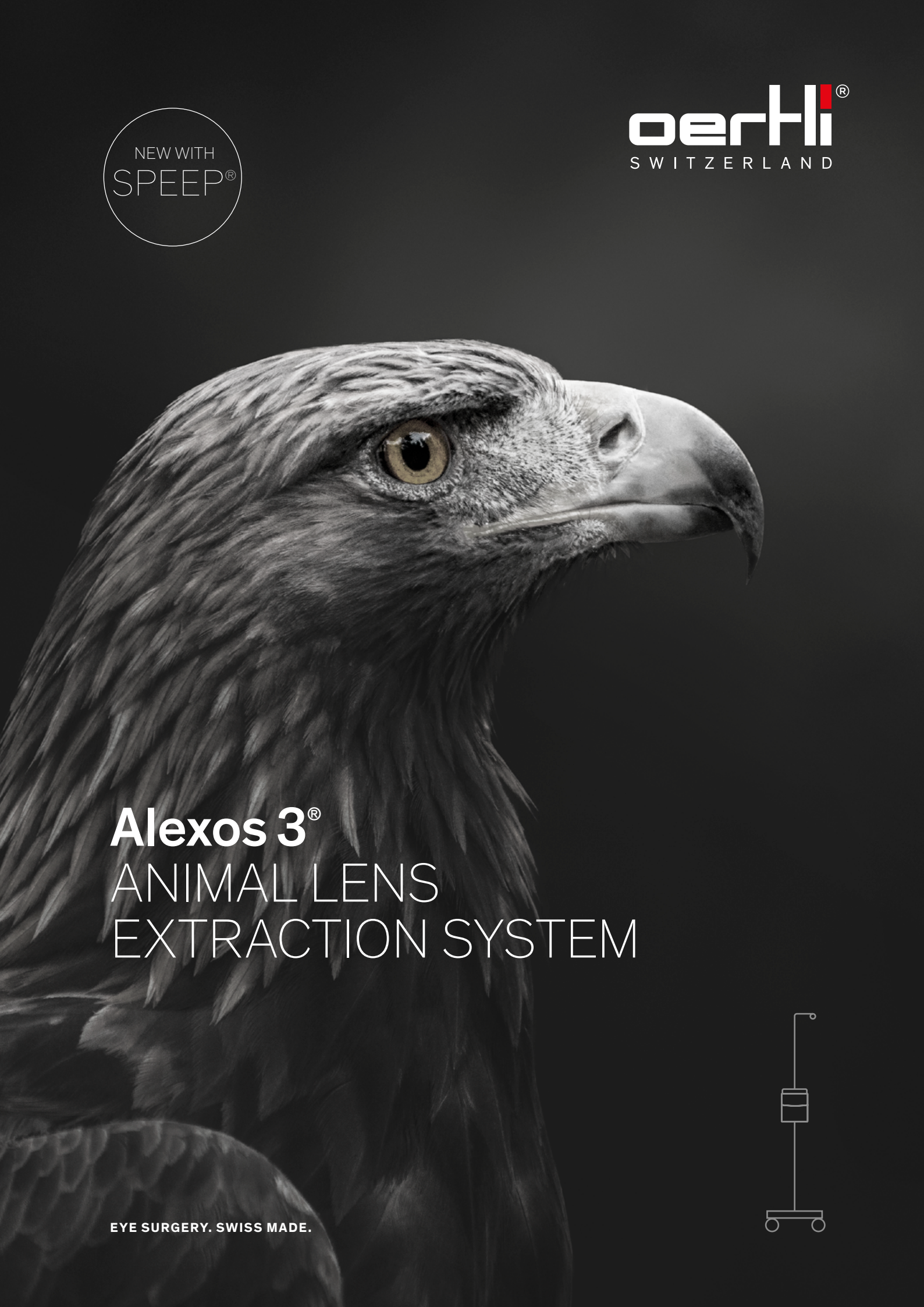
NEW WITH SPEEP®

oertli® SWITZERLAND



Alexos 3®
ANIMAL LENS EXTRACTION SYSTEM

EYE SURGERY. SWISS MADE.

FLUIDICS SYSTEM

ALEXOS 3® – NEW WITH SPEEP

Through the use of fluidics based on physics, Oertli's reputation as an innovative leader in ophthalmic surgery is reconfirmed by the Alexos 3. The fluidics concept makes consistent use of the laws of physics. Thanks to the perfect flow control of the peristaltic principle, the Alexos 3 unfolds unimaginable precision and power in phaco emulsification. The flow can be controlled in steps of 0.1 ml.

