

Your Complete Guide to Horse Stalls

Design your custom horse stall at
www.LucasEquine.com

Horse stall
TRENDS
styles & new ideas

Eco-Friendly Horse Stalls

Selecting an architect

*Everything you need to know about
crosshatch mesh*

PLUS...

Powder Coating vs. Galvanizing • Hardwood Choices Today • Ergonomics in Your Horse Barn • Dream Barns on a Budget



CONTENTS

Design

| | |
|---|----|
| Selecting an Architect | 1 |
| Dream Barns on a Budget | 3 |
| Horse Stall Styles, Trends and New Ideas | 4 |
| What Makes a Euro Stall so...EURO? | 8 |
| Which Horse Stall Design is Right for Me? | 10 |
| Eco-Friendly Horse Stalls. | 11 |

Materials & Finishes

| | |
|---|----|
| Trends in Coatings: Powder Coating, Galvanizing, Wet Paint | 12 |
| Hot-Dip Galvanizing vs. Pre-Galvanizing: Know What You're Getting | 12 |
| Hardwood Choices Today | 13 |

Crosshatch Mesh & Ventilation

| | |
|---|----|
| Everything You Need to Know about Crosshatch Mesh | 14 |
|---|----|

Safety

| | |
|-------------------------------------|----|
| Making Barn Safety a Priority | 16 |
| Safety First: Latches. | 17 |
| Ergonomics in Your Horse Barn | 18 |

Performance

| | |
|---|----|
| Easy Steps to Improve Horse Stall Performance | 18 |
|---|----|



The image shows the interior of a horse barn. On the left, there are several horse stalls with dark metal bars and wooden lower panels. Two horse heads are mounted on the wall above the stalls. The ceiling is high and made of exposed wooden beams and planks, with a warm, golden light. On the right, there are large windows with decorative circular patterns. A hanging lantern-style light fixture is visible in the upper right.

Selecting an Architect

There are so many questions to ask yourself when considering a new horse barn. And, whether it's a four-stall barn or 20-stall barn, an architect or designer may be able to help you get the look and functionality you want.

However, selecting an architect or designer for your new barn can be overwhelming. In the end, it's a totally personal decision, but there are some standard questions you should consider before you decide on your next architect.

1. Do I really need an architect or designer?

It depends! Good barn architects and designers can often save clients money. Because the professionals who specialize in horse barns design them to be built as efficiently as possible, choosing the right one can often help you get the look you want without overspending. Experienced barn architects and designers also understand how to design a barn to give your horses a safe and pleasant environment.

2. Who designed some of my favorite barns?

Ask around. Seek out your favorite barns. Ask friends and others in the industry. You'll likely hear honest feedback about each architect or designer, as well as the barn features they like and dislike. You'll get first-hand information before making a decision.

3. Can I see your work?

Architects and designers will often send you a letter of interest, brochures, photos of their work, and fact sheets. Don't be dazzled by too much glitzy marketing. Instead, use these items to help determine the professionalism and style of the particular architect or designer. And most importantly, be sure to ask for references.

4. Does this architect or designer understand my needs?

Does this architect or designer understand horses and the equine industry? Does he or she ask you enough questions to get a good idea of your needs? Will he or she listen to your concerns, and do you like his or her personality? Chemistry is crucial in selecting your architect or designer.

5. How do you charge for a project?

This can sometimes be confusing, but it is important to really understand this information upfront. Does this architect or designer charge by the hour or by the square foot, as a percentage of the construction cost or at a fixed fee?

Architects and designers who specialize in horse barns can add tremendous value to your project, but - depending on your needs - may or may not be necessary. Architects and designers can often help turn your ideas and style into a beautiful and functional space.

At Lucas Equine, we work closely with architects and designers all over the world to create custom horse stalls that fit seamlessly with the overall vision. We're happy to help you find an architect or designer that fits your style or geographic location. Or, you can visit our web site at www.LucasEquine.com to for a list of equestrian architects and designers to help you start your project.





We all have a dream barn pictured in our heads, right? You know the one: beautiful, with all the bells and whistles. There are many ways to give your barn or horse stalls a facelift, without a huge investment in time or money. If you're dreaming of a makeover for your barn, check out some of the easy opportunities listed below.

- **Brass or stainless steel nameplates.** Polished and lacquered solid brass or stainless steel nameplates can be installed in just a few minutes and truly personalize your stall front. Use these nameplates to bring in the warm brass tones in your barn or the professional look of stainless steel.



- **High quality door pulls.** Upgrading your door pulls can make a significant difference in the look of your barn. Door pulls are as important to your barn as shoes are to your outfit. Look for door pulls with concealed mounting for a seamless style. Select a finish such as solid brass, oil-rubbed bronze or stainless steel that matches the style of your "dream barn."

