# TRITEC MOUNTING SYSTEMS: OVERVIEW OF APPLICATIONS

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1.1 TRI-STAND on tiles | 1.1.1 Insertion system

POTENTIAL APPLICATIONS

- for standard tiles
- for flat “beaver tail” tiles
- for shingles and slate

ADVANTAGES

Insertion system

- time-saving no-screw module installation
- homogeneous appearance due to small spaces between module rows
- easy removal of modules for replacement or maintenance work
- no clip marks
- optimum load distribution

Flexibility

- different profile gauges for both light-weight designs and statically optimized constructions
- one or several roof hook variants for virtually any application
- optionally black profiles for visually attractive systems with black modules
- horizontal and vertical module installation

Quality

- TÜV certified
- components of high-quality aluminium and V2A stainless steel
- 5-year guarantee, with training extendable to 10 years
- TRI-DESIGN software for optimum, standard planning and dimensioning of the system

MOST IMPORTANT COMPONENTS

- UP universal profile the basic profile
- UP-S universal profile profile for high static loads
- UP-L universal profile material-optimized profile
- UP-C / TS-C profile connector secure connection of profiles
- TS insertion profile insertion profile for standard frame heights
- TS central rail additional reinforcement for vertical module insertion
- TS edging tool variable or fixed, for loads of up to 170 kg per roof hook
- roof hooks for edge-trimming the profiles

TRITEC
1.1 TRI-STAND on tiles | 1.1.2 Clip system

POTENTIAL APPLICATIONS

- for standard tiles
- for flat “beaver tail” tiles
- for shingles
- for large rafter spacings

ADVANTAGES

Clip system
- materials-saving
- manufacturer-conforming mode of installation
- low system costs per kWp
- standard on the European market
- For large rafter spacings since, by clipping, the module supports the system statics.

Flexibility
- different profile gauges for both light-weight designs and statically optimized constructions
- one or several roof hook variants for virtually any application
- optionally black profiles and clamps for visually attractive systems with black modules
- horizontal and vertical module installation

Quality
- TÜV certified
- components of high-quality aluminium and V2A stainless steel
- 5-year guarantee, with training extendable to 10 years
- TRI-DESIGN software for optimum, standard planning and dimensioning of the system

MOST IMPORTANT COMPONENTS

- UP universal profile
- UP-S universal profile
- UP-L universal profile
- UP-C profile connector
- roof hooks

the basic profile
profile for high static loads
material-optimized profile
secure connection of profiles
variable or fixed, for loads of up to 170 kg per roof hook
1.2 TRI-STAND on shingles

POTENTIAL APPLICATIONS
On all types of shingle roofs with hanger bolts

To be taken into account here:
• Fastening of counter-battening (min. 45/45 mm) must be able to withstand the additional loads.
• Set screws must be centrically set into the counter-battening.
• Asbestos-containing roof shingles may only be worked on in compliance with standard regulations.

ADVANTAGES

Module installation
• Insertion system: optimum load distribution and time-saving no-screw installation
• Clip system: materials-saving mode of installation and low system costs per kWp

Flexibility
• optionally black profiles and clamps for visually attractive systems with black modules
• horizontal and vertical module installation
• different profile gauges for both light-weight designs and statically optimized constructions
• freely selectable degree of ventilation

Quality
• no quality impairment of the subroof due to fastening screws in counter-battening
• TÜV certified
• components of high-quality aluminium and V2A stainless steel
• 5-year guarantee, with training extendable to 10 years
• TRI-DESIGN software for optimum, standard planning and dimensioning of the system

MOST IMPORTANT COMPONENTS

• UP universal profile the basic profile
• UP-S universal profile profile for high static loads
• UP-L universal profile material-optimized profile
• UP-C / TS-C profile connector secure connection of profiles
• hanger bolts specifically for fiber cement shingles
• TS central rail possibly required for insertion system
• TS edging tool for edge-trimming the profiles

