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METAL BUILDINGS

Custom-Engineered Solutions That
Work for Every Building Application





Nucor Building Systems, a division of Nucor Corporation, is one of the most flexible and diverse building manufacturers in operation today. Nucor Corporation is a Fortune 500 Company, producing steel and steel products. Nucor has been heavily involved in industrial & commercial projects for many years and has earned a reputation for providing the highest quality products and an outstanding record for customer satisfaction. Complete metal building packages can be customized and combined with other materials such as storefront glass and masonry to produce a cost effective, aesthetically sound building designed for your special requirements.

As a custom manufacturer, Nucor Building Systems produces a wide array of structural systems including: clearspan rigid frame, modular rigid frame, tapered beam, and lean-to. All are available in standard or long span options. Crane support systems and mezzanines can also be included as part of the complete building package. Your Nucor building can be designed to virtually any desired dimension to achieve the optimal solution for your building requirements.



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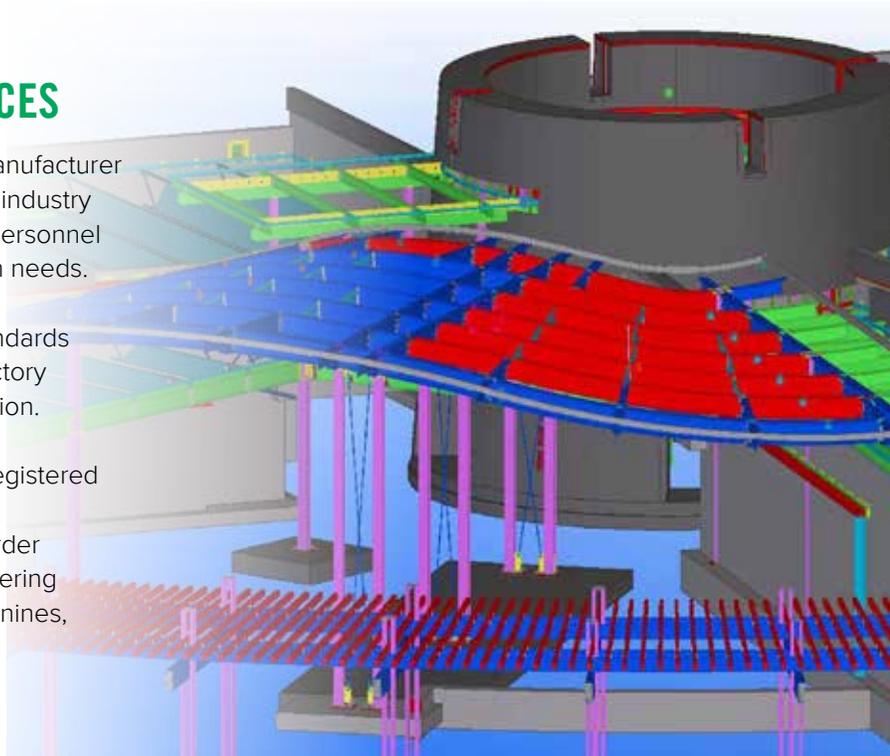
Nucor Building Systems is IAS AC472 accredited. IAS (International Accreditation Service) in cooperation with the MBMA, is a high quality standard certification program written specifically for the metal building industry. AC472 consists of three parts: structural, cold formed, and design, and encompasses all manufacturing practices and engineering common to the pre-engineered metal building manufacturing industry.

