

How Toyota SA navigated severe flooding

In response to the flooding disaster of April 2022, Yaskawa Southern Africa worked closely with Toyota to establish a priority list for rapidly repairing the damages robotic welding systems.

On the 18th of April 2022, President Cyril Ramaphosa declared a national state of disaster when heavy rainfall led to severe flooding and landslides in KwaZulu-Natal, causing the death of 448 people and destroying over 12 000 houses, while displacing a further 40 000 people. Many businesses also suffered from the damage, including leading car manufacturer, Toyota South Africa Motors.

On the 12th of April at 5:30 am, Toyota management breathed a short-lived sigh of relief when staff on site sent pictures of no damage from the reported flooding with rain beginning to subside at its Durban production plant, which produces popular vehicles such as the Corolla Cross and Quest, Hilux, Fortuner, Hino, and more.

But by 6:20 am, the plant was under 1.5 m of mud. "What had happened was when the Shongweni Dam sluice gates released at capacity, they sent a deluge of water all the way down the Umlazi River that broke through its banks," explains Andrew Kirby, CEO at Toyota SA. The deluge then hit nearby empty container yards, sending containers down the N2 in the floodwater.

The financial impact was severe, with extensive damage across the 87 hectare site including electrical, mechanical and IT equipment. "Toyota had to order just over 100 000 new equipment parts to replace the damaged ones, while around 4 300 flood-damaged vehicles had to be crushed," says Kirby.

Despite a top disaster management executive stating that it was the most extensive damage to any production facility within Toyota globally, swift action from both Toyota and its partners' management teams enabled the plant to bounce back to production in a mere three months.

Industrial robotics partner Yaskawa Southern Africa worked closely with Toyota to establish a priority list of repairs. "We brought every available person from all Yaskawa branches throughout South Africa to our Durban branch to assist," recalls Andrew Crackett, Managing Director at Yaskawa Southern Africa. "Temporary/casual labour along with an international team of Yaskawa experts, whose members comprised colleagues from the UK, Germany, and Japan, were sent to Durban."

With no immediate spares on hand – as



Yaskawa offers mechatronics and robotics solutions for companies throughout Europe, the Middle East and Africa.

they needed to be expedited from around the globe – and no user manual for repairing damage to this extent, Yaskawa's team was required to think on its feet and consistently come up with new ideas to be successful. In the end, approximately 400 robot controllers and 600 welding devices were successfully repaired, a noteworthy feat for a team that had never dealt with a project of this magnitude before.

Crackett notes that Yaskawa Southern Africa learned helpful lessons from the disaster. "We now know how to recover flooded equipment and what type of facility is required. We also learnt by hard experience what worked and what did not when it came to money and time. Another key lesson was maintaining open and honest communication with the customer. Their understanding of our progress was key to everyone's planning and expectations."

Similar sentiments were echoed by Toyota, with Kirby stating that "while it is not something we'd ever wish on anyone, as an organisation, the challenges helped us to grow and develop our capabilities and resilience: to be able to survive and even flourish," he observes.

The leading car company's new internal recovery slogan is Rebuilding Better Together. This philosophy speaks to working together as a team, while using crisis situations to improve future site planning.

Toyota's Durban plant regained its full production levels from September 2022.

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Yaskawa's robots offer highest quality and outstanding welding and handling performance, and are widely used by automotive manufacturers.