ION DUST SHIELD.

FOR A HEALTHY ENVIRONMENT.
Particulate pollution, better known as particulate matter, is becoming an increasingly important issue for cities and the environment. Increased particulate levels are being measured time and again, especially in urban agglomerations. If they exceed a certain limit, warning messages or even driving bans are issued to prevent adverse health effects.

**WHAT IS PARTICULATE MATTER?**

Particulate matter consists of very fine particles with a diameter of one hundredth of a millimetre and is divided into two classes. The inhalable E-dust (PM₁₀) with an aerodynamic diameter of $< 10 \, \mu m$ is the proportion of all particles present in the breathing air that are inhaled through mouth and nose. The smaller the particles are, the greater the risk of causing ailments, as they can penetrate deeper into the respiratory tract. A-dust (PM₂.₅) with a size of $< 2.5 \, \mu m$ is also called respirable particulate matter. These fine particles can be absorbed through the respiratory tract and reach the bloodstream through the lung tissue, leading to serious health problems.

BOMAG is the only manufacturer that already offers a solution for reducing particulate matter, as it is also generated when milling road surfaces.

**BOMAG ION DUST SHIELD.**

As an innovative manufacturer of cold planers, BOMAG has an active share in reducing air pollution caused by particulate matter. BOMAG offers a unique fine dust separator system that converts the particulate matter into less dangerous coarse dust.

The dust is sucked off immediately after it forms and directed into the ION DUST SHIELD.
Unlike conventional dust extractors, the particulate matter is not simply extracted in the working area and blown out again on the conveyor belt, but bound in a special housing on the conveyor belt. With the dust extraction system, dust is transported through an electric field, charged positively, and attracted to the negatively charged housing. In the process, the particulate matter clumps together permanently to form less dangerous coarse dust and can be removed with the milled material.

The result was determined by a pilot measurement conducted by the Institute for Hazardous Substance Research (IGF) at the Ruhr University Bochum. Using this method, more than 80% of particulate matter can be removed.

This new development significantly reduces pollution resulting from road recycling – for both construction equipment operators and residents. BOMAG is the only manufacturer to offer this solution, and has thus come a good deal closer to the goal of a sustainable construction site.