PROFESSIONAL ENGINEERING SERVICES

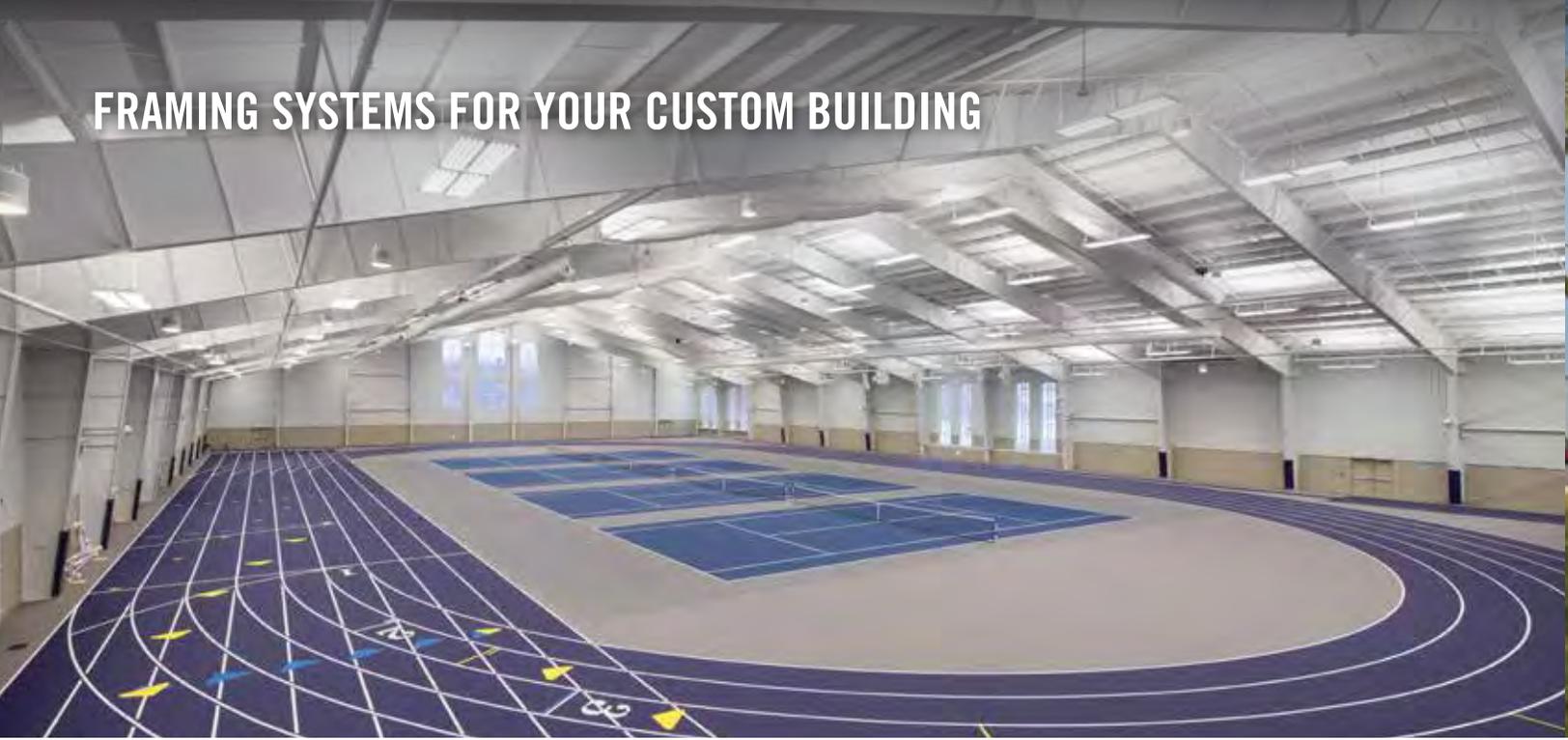
Nucor Building Systems is a metal building systems manufacturer incorporating the latest engineering knowledge in the industry today. A full staff of in-house engineers and detailing personnel ensure prompt and efficient consideration of all design needs.

All engineering follows industry specifications and standards published by the American Iron and Steel Institute, Factory Mutual, and the Metal Building Manufacturers Association.

All buildings are designed and certified by company registered professional engineers in accordance with the loading information specified to Nucor on the signed Nucor Order Documents and in compliance with the MBMA. Engineering services and products can also be provided for mezzanines, crane bays, canopies, and other building accessories.



FRAMING SYSTEMS FOR YOUR CUSTOM BUILDING



RIGID FRAME SYSTEMS

GABLE CLEAR SPAN

When large open areas are desired, the clear span rigid frame type is typically the economical choice. Suitable for almost any application, this frame type can be designed as a symmetrical or asymmetrical configuration. It can be used with either cold-form purlins or open web joists, including our ClearBay® option.



