



BISON

STEEL BUILDINGS

-VS-

The Competition



The Bison Difference

Valued Customer,

Thank you for choosing Bison Steel Buildings as the solution to your building needs. You can be confident that the Bison team of professionals will provide you the very best products and service at the lowest competitive price in the market today. You, our valued customer, are number one on our list of priorities.

We know our business. For many years Bison has provided quality pre-engineered steel building systems to commercial, industrial and agricultural customers. As a Bison customer, you will receive prompt, accurate technical advice and superior customer service from our trained team of specialists. Your building package will include engineered computer drawings and a comprehensive erection manual. The factory design and detailed engineering of an Bison building ensures that it will last a lifetime.

The service you receive after the initial sale is the true measure of your building provider's performance. Our team of experts is dedicated to customer service and making your building project the satisfying experience you deserve. Our goal at Bison is to serve you, our customer. Our motto: "Made of Steel, Built on Service"

What We Do For You

Personalized Service

- There is no waiting. Our technicians will respond to your inquiry, discuss your needs and have your building priced to your specifications within 24 hours.
- Your experienced service representative will guide you through the entire project from purchase to completion.
- Do it yourself and save. Simple, easy erection procedures and our technical assistance will have your building up in no time.

Precision Manufacturing and Design

- State-of-the-art computerized drafting and design meet or exceed all industry standards.
- You will receive a complete building package that assembles with ease.
- Engineered permit plans, erection drawings and an easy to understand building manual are provided with every building.

Efficient Scheduling and Delivery

- Service representatives will monitor your progress to properly coordinate the arrival of your building.
- Community freight and share loading greatly reduce delivery cost.

Quality Control and Communication

- Bison pledges to provide the best quality material and workmanship available in the industry.
- Our speed track communication system will always have a technician available to assist you.

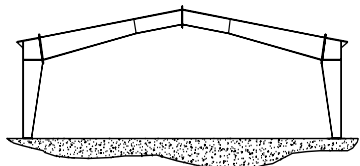
All buildings are not created equal. Let us show you why.

Best regards,

The Service Department

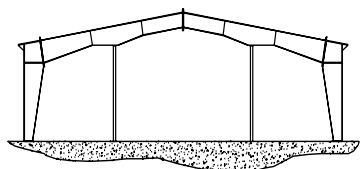


Bison's Rigid Frame Options



Clear Span

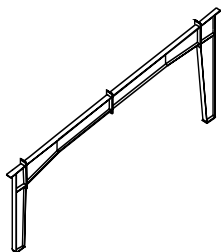
Floor areas that must be free of all columns and supports require clear span framing. This design is ideal for gymnasiums, aircraft hangars, riding arenas and showrooms.



Multi-Span

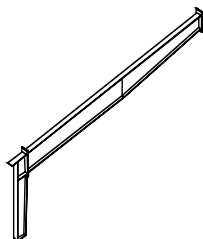
When columns will not interfere with the function of a building, multi-span framing is used. Multi-span buildings provide a maximum span at a lower cost and are used for manufacturing facilities and warehouses.

With Bison's multi-span framing, the number of spans may vary from a minimum of two to an unlimited maximum number of spans.



Single Slope

Single slope framing is used when it is advantageous to have one-way roof drainage and column-free floors. This design is appropriate for storage, manufacturing facilities, retail stores, office complexes, and strip malls.



Lean-To

Lean-to construction is an economical way to increase the width of an existing building or add on to a new building. Some common uses of this type of framing include: equipment storage, stalls for animal confinement, open-roof systems, canopies and office space adjacent manufacturing facilities.



Bison's Roof Coating

(AZ55 Galvalume®)

Bison's roof coating is AZ55 Galvalume®. The coating requires no maintenance or painting and it retains its original luster. It is comprised of 55% aluminum, 44% zinc and 1% silicone. The greater aluminum content creates a higher resistance to rust.

There is a 25-year perforation warranty backed by the steel mills. If a hole rusts through a panel, the steel mill will replace the panel.



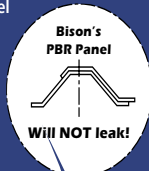
Bison's Roof Fasteners

If the fastener is not compatible with the roof, the steel mill will void the warranty. Bison's roof fasteners are surgical stainless steel, supplied with an assembled neoprene washer and carry a lifetime warranty against rust. The fasteners are 18 parts chrome and 8 parts nickel and will not rust, tarnish, turn gray or black.



