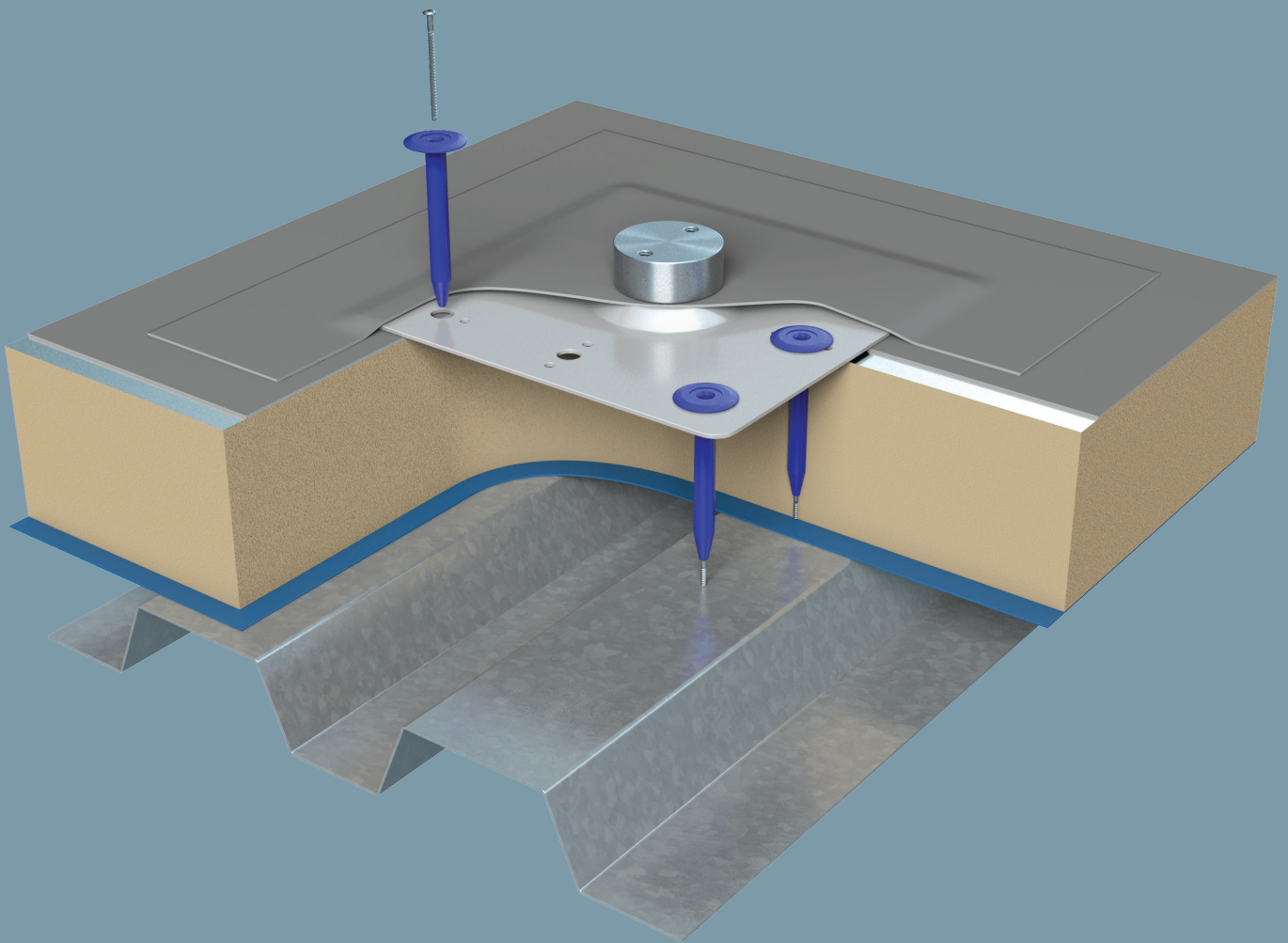


ROOFTRAK™ IFP

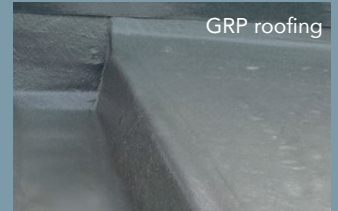
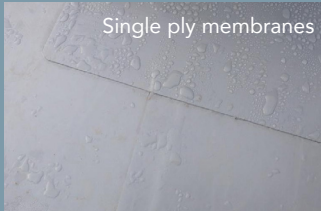
integrated fixing point system



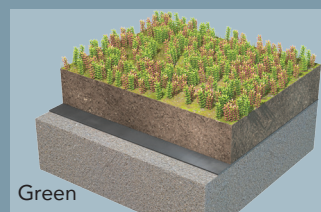
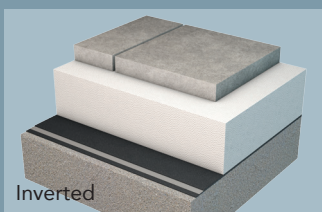
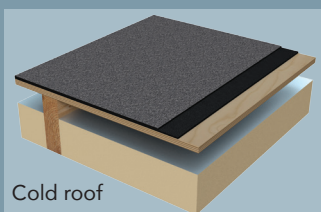
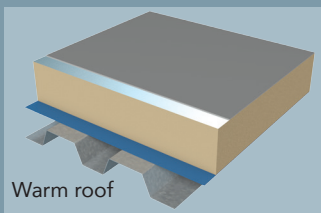
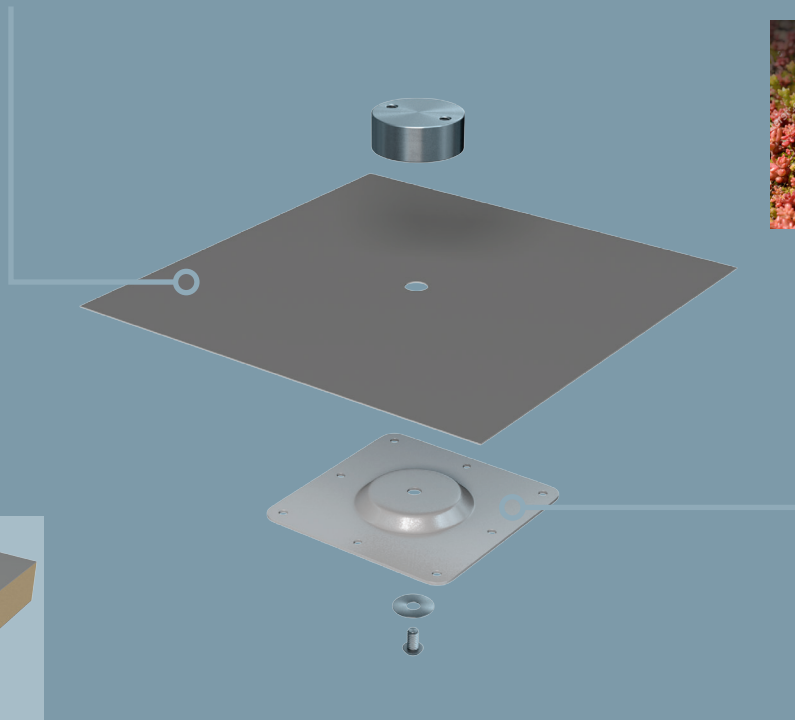
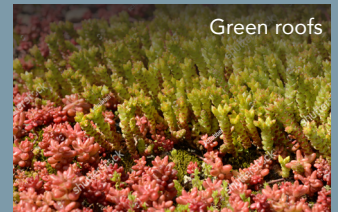
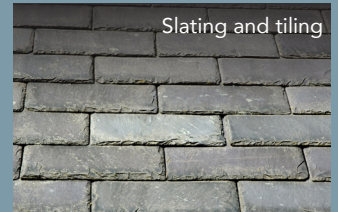
The IFP concept

Making the connection – don't let the waterproofing elements of the building limit your design...The innovative IFP facilitates a direct connection to the structure whilst maintaining integrity of the envelope weathering.

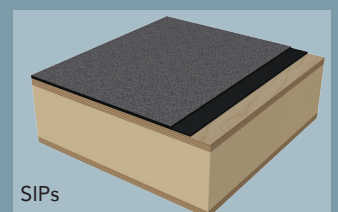
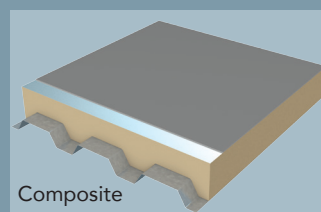
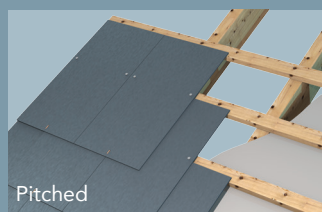
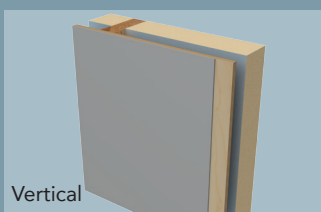
Subject of European Patent 2855794 and US Patent 9637917.



Compatible with
all types of
waterproofing
materials...



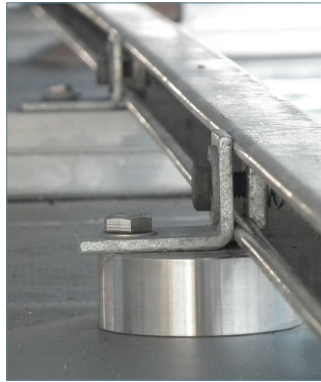
...and all
types of building
envelope
construction



The IFP key features



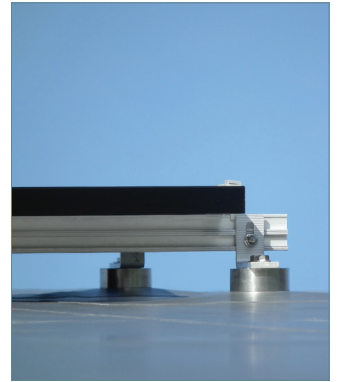
Patented seal technology for 100% waterproof connections



Stainless steel anchor point



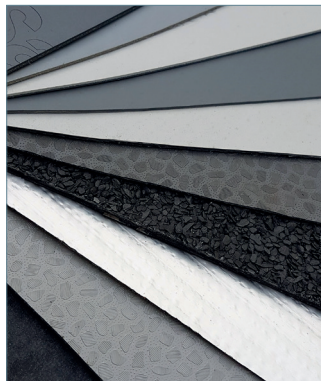
Universal M10 threaded connection



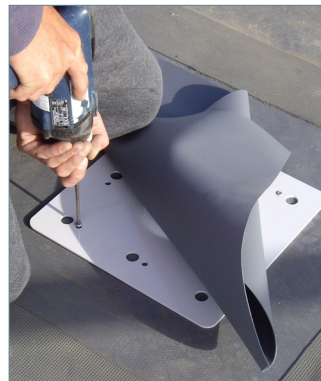
Very low profile – 45mm from finished roof level