- **Custom arches or finials.** Custom add-ons such as arches over stall doors or brass ball finials can be designed to attach to your current equipment. However, if you're working with pre-existing equipment, make sure you consult a stall design expert with experience creating custom add-ons. Otherwise, you can end up with ill-fitting elements that lack a seamless look.

Styles trends and new ideas for horse stalls



The equine industry is much like the fashion industry, right? *Okay*, there are a FEW differences, but many similarities, too. For instance, horse people love to have the latest styles in the barn, will never pass up a hot accessory, and spend lots of time walking the runway...um, I mean aisleway.

Today we're sharing some of the latest trends, styles and new ideas that we're seeing (and building) on the equine "runway" in barns throughout the world.

1. All-mesh is all-right.

We all know that well ventilated stalls are practical both for their health benefits and their versatility with foals, large breeds, minis, training horses, and others. But, now more than ever, smart consumers are selecting all-crosshatch mesh stalls that are durable enough to withstand years of abuse AND accentuating them with stylish features like extra-wide center rails, inset bedding guards and beautiful wood accents.



Below are photos of stalls with crosshatch mesh fronts. These customers have chosen accents that compliment the aesthetic of their stalls and add style to this very functional stall design.



2. Built-in features for safety and time-savings.

Features such as built-in electric, built-in water, swivel feeders and feed doors are extremely popular in all types of barns, not only because they save time when it comes to handling barn chores, but also for the extra safety they can provide.

Incorporating these built-in features into the design of the stall can help keep some everyday hazards far from the reach of mischievous animals. The design experts at Lucas Equine can help integrate these features and others into the design of your stalls. See a few of our most popular features below.

Swivel feeders make feeding time quicker and easier...and decidedly less messy.



A swivel feeder in action.

Built-in electric systems

keep wires inaccessible by horses and hide unsightly conduit.



Built-in electric system

Built-in water systems are accessible from handles on the outside of the stall. Water pours into buckets on the stall interior.



3. Being smart about upgrades.

In today's economy, everyone is shopping a little more intelligently. Stall design is no different. However, it is important to make sure you get the most style and durability for your money. That's why we're increasingly answering customers' requests to get the look of a high-end-style stall without blowing the budget...and without sacrificing quality.

This is where custom design can really make the difference in getting the most for your money. Our designers are helping owners, builders and architects streamline their stalls and other equipment to include just the elements that make the most visual and long-lasting impact.

On this page, you'll see a barn that really exemplifies this current trend. Lucas Equine designers created a very straight-forward stall design featuring a grill top and wood bottom, with a simple decorative arch over each door.

Because the stall door is the most functional part of the stall and takes the most wear and tear, this affordable Lucas Equine design still included high quality stainless steel hinges, spring bolt latches

and steel tube framing to create a durable door that is easy to operate.

To accommodate a budget, the stall front featured simple, yet strong U-channels to accept wood planks, a sturdy grill top and steel chewguards to cover and protect the edges of the wood.

The farm owner, a woodworker by trade, designed and built the decorative wood posts himself to incorporate another style element at an affordable price.

By seamlessly including the scalloped metal plate at the top and bottom of the lower stall door and using brass acorn nuts as accents, the Lucas Equine design retains the style elements that make the most visual impact as you enter the barn.





4. Panelized stall front systems.

A panelized stall front system is a self-contained stall front. The stall door and front walls not only have the same look, style and materials, but are also free standing in a barn or mounted to support posts. This is different from a built-in stall, where actual walls (frequently of masonry or wood) are built into the barn, and then doors and windows are added separately.

Stall front panel systems have become more popular recently due to their versatility, cohesive style and easy installation.

These systems can be used in clearspan barns and



the panel systems arrive from Lucas Equine ready to install. In many systems, the track is already mounted, installation holes are already drilled, and access for any future wood replacement is already built-in.

In addition to the versatility and ease of installation, you can't beat the look of a panel system when it comes to consistency. A panel system matches the stall front walls to the look of the door exactly. This works for stalls with wood inserts, as well as highly ventilated stalls with an all-crosshatch mesh design.

5. Dutch doors and exterior exits.

Dutch doors have been a staple in Kentucky barns for decades. But now, these functional and attractive exterior exits are found in barns all over the world.

These types of doors were originally designed for use in homes hundreds of years ago to let light and air in, while keeping the farm animals out. In Europe, you'll frequently hear this type of door called a "stable door."

don't require that builders create a special structure for stalls. Instead,



Today, dutch doors are commonly used as an exterior stall door. When installed with a pre-hung stall screen, it serves three key purposes:

1. By opening the top portion of the dutch door, horses can stick their heads out for fresh air, sunlight and views of the surrounding landscape.

2. By opening either just the top portion or both portions of the dutch door, and keeping the screen closed, air is pulled from the center aisle through the stall and out the open dutch door. This is an excellent way to create ventilation.

