

ART



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SIMEX
• patented •

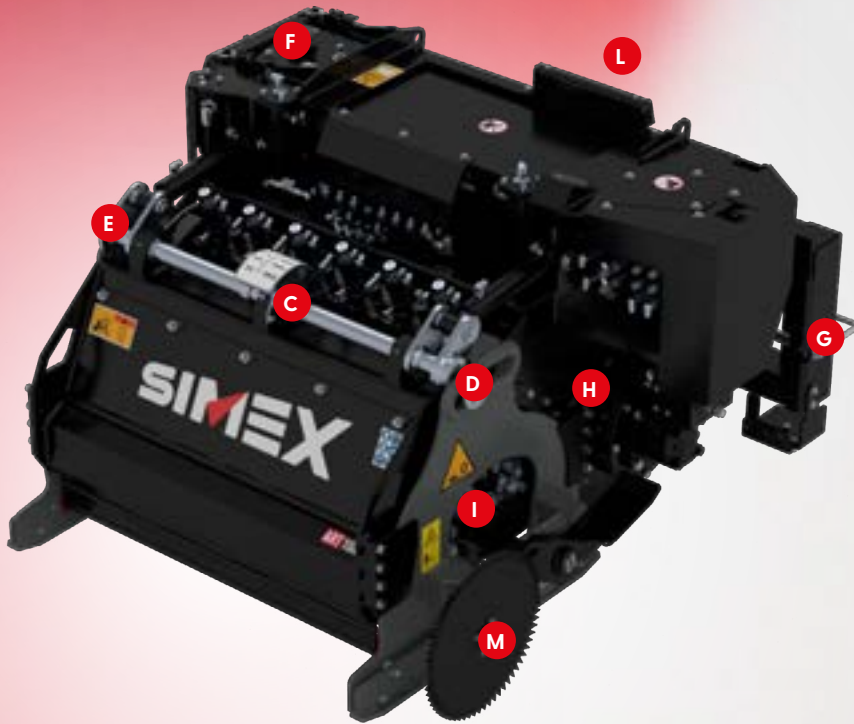
ASPHALT REPAIR TECHNOLOGY

category



models

ART 1000



Simex ART is a patented technology specifically designed for the **regeneration of bituminous conglomerate** (asphalt) which reuses 100% of the material present on site without removing the milled material or adding other materials. It is used in functional road surface maintenance, at a depth varying between 30 and 60 mm. It does not disrupt traffic flow and ensures immediate road drivability. It also ensures that maintenance lasts for a reasonable amount of time, which allows local authorities to plan road maintenance, with significant benefits in terms of road user safety.

THE ART 1000 PROCESS

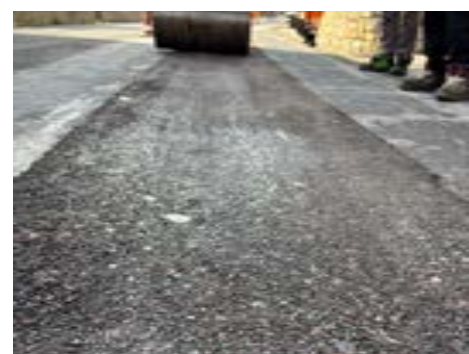
ROAD FAILURE



REGENERATION



END RESULT



A DETERIORATED ASPHALT

B REGENERATED ASPHALT

C Right and left depth indicator

D **SELF-LEVELLING SYSTEM:
CONSTANT PLANING DEPTH, ALWAYS.**
The planer lateral slides automatically align to the milling surface on which they rest to provide maximum stability.