Bison's PBR Roof System (Purlin Bearing Rib)

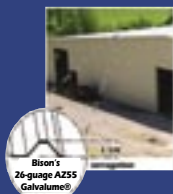
Bison's PBR roof system provides a full overlap, preventing water from leaking into the building during storms when strong winds force rain against the overlap. Where the sheeting overlaps, the panel runs all the way to the bottom of the corrugation and along the bottom like a reversed "L." The top PBR panel resembles a "Z" and overlaps the bottom panel providing additional strength as well as protection against leakage.



Bison's Roof Panels

Bison's roof panels are made of 26-gauge steel with a yield of 80,000 PSI and a huge corrugation depth of 1 1/4". The strength of the steel together with the high PSI yield and deep corrugation create tremendous protection against strong winds and heavy snow loads.

The roof panels are wind rated to meet Florida code. The Florida code number is FL-3722-R1.



Competition's Roof Coating

Some companies use an AZ50 coating on their roof panels with only has a 50% aluminum content. They offer a 20-year perforation warranty if a hole rusts through a panel, five years less than the warranty offered by Bison.



Some other companies use a zinc-galvanized coating, which contains no aluminum. Roof panels with this coating will rust and corrode causing holes to form and leaks to develop.

Competition's Roof Fasteners

Some companies use zinc fasteners, which will rust - voiding the roof warranty. Others also provide a long-life alloy screw that can prevent rust, but will oxidize, turn dark gray or black making the building unattractive.



Competition's "R" Panel Roof System

Some of Bison's competitors use an "R" panel roof system. The overlap only extends 1/3 of the way into the corrugation of the connecting sheet and is not sufficient to give strength to the joint.

Water can build up in the corrugation where the panels overlap. Strong winds can push this built up water through the overlaps and into the building causing tremendous leaks.



Competition's Roof Panels

The thickness of the steel panels on the sidewalls and roof of some competitors' buildings is 29-gauge steel. These buildings are not as strong and are less durable since the steel is 32% lighter than the 26-gauge steel utilized by Bison. The competition's corrugation is 5/8" in depth, half the depth of Bison's 1 1/4" corrugation. Therefore, the Bison steel panel has twice the strength.

Some companies are not wind rated and do not have a Florida approval number.



Bison's Roof Mastic (sealant)

Bison uses a mastic tape as a sealant on its panels. The side overlaps have a 1" wide flat mastic strip and the end panels have a 1" wide double bead sealant strip that create a watertight seal.



During drilling, the large 1" width enables the roof fasteners not to miss the mastic. Fasteners can easily perforate the sealant creating the necessary seal.

Competition's Roof Mastic

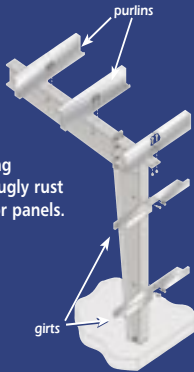
The mastic used on the competition's roof panels is only 3/8" or 1/2" in width and cannot ensure a watertight seal. Strong winds can force rain against the panels and through the overlap into the building causing leaks.



Fasteners have a greater risk of missing the narrower mastic thus failing to create the necessary watertight seal with the screw.

Bison's Girt and Purlin Rust Protection

Bison's girts and purlins have a hot dipped galvanized coating applied at the steel mill. This coating protects against rust and prevents ugly rust streaks from forming on the interior panels.



Competition's Girt and Purlin Rust Protection

Other companies use a red oxide primer, which encourages corrosion. Streaks of rust will form on the interior panels making the building unattractive.

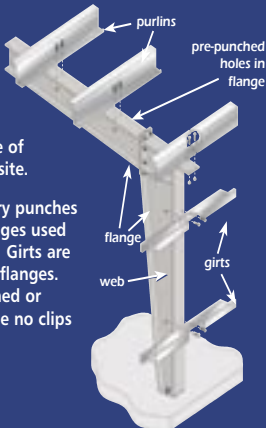
Streaks of rust from red oxide primer on purlins.

Streaks of rust from red oxide primer on girts.



Bison's Girt and Purlin Connections

Precision computer controlled machinery punches the holes in the flanges of the beams that form the rafters at the factory. You simply bolt the purlins directly to the flange of the rafter beams at the job site.



The same accurate machinery punches the holes in the column flanges used on the sides of the building. Girts are easily bolted to the column flanges. Concern created by misaligned or bent clips is eliminated, since no clips are required.

Competition's Connections

Some companies weld clips to rafter beams and columns so that the girts and purlins can be bolted to the clips. This system is used due to a lack of sophisticated equipment needed to precisely punch holes in the rafter beams and columns.

