



5757 W. Century Blvd, Suite 805
Los Angeles, CA. 90045
Website: www.atechagricultural.com
Email: sales@atechagricultural.com



SQA-Vp / P-Sperm Working Instructions for Sample Processing

Startup:

- Turn on power switch from the rear panel of the instrument.
- Press the on/off button on the front panel (system will calibrate for 5 minutes and leave you at the main menu).
- Dilution Cup Preparation: Fill dilution cups with 2ML of extender and place cap on cup. Place cups in "dry bath" and let sit for at least 4 minutes.
- Testing Capillary Preparation: Load capillaries into dry bath making sure they are facing the correct way (they should sit all the way down in the relief).

Preparing a **FRESH** sample for analysis:

- Weigh sample for accurate volume.
- Swirl and rock the sample for 5 seconds to ensure a good mix.
- Remove 220 micro liters from the sample using the A-Tech supplied pipette (make sure you use a fresh blue tip).
- Add the 220 micro liters of semen to your warmed 2ML dilution cup.
- Place the cap back on the dilution cup and swirl the sample clockwise and counterclockwise for 5 seconds to ensure effective mixing.
- Your sample is now ready for testing.
- Leave the diluted sample and the testing capillary in the dry bath until test time.

Preparing an **EXTENDED QC** sample for analysis:

- Mix dose by rocking it back and forth for 5 seconds.
- Open dose and eject 2ML of sample into an EMPTY sample cup.
- Place cap on sample cup and place in dry bath for 4 minutes.
- After 4 minutes, the sample is ready and it is time to enter your QC Dose information into the SQA-Vp.
- Leave the sample and the testing capillary in the dry bath until test time.

Selecting **FRESH** or **EXTENDED** mode:

- From the main menu, highlight the "Service" option and press enter.
- Scroll down to "Settings" and press enter.
- Select "Fresh" or "Extended" mode using the arrow keys.
- After selection, hit "Enter" key multiple times until you reach the service menu again.
- Press "Escape" to exit the service menu and return to the main menu.

Entering sample information:

- To begin a test, select "Test New Sample" from the main menu.
- Enter your sample information including Boar ID, Volume, Date, Sample Number etc... NOTE: Only the Boar ID and sample volume are absolutely necessary to process a sample, the rest can be skipped if desired.
- After entering your information, hit enter key again to advance the system into auto-calibration mode.

Loading the Capillary and Testing The Sample:

- When the system finishes calibration, it will "Beep" at you.
- At this point, mix your sample again (by swirling gently in both directions) to ensure even distribution.
- Remove the cap from the sample cup leaving the cup in the dry bath.
- Grab a testing capillary from the heating block and exercise the plunger one time out and in to prepare it for aspiration.

- Hold testing capillary at a 90 degree angle, dip the tip of the capillary into the sample and pull back on the plunger to fill the capillaries testing chambers.
- You will know the capillary is filled when you see sample appearing in the syringe past the testing chambers and blue stopper.
- Check the capillary CLOSELY for bubbles (big chamber and thin front chamber).
- If no bubbles are present, push down on the blue stopper to seal the sample in the testing capillary.
- Wipe of capillary tip with a Kim-Wipe away from the capillary opening using a gentle "pinching" motion.
- There should be NO sample on the outside of the testing capillary prior to analysis.
- When the SQA-Vp prompts you, insert the capillary into the testing chamber and wait 45 seconds for your result!

QwikClick Droplet Analysis:

- After testing completes, the system will give you the option of IMPORTING the test into P-Sperm (the computer software).
- In P-Sperm, click the "IMPORT TEST" button to transfer your test results (NOTE: QwikClick droplet counter will pop up automatically after import).
- Immobilizing the sperm: In order to asses droplets you will need to kill the sperm. Add 2 drops of Formalin to the sample cup and swirl for 2 or 3 seconds.
- Preparing the visualization slide: Using the 10 micro liter fixed pipette and a fresh pipette tip, aspirate 10 micro liters of sample and deposit it on the front quarter of the slide. NOTE: slide must be a standard 1inch x 3inch microscope slide.
- Place a 22 x 22mm cover slip on the sample drop. Make sure the edge of the cover slip is close to the front edge of the visualization slide.
- Place the slide in the "slide adapter". Make sure the slide is pushed all the way to the back of the adapter until you hear a seated "click" noise.
- Insert the slide adapter (with slide loaded) into the visual system and use the blue focus knob to find the sperm.
- Use the silver wheel on the slide adapter to change fields of view, and the blue focus knob to change the phase of the image as well as to re-focus.
- Using the F1 key (no droplet) and F2 key (droplet) count 50~100 sperm.
- As you see sperm without droplets, click the F1 key. As you see sperm with droplets click the F2 key.
- When you are finished click "final calculation" to update the automated morphology result for greatest possible accuracy.

Final steps:

- After completion, the Qwikclick counter will close, and your dosing menu will pop up.
- Select your desired values for dosing method, total sperm per dose required, dose volume, etc.
- The dosing menu will then tell you how much extender to add to the sample in order to achieve your desired input values.
- When complete, hit "save and close" to archive the results!

For additional assistance or specific questions please visit our website: www.a-tech-global.com