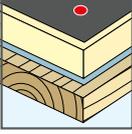
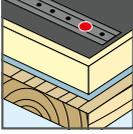
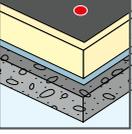
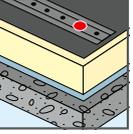
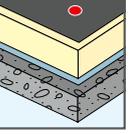
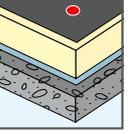
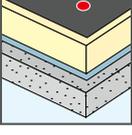
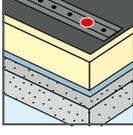
The system of loose laying with mechanical fixing of roof sealings as an economic flat roof system is well established especially in industrial construction. Special positive properties of mechanical fixing are:

- > Immediately usable fixing without waiting time
- > Fixing in one work step
- > Manual or mechanical installation process
- > Specified type of fixing
- > No restrictions due to building use or surface condition

Depending on the flat roof construction and the insulating materials / sealing strips used, fasteners are used in combination with metal and plastic stress plates. In case of renovation, the currently valid flat roofing guidelines require the use of corrosion-resistant fasteners. For this case, stainless steel fasteners are available. As a rule, all steel fasteners are Climadur-coated and meet the high corrosion protection requirements of ETAG 006 after 15 Kesternich cycles.

The proper usability of all fasteners for mechanical flat roof fixing are regulated within Europe by the ETA-07/0013. In case of renovations or substrate with unknown carrying capacity the ETAG 006 calls for on-site pull-out tests. Our on-site service team will gladly assist you with this.

According to VOB and in application class K2 as per DIN 18531, fasteners made of stainless steel are generally to be used!

<p><b>1</b></p> <p>Waterproofing membrane to roof boarding / OSB</p>  <p>Stress plate <b>HTV-RU-40 W</b></p> 	<p><b>2</b></p> <p>Waterproofing membrane to concrete</p>  <p>Concrete screw <b>FBS-R-6.3xL</b> + HTV 82/40 F</p> 	<p><b>3</b></p> <p>Waterproofing membrane to aerated concrete</p>  <p>Aerated concrete screw <b>FPS-E-8.0xL+</b> <b>HTV 82/40 F</b></p>  	<p><b>4</b></p> <p>Waterproofing membrane with insulation to trap-ezoidal profile</p>  <p>Dabo® screw <b>TKR-4.8xL</b> + HTK 2GxL</p> 	<p><b>5</b></p> <p>Waterproofing membrane with insulation to trap-ezoidal profile</p>  <p>Dabo® screw <b>SW8-RT-4.8xL</b> + HTV 82/40</p> 	<p><b>6</b></p> <p>Waterproofing membrane with insulation to trap-ezoidal profile</p>  <p>Dabo® screw <b>TKR-4.8xL+HTK-S</b> + flat roof profile FP</p> 
	 	 	 	 	 
<p><b>7</b></p> <p>Waterproofing membrane with insulation to roof boarding / OSB</p>  <p>Dabo® screw <b>VHT-R-4.8xL</b> + HTK 2GxL</p> 	<p><b>8</b></p> <p>Waterproofing membrane with insulation to roof boarding / OSB</p>  <p>Dabo® screw <b>VHT-R-4.8xL + HTK-S</b> + flat roof profile FP</p> 	<p><b>9</b></p> <p>Waterproofing membrane with insulation to concrete</p>  <p>Concrete screw <b>FBS-R-6.3xL</b> + EcoTek 50xL</p> 	<p><b>10</b></p> <p>Waterproofing membrane with insulation to concrete</p>  <p>Concrete screw <b>FBS-R-6.3xL</b> + flat roof profile FP</p> 	<p><b>11</b></p> <p>Waterproofing membrane with insulation to concrete</p>  <p>Concrete screw <b>JBS-R-7.5xL</b> + EcoTek 50xL</p> 	<p><b>12</b></p> <p>Waterproofing membrane with insulation to concrete and lightweight concrete</p>  <p>Flat roofing anchor <b>FDD-Plus-50</b></p>  
 	  	 	 	 	