SPEEP – Speed and Precision
Due to enabling precise control of both flow and vacuum, the SPEEP pump creates efficiency and precision in your cataract surgery. Through controlled holding and suction of fragments, you can determine the working speed with the SPEEP pump.

How does the SPEEP pump work?
SPEEP combines the advantages of a flow-controlled peristaltic pump with the sportiness of a Venturi pump. With the SPEEP pump, both flow and vacuum can be controlled independently of each other. This results in the desired mastery over fluidics and takes efficiency and safety to a new level. You will experience complete control, whether required for speedy nucleus preparation or fine capsule polishing.





ALEXOS 3® – ADVANTAGES AT A GLANCE

User-friendly control panel

Unique SPEEP pump for manual control of holdability

Precise flow control with peristaltic pump

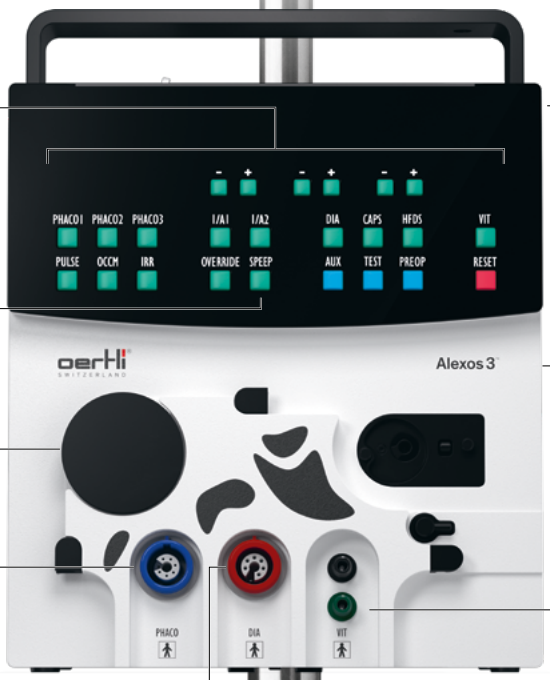
easyPhaco technology for safe and efficient emulsification

Simple capsulorhexis by means of the HF capsulotomy

For small and large animals

Truly portable – fits in a pilot case

Individually programmable for up to 20 surgeons



Ready for operation within five seconds

Maximum mobility thanks to low weight and small size

Integrated air compressor for anterior vitrectomy

Robust and precise multifunctional pedal



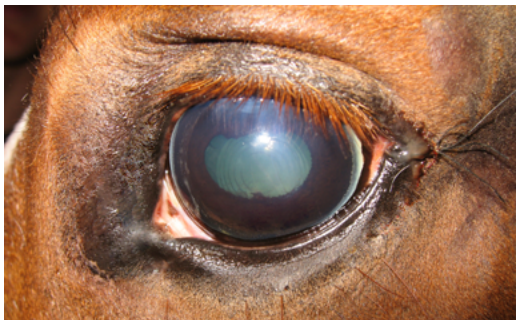
SMALL PLATFORM, GREAT PERFORMANCE

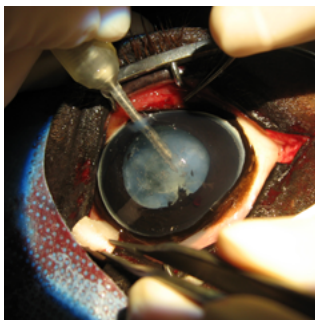
Built for the needs of today's veterinary ophthalmologist

Like no other system on the market, in addition to small animals, the Alexos 3 is ready for operations on horses and other large animals. Thanks to unique handpieces, operations can be done with bigger tips and sleeves, both built to suit the dimensions of large animal bulbi, giving you high performance and best possible outcome. Suitable for ophthalmology departments as well as local practices.

Strong, Stronger, Alexos 3
Friendliness and simplicity are the first striking features you notice about Alexos – but never underestimate its power! Requiring remarkably little space, Alexos 3 provides the full functionality of a large unit as well as unprecedented reliability. A device which requires very little space is essential to veterinary surgeons! Alexos 3 is truly portable. This is the main priority of the concept. The second priority is to offer all functions expected from a cutting-edge phaco device – without compromise.







