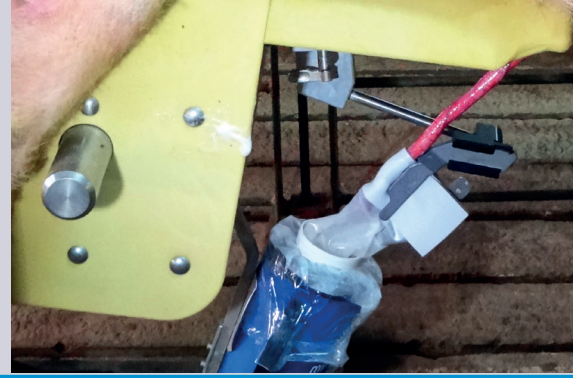




BoarMatic & US Bag®



Hygienic and efficient boar semen collection

The goal of collecting boar semen is to obtain an ejaculate with the highest concentration and quality of sperm possible. The semen collection process must also be efficient and save time.

Minitube has developed an improved, efficient technique for boar semen collection with the BoarMatic. The BoarMatic boar dummy has an integrated mechanism for automatic semen collection. When used with the US Bag®, boar semen can be collected efficiently under optimal hygienic conditions.

+ Your benefits

- + Extremely hygienic: closed system from the boar penis to the bag
- + Very high comfort and safety for the collector: through reduced boar contact
- + High acceptance by the boars: semen collection starts with the hand, and the boar has free movement during ejaculation
- + Completely disposable solution: only one bag holds the ejaculate from collection to dispensing
- + Time-saving for the operators: increased number of collections per hour
- + Easy to use and quick to learn for operators and boars
- + Low maintenance



„We use Minitube’s BoarMatic auto collect system. Saves us one person in the barn. Easy to train people and boars. Equipment is built from high quality materials, there is little to no maintenance and easy to clean.“

Bruce Zierke, AI Partners, Morris, MN, USA



BoarMatic components

■ Height adjustable boar dummy

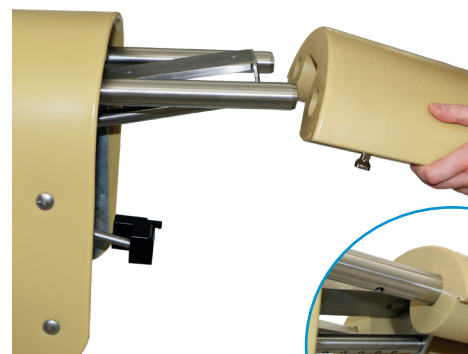
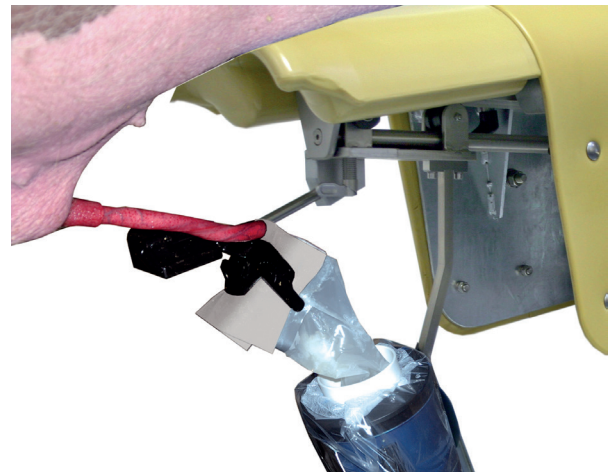
- Models for adult and younger boars (11" and 9")
- Two surface options: fully stainless steel body or heavy steel body covered with robust plastic
- Adaptable to existing installations
- No electric or pneumatic connection required
- Low maintenance
- The process is much easier for the collector and prevents occupational diseases like carpal tunnel syndrome

■ Slide with holder for collection cup and AC clamp

- Allows free movement of the boar during ejaculation
- After semen collection, the slide with the collection cup automatically rolls into a safe position under the dummy
- The disposable AC is a true copy of a porcine cervix in terms of texture and surface, rubber cushions stimulate and ensure a perfect grip on the tip of the penis
- Now also available as an option: stepless adjustment of the clamp holder's position to accommodate small and large boars

■ Exchangeable mounting part

Dirty or contaminated mounting elements can be replaced in seconds, ensuring maximum hygiene during collection.



Quick and easy exchange of the mounting part



How to perform hygienic semen collection with BoarMatic

www.youtube.com/watch?v=sQ4sxSi3h9U



Artificial Cervix (AC)

The boar's erection is initiated with the AC, which is glued to the gloved hand. After ejaculation begins, the inner pouch containing the initial jets of pre-ejaculatory fluid is discarded. Next, the AC sheath is connected to the semen collection cup, and the rubber pad with cushions is fixed in the BoarMatic clamp. The pressure applied to stimulate the boar's penis continues so that he can ejaculate without human assistance. Once the boar has finished ejaculating, he dismounts the BoarMatic on his own.

