



Often Imitated, Never Duplicated

HAMILTON THORNE BIOSCIENCES

Get Sperm Analysis Results You Can Trust



FAST!

Objectivity + (Accuracy x Repeatability)

Do You Want a Trusted Formula for Success?

Of course you do! And we deliver it!

With the proven performance of our sperm analyzers and our respected standing in the industry, you can **trust in both your sperm analysis results and our dedication to your success.** To meet your specific needs, we offer two analyzer models, the IVOS and CEROS, along with a comprehensive selection of options.

The screenshot displays the software interface with several data tables:

Category	Cells Counted	Sample (M)	Concentration (M/ml)	Percent
Total	540	121.1	30.3	100
Motile	376	84.4	21.1	70
Progressive	136	30.5	7.6	25

Parameter	Actual Value	Standard	Units	Status
Total Conc.	30.3	20.0	M/ml	Pass
Motility	70	50	%	Pass
Rapid Cells				

Parameter	Value	Units	Standard Deviation
Path Velocity VAP	53.9	µm/s	24.9
Prog. Velocity VSL	39.2	µm/s	23.1
Track Speed VCL	89.7	µm/s	35.2
Lateral Amplitude ALH	4.9	µm	2.0
Beat Frequency BCF	27.6	Hz	17.9
Straightness STR	70	%	22
Linearity LIN	44	%	20
Elongation	70	%	21.1
Area	3.3	µm sq	1.6

Category	Cells Counted	Sample (M)	Concentration (M/ml)	Percent
Rapid	4	324	72.7	18.2
Medium	3	52	11.7	2.9
Slow	2	132	29.6	7.4
Static	0-1	32	7.2	1.8

The IVOS and CEROS provide:

- Accurate, objective and repeatable results
- Rapid analysis - **ONE second** per analysis field
- 4-level quality control
- Labor savings
- High level data security

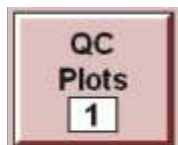
Detailed analysis results include:

- Counts & Concentrations
- Motility & Progressive Motility
- W.H.O. Comparisons (or standard comparisons for non-human software)
- 3 Velocity Measurements: VAP, VSL, VCL
- Plus LIN, ALH, STR, BCF

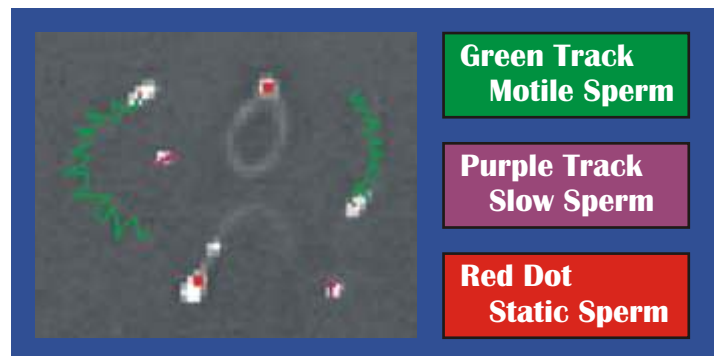
Built-in Quality Controls Ensure Analysis Accuracy



View **PLAYBACK** to confirm motile and static sperm identification. Color-coded tracks indicate motile and slow sperm, while red dots identify static sperm.



The interactive **QC Plots** provide 3 levels of quality control for static sperm identification. Immediately recalculate last analysis with new settings, without losing captured fields.



Ability x QC) + Reputation = TRUST

Which System Is Right for You?

IVOS Sperm Analyzer

If high-end performance using the published standard is key for your lab, then the IVOS is the best option.



- **Automation** for speed, accuracy and highest level of repeatability
- Pre-selection of fields for **fastest analysis**
- All optics components combined into one integrated unit - **the microscope is inside!**
- Strobe illumination provides **sharpest imaging**
- Automated stage for **precise temperature control and sample positioning**
- Optional IDENT **fluorescence capability**

CEROS Sperm Analyzer

If you require the objectivity and accuracy of automated analysis, but at a more affordable price, then choose the CEROS.