<p><b>13</b></p> <p>Waterproofing membrane with insulation to aerated concrete</p>  <p>Aerated concrete screw <b>FPS-E-8.0xL</b> + EcoTek 50xL</p>  	<p><b>14</b></p> <p>Waterproofing membrane with insulation to aerated concrete</p>  <p>Aerated concrete screw <b>FPS-E-8.0xL</b> + flat roof profile FP</p>  				
 	 				

Special installation tools for the assembly of a flat roof are available to be rented or bought. Our portfolio of tools has been expanded by a wide variety of drills and bits.

## Compatibility

acc. to ETA-07/0013

		Metal stress plates				
		HTV 82/40	HTE 82/40	HTV 82/40 TK	HTV 82/40 F	HTV 40 RU
						
SW8-RT-4.8		X	X		X	
SW8-ET-4.8		X	X			
TKR-4.8				X	X	X
TKE-4.8				X	X	X
TKR-4-4.8				X	X	X
TKR-ZT6-5.5					X	X
VHT-R-4.8				X	X	X
VHT-E-4.8				X	X	X
JT2-ST-2-6.0						
JT2-ST-2-6.8						
JT3-ST-2-6.0						
FBS-R-6.3					X	X
JBS-R-7.5						
FPS-E-8.0					X	X
SDF-S-10H-E						
SDP-S-10G-E						

Plastic stress plates					Flat roof profile FP	
HTK 2G 50xL	HTK 2G 75xL	EcoTek 50	EcoTek-T 50	HTK-S		
					X	 SW8-RT-4.8
					X	 SW8-ET-4.8
X	X	X	X	X	X	 TKR-4.8
X	X	X	X	X	X	 TKE-4.8
X	X	X	X	X	X	 TKR-4-4.8
		X	X		X	 TKR-ZT6-5.5
X	X	X	X	X	X	 VHT-R-4.8
X	X	X	X	X	X	 VHT-E-4.8
		X	X		X	 JT2-ST-2-6.0
					X	 JT2-ST-2-6.8
		X	X		X	 JT3-ST-2-6.0
		X	X		X	 FBS-R-6.3
		X	X			 JBS-R-7.5
		X	X		X	 FPS-E-8.0
					X	 SDF-S-10H-E
					X	 SDP-S-10G-E



# EJOT® Construction News

Subscribe now and stay up to date with our newsletter

Stay up to date about our latest products and technologies with our regular newsletter. You receive free current information as well as processing tips and videos from the Building Fasteners and ETICS Fasteners sectors.

**We are looking forward to your subscription.**



Go to subscription form:  
[www.ejot.de/bau/newsletter](http://www.ejot.de/bau/newsletter)

