



LT System

Our integrated system for visible fastening of facades

LT System

The rainscreen facade (RVF) offers almost endless design possibilities thanks to the sheer endless variety of possible panel formats and materials. For a convincing overall picture to be achieved, the individual facade panels must be perfectly attached. Even if the installation is technically perfect, there may be problems with the dynamics within the

system. These problems can include constraints, fractures, cracks and warping of the panels. There may also be unsightly, light-colored marks in the areas of the substructure. These dynamics come from the different materials in the rainscreen facade design, how they react to temperature, and a variable length effect.

Unrestrained fastening for perfect facades

For visible screw fastenings of facade panels made of various materials, the EJOT portfolio offers the LT System, a solution that allows for the restraint-free fastening of facade panels by forming fixed and slid-

ing points with corresponding centring sleeves. Thermal length changes in the system are compensated for and a flat and visually flawless facade surface without kinks and bumps is maintained.

Our solutions for variable facade cladding



LT System Classic

The LT System Classic consists of a large number of screws of various designs for various panels and substrate types as well as corresponding centering grommets for a consistent formation of fixed and sliding points.

The centering grommets hold the screw in the centre of the drill hole in order to allow all movements in all directions during subsequent length changes of the plate. The collar on the sleeve protects the plate surface during the displacements from scratching by the screw head.



LT-XT System

Facade claddings with delicate surfaces, such as aluminium composite panels are usually covered with special protective films to protect the surfaces from dirt and scratches during transport and installation. For this type of facade cladding, EJOT has developed the LT-XT System.

In addition to the advantages of the classic LT System Classic, the screws have an additional cutting ring on the underside of the head (so-called undercut). The protective films are thus cut in a circular manner during the screwing process and can then be removed from the plate surface without any residue.



LT-TD System

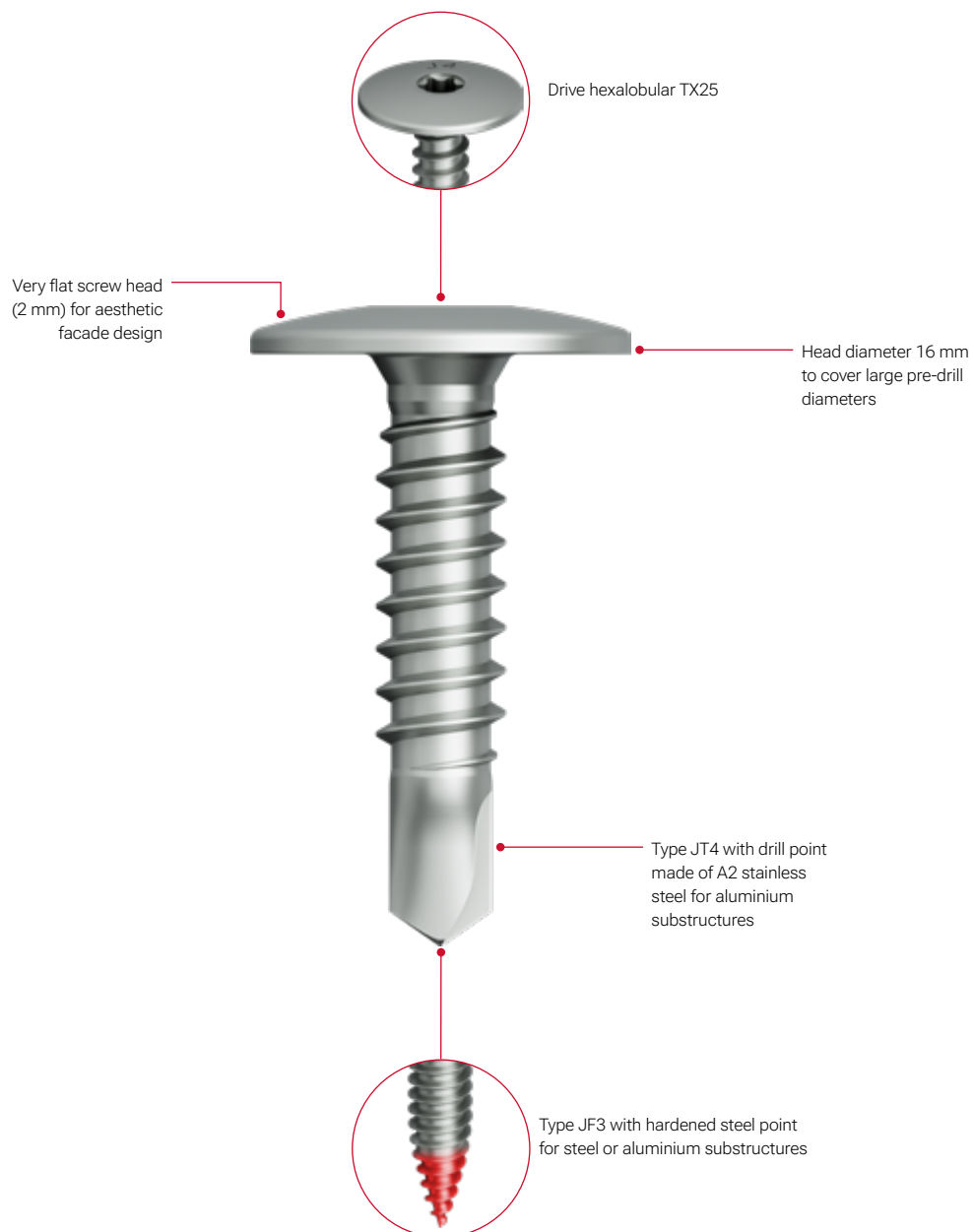
With the LT-TD System, EJOT has launched the latest generation of visible cladding of facade panels specifically designed for the fixing of demanding cladding such as fibre cement panels. A special stop collar on the screw shaft controls the exact setting and at the same time ensures an absolutely vertical alignment of the screw. Cracks and chipping on the garment, especially in the corner and edge area, can thus be avoided.

