



Castell Safety International Ltd

Press Releases

YOUR PARTNER IN SAFETY

Castell's press releases provide a valuable source of information on the latest products and applications where our safety products are used. All our press releases are also available on our website on www.castell.com. If you haven't had a chance to read them, the following may be of interest to your company. If you have any queries or would like any further information on this release or on any of our products, please contact us on 020 8200 1200 or fax us on 020 8905 9378.

CASTELL STOPS DUTCH SCIENTISTS GETTING STUCK IN A BUNKER

The Mechanical and electrical Interlocks from Castell are safeguarding the operation of a state-of-the-art 30-million-volt cyclotron¹ at the Eindhoven University of Technology. The cyclotron is managed by Acctec B.V., a commercial arm of the university, and is used for the production of radioisotopes for Amersham Health, a major supplier of radiopharmaceutical products. The cyclotron has been installed under supervision of the Radiation Protection Department, which is responsible for the enforcement of Dutch legislation on radiation safety at the university campus.

The cyclotron's entire safety system has been reviewed in three risk assessment sessions, one of which was devoted to the hardware involved. Due to their robust design and reliability, Castell's interlocks were selected to meet the high standards required.

Safe operation of the cyclotron is ensured by a PLC-based interlocking system from Honeywell Safety Management Systems, which has been designed and built according to IEC 615082 guidelines. The system regulates conditional access to the vault that hosts the cyclotron, as well as to vaults containing the production equipment. At the interface between the PLC system and the building hardware, Castell's switches and interlocks are used to implement search procedures of vaults,

motor operation of 2.5m-thick concrete vault doors and locking of the doors.

The Castell keys, which are released after the vaults have been sealed and the concrete doors moved into position, are then trapped in the central control panel of the PLC safety system, allowing start-up of the cyclotron.



¹ An apparatus in which charged atomic and subatomic particles are accelerated by an alternating electric field while following an outward spiral or circular path in a magnetic field

² Functional safety of electrical/electronic/programmable electronic safety-related systems

