

# 3D Manufacturing Service with a CNC machining centre

Production of metal pieces and tooling in a 5 Axis High Speed Machining Centre



## Contact information

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## Technological Offers type

Technological scientific services

## Research and innovation areas

- Industry, Materials and Circular Economy

## ODS



**Available from:** 2017

## Where?

[manufacturing engineering](#)

Keywords: | [3D prototyping](#) | [5 axes](#) | [CNC](#) | [machining](#) | [prototype manufacturing](#)

## 5 axis high speed CNC production service

### Description

Production of precision metal pieces in a 5 axis machining centre with the following features:

Maximum speed: 18,000 rpm; Forward speed: 50 m/min; Tool Magazine: 34; CAM Post-processor: MasterCAM, CATIA

The service encompasses a comprehensive offer of skills in *turnkey production of prototypes, moulds, and individual or sets of tooling made in metal or plastic that are fully operationally functional.*

### Needs requested

**R&D units, laboratories and start-ups** associated with the UPM, along with private companies, are offered the chance to **validate** their **research results** with the production of physical prototype pieces or systems, including pre-series, according to the client's specifications and plans.

### References from University Research Groups and R&D Centres:

- CIEMAT
- Solar Energy Institute (IES)
- Automatics. HTSIE-UPM
- Electronics. HTSIE-UPM
- Thermal Engines. HTSIE-UPM
- Automotive Research Institute (INSIA)
- Central Electrotechnics Laboratory. HTSIE-UPM
- Nuclear Engineering. HTSIE-UPM
- Graphic Engineering. HTSIE-UPM
- Fluid mechanics. HTSIE-UPM
- Material Resistance. HTSIE-UPM
- Metallurgy. HTSIE-UPM
- Machines and Mechanisms Laboratory. HTSIE-UPM
- Physics Department. HTS for Roads, Canals and Ports. UPM

### Company References

- SIEMENS
- RENAULT
- New Technologies Global System (NTGS)
- Inspiralia R&D
- Betia Ingeniería
- Mecanizados Pedrera
- INDUSHER
- Solfocus Spain

### Location

The service is offered by the Manufacturing Engineering (ME) Laboratory which belongs to the Community of Madrid Laboratories Network. The facilities are at the Higher Technical School for Industrial Engineers. C/ Jose Gutiérrez Abascal 2. 28006 Madrid.

### Request for service

A **request** for service can be made by contacting the officer

**Dr. Juan Carlos Hernández**

via the e-mail [jc.hernandez@upm.es](mailto:jc.hernandez@upm.es). The applicant will be asked for technical and scientific information to enable assessment of the system to be made and the work needed identified, along with the technical and human resources needed to carry it out. The rates for other technical services are published on this web site and on the Universidad Politécnica de Madrid's web site under the heading 'Prototype Production Services' <https://www.upm.es/Investigacion/estructuras/ServiciosCientificos> .