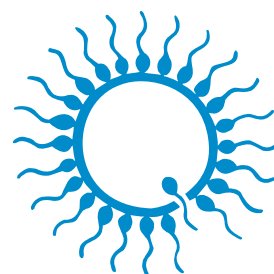




# SMALL RUMINANTS AND CAMELIDS

assisted reproduction technology



**minitube**  
our knowledge, your success

# Minitube: proven quality since 1970



*Dear valued customers,*

**Minitube is totally committed to quality** – this is at the core of everything that we do.

For our worldwide client base, we recognize that reliability, functionality and efficiency are key factors for running a stress-free and profitable production system. For over 50 years Minitube has delivered robust, high-performance, quality equipment and consumables to the assisted reproduction market.

As an industry leader, we accept the responsibility of providing products that do not compromise quality or safety. For this reason, all proprietary consumables and semen or embryo preservation media are manufactured in our own dedicated state-of-the-art facilities, supported by extensive in-house and external third-party QA testing you can trust. Minitube quality is not subjective but based on hard facts and decades of a successful track record.

Our total quality approach is underpinned by a long-term partnership strategy with our suppliers and customers. These long-standing relationships help build the trust and understanding required to ensure ongoing quality.

The same is true for our service team who are always striving to provide the best service within the industry. As a customer, the expert knowledge and know-how of Minitube staff is always available to you.

Moving forward we promise to continue researching and developing the best products and providing the best service, just as we have for more than 50 years.

Dr. Christian Simmet  
CEO





Minitube online media library:  
All catalogs digitally available in  
different languages

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# 1 SEMEN COLLECTION



## Electro-ejaculator

Electro-ejaculator set, consisting of heavy-duty carrying case, control unit, battery, and transformer/charger. Semen collection is **made easier**, especially from older animals that may be difficult to stimulate.

### Product features

- Digital display and adjustment of the voltage in 0.5 volt steps
- Fully portable with remote control
- Pulse/pause ratio adjustable manually
- Power output with 3 different curves enabling balanced setting according to the animal's size and sensitivity
- Power supply: 115 V/60 Hz or 230 V/50 Hz

Electro-ejaculator [1]

11900/0000

### Accessories

Electro-ejaculator probe

1", Ø 2.6 cm, length: 14.5 cm [2]

11900/0021

2", Ø 5.6 cm, length: 33 cm [3]

11900/0022

Semen collection set for electro-ejaculator [4]

11900/0250



## Artificial vagina for small ruminants

Robust tubular rubber casing with rounded openings. Valve assembly allows air to be added for adjustment of inner pressure. Consisting of corpus, valve, inner liner, latex collection cone, rubber bands, graduated collection vial in tulip shape (4 ml) and warming bag.

Artificial vagina, 11 cm [1]	11320/0000
Latex inner liner, smooth [2]	11322/0002
Director cone, latex, length: 20 cm [3]	11024/0001



## Artificial vagina for camelids

Robust tubular rubber casing with rounded openings. Valve assembly allows air to be added for adjustment of inner pressure.

Artificial vagina casing with valve, 30 cm [1]	11021/0033
Latex inner liner, rolled ends, 650 mm	
smooth [2]	11022/0002
rough [3]	11022/0003
Semen collection vial, 8 ml, glass, double walled [4]	11023/0017
Silicone plug for the bottom of vial 11023/0017	11023/1593



## Accessories for all species

Semen collection vial, tulip shape, glass, graduated [1]	
2 ml	11323/0005
4 ml	11323/0004
8 ml	11023/0016
10 ml	11613/0010
Insulated warming bag [2]	11225/0026
Semen collection glove, blue, nitrile, extra sensitive, sperm safe, latex-free, powder-free, 100/box [3]	
size M	11128/0055
size L	11128/0060
size XL	11128/0065
Thermometer for artificial vagina [4]	
up to +100°C, bimetal, non-breakable	11027/0000
up to +200°C, graduation 0.1°C, red filling	11027/0200



# 2 SEMEN EVALUATION



## AndroScope

AndroScope is a **compact mobile CASA system** that is based on AndroVision® and allows the operator to analyze semen motility and concentration of various species at any point in the production, transport, and insemination process.

AndroScope is equipped with a professional high-speed camera and a robust focus adjustment for precise semen analysis. The heating unit in the analysis area of the mobile CASA reaches +37°C within a few seconds, so that semen analysis is performed at optimal temperature conditions. AndroScope works with every PC, laptop, or tablet where MS Windows 10 or newer is installed (USB-3.0 plug is necessary to connect the device).

A practical, robust carry case provides optimal protection for the transport and contains everything you need to perform a semen analysis.

AndroScope [1] incl. transport case and accessories **12500/3000**



1

## Accessories

Disposable counting chamber Minitube, 20 µm, 4 chambers, 25/box **12050/0220**

Test tube 2 ml with cap, 250/bag **14602/0904**

Disposable capillary tube, 100/bag **15404/0100**

Microfiber rod, length 124 mm, 100/bag **12510/0106**

**Option:** Mobile warming unit, for 6 reaction vials and 1 slide [2] **12057/6000**



2



## AndroVision®

This highly precise, automated system for computerized semen analysis stands out for the integration of the classic CASA analysis with more advanced assays for sperm functionality. Concentration and motility as well as acrosome integrity, viability, mitochondrial activity and DNA integrity can be assessed accurately and quickly with up to 1000 cells per field, making AndroVision® the perfect tool for the **objective and complete semen evaluation**.

AndroVision® can be seamlessly integrated with the Prism10 Bull laboratory processing software. The user interface is straightforward and easy to understand: **only three clicks from start to analysis result**. An optional touch screen interface and barcode scanner enhances the system for even quicker and more efficient application.

### Product features

- Real time analysis of live images and video files
- Analysis of up to 4 fields in 20 seconds
- Highly efficient particle filter for accurate sperm identification
- Analysis profiles for many species
- Adjustable analysis parameters and user created profiles
- Data export to MS Excel and other programs
- Languages: English, German, Spanish, Chinese, Portuguese, Russian, French

<b>AndroVision® software</b>	
with PC and monitor [1]	12500/0000
with PC, touch screen and barcode scanner	12500/0001
with laptop	12500/0010
<b>AndroVision® high speed color camera [2]</b>	<b>12500/4400</b>

## AndroVision® software modules

Module Morphology and Morphometry	12500/1300
Module Viability*	12500/1400
Module Acrosome Integrity*	12500/1600
Module Mitochondrial Activity*	12500/1700
Module DNA Integrity*	12500/1800

\* Requires fluorescence microscope.

### Accessories

Phase contrast microscope Zeiss Axiolab 5* [3]	12008/0020
ScanStage, automated microscope stage with integrated heating system [4]	12048/0031
Controller HTi 200 [5]	12057/0200
Warming plate, 245 x 200 mm [6]	12057/0510

\* Other microscopes from our product portfolio can also be used with AndroVision®. Please contact us for an individual offer.



## Phase contrast microscope MBL

Functional microscope for semen analysis with heating system and control unit for freely adjustable temperature.

