

## Equine Arthroscopy



# Arthroscopic Surgery Set for the Equine Practitioner

Arthroscopy in the horse – as in humans – has revolutionized joint surgery. Since the 1980s, arthroscopy has been accepted as the standard way of performing joint surgery in the horse. Over the past two decades, the number of indications and surgical procedures developed has steadily grown. Working with top equine surgeons around the world, KARL STORZ has developed a complete range of arthroscopes and instruments for these techniques.

This brochure features a basic set for equine arthroscopy. For a complete listing of products in this range, please refer to our catalog: Veterinary Endoscopy – Large Animals.

## List of Indications for Arthroscopic Surgery

### Distal interphalangeal (coffin) joint



Elevation of proximal dorsal P1 chip



Removal of proximal dorsal P1 chip

- Extensor process fragments of distal phalanx
- Subchondral cystic lesions opening into coffin joint
- Small fracture fragments distal second phalanx

### Proximal interphalangeal (pastern) joint



Proximal dorsal P1 chip

- Fragments of proximal dorsal aspect of second phalanx

### Metacarpal phalangeal and metatarsal phalangeal (fetlock) joints

OCD in fetlock of weanling



- Proximal dorsal first phalanx chip fragments
- Osteochondritis dissecans of distal dorsal metacarpus
- Chronic proliferative (villonodular) synovitis removal
- Diagnostic evaluation of traumatic synovitis and osteoarthritis
- Lag screw fixation of distal metacarpal or metatarsal condylar fractures
- Evaluation of proximal aspect of sagittal P1 fractures treated with lag screw fixation
- Palmar/plantar P1 chip fragments
- Fragments of apical, abaxial and basilar sesamoid bone
- Subchondral cystic lesions of distal metacarpus or metatarsus

### Elbow joint

- Diagnostic evaluation of elbow articulation (traumatic arthritis and OA)
- Osteochondritis dissecans

### Shoulder joint

- Osteochondritis dissecans of humeral head and glenoid
- Evaluation and treatment of traumatic synovitis, occasional osteochondral fragmentation and osteoarthritis

### Tibiotarsal (tarsocrural) joint



OCD intermediate ridge of tibia at elevation



Removal of OCD fragment – intermediate ridge of tibia

- Osteochondritis dissecans of distal intermediate ridge of tibia, common lateral trochlear ridge of talus, medial trochlear ridge of talus or medial malleolus of tibia
- Intra-articular fracture fragments
- Septic osteomyelitis and septic arthritis in foals
- Evaluation of traumatic and proliferative synovitis

### Femoropatellar joint

Small OCD lesion in femoropatellar joint



- Osteochondritis dissecans of lateral and medial trochlear ridges of femur and patella
- Distal fragmentation of patella
- Traumatic osteochondral fractures of patella
- Diagnostic evaluation for traumatic synovitis and osteoarthritis

### Femorotibial articulations

- Subchondral cystic lesions of medial condyle of femur and (occasionally) proximal tibia
- Meniscal injury
- Cranial ligament of medial meniscus injury
- Cranial and caudal cruciate ligament injury
- Articular cartilage fragmentation with or without subchondral bone disease
- Diagnostic arthroscopy of femorotibial joints

### Hip (Requires long arthroscope)

- Diagnostic evaluation of traumatic disease
- OCD and subchondral cystic lesions

## Carpal joints



Small distal radial carpal bone chip



Removal of distal radial carpal bone chip fragment

- Chip fragments of carpal bones
- Monitoring and treatment of slab fractures of carpal bones with internal fixation
- Degenerative subchondral bone disease
- Diagnosis and treatment of tearing of intracarpal ligaments
- Subchondral cystic lesions of carpal bones
- Osteochondritis dissecans of carpal bones

## Carpal canal tenoscopy

- Osteochondroma of distal radius
- Superior check desmotomy as prophylaxis for superficial digital flexor tendonitis
- Diagnostic evaluation of carpal canal and retinacular resection for carpal canal syndrome

## Digital flexor tendon sheath

- Evaluation for acute and chronic tenosynovitis
- Annular ligament sectioning
- Villonodular synovitis
- Diagnostic evaluation

Endoscopic photographs courtesy of  
Dr. C. Wayne McIlwraith,  
Professor of Surgery  
Colorado State University, USA



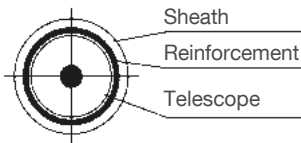
Check out our schedule of upcoming hands-on training courses at:  
<http://go.karlstorz.com/eventsVET>

