

# The NucleoCounter® SP-100™

– For total count of sperm cells and viability

## The NucleoCounter® SP-100™

The NucleoCounter® SP-100™ offers unique ease of use and effective determination of total cell concentration and cell viability in a sperm sample from ejaculates or extended doses.

The compact instrument fits perfectly in any research, quality control or production site. As the NucleoCounter® SP-100™ is very simple to operate the measurements can be performed by operators with only limited training in laboratory work.

The measurement range of the NucleoCounter® SP-100™ is virtually unlimited due to dilution prior to the analysis.

## Key Benefits of the NucleoCounter® SP-100™

- ✓ Easy operation
- ✓ 30 sec. analysis time
- ✓ No cleaning or calibration
- ✓ Maintenance and service free
- ✓ Excellent reproducibility
- ✓ No interference from gel particles in semen
- ✓ No interference from egg yolk or milk in extender



## The NucleoCounter® SP-100™ - A standard for Cell Counting

Boar



Bull



Stallion



Canine



Buck



and more

## As simple as 1-2-3



### Sample Preparation

A representative sperm sample is mixed with Reagent S100 for determination of total concentration. The reagent dilutes the sample and renders the cells permeable to the DNA stain. For determination of non-viable concentration PBS is used for dilution.



### Sampling

Load the SP1-Cassette™ with the lysate solution by immersing the tip of the cassette into the solution and pressing the piston.



### Analysis

Place the SP1-Cassette™ in the instrument. Close the lid and press the "Run" key. After 30 sec. the Total Cell count is presented on the instrument display. Optionally data is transferred to an external PC using USB connection or printed on an external printer.

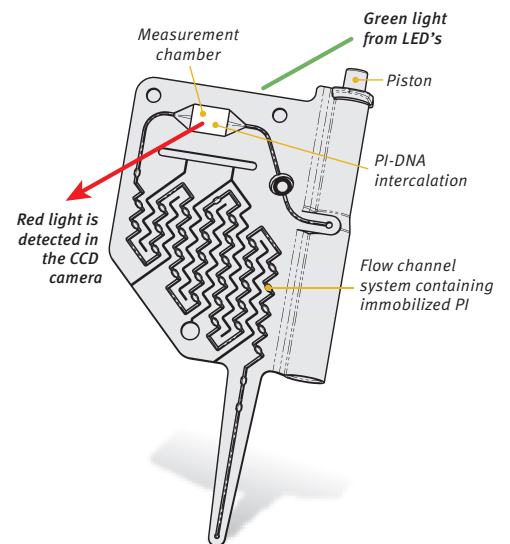
## The SP1-Cassette™

PI is immobilized in the interior of the disposable SP1-Cassette™. When the cassette has been loaded with the cell lysate the PI is dissolved and the cellular DNA is stained.

After placement in the NucleoCounter® the stained mixture is automatically transferred to the measurement chamber. Green light excites the PI-DNA intercalation and the red light emitted is registered in the CCD camera for correlation into a cell count. After analysis the sample and the PI is contained inside the SP1-Cassette™, which can be safely discarded. This offers a safe sample disposal.

The thickness of the measurement chamber of each SP1-Cassette™ is measured during production, accurately determining the analysed volume in each measurement. This, together with durable optical components, makes the NucleoCounter® SP-100™ calibration free.

As the SP1-Cassette™ contains the entire flow system as well as the measurement chamber, neither cleaning nor maintenance of the NucleoCounter® SP-100™ instrument is needed.



## NucleoCounter® SP-100™ Specifications

<b>Loading volume:</b>	60 µl is loaded into the SP1-Cassette™
<b>Measurement volume:</b>	1 µl in the measurement chamber of the SP1-Cassette™
<b>Analysis time:</b>	Total count: 30 seconds. Non Viable count: 80 seconds
<b>Measurement range:</b>	Higher than 1 mil. cells/mL
<b>Size:</b>	38 x 26 x 22 cm (W x H x D), weight 3 kg
<b>Software:</b>	SemenView™ computer software for documentation and presentation - included
<b>Printer:</b>	External printer for documentation - optional

