

ASSEMBLY OF HELIOSTATS

AHAP-30

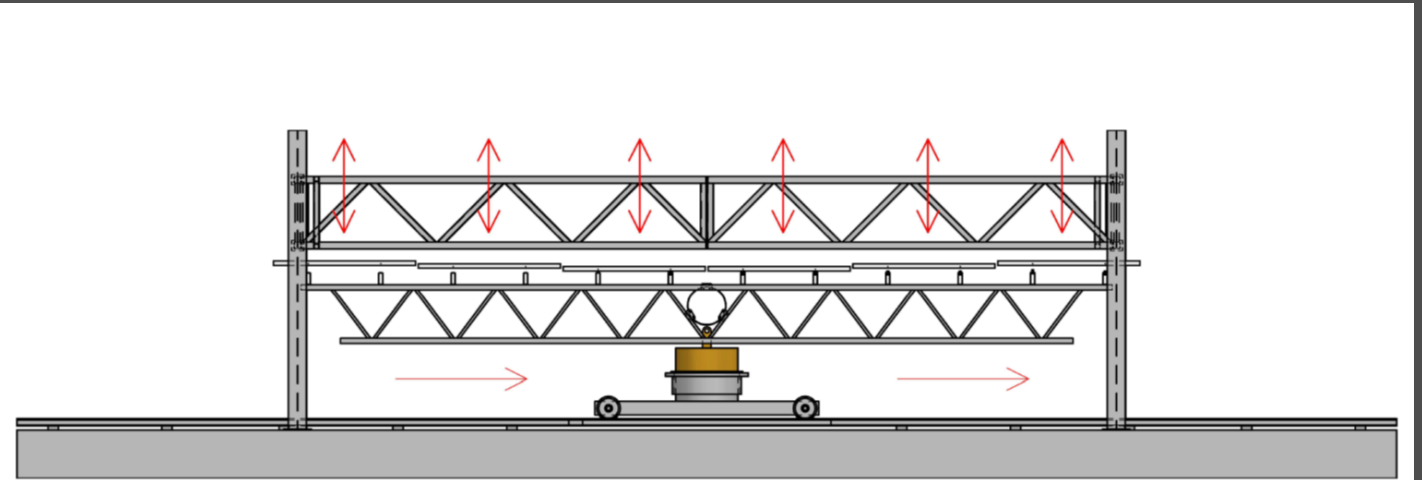
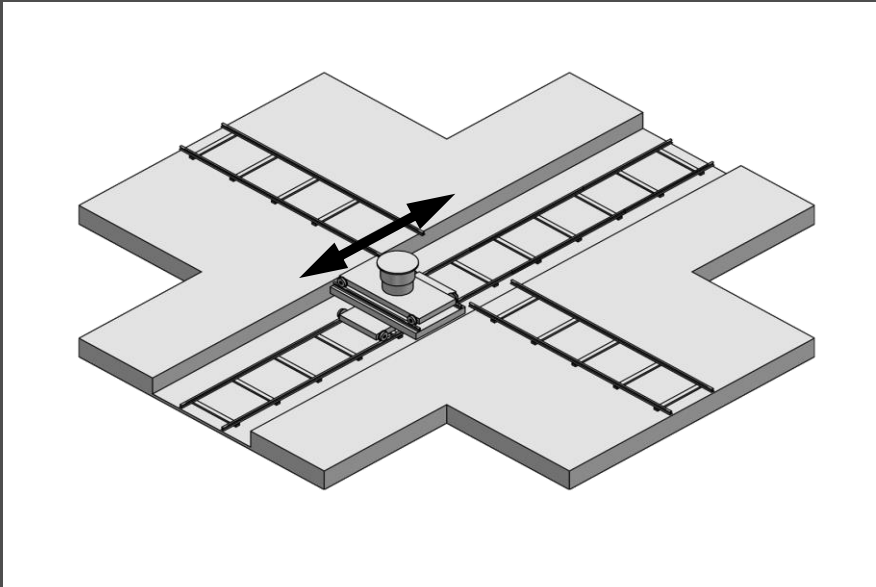
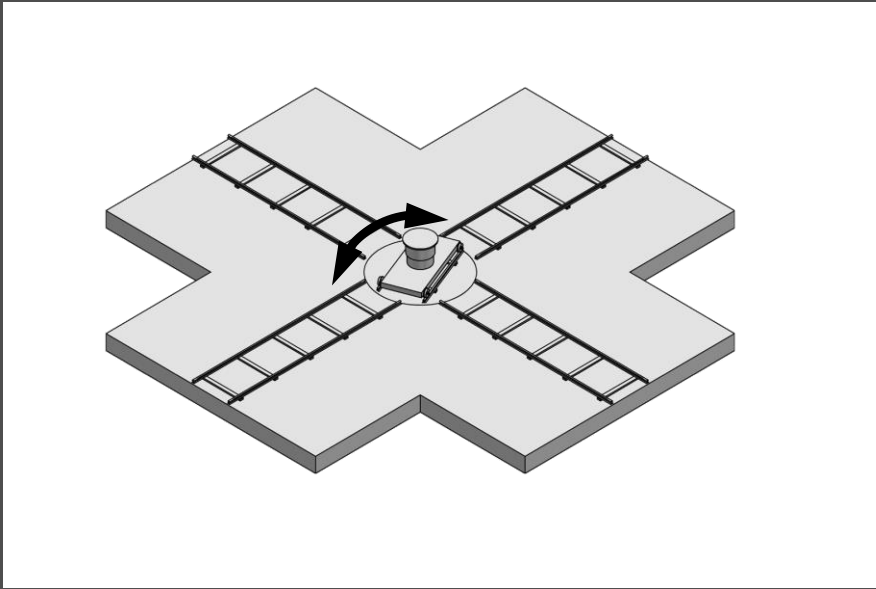
Fully semi-automatic assembly line for heliostats. Designed, engineered, manufactured, installed and proved to produce thousands of units in the most harsh locations on earth.