### Phase contrast microscope MBL 2000

binocular, heated stage, HTi 50, objectives 10x, 40x, 100x **12010/3000**

binocular, heated stage, HTi 50, objectives 10x, 40x, 100x, with camera and monitor **[1]**

### Phase contrast microscope MBL 2100

trinocular, heated stage, HTi 50, objective 20x **12010/3103**

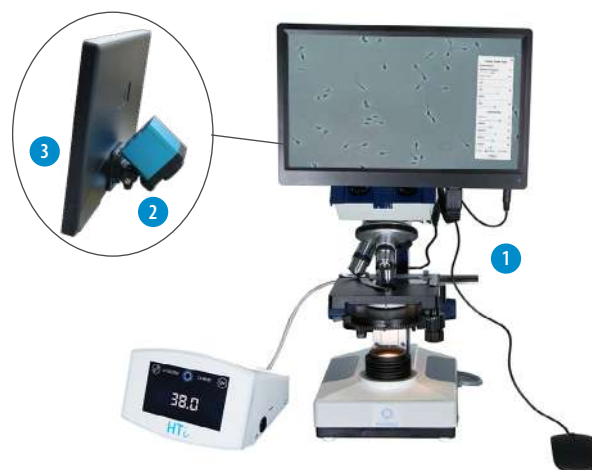
trinocular, heated stage, HTi 200, objective 20x, with camera and monitor **12010/3101**

### Digital color camera for microscopes [2]

with integrated image display software **12110/1600**

### Monitor 11.6" with HDMI input [3]

**12110/1610**



Wide range of microscopes and accessories available



## Semen stains

Spermac, stain for morphology analysis, 4 x 50 ml **[1]** **15405/0000**

Farelly stain, for morphology analysis, 3 x 250 ml **[2]** **15405/0026**

Eosin G, 2% solution for supravital staining, 50 ml **[3]** **15405/0025**

Nigrosin, 4% solution for supravital staining, 50 ml **[4]** **15405/0029**



## Microscopy supplies

Microscope slide, 75 x 25 mm, 50/box **[1]** **15400/2400**

Cover glass, 18 x 18 mm, 100/box **[2]** **15401/0990**

Immersion oil, 8 ml **[3]** **12000/0101**

Lens cleaning tissue, 90 x 72 mm, 500/package **[4]** **15230/9100**



## Counting chambers (hemocytometers)

Thoma new **15150/4771**

Neubauer improved **15152/4421**

Bürker **15153/0000**



## Pipettor

Adjustable single channel pipette, yellow, autoclavable, 10 - 100 µl **12425/4810**

Pipette tip, 10 - 100 µl, yellow, 1000/bag **12425/9409**





## Photometer SDM 6

Determination of sperm concentration and dose calculation of boar, bull, stallion, ram, and buck semen.

- Automatic calculation of extender volume and number of doses
- Display of semen concentration in  $10^9$  sperm/ml
- Large touch screen, easy handling
- Serial interface for data transfer

Photometer SDM 6, with integrated printer for printout of ejaculate production data **12300/0006**



### Accessories

Control cuvette set, 4 pieces **12300/0010**

Paper for printer **12300/0311**

Macrocuvette, 4 ml, 100/package **12301/0003**

NaCl solution, 0.9 %, 1 l **12301/4667**

Dispenser, 0.5-5 ml for NaCl solution **12428/1815**

Bottle for dispenser, 500 ml **12428/1905**

Adjustable single channel pipette, yellow, autoclavable, 10-100  $\mu$ l **12425/4810**

Pipette tip, 10-100  $\mu$ l, yellow, 1000/bag **12425/9409**

**Proven accuracy**  
SDM 6 and SDM 1 are compact, highly precise photometers for measuring sperm concentration. Cleaning is simple, maintenance is minimal.

Semen evaluation

## Photometer SDM 1

- Raw semen samples can be used without dilution
- Semen concentration is displayed in  $10^6$  sperm/ml
- Electrical connection: with included mains adapter 100-240 V or batteries

Photometer SDM 1 [1]

calibrated for buck semen  **12300/0104**

calibrated for ram semen  **12300/0106**

### Accessories

Microcuvette for SDM 1, 100/box [2] **12300/1111**

Multispecies software for reprogramming to other species **12300/0130**



# 3 SEMEN DILUTION



## Water bath

Stainless steel, with angular lid and electronic temperature control.

- Working temperature range: minimum 5°C above ambient up to +100°C (depending on ambient pressure)
- Intuitive 3.5" color graphic display with touch screen
- Independent temperature limiter to switch off the heating in case of failure

Water bath, 23 l, 230 V/50-60 Hz

14079/0021



Different sizes of water baths available



## Electronic precision scale

- Weighing range: 2000 g
- Resolution: 0.1 g
- Weighing pan: 130 x 130 mm

Electronic precision scale up to 2 kg

14295/0442



## AndroMed®

- Perfect biosecurity: no ingredients of animal origin
- Constant, optimal freezing results, and high fertility rates with every dilution ratio
- Increased efficiency of microscopic analysis: extremely clear cell images
- Reduced preparation time

**AndroMed®\*** 13503/0200  
200 ml, for a total of 1000 ml of extender

**AndroMed® CSS, One-step\*\*** 13503/1200  
200 ml, for a total of 1000 ml of extender

**AndroMed® CSS, Two-step\*\***

Fraction 1, 100 ml, for a total of 500 ml of extender	13503/1250
Fraction 2, 200 ml, for a total of 500 ml of extender	13503/1251



Egg-free media for semen freezing

## BoviFree

- Constant, optimal freezing results with all equilibration protocols
- Enhanced post-thaw semen parameters
- Brilliant microscopic images due to low viscosity and homogenous particle-free consistence
- Very easy to prepare

**BoviFree\*** 13501/0200  
200 ml, for a total of 1000 ml of extender

**BoviFree CSS, One-step\*\*** 13501/1200  
200 ml, for a total of 1000 ml of extender

**BoviFree CSS, Two-step\*\***

Fraction 1, 100 ml, for a total of 500 ml of extender	13501/1250
Fraction 2, 200 ml, for a total of 500 ml of extender	13501/1251



Egg-free media for semen freezing

## Steridyl

- Elaborate, proven buffer formula
- Constant, optimal freezing results with every dilution ratio
- Easy to prepare, just add water and save time
- Sterilized, requires no addition of egg yolk

**Steridyl\*** 13500/0260  
500 ml, for a total of 1250 ml of extender

**Steridyl CSS, One-step\*\*** 13500/0280  
500 ml, for a total of 1000 ml of extender

**Steridyl CSS, Two-step\*\***

Fraction 1, 500 ml, for a total of 1000 ml of extender	13500/0290
Fraction 2, 500 ml, for a total of 1000 ml of extender	13500/0295



Media for semen freezing with egg yolk

## Triladyl®

- Internationally established for over 50 years
- Elaborate formula, based on TRIS
- Ready to use after the addition of water and egg yolk
- Reliably optimal and constant post-thaw results

**Triladyl®\*** 13500/0250  
250 g, for a total of 1250 g of extender

**Triladyl® CSS, One-step\*\*** 13500/1200  
200 g, for a total of 1000 g of extender



Media for semen freezing (One-step)

## Biladyl®

- Based on the proven Triladyl® formula
- Allows first dilution without glycerol
- Used with various freezing protocols

**Biladyl®, Fraction A\*\*** 13500/0004  
49 g, for a total of 500 g of extender

**Biladyl®, Fraction B\*\*** 13500/0006  
250 g, for a total of 750 g of extender



Media for semen freezing (Two-step)

## OviPlus

Fresh semen extender concentrate for small ruminant semen, requires the addition of fresh egg yolk.

**OviPlus** 13610/0025  
24 ml, for a total of 200 ml of extender



## Antibiotic supplement

Antibiotic formula in powder, requires the addition of water.

