

Media Release Ammann Group

AMMANN RELEASES MARKET'S FIRST HYDROGEN ASPHALT-PLANT BURNER

LANGENTHAL, Switzerland – Ammann has unveiled a hydrogen-powered burner for asphalt-mixing plants – an emissions-free solution that represents a significant sustainability breakthrough.

The Ammann H2 is the first asphalt plant burner on the market capable of utilizing up to 100% hydrogen.

"Burning 100% hydrogen eliminates all CO₂ emissions associated with the burner," Denis Hecek (Head of Technical Design and Product Management) said. "This is an environmental game changer for the asphalt industry."

Asphalt burners heat the aggregates needed to produce asphalt mix. Creating this heat previously required the use of fossil fuels – and resulted in emissions, including both CO₂ and odours.

The performance of the Ammann H2 is comparable to a fossil fuel-powered burner. Yet the Ammann H2 is easier to regulate, with better heat exchange in the dryer and an overall cleaner process.

Hydrogen is the world's most abundant chemical element. It is renewable, highly combustible and non-toxic. It leaves only water behind after combustion.

With the H2, plant owners in highly regulated areas will not have to pay fees for CO₂ emissions. Owners in all areas will see lower operating costs, because hydrogen produces more high-energy content per unit of weight than other fuels. The efficiency leads to lower energy consumption and reduced operating costs.

Many Ammann burners currently on the market can utilise a combination of hydrogen and natural gas, but those configurations still lead to emissions. The most recent burners available, before the H2, could blend up to 28% hydrogen with natural gas. With adjustments, that level could rise to 60% hydrogen.

"Those represented great strides, but the use of 100% hydrogen, and elimination of CO₂ emissions, was the goal," Denis Hecek said.

The AMMANN H2 is capable of burning even other fuels if desired.



Green Plant Initiative

The H2 burner is part of the "Green Plant Initiative," Ammann's commitment to improving the sustainability of asphalt production.

The initiative includes three new advanced technologies: the H2 burner, VOC Reduction Device (VRD) and Blue Smoke Treatment (BST). Together, the three reduce or eliminate emissions at every stage of asphalt production.

The H2 burner eliminates CO₂ emissions during the combustion that occurs at the start of the process. VRD filters emissions in later steps, including up to 70% of the VOCs that can develop, especially while recycling asphalt. At the end, BST captures the blue smoke that can arise during truck loading.

“Each of these three is a breakthrough technology and big win on the green front,” said Stampfli Philipp (AMMANN Global Head of Process Technology) said. “When combined, they are setting the bar for sustainable asphalt production in the industry for the next generation.”

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About Ammann

Ammann is a sixth generation, family-owned business that produces asphalt and concrete mixing plants, compactors and asphalt pavers at nine production sites in Europe, China, India and Brazil. Its core expertise is roadbuilding and transportation infrastructure. Visit ammann.com for company-related information.