Problems with clips include:

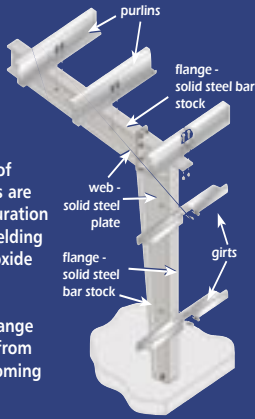
1. Girts and purlins will not fit on the building when clips are often misaligned. When this occurs, the clips must be removed and welded back onto the rafter beams or columns.
2. Because clips are only tack welded to the beams, they are often bent or the weld is broken during shipment. Welding clips is not structurally sound, lacks quality control and creates problems during erection.



Bison's Rigid Frame Construction

The web of the rafter beams and columns is a solid steel plate design and the flanges on the sides of the web are made of solid steel bar stock. The frames are manufactured in an "H" configuration using automated continuous welding equipment. An attractive gray oxide primer is applied to the frames.

Bison uses a minimum of 1/4" flange thickness. This stops the beam from bowing or the flange from becoming wavy.



Competition's Rigid Frame Construction

Some competitors use web trusses.

Some companies use a 3/16" flange thickness. This causes the beam to bow or the flange to become wavy.

Bison's Quality Control

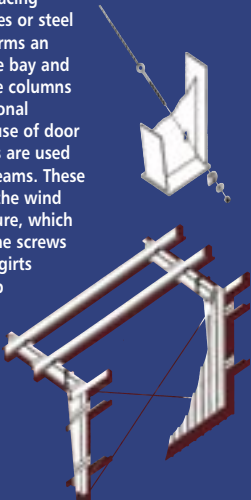
The entire building, as well as the frames, is designed to meet ASTM International (American Society for Testing and Materials) and AISC (American Institute of Steel Construction) standards by in-house certified professional engineers. The permit drawings are stamped and sealed by the in-house engineers who are licensed in the states where the permits are issued. The engineering software program is not data based but is driven by engines that actually create and design a building. Bison's drafting detailing software program creates the permit, shop and construction drawings. All of these drawings are detailed by in-house professional draftsmen and all of the factory welders are certified.

Competition's Quality Control

Some companies only make components and have to purchase the frames from a frame maker resulting in poor quality control. Other companies make the frames, but have to purchase the sheeting, girts, purlins and all of the remaining components from another company, which also results in poor quality control. Many of the companies do not have in-house engineers and rely on outside consulting engineers often resulting in time delays and sometimes in poor design. Some companies do not meet ASTM or AISC standards. They do not have licensed welders and must either hand weld or use semi-automatic welding equipment, requiring hand welding, again resulting in poor quality.

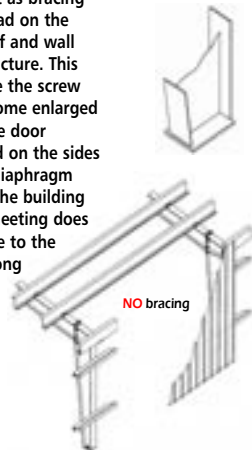
Bison's Wind Bracing

Bison uses sturdy diagonal bracing consisting of heavy steel cables or steel rods. The diagonal bracing forms an "X" configuration in the brace bay and is attached to the webs of the columns and rafter beams. When diagonal bracing cannot be used because of door openings, heavy portal braces are used that are made of welded H-beams. These bracing methods transfer all the wind force into the building structure, which means there is no stress on the screws that attach the panels to the girts and purlins. These braces stop the building from swaying in any direction from strong winds and prevent the building from collapsing.



Competition's Wind Bracing

Many competitors use diaphragm bracing (panel shear). The sheeting on the side is supposed to act as bracing putting the entire wind load on the screws that attach the roof and wall panels to the building structure. This stress will eventually cause the screw holes in the panels to become enlarged resulting in leakage. Future door openings cannot be placed on the sides of the building as all the diaphragm action would be lost and the building could collapse. The wall sheeting does not transfer the wind force to the building structure and strong winds could cause the building to sway and/or collapse.



Bison's Painted Sidewall Panels

The paint on Bison's sidewall panels has a 35-year warranty against chipping, cracking, peeling or blistering. It is a siliconized polyester coating.

A substrate galvanized coating beneath the paint provides further protection against rusting.

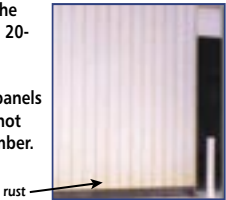
The painted sidewall panels are wind rated to meet Florida code. The Florida approval number is FL-3985-R2.



