



# RAINSCREEN FACADE

**Systems and services  
for your Rainscreen  
Facade projects**

# FROM DESIGN TO CONSTRUCTION

We support you from the quotation through to the planning, execution, and successful completion of your facade project.

## WE HELP YOU SELECT THE RIGHT SYSTEM TO MEET YOUR NEEDS

Across North America, energy codes have increased the need for more thermally efficient facades. The stricter requirements have increased minimum 'R' values and made understanding your overall facade's thermal performance a critical step in the design process.

Designers are left to understand the impact of selecting a suitable subframing system, and the variety of possible 'R' values for different systems can add to the complexity.

With a thorough understanding of your project's specific needs, (code requirements, exterior panel choices), Hilti can offer design support that includes structural and thermal calculations.

Thermal performance

### Example calculation

#### Calculation done with

Exterior Insulation.....5"  
 Substrate.....6" Metal Studs  
 Stud Spacing .....16"  
 Vertical Bracket Spacing .....24"

Note that depending on the project requirements, the designed R Value can be reached by various combinations of substructure systems, for example, with thicker insulation and/or different base material.

### MFT-MFI

#### Aluminum Bracket



#### Our proven aluminum bracket

The MFT-MFI product line is designed to make the installation on the jobsite quicker and easier, helping save you time and money.

### MFT-FOX-T

#### Aluminum / 50% Glass fiber reinforced thermal break



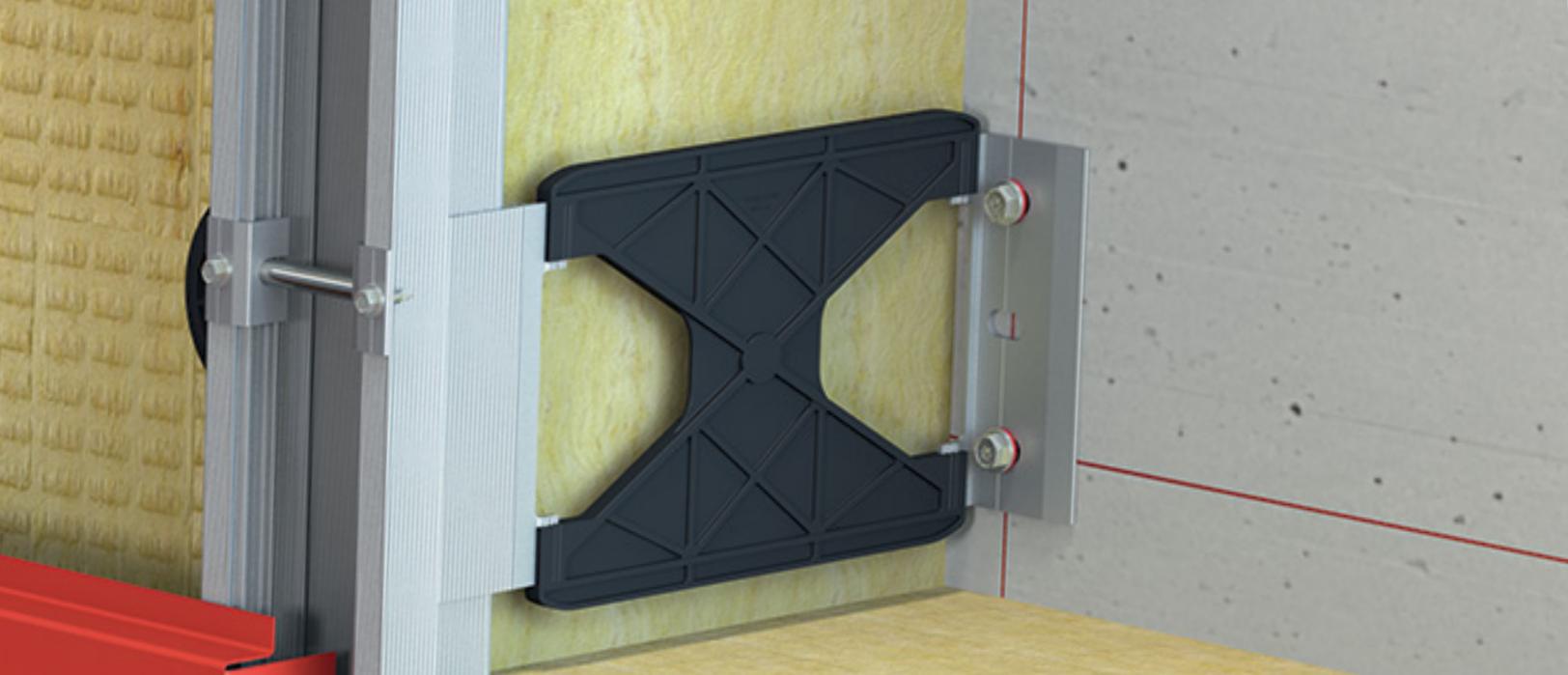
#### Maximize strength minimize thermal bridging