## Standard Arthroscope, size 5.5 mm



64230BWA **HOPKINS® Wide Angle Forward-Oblique Telescope 30°**, enlarged view, diameter 4 mm, length 18 cm, **autoclavable**, fiber optic light transmission incorporated, color code: red

## Snap-In Arthroscope Sheaths with rotating stopcocks



*Increased inflow and outflow rate without disturbing turbulence*

### Special features:

- **Coupling between the telescope and sheath is possible in absolutely any position; surgeries requiring a changeover between the arthroscope and instrument ports are thus considerably simplified**
- **Telescope rotation is made easier**
- **High-flow system ensures improved inflow and outflow**



64131R **High Flow Arthroscope Sheath**, diameter 5.5 mm, working length 13.5 cm, with snap-in coupling mechanism, with one stopcock, rotating, for use with HOPKINS® Telescope 0°, 30°, 45°, 70°, 90° and Obturators 64130BC, 64130BT, color code: blue

64131CR **Same**, with 2 stopcocks

## Obturator for use with sheaths 64131R, 64131CR

64130BC **Obturator**, blunt, color code: green-red-yellow

64130BT **Same**, semisharp

## Basic Instruments for Equine Arthroscopy

### Egress Cannulas

For efficient, adjustable outflow of distention fluid.  
Side holes prevent blocking of fluid flow.



64146T **Egress Cannula**, LUER-Lock, with stopcock, diameter 3.2 mm, length 7 cm



64146QO **Obturator**, blunt, for use with Egress Cannula 64146T



64146Z **Egress Cannula**, diameter 5 mm, length 15 cm

### Hook Probes and Retractors

To probe articular cartilage and subchondral bone.



64145S **Hook and Retractor**, graduated, diameter 1.5 mm, length of hook 2 mm, working length 8.5 cm



64146D **Hook and Retractor**, diameter 2.5 mm, length of hook 3.5 mm, working length 11.5 cm



### Curettes

For debridement of articular cartilage or damaged subchondral bone.



64601 **Curette**, size 1, length 21 cm



64611 **Same**, size 0



64620 **Same**, size 00

## Osteotome and Elevator

For making precise incisions and separating fragments from parent bone.



64906

**Elevator**, sharp, curved, width 6 mm



64104

**Osteotome**, flat, cuts both sides, width 4 mm, length 19 cm

## Mallet

For use with osteotome.



174200

**COTTLE Metal Mallet**, length 18 cm



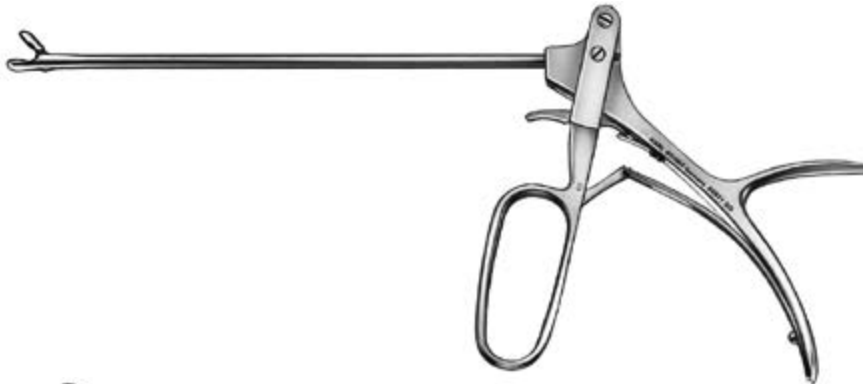
## Equine Arthroscopy Rongeurs

Specially designed rongeurs with strong jaws and robust handles are ideal for use in the larger joints of the horse.



64149RL **Ferris-Smith Rongeur**, long, jaws 5 x 8 mm, working length 14 cm

64148RK **Same**, short, working length 10 cm



64971BG **Rongeur**, with ratchet, for equine arthroscopy, with robust handle and strong jaws, fenestrated, straight, cup 5 x 11 mm, working length 16 cm



64971GK **Grasping Forceps**, with ratchet, for equine arthroscopy, with robust handle and strong jaws, straight, with 2 teeth, jaws 5 x 11 mm, working length 16 cm



## Grasping Forceps

Recommended for removal of smaller cartilage fragments.

