Hamm │Smart Compact in Earthworks - Automatic Compaction to a Specified Target Value

VA Compactors from Hamm Assure Quality and Process Reliability

With the 20 t and 25 t HC 200i C VA and HC 250i C VA compactors, Hamm is now offering machines that enable automatic compaction to a specified target value in earthworks. The models will initially be available in markets with EU Stage V / EPA Tier 4f exhaust emission standards, further markets will follow in due course. The acronym “VA” stands for Variable Amplitude. An important component of this technology from Hamm is the equally new, parameter-independent Smart Compaction Value (SCV).

With the Smart Compaction product family, Hamm has developed a whole range of solutions for smart and simple compaction. A further step forward that automates and simplifies compaction in earthworks and simultaneously improves quality and cost-efficiency has now been implemented in the new HC series models with VA drums. Following the successful launch of Smart Compact for asphalt construction at Bauma 2022, Hamm is now offering a corresponding solution for earthworks.

Smart Compact for Earthworks – Simple and Precise

Operators can quickly and easily learn how automatic compaction works, as all the compactor driver has to do in daily operations on the construction site is choose between an automatic mode and a manual mode. While the amplitude is automatically regulated by the machine control system in automatic mode, manual mode allows the compactor driver to choose any one of five preset amplitudes. The process is operated via the already familiar Easy Drive display. In addition, a compaction target value in MN/m2 based on typical load bearing capacity values can be specified before the start of compaction. In automatic mode, the compaction process is then controlled by Smart Compact until the target value is achieved. The decisive factor here is the also newly developed Smart Compaction compaction value (SCV). The measurement is performed by the Smart Compaction meter (SCM). The compaction value is also independent from key influencing factors such as the travel speed, the direction of travel, or the frequency, which leads to high comparability of the measured values, even when using different weight classes.

Clear Advantages in Practice

The use of the new VA compactors brings a number of advantages for operators and construction contractors. For instance, the automatic compaction control not only ensures homogeneous compaction results, but also simultaneously and effectively prevents over-compaction or particle crushing. In light of this, the VA compactors represent an attractive solution, even for inexperienced operators, as they make it possible to achieve consistently high process reliability and quality. The cost-efficiency of construction projects is also improved through the reduction of the number of compaction passes required, the consequently lower diesel fuel consumption, and lower mechanical loads on the machine The smaller number of passes required is logically also accompanied by a corresponding reduction in CO2 emissions. Moreover, the reliable avoidance of jump operations caused by the machine control system leads to longer machine life. In view of the direct adjustment of the amplitude, the new technology can be classed as an energy-efficient overall system.

Broad Spectrum Of Applications and High Centrifugal Forces

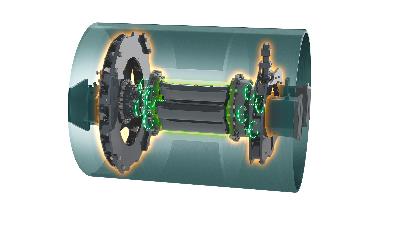
With regard to potential applications, the new compactors are suitable for the compaction of cohesive, sandy, and coarse soils. Thanks to the high compaction forces, the VA compactors are also effective for compacting thicker layers of rubble, as the number of passes required for this is also reduced. This makes the machines a particularly versatile option for a variety of applications.

Photos:



HAMM\_Smart Compact soil\_01

New compactors with Smart Compact With the 20 t and 25 t HC 200i C VA and HC 250i C VA compactors, Hamm is now offering machines that enable automatic compaction to a specified target value in earthworks.

  
HAMM\_Smart Compact soil\_02

New drum for automated compaction: The compaction force in the newly developed VA drum from Hamm is continuously adjusted according to the project requirements on the basis of the precisely and continuously recorded Smart Compaction compaction value.

*Note: These photos only provide a preview. For printing in publications, please use photos with a resolution of 300 dpi, which are available to download via the link provided.*

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