Virtually eliminates thermal bridging which allows you to use less insulation material, leading to thinner exterior walls, allowing greater usable floor space, with reduced energy consumption.

Effective R Value

17 [h\*ft<sup>2</sup>\*°F/BTU]

24 [h\*ft<sup>2</sup>\*°F/BTU]



## THERMAL REQUIREMENTS ARE BECOMING INCREASINGLY IMPORTANT. FIND THE RIGHT SYSTEM WITH HILTI.

Hilti brackets are designed to reduce thermal transfer. Brackets can be mixed and matched to reach specific projects requirements, while also providing ease-of-use for the installer.

### MFT-FOX-VI/HI

The proven aluminum bracket for the standard solution.

- A clamp spring simplifies the adjustment of the support profiles
- Bracket with round holes and elongated holes for the attachment of fixed and flexible points with up to 40 mm adjustability
- Pre-assembled thermal pad
- Base plates available for 1/4" (6.5 mm) and 3/8" (11 mm) for anchoring options



The Hilti MFT-Fox-VI/HI brackets are made of aluminum and are flexible to use. They can be used for both fixed and flexible points. These brackets have been engineered to optimize load capacity vs. material weight for a more efficient design.

### MFT-FOX-VT/HT

Thermally separated bracket to meet higher demands.

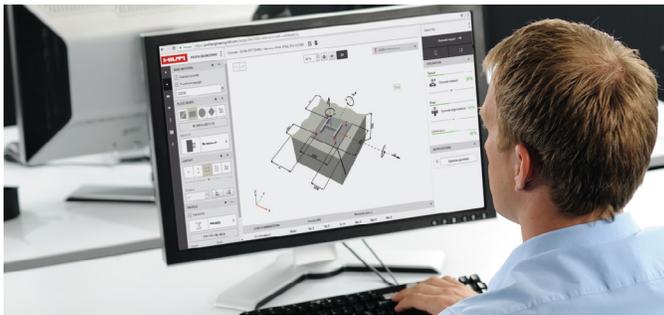
- Passive house certified component
- Virtually eliminates thermal bridging
- Fiberglass-reinforced plastic and aluminum composite material for low thermal conductivity and high load bearing capacity
- Bracket with round holes and elongated holes for the formation of fixed and flexible points with up to 1.5" (40 mm) adjustability



The Hilti MFT-FOX-T bracket is your solution for minimal thermal bridging. Fiberglass-reinforced plastic and aluminum composite material enables minimum heat conductivity at passive house level while ensuring a higher load bearing capacity.

# FROM DESIGN TO CONSTRUCTION

We support you from the quotation through to the planning, execution, and successful completion of your facade project.



## 1. FACADE PLANNING

The requirements of the local energy code are a key factor in the selection of the substructure variants. We offer you support in the design phase to meet these requirements. You can benefit from our cost-optimized solution designed to help meet your requirements.



## 3. ANCHORING BRACKETS

There are different systems available for anchoring wall mounts:

- Anchor technology for concrete and masonry
- Self-drilling screws for metal studs and wood framing

Hilti offers the ideal anchoring system for every base material and a cordless tool portfolio to help further increase productivity.



## 2. MEASURING AND ALIGNING

Measuring old structures, defining the fastening points. The Hilti Total Station allows for a more simplified layout with a single operator. For more precise and faster setup of profiles, Hilti offers a coordinated portfolio of rotating lasers.



