



WHITE PAPER

Preventing the manipulation of locks



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Many serious workplace accidents occur due to the manipulation of locks on safety doors in the machine guards that surround machinery. People working on and around machinery find clever ways of disengaging the locking mechanisms. They do this simply to make things easier for themselves while carrying out their work tasks without really seeing the risks it entails. At Axelent we have been working on lock solutions for preventing this in accordance with standard ISO14119.

▶ **Interlocking (door breaker)**

A door breaker tells the machine if the safety door is open. This means that the door is monitored by the machine's system and sends a signal to the machine telling it whether it can run or not. The machine will only run if the door is firmly shut.

▶ **Guardlocking (door lock)**

A door lock works in much the same way, by sending a signal, the difference being that the door is locked by a special key or locking device and cannot be opened until the machine is in safe mode. Axelent has developed locks that work in combination with a door breaker or a door lock, such as our X-Lock and Hitch Lock.

▶ **One-way screws**

A popular way of manipulating a lock is to unscrew and remove one of the parts of the breaker or lock. We have stopped this by using one-way screws. As the name implies, these screws can be screwed in but not unscrewed.

A lock glossary

Manipulation

Ways of making safety doors quicker and easier to enter. Some locks can be manipulated to allow doors to remain open the whole time.

Emergency handle

A handle on the inside of the safety door in the machine guards. If somebody gets stuck inside they can get out by pulling the emergency handle.

Panic lock

A lock that is used at emergency exits and escape routes. Doors fitted with this lock can always be opened from the inside, even when locked with a key.

Mechanical splint

Our X-Locks are equipped with a mechanical splint that requires handling to open and close the door from the outside.

Interlocking safety switch

A signal is emitted when the lock is properly locked.

Snap lock

A simple type of lock that locks the door as it shuts.

Hitch lock

Works together with a touch-free door release and functions in a similar way to our X-Lock.