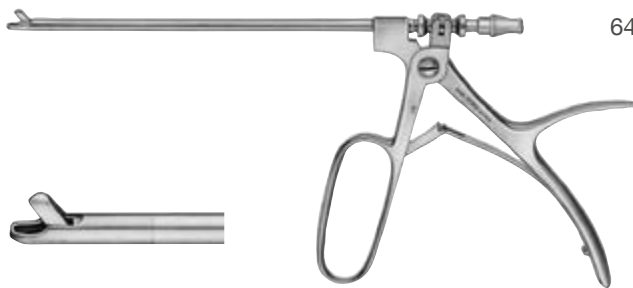


64146UD

**Grasping Forceps**, with ratchet, working length 13 cm

## Suction Punch

For resection of synovium, cartilage, soft bone and other soft tissue masses.

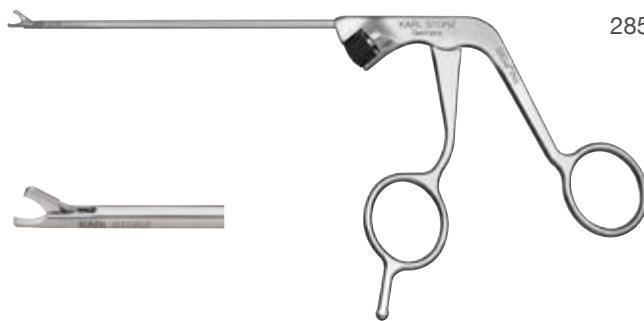


64165SN

**Suction Punch**, size 4.8 mm, working length 13 cm

## Scissors

For cutting in tight areas such as carpal canal release and villonodular mass resection.

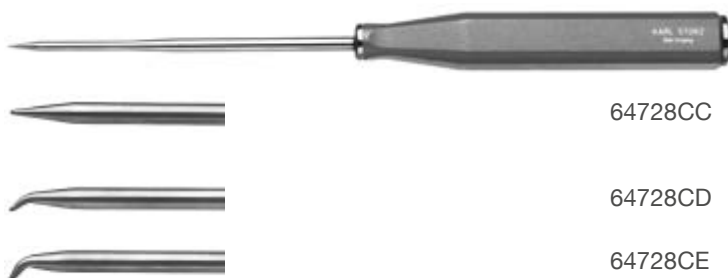


28571SP

**SILCUT® PRO Scissors**, straight jaws, sheath diameter 3.5 mm, straight, handle with cleaning connector, working length 14 cm

## Microfracture Chisels

For perforation of subchondral bone, which may stimulate cartilage regrowth.



64728CC

**Microfracture Chisel**, straight, working length 12 cm

64728CD

**Same**, angled 30°

64728CE

**Same**, angled 70°

# ENDOMAT® SELECT VET

The most versatile and economical fluid pump for veterinary endoscopy from KARL STORZ.



ENDOMAT® SELECT VET is the ideal choice for safe and precise arthroscopic fluid irrigation in small and large animals. Irrigation and flow rate is set by the user using the intuitive, color touch screen.

ENDOMAT® SELECT VET is a cross-discipline roller pump device suitable for fluid irrigation and suction during a variety of surgical and diagnostic procedures in large and small animals such as laparoscopy, thoracoscopy and gastrointestinal endoscopy, as well as arthroscopy.

During any given procedure irrigation or suction can be selected, but only one function can be used during a single procedure. If suction is needed, such as with an arthroscopic shaver, a supplementary suction unit will be required.

ENDOMAT® SELECT VET comes programmed with two primary menus, VET SURG and VET ART. VET ART is further subdivided into two programs with the following pre-programmed settings:

## **ART SA**

- Irrigation pressure: 20-150 mmHg; increments: 10 mmHg
- Boost function: 10% - 20% - 30% - 40%
- Irrigation flow rate: 1,500 - 2,000 - 2,500 ml/min

## **ART LA**

- Irrigation pressure: 20-400 mmHg; increments: 10 mmHg
- Boost function: 10% - 20% - 30% - 40%
- Irrigation flow rate: 1,500 - 2,000 - 2,500 ml/min

## Ordering Information:



- UP210 **ENDOMAT® SELECT**, suction or irrigation pump,  
incl. mains cord, power supply 100-240 VAC, 50/60 Hz
- UP609 **VET Software** for ENDOMAT® SELECT

## Tubing Set for use with ENDOMAT® SELECT VET – ART SA and ART LA:



### Single Use

- 031523-10 **Tubing Set**, irrigation, PC, sterile, for single use, package of 10

### Reusable

- UP008 **Tubing Set**, irrigation, PC, reusable, sterilizable

For further information regarding the VET SURG programs and tubing sets,  
see MFL UNITS 2, 96321002

## Insufflator

For gas distention which improves visibility.



