Specializing in the development and manufacture of advanced industrial laboratory instruments for characterizing powder behavior, Granutools boasts an impressive 3-digit percentage growth and an installed base across 25 countries on 4 different continents.

Providing accurate and reproducible measurement techniques for powders: that's Granutools' goal. Founded in 2016 to bridge the gap between complex systems and manual devices, the company offers a range of instruments and services to help industries handle and process powders efficiently.

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With numerous customers worldwide, a team of scientists and experts, and numerous research projects in various industries, Granutools has solid expertise in the field of powder flow characterization. This expertise is demonstrated by a series of five complementary instruments. Instruments renowned for their innovative character, high reproducibility, precision and ability to operate independently of the operator. What's more, Granutools regularly updates its software to adapt to customer feedback and market developments, ensuring that its products remain at the cutting edge of technological innovation.

Granutools instruments

Granutools therefore offers a set of five instruments – complementary tools that address specific powder analysis challenges. **GranuFlow** measures powder vertical flow rate, **GranuHeap** automates angle of repose and static cohesion measurements, **GranuDrum** evaluates cohesive index and dynamic angle of repose, **GranuPack** measures tapped density and packing dynamics, while **GranuCharge** quantifies electrostatic charges before and after powders pass through different materials. In addition to these instruments, Granutools is actively developing software tools to help industry and academia better understand their powders.

New developments

Recently, Granutools has expanded its product range with several innovative instruments. At the end of 2023, Granutools launched the **GranuPack Permeability**, featuring a specially designed

measuring cell to assess powder permeability at various consolidation levels. The ability of air to pass through a powder is essential in applications such as silo operations, compression processes, and dry powder inhalers. By measuring airflow velocity and pressure drop, the GranuPack Permeability enables precise assessment of powder permeability, offering a versatile solution for measuring physical parameters related to powder packing dynamics and fluidization.

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In 2024, Granutools introduced the **GranuDrum High Temperature** (HT), a cutting-edge instrument for analyzing powder flowability and cohesion at temperatures up to 250°C. This instrument allows users to simulate high-temperature conditions, providing valuable insights into powder behavior for industries like additive manufacturing.

Continuing its innovation, in 2025 Granutools launched the **GranuCharge At Line** (AL), a breakthrough instrument for real-time electrostatic charge measurement directly on the production line. The GranuCharge AL delivers instant, high-precision charge-per-mass readouts during powder flow, supporting process optimization and troubleshooting in industries such as pharmaceuticals and additive manufacturing.

Collaborations and research

A great example of collaboration is the one between Granutools and the University of Bolton/Centre for Advanced Manufacturing (CfAM), which represents a significant step in advancing research and industrialization of additive manufacturing (AM). The University of Bolton, with its expertise in AM, is focused on redefining the approach to AM design, characterization, and production. The CfAM acts as a bridge between academic research and industry, offering a wide range of AM capabilities and educational programs. The integration of Granutools' instruments into their laboratory provides invaluable tools for powder flow characterization, a crucial aspect of AM. Granutools' instruments enable rapid and cost-effective analysis of powders, aligning with the CfAM's goal of supporting AM growth and optimizing processes. Granutools' commitment to similar collaborative endeavors extends across a diverse

range of applications, spanning from battery manufacturing to pharmaceutical projects.

Granutools
Rue Jean Lambert Defrêne 107 –
B-4340 Awans
Tel.: +32 (0)4 384 00 74
Email: info@granutools.com
https://www.granutools.com/en/