

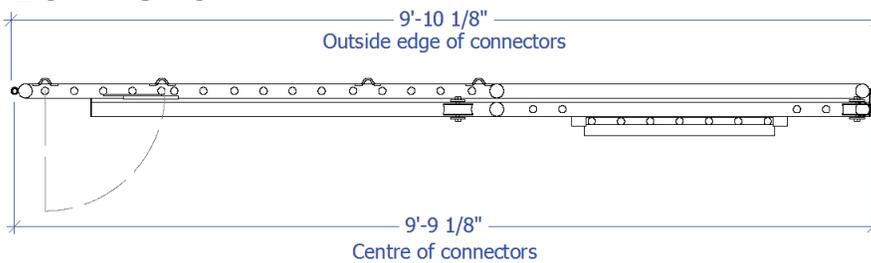
Stall Planning Guide

This guide provides all the dimensions you need to lay-out your Hi-Hog horse stables.

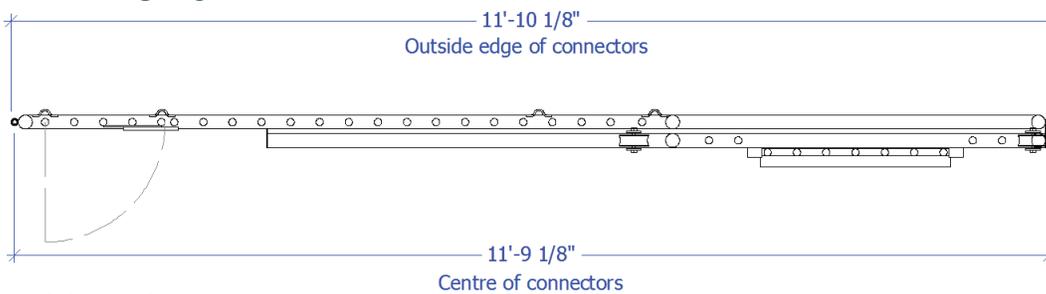
Hi-Hog's standard stall front and partition sizes are shown below. The exact dimensions of your overall stall configuration will vary depending on what components you select and how you choose to connect them. The dimensions we provide are based on the pins centred in each of the connectors. In reality each connection offers some room for adjustment. On a level surface, for example, each connection offers approximately +/- 1/8" of horizontal movement.

Stall Front Dimensions:

10' Front

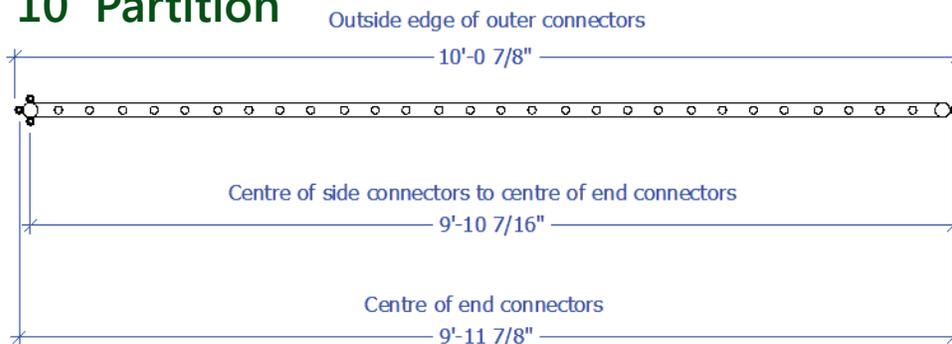


12' Front

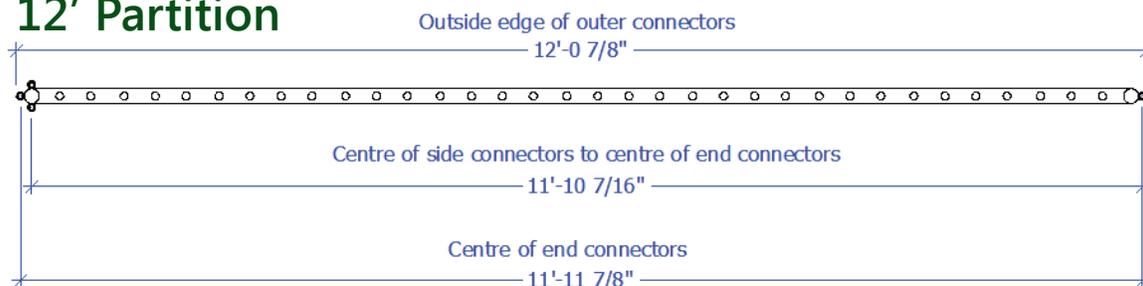


Standard Partition Dimensions:

10' Partition



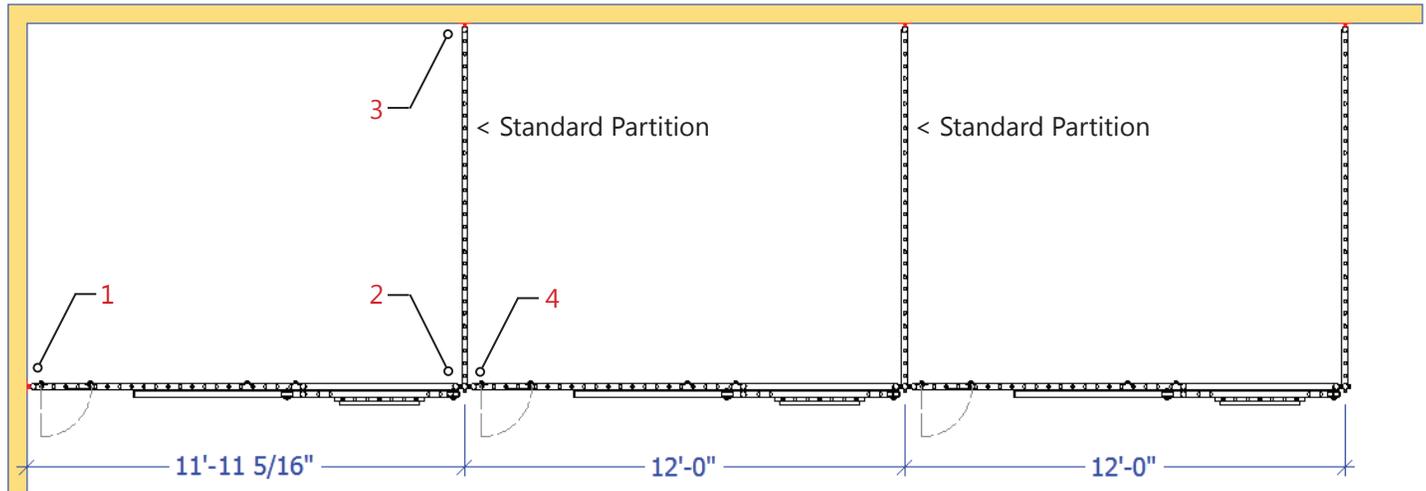
12' Partition



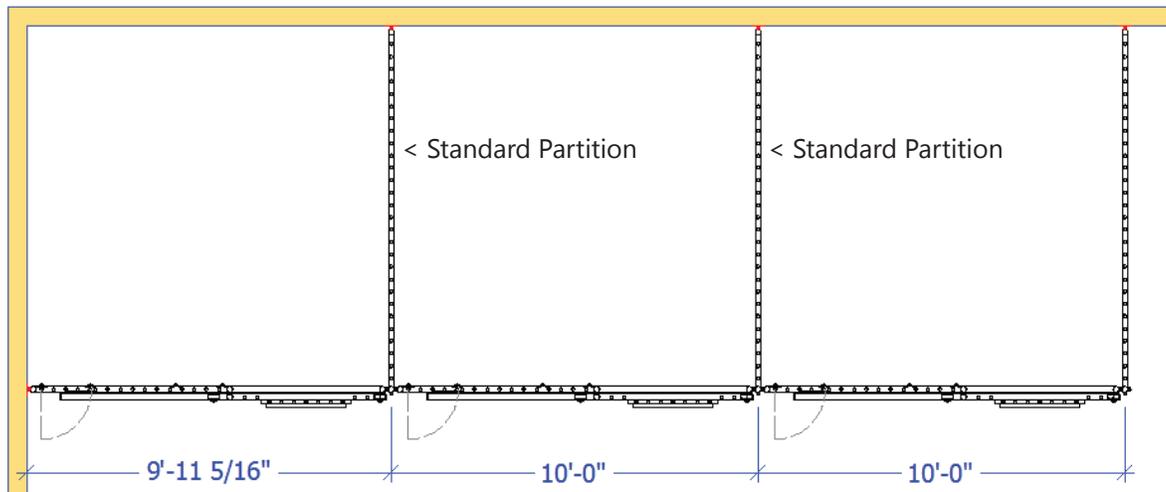
The standard stall set-up

The majority of stall arrangements begin with a corner stall. The first stall front is attached with wall brackets to the end wall of the barn (1). The other end of the stall front is attached to the side of a stall partition (2). The stall partition is then attached with wall brackets to the back wall of the barn (3). Additional stalls can then be added by connecting the next stall front to the side of the first partition (4).

