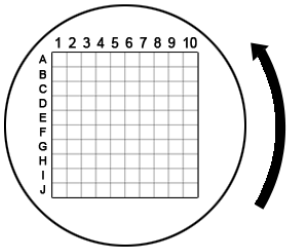
FERTILITY SOLUTIONS
THE SEMEN ANALYSIS EXPERTS™

Technical Bulletin
Reticle Calibration and Scaling Factor Calculation For Sperm Wizard SPERMOCYTOMETER®

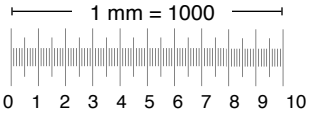
Requirements:

Microscope phase contrast with 20X objective recommended
10x10 eyepiece reticle KR406B required
Stage Micrometer KR-851 recommended

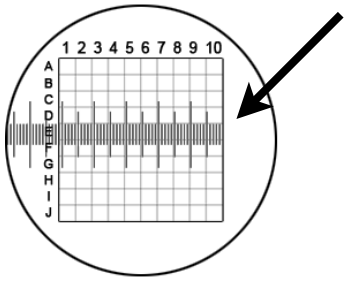
Instructions:



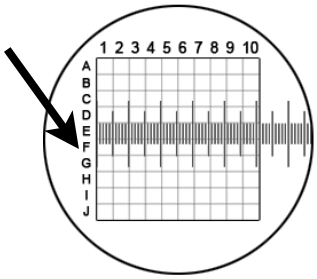
After the reticle installation, rotate the eyepiece until the grid labels are right side up and legible.



Place the stage micrometer on the stage of the microscope and select the objective used for sperm counting. Bring the stage micrometer lines into focus.



Line up one of the larger lines on the stage micrometer with the right edge of the reticle grid. Measure the distance across the row of 10 squares. Enter this number as "Width 1" on the Scaling Factor Worksheet.



Line up one of the larger lines on the stage micrometer with the left edge of the reticle grid and measure the entire grid again. Enter this number as "Width 2" on the Scaling Factor Worksheet.

Perform the calculations on the Scaling Factor Worksheet.

Scaling Factor Worksheet

Microscope: _____ _____ _____
Brand **Model** **Objective Magnification**

Technologist: _____ **Date:** _____

Width 1: _____ **Width 2:** _____ **Average Width:** _____

$$D = \frac{\text{Average Width}}{\text{\# of Squares Measured}} = \frac{}{10} =$$

$$\text{F Factor} = \frac{1{,}000{,}000}{(D)^2 \times \text{Spermacytometer Depth}} = \frac{1{,}000{,}000}{()^2 \times 20} =$$

Reticle Rules:

- The Scaling (F) Factor is only valid for the microscope **and** objective on which it was calibrated.
- Every microscope has a unique factor – the same model may not have the same Scaling Factor.
- Each objective on the same microscope has a different Scaling Factor.
- If anything on the microscope changes or the reticle is moved, the reticle must be re-measured and the Scaling Factor recalculated.
- We recommend printing the Scaling Factor, the objective magnification, and date of calibration on a label attached to the microscope.

For more information or questions:

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