

# Machine Guarding Applications

Castell provides heavy duty, robust safety systems for a variety of industries involving machine guarding. Our safety products are designed for all types of environments with additional product options for outdoor, marine and explosion risk areas.

## Isolation/Disconnect to Access

While the key is trapped the machine circuit is closed. Removal of the key opens the circuit, shutting down the machine.

Access to the dangerous area is granted once the key is inserted and turned. The key cannot be removed from the access interlock until the door is closed.



## Interlock for Motor Driven Machines

**1** While the machine is running the key is trapped in the motion sensing interlock.

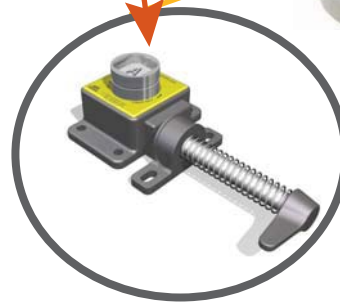
**2** Rotating the key counter-clockwise switches off the machine. The key remains trapped until the interlock detects that the motor has stopped rotating.

**3** Once the interlock has detected the machine has stopped, the key can be released and used to open the access interlock.

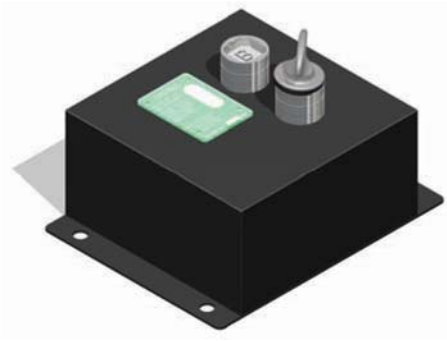


Motor driven machine rundown times will vary.

Castell manufactures a BEMF unit that measures the back electromotive force (BEMF) generated by the windings of the motor to detect when the motor is at a standstill.



## Time Delay Interlocks



### Mechanical Time Delay Interlock

Perfect for use in areas with explosion risk or where electrical supply is limited. Time customized to suit your application.

**Electrical Time Delay Interlock**  
Integrated isolation switch that turns off your machine and starts the timer simultaneously. Time customized to suit your application.



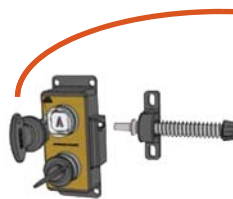
## Full Body Access Safety



The AIE is a dual key access interlock that can be used to provide additional safety to your maintenance processes where accidental lock-in and machine startup could occur. The AIE provides a personnel key that is carried into the dangerous area by the operator to ensure the interlock system cannot be reversed to re-start machinery until the key has been returned after maintenance has finished.



**1** Key from isolation interlock is inserted to AIE.



**2** Once the primary key is inserted the personnel key and side bolt may be removed.



**3** Personnel key is then carried into dangerous area to prevent machine startup during maintenance.