

## Corrosion-Protection with Fendium Polymer-enhanced pipes in Holtmeyer sawmill

Corrosive conditions exist in the pipe networks of water extinguishing systems. This not only causes pipes to rust but deposits also form that constrict pipes and clog sprinklers.

### The solution: polymer-enhanced Fendium pipes

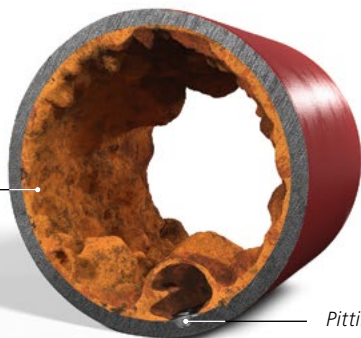
Minimax has therefore developed a new pipe system called Fendium. It features a special polymer, protecting the pipes against corrosion – both on the outside and the inside. In contrast to paint and powder coating, the polymer protection is formed in a chemical process unifying polymer and steel.

Besides the obvious benefits of longer life and longer protection against rust-through, the polymer finish on the

inside implies hydraulic advantages. Even after long-term use, the surfaces of Fendium pipes stay similarly smooth as those of plastic pipes and widely free of deposits that reduce the inside diameters. This means that the required water admission is not impaired by internal corrosion residues. This is why **Heinrich Holtmeyer & Sohn Sägewerk und Holzhandlung GmbH** decided to use Minimax Fendium pipes in the construction of a new sorting plant.

### Standard steel pipe

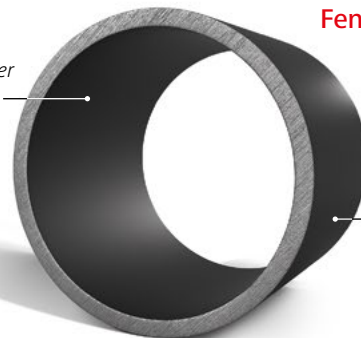
Surface corrosion



Pitting corrosion

### Fendium enhanced steel pipe

Special polymer on the inside



Special polymer on the outside

## Protected areas

The sorting plant was protected with a water mist extinguishing system according to VdS 2109. The water mist system requires an open nozzle network in which air exchange naturally increases susceptibility to corrosion. The ceiling protection, outside the actual sorting plant and underneath the platforms, was executed with a drying system according to VdS CEA 4001, OH3. A dry system was also installed under a canopy to prevent the pipes from freezing in sub-zero temperatures. An enclosed chain conveyor with three conveying levels was equipped with a dry system in three groups. The sprinklers form a pneumatic pipe network inside the enclosure, which is made with galvanized pipes. Increased corrosion conditions prevail in all these protected areas.



# HOLTMAYER

SÄGEWERK PELLETS ENERGIE 

For almost 100 years, everything at **Heinrich Holtmeyer & Sohn Sägewerk und Holzhandlung GmbH** is about wood as a raw material. Continuous development is the guiding principle for the modern family business. A conscious use of available resources is important to Holtmeyer. That is why the company recycles the raw materials produced in the sawmill and produces pellets not only for its own needs, but also for around 5,400 households. In addition, Holtmeyer produces electricity and heat in its own combined heat and power plants. Since 2018, Holtmeyer has stood for a self-contained resource cycle.

## Complex fire protection tasks in the timber industry

The example of Holtmeyer shows the complexity of the processing areas in the timber industry. Increasing automation and ever-higher production speeds mean that fire risks increase enormously. The high fire load of wood in combination with the generation of fine dusts quickly leads to fires and explosions that can have devastating effects.

For the various types of mechanical and pneumatic transport systems but also for ancillary areas, which can range from energy buildings with turbines and transformers to different types for warehouses and server rooms, a comprehensive fire protection solution that is optimally matched to the production process is therefore indispensable.

In the new construction of the sorting plant, the advantages of Fendium pipes are apparent:

- Sustainability through a longer service life
- Consistently higher safety level
- Greater efficiency

**Fendium pipes offer an ideal combination of a longer service life, increased safety and greater efficiency: a sustainable concept!**