The centering grommets (as with the classic system available as fixed and sliding point grommets) have special feet in the lower area. The thus created 3 mm wide air gap between the cladding and the substructure avoids thermal bridges and ensures uniform drying of damp panels due to the weather. The light markings on the plate surface caused by the uneven drying of the plates can thus be avoided.

LT System Classic

Forcing tension under control: The LT fastening system classic with plastic grommets specifically matched to the screws ensures optimum fastening of the facade claddings.

The LT screws can be combined with suitable centring grommets - adapted to every application. Completely removable for an unmixed separation of the used materials.



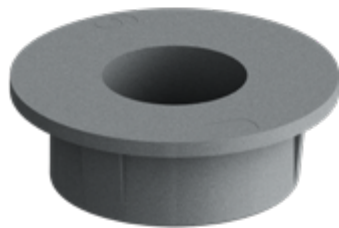


Detail view of fixed point for LT System



Detail view of sliding point for LT System

LT centring grommets to form
fixed points



Thin grommet edge protects
panel surface from scratches

Centring hole on grommet base
positions screws precisely in the
centre of the panel hole (11 mm)

Thin grommet edge protects
panel surface from scratches



LT centring grommets to form
fixed points

Centring hole on grommet base
positions screws precisely in the
centre of the panel hole (11 mm)



LT/STS Tool plastic

Video LT System Classic



LT System selection aid



Screw type	JT4- LT-3-5.5x25 KD16	JT4- LT-3-5.5x25 KD16	JT4- LT-3-5.5x25 KD16
Material	A2 stainless steel	A2 stainless steel	A2 stainless steel
Application	In agreement with cladding manufacturer	In agreement with cladding manufacturer	In agreement with cladding manufacturer
Approval by cladding manufacturer	Z-14.4-851 PURICELLI	Z-14.4-851 PURICELLI	Z-14.4-851 PURICELLI
Strip-proof	No ¹⁾	No ¹⁾	No ¹⁾
Substructure	Aluminium	Aluminium	Aluminium
Drilling capacity (tl pre-drilled) [mm]	3.0	3.0	3.0
Clamping thickness t_{fx} [mm]	4.0	6.0	8.0
EJOT proof of usability	-	-	-



LT grommet for fixed points (F)

Centring grommet
Ø11/4 F

Centring grommet
Ø11/6 F

Centring grommet
Ø11/8 F



LT grommet for sliding points (S)

Centring grommet
Ø11/4 S

Centring grommet
Ø11/6 S

Centring grommet
Ø11/8 S

¹⁾ Screws without free spin zone must be loosened by a quarter turn after connecting surface in order to ensure reliable sliding.



