TOPAS®

Technologie-orientierte Partikel-, Analysen- und Sensortechnik

US-Sedimentometer

USS 791

US-Sedimentometer USS 791

Principle

The US-Sedimentometer USS 791 applies the sedimentation principle in suspensions to determine the particle size distribution of samples. The correlation between particle size and sedimentation rate due to gravity allows an accurate assessment.
The sedimentation rate is also influenced by the specific gravity, the particle shape and the density and viscosity of the suspension. All of these values must be available in order to get accurate results.
The operating principle is based on measuring the time in which certain quantities of sample accumulate in a calibrated tube. The particle size distribution is then calculated by applying Stokes' law.

Special Advantages

- Sedimentation analysis acc. to ISO 8486-2, ISO 6344-3, FEPA 43-D-T3 and FEPA 42-D-T3
- Fully automated analysis with minimal operator input
- User friendly Software (USSWin) enables visualisation, processing and storing of measured data
- Instrument has a standard serial interfaces

Applications

The operating principle of the US-Sedimentometer is based on an internationally recognised method to characterise particle properties of electro-corundum and silicon carbide and is used to determine particle size distributions of these materials. This method is part of the FEPA-Standard 43-D, which defines properties for electro-corundum and silicon carbide in coated abrasives, part 3 testing of P240 to P2500 and also the FEPA-Standards 42-D for conventional abrasives, part 3 testing of F230 to F1200.

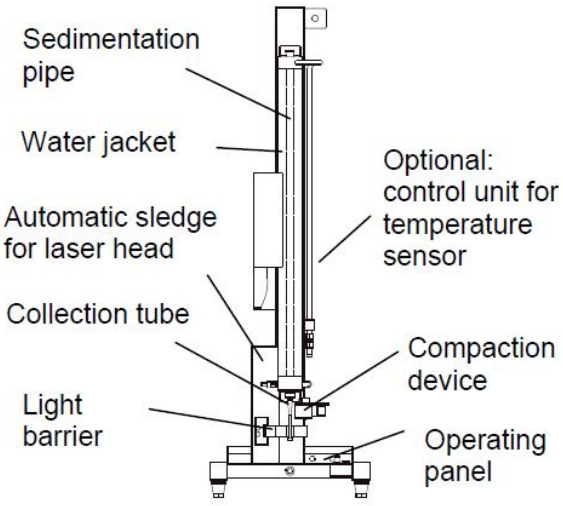
Further applications for the USS 791 are sedimentation analyses in other areas of quality assurance as well as research institutes and universities.

Laser measuring head on the USS 791

Specifications

Details

The design of the US-Sedimentometer USS 791 complies with the requirements as defined in DIN ISO 8486-2 and FEPA-Standard 43-D-T3. A thermostat with circulation pump for the temperature control can be obtained as an optional extra.
The logging of data is fully automatic. A light barrier system automatically follows the altering height of material in the collection tube. This constant increase over time is evaluated and converted into a particle size distribution with the included software by applying Stokes' Law. The data are initially stored in an internal memory and can then be downloaded with an external computer. The output of the data is in file format or in a brief report.



Schematic of the US-Sedimentometer USS 791

Technical Data

Particle size measuring range	Depends on particle material, e.g. 4-150 µm
Sedimentation pipe	1000 mm
Sedimentation suspension	Water, Methanol
Capacity of sedimentation column	approx. 290 ml
Capacity of water jacket	approx. 3 l
Light source	Laser diode, 5 mW, λ=650 nm
Microprocessor	MC68HC812A4 (Motorola)
Interface	RS 232C, 38400 Baud
Power supply	100...240 VAC, 47...63 Hz
Dimensions (L x W x H)	560 x 560 x 1500 mm
Weight (empty)	24 kg

QMS certified to DIN EN ISO 9001.

12 100 11908 TMS

For more information please visit our website at www.topas-gmbh.de

Specifications are subject to change without notice.

Topas GmbH
Technologie-orientierte
Partikel-, Analysen- und Sensortechnik
Gasanstaltstraße 47 · D-01237 Dresden

Phone +49 (351) 21 66 43 - 0
Fax +49 (351) 21 66 43 55
E-mail office@topas-gmbh.de
Internet www.topas-gmbh.de

TOPAS-GMBH.DE
PARTICLE UNDER CONTROL