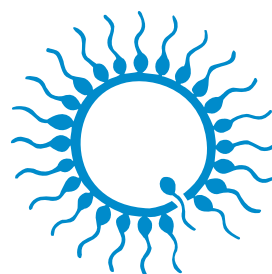




# PORCINE

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 LABORATORY MANAGEMENT



## Electronic boar identification

The wireless combination of iMale RFID reader and iMale label printer allows **safe reading of animal ear tags** and **direct printing of barcode labels** with the animal ID in the semen collection area. The printed barcode label can be stuck on the semen collection bag/cup and can then be used to securely identify and process ejaculates in the laboratory, i.e. with Prism10.

- Available as an independent system or in addition to Prism10
- iMale: operating distance 30 cm, plus length of device 65 cm
- iMale S: operating distance 20 cm, plus length of device 20 cm
- Maximum distance for wireless data transfer from the iMale reader to the label printer is about 10 meters
- All HDX and FDX-B transponder ear tags can be read

### RFID reader

iMale, with built-in quick-charger and external power supply [1] **18001/0000**

iMale S, with built-in quick-charger, external power supply and carry case [2] **18001/0010**

### Accessories

iMale label printer [3] **18001/0200**

Label for iMale printer, 41 x 25 mm, roll with 425 labels [4] **18001/0210**



## Prism10 lab software

With its dynamic user interface, Prism10 lab software offers a modern process and product-based concept for controlling boar semen production.



### Product features

- Straightforward ejaculate processing: boar ID, ejaculate volume (scale), concentration (photometer or AndroVision®), motility and morphology (AndroVision® or manual), evaluation and collector identification and more
- Data connection to SmartDispenser, AutoDispense, HyPacker, MiniBSP, TwinPacker, QT-Packer, SPS-11, label printer, external programs
- Flexible architecture: operation from any connected computer and mobile devices
- Product-centered approach allows for customized mapping of production processes: every ejaculate can be processed into different products, for example with different number of sperm per dose, different packaging, dose volume, etc.
- Flexible tool to import and update donor information from MS Excel
- Flags for marking characteristics of ejaculates, collections, and boars (e.g., reason for discard, quality of jump)
- Adjustable limits and warnings for ejaculate data to help stud manager in decision-making during production
- Live data can be accessed remotely, e.g., orders filled, progress of daily production, discarded ejaculates, etc.
- Comprehensive reporting with customizable templates and export function (PDF, MS Excel)
- Donor animal dashboard with graphs: overview of average genetic index, rest time, age, weekly available sperm output, barn usage and others
- Production dashboard with graphs: overview of semen quality, produced doses per period, per breed, per process, and many more



### + Your benefits

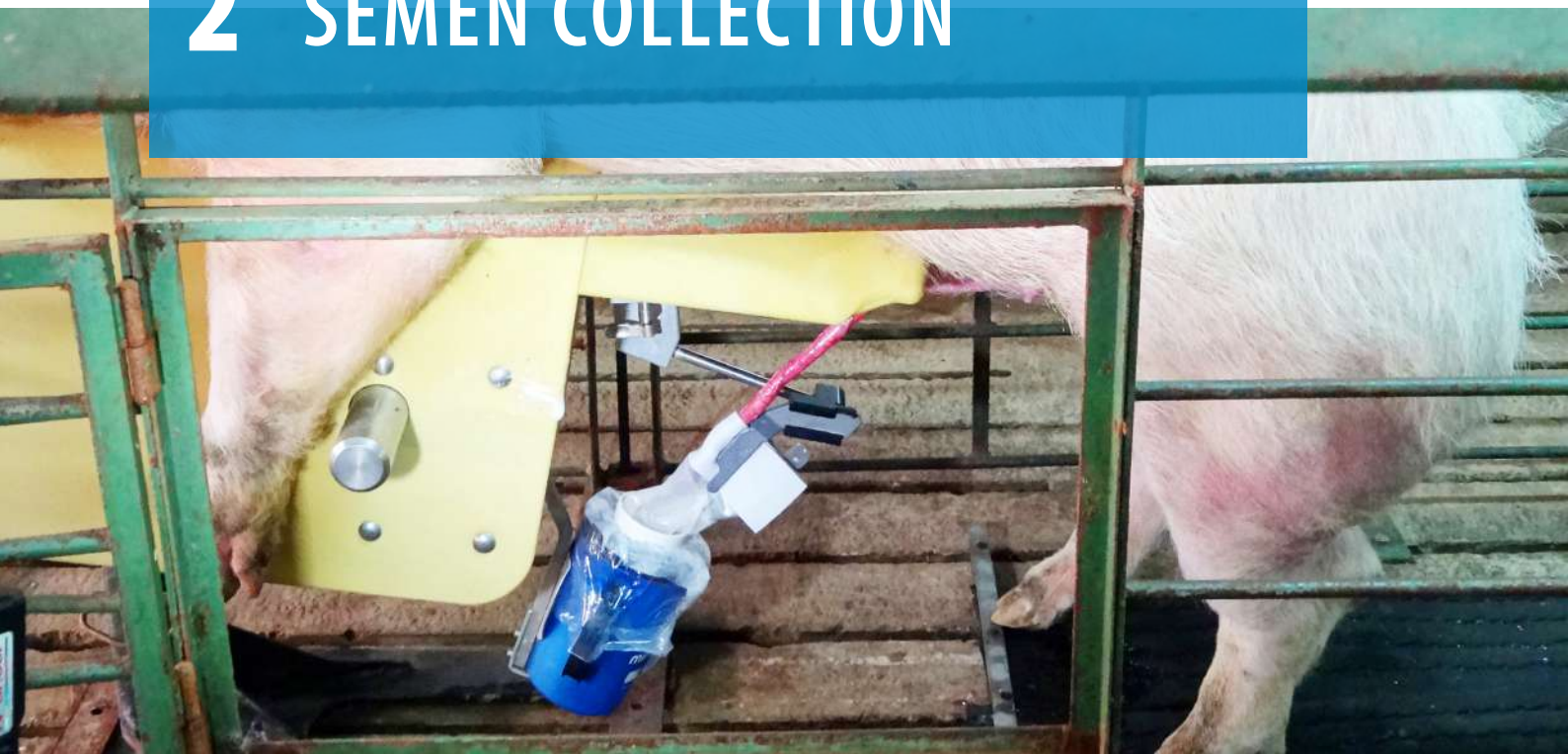
- + Newly developed, modern, browser-based software
- + Guaranteed long-term support by experienced team of developers
- + Hassle-free connection to Minitube devices
- + Secure and traceable input of all data, entry errors are minimized
- + Data is accessible remotely by smartphone
- + High production reliability, operation is not dependent on a single device
- + The most important performance parameters at a glance
- + Great flexibility in serving different customers with various products
- + Seamless integration of production and sales
- + Statistical analysis of all production data

Prism10 lab software subscription

12535/0010



## 2 SEMEN COLLECTION



### Collection dummy

The Minitube boar dummy is height adjustable, and spring mounted, **easy to use** and offers an **optimal collection comfort** for the boar. The smooth and easy to clean surface of the firm plastic cover guarantees **maximum hygiene**. Cover and mounting part can easily be replaced. A BoarMatic upgrade is possible.

#### Collection dummy

|                                                |            |
|------------------------------------------------|------------|
| 11" for mature boars, plastic cover [1]        | 11100/0207 |
| 11" for mature boars, stainless steel body [2] | 11100/0210 |
| 9" for younger boars, plastic cover [1]        | 11100/0107 |
| 9" for younger boars, stainless steel body [2] | 11100/0108 |

### ⚙️ Accessories

#### Replacement cover

|                    |              |
|--------------------|--------------|
| for boar dummy 11" | 5011100/0233 |
| for boar dummy 9"  | 5011100/0133 |

#### Mounting part

|                    |            |
|--------------------|------------|
| for boar dummy 11" | 11100/0204 |
| for boar dummy 9"  | 11100/0203 |



## BoarMatic

With the BoarMatic, Minitube has developed an efficient, improved technique of boar semen collection. The BoarMatic boar dummy is provided with an integrated mechanism for automatic semen collection.



