3P surface DX

High-throughput analysis by four measuring-stations

High degree of automatization

Fast single and multi-point BET results

Fast dynamic BET analysis

by fully automatic analysis

3P INSTRUMENTS

Characterization of
particles · powders · pores

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AUTOMATIC BET ANALYSIS OF UP TO FOUR SAMPLES

To complete the set of BET analyzers 3P INSTRUMENTS offers a fully automated dynamic single- and multi-point sorption analyzer. The dynamic flow method is still very much in use, especially in areas, where fast analysis times and easy handling are of the essence. These fields are such as quality control or where the static volumetric method does not supply valid analysis data for a variety of reasons. Pharmaceutical products, raw materials for food or metal hydroxides and materials with crystal water inclusions are examples for the latter. The new **3P surface DX** can handle up to four samples and combines the advantages of the dynamic method with a high degree of automatization as found in the volumetric method.

AUTOMATED CONTROL

- HIGH-THROUGHPUT ANALYSIS

- HIGH DEGREE OF AUTOMATIZATION

- FAST BET RESULTS

o   Automatic adjustment of the nitrogen partial pressure

o   Automatic dewar lifting

o   Adsorption equilibrium conditions are determined automatically

o   Zeroing of thermal conductivity detector is adjusted automatically

KEY BENEFITS

3P surface DX does not use the conventional desorption process. The calculation of the peak area during the adsorption process completely avoids the test error caused by the incomplete desorption of samples at room temperature.

3P surface DX uses a 70 mL/min and 30 mL/min precision mass flow controller to automatically adjust the partial pressure of nitrogen, with high control accuracy and small error to ensure the stability and accuracy of the flow of gas passing through the sample.
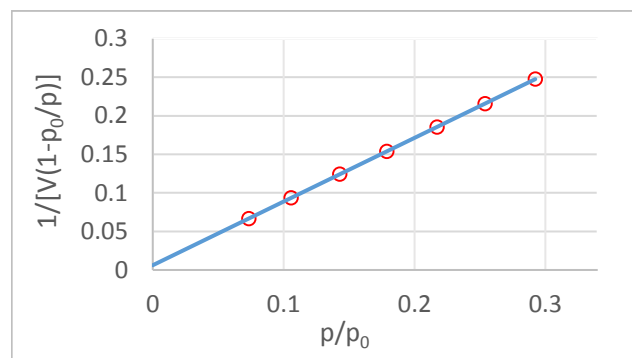
APPLICATIONS

Metalls & polymers

Glas & Ceramics

Building materials

Graphite & Carbon blacks

Pharmaceutics

Soils & Sediments

SPECIFICATION

Measurement	Dynamic flow BET method
Parameters	Single- and Multipoint BET
Analysis ports	4
Conformity ASTM	ASTM D6556
Conformity ISO	ISO 9277
Conformity DIN	DIN 66131
Repeatability	$\leq 1\%$
Accuracy	$\leq 0.5\%$
Measuring range	$\geq 0.01\ m^2/g$, no upper limits
Dimension	610 x 460 x 680 mm (L x W x H)
Weight	48 kg
Power supply	AC 220 V, 50/60 Hz, 300 W