E Hydraulic depth adjustment

F 100 l tank for regeneration additive

G Hydraulic side shift

H Crusher drum

I Milling drum

L LED performance indicator

M Forward speed sensor wheel



APPLICATION FIELDS



FATIGUE CRACKING
(ALLIGATOR CRACKING)



POTHoles AND GAPS



RESURFACING AFTER LAYING
FIBRE OPTIC CABLES



- Swelling, depressions, corrugations
- Localized pavement alterations
- Temporary patching

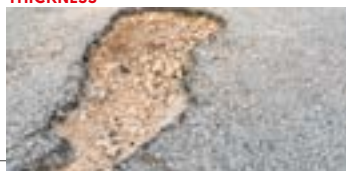
AREAS THAT CANNOT BE RESURFACED



PRESENCE OF WATER



ROADS WITH INSUFFICIENT ASPHALT
THICKNESS



UNPAVED ROADS

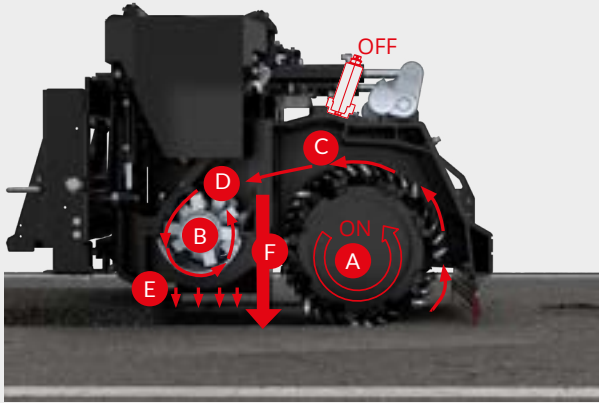


ROAD SHOULDERS



ART 1000 OPERATIONAL PROCESS

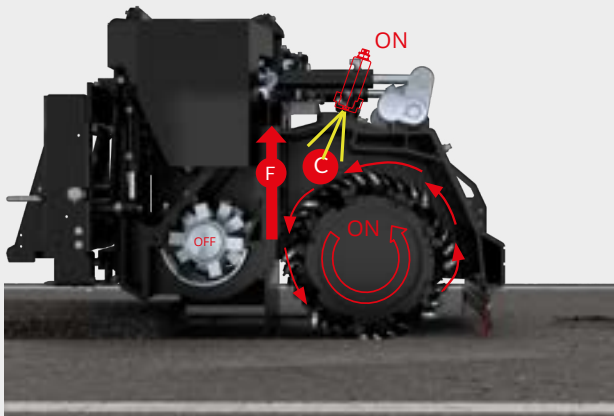
STEP 1: MILLING AND CRUSHING



- A** Milling drum
- B** Crusher drum
- C** Milling chamber
- D** Crushing chamber
- E** Screen 0-15 mm
- F** Scraper

At this stage, the milled mix is conveyed to the crushing chamber, where it is reduced to a grain size of 0-15 mm.

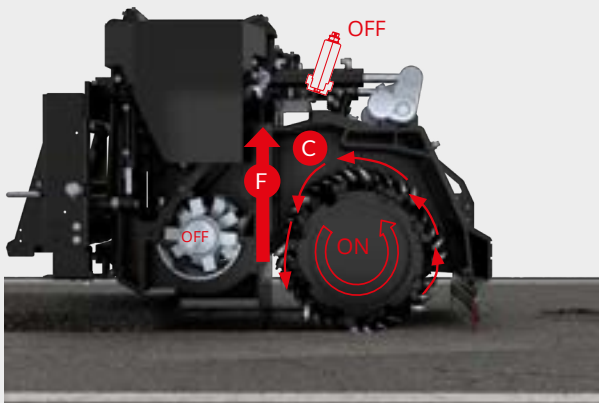
STEP 2: INJECTING THE REJUVENATOR



- C** Milling chamber
- F** Scraper

At this stage, the additive is injected at high pressure into the milled and crushed mix so that the mix can be regenerated.

STEP 3: MIXING



- C** Milling chamber
- F** Scraper

At this stage, make an additional pass with the milling drum alone, to make the milled and regenerated mix even.



THE THICKNESS OF THE ASPHALT MUST BE GREATER THAN THE DEPTH OF OPERATION

On site regeneration superficially eliminates dangerous unevenness in the road surface in the medium term. By no means does it hinder the creep and cracking phenomena of foundation and substrate layers.