### Product features

- **Boar dummy**, height adjustable by pneumatic spring
- **Slide** underneath the dummy with a **holder** for the semen collection cup and a **clamp** for the artificial cervix (AC)
- **Single use AC**, a true copy of the porcine cervix in texture and surface
- Easily **exchangeable mounting part** that can be replaced within a few seconds, therefore ensuring maximum hygiene conditions during boar semen collection

| BoarMatic                                      |            |
|------------------------------------------------|------------|
| 11" for mature boars, plastic cover [1]        | 11100/0202 |
| 11" for mature boars, stainless steel body [2] | 11100/0200 |
| 9" for younger boars, plastic cover [1]        | 11100/0201 |
| 9" for younger boars, stainless steel body [2] | 11100/0199 |

### Accessories

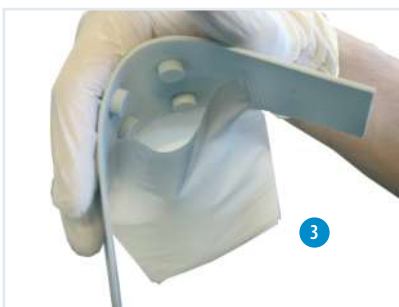
|                                                              |            |
|--------------------------------------------------------------|------------|
| Artificial cervix (AC), single use, 50/bag [3]               | 11100/0211 |
| Semen collection cup, for use with AC                        | 11100/0215 |
| BoarMatic clamp, holds artificial cervix (AC) [4]            |            |
| right side                                                   | 11100/0205 |
| left side                                                    | 11100/0206 |
| Height adjustable clamp holder                               | 11100/0208 |
| Rubber mat for boar dummy, 150 cm x 100 cm x thickness 23 mm | 11100/0040 |
| Mobile support for boar dummy                                | 11100/0110 |

### Your benefits

- + Suitable for all boars, easy to handle, adaptable to existing installations
- + Simple mechanics, no electric or pneumatic connections necessary, requires low maintenance
- + Extremely hygienic: closed system from the boar penis to the bag
- + Time saving: increased number of collections per hour
- + Can be operated from left or right side



Semen collection



### Artificial cervix (AC)

Rubber cushions stimulate the boar and assure a perfect hold for the tip of his penis. A tear-away inner pouch to collect the first sperm free jets of the ejaculate and a sheath leading the ejaculate into the semen collection cup are integrated in the AC.

## US Bag®

### Product features

- Semen-friendly material
- Integrated non-woven filter
- Perforation line for tearing off the filter after use

### + Your benefits

- + Complete one-way solution from semen collection to packaging
- + Easy removal of bulbourethral gland secretion
- + Quick and clean preparation of the semen collection cup: filter and inner surface of the US Bag® are kept contamination free
- + Simple and efficient semen processing: the ejaculate remains in the US Bag® for dilution and packaging
- + No more time-consuming sterilization
- + Essential improvement of lab hygiene
- + Clear foil allows an easy inspection of the raw ejaculate



### Perfect combination

With the US Bag® and BoarMatic, boar semen can be collected efficiently under optimal hygienic conditions.



US Bag®, 100/package

|                          |            |
|--------------------------|------------|
| volume 1 l               | 11123/0500 |
| volume 3.5 l             | 11123/0100 |
| volume 3.5 l, with spout | 11123/0200 |
| volume 5.5 l             | 11123/0550 |

#### Preparation of collection cup with US Bag®



#### Tearing off the filter after collection



## StimuBoar

StimuBoar assists with the training of boars on a phantom. The spray is applied to the boar snout and directly to the dummy when training a young boar. The spray can also help to stimulate old boars to mount the dummy quicker.

StimuBoar, 35 ml, approx. 44 applications

17115/9005



## Warming cabinet

The warming cabinet is designed to **pre-warm semen collection material** in the collection area, i.e., collection bags, cups and ACs for the BoarMatic. It has a **net volume of 156 liters** and is equipped with racks to optimize the storage of material.

Warming cabinet, +37°C, 230 V

14160/0150



## Further products for semen collection

**Semen collection cup**, insulated, extra wide opening, volume 1 l

blue, recommended for use in collection area [1] 11123/1000

white, recommended for use in lab [2] 11123/2000

**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

**Hygienic glove**, for the protection of the collection glove, 100/package 11128/0100

**Semen collection bag**, 210 x 300 mm, volume 1 l 11123/3010

**Filter for boar semen**, non-woven tissue, non-absorbing, 240 mm diameter, 200/package [4] 11123/3020



1



2



3



4

# 3 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

## ⚙️ 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



1



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

#### AndroVision® software

|                                           |            |
|-------------------------------------------|------------|
| with PC and monitor [1]                   | 12500/0000 |
| with PC, touch screen and barcode scanner | 12500/0001 |
| AndroVision® high speed color camera [2]  | 12500/4400 |

## AndroVision® software modules

|                                   |            |
|-----------------------------------|------------|
| Module AutoMorph                  | 12500/1000 |
| 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 CX 43

- Phase achromat optics with universal condenser
- Heated microscope stage with temperature control unit HTi 200 and additional warming plate (180 x 180 mm)
- Integrated LED illumination
- Ergonomic design

Phase contrast microscope CX 43, with phototube (trinocular), objectives 20x, 40x [1]

Shelf system for HTi control units and small warming plates (1 pcs.) [2]



## Phase contrast microscope MBL

Functional microscope for semen analysis with heating system and temperature control unit for individual temperature adjustment.

### 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]

12010/3050

### 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

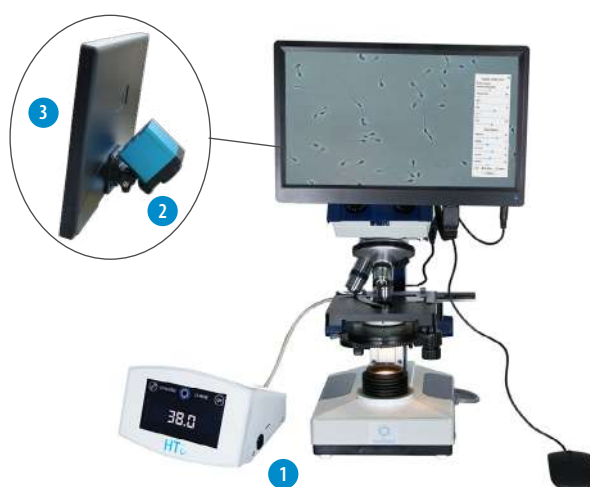
12010/3101

Digital color camera for microscopes [2] with integrated image display software

12110/1600

Monitor 11.6" with HDMI input [3]

12110/1610



## Semen stains

Spermac, stain for morphology analysis, 4 x 50 ml [1]

15405/0000

Farely stain, for morphology analysis, 3 x 250 ml [2]

15405/0026

SpermBlue, stain for morphology analysis, 250 ml

15405/0027

Eosin G, 2% solution for supravital staining, 50 ml [3]

15405/0025

Nigrosin, 4% solution for supravital staining, 50 ml [4]

15405/0029



## 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 |
| Macro cuvette, 4 ml, 100/box                                            | 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 |

## Photometer SDM 1

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

Photometer SDM 1, calibrated for porcine semen [1] 12300/0100

### Accessories

|                                                          |            |
|----------------------------------------------------------|------------|
| Micro cuvette for SDM 1, 100/box [2]                     | 12300/1111 |
| Multispecies software for reprogramming to other species | 12300/0130 |

## Nutating Mixer

For homogenization of samples in the quality control process, for up to 5 semen tubes or bags. Speed range: 20 rpm, maximum load: 0.8 kg, dimensions: 241 x 171 x 152 mm (W x D x H).

Nutating Mixer, 230 V/50 Hz 14703/0310

## Proven accuracy

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



# 4 SEMEN DILUTION



## Accurate dosage of antibiotics

Minitube's ADA protocol ensures consistent and accurate dosage of antibiotics in extended boar semen and avoids the handling of antibiotics in powder form.