**JF3-
LT-2-5.5x30
KD16**

**JF3-
LT-2-5.5x30
KD16**

**JF3-
LT-2-5.5x30
KD16**

**JT4-
LT-2/6-6.0x50
KD16**

**JT4-
LT-2/6-6.0x50
KD16**

**JT4-
LT-2/6-6.0x50
KD16**

A2 stainless steel
with hardened
steel point

A2 stainless steel
with hardened
steel point

A2 stainless steel
with hardened
steel point

A2 stainless steel

A2 stainless steel

A2 stainless steel

In agreement with
cladding manufacturer

In agreement with
cladding manufacturer

In agreement with
cladding manufacturer

In agreement with
cladding manufacturer

In agreement with
cladding manufacturer

In agreement with
cladding manufacturer

–

–

–

Z-14.4-851
PURICELLI

Z-14.4-851
PURICELLI

Z-14.4-851
PURICELLI

No¹⁾

No¹⁾

No¹⁾

No¹⁾

No¹⁾

No¹⁾

Steel / Aluminium

Steel / Aluminium

Steel / Aluminium

Timber / Aluminium

Timber / Aluminium

Timber / Aluminium

3.0

3.0

3.0

1.5 – 2.0

1.5 – 2.0

1.5 – 2.0

4.0

6.0

8.0

4.0

6.0

8.0

ETA-10/0200
Z-14.4-901

ETA-10/0200
Z-14.4-901

ETA-10/0200
Z-14.4-901

ETA-10/0200

ETA-10/0200

ETA-10/0200



Centring grommet
Ø11/4 F



Centring grommet
Ø11/6 F



Centring grommet
Ø11/8 F



Centring grommet
Ø11/4 F



Centring grommet
Ø11/6 F



Centring grommet
Ø11/8 F



Centring grommet
Ø11/4 S



Centring grommet
Ø11/6 S



Centring grommet
Ø11/8 S



Centring grommet
Ø11/4 S



Centring grommet
Ø11/6 S

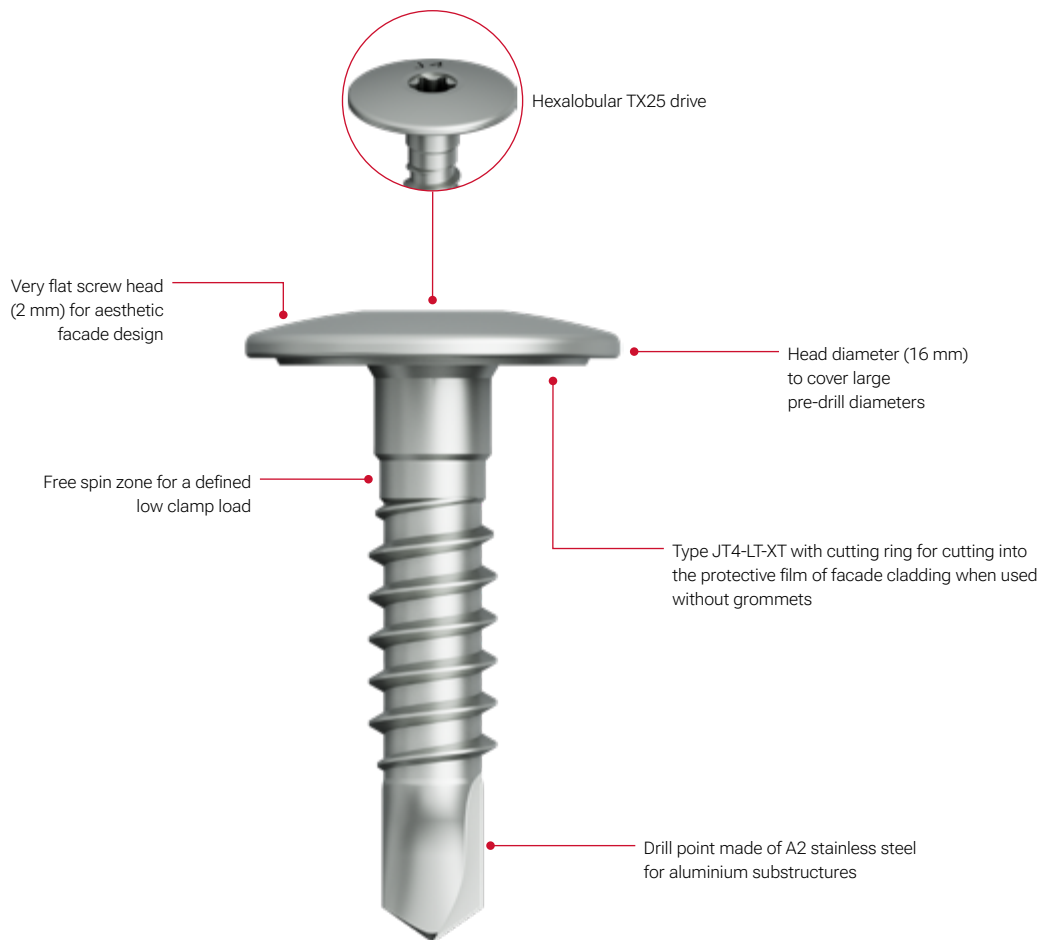


Centring grommet
Ø11/8 S

LT-XT System

Facade claddings with delicate surfaces, such as aluminium composite panels are usually covered with special protective films to protect the surfaces from dirt and scratches during transport and installation. For this type of facade cladding, EJOT has developed the LT-XT System.

In addition to the advantages of the classic LT System Classic, the screws have an additional cutting ring on the underside of the head (so-called undercut). The protective films are thus cut in a circular manner during the screwing process and can then be removed from the plate surface without any residue.

