

H. SLOPED GREEN ROOF MADE EASY (> 2^{1/2}:12)

Pitched roofs are now made possible thanks to **HYDROPACK®** green roof system.

With **Vegetal i.D.** let your inspiration cross boundaries and build amazing signature green roof projects that are highly visible and long lasting.

Vegetal i.D. solutions offer a fully secure fastening system for any slope.

PITCH RELATED TECHNICAL CONSTRAINTS

Vegetating a steep roof implies specific constraints that should be considered during the design phase.

PLANT EROSION

During the plant's establishment period, erosion can be significant on highly sloped roofs. For this reason, cuttings or plugs should be avoided in these applications.

GROWING MEDIA EROSION

Growing media should be protected from eroding in case of a strong rain event. To prevent erosion, the **HYDROPACK®** system drains well while retaining the growing media within the tray, thanks to its integrated edge.

WATER AVAILABILITY

HYDROPACK® modules are designed with a water reserve to increase the water retention of the system and water pathways help the irrigation to be efficient. On a pitched roof, water availability is considerably decreased. We recommend installing an irrigation system with sprinkler or drip regardless of the geographic location. On a pitched roof, water availability is considerably decreased.

MAINTENANCE

Maintenance is important as these roofs are often highly visible. A maintenance program must be scheduled for a minimum of 6 times a year. You can contract **Vegetal i.D.**'s expert team to do the maintenance of your project.



HYDROPACK® modules 50% Slope



THE HYDROPACK ADVANTAGES

Thanks to its “All-In-One” design and easy to install system, **HYDROPACK**® the best solution on pitched roof applications. The modules are pre-grown at our nursery and sent fully vegetated with all the necessary material to fix the trays onto the slope. Installing **HYDROPACK**® over a pitched roof limits erosion risks.

HYDROPACK® module enables application on very steep roofs, up to 200% pitch.



- BEAUTIFUL
- UNIQUE
- EASY
- SIMPLE
- SECURE




ACROPACK® Ω

 Retaining brackets for **HYDROPACK®** on pitched green roofs

PRESENTATION

A **ACROPACK® Ω** retaining system is made of aluminum rails to prevent **HYDROPACK®** from sliding. The rails imbricate perfectly under the **HYDROPACK®** tray. This retaining system is **invisible** and easy to place.

Depending on the project, **ACROPACK® Ω** is either attached on the waterproofing membrane or supported by stainless steel cables (Ø 0.2") attached to the ridge of the roof to transfer the load upward.

ACROPACK® Ω is a flexible system that is ideal for any slope application up to 200%.

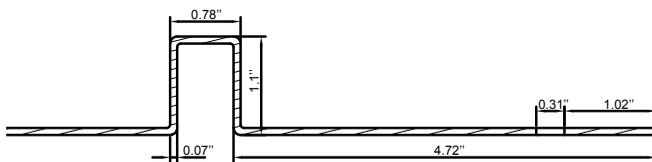
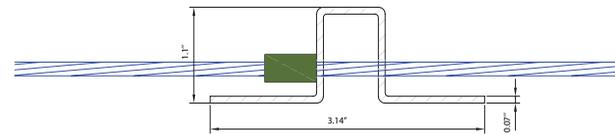

ACROPACK® Ω

TECHNICAL SPECIFICATIONS

The rail length of the **ACROPACK® Ω** is 78". The rails are spaced according to the constraints of the green roof such as snow load, pitch, and wind.

The distance between rails is usually between 1 and 10 **HYDROPACK®** trays (16" to 160").

The spacing that is used will be determined by **Vegetal i.D.**'s project study and then validated by an engineer.


ACROPACK® Ω dimension

ACROPACK® Ω with cable dimension

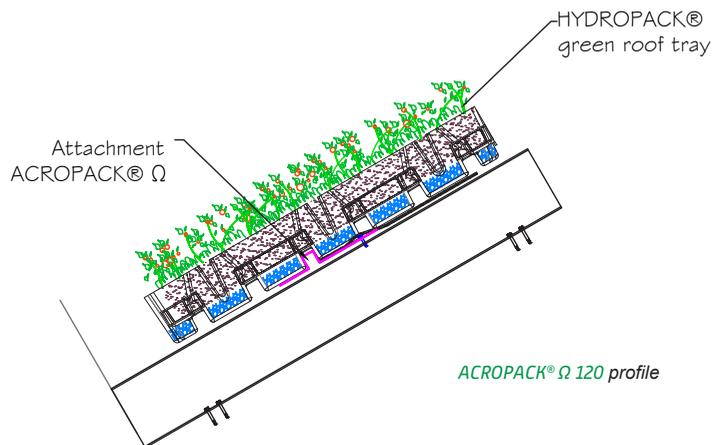
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TECHNICAL DATA

ACROPACK® Ω	Material	Heels (inch)	Height (inch)	Thickness (mm)	Weight (lbs) per linear foot	Max. resistance (lbs) per linear foot	Application
Rail 120	aluminum	4.7	1.1	20/10 ^e	1.16	134	fixed on the waterproofing membrane

ADDITIONAL MATERIAL TO SECURE THE TRAYS

-  Screws to attach each tray to the **ACROPACK® Ω** (1 screw per tray, supplied with the shipment)
-  UV protected zip ties to attach trays with others, (1 per tray, supplied with the shipment)
-  Protection net with a 2" mesh, used only above 12:12 slope and in areas with high wind.



ACROPACK® Ω 120 profile

IMPLEMENTATION

The ACROPACK® Ω retaining system is put in place before installing the HYDROPACK® trays. Depending on the installation schedule, delivery can be planned in steps so that HYDROPACK® arrives the day it is to be installed.

In order to fasten ACROPACK® Ω to the carrying element, it may be necessary to introduce additional equipment underneath the sealing layer, to compensate the forces (accessories integrated to the insulation layer).

Assembly steps :

- ✔ Cut the bracket rails according to the dimensions of the roof
- ✔ Position the brackets on the roof. Pay special attention to the bracket spacing that is specified in the layout. Use empty HYDROPACK® trays (supplied) to ensure proper spacing (fig. 1).
- ✔ Seal the brackets onto the waterproofing membrane and then install the HYDROPACK®, starting from the bottom up keeping the male hooks of the tray facing down (fig. 2).



Fig 1



Fig 2

USING THE STAINLESS STEEL CABLES TO NOT PIERCE THE MEMBRANE

- ✔ Position the brackets on the roof. Pay special attention to the bracket spacing that is specified in the layout. Use empty HYDROPACK® trays (supplied) to ensure proper spacing. When installing the HYDROPACK®, start from the bottom up keeping the male hooks of the tray facing down.
- ✔ Install the ridge support and attach the cables.

The implementation of this solution involves important overload at the ridge of the roof. A structural engineer or architect needs to verify the application.

PACKAGING

ACROPACK® Ω	UNIT
Rails Ω	500 / pallet
Cables	32/ box
Screws	200/ box



ACROPACK® Ω 30



ACROPACK® Ω 30