### Key features of the ADA protocol

- The ejaculate is diluted in a two-step process. Antibiotic-free extender is used for the main dilution step. An antibiotic concentrate is added separately.
- The calculated end-volume of the finally diluted ejaculate defines the required volume of the antibiotic concentrate as well as the volume of the antibiotic free main extender.
- The same amount of antibiotics is added per sperm cell, independent of the dilution ratio.
- The fully automated protocol with Prism10 (page 3) and SmartDispenser 3.0 S, ADA extension (page 13) is easy to integrate into existing operations.



## ADA-pouch, antibiotic supplement

- To prepare antibiotic concentrate according to Minitube's ADA protocol
- Contains antibiotics in powder form in the quantity for 3 liters of antibiotic concentrate and 100 liters of extender
- Unique water-soluble foil makes the preparation of an antibiotic concentrate and of the ready-to-use extender very easy and safe
- Dust free handling of antibiotics protects lab personnel and minimizes the risk of building up antibiotic resistances
- Different antibiotic concentrates are color-coded for easy identification
- Can also be used to prepare ready-to-use boar semen extender with the standard dilution protocol

### ADA-pouch, antibiotic supplement for boar semen extender with

|                                             |            |
|---------------------------------------------|------------|
| Gentamicin, 25 g                            | 13540/6025 |
| Ampicillin, Apramycin, 50 g                 | 13540/6026 |
| Gentamicin, Lincomycin, Spectinomycin, 82 g | 13540/6027 |



## Secure and precise dilution

Intelligent combination of devices ensures accurate extender dosing, helps to achieve very precise sperm cell numbers per dose and an efficient workflow in the semen lab.

### SmartDispenser 3.0

- Assembly includes pump unit with integrated controller, scale, stand to hold the tubing, and required tubing with sinker
- High dilution accuracy: constant feedback between pump and controller
- Quiet and low vibration high flow pump units
- Small footprint, controller can operate two pump units
- Can be combined with a heated extender vat and Prism10 lab management software
- Pre-dilution option and manual mode for just revolving the extender in the vat
- Simple operation and easy navigation with touch display
- Splash reduction for less spillage during dilution
- Pulsation damper ensures a smooth fluid flow

#### SmartDispenser 3.0

|                                                                             |            |
|-----------------------------------------------------------------------------|------------|
| XL, pump: up to 12 l/min, scale: up to 24 kg with a resolution of $\pm 2$ g | 13200/0401 |
| L, pump: up to 6 l/min, scale: up to 24 kg with a resolution of $\pm 2$ g   | 13200/0402 |

### Accessories

#### Semen mixing cylinder

|       |            |
|-------|------------|
| 3.5 l | 13203/0001 |
| 5.5 l | 13210/0030 |

#### Silicone tubing for

|                                                               |              |
|---------------------------------------------------------------|--------------|
| SmartDispenser 3.0 XL, $\varnothing$ 12.7 x 3.2 mm, 25 m/roll | 5013200/6051 |
| SmartDispenser 3.0 L, $\varnothing$ 8 x 2.6 mm, 25 m/bag      | 5013215/0551 |

### SmartDispenser 3.0 S, ADA extension

- Optimal setup for Minitube's ADA protocol (page 12)
- Provides a convenient way to add a second pump to the SmartDispenser L or XL setup by using one controller to operate both pump units
- One pump provides the antibiotic-free extender, the other the antibiotic concentrate
- Pumps are stackable to maintain the same small footprint
- Includes a SmartDispenser 3.0 S pump unit, the necessary cables to connect the two pumps together and mounting parts to organize the tubing

|                                     |            |
|-------------------------------------|------------|
| SmartDispenser 3.0 S, ADA extension | 13200/0420 |
|-------------------------------------|------------|



Semen dilution



## Androstar® Premium

Premium extender for boar semen long term preservation.

- Ideal extender for extra protection under difficult transport and temperature conditions or for challenging boar lines
- External influences on the sensitive sperm cells are effectively buffered over a wide temperature range of **+5°C to +25°C** (storage at 5°C allows to control resistant bacterial contamination)
- Provides greater latitude in acceptable semen temperature fluctuations and processing schemes
- Available with organic bactericidal supplement (OBS) providing effective control of bacterial contamination with reduced or even without antibiotics in the extender

### Androstar® Premium

|            |            |
|------------|------------|
| 1 liter    | 13533/1001 |
| 5 liters   | 13533/1005 |
| 10 liters  | 13533/1010 |
| 100 liters | 13533/1100 |

## Novistar®

Essential extender for boar semen long term preservation.

- Ideal extender for extended storage and transport times
- Designed to perform in a temperature range of **+15°C to +20°C**
- Novel, equilibrated structure maintains the fertilizing capacity of sperm from day one at a superior level compared to traditional extenders

### Novistar®

|            |            |
|------------|------------|
| 1 liter    | 13539/0001 |
| 5 liters   | 13539/0005 |
| 10 liters  | 13539/0010 |
| 100 liters | 13539/0100 |

## Androstar® Plus

Plus extender for boar semen long term preservation.

- Ideal extender for long term preservation under suboptimal transport and storage conditions
- Androstar Plus extends the temperature limit tolerated by the sperm cells to the range of **+10°C to +25°C**
- Maintains a high level of semen quality by protecting the sperm function and reducing chilling-induced changes in sperm reactivity
- Compensates effectively for various stress factors

### Androstar® Plus

|            |            |
|------------|------------|
| 1 liter    | 13531/1001 |
| 5 liters   | 13531/1005 |
| 10 liters  | 13531/1010 |
| 100 liters | 13531/1100 |

## Superior protection

Cell Shield Protection (CSP) is a proprietary additive in Minitube's high performance extenders Androstar® Plus and Androstar® Premium. It provides unparalleled protection for sperm exposed to a variety of ambient conditions, from day 1 on.

Minitube long term extenders contain a highly efficient pH buffer system, a powerful combination of antioxidants and well-proven membrane stabilizers.



long term  
premium



long term  
plus



long term  
essential

## M III®

Balanced extender for boar semen medium term preservation.

A potential buffer system provides a stable pH value during the entire storage period. Antioxidants reduce the ageing process and neutralize the metabolites of the sperm cells. This allows for an optimized sperm cell protection and fertility potential.

| M III®    |            |
|-----------|------------|
| 1 liter   | 13515/0001 |
| 5 liters  | 13515/0005 |
| 10 liters | 13515/0010 |
| 83 liters | 13515/0083 |



medium term

## BTS

State-of-the-art extender for boar semen short term preservation.

The classic formula improved by Minitube provides a balanced medium applicable under all practical conditions.

| BTS        |            |
|------------|------------|
| 1 liter    | 13525/0001 |
| 5 liters   | 13525/0005 |
| 10 liters  | 13525/0010 |
| 20 liters  | 13525/1020 |
| 100 liters | 13525/1100 |



short term

## + Why choose Minitube extenders

Minitube extenders are made in Germany in our GMP certified production plant. The extenders convince through performance and reliability – batch after batch. The **user-friendly packaging** and **excellent solubility** make them an easy and safe choice for every lab.



Minitube extenders are available with a variety of antibiotics, tested for sperm friendliness and efficiency. Thus, compatibility with sperm viability is guaranteed, as well as the efficient control of a large spectrum of bacteria, especially those normally found at boar studs.



