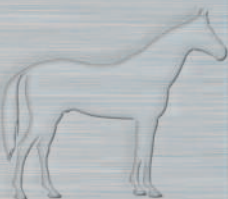
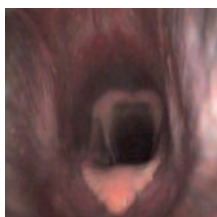
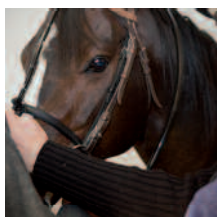




# DRS<sup>®</sup>

## Dynamic Respiratory Scope

So much more than  
just an endoscope...



  
Optomed



# DRS<sup>®</sup>, going beyond endoscopy...

DRS<sup>®</sup> technology allows veterinary surgeons to make a **precise diagnosis of equine upper respiratory tract disorders** that result in poor performance and/or abnormal respiratory noises during exercise.

Although resting endoscopic examination is helpful in identifying some upper airway disorders, 70% of respiratory disorders that lead to narrowing of the airways only occur during exercise. Until now, the diagnosis of such dynamic respiratory obstructions was obtained via high speed treadmill endoscopy. However, high speed treadmill endoscopic examinations can not be performed in the field, and do not allow examination of the horse in its natural exercising environment.

**The technology and specifications of the DRS<sup>®</sup> enable you to take it directly to the horse** (in a stable, a training centre, etc...) **and to carry out the respiratory examination under the horse's natural training conditions.**

Exercising the horse in its normal environment allows factors such as the presence of the rider, training equipment and tack, and the ground conditions to be taken into account. There are just some of the many factors that can influence respiratory function that cannot be accounted for during treadmill examinations.



\* P. J. POLLOCK, R. J. M. REARDON, T. D. H. PARKIN, M. S. JOHNSTON, J. TATE and S. LOVE  
*Equine vet. J. (2009) 41 (4) 354-360*  
L.-M. DESMAIZIERES, N. SERRAUD, B. PLAINFOSSE, A. MICHEL and Y. TAMZALI  
*Equine vet. J. (2009) 41 (4) 347-352*



# DRS<sup>®</sup>, a daily ally for the veterinary surgeon

The current view of equine upper respiratory surgery is somewhat unfavorable.

Treatment outcomes have been less than favorable for some airway disorders. However, this is likely due to performing inappropriate surgical procedures based upon a presumptive diagnosis obtained from historical findings and /or endoscopic examination at rest.

With an accurate diagnosis, appropriate treatment can be performed, and more favorable outcomes should result. Thanks to a major technological innovation, the DRS, it is now possible to achieve this standard in the field and a horse's normal exercising conditions.

DRS<sup>®</sup> is the only embarked endoscope available in 2 versions depending on your activity :

- **New Saddle pad version : the DRS<sup>®</sup>'s processor-battery and transmitter-recorder devices are fixed on each side of the saddle pad, on the horse**
- Sulky version : the system (processor- recorder) is fixed on the sulky with a fitted bag.



## Practical sequence of an examination



**1** The endoscope is installed in one of the horse's nostrils



**2** The endoscope is strapped to a special DRS bridle



**3** The processor is attached to the saddle pad



**3 bis** The transmitter-recorder is attached to the saddle pad



**4** The system (processor-recorder) is attached to the sulky



**5** The examination is displayed on the receiver's screen of the veterinary bag in real time

**DRS<sup>®</sup> is a very easy system to use :**

- Time to install : 5 min
- Requires 2 people :
  - A vet
  - A horse handler.



# DRS<sup>®</sup>, focused cutting-edge technology...

DRS<sup>®</sup> is a video-endoscope designed to enable respiratory endoscopic examinations to be performed during exercise. **The DRS system is quick and easy to attach to the horse, and is not distressing for the horse and the rider.**

The entire system is **battery operated** for portability. The recorder device (attached to the horse) records examination in digital format on a removable USB key which can be viewed on a computer once the examination is completed. Both examination **videos** and **sound** can be recorded. **The remote transmitter system (attached to the horse) allows real time viewing of the examination on the wireless receiver screen (hand held) as well as monitoring of correct positioning of the endoscope in the airway.** An automatic washing system cleans the **endoscope lens every 30 seconds** to prevent mucus or organic debris from obstructing the lens.

Finally, the technology of the endoscope itself **provides a stable image of exceptional quality allowing a precise diagnosis to be reached.**

## DRS<sup>®</sup> and SICRE<sup>\*</sup>, an effective association to manage videos and create report examination

Thanks to transmitter-recorder, **you can digitize examination videos on a USB key.** Once the videos are downloaded onto a computer, **the SICRE software allows viewing of the video recording in slow motion, creation of short video clips, and acquisition of still images for examination reports.** Reports, pictures, and video clips are stored and can be accessed via different sorting criteria (disease, name, date, etc.). The images and reports can also be emailed to owners, trainers, and/or veterinarians as well.

**\*SICRE :** Interactive system to create examination reports



## Technical specifications

### 1 Video-endoscope

Flexible probe perfectly stable during exercise (Ø 9,8mm, useful length 1m) - Self lighting head with new generation LED (equivalent to xenon light source 100w) - CCD sensor 1/6" high sensitivity - 480 000 pixels - incremental tip deflection (80° angulation)

### 2 Specific DRS bridle

Non traumatic anatomy-friendly and adjustable fixing system provides faultless attachment of the probe

### 3 Battery-processor

2 levels of light power to reduce energy consumption while the equipment is being installed - Selectable color temperature provides near-natural light; image colorimetry thus approximates static exam conditions - 2h30 battery range (DRS version 3)

### 4 Transmitting-recording device

mpg 2 file write/read to USB key - Video and sound recorded - Remote transmission : allows a track or arena-side veterinarian to monitor or examine the horse in real-time

### 4 inset Microphone

It records the sound and thus allows connect possible respiratory noises with videos recorded

### 5 Veterinary bag

This bag is fitted for the receptor and the monitor screen, range : 500 m. This system allows to monitor correct positioning of the device during the examination and to follow it. The diagnosis is not done through this screen - 2h30 battery range (DRS version 3)

### 6 DRS saddle pad

Easy to fix on the horse, saving of time for the vet, freely for the rider - left side transmitter-recorder with washing system, right side battery-processor

### 7 Sulky bag

Battery-processor and transmitter-recorder fit into the bag and are linked together. The bag is very easy to fix and once in place, it does not move during the examination

### 8 Automatic washing system

The pump and the bottle are linked together and to the endoscope by tubes. The system flushes every 30 sec, during 1 to 3 sec (depending on the selected adjustment)

### 9 Carrying bag

It can store the equipped saddle pad and accessories then placed onto a transparent rigid stand (PET) attached to the bag







Optomed has developed an endoscopy and radiology range **exclusively for veterinary use.**

**Our innovative and high quality equipment,** is designed using the very latest technology, and means we're always working by your side.

Because Optomed is the **only specialist** in the veterinary imaging market, we also bring you additional services to meet your needs :

- Finance: short or long term equipment rental
- Fast and reliable After Sales Service carried out on our own premises
- Loan equipment
- Dedicated sales team
- Marketing support
- Training



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