3. Adding easily accessible stall exits - such as those created with dutch doors - allows for access to remove horses in cases of emergency, such as barn fires.

In addition to the benefits listed above, the classic styling of a high quality wood or steel dutch door can add a dramatic visual impact to a horse barn's exterior. See some of our favorite examples on our new dutch door photo gallery on our web site.



6. Focus on horse safety over aesthetics.

This is, obviously, the trend that we are most excited about! Today, serious horsemen, farm managers, amateur riders, architects, and barn builders

everywhere are making horse safety their number one top priority when it comes to stalls.



This trend is showing itself through many popular features:

- * Safer grill spacing
- * Selection of strong and sturdy materials
- * Addition of exterior stall exits
- * Attention to proper ventilation
- * Positive latches (ones that can either be securely engaged or completely disengaged, but not partially secured. Examples include pinlock latches and Lucas Equine spring bolts.)
- * Wide aisleways

Gone are the days when some barns were created to be as airtight as our homes. These barns didn't offer enough ventilation for good equine health. Likewise, barns are now being created with open ceilings and high headers.

Consumers are thinking more critically about their decisions on latches and door operation. They're checking out the designs in person and talking to people who have similar equipment. They're asking great questions about construction and material selection.

Plus, designers at Lucas Equine, at architecture firms, and on construction sites are constantly coming up with ways to make our barns and equipment even safer.

Horse people are informed consumers, and that fact benefits the horses most of all.

What makes a Euro stall so...

EURO?



Let's get one thing straight: I love the look of a Euro-style stall. And, that's a good thing, because I spend day after day helping customers create their vision of a Euro stall.

This makes my days very interesting, because a real Euro stall is simply a style type...a design theme...a look or feel...not a stall function or even a pre-determined set of components.

Generally speaking, however, there are several characteristics that are commonly used in designing Euro-style stalls.

1. Emphasis on Social Interaction:

Many Euro stalls are designed in a way to allow horses to stick their heads out into the aisleway. To achieve this, Euro stalls often have "open fronts," which can mean they have a yoke cut-out or feature low swooping front designs. This design element is useful when you have a barn of animals who thrive on social interaction. It's not as beneficial when you have a barn that experiences much turnover in animals.

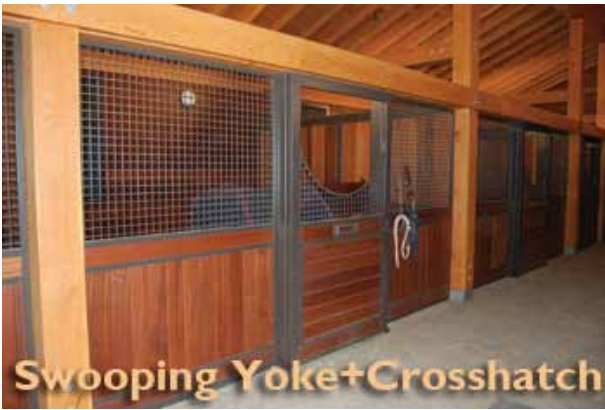
2. Swoops:

To achieve the social interaction I mentioned above, there are various types of swoops commonly seen in the doors of Euro stalls. Below, you can see three swooping designs that frequently build: **Z-Rail**, **Gentle Roll** (also known as variable radius tube bending) and **Low Swoop**. Each offers a different aesthetic, as well as different price points and levels security for your horse.



- ☞ **Z-Rail fronts** can be high or low. The "Z" is different from the gentle roll in that the rail is almost bent at an angle.
- ☞ Fronts with a **gentle roll** design feature arcs that swoop more gradually. This can also be called variable radius tube bending.
- ☞ Fronts with a **low swoop** feature a single continuous arc to create a seamless look.





3. Decorative Accents:

A dead giveaway of a Euro stall is the presence of decorative accents. Brass ball finials, arches, horizontal accent rails, decorative plates, and collars on the ends or centers of bars are common accents on Euro stalls. These accents generally serve no functional purpose, but greatly add to the style of the barn.

4. Hinged Doors:

Due to the swooping nature of most Euro stall fronts, they are usually designed with a hinged opening, rather than a sliding door. Sliding doors require overhead tracks and carriers that don't easily attach to many low-front Euro doors.

5. Exotic Hardwoods:

With a penchant for style and flair, Euro-style stalls are frequently built with attractive exotic hardwoods to add to the rich look of the design. Download our hardwood selection guide to learn more about different types of hardwoods for horse stalls.

6. Panelized, Seamless Front:

To maintain the seamless lines and create a cohesive

style, Euro stalls are frequently built as a panel system, rather than individual doors and separate built-in walls.

Euro Stalls Evolve: Hybrids

Of course, much like in architectural styles, Euro-style stalls are each unique and can have just one or all the characteristics I've mentioned.