SMALL PLATFORM, GREAT PERFORMANCE

The Simpler Solution – Very Convincing
Alexos 3 is so easy to operate that very little training is needed. Thanks to the multifunctional pedal, less assistance is required. The fantastic pump system makes operating faster and the stability of the fluidic system makes bottle height adjustments. Alexos 3 is always ready without any lengthy start-up and / or setting procedures.

A More Intelligent Concept – Truly Portable
Weighing as little as 5 kg, Alexos 3 is truly portable. Being small and light means additional comfort for you and provides extra mobility and flexibility. When transporting the device, the device, including pedal and instruments, easily fits into any pilot case. During operation, it can be attached to any IV pole. At the same time, it is robust and reliably works with voltages from 100 to 240 V in any environment.

Variable Incision Sizes
Variable incisions from 1.4 mm (20 G sleeveless with CMP) up to 3.6 mm (large animal configuration) are possible according to tip and sleeve used. The phaco handpiece can adjust to a broad range of phaco tip-sizes to deal optimally with the most diverse anatomies from small to large animals.

HF Capsulotomy for Difficult Cases
Since its launch in 1991, HF capsulotomy has proven itself in hundred thousand of cases as the ideal method for opening lens capsules. By using high-frequency energy, the capsule bag can be melted very easily – totally without any of the usual tearing with forceps and needle. Gently sliding over tissues, and even under the iris using the capsulotomy tip and giving out diathermy power suffices. The capsule edge thus created meets the highest requirements – both intra-operatively and in the long run.

Fluidics on!
Let the elaborate fluidics concept of the Oertli system work for you! It brings to you unprecedented chamber stability, perfect emulsification and efficient fragment aspiration. And all of this without the undesired side effects hitherto caused by high vacuum. Intelligent and drastically improved fluidics properties brings visible and noticeable advantages. Efficient aspiration without repulsion of the fragments provides turbulence free manipulation. Even with very hard cataracts the concentrated axial ultrasound delivery offers a perfect emulsification of the fragments.



EASYPHACO® TECHNOLOGY

easyPhaco®

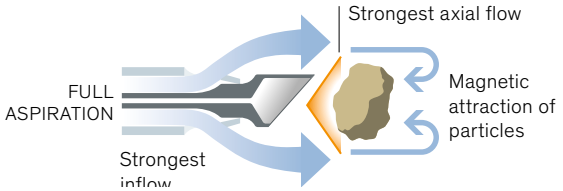
By making use of fluidics technology, easyPhaco enables immediate aspiration of the lens material and ensures perfect followability. The unique design of the tips ensure unsurpassed chamber stability, while at the same time, incredibly high holdability can be felt. Aspiration of fragments runs efficiently and without any repulsions. The focussed axial output of ultrasound energy ensures targeted emulsification directly into the lens fragment. And, because the Oertli phaco handpiece is equipped with six Piezo crystals, the transmission of power to the tip happens in a direct and gentle way with less heat development.

Advantages of easyPhaco®

→ Unsurpassed chamber stability
→ Perfect followability thanks to precise flow control
→ Focussed axial output of ultrasound energy
→ Direct and gentle transmission of power to the tip
→ Efficient fragment aspiration without repulsion
→ Available from 1.6 mm up to 2.8 mm



Control of fragments
The high vacuum setting of easyPhaco and the wide infusion path create a strong, axially directed flow. The result: no floating fragments! Instead magnetic attraction of the lens material and perfect followability.



Excellent holdability
The high vacuum setting of easyPhaco and the optimised bevel of the easyPhaco tip hold the fragments securely at the tip opening. The holdability is so strong that the fragments are no longer repelled.



No lateral energy output
The US energy is delivered purely axially and absorbed directly by the aspirated nucleus material – with the aim of preventing repulsions.



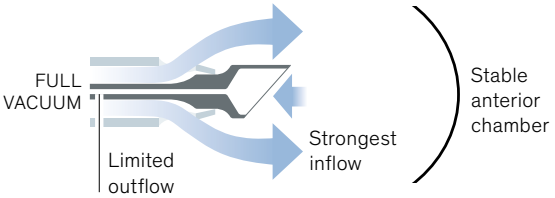
Perfect emulsification
Thanks to a high vacuum and an optimised tip design, the coupling of the US energy into the nucleus material is optimal. The energy transfer is six times higher as with conventional tips. The removal of hard cataracts is therefore no longer a problem.



