






MES Line of Sperm Analyzers Comparison Table

Item	SQA-Vision	SQA-V <i>Gold</i>	QwikCheck GOLD	SQA-iO	YO Home Test
General view					
Certificates	FDA, CE, ISO 13485, ISO 9001	FDA, CE, ISO 13485, ISO 9001	FDA, CE, ISO 13485, ISO 9001	FDA, CE, ISO 13485, ISO 9001	FDA, CE, ISO 13485, ISO 9001
WHO compliance	WHO 5th	WHO 5th	WHO 5th	WHO 5th	WHO 5th
Technol.	PC-based system. Combines technology in optoelectronics, computer algorithms and video microscopy. Signal processing: Two independent channels capturing Motility and Concentration provide direct measurements of semen with a high level of accuracy and repeatability.	Standalone device with PC data management software. Combines technology in optoelectronics, computer algorithms and video microscopy. Signal processing: Two independent channels capturing Motility and Concentration provide direct measurements of semen with a high level of accuracy and repeatability.	Standalone device. Combines technology in optoelectronics and computer algorithms. Signal processing: Two independent channels capturing Motility and Concentration provide direct measurements of semen with a high level of accuracy and repeatability.	PC-based device. Combines technology in optoelectronics and computer algorithms. Signal processing: Two independent channels capturing Motility and Concentration provide direct measurements of semen with a high level of accuracy and repeatability.	Standalone device with a smartphone interaction. Electro-optical image processing. Results and sperm video are automatically displayed on a smartphone screen.
Intended use	Analytical device for semen assessment in IVF, clinical laboratories, andrology centers, sperm banks and research centers.	Analytical device for semen assessment in clinical laboratories, andrology centers, sperm banks and research centers.	Analytical device for semen assessment in reference labs and physician offices.	Analytical device for semen assessment in smaller or remote labs/MD offices.	OTC semen assessment medical device for home use.
User Interface	Touch-screen menus for easy navigation. Online help menu/user guide interface. Warning for calibration issues and maintenance. Automated counters, timers, calendars.	Data entry in the SQA-V via numeric keypad with automatic data transfer to the PC based V-Sperm software for further data input and easy navigation flow.	Numeric keypad data entry. Service and settings, testing instructions and test results.	Cloud based, PC user interface guides the operator through the process of device installation, settings, testing and getting report.	Smartphone interface. Step by step instructions for running the YO test, animations, and a YO Sperm Trivia Challenge.
Parameters	Up to 16 semen parameters.	Up to 16 semen parameters.	Up to 16 semen parameters.	Up to 10 semen parameters.	Motile Sperm Concentration and YO (fertility) Score.
Precision	High precision (CV < 6%) due to adequate sample size and biological calibration of the system by manufacturer.	High precision (CV < 6%) due to adequate sample size and biological calibration of the system by manufacturer.	High precision (CV < 6%) due to adequate sample size and biological calibration of the system by manufacturer.	High precision (CV < 6%) due to adequate sample size and biological calibration of the system by manufacturer.	High precision (inter-site CV < 3%). Positive and Negative Percent Agreement (PPA & NPA), and accuracy are >95%.

Visual.	High resolution digital CCD (1280 x 1024 pixels) captures a high # of frames per second for "live" and "frozen" images; Objective: x40 with chromatic aberration correction; Highly magnified images are displayed on a large PC touch screen; Zoom for smooth magnification transition from x1188 to x1725. Captures both static and dynamic images for sperm counting, debris scanning, vitality, and differential morphology assessment.	300-500 x magnification for capturing static and dynamic images, and scanning sperm cells in post vasectomy mode	No visualization	No visualization	Sperm video is automatically displayed on a smartphone/pc/ipad screen.
Testing modes	Fresh, post vasectomy, washed, swim-up, density gradient and frozen semen samples as well as longevity, morphology differential, vitality, and DNA fragmentation testing.	Runs fresh, post vasectomy, washed and frozen semen samples.	Runs fresh, washed, and frozen semen samples.	Runs fresh semen samples.	Runs fresh semen samples.
Sample preparation	No sample dilution except optional 1+1 for low volume specimens	No sample dilution except optional 1+1 for low volume specimens	No sample dilution except optional 1+1 for low volume specimens	No sample dilution	No sample dilution
Conc. chamber standard	Hemocytometer (2) and non-dilutional chambers (1)	Hemocytometer (2) and non-dilutional chambers (1)	Hemocytometer (2) and non-dilutional chambers (1)	Hemocytometer (2) and non-dilutional chambers (1)	NA
Set-up defaults	Extensive user options. WHO 3 rd /4 th or 5 th criteria, QwikCheck Beads set-up with barcode scanner.	Can run either WHO 4 th or 5 th (separate software). Set-up bead, chamber standard and printer options.	Can run either WHO 4 th or 5 th (separate software). Set-up beads defaults.	Run WHO 4 th , 5 th	NA
External QC	Beads and stabilized sperm.	Beads and stabilized sperm.	Beads and stabilized sperm.	No	No
Sample size	500 µl	500 µl	500 µl	500 µl	25 µl
Languages	Available in many languages			Available in many languages	Available in many languages