Experts in fire protection

Fire protection solutions for 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.
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 reliable 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.
Gluing and forming station

Pneumatic suction and conveying systems

Oil transfer systems and areas

Sorting machines

Wood processing machines (grinding)

Press

Mechanical conveying systems

Electric and control rooms

Offices and recreation rooms

Press pit

Drying systems (panel production)

Drying systems (veneer production)

Gluing and forming station

Production building

Board storage

Filter systems

Oil transfer systems and areas

Sprinkler systems

Deluge systems

Minifog Water Mist Systems

Foam-based suppression systems

Hydrant systems

Spark extinguishing systems

Oxeo inert gas systems (Ar/N2)

MX1230 extinguishing systems (Novec™ 1230)

CO2 extinguishing systems

Fire detection and extinguishing control panel

Bunkers, silos and cyclones

Hazardous substance storage

Wood processing machines (grinding)

Outside storage

Sorting machines

Water supply, fire suppression systems

Wood processing machines (planing, grinding, sawing)

Pneumatic suction and conveying systems

Energy building

Server rooms

Drying systems (panel production)

Drying systems (veneer production)

Drying systems (panel production)
Technologies used

Regardless of whether it’s sprinkler systems, gas extinguishing systems, fire prevention systems or fire detection systems - Minimax can fall back on a unique range of tested and certified components and systems from its own development and production facilities.

Fire detection and supression control panels -
Heart of active fire protection
Fire detection and extinguishing control panels process detection results detected by sensors, control of alarm devices and set off alarms to permanently manned stations and the fire department. They continuously monitor extinguishing systems for functionality and trigger them electrically if necessary. In addition, they communicate with risk management systems or via web interface with internet-enabled devices. Different model versions, from a compact small panel to sophisticated large control panels make it possible to select the appropriate fire detection and extinguishing control panel.

Sprinkler systems and deluge systems -
Universal protection
Sprinkler systems detect fires, automatically initiate the extinguishing process with water and thus offer reliable 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.

Minifog water mist systems -
Extinguishing with water mist
Minifog water mist systems use the physical qualities of water more efficiently than conventional water-based extinguishing systems. The extinguishing water is sprayed very finely through special nozzles and sprinklers and/or through increased operating pressures. This increases the overall surface area of the extinguishing water so that it absorbs heat more quickly and evaporates faster. The accompanying cooling and smothering effect enables a particularly effective fire fighting with reduced consumption of extinguishing water. Diverse system variants, customized for each application, ensure optimal protection for buildings, rooms and facilities.
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.

Spark extinguishing systems -
No sparking off
Spark extinguishing systems detect initial ignition in suction and conveying systems and produce instantly a water curtain with their automatic extinguishing feature to smother smoldering particles. These systems are recommended for use in areas where combustible materials are transported pneumatically and where there is a high risk of fires or dust explosions due to sparking or smoldering particles. As a rule, the extinguishing process occurs without interrupting operations.

Gas-based suppression systems -
Residue-free fire extinguishing
Sensitive technologies require special protection. Gaseous extinguishing agents are often an ideal solution. Tailored to the specific application, they fight fires without side effects and without leaving extinguishing agent residues even in areas that can not be reached by sprinklers. We use environmentally-friendly and natural substances, derived from atmospheric gases as well as environmentally-friendly synthetic gases. The extinguishing effect is based on the replacement of oxygen by the inert gases argon, nitrogen and carbon dioxide as well as by heat extraction through the synthetic gases FM-200® and Novec™ 1230.

Inveron risk management systems -
Safety at a glance
Inveron is a transparent and user-friendly system for visualizing and operating fire detection, extinguishing and hazard detection systems. All reports and events are automatically merged on a surface and represented graphically on the screen. Inveron offers ideal monitoring especially for sprawling, complex building structures. In addition, the hazard management system supplies operators with a range of additional information and help on individual messages and supporting them in carrying out the required measures.
Many leading business in the wood-working industry place their trust in us.