Experts in fire protection

MINIMAX

# Fire Protection Solutions for Wood-Based Material Processing

BRANCH SOLUTIONS

WOOD BASED PANEL PLANTS

# Networked production processes with high fire risk

**Wood is a renewable and natural raw material that is extremely versatile in its uses. It is widely distributed as a building and construction material, as well as an energy source, and characterized by increasing demand.**

The production process in wood-processing plants is characterized by complex processing areas in which machines are deployed for example for grinding and separating, drying, gluing and pressing, planing, milling and sawing.

The individual processing areas are linked to one another by various types of mechanical and pneumatic transport systems in order to ensure efficient handling of the timber material. In addition to this, wood-processing plants often have various ancillary areas, which may range from energy buildings with turbines and transformers via different types of warehouse to server rooms.

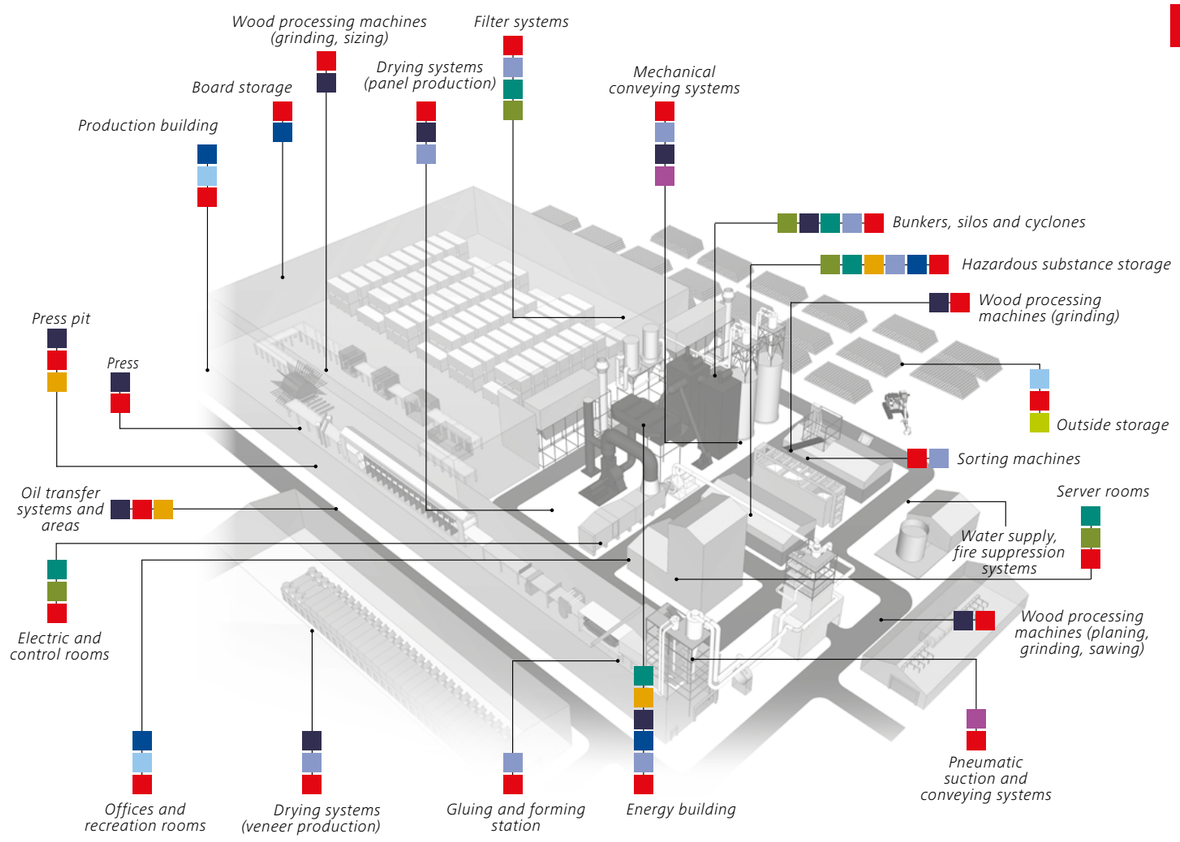
Increasing automation and ever higher production speeds cause the risk of fires to increase enormously. If sparks or glowing particles occur in the production process, fires can rapidly spread to other processing areas due to the close networking of the production process. The high fire load of wood combined with the occurrence of fine dusts quickly leads to fires and explosions which have devastating effects in a wood-processing plant: Operational interruptions and damage to machines can bring the complete production process to a standstill and lead to serious losses. Such occurrences are often life-threatening to the workforce and to the very existence of the company itself.

# Protected areas

**Optimal fire protection in wood-processing plants requires room and equipment protection tailored to each protected area. Minimax can fall back on a unique range of proven and innovative fire protection systems and components. These meet multifaceted requirements and fit extremely efficiently and economically into a total solution.**

A fire protection solution optimally and comprehensively tailored to the production process is especially indispensable in wood-processing plants. Here networked fire protection solutions are particularly in demand which are suitable for both the particular area of application and the interaction of the individual production stages. This way a rapid spread of fires within the production process can be preventively counteracted. Likewise the ancillary areas of a wood-processing plant require fire protection that has to be tailored to their respective characteristics. This is the only way to achieve comprehensive operational safety for your employees and ensure that large material damage cannot occur at all - and coincidentally also meet the requirements of insurers.