Note: the distance from the end wall to the first partition is slightly smaller than the centre-to-centre distance on the additional stalls.



Sample plan of three 12' wide stall fronts built out of the corner of a barn

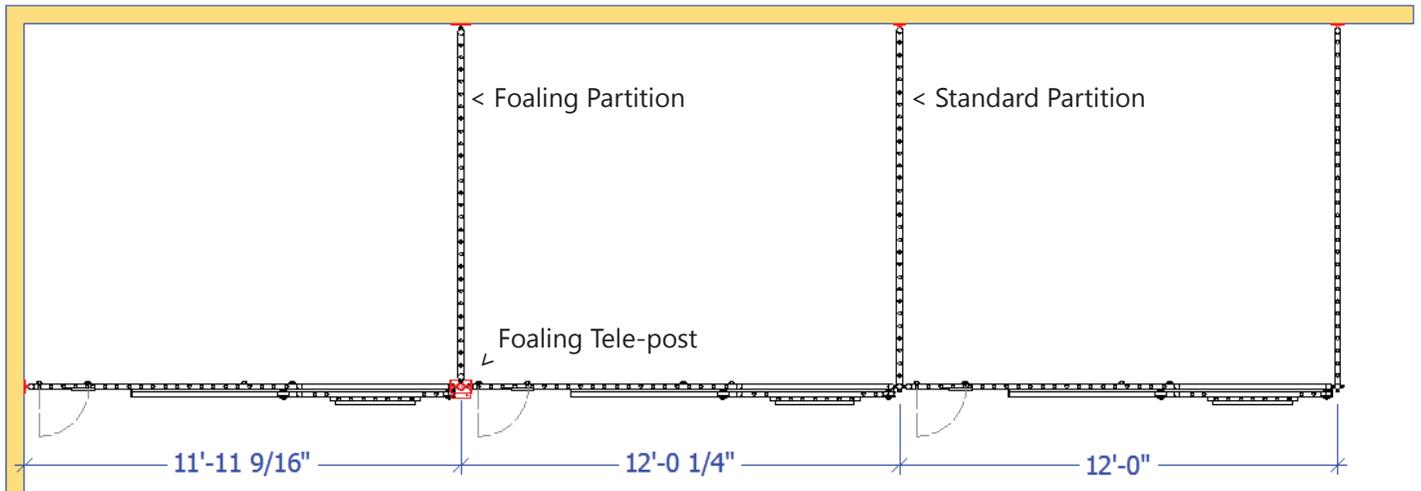


Sample plan of three 10' wide stall fronts built out of the corner of a barn

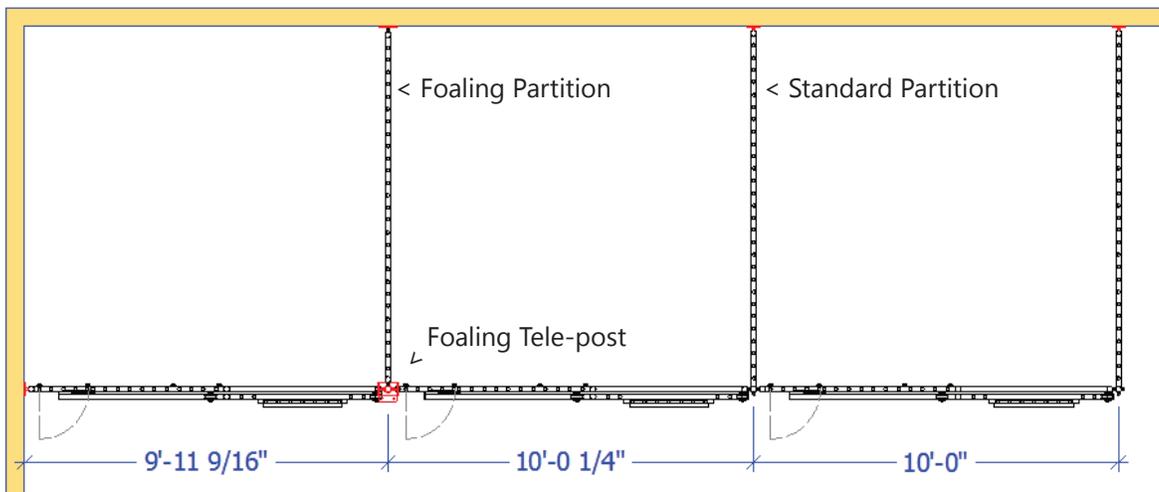
The stall fronts use a common connector system, so you can easily combine 10' and 12' stall fronts. For example, you may wish to have a 12' front in the corner followed by two 10' stall fronts. The choice is yours. The centre-to-centre dimension measured on the centre of the partitions will match the descriptive name of the stall front you place in between the partitions. The only exception to this is if you use a foaling partition instead of a standard partition. (See the next page for details on foaling partitions).

Adding a foaling partition

A foaling partition needs to be independent of the stall fronts so that you can remove it to make a larger stall for your foaling mare. To accomplish this we need to replace the standard foaling partition with a shorter length partition. The shorter partition will connect to an independent tele-post that supports the stall fronts. The tele-post has a larger diameter compared with the standard partition. This will cause the overall length of the stall front run to be approximately 5/8" longer for every tele-post added.



Sample plan of three 12' wide stall fronts built out of the corner of a barn with one foaling partition



Sample plan of three 10' wide stall fronts built out of the corner of a barn with one foaling partition

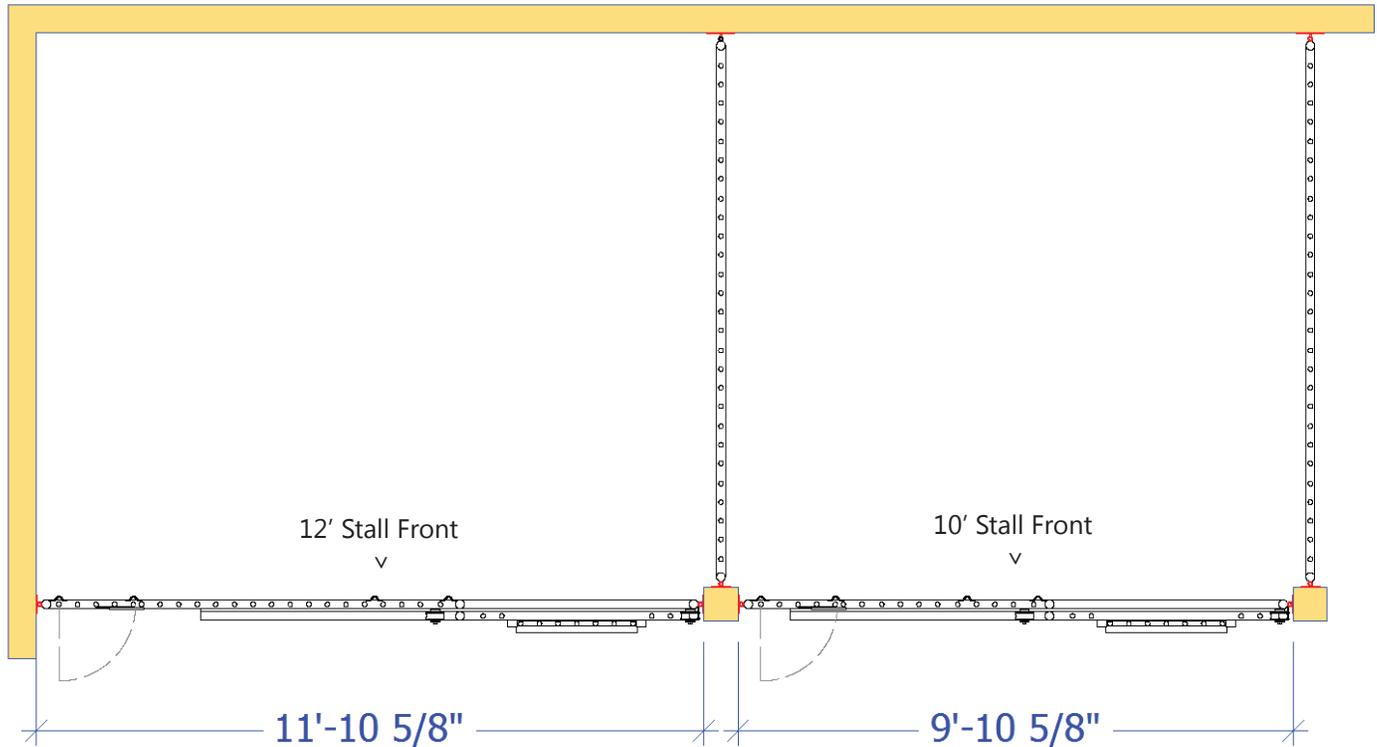
If you would like to rotate the foaling partition to lay flat against the rear wall of the barn, the foaling partition should not be greater in length than the width of one of the adjoining stall fronts. For example, if you have 10' stall fronts and a 12' foaling partition, the partition could not be rotated flat against the rear wall of the barn. This partition can however be unpinned at both the front and the rear of the stall, and removed from the stalls. If you are leaving the foaling partition in the stall we recommend that you pin the partition securely to the barn wall at both ends. This is to safeguard against a foal getting trapped in behind the foaling partition.

