

## Safety First: Flooring Firm Finds Answer

When a large flooring manufacturer upgraded its laminate milling area, the company took proactive steps to keep its facility safe. Using equipment from Castell based in Erlanger, KY, it now has a unique solution – an Earth-Line static discharge unit and a Salvo trailer interlocking safety system. This combination protects against potential explosion hazards from dust generated in the milling process and unscheduled truck departures in the loading area.

In the wood flooring facility, dust collected from the milling process is made into fuel pellets with an on-site pellet mill. With the new configuration in place, the "wood flour" can go from the milling line directly to the pellet mill or a storage silo or a waiting tractor trailer. However, wood flour creates a potentially unsafe environment – static discharge from a truck being driven away at the wrong time could create an explosion. To ensure that trucks could not be filled with product or moved without proper safety precautions, the company worked with Castell and its distributor to design the combination Earth-Line grounding and Salvo interlocking system.

When a trailer, parked at the hopper, is ready to receive wood flour, the Salvo gladhand lock is attached to its brake line, securing the device in place and releasing a uniquely coded key. That key is then inserted into the Earth-Line and is trapped. Plant personnel then manually make a ground connection to the trailer, sending an electrical interlock signal to enable the conveyers motors. The Earth-Line electrostatic discharge system monitors resistance to earth, triggering an alarm sequence and automatically shutting down operation when a preset limit is exceeded.

Once the grounding connection is made, a second uniquely coded key is released from the Earth-Line unit. This key is used to open the lock on one of two diverters to direct the flour away from the pellet mill to either the silo or trailer. This key is trapped in the diverter until the pellet mill is back in use and ready to receive flour again from the milling line. A proximity sensor detects the valve position and sends an enable signal to the motor controller that the trailer is grounded and ready to receive a load of dust from the hopper. When the trailer is full and ready to be moved, the process is reversed. Until the flour is routed back to the pellet mill, the diverter will not release its key. Without this key, the Earth-Line will not release the first key, which opens the Salvo gladhand lock, making it impossible for a truck to depart.

Additional information: [www.castell.com](http://www.castell.com)

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