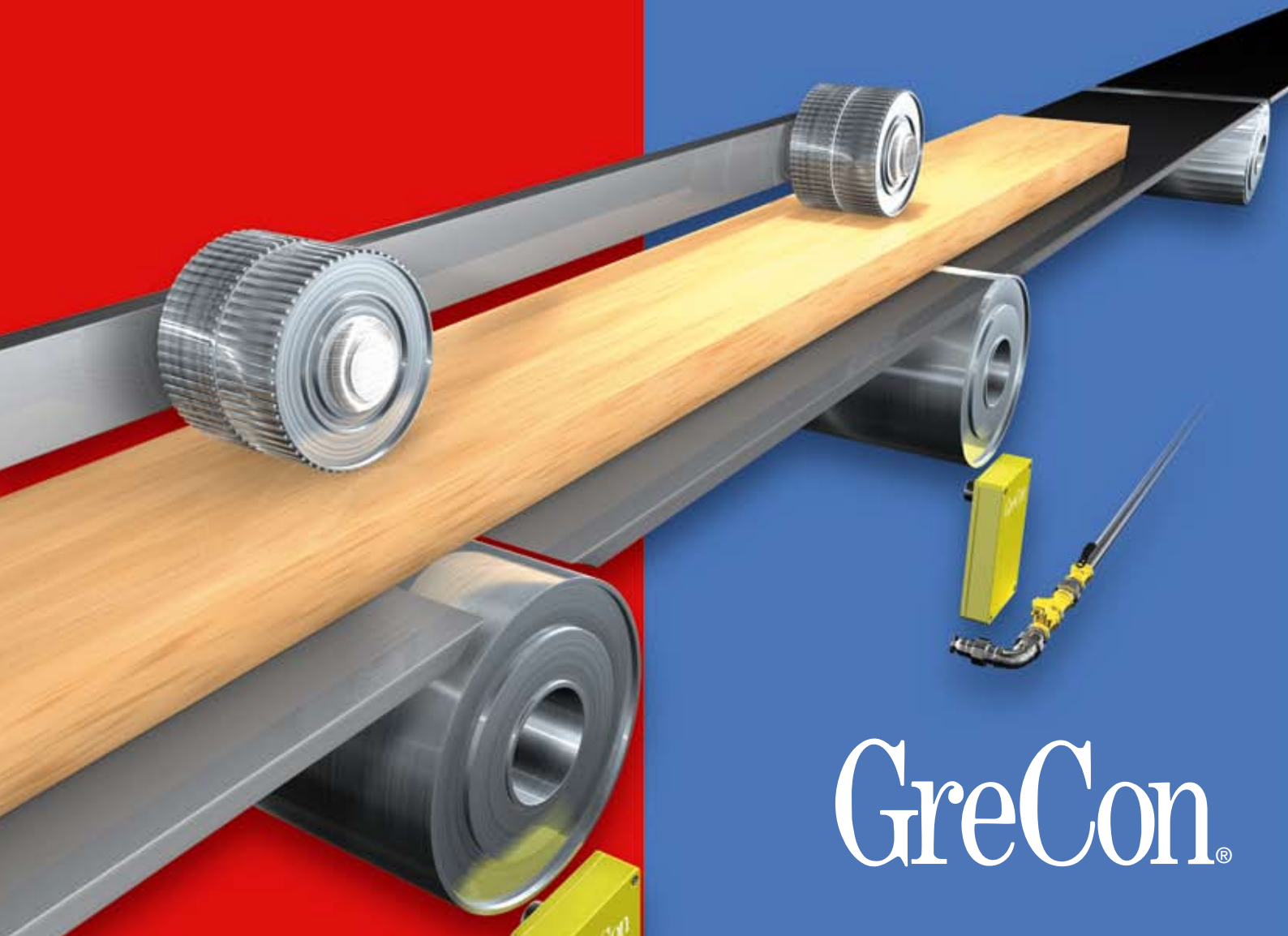
BS 7

Integrated Spark and Fire Extinguishing Systems Offer Protection for Planers and Moulders



GreCon®

Integrated Spark and Fire Extinguishing Systems Offer Protection for Planers and Moulders

Anyone who is working in a planing mill knows the risk of fire that comes from planers or moulders. In the past, there were fires in many planing mills that stopped production partly for several weeks.

Damage caused by fire

There are different causes that can be considered as ignition source, but very often, it is a piece of wood that has got jammed and is ignited by frictional heat. This risk gets higher with the increasing speed of the planing lines, which is, however, necessary to achieve a high productivity. Furthermore, there is a high level of automation so that personnel that keeps an eye on the production process decreases. Both factors - increasing planing speeds and a high level of automation to increase productivity - increase the potential risk of fire.

By means of a GreCon early fire detection, combined with automatic extinguishment systems, this risk of fire can be effectively met. Besides spark extinguishment within the exhaust pipes, an intermittent water extinguishment, which stands out due to minimum water consumption due to a new water spray technique, is also used in the planer cabin or in the covering hoods of the planer or in the bottom engine bed.

Monitored interior space of the planer

An optical sensor is installed underneath each roller and conveyor roller. This optical sensor monitors the interior space of the planer underneath the roller and conveyor roller. Suitable water extinguishing devices protect the monitored interior space of the planer. If the optical sensor detects ignitable wood particles or sparks, the water extinguishing device is activated. If an adjustable danger threshold is exceeded, adjoining extinguishing devices are also activated preventively.

The tool positions are exhausted. Spark detectors are positioned in the central exhaust pipe. Upon detection of sparks, water extinguishing devices for pipe systems are activated to protect downstream filters. An optical/acoustic alarm is triggered in parallel. If an adjustable danger threshold is exceeded, a shut-down of the planer and possibly the fan of the filter is compulsory. Water extinguishing devices are activated according to the application.

Spark extinguishment

The monitoring of the planer above the transport level, motors and driving gear is done by means of flame detectors. The position of each flame detector is determined according to the situation on site in consideration of minimal shadow areas in the lens coverage of each flame detector. Upon detection of flames, a protective machine extinguishment is activated. This protective machine extinguishment generates, by means of special water spray nozzles, a water shield to prevent the heat from spreading from the source of the fire to the surroundings, and a highly effective water mist to extinguish the developing fire. Optionally, all or only individual water extinguishing devices for the interior space of the planer can be activated.

Push-button keys for the manual activation of water extinguishing devices are positioned outside the sound protection cabin. Thus, the operator can react according to the situation at any time.

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