Plus, in today's melting pot world, we're frequently designing hybrid styles that incorporate features of many types of stalls, including Euro styles, to produce the ideal stall system for customers, combining form and function. See some hybrid stall systems at the top of this page. These designs combine the decorative or social aspects of Euro stalls with the strength and ventilation-friendly aspects of crosshatch mesh stalls.

For more information on Euro stall designs or for pricing information on your favorite Euro stall system, visit www.LucasEquine.com.

Which stall design is right for me?



Just last week, we received a call from a lady who had been clicking through our web site for hours, looking at all the lovely photos. She was calling with one resounding question: “How do I know which style to pick?”

It's true, with all the talk of Euro-styles, crosshatch mesh, hot-dipped galvanizing vs. powder coating, yoke options...it can almost make your head spin. Here are some surefire ways to help make sure you select the design and options that are right for you:

Find a stall manufacturer who asks lots of questions. He or she should ask about how you use your barn, what the weather is like in your area, if you're doing the work yourself or have a contractor, and about 20 other questions before they recommend a design.

Start with your needs first, then think about style secondly. Sure, it's easy to look at beautiful barn photos and say, “I want stall #12,” or “I'd like the XYZ Series stalls.” But, you (and your horses) will be happiest if you start by selecting a design that can stand up to your most curious horse, or one that offers the most ventilation in your area's super hot summers. Then, you can add accents and style options to achieve the look you want. Feel free to create “hybrid” styles

that incorporate the best functions of various designs.

Don't choose any options you don't understand. It's easy to get dazzled by words like “pre-galvanized” or “mesh,” but when it comes to making final selections on your stalls, it's your turn to ask 20 questions. Make sure you understand what you're really getting.

Be honest with yourself about your budget. It's true that you get what you pay for. That's why - no matter the size of your budget - it's vital not to skimp on the important things: strength, durability and ease of use. Brass ball finials look great, but make sure an appropriate proportion of your budget goes to the functional parts of your stalls; you'll be glad you did.

In addition, **do** spend lots of time online looking at your favorite horse stall photos. **Do** visit your friends' barns and ask your neighbors what they like about their stalls. **Do** choose an expert you trust to help design and build your stalls.

The answer to the question, “which design is right for me,” is a personal one, but asking the right questions and doing your research make the answer so much easier.

Eco-Friendly Stalls

3 important considerations in *green* stall design

Our love of horses naturally keeps each of us in tune with mother nature. After all, when caring for horses, we have always relied on mother nature to provide beautiful days for riding and green pastures for grazing. We're all learning to be more green by recycling, using energy efficient lighting and being mindful of our carbon footprint. But, how does this eco-friendly movement apply to our actions within the horse barn?

There are several things you can do to have a more environmentally friendly horse barn. Some are easy. Others require a more significant investment in time or money. Either way, the time, energy and dollars we all invest in environmentally friendly actions will pay dividends for us, our animals and future generations.

1. Use proper ventilation.

This is probably the most important aspect of green stall design. Proper ventilation can eliminate the need for energy-hogging fans, reduce the need for fly-control measures or chemicals, help control ammonia build-up and provide a healthier environment for your animals.

The end doors on your barn and, sometimes, the hairline gaps between the exterior planks can bring air ventilation into the barn. But, is enough of this air flowing



into (and out of) your stalls? The secrets to stall ventilation are:

Exterior stall windows/door openings that pull breezes from aisleway into stalls.

Stall partitions that have sturdy steel crosshatch or bar grills when possible.

Vented doors access aisleway breezes. Also consider having stalls open up to the roof to allow the hot air to rise out of the stall area.

2. Select materials wisely.

Selecting building materials that are environmentally friendly is an important part of creating an eco-friendly barn and stalls. Look for wood certified by the Forestry Stewardship Council, reclaimed lumber or wood

alternatives made from recycled materials.

Likewise, paint types can influence your environmental impact. For instance, the process of powder coating is, today, an extremely eco-friendly method of coating steels, versus some wet paints that can contain toxins.

3. Consider sustainable design.

Several equine architects and designers specialize in designing eco-friendly barns. For example, Blackburn Architects recently launched Blackburn greenbarns[®]. These barns can offer such innovative features as solar panels, greywater systems and vertical ventilation.

At Lucas Equine Equipment, we work with many equestrian architects and designers who incorporate sustainable design practices, and we're happy to help you find these types of design professionals.

The best horse stalls create a healthy, pleasant and safe environment for both your horses and mother nature.

Consider implementing these three points, as well as environmentally conscious manure composting, stall bedding and water considerations, in your barn.

