

### Case study

### Industry Sector Building Technologies Division

Copenhagen, June 10, 2010

#### **Leading Internet Bank Protects its Property with Siemens**

Sinorix N<sub>2</sub> extinguishes fires in the vault and IT rooms

**The Danish Saxo Bank is considered a pioneer worldwide when it comes to the successful implementation of internet-based business opportunities for banks. The company deals with bonds, futures, and contracts for difference (CFDs) – a completely virtual business. The smooth and uninterrupted functioning of the information technology is accordingly important. The bank trusts smoke detectors and extinguishing systems from the Siemens Building Technologies division for fire safety.**

Saxo Bank A/S was founded by Lars Seier Christensen, Kim Fournais, and Marc Hauschildt under the name "Midas Fondsmæglerselskab" in 1992. Saxo Bank has been using its current name since 2001 when it received a banking license. Saxo Bank is an online investment bank for trading stocks, bonds, futures, and contracts for difference (CFDs) as well as foreign currencies (FOREX Trading). The company also provides private asset management.

Saxo Bank was one of the first financial institutions in the world to develop an internet-based information, investment, and trading platform. The company is internationally famous for quickly and successfully implementing new business opportunities on the internet. Amongst many other awards, in 2008, Saxo Bank won the "Best Bank for FX for Investors" award from FX Week Magazine. This is considered the benchmark for performance in the financial sector and is an indicator of market leadership.

#### **Architectural award for new headquarters**

The new headquarters of Saxo Bank dedicated in August of 2008 is located in Tuborg Harbor, a suburb to the north of Copenhagen directly on the Øresund Strait. Its facade of diagonal white aluminum plating and blue-green panes of glass integrate the building into its environment of sky and sea and draws upon the X in the name of the bank with numerous X-shaped forms. At the same time, the design of the building also stands for the image of the bank as a modern, dynamic

company. The six floors with a total area of 16,000 m<sup>2</sup> are open-plan offices arranged around an open atrium bathed in light with a lavish spiral staircase forming what might be viewed as the spine of the building. The heart of the headquarters is the top floor, the "Trading Floor" equipped with state-of-the-art information technology.

The extraordinary building designed and constructed by Danish architects 3XN received the "RIBA International Award" for its architecture from the Royal Institute of British Architects in 2009.

### **Safe trading with comprehensive fire safety**

The online bank's business primarily depends on a dependable and uninterrupted information technology. One of the requirements for this is the comprehensive fire safety Saxo Bank contracted from the Building Technologies division of Siemens.

Overall, the Saxo Bank fire detection system encompasses 920 intelligent smoke detectors as well as 66 manual call points that are connected to the advanced Siemens fire alarm system. The system covers all of the rooms on all six floors. The fire safety solution focuses on the bank's two IT rooms, which are protected by a Sinorix N<sub>2</sub> extinguishing system. The vault is also integrated into the solution, which includes a fire detection and extinguishing control panel and 16 extinguishing agent cylinders with nitrogen.

Just like other extinguishing systems using natural agents, the Sinorix N<sub>2</sub> extinguishing effect is based on oxygen reduction (inertization) in the protection area: The flooding of the area with nitrogen typically lowers the oxygen percent by volume to 13.8 to 10 percent by volume depending on the risk of fire, which deprives the fire of the oxygen it needs to burn. This will reliably extinguish the fire and prevent it from igniting again.

The Sinorix extinguishing systems with natural agents offer a high amount of flexibility in planning and engineering. The systems for nitrogen can be designed in 200- or 300-bar technology. Additionally, single-sector as well as multi-sector solutions with respective cylinder batteries and selector valves can be realized. A centralized or decentralized positioning of the cylinders is possible. Based on this flexibility, inert gas extinguishing solutions can be optimally tailored to existing building structures, requirements, and risks of fire. Typical applications for Sinorix N<sub>2</sub> include data centers, telecommunications systems, cable ducts, electrical switching rooms, technical and machine rooms, and control rooms, as well as closed transformers, turbines, engines and generators.

The nitrogen used as an extinguishing agent in Sinorix N<sub>2</sub> is a natural gas<sup>1</sup> and is harmless for the environment and people. That ensures environmentally friendly extinguishing and allows the flooding zone to be put into operation again quickly after flooding by means of a simple overpressure ventilation. Nitrogen has poor electric conductive properties and is chemically inert, so there will be no harmful reaction products when it comes into contact with fire. That reduces damage to the equipment and the highly sensitive servers.

"Our trading floor and skilled personnel need to be protected in order to ensure continuous operation of our business," explained Attila Kiss, Head of Security & Operational Risk at Saxo Bank. "Any interruption in service, even for just a few minutes, could cost us a great deal of money. The combination of state-of-the-art fire alarm technology and the Sinorix N<sub>2</sub> extinguishing system provides us with an optimal solution for protecting our business as well employees and valuables."

Learn more about fire safety solutions from the Building Technologies division of Siemens at [www.siemens.com/firesafety](http://www.siemens.com/firesafety)

Learn more about Sinorix N<sub>2</sub> at [www.siemens.com/sinorix](http://www.siemens.com/sinorix)

The **Siemens Industry Sector** (Erlangen) is the leading provider of environmentally-friendly production, transport, building and lighting technology in the world. Using consistent automation technologies in comprehensive industry solutions, Siemens increases the productivity, efficiency and flexibility of its industry and infrastructure customers. The sector consists of the six divisions Building Technologies, Drive Technologies, Industry Automation, Industry Solutions, Mobility and OSRAM. With approx. 207,000 employees worldwide (correct September 30th 2009), Siemens Industry achieved a turnover of around 35 million euro in 2009. <http://www.siemens.com/industry>

The **Siemens Building Technologies Division** (Zug, Switzerland) is the leading provider of safe and energy-efficient buildings ("Green Buildings") and infrastructures in the world. As a service provider, system integrator and product supplier, Building Technologies provides building automation, HVAC technology, fire prevention, security, electrical installation technology and low-voltage energy distribution. With approx. 43,000 employees worldwide (as of September 30th 2009), Building Technologies achieved a turnover of around 7.0 million euro in 2009.

[www.siemens.com/buildingtechnologies](http://www.siemens.com/buildingtechnologies)

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<sup>1</sup> Earth's atmosphere consists of around 78 percent nitrogen and around 21 percent oxygen. A fire dies out if the amount of oxygen falls below 13 percent by volume. At the same time, air with only 13 percent oxygen by volume is not dangerous for the people present.