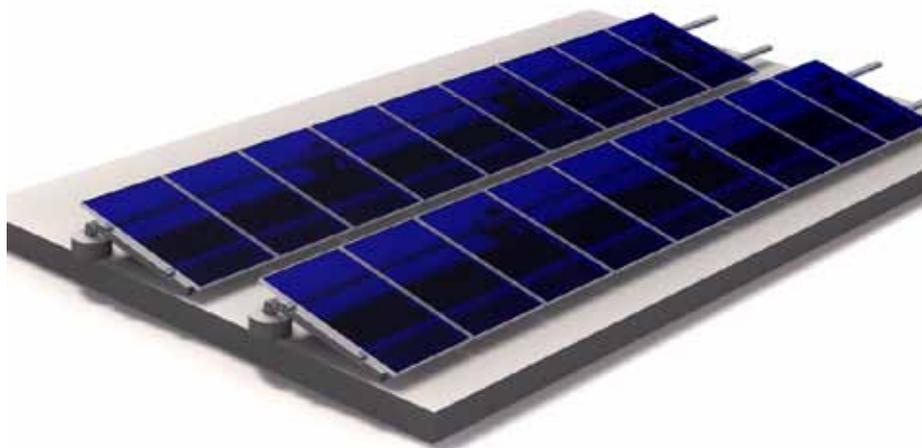




20 years

ZENITH KAP MODEL



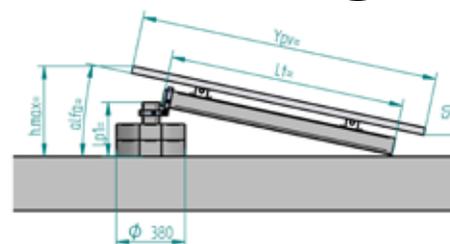
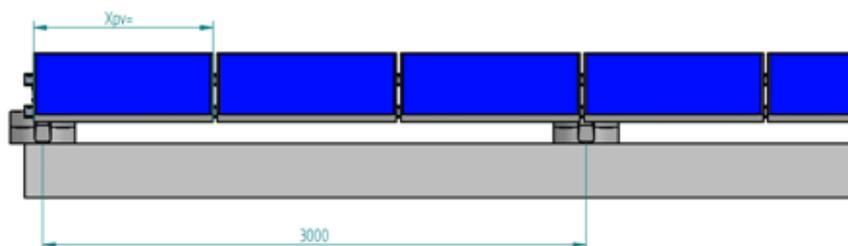
Modular support structure for photovoltaic systems on flat roofs

1 MODULE IN VERTICAL ARRANGEMENT

6 MODULES IN HORIZONTAL ARRANGEMENT

HMIN max: 50 mm

HMAX min: 875 mm



KEY:

Alfa Module tilt angle to horizontal plane;

Xpv Pv width;

Ypv Pv length;

Lp1 Overall length of short pole;

Lt Overall length of beam;

LI Horizontal beam length;

Xp Horizontal center distance of poles;

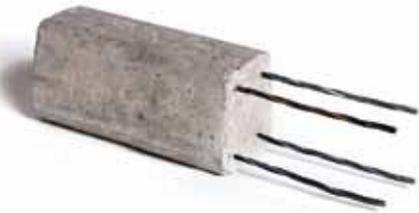
Hmin Minimum installation height from ground;

Hmax Maximum installation height from ground;

MAIN CONFIGURATIONS FOR ZENITH KAP SYSTEM

Module Arrangement	Rows	Columns	Alfa °	h.min mm	h.max mm	LI mm	Xp mm	Modules No.	Starting Watts installed
Horizontal H	1	4	10÷35	50÷200	300÷1750	5000	3000	4	800÷980
	2	4	10÷35	50÷200	300÷1750	5000	3000	8	1600÷1960
	3	4	10÷35	50÷200	300÷1750	5000	2000	12	2400÷2880
Vertical V	1	6	10÷35	50÷200	300÷1750	5000	3000	6	1200÷1440
	2	6	10÷35	50÷200	300÷1750	5000	2000	12	2400÷2880

