1) How much sample is required for analysis?
500 NANO small samples as small as .1g to 1g

2) Does it auto focus or require the technician running the equipment to focus:
Occhio uses a telecentric lens, which provides a large focus depth, and eliminates the need for manual focusing.

3) For the analysis, how are the particles dispersed so that particles stuck together are not counted as one particle?

Aggregates are recognized by a special ,"ghost particle" algorithm, which distinguishes aggregates from multiple particles. A filter may be applied to exclude wrong data.

4) Does it take pictures of each particle that allows you to see the data on each particle? YES

5) Is there a lot of data sorting to remove unwanted particles?
No, unwanted particles may be filtered out by specifying the size or shape criteria

6) What is involved to clean the instrument to get it ready for the next sample and how long does it take?
Nothing in dry mode. Automatic background calibration eliminates any leftover particulates.
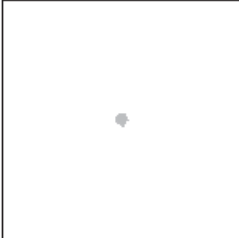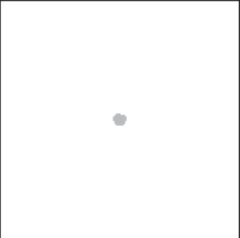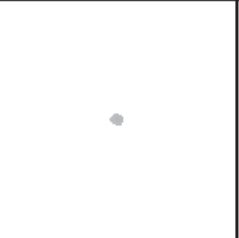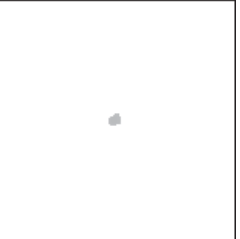
In wet mode, the flowcell is flushed, which takes a minute or two.

7) How much initial training is involved when the instrument is set up at our location?
1 DAY should suffice.

8) Are the computers compatible with required SG security software so the instrument can be put on a network? Yes

8) Are software updates free? For two years software updates are free.

9) After purchase, installation, and the initial training, does your company offer free phone and email support? Yes. We can also include additional training after 3 months.

10) How many consumables are there and what is the average cost of consumables per year?
$375 per year average

11) Do you offer service contracts? If yes, how much do they cost and what do they cover?
We recommend yearly maintenance and calibration.

12) How many are there currently out in market place? 280

13) How long have these instruments been available? 16 YEARS

14) Can it measure a wide distribution of sizes that are all mixed together? Yes

15) Can it detect undersize and oversized particles, even if they are in the ppm range?
Yes

1) How many microns per pixel? 500 NANO & FC200SHR .19µ/pixel

Using a 10,000,000 pixel camera (10 megapixels), which is the highest definition camera currently available, a 200 nm particle will equal 1 pixel. One pixel is then split in to 4 , using a software algorithm.(The equivalent of digital zoom)

Dimax 0.46 μm	Dimax 0.44 μm	Dimax 0.44 μm	Dimax 0.45 μm
Sld 96.04 %	Sld 95.64 %	Sld 96.96 %	Sld 98.43 %

It is important to make the distinction between the particle detection limits, and the limits required for morphology. The above particles are in the 400 nm range, which means they would contain approximately 16 sub pixels. While you can likely do some simple shape analysis, like length and width; parameters like roughness, and bluntness, would require higher resolution, which means larger particles, in the minimum range of about 10 microns.

If we used a 5 mega pixel camera, you would only have 8 sub pixels, and without a pixel splitting algorithm, only 2 pixels. This is the basic math that all digital imaging systems are subject to, regardless of what claims are made.