

5 ways to get locked up with electric gates

How to ensure powered gates are safe to use and fit for purpose



INTRODUCTION

It is a matter of some irony that powered gates and barrier systems intended to make schools safer places actually pose a risk that may result in physical injury or death. And it is not just schools. Gates controlling access to industrial sites, commercial premises and sporting venues as well as public sites and buildings all pose similar risks unless they are installed and maintained in accordance with best practice and compliance standards.

It is fair to describe some of the facts as startling, or perhaps more appropriately, alarming. An estimated 500,000 automated gates are in service in the UK, however, it is believed that only around 10 per cent are safe to use. To increase awareness of the issue, The Door & Hardware Federation (DHF) held Gate Safety week 2014 from October 13-19.

There is no official inspection regime, but owners, installers and maintenance service providers are legally responsible if found to be at fault when someone is injured or killed. Rather surprisingly, it can be difficult for gate owners to understand and fully address their obligations.

Electric gate safety: A bit of a grey area

The HSE website says:



Powered (automatic) gates (barriers and doors) located in 'workplaces' are subject to a number of specific legal requirements. These will include requirements for: design, manufacture, supply and installation under the Supply of Machinery (Safety) Regulations 2008; and inspection and maintenance under the Workplace (Health, Safety and Welfare) Regulations 1992.

There will also be general requirements under the Health and Safety at Work etc. Act 1974 in relation to risks to third parties (non-employees).

Powered (automatic) gates for use on private domestic premises must comply with the Supply of Machinery (Safety) Regulations 2008 when first installed.

What the HSE website is not very clear about:

However, none of these individually or together provide adequate safeguards. Consequently, the relevant parts of these regulations need to be applied along with any specific advice given in Health & Safety Executive Safety Notices.

INTRODUCTION CONTINUED...

Well publicised accidents with tragic outcomes have resulted in six-figure fines. In one case the owners of the gates were found to be blameless and two separate companies responsible for installing and maintaining the gates were at fault. However, for gate owners it's not just a question of offloading the responsibility through outsourcing to an installer or maintenance specialist. There is also a moral dimension, an obligation to prevent serious, perhaps tragic accidents.

Recent years have seen the end to light touch regulation in many areas. Time and again it has been demonstrated that it is misguided to believe industry and commercial enterprise is able to eliminate unscrupulous practice that place the interests of others in jeopardy. In some areas, if the justice system feels it needs to set an example, custodial sentences remain options.

In this guide we'll discuss the checks and safety advice that could see you fined or even locked up if the safety of your powered gates is ever put under scrutiny as a result of injury or death. This helps to ensure that educational establishments, commercial enterprises or public bodies operating access control systems can fully exercise the duty of care to pupils, students, and employees, members of the public and other third-parties.

1. Failing to make sure opening and closing forces have been measured

Issue:

The force a gate generates when opening and closing needs to be assessed. Specialised test equipment is required to accurately measure opening and closing forces. Unless it is a large organisation with significant numbers of powered gates deployed and specialised maintenance personnel on staff, few end user businesses have access to such equipment. Without this equipment you can't be sure your gates meet safety standards.

Solution:

Make sure you select a supplier that tests the closing forces. The opening and closing forces of the gates should be limited to those defined in the British/European standards.

For existing installations, check that the maintenance service provider has the correct equipment. For installers and providers of powered gate maintenance services need to meet their obligations to legislation and HSE Safety Notices. This includes:

- Creating a technical file pertaining to the gate and maintenance and retain it for 10 years
- CE marking the gates
- Issuing an EU Declaration of Conformity stating gates meet the Machinery Directive 2006/42/EC and any other directives which are applicable

2. Not having gates that automatically reverse when hit

Issue:

The gates should reverse if they hit someone or something. It is not enough for a gate to stop if it hits an obstruction. People may be trapped by the action of the gate closing. In order for them to be able to free themselves the gate must move in the opposite direction after the contact.

Solution:

Select a supplier that fully understands how to implement the technical requirements when the legislative and health and safety elements are brought together. While the rules governing gate safety remain somewhat of a grey area, the best policy is to select an expert security organisation capable of protecting your organisation and gate users. A good credential to look out for is the Powered Gate Group of DHF, the Door Hardware Federation.

