



SAFETY SOLUTIONS CAPABILITY STATEMENT

COMPANY BACKGROUND

Fairfield Control Systems is a highly innovative systems integrator. The main core of our business is developing unique electrical control and instrumentation solutions to suit modern industrial requirements. Whilst our projects are many and varied, at the very core of the business is innovation.

We specialise in instrumentation, control and automation (ICA) solutions for clients in the UK and overseas. As well as designing, installing and commissioning advanced control systems, we provide ongoing post-project operational support, preventative maintenance and emergency call-out services. We pride ourselves in the resilience and sustainability that we build into our designs.

We work in a variety of industry sectors including:

- Bridges
- Energy
- Materials handling
- Metals
- Moving structures
- Pharmaceuticals
- Waterways

BETTER BY DESIGN

Key to each and every step of our design philosophy is safety. In order to operate profitably, it is vitally important that equipment and resources operate with ultimate performance and efficiency and at peak levels of safety - this is something that we do our utmost to build into our systems from the outset.

Our engineering teams work hard to develop innovative solutions while working to all relevant standards and our own internal ISO 9001 procedures. The teams understand the importance of meeting the customers' stringent requirements without compromising safety and reliability.

Whilst striving toward continual improvement targets in manufacturing, process efficiency and productivity, it is imperative that we don't lose sight of the importance of machine safety.

Far from being considered an extra, but necessary, hurdle required to drive output, integrated safety can be used, not just to protect personnel and equipment from injury and harm, but can re-enforce good practice and help to minimise periods of inactivity through unsafe operations.

SAFETY AS STANDARD

We work closely with our clients in order to fully determine the best solution for them and in turn, the requirements that will be placed on the safety system. The basis of any safety system must be the risk assessment around which the safety system can then

Creating Exceptional Performance



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be tailored utilising EN ISO 12100. The safeguarding applied to any system usually involves the use of some kind of control system, and the Machinery Directive details various requirements relating to the performance of such a system. In particular, it states: "Control systems must be designed and constructed in such a way as to prevent hazardous situations from arising". The Machinery Directive does not specify the use of any particular standard, but the use of a control system meeting the requirements of harmonised standard(s) is one means of demonstrating compliance.

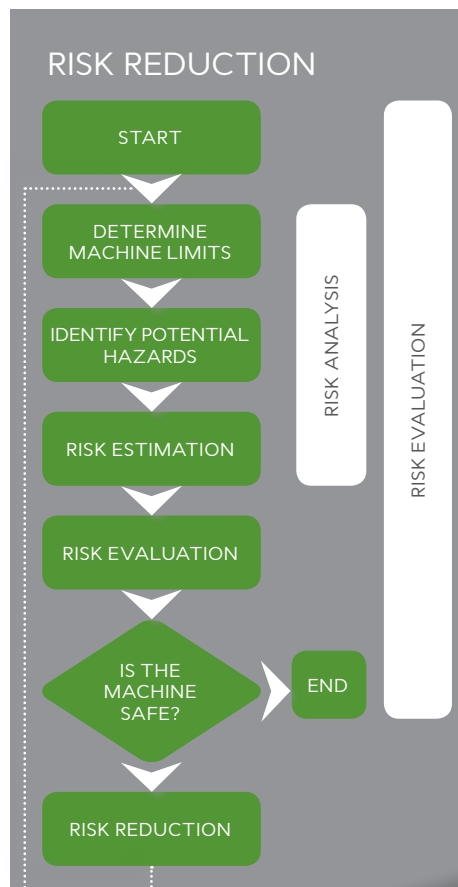
The two such standards which form the core of our safety systems design are BS EN ISO 13849-1 (replacing EN 954-1 in November 2009) and IEC 62061 and IEC 61508.

TOTALLY INTEGRATED

Safety systems tend to be built around one or more safety controllers, depending on the complexity of the system. These can range from a standard safety relay to a fully configurable and programmable safety system or PLC. However, all retrofit systems have one thing in common; in order to effectively meet the needs of the user, they must be totally integrated into the machine or process. To allow the solution to fully integrate, the process must be fully appreciated by the designer, such that the safety system does not become a burden, but instead improves the

operation of the process or machine. Integration of a safety system is not limited to interrupting power to devices, for example, when a guard gate is opened. It is important that the machine can recover from stoppages such as this and resume operation quickly. This is where our years of experience come to the fore. We combine the best equipment that the

leading manufacturers have to offer in order to provide the most appropriate integrated safety solution, tailored to meet the needs of the end client. We can provide safety systems to meet the requirements of any demanding environment from a simple system with a hardwired safety relay, to a plant-wide distributed safety system controlled by a failsafe PLC.



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Michael Doney

Managing Director,
Fairfield Control Systems Ltd.

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