Competition's Painted Sidewall Panels

Some companies only offer a 10-year paint warranty on the sidewall panels. Few offer a 20-year warranty on the paint.

Some companies' sidewall panels are not wind rated and do not have a Florida approval number.



Bison's Fasteners

All of the sidewall panels utilize screws that come assembled with neoprene washers. The washers eliminate the potential for rust by preventing damage to the sheeting, such as cracking paint, due to over-tightened screws. These washers also prevent the screws from widening the holes causing leaks.

The stainless steel screws are 18 parts chrome and 8 parts nickel and have painted heads that match the color of the sheeting. They will not rust, tarnish, turn dark gray or black.



Competition's Fasteners

The screws for the sidewall panels do not come with washers to prevent over-tightening. Over-tightening causes holes to widen and paint to crack and chip creating a source for leaks and corrosion.

A long-life alloy screw may be provided and can prevent rust, but will oxidize and turn dark gray or black making the building unattractive.

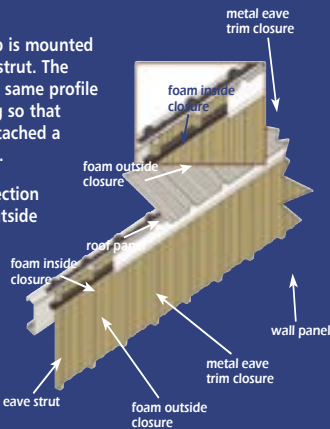


Bison's Foam Closures and Eave Trim

A foam closure strip is mounted on top of the eave strut. The inside closure is the same profile as the roof sheeting so that when the roof is attached a tight seal is created.

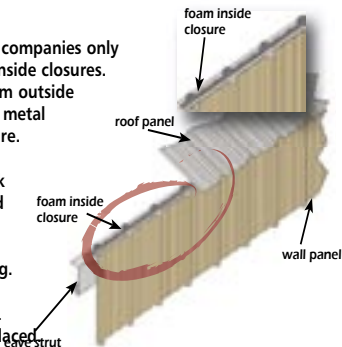
For additional protection against leaks, an outside foam closure is attached to the outside wall panel. To secure the entire assembly a metal eave trim closure is placed over the outside foam closure.

The top of the metal eave closure has the same configuration as the roof sheeting, therefore, when the metal eave closure meets the roof it creates a tight seal preventing leaks.



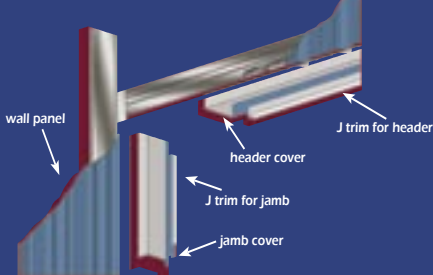
Competition's Foam Closures

Other building companies only use top foam inside closures. There is no foam outside closure and no metal eave trim closure. This causes the building to leak at the eave and the insulation to become wet causing sagging. Ultimately, the insulation WILL need to be replaced.



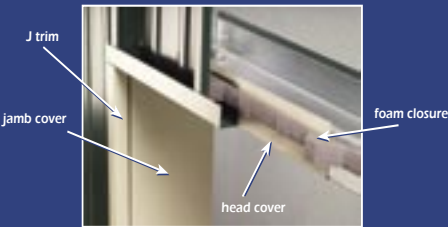
Bison's J Trim

Bison not only supplies J trim to cover the cut edges of the wall panels around the door openings, but also includes jamb covers for the galvanized jambs and a header cover for the galvanized header. This complete trim package enhances the beauty of the building.



header and jamb cover supplied at NO CHARGE

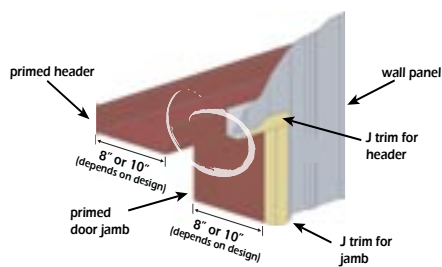
A foam closure is placed inside the header J trim to prevent leaks from the top of the door opening.



foam closure supplied at NO CHARGE

Competition's J Trim

Other companies supply the J trim for the side and top of the cut-away opening, but do not include the header or jamb covers. The jambs and the header are not galvanized and have only an oxide primer, which will rust detracting from the appearance of the building.