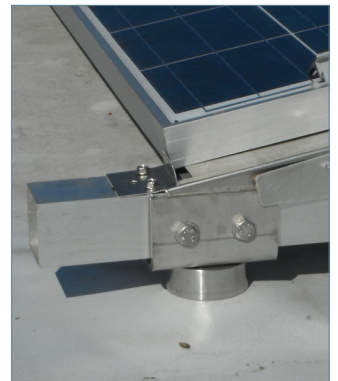
Use in any plane, pitched or vertical



Compatible with all roofing membranes and finishes



All fixings remain within the sealed envelope



Avoids ballast requirement reducing roof loads



Retrofit to existing roofing



Provides a direct connection to the building structure



Factory fitted flashing flange

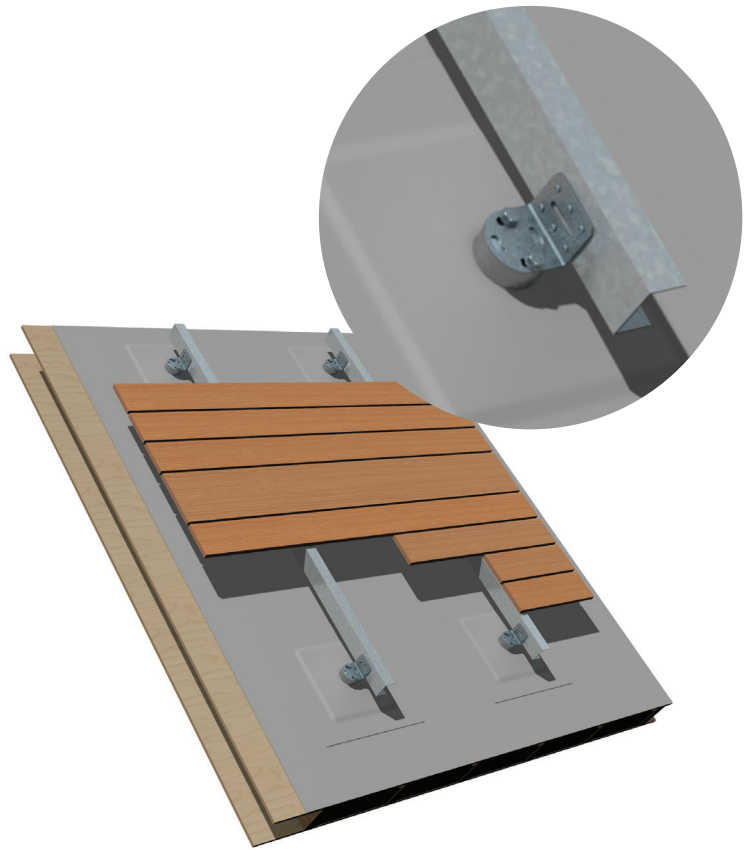


Brackets and accessories available

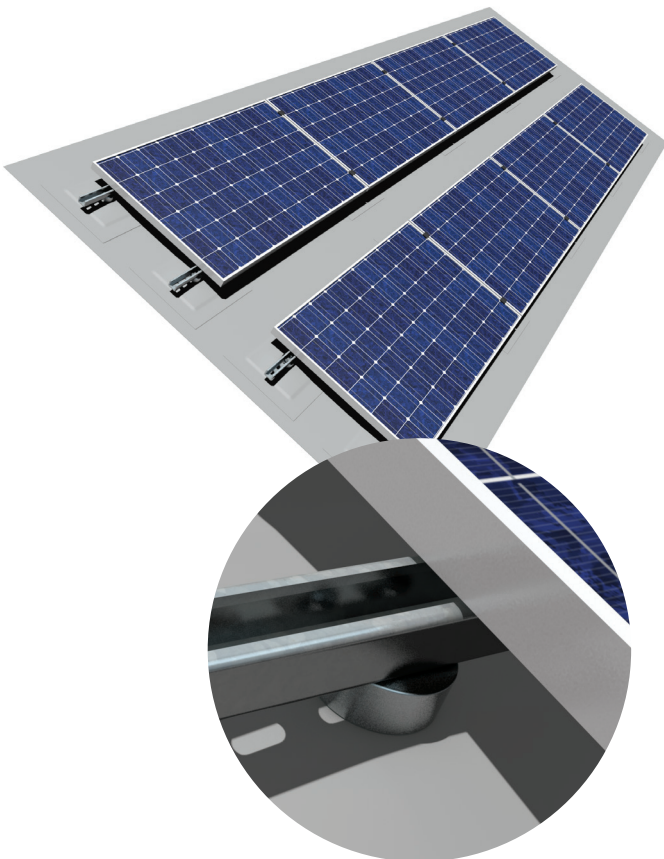
The IFP typical applications



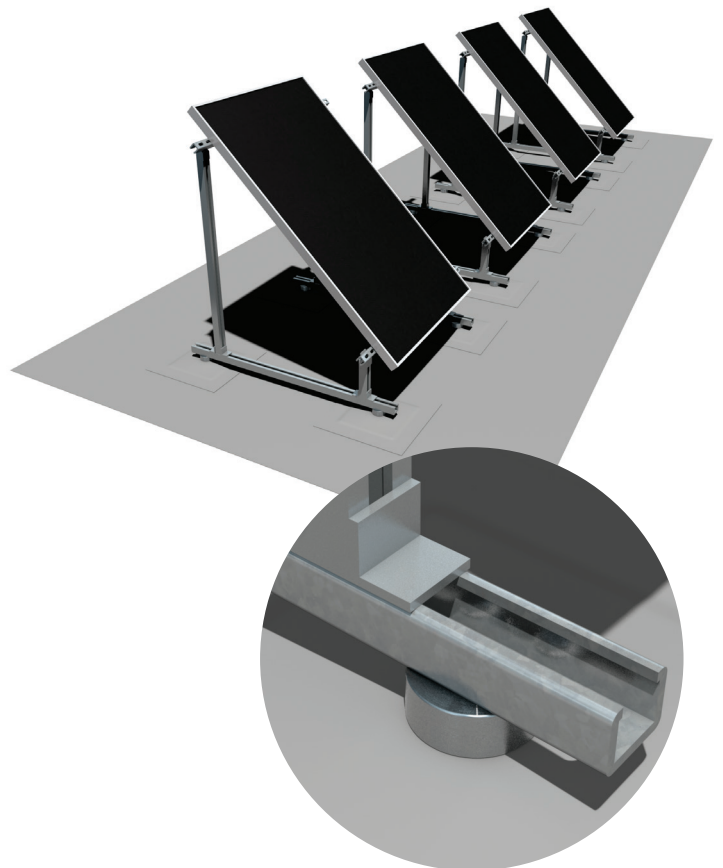
Vertical cladding



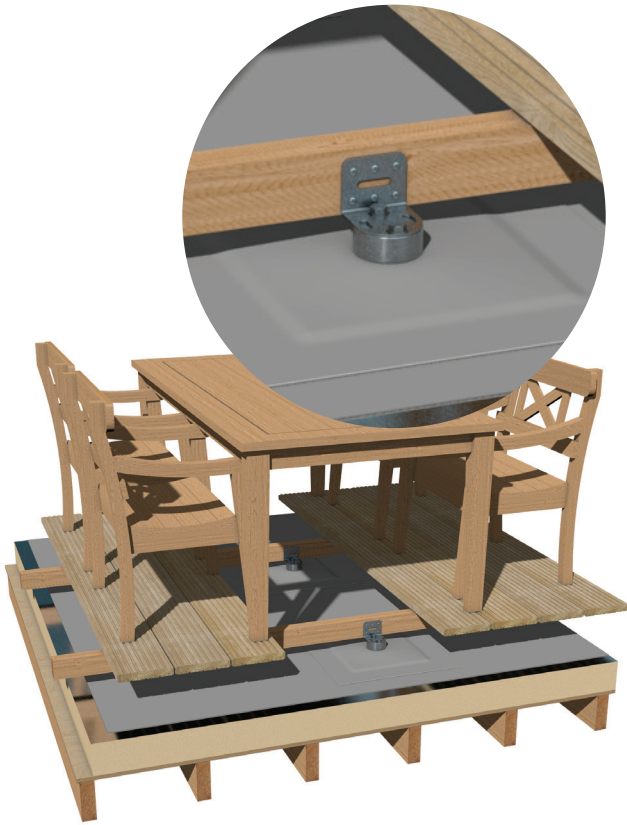
Pitched cladding



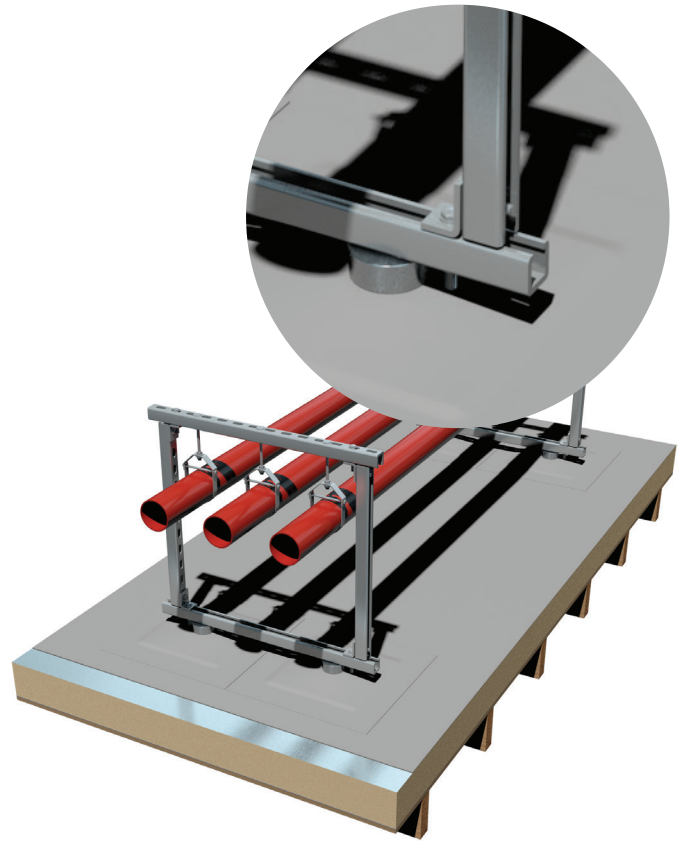
PV solar



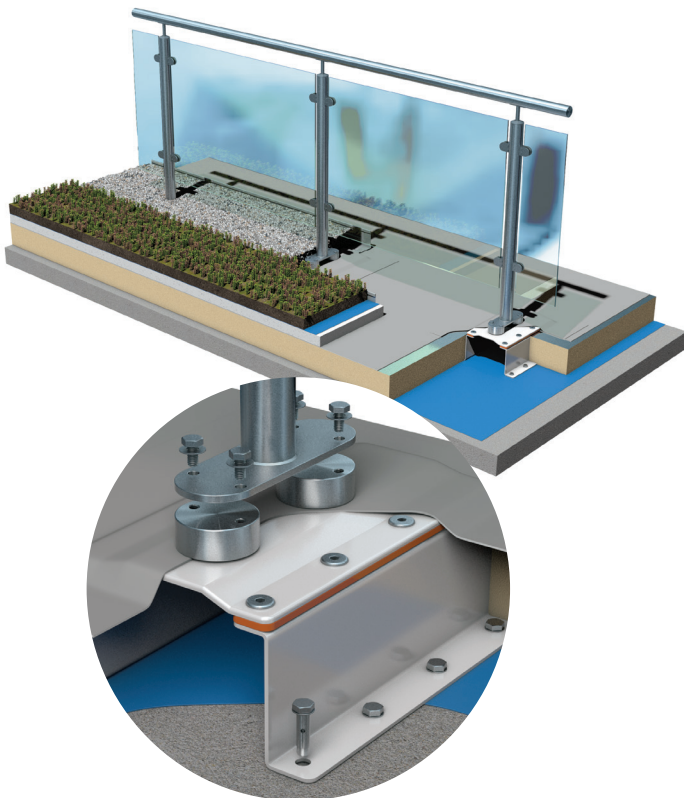
PV thermal



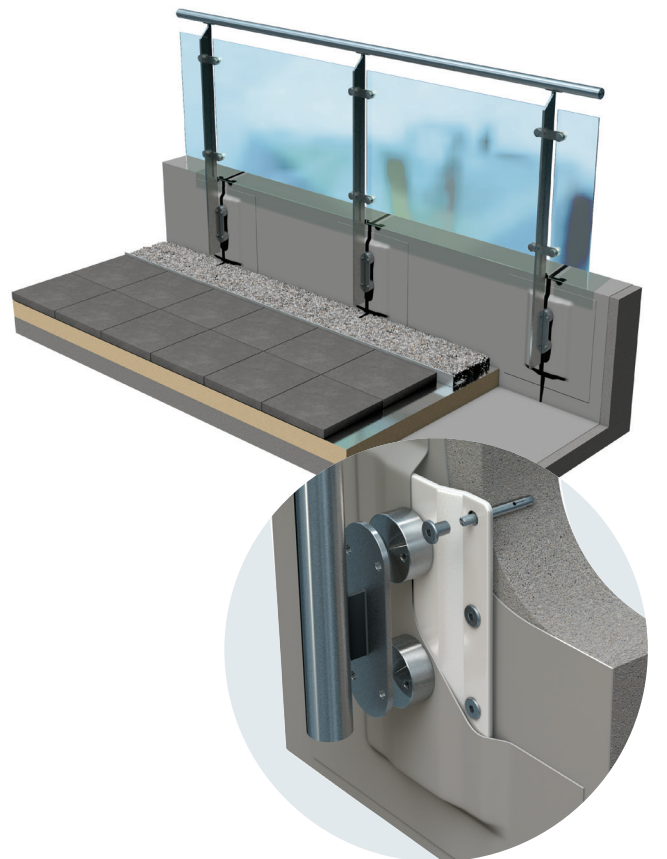
Roof decking



Roof plant support

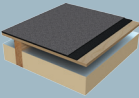
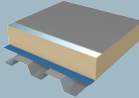
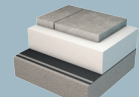
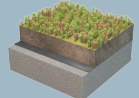
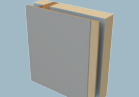
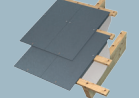
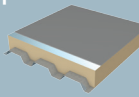
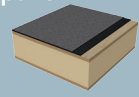


Balustrade horizontal



Balustrade vertical

The IFP product selector

Roof construction	Roof weathering material								Balustrade applications
	Single ply	Built-up bitumen	Liquid applied	GRP	Mastic asphalt	Hot melt	Fully supported metal	Slate or tile	
Cold roof 	✓ IFP-200 page 8	✓ IFP-200 page 8	✓ IFP-200 page 8	✓ IFP-200 page 8	✓ IFP-AS page 24		✓ IFP-MR page 30		✓ IFP-BC page 16
Warm roof 	✓ IFP-300 page 10	✓ IFP-300 page 10	✓ IFP-300 page 10		✓ IFP-GR IFP-AS page 12/24				✓ IFP-BW page 20
Inverted roof 	✓ IFP-GR page 12	✓ IFP-GR page 12	✓ IFP-HM page 26		✓ IFP-GR/ IFP-HM pages 12/26	✓ IFP-GR/ IFP-HM pages 12/26			✓ IFP-BI page 20
Green roof 	✓ IFP-GR page 12	✓ IFP-GR page 12				✓ IFP-GR/ IFP-HM pages 12/26			
Vertical 	✓ IFP-200/ IFP-300 pages 8/10	✓ IFP-200/ IFP-300 pages 8/10	✓ IFP-200 page 8	✓ IFP-200 page 8			✓ IFP-MR page 30	✓ IFP-PR page 28	✓ IFP-BC page 16
Pitched 	✓ IFP-200/ IFP-300 pages 8/10	✓ IFP-200/ IFP-300 pages 8/10	✓ IFP-200/ IFP-300 pages 8/10	✓ IFP-200 page 8			✓ IFP-MR page 30	✓ IFP-PR page 28	
Composite panel 	✓ IFP-300 page 10								
SIPs panel 	✓ IFP-200 page 8	✓ IFP-200 page 8							



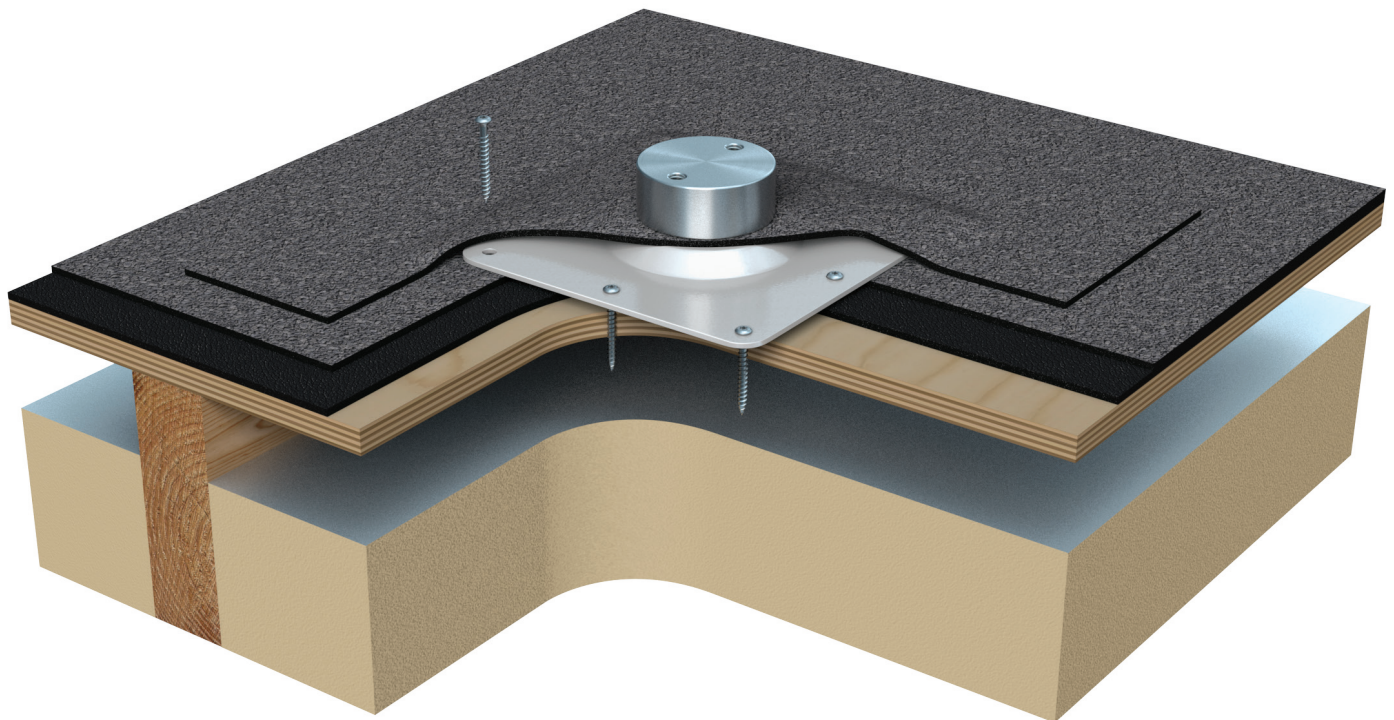
File downloads

Technical details for all products are available to download from the Nicholson website. Click on the icon next to the detail you wish to download on the following pages.

The IFP page index

Code	Description	Page
IFP-200	For cold roof constructions	8-9
IFP-300	For warm roof constructions	10-11
IFP-GR	For green and inverted roof constructions	12-13
Case studies		14-15
IFP-BC	For cold roof balustrades horizontal	16-17
IFP-BC	For cold roof balustrades vertical	18-19
IFP-BW	For warm roof balustrades	20-21
Case studies		22-23
IFP-AS	For asphalt roofs	24-25
IFP-HM	For hot melt roofs	26-27
IFP-PR	For pitched roof constructions	28-29
IFP-MR	For metal roof constructions	30-31
Case studies		32-33
IFP-BS	IFP accessory: bolt set	34
IFP-SH	IFP accessory: shim	34
IFP-UB	IFP accessory: universal bracket	35
IFP-MB	IFP accessory: movement bracket	36
IFP-CN	IFP accessory: cap nut	37
IFP-TG	IFP accessory: toggle fixing	37
IFP-ZP	IFP accessory: zoning post	38
IFP-CH	IFP accessory: chain	38
Design considerations	What you should consider when using IFPs	39
Fixing details	Typical details	40-41
FAQs	Frequently asked questions	42
Case study		43

IFP-200
for cold roof constructions and fully supported membranes



Description

The IFP200 is designed for use on cold roof constructions and where the roofing membrane is laid directly on an 18mm structural plywood deck as in structural insulated panels (SIPs). It comprises a 200mm x 200mm fixing plate and an anchor point with two M10 x 20 blind threads. To weather the fixing plate the IFP200 is factory fitted with an appropriate flange material to enable it to be weathered or sealed to the main roof area.

Typical uses

- Architectural cladding rail supports
- Solar panels
- Roof plant supports
- Timber decking
- Roof area zoning
- Roof services supports
- Roof walkways

Compatibility

Roof construction

The IFP200 is designed for roof constructions where the roofing membrane or weathering layer is directly over the structural roof deck. It can be fixed into 18mm plywood or concrete roof decks.

Roof covering types

- PVC roofing membrane
- EPDM roofing membrane
- TPO roofing membrane
- TPE roofing membrane
- PIB roofing membrane
- SBS and APP modified bitumen membranes
- Built up roofing systems

- Liquid applied roof coatings
- GRP roof coverings

Materials

- 304 stainless steel anchor point – machined finish
- Mild steel fixing plate – polyester powder coat finish
- Weathering flange – material to match main roof weathering system

Dimensions

- OA height 45mm
- 2 no. fixing points M10 x 20
- Distance between fixing points 52mm
- Fixing plate 200mm x 200mm
- Fixing holes 8 no. 7mm Ø
- Flange dimensions:
- 400mm x 400mm PVC, EPDM, TPO, PIB
- 500mm x 500mm SBS and APP modified bitumen
- 200mm x 200mm GRP

Fixing options

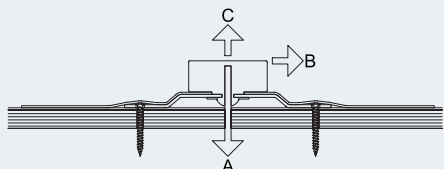
Direct fixings into the timber or concrete roof deck under the roofing membrane or weathering layer. See page 40-41 for typical fixing details.

Accessories

See pages 34-38.

for cold roof constructions and fully supported membranes

Load ratings



Assumptions

The IFP-200 is designed for use on flat, pitched and vertical cold roof constructions. It is assumed that the IFP is fixed directly through the roofing membrane into the substrate below with 8 no. fixings and that the supporting structure has the capacity to support the design loadings likely to be encountered.

Compressive Load as 'A'

Maximum compressive load to be applied: **5.0kN**

Shear Load as 'B'

Maximum shear load to be applied: **2.5kN**

Tensile Load as 'C' in timber substrate

Values given below are based on the Fixfast SF-RS-6.1 fastener as per European Technical Approval 15/0406 and allow a safety factor of three on the combined mean axial pullout value of 8 fixings.

Fixed to 18mm plywood substrate to EN 636: **5.0kN**

Fixed to 18mm OSB/3 substrate to EN300: **4.2kN**

Fixed to 25mm softwood boarding: **5.0kN**

Fixed to softwood timber with 35mm embedment: **5.0kN**

Tensile Load as 'C' in concrete substrate

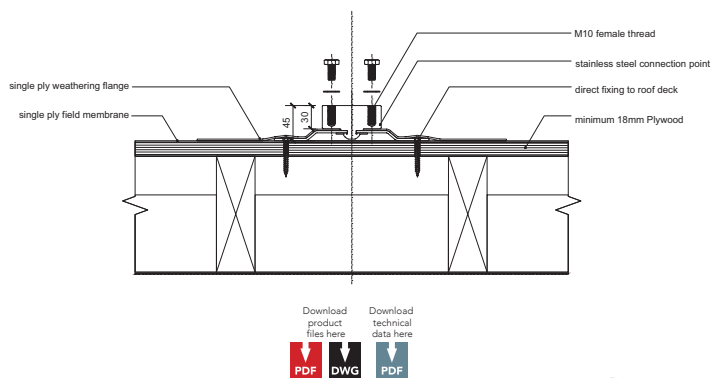
Values given below are based on the Fixfast SF-RS-6.1 fastener as per European Technical Assessment 15/0406 and allow a safety factor of three on the combined mean axial pullout value of 8 fixings. Please note that these are typical figures but should be verified by onsite pullout tests.

Fixed to concrete: **5.0kN**

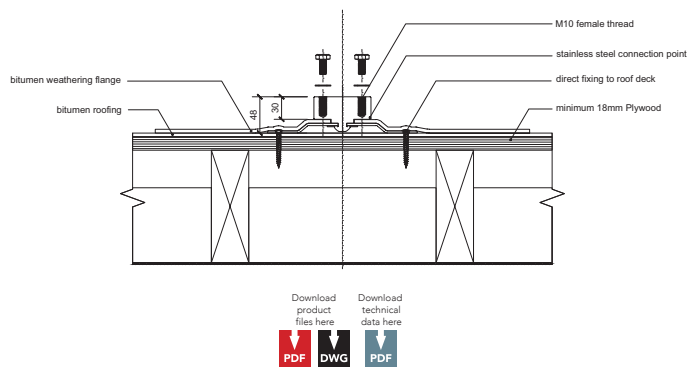
Note: We recommend on-site pullout tests to determine pull out values where the substrate is an existing roof structure.