As a leading supplier of complete fire protection solutions, Minimax offers dependable solutions to the multifaceted risks of a wood-processing plant. Strict adherence to applicable guidelines, the use of tested components and self-developed components and systems, as well as planning and installation by our qualified and certified company are the guarantee of this. Furthermore we can assist you worldwide with a comprehensive range of services after the installation of the fire protection system as well.




- Sprinkler systems
- Deluge systems
- Minifog Water Mist Systems
- Foam-based suppression systems
- Hydrant systems
- Spark extinguishing systems
- Oxeo inert gas systems ($Ar/N_2$)
- MXOne
- MX1230 extinguishing systems (Novec™ 1230)
- $CO_2$ extinguishing systems
- Fire detection and extinguishing control panel

# Technologies used

**Whether sprinkler systems, gas-based extinguishing system, fire prevention systems, or fire detection systems – Minimax can draw on a unique range of tested and certified components and systems from its own development and production facilities.**

**Clunid FMZ6000 – Safer. Easier. Universal.**
The Clunid FMZ6000 is a modular fire detection and extinguishing control panel, precisely tuned and assembled to the particular customer requirements. High levels of operating safety and simple operation characterize the unique properties of the Clunid panel generation. The application possibilities are almost infinite. From the standardized and standardconformant control of complex multi-zone extinguishing systems to the freely programmable situational fire control system, anything is possible. With this the Clunid FMZ6000 offers a technology with a high degree of flexibility which is ahead of its time.

**Minifog water mist**
Minifog water mist suppression systems use the physical characteristics of the water more efficiently than traditional water-based suppression systems. The extinguishing water is finely sprayed by means of special water mist nozzles and sprinklers and increased operating pressure. This increases the total surface area of the extinguishing water, so that it absorbs heat and evaporates more quickly. The associated cooling and smothering effect enables particularly effective fire fighting with reduced use of extinguishing water. Different system variants which are tailored to the specific application ensure constant optimum building, room and local protection.


**MXOne – High-performance extinguishing turbine**
**Innovative fire fighting with water mist**
MXOne represents a new generation of fire fighting. It enables the targeted deployment from a long, safe distance, with high efficiency and accuracy. The adjustable jet pipe enables the turbine to reach long coverage distances, even with the addition of foam concentrate. In the case of fire, the water mist absorbs large quantities of energy, providing effective cooling and, due to it's three-dimensional operation, can also reach hidden sources of fire. It also binds smoke gases, pollutants, and odors and can quickly take effect over large areas.

**Sprinkler systems and deluge systems – Universal protection**
Sprinkler systems detect fires, automatically initiate the extinguishing process with water and thus offer dependable fire protection for buildings and industrial plants. The underlying principle of selective extinguishing makes them extremely effective: In the event of a fire, only the sprinklers located in immediate proximity to the fire will be opened: all others remain closed. Deluge systems on the other hand protect areas in which a particularly rapid spread of fire must be reckoned with. Released hydraulically, pneumatically or electrically, they comprehensively distribute the extinguishing water via open nozzles across a wide area.

**Gas-based extinguishing system – Residue-free fire extinguishing**
Sensitive technologies require special protection. Gaseous extinguishing agents are often appropriate in this case. Tailored to the specific application, they fight fires without causing adverse effects and with no extinguishing agent residue left in places that cannot be reached with the sprinkler. The gases used are environmentally-friendly and natural - extracted from air. The extinguishing process uses oxygen displacement with the inert gases argon, nitrogen, and carbon dioxide.

**Inveron Hazard Management System – Safety at a glance**
Inveron from Minimax is a simple and user-friendly system for the visualization and operation of fire detection, fire suppression, and alarm systems. All messages and events are automatically summarized as a graphic on the screen

**Spark extinguishing systems – Before sparks turn into flames**
Spark extinguishing systems detect ignition sources in exhaust and conveyor systems, and the automated suppression system quickly creates a water curtain to extinguish the glowing particles. They are used wherever combustible materials are pneumatically conveyed and at material transfer points where there is a high risk of fires or dust explosions caused by sparks or hot spots. The suppression process normally takes place without interrupting ongoing operation.

**Foam-based suppression system – Large-scale dampening**
During a fire, foam extinguishing systems spread large-scale foam blanket through foam pipes, foam monitors, sprinklers or nozzles. The foam is applied on the burning material, extinguishes the fire and serves as a deterrent against re-ignition. Foam extinguishing systems are suitable for protecting high-risk areas, e.g. due to flammable liquids or plastics. The adjustable low to extremely high foaming option offers an optimal extinguishing effect for every type of risk.

and this supports you in the implementation of the necessary actions. Inveron enables ideal monitoring of extensive, complex building structures.

Many leading wood processing companies have placed their trust in us.









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