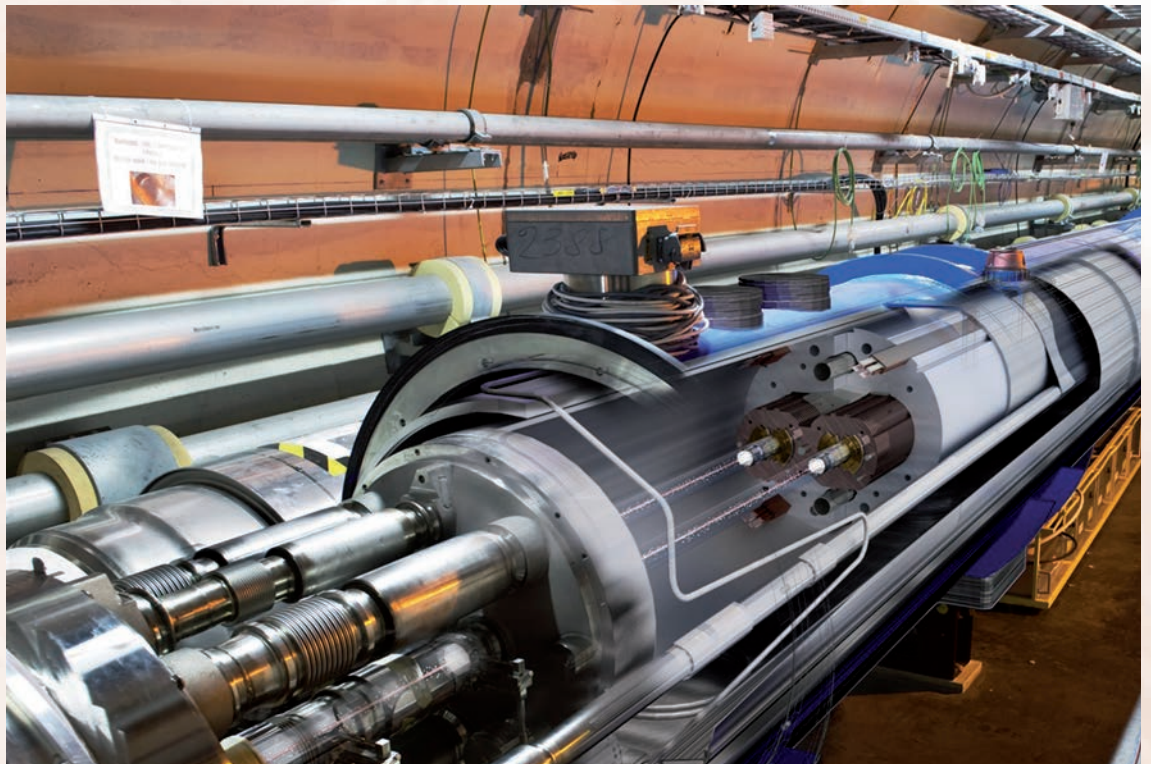


SPANISH INDUSTRY CAPACITIES AND ACTIVITIES IN PARTICLE PHYSICS



S.A DE ELECTRIFICACIONES Y SUMINISTROS “SADES”



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Turnover: 12,521,182€ In Year 2013

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Company activities:

SADES is a private company specialised in design, supply, commissioning and maintenance of installation systems. We have large experience in a wide range of projects as well as in the use of state-of-the-art technologies. Our company has carried out during the last 55 years a great number of projects as contractor on site.

The main fields of our activities are the following: HVAC, cooling systems, electrical installations, fire risk protection, pneumatic and mechanical installations.

The main areas of our activities are the following: Large scientific facilities, laboratories, hospitals, retail, sports centres, hotels and office buildings.

Particle Physics Activities & Particle Physics Interest:

SADES has proven experience in HVAC, cooling systems, electrical installations, fire risk protection, pneumatic and mechanical installations in the PS accelerator at CERN.

SADES is interested in developing his experience in other scientific infrastructures in particle physics.

Particle Physics main contracts awarded and R&D Projects:

SADES has developed at CERN the design, supply, installation and commissioning for the contract named as PS VENTILATION PROJECT, whose goal was the renewal and upgrade of the HVAC and the smoke ventilation system for fire safety, including also the development of the electrical and control system (together with our partner PROCON SYSTEMS), and the implementation of a pneumatic control system to avoid problems with the ionization radiation.

The responsible for this project at CERN was the EN/CV department.

The main challenges of this project were:

- Strict project completion dates
- Working on radioprotection controlled areas
- Working on existing premises with few possibilities of intervention on civil works

The main achievements of this project have been:

- Compliance with the planning
- Reduction of the intervention time on radiation areas

- Development of design and working strategies to fulfill the new requirements of the HVAC system integrated in the existing premises

The principal data of this project are:

- 260.000 m³/h total recirculating airflow installed at 8 AHU
- 96.000 m³/h total fresh airflow installed at 5 AHU
- 100.000 m³/h total extracted airflow installed at 4 AHU
- 180.000 m³/h total smoke extraction airflow installed at 6 Smoke ventilators
- 1320 kW cooling power through water exchangers installed at AHU's
- 560 kW heating power through water exchangers installed at AHU's
- 740 kW heating power through electric exchangers installed at AHU's
- 1.130 kW of electric power installed and distributed on 24 cubicles
- 1.032 control signals installed and distributed over 1 cubicle with 3 PLC
- 32 pneumatic signals installed and distributed over 1 cubicle

This project has obtained an R&D Innovation certificate from EQA organization



VALVE



AHU