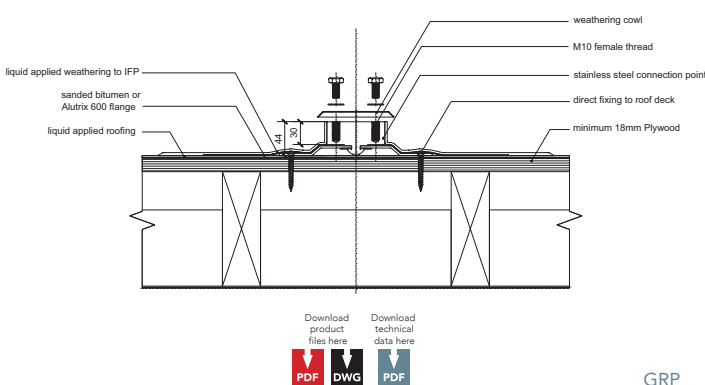
Single ply



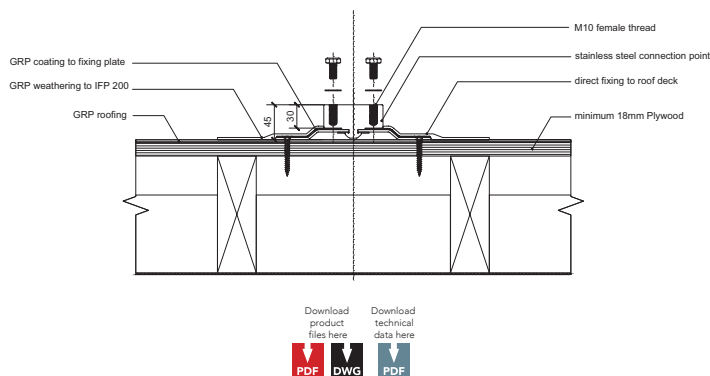
Bitumen



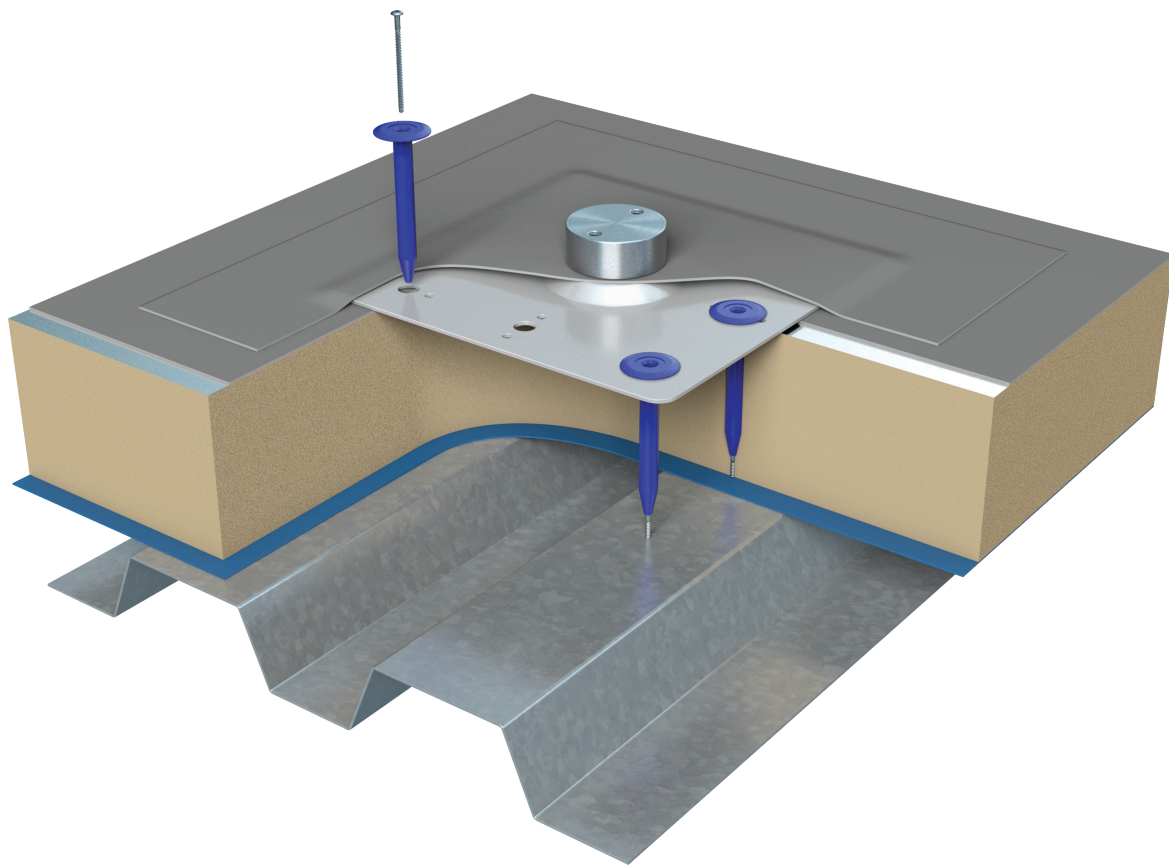
Liquid applied



GRP



IFP-300
for warm roof constructions



Description

The IFP300 is designed for use on warm roof constructions and where the roofing membrane is laid on directly on insulation including composite panel systems. It comprises a 300mm x 300mm fixing plate and an anchor point with two M10 x 20 blind threads. To weather the fixing plate the IFP300 is factory fitted with an appropriate flange material to enable it to be weathered or sealed to the main roof area.

Typical uses

- Architectural cladding rail supports
- Solar panels
- Roof plant supports
- Timber decking
- Roof area zoning
- Roof services supports
- Roof walkways

Compatibility

Roof construction

The IFP300 is designed for warm roof constructions where the roofing membrane or weathering layer is laid over the insulation. This includes composite panels that utilise a steel liner and a membrane capping sheet.

Roof covering types

The IFP300 can be supplied with different flange materials to integrate with the following roofing systems:

- PVC roofing membrane
- EPDM roofing membrane
- TPO roofing membrane
- TPE roofing membrane
- PIB roofing membrane

- SBS and APP modified bitumen membranes
- Built up roofing systems
- Liquid applied roof coatings
- GRP roof coverings

Materials

- 304 stainless steel anchor point - machined finish
- Mild steel fixing plate - polyester powder coat finish
- Weathering flange - material to match main roof weathering system

Dimensions

- OA height 45mm
- 2 no. fixing points M10 x 20
- Distance between fixing points 52mm
- Fixing plate 300mm x 300mm
- Fixing holes 8 no. 7mm Ø for direct fixings
- 8 no. 17mm Ø holes for thermally broken fixings
- Flange dimension:
- 500mm x 500mm PVC, EPDM, TPO, PIB
- 600mm x 600mm SBS and APP modified bitumen

Fixing options

- Direct fixings through the insulation into the roof support deck below.
- Thermally broken fixings through the insulation into the roof support deck below M10 threaded stud fixing using the IFP-CN Cap Nut. See pages 40-41 for typical fixing details.

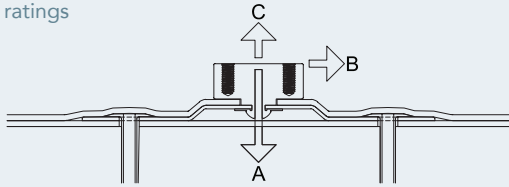
Accessories

See pages 34-38.

IFP-300 for warm roof constructions

Single ply

Load ratings



Assumptions

The IFP-300 is designed for use on flat, pitched and vertical warm roof constructions. It is assumed that the IFP is fixed through the roofing membrane and insulation into the substrate below with 6 or 8 no. fixings and that the supporting structure has the capacity to support the design loadings likely to be encountered.

Compression load as 'A'

The maximum compressive load will be determined by the insulation manufacturers static load rating. These figures can be obtained from the relevant insulation manufacturer.

Static load rating	Maximum compressive load
20kPa	125kg
30kPa	187kg
40kPa	250kg
50kPa	312kg
60kPa	375kg

Shear load as 'B'

Assumes the IFP-300 is fixed with 8 no. thermally broken fixings to a roof/wall build up of 18mm plywood and not more than 200mm of rigid PIR insulation with roofing membrane over the insulation.

Maximum shear loading: **2.5kN**

Tensile load as 'C' for direct fixings

Values given below are based on the Fixfast SF-RS-5.8 and SF-RS-6.1 fasteners as per European Technical Approval 15/0406 and allow a safety factor of three on the combined mean axial pullout value of the fixings. Values are also given for steel decks where normally only 6 no. fixings into the profile crown can be achieved.

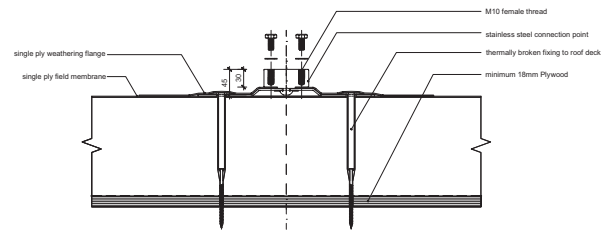
	6 fixings	8 fixings
SF-RS-5.8 fixed to 18mm plywood to EN 636	4.2kN	5.0kN
SF-RS-5.8 fixed to 18mm OSB/3 to EN300	3.1kN	4.2kN
SF-RS-5.8 fixed to 38mm softwood timber	5.0kN	5.0kN
SF-RS-5.8 fixed to 0.7mm galv. profiled steel	2.8kN	3.8kN
SF-RS-5.8 fixed to 0.9mm galv. profiled steel	3.8kN	5.0kN
SF-RS-5.8 fixed to 1.2mm galv. profiled steel	5.0kN	5.0kN
SF-RS-6.1 fixed to C25 concrete*	3.9kN	5.0kN

Tensile load as 'C' thermally broken fixings

Values given below are based on the Fixfast SF-RS-5.8 fasteners and SF-T-50 tube washers as per European Technical Approval 15/0406 and allow a safety factor of three on the combined mean axial pullover value of the thermal washers. Values are also given for steel decks where normally only 6 no. fixings into the profile crown can be achieved.

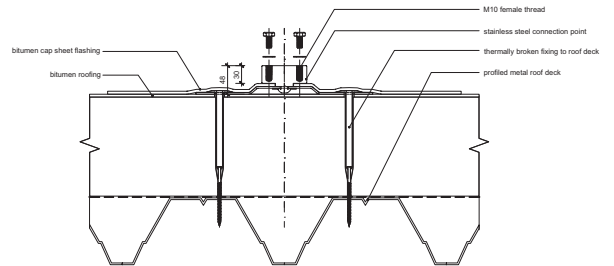
	6 fixings	8 fixings
Fixing into all substrate materials	3.1kN	4.1kN

Note: We recommend on-site pullout tests to determine pull out values where the substrate is an existing roof structure.



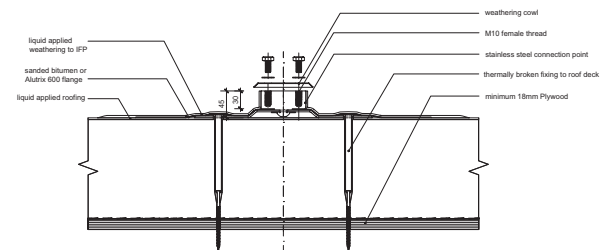
Download product files here [PDF](#) [DWG](#) Download technical data here [PDF](#)

Bitumen



Download product files here [PDF](#) [DWG](#) Download technical data here [PDF](#)

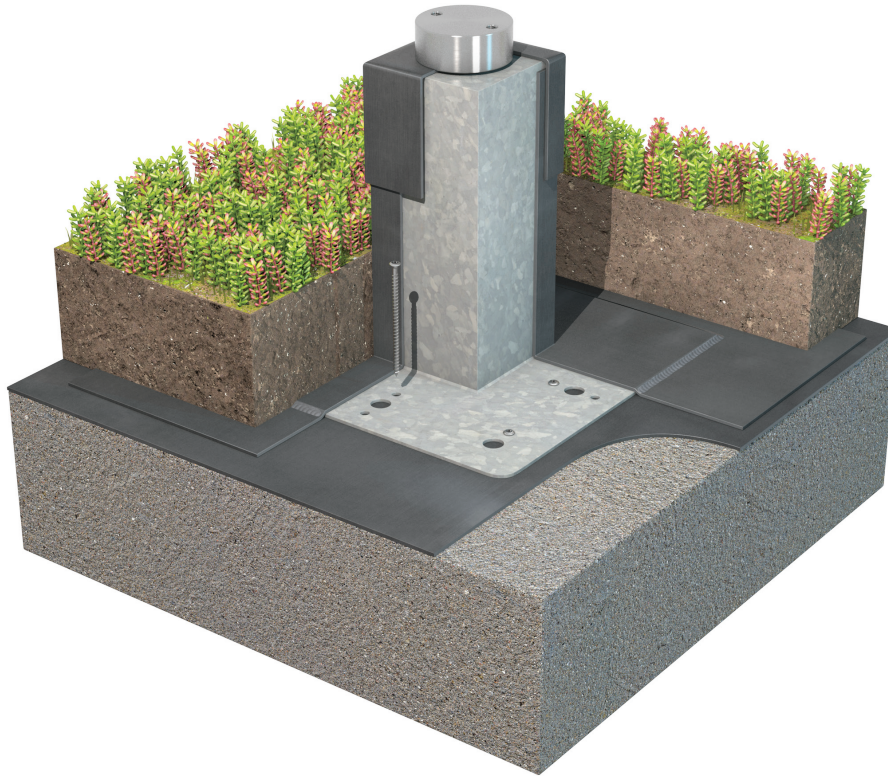
Liquid applied



Download product files here [PDF](#) [DWG](#) Download technical data here [PDF](#)



IFP-GR for green and inverted roof constructions



Description

The IFP-GR is designed for use in green and inverted roof constructions where the weathering membrane is beneath the green roof build up or insulation. It comprises a variable height post on a fixing plate to bring the fixing point above the level of the roof build up. To waterproof the post the IFP-GR is factory fitted with an appropriate flange material to enable it to be weathered or sealed to the main roof area weathering which extends up the post.

Typical uses

- Solar panels
- Roof plant supports
- Timber decking
- Roof services supports
- Roof walkways
- Roof area zoning

Compatibility

Roof construction

The IFP-GR is designed for roof constructions where the roofing membrane or weathering layer is under the green roof build up or insulation. It can be used where the membrane is laid directly over the roof deck or in green roofs where the insulation is under the membrane.

Roof covering types

The IFP-GR can be supplied with different flange materials to integrate with the following roofing systems:

PVC roofing membrane
EPDM roofing membrane
TPO roofing membrane
TPE roofing membrane
PIB roofing membrane

SBS and APP modified bitumen membranes
Built up and hot melt roofing systems
Liquid applied roof coatings

Materials

304 stainless steel anchor point - machined finish
Mild steel post and fixing plate - galvanised finish
Weathering flange - material to match main roof weathering

Dimensions

OA height variable
2 no. fixing points M10 x 20
Distance between fixing points 52mm
Inverted roof GR fixing plate:
250mm x 250mm x 4mm with 8 no. 15mm dia holes for anchor bolts
Warm roof GR fixing plate:
300mm x 300mm with 8 no. 7mm Ø holes for direct fixings and
8 no. 17mm Ø holes for thermally broken fixings
Flange dimension:
400mm x 400mm PVC, EPDM, TPO, PIB
400mm x 400mm SBS and APP modified bitumen

Fixing options

- Direct fixings into the roof support deck below
Thermally broken fixings through the insulation into the roof support deck below
- M10 threaded stud fixing using the IFP-CN Cap Nut
See pages 40-41 for typical fixing details

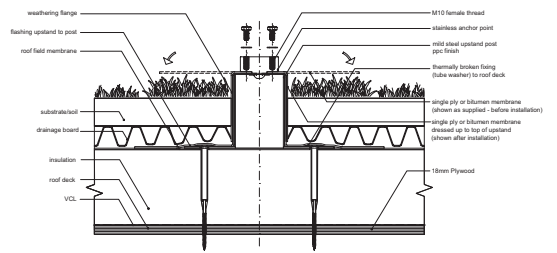
Accessories

See pages 34-38.

IFP-GR

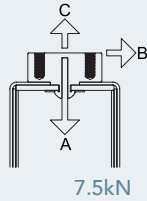
for green and inverted roof constructions

Green roof



Load ratings

The following values assume that the supporting structure is adequate to support the design values that will be imposed on the IFP-GR.



1. IFP-GR for inverted cold roof constructions
Maximum compressive load as at 'A'

7.5kN

Shear load as 'B'

This will depend upon the height of the post and type and strength of fixings. Value must be calculated by a structural engineer.

Tensile load as 'C'

This is limited to 5kN but is dependent on the type of fixing and values obtainable. To be calculated by structural engineer.

2. IFP-GR for green roof and warm roof constructions

Compression load at 'A'

This will be determined by the insulation manufacturers static load ratings. These figures can be obtained from the relevant insulation manufacturer.

Static load rating	Maximum compressive load
20kPa	125kg
30kPa	187kg
40kPa	250kg
50kPa	312kg
60kPa	375kg

Shear load at 'B'

The maximum height of post is 150mm above roof membrane with a maximum shear loading: 1.0kN

Tensile load at 'C' for direct fixings to metal, wood and concrete

Values given below are based on the Fixfast SF-RS-5.8 and SF-RS-6.1 fasteners as per European Technical Approval 15/0406 and allow a safety factor of three on the combined mean axial pullout value of the fixings. Values are also given for steel decks where normally only 6 no. fixings into the profile crown can be achieved.

	6 fixings	8 fixings
SF-RS-5.8 fixed to 18mm plywood to EN 636	4.2kN	5.0kN
SF-RS-5.8 fixed to 18mm OSB/3 to EN300	3.1kN	4.2kN
SF-RS-5.8 fixed to 38mm softwood timber	5.0kN	5.0kN
SF-RS-5.8 fixed to 0.7mm galv. profiled steel	2.8kN	3.8kN
SF-RS-5.8 fixed to 0.9mm galv. profiled steel	3.8kN	5.0kN
SF-RS-5.8 fixed to 1.2mm galv. profiled steel	5.0kN	5.0kN
SF-RS-6.1 fixed to C25 concrete	3.9kN	5.0kN

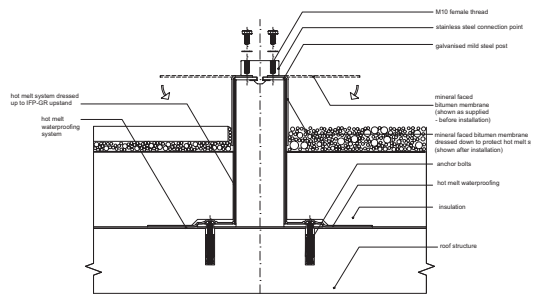
Tensile Load as 'C' for thermally broken fixings to metal, wood and concrete

Values given below are based on the Fixfast SF-RS-5.8 fasteners and SF-T-50 tube washers as per European Technical Approval 15/0406 and allow a safety factor of three on the combined mean axial pullout value of the thermal washers. Values are also given for steel decks where normally only 6 no. fixings into the profile crown can be achieved.

	6 fixings	8 fixings
Fixing into all substrate materials	3.1kN	4.1kN

Note: We recommend on-site pullout tests to determine pull out values where the substrate is an existing roof structure.

