

# How to Select and Fit a Breeding Dummy Mount for Stallions

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## 1. Introduction

With recent increases in the use of artificial insemination in horses there is a new wave of interest in breeding dummy mounts, and a new generation of stallion managers considering the use of dummy mounts. A number of commercially available breeding dummy mounts are available with various designs and features. Many farm managers are also interested in custom-built dummy mounts. In our referral stallion clinic, on farm consultations, and in our continuing education courses, some of the most commonly asked questions we have on breeding facilities design concern how to build or select and to fit a dummy mount. In our work with sexual behavior dysfunction (libido, mounting, and ejaculation difficulty), and with schooling horses for semen collection with a dummy mount, in recent years we have seen what appears to be a growing number of breeding behavior and fertility problems related to inadequate dummy mount design or fit. The purpose of this article is to share our experience with dummy mount design and fit, both for normal and for disabled breeding stallions. Specifically, key features in the design and fitting to individual stallions to maximize training and breeding efficiency and to avoid or correct many of the common dummy

mount-related behavior and fertility problems will be presented with case examples.

## 2. General Design Features

Important features to consider in the general design and set-up of a breeding dummy mount include:

1. A *single stout, "clean-cut," and padded pedestal* reduces risk of entanglement and serious injury during awkward dismounts or falls. Multi-leg designs have been associated with limb sprains, lacerations, and fractures. Multi-leg dummy mounts can be retrofitted with sturdy wraps encasing the legs, yielding one elongated structure below the dummy.
2. A *smooth, snug-fitting, cover made of a "cool" material* with no wrinkles, bulky seams, exposed fittings (such as snaps or grommets) or laces minimizes risk of rub sores (to the knees and chest) and penile injuries. While seemingly minor, run-sores can be considerably off-putting to stallions. Almost no dummy cover that we have seen is practically disinfected for long, and fabrics selected for that feature are often especially "hot" against the knees. Disposable rear-end covers can be useful if accepted by the stallion.

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## NOTES

3. *Modest padding* will soften the mount and dampen the sound of the stallion hitting the dummy mount. A hollow sound can be off-putting initially, particularly for novice breeders.
4. *Sturdy construction* without rattles and clunks and the associated movement as the stallion mounts considerably improves efficiency of training for many stallions.
5. The *position of the dummy within the breeding space* can significantly enhance or deter acceptance of a dummy mount. In general, stallions do best with ample front and side clearance and ample head room (14 feet or higher for most breeds). Windows, light fixtures, and other objects on walls or ceilings near the dummy can produce distracting glares or reflections that delay training. Stallions often respond to their image reflected in a window or mirror as if it were a competing stallion.
6. *Especially good footing* can enhance a stallion's apparent "trust" and ease of mounting and dismounting of a dummy mount. Non-slip and quiet floors improve training and efficiency. Some cushion to the footing reduces the risk of injury should the stallion fall. Sand and other loose materials at foot can be kicked up into the artificial vagina, adversely affecting behavior and contaminating semen.
7. *Grasping grooves* that are built in (or formed with use) can enhance the stallion's ability to lock in the forelegs for breeding. Similarly leather *mane gripping strips* can help a stallion maintain a good coupled position on a dummy.
8. The *angle of the barrel*, whether level or at a slight angle sloping up from the tail to the head, does not appear to be an essential feature, if the dummy height at the tail is otherwise well fitted to the stallion.
9. *Other accoutrements*, such as a tail, mane, or head to make the dummy possibly more natural looking are generally unnecessary. They can increase risk of injury and get in the way. If they are a part of the design, we recommend that they are removable.
10. *Self-service dummies* (with a built-in artificial vagina) can work well for some stallions. When they work they reduce the collection of semen to a one-person operation. However, in our experience, self-service dummies typically do not meet many of these key features. Penis injuries and behavior problems are probably more common with self-serve dummies than for those requiring hand-held artificial vaginas. The hollow sound typical of self-serve dummies and rattle of the artificial

vagina within its housing are factors that are often judged to delay stallion acceptance of a dummy mount.

11. *Adjustable height or angle dummy mounts* are also useful, but are difficult to accomplish without introducing problems of movement and rattle. For adjustable designs, a good range that will fit almost all light and heavy horses and large ponies if 48 to 68 in. An angled dummy mount positioned for mounting either end can effectively achieve two heights (Fig. 1).
12. "*Stretch limo*" dummy mounts, with a barrel longer than 6 to 8 feet, are used to accommodate the stallions that are tough to hold back squarely in normal breeding position. They allow ample length for the stallion to advance up the side while thrusting. In our experience these have been associated with sore backs and ejaculation problems, presumably as a result of the stallion thrusting with his back curved. Stallions can be squared up at the back of the dummy so that they don't advance up the side.
13. *Cutout slots or shelves* at the hip area to accommodate the larger models of hand-held artificial vagina seldom are judged useful and are often associated with penile injuries. A wedge-shaped modification from the hip to the tail may be more efficient.