TRITEC
1.3 TRI-STAND on corrugated panel roofs

POTENTIAL APPLICATIONS

- for all types of pitched roofs with profiled or corrugated surfaces
- for corrugated panels
- for corrugated fiber cement panels

ADVANTAGES

Module installation
- Insertion system: optimum load distribution and time-saving no-screw installation
- Clip system: materials-saving mode of installation and low system costs per kWp

Flexibility
- optionally black profiles and clamps for visually attractive systems with black modules
- different profile gauges for both light-weight designs and statically optimized constructions
- horizontal and vertical module installation
- Different hanger bolt sizes allow for a freely selectable degree of ventilation and the correction of roof irregularities

Quality
- solid fastening even for comparatively thick and soft insulation layers
- TÜV certified
- components of high-quality aluminium and V2A stainless steel
- 5-year guarantee, with training extendable to 10 years
- TRI-DESIGN software for optimum, standard planning and dimensioning of the system

MOST IMPORTANT COMPONENTS

- UP universal profile the basic profile
- UP-S universal profile profile for high static loads
- UP-L universal profile material-optimized profile
- UP-C / TS-C profile connector secure connection of profiles
- hanger bolts in different sizes (M8, M10, M12)
- TS central rail possibly required for insertion system
- TS edging tool for edge-trimming the profiles
2.1 TRI-VENT | 2.1.1 Horizontal installation

POTENTIAL APPLICATIONS

- on trapezoidal sheet metal roofs
- on sandwich elements
- applicable at all bead spacings between 90 and 350 mm due to carrier profiles of different lengths

ADVANTAGES

Installation

- riveting instead of bolting carrier profiles for higher loads up to 2400 N/m²
- low cost and uncomplicated shipment thanks to few components and short profiles
- No consequences due to heat expansion: Modules are set on short rails, tension-free and without clipping
- suitable for virtually any trapezoidal sheet metal roof and modules of different frame thicknesses
- installation possible by 1 person

Quality

- TÜV certified
- components of high-quality aluminium and V2A stainless steel
- 5-year guarantee, with training extendable to 10 years
- TRI-DESIGN software for optimum, standard planning and dimensioning of the system

MOST IMPORTANT COMPONENTS

- central and end module anchor each applicable for two different module widths
- carrier profile available in different lengths
- sealing rivets for fastening the carrier profiles
- drilling gauge for optimum alignment of drill holes
- TRI-VENT bending tool for secure fixation of end module anchors
2.1 TRI-VENT | 2.1.2 Vertical installation

POTENTIAL APPLICATIONS

- on trapezoidal sheet metal roofs
- on sandwich elements
- applicable at all bead spacings between 90 and 350 mm due to carrier profiles of different lengths
- suitable for uneven roofs

ADVANTAGES

Installation

- riveting instead of bolting carrier profiles for higher loads up to 2400 N/m²
- low cost and uncomplicated shipment thanks to few components and short profiles
- No consequences due to heat expansion: Modules are set on short rails, tension-free and without clipping
- no slipping of modules due to circlips
- suitable for virtually any trapezoidal sheet metal roof and modules of different frame thicknesses
- installation possible by 1 person

Quality

- TÜV certified
- components of high-quality aluminium and V2A stainless steel
- 5-year guarantee, with training extendable to 10 years
- TRI-DESIGN software for optimum, standard planning and dimensioning of the system

MOST IMPORTANT COMPONENTS

- central and end module anchor each applicable for two different module widths
- carrier profile available in different lengths
- sealing rivets for fastening the carrier profiles
- drilling gauge for optimum alignment of drill holes
- circlips 2 pieces per module, suitable for all framed modules
- TRI-VENT bending tool for secure fixation of end module anchors
2.2 TRI-STAND

2.2.1 Insertion system with rivet SafeClick

POTENTIAL APPLICATIONS

- on trapezoidal sheet metal roofs
- on sandwich elements

ADVANTAGES

Insertion system
- time-saving no-screw module installation
- homogeneous appearance due to small spaces between module rows
- easy removal of modules for replacement or maintenance work
- to clip marks
- optimum load distribution

Installation
- quick and easy since only one setting is required for the drilling gauge
- module load possible up to 5400 N/m²
- location-optimized load distribution to all outward beads thanks to continuous rails

Flexibility
- horizontal and vertical module installation
- Number of rivet SafeClick is selected depending on roof load, bead space, trapezoidal sheet metal gau- ge and material (aluminium or steel).