- **External microscope** (included) saves space - computer can be stored under the lab bench
- **Familiar**, standard microscope illumination
- Portable **MiniTherm Stage Warmer** maintains samples at 37°C
- **X-Y stage movement** increases number of fields available for motility and morphology analyses
- **Cooled stage option** for aquatic species

Easy to Learn, Easy to Use

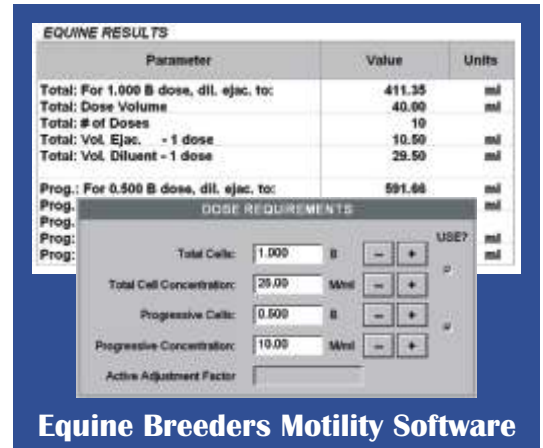
You don't need to be a computer expert to analyze sperm with the IVOS or CEROS.

- Intuitive software interface makes operation easy
- Up to 7 analysis setups (including optic calibrations) may be stored to memory and selected at the touch of a button
- Sample information and patient/animal details easily entered from keyboard
- Simply place the sample chamber on the stage, focus the image, select the fields, and begin analysis
- On-site customized installation and training provided with all new systems

Animal-Specific Sperm Motility Software

Clinics, zoos, breeding facilities, animal research - our systems can handle it all! You may chose between three "animal-specific" software packages, depending on your need.

- **Equine Breeders:** Automatic dose calculations for fresh or frozen semen based either on total or progressive sperm. Equine specific data output
- **Animal Breeders:** For use at any animal breeding facility (except swine). Automatic dose calculations for either fresh or frozen semen storage
- **Animal Motility:** Perfect for any animal research application (non-rat). Calculate sperm/gram of cauda epidydimus with IDENT

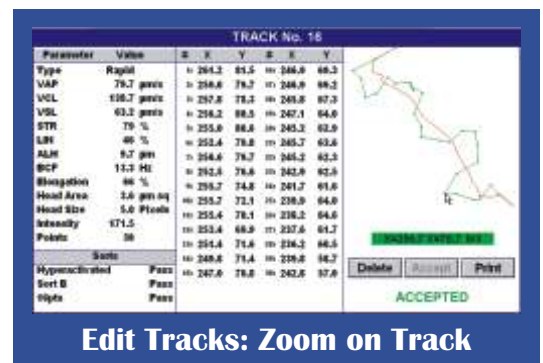


Equine Breeders Motility Software

Need More Power for Your Sperm Analysis System?

Research Options

- **Edit Tracks:** View and store detailed data for individual sperm tracks. Also used for validation procedures
- **Sort:** Study specific subpopulations of sperm. Determines fraction of cells within user-specified limits on: FRAMES, VCL, VSL, VAP, LIN, STR, ALH, BCF, HEAD SIZE and ELONGATION
- **IDENT Fluorescence (IVOS only):** Two separate stains available:
 - **IDENT Stain:** For highest precision in sperm counting
 - **VIA-DENT Stain:** Live-dead stain for percent viability



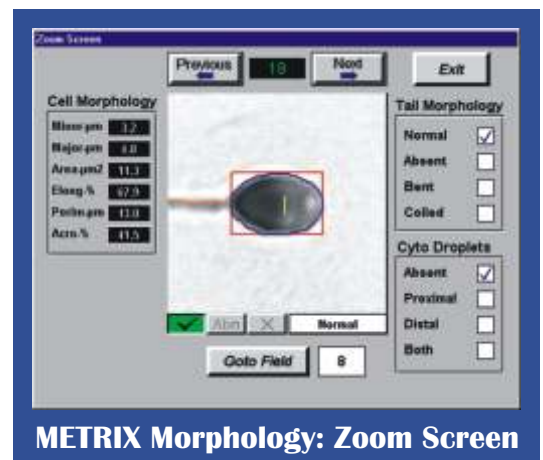
Edit Tracks: Zoom on Track

Data Management Options

- **Report Filing System:** Design three one-page custom reports and store all analysis reports as computer files
- **HDATA ASCII Export:** Transfer summary data and/or individual track data to spreadsheet, database or other ASCII-compatible programs
- **Digital Image Storage:** Store exact fields analyzed to hard drive, CD or DVD. Retrieve and reanalyze stored analysis fields

Morphology Options

- **Dimensions Strict Morphology (human):** The **only validated program** to classify sperm according to **STRICT criteria**
- **Metrix User-Defined Morphology (multispecies):** Learns and applies your definitions of normal and abnormal sperm
- **Real-Time Morphology:** A real-time method of visually scoring gross morphology of unstained sperm (subjective). Not compatible with all species when used on IVOS analyzer



METRIX Morphology: Zoom Screen

Call or write today for more information.