Engineering & Design

Customized projects

AUTOMATIZATION FOR HELIOSTAT ASSEMBLY PROCESS AHAP-30



AHAP-30 is a fully semi-automatic assembly line for heliostats, based on distributed PLC control, precise servo motors and pneumatic systems, integrated through a SCADA software with a graphic touch screen HMI.

The AHAP-30 has already proved its reliability in the most extreme conditions of operation, with tens of thousands of manufactured heliostats in different projects.

How it works ⁽¹⁾

- Cart starts at the beginning of the line. The mechanism of the heliostat is positioned and adjusted over the cart.
- The cart moves to the next stations (number may change according to heliostat design) where support tubes and beams composing the structure of the heliostat are placed, leveled and bolted in their precise position (X-Y-Z).
- On the next station each point of each mirror is adjusted in Z, according to the specific coordinates corresponding to the future location of this particular heliostat in the solar field.
- Cart moves to the optical measuring station according to quality control program.
- Should any irregularity be found in the quality control station, cart moves to a repair station away from the main production line.
- Cart moves to final position to load the heliostat on to the trailer.
- Trailer transports it to the solar field.

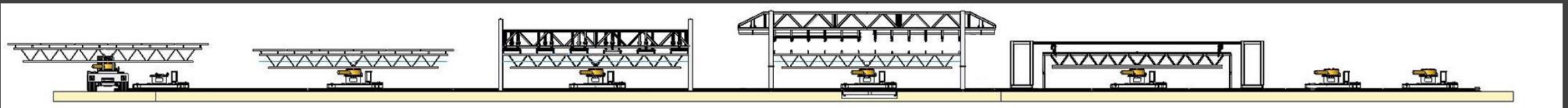
Actual work flow varies according to specific heliostat requirements

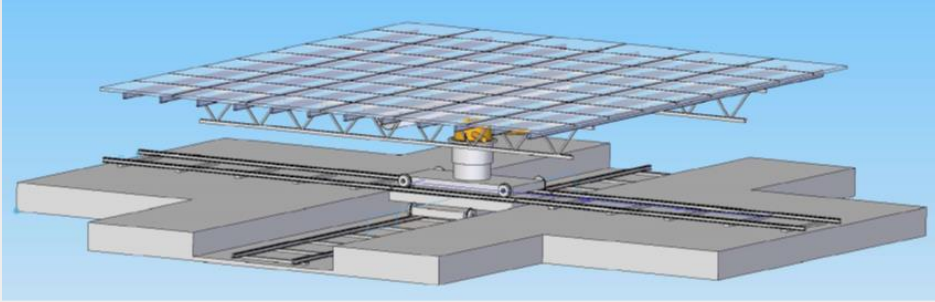
Features & Benefits

- Transportation of the heliostats on automatic or semi-automatic rugged carts.
- Designed, engineered and built for continuous operation 24x7.
- Different options to adapt movement according to heliostat shape and dimensions
- Precise movements and stop points that can be pre-configured
- Automatic adjustment of each mirror's Z-Axis according to solar field position of the heliostat
- Precision of microns can be achieved on the positioning of the mirrors.
- All movements PLC controlled, with servo controls (position & velocity loops)
- Adaptable to the specific requirements of each particular heliostat design
- Productions up to 60 heliostats / shift
- Minimum worker intervention
- No bridge cranes needed



AHAP-30 Details





AHAP-30

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Team

Experienced team of engineers with over 30 years in industrial and automation processes.

We have permanent offices in Spain, South Africa and Canada.

Manufacturing facilities located in Spain.

