



For Animal Use Only  
Sterile, Disposable (Intended for One Application)

Protocol for:  
17500/0052 MAVIC Mini (120mm)  
17500/0050 MAVIC 250 (250mm)  
17500/0055 MAVIC 400 (400mm)

# MAVIC™

## Canine Mating Facts

During natural mating, a tie occurs with the male penis being locked in the vagina of the female. This tie lasts approximately 10 to 20 minutes and the entire vagina is occupied by the penis, which naturally prevents semen reflux. At the same time the dog's movements and the dilatation of the bulbous glandis of the male stimulate the vagina, inducing contractions which release oxytocin. Concurrently, these events facilitate semen transfer from the cranial vagina where it is deposited to the uterus and oviducts of the female.

The development of Minitube's vaginal insemination catheter (MAVIC™) was in response to a need to improve the results of vaginal insemination in the dog. The semen deposition using a single linear pipette inadequately transferred the semen to the uterus and created the need to use the classical leg-up method to reduce semen reflux. The MAVIC™ vaginal insemination catheter was developed to technically respond to these problems, making breeders' and veterinarians' lives easier and the vaginal insemination procedure more effective by mirroring nature.

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## Protocol

The MAVIC™ catheter has been developed to improve the results of artificial insemination in Canine with fresh and chilled semen. Three sizes of MAVIC™ catheters are available to accommodate a variety of dogs. The MAVIC™ Mini is best suited for the Toy breeds, the MAVIC™ 250's diameter and length is designed for small to medium sized dogs, while the MAVIC™ 400 is for medium to large dogs.

Always observe proper breeding management (poor breeding management is the main cause of infertility in dogs).

1. Lubricate the tip of the catheter with a non-spermicidal lube. The tip of the catheter should be carefully introduced in the vulva of the female. The catheter is gently pushed upward to the top of the vestibule and then moved horizontally as far as possible. The tip of the catheter should ideally be located as close as possible to the cervix, thus limiting the size of the cranial vagina chamber and allowing a near intra-uterine direct insemination.
2. When the catheter is inserted as far as possible without forcing, inflate the balloon with a volume of air corresponding to the size of the dog and the MAVIC™ used. The intra-vaginal inflation pressure is easily monitored through the external pilot balloon which indicates the intra-vaginal balloon pressure. Do not inject more than 50 ml of air into the MAVIC™ Mini and MAVIC™ 250, or more than 100 ml of air into the MAVIC™ 400. All three MAVIC's were designed with maximum balloon sizes that are more than adequate to create a proper vaginal seal without over inflation.
3. After the balloon has been properly inflated, first inject the sperm rich fraction of the ejaculate through the central shaft injection port (using the non-spermicidal syringes supplied with the MAVIC™). A second flush of extender is recommended to push the semen into the uterus.  
NOTE: To clear the channel of the MAVIC™ Mini requires (.4 ml) while the MAVIC™ 250 requires (.6 ml) and the MAVIC™ 400 (1 ml) of fluid.

### For optimal results, note the following points:

- a) Natural mating takes 10 to 20 minutes with active prostate fluid production for at least 50% of this process. When injecting the semen, try to mimic nature as much as possible and take your time. The whole AI should take several minutes at a minimum. Do not inject semen and flush too rapidly.
  - b) During natural mating, the volume of ejaculate produced is relative to the size and breed of the dog. The entire ejaculate for small dogs (below 10 kgs) is generally around 3 to 5 ml, a medium dog can reach 10 ml and large dog can produce over 20 ml. It is advised, after injecting the semen (extended or not), to continue flushing the vagina with CaniPlus AI extender to reach a total volume similar to that produced by the dog during natural mating.
4. Once the semen and flushing extender have been injected, the catheter may remain inside the free standing female for another 5 to 15 minutes before being removed. To remove the catheter, deflate the balloon with the provided syringes. Prevent the dog from self-removing the catheter.