## EJOT® Construction Social Media



EJOT® Construction Division



ejot\_construction



EJOT® TEC ACADEMY Podcast

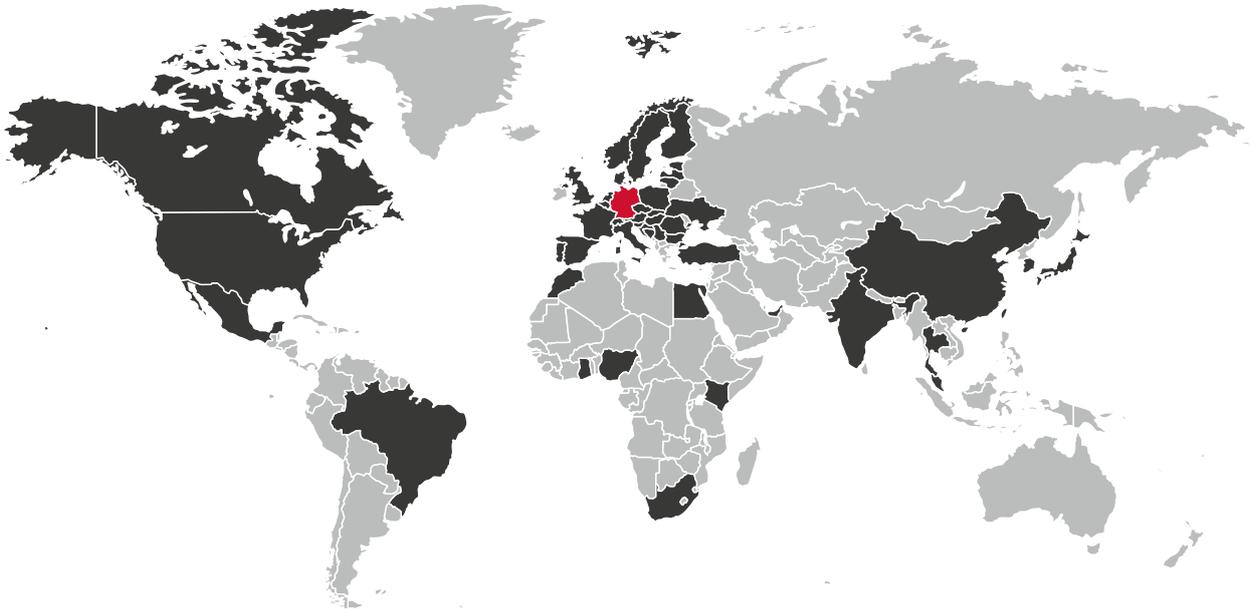


EJOT Construction Division International



# The International EJOT® Group

The origin is in Germany, the future in the world



## Locations worldwide

[www.ejot.com/subsidiary\\_selector](http://www.ejot.com/subsidiary_selector)



Find your contact for all EJOT sales and production companies as well as our partner and sales offices - worldwide. We are looking forward to hearing from you.



**46 million**  
**Screws**

In our manufacturing plants around the world, we produce up to 46 million items for construction and industry every day.



**36,000**  
**Products**

Screws, anchors, through bolts or complex part groups – the EJOT portfolio is made up of around 36,000 products.



**2,100**  
**Patents**

Our engineers are constantly developing new product solutions that are protected by 2,100 patents.



**1922**  
**founded**

The history of EJOT dates back to the early 20th century.



**3,700**  
**Employees**

More than 3,700 employees work for our worldwide customers every day.

ENGINEERED IN  
**GERMANY**

The majority of the EJOT portfolio is produced in Germany and developed by our own R&D department.



## At home in many trades

The EJOT® business areas at a glance

**With the Construction Division, EJOT offers professional fastening solutions for the building industry in the Building Fasteners and ETICS Fasteners sectors.**

**With EJOT you get everything you need for almost every application from a single supplier with the usual high product quality.**

**Timber Construction**

High-quality fastening technology for anchor and direct assembly in timber construction

[www.ejot.com/timber-construction](http://www.ejot.com/timber-construction)

**Industrial Lightweight Construction**

High-quality fasteners for fixing profiled sheets and sandwich panels in the industrial lightweight construction sector

[www.ejot.com/industrial-lightweight-construction](http://www.ejot.com/industrial-lightweight-construction)

**Solar**

Fastening technology for solar and photovoltaic installations on trapezoidal steel profile and sandwich element roofs as well as for use on fibre cement roofs

[www.ejot.com/solar](http://www.ejot.com/solar)

**Flat Roofing**

Fasteners, and installation tools for the efficient fixing of insulation and waterproofing membrane to flat roofs and slightly sloping roofs

[www.ejot.com/flat-roofing](http://www.ejot.com/flat-roofing)

**Rear-Ventilated Facades**

Complete substructure system with consoles, screws, anchoring solutions, insulation support anchors and anchors

[www.ejot.com/rear-ventilated-facades](http://www.ejot.com/rear-ventilated-facades)

**Anchoring Technology**

Special products for mechanical anchoring in non-cracked and cracked concrete as well as chemical and thus expansion pressure-free products for heavy-duty fastening in concrete and masonry