header or jamb cover NOT SUPPLIED

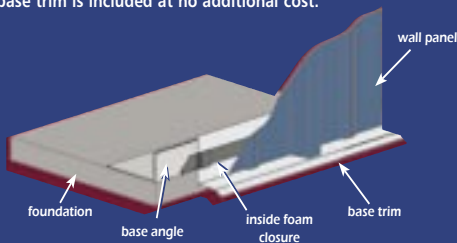
There is no foam closure inside the J trim at the top of the opening beside the header. This encourages leaks at the top of the header.



foam closure NOT SUPPLIED

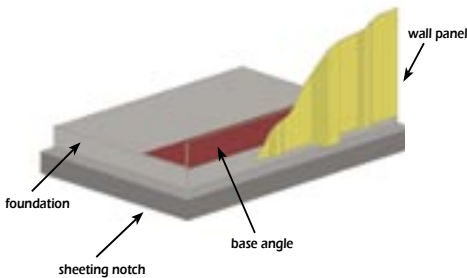
Bison's Base Trim Package

The heavy 16-gauge galvanized base angle is attached to the top outer edge of the foundation. The wall panels are cut 1" longer than the building height so they will extend 1" below the top of the foundation. This creates a straight finish seat for the bottom of the wall panels. This completely seals the bottom of the building against all leaks. The trim on the bottom matches the trim on the building creating a beautiful structure and also closes off the bottom of the corrugation of the wall panel. The base trim is included at no additional cost.



Competition's Base Trim

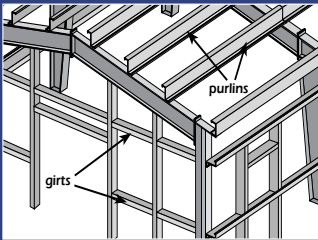
Other companies do not use a galvanized base angle, but only a base angle painted with a red oxide primer, which will corrode and rust. The base angle in many cases is only 20-gauge which is approximately 32% lighter than 16-gauge and will bend and warp during construction. The base trim is offered as an option at an additional cost.



Bison vs Pole Barns

Bison's Steel Girts and Purlins

Bison's steel girts and purlins have a zinc galvanized coating, applied at the mill, to protect against rust. Their girts will not rust, warp or bend and they are not subject to termites. Since Bison buildings are made of steel, they are also not subject to fire hazards and can result in 35-40% insurance savings.



Pole Barns Wooden Girts and Purlins

Pole barns have wooden girts and purlins, which will bow and warp. This causes the screws in the sheeting to loosen and the holes to widen creating leaks. Since the girts and purlins are made of wood, they are subject to fire hazards and termite infestation resulting in 35-40% higher insurance costs.

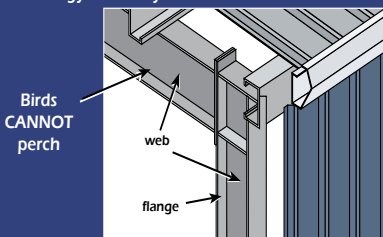


Bison's Rigid Frame Design

The web of the rafter beams and columns is a solid steel plate design and the flanges on the sides of the web are made of solid steel bar stock. The frames are manufactured in an "H" configuration using automated continuous welding equipment. Bison uses a minimum of 1/4" flange thickness. This stops the beam from bowing or the flange from becoming wavy. An attractive gray oxide primer is applied to the frames.

Bison's construction is not subject to fire hazards or termite infestation. Due to the fact that Bison buildings do not have a cord tying the rafters together as in a pole barn design, birds are unable to roost in the building. Not only does the rigid frame design eliminate the opportunity for birds to defecate and damage machinery stored in the building, but it also minimizes the prospect of the spread of avian influenza to other animals within the structure through those droppings.

Bison's building design also eliminates the need for a high pitched roof to shed snow and affords you 100% usable space. Lower pitched roofs equate to higher energy efficiency as there is less area to heat.

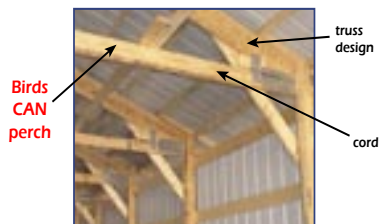


Pole Barns Truss Design

Since a pole barn's trusses and rafters are made of wood they are subject to fire hazards generating higher insurance rates, which can be 35-40% higher than that of a building with a rigid frame design. The wooden construction of a pole barn is also subject to termite infestation.

The rafters in pole barns have a cord at the bottom which goes from one end of the frame to the other end. This allows birds to perch and defecate on machinery causing deterioration of the equipment. Due to the bird droppings, there is tremendous opportunity for avian influenza to spread to other animals housed in riding arenas, poultry barns, cattle shelters or pig barns constructed in the pole barn design.