Working with internal barn posts

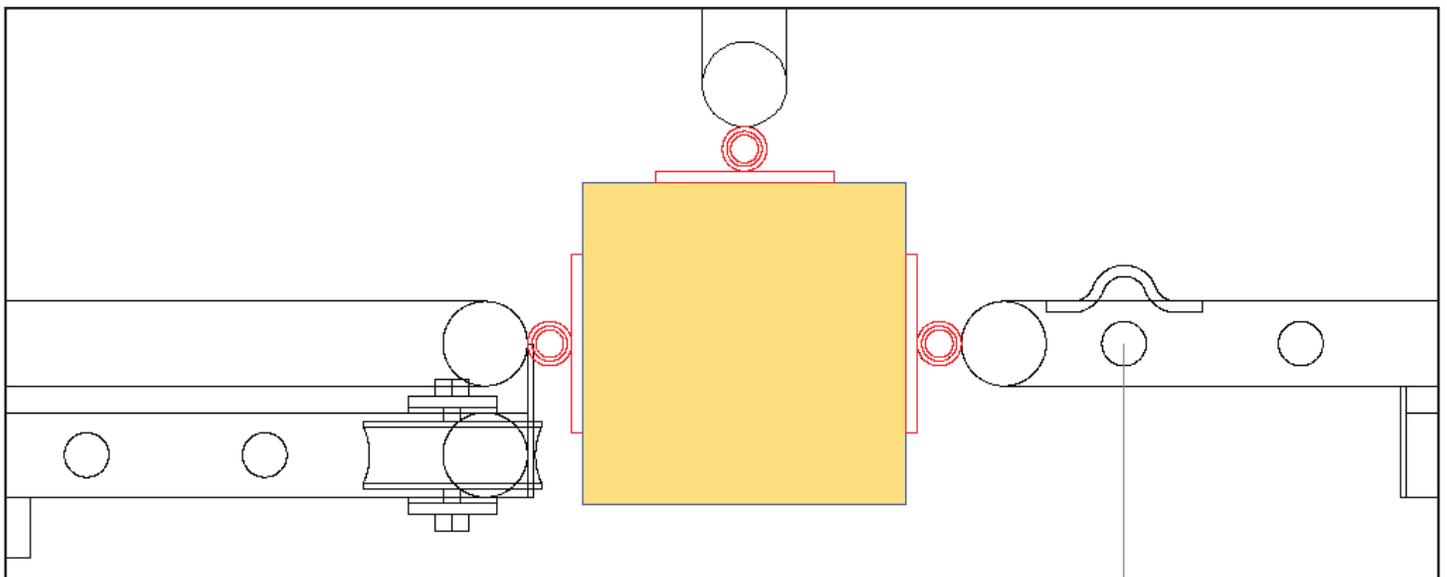
If your dream barn or existing barn includes timber posts, you may require an alternative set-up than the standard arrangement mentioned on the previous pages. If you are planning to attach your stall fronts to a timber post you will have two choices; attach to the side of the post or attach to the face of the post.

Attach the stall fronts to the side of the post

When you attach your stall front between two fixed surfaces as in the drawing below you must be extremely accurate. If your opening is $\frac{1}{2}$ " or 1" wider than the dimensions shown below you can use our foaling wall brackets because our foaling wall brackets are half an inch longer than our standard wall brackets. If you are working with an existing barn, and your openings don't match the dimensions below, you may need to look at custom options (see Working with custom stall fronts on page 7).



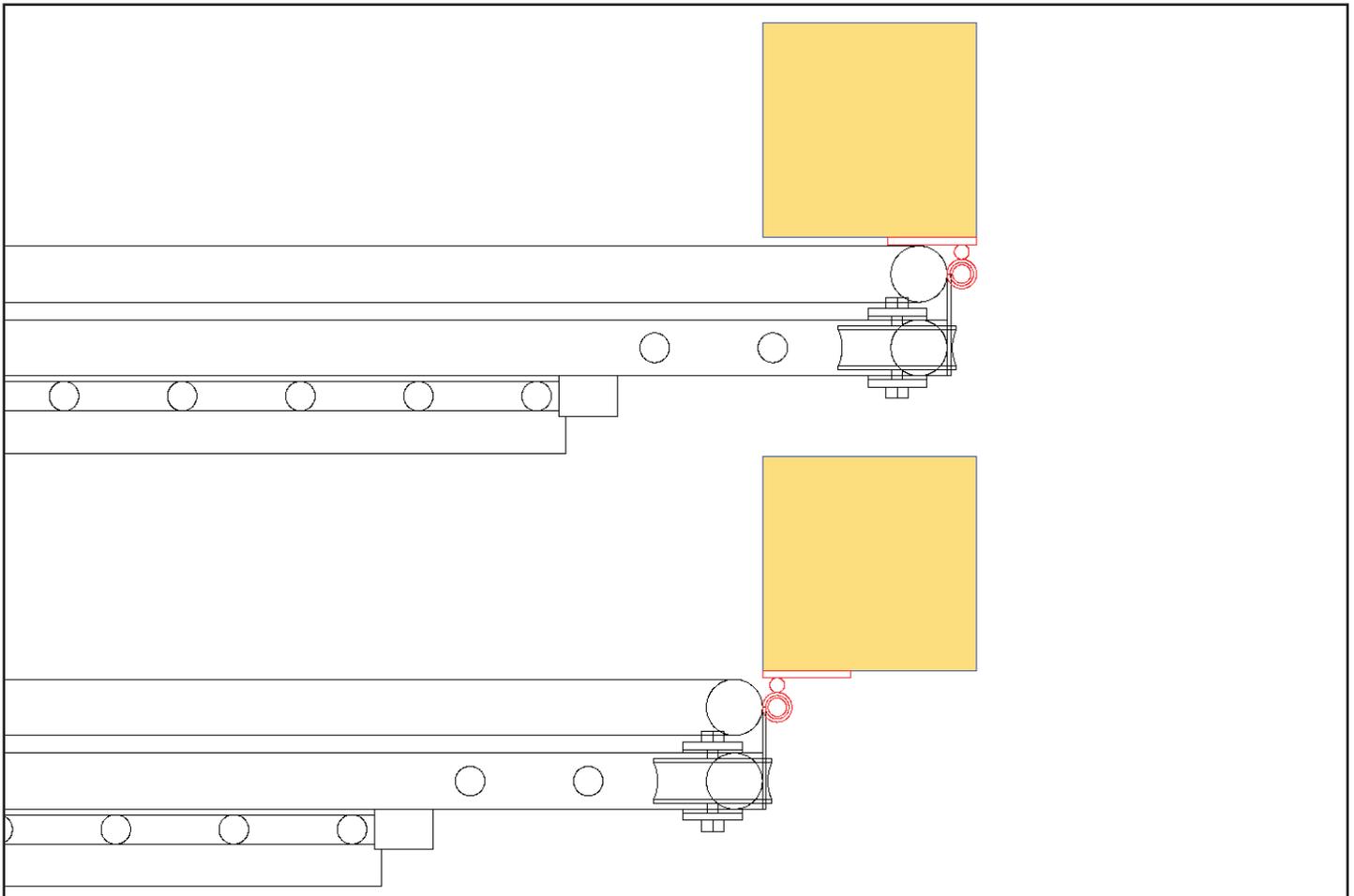
Space required to install a 12' and a 10' box stall front inside timber posts



Detail of post connection. The wall brackets are shown in red for clarity.

Attach the stall fronts to the Face of the post

When we attach stall fronts to the face of a post we need special connectors that extend the connection point away from the post. This will allow the stall front to run perpendicular to the post. We use offset post brackets (No. 4063) for this purpose. You can see in the illustration below that these brackets can accommodate a connection as close as half an inch from the edge of the post.

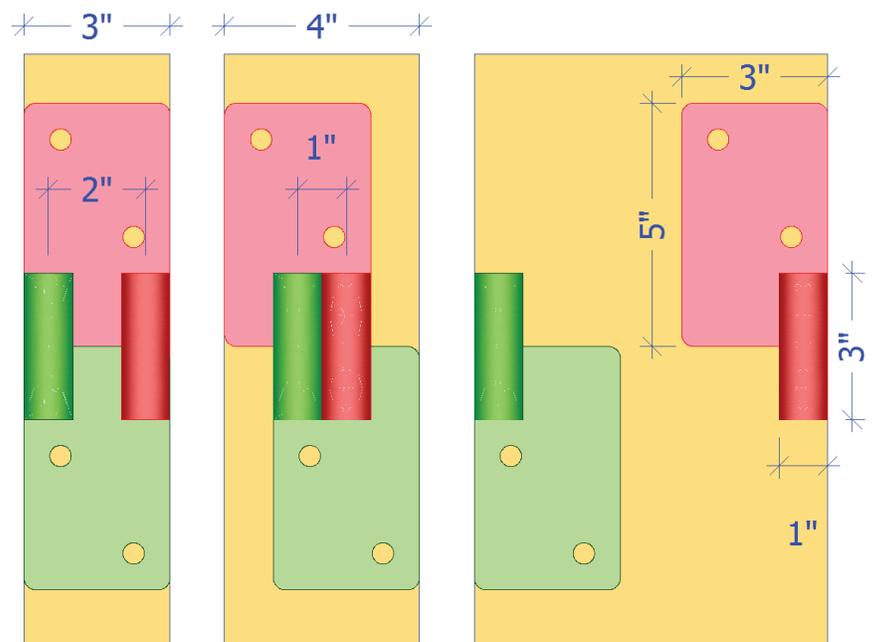


Plan view of offset post bracket showing how the bracket design allows a superior range of mounting locations.