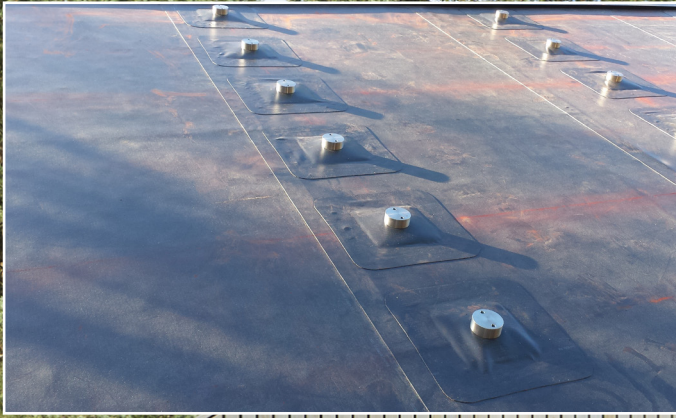
Inverted roof



Download product files here [PDF](#) [DWG](#)

Download technical data here [PDF](#)





Project: House annex
Architect: Ström Architects
Main Contractor: Rice Projects
Roofing Contractor: Warner Contracting
Main picture: Richard Chivers
Rooftrak product: IFP-200

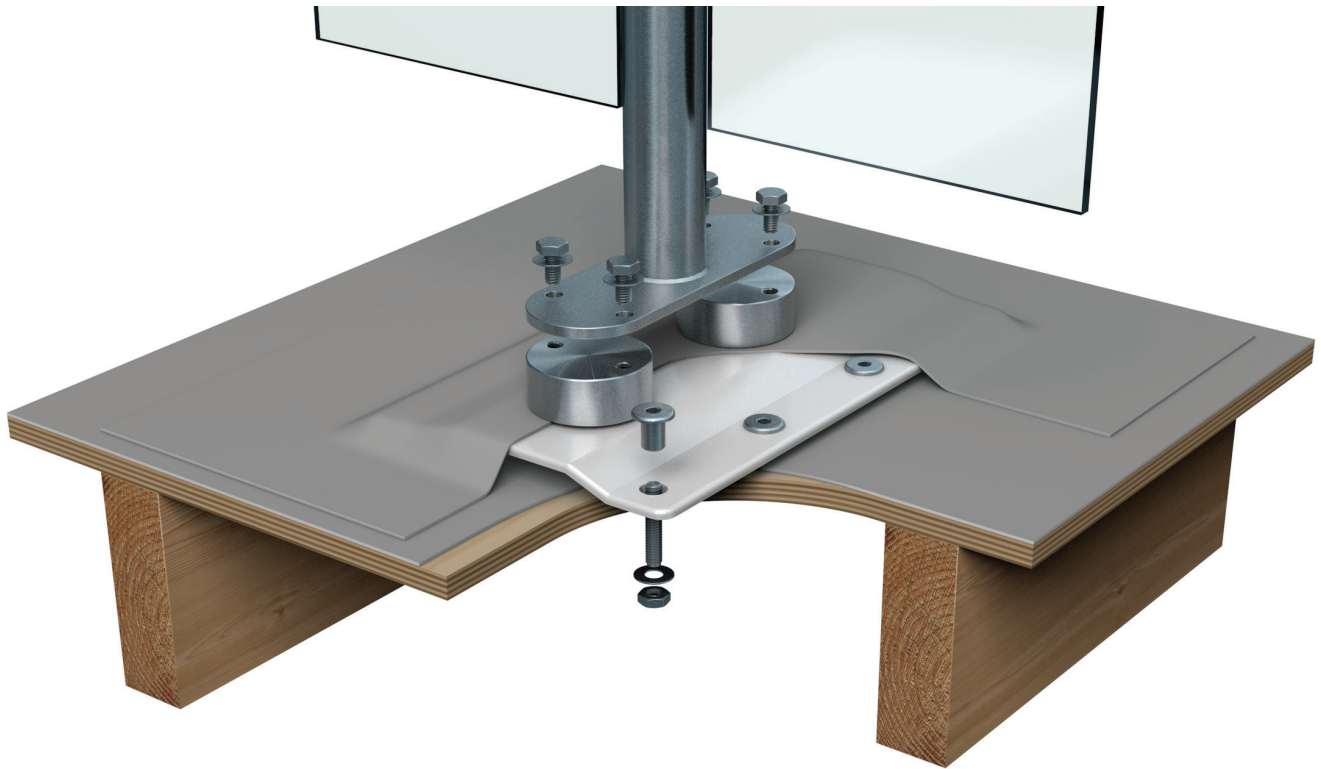
Case study



Project: The Crows Nest
Location: Lyme Regis
Architect: A R Design Studio
Roofing system: Danosa
Use: External timber cladding
Rooftrak product: IFP-200

Case study

IFP-BC
for balustrades on flat cold roof constructions



Description

The IFP-BC is designed for use on cold, flat roof constructions or vertical elevations where fixed directly to the structure behind the weathering membrane. The IFP-BC provides a connection point for balustrade supports. It comprises a 225 x 375mm fixing plate with two anchor points each with 2 no. M10 x 20 blind threaded connection points. The fixing plate has 8 no. holes through which the plate is bolted to the structure. To weather the fixing plate the IFP-BC is factory fitted with an appropriate flange material to enable it to be weathered or sealed to the main roof area. A mounting or weld plate can be supplied in 10mm mild steel or stainless steel for connecting the balustrade to the fitting.

Design considerations

The diagram on the next page shows the various loadings that the IFP-BC can be subjected to. Their inclusion in any design should be approved by a structural engineer.

Typical uses

- Connecting balustrade supports to a flat roof
- Any application where resistance to a turning moment is required

Compatibility

Roof construction

The IFP-BC is designed for cold roof constructions and vertical applications such as parapet walls

Roof covering types

The IFP-BC can be supplied with different flange materials to integrate with the following roofing systems:

- PVC roofing membrane
- EPDM roofing membrane
- TPO roofing membrane
- TPE roofing membrane
- PIB roofing membrane
- SBS and APP modified bitumen membranes
- Built up roofing systems
- Liquid applied roof coatings
- GRP roof coverings

Materials

- 304 stainless steel anchor point – machined finish
- Mild steel fixing plate – polyester powder coat finish
- Weathering flange – material to match main roof weathering system
- Balustrade connection plate - mild steel or stainless steel

IFP-BC

for balustrades on flat cold roof constructions

Dimensions

- OA height 49mm
- 4 no. fixing points M10 x 20
- Distance between fixing points 52mm
- Distance between anchors 150mm
- Fixing plate 225 mm x 375mm x 6mm
- 8 no. fixing holes 15mm Ø
- Flange sizes:
425mm x 575mm PVC, EPDM, TPO, PIB
525mm x 675mm SBS and APP modified bitumen

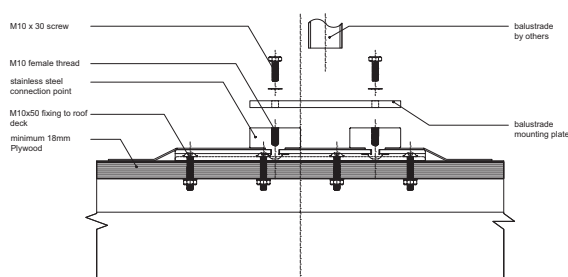
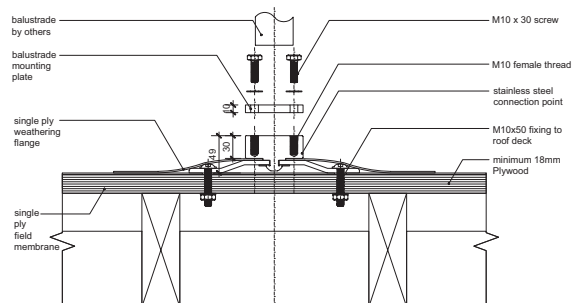
Fixing options

Bolted directly to the substrate – note that the CN Cap Nut or rounded head bolts should be used to avoid damage to the roofing membrane. See pages 40 and 41 for typical fixing details.

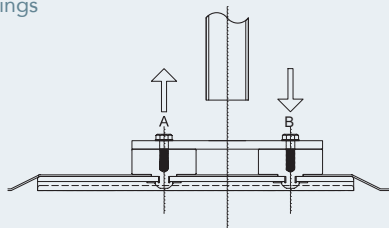
Accessories

- IFP-BP Balustrade Connection Plate
- IFP-CN Low profile cap nut – see page 37
- IFP-TG Toggle Fixing – see page 37

Cold/inverted roof



Load ratings



The following values assume that the supporting structure is of adequate stability to support the design values that will be imposed on the IFP-BC. All designs and calculations should take into account the supporting substrate and balustrade construction and should be compliant with current regulation requirements.

The IFP-BC should always be positioned so that the two fixing points are perpendicular to the line of the balustrade.

Maximum applied axial loads to the IFP-BC

At 'A'	25kN
At 'B'	25kN

Typical load values on plywood roof deck

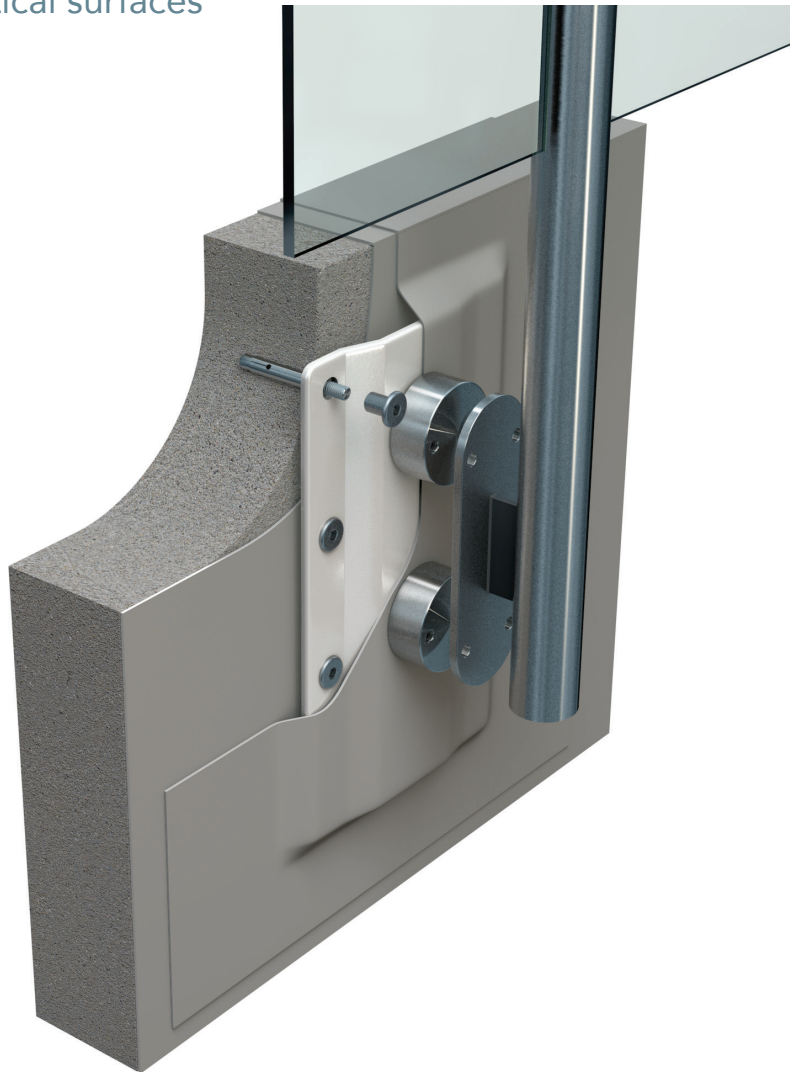
Based on in-house test rig results with 18mm and 25mm plywood on 50 x 150 joists at 400mm cc's. A 1100mm high balustrade support had force applied until 25mm deflection was reached due to plywood deformation. This test produced transferred forces as follows:

18mm plywood	
At 'A'	8.23kN
At 'B'	7.23kN
25mm plywood	
At 'A'	11.20kN
At 'B'	10.20kN

It is essential that the use of the IFP-BC in any design is approved by a competent structural engineer.



IFP-BC
for balustrades on vertical surfaces



Description

The IFP-BC is designed for use on cold, flat roof constructions or vertical elevations where fixed directly to the structure behind the weathering membrane. The IFP-BC provides a connection point for balustrade supports. It comprises a 225 x 375mm fixing plate with two anchor points each with 2 no. M10 x 20 blind threaded connection points. The fixing plate has 8 no. holes through which the plate is bolted to the structure. To weather the fixing plate the IFP-BC is factory fitted with an appropriate flange material to enable it to be weathered or sealed to the main roof area. A mounting or weld plate can be supplied in 10mm mild steel or stainless steel for connecting the balustrade to the fitting.

Design considerations

The diagram on the next page shows the various loadings that the IFP-BC can be subjected to. Their inclusion in any design should be approved by a structural engineer.

Typical uses

- Connecting balustrade supports to a vertical surface
- Any application where resistance to a turning moment is required

Compatibility

Roof construction

The IFP-BC is designed for cold roof constructions and vertical applications such as parapet walls.

Roof covering types

The IFP-BC can be supplied with different flange materials to integrate with the following roofing systems:

- PVC roofing membrane
- EPDM roofing membrane
- TPO roofing membrane
- TPE roofing membrane
- PIB roofing membrane
- SBS and APP modified bitumen membranes
- Built up roofing systems
- Liquid applied roof coatings
- GRP roof coverings

Materials

- 304 stainless steel anchor point - machined finish
- Mild steel fixing plate - polyester powder coat finish
- Weathering flange - material to match main roof weathering system
- Balustrade connection plate - mild steel or stainless steel

IFP-BC for balustrades on vertical surfaces

Dimensions

- OA height 49mm
- 4 no. fixing points M10 x 20
- Distance between fixing points 52mm
- Distance between anchors 150mm
- Fixing plate 225 mm x 375mm x 6mm
- 8 no. fixing holes 15mm Ø
- Flange sizes:
425mm x 575mm PVC, EPDM, TPO, PIB
525mm x 675mm SBS and APP modified bitumen

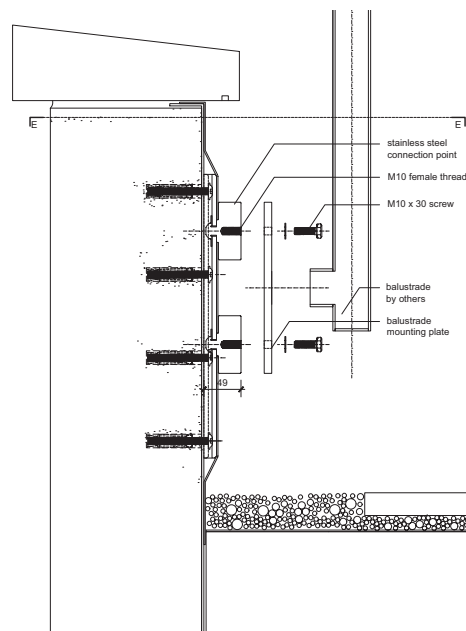
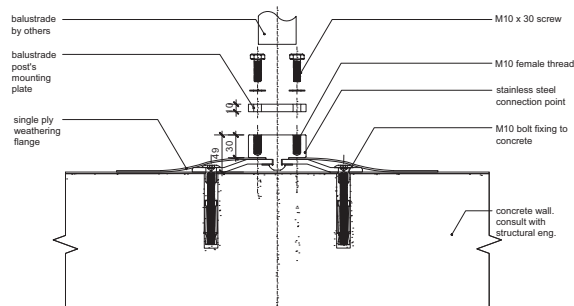
Fixing options

Bolted directly to the substrate – note that the CN Cap Nut or rounded head bolts should be used to avoid damage to the roofing membrane. See pages 40 and 41 for typical fixing details.

Accessories

- IFP-BP Balustrade Connection Plate
- IFP-CN Low profile cap nut – see page 37
- IFP-TG Toggle Fixing – see page 37

Vertical section



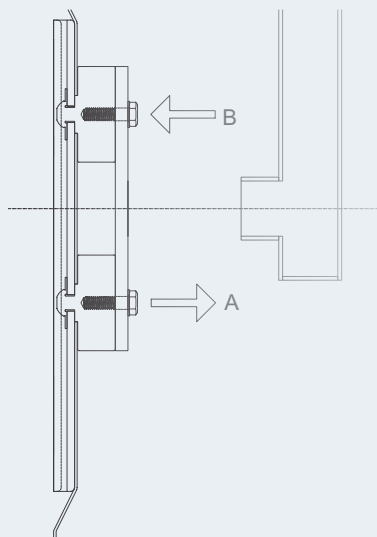
Load ratings

The following values assume that the supporting structure is of adequate stability to support the design values that will be imposed on the IFP-BC. All designs and calculations should take into account the supporting substrate and balustrade construction to be compliant with current regulation requirements.

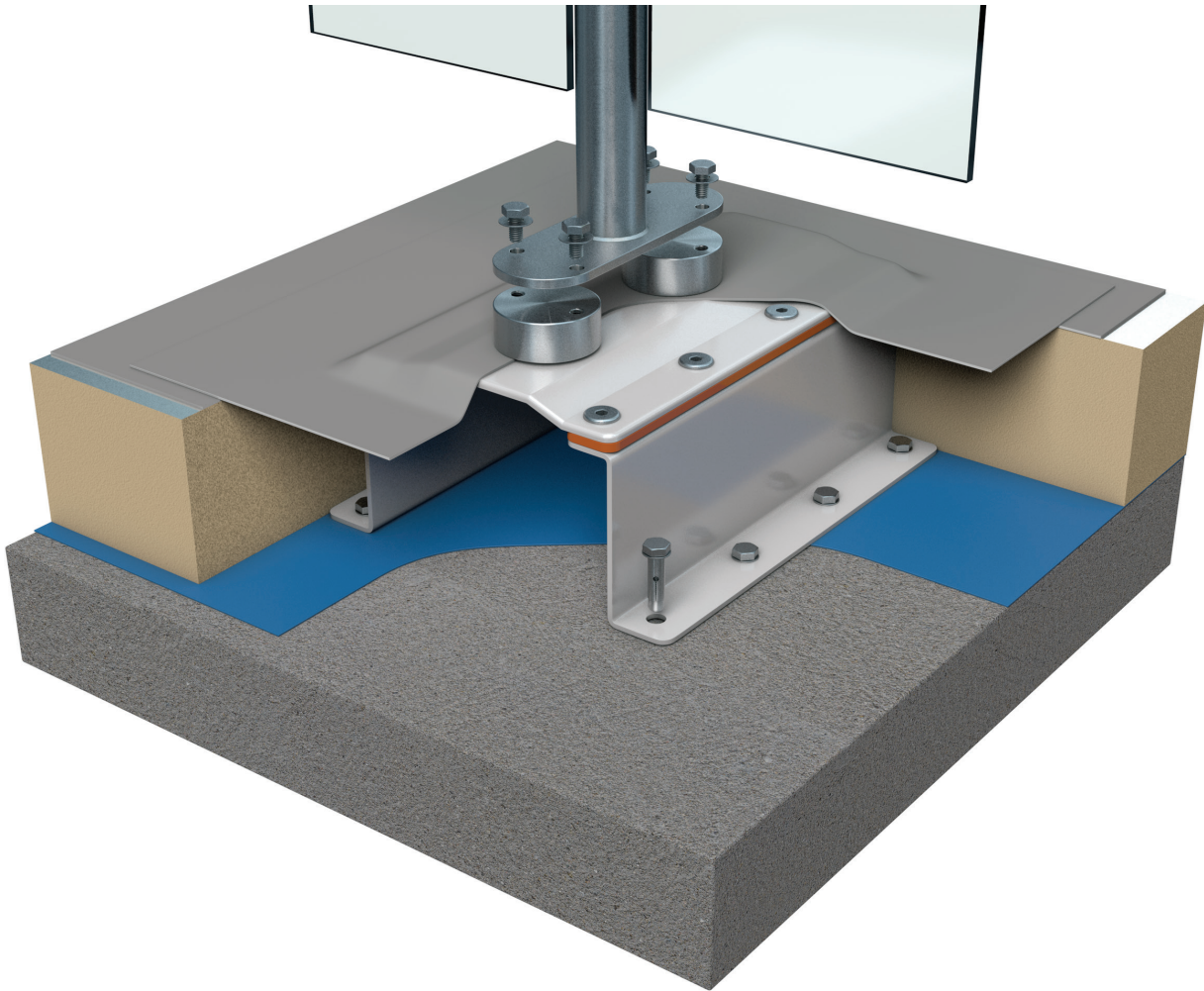
The IFP-BC should always be positioned so that the two fixing points are perpendicular to the line of the balustrade.

Maximum applied axial loads to the IFP-BW
At 'A' **25kN**
At 'B' **25kN**

It is essential that the use of the IFP-BC in any design is approved by a competent structural engineer.