**Antibiotic supplement for One-step extender:** 13504/9000  
550 mg Gentamicin, 110 mg Tylosin, 330 mg Lincomycin, 660 mg Spectinomycin

**Antibiotic supplement for Two-step extender:** 13500/0005  
300 mg Gentamicin, 60 mg Tylosin, 180 mg Lincomycin, 360 mg Spectinomycin



## Maximum product security

Made at Minitube's ISO and GMP-certified extender production facility. Highest quality control standards at each production stage and guaranteed use of semen friendly components and materials only.

\* With antibiotic formula.

\*\* Corresponds with the CSS regulations for bull semen.

# 4 SEMEN STRAW PROCESSING



## ■ Semen straws

For over 30 years, Minitube straws have been used worldwide as a standard for the freezing of semen. Minitube's quality control process, production techniques, and material selection ensure for a **reliable product** that consistently exceeds industry standards.



## ■ Fresh semen straws and EcoStraws

**Fresh semen straws** are designed to process and store fresh/chilled semen at refrigerated temperatures. The wick has a special powder which does not swell and absorbs less semen.

**EcoStraws** feature a wick with a shorter inner wick section that **absorbs 3 to 4% fewer sperm** than the corresponding symmetrical wick of standard semen straws.

## (+ Your benefits

- + Yield a larger number of semen straws per ejaculate because fewer sperm are lost in the wick
- + Better use of valuable genetics without adding additional cost
- + EcoStraws are ideal for overnight equilibration



## Fresh semen straws and EcoStraws

These are used in the same way as standard semen straws. Identical processes for: filling / sealing / printing / insemination

Minitube semen straws

	MiniStraw 0.25 ml	EcoStraw 0.25 ml	Fresh semen straw 0.25 ml	Medium straw 0.5 ml	EcoStraw 0.5 ml
transparent	13407/0010	13407/3010	13407/2010	13408/0010	13408/3010
transparent - blue-white wick	13407/0011	---	---	---	---
transparent - red-white wick	---	---	13407/2212	---	---
red - transparent	13407/0044	13407/3044	13407/2044	13408/0044	13408/3044
green - transparent	13407/0054	13407/3054	13407/2054	13408/0054	13408/3054
blue - transparent	13407/0064	13407/3064	13407/2064	13408/0064	13408/3064
grey	13407/0070	---	---	---	---
grey - transparent	13407/0074	13407/3074	---	13408/0074	13408/3074
purple	13407/0080	13407/3080	---	---	---
purple - transparent	13407/0084	13407/3084	---	---	---
yellow	13407/0090	13407/3090	---	---	---
yellow - transparent	13407/0094	13407/3094	13407/2094	13408/0094	13408/3094
pink	13407/0100	13407/3100	---	13408/0100	13408/3100
turquoise	13407/0130	13407/3130	---	13408/0130	13408/3130
orange	13407/0140	13407/3140	---	---	---
orange - transparent	13407/0144	13407/3144	13407/2144	13408/0144	13408/3144
salmon	13407/0160	13407/3160	---	---	---
beige	13407/0180	13407/3180	---	---	---
beige - transparent	---	---	---	---	13408/3184
pistachio green	---	13407/3200	---	---	---
pistachio green - transparent	13407/0204	13407/3204	---	13408/0204	13408/3204
white	---	---	---	13408/0210	13408/3210



## EasyCoder

Clean and odorless printing of straws without ink and solvent.

### Product features

- Thermal transfer printer with automatic straw supply (output: up to 3600 straws per hour) for immediately abrasion-resistant print
- Unparalleled precise and clear printing on 0.5 and 0.25 ml straws; easy and quick conversion between different straw sizes
- Prints up to 3 lines per straw, including barcodes, logos, and special characters
- Control via PC by a clear and user-friendly Minitube software
- Easy handling, little maintenance required
- Dimensions (L x W x H): 660 x 370 x 310 mm (PC not included)
- Power supply: 110 V/50-60 Hz or 230 V/50-60 Hz

EasyCoder printer 13038/0000

Thermal transfer ribbon, black 13038/0010



## MultiCoder

Quick and easy machine-readable labeling of lab items.

### Product features

- High resolution inkjet printing
- Print head protection system (avoids drying out of ink)
- Wide variety of product carriers
- No tools needed for change of product carriers
- Pre-designed print layouts
- Loads excel files for printing
- Easy drag & drop editing of print layouts

### + Your benefits

- + Very versatile: print system can label most kinds of materials such as plastics, glass, or aluminum
- + Manually moveable slide and a unique, easy-to-use carrier system allow for a speedy work process
- + Easy printing of information on the smallest amount of space, including text, barcode, QR-Code, and logo

MultiCoder printer 13145/0000



Semen straw processing

### Unique, flexible, versatile

Quick and easy print on a whole range of items: semen straws, goblets, cassettes, culture dishes, macrotubes, syringes, cryovials and many more.



## MPP Uno

Seals and fills 1 straw per cycle – ideal for handling small volumes.



### Product features

- Automatic filling and sealing machine for 0.25 and 0.5 ml straws
- Capacity: approx. 4000 straws/hour
- Fast, tool-free conversion between 0.25 and 0.5 ml straws and vice versa (1-2 minutes)
- Exchangeable hopper, capacity: 2400 MiniStraws (0.25 ml) or 1200 medium straws (0.5 ml)
- Ultrasonic sealing unit, ultrasonic generator in an external casing that can be installed at up to 2.5 m (ON/OFF switch directly on the machine)
- Designed to provide ideal conditions for hygiene and safety
- Can be operated in cold room or cabinet or at room temperature as stand-alone or combined with MiniJet printer (CombiSystem)
- Very compact device which takes up little space; machine dimensions: 460 x 350 x 410 mm (W x H x D) plus ultrasonic generator
- Vacuum unit with integrated reservoir and automatic readjustment function; vacuum level can be easily modified via buttons
- PLC microprocessor control
- Power supply: 110 V/60 Hz or 230 V/50-60 Hz



MPP Uno, complete [1] **13017/0000**

### Accessories

Filling nozzle, for 0.5 ml straws [2] **13017/0017**

Suction nozzle, for 0.5 ml straws [3] **13017/0027**

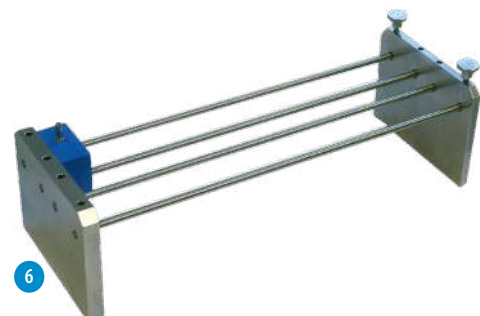
Straw hopper, for 0.25 and 0.5 ml straws [4] **13018/0006**

Washer, for 0.25 ml and 0.5 ml nozzles, 5000/bag **13021/3001**

Filling and suction tubing, 380 mm, sperm-friendly material (silicone), angle cut edge, 100/aluminum foil bag **13021/3800**

Disposable semen cone, 100/bag [5] **13018/0100**

Fixing unit, for filling and suction blocks, stackable, stainless steel [6] **13017/0050**





## SFS 133

### Product features

- Semi-automatic filling and sealing machine for 0.25 or 0.5 ml straws
- Straws are filled and sealed 6 by 6
- Sealing is done securely and hygienically with metal or glass sealing balls (available in different colors)
- An air bubble of 1 cm is automatically produced in each straw
- Capacity: approx. 2000 straws/hour