Multiple stalls mounted on the face of a timber post

In addition to the connector on the post bracket being offset half an inch from the mounting plate, the connector is also offset both to one side of the mounting plate, and it will either extend above the plate or below the plate as shown in the elevation on your right. This allows the two plates to slide past each other so you have greater dimensional flexibility when installing multiple stall fronts.

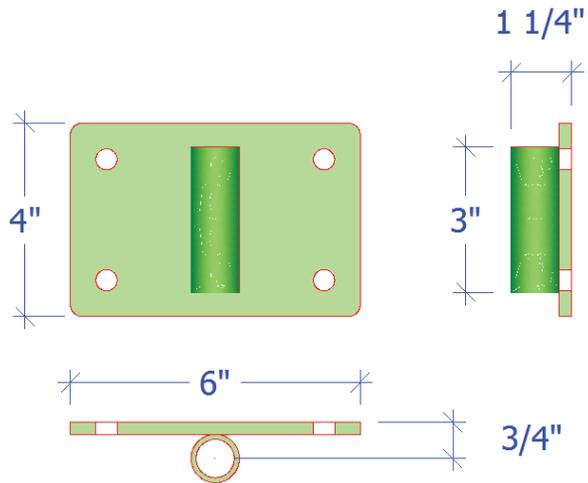
Since your post size and location may vary we recommend you contact Hi-Hog so we can draw your barn to scale and ensure your project will come out the way you want.



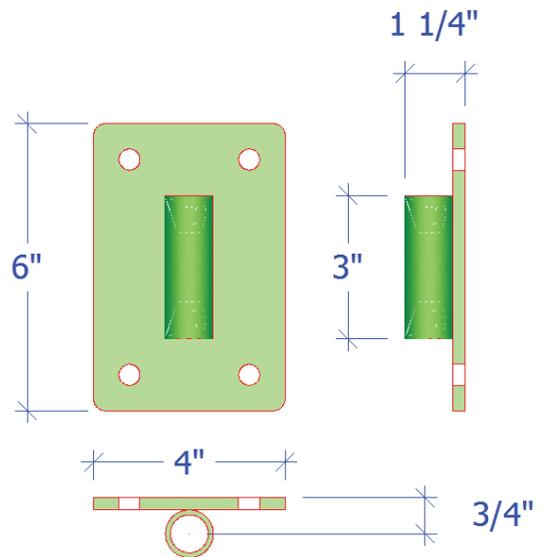
Elevations of offset post brackets showing overlap flexibility on three different posts

Mounting Bracket Basics

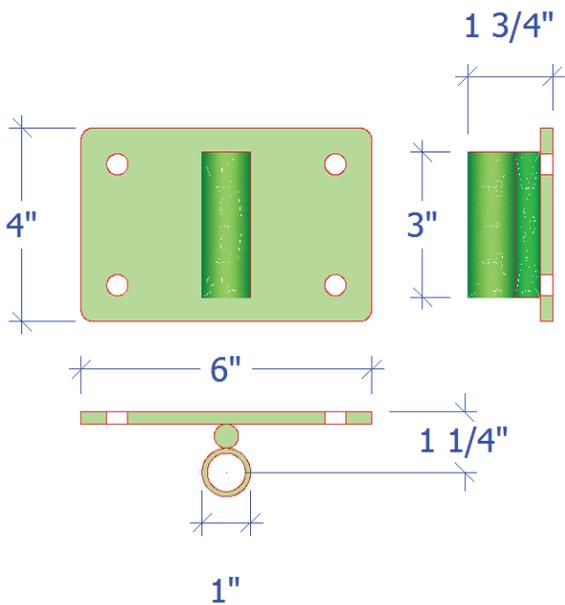
Hi-Hog's four standard mounting brackets are shown below. The key dimension is the distance from the mounting surface to the centre of the connector. This dimension can be added to the dimension of your stall fronts to help you estimate the space you may need for your stall installation.



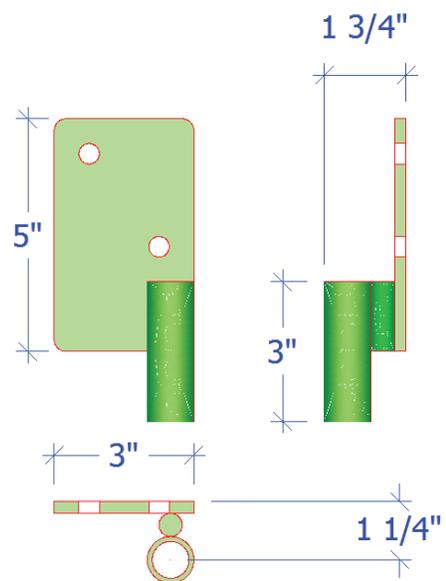
Item 4060 - Horizontal Wall Bracket



Item 4061 - Vertical Post Bracket



Item 4062 - Foaling Wall Bracket



Item 4063 - Offset Post Bracket

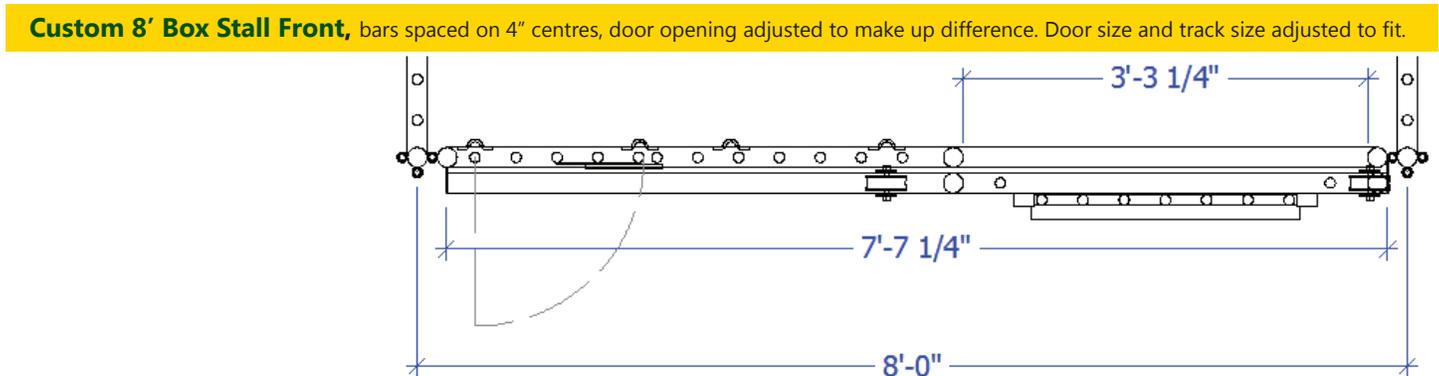
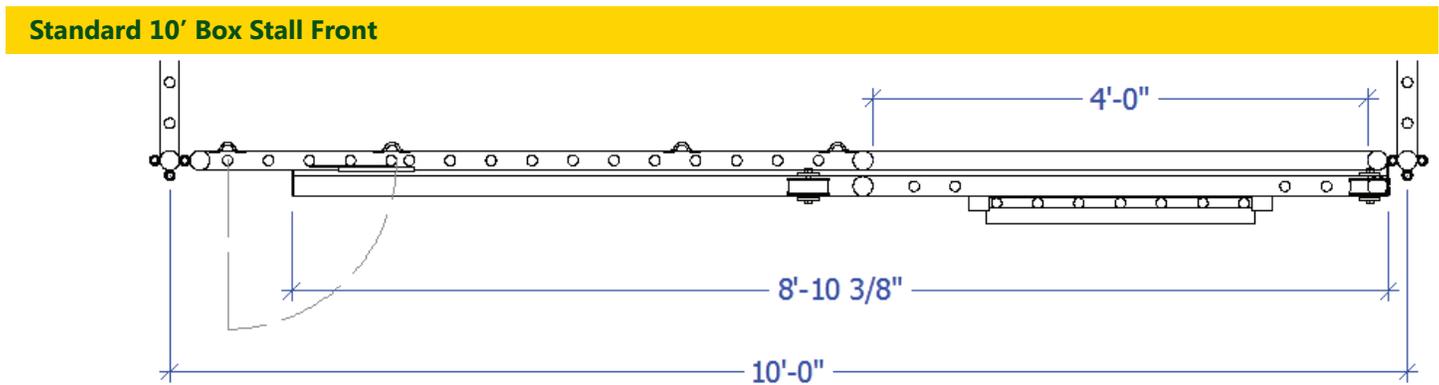
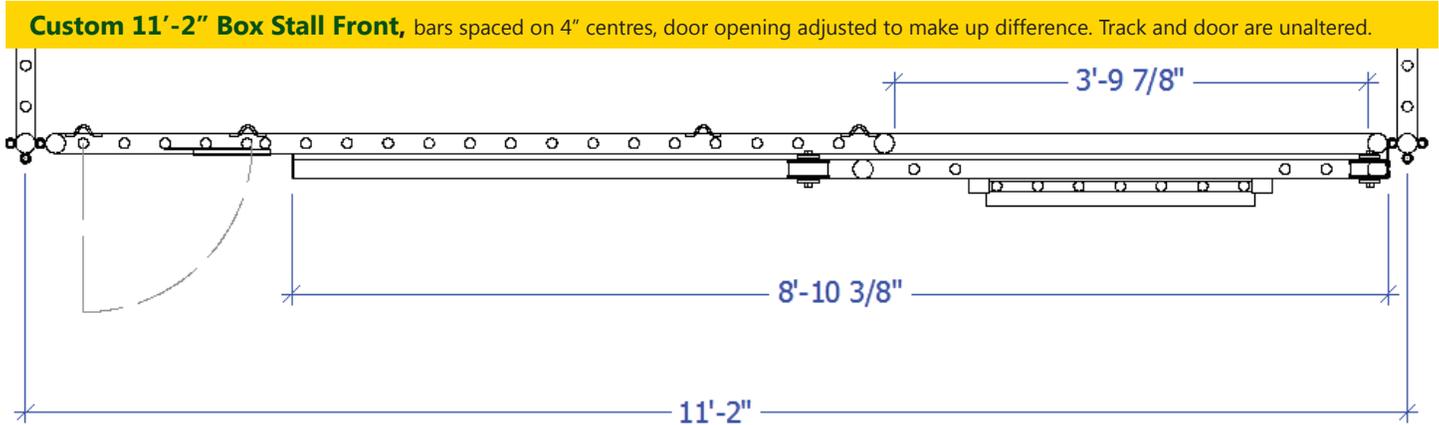
Custom Stall Fronts

