

QCX[®] APS150 AUTOMATIC PARTICLE SIZE ANALYSER

The APS150 Automatic Particle Size Analyser uses well known Sympatec HELOS analyser to identify the particle size distribution of powder materials in plants and laboratories. Typically used in the cement industry, it provides reliable operation and precise measurements based on laser diffraction.

Laser diffraction is the established and most efficient light scattering method for particle size analysis covering a wide range from sub-micron to millimetre scale. With Sympatec HELOS sensor is the diffraction now even closer to absolute standards, considerably outmatching industrial requirements and limits.

The automatic particle size analyser is a key element to quickly and reliably determine fineness and therefore reaction behaviour of cement. With significantly increasing energy costs it helps to maintain clinker milling process.

The analyser is fully accommodated on the support stand which provides possibility of the analyser integration to the automated lab environment.

ADVANTAGES

- **Highly accurate:** as a fully automated system, the Automatic Particle Size Analyser takes human error out of the equation.
- **Improved capacity:** automated analysis means your laboratory can perform at a higher capacity and your workers are free to attend to more meaningful and complex tasks.
- **Automated laboratory compatibility:** it can be used as a standalone analyser, or it can be connected to automatic sampling and transport systems for seamless integration into a fully automatic laboratory.

FAST AND RELIABLE PARTICLE SIZE DISTRIBUTION ANALYSIS

How it works

The analyser uses Sympatec RODOS dry dispersion unit to accelerate particles with compressed air up to 100 m/s and achieves reliable and reproducible dispersion performance for analysed powder. The accelerated particles are then supplied to HELOS laser diffraction unit for a precise analysis.

Precise supply and dosing of the dry sample to the system is performed by Sympatec VIBRI unit. This unit serves also as an interface between the analyser and automated lab where the external sample distribution system (robot or manipulator) feeds the analyser via the funnel which is part of the VIBRI unit.

The analysed sample is automatically discharged and removed by external vacuum unit.

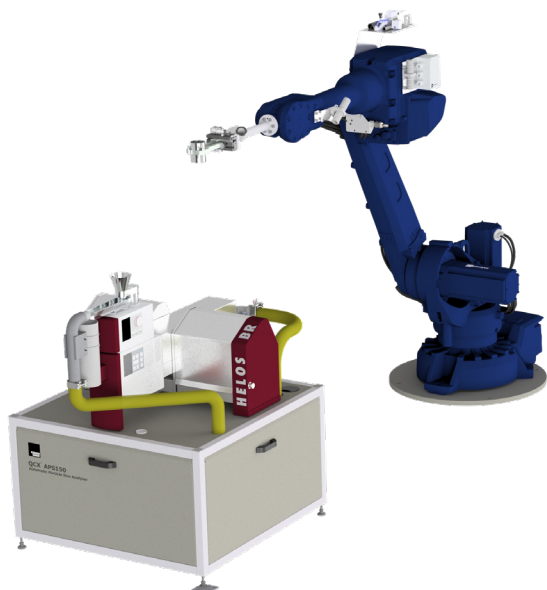
Specification

Sample material	Dry powder sample
Sample quantity	Up to 100 cm ³
Measuring range	0.5/1.8 – 350 µm
Sample frequency	Up to 20/hour
Dedusting	2,5 m ³ /min, -16 to -31 kPa
Power supply	100 - 240 V, 50 / 60 Hz
Compressed air supply	0.6 – 1.0 MPa (Quality 1.4.1 as per ISO 8573-1)
Operating conditions	Temperature: 15 to 35°C Humidity: 30 – 75 %
Weight	Approx. 180 kg
Dimensions (W x D x H)	850 x 1,060 x 1,010 mm

Possible configurations

QCX systems

The Automatic Particle Size Analyser can be integrated into any automated lab, but is best used with QCX systems, including QCX automatic samplers and sample transport systems.



APS150 with robot automation



APS150 with belt automation