

Advanced 'silent' extinguishing prevents damage to vital assets

Where life safety, asset protection and business continuity cannot be compromised, Siemens offers a comprehensive range of fire extinguishing solutions for all potential hazards. The Sinorix™ Silent Nozzle has been developed in response to the potential damage to hard disk drives when using gas suppression systems to extinguish fire in data centres and critical data environments.

The challenge

Since 2008, the fire safety industry has been aware that Hard Disk Drives (HDDs) and IT hardware face serious damage when gaseous fire extinguishing systems are activated. High security IT storage and data centres typically utilise gaseous extinguishing systems to protect business-critical hardware, software and data in the event of a fire. The fire protection systems extinguish the fire by flooding the environment with naturally occurring inert gases or chemical agents, minimising the damage from heat and smoke. However, modern HDDs are sensitive to the sound pressure levels typically created when an inert gas system discharges.

The issue is industry-wide, but one for which Siemens has engineered a solution. Our research team has designed the Sinorix Silent Nozzle to reduce the physical sound energy, as well as move the frequency of the sound away from the specific spectrum identified as crucial.

Siemens' solution

The Sinorix Silent Nozzle ensures that noise levels during extinguishing remain below critical levels. These comparatively low levels do not pose a risk to hard drives and, at the same time, enable efficient distribution of the extinguishing agent. In addition, the discharge of the gas and the sound is focused in a predefined direction, which also prevents sound-generated HDD problems. In contrast, gas extinguishing systems using conventional nozzle technology often reach a noise level in excess of 130 dB, which is equivalent to the take-off of a fighter jet.

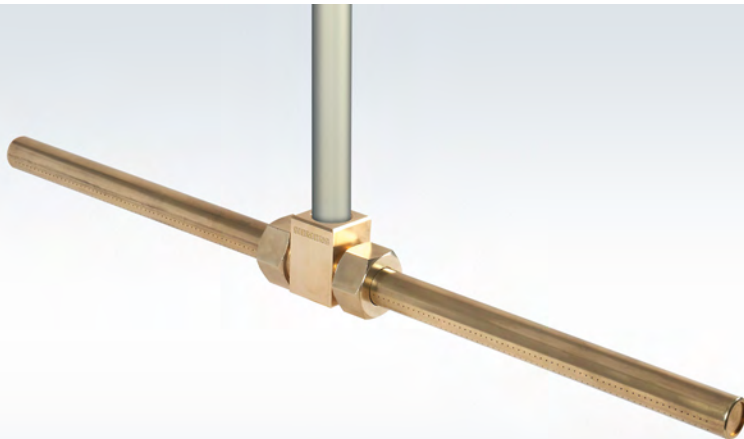
Ease of installation

Siemens has developed the only solution on the market specifically designed to reduce noise during extinguishing in data centres and other critical areas. Furthermore the Sinorix Silent Nozzle can either be installed as part of a new Silent Extinguishing system or retrofitted to an existing system, with appreciable sound reduction levels, in a matter of hours. It is a fairly simple project to undertake and will help safeguard the critical IT processes that the original fire suppression system was installed to protect.

The Sinorix Silent Nozzle has been developed to eliminate potential damage to hard disk drives during gas extinguishing discharge



Solutions for critical data environments



The Sinorix Silent Nozzle is the only solution on the market specifically designed to reduce noise during extinguishing in data centres and other critical areas

Projects that demonstrate expertise in this arena include: Following loss of IT data due to accidental discharge, Doosan Power has ensured full protection against risk of further incidents with a simple retrofit of the Silent Nozzle.

The Sinorix Silent Nozzle was also retrofitted to British Car Auctions' existing gas extinguishing system. It proved to be cost effective and simple to install in a business-critical environment.

Having experienced IT losses, a London merchant bank installed the Silent Nozzle. When a fire occurred six months after the retrofit, there was no impact on their IT operations.

A multinational pharmaceutical also suffered significant impact during an accidental discharge; a detailed evaluation identified the Sinorix Silent Nozzle as the appropriate solution.

Experience and know how

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

Crucial to the real success of any extinguishing system is a detailed understanding of the combustible hazard, its configuration, probable ignition sources, the influence of forced and natural air movement and likely fire propagation. Armed with this knowledge, protection can be optimised to limit damage, downtime and consequential losses.

We understand that keeping abreast of technological advancement and industry developments is important in ensuring optimal system performance. With our advanced technologies and knowledge base, IT operations can be assured of business continuity with minimal impact on vital data systems.

Highlights

- Full protection of HDDs through Siemens engineered solution
- Reduction in physical sound energy during gas extinguishing
- Improved asset availability and business continuity
- Can be installed as new, or retrofitted
- Efficient distribution of the extinguishing agent remains unaffected
- Fast, reliable and cost-effective

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