IFP-BW
for balustrades on warm and inverted roof constructions



Description

The IFP-BW is a thermally broken connection point for balustrades situated on warm roof constructions where the insulation is between the roof deck and the weathering membrane. The IFP-BW comprises a 350 x 200 fixing plate with two anchor points each with 2 no. M10 x 20 blind threaded connection points. The fixing plate has 8 no. holes through which the plate is bolted to an extension piece manufactured to the thickness of the insulation. To weather the fixing plate the IFP-BW is factory fitted with an appropriate flange material to enable it to be weathered or sealed to the main roof area. A connection plate can be supplied in 10mm mild steel or stainless steel for connecting the balustrade to the fitting. The IFP-BW can also be used in inverted roof constructions.

Design considerations

The table on the next page shows the various loadings that the IFP-BW can be subjected to. Their inclusion in any situation should be approved by a structural engineer. Further design considerations are detailed on page 42 of this brochure.

Typical uses

- Connecting balustrade supports to flat warm roof constructions

Compatibility

Roof construction

The IFP-BW is designed for warm and inverted roof constructions.

Roof covering types

The IFP-BW can be supplied with different flange materials to integrate with the following roofing systems

- PVC roofing membrane
- EPDM roofing membrane
- TPO roofing membrane
- TPE roofing membrane
- PIB roofing membrane
- SBS and APP modified bitumen membranes
- Built up and hot melt roofing systems
- Liquid applied roof coatings

Materials

- 304 stainless steel anchor point - machined finish
- Mild steel fixing plate - polyester powder coat finish
- Weathering flange - material to match main roof weathering system
- Balustrade connection plate - mild steel or stainless steel

for balustrades on warm and inverted roof constructions

Dimensions

- OA height from warm roof construction membrane 59mm
- 4 no. fixing locations 2 no. M10 x 20
- Distance between anchors 150mm
- Fixing plate 225mm x 375 mm x 6mm
- Fixing holes: 8 no. 15mm Ø holes Nuts
- Flange sizes:
425mm x 575mm for single ply membranes
525mm x 675mm for SBS and APP modified bitumen

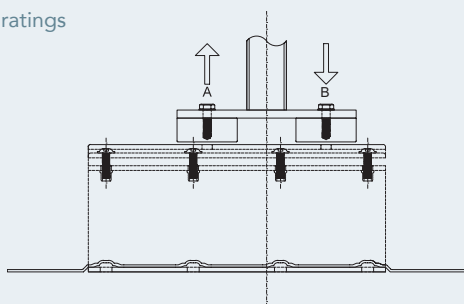
Fixing options

The IFP-BW should be bolted to the roof deck – see typical fixing details on pages 40 and 41.

Accessories

- IFP - BP Balustrade Connection Plate
- IFP-CN Low profile cap nut – see page 37
- IFP-TG Toggle Fixing – see page 37

Load ratings



The following values assume that the supporting structure is of adequate stability to support the design values that will be imposed on the IFP-BW. All designs and calculations should take into account the supporting substrate and the balustrade construction should be compliant with current regulation requirements.

The IFP-BW should always be positioned so that the two fixing points are perpendicular to the line of the balustrade.

Maximum applied axial loads to the IFP-BW

At 'A'	25kN
At 'B'	25kN

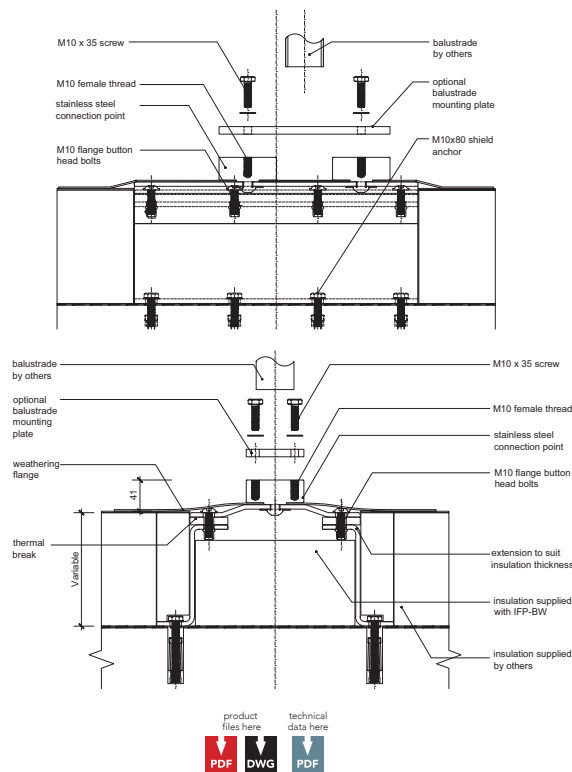
Typical load values on plywood roof deck

Based on in-house test rig results with 18mm and 25mm plywood on 50 x 150 joists at 400mm cc's. A 1100mm high balustrade support had force applied until 25mm deflection was reached due to plywood deformation. This test produced transferred forces as follows;

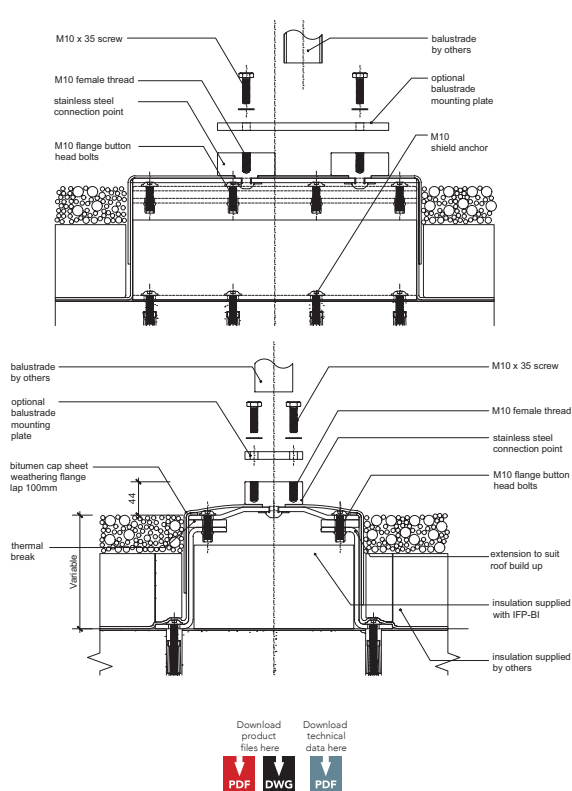
18mm plywood	
At 'A'	8.23kN
At 'B'	7.23kN
25mm plywood	
At 'A'	11.20kN
At 'B'	10.20kN

It is essential that the use of the IFP-BW in any design is approved by a competent structural engineer.

IFP-BW warm roof section



IFP-BI inverted roof section





Project: Balustrade at Gascoyne Estate
Architect: KCA Architects
Main Contractor: Bennett
Roofing Contractor: Southern & Country Roofing Ltd
Use: Balustrade fixing points
Rooftrak product: IFP-BC

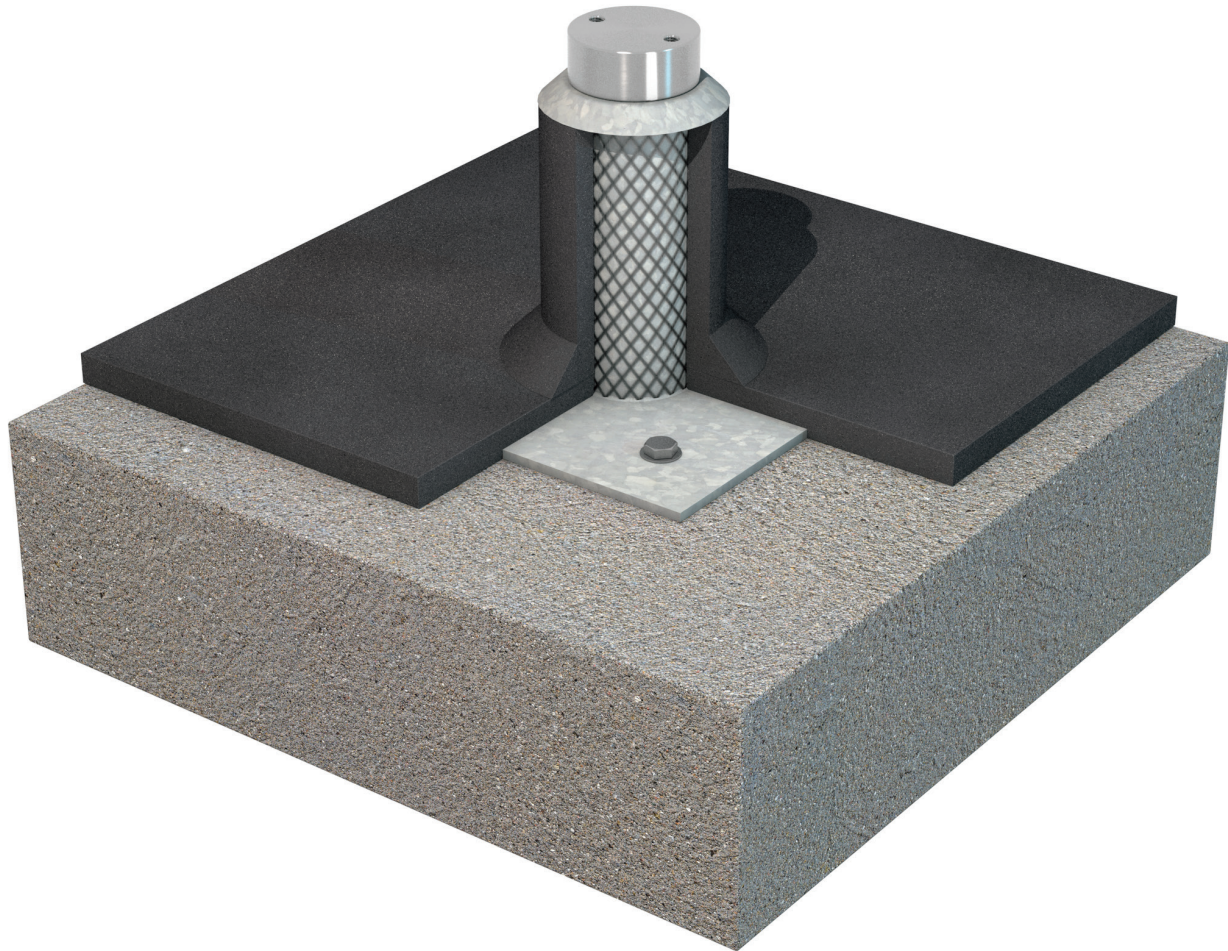
Case study

Project: Solar panel installation
Location: Ikea Distribution Centre, Peterborough
Solar installer: Kingspan Energy
Use: Ballast free fixings for solar PV system
Rooftrak product: IFP-300



Case study

IFP-AS
for asphalt roofs



Description

The IFP-AS is designed for use on roof constructions weathered with mastic asphalt. It has a galvanised upstand with a expanded metal lath collar and a weathering hood to the top of the upstand.

Typical uses

- Architectural cladding rail supports
- Solar panels
- Roof plant supports
- Timber decking
- Roof area zoning
- Roof services supports
- Roof walkways

Compatibility

Roof construction

The IFP-AS is designed for roof constructions where the roof deck is either concrete or timber.

Roof covering types

Mastic asphalt

Materials

Mild steel fixing plate - galvanised finish
 Upstand post including a weathering collar - galvanised finish
 Galvanised steel expanded metal lath
 304 stainless steel anchor point - machined finish

Dimensions

Fixing plate 250mm x 250mm x 6mm
 Upstand post 76mm Ø x 150mm high
 Anchor points 2 no. fixing points M10 x 20
 OA height 205mm
 Weigh approx. 5kgs

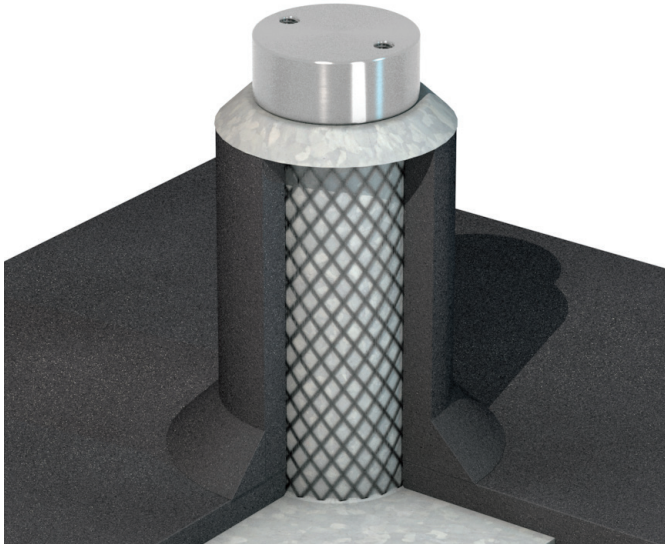
Fixing options

Direct fixings into the timber or concrete roof deck.
 See pages 40 and 41 for typical fixing details.

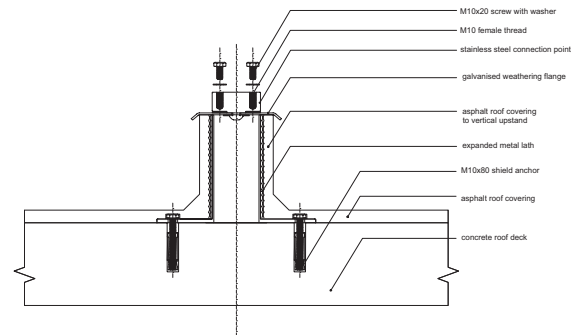
Accessories

See pages 34-38.

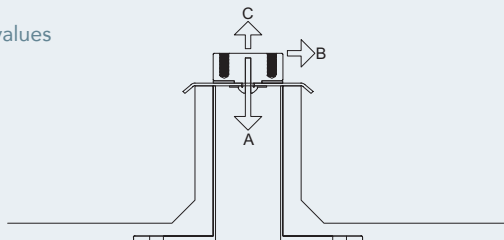
IFP-AS for asphalt roofs



Fixing into concrete



Loading values



The IFP-AS is designed for use on flat or pitched structures. It is assumed that the IFP-AS is fixed directly to the roofing substrate using appropriate fixings and that the supporting structure has the capacity to support the design loadings likely to be encountered.

Compression load at 'A'
Maximum load

5kN

Shear load at 'B'

The maximum shear load at 'B' will be determined by structural calculations but will not exceed a maximum value of 2.5kN

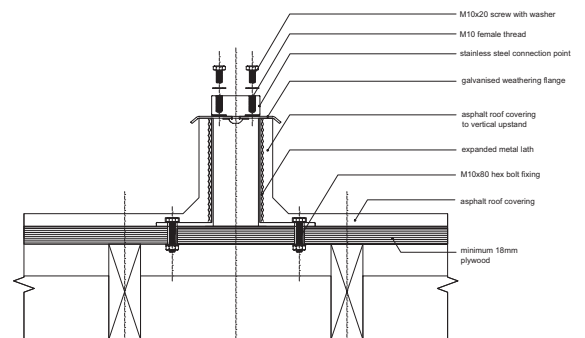
Tensile load at 'C'

The tensile load will depend on the fixings used and the substrate they are fixed into but should not exceed the maximum value of

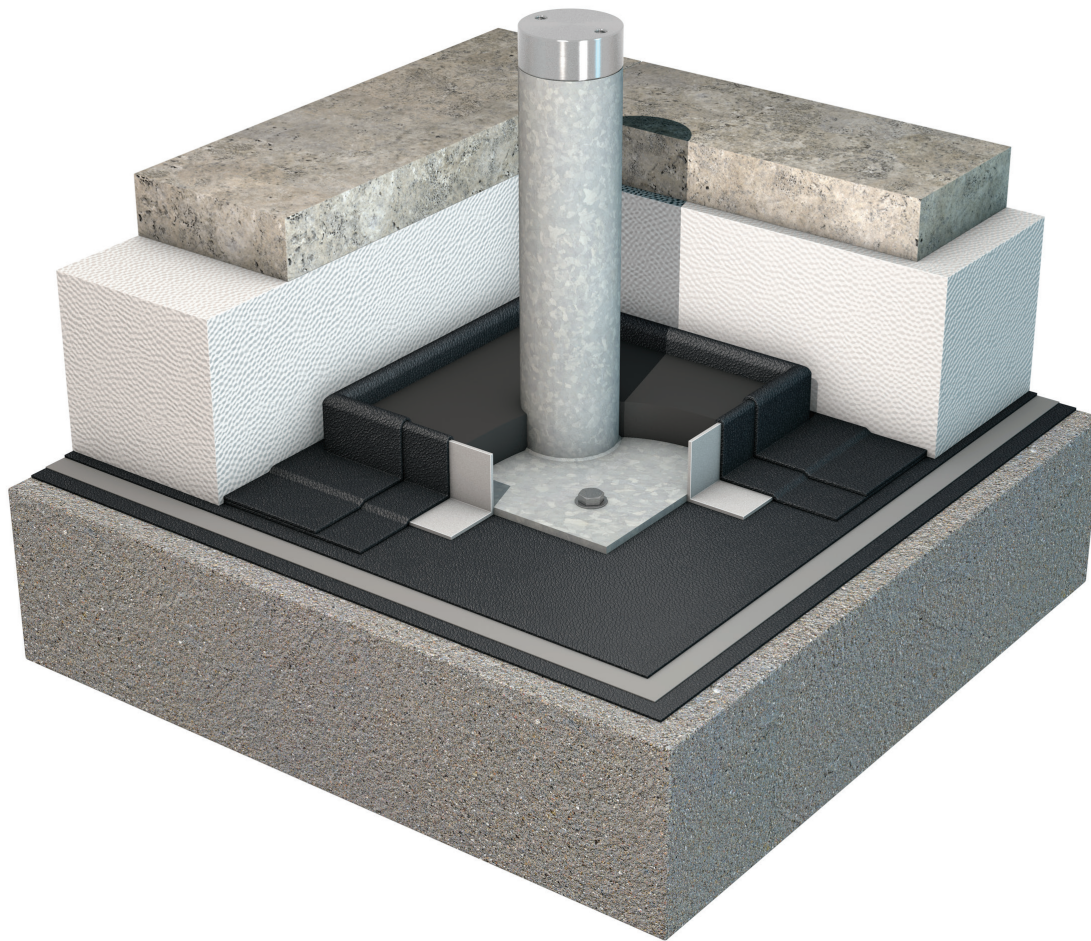
5kN

Note: We recommend on-site pullout tests to determine pull out values where the substrate is an existing roof structure.

Fixing into timber



IFP-HM
for hot melt roofing



Description

The IFP-HM is designed for use on roof constructions weathered with hot melt roofing systems. It has a galvanised upstand with a fixing point on the top and is designed for use with 'pitch pocket' weatherings.

Typical uses

- Solar panels
- Roof plant supports
- Timber decking
- Roof area zoning
- Roof services supports
- Roof walkways

Compatibility

Roof construction

The IFP-HM is designed for inverted roof constructions where the roof deck is concrete.

Roof covering types

Hot melt roofing systems using pitch pockets for sealing penetrations.

