

THE OPTICAL ANALYSIS SYSTEM FOR PARTICLE SIZE DISTRIBUTION (GRANULOMETRY)

coffee dust 🐰





INNOVATION IN COMPUTER VISION

SENSURE designs and manufactures, since 2007, vision systems with artificial intelligence and self-learning for:

- Identification and rejection of non-compliant products in different sectors (bakery, tiles, wood, candies, raw materials, ...).
- Management of the product flow at the entrance of packaging machines or at the exit of ovens.
- Particle size measurement in different sectors (coffee, flour, marble, wood, ...).



Industry experience

Solutions installed, for different types of products, in many countries around the world for over 10 years. The experience has allowed us to develop the best quality control features for shape, color and surface pattern.



Industry 4.0

The features of the SENSURE PICO meet the requirements for Industry 4.0.



Always at your side

We advise and follow the Customer from the initial quotation and throughout the life of our systems, through our Services (Helpdesk & Remote Assistance, Onsite Services and Spare Parts Management).

THE OPTICAL ANALYSIS SYSTEM FOR PARTICLE SIZE DISTRIBUTION (GRANULOMETRY) WITH A WIDE **MEASURING RANGE FROM** 50 TO 2.000 MICRON

PEE

Thanks to optical technology it is possible to capture the product particles and measure the main features:

Minor Axis / Major axis Perimeter / Area and equivalent sphere diameter.

PROCESS OPTIMIZATION

PICO allows optimal control of granulation processes in just a few minutes. The instrument has a high accuracy and repeatability and allows to eliminate the inaccuracies typical of long manual analyzes of traditional sieves.

REAL-TIME RESULTS

The PICO system stores every single test in the database and provides detailed reports in PDF in real-time. During the test the graph of the particle size distribution and the main statistical data are shown in real-time, allowing immediate intervention on the process.

go online

SIMPLE AND CLEAN

The machine does not require special cleaning cycles or treatments for various subsequent analysis.

Mea Sam Mea Rep mea Тур mea

Acc Clea

I up to 1.000.000

measured particles per minute





FIELDS OF USE

PICO can analyze particles from 50 µm up to 2.000 µm. A wide range of measurement for many sectors.



TECHNICAL SPECIFICATIONS

Measurement range	from 50 micron to 2 mm		
Sample weight	5 g - 100 g		
Measurement time	Proportional to the sample quantity (E.g.: a 7.5 g sample is analyzed in 1 min)		
Repeatability measure	5 micron (sample of 20 g, considering the parameter D (0,5))		
Type of measurement	Dry, in air flow		
Accessories required	None		
Cleaning system	Manual or by aspirator (estimated time 10 s)		
Measurement parameters	 Distribution graph of the particle size by volume of Equivalent sphere diameter Major axis and minimum Axis Particle shape ratio graph Quantiles D (0.1), D (0.25), D (0.5), D (0.75), D (0.9) Number of particles measured Percentage of applomerated particles 		

PERFORMANCE

	PICE	Sieves	Laser
Wide measurement range	-	•	+
Reproducibility and repeatability		-	0
High resolution for narrow distributions	-	-	+
Particle shape analysis	-	•	0
Direct measurement technique	-	-	-
Reliable detection of oversized grains	+	•	•
Robust hardware	+	-	+
Analysis of single particles		•	•
High measurement speed / Short measuring times	+	-	-
Analysis of nanoparticles	•	•	-
Versatility (No need for adjustment) / Different type of materials	•		-
Cost	÷		•
Measurement range	50 µm - 2 mm	10 µm - 125 mm	10 nm - 5 mm

Function not available

OUR PLUS

Top performance





Excellent measurement time

The PICO system is able to analyze samples of various weights even in a few seconds.

🕂 Average performance



Adaptable to every need

Customized measures, controls or alarms on the shapes of the particles or on the granulometry of the material can be requested and implemented in the system.



Efficiency and savings

The PICO system is able to produce results in line with the most advanced measurement systems based on laser diffractometry techniques at a much lower cost.



Measurement of aspect ratios

Thanks to the optical technology, the PICO system is able to measure the aspect ratio of the particles. The analysis allows to detect the wear of grinders.



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