

CapSee 9000 - Ensures the closure of medicinal Aluminum aerosol capsules

Description

The CapSee system is capable of ensuring that Aluminum aerosol capsules are sealed properly. Medicinal aerosol sprays such as for Asthma or SARS utilize a unique sealing mechanism. However, to ensure that the closure is complete, statistical off-line analysis of the capsule is required.

The CapSee system is composed of a specially designed saw, optical unit and special software. The operator uses the saw to cut out a section of the capsule and expose the sealing closure. The operator then puts the capsule into the optical unit.

The optical unit utilizes two high resolution B/W cameras. These cameras provide a unique view of the closure. The software automatically places the measurement lines in the correct positions and analyzes the closure's compliance with the standards. The system provides two types of measurements:

- **Laser transmissive light** - provides a profile of the outside of the capsule in order to measure the diameter at two points.
- **White reflective light** - white reflective light provides insight into the internal sealing closure - allowing the compression ratio to be measured.



Aerosol capsule inspection



The CapSee optical unit

Features

The two types of lights are activated automatically depending on what is currently being measured. As the two measurement types are on different focus planes, the system provides an option to manually switch between the two pre-focused planes.

At the end of the measurement cycle, the operator is presented with a report that can be used as proof for the accuracy of the closure. The system maintains a database of all previous reports and allows retrieval of old reports. The operator can also save images for future reference, along with the measurement values and line positions.

- Ensures the closure of the aerosol capsules!
- Automatic, safe and easy!
- High accuracy and repeatability values!
- The only custom-fit solution for medicinal aerosol capsules!
- Multilingual & under Windows(TM)!
- [Approved by Valois!](#)

Standard						
	A	B	A/B%	D	E	F
Min	0.4	1.0	0%	18.9	5.4	17.8
Nom	0.45	1.1	0%	19.0	5.5	17.9
Max	0.5	1.2	0%	19.1	5.6	18.0

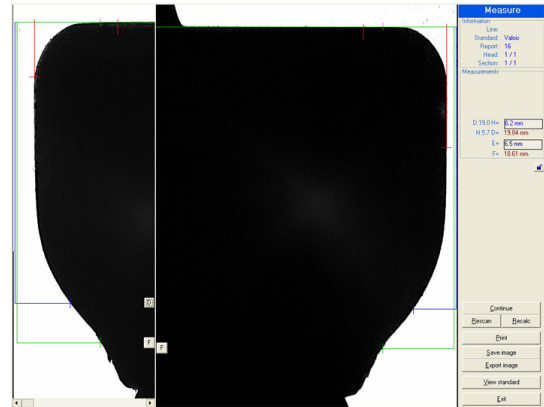
Measurements								
Head	Section	A	B	A/B%	D	E	F	H
1	1				19.85*	5.5*	18.61*	8.2
1	2	0.87*	1.23*	55%	19.83*	5.5*	18.61*	8.1
1	3				19.86*	5.5*	18.62*	8.2
1	Min				19.83	5.5	18.61	8.1
1	Max				19.86	5.5	18.62	8.2
1	Avg				19.86	5.5	18.61	8.17
2	1	0.69*	1.19*	58%	19.89*	5.5*	18.61*	8.3
2	2				19.84*	5.48*	18.61*	8.2
2	3				19.84*	5.48*	18.61*	8.2
2	Min				19.84	5.48	18.61	8.2
2	Max				19.89	5.5	18.61	8.3
2	Avg				19.86	5.48	18.61	8.23

The capsee report

Specification

Resolution	10 microns
GR&R	15% or better!
Diameters	Two preset diameters using housing replacement
Light source	Laser, white : automatically controlled
Camera	Dual HR camera design
Focus	Two focus planes, manual switch
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GR&R	15% or better!
Diameters	Two preset diameters using housing replacement
Light source	Laser, white : automatically controlled
Camera	Dual HR camera design
Focus	Two focus planes, manual switch

Pictures



The measurement screen.



The CapSee optical unit



Compression measurement



Capsules that were cut.

CapSee 9000 Measurement report

Date: 11/02/2004 18:04 Report #: Units: mm
 Standard: Valois Calibration date: 11/02/2004
 Line: 1

CapSee 9000

CapSee 9000

Measurements						
	A	B	A/B %	D	E	F
Min	0.0	0.0	20%	17.6	0.0	0.0
Nom	0.0	0.0	35%	17.7	0.0	0.0
Max	0.0	0.0	40%	17.8	0.0	0.0

Measurements						
Head	A	B	A/B %	D	E	F
1	0.3	1.85	15% "	21.25 "	8.75	18.75
2	0.0	1.45	55% "	21.25 "	8.75	18.75

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2 of 3 Cancel Close 14 of 14 Total: 14 100%

Valois report



Saw for Capsule