

Rhino VET 360 Refractometer quickly and accurately determines urine specific gravity and protein concentration in plasma, serum and peritoneal fluid.



Introducing the Rhino-rugged water resistant, dustproof, and shock resistant hand-held refractometer

- Improved optics – easy to read
- Automatic Temperature Compensation – accurate measurements at any temperature
- No batteries required – reliable any time
- Water resistant and dustproof – IP67 rated, sealed internal optics cannot be contaminated
- Shock resistant – drop tested from 3 feet
- Ideal for use in the office or outdoors
- Test takes only seconds
- Large and small animal scales in one instrument

The Reichert VET 360 uses Automatic Temperature Compensation to provide accurate readings regardless of ambient temperature. The unit automatically corrects all readings back to the Standard Reference Temperature of 68°F (20°C). This provides much greater accuracy than urinometers or reagent strips can offer.

Rhino VET 360 Veterinary Refractometer

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| Catalog No. | 137536L0 |
| Scales | Urine Specific Gravity: Small Animals, Urine Specific Gravity: Large Animals, Serum Protein |
| Accuracy | Urine Specific Gravity: ± 0.001 Serum Protein: ± 0.2 g/100mL |
| Range | Urine Specific Gravity: 1.000-1.060 Serum Protein: 2.0 - 14.0 g/100mL |
| Chassis | Rugged, Sealed Waterproof Xenoy® Polymer Body |
| Optics | All glass |
| Weight | 5.7 oz. (162.4 grams) |
| Size | 9.2" L x 1.6" W x 1.6" H (235mm x 38mm x 38mm) |

Xenoy® is a registered trademark of GE



For more information, contact
Reichert Analytical Instruments.

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Equine Dehydration and the VET 360 Refractometer

The requirements placed on Performance and Show horses can be extremely demanding. Factors such as distance, speed, terrain and climate, as well as the horse's own

physiologic responses to exercise can all affect the level of water lost during an event.

In endurance events, water losses tend to occur early in the ride and often persist even a day after the ride. Even more troublesome is the fact that further fluid loss occurs in the trailer on the return trip home. Horses do not typically drink enough water to replace losses endured during an event, so the number of dehydrated equines is quite high.

One method used to detect dehydration

is the "Skin Pinch." This method, however, lacks the ability to provide reproducible results. In addition, problems are often not evident in the early stages of dehydration. That's why continuously monitoring "water level" dehydration with a more accurate method is critical.

The Reichert VET 360 is a specialized analytical tool for providing an index of dehydration. Simply place a drop of urine or serum on the prism to obtain a direct reading. The repeatable, accurate results help in effectively monitoring the health of horses and other animals.



References:

Oosterbaan, DVM, PHD. *Equine Athlete*, Vol 8, No. 3, Pg 7.

"The Treatment of Exhausted Horses."

Ecker, Dr. Gale L. *Management of Horses Participating in Endurance Rides. The Compendium*. 1996. Pgs. 566-567

References:

Hawkins, Jan F, DVM. "Peritonitis in Horses: 67 Cases". *JAVMA*. Vol 203, No 2, July 15, 1993.

Erinden, CB. *Equine Vet Journal*. Volume 22, Pg. 359. 1990

Diagnosing Peritonitis with a refractometer

Though Colic is common in the equine practice, correctly diagnosing its severity and recommending the proper treatment is critical. Often, no definitive findings can be revealed through physical examinations.

The evaluation of abdominal or peritoneal fluid has been described as one of the most important clinical tests that can be conducted when determining the need for surgical intervention. Peritoneal fluid provides important information as to the nucleated cell count, bacterial growth, and protein concentrations levels.

Elevated protein levels can be directly related to the inflammatory condition of the equine. In the early stages of a Strangulated Obstruction, total protein values range between 1.6-2.6 g/Dl. The normal range is 1.0 - 1.5 g/Dl. As the condition worsens, total protein values range from 2.6-4.0 g/Dl and the equine begins to go into shock. In the most severe cases, total protein levels can exceed 4.0 g/Dl which requires immediate surgery. It is at this critical stage where bacterial growth matures and the color of the Peritoneal Fluid has changed from orange to blood tint.

Studies have shown that when evaluated in series, abdominal fluid color and specific gravity have a high positive predictive value for Lesion type. In addition, several studies advocate measuring total protein concentrations as a significant prognostic indicator of Colic.

The VET 360 refractometer is a valuable diagnostic tool for assisting with an on-the-spot diagnosis. It provides quick and accurate total protein concentrations and specific gravity results. When a decision must be made immediately, the Reichert VET360 can be an Equine's Best Friend.

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