AT WHAT LEVEL DOES ART 1000 OPERATE: A COMPARISON OF FUNCTIONAL RESTORATION AND STRUCTURAL SOLUTIONS

ART 1000 is a **functional type of road surface rehabilitation**, from 30 to 60 mm in depth, and fits in between emergency-type maintenance (localized manual resurfacing of potholes and road distress) and complete restoration of a new surface course with large construction machines.



MANUAL RESURFACING



SELF-PROPELLED COLD RECYCLER



ART 1000



BENEFITS

ENVIRONMENTAL



Recycling and regeneration of deteriorated bituminous conglomerate on site



No handling or management of special materials or waste.



No production of waste material and no landfill disposal



Regeneration can be technically repeated in later maintenance



Reduced energy consumption



No input of virgin materials

OPERATIONAL



Recovery and reuse of 100% of material on site



Fast restoration of surface road distress with long-lasting results



Reduced and dynamic roadwork avoiding complete disruption of vehicular traffic



Reduced number of workers and a single vehicle containing the necessary means and equipment.



Reduced costs for purchasing and handling raw materials



Immediate reopening to traffic

ART 1000 GEN II: ON-BOARD TECHNOLOGY AND REGENERATION CONTROL

AUTOMATIC DOSAGE CONTROL

The ART 1000 Gen II features a smart system that automatically adjusts the additive dosage according to the feed rate, based on the parameters set by the operator at the start of the job. The result is uniform mixing and greater operational precision. The control display communicates with an LED indicator mounted on top of the machine, which signals the correct feed rate, and assists the operator in maintaining optimal working conditions.

DATA ALWAYS AVAILABLE

The distance covered, area treated, and quantity of additive used are automatically recorded and stored in the system's memory. All parameters remain available for operational monitoring and job traceability.

REMOTE MONITORING AND DIAGNOSTICS

The integrated data communication system, complete with GPS, enables continuous monitoring of the main operating parameters and the equipment's position. Remote access to the cloud enables performance analysis and remote diagnostics, helping to reduce machine downtime.