Efficient fragment aspiration
Thanks to a high vacuum, the risk of blockage in the hair-thin aspiration channel can be prevented. The fragments are perfectly aspirated.



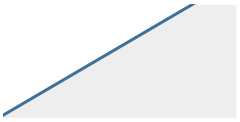
Stable anterior chamber
When the occlusion loosens, the thin aspiration channel acts as a brake and prevents a sudden change in pressure in the chamber. A seven times higher infusion capacity ensures constant intraocular pressure and creates stable anterior chamber conditions.



Phaco modulation

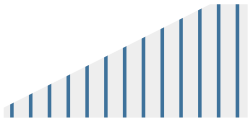
The Alexos 3 offers three types of performance modulation that can be applied with easyPhaco. The ideal fluidic support with easyPhaco reduces the application of ultrasound. Even with traditional linear control, it is easy to achieve the shortest possible phaco times.

Continuously linear
The standard method is very efficient. The surgeon doses the phaco power output via the multifunctional pedal: the phaco power output corresponds to the pedal deflection.



Continuously linear

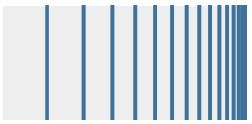
PULSE modulation
The PULSE modulation reduces the energy consumption, because it reduces the emitted ultrasonic energy. The pulse frequency (up to 40 Hz) and cooling factor are freely selectable and independent of the pedal position. The power of the pulse is controlled directly via the pedal.



PULSE modulation

BURST mode

The BURST modulation reduces the emitted ultrasound energy. The duration and intensity of the bursts (packages of energy pulses) are freely selectable and independent to the pedal position. The pause between the bursts is controlled by the pedal. The more the pedal is pressed, the shorter the pauses become.



Burst modulation

IRRIGATION / ASPIRATION

Coaxial and bimanual irrigation/aspiration hand pieces are available with various tips for small and large animals. Choose from differently angled coaxial I/A tips for use with or without sleeve.

Advantages of I/A

→ Absolutely stable anterior chamber conditions

→ Easy subincisional accessibility

→ Fast occlusion capability

→ Very efficient in combination with the SPEEP pump



ANTERIOR VITRECTOMY

Vitreous body removal

Thanks to the integrated compressor in Oertli's Alexos 3, anterior vitrectomy is always ready for immediate application. As an external compressed air supply is not necessary, surgeries can also be performed under exceptional circumstances. The pneumatically driven vitrectomy cutter enables extremely efficient work up to 2400 cuts per minute. Using the Caliburn trocar system, anterior vitrectomies can also be performed transconjunctivally with access via the pars plana.



Advantages in anterior vitrectomy

→ Ready for use at any time

→ Thanks to integrated compressor, compressed air supply is not necessary

→ Pneumatically-driven vitrectomy cutter for traction-free work

→ Up to 2400 cpm, depending on the type of cutting instrument



ALEXOS 3® – PERFORMANCE SPECTRUM

System

Fluidics systems

→ Peristaltic pump
→ SPEEP pump
→ Tubing system with integrated closed pressure sensor
→ Auto venting
→ Limitable reflux
→ Pre-op, self-testing and reset functions

Operation

→ Control panel with glass cover, translucent indicator lights, silicon buttons
→ Linear multifunctional pedal
→ Individual programming for 20 surgeons
→ Audio signals

Pedal

→ Cable connection
→ Linear
→ Reflux function

→ For a list of appropriate instruments please refer to the separate accessories data sheet.

Anterior segment

Phaco function

→ Three programme memories with DirectAccess
→ Ultrasound phaco with auto tuning
→ U/S phaco hand piece with six piezo cristals
→ Linear, PULSE, BURST, CMP and Panel Mode
→ Occlusion mode
→ easyPhaco

I/A function

→ Two programme memories with DirectAccess
→ Vacuum-override function
→ Continuous irrigation
→ SPEEP pump

Anterior segment vitrectomy

→ Three programme memories
→ Dual pneumatic guillotine cutter
→ Linear 30 to 2400 cuts per minute
→ Single cut
→ Irrigation / aspiration / cut
→ Irrigation / cut / aspiration



MAKING THE DIFFERENCE IN SWITZERLAND

As a Swiss family-owned company with a long tradition, we focus on what is important: quality, reliability, safety, innovation and the needs of our customers.

We make the difference – for you and your patients.

oertli® SWITZERLAND

an-vision

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