62432501 **CO<sub>2</sub> ENDO-ARTHROFLATOR VET**,  
power supply 100-240 VAC, 50/60 Hz  
including:  
**Silicone Tubing Set**, sterilizable  
**Universal Wrench**  
**Gas Filter**, sterile, package of 10

The pressure hose and CO<sub>2</sub> bottles must be ordered separately,  
see catalog *Veterinary Endoscopy: Large Animals*

## Shaver System

### UNIDRIVE® S III ARTHRO SCB

Multi-function motor system allows for quicker procedure time, reducing patient time under anesthesia



28723001-1 **UNIDRIVE® S III ARTHRO SCB**, with color display, touch screen operation, two motor outputs, with integrated SCB module, 100-120/230-240 VAC, 50/60 Hz including:  
**SCB Connecting Cable**, length 100 cm  
**Mains Cord**

## Handpiece

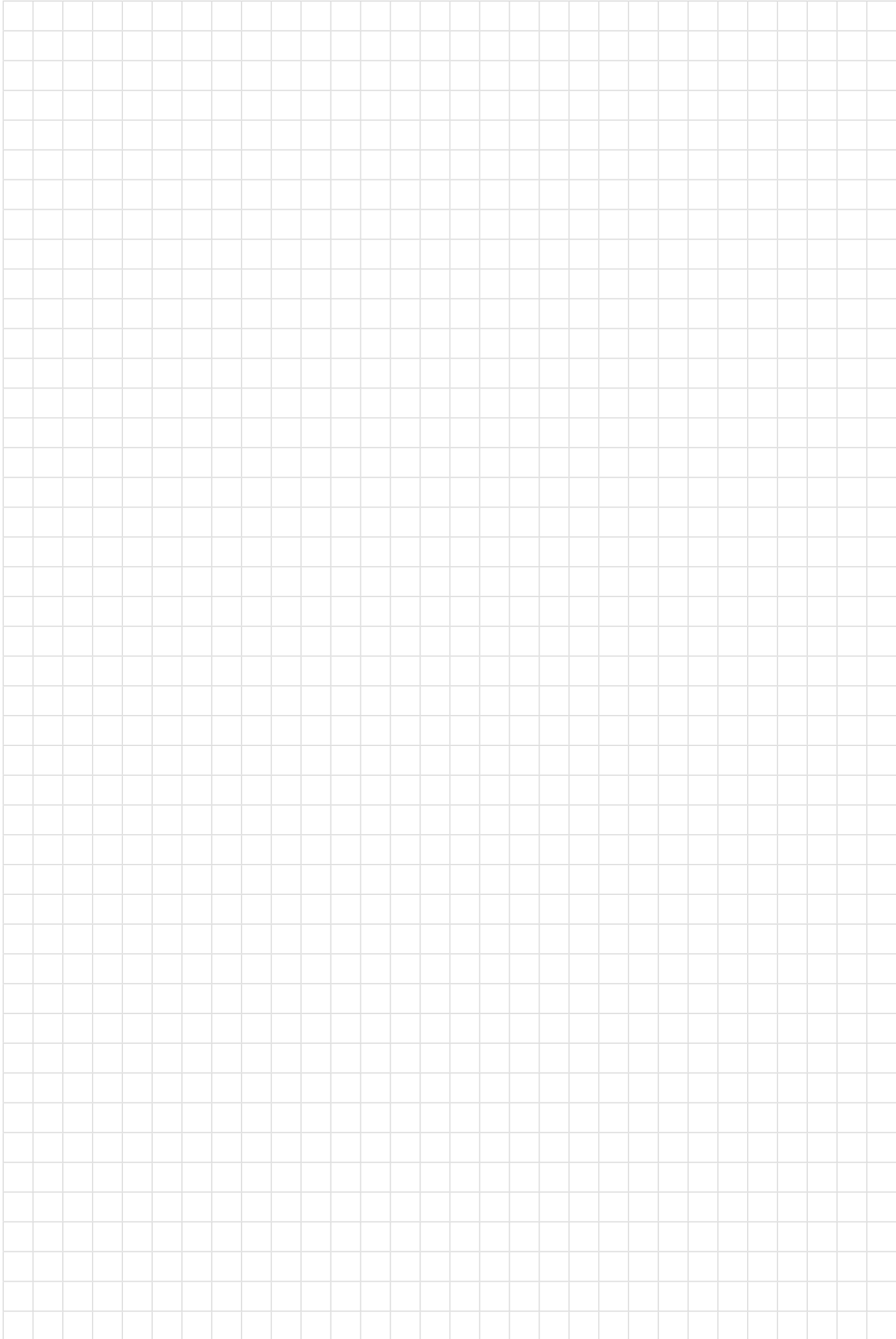


28200DX **DRILLCUT-X® ARTHRO Shaver Handpiece**, up to 8000 rpm, for use with UNIDRIVE® S III ARTHRO SCB, as of software status 1.10.