In addition, this cord also prevents utilization of the area above it, resulting in loss of 20 - 25% of functional space in the building. The dead space also contributes up to a 20-25% increase in heating expense. The end result is low energy efficiency and loss of usable space.



Bison's Painted Sidewall Panels

The paint on Bison's sidewall panels has a 35-year warranty against chipping, cracking, peeling or blistering. It is a siliconized polyester coating.

A substrate galvanized coating beneath the paint provides further protection against rusting.

The painted sidewall panels are wind rated to meet Florida code. The Florida approval number is FL-3985-R2.



Pole Barn Painted Sidewall Panels

Some companies only offer a 10-year paint warranty on the sidewall panels. Few offer a 20-year warranty on the paint.

Some companies' sidewall panels are not wind rated and do not have a Florida approval number.



Bison's PBR Roof System (Purlin Bearing Rib)

Bison's PBR roof system provides a full overlap preventing water from leaking into the building during storms when strong winds force rain against the overlap. Where the sheeting overlaps, the panel runs all the way to the bottom of the corrugation and along the bottom like a reversed "L." The top PBR panel resembles a "Z" and overlaps the bottom panel providing additional strength as well as protection against leakage.



Pole Barn "R" Panel Roof System

Some of Bison's competitors use an "R" panel roof system. The overlap only extends 1/3 of the way into the corrugation of the connecting sheet and is not sufficient to give strength to the joint.

Water can build up in the corrugation where the panels overlap. Strong winds can push this built up water through the overlaps and into the building causing tremendous leaks.



Bison's Roof Panels

Bison's roof panels are made of 26-gauge steel with a yield of 80,000 PSI and a huge corrugation depth of 1 1/4". The strength of the steel together with the high PSI yield and deep corrugation create tremendous protection against strong winds and heavy snow loads.

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Pole Barn Roof Panels

The thickness of the steel panels on the sidewalls and roof of some competitors' buildings is 29-gauge steel. These buildings are not as strong and are less durable since the steel is 32% lighter than the 26-gauge steel utilized by Bison. The competition's corrugation is 5/8" in depth, half the depth of Bison's 1 1/4" corrugation. Therefore, the Bison steel panel has twice the strength.

Some companies are not wind rated and do not have a Florida approval number.



Bison's Roof Mastic (sealant)

Bison uses a mastic tape as a sealant on its panels. The overlaps have a 1" wide flat mastic strip and the end panels have a 1" wide double bead sealant strip that create a watertight seal.

During drilling, the large 1" width enables the roof fasteners not to miss the mastic. Fasteners can easily perforate the sealant creating the necessary seal.



Pole Barn Roof Mastic

The mastic used on the competition's roof panels is only 3/8" or 1/2" in width and cannot ensure a watertight seal. Strong winds can force rain against the panels and through the overlap into the building.

Fasteners have a greater risk of missing the narrower mastic thus failing to create the necessary watertight seal with the screw.



Bison's Fasteners

All of the roof and sidewall panels utilize screws that come assembled with neoprene washers. The washers eliminate the potential for rust by preventing damage to the sheeting, such as cracking paint, due to over-tightened screws. These washers also prevent the screws from widening the holes causing leaks.

The stainless steel screws are 18 parts chrome and 8 parts nickel and have painted heads that match the color of the sheeting. They will not rust, tarnish, turn dark gray or black.



Pole Barn Fasteners

The screws for the sidewall panels do not come with washers to prevent over-tightening. Over-tightening causes holes to widen and paint to crack and chip creating a source for leaks and corrosion.

A long-life alloy screw may be provided and can prevent rust, but will oxidize and turn dark gray or black making the building unattractive.



Bison's Roof Coating (AZ55 Galvalume®)

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Bison vs

Web Truss

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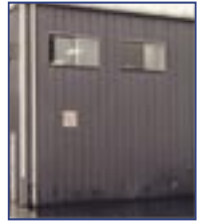
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Web Truss Paint

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Bison's PBR Roof System (Purlin Bearing Rib)

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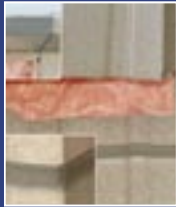
Some companies are not wind rated and do not have a Florida approval number.



Bison's Roof Mastic (sealant)

Bison uses a mastic tape as sealant on its panels. The overlaps have a 1" wide flat mastic strip and the end panels have a 1" wide double bead sealant strip that create a watertight seal.

During drilling, the large 1" width enables the roof fasteners not to miss the mastic. Fasteners can easily perforate the sealant creating the necessary seal.