#### SFS 133, with vacuum bottle, filling, and suction head [1]

for 0.5 ml straws **13133/0133**

for 0.25 ml straws **13133/0135**

#### Low density vacuum pump, 30-60 Hg, with manometer and valve [2]

230 V/50 Hz **13133/0267**

115 V/50 Hz **13133/0268**

#### Cartridge loading device, with loading block and 10 cartridges for 36 straws [3]

for 0.5 ml **13133/0005**

for 0.25 ml **13133/0025**

### Accessories

Filling head with 6 nozzles [4] **13133/1000**

Suction head with 6 nozzles [5] **13133/2000**

Washer for all filling and suction nozzles, 5000/bag **13021/3001**

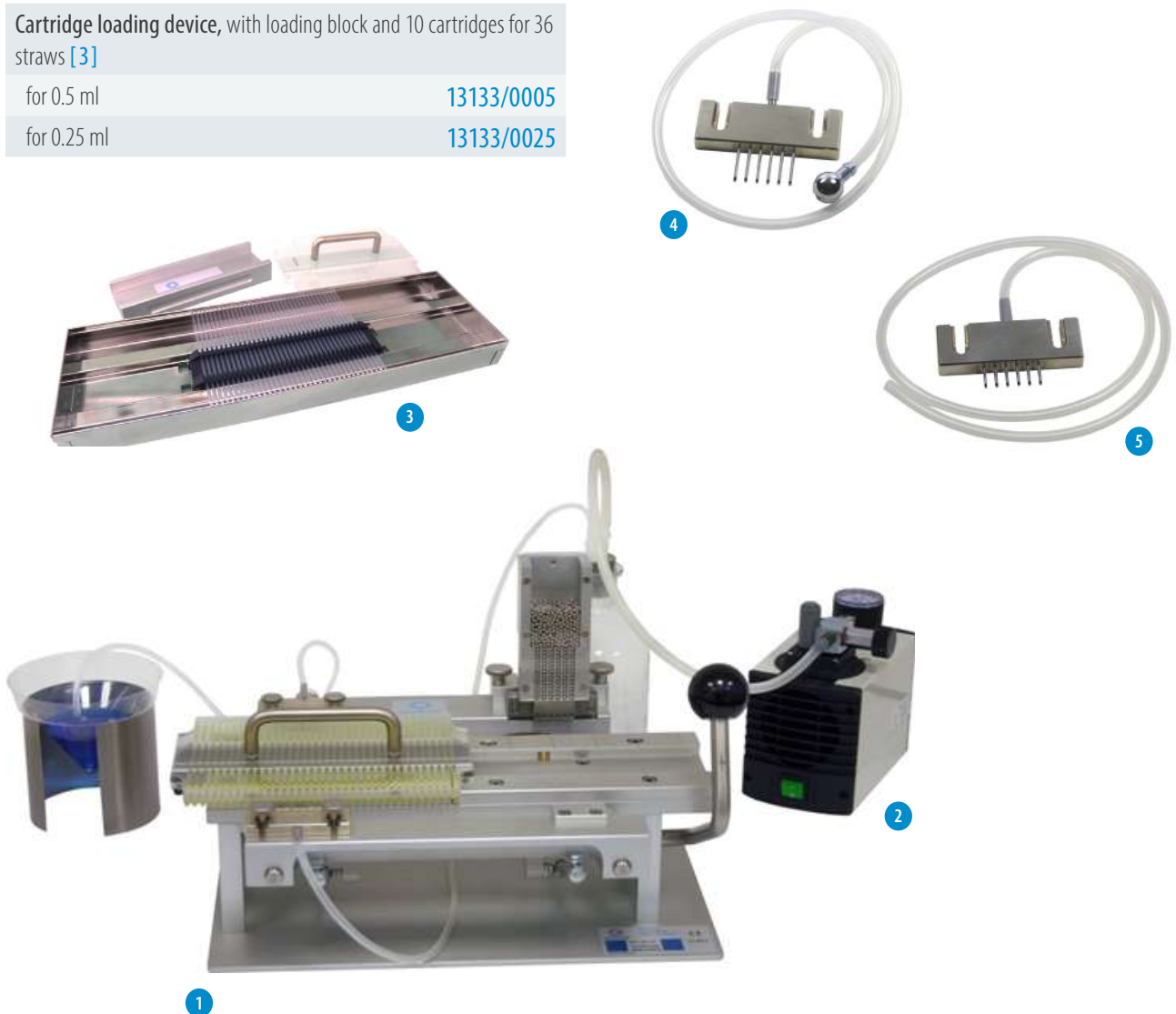
Silicone tubing for SFS, transparent, 3 x 1 mm, length 10 m **13133/3550**

#### Metal sealing ball

for 0.25 ml straws **13400/9970**

for 0.5 ml straws **13400/9900**

Glass sealing ball for 0.25 ml straws, available in different colors **13400/997x**



# 5 SEMEN FREEZING AND CRYOSTORAGE



## Freezing units

Minitube freezing units are compact and easy to handle. They are made of a high-quality Styrofoam box, an inner container of stainless steel and a floating rack. The stainless steel container is filled with liquid nitrogen. The rack keeps the needed distance between 0.5 ml or 0.25 ml straws during the first down phase, while it floats on liquid nitrogen. After that, the straws get manually immersed into the nitrogen.

- Distance between straws and liquid nitrogen level can be adjusted
- Fits 0.5 ml and 0.25 ml straws
- Low nitrogen consumption
- High quality Styrofoam chest and stainless steel inner box
- Easy transport

### Freezing unit

for 20 straws [1] [15043/0636](#)

for 90 straws [2] [15043/0736](#)

### Accessories

Loading block for 90 straws floating rack [15043/0738](#)

### Additional rack

for freezing unit for 20 straws [3] [5015043/0600](#)

for freezing unit for 90 straws [4] [5015043/0900](#)



## Automatic freezer IceCube 14S

Computer controlled freezer, with comfortable data input and automatic recording of the freezing curve.

### Product features

- Temperature range: +40 to -180°C
- Freezing rates: 0.01 to 60°C/min
- Heating rates: 0.01 to 15°C/min
- Display accuracy: 0.01°C
- Temperature measurement via 2 Pt-100 resistance thermometers
- Capacity: approx. 900 x 0.5 ml straws per freezing cycle
- Software for freeze programming and control: unlimited storage of programs and processed files, color graphic display of all temperature curves, wide possibility of parameter settings
- Dimensions: 540 x 420 x 520 mm (L x W x H), weight: 29 kg

IceCube 14S, with connector kit for LN <sub>2</sub> pressure container	
with 10" tablet [1]	16821/3000
with 12" touch screen monitor*	16821/2000
without screen*	16821/1000

### Accessories

Rack for IceCube 14S, for 36 straws [2]	16821/5036
Loading device for straw rack	16821/5037
Handling rack for IceCube 14S [3]	16821/5030
Spacer for IceCube 14S [4]	16821/5018
LN <sub>2</sub> pressure container, 60 l	16820/1900
Roller base for LN <sub>2</sub> pressure container	16501/0204
Pliers for racks [5]	16821/5031

### Embryo freezing with the IceCube:

Autoseeding preparation for freezing embryos	16821/5019
Autoseeding rack (spacer included) [6]	
capacity: 35 x 0.5 ml straws	16821/5020
capacity: 43 x 0.25 ml straws	16821/5021

\* To connect to own PC or laptop.