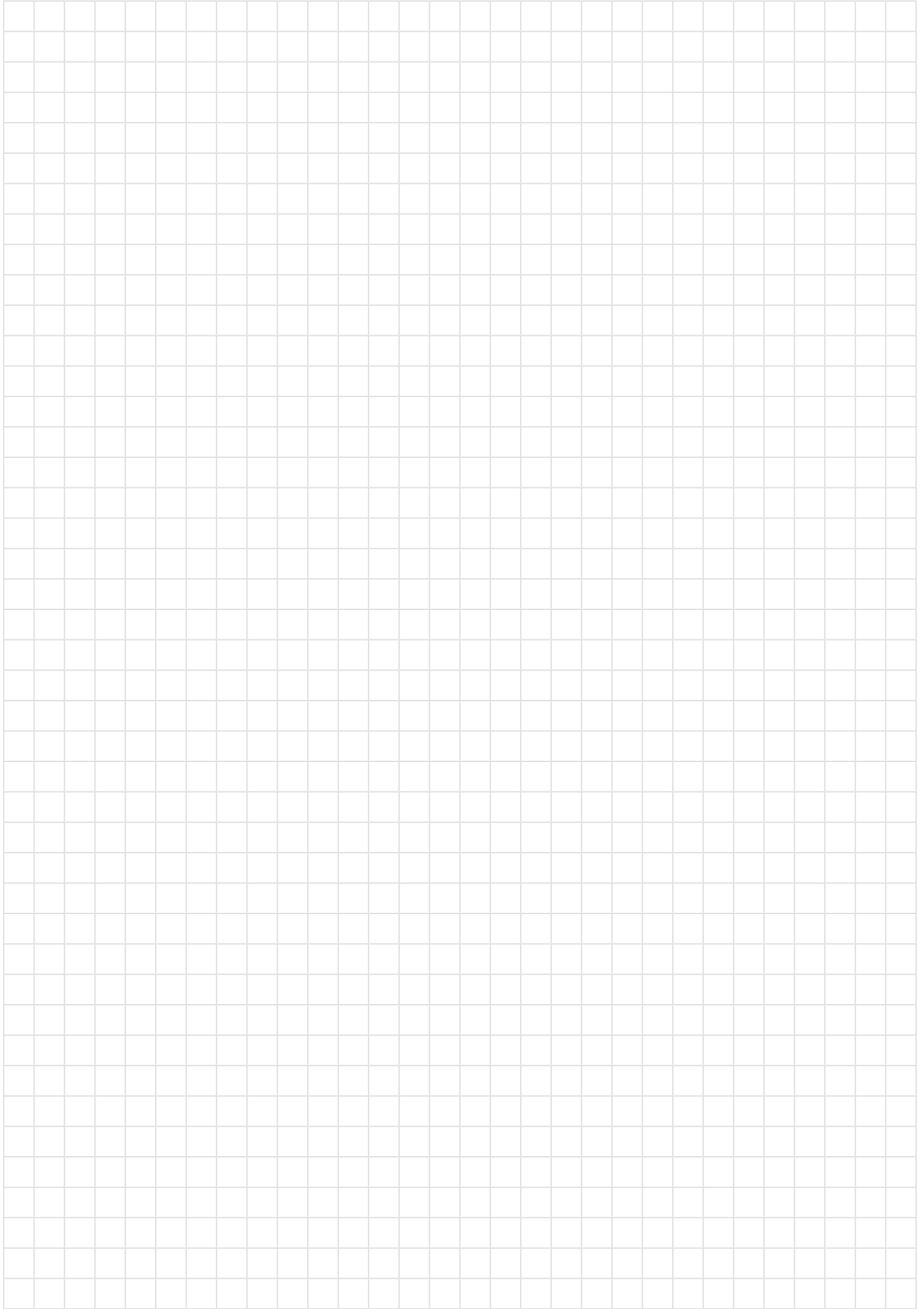
**The shaver handpieces should NOT be treated with universal spray!**

Reusable and single use shaver blades are available in a variety of styles and sizes, see catalog *Veterinary Endoscopy: Large Animals*

# Notes



## Notes





More than  
**75**  
Years

*Shaping the Future  
of Endoscopy with you*

**STORZ**  
KARL STORZ—ENDOSKOPE

THE DIAMOND STANDARD

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