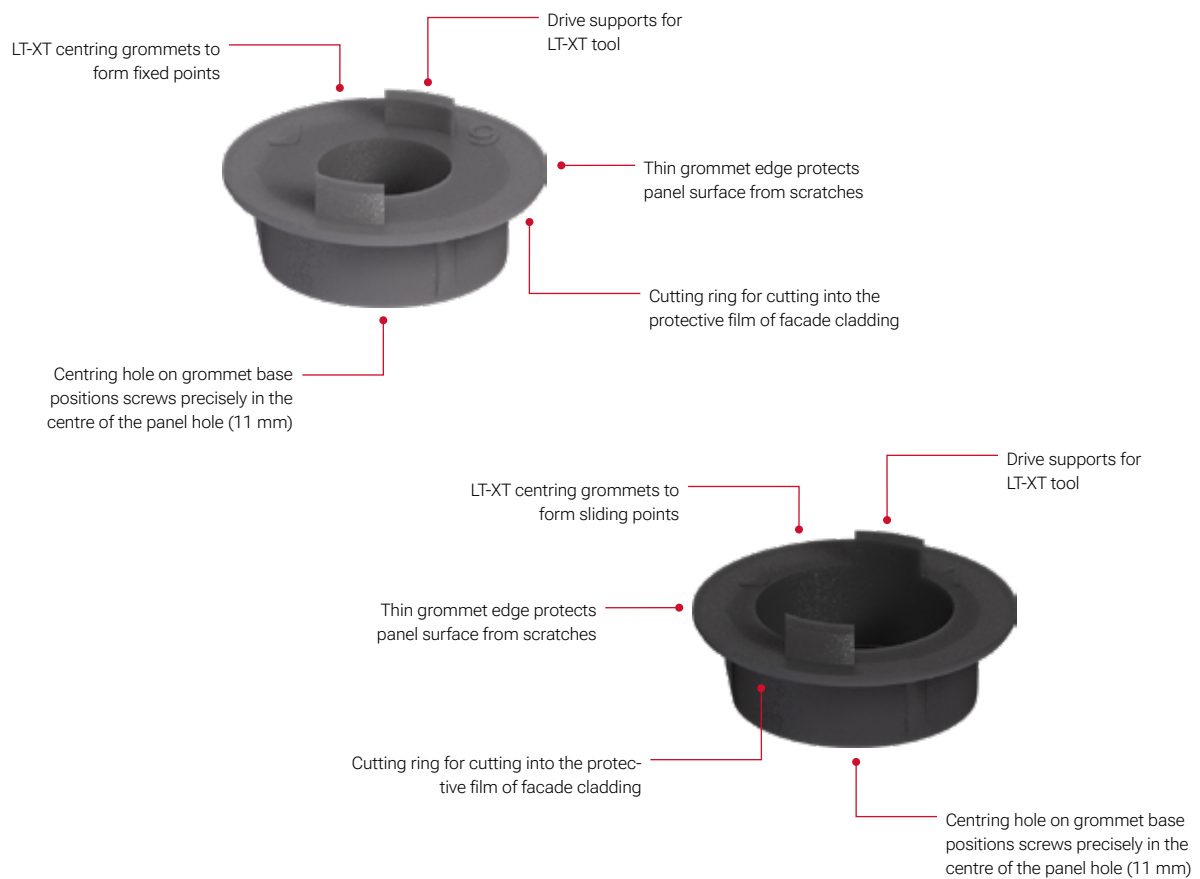




Detail view of fixed point for LT-XT System



Detail view of sliding point for LT-XT System



Video LT-XT System



LT-XT System selection aid



Screw type	JT4-LT-XT-3H/6-5.5x25 KD16	JT4-LT-2/6-6x50 KD16
Material	A2 stainless steel with hardened steel drill point	A2 stainless steel
Application	All common facade claddings	All common facade claddings
Approval by cladding manufacturer	Z-10.3-701 Mitsubishi Z-10.3-774 3A composites	Z-14.4-851 PURICELLI
Strip-proof	Yes	No ¹⁾
Substructure	Aluminium	Timber / Aluminium
Drilling capacity (tl pre-drilled) [mm]	3.0	1.5 – 2.0
Clamping thickness t_{fix} [mm]	6.0	8.0
EJOT proof of usability	P-S 18 0447	ETA-10/0200



LT-XT grommet for fixed points (F)

Centring grommet
XT Ø11/4 F



Centring grommet
XT Ø11/4 F



LT-XT-Grommet for sliding points (S)

Centring grommet
XT Ø11/4 S



Centring grommet
XT Ø11/4 S

¹⁾ Screws without free spin zone must be loosened by a quarter turn after connecting surface in order to ensure reliable sliding.