**Extenders without antibiotics and separately compounded antibiotics are available alternatively:**

|                                                                                       |            |
|---------------------------------------------------------------------------------------|------------|
| <b>Eurococktail</b> , contains Streptomycin, Penicillin, Lincomycin and Spectinomycin |            |
| for 5 l extender                                                                      | 13540/5000 |
| for 50 l extender                                                                     | 13540/5050 |
| <b>Gentamicin sulphate</b>                                                            |            |
| 12.5 g for 50 l extender                                                              | 13540/3050 |
| 25 g for 100 l extender                                                               | 13540/3100 |

**Only recommended for temporary and accompanying measure to control resistant bacteria:**

|                                           |            |
|-------------------------------------------|------------|
| Antibiotic supplement, for 100 l extender | 13540/4000 |
|-------------------------------------------|------------|

## Heated extender vat, 100/200 l

### Product features

- Double wall and double bottom with heating system
- Temperature control unit HT 50 with freely adjustable temperature up to +55°C
- All stainless steel, easy to disinfect
- Electrical connection: 230 V (115 V also available)

### + Your benefits

- + Selected extender temperature is reliably maintained during the whole production day
- + Disposable round bottom plastic bags provide optimal hygiene standard

|                                             | 100 liters  | 200 liters  |
|---------------------------------------------|-------------|-------------|
| Heated extender vat, on rolls               | 13201/0100  | 13201/0200  |
| Heated extender vat, on rolls, with stirrer | 13201/0100R | 13201/0200R |
| with scale                                  | 13201/0102R | 13201/0202R |
| with scale, UV lamp, heated lid             | 13201/0104R | 13201/0220R |
| Round bottom plastic bag                    | 13201/4115  | 13201/4116  |
| Retrofit kit: heated lid and UV lamp        | 13201/0400  | 13201/0420  |



## Heated extender vat, 20 l

- Equipped with a programmable temperature sensor
- Freely adjustable temperature up to +75°C
- Small and lightweight controller TS 1000 (practical and ergonomic holder for flexible positioning of the controller)
- Easy to clean and disinfect
- Two openings in the lid allow the connection to an automatic pump or to the SmartDispenser

|                                       |            |
|---------------------------------------|------------|
| Heated extender vat, 20 l [1]         |            |
| 230 V                                 | 13201/0022 |
| 115 V                                 | 13201/0023 |
| UV lamp for 20 l extender vat [2]     | 13201/0025 |
| Round bottom plastic bag for 20 l vat | 13201/4112 |



### Go for hygiene

The heated lid with UV lamp (available as an accessory for all vats) is designed to sterilize the empty or water-filled vat before adding the extender, ensuring the highest level of hygiene.

## Electronic precision scale

For the determination of the ejaculate volume or for accurate weighing of antibiotics or extender powder.

### Electronic precision scale

weighing range: 6000 g, resolution: 1 g, weighing pan: 150 x 170 mm [1] **14273/0446**

weighing range: 2000 g, resolution: 0.1 g, weighing pan: 130 x 130 mm [2] **14295/0444**



## Laboratory heating plate

- For keeping raw ejaculates warm until analysis is completed
- Preset temperature: 37°C
- Integrated control unit, external power supply
- Heated area: 470 x 260 mm
- Suitable for 115 V und 230 V
- Power consumption: 70 W

Laboratory heating plate [1] **12055/0010**

Support for US Bag® [2] **11124/1000**



## Water bath

For keeping semen and extender warm in dry environment. The water bath is covered by the inserts, which protect the ejaculates against spray water.

- Inner dimensions of each of 6 cylinders ø 140 x 296 mm, volume 4.1 l
- Immersion thermostat with circulation pump
- LED temperature display, heating capacity 2 kW
- Operating temperature +20°C to +38°C (for sterilization short-term operation at up to +100°C possible)

### Water bath, stainless steel

230 V/50 Hz **14079/0060**

115 V/60 Hz **14079/0061**



## Infrared thermometer

For temperature measurement without contact. With laser for marking the measuring point.

- Measurement range: -50 to +200°C / +200 to +800°C
- Display in °C or °F selectable
- With case and battery

Infrared thermometer **15120/7000**



## UV water disinfection unit

For disinfection of water which has been purified e.g., through ion exchange cartridge. Significant improvement of water hygiene, easy and cost-efficient prevention of water contamination.

- With control function for UV lamp lifetime
- 1/2" connection
- Stainless steel
- Capacity: up to 400 l/h
- 110-240 V/50-60 Hz

|                            |            |
|----------------------------|------------|
| UV water disinfection unit | 14010/3000 |
|----------------------------|------------|

|                                             |            |
|---------------------------------------------|------------|
| Assembly kit for UV water disinfection unit | 14010/3002 |
|---------------------------------------------|------------|



## Water purification system

### Product features

- Latest technology, based on reverse osmosis
- Indication of the purified water quality in conductivity and % deionization
- Sterile filter for tank ventilation
- Connection: 230 V/50 Hz, 115 V/60 Hz, 100V/50 Hz or 100 V/60 Hz

### + Your benefits

- + High level of purity of the treated water
- + High security due to automatic sanitization, quality tests and warnings
- + Requires low maintenance



### Millipore water treatment plant with tank

|                                                |            |
|------------------------------------------------|------------|
| production capacity approx. 24 l/h, 200 l tank | 14040/0024 |
|------------------------------------------------|------------|

|                                               |            |
|-----------------------------------------------|------------|
| production capacity approx. 8 l/h, 100 l tank | 14040/0008 |
|-----------------------------------------------|------------|

## Conductivity meter with calibration kit

Pure water tester with automatic temperature compensation. Used to control quality of purified water.

- Pocket size
- Range: 0.1 to 99.9  $\mu$ S
- Resolution: 0.1  $\mu$ S
- Measurement precision:  $\pm$  2%
- Battery operated

|                    |            |
|--------------------|------------|
| Conductivity meter | 14027/2223 |
|--------------------|------------|



## Monodistiller

- Stainless steel
- Separate cooling and feed water supply with magnetic valve
- Connection: 220 V/3 ph or 400 V/3 ph + 0

### Monodistiller

|                                                                                             |            |
|---------------------------------------------------------------------------------------------|------------|
| capacity: 8 l/h, reservoir 16 l, cooling water consumption: approx. 72 l/h, input: 6000 W   | 14054/2008 |
| capacity: 12 l/h, reservoir 24 l, cooling water consumption: approx. 198 l/h, input: 9000 W | 14054/2012 |



## Bidistiller

- Stainless steel
- Cooling water consumption: approx. 198 l/h
- Connection: 220 V/3 ph or 400 V/3 ph + 0

|                                              |            |
|----------------------------------------------|------------|
| Bidistiller, capacity: 8 l/h, input: 11500 W | 14052/2108 |
|----------------------------------------------|------------|



## Semen dyes

| Semen dye | 20 ml      | 100 ml     |
|-----------|------------|------------|
| red       | 13900/0200 | 13900/0720 |
| blue      | 13900/0300 | 13900/0730 |
| green     | 13900/0500 | 13900/0750 |
| yellow    | 13900/0600 | 13900/0760 |



## Refractometer

Test for correct extender powder/water ratio in prepared boar semen extender. Prevents frequent mistakes in extender preparation.

|               |            |
|---------------|------------|
| Refractometer | 24400/0160 |
|---------------|------------|



## EasyCult

Culture medium for bacterial analysis. Includes two different culture media for the analysis of aerobic and anaerobic bacteria. For the hygiene control in the semen laboratory.

|                             |            |
|-----------------------------|------------|
| EasyCult, 20/box            | 26000/0010 |
| Mini incubator for EasyCult |            |
| 230 V/50 Hz                 | 14125/0010 |
| 110 V/50 Hz                 | 14125/0011 |



# 5 SEMEN PROCESSING



## ■ Minitube boar semen tubes and bags

A semen container must guarantee non-toxicity in terms of sperm tolerance and semen fertility. **Minitube QuickTip® semen tubes** and **QuickTip® semen bags** meet this essential requirement through compliance with numerous regulations, rigorous quality control and not least, design.

As a specialized and **ISO 9001:2015 certified producer** of semen tubes and bags, Minitube follows a **strict quality control program** which consists of a three-level concept for the quality assurance and testing of raw materials and finished products that are in contact with semen.

### The perfect choice

QuickTip® semen tubes and bags are designed for user convenience and sperm friendliness. They are 100% sperm safe.