Trends in Coatings

Whether you already have stalls and doors in place, or you're thinking of installing some in the future, get the most for your money by understanding the pros and cons of every viable option for paints and other coatings. Below, you'll read about the differences in Powder Coating, Hot Dip Galvanizing and Wet Paint. Selection depends on three things:

1. **Your environment.** Do you have excessive amounts of salt or moisture in your area?
2. **Appearance.** How important is a smooth, seamless appearance for the aesthetic of your facility?
3. **Maintenance.** Are you willing to perform occasional maintenance on your equipment?

Selecting a Coating for Your Horse Stalls: Know the Pros and Cons

Powder Coating

Powder coating will give you the smoothest, most uniform finish of all types of coatings. At Lucas Equine Equipment, we use blemish-free steel and grind the weld seams smooth to ensure a flawless powder coated finish. Then, the powder coating forms a smooth protective "skin" over the steel.

When properly cared for, most high quality powder coated finishes can last several years. Powder coated finishes from Lucas Equine Equipment are applied in a two-step process.

First, a **zinc-rich primer** is applied to create a protective base coat. This step ensures good adhesion. Secondly, a coat of **Super Durable Powder Coat paint** is applied and baked to a hard finish. The Super Durable Powder Coat paint used by Lucas Equine Equipment is a specially formulated powder coating designed for superior gloss and color retention. It also provides excellent outdoor weathering capabilities.

Lucas Equine Equipment offers nine standard colors, and a total of 190 specialty colors, as well as custom color formulations.

Hot Dip Galvanizing

Hot dip galvanizing, on the other hand, provides outstanding protection from rust, creating a thick, scratch-resistant and virtually rust-proof coating, even in coastal areas that receive regular salt exposure.

To properly galvanize steel equine equipment, the stall, door or gate is first completely constructed, welded and cleaned. Then, the entire product is dipped into a bath of molten zinc. At this point, the zinc bonds to the steel, creating several layers of a durable zinc-iron alloy.

Lucas Equine Equipment products are built in a way to allow the zinc coating to run inside the steel components, protecting both the inside and outside of the steel.

Hot dip galvanized products can usually be identified by the crystallization pattern that covers the surface.

Wet Paint

Prior to the wide acceptance of powder coat paint, wet paint was the most common type of painting for equine equipment. Wet paint is still an option today; equipment can be built, cleaned and primed by manufacturers like Lucas Equine Equipment. Then, the builder or farm owner can apply wet paint once the product is installed.

This may provide some advantages, such as the ability to use the same paint and exact color used elsewhere on the property. However, it also requires increased labor costs for painting, the potential for drips, runs and brush marks, and a finish that is less resistant to fading, chips or scratches.

Hot Dip Galvanizing vs. Pre-Galvanizing

Not all galvanizing is created equal.

There are two types of galvanizing: pre-galvanizing and hot dip galvanizing. Pre-galvanized material receives a thin coat of galvanizing material prior to product assembly. The protective galvanized coating is - however - burned off when the material is welded together, eliminating the initial rust protection of the pre-galvanizing process.



Hardwood Choices Today

The old-world styling of traditional wood stalls is definitely appealing. But, as we all strive to be good eco-citizens, it's important to understand the options when it comes to selecting hardwood for your barn.

Sustainable Hardwoods. Truly sustainable hardwoods are FSC-certified. The FSC is the Forestry Stewardship Council, a non-profit group responsible for certifying sustainably harvested wood. The stringent requirements placed on the loggers and forestry management organizations help ensure that forests are managed to meet the “social, economic, ecological, cultural and spiritual needs of present and future generations.” FSC-certified woods may be more expensive, but offer the peace of mind that the harvesting of the wood was responsibly managed.

Reclaimed Wood. Wood salvaged from old barns, buildings and other locations can create a rich and beautiful look, while still relying on the principle of “reduce, reuse, recycle.” Barns, doors and stalls can be built with reclaimed wood from your property or purchased through Lucas Equine Equipment.

Exotic Hardwoods. There are some exotic hardwoods that exhibit properties that make them particularly long-lasting. Many of these options can be selected in FSC-certified options. For example, a recently popular wood ipe (pronounced e-pay) is an extremely dense dark reddish-brown lumber, offering the same fire rating as concrete and steel! This durable hardwood is also rated by the U.S. Department of Agriculture and Forestry as “very resistant to attack

by decay, fungi and termites.” Other interesting exotic woods include sapele (an African mahogany) and Brazilian cherry.

Domestic Hardwoods. Domestic hardwoods usually offer the most cost-effective option when it comes to lumber. Many domestic hardwoods can also be found in FSC-certified versions. These hardwoods can include oak, douglas fir, cherry and mahogany.

Softwoods. Softwoods are generally not recommended for use inside horse stalls. Due to the rough and tough nature of the environment inside a horse stall, yellow pine is the only viable option in the softwood category. While yellow pine sacrifices some of the strength found in other hardwoods, it offers a low-cost alternative to hardwoods.