The disposable AC is an exact replica of a porcine cervix in terms of texture and surface. Rubber cushions provide stimulation and ensure a perfect grip for the tip of the penis. The AC has a tear-off pouch for the first jets of sperm-free ejaculate and a sheath that directs ejaculate into the collection cup. Together with the US Bag®, it forms a closed unit for semen collection.



Exact replica of a porcine cervix in texture and surface

Why use the US Bag®?

- It provides a completely disposable solution from collection to dispensing
- It is an important improvement to work hygiene
- It is made of non-sperm toxic plastic
- It has an integrated non-woven fabric filter (non-chloride bleached material) and a perforation that can be torn off after use
- It prevents the filter and pouch from being touched with the hands

US Bag®: The basis for hygienic semen collection

The US Bag® is a sperm-friendly plastic bag with an integrated filter.

Prior to collecting semen, insert the US Bag® into the collection cup, and it is immediately ready for use. During ejaculation, the filter separates the bulbourethral gland secretion from the ejaculate. After collection, the upper part of the US Bag®, along with the filter and the collected secretion, is torn off at the perforation and discarded.

This entire process can be performed without touching the filter or the inner surface of the bag, thus keeping the semen bag free of bacteria.





Proven benefits: Scientific studies

Scientific studies show that bacterial contamination during semen collection can significantly impact semen quality. There is a high risk of contamination if liquid from the phantom or boar drips into the collection cup. The BoarMatic provides a closed system from the boar penis to the bag, which greatly improves the hygiene of the semen collection procedure.

Take a deeper look

Aline Fernanda Lopes Paschoal et al. (2021)
Adjusted method of penis fixation during boar semi-automatic semen collection aiming to reduce bacterial contamination.
Reproduction in Domestic Animals, <https://doi.org/10.1111/rda.13932>

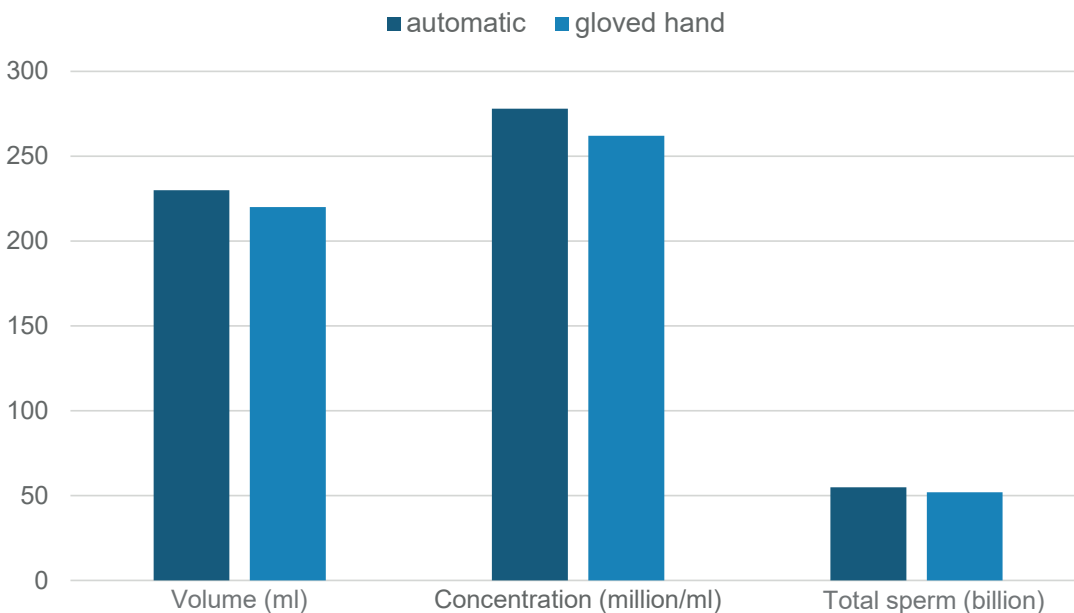
Ana Maria G. Goldberg et al. (2013)
Risk factors for bacterial contamination during boar semen collection.
Research in Veterinary Science, Volume 95, Issue 2, 2013, Pages 362-367, <https://doi.org/10.1016/j.rvsc.2013.06.022>.

Alfonso Lopez Rodriguez et al. (2017)
Boar management and semen handling factors affect the quality of boar extended semen.
Porcine Health Management, 3, <https://doi.org/10.1186/s40813-017-0062-5>.

BoarMatic decreases the risk of bacterial contamination during semen collection

Proven benefits: BoarMatic validation trial

The validation trial was performed with 9 boars. 54 BoarMatic collections and 63 gloved-hand collections were evaluated based on volume, concentration, motility, and time efficiency.