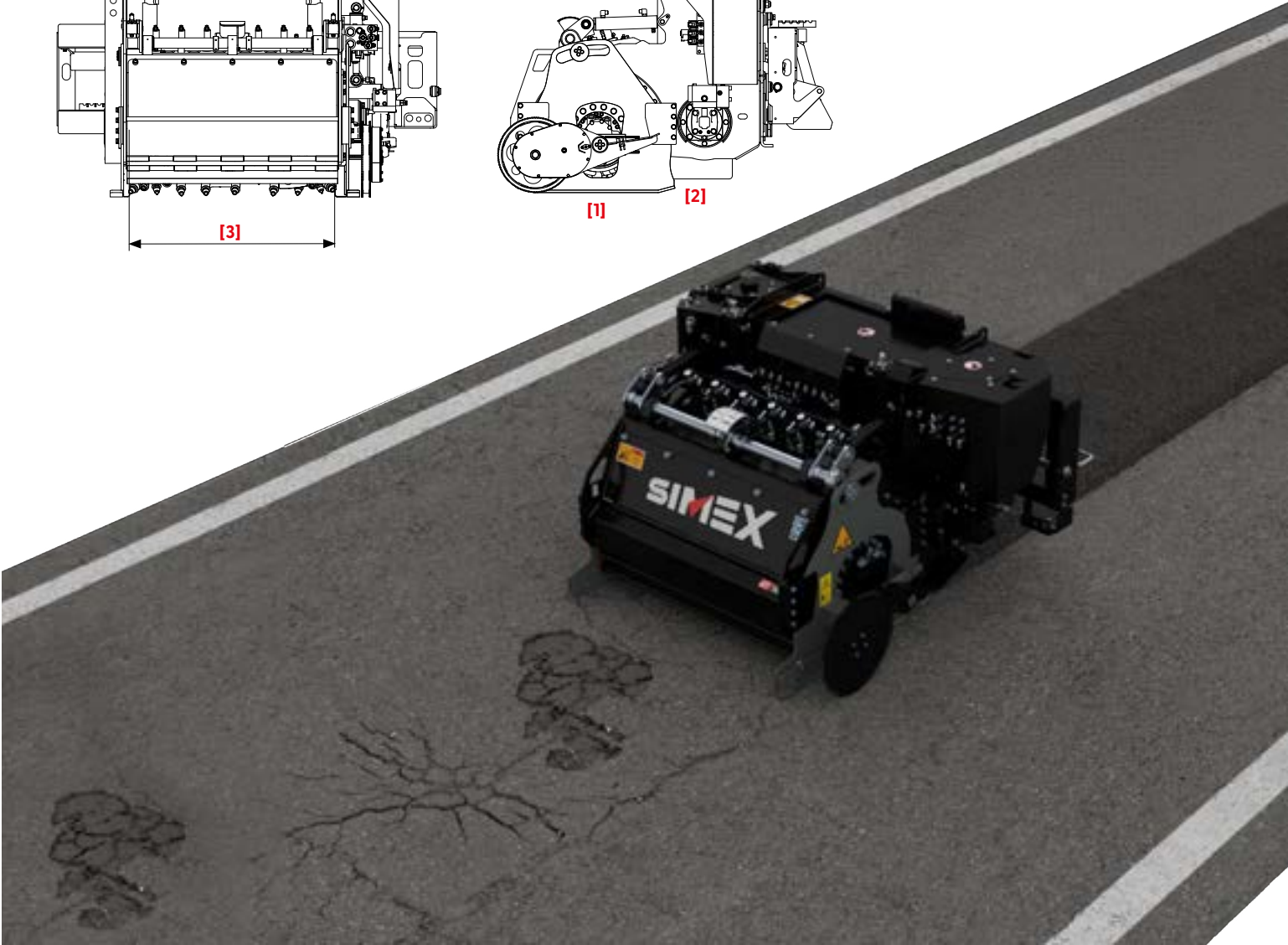
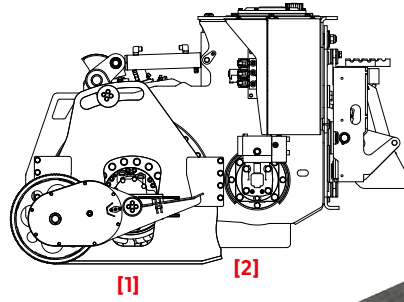
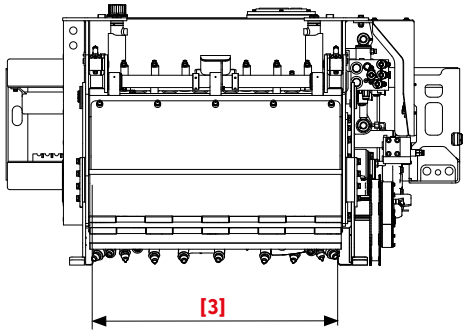
SIMEX CONNECT: THE NEW GENERATION OF SMART EQUIPMENT

Simex CONNECT expands the machine's capabilities by transforming every piece of equipment into a connected asset. The platform allows you to remotely monitor operational performance, access diagnostic data, and interact with the equipment wherever you are.

- Real-time monitoring of operational status
- Access to usage and performance data to improve efficiency on site
- Sending remote commands to optimize operational performance and reduce work time

Increased productivity, constant monitoring, and more efficient management of site operations, directly from your own device.





TECHNICAL DATA		ART 1000
MILLING DRUM [1]		
Width [3]	mm	1000
	inch	40
CRUSHER DRUM [2]		
Width [3]	mm	1000
	inch	40
Depth	mm	0 - 100
	inch	0 - 4
Depth adjustment	independent right and left - hydraulic	
Side shift	hydraulic	
Tilt	12°	
Additive tank capacity	l	100
	gal	26
Weight (*)	kg	1860
	lbs	4100
Required oil flow	l/min	115 - 152
	gpm	30 - 40
Maximum oil pressure	bar	300
	psi	4350

* The installer is responsible for ensuring that the equipment meets the prime mover's specifications and weight requirement. Simex does not accept responsibility or liability for the information provided. Technical modifications may vary without prior notice.