Wood Alternatives. There are several high quality wood alternatives on the market today. One of the most interesting products is a composite that is environmentally friendly, long-lasting, fire-resistant and resists cribbing. This non-hazardous composite is neither a wood nor a plastic, but rather made of a mineral filler created with polyurethane and fly ash (recovered from the electric power generation industry). This composite, marketed under the name LifeTime Lumber, is one of several wood alternatives.



Everything You Need to Know About Crosshatch Mesh

Ventilation and safety are two major concerns for every horse stall. Although it's not one of the most exciting parts of a horse stall, gridwork options play a key factor in both ventilation and safety.

In fact, when Penn State University published a recommendation on horse stable ventilation, they stated the number one thing you could do to improve horse stall ventilation is use open grillwork or grids on front and side stall partitions when possible.

Likewise, if you've ever had a horse that loves to find

a way to cause trouble, you know or have heard of the damage that can be done (to your stalls or your animal) if the wrong type of grid is chosen.

This article will focus on the types of ventilated designs that feature intersecting bars or wire. This type of material comes in the following forms:

- * Welded crosshatch
- * Electrically welded wire mesh
- * Woven wire mesh
- * Expanded metal.

In our industry, these terms are often used interchangeably to describe drastically different products. It's important to know what type of gridwork is appropriate for your animals and your application. You also have to ask the right questions to make sure the product you're getting includes the true material you want.

Welded crosshatch.

We'll start with this type because it's the most durable, strongest and safest. And, it's the design that Lucas Equine Equipment recommends for the majority of applications. Lucas Equine

Equipment crosshatch is built with 5/16-inch solid steel rods. These rods are not woven. Instead, they are

solidly welded (using arc welding processes) at every single joint.

Then, the grid is also solidly welded to the frame at every point. A proper crosshatch design will keep the vertical rods turned toward the inside of the stall. This creates a consistent and catch-free design, so horses that paw and scrape don't get beat-up knees or hooves from raking down the door.

Note: Some lower-end designs may include "skip welds" where the intersecting rods are only welded at every few junctions. This design does not offer the same level of strength and safety as true welded crosshatch.

Electrically welded mesh.

In any welded product, both the

strength of the material and the strength of the weld determine the overall durability of welded steel. Electrically welded (also known as "electric resistance welding") wire mesh is a common product used by several stall manufacturers. The wire used in this type of mesh is usually 1/4-inch steel.

Electric welds are created by passing electric current between two or more metal surfaces. While the process of electric welding is efficient and cheap, it does not provide the same level of strength as traditional arc welding.

Woven mesh.

This gridwork generally features 1/4-inch wire, woven over and under to create a grid/mesh. This type of mesh uses only the weaving design to provide any stability for the intersections, rather than welding the junctions.

While woven mesh can be less expensive than welded crosshatch, the lack of solidly welded joints allows movement, separation and rattling of the gridwork. In addition, the process of bending the metal wire to create the mesh can create points of weakness, as well as raised edges that horses can scrape against.

Expanded metal.

While expanded metal is typically not used inside horse stalls, it can be used in paddock gates and some stall screens. This gridwork isn't made up of intersecting grills, but rather a solid piece of sheet steel that has been expanded to create a pattern of openings for ventilation.

Expanded metal is typically the least expensive option of the ones mentioned in this article, as well

as the lightest in terms of weight. When used in paddock gates or stall screens, it can offer strength and durability against wear and tear and a certain level of pressure.

In addition, installing paddock gates filled with expanded metal (versus pipe gates) provides a visual blockade to animals, helping to keep horses from running into the gate.

Key points.

Because this terminology is used so interchangeably, it's vital to ask the right questions when purchasing new ventilated stalls or replacing your current ones.

1. What is the thickness of the steel used to create the grid? Lucas Equine Equipment uses 5/16-inch steel rods in our crosshatch,; some manufacturers may use 1/4-inch steel wire.
2. Is the grid welded? If so, is it welded at every joint?
3. What is the method used for welding the grid joints? Arc welding or electric welding?
4. Can I see a sample? This is the most important question. Ask your builder or stall manufacturer for a sample of the gridwork.

You'll be able to see a difference right away in each of these designs. Choose the design and specs that are right for the strength and temperament of your horse, as well as one that will stand up to the wear and tear of a working horse barn for many years to come.



MAKING BARN SAFETY A PRIORITY

10 tips for a barn safety audit

As you well know, horses can make safety hazards out of some of the most benign conditions. That's why grill spacing, door/wall strength, and the quality of stall materials are so important to us when we design and build horse stalls. Now is a great time to conduct a safety audit of your barn and stalls.

Below, you'll find 10 key tasks that will help you make your horse stalls and barn a safer place for you and your horses.