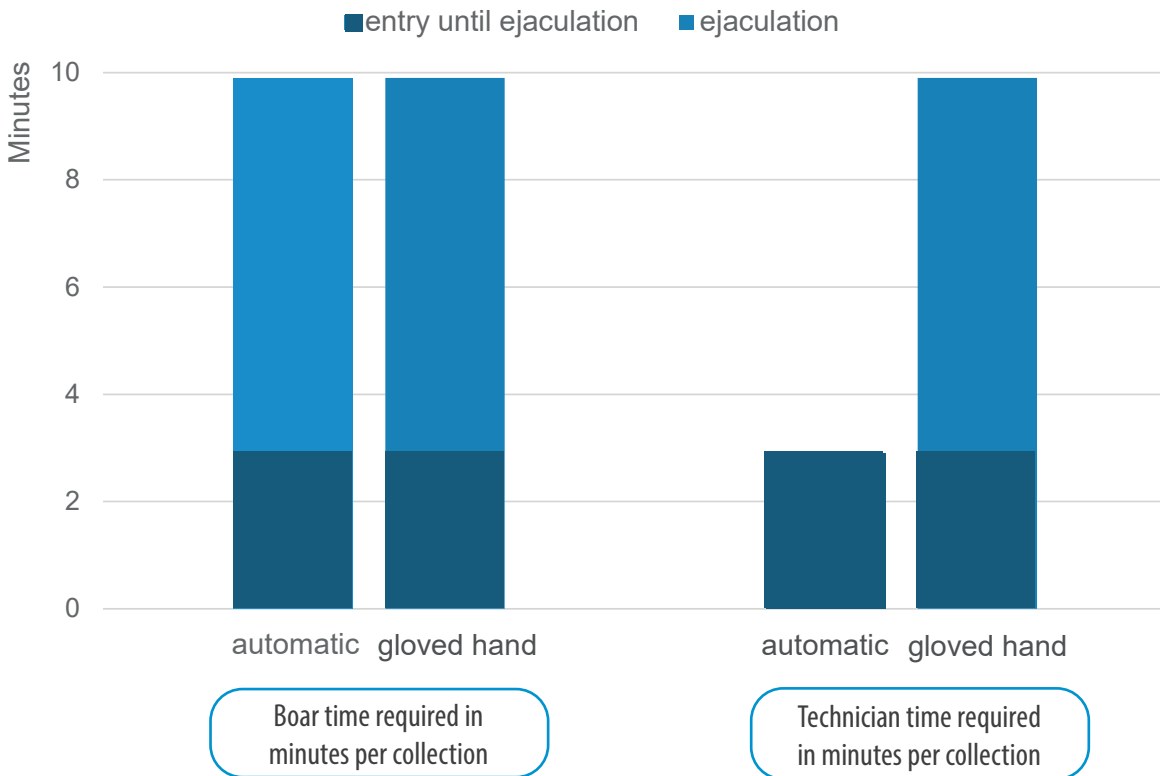


Equal sperm quality

- ▶ Average 89 % motility in both trial groups

Equal sperm quantity

- ▶ Equal volume and sperm concentration



Time efficiency with BoarMatic

- ▶ BoarMatic reduces boar collection labor by 72 %
- One collector can collect multiple boars simultaneously
- This leaves more time for other tasks, such as recording data, moving boars, preparing for the next collection, and taking samples



“With Minitube’s BoarMatic we have doubled the number of boars per collector per hour. Sanitation and safety have improved. Transitioning boars to the BoarMatic was easy because the system is mechanical and not pneumatic.”

Lannin J. Zoltenko , Zoltenko Farms Inc., Hardy, Nebraska, USA



BoarMatic

| | |
|--------------------------------------|------------|
| BoarMatic 11" for adult boars | |
| plastic cover [1] | 11100/0202 |
| stainless steel | 11100/0200 |
| BoarMatic 9" for young boars | |
| plastic cover | 11100/0201 |
| stainless steel | 11100/0199 |

US Bag®

| | |
|--|------------|
| US Bag®, semen collection bag [2] | |
| 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 |

Accessories

| | |
|---|------------|
| Mounting part for BoarMatic, 11" [3] | 11100/0204 |
| AC made of sponge rubber, 50/package [4] | 11100/0211 |
| BoarMatic accessory kit incl. AC clamp, clamp holder and cup holder [5] | |
| for right side use | 11100/0195 |
| for left side use | 11100/0196 |
| Semen collection cup for BoarMatic [6] | 11100/0215 |
| Semen collection cup for BoarMatic, with integrated transponder | 11100/0216 |
| Rubber mat for boar dummy, 150 x 100 cm, 23 mm thick [7] | 11100/0040 |
| Collection glove, extra sensitive, non sperm toxic, 100/box [8] | |
| Size M | 11128/0055 |
| Size L | 11128/0060 |
| Size XL | 11128/0065 |
| Hygiene glove, for the protection of the collection glove during boar preparation, 100/package | 11128/0100 |

