

Guard Locking Interlocks – What Should Be Considered When Specifying Equipment?

ANSI B11.26 – 2018 Functional Safety for Equipment: General Principles for the Design of Safety Control Systems Using ISO 13849-1

Guard locking functions may be used just to protect the process. For example, if opening an interlocked guard during operation would result in machine damage or product loss – this can be addressed by machine controls that do not form part of the SRP/CS (safety related parts of control systems).

However, **if guard locking is used to reduce risk to personnel** (such as keeping the door locked closed until the process stops being a hazard) **all elements shall be considered** as part of the safety related parts of the control system.

B11.26 from the American National Standards Institute goes one step further in the guidance provided to mention mounting and mechanical functions:

“Safety functions that include guard locking extend beyond the SRP/CS to include the mechanical mounting and interface with the guard(s). The reliability of these mechanical functions shall be included in the determination of the overall reliability of the SRP/CS.”

At Fortress, mounting plates are recommended so each interlock is delivered mounted securely on a base plate with all the required fixings. The Fortress mounting plate designs have been pull tested to ensure retention forces of 10,000N are achieved in installation (amGard^{pro} variants).

Alongside these functional benefits is the installation time savings of reducing the required fixings down to one fixing in the top and bottom of the mounting plate. Fortress can offer mounting plates across both the amGard^{pro} and mGard ranges of door interlocks.

