

CHARACTERISTICS

Keno sp. z o.o. is pleased to present to you a non-invasive solution for flat roofs using boards attached to roofing felt or membrane. The structure is dedicated to cases where it is not possible to interfere with the roof sheathing.



- SIMPLE AND QUICK MOUNTING
- HIGH MOBILITY OF MOUNTING
- MOUNTING OF MODULES ON SHORT SIDE
- ADJUSTMENT ALONG THE RAIL

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DESCRIPTION OF WELDED STRUCTURE WITH MOUNTING TRIANGLES

Keno sp. z o.o. provides a 10-year warranty on the above structure, with the possibility of extending it for another 5 years. The mounting of the structure is carried out by welding the K-53 mounting plates (see Figure 1) to the surface of the roof covered with roofing felt, or membrane.

The design allows the modules to be mounted vertically and horizontally by using small and medium mounting triangles (see Table 1).

In order to use this design, it is necessary to verify that the roofing felt/membrane, meets the relevant strength standards (see Table 2).

Mounting on the short side of the module (horizontal module layout)	Small mounting triangle (K-07-15N)	Angle 15°
	Small adjustable mounting triangle (K-07-M-RN)	Angle 20°-35°
Mounting on the long side of the module (vertical module layout)	Medium mounting triangle (K-07-S-15N)	Angle 15°
	Medium adjustable mounting triangle (K-07-S-RN)	Angle 20°-35°

Table 1

TECHNICAL DRAWING

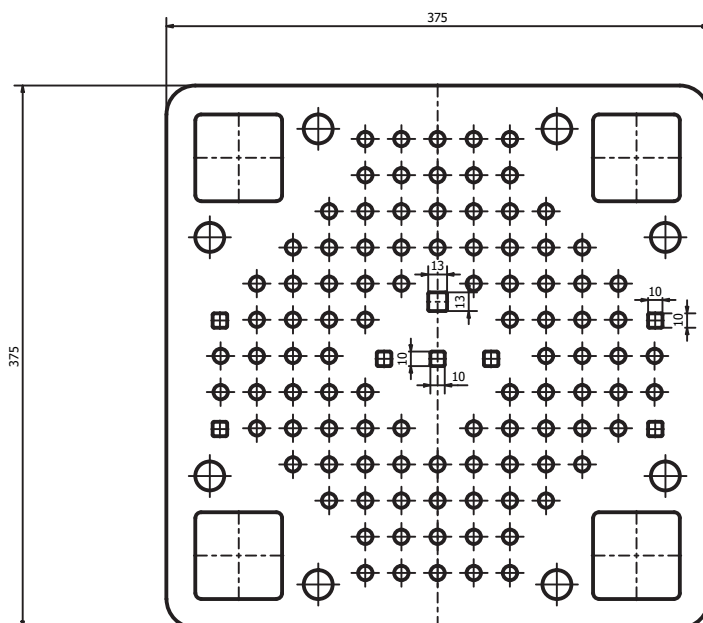


Fig.1 Top view of the board

WELDED STRUCTURE OTHER SOLUTIONS



Fig.1 K-45 structure with K-53 mounting plates

The presented solution is possible based on rails and K-45 aluminum brackets, which raise the angle of the modules by 11 degrees. Possible construction in an east-west system.



Fig. 2 K-53 mounting plates with K-25 profiles

The presented solution is also possible to implement, in such a way that the modules adhere parallel to the roof slope thanks to mounting adapters K-03, and reinforced mounting profiles K-25.

ROOF COVERED WITH PVC MEMBRANE, ECB/FPO MIN. 1.2 mm		
The membrane should be tested according to EN13956 and should meet the following requirements:		
Tensile strength	Min. 500 N/50mm	EN 12311-2
Tear strength	Min. 110 N	EN 12310-2
Shear strength at joints	Min. 450 N/50mm	EN 12317-2
Peel strength at joints	Min. 150 N/50mm	EN 12316-2

ROOF COVERED WITH ROOFING FELT		
The roofing felt must meet standards in accordance with EN 13707:2004+A2:2009 and meet the following requirements:		
Longitudinal and transverse tensile strengths	Min. 300 N/50mm	EN 12311-1
Resistance to tearing	Min. 150 N	EN 12310-1
Shear resistance of joints - parallel and perpendicular	Min. 500 N/50mm	EN 12317-1
Peel resistance	Min. 125 N/50mm	EN 12316-1

Table 2

In order to maintain the terms of the warranty, the installer is required to undergo training in the installation of fixing plates and obtain a certificate of completion from the manufacturer of these plates. Information about the training courses and the registration form, can be found at www.keno-energy.com under the TRAININGS tab.



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