Materials

- Mild steel plate fixing plate - galvanised finish
- Upstand post - galvanised finish
- 304 stainless steel anchor point - machined finish

Dimensions

- Fixing plate 250mm x 250mm x 6mm
- Upstand post 76mm Ø x variable height
- Anchor points 2 no. fixing points M10 x 20

Fixing options

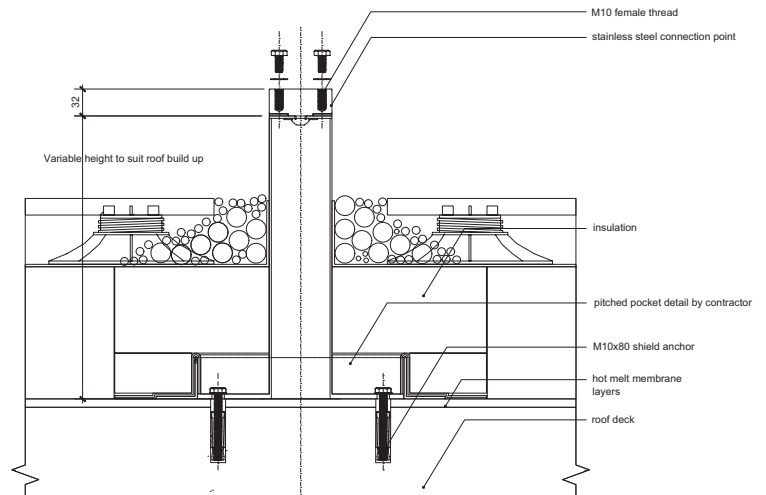
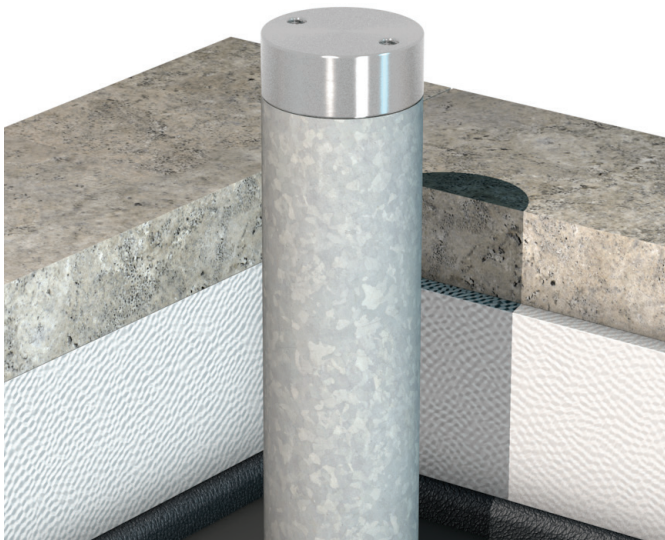
Direct fixings into concrete roof deck.
See pages 40 and 41 for typical fixing details.

Accessories

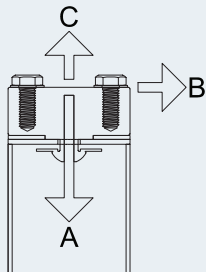
See pages 34-38.

IFP-HM for hot melt roofing

Fixing into concrete



Loading values



The IFP-HM is designed for use on flat or pitched structures. It is assumed that the IFP-HM is fixed directly to the roofing substrate using appropriate fixings and that the supporting structure has the capacity to support the design loadings likely to be encountered.

Compression load at 'A'

Maximum load 5kN

Shear load at 'B'

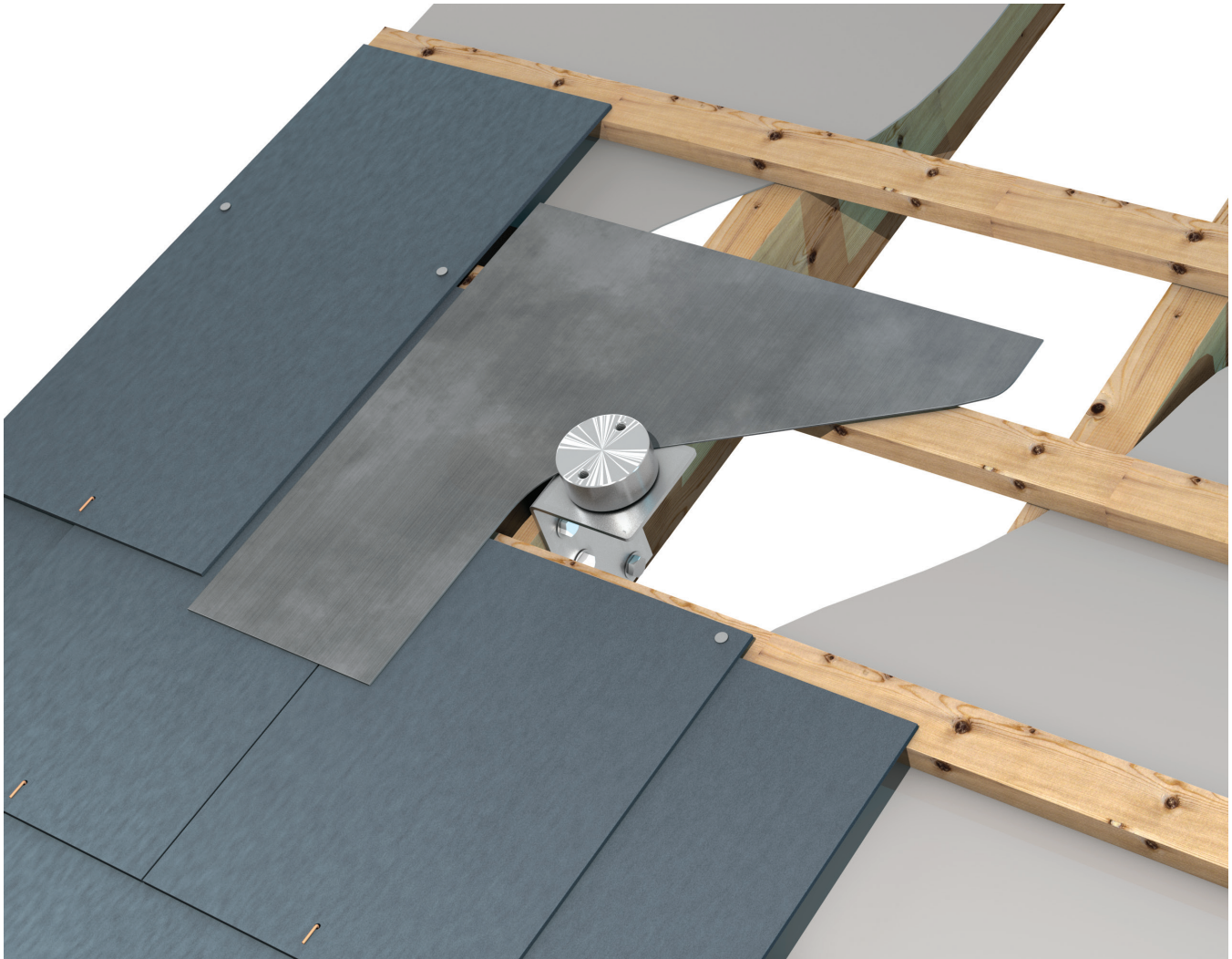
The maximum shear load at 'B' will be determined by structural calculations but will not exceed a maximum value of 2.5kN

Tensile load at 'C'

The tensile load will depend on the fixings used and the substrate they are fixed into but should not exceed the maximum value of 5kN

Note: We recommend on-site pullout tests to determine pull out values where the substrate is an existing roof structure.

IFP-PR
for pitched roof constructions



Description

The IFP-PR is designed for use in pitched slated or tiled roof constructions to provide an external fixing point. The IFP-PR is factory fitted with a code 4 lead flashing which is incorporated into the slating or tiling to weatherproof the post. The lead flashing can be dressed to weather to the face of profiled roof tiling.

Typical uses

- Solar panels
- Access way supports
- Snow guard anchors
- Signage supports
- Roof plant supports

Compatibility

Roof covering types

The IFP-PR is supplied with a lead flashing and can be integrated into the following roof coverings:

- Natural and man made slates
- Plain tiles
- Profiled tiles
- Concrete interlocking tiles
- Coated metal tiling

Materials

- 304 stainless steel anchor point - machined finish
- Mild steel fixing plate - polyester powder coat finish
- Code 4 lead sheet flange to BS EN 12588

Dimensions

- OA height 35mm from lead flashing
- 2 no. fixing points M10 x 20
- Distance between fixing points 52mm
- Fixing plate OA height 175mm x 4mm thick
- Fixing holes 6 no. 8mm Ø
- Flange dimension 500mm x 500mm

Fixing options

M8 coach bolts for timber or similar

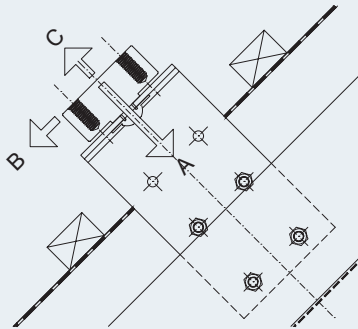
Accessories

See pages 34-38.

IFP-PR for pitched roof constructions

Fixing into pitched roof construction

Loading values



It is assumed that the IFP-PR is fixed directly to the structural roofing timber using appropriate fixings and that the supporting structure has the capacity to support the design loadings likely to be encountered.

Compression load at 'A'

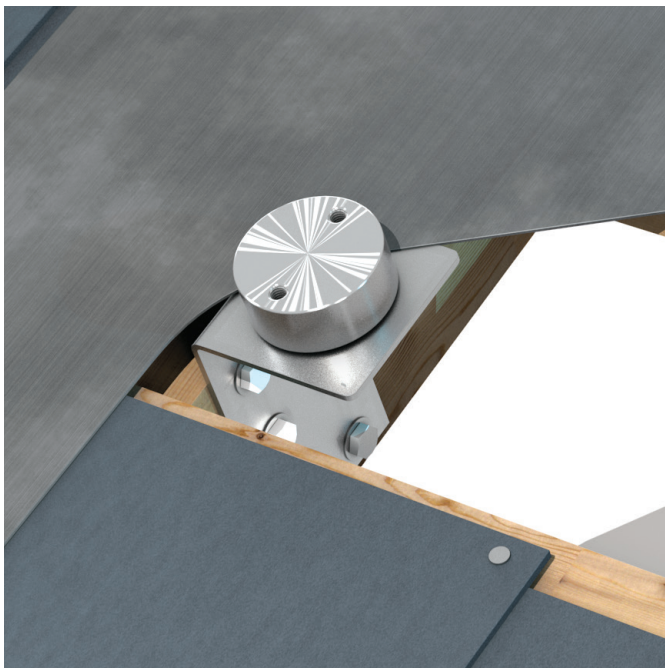
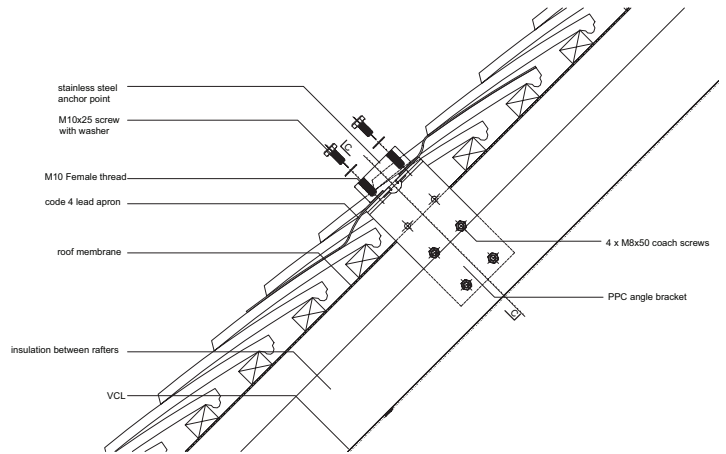
The maximum compression loads at 'A' perpendicular to the roof pitch **1.0kN**

Shear load at 'B' in the same plane as the roof

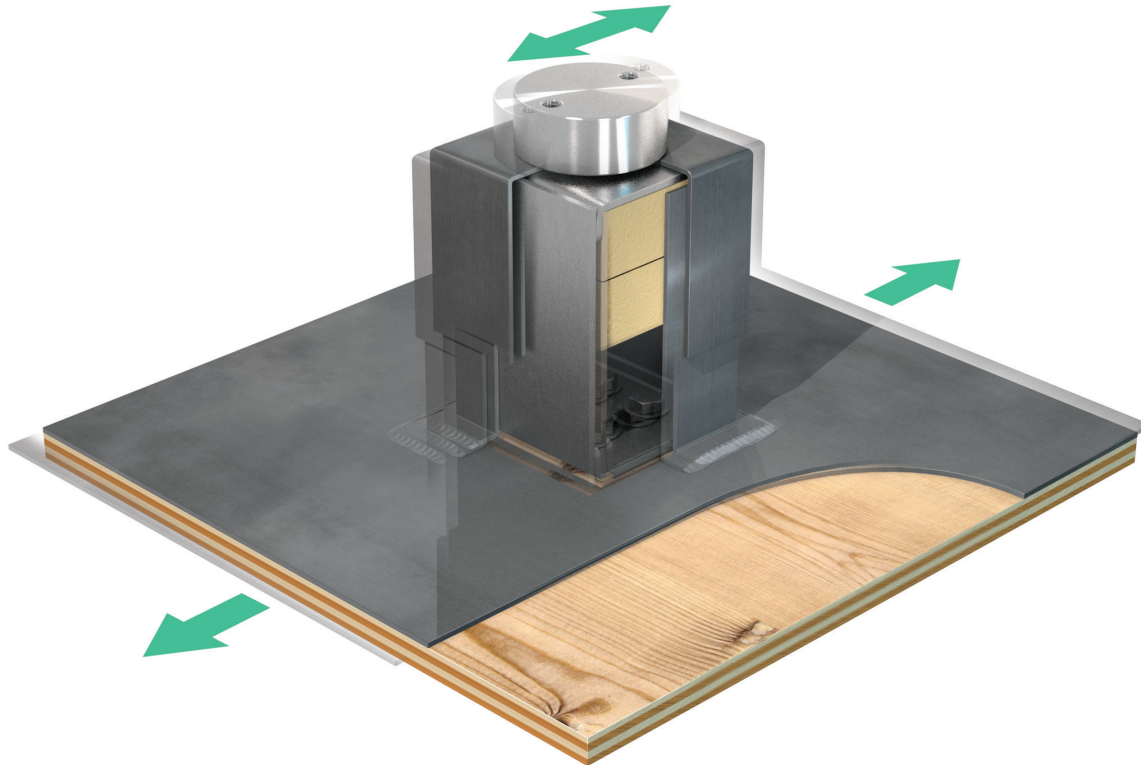
The maximum shear load as 'B' in the same plane as the roof pitch will be determined by structural calculations but will not exceed a maximum value of **2.5kN**

Tensile load at 'C'

The maximum tensile loads as 'C' perpendicular to the roof pitch will depend on the fixings used and the structural member they are fixed in to but should not exceed a maximum value of **1.5kN**



IFP-MR
for fully supported metal roofing



Description

The IFP-MR is designed for use in fully supported metal roofing as a fixing point. The IFP-MR is designed to move with the metal roof covering as it expands and contracts overcoming the problem of providing an external fixing point without limiting thermal movement. It can move up to 25mm making it compatible with all metal roofing coverings. The IFP-MR is factory fitted with a flashing flange which can be supplied in any metal roofing material so that it integrates with the roof it is being used on. Where necessary, the IFP-MR should be used with the IFP-MB Movement Bracket to enable the free movement of the fitting.

Typical uses

- Solar panel installations
- Roof walkway supports
- Snow guard anchors
- Signage supports
- Roof plant supports

Compatibility

Roof covering types

The IFP-MR can be supplied with any sheet metal flange:

- Lead
- Copper and pre patinated copper
- Zinc and pre patinated zinc
- Aluminium
- Stainless steel

Materials

- 304 stainless steel anchor point - machined finish
- Stainless steel movement bracket
- Stainless steel fixing plate
- Flashing to suit main roof covering

Dimensions

- OA height from roof deck 207mm
- Width x depth 100mm x 100mm
- Distance between M10 fixing points 52mm
- Fixing plate 75mm x 95mm x 4mm thick
- Fixing holes 8 no. 6mm Ø
- Flange dimension 300mm x 300mm

Fixing options

8 no. 5.0 csk wood screws or similar, screwed directly into supporting roof deck material.

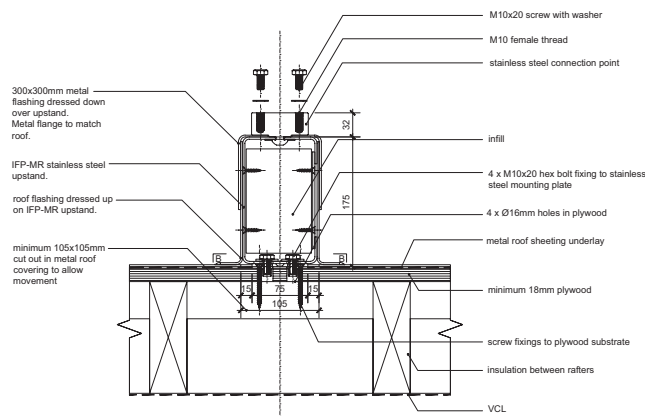
Accessories

See pages 34-38.

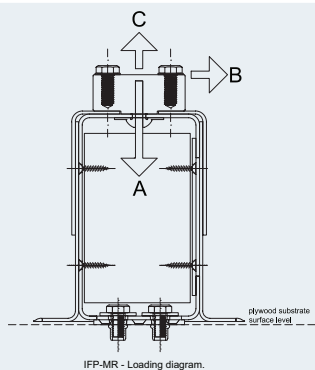
IFP-MR for fully supported metal roofing



Fixing into metal roof



Loading values



The IFP-MR is designed for use on fully supported metal roofing from 0-10° pitch. It is assumed that the IFP-MR is fixed directly to the roof deck supporting the roof covering with appropriate fixings and that the supporting structure has the capacity to support the design loadings likely to be encountered.

Compression load at 'A'

The maximum compressible load as at 'A' **1.5kN**

Shear load at 'B'

The maximum shear load at 'B' will be determined by structural calculations but will not exceed a maximum value of **0.25kN**

Tensile load at 'C'

The available tensile load at 'C' will depend on the fixings used and the substrate they are fixed into but should not exceed the maximum value of **2.5kN**

Note: We recommend on-site pullout tests to determine pull out values where the substrate is an existing roof structure.