1 Check the inside of your stalls, doorways, aisleways and wash stalls for protruding nails, screwheads or sharp edges. The best stalls



have sturdy steel mesh crosshatch, grills, tongue and groove wood inserts, or screens that do not use nails at all.

grill spacing and/or crosshatch mesh. To help keep horses from injuring themselves, grills should be spaced no greater than 3-inches on-center. (This means from the center of one bar to the center of the next bar.)

2 Audit your

3 Protect chewable surfaces. Chewguards should cover all edges of any exposed wood. Make sure that the materials used to create your stalls and guards are thick enough to withstand serious abuse. Horses can quickly destroy exposed wood edges. Don't forget to include chewguards on your structural posts and window ledges.

4 Enclose any exposed wiring. Double check for any electric wires, outlets or switches that may be accessible by horses or children. Integrating electric into



the structure of your stalls helps increase safety and offers a built-in, seamless look for your barn.

5 Make sure light bulbs are properly protected and light fixtures are high enough that a raring horse couldn't reach them.

6 Check those box fans. We're always preaching about the importance of ventilation. In some barns, box fans can help accomplish this...along with good stall design. If you do install box fans, make

sure they are exterior-grade fans. The moisture found in a barn can make interior-grade fans a fire hazard.

7 Install fire extinguishers, making sure they are well-marked and easy to find. Consult your local fire department for recommendations on placing and inspecting fire extinguishers.

8 Re-stock your first aid supplies. Make sure this first aid kit is easy to find!

9 Clear out your aisleways. Over the course of the winter, it's easy to let clutter find a home in your barn's aisleways. Use this safety audit as a time to make sure there is

SAFETY FIRST: Consider your latches.

We all know that equine safety is important in our barns. But, did you also know that the latches used in your barn play an important role in barn safety?

Indeed, latches are often chosen based on their aesthetic styling or their price. However, certain latch designs and construction can offer you optimal safety for your horses. And, you don't have to sacrifice style when choosing safe latches for your barn.

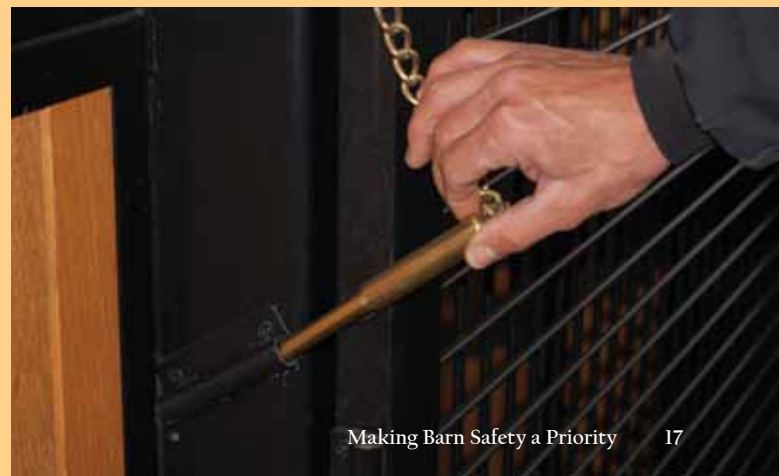
Here are some tips for picking out your stall latches:

- 1. No Obstructions.** When selecting a latch, be sure to choose one that doesn't have any obstructions or projections that could potentially injure a horse or person in the wrong circumstances.
- 2. Full and Easy Opening.** Also, look for latches that open easily and fully. Make sure these latches are not accessible by the horse.
- 3. At-a-Glance Security.** Finally, think about security. There are several types of latches that make it easy to see if they are securely and completely latched. Choosing this type of latch - such as a drop pin latch or pinlock latch - helps you double-check at a glance the security of your animals.

The design specialists at Lucas Equine Equipment can help you choose or create the right latches for your particular environment.

plenty of easy aisleway access in case of an emergency and to make daily operations more efficient.

10 Post emergency numbers prominently. Are the telephone numbers for EMS, fire department, vet, farrier and yourself posted in your barn? Make sure this list is easy to find and up-to-date. Even if you don't have boarders, you never know who may need to contact emergency personnel from your barn.



ergonomics in your horse barn

Ergonomics is such a buzz word today. But, what does it really mean in terms of your regular activities inside your horse barn? According to Wikipedia, ergonomics is the science of designing the job, equipment and workplace to fit the worker. Proper ergonomic design is necessary to prevent repetitive strain injuries.

There are a few steps you can take to improve the ergonomic conditions of your barn. The ultimate result will be reduced injuries and strains, and a more efficient work environment.

*** Utilize single-hand latches.** There are a few types of latches (and other hardware) that are specifically designed to be operated with one hand. Since you

always have one hand busy when leading a horse into a stall, choose latches, such as a pinlock style, that can be opened or closed with one free hand.