Larger alternative:  
IceCube 14M



## Goblets

Goblets [1]		
Ø 7.1 mm	white	16907/0071
Ø 10 mm	white*	16910/0010
Ø 13 mm	white*	16913/0133
Ø 35 mm	white	16935/0135
Ø 53 mm	white	16953/0133
Ø 65 mm	white	16965/0133
hexagonal	white	16970/0136

\* Available in different colors.



## Accessories

Goblet canes [2]	
for 2 x 7.1 mm goblets	16965/6171
for 2 x 10 mm goblets	16965/6000
for 2 x 13 mm goblets	16965/6013
Marking label for goblet canes, different colors	13422/00xx
Divider for goblets, 100/bag, 12 x 6.5 cm [3]	16967/0065
Identification rod, 140 mm length	
for 0.25 ml straw	16903/0210
for 0.5 ml straw	16903/1210
Stainless steel funnel for 65 mm goblets [4]	15004/0402



## Cassettes for straw storage

	Triangular cassette [1]*		Flat cassette [2]**	
	long	short	long	short
green	16981/01351	16981/01201	16980/1201	16980/0601
blue	16981/01361	16981/01211	16980/1202	16980/0602
yellow	16981/01371	16981/01221	16980/1203	16980/0603
red	16981/01381	16981/01231	16980/1204	16980/0604
white	16981/01391	16981/01241	16980/1205	16980/0605
beige	16981/01401	16981/01251	16980/1206	16980/0606
orange	-	-	16980/1207	16980/0607

\* For 10/20 straws 0.5 ml or 28/56 straws 0.25 ml.

\*\* For 3/6 straws 0.5 ml or 6/12 straws 0.25 ml.

## Cryostorage container

- With 6 canisters 279 x 41 mm
- Normal working duration: 175 days
- Neck opening: 55 mm
- Overall height: 690 mm
- Capacity: 3732 x 0.5 ml straws
- Full weight: 42 kg

MVE Cryo container ET 35, volume: 36 l

16503/3606



Further cryostorage  
container options



## Vapor Shipper

- 1 canister 278 x 67 mm
- Static holding time: 13 days
- Static evaporation rate: 0.26 l/day
- Capacity: 938 x 0.25 ml/440 x 0.5 ml straws (1 level bulk)
- Neck opening: 70 mm
- Height: 468 mm
- Diameter: 222 mm

MVE Vapor Shipper SC 4/2 V, volume: 3.6 l [1]

16504/2001

- 1 canister 278 x 46 mm
- Static holding time: 21 days
- Static evaporation rate: 0.20 l/day
- Capacity: 452 x 0.25 ml or 210 x 0.5 ml straws
- Neck opening: 51 mm
- Height: 492 mm
- Diameter: 222 mm

MVE Vapor Shipper SC 4/3 V, volume: 4.3 l [2]

16504/3001

Protective shipping container, for Vapor Shipper,  
made of plastic, IATA compliant [3]

16504/3010



## CryoCube™ Dry Shipper

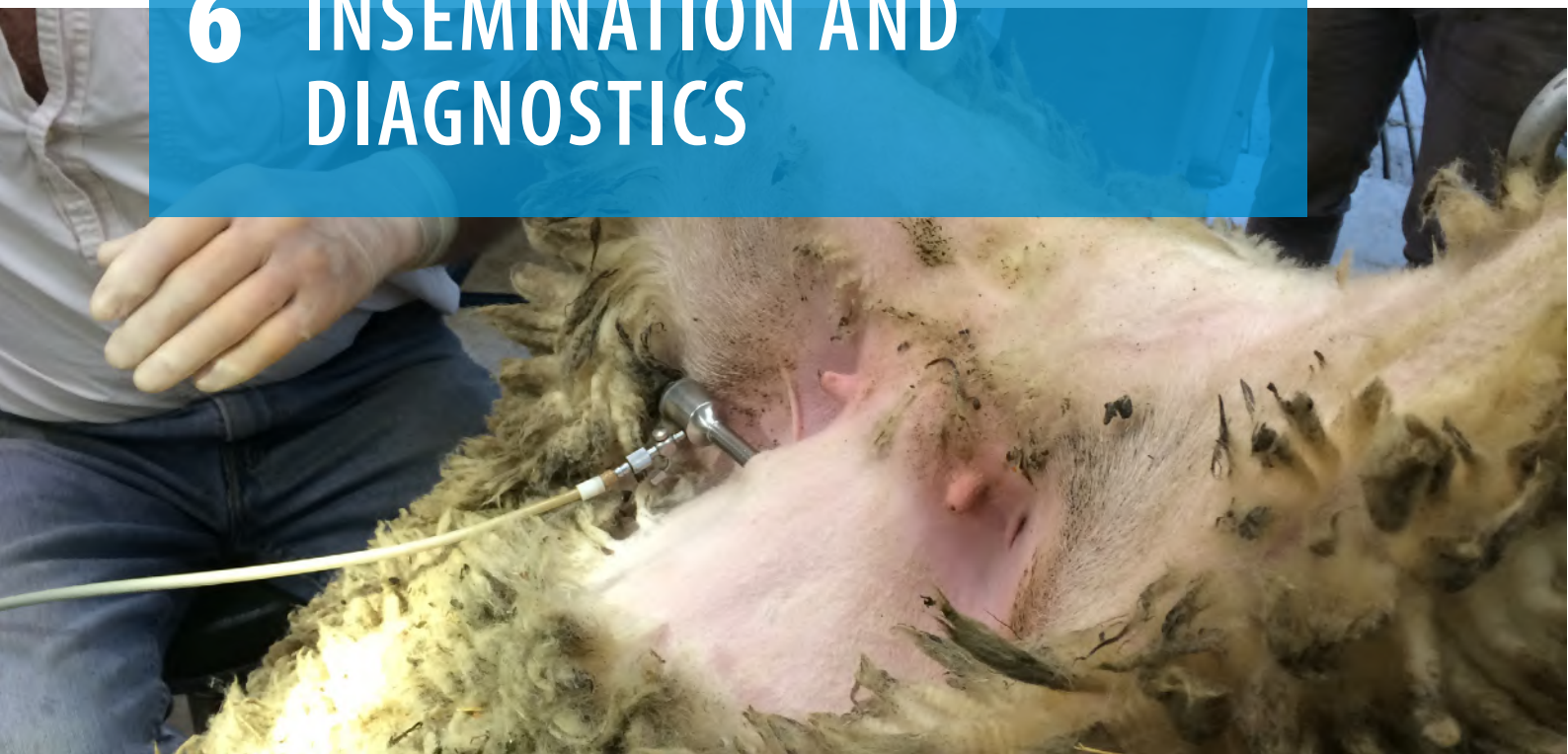
- One-way shipper
- 1 canister 127 x 35 mm
- Static holding time: 5 days
- Capacity: 182 x 0.25 or 88 x 0.5 ml straws
- Neck opening: 35 mm
- Height: 305 mm
- Diameter: 305 mm

CryoCube™ Dry Shipper

16505/0100



# 6 INSEMINATION AND DIAGNOSTICS



## Insemination kit for small ruminants

Rugged plastic case contains:

- 1 MiniThaw thawing unit
- 50 Universal sheaths for all types of straws (short length for small ruminants)
- 100 shoulder length AI gloves
- 1 QuickLock AI gun (short length for small ruminants)
- 1 ReprJelly lubricant, 100 ml
- 1 vaginal speculum for small ruminants with 50 exchangeable transparent plastic tubes
- 1 MiniCutter
- 1 thermometer
- 1 pair of tweezers
- 1 canister clamp

Insemination kit for small ruminants

17350/0110

Components also available individually.



