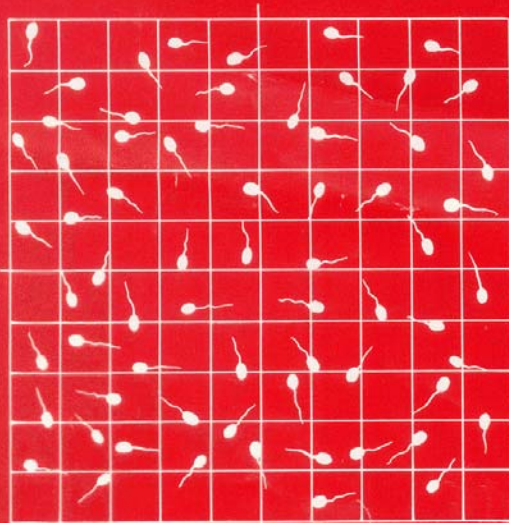
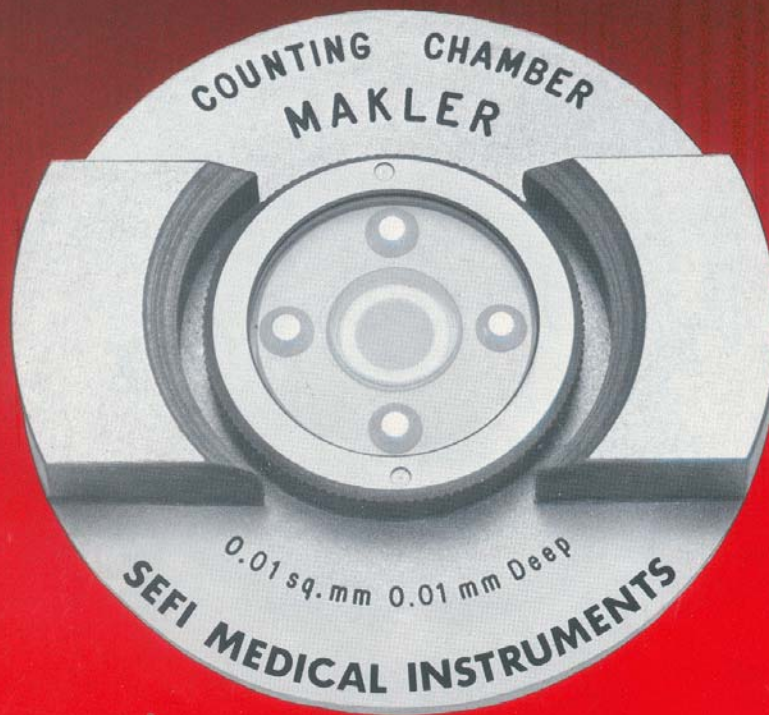


MAKLER COUNTING CHAMBER



THE NUMBER OF SPERMATOZOA COUNTED IN ANY STRIP OF 10 SQUARES INDICATES THEIR CONCENTRATION AS MILLIONS PER ML.



Sefi-Medical Instruments

P.O.B. 7295, HAIFA 31070, ISRAEL. TEL. 04-251651 TLX: 46400 EXT. 8796

The Makler Counting Chamber for Rapid Semen Analysis

Chamber Description: The Makler Counting Chamber is only 10 microns deep: 1/10th of the depth of ordinary hemocytometers, making it the shallowest of known chambers. Constructed from two pieces of optically flat glass, the upper layer serves as a cover glass, with a 1 sq.mm fine grid in the center subdivided into 100 squares of 0.1 x 0.1 mm each. Spacing is firmly secured by four quartz pins.

Analysis Technique: A small, uncalibrated drop from a well-mixed undiluted specimen is placed in the center of the Chamber by means of a simple rod and immediately covered. A microscopic objective of x20 is required.

Motility Evaluation: Non-motile sperm are counted within an area of nine or sixteen squares in the center of the grid. Moving sperms are then counted, and graded if desired. The procedure is repeated in several areas. Percentage of motility and its quality are then calculated.