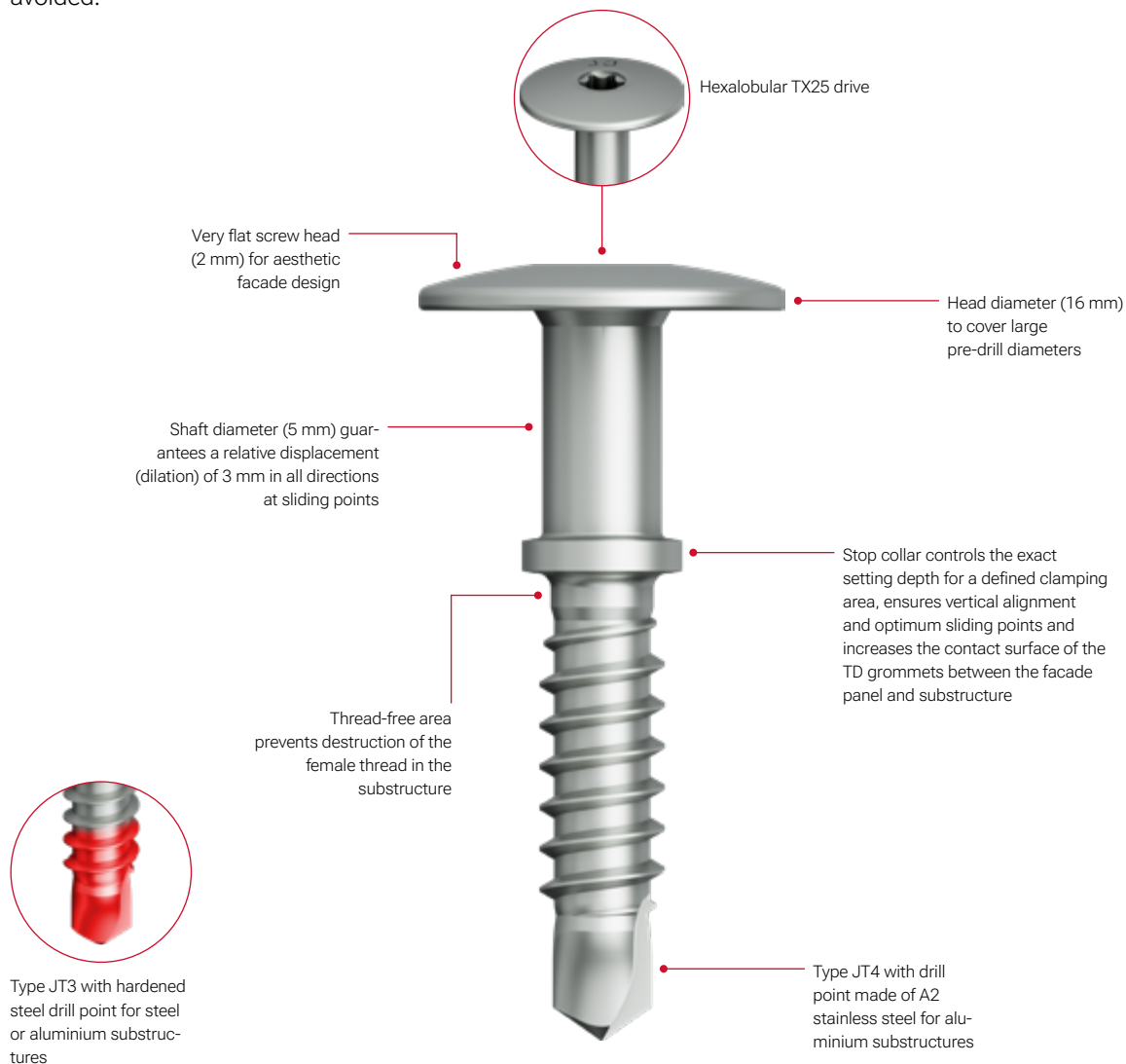
Installation process LT-XT System



LT-TD System

With the LT-TD System, EJOT has launched the latest generation of visible cladding of facade panels specifically designed for the fixing of demanding cladding such as fibre cement panels. A special stop collar on the screw shaft controls the exact setting and at the same time ensures an absolutely vertical alignment of the screw. Cracks and chipping on the cladding, especially in the corner and edge area, can thus be avoided.

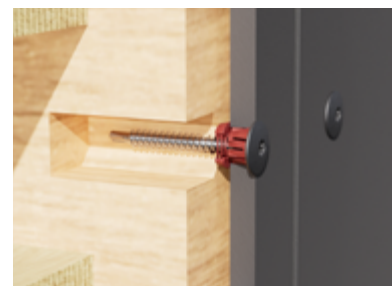
The centering grommets (as with the classic system available as fixed and sliding point grommets) have special feet in the lower area. The thus created 3 mm wide air gap between the cladding and the substructure avoids thermal bridges and ensures uniform drying of damp panels due to the weather. The light markings on the plate surface caused by the uneven drying of the plates can thus be avoided.



