



Product News

## GreCon fire prevention concept protects endangered milling processes

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**Cellulose - versatile in use, complex production** Cellulose is a versatile raw material which is used in all industries; in the food industry (e.g. for dairy products and pasta), in the technical industry (e.g. as binding agent for mortar and plaster) or for the processing of feeding stuff. To manufacture this purely natural product, numerous processing steps are necessary. Purified fibre extracts, out of which the cellulose is dissolved and afterwards milled, are used as raw material. Fibres the size of which exactly matches the respective type of use are important factors for a good quality.

**Fire hazard due to foreign bodies and mechanical processing** To produce uniform wood chips milling processes carried out by the mills are necessary. These processing steps contain many fire hazards. Fine dust, oxygen and ignition sources in form of sparks or hot particles are mixtures that easily cause a fire. If foreign bodies as stones or nails enter the quickly running crushing mills, flying sparks cannot be avoided. Moved system parts, as e.g. fans, often strike sparks for example due to wear. As a result, a spark is transported through the suction system of the mill into the downstream systems as a preseparator or a filter system where it may cause fire or dust explosions. Also the mill itself is in danger. If the material accumulates, an overheating may result.

**A protection concept specifically tailored to the needs of the customer** After having installed the first spark extinguishing

system at JELU already in 1982, the protection concept was continuously expanded. In 2005, all control stations of the old generation were modernised with the new generation of spark alarm stations. If a spark or a hot particle is detected, the corresponding area of the system is immediately switched off and the automatic extinguishing is activated. *"We could reduce the fire hazard significantly. GreCon spark extinguishing systems exclude 99 - 99.5 % of all fires in production before a fire breaks out",* says **Hubert Ehrler**. The mill itself was also equipped with an automatic extinguishing system. If the system is switched off, the mill continues running up to one minute and stirs up dust which is a great danger in connection with oxygen and the ignition source. After a short check, the mill is started again and production can be continued after a minimal interruption.





Figure 1: The highly sensitive GreCon spark detectors 1/8 protect the mills of JELU in Rosenberg

Besides the highly sensitive spark detectors FM 1/8 for the detection of sparks and hot particles in transport lines, also detectors of the type DLD 1/8 which are insensitive to daylight are used at JELU for the monitoring of systems with daylight incident. Furthermore, also flame detectors are used. They monitor whole areas as the building of the mill from a long distance.



Figure 2: JELU could reduce the fire hazard significantly thanks to the

## GreCon spark extinguishing systems

*"The investment in GreCon spark extinguishing systems definitely paid off. We are very satisfied with the protection concept specifically tailored to our needs and will protect also other areas as the transport lines to the newly built hall with GreCon spark extinguishing systems", **Hubert Ehrler** summarises the situation.*