## Insemination pipette for camels

Long pipette for deep intrauterine insemination. Smooth round tip for gentle introduction. Flexible shaft facilitates handling. Suitable for liquid and frozen-thawed semen in straws.

<b>Insemination pipette for camels, 1/bag, sterilized [1]</b>	
length: 65 cm	17209/1265
length: 75 cm	17209/1275

<b>Flexible stylet, used with insemination pipette and 0.5 ml straws [2]</b>	
for 65 cm pipettes	17209/1065
for 75 cm pipettes	17209/1075



## Insemination pipette for small ruminants

Insemination pipette with eccentric tip, can be used with 0.25 ml and 0.5 ml straws, Minitubes and syringe with adapter, for intracervical AI under visual control (speculum).

<b>Insemination pipette for small ruminants, 50/bag [1]</b>	17300/0000
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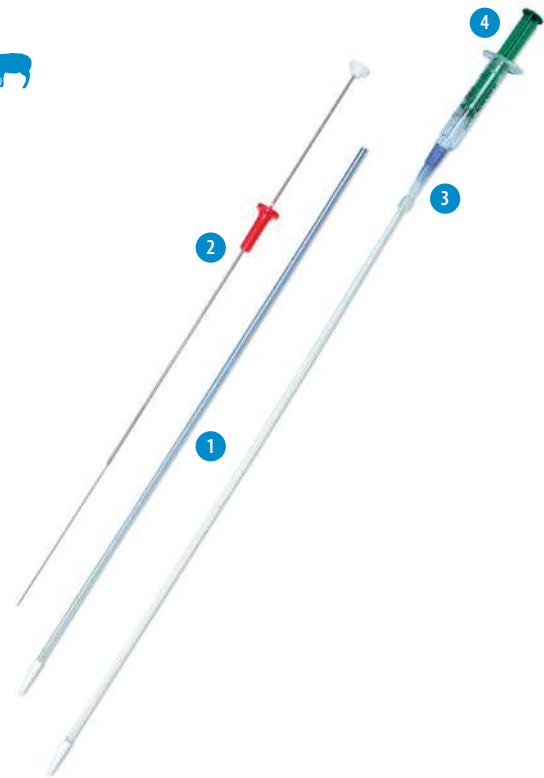
### For frozen semen in straws - use pipette with:

<b>Inseminator for small ruminants, for 0.25/0.5 ml straws and Minitubes [2]</b>	17320/0000
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### For semen in syringe - use pipette with:

<b>Adapter for liquid semen pipette, with tubing [3]</b>	17500/1000
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<b>Disposable syringe, Luer mount, sterilized, all plastic, non-spermicidal, 100/package [4]</b>	19801/0005
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## QuickLock AI gun and sheaths

QuickLock AI gun for small ruminants, to be used with Universal sheaths. Suitable for all kinds of straws (0.25 ml, 0.5 ml and Minitubes). For intravaginal AI without speculum. Very handy lock system for sheaths. Secure emptying of straws without backflow.

<b>QuickLock AI gun for small ruminants [1]</b>	
white finger support of stylet	17350/0000
red finger support of stylet	17350/0003
blue finger support of stylet	17350/0005
yellow finger support of stylet	17350/0008

<b>Universal AI sheath for QuickLock AI gun, round smooth tip, very easy to use, 50/package [2]</b>	17350/0010
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## Vaginal specula for small ruminants

**Vaginal speculum**, battery handle with incorporated lamp, length: 240 mm, diameter: 17.3 mm [1] **17373/0000**

**Disposable transparent plastic tube**, for speculum 17373/0000, smooth front edge, length: 190 mm, diameter: 17.3 mm, 50/package [2] **17373/0001**

**Vaginal speculum**, duckbill type, length: 200 mm, stainless steel [3] **17370/3772**



## Vaginal speculum for camelids

**Disposable speculum**, made of cardboard with reflecting aluminum coating, smooth front edge for gentle introduction, length: 43 cm, diameter: 3 cm, 100/box **17210/0000**



### Accessory for all specula

**LED-light**, battery operated (up to 250 h), with clip for fixing, length: 96 mm **17210/0010**



## Cradle for laparoscopic AI in sheep

The cradle is used for several applications in sheep, goat, and deer when a secure fixation of the animal is required, e.g., laparoscopic insemination, surgical interventions, semen collection with electro ejaculation. The tilt function allows placing the animal in the perfect position for the intended application. Foldability and light weight allow easy transport and storage.

### Product features

- Dimensions in use: 1345 x 680 x 560 mm (W x H x D)
- Dimensions folded: 550 x 310 x 270 mm (W x H x D)
- Weight: 16 kg

**Cradle for laparoscopic AI** **23700/3000**



## PBS Blue

Semen marker solution for laparoscopic insemination in sheep and thaw medium for sheep semen pellets.

**PBS Blue**, 20 ml flask with rubber septum closure **21500/0001**





## Laparoscopic AI in small ruminants

### Laparoscopic AI equipment:

<b>Laparoscope</b> , Ø 5 mm, working length 300 mm	
0° [1]	23700/3050
30° [2]	23700/3053
<b>Multiport trocar system</b> , Ø 5.5 mm, working length 105 mm	
with cutting pyramidal tip [3]	23700/3055
with cutting conical tip [4]	23700/3056
with atraumatic blunt ball tip [5]	23700/3057
<b>Camera Z1</b> with controller, camera head, C-Mount adapter (f=25 mm) [6]	23700/3300
<b>Camera Z2</b> with controller, camera head, C-Mount adapter (f=25 mm), and with two remote control buttons and USB flash drive for storing images	23700/3301
<b>CO<sub>2</sub> insufflator</b> with high-pressure CO <sub>2</sub> tubing, sterile filter and silicone tube, flow rate 20 l/min [7]	23700/3100
<b>LED high-performance light source</b> , 180 W [8]	23700/3200
<b>Fibre optic light cable</b> , Ø 3.5 mm, length 3000 mm [9]	23700/3250

### Lap AI Gun and Robertson pipette:

<b>Robertson pipette</b> , non-sterile, 10/package, can be used with Lap AI gun or syringe [1]	
for standard laparoscopic insemination	23700/2200
for laparoscopic insemination especially in stimulated donor ewes with thicker uterine wall (longer needle)	23700/2201
<b>Lap AI Gun</b> , for use with Robertson pipettes and 0.25 ml straws [2]	23700/2205
<b>Stylet</b> , for removal of emptied 0.25 ml straw from Robertson pipette [3]	23700/2206
<b>Inner catheter</b> , for Lap AI Gun, 50/bag [4]	23700/2207



## MiniThaw thawing unit

- Variable temperature setting (ambient to +50°C)
- Digital display of current temperature
- Straw lift has three compartments and allows thawing of up to 10 straws at a time (0.5 ml or 0.25 ml)
- Connects to on-board 12-24 V socket and to mains 110-230 V socket via USB-C cable or adapter
- Robust and easy to handle

MiniThaw with USB-C cable **17048/0001**



## MiniCutter

- Precise cutting of 0.25 and 0.5 ml straws
- Facilitates straight cut at exactly the right length, which helps to avoid semen loss
- Ergonomic shape, easy to keep clean

MiniCutter for straws **17062/0010**



## Insemination gloves

Recyclable polyethylene gloves that are both flexible and strong, combining excellent feel and good protection. The reduced diameter of the glove will help to keep it on the arm without compromising its robustness.

