

How wind load calculations and prolonged fatigue testing contribute to gate safety

At Heras, we pay particular attention to gate safety. Even more than you might expect. Would you like to learn how? In this blog post, we give you a look behind the scenes: we explain what we do to deliver safe gates, and why, for example, we perform fatigue and strength tests.

Did you know that we factor in the wind when building our gates? After all, the location at which a gate is installed, be it at the coast or far inland, makes all the difference. Why? Regardless of its location, a gate must be able to withstand any number of conditions. As such, wind is not the only thing we factor in. A gate is exposed to the elements for years on end and is therefore at the mercy of the laws of nature. That's why we also take temperature, oxygen, water exposure and other environmental factors into consideration.

Why do we do this?

In fact, this is just one aspect through which we want to ensure gate safety. We also perform other analyses, tests, and measurements. Why? On the one hand, because our gates must comply with the CE marking regulations applicable to products within the EU. On the other hand - and more importantly - because we want to prevent material damage and injury. As manufacturer, we do everything we can to deliver safe gates.

How do we do this? We install sensors that stop a gate when they detect objects - i.e. people or vehicles - in its path. From eliminating risks to protecting functional elements and describing potential residual risks. As already mentioned, an independent certification body assesses the gates for compliance with the minimum requirements set out in the European product standards. Additional rules may apply depending on the country you are operating in. Take France, for instance, where automated gates are set up with warning and stop-and-go lights.

Always thinking a step ahead

Clearly, the rules are pretty strict. And that's just the legal aspect! As manufacturer, we also add components to make the gate even safer. Take manually operated gates, for example. Almost everyone closes them gently, but we test the gates anyway, just in case the odd person slams them a little too hard. During testing, we look for such things as deformation at certain speeds. Lucky for us, we don't need to do any 'heavy lifting', like open and close the gate a hundred times. A machine does it

for us. Based on the results of the tests, we have developed special stoppers that absorb high-speed impacts.

How far do we go?

As manufacturer, we also perform fatigue tests on our mechanical structures. There are a number of gates at our test site at any one time moving endlessly back and forth. We test them to identify the critical components that are susceptible to wear and tear. We then use the information obtained from the tests to determine the maintenance interval for the guide wheels, for example. That's how far we go to gain more insight about the robustness of our gates.

From fatigue testing to wind force. We do everything we can to ensure gate safety, but we can't determine the full extent of that safety. Once we install a gate, you, the owner, are responsible for maintaining and keeping the installation safe. In practice, though, we've found that owners aren't usually aware of this. As a result, gates are usually only maintained when they stop working. This is a situation you obviously want to avoid. Hence, our advice is to have a qualified expert check your gate at least once a year.

Has it been a while since you've had your gate maintained? If so, contact our service department via heras.co.uk/service