Quality
- TÜV certified
- components of high-quality aluminium and V2A stainless steel
- 5-year guarantee, with training extendable to 10 years
- TRI-DESIGN software for optimum, standard planning and dimensioning of the system

MOST IMPORTANT COMPONENTS

- TS profile  in aluminium or black
- TS-M central rail  for TRI-STAND insertion profiles
- rivet SafeClick  quick and stable joining of SafeClick connections
- drilling gauge  for optimum calibration of drill holes
- rubber seal and rivet  for optimum impermeability of the roof
- TS edging tool  for edge-trimming the profiles when using insertion system
2. Trapezoidal sheet metal roof

2.2 TRI-STAND

2.2.2 Clip system with rivet SafeClick

POTENTIAL APPLICATIONS

• on trapezoidal sheet metal roofs
• on sandwich elements

ADVANTAGES

Clip system
• materials-saving
• manufacturer-conforming mode of installation
• low system costs per kWp
• standard on the European market

Installation
• vertical module installation
• module load possible up to 5400 N/m²
• location-optimized load distribution to all outward beads thanks to continuous rails

Flexibility
• In case of interfering objects, the position of a UP-TS profile may be slightly changed without displacement of the entire module field.
• Number of rivet SafeClick is selected depending on roof load, bead space, trapezoidal sheet metal gauge and material (aluminium or steel).

Quality
• TÜV certified
• components of high-quality aluminium and V2A stainless steel
• 5-year guarantee, with training extendable to 10 years
• TRI-DESIGN software for optimum, standard planning and dimensioning of the system

MOST IMPORTANT COMPONENTS

• center clips in aluminium or black
• UP-TS profile carrier profile for modules
• rivet SafeClick quick and stable joining of SafeClick connections
• drilling gauge for optimum calibration of drill holes
3.1 TRI-STAND
3.1.1 Insertion system on sheet metal folding clamps

POTENTIAL APPLICATIONS
• on sheet metal and Kalzip roofs by means of fastening on standing seams
• with module installation in rows suitable for curved roof surfaces

ADVANTAGES

Insertion system
• time-saving no-screw module installation
• homogeneous appearance due to small spaces between module rows
• easy removal of modules for replacement or maintenance work
• no clip marks
• optimum load distribution

Flexibility
• optionally black profiles for visually attractive systems with black modules
• horizontal and vertical module installation
• clips fitting for different module frames
• fastening with flat head screws or hammerhead bolts

Quality
• components of high-quality aluminium and V2A stainless steel
• 5-year guarantee, with training extendable to 10 years
• TRI-DESIGN software for optimum, standard planning and dimensioning of the system

MOST IMPORTANT COMPONENTS
• sheet metal and Kalzip clamps depending on type of roof, for different module frames
• UP universal profile the basic profile
• UP-S universal profile profile for high static loads
• UP-L universal profile material-optimized profile
• TS edging tool for edge-trimming the profiles with insertion system
3.1 TRI-STAND
3.1.2 Clip system on sheet metal folding clamps

POTENTIAL APPLICATIONS

• on sheet metal and Kalzip roofs by means of fastening on standing seams

ADVANTAGES

Clip system
• materials-saving
• manufacturer-conforming mode of installation
• low system costs per kWp
• standard on the European market

Flexibility
• optionally black profiles and clamps for visually attractive systems with black modules
• horizontal and vertical module installation
• clips fitting for different module frames
• fastening with flat head screws or hammerhead bolts

Quality
• components of high-quality aluminium and V2A stainless steel
• 5-year guarantee, with training extendable to 10 years
• TRI-DESIGN software for optimum, standard planning and dimensioning of the system