3. Having gates without obstacle sensors to stop them

Issue:

The gates should have sensors that can stop them if someone has been detected. This could be light beams (photoelectric devices), which stop the gates before they reach an obstacle. This is different from the mechanism for stopping and reversing the gate after it has hit an obstruction. These sensors need to detect if something is in the way without making contact with the gate.

Solution:

Select a supplier that fully understands how the different components that support gate safety are implemented. Reversing gate motion after a collision and obstacle sensors are control subsystems that need to be integrated to provide control and ensure safety is not compromised by security. Make sure the installer or maintainer of your gates is able to issue you with a BSI safety certificate.

4. Not taking precautions to prevent people getting trapped by gates

Issue:

If there are parts of the gates where someone could become trapped or get crushed while it is moving, these need to be protected. People could get injured, for example, as the bars of the gates pass the gate post.

Solution:

Choose a supplier that is able to perform a thorough safety audit of an existing installation or design and install one in line with the latest gate safety requirements. When looking for a good supplier, don't just look for security and gate safety accreditations. Installing gates requires good construction credentials because gate installations may require specialised construction such as groundwork and electrical expertise.

5. Not fitting an emergency release mechanism to free trapped people

Issue:

The gates must have an emergency release mechanism in case someone gets trapped. Even when gates are fitted with obstacle sensors and reversing mechanisms there is still a requirement to be able to over-ride the automated systems with an emergency release mechanism, enabling anyone trapped to be manually released.

Solution:

Shortlist suppliers that are capable of meeting your requirement for installing gates as part of an integrated security solution. Integration is essential because gates need to be remotely controlled and visually monitored. CCTV lets security staff see events such as collisions or vandalism. Collisions may result from 'user errors' such as drivers crashing rather than gates colliding with vehicles. Vandalism may damage gates or the sensors and control mechanisms, making them unsafe. Audio or visual safety systems may need to be integrated if gate users are disabled, or visually or audibly impaired.

SUMMARY

Why select iC2 as your powered gate service provider?

iC2 is a leading mid-market security systems provider and was established in 2001. The business is owned and managed by a team with a collective experience of over 100 years in the electronic security business. iC2 holds CCTV and security accreditations with NSI and BSI.

Whether for industrial, commercial or domestic environments, iC2 install and maintain automated gates, barriers, turnstiles and bollards. Our seamless services provide complete powered gate and barrier solutions including groundwork, electrical works and CCTV for remote monitoring and full integration with alarm and access control systems.

For your powered gates iC2 addresses the two key questions:

- Are newly commissioned and existing installations safe and fit for purpose?
- Are gate and barrier installations maintained under contract with a suitable service provider?

A prestigious client list including luxury international boutique brands, top flight sporting venues, retail developments and educational and social environments demonstrates how solutions are deployed to meet a variety of requirements.

From deterring theft of high value luxury goods, to sports fan and public safety and child protection, solutions are deployed to meet a range of legitimate purposes for which they are appropriate and fit for purpose.

REFERENCES AND FURTHER READING

FAQs - Powered gates - Health & Safety Executive

<http://www.hse.gov.uk/work-equipment-machinery/faq-powered-gates.htm>

Risks to pedestrians from crushing zones on electrically powered gates – 2 - Health & Safety Executive

<http://www.hse.gov.uk/safetybulletins/electricgates2.htm>

Risks to pedestrians from crushing zones on electrically powered gates - Health & Safety Executive

<http://www.hse.gov.uk/safetybulletins/electricgates.htm>

Guide to gate safety legislation and standards - Door and Hardware Federation, 2012

<http://www.dhfonline.org.uk/docs/1053-Gate-Guide-CURRENT.pdf>

Campaigners step up gate safety awareness action - Door Industry Journal Blog

<http://doorindustryjournal.blogspot.co.uk/2014/10/campaigners-step-up-gate-safety-awareness-action.html>

Gate Safety Week - Door and Hardware Federation

<http://gatesafetyweek.org.uk/>



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About Us

Keeping you safe and secure at all times

IC2 provide you with innovative solutions tailored to you and your sector. We are London-based with a national team of surveyors and engineers that work closely with our clients throughout the UK and internationally.

Our unique consultative approach allows us to tailor bespoke systems to your individual requirements, ensuring that your operational requirements are met.

We appreciate the need to demonstrate the best value to you every time and as a technology-led company, you can expect our cutting-edge and ground-breaking approach to serve your needs for many years to come.

Please feel free to contact us to discuss any requirements you may have. We are happy to give you impartial advice, should you have any queries.