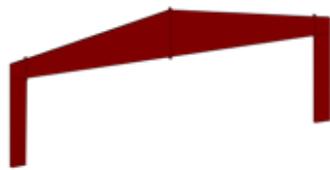
GABLE MODULAR

Our modular rigid frame's interior columns provide multiple spans on wider buildings. This economical frame type makes use of interior load-bearing columns to more evenly distribute the building load. Thus helping to reduce the size of the rafter & columns. It is available in both gable and single slope designs.



TAPERED BEAM

Tapered beam frames are suitable for all types of small buildings that require clear spans. The straight columns offer maximum efficiency of interior space. Tapered beam frames are ideal for partitioning interior bays & small crane support systems.



SINGLE SLOPE

Available in clear span and modular, the single slope rigid frame is commonly used on retail centers or as a creative way of adding to an existing structure. Single slope can be used with either cold-form purlins or open web joists.



LEAN-TO

The Lean-To frame joins to and is supported by a main building frame. Common spans are 20 to 60 feet. The lean-to differs from the single slope in that it must be supported on the high side by an adjoining building column.





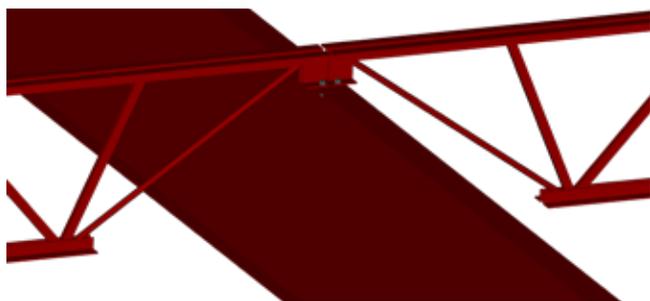
Nucor Building Systems will custom design your facility. Your design criteria will be specified by your local project engineer of record and communicated on the Nucor Order Documents. The project engineer of record must be knowledgeable regarding the geographical area of the building site as well as the building's functional requirements. All designs are in accordance with the MBMA Metal Building Systems Manual and adhere to your specified building code.

OPEN WEB SYSTEMS

LONG SPAN OPEN WEB JOISTS

Joists are very suitable for the support of floors, roof decks, and standing seam roofs. K series joists are normally used for shorter span conditions where lighter loads are required. LH and DLH series joists are for longer span conditions and capable of supporting larger loads.

The Nucor CFR standing seam roof, or a conventional roof option, is recommended for use with joist roof systems. Open web steel joists are designed and fabricated according to Steel Joist Institute specifications.



CLEARBAY® JOIST SYSTEM

Nucor ClearBay is the roof joist system that provides the ultimate in versatility and open spaces for any number of applications, including hangars, large indoor recreational buildings, and even storage facilities. By partnering with our sister division, Vulcraft, NBS is able to engineer the most economical roof joist system for your metal building.

This system is available with either a standard welded bridging system, or a fully bolted option, which can lead to faster, easier construction.



TRUSSFRAME OPEN WEB RAFTER SYSTEM

Nucor TrussFrame is a hybrid metal building rigid frame system designed to accommodate spans in excess of 300'. It consists of typical three-plate built-up columns with solid webs and open-web rafters. The rafters consist of two-plate built-up tees assembled into a truss, using web angles.

Compatible with all Nucor Roof Systems, TrussFrame provides maximum design flexibility with unobstructed, column-free interior space. Unsightly beams and columns are eliminated, providing a spacious design aesthetic. The unique open web design allows HVAC duct systems, lighting, wiring and sprinkler systems to be incorporated between the trusses, reducing required building heights.

SECONDARY FRAMING



ROOF STRUCTURALS

Nucor Building Systems supplies 8", 9.5", and 12" cold-formed zee section purlins or open web bar joists. The decision on which structural members to use is based on the economy of each member, the roof system used, the product application, or by customer preference.