Insemination gloves, 5 finger, shoulder length	
sensitive, green, 100/box [1]	<b>17080/0015</b>
super-sensitive, transparent, 100/box	<b>17080/0050</b>
super-sensitive, transparent, single packed, sterilized, 50/box	<b>17080/0052</b>
green, single packed, sterilized, 50/bag [2]	<b>17080/0250</b>



## Lubricant Reprojelly

- Iso-osmotic, water soluble and sperm-friendly
- Batches are tested for sperm compatibility
- Ideal viscosity to better coat gloves, AI equipment and instruments

100 ml tube, resealable [1]	<b>11907/0100</b>
1 l bottle, resealable [2]	<b>11907/1000</b>
3 l canister, resealable, without dispenser [3]	<b>11907/3000</b>
Dispenser for canister, reusable	<b>11907/3100</b>



## ■ Ultrasound scanner Minitube 3.0 Plus

Portable ultrasound scanner for multi-species obstetrical measurements with accurate automatic calculation of gestation days.

- Includes 11" tablet, power supply, carrying strap, Reprojelly lubricant, and charger, all housed in a heavy-duty case
- Compatible with any Android device with USB-C port
- Supports multiple scanning modes, including B-mode, dual B-mode, M-mode, PW, and CF color Doppler with automatic parameter calculations
- Built-in battery provides extended operation (up to 6 hours) with fast charging (2-3 hours)
- Large, glare-free display ensures clear visualization of anatomical structures in all lighting conditions
- Compact, lightweight, and IPX7 waterproof



Ultrasound scanner Minitube 3.0 Plus [1] 23500/2005

Convex probe, 3.5 MHz, for transabdominal pregnancy detection in small ruminants [2]



Linear rectal probe, 6.0 MHz, for transrectal pregnancy detection in camels [3]



## ■ Ultrasound scanner Minitube 3.0

Portable ultrasound scanner for pregnancy detection in small ruminants. Complete with 3.5 MHz convex probe with built-in freeze button. Large display for detailed visualization of the ultrasound image on an 8" tablet with charger in a robust case.

Ultrasound scanner Minitube 3.0 23500/2000



## ■ Pregnancy tester

For pregnancy detection in small ruminants after 65 days using ultrasonic waves. Complete with carry case, test body, wrist band, contact gel bottle and standard battery. Operates with rechargeable or standard battery. Very handy, robust and easy to use. Good freedom of movement due to the probe connected to a spiral cable.

Pregnancy tester 23350/2838

Charger for 100-240 V, with rechargeable battery 23350/2840



## ■ Cytology brush for camels

Disposable set for collecting endometrial cells for cytology. Single packed and single use, sterilized, with hygienic cover.

Cytology brush for camels 17075/0010



# 7 EMBRYO TRANSFER



## Vitrification unit

Set for vitrifying embryos or oocytes in OPS (=open pulled straws) or conventional straws.

Unit consists of:

- Styrofoam box with stainless steel vitrification bath
- Material for vitrification: OPS, OPS container, sterile straws (0.25 ml), flat cassettes
- Manual with detailed description of media preparation

Vitrification unit

19500/2000



## Herrid's Vitrification Kit for camels

Contains all media to vitrify up to 30 camel embryos:

- Holding medium
- Vitrification medium VS1, VS2 and VS3
- Thawing solution WS1 and WS2

Herrid's Vitrification Kit

19982/6850



## Recovery media

Ready-to-use media for embryo recovery. Complete formulation containing buffers, BSA or PVA and antibiotics.

- Available in plastic bottles and infusion bags
- Bottles with tab on the bottom to hang them up and rubber stopper for easy connection of the Y-tubing
- Infusion bags with 3-way port configuration and sealed ports for hygienic fluid removal
- Graduation in steps of 100 ml simplifies dosage and allows monitoring the volume during flushing

<b>BoviFlush</b> , recovery medium for embryos of small ruminants	
with BSA, 1 l, bag	19982/6001
with BSA, 1 l, bottle	19982/6003
with PVA, 1 l, bag	19982/6011
with PVA, 1 l, bottle	19982/6009
<b>CamelFlush</b> , recovery medium for camelid embryos	
with BSA, 1 l, bag	19982/6601
with BSA, 1 l, bottle	19982/6701
with PVA, 1 l, bag	19982/6611
with PVA, 1 l, bottle	19982/6801



## Holding medium

The solution contains glucose, pyruvate, BSA, amino acids, growth factors and antibiotics. BoviHold is used for:

- Holding embryos at room temperature in ambient conditions
- Transporting embryos
- Washing and rinsing embryos
- Loading embryos for transfer to recipient animal

<b>BoviHold</b>	
3 bottles of 10 ml each	19982/6047
20 ml	19982/6046



## Cryopreservation medium

Medium for conventional slow rate freezing of embryos. The cryopreservation solution contains a buffered solution with D-glucose, Sodium-pyruvate, BSA and antibiotics. With ethylene glycol for conventional freezing and direct transfer after thawing.

<b>BoviFreeze</b> , 3 bottles of 10 ml each	19982/6052
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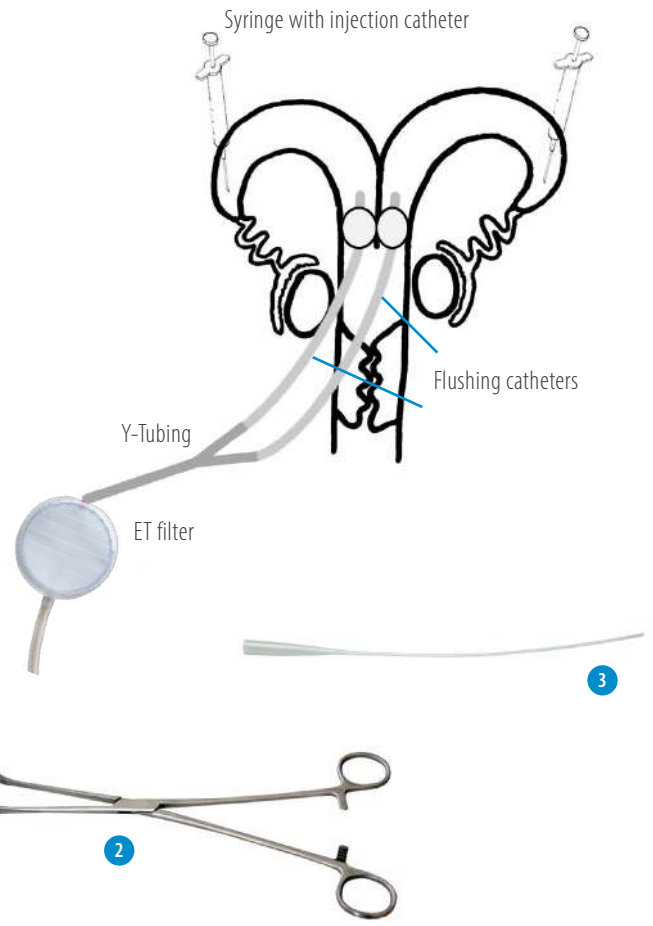


## Safe and reliable

Manufactured under GMP conditions in dedicated clean room with strictly defined guidelines and processes for production and quality control.