Web Truss Roof Mastic

The mastic used on the competition's roof panels is only 3/8" or 1/2" in width and cannot ensure a watertight seal. Strong winds can force rain against the panels and through the overlap into the building.

Fasteners have a greater risk of missing the narrower mastic thus failing to create the necessary watertight seal with the screw.



Bison's Fasteners

All of the roof and sidewall panels utilize screws that come assembled with neoprene washers. The washers eliminate the potential for rust by preventing damage to the sheeting, such as cracking paint, due to over-tightened screws. These washers also prevent the screws from widening the holes causing leaks.

The stainless steel screws are 18 parts chrome and 8 parts nickel and have painted heads that match the color of the sheeting. They will not rust, tarnish, turn dark gray or black.



Web Truss Fasteners

The screws for the sidewall panels do not come with washers to prevent over-tightening. Over-tightening causes holes to widen and paint to crack and chip creating a source for leaks and corrosion.

A long-life alloy screw may be provided and can prevent rust, but will oxidize and turn dark gray or black making the building unattractive.



Bison's Roof Coating (AZ55 Galvalume®)

Bison's roof coating is AZ55 Galvalume. The coating requires no maintenance or painting and it retains its original luster. It is comprised of 55% aluminum, 44% zinc and 1% silicone. The greater aluminum content creates a higher resistance to rust.

There is a 25-year perforation warranty backed by the steel mills. If a hole rusts through a panel, the steel mill will replace the panel.



Web Truss Roof Coating

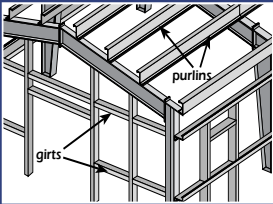
Some companies use an AZ50 coating on their roof panels with only 50% aluminum content. They offer a 20-year perforation warranty if a hole rusts through the panel, five years less than the warranty offered by Bison.

Some other companies use a zinc-galvanized coating, which contains no aluminum. Roof panels with this coating will rust and corrode causing holes to form and leaks to develop.



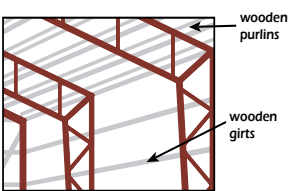
Bison's Steel Girts and Purlins

Bison's steel girts and purlins have a zinc galvanized coating, which is applied at the mill to protect against rust. Their girts will not rust, warp or bend and they are not subject to termites. Since Bison buildings are made of steel, they are not subject to fire hazards which can result in a 35-40% insurance savings.



Web Truss Wooden Girts and Purlins

Web Truss designs have wooden girts and purlins, which will bow and warp. This causes the screws in the sheeting to loosen and the holes to widen creating leaks. Since the girts and purlins are made of wood, they are subject to fire hazards and termite infestation resulting in 35-40% higher insurance costs.



Bison's Rigid Frame Design

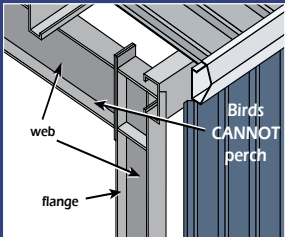
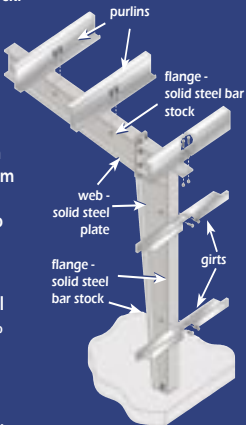
The web of the rafter beams and columns is a solid steel plate design and the flanges on the sides of the web are made of solid steel bar stock.

The frames are manufactured in an "H" configuration using automated continuous welding equipment. Bison uses a minimum of 1/4" flange thickness. This stops the beam from bowing or the flange from becoming wavy. An attractive gray oxide primer is applied to the frames.

Bison's construction is not subject to fire hazards and will not burn resulting in a 35-40% savings on insurance costs.

Bison's building design also eliminates the need for a high pitched roof to shed snow and affords you 100% usable space. Lower pitched roofs equate to higher energy efficiency as there is less area to heat.

