



Industrial Engineering

## Maintenance hangar for the Almagro Base Ciudad Real (Spain)

Army Infrastructures Directorate / Drafting of construction design specifications  
Project value: € 5.8M **Infrastructures (2007)**



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The project consists of constructing a hangar adjacent to the runway to do maintenance work on "Tiger" helicopters in the Ciudad Real Army Base.

The document describes the different work units needed to build the hangar. It has a rectangular of floor layout and is distributed across two floors with a gross floor area of 4,313.86m<sup>2</sup>.

The central open-plan area to move and repair helicopters is worth pointing out.



(Continued overleaf)





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## Work phases

- Basic design
- Final design

## Scope of work

- Industrial and office building
- Facilities



## Technical data

- Surface area occupied by the building: 4,313.86m<sup>2</sup>
- Gross floor area:
  - Ground floor 4,313.86m<sup>2</sup>
  - Top floor 2,008.77m<sup>2</sup>
  - Total floor area 6,322.63m<sup>2</sup>
- Foundations made of isolated reinforced concrete footings braced with tie beams
- Metal structure and floor slabs made of 12 mm-thick composite decking and a reinforced concrete compression layer
- Secondary structure for bridge crane and outdoor gangway for roof maintenance
- Curved main gable roof made on site with sandwich panels. Flat secondary perimeter deck roof
- Plumbing and sanitation for rainwater and wastewater
- Low-voltage electricity and lighting
- Climate control and ventilation
- Voice and data installations
- Compressed air
- Fire protection facilities in accordance with NFPA criteria: water and foam ceiling sprinklers, infrared flame detectors, self-oscillating monitors, aspirating smoke detection system, portable fire extinguishers, carts, alarm system, etc.
- Security and PA system
- TV installation in office area
- Electromechanical facilities
- Solar thermal energy