MOST IMPORTANT COMPONENTS

• sheet metal and Kalzip clamps depending on type of roof, for different module frames
• UP universal profile the basic profile
• UP-S universal profile profile for high static loads
• UP-L universal profile material-optimized profile
1. TRI-STAND triangle installation with hanger bolts

POTENTIAL APPLICATIONS
- as support on pitched roofs with up to 20° inclination
- for southern orientation on north/east/west roofs

ADVANTAGES

Insertion system
- time-saving no-screw module installation
- easy removal of modules for replacement or maintenance work
- homogeneous appearance due to small spaces between module rows
- no clip marks
- optimum load distribution

Flexibility
- horizontal and vertical module installation
- flexible module inclinations (20°/30°, 20° – 70°) for optimum yield depending on location
- also suitable for zones with high snow and wind loads (with central rail)

Quality
- excellent inherent stability due to solid construction
- TÜV certified
- components of high-quality aluminium and V2A stainless steel
- 5-year guarantee, with training extendable to 10 years
- TRI-DESIGN software for optimum, standard planning and dimensioning of the system

MOST IMPORTANT COMPONENTS
- UP universal profile the basic profile
- UP-S universal profile profile for high static loads, required depending on dimensioning
- UP-L universal profile material-optimized profile
- TS profile insertion profile
- standard angle fixed support angle 20° or 30°
- FlexFix angle freely selectable angle between 20° and 70°
- SafeClick secure profile connection
- hanger bolts for fastening to the substructure on the roof
- TS edging tool for edge-trimming the profiles
2. TRI-STAND triangle installation with roof hooks

POTENTIAL APPLICATIONS

- as support on pitched roofs with up to 20° inclination
- for southern orientation on north/east/west roofs

ADVANTAGES

Insertion system
- time-saving no-screw module installation
- easy removal of modules for replacement or maintenance work
- homogeneous appearance due to small spaces between module rows
- no clip marks
- optimum load distribution

Flexibility
- horizontal and vertical module installation
- flexible module inclinations (20°/30°, 20° – 70°) for optimum yield depending on location
- also suitable for zones with high snow and wind loads (with central rail)

Quality
- excellent inherent stability due to solid construction
- TÜV certified
- components of high-quality aluminium and V2A stainless steel
- 5-year guarantee, with training extendable to 10 years
- TRI-DESIGN software for optimum, standard planning and dimensioning of the system

MOST IMPORTANT COMPONENTS

- UP universal profile the basic profile
- UP-S universal profile profile for high static loads, required depending on dimensioning
- UP-L universal profile material-optimized profile
- TS profile insertion profile
- standard angle fixed support angle 20° or 30°
- FlexFix angle freely selectable angle between 20° and 70°
- SafeClick secure profile connection
- hanger bolts for fastening to the substructure on the roof
- TS edging tool for edge-trimming the profiles
1. TRI-ROOF on wooden purlins

POTENTIAL APPLICATIONS

- with roof refurbishment and new roofs
- in combination with existing roof areas or as roof coverage over the whole area
- with purlin spaces of up to 2.5 m
- suitable for zones with high snow and wind loads (with central support)

ADVANTAGES

Flexibility
- Insertion system: easy replacement of modules
- compatible with framed standard modules
- optionally black profiles for visually attractive systems with black modules

Impermeability
- discharge of rain water for the most part via modules
- specially developed water-bearing carrier profiles

Quality
- TÜV certified
- components of high-quality aluminium and V2A stainless steel
- 5-year guarantee, with training extendable to 10 years
- TRI-DESIGN software for optimum, standard planning and dimensioning of the system

MOST IMPORTANT COMPONENTS

- UP-I universal profile basic profile for vertical water drainage
- TR-H profile profile for horizontal water drainage
II. PITCHED ROOF: ROOF-INTEGRATED  MOUNTING SYSTEMS APPLICATIONS

2. TRI-ROOF on steel purlins

POTENTIAL APPLICATIONS
- with roof refurbishment and new roofs
- in combination with existing roof areas or as roof coverage over the whole area
- with purlin spaces of up to 2.5 m
- suitable for zones with high snow and wind loads (with central support)