## (+ Your benefits

- + Every batch undergoes the Sperm Safe program
- + Materials are exclusively sourced from certified suppliers and comply with FDA and EU directives
- + All raw component batches undergo sperm toxicity tests prior to release for production
- + Production process guarantees full traceability
- + Made by Minitube in Minitube premises, production certified according to ISO 9001:2015 and regularly audited by external entities
- + Suitable for all catheters and insemination techniques
- + Proven QuickTip® system guarantees an easy and fast application for the AI technician
- + Available in various sizes, formats, and colors



## QuickTip® semen tube

QuickTip Flexitube®, very soft wall

QuickTip® Superflexitube, extra soft wall

|                                                 | PCAI Flexitube®<br>60 ml | PCAI Flexitube®<br>60 ml, flexible nozzle | Flexitube®<br>95 ml | Flexitube®<br>95 ml, flexible nozzle | Superflexitube<br>95 ml |
|-------------------------------------------------|--------------------------|-------------------------------------------|---------------------|--------------------------------------|-------------------------|
| transparent                                     | 13451/03501              | 13454/03601                               | 13452/01961         | 13453/07961                          | 13452/07961             |
| red                                             | 13451/1350               | 13454/13601                               | 13452/11961         | 13453/17961                          | 13452/17961             |
| yellow                                          | 13451/2350               | 13454/23601                               | 13452/21961         | 13453/27961                          | 13452/27961             |
| green                                           | 13451/3350               | 13454/33601                               | 13452/31961         | 13453/37961                          | 13452/37961             |
| blue                                            | 13451/4350               | 13454/43601                               | 13452/41961         | 13453/47961                          | 13452/47961             |
| orange                                          | 13451/5350               | 13454/53601                               | 13452/51961         | 13453/57961                          | 13452/57961             |
| Tube clamp, to seal e.g., tubes of test samples |                          |                                           | 13452/0005          |                                      |                         |



## QuickTip® semen bag (NT)

QuickTip® semen bag, narrow type (NT)

|                                                         |            |
|---------------------------------------------------------|------------|
| volume up to 60 ml, 1000/roll [1]                       | 13460/0060 |
| volume up to 90 ml, 1000/roll [2]                       | 13460/0090 |
| volume up to 60 ml, 750/roll [1]                        | 13460/0260 |
| volume up to 90 ml, 750/roll [2]                        | 13460/0290 |
| volume up to 90 ml, with tear-off perforation, 750/roll | 13460/0190 |



## QuickTip® semen bag (WT)

QuickTip® semen bag, wide type (WT)

|                                                         |            |
|---------------------------------------------------------|------------|
| volume up to 60 ml, 1000/roll [3]                       | 13460/1060 |
| volume up to 90 ml, 1000/roll [4]                       | 13460/1090 |
| volume up to 90 ml, with tear-off perforation, 750/roll | 13460/1190 |



## QT-Packer

### Fully automated packaging machine for semen bags

#### Product features

- Quiet operation due to all-electric design; no compressor or compressed air required
- Small footprint of only 1.2 m x 0.6 m or 1 m x 0.9 m, weight approx. 67.5 kg
- Modular design, components can be installed at flexible distances
- High speed of 1500 bags per hour under production conditions in twin filling mode; >1800 bags per hour in continuous operation
- Excellent filling accuracy of  $\pm 1$  ml
- Fills 90 ml and 60 ml QuickTip® NT bags for traditional AI and PCAI; no mechanical machine adjustment when changing bag sizes
- Easy and fast roll change; old and new rolls can be connected in place
- Quick change system for inserting the tubing and attaching the filling needles; no screws or handles needed
- Double Track Guidance System: robust bag insertion; no jams, no cutting failures, no height adjustment of roll holder required
- Choice of twin or single filling mode; >1000 bags per hour in continuous operation of single filling mode
- Optional combination of twin and single filling mode: automatic switch from twin to single for the last 4 bags of a batch
- Optional dilution feature in twin filling mode: extender on first filling station, ejaculate on second station
- Wide range of label designs, including barcode, QR-, PDF417- and DataMatrix code and company logos
- Fully automatic data transfer from and to Prism10 laboratory software in real time
- Ergonomic handling and easy cleaning

QT-Packer, 230 V

13215/0000

#### Accessories

Kit of 2 dispensing tubes, with needle and sinker 13215/0160

Cutting knife 13215/0175

Filling needle 13215/0165

Bag ejection slide, stainless steel 13215/0180

Label for QuickTip® semen bags, 2000/roll 13210/4964



**Fully automated packaging machine for semen tubes**

**Product features**

- Operates without compressed air and is quieter than any other machine on the market
- Fills up to 1200 boar semen tubes (90 ml) per hour
- Equipped with two peristaltic pumps for a precise filling volume (+/- 1 ml)
- Auto-calibrates via load cells for consistent performance
- Uses a robust and novel thermal fusion technique (TFT) for secure and tight sealing
- Fills 60 and 90 ml tubes with short and flexible nozzle
- Allows quick, tool-less change between tube sizes in a few simple steps
- Ejects finished tubes either to the front or to the right, allowing for optimal machine positioning and workflow in the semen laboratory
- Modular design of key elements allows for easy access, maintenance and service
- Seamlessly connects to Prism10 and other lab software for data transfer of filling and labeling information, or operates stand-alone
- Supports a wide range of label designs, including barcode, QR-, PDF417- and DataMatrix code and company logos
- Intuitive, touch-operated display provides a true real-time preview of the tube label
- Holds up to 336 semen tubes (90 ml) in a high-capacity magazine with 16 stacks
- Features a hygienic design with stainless steel surfaces, rounded edges, and concealed cables for easy cleaning

ePacker, 230 V

13207/0000

**Accessories**

Dispensing tubing

13207/0160

Tube label, 50 x 32 mm, white, 2000/roll

13210/4964



## Manual bag filling and sealing

- Manual filling of QuickTip® NT bags, one at a time (approx. 350 bags/hour)
- Gravity filling, no compressor or pumps required
- Easy, safe and fast needle guidance
- Simultaneous heat sealing of 6 semen bags
- Dimensions: 108 x 45.5 x 67 cm (L x W x H), weight: 28.6 kg
- Quick and easy to put into operation, perfect backup solution for automatic filling machines
- Easy and intuitive operation, minimal cleaning required

### Manual filling device for QuickTip® bags

|       |            |
|-------|------------|
| 230 V | 13216/0000 |
| 115 V | 13216/0001 |



## Manual tube filling and sealing

- Rugged, solid frame
- With track for tube magazine or bottle magazine
- For mixing cylinders with disposable plastic bags in 2 sizes: 3.5 und 5.5 l
- Simultaneous sealing of 6 tubes (output: approx. 600 tubes/hour)
- With magazine track and pedal switch
- Both jaws with 4 mm heating wires
- Individual adjustment of heating and cooling cycles

### Semen dispensing unit

13203/0000

### Sealing unit HPL 450

|       |            |
|-------|------------|
| 230 V | 13225/0000 |
| 115 V | 13225/0006 |



## Accessories

|                                 |            |
|---------------------------------|------------|
| Semen mixing cylinder 5.5 l [1] | 13210/0030 |
|---------------------------------|------------|

|                                 |            |
|---------------------------------|------------|
| Semen mixing cylinder 3.5 l [2] | 13203/0001 |
|---------------------------------|------------|

|                           |            |
|---------------------------|------------|
| Flow through cylinder [3] | 13203/0006 |
|---------------------------|------------|

### Insert ring

|                                 |            |
|---------------------------------|------------|
| for semen mixing cylinder 3.5 l | 13203/0005 |
|---------------------------------|------------|

|                                 |            |
|---------------------------------|------------|
| for semen mixing cylinder 5.5 l | 13210/0035 |
|---------------------------------|------------|

|                    |            |
|--------------------|------------|
| Dispensing nozzle* | 13203/0012 |
|--------------------|------------|

|                      |            |
|----------------------|------------|
| Magazine for 6 tubes | 13204/9006 |
|----------------------|------------|

|                                                                                          |            |
|------------------------------------------------------------------------------------------|------------|
| Adapter rack, for filling 60 ml tubes (2 needed for semi-automatic packaging system) [4] | 13225/0060 |
|------------------------------------------------------------------------------------------|------------|

### Semen dispensing bag, disposable, non-toxic material

|                |            |
|----------------|------------|
| 3.5 l, 100/bag | 13203/4001 |
|----------------|------------|

|                |            |
|----------------|------------|
| 5.5 l, 100/bag | 13203/4010 |
|----------------|------------|

|                                    |            |
|------------------------------------|------------|
| Anti-adhesive tape for sealing jaw | 13225/0201 |
|------------------------------------|------------|

|                                               |            |
|-----------------------------------------------|------------|
| Heating wire, width 4 mm, length 620 mm, pair | 13225/0100 |
|-----------------------------------------------|------------|

\* Made of sperm-friendly plastic material, to be sterilized in hot water or vapor.