*** Install easy-close doors.**

Select stall doors and exterior doors that are designed for easy open and close operation and constructed to be well-fitting. When selecting stalls, look for doors that have full-length hinges designed to hold the door level and allow it to swing easily.



*** Create task-specific areas.**

When arranging your barn, think about the tasks you'll be doing. By placing flip-down saddle racks (especially ones that can be flipped up and down with one hand) near the area where you tack up your horse, you'll help maximize your functional space after this task is done. Outfit

wash areas with hooks for brushes, tie rings and maybe even integrated water systems to eliminate unnecessary back and forth or strain.





Easy Steps to Improve Horse Stall Performance

Stall maintenance is always a hot topic. After all, your stall equipment is definitely a long-term investment. That's why it's important to make sure you install doors and stall fronts that are designed and constructed to be durable and long-lasting. You can improve the long-term performance of any stall equipment by considering a few key points.

Don't skimp on tracks or rollers.

Sliding stall and exterior doors are popular and useful. They eliminate the traffic and safety issues of doors that swing into aisleways. But, using lower quality track systems or rollers can result in doors that are difficult to open and close or easily come off their track. Insist on heavy-duty track with a self-cleaning design. In addition, Delrin rollers will withstand day-in and day-out use. Don't continue to struggle with doors that don't function easily. You can upgrade the track system on your current doors with little effort.

Install door glides and guides that help protect your finish.

Specially designed door glides and guides with Delrin or polyethylene rollers help maintain an easy glide, while also reducing the wear or rubbing often associated with metal door guides.

Know the best ways to clean stall equipment.

To maintain a good finish, it's important to regularly clean your stall equipment. But, be mindful of how you clean your stall equipment and what cleaners you use. Never pressure-wash wooden stalls. The intense pressure can degrade the wood, leading to weakened materials. **When cleaning steel stalls, use water and a mild dishwashing liquid. Never use abrasive cleaners, ammonia or TSP. Clean with a soft cloth, and never with wire brushes or steel wool.**

You can incorporate the hardware and cleaning practices mentioned above with your current stalls to help protect your stall equipment investment, and keep a beautiful barn for years to come.

Brains & beauty. Stalls designed for built-in water systems.



**seamless. flawless. timeless.
horse stalls and barn equipment**

When it comes to strength, usability and style, the details in your barn make all the difference. Details like exotic hardwoods, brass accents and integrated water and electric can be smart and beautiful.

At Lucas Equine Equipment, we've been serving the equine industry for almost 30 years, and our horse stalls and equipment is in use in barns throughout the world. Contact us for your free quote and pre-construction consultation.



LUCAS EQUINE EQUIPMENT

888.577.6920 | LucasEquine.com

seamless. flawless. timeless.



horse stalls and barn equipment from lucas equine equipment

In pictures, much of the stall equipment on the market can look very similar. However, when it comes to durability, style and usability, the details make all the difference. Details like seamless construction, integrated water systems and custom design have made Lucas Equine Equipment the expert in the equine industry for almost 30 years. You can find our equipment in use in barns throughout the world. Contact us for your free quote and pre-construction consultation.



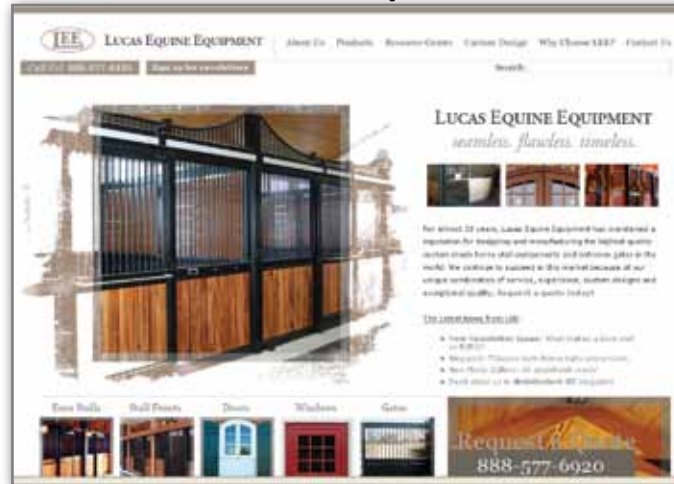
LUCAS EQUINE EQUIPMENT

888.577.6920 | LucasEquine.com



Follow us on Facebook:
www.Facebook.com/LucasEquine

Download even more ideas, designs and photos at
www.LucasEquine.com



LUCAS EQUINE EQUIPMENT, Inc.
seamless. flawless. timeless.



Lucas Equine Equipment, Inc.
Toll-Free: 888-577-6920 • 859-234-6920 • Fax: 859-234-4546

4161 US Highway 27 South • P.O. Box 158
Cynthiana, Kentucky, US 41031

www.LucasEquine.com • info@LucasEquine.com