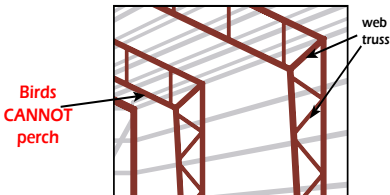
Due to the fact that Bison buildings do not have an open web design, birds are unable to roost in the building. Not only does the rigid frame design eliminate the opportunity for birds to defecate and damage machinery stored in the building, but it also minimizes the prospect of the spread of avian influenza to other animals within the structure through



Open Web Truss Framework Design

A web frame design does not have a solid plate web. It is made of angle iron in a lattice or web form. Should a fire occur, it will not withstand high temperatures and will collapse. The web design uses a 4/12 pitch, since it is not strong enough to carry snow loads. The higher pitch enables the building to shed the snow, at the same time creating space that cannot be utilized. For example: an 80' wide building with a 4/12 pitch, 20' to the eave is 33'4" in the center. While a rigid frame design with a 1/12 pitch and an eave length of 20' is 23'4" in the center. The higher pitch creates dead space that is of no value, in fact it generates energy costs that are 20-25% higher than a building with a lower pitch.

The open web framework encourages birds to perch and defecate on machinery causing deterioration of the equipment. Due to the bird droppings, there is tremendous opportunity for avian influenza to spread to other animals housed in riding arenas, poultry barns, cattle shelters or pig barns constructed in the open web truss design.

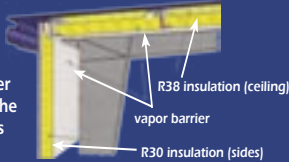


Bison's High Energy Savings Insulation System

The Bison High Energy Savings Insulation System uses 12" of insulation on the roof, R38, and 9" of insulation, R30, on the sides. Ten inches of insulation is placed between the 10" high purlin and an additional 2" of insulation is placed on top of the purlins. The total of 12" of insulation gives the R38 value. This system increases energy efficiency by over 60% and includes a vapor barrier, which is installed under the purlins and over the girts. The barrier is held in place by strapping and provides an attractive finish giving the appearance of a false ceiling on the roof and finished walls on the sides. The vapor barrier prevents condensation and sagging since the insulation is sandwiched securely between the vapor barrier and the sheeting.

EASY INSTALLATION

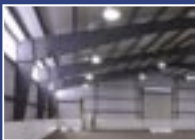
1. Install the vapor barrier under the purlins on the roof and over the girts inside the building.
2. Place the insulation between the purlins on the roof and between the girts on the sides of the building.
3. Screw the wall sheeting into the girts and the roof sheeting into the purlins.



Bison Basic Insulation System (Standard Vinyl Backed)

The Bison Basic Insulation System (standard vinyl backed) uses 6" of insulation on the roof and sides, R19. Three or 4" of insulation can be used on the roof and on the sides, but this equates to a lower R value rating. A vapor barrier is bonded to the fiberglass.

When installing the insulation on the roof, you place the insulation with the vapor barrier on the purlins. The vapor barrier faces the inside of the building prohibiting any moisture, from the roof, penetrating the insulation. When installing the insulation on the sides, the vapor barrier is placed on the girts facing the inside of the building preventing moisture from penetrating the insulation and ruining it. Again, the vapor barrier prevents the ruinous effects of moisture. The vapor barrier also provides an attractive interior finish.



Web Truss Insulation System

The web truss insulation system uses 6" or 8" of insulation, which is placed between the wooden purlins on the roof and the wooden girts on the sides. The purlins can be 2x8's or 2x6's and the girts 2x6's or 2x4's. To hold the insulation in place, the insulation is stapled to each side of the purlin and each side of the girt. The gap between the staples allows moisture to get into the insulation causing sagging as the insulation is filled with water. This ruins the insulation. Eventually the weight of the water in the insulation causes the staples to loosen and the insulation falls down.

The alternative method of holding the insulation in place on the roof and the sides is to line the inside of the roof and the walls with plywood or sheetrock, which is extremely expensive. The Web Truss insulation system is limited to a maximum of 8" of insulation on the roof since the wooden purlins are 2x8's. Therefore, the 8" insulation provides a maximum R22 rating whereas the Bison Energy System offers a more efficient R38 rating. The R38 yields approximately 60% higher energy efficiency.



Web Truss Insulation System

The web truss insulation system uses 6" or 8" of insulation, which is placed between the wooden purlins on the roof and the wooden girts on the sides. These purlins are 2x8's or 2x6's. To hold the insulation in place, it must be stapled to the wooden purlins and girts on each side. If this method is used, the gap between the staples allows the moisture to get into the insulation filling it with water. This will cause the insulation to sag, the staples will begin to loosen and the insulation will fall down. The alternative method of holding the insulation in place is to line the inside of the roof and the walls with either plywood or sheetrock, which is extremely expensive.





The Bison Experience

- Superior Customer Service
- Precision Design
- Quality Materials
- Skilled Workmanship
- Prompt Scheduling
- Efficient Delivery
- Continued Support



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