ADVANTAGES

Flexibility
- Insertion system: easy replacement of modules
- compatible with framed standard modules
- optionally black profile for visually attractive systems with black modules

Impermeability
- discharge of rain water for the most part via modules
- specially developed water-bearing carrier profiles

Quality
- TÜV certified
- components of high-quality aluminium and V2A stainless steel
- 5-year guarantee, with training extendable to 10 years
- TRI-DESIGN software for optimum, standard planning and dimensioning of the system

MOST IMPORTANT COMPONENTS
- UP-I universal profile  basic profile for vertical water drainage
- TR-H profile  profile for horizontal water drainage
3. TRI-ROOF on tile battening

POTENTIAL APPLICATIONS

- with roof refurbishment and new roofs
- in combination with existing roof areas or as roof coverage over the whole area
- with purlin spaces of up to 2.5 m
- suitable for zones with high snow and wind loads (with central support)

ADVANTAGES

Flexibility
- Insertion system: easy replacement of modules
- compatible with framed standard modules
- with standard tile cover, supply of complete sheet metal flashing which can be adjusted to the module size without special know-how
- optionally black profiles for visually attractive systems with black modules

Impermeability
- discharge of rain water for the most part via modules
- specially developed water-bearing carrier profiles

Quality
- TÜV certified
- components of high-quality aluminium and V2A stainless steel
- 5-year guarantee, with training extendable to 10 years
- TRI-DESIGN software for optimum, standard planning and dimensioning of the system

MOST IMPORTANT COMPONENTS

- UP-I universal profile: basic profile for vertical water drainage
- TR-H profile: profile for horizontal water drainage
- ridge and lateral flashings: optional with standard tiles
- accessories for sealing: valley sealing strips, special adhesive, adhesive tape FLEX-DICHT
1. Flat roofs with low load capacity  IV. FLAT ROOF  MOUNTING SYSTEMS APPLICATIONS

1.1 TRI-STAND Aero

POTENTIAL APPLICATIONS

- up to max. 5° roof inclination with horizontal module installation
- with film cover or bitumen
- gravel-covered roofs or green roof areas

ADVANTAGES

Installation
- fast module installation with few components; yet more time-saving with preassembled supports
- no penetration of roof membrane
- possible module load of up to 5,400 N/m²
- manufacturer-conforming module installation at installation drill holes
- suitable for standard modules of a width of 790 to 820 mm and 990 to 1010 mm

Ballast
- aerodynamically optimized for flat roofs with low load capacity
- low net weight
- flexible weighting on the rear by means of concrete slabs or flagstones
- reduced dynamic and wind pressure load by means of wind deflector

Quality
- TÜV certified
- components of high-quality aluminium and V2A stainless steel
- 5-year guarantee, with training extendable to 10 years
- TRI-DESIGN software for optimum, standard planning and dimensioning of the system

MOST IMPORTANT COMPONENTS

- UP universal profile the basic profile
- UP-S universal profile profile for high static loads, required depending on dimensioning
- UP-L universal profile material-optimized profile
- UP-C connector if necessary for the connection of continuous rails
- TS-F angle fixed 20° inclination for optimum shading clearance
- wind baffle plate in two standard designs
- regupol film for optimum roof protection

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1.2 TRI-STAND East-West

POTENTIAL APPLICATIONS

- for PV systems with an east-west exposure
- gravel roofs and green roof areas
- trapezoidal sheet metal and standing seam roofs

ADVANTAGES

Installation

- insertion system: optimum load distribution and time-saving no-screw installation
- clip system: materials-saving mode of installation and low system costs per kWp
- no penetration of roof membrane
- possible module load of up to 5,400 N/m²
- low expenditures for materials and installation due to plug-in system

Ballast

- aerodynamically optimized for flat roofs with low load capacity
- flexible weighting on the rear by means of concrete slabs or flagstones