## 6-tube manual sealer

- Simultaneous sealing of 6 boar semen tubes
- Manual closing of sealing jaws with lever and 4 mm heating wires
- Individual adjustment of heating and cooling cycles
- Output: 400 tubes/hour approx.

6-tube manual sealer, 230 V

13225/6000



## 3-tube manual sealer

- Simultaneous sealing of 3 boar semen tubes
- Sealing clamp with 2 mm heating wire
- Individual adjustment of heating time
- Output: 200 tubes/hour approx.

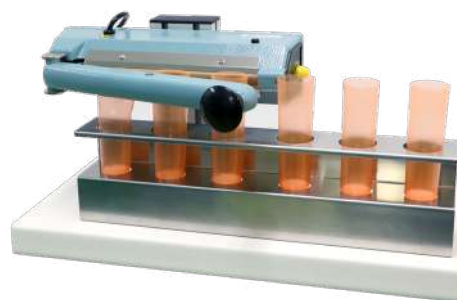
3-tube manual sealer

230 V

13225/0003

115 V

13225/0013



## Label printer

- Printer with advanced PrintControl software for label design and label dispenser
- Stand-alone system, can also be connected to Prism10
- Max. label size: 104 mm x 991 mm (W x L)
- With ethernet and USB connection

Label printer

18800/0002

Adhesive label 30 x 50 mm, 1000/roll

13210/4829



## Boar semen bottles

Boar semen bottle, 100 ml, 500/box

13450/0100

Cap for semen bottle, 250/bag, 5000/box

blue

13450/10001

green

13450/20001

red

13450/30001

yellow

13450/40001

orange

13450/45001

black

13450/50001

violet

13450/60001

white

13450/70001

pink

13450/80001



# 6 SEMEN STORAGE AND TRANSPORT



## Air conditioned boxes

- Thermoelectric Peltier element technique provides heating and cooling to maintain the desired temperature in the box
- Automatic switchover between heating and cooling depending on outside temperature
- Precise, electronic temperature control
- Polyurethane-full-foam insulation
- 12 V DC connection for mobile use
- Portable

### Air conditioned boxes 8 l, capacity 24 tubes or bottles [1]

|                              |            |
|------------------------------|------------|
| preset temperature (+17°C)   | 17161/0008 |
| variable temperature setting | 17161/0009 |

### Air conditioned boxes 30 l, capacity 85 tubes or bottles, variable temperature setting [2]

|                             |            |
|-----------------------------|------------|
| Converter 12 V/AC 100-240 V | 17165/1395 |
|-----------------------------|------------|



1



2

## Semen storage units

Equipped with both heating and cooling elements, Minitube semen storage units are used to efficiently store semen doses at a constant temperature. Sophisticated technology ensures that the target temperature is kept inside, regardless of whether the room temperature is above or below it. Forced air circulation distributes temperature evenly throughout the unit, even when it is completely full. The aluminum back panel prevents the semen doses from having direct contact with the cooling or heating elements. Condensation is effectively dissipated.

### Product features

- Temperature range: +5°C to +40°C
- Accurate within +/- 1°C
- Outer dimensions (H x W x D) approx.:
  - 168 x 75 x 77 cm (544 l) or
  - 85 x 60 x 60 cm (160 l)
- Digital temperature display clearly legible from outside
- TC 200 controller allows variable temperature setting for dual purposes: for semen storage at a selected temperature (e.g. 5°C or 17°C), or for pre-warming the semen collection items to +40°C
- With the programmable HTiP controller, the semen storage units can cool down semen in a defined and gradual way allowing full flexibility for any semen processing scheme down to +5°C
- Sturdy design, robust components

#### Semen storage unit with adjustable temperature (TC 200)

|                                  |            |
|----------------------------------|------------|
| 160 l, capacity: ~300 tubes/bags | 14160/0300 |
| 544 l, capacity: ~700 tubes/bags | 14160/0352 |

#### Semen storage unit with programmable cooling curve (HTiP)

|                                      |            |
|--------------------------------------|------------|
| 160 l, capacity: ~300 tubes/bags [1] | 14160/0330 |
| 544 l, capacity: ~700 tubes/bags [2] | 14160/0340 |

### Alternative cooling option

#### Klima Kit \* [3]

|       |            |
|-------|------------|
| 230 V | 14160/9001 |
| 110 V | 14160/9002 |

\* Electronic controller for keeping +17°C in any refrigerator. No installation required. Target value adjustable.



1



2



3

# 7 INSEMINATION AND DIAGNOSTICS



## ■ Suzy, porcine AI training model

Suzy is a sow model for training AI technicians in a safe and convenient environment, before they start working with real animals.

The porcine AI training model consists of a plastic body and silicone internals. It provides a most realistic gynecological tract that can be removed to demonstrate anatomy and the AI process as an initial step of the training session.

- Anatomically correct sow model including a complete gynecological tract for traditional and post-cervical insemination
- Passage of inner cannula of PCAI catheter is very natural through noticeable cervix cushions
- Correct introduction of AI catheter and inner cannula is confirmed by oinking sound
- "Real", complete insemination process can be performed
- Compact and light-weight training model for easy transport and cleaning
- Starter-kit includes 100 catheters (Ref. 17106/9176) and two tubes of ReproJelly (Ref. 11907/0100)



Suzy, porcine AI training model

22400/0100



## Most realistic training model

Increase the efficiency of your AI training courses and contribute to the enhancement of animal welfare!

## ClearGlide®

- Non-absorbent, unique poly gel tip with different hardness zones
- High elasticity of the material: soft tip, compact shaft
- Excellent gliding capacity
- Flexible poly gel tip adjusts perfectly to the cervix, offering superior locking
- Sealing flange reduces semen backflow during insemination
- Recessed shaft avoids injuries

### ClearGlide® with sealing flange

|                              |            |
|------------------------------|------------|
| Safelock, 25/bag, 500/box    | 17106/3026 |
| with handle, 25/bag, 400/box | 17106/4026 |



## Foamtip and SoftGilt

- Tapered foam end for gentle insertion and removal
- Firm foam for better lock, increased stimulation and prevention of semen backflow
- Non-absorbing foam to prevent loss of semen

### Foamtip [1]

|                                             |            |
|---------------------------------------------|------------|
| Foamtip Safelock, 25/bag, 500/box           | 17106/5077 |
| ProFit Foamtip with handle, 25/bag, 500/box | 17118/0125 |

### ProFit SoftGilt [2]

|                              |            |
|------------------------------|------------|
| 25/bag, 600/box              | 17119/0025 |
| with handle, 25/bag, 500/box | 17119/0125 |

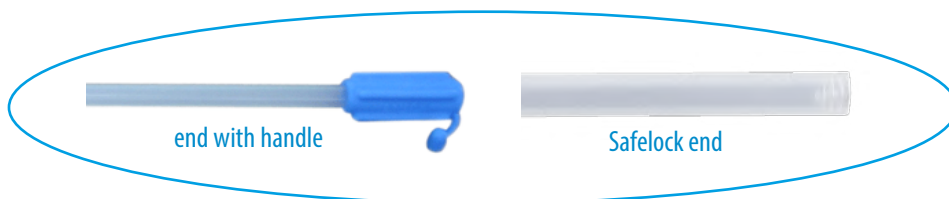


Insemination and  
diagnostics

## Spirette®

- The tip is a true copy of nature
- For perfect sealing and stimulation of the cervix
- Strong lock in the cervix for successful insemination

|                                       |            |
|---------------------------------------|------------|
| Spirette® with handle, 5/bag, 600/box | 17102/9067 |
|---------------------------------------|------------|



## SafeBlue

A clean catheter and a clean insemination process maintain the uterus free from bacterial contamination and thus are of great importance for the insemination success.

