

Silent nozzle extinguisher does not harm hard disks

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The Siemens Building Technologies Division has developed the Sinorix Silent Nozzle to avoid potential damage to hard disk drives when using a gas extinguishing system to extinguish a fire. The Sinorix Silent Nozzle is not only comparatively quiet, it also ensures fast and reliable extinguishing in data centers.

Siemens has developed a very quiet nozzle for gas extinguishing systems. The system is especially suitable for use in computer centers that store sensitive data. That's because loud noise can cause hard disk drives to fail. However, the noise created by the Sinorix Silent Nozzle remains below the level that would endanger hard disk drives.

As is the case in many industrial facilities and archives, fires at computer centers are generally not extinguished with water but with [gas](#). If a fire breaks out, the extinguishing systems flood the room with natural gases

such as argon, nitrogen, or carbon dioxide within seconds, displacing oxygen in the process. Alternatively, chemical extinguishing agents can be used. These extinguish fires by extracting heat (energy) from the flames. The discharge of gas by conventional [nozzle](#) systems is very loud and can reach [noise](#) levels of 130 decibels or more, which is equivalent to a fighter jet taking off. In rare cases, computer center operators have noticed that such extinguishing systems have caused hard disk drives to fail temporarily. Studies have confirmed that this failure was the result of the hard disks' sensitivity to noise.

The new nozzle from [Siemens](#) Building Technologies is designed to keep the noise level below 100 decibels, as this comparatively low noise level doesn't damage hard disks. The nozzle also makes it possible for the operator to choose the direction in which the gas will be discharged so that the sound waves will have a minimal impact on the hard disks. The nozzle can use the natural gases nitrogen or argon, and a similar nozzle concept is currently being developed for chemical extinguishing agents. The flooding times are identical to those for conventional nozzles. The new nozzle is fully compatible with the Sinorix gas extinguishing system and can also be retrofitted into existing facilities.

Provided by Siemens AG

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