Quality

- components of high-quality aluminium and V2A stainless steel
- 5-year guarantee, with training extendable to 10 years
- TRI-DESIGN dimensioning software for optimum, standard planning of the system

MOST IMPORTANT COMPONENTS

- UP universal profile  the basic profile
- UP-S universal profile  profile for high static loads, required depending on design
- UP-L universal profile  material-optimized profile
- support angle  10° and 20°
- UP-TS profile  for installation on trapezoidal sheet metal roof
1.3 TRITEC PMT South

POTENTIAL APPLICATIONS

- for PV systems on flat roofs with southern orientation
- optimal for large and very large flat roofs with desired load optimization without roof penetration
- possible roof covering: foil, bitumen, gravel, roof greening, sheet metal, concrete, open spaces
- applicable with all standard PV module sizes from 980 to 1020 mm width, 1630 to 1680 mm length and 30 to 50 mm height

ADVANTAGES

Shortest mounting time
- suited for framed module in horizontal mounting
- installation by means of a simple click system with few tools
- without roof penetration
- simple module clipping

High stability and safety
- optimum load distribution (due to 150 mm wide bearing surface of the basic structure on the roof covering)
- sandwich-type protective fleece (11 mm) firmly pre-mounted on the system for protection of the roof covering; it also allows unobstructed roof drainage
- optimized rear ventilation for maximum energy yield
- ballast reduction due to aerodynamically optimized construction
- aerodynamic

Quality
- material: high-quality aluminium EN-AW-6063-T3 and stainless steel A2-70
- testing institutes:
  - Institut für Industrieaerodynamik in Aachen (Institute for Industrial Aerodynamics / aerodynamic investigations)
  - Faculty of Mechanical Engineering and Automotive Technology / Laboratory for Materials Technology REM/EDX (load tests components)
  - Ingenieurgruppe Knörnschild und Kollegen (Engineering Group / component testing and wind tunnel tests)

MOST IMPORTANT COMPONENTS

- Cube 10°
- Base 10°
- rear wall panel
1.4 TRITEC PMT East-West

**POTENTIAL APPLICATIONS**

- for PV systems on flat roofs with east-west orientation
- optimal for large and very large flat roofs with desired load optimization without roof penetration
- possible roof covering: foil, bitumen, gravel, roof greening, sheet metal, concrete, open spaces
- applicable with all standard PV module sizes from 980 to 1020 mm width, 1630 to 1680 mm length and 30 to 50 mm height

**ADVANTAGES**

Shortest mounting time
- suited for framed module in horizontal mounting
- installation by means of a simple click system with few tools
- without roof penetration
- simple module clipping

High stability and safety
- optimum load distribution (due to 150 mm wide bearing surface of the basic structure on the roof covering)
- sandwich-type protective fleece (11 mm) firmly pre-mounted on the system for protection of the roof covering; it also allows unobstructed roof drainage
- optimized rear ventilation for maximum energy yield
- ballast reduction due to aerodynamically optimized construction
- aerodynamic

Quality
- material: high-quality aluminium EN-AW-6063-T3 and stainless steel A2-70
- testing institutes:
  - Institut für Industrieaerodynamik in Aachen (Institute for Industrial Aerodynamics / aerodynamic investigations)
  - Faculty of Mechanical Engineering and Automotive Technology / Laboratory for Materials Technology REM/EDX (load tests components)
  - Ingenieurgruppe Knörnschild und Kollegen (Engineering Group / component testing and wind tunnel tests)

**MOST IMPORTANT COMPONENTS**

- Cube 10°
- Base 10°
2.1 TRI-STAND triangle installation on Renosol plates

### POTENTIAL APPLICATIONS
- roof areas with gravel, granulate, bitumen or film cover
- for additional module inclinations on pitched roofs with up to 20° roof pitch
- gravel-covered roofs or green roof areas

### ADVANTAGES

**Insertion system**
- time-saving no-screw module installation
- easy removal of modules for replacement or maintenance work
- homogeneous appearance due to small spaces between module rows
- no clip marks
- optimum load distribution