The SafeBlue concept ensures unique insemination hygiene with its sterilized, hygienically packed catheter and protective sheath that acts as a barrier during passage through the vulva. It also eliminates the need for extra lubricant, which is often a source of bacterial contamination.

Several scientific publications and practice reports emphasize the positive effect of the SafeBlue concept: in field trials 30 to 100 piglets more per 100 inseminated sows could consistently be achieved.

|                                                                   |  |            |
|-------------------------------------------------------------------|--|------------|
| <b>SafeBlue ClearGlide® traditional form</b>                      |  |            |
| Safelock, 100/bag, 500/box                                        |  | 17106/3001 |
| with handle, 100/bag, 400/box                                     |  | 17106/4001 |
| <b>SafeBlue ClearGlide® with sealing flange [1]</b>               |  |            |
| Safelock, 100/bag, 500/box                                        |  | 17106/3005 |
| with handle, 100/bag, 400/box                                     |  | 17106/4005 |
| <b>SafeBlue Spirette® with handle, 100/bag, 600/box [2]</b>       |  |            |
|                                                                   |  | 17102/9561 |
| <b>SafeBlue Foamtip® Safelock, 100/bag, 500/box [3]</b>           |  |            |
|                                                                   |  | 17106/9076 |
| <b>ProFit SafeBlue Foamtip® with handle, 100/bag, 500/box [3]</b> |  |            |
|                                                                   |  | 17118/1125 |
| <b>ProFit SafeBlue SoftGilt [4]</b>                               |  |            |
| 100/bag, 300/box                                                  |  | 17119/1025 |
| with handle, 100/bag, 300/box                                     |  | 17119/1125 |

## + Your benefits

- + The sterilized catheter remains clean and free of contamination during storage and until insemination
- + Every catheter is sterilized and individually packed in a sanitary sheath; the catheter tip is equipped with a sperm-friendly lubricant
- + Due to the protective sanitary sheath, the catheter remains clean during the insertion in the vulva; only in the clean area the catheter tip is pushed through the sheath
- + No more need for time consuming preparations; dry cleaning of the vulva is sufficient
- + Improved pregnancy rates and litter sizes



## Extension for insemination catheters

Minitube extensions are suitable for all insemination catheters. They are used for hanging up semen tubes on a wire, providing a hygienic connection between semen dose and catheter. The flexible extensions are applicable for all insemination techniques as the tube/bag can be fixed in almost every position.

|                                                                |  |            |
|----------------------------------------------------------------|--|------------|
| <b>Flexible extension, 1/bag, 1000/box [1]</b>                 |  | 17108/1001 |
| <b>SafeBlue Foamtip®, with extension, 100/bag, 500/box [2]</b> |  | 17107/0133 |



## PCAI catheter

- Ideal for the post-cervical insemination of sows: all semen cells reach the uterus and can easier be transported into the fallopian tube by uterine contractions
- The Foamtip or ClearGlide® head of the outer catheter is already lubricated; the whole catheter is individually packed in the hygienic SafeBlue sheath
- Inner catheter with very small diameter: nearly no semen remains in the catheter
- SafeBlue concept guarantees high hygiene status

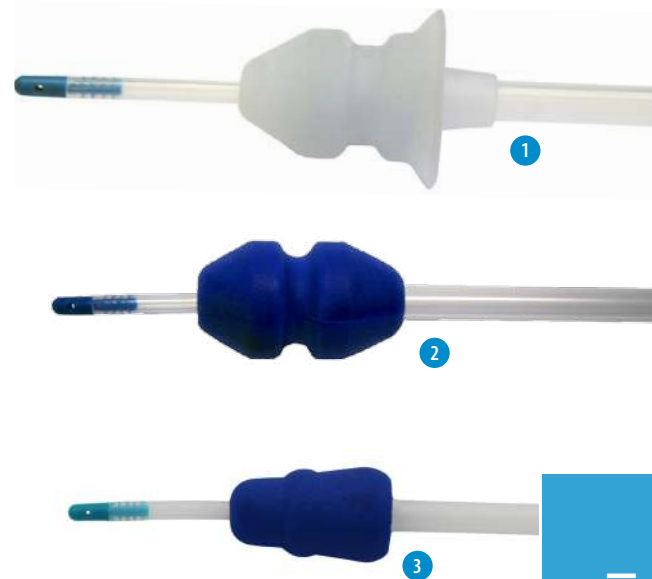


**PC Clear, SafeBlue ClearGlide®** with PCAI cannula, individually packed, lubricated, 25/bag **17112/3000**  
[1]

**PC Blue, SafeBlue Foamtip®** with PCAI cannula [2]  
individually packed, lubricated, 25/bag **17112/2000**  
with stopper, individually packed, lubricated, 25/bag **17112/2002**

**PC ProFit, SafeBlue SoftGilt** with PCAI cannula, individually packed, lubricated, 25/bag **17112/4000** [3]

**PC Cannula** for post-cervical insemination, 5/bag **17112/1010**



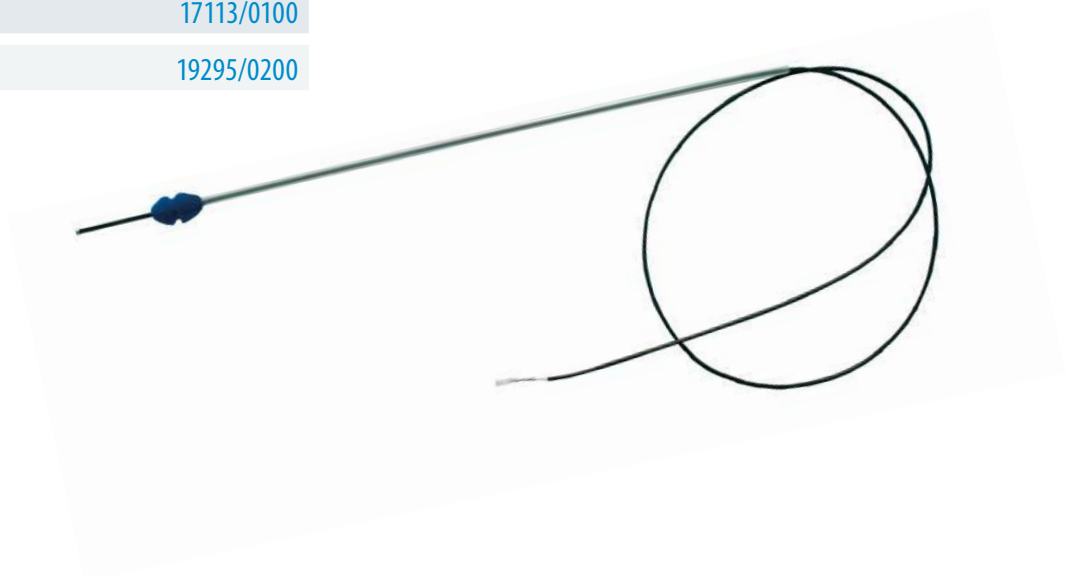
Insemination and diagnostics

## DeepBlue catheter

- DeepBlue AI catheter: for deep intrauterine insemination of special semen doses; ideal for very low numbers of sperm, i.e., in frozen-thawed or sexed semen
- DeepBlue ET catheter: for non-surgical transfer of embryos in swine
- Outer catheter SafeBlue: disposable insemination catheter, with lubricant coated catheter head, individually packaged and sterilized
- Patented (University of Murcia, Spain)

**DeepBlue AI catheter** **17113/0100**

**DeepBlue ET catheter** **19295/0200**



## Breeding clamp

- Very easy handling: the clamp is just clipped on the back of the sow
- Elastic compressing arms stimulate the flanks of the sow
- Made of stainless steel, easy to clean, rounded edges for maximum safety in the barn
- Effective attachment of any catheter, no need for an elongation tubing between catheter and semen tube
- Flexible rubber holder fits all sows and allows movement during the insemination
- Easily speeds up AI to 30 inseminations per technician per hour

### Breeding clamp

|           |            |
|-----------|------------|
| for sows  | 17114/4000 |
| for gilts | 17114/4001 |



## EasyClamp breeding aid

- Lightweight and robust plastic breeding clamp for stimulation of the sow (can easily be put on the flanks with one hand)
- Made of plastic, includes stainless steel rod with hook to hold AI catheter and semen dose
- After inserting the catheter and connecting the tube, it can be fixed by the hook and the sow can finish the insemination by herself
- One AI technician can inseminate 5-8 sows at the same time

### EasyClamp

17114/3000



## Breeding belt

Practical with broad ribbon, Velcro fastening, clamp and cord for the attachment of the tube or bottle, individually adjustable to the animal size.