**Embryo collection catheters for small ruminants** 

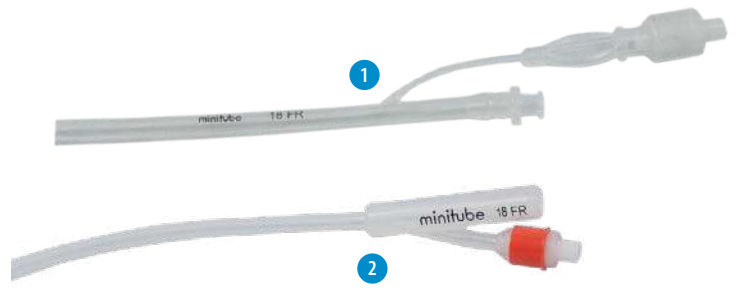
Embryo collection catheter CH 8, silicone, 3 ml balloon, length: 24cm, 2-way, Foley type [1]	19009/6008
Single connector tubing	19009/6001
Y-tubing	19009/6002
Injection catheter, for embryo flushing medium in surgical recovery	19810/0960
Babcock tissue forceps, for holding the uterine horn in surgical collection and transfer, 30 cm, stainless steel [2]	15010/6024
Tomcat catheter, disposable, 50/bag [3]	19001/0050



**Embryo collection catheters for camelids** 

Silicone catheters, 650 mm length (26"), 20-30 ml inflation cuff, high volume recovery ports, Luer activated valve, sterilized.

<b>Silicone catheter 2-way, Luer Lock, 1/bag [1]</b>	
CH 12	19005/0100
CH 16	19005/0102
CH 18	19005/0103
CH 20	19005/0104
<b>Silicone catheter 2-way, Foley end, 1/bag [2]</b>	
CH 12	19005/0220
CH 16	19005/0221
CH 18	19005/0222
CH 20	19005/0223
Mandrin for flushing catheter, CH 18/20	19007/0018



## Filters for embryo collection

- Secure fixation of the lid during collection and easy to open after collection (no screw cap)
- Integrated search dish engraved with a grid makes it easy to search and find embryos (ideal mesh size for all bovine embryo sizes)
- Filter mesh cannot dry out as it remains in contact with fluid
- Excess fluid is controlled and removed through outlet tubing with attached thumb clamp (entry hole is big enough to ensure the necessary flow speed of the flushing medium)
- Connection to all types of Y-tubing is possible
- Sterilized and absolutely tight

## EmSafe

- Maintains a constant 60 ml of flushing fluid in the dish
- Air vent in the lid and air outlet are provided with a filter which is holding embryos securely in the system

EmSafe filter

19010/6000

## Miniflush®

- Vertical recovery system with large filter surface area
- Maintains a constant 20 ml volume during the entire flushing procedure
- Due to its shallow design, search dish is perfectly suited for use with all microscopes

Miniflush® filter

19222/2000

## Flushing tubing

Equipped with white and blue clamps to better distinguish outlet/inlet during the flushing process. Tubing made of very smooth, flexible material. End for filter connection requires no extra adapter. Disposable, sterilized, 1/bag.

Y-tubing for embryo collection with the EmSafe filter

Luer end 19011/0100

Foley end 19011/0200

Y-tubing for embryo collection with the Miniflush® filter

Luer end 19011/0000

Foley end 19011/0001

## Easy and safe to use

All-in-one dual-purpose filters and search dishes that require no attention during flushing procedure. Embryos are recovered directly from the filter dish.



### 5-well dish with lid

Embryo culture dish, rounded well edges, mouse embryo batch tested. Produced from material free of Bisphenol A and designed to facilitate pH equilibration of culture media.

5-well dish with lid, sterilized, rounded well edges, 19021/0001  
MEA tested



### Steripette

Steripette for embryo handling, 55 mm, individually packed, sterilized, for use with 1 ml insulin syringe.

Steripette, 50/package 19025/0050



### Micropipettor

Micropipettor for handling of embryos, easy and precise pipetting by handling wheel, for all sizes of capillary tubes up to 1 ml.

Micropipettor 19022/0002



### Petri dish

Plastic, for embryo handling.

Petri dish	
diameter 35 mm	19020/0035
diameter 94 mm	19020/0094
diameter 145 mm	19020/0145
with grid, diameter 65 mm	19020/2065



### MiniStraw, 0.25 ml, 133 mm

MiniStraw, sterilized, 10/package	
transparent [1]	19042/0010
yellow (direct transfer) [2]	19042/1010
transparent with glass sealing ball	19041/0010
MiniStraw, sterilized, transparent, 10/package, with white ID rod seal (other colors available) [3]	
	19040/0010



Wide range of MiniStraws in different colors available





## CryoSealer

Manual sealer using ultrasound technology. Can be used for 0.25 and 0.5 ml straws. Ultrasound welding facilitates a perfect and uniform seal of each straw. Power supply: 100-240 V AC / 50-60 Hz.

CryoSealer	13135/0000
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## Neopor transport box

For shipping embryos at 5°C. Made of highly insulating Neopor. Holds constant temperature for up to 45 hours. Includes 2 disposable syringes (5 ml, 10 ml), 2 plastic tubes (13 ml), 1 vial (50 ml), 2 cold packs.

Neopor transport box [1]	17229/0005
Transport vial with secure snap cap, round bottom, 5 ml, single packed, sterilized [2]	19180/5006



## Transfit Lateral sheaths and ET Cannula

Transfit Lateral, sheath with metal tip and side opening, sterilized, for 0.25 ml straws [1]	
5/package	19240/1005
1/package, with hygienic sheath	19240/1006
ET Cannula to be used with Transfit Lateral sheath [2]	
Deep Chamber - for uncut straws	19240/1000
Shallow Chamber - for cut straws	19240/1001



## Sanitary sheaths

Hygienic sheath, thin plastic sheath, roll with 80 units [1]	19271/0080
Sanisheath, rigid hygienic sheath with perforable cap, 25/package [2]	19270/0025



## Laparoscopic equipment

Please refer to page 23 for laparoscopic equipment for small ruminants.

Embryo transfer

# 8 TRAINING AND SERVICE



## Training and education

Minitube offers a variety of seminars and training opportunities in small ruminant and camelid reproduction techniques worldwide, e.g., laparoscopic artificial insemination, semen collection, evaluation and freezing, embryo flushing and transfer.

All training courses blend theoretical knowledge and practical experience. Our instructors are well-respected experts in assisted animal reproduction. Minitube cooperates closely with leading studs, universities, and research centers. The collective experience and knowledge are incorporated into our seminars where the latest technologies and practices are demonstrated and trained with the participants.

The courses are interactive workshops where presentations, discussions, demonstrations, and practical exercise go hand in hand. Minitube training sessions offer useful troubleshooting tips, and the trainees benefit from the “learning by doing” approach. Participants receive valuable documentation and a certificate of participation. Minitube trainings are very flexible and available at Minitube premises, at partner facilities, at the customer site and virtually.

We are happy to find the best training option for you.  
Please contact us: [seminar@minitube.de](mailto:seminar@minitube.de)

## Mobile lab service

Minitube Middle East offers unique professional lab service to customers particularly in remote areas. The Mobile Lab is a van equipped with high-quality Minitube equipment to analyze and preserve/freeze animal semen or embryos.

Minitube Middle East offers the service to customers in the United Arab Emirates, Saudi Arabia, and Oman, in regions which otherwise have no access to a professional laboratory for semen and embryo preservation.

Please contact us for further information about the service and if you would like to discuss how to construct your own mobile laboratory: [minitube@minitube.de](mailto:minitube@minitube.de)







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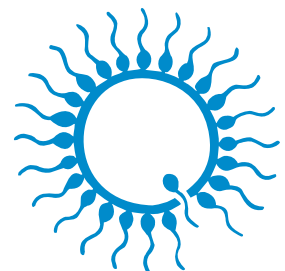
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