

The ART 1000 Gen II can perform a number of tasks in one go.



Images: Total Rockbreaking Solutions

SAME MACHINE, BETTER RESULTS

SIMEX WILL SOON BE RELEASING ITS SECOND GENERATION OF THE ART 1000 ATTACHMENT, WHICH IS SET TO REVOLUTIONISE ZERO WASTE ASPHALT REPAIR.

In a significant advancement for sustainable road maintenance, Simex has unveiled the next generation of its patented ART 1000 technology.

The new GEN II version marks a leap forward in the in-situ regeneration of deteriorated asphalt, offering enhanced efficiency, reduced environmental impact, and improved performance.

The ART 1000 Gen II, an attachment for skid steer loaders, is designed to meet the growing demand for cost-effective and eco-conscious infrastructure solutions.

Jeff Jackson, Sales Director at Total Rockbreaking Solutions says the ART 1000 Gen II is an asset to have on any civil construction site, capable of performing multiple functions in a single pass.

“The ART 1000 Gen II will perform milling, regeneration, granulation and mixing, all in one swoop,” he says.

“This machine reaffirms Simex’s position at the forefront of road rehabilitation innovation.”

At the core of the SIMEX ART 1000 is a patented technology specifically designed

to process recycled asphalt using 100 per cent of the existing material on site.

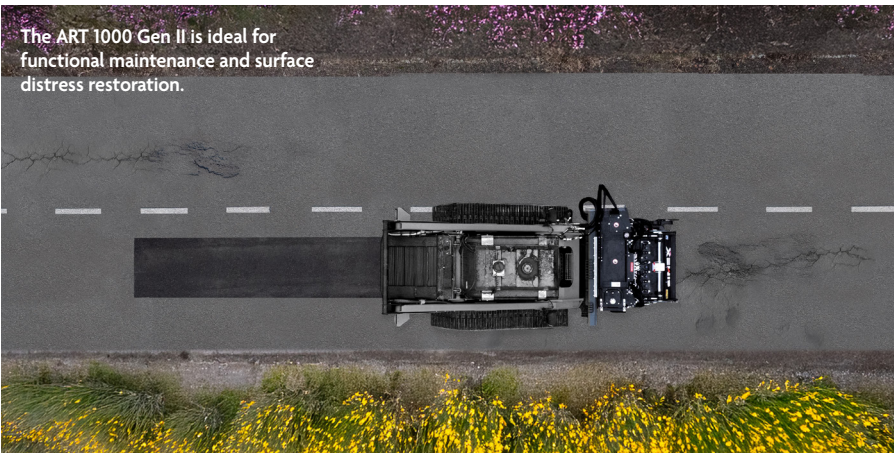
This solution allows for asphalt regeneration without removing milled material or introducing new aggregates or virgin bituminous mix. Only utilising existing on-site material makes the process as environmentally friendly as it is cost effective.

With an operating depth of 0–100 millimetres, the ART 1000 Gen II is ideal for

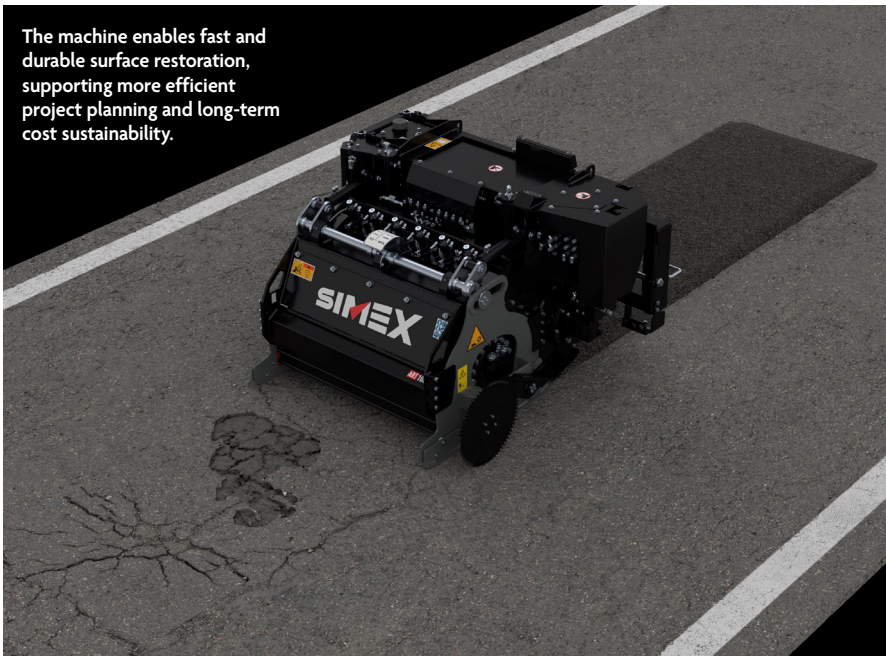
functional maintenance and surface distress restoration such as alligator or branch cracking, surface bumps, dips or ripples, potholes and joint gaps, localised wear or aggregate smoothing and temporary repairs requiring high-speed turnaround.