In some cases, your only solution will be to have a custom length stall front made. The amount of work needed to design and custom build your stall front will vary depending on how many stall front components have to be altered.

There are two primary parts to a stall front; the panel frame and the rolling door and track. In most cases the only affected item will be the panel frame. In some cases however the door and door track size will also need to be adjusted.

The panel portion of the stall front has bars spaced on 4" centres (3" gap between bars). When a custom dimension is required we add or subtract vertical bars while maintaining the 4" spacing. Any remaining dimensional adjustment required will be made up by decreasing the size of the door opening. This does not affect the door size or track size.

If the custom stall front is too small to allow room for the standard door to fully open on the track, then we need to decrease both the track and the door size, as well as adjust the panel design. In the three drawings below you can see a custom 11'-2" stall front, our standard 10' stall front and a custom 8' stall front.



Custom Design

If you would like help laying out your Hi-Hog stalls, simply give us a call and one of our experienced designers can prepare you a set of scaled and itemized drawings. Toll Free 1-800-661-7002

Inspect your existing barn conditions

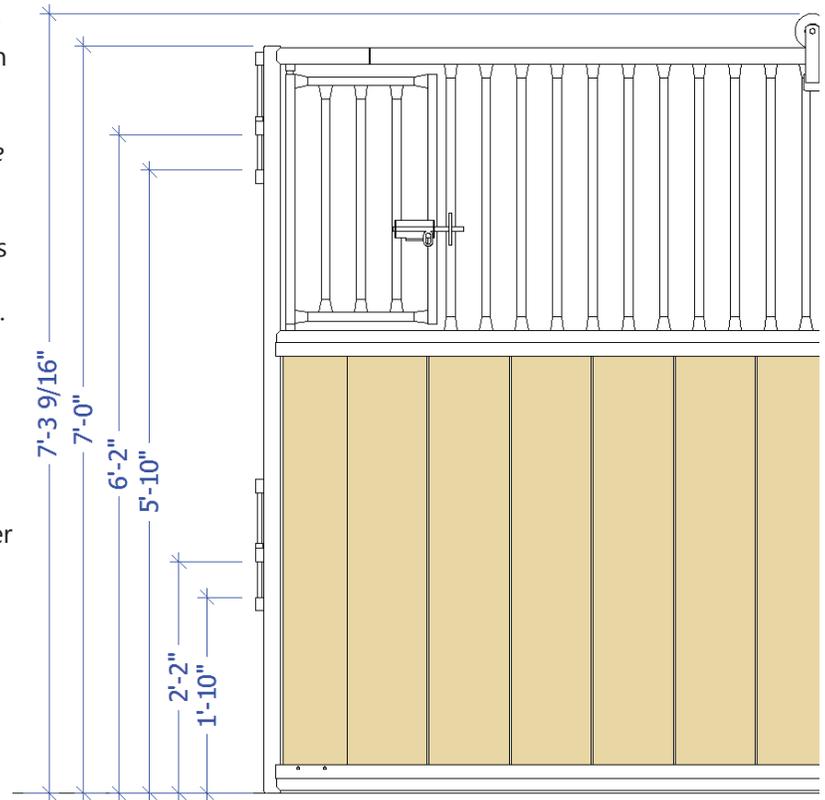
Most box stall installations require the partitions and the end box stall fronts to be fastened to the interior wall of your barn. If you are installing your stalls in an existing building you should examine your facilities closely for conditions that may impact your stall requirements. *(Even new barns may not be true to the plans)*

The drawings and dimensions shown on the previous pages assume the floor surface is level and that all the connectors are positioned in the middle position. The drawings also assume that your walls and posts are square to the floor and the mounting surfaces will provide solid backing for attaching any required wall brackets.

If any of these assumptions are not true, we highly recommend addressing these issues before you order your stalls as the solutions may affect the space you have available and the stall components you require.

Locating your wall brackets

The drawing to your right shows the mounting heights you require for both the stall fronts and the stall partitions. You will also note that the stall fronts and partitions require a clearance of 7' (7'-4" to accommodate the wheels of the rolling door).



Attaching to a wall with multiple surfaces

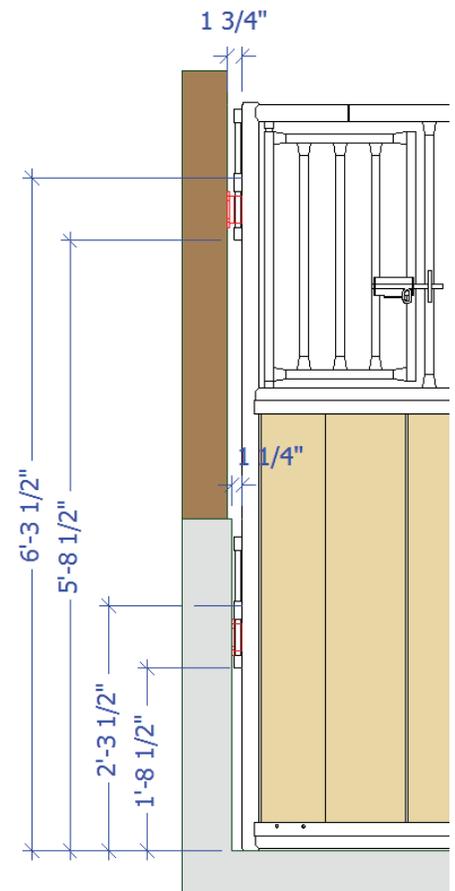
Sometimes barn walls will be made up of more than one material. For example, many barns include a short concrete foundation wall with a wooden stud wall built on top. The finished surfaces of these materials is not always flush with the other surface. When this happens there are a few key dimensions you need to consider.

The first consideration is to look at the height of the transition above finished grade. We want to ensure that the wall bracket can be mounted on an even and solid surface.

If there is a change in the surface plane between the heights of 1'-8 1/2" and 2'-3 1/2" or between 5'-8 1/2" and 6'-3 1/2" then you will need to modify the wall surface to ensure you have a solid surface to fasten your wall bracket to.

If the change in the wall plane does not interfere with the mounting location of the brackets, then you need to consider which wall brackets will work best and determine if the wall will require any shims to make up any difference that cannot be made up with the wall brackets.

For example, if the wall stepped back below the lower stall connector (below 1'-8 1/2"), then there will be no problems as long as the difference between the two finished surfaces is no greater than 1 3/4". (if the gap is less than, or equal to, 1 1/4", you could use standard wall connectors. If the gap is less than, or equal to, 1 3/4", you could use offset wall connectors. If the gap is greater than 1 3/4", you will need to shim out the wall far enough that you can use either the standard or offset connectors. If the gap is greater than 3", you should fill in the gap to ensure you do not create a potential leg trap).



What to do when the walls of your barn are not square to the floor.

In many older barns, the walls (or posts) are not square to the floor. When this is the case you will need to improvise.