**Flexibility**
- horizontal and vertical module installation
- flexible module inclinations (20°/30°, 20° – 70°) for optimum yield depending on location

**Quality**
- excellent inherent stability due to solid construction
- TÜV certified
- components of high-quality aluminium and V2A stainless steel
- 5-year guarantee, with training extendable to 10 years
- TRI-DESIGN software for optimum, standard planning and dimensioning of the system

### MOST IMPORTANT COMPONENTS
- UP universal profile: the basic profile
- UP-S universal profile: profile for high static loads, required depending on dimensioning
- UP-L universal profile: material-optimized profile
- TS profile: insertion profile
- standard angle: fixed support angle 20° or 30°
- FlexFix angle: freely selectable angle between 20° and 70°
- SafeClick: secure profile connection
- Renosol plates: for fastening to the substructure on the roof
- TS edging tool: for edge-trimming the profiles
2.2 TRI-STAND upright installation

POTENTIAL APPLICATIONS

- flat roofs with inclinations from -5° to +5°
- roof areas with gravel, granulate, bitumen or film cover
- for green roofs, uneven roofs and locations with heavy snowfall

ADVANTAGES

Insertion system
- time-saving no-screw module installation
- easy removal of modules for replacement or maintenance work
- homogeneous appearance due to small spaces between module rows
- no clip marks
- optimum load distribution

Installation
- horizontal and vertical module installation
- flexible module inclinations (20°/30°) for optimum yield depending on location
- large distance of modules to the roof, thus less shading

Quality
- excellent inherent stability due to solid construction
- TÜV certified
- components of high-quality aluminium and V2A stainless steel
- 5-year guarantee, with training extendable to 10 years
- TRI-DESIGN software for optimum, standard planning and dimensioning of the system

MOST IMPORTANT COMPONENTS

- UP universal profile: the basic profile
- UP-S universal profile: profile for high static loads, required depending on dimensioning
- UP-L universal profile: material-optimized profile
- TS profile: insertion profile
- standard angle: fixed support angle 20° or 30°
- SafeClick: secure profile connection
- Renosol plates: for fastening to the substructure on the roof
- TS edging tool: for edge-trimming the profiles
1. TRI-STAND vertical installation

POTENTIAL APPLICATIONS

- on facades by means of hanger bolts
- directly on facades by means of dowels or wood screws

ADVANTAGES

Module installation
- Insertion system: optimum load distribution and time-saving no-screw installation
- Clip system: materials-saving mode of installation and low system costs per kWp

Facade installation
- low module load (only wind pressure and suction)
- no plastering of facades necessary
- developing new areas for PV systems
- freely selectable degree of ventilation

Quality
- components of high-quality aluminium and V2A stainless steel
- 5-year guarantee, with training extendable to 10 years
- TRI-DESIGN software for optimum, standard planning and dimensioning of the system

MOST IMPORTANT COMPONENTS

- UP universal profile the basic profile
- UP-S universal profile profile for high static loads
- UP-L universal profile material-optimized profile
- UP-C universal profile secure connection of profiles with insertion system
- UP-TS profile for SafeClick installation directly on building exterior
- TS edging tool for edge-trimming the profiles
2. TRI-STAND inclined installation

POTENTIAL APPLICATIONS

PV systems with canopy roof function

ADVANTAGES

Module installation
- on facades by means of hanger bolts
- directly on facades by means of dowels or wood screws

Facade installation
- developing new areas for PV systems
- flexible angle of inclination (20° – 70°)

Quality
- components of high-quality aluminium and V2A stainless steel
- 5-year guarantee, with training extendable to 10 years
- TRI-DESIGN software for optimum, standard planning and dimensioning of the system (insertion system)

MOST IMPORTANT COMPONENTS

- UP universal profile the basic profile
- UP-S universal profile profile for high static loads, required depending on dimensioning
- UP-L universal profile material-optimized profile
- TS profile insertion profile
- FlexFix angle freely selectable angle between 20° and 70°
- SafeClick secure profile connection
- TS edging tool for edge-trimming the profiles when using insertion system