[www.ejot.com/anchoring-technology](http://www.ejot.com/anchoring-technology)

**Window and Glass Facade Technology**

High quality fastening elements for window and door assembly and for use in aluminium/glass facade systems

[www.ejot.com/window-and-glass-facade-technology](http://www.ejot.com/window-and-glass-facade-technology)

**Interior Work**

Special products for fastening wood chipboards and for fastening attachments in plasterboard, masonry or concrete

[www.ejot.com/interior-work](http://www.ejot.com/interior-work)

**Fastening solutions for External Thermal Insulation Composite Systems (ETICS)**

Special anchors for fixing insulation on external wall systems

[www.ejot.com/etics-fasteners](http://www.ejot.com/etics-fasteners)

**Mounting Elements for Attachments**

Fastening solutions for the planned and subsequent fastening of attachments to ETICS facades

[www.ejot.com/etics-mounting-elements](http://www.ejot.com/etics-mounting-elements)

**Profiles for External Thermal Insulation Composite systems (ETICS)**

Profiles for high quality render finishes

[www.ejot.com/etics-profiles](http://www.ejot.com/etics-profiles)



# EJOT® TEC ACADEMY

Our know-how for your building projects

With the EJOT TEC ACADEMY, we regularly offer training courses to inform you about current trends in the construction industry, our products and their applications.



**EJOT® TEC ACADEMY:**  
[www.ejot.com/tec-academy](http://www.ejot.com/tec-academy)

## Audio podcast

**EJOT® TEC ACADEMY podcast**



In our EJOT TEC ACADEMY podcast, you can find out more about current trends and topics in the construction industry and the associated fastening solutions – always up-to-date, technically sound and at the heart of the industry.




Listen now!

## YouTube channel

**EJOT® Construction Division**



Our YouTube channel offers a large number of videos with product presentations, assembly instructions and tips from the world of fastening technology.




Watch now!

# EJOT® TEC ACADEMY in detail

## Expert seminars

We offer expert trainings in our seminar rooms for various topics. The expert seminars are aimed at architects, specifiers, distributors and technicians and are structured in different modules.

### Benefits

- > Build up skills in fastening technology
- > Knowledge of conditions under the German building law
- > Safe product selection for the application case, based on guidelines in compliance with the approval
- > Safety in practical handling

## Online trainings

As an addition to the face-to-face events in our seminar rooms, we offer you a wide range of digital options to further your education flexibly from your home office or office and to expand your expertise.

### Technical requirements

- > We use the tool Microsoft Teams for our free online trainings.
- > You can ask questions at any time during the training via a chat function.

### Content

- > Industrial Lightweight Construction
- > Flat Roofing
- > Anchoring Technology
- > Rear-Ventilated Facades
- > Solar
- > Timber Construction

### Dates

The expert seminars are tailored to your individual requirements. Current training dates are announced in our newsletter as well as on our TEC ACADEMY page on the Internet.

### Notes on registration

- > Current training dates are announced in our newsletter as well as on our TEC ACADEMY page on the Internet.
- > After you have registered, we will send you a confirmation email containing the login details for the respective online training.
- > If you have registered but are then unable to attend the online training due to scheduling reasons, a separate deregistration is not necessary.

## Website guidebooks in the construction fasteners blog

Digital reading material - take advantage of the opportunity to further educate yourself on a wide variety of topics on our website at any time. From now on, the new corrosion guidebook will regularly give you useful tips and information on the topic of corrosion.

Comprehensive series of advice on heavy-duty anchoring, corrosion, the use of self-drilling screws and the planning and installation of flat roofs, as well as numerous blog posts

on a wide range of topics and problems relating to fastening technology – you can find all this in our construction blog on our website.

It's worth checking in regularly, because new, exciting articles are added every month.



**To the Construction blog:**  
[www.ejot.com/blog](http://www.ejot.com/blog)



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