In most cases you will need to add a piece of shim to ensure that the two wall brackets are square to the floor. In illustration 'A', a long shim has been added to the wall where the wall bracket will be fastened. *Caution, if a 3" or larger gap is created between the stall and the wall then you will have a potential leg trap. Do not put your horse at risk; fill this gap.*

Sometimes you might get lucky and the variance between the top and bottom gaps is very close to half an inch. In this case you may be able to simply use two different wall bracket styles as shown in illustration 'B'. In this illustration a standard wall bracket is used for the bottom connection and an offset wall bracket is used for the top connection.

Shim Fill >

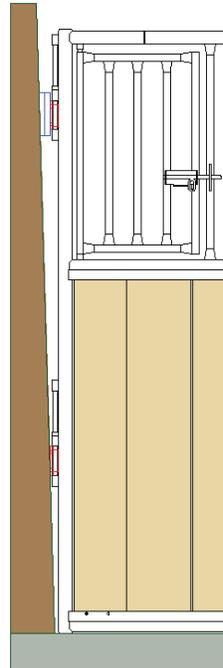


Figure A

Offset Bracket >

Standard Bracket >

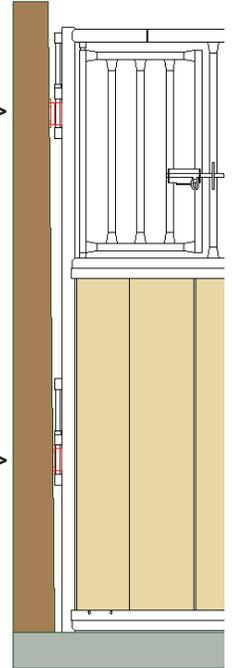


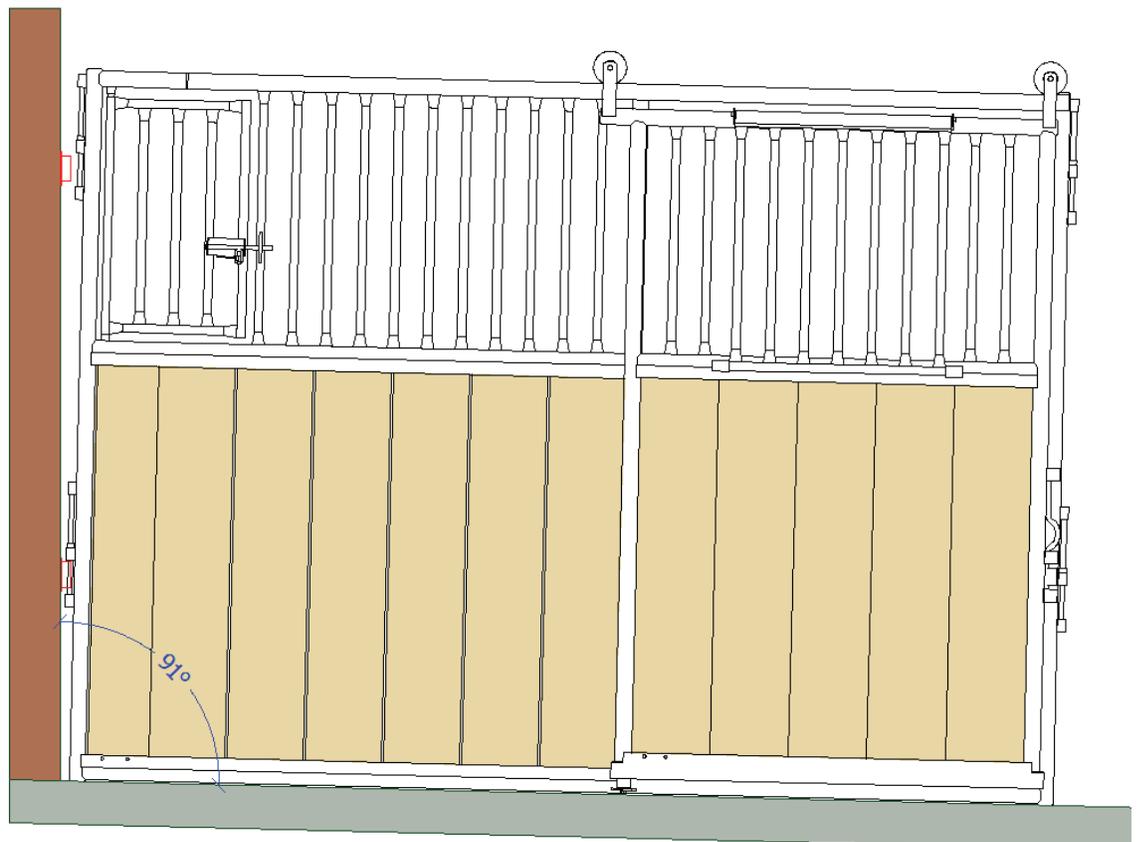
Figure B

Check the level of your floor

The stalls are built squarely which means that if the stall is resting on the floor, and the floor is sloped, the stall connectors will not line up with the wall brackets mounted on a vertical wall.