### Breeding belt

17114/2100



## BoarScent

BoarScent is a boar pheromone spray and aids in the identification of estrus in sows and gilts. It also helps to stimulate the sow during AI. The spray is applied to the snout.

BoarScent, 35 ml, approx. 88 applications

17115/9051



## 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]                     | 11907/0100 |
| 1 l bottle, resealable [2]                      | 11907/1000 |
| 3 l canister, resealable, without dispenser [3] | 11907/3000 |
| Dispenser for canister, reusable                | 11907/3100 |



## Ultrasound scanner Minitube 3.0

Portable ultrasound scanner for transabdominal pregnancy detection in swine. Allows for accurate back fat measurement in pigs.

Complete with 3.5 MHz convex probe with included freeze-button. Large display for detailed visualization of ultrasound image on an 8" tablet with charger in a robust case.

|                                 |            |
|---------------------------------|------------|
| Ultrasound scanner Minitube 3.0 | 23500/2000 |
|---------------------------------|------------|



Day 22 pregnancy



Day 25 pregnancy



Insemination and  
diagnostics

## Pregnancy tester

For pregnancy detection after 30 days by ultrasonic waves. Operated with rechargeable or normal battery. Very handy, robust and easy to operate. Good freedom of movement due to a probe connected to a spiral cable.

Complete with carry case, test body, wrist band, contact gel bottle and standard battery.

|                                                  |            |
|--------------------------------------------------|------------|
| Pregnancy tester                                 | 23350/2835 |
| Charger for 100-240 V, with rechargeable battery | 23350/2840 |



# 8 SEMEN FREEZING



## Freezing extenders

The freezing of boar semen is of great importance for the storage of genetic material and its exchange between geographically distanced breeding populations.

However, boar sperm are more sensitive to the processes of freezing than sperm of other species. Minitube provides several extenders, devices and procedures to reduce stress for boar sperm cells during the freezing process and to ensure insemination success with frozen semen.

**CryoGuard cooling extender for boar semen (Part A), powder for 100 ml extender [1]**

**CryoGuard freezing extender for boar semen (Part B), liquid concentrate for 100 ml extender with Equex STM and Glycerol [2]**

**CryoGuard thawing extender for boar semen, powder for 1 l extender [3]**



1



2

3

## Semen straws

For over 30 years, Minitube straws have been used for the freezing of biological material. As a worldwide standard for semen freezing, they are perfectly suitable for storage in liquid nitrogen at  $-196^{\circ}\text{C}$ . Minitube's quality control process, production techniques and material selection guarantee a reliable product that consistently exceeds industry standards.

Medium Straw\*, 0.5 ml, clear, 2500/bag 13408/0010

EcoStraw\*, 0.5 ml, clear, 2500/bag 13408/3010

\* More colors available.



## MPP Uno

Automatic filling and sealing machine for 0.25 and 0.5 ml straws.

- Seals and fills 1 straw per cycle (ideal for handling small volumes)
- Sealing performed by ultrasound
- Conversion between 0.25 ml straws and 0.5 ml straws without exchanging any parts and within only a few minutes
- Vacuum pump and pressure controller integrated into the device
- Ultrasonic generator in an external casing that can be installed at a distance of up to 2.5 m (ON/OFF switch directly on the machine)
- Completely closed filling and sealing area: best hygienic and safety conditions fully guaranteed
- Very compact device which takes up little space
- Capacity: approx. 4000 straws/hour
- Hopper capacity: 2200 straws of 0.25 ml or 1300 straws of 0.5 ml
- Machine dimensions: 460 x 350 x 410 mm (W x H x D) plus ultrasound generator
- Electrical connection: 110 V/60 Hz or 230 V/50 Hz

MPP Uno, complete 13017/0000



Semen freezing

## EasyCoder

Clean and odorless printing of straws without ink and solvents.

- Thermal transfer printer with automatic straw supply (output: 3600 straws per hour) for immediate non-abrasive print
- Unparalleled neat 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 specific characters
- Control via PC (not included) by a user-friendly Minitube software
- Easy handling, little maintenance required
- Dimensions (L x W x H): 660 x 370 x 310 mm
- Electrical connection: 110 V/50-60 Hz or 230 V/50-60 Hz

EasyCoder printer 13038/0000

Thermal transfer ribbon, black 13038/0010



## MultiCoder

Semi-automatic direct print on lab items (semen straws, goblets, cassettes, culture dishes, marking labels and many more).

- High resolution inkjet printing
- Very versatile: print system can label most kinds of materials such as plastics, glass, or aluminum
- Easily writeable information on the smallest amount of space, including text, barcode, QR-Code and logo
- Manually moveable slide and a unique, easy-to-use carrier system allow for a speedy work process (no tools needed for change of product carriers)
- Automatic creation of content for ready-to-print designs via database
- Upload of MS Excel based data formats possible



MultiCoder printer

13145/0000

## Cooling cabinet

- For working with boar semen during preparation for freezing
- Temperature preset to 5°C
- Dimensions: 150 x 100 x 116 cm (W x D x H)
- Electrical connection: 220 V

Cooling cabinet (on rolls)

14335/3000



## Refrigerated centrifuge

- Suitable for 6 x 100 ml glass containers (not included in the delivery)
- Temperature range: -20 °C to +40 °C, allows precooling
- Max. speed: 5.100 min<sup>-1</sup>
- Max. RCF: 5.525 xg
- Zero-maintenance induction motor
- Memory for 60 programs
- Dimensions: 65 x 68.5 x 40.5 cm (W x L x H)
- Electrical connection: 230 V/50 Hz

Refrigerated centrifuge with swing out rotor

14602/0400

Glass container, 100 ml

14602/0801



## Cryogenic containers

Full range of cryogenic containers for storage and transport of frozen semen available. Please contact us for an individual offer!



## Automatic freezer IceCube

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

- Temperature range: +40 to -180°C
- Freezing rates: 0.01 to 60°C/min
- Heating rates: 0.01 to 15°C/min
- Temperature measurement via 2 Pt-100 resistance thermometers
- Capacity: max. 1080 x 0.25 ml or 0.5 ml straws per freezing cycle
- Dimensions: 540 x 420 x 520 mm (L x W x H)
- Weight: 29 kg

Software for freeze program and control, unlimited storage of programs and processed files, color graphic display of all temperature curves, wide possibility of parameter settings.

### IceCube 14S with connector kit for LN<sub>2</sub> pressure container

|                                                               |            |
|---------------------------------------------------------------|------------|
| with 10" tablet [1]                                           | 16821/3000 |
| with 12" touch screen monitor to be connected to PC or laptop | 16821/2000 |
| without monitor to be connected to PC or laptop               | 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 |
| Liquid nitrogen pressure container, 60 l           | 16820/1900 |
| Roller base for LN <sub>2</sub> pressure container | 16501/0204 |
| Pliers for racks [5]                               | 16821/5031 |



Semen freezing

## 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 |
|---------------------------|------------|





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