SQA-Ve Sperm Quality Analyzer for Stallions

The SQA-Ve is an analytical veterinary device that performs a complete quantitative evaluation of equine semen in less than 1 minute. This high performance, user-friendly system will standardize processes, enhance through-put and increase the accuracy and quality of semen analysis and AI dose preparation for fresh, extended and frozen equine semen.

Automated Semen Analysis in less than 1 minute! FRESH Mode: Tests fresh semen & calculates how to prepare frozen or extended AI doses based on total, motile or progressively motile sperm concentration. Select target values for concentration and maximum volume per dose.

EXTENDED Mode: Tests extended samples prior to insemination to determine the quality of the sample.

FROZEN Mode: Tests frozen equine semen prior to insemination to determine the quality of the sample.

Features

- Tests fresh, frozen and extended semen
- Automated dosing
- User-friendly with precise screen directions and minimal key-strokes
- FDA and CE certified
- QC: Self-testing, self-calibrating.
- Visualization system (x300 to x500 magnification)
- Disposable and reusable testing capillary
- Data export to a PC in formatted Excel tables or in .csv format



Automated Tests

- Sperm Concentration
- % Motility
- % Progressive Motility
- Motile Sperm
 Concentration (MSC)
- Progressively Motile Sperm Concentration (PMSC)
- % Morphology
- Velocity

Performance Claims

Specificity

- Concentration: 90%
- Motility: 90%
- Prog Motility: 80%
- Morphology: 85%

Sensitivity

- Concentration: 90%
- Motility: 90%
- Prog Motility: 90%

Correlation to Manual

Method

- Concentration: 0.9
- Motility: 0.9
- Prog Motility: 0.8
- Morphology: 0.7



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To begin testing fresh semen, first enter stallion and sample information.

ENTER SAMPLE DATA: FRESH

DATE: 01/04/05 TIME: 08:15 STALLION ID: SAMPLE #: 1 100.0 ml SEMEN VOLUME: PERFORM DOSING? YES/NO DOSING TYPE: EXTENDED/FROZEN

If the fresh sample is to be divided into doses for insemination, select dosing preferences.

DOSING SETTINGS: EXTENDED

DOSING BY: TOTAL/MOTILE/PROG. MOTILE 500 M MINIMUM # SPERM CELLS PER DOSE: 50 M/ml CONCENTRATION TARGET: MAXIMUM DOSE VOLUME: 30.0 ml



TEST RESULTS: FRESH SAMPLE

CONC. 150.0 M/ml MSC 116.9 M/ml MOTILITY 77.9 % PMSC 83.9 M/ml VELOC. 106 mic/sec PROG. MOT. 55.9 %

MORPHOLOGY 76.4%

TOTALS PER EJACULATE # SPERM 15.0 Bil MOT. SPERM 11.7 Bil PROG. SPERM 8.4 Bil

The SQA-Ve reports test results in less than one minute.

DOSE PREPARATION: EXTENDED

PROG. MOTILE DOSING BY: SEMEN VOLUME: 100.0 ml 235 ml EXTENDER VOLUME: TOTAL VOLUME: 335 ml # DOSES: 17 # SPERM CELLS / DOSE: 503 M DOSE VOLUME: 20.0 ml

Dosing instructions are calculated and displayed based on the preferences previously selected by the user.

All testing and dosing information can be exported to a comprehensive table.

SQA-Ve Equine Test Results: FRESH SAMPLES																		
SQA-Ve (EQUINE) SAMPLE DATA									TEST RESULTS									
Date	Time	Stallion	Sample			Perform	Dosing	Conc.,	Motility,	Prog. Morph.,		MSC,	PMSC,	Velocity,	# Sperm,	Mot.	Prog.	
		ID	Туре	ID#	Volume, ml	Dosing?	Туре	M/ml	%	Mot., %	%	M/ml	M/ml	mic/sec	Bil	Sperm, Bil	Sperm, Bil	
10/1/2008	18:03	123	Fresh	1	90	Yes	Extended	152.6	52.4	46.0	62.0	79.9	70.2	93	13.7	7.2	6.3	
14/1/2008	10:10	15	Fresh	3	110	Yes	Extended	63.2	72.1	44.1	73.1	45.5	27.9	91	7.0	5.0	3.1	
14/1/2008	10:15	159	Fresh	4	55	Yes	Extended	214.4	85.2	83.7	80.6	182.6	179.4	125	11.8	10.0	9.9	
14/1/2008	10:26	456	Fresh	5	40	Yes	Extended	109.1	67.1	50.6	70.3	73.2	55.2	99	4.4	2.9	2.2	
14/1/2008	10:29	147	Fresh	6	60	Yes	Extended	87.6	83.5	82.0	79.6	73.2	71.9	125	5.3	4.4	4.3	
14/1/2008	10:34	143	Fresh	7	100	Yes	Frozen	84.3	46.2	44.9	58.5	38.9	37.8	92	8.4	3.9	3.8	
14/1/2008	10:38	158	Fresh	8	85	Yes	Frozen	62.3	9.9	9.4	N/A	6.2	5.9	16	5.3	0.5	0.5	
14/1/2008	10:45	120	Fresh	9	75	Yes	Frozen	138.9	75.0	52.7	74.8	104.2	73.2	102	10.4	7.8	5.5	
14/1/2008	11:07	118	Fresh	10	65	Yes	Extended	71.0	67.5	40.3	70.6	47.9	28.6	85	4.6	3.1	1.9	

