To learn more about MX Fire Solutions' comprehensive range of fire suppression products and services, please email datacenters@mxfire.com.
The following is a summary of a few key fire protection, detection, and suppression technologies used by Minimax Fire Solutions in data centers and other damage-sensitive applications.

**Minimax® MX-1230 Clean Agent Suppression System**
- Rapid extinguishing effect with total room flooding of required concentration of clean agent gas achieved in less than 10 seconds.
- The only clean agent system available with a high pressure (725 psi) advanced delivery system.
- Higher pressure system allows for longer pipe runs providing flexibility to move clean agent supply tanks out of the protected area, which can otherwise consume valuable IT floor space.
- Through the use of innovative Minimax selector valves, the 725 psi system also allows for multiple zones to be protected from a single supply bank, which can lead to a significant cost savings over standard pressure systems capable of only supplying a single zone.
- MX-1230 system uses 3M Corporation’s innovative Novec® 1230 clean agent.
- Colorless and odorless Novec® 1230 is neither corrosive nor electrically conductive and won’t damage electronics.
- Leaves behind no residue, significantly reducing clean-up and downtime.
- With zero ozone depletion, a short atmospheric lifetime, and minimal global warming potential, Novec® 1230 is a safe, long-term alternative to Halons.
- Non-toxic and safe for use in occupied areas.
- cULus Listed and FM Approved.

**Minimax® HELIOS AMX5000 Aspirating Smoke Detectors**
- HELIOS AMX5000 is a highly sensitive, active, latest-generation smoke detection system.
- Identifies even the smallest smoldering fire and can be used almost everywhere.
- Ultra quiet internal fan pulls air into the unit through perforated suction/sampling pipe to the integrated intelligent smoke sensors.
- Programmable to sensitivity levels as low as 0.0006% / ft (lowest pre-alarm level available).
- Excellent suction power (more than 400 Pa negative pressure).
- In addition to a pre-signal and contamination assessment, HELIOS also offers the possibility of adjusting the sensitivity in accordance with the unit’s use.
- HELIOS PipeCalc calculation software ensures efficient, asymmetrical pipe installation.
- Dual sensor capability allows for potential cross zoning within a single unit.
- FM Approved, VdS Approved.

**Minimax® OneU Active Suppression for Server Cabinets**
- OneU active extinguishing system is a compact and independent unit designed to detect and extinguish a fire in closed cabinets.
- Uses 3M Corporation’s innovative Novec® 1230 clean agent.
- Slim, single unit (1U) space requirements for 19” server racks.
- A sensitive smoke aspiration system with two fire detectors continuously takes air samples from within the cabinet.
- When activated, the cartridge containing the propellant is opened and the liquid agent flows to the OneU nozzle. Specialized geometry ensures the agent is vaporized when exiting the nozzle.
- A comprehensive self-monitoring system will immediately notify if operations are interrupted.
- OneU includes a clear, integrated, user-friendly control panel.

**Viking® TotalPac® Preaction Sprinkler Systems**
- Available in single- and double-interlock arrangements using electric and/or pneumatic release mechanisms.
- With double-interlock systems (electric / pneumatic release), no water will enter the system piping until after BOTH the detector senses a fire AND a sprinkler operates.
- The exclusive Firecycle® preaction system further minimizes the potential for water damage by automatically cycling on and off as needed to control the fire. This cycling feature can reduce water flow during a fire by 40-90%.
- Viking preaction systems are also available with the SureFire® fail-safe option. With SureFire, when both primary and secondary power is lost, the system will function as a dry system.
- All systems available with the TotalPac®2 integrated system cabinets. TotalPac units offer easier installation, service, and maintenance compared to site assembled systems.
- cULus Listed, FM Approved, CSFM Approved. TotalPac2 seismic option is OSHPD pre-approved.
**Data Centers – The Central Nervous System**

Information technologies and the data that they manage are critical to the successful operation of any enterprise. Disruptions to IT equipment, even for a short period of time, can have a substantial impact on productivity and bottom-line profitability. The risk to a data center from fire is even greater. In a worst-case scenario, the long-term loss of data and hardware can threaten the very existence of a company.

Protecting your data center from fire can be challenging. While automatic fire sprinklers provide overall structural protection, the critical nature of a data center requires very early intervention and suppression in a fire, well before a sprinkler system would activate.

The answer is a supplemental, fast-acting, waterless suppression system that will quickly extinguish the fire without damaging valuable electronics. In addition to providing dependable protection, the fire suppression system must be cost effective, environmentally friendly, and safe for human occupancy, while also minimizing the potential clean-up and associated downtime from a fire.

**Introducing Minimax Fire Solutions**

Based outside San Francisco, Minimax Fire Solutions has the unique capability to bring together all of the essential elements to provide a single source, comprehensive solution to protect your complete IT infrastructure. From high air flow environments to extremely limited space constraints, Minimax Fire Solutions has the expertise to design, fabricate, install, and service an innovative and cost-effective solution tailored to the specific requirements of your data center.

By leveraging our unique relationships with Minimax and Viking, two global leaders in advanced fire protection and suppression, Minimax Fire Solutions combines cutting-edge technology with an integrated global support network to provide a true single-point solution to protect your most critical assets. With coast-to-coast installation and service capabilities, Minimax Fire Solutions can protect all of your facilities throughout North America with a consistent, unified approach that reduces coordination complexity and lowers your total costs.

Whenever and wherever there is a fire risk – in data centers, power stations, steel mills, marine vessels, industrial facilities, paper mills, wind turbines, and automobile painting facilities – Minimax Fire Solutions is there, protecting people and property from the devastating effects of fire.
1. Supply tank for Minimax® clean agent system (MX-1230)
2. TotalPac® preaction fire sprinkler system by Viking®
3. Control panel
4. MX-1230 discharge nozzle
5. Viking® fire sprinkler
6. Under floor protection (clean agent and/or preaction)
7. Cabinet protection (MX-1230 discharge nozzle or OneU system)
8. Minimax® HELIOS aspirating smoke detection
9. Smoke detection (data center & under floor)
10. Manual activation and abort switch
11. Notification device (audio/visual)
12. Minimax® Fire extinguisher
13. Fire-stop material (room integrity)

TRUST MINIMAX FIRE SOLUTIONS TO PROTECT YOUR DATA CENTER

Our mission is to ensure that your data center runs without unnecessary interruption caused by fire. From the Viking® preaction sprinkler system to the Minimax® clean agent suppression system, this data center is completely protected by Minimax® and Viking® technologies. Minimax Fire Solutions offers a seamless approach to the protection of your data center, including these three key advantages:

1. Facility Review – Minimax Fire Solutions’ design team works with all parties to identify and address the needs of the company, insurance carriers, and local authorities.
2. Design, Fabrication, Installation – After the system design is approved, Minimax Fire Solutions manages the fabrication, delivery, installation, and commissioning of the entire system.
3. Testing, Inspection, Service – Once the system is operational, Minimax Fire Solutions provides a customized testing, inspection, and maintenance program that ensures complete protection.
To learn more about Minimax Fire Solutions’ comprehensive range of fire suppression products and services, please email datacenters@mxfire.com.