Connected Solutions by Retsch & Bruker for Pharma Quality Control

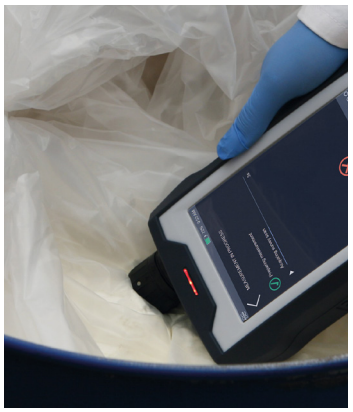
From milling and sieving to rapid material characterization, Retsch and Bruker deliver a strong portfolio of tools for pharmaceutical QC, helping teams achieve reliable results, making faster decisions, and providing audit proof documentation.

The Complete & Compliant Solutions

Retsch offers a broad range of sample preparation solutions for the initial steps of quality control workflows in the pharmaceutical industry. Milling and homogenization ensure representative samples, while particle size separation enables the generation of defined size fractions.
Bruker's vibrational spectroscopy instruments provide access to the identity of the prepared bulk material using FT-IR or handheld Raman spectroscopy. For pharmaceutical products, FT-NIR technology enables, for example, compositional analysis of tablets and powder mixtures. The major, minor, and trace elemental composition can be determined on the same sample by using Bruker XRF spectrometry.

Regulatory Compliance and System Validation

- cGMP, GLP compliance for pharmaceutical environments
- Validation and re-validation according to USP, JP and Ph.Eur. for the Bruker Instruments
- Initial verification, with periodic re-verification for Retsch Instruments
- Qualification support through IQ/OQ/PQ documentation
- Stored SOP and cycle-program functions for consistent operations
- User access control plus audit trails
- Electronic sign-off capability & records+++



Sample Preparation

Sample Analysis

Where Expertise Comes Together.

MM 400

The Mixer Mill MM 400 is a versatile **laboratory mill** for dry, wet, and cryogenic grinding of small sample volumes. It mixes and homogenizes powders and suspensions within seconds and is used for sample preparation in research and quality control laboratories.
Features: Horizontal oscillation up to 30 Hz, two grinding stations, variable grinding modes
Samples: Tablets, excipients, active substances, polymers and soft or elastic materials

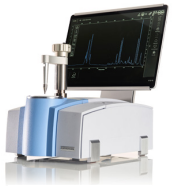
AS 200 jet pharma

The AS 200 jet pharma is a GMP conform air jet **sieving machine** designed for precise particle size analysis of fine powders. It integrates sieving, weighing, and evaluation in one compact benchtop unit for use in pharmaceutical quality control.
Features: Air jet sieving technology, integrated balance, onboard software with touch display
Samples: Fine APIs, pharmaceutical excipient powders, dry granules and low-density cohesive powders

➔ **Homogeneous samples and defined particle size enable reliable QC results**

ALPHA II

The ALPHA II is a compact **FT-IR spectrometer** with the footprint of the size of a laptop. Enhance your QA/QC processes across incoming goods, intermediates, and finished products.
Features: RockSolid™ interferometer, robust metal housing, user-friendly touch software
Samples: Organics (powders, solids & liquids)



BRAVO

BRAVO is a handheld **Raman spectrometer** built for rapid identification and verification of raw materials, combining strong spectral performance with a well thought out set of features and accessories.
Features: Measure through packaging, fluorescence mitigation (SSE™), laser class 1
Samples: Organics & inorganics (powders, tablets, solids & liquids)

MPA III

Get the complete **FT-NIR spectrometer** solution with the MPA III for your daily QA/QC work, but also for sophisticated method development studies. Due to the modular design, the instrument can easily be adapted to your needs.
Features: Measure through glass, use of fiber optics, automated sample wheel
Samples: Organics (powders, tablets, solids & liquids)

S2 PUMA Series 2

With our **XRF spectrometer** S2 PUMA Series 2 you can measure the elemental composition of your samples within minutes. The sample preparation is fast and easy (no digestion, no dilution). The spectrometer can be operated 24/7: No daily re-calibration required!
Features: Raw material ID (SMART-QUANT), rapid catalyst residual testing, XY autochanger
Samples: Inorganics (powders, tablets, solids & liquids)

BRUKER

Innovation with Integrity