Sperm Count: A part of the original specimen is transferred to another test tube for immobilization by the insertion of the tube in hot water (50°–60°): a cup with 2/3 boiling water and 1/3 tap water is suggested. A drop of the specimen is then placed in the Chamber and counting initiated: sperm heads within a ten square area are counted in the same manner as blood cells are counted in a hemocytometer, their number represents their concentration in millions per ml. In cases of oligospermic semen, sperms in the entire grid area are to be counted, representing their concentration in hundreds of thousands.

The Chamber is easily rinsed with water for reuse. Contact surfaces are wiped with special lens paper after washing.

Advantages:

1. Applied sperms are uniformly distributed and monolayered, and are observed in one focal plane, eliminating blurring.
2. Dilution is unnecessary even with concentrated specimens. Analysis is done directly from original specimen in its natural environment.

3. All spermatozoa acquire free, frictionless horizontal movement and are always examined under constant standard conditions.
4. The specimen can be analyzed quickly as an office procedure while the patient is waiting, and even by an unexperienced person.
5. Accuracy of analysis is enhanced through the elimination of the various steps required by the usual hemocytometric technique. In addition the fact that sperm motility is examined each time under identical conditions further increases accuracy. Errors incurred by uncontrolled pressure applied to the cover slip are thus avoided.
6. The 10 micron depth of the Makler Chamber is ideal for still or movie camera photomicrography, as it approximately matches the field depth of the objective used in semen analysis.
7. The Chamber is quickly and easily available for reuse. In a busy laboratory a large number of tests per hour can be made by a single technician.

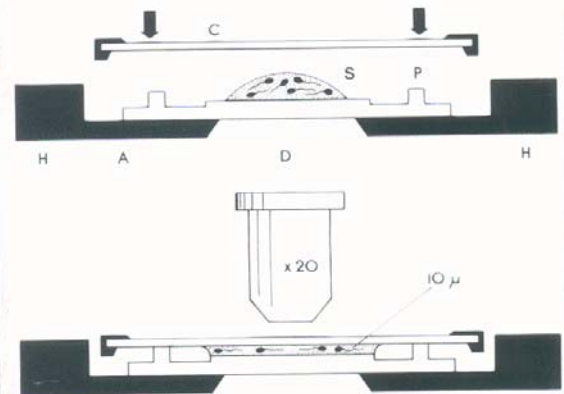
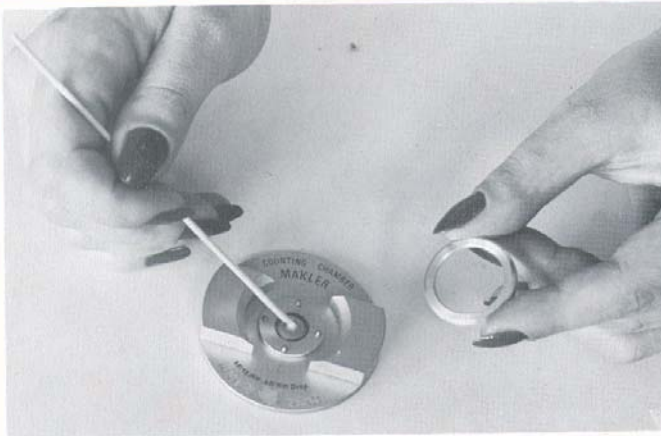
The Makler Counting Chamber is an essential feature of the still camera multiple exposure photography (MEP) method for semen analysis developed by Prof. A. Makler. This technique enables the objective determination of sperm motility from photographs of living sperm. These pictures are taken by a still camera with the aid of light pulses produced by a stroboscopic mechanism.

The MEP technique is already being successfully employed for clinical and research studies. Further information can be obtained upon request.

The Makler Counting Chamber is being sold either via direct air mail from Israel or through local dealers.

References :

1. Makler, A. : *Fertil. Steril.*, 30:313, 1978.
2. Makler, A. : *Fertil. Steril.*, 33:337, 1980.
3. Makler, A. : *Fertil. Steril.*, 30:192, 1978.
4. Makler, A. : *Fertil. Steril.*, 33:160, 1980.



To place orders write directly to:

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