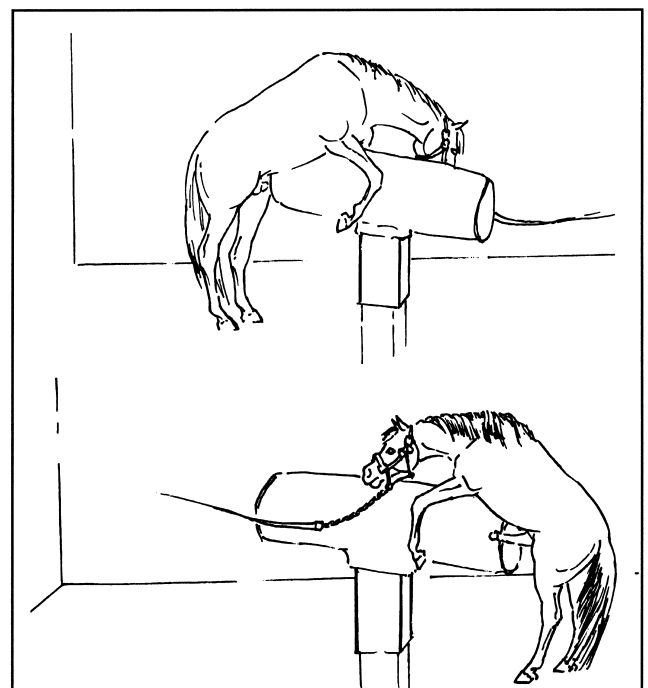


Fig. 1. Use either end of a dummy mount with angled barrel to accommodate stallions of different heights.

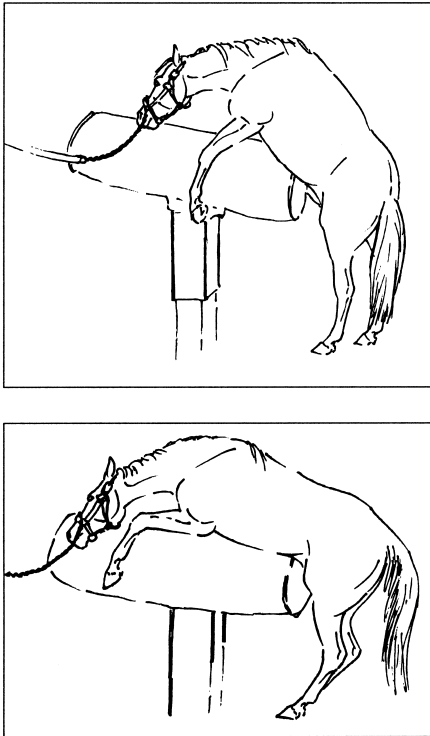


Fig. 2. Top: Good height, Bottom: Too low.

### 3. Fit of the Dummy to a Particular Stallion

#### Height

Probably the most important aspect of fitting the dummy mount is height. A good starting height for most normal, physically able stallions of average body length is estimated by having the top of the back of the dummy set to the height of the tail head of the stallion when standing. It can then be adjusted to slightly lower or higher from there for best performance. A good dummy height is illustrated in Fig. 2 (top).

Although seemingly counterintuitive, in general we find that even for disabled stallions a mount that is higher than the estimated ideal height is typically better than one that is lower than estimated ideal. Moreover, regionally dummy mount heights tend to be lower than ideal (Fig. 2, bottom). For stallions with ejaculatory difficulty, simply raising the mount typically improves breeding performance. Stallions with a sore back or hocks often do better with the dummy raised a few inches higher than the height of their tail head. A higher dummy that stretches the stallion up toward vertical can also help to organize stallions that are rushing to mount the dummy, working up the side of the dummy during thrusting, or scrambling with their forelegs for a hold.

#### Girth

Stallions seem to more readily accommodate sub-optimal girth than sub-optimal height of a breeding dummy. We have found that a good general barrel girth (finished with pad and cover) for the full range of light horse stallions and for most heavy breeds is 68 in (20-in diameter). For narrower-chested or smaller stallions, a smaller girth can sometimes improve coupling. For especially large heavy horses, a barrel diameter of approximately 24 in may enhance coupling. Most small ponies and miniatures can be accommodated well with a barrel diameter of 12 to 14 in. As with dummy height, for most stallions, performance is better with a girth too large compared to too small. Behaviorally, stallions tend to scramble in a swimming motion of the forelegs with too narrow a girth. Increasing the height can often help the horse overcome the disadvantage of a girth that is too narrow.

### 4. Frequently Asked Questions

If Using Special Footing just in the Vicinity of the Dummy Mount, What Size Area is Adequate?

As a rule of thumb, the area of high quality non-slip footing around a dummy mount should include the full length of the dummy as well as  $\frac{3}{4}$  to 1 body length to either side and 1 to  $1\frac{1}{2}$  body lengths to the rear of the dummy mount. Thus, for an average light horse stallion this is about 4 to 6 feet on either side and 9 to 14 feet behind the dummy mount.

Should the Dummy be Level or Angled?

Either a level or angled barrel works well for most stallions. Some handlers prefer the angle to help keep the horse from advancing forward on the dummy or straddling with both forelegs across the barrel. The recommended maximum angle is 15 degrees.

What Covering Fabrics are Best for Cleaning a Dummy Between Stallions?

Most smooth, non-porous covering fabrics can be cleaned fairly well between stallions. We don't know of any cover that passes the higher priority characteristics of "cool" and smooth and padded that also can be effectively disinfected between stallions. We recommend ground semen collection or an "isolation" dummy or live mount mare for the rare stallion where genital infection is known or suspected. Some labs successfully use disposable covers for the caudal 12–18 inches of the dummy barrel. Some of the industrial sheet wrap plastics adhere well and are tolerated by most stallions. It is difficult to find a disposable wrap that works well for most stallions where the forelegs grasp the dummy.