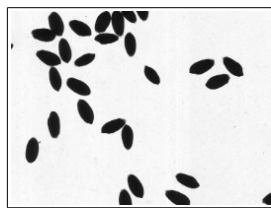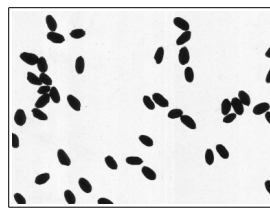# PowderShape Automatic

Analysis of particles

PowderShape Automatic is a quality control and characterization system for powders, granules, grains and all kind of particles with a grain size of 30 μm to 3 cm. It is unique in its set of features, simple user interface, and rapid characterization process, from the sample preparation to the printed certificate. The interactive reporting system has many reporting capabilities and allows to customize the histograms and measurement reports.
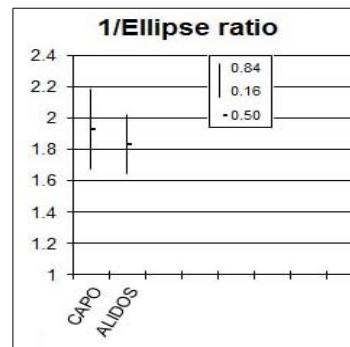
Size and shape measurement of two types of wheat grains with PowderShape Automatic
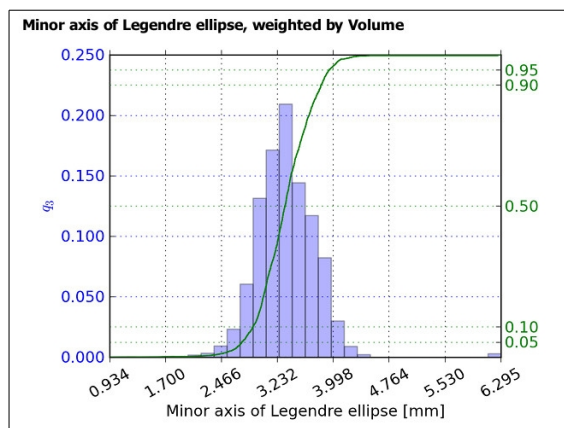

Scanned wheat grains
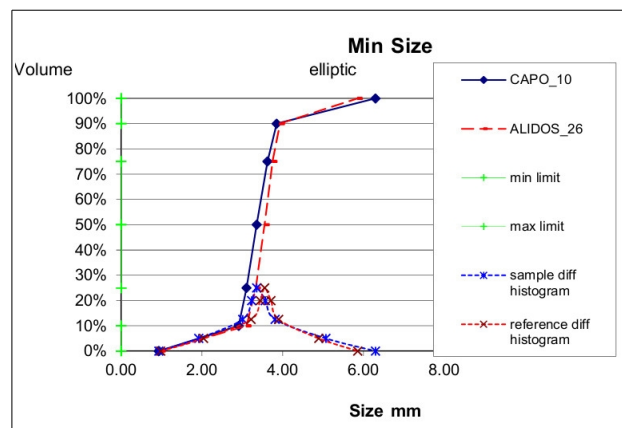(type: Capo)

Scanned wheat grains
(type: Alidos)

Comparison of ellipse ratio parameter

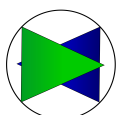Min size measurement of wheat grains type Capo

Comparison of Min Size of wheat grains type Capo and type Alidos

The characterization of grain, grits, particles, or powders with PowderShape allows to control the quality of the incomig material and to monitor the quality of the grains during processing and of the final product.

The following analysis can be done with food grains:
- Grain size analysis
- Shape analysis (e.g. aspect ratio, ellipse ratio, elongation, circularity, convexity)

Specifications:

Measurable size range:	30 μm to 3 cm in grain size
Characterization parameters:	• particle size (grain/grit size, max size, min size) • shape descriptors according to ISO 9276 - 6 such as aspect ratio, ellipse ratio, elongation, circularity, convexity • optical properties: color and transparency
Typical application:	Granules, metal powders, pharmaceutical powders, sand, aggregates, food grains, abrasive grits, seeds, pollen, etc.
Report features:	• size or shape parameters weighted by length, area or volume • diagrams: histogram and/or cumulative distribution logarithmic and linear scale • statistical quantities: mean, median, standard deviation, span
ISO Compliance:	ISO 9276 - 6
Dimensions / weight:	180 x 48 x 35 cm / 25 kg
Voltage:	220/110 V 50/60 Hz;
Specimens preparation area:	0,3 m^2
Imaging:	A4 flat bed scanner which allows to measure the objects in transmission or reflective light mode with up to 1600 dpi real optical resolution
Software:	• freely adjustable size ranges, shape and color filters • allocation of each recognized particle to the parameter values • calibration of the scanner • creation of individual user profiles • creation of individual measure masks • interactive reporting system available in English and German