The JT4 with drill point made of A2 stainless steel for aluminium substructures



Type JT3 with hardened steel drill point for steel or aluminium substructures



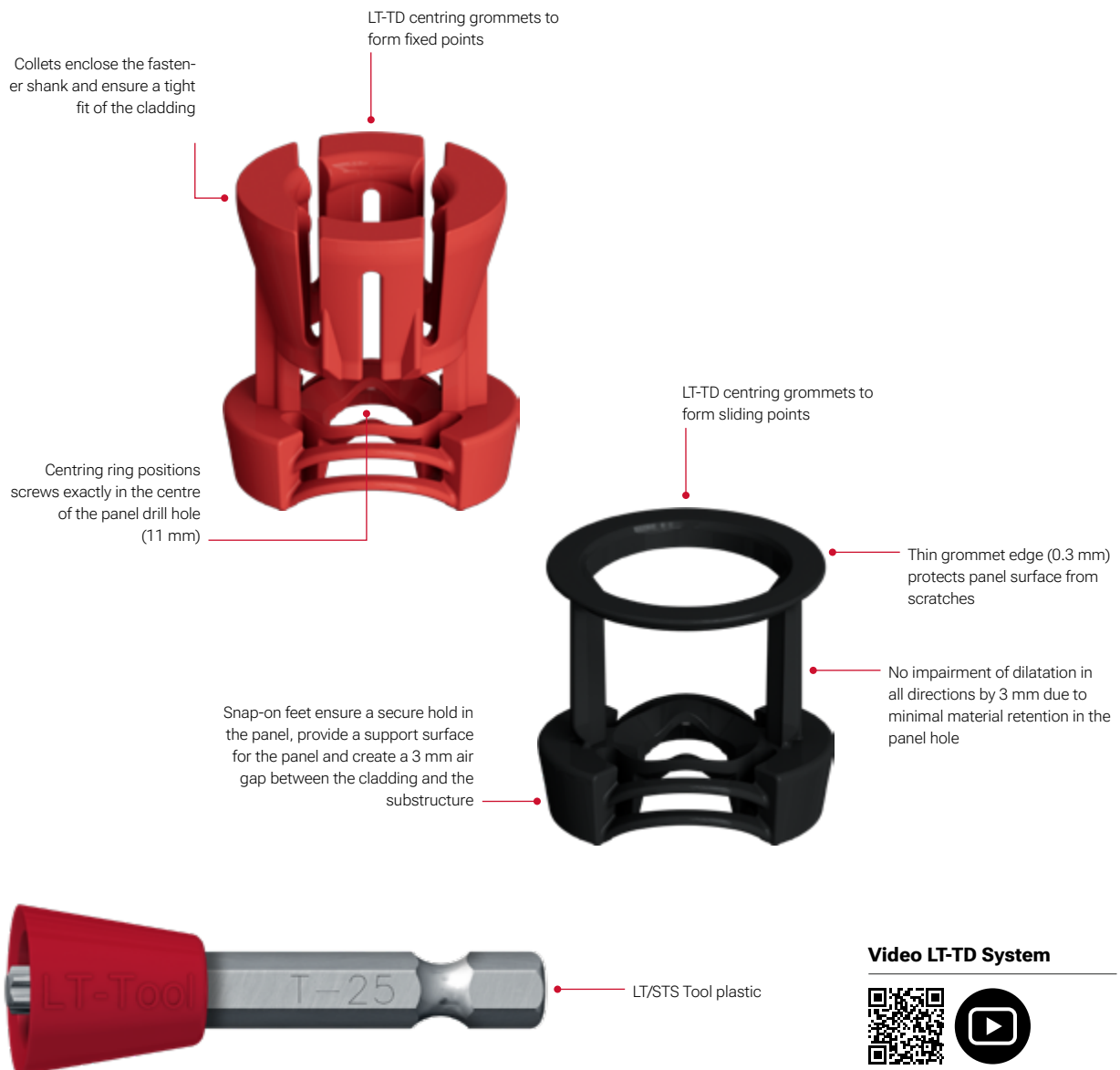
Type JT4-LT-2/6-6.0x50 with drill point made of A2 stainless steel for timber substructures



Detail view of fixed point for LT-TD System

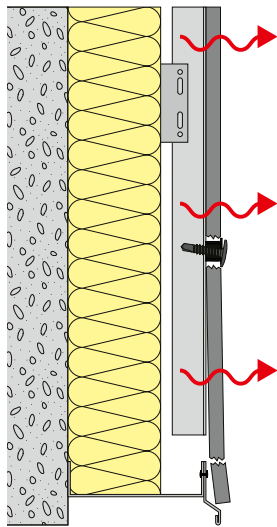


Detail view of sliding point for LT-TD System



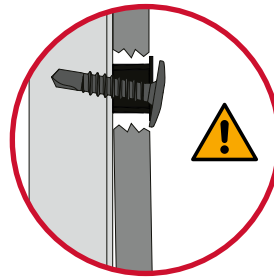
The operating principle - the details make the difference

Standard system



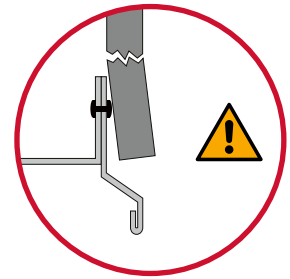
Thermal coupling

Direct contact of the support profile with the facade cladding leads to weather-related markings of the profile positions on the surface of the facade cladding.



Angled screw connection

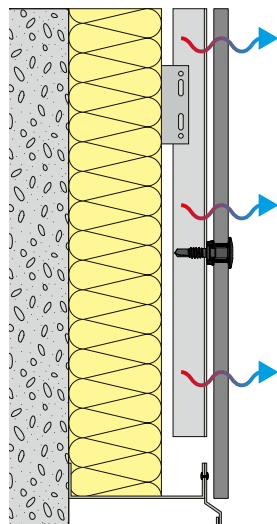
A non-perpendicular screw connection can have a negative effect on the sliding point and cause the facade cladding to break.



Ventilation grille narrow point

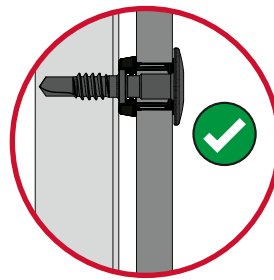
The corner areas of the facade cladding are particularly sensitive. The attachment points of ventilation grilles and end profiles can generate stresses and cause the facade cladding to break.