#### 4. FASTENING INSULATION

Insulation of up to 8" can be efficiently fastened to a variety of base materials. The X-IE system is available to help improve installer speed and safety.



#### 6. FASTENING CLADDING

The building owner and architect together define which material will be used for the facade design. We work together with the cladding manufacturers on fastening solutions that can help increase the efficiency and safety of your assembly. We offer collated screw solutions for creating aluminum composite cassettes as well as for fastening plaster-base sheeting.



#### 5. CONNECTING THE SUBSTRUCTURE

At Hilti, we also offer the right structural fasteners for your rainscreen facade. High load values create opportunities to optimize spans and thus help reduce your project costs.

# SERVICES FOR MORE PRODUCTIVITY AND SAFETY

We offer you expert support through our dedicated services for planning, preparation, and execution of your project.



## VIRTUAL MODELING SUPPORT

### Hilti BIM

It could hardly be more simple, precise and convenient. From the Hilti BIM/CAD library, you can insert the Hilti solutions in your 3D building model with just a few clicks of the mouse. All products and their technical data are configured for you in 2D format as well as in the form of 3D objects.

### R-value calculation

Based on the project specific parameters, we perform R-value calculation on the substructure for your facade.



## ENGINEER SERVICES

### Structural Designs and Project Drawings

Structural calculations are performed based on cladding layout and loading requirements. The entire subframing system including fasteners can be documented. As requested, structural calculations can be stamped by a licensed professional engineer. If required, project specific assembly drawings are available.



## PRODUCT

### Colored profiles

Hilti carries standard L/T profiles in three finishes. Aluminum mill finish, black, and clear anodized. Hanger rails in aluminum or black powder coated finishes are also available.



## ASSET MANAGEMENT

### Hilti ON!Track

Hilti ON!Track software helps you manage your operating materials with more ease and efficiency.

### Fleet Management

You focus on your core business – we'll take care of your tool fleet.

### Hilti Tool Services

Returned repaired within one day – or free of charge. Our repair service is unrivalled in terms of speed and simplicity.



## JOBSITE SUPPORT

### Loading tests

Tensions tests available for base materials beyond standard criteria.

### Site delivery

We'll deliver to your jobsite.

### Health and safety

Our outstanding solutions help to offer you everyday protection. Hilti is dedicated to the continuous improvement and technical development of power tool and jobsite safety.



## TRAINING AND ADVICE

### Training for users and technicians

Fastening systems have developed extensively over the last few years. Local Hilti representatives are available to train installers on the most up-to-date fastening techniques.



## FASTENING SOLUTIONS FOR A SAFER, MORE EFFICIENT SYSTEM

Usage, location and special environmental parameters place individual demands upon the different system components in the ventilated facade. Corrosion properties, load transfer, fire protection and the selection of structural fasteners represent a complex challenge for the planning and execution of your project. All of our components are safety tested and inspected through many years of experience on many projects.

### BASE WALL ANCHORING SYSTEMS



#### KB TZ-2 (304/316SS)

Ultimate tension and shear performance for tension zone applications.

- ICC-ES compliant
- Available in 304/316 Stainless steel

#### Self-drilling screws

With facade base materials made of steel or wood, anchoring with self-drilling screws is a safer and more efficient fastening solution with no need for pre-drilling. Available in SS304/316

### SUBFRAMING SCREWS



#### Self-drilling screws for rails

For fastening aluminum support brackets on aluminum profiles, two-layer systems as well as cladding holders on profiles in the ventilated facade, our drilling screws are a better choice.

The specific underhead geometry with undercut for a safer and variable connection of the fixed and flexible point is just one example of our application-oriented portfolio.

We offer all non-accessible structural fasteners in 316 grade stainless steel.

### FASTENING INSULATION WITH TESTED SYSTEMS



Fasteners for insulating material don't just need to fit, they must secure. You can rely on Hilti fastening solutions to help provide support for your projects. What's more, you can work more productively and save more time

### FASTENING SOLUTIONS FOR A VARIETY OF PANEL TYPES



Panel attachment accessories are available depending on project specific requirements.



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