COMPRISING PARTS



KONCRETO POLES AND BEAMS

KONCRETO poles and beams are made with the technique of prestressing that provides **greater strength** and **durability**, according to the experience of Valente SpA, a market leader in the production of reinforced vibrato and prestressed poles. **The concrete is made up with substances (gravel and sand), deriving from natural materials, which are riddled, weighed and washed.** This material gives the concrete a very strong resistance, much more than inert matter produced from grinding rock. The sand and gravel are mixed with cement that acts as "glue" that keeps them

united and gives a **very high resistance to compression. The steel used is highly resistant ($r=1870 \text{ N/mm}^2$) and is formed by plaits that adhere perfectly to concrete.**

Characteristics of KONCRETO:

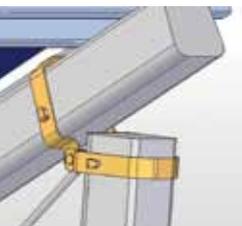
- Lack of corrosion over time even in the presence of salt.
- Frost resistance.
- Resistance to stray eddy currents, as the concrete is not electrically conductive.
- Elasticity and flexibility in case of shock and vibration.
- Structural stability due to the high inertia of the product.

KONCRETO quality is guaranteed through a special certificate from DNV Product Quality, which certifies durability, frost resistance and outstanding mechanical strength.



BASE

The main base of support is made of vibrated reinforced concrete. The base provides the weight to ballast the structure and the place to stay the support pole.



MAIN JUNCTION

The main hub is made of galvanized steel according to the UNI-EN-ISO 1461, with linking screws in galvanized steel. It consists of two main elements that allow the installation and longitudinal adjustment of the KONCRETO support poles and crossbeams. The joint is via a high-strength screw that allows adjustment from 10° to 35° , respect to the horizontal plane.



CROSS-MEMBER

The cross-members are made from profiled stress-resistant steel belts. The profile contains a continuous groove for fastening the modules and a continuous place for cross-member attachment in order to provide maximum flexibility in mounting. The choice of the "omega" open profile is aimed at optimizing load distribution, to avoid the stagnation of rain water and provide support for the passage of the cable sheaths. To solve the problem of oxidation and galvanic corrosion of rails in contact with the photovoltaic panels, the steel surface is protected through the **innovative Teknocover** coating.



FLEXI

The cross-members are secured to the beams through the universal "Flexi" attachment, patented by Valente SpA.



JOINT PROFILE

The modular structure makes it possible to join continuous sections of strings: the cross-members are joined by linking profiles with an interlocking system that use the same profile of the groove.



MODULE BRACKETS

The photovoltaic modules are fixed to the frame with brackets made of anodized aluminum, according to current market standards. This solution ensures the fair distribution of the spaces between the modules and allows free thermal expansion without burdening the structures or triggering dangerous residual stress on the modules themselves. It also allows assembly time optimization.

**20 YEAR WARRANTY - CONCRETE POLES WITH DNV CERTIFICATE
PATENTED STRUCTURES - DISPOSAL OF THE ENTIRE
STRUCTURE AT END-OF-LIFE - CERTIFICATION EUROCODICE 1**



ZENITH KAP SYSTEM FEATURES:

- ◆ **NO ANCHOR:** the base is placed directly on the roof.
- ◆ **RELIABILITY** in the event of **OVERLOAD** and **STRESS** in extreme weather conditions, thanks to its engineering properties of **KONCRETO** concrete poles.
- ◆ **VERSABILITY** of the system due to the modularity and possibility of adjustment of each component;
- ◆ **NO MAINTENANCE:** **KONCRETO** poles are not subject to corrosion over time and the cross-members, thanks to the protection **teknocover**, do not oxidize in contact with photovoltaic panels.

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