THE PROCESS

It all begins with milling the deteriorated section of a road. The ART 1000 Gen II uses an eco-friendly chemical rejuvenator



The ART 1000 Gen II is ideal for functional maintenance and surface distress restoration.



The machine enables fast and durable surface restoration, supporting more efficient project planning and long-term cost sustainability.



Above: The machine recovers and reuses 100 per cent of the on-site material.

is significantly reduced in and around the jobsite.

“This reduces emissions on traffic which otherwise would contribute heavily to the project’s carbon footprint, making the ART 1000 Gen II a game-changer for sustainable construction practices.”

Jackson says it also enables fast, durable surface restoration, supporting more efficient project planning and long-term cost sustainability.

“Sustainable machines like the ART 1000 Gen II align with modern environmental and operational standards, making it a smart investment for forward-thinking municipalities and contractors,” he says.

ELECTRONIC UPGRADES

In a bid to make the ART 1000 Gen II even more equipped to meet the daily needs of road construction sites, Simex has also enhanced its onboard electronics.

“New upgrades such as the addition of a new video interface will improve connectivity between the operator and the ART 1000 technology, further ensuring seamless operation,” explains Jackson.

The new interface displays real-time values such as linear metres (progress), litres per metre (additive dosage), and actual litres (additive consumption).

For a tailored display, unique to the operator and requirements of the job, Jackson says it is possible to manually set a precise amount of rejuvenator.

“This can be set according to the manufacturer’s specifications and the site’s environmental conditions,” he says.

“Our software also calibrates and adjusts the rejuvenator dosage according to the change in the carrier’s speed.

Once again this is based on parameters entered by the operator at the start of the job.”

The Simex ART 1000 Gen II is set to launch in Australia in late 2025. ■



Above: The interface displays real-time data on the asphalt regeneration process, displaying crucial information and enhancing operator connectivity with the equipment.

to cold-recycle the bituminous aggregate produced.

Simultaneously, a calibrated injection system administers rejuvenating agents, each automatically adjusted based on milling depth and machine speed.

The reclaimed asphalt pavement (RAP) is then granulated to a specified particle size, distributed to optimise workability and bonding.

A high-performance mixing unit completes the process, producing a structurally sound recycled asphalt mix ready for immediate repaving.

The bituminous mix is then deposited directly into the milled track and is ready to be levelled and compacted using standard

tools like rollers or vibrating plates.

Jackson says that in the case of repairs after the installation of fibre optics, the presence of cement mortars in limited proportions compared to the total volume of milled asphalt does not compromise the success of the final restoration.

“The 100-litre rear tank is also now removable from the side, and thanks to a drainage cap located at the bottom, it can also be easily emptied if necessary,” he says.

“Additionally, the lateral movement of the tank allows access to the second drum compartment (crusher) from above, for cleaning and maintenance.”

BENEFITS

In addition to the logistical advantages on-site and in terms of traffic flow, Jackson says the ART 1000 technology offers a multitude of benefits for the civil construction industry.

“The cost savings associated with the ART 1000 Gen II are incomparable to any other machine,” he says.

“By exclusively utilising the bituminous mix available on-site, operators no longer need to fund the purchase and transport of new raw materials to the jobsite.”

Environmentally, Jackson says the ART 1000 Gen II is one of the most sustainable machines on the market.

“Recovering and reusing 100 per cent of the on-site material is unheard of in a machine like this,” he says.

“Without the requirement to supply new materials to the site and remove the excavated materials, construction traffic