Nucor's continuous purlin system meets the stringent requirements of the latest edition of the AISI specification. Consult Nucor Building Systems for specifics.

WALL STRUCTURALS

Nucor Building Systems provides 8", 9.5" and 12" sidewall girts depending on wind loading and column spacing. Sidewall girts can be designed for inset, bypass, and flush applications.

Inset girts are a standard option on endwall conditions and allow for a more efficient use of interior space. The 1" offset prevents a sheeting bulge caused by the compression of insulation at the columns. Consult Nucor for specifications.

Bypass girts make a continuous run around the outside columns, offering the most economical sidewall design. They are also practical when walls are partially open for masonry.

Flush girts offer maximum floor space, as there is no space provided between the columns and the exterior panels.



TYPICAL STRUCTURE DETAILS



MEZZANINES

Mezzanines allow you to make use of overhead space within your building, adding extra square footage without incurring the cost of expanding the ground floor. Nucor offers some of the most efficient mezzanine options available in the steel building market, custom engineered to your specifications.

Along with our standard mezzanines, NBS offers the Ecospan® Composite Floor option. Using a unique configuration of components with high strength-to-weight ratios, Ecospan allows for longer spans, shallow floor depths, greater rigidity, and enhanced performance. Ecospan is easily installed using our exclusive, patented screw-down Shearflex® HD Connector, secured with a uniquely designed Shearset Tool included with each system.

BRACING

Nucor Building Systems offers a variety of bracing systems depending upon the type of structure to be designed. A standard rigid frame building will typically use rod or cable bracing in the roof and walls.

FASCIA

Fascias enhance the front or entrance areas of buildings. A wide range of fascias are designed by Nucor and can be found in the Nucor Product & Engineering Manual. Nucor fascias may be ordered with open or closed soffits - closed with soffit is our standard condition. Fascia sheeting materials may be steel panel or other material not by Nucor.



EAVE/RAKE EXTENSIONS & CANOPIES

Nucor metal buildings can be customized with unique canopies and entryways that offer versatility in the design as well as functionality in your steel building. The standard eave or rake extension is an extension of the roof purlin system, and therefore follows the profile of the main building. Our canopies may be ordered either at eave or below eave. Canopies and eave/rake extensions offer a great aesthetic as well as functional option.

NUCOR ROOF SYSTEMS

Nucor Building Systems offers one of the most versatile array of roof choices available. Choices range from our state-of-the-art standing seam roof systems Nucor CFR, Composite CFR, and VR16 II, to our standard Nucor Classic Roof. Available with UL90® & some FM® ratings upon request.

NUCOR CFR™ STANDING SEAM ROOF SYSTEM

Nucor CFR standing seam roof system is a raised seam metal roof, designed to float to accommodate thermal expansion & contraction. It has been extensively tested to ensure the highest level of performance for weathertightness and structural integrity, and approved for wind uplift, hail and fire resistance. Viselock & Viselock 360 seams are available with this panel. Nucor Composite CFR features our tall panel clip, allowing for more insulation. Panel lengths of up to 50'-0" are available. This 24 gauge panel offers 24" coverage with purlin spacing up to 5'-6", and joist spacing up to 6'-0".



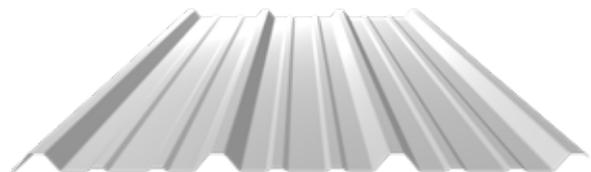
NUCOR VR16 II™ VERTICAL RIB ROOF SYSTEM

Mechanically seamed for a weathertight installation, the Nucor VR16 II standing seam offers an attractive and versatile architectural roof system. The back-to-back vertical rib offers easier installation at hips and valleys than trapezoidal or corrugated roof panels. This is a 24 gauge panel with 16" of coverage. Both VR16 II-90 and VR16 II-360 seaming profiles are available.