Project: Ferdinand Street, London NW1
Architect: GLA Architecture & Design
Description: PV installation on green roof construction
Rooftrak product: IFP-GR for inverted and green roofing



Case study

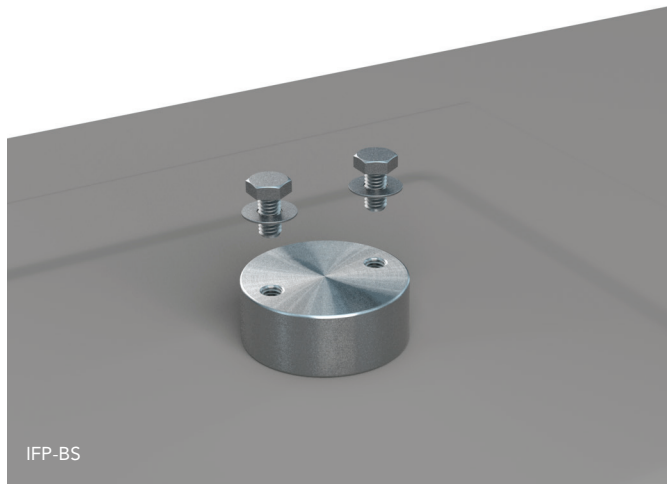


Project: Private dwelling
Location: Black Down Hills, Devon
Architect: Sadler Brown Architecture
Roofing Contractor: County Flat Roofing
Weathering System: Danosa
Description: Architectural timber cladding
Rooftrak Product: IFP-200

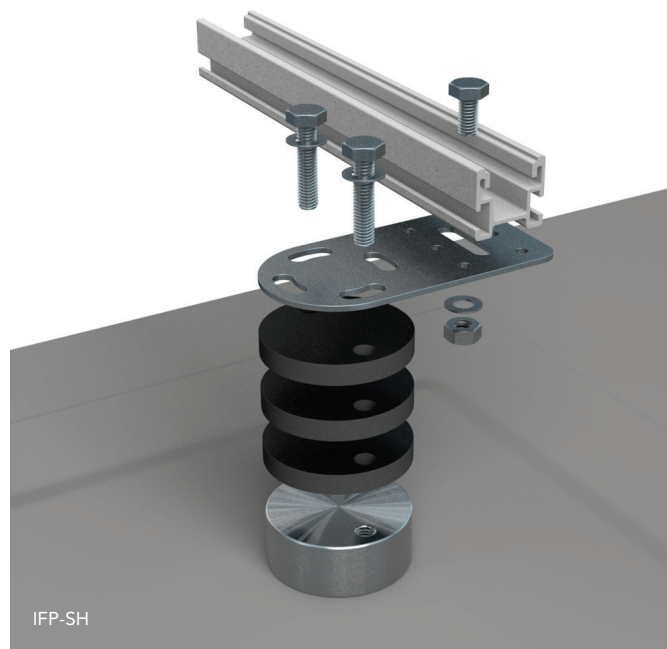
Images by kind permission of SJ & EH Tetlow

Case study

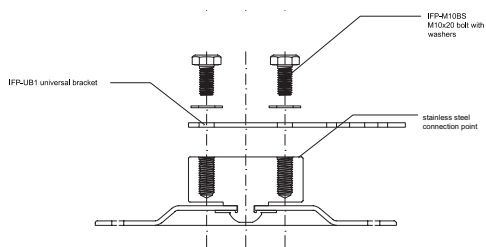
IFP-BS M10 Bolt Set
IFP-SH 10mm Shim



IFP-BS



IFP-SH



Download product files here
[PDF](#) [DWG](#)

Description

The IFP-BS standard bolt set is a pair of A2 stainless steel M10 hex bolts and washers for use with the IFP range of products. They are the correct length for bolting materials of 0.5mm to 10mm thickness to the IFP. Where materials thicker than 10mm are to be bolted to the IFP, a longer bolt will be required.

Typical uses

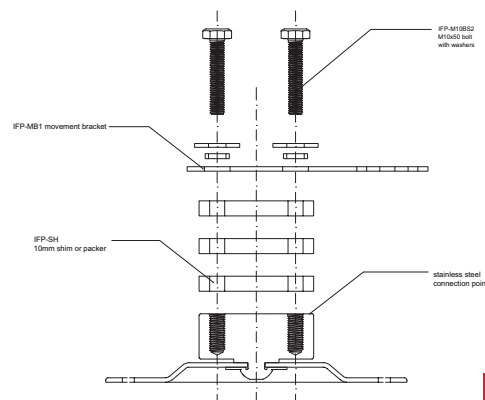
- Unistrut and other rail systems
- General bracketry

Materials

A2 grade stainless steel

Dimensions

Bolt thread M10
 Bolt length 20mm



Download product files here
[PDF](#) [DWG](#)

Description

The IFP-SH is a packing shim designed to fit over the IFP anchor point for situations where multiple anchor points need to be level. They can be used in multiples to achieve greater packing dimensions. Where the IFP-SH is utilised, a longer bolt will be required to secure them to the anchor points. Care should be taken in selecting the bolt length as the anchor points are blind threaded holes.

Typical uses

- Solar panel installations
- Roof walkway supports
- Signage supports
- Roof plant supports

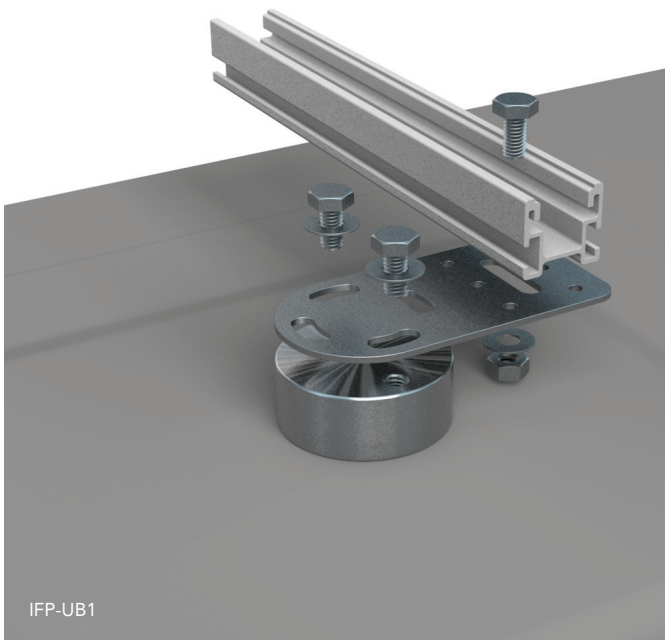
Materials

High density polyethylene

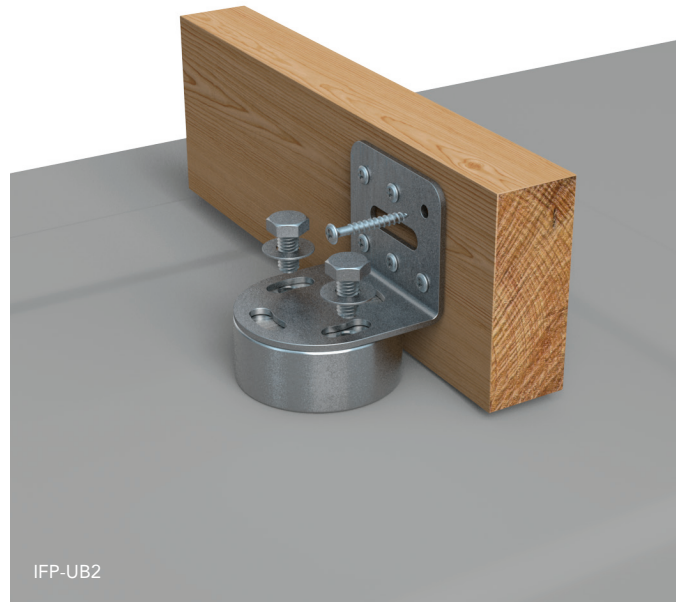
Dimensions

76mm Ø x 10mm thick

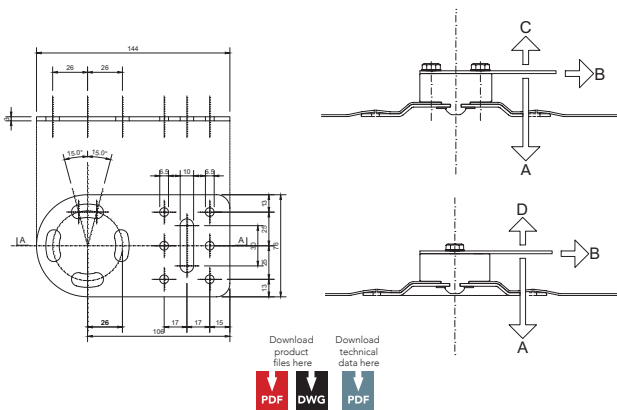
IFP-UB Universal Bracket



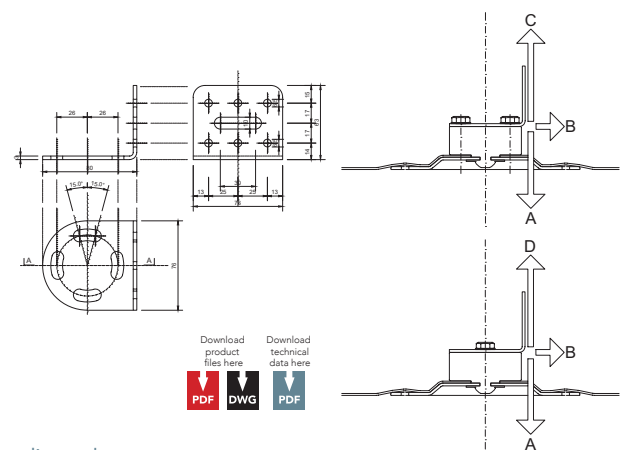
IFP-UB1



IFP-UB2



Download product files here [PDF](#) Download technical data here [DWG](#) [PDF](#)



Download product files here [PDF](#) Download technical data here [DWG](#) [PDF](#)

Description

The IFP-UB is a connecting bracket designed for use with the IFP products. It can be supplied straight (UB1) or bent to a right angle (UB2) and has fixing holes that allow it to be fixed in either axis and further adjusted to 15° either side of the chosen axis. The IFP-BS Bolt set is used to bolt the bracket to the IFP fitting.

Typical uses

- For securing metal framing systems
- For fixing timber joists

Materials

304 stainless steel

Dimensions

UB1 straight version:

- OA dimensions 144mm x 75mm x 3mm thick
- 1 no 10mm x 30mm slot
- 6 no. 6mm Ø holes

UB2 angled version:

- OA dimensions 75mm wide x 64mm high
- Fixing holes 1 no. 10mm x 30mm slot
- 6 no. 6mm Ø holes

Loading values

The IFP-UB Universal brackets are designed for use with the IFP products. It is assumed that the IFP is fixed to the roofing substrate using appropriate fixings and that the supporting structure has the capacity to support the design loadings likely to be encountered.

UB1

The maximum compressive load at 'A' perpendicular to the UB1 **1.0kN**

The maximum shear load at 'B' will be determined by the particular IFP that the UB1 is attached to.

See separate data sheet for the relevant IFP.

The maximum tensile load as 'C' perpendicular to the UB1 **1.5kN**

The maximum tensile load as 'D' perpendicular to the UB1 **1.0kN**

UB2

The maximum compressive load as 'A' perpendicular to the UB2 **2.5kN**

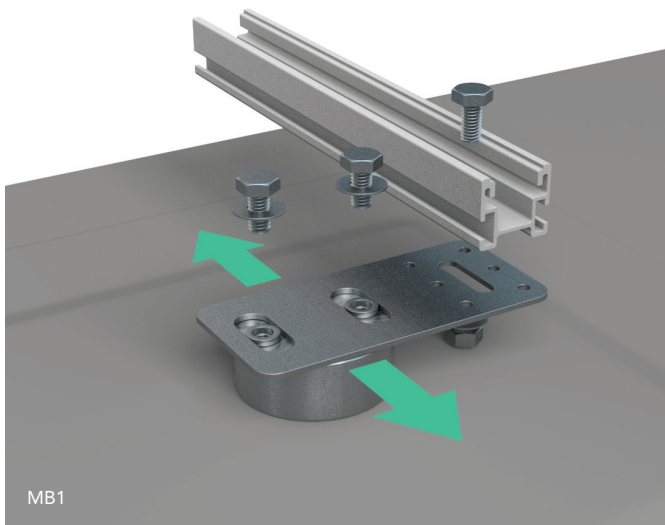
The maximum shear load at 'B' will be determined by the particular IFP that the UB2 is attached to.

See separate data sheet for the relevant IFP.

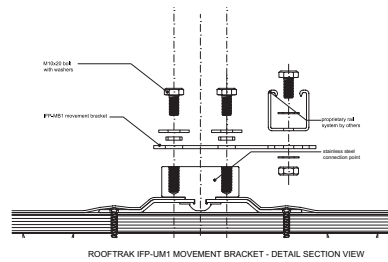
The maximum tensile load at 'C' **2.5kN**

The maximum tensile load at 'D' **1.0kN**

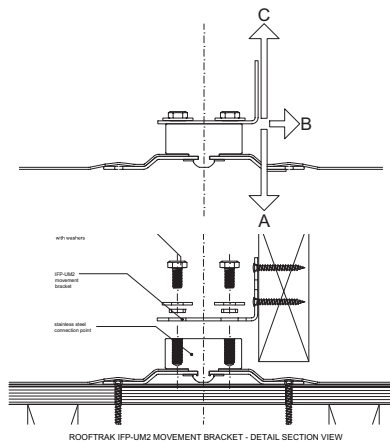
IFP-MB movement bracket



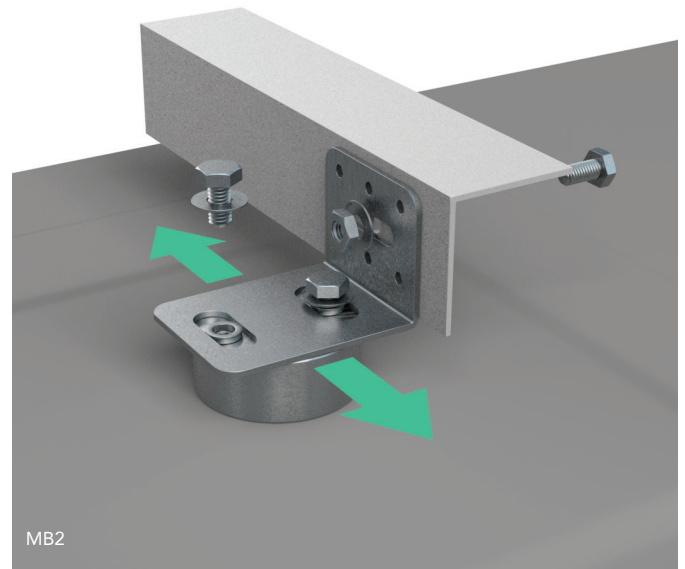
MB1



ROOFTRAK IFP-UM1 MOVEMENT BRACKET - DETAIL SECTION VIEW



ROOFTRAK IFP-UM2 MOVEMENT BRACKET - DETAIL SECTION VIEW



MB2

Description

The IFP-MB is a connecting bracket designed for use with the IFP products. It can be supplied straight or bent to a right angle and has fixing holes that allow it to move to accommodate thermal expansion of the frame or support members fixed to it.

Typical uses

For securing metal framing systems or other components where thermal movement should be provided for.

Materials

304 stainless steel

Dimensions

MB1 straight version:

OA dimensions 160 x 75 x 3mm thick
1 no. 10mm x 30mm slot
6 no. 6mm Ø holes

MB2 angled version:

OA dimensions 75mm wide
height 63mm
1 no. 10mm x 30mm slot
6 no. 6mm Ø holes

Loading values

The IFP-MB is designed for use with the IFP products. It is assumed that the IFP is fixed to the roofing substrate using appropriate fixings and that the supporting structure has the capacity to support the design loadings likely to be encountered.

MB1

The maximum compressive load as 'A' perpendicular to the MB1 1.0kN

The maximum shear load at 'B' will be determined by the particular IFP that the MB1 is attached to.

See separate data sheet for the relevant IFP.

The maximum tensile load as 'C' perpendicular to the MB1 1.0kN

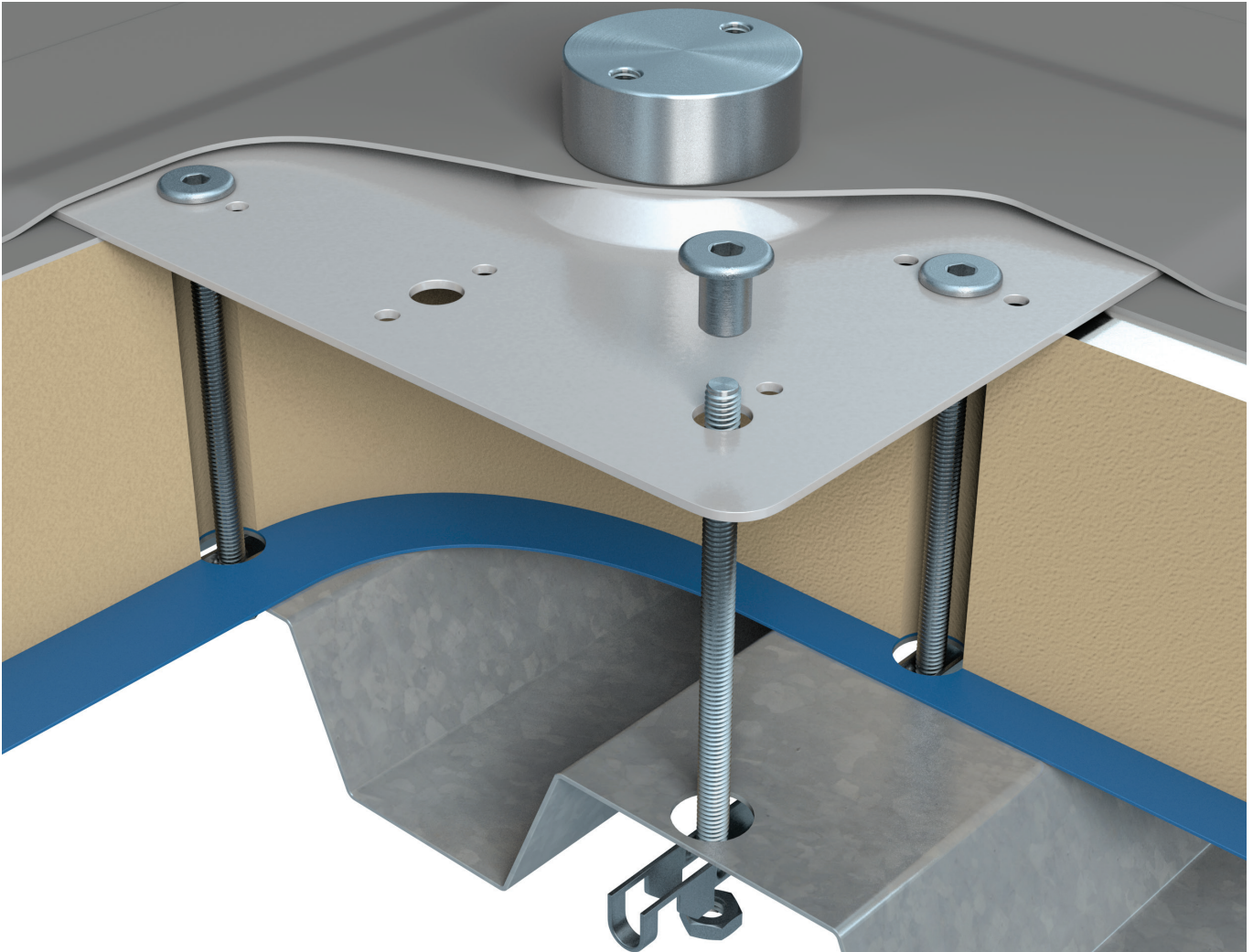
MB2

The maximum compressive load as 'A' perpendicular to the MB2 2.5kN

The maximum shear load at 'B' will be determined by the particular IFP that the MB2 is attached to.

See separate data sheet for the relevant IFP.

