



FAAST LT locks in prison fire protection at Soria Penitentiary Centre in Spain



- Soria Penitentiary Centre
Soria, Spain.
Integrated by SIEP, the state-owned
Prison Infrastructure Management
Company

Application:

- Protecting the cells and communal areas in
Soria Prison

Challenges:

- Deliberate damage by prisoners
- Air contaminated with tobacco smoke
- Water vapour in the kitchens and shower
areas

Requirement:

- Low flow rate alarms needed due to single
sampling hole
- Immunity to false alarms from tobacco
smoke
- Immunity to false alarms from water vapour
- Unobtrusive protection required for cells

The solution: FAAST LT

- FAAST LT ASDs installed remotely in
the technical services areas
- All devices connected to, and managed by
an intelligent fire control panel



Image: representative of a prison application, not Soria Penitentiary Centre



SIEP, Sociedad de Infraestructuras y Equipamientos Penitenciarios, is a Spanish state-owned organisation that is responsible for building, equipping and updating the country's penal infrastructure.

The company has built 29 Penitentiary Centres, 27 Social Rehabilitation Centres and new Custody Units in several hospitals. It has also upgraded a further 39 prisons and 325 other correctional facilities.



FAAST LT



Environmental challenges

The key issues facing SIEP, when upgrading the fire detection system at the Soria facility was the possibility of deliberate damage to the detectors and the requirement for false alarm immunity, particularly to tobacco smoke and water vapour.

The need to vandal-proof the installation ruled out the use of point smoke detectors in the cells, although multi-criteria detection met the false alarm immunity requirement.

Carlos Calvo Martinez, SIEP Project Manager, explained, “We conducted trials of both point smoke detectors and aspiration systems from several different manufacturers when we were planning the project. We found that multi-criteria detection with optical, thermal and CO

sensors gave the best false alarm immunity, but would be susceptible to vandalism if installed in each cell.

Aspiration systems, with their small sampling pipes in each cell, met the criteria for vandal-proofing, but while they efficiently detected smoke, they were susceptible to false alarms from tobacco smoke and water vapour.”

The FAAST LT multi-criteria solution

The FAAST LT aspiration detector, with multi-criteria sensitivity chambers met all the requirements. It combines the unobtrusive sampling pipework required to protect the cells with false alarm immunity to protect against tobacco smoke and water vapour.

Carlos Calvo Martinez commented, “FAAST LT, with multi-criteria sensitivity was the ideal solution, giving us additional benefits. The FAAST LT detection units are installed in secure areas to which the inmates have no access, so there is no security issue.

“The multi-criteria sensitivity chambers give us a fast response time and immunity to false alarms, and FAAST LT’s low flow rate sensor warns immediately if the sampling pipe in a cell has been damaged or blocked. Also, as the FAAST LT units appear on the loop of an intelligent control panel in the same way as any other point detector, the status of all the devices can be remotely monitored. The duty prison staff can see at a glance if there is a potential problem anywhere in the prison, enabling investigation and remedial action to be taken very quickly, if required.”

In summary

Providing effective fire protection in a prison has its particular difficulties. The possibility of vandalism of the installed equipment, the challenging environmental conditions and the complexity and difficulty of organising mass evacuation, particularly in the event of a false alarm, are unique challenges. In the case of the Soria, Spain prison facility, specifying FAAST LT gave SIEP the confidence that the detection equipment was as vandal-proof as possible and that any alarm would be in response to an actual fire.

Visit www.faast-detection.com for more information on FAAST LT.

“FAAST LT, fitted with its multicriteria sensitivity chamber, met all our needs and gave us additional benefits as well.”