Can't connect stall to wall bracket >

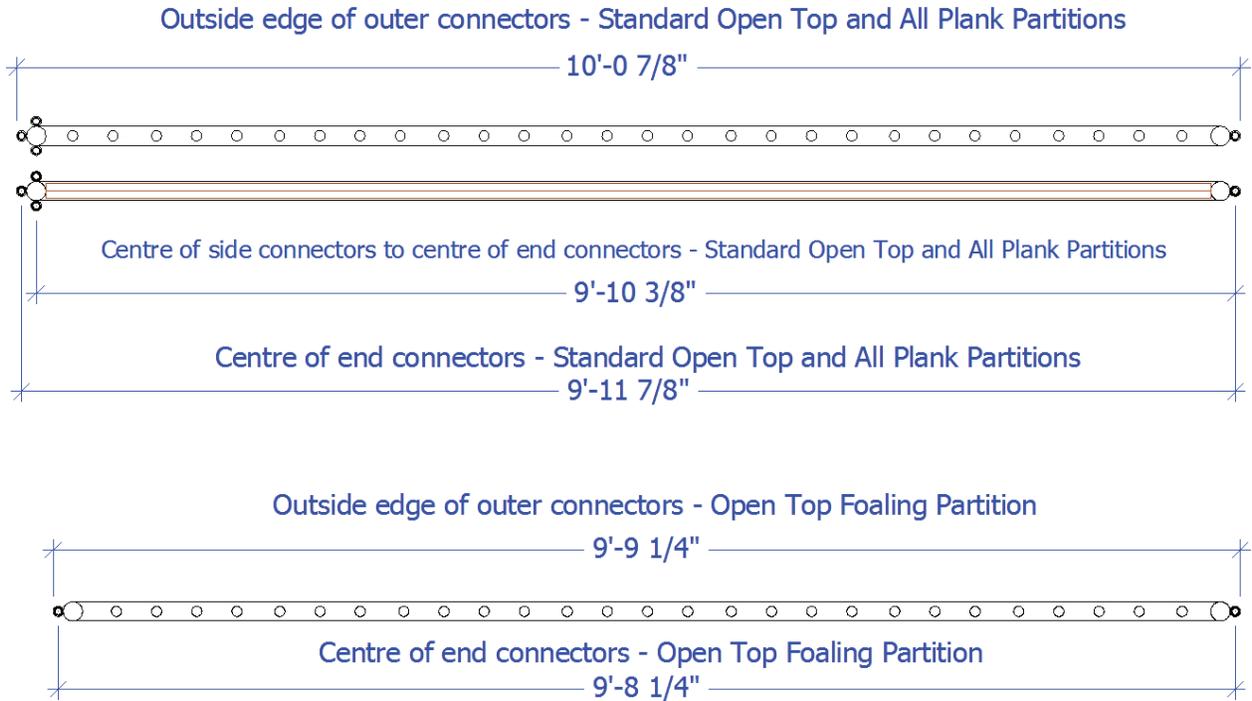
Vertical Wall with sloped floor >



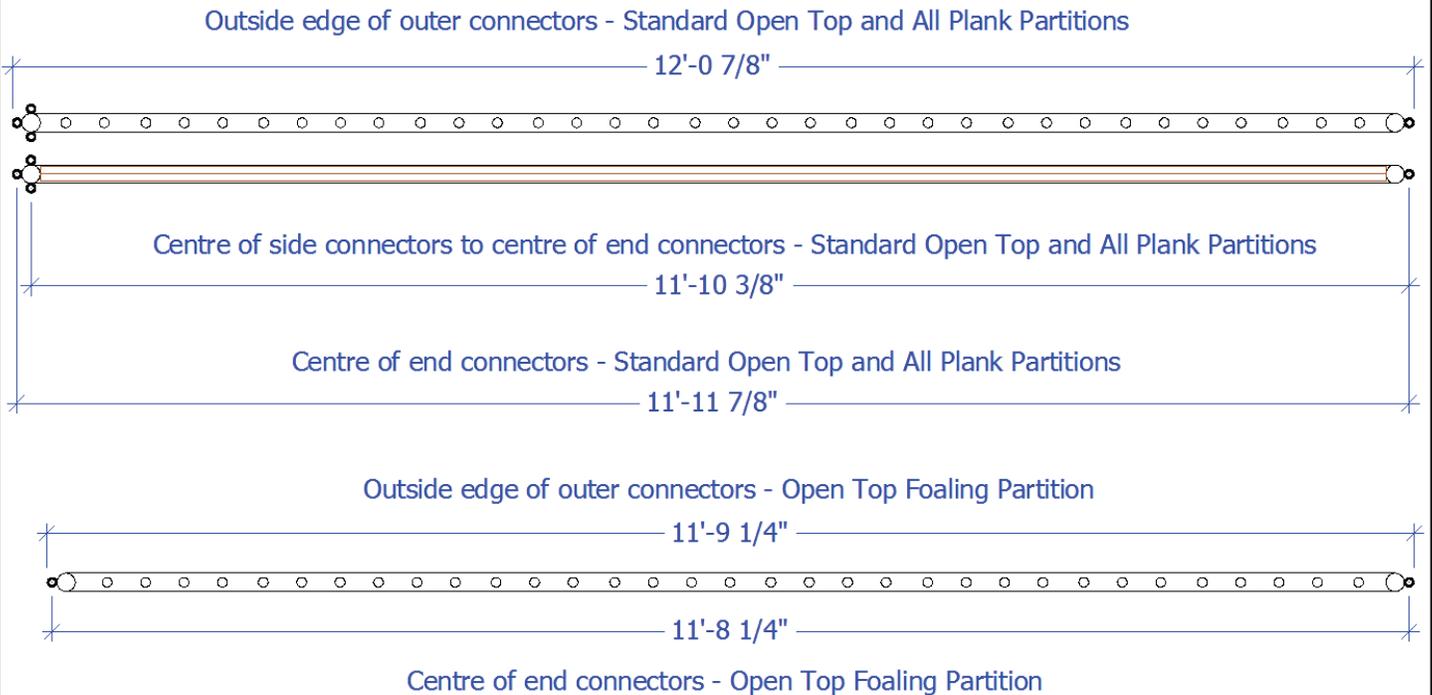
Partitions

The images below compare our standard partition dimensions (open top and all plank) with our open top foaling partition dimensions. Note: the foaling partitions only have one connector at each end.

10' Partition Comparison

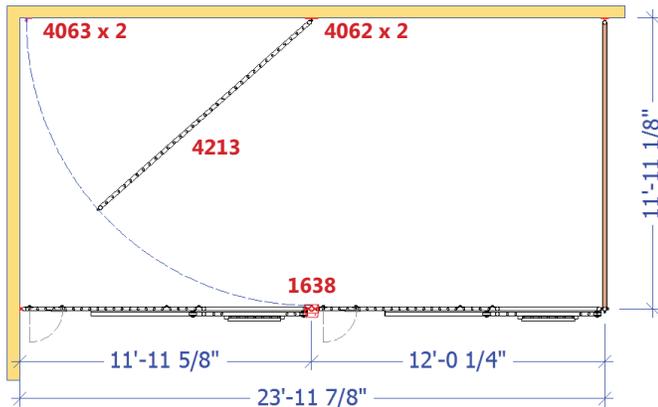


12' Partition Comparison

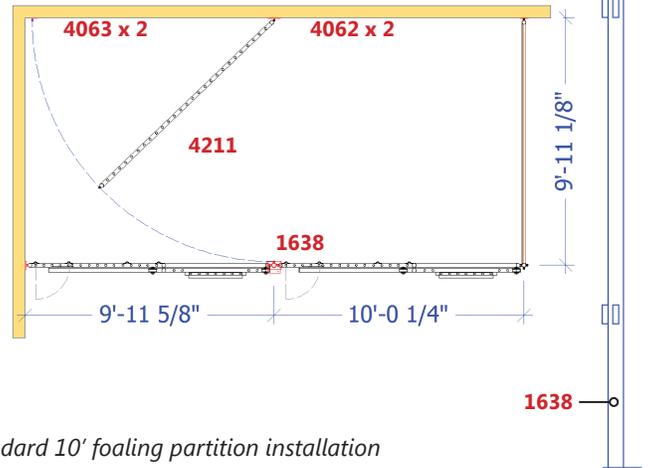


Working with Foaling Partitions

The standard installation of a foaling partition looks like one of the two samples below. In these samples, either a 10' or a 12' foaling partition is attached to a foaling stall tele-post (No. 1638). The tele-post is between the stall fronts. The other end of the partition is attached to rear barn wall with an offset wall bracket (No. 4062) *Note: we recommend installing additional connectors (No. 4063) to the rear of the stall to secure the foaling partition when it has been rotated against the rear wall of the barn.*



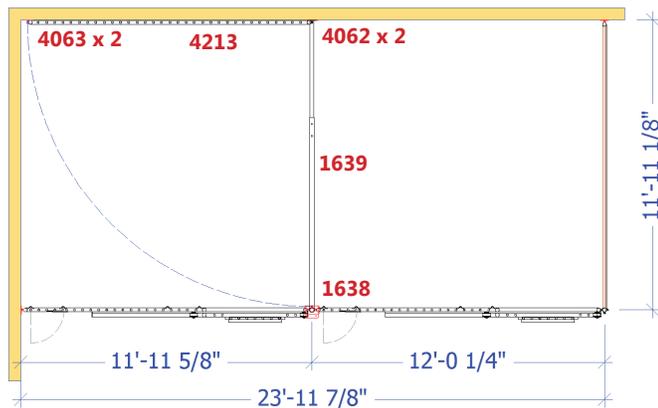
Standard 12' foaling partition installation



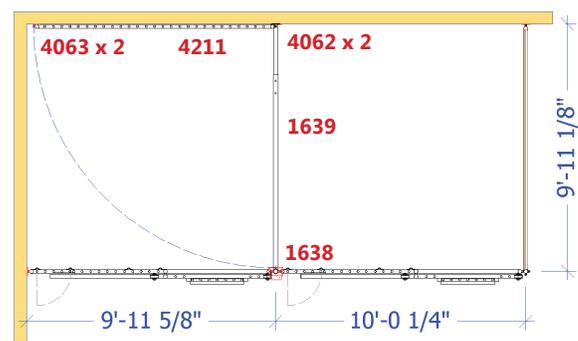
Standard 10' foaling partition installation

Foaling Partitions in tall barns

The tele-post shown in the previous examples would normally extend up to a maximum height of 14'. If your ceiling height is greater than 14', then an additional overhead spreader (No. 1639) can be used to secure the tele-post to the rear wall, as shown in the samples below. (For reference a foaling tele-post with overhead spreader is shown in elevation in the top right corner)



12' foaling partition installation with overhead spreader

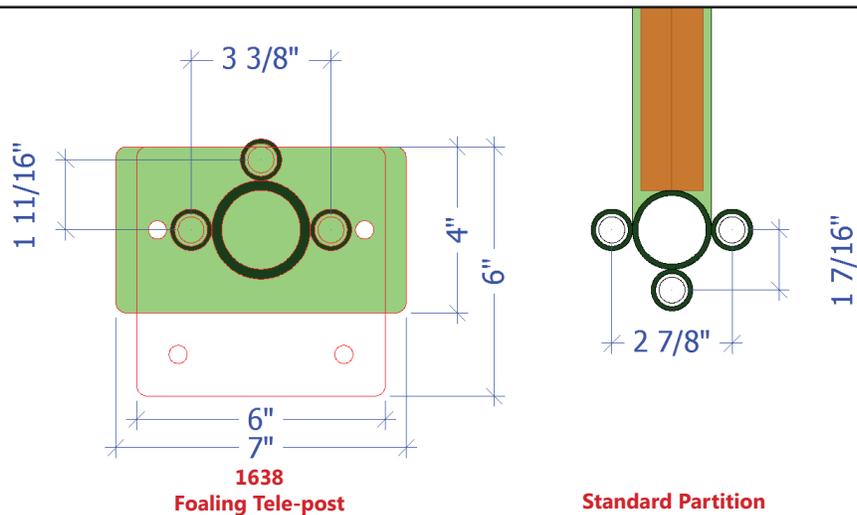


10' foaling partition installation with overhead spreader

Note: Both our open top and our all plank partitions can be ordered in custom lengths as a special order item. Call for pricing and availability on all special order items.

The Foaling Tele-post versus the standard Partition

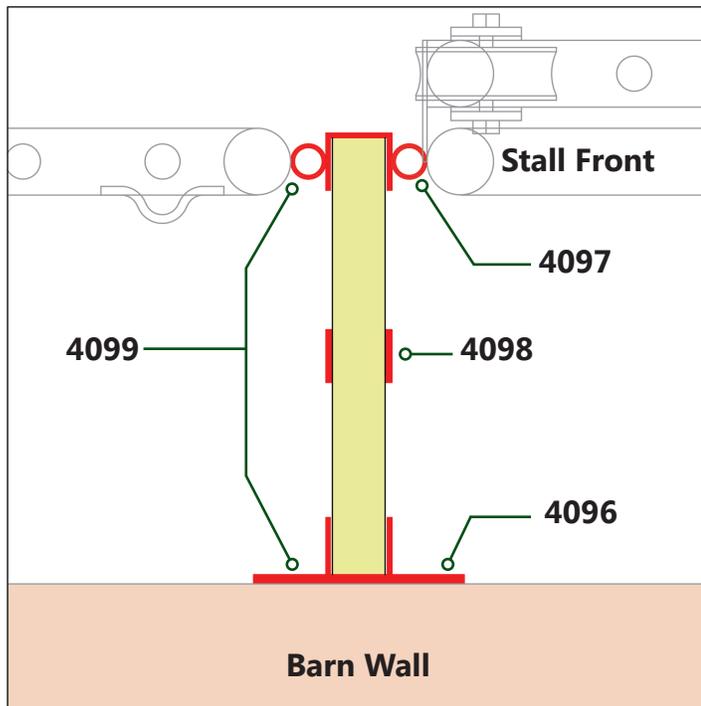
A foaling tele-post is compared with a standard partition in this illustration to show the difference in dimensions that this option will add to a string of stalls.