The maximum tensile load as 'C' 2.5kN



IFP-CN Cap Nut

Description

The IFP-CN is a low profile fixing designed specifically for use with the IFP. It allows the use of M10 studding for where the IFP requires bolting to the structure. The rounded low profile cap nut will not damage the roofing membrane that sits over it.

Typical uses

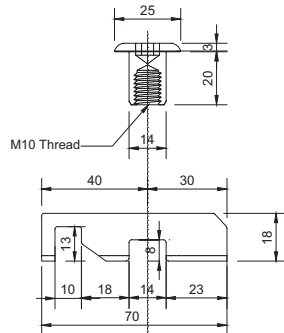
For using M10 studding to secure the IFP products to the building structure by means of bolts or toggles.

Materials

304 stainless steel

Dimensions

Head 25mm Ø
 Shank 14mm Ø
 Shank length 20mm
 Internal thread M10



IFP-TG Toggle fixing

Description

The IFP-TG Toggle Fixing is used in conjunction with the CN Cap Nut and M10 studding to secure the IFP products to the building structure. It is particularly useful where the underside of the roof deck is not accessible or where the roof deck does not provide adequate pullout values using screw type fixings

Typical uses

The IFP-TG Toggle fixing is typically used to obtain improved pullout values for situation such as fixing to composite panels and balustrade applications

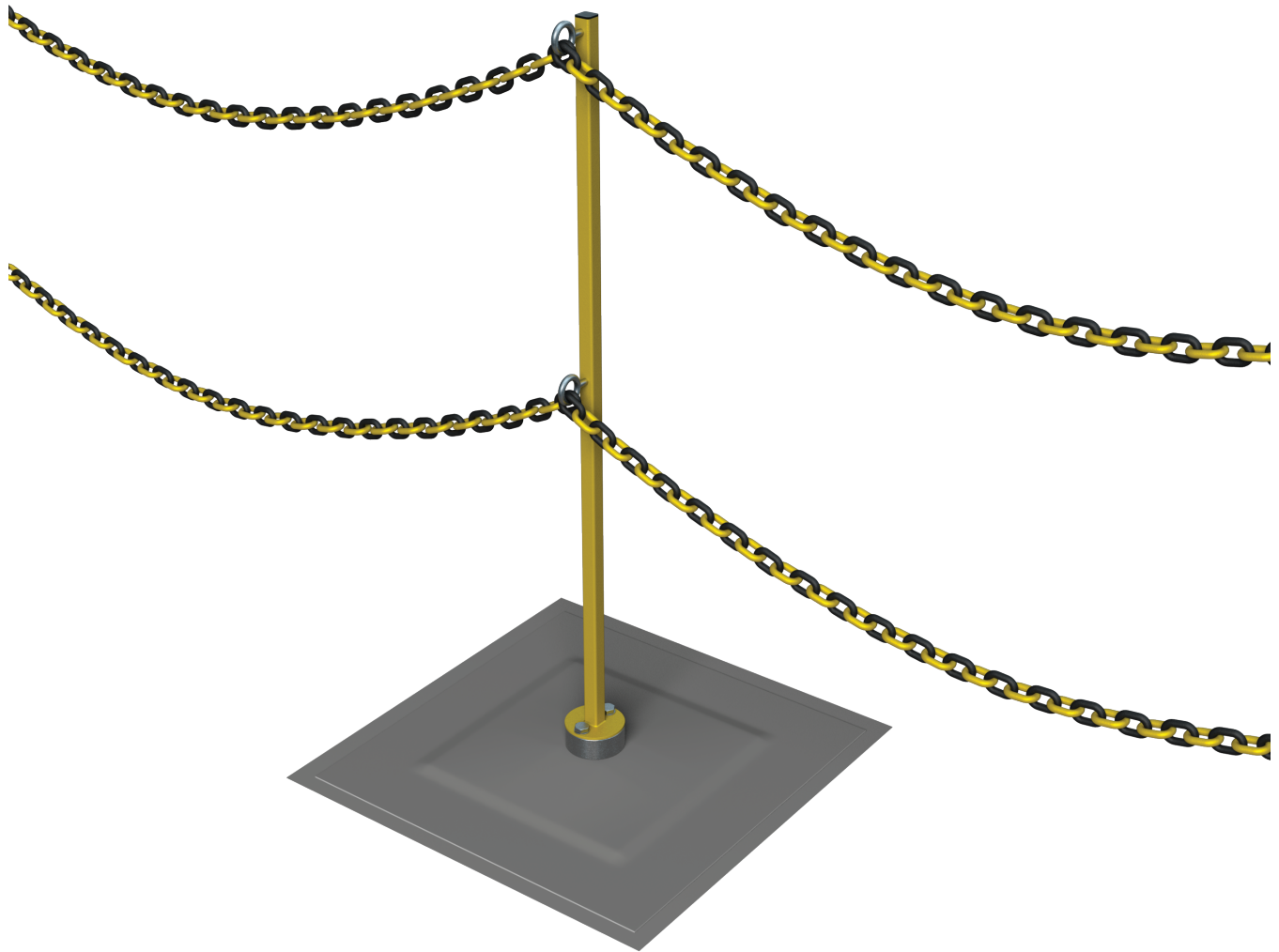
Materials

BZP coated steel

Dimensions

Nut M10 thread
 Hole size required 25mm Ø
 Size of toggle 68mm long x 17.5mm x 15mm

IFP-ZP / IFP-CH



Description

The IFP-ZP Zoning Post is a 900mm high post that can be bolted directly to the top of a standard IFP and has two connection points for the durable two-tone black and yellow CH Chain.

Typical uses

The ZP and CH can be used together to provide highly visible linear zone demarkation for clear and easy identification of fire escape routes, pedestrian walkways across roof areas and safe areas etc. The maximum recommended distance between posts is 3m.

Materials

Post Mild steel with PPC finish.

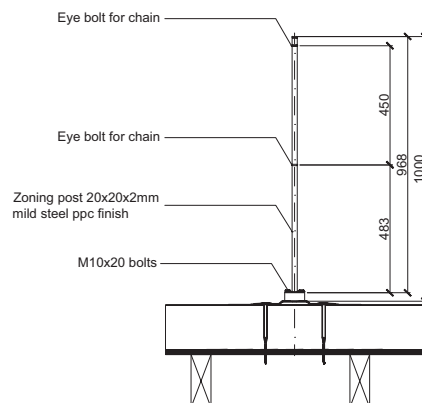
Chain PVC

Dimensions

Post height 900mm

Post section 20mm x 20mm

Chain 25m lengths



What you should consider when using the IFP

Structural

The Integrated Fixing Point will support varying loads as shown in the section drawings by each of the products. The designer should consider the forces that the IFP will be subjected to in the intended application. Whilst maximum and typical loadings are indicated, Nicholson do not undertake structural calculations. Where critical, the application should be approved by a qualified structural engineer.

Type of roof construction

The Rooftrak-IFP range of fittings are designed to be compatible with most common types of roof construction. It is important to select the correct IFP fitting to ensure effective integration into the roof concerned.

Roof weathering material

The Rooftrak-IFP range of fittings are designed to integrate with most available types of roofing finishes. With new build applications the roofing contractor will ideally provide the material for the weathering flange to ensure compatibility with the field membrane on that particular roof. Where IFP's are being installed to an existing roof, care should be taken to identify the correct roofing membrane to ensure compatibility.

Fixing substrate

How the IFP connects to the building substrate is an important consideration that should take into account the type of substrate, type of fixings used, whether access to the internal side of the roof or wall is available and typical pullout values obtainable. Various fixing details are provided on pages 40-41. It should be noted that on trapezoidal roof decks fixings should only be used in the crown of the profile. This will limit the maximum no of fixings to six which may have an affect on the pullout values obtainable.

Connecting to the IFP

Consideration should be given as to how the IFP supports and restrains in its intended use. Various connection brackets are supplied and listed in the Accessories section of this brochure. It should be noted that the use of a particular bracket may reduce the forces that can be applied to the IFP – refer to the details on the relevant bracket pages.

Thermal expansion

If the elements that are fixed to the IFP are subject to thermal expansion and contraction, consideration should be given to making allowance for this. Failure to do so may cause undue stress on the IFP. There is a movement type bracket available as an accessory – see page 36.

Thermal performance

The effect of the fixings on the thermal performance of the structure they are attached to should be considered. Thermally broken fixings are available for certain applications. See the section on typical fixing details.

Building sequence

IFP 200, 300 and IFP-BC fittings are normally installed after the field membrane has been installed. The roofing contractor will then seal the factory fitted flange to the field membrane.

The IFP-GR, IFP-BW, IFP-AS and IFP-HM fittings are generally fitted before the roof weathering is carried out.

Warranty

Normally any roof warranty is unaffected by the use of IFP's so long as the correct roofing system membrane is used and the weathering flange is sealed to the main roof area by a contractor approved by that particular roof system manufacturer. If in doubt, always check with the specific roof system manufacturer.

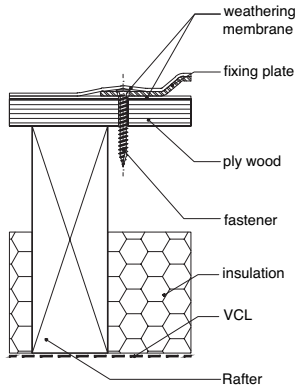
Technical assistance

Nicholson has an experienced technical team who will be happy to assist in with any further questions that might arise.

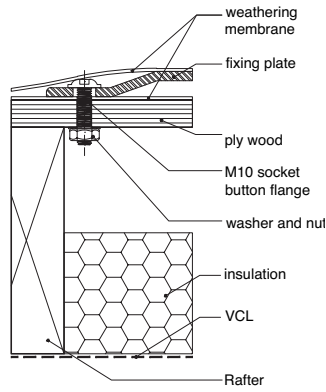
CAD files

There are CAD files available for the Rooftrak-IFP products to assist designers. These are available on request.

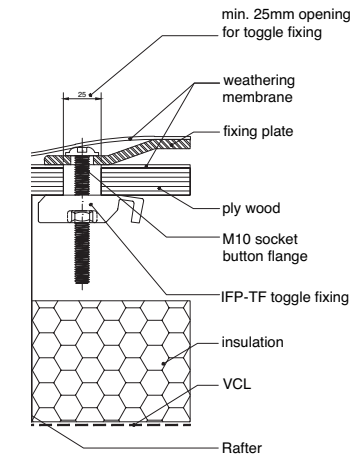
Cold roof



Direct to ply wood

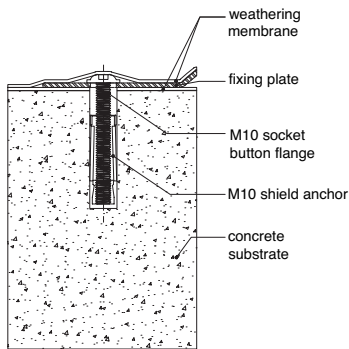


M10 bolted to ply wood

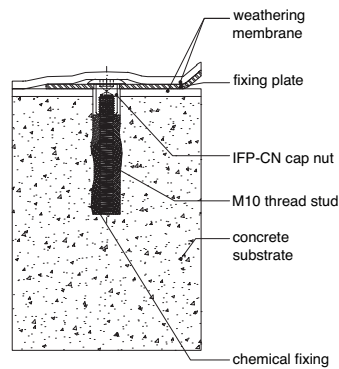


M10 bolt toggle-fixed to ply wood

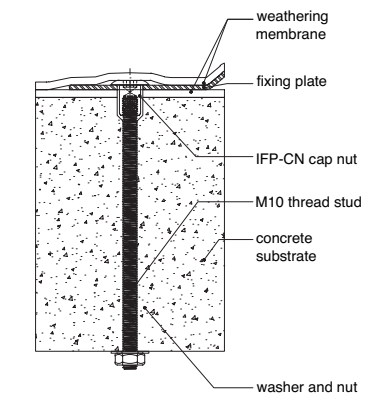
Concrete roof deck



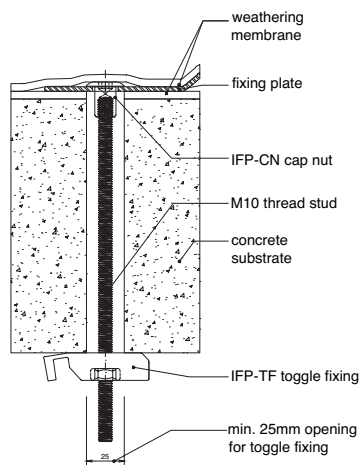
M10 shield anchor



M10 chemical fixing using CN cap nut



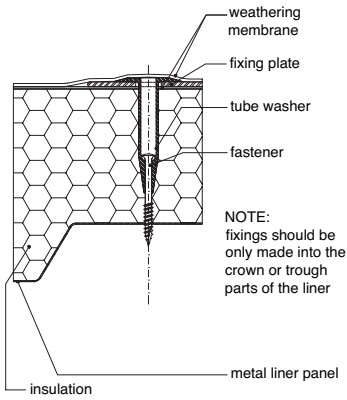
M10 stud fixing using CN cap nut



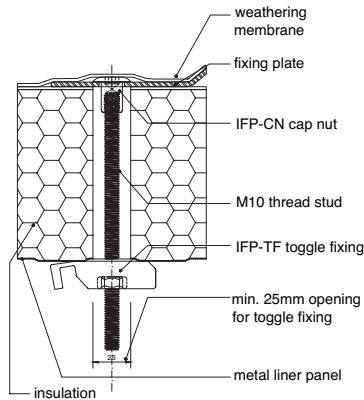
M10 stud fixing using CN cap nut and toggle fixing



Composite panel

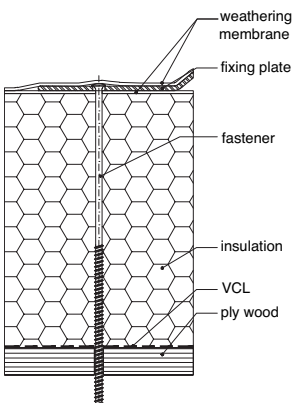


Thermally broken fixing

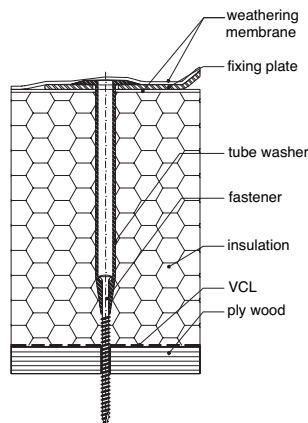


M10 stud fixing using CN cap nut and toggle fixing

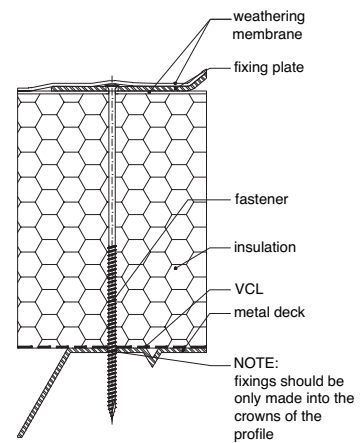
Warm roof



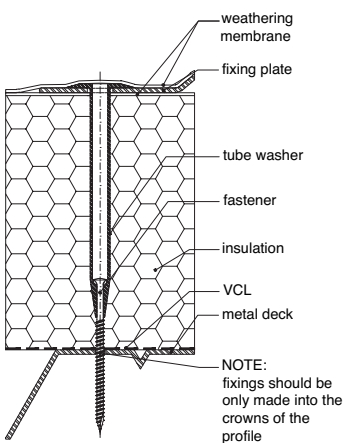
Direct to plywood



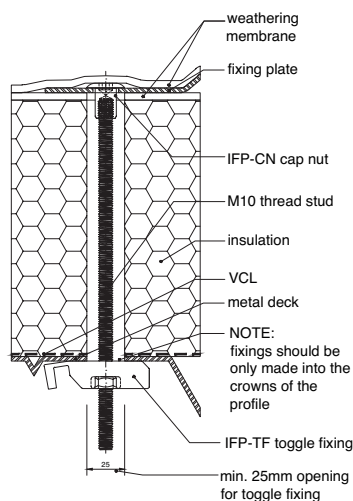
Thermally broken to plywood



Direct to metal roof deck



Thermally broken to metal roof deck



M10 stud fixing using CN cap nut and toggle fixing



Rooftrak IFP – frequently asked questions

How many IFPs will be required?

In most cases, the quantity of IFPs required for a particular application will be a structural calculation based on many factors. These would include wind loadings, structural considerations and likely imposed forces amongst other factors.

Do Nicholson supply a framing system too?

The Rooftrak IFP fixing point system does not include a framing system. However, the 2 no. x M10 threaded connection points on the IFP make it very easy to use with most available framing systems.

Can Nicholson provide structural calculations?

Whilst the technical team at Nicholson can provide general guidance based on their experience, Nicholson cannot provide structural calculations.

Are they MCS approved?

The Rooftrak-IFP fittings are, in our view, outside the scope of MCS as they form part of the roof rather than the fixing kit.

What is the difference between direct and thermally broken fixings?

Direct fixings can be supplied in any length up to 300mm and can be used to screw through insulation to reach the roof deck. Thermally broken fixings consist of a shorter screw and a plastic tube washer which extends down through the insulation to secure the IFP. Details of these fixings can be found on our fixing details page 40-41.

How long do they take to fit?

This will obviously vary from project to project but feedback we have indicates between ten and fifteen minutes per fitting.

Will I need a roofer to install the IFPs?

The IFPs are factory fitted with a flange of roofing membrane to seal them into the roof. Normally, a roofing contractor will be required to make the seal between the IFP and the main roof. Where the roof carries a guarantee from a roof system manufacturer, the IFPs should be weathered by the contractor who installed the roof. In situations where this is not possible a contractor who is approved by the roofing system manufacturer should be used.

Why can't we make the IFPs up on site?

The IFPs are manufactured under strict operational and quality procedures to ensure that they are weatherproof. It is not possible to make them on site.

How do I purchase IFPs?

In most cases, Nicholson will supply the IFPs directly to the purchaser. To enable Nicholson to supply the right IFP and fixings, certain criteria must be first be established. These details are in the section on IFP Information Checklist for ordering. To purchase the IFP with for some roofing systems, the IFP may need to be purchased through the roofing system manufacturer.

How much roofing membrane is required?

The size of the membrane required for the various IFPs is indicated on the relevant page of the brochure. In general, a 100mm overlap beyond the fixing plate is required for single ply membranes and 150mm for bituminous membranes.

Ordering checklist

When ordering IFPs the following information should be ascertained in advance to enable the correct fitting to be selected.

- a. The type of roof construction that the IFPs are being fitted to e.g. cold, warm, green, inverted etc.
- b. If a warm or inverted roof construction, the type and thickness of the insulation.
- c. Whether direct or thermally broken fixings are required.
- d. The roof deck material eg: plywood, steel, concrete etc.
- e. The type of roofing membrane on the roof eg: single ply, bitumen, liquid applied etc.
- f. Details of the actual roofing membrane eg: manufacturer, type and specification.
- g. Who will supply the membrane to Nicholson for fitting to the IFPs eg: roofing contractor, building contractor etc.
- h. How many IFPs are required.



Project: Truro & Penwith College, Gwenvor Building
Description: PV installation on pitched single ply roofing
Solar installer: EvoEnergy
Rooftrak product: IFP-300

Case study



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