

FIXPLAN / BITUPLAN

PRODUCT SHEET

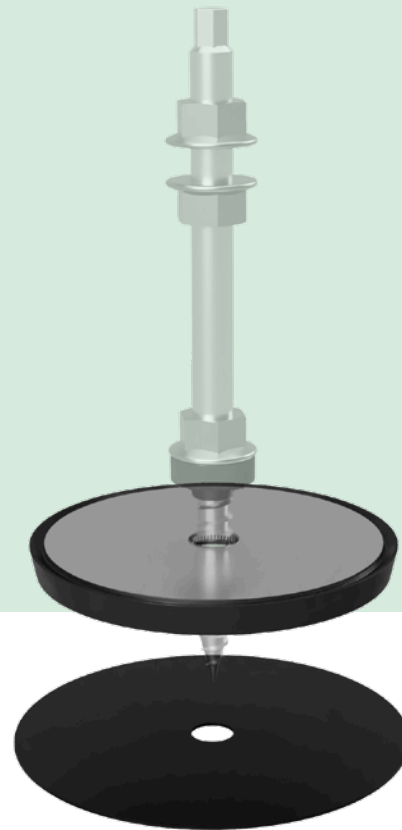


Reliable waterproofing of sheet metal roofs when using hanger bolts

High-quality materials (VA 1.4301 and EPDM)

Defined fastening to the substructure if fastening to the seam is not possible

Additional mounting on bitumen roofs possible with supplementation of BituPlan



THE PROVEN FASTENING ACCESSORIES

Flat sheet metal roofs are often designed as standing seam roofs. For fastening PV systems, appropriate sheet metal seam clamps are usually suitable for standing seam roofs. However, fastening to the seams is not always possible or recommended:

- Not all sheet metal roofs have suitable standing seams as a fastening option.
- Some sheet metal roofs are poorly fastened to the sub-roof. For these roofs, fastening to the roof shell is not recommended because of wind suction resistance. Fastening to the supporting sub-structure is preferable.

The FixPlan system allows fastening to load-bearing parts of the substructure. It also fulfills the function of a tight feed-through through flat sheet metal roofing membranes.

In the BituPlan system, the FixPlan is supplemented by a special sealing pad for bitumen roofs, thereby achieving an organic and permanently tight connection to the roof surface.

APPLICATION NOTES

Thermal compensation movements generally limit the use of roof penetrations or fasteners to the substructure. On roofs, long sheet metal roofing in a single piece is often laid. Temperature fluctuations (day/night or summer/winter) result in relative movements of the roofing membrane to the wooden substructure. The sheet metal roof must therefore be able to expand by a sufficient amount under the waterproofing; the roof duct must remain absolutely tight.

With the FixPlan system, the roofing membrane is cut out or drilled to such an extent that the sheet can move sufficiently far relative to the fastening point. The sealing plate with circumferential sealing edge ensures a permanent seal.

Notes on the required size of the cutout in the "TECHNICAL DETAILS" section.

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TECHNICAL DETAILS

Field of application	<p>FixPlan: For flat sheet metal roofing membranes on flat formwork, exclusively in sufficiently dimensioned components of the substructure</p> <p>+ BituPlan: For flat bitumen roofs on flat formwork, exclusively in sufficiently dimensioned components of the substructure</p>
Material	<p>FixPlan: Stainless steel 1.4301, Surface blasted and passivated EPDM rubber molded parts, vulcanized and UV resistant Mounting plate/KlickTop attachment: Aluminum</p> <p>BituPlan: Black aluminum, smooth with butyl adhesive over the entire surface of the rear side</p>
Statics	<p>Static calculation based on the recognized rules of technology. The stability verification for the assembly system is carried out on the basis of the Eurocode in conjunction with general building inspectorate approvals. The load assumptions comply with DIN EN 1991-1 and the regulations of the national annex. The verification of the holding force of the roof to the substructure and of the building is not included. Notes in the verification must be observed.</p>
Notes on the dimensioning of the sheet metal roof cutout	<p>There are two cases that must be distinguished:</p> <ol style="list-style-type: none"> 1. If the sheet metal roofing membrane is fixed to the roof on one side, the maximum effective length is the distance from the fixing to the furthest fastening point. 2. If the roofing membrane can slide freely on the roof, the effective length shall be the distance between the furthest fastening points in a continuous roofing membrane. <p>With an effective length of 10 m and an assumed temperature thrust of e.g. 60 K, the expansion of a steel sheet track is approx. ± 5 mm. For a sheet cutout of 30 mm, a maximum length change of ± 9 mm (radius 15 – radius 6) can be tolerated.</p>
Warranty	<p>25 years in accordance with our warranty conditions</p>
Supplementary documents	<p>Mounting instructions for FixPlan with BituPlan Component overview – accessories and special fastenings</p>



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ITEM OVERVIEW

114003-000	FixPlan sealing plate	VPE: 50
114004-000	Bituplan additional waterproofing for FixPlan for mounting on bituminous coverings	VPE: 100



SUPPLEMENTARY ITEMS (TO BE ORDERED SEPARATELY)

110010-200	Hanger bolt set: 10 × 200, mounted	VPE: 50
110012-200	Hanger bolt set: 10 × 200, mounted	VPE: 50
110012-300	Hanger bolt set: 10 × 200, mounted	VPE: 50



▶ **NOTE**
All hanger bolt sets with EPDM seal and three flange nuts