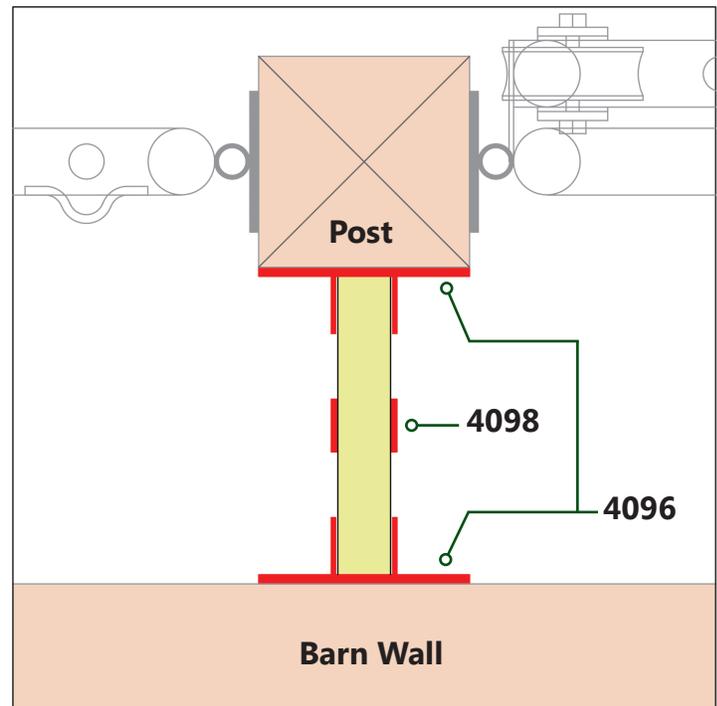
Custom All-Plank Partitions

You can easily make a custom length All-Plank Partition by utilizing the appropriate partition channel set for your needs. We offer both a bolt-on channel or a pin-in channel (see next page for details).

Option A
Standard Installation



Option B
Front Post Installation



Installation

Pin your front channel (item 4097) to the end of your Hi-Hog stall front. Mount your bolt-on channel (item 4096) to the rear wall of your barn opposite your front channel. Check to ensure your partition and front are set squarely (at 90 degrees to each other).

Measure the inside distance from channel to channel. Use this measurement to cut your lumber to length.

Insert your lumber into the channels until the channels are filled to the top.

Add the partition strapping set (item 4098) to both sides of your partition and secure with bolts and lock nuts. Recommend clamping the strapping set to both sides of the partition. With the strapping-set clamped in position use a 3/8" bit to pre-drill through the wood. Secure with lock nuts.

Use the same method to secure the wood in the end channels

Partition Strapping Sets

Recommend one partition strapping set (minimum) for All-Plank partitions less than 10' in length. For All-Plank partitions longer than 10' use two partition strapping sets (minimum).

Installation

Bolt one of the bolt-on channels (item 4096) to the back of your post (Ensure the channel plate does not extend beyond the post). Mount the other bolt-on channel (item 4096) to the rear wall of your barn opposite your post channel. Check to ensure your partition and front are set squarely (at 90 degrees to each other).

Measure the inside distance from channel to channel. Use this measurement to cut your lumber to length.

Insert your lumber into the channels until the channels are filled to the top.

Add the partition strapping set (item 4098) to both sides of your partition and secure with bolts and lock nuts. Recommend clamping the strapping set to both sides of the partition. With the strapping-set clamped in position use a 3/8" bit to drill through the wood. Secure with lock nuts.

Use the same method to secure the wood in the end channels



Wood

The channels are designed to receive standard lumber widths (1.5" wide). For those who desire a more rigid partition replace your standard lumber with tongue and groove lumber.

Stall Accessories

Don't forget your stall accessories



HAY MANGER
Wall Mount Hay Manger
Item N° 4030, 20 lbs



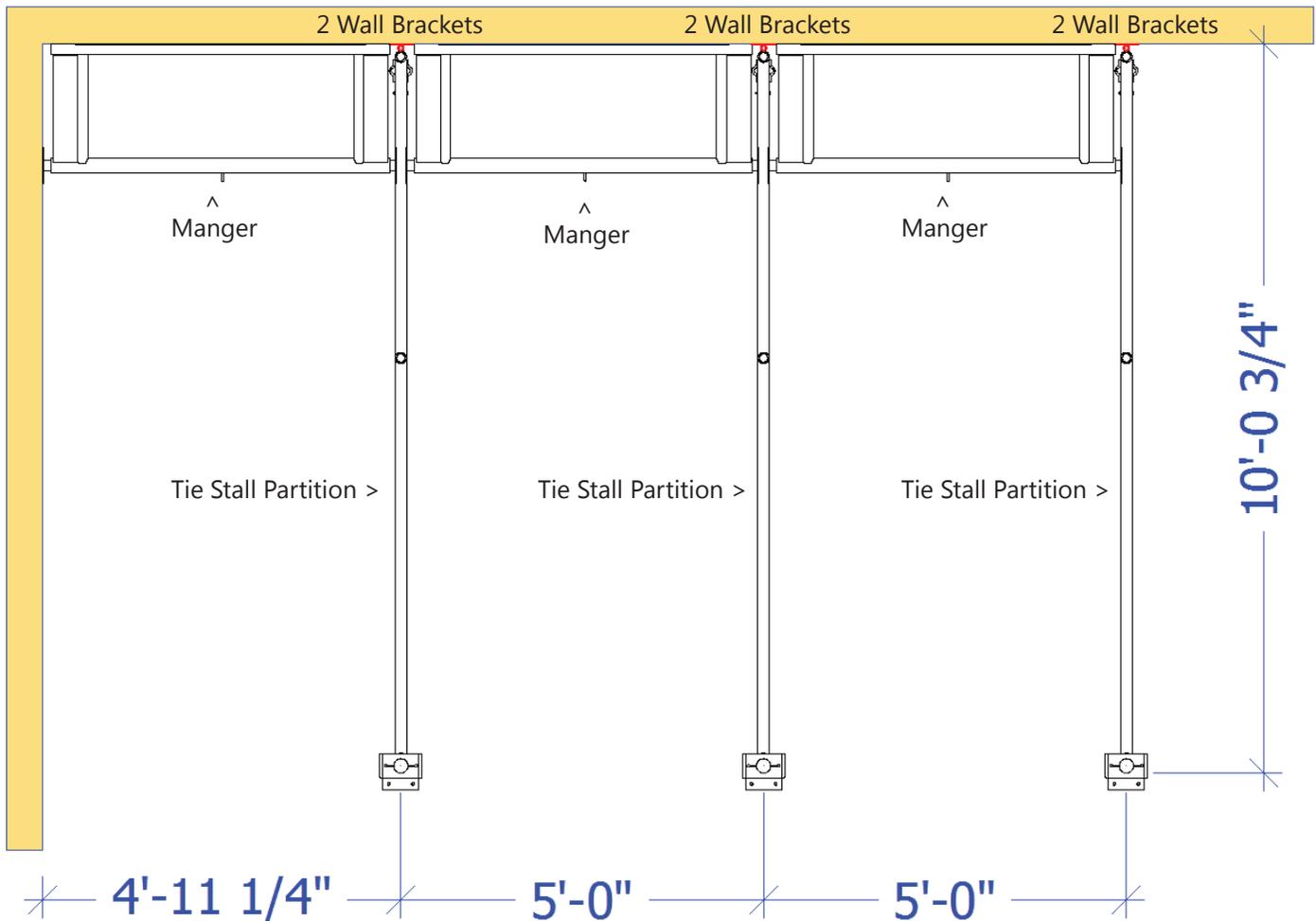
CORNER FEEDER
Corner Feeder w Support Ring
Item N° 4040, 14 lbs



BLANKET HANGER
Horse Head Blanket Hanger
Item N° 4329, 3 lbs

Tie Stalls

If you are not including Hi-Hog's feed manger, you can space your tie stalls (No. 6115) as wide or narrow as you would like. If however you would like to include the feed manger (No. 6113), then you should reference the dimensions shown in the illustration below.



Design

We would be happy to assist you in planning your dream barn. While the dimensions provided in this guide will give you the basic tools to layout a barn with standard installation requirements we strongly suggest you contact one of our designers to assist you if you have any unusual requirements. Hi-Hog's designers will prepare scaled and itemized drawings for your review. Please call our toll free number should you have any questions at 1-800-661-7002.