LT-TD System



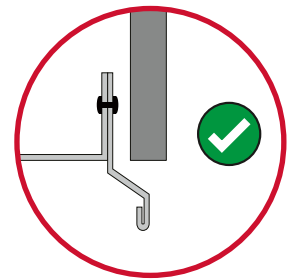
Thermal decoupling

The support profile has a 3 mm gap to the facade cladding and is therefore thermally decoupled. The surface of the facade cladding remains visually appealing in the long term.



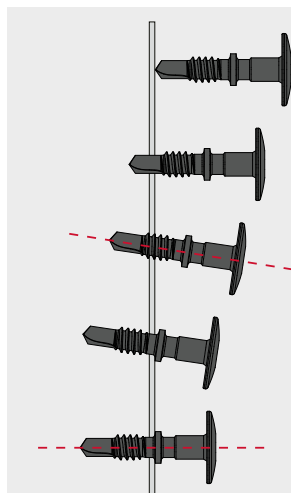
Perpendicular screw connection

The perpendicular alignment of the screw guarantees an optimum sliding point with a relative displacement (dilation) of 3 mm in all directions.



Space for ventilation grille

The attachment points of ventilation grilles and end profiles have no contact with the facade cladding due to the second rear ventilation level.

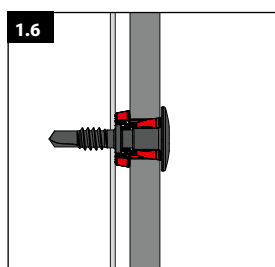
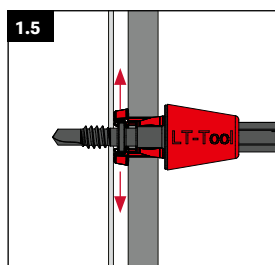
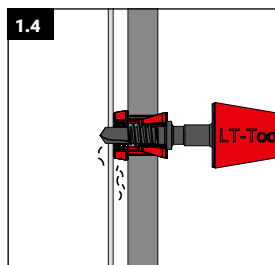
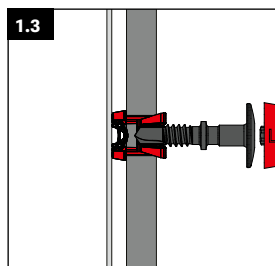
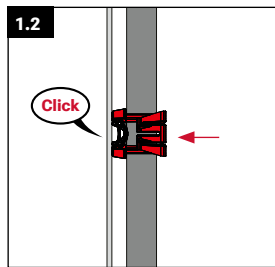
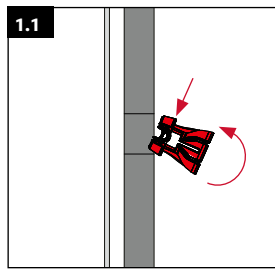


Perpendicular orientation with guarantee: The stop point

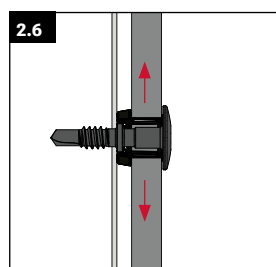
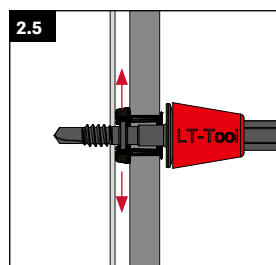
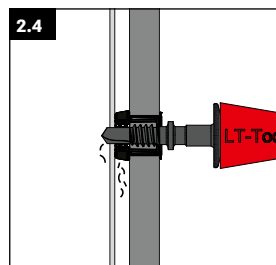
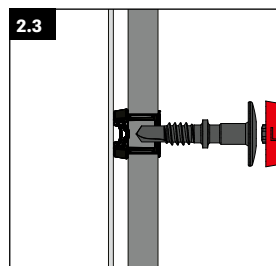
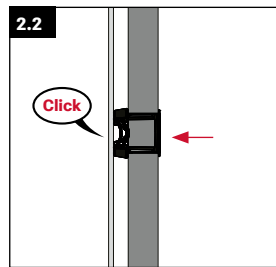
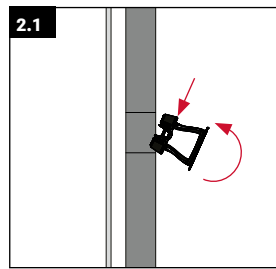
To ensure that screws can be screwed into components, their threads naturally have a slope from the tip towards the screw head. If the threads meet the component, the screw tends to tilt parallel to the course of the threads. This inclined position means that the sliding points cannot be optimally executed and therefore optimum sliding of the facade cladding is not possible. The stop collar of the LT-TD screws counteracts this problem and automatically aligns the screws perpendicular when they hit the stop point on the substructure. This guarantees perfectly executed sliding points.

The assembly process - simple, with process-reliability

1. Fixed point



2. Sliding point



Insert LT-TD grommet

The grommet is inserted at a slight angle into the factory-made drill hole in the facade cladding. The snap-on feet are pressed together and pushed into the drill hole with a tilting movement.

