W.S. TYLER CPA (COMPUTERIZED PARTICLE ANALYZER)



56

W.S. TYLER CPA



The patented W.S. Tyler CPA measuring process is used to analyze the grain sizes and shapes of dry and nonagglomerating particles of bulk materials in the range from 10µm to 400mm. The robust technology is virtually maintenance free; therefore, it is absolutely fail-safe and works reliably, even under extreme conditions. The CPA technology can be used to analyze coarse and fine material, such as gravel, sand, coal, plastic granules, wood chippings, chemical and pharmaceutical products, fertilizers, pet food and much more.



W.S. Tyler CPA systems are based upon energy-saving, low-maintenance technology that minimize operating costs. They are ready to connect to a PLC control system in their standard configuration and can also be integrated into online processes at a later date without modification. The results produced by the device are comparable with a conventional sieve analysis, but offer several decisive advantages, including high reproducibility of measuring results, enormous time saving, additional information related to particle shapes, and the number of particles.

W.S. Tyler CPA measuring instruments are based on digital image processing. A high-resolution, digital line-scan camera captures the particles in free-falling bulk materials against an LED lighting array. With a recording frequency reaching 28,000 line scans per second, the scanned lines are combined by the CPA to form an endless data record. The shadow projections of the particles are evaluated in real time concurrent with the measuring process. Up to 10,000 particles can be detected, analyzed, and counted every second. Due to a GigE camera interface, the CPA devices can be operated using a notebook without additional hardware modules, such as a camera card. The GigE technology has a high transfer rate of up to 1 Gb per second.



For more information, contact a W.S.Tyler representative at 1-800-321-6188 or by email at info@wstyler.com

W.S. TYLER CPA

W.S. TYLER CPA LABORATORY UNITS

PHOTO-OPTICAL PARTICLE MEASURING INSTRUMENTS



DESIGNATION		CPA 2-1 HR	CPA 2-1	CPA 2 CONVEYOR
Number of measuring ranges	[-]	1	1	1
Measuring range	[mm]	0,010 - 4	0,020 - 30	0,036 - 45 non-spherical
Feeder width / Scanning width	[mm]	18	55	65
Conveyor width	[mm]	-	-	75
Hopper volume (approx.)	[1]	0,35	1,5	4
Application	[-]	Laboratory	Laboratory	Online / Laboratory
Light source	[-]	LED	LED	LED
Dimensions (appr.) (LxWxH)	[mm]	730 x 260 x 360	800 x 200 x 355	940 x 260 x 580
Weight (approx.)	[kg]	17	16	27
Operating voltage	[V]	230 or 115	230 or 115	230 or 115
Type of protection (standard)	[-]	IP 54	IP 54	IP 54
Interfaces	[-]	BUS-Ext., GigE, USB	BUS-Ext., GigE, USB	BUS-Ext., GigE, USB
Horizontal resolution	[Pixel]	2048	2927	2048
Pixel frequency	[MHz]	60	100	60



* Shown with ultrasonic adaptor

ADVANTAGES OF THE W.S. TYLER CPA 2-1:

- Laboratory unit for particle size and shape analysis in the measuring range from $20 \mu m$ up to 30mm.
- Newest W.S. Tyler CpaServ software, intuitive handling, variety of analysis options
- Light weight easy to move
- Optimal reproducibility with short measurement times automatic feeder cleaning-LED light source, durable and energy-saving 1 Gb per second.