

## Case study

# Doosan Power Systems finds a silent solution for its fire protection system



**Doosan Power Systems, bringing together Doosan Babcock, Doosan Lentjes and Doosan Skoda Power builds, maintains and extends the life of power plants across the world. The company provides clean, efficient, flexible and integrated power solutions, using the latest technologies and best-in-class engineering expertise, from full engineering procurement construction contracts for major power projects to innovative carbon capture solutions.**

Like many manufacturers and businesses of today, Doosan understands the crucial role that their IT operation plays in the successful running of their global business and has invested in active fire protection to ensure business continuity. Aware of their environmental responsibilities, Doosan selected an inert gas extinguishing system as, unlike water sprinkler systems, this delivers clean and human-safe fire protection that will not damage assets.

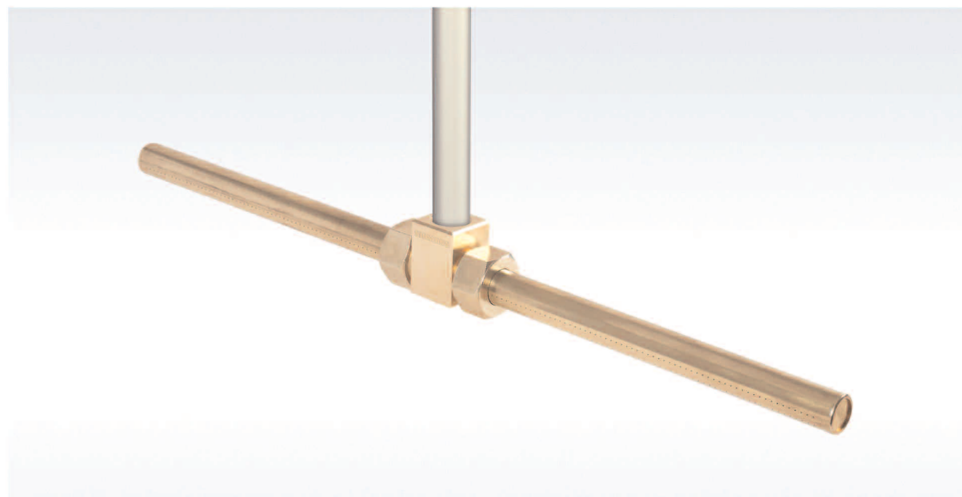
### The challenge

Evolutionary developments in IT have meant that new, higher capacity hard disk drives can be susceptible to the sound energy associated with an extinguishing system discharge, and following loss of IT data due to an accidental discharge, Doosan wanted to ensure they were

fully protected against the risk of any further incidents. They had suffered damage to their computer system when their incumbent fire system service provider accidentally released their gas extinguishant.

Donnie McCartney, Total Facilities Manager at Doosan's Crawley site, where the event occurred, had recently been brought in to manage the site and part of his responsibility was to investigate viable solutions that would be cost-effective to implement. Senseco Systems, a Siemens Solution Partner, were appointed as their new service provider and Siemens worked with Senseco and Doosan to resolve the issue.

The research team at Siemens was already working on possible solutions to the problem as they were aware of incidents where competitors' inert gas discharges had resulted in catastrophic loss. A number of these have been made public, such as the case of the WestHost SAS 70 type II data centre in Utah, where an accidental discharge of its Inergen fire extinguishing system severely damaged hundreds of its servers and data stores, affecting almost 100,000 websites and email accounts. Hardware repair and database recovery efforts put WestHost's customers out of commission for up to six days.



The Sinorix Silent Nozzle

### The solution

Senseco, in partnership with Siemens, evaluated the installed third party systems that had caused the disruption. As a result the team concluded that the best and most cost-effective solution was to retrofit the Sinorix Silent Nozzle as this would deliver the greatest sound-reduction impact across Doosan's business-critical environment.

The Sinorix Silent Nozzle design is able to reduce the physical sound energy in a similar way to the silencer on a car exhaust. In addition Siemens' R&D team has succeeded in moving the frequency of the sound away from the specific spectrum identified as crucial: a comparable example would be the methodology whereby a wind instrument changes note.

### The benefit

The retrofit of the Sinorix Silent Nozzles to Doosan's extinguishing system was a fairly simple project to undertake and they now act to safeguard the critical IT processes that the original system was installed to protect.

Donnie McCartney commented, "We were delighted with how the work proceeded. The solution couldn't have been easier and the nozzle replacement was a quick and simple operation with no interruption to our normal daily work, which was very important for us in ensuring the continuity of our business."

### Siemens' technology

Siemens' technical leadership and extensive investment in research and development means we provide some of the most advanced technology in the world, delivering systems that are highly effective yet unobtrusive. We are committed to delivering value to customers by demonstrating innovation, providing best performance and achieving excellent results.

For over 100 years, Siemens has pioneered innovative automatic extinguishing solutions in combination with reliable fire detection technology.

### Highlights

- IT operation vital to Doosan's global business
- Inert gas extinguishing system in place to protect IT assets
- Sound energy from extinguishing discharges can damage new, higher capacity hard disk drives
- Best and most cost-effective solution was to retrofit the Sinorix Silent Nozzle
- Sinorix Silent Nozzle design is able to reduce the physical sound energy
- Sound frequency is moved away from the crucial spectrum
- Simple project for Senseco to retrofit Sinorix Silent Nozzles to Doosan's extinguishing system

In partnership with:



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