Lock grommet

The grommet is pushed through the drilled hole until the snap-on feet on the back of the facade cladding protrude and snap into place. This way the grommet is securely locked in the facade cladding.

Position LT-TD screw

The centering ring of the grommet is used to position the screw exactly in the center of the drill hole. The LT/STS tool ensures reliable screw guidance.

Fastening operation

Swarf is produced during screw fastening, which can be discharged through the air gap between the cladding and the substructure.

Stop collar

The screw is screwed in up to the stop collar. This controls the exact setting depth for a defined clamping area, ensures perpendicular alignment of the screw and increases the contact surface of the grommet between the facade panel and substructure.

Installation complete

For the fixed point (1.6), collets of the grommet enclose the fastener shank and ensure a tight fit of the cladding. The sliding point (2.6) ensures relative displacement (dilatation) of 3 mm in all directions.

LT-TD System selection aid

					
Screw type	JT4- LT-TD-3-5.5x24/4 KD16	JT4- LT-TD-3-5.5x26/6 KD16	JT4- LT-TD-3-5.5x28/8 KD16	JT4- LT-TD-3-5.5x30/10 KD16	JT4- LT-TD-3-5.5x32/12 KD16
Material	A2 stainless steel	A2 stainless steel	A2 stainless steel	A2 stainless steel	A2 stainless steel
Application	All common facade claddings	All common facade claddings	All common facade claddings	All common facade claddings	All common facade claddings
Approval by cladding manufacturer	–	–	–	–	–
Strip-proof	Yes	Yes	Yes	Yes	Yes
Substructure	Aluminium	Aluminium	Aluminium	Aluminium	Aluminium
Drilling capacity (tl pre-drilled) [mm]	3.0	3.0	3.0	3.0	3.0
Clamping thickness t_{fx} [mm]	4.0	6.0	8.0	10.0	12.0
EJOT proof of usability	available soon	available soon	available soon	available soon	available soon
					
LT-TD grommet for fixed points (F)	Centring grommet TD Ø11/4 F	Centring grommet TD Ø11/6 F	Centring grommet TD Ø11/8 F	Centring grommet TD Ø11/10 F	Centring grommet TD Ø11/12 F
					
LT-TD grommet for sliding points (S)	Centring grommet TD Ø11/4 S	Centring grommet TD Ø11/6 S	Centring grommet TD Ø11/8 S	Centring grommet TD Ø11/10 S	Centring grommet TD Ø11/12 S
Availability	Upon request	Upon request	Yes	upon request	Upon request

¹⁾ Screws without free spin zone must be loosened by a quarter turn after connecting surface in order to ensure reliable sliding.



**JT3-
LT-TD-3-5.5x28/4
KD16**

**JT3-
LT-TD-3-5.5x30/6
KD16**

**JT3-
LT-TD-3-5.5x32/8
KD16**

**JT3-
LT-TD-3-5.5x34/10
KD16**

**JT3-
LT-TD-3-5.5x36/12
KD16**

**JT4-
LT-2/6-6x50
KD16**

A2 stainless steel
with hardened
steel drill point

A2 stainless steel
with hardened
steel drill point

A2 stainless steel
with hardened
steel drill point

A2 stainless steel
with hardened
steel drill point

A2 stainless steel
with hardened
steel drill point

A2 stainless steel

All common
facade claddings

All common
facade claddings

All common
facade claddings

All common
facade claddings

All common
facade claddings

All common
facade claddings

-

-

-

-

-

-

Yes

Yes

Yes

Yes

Yes

No¹⁾

Steel / Aluminium

Steel / Aluminium

Steel / Aluminium

Steel / Aluminium

Steel / Aluminium

Timber / Aluminium

3.0

3.0

3.0

3.0

3.0

1.5 – 2.0

4.0

6.0

8.0

10.0

12.0

8.0

available soon

available soon

available soon

available soon

available soon

ETA-10/0200



Centring grommet
TD Ø11/4 F



Centring grommet
TD Ø11/6 F



Centring grommet
TD Ø11/8 F



Centring grommet
TD Ø11/10 F



Centring grommet
TD Ø11/12 F



Centring grommet
TD Ø11/8 F



Centring grommet
TD Ø11/4 S



Centring grommet
TD Ø11/6 S



Centring grommet
TD Ø11/8 S



Centring grommet
TD Ø11/10 S



Centring grommet
TD Ø11/12 S



Centring grommet
TD Ø11/8 S

Upon request

Upon request

Yes

Upon request

Upon request

Yes



At home in many trades

The product segments of the Market Unit Construction

With the Market Unit Construction, 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

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

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

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

Rainscreen Facades (RVF)

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

www.ejot.com/rainscreen-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

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

Interior Work

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

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

Mounting Elements for Attachments

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

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



EJOT SE & Co. KG

Market Unit Construction

In der Stockwiese 35

57334 Bad Laasphe · Germany

T +49 2752 908-0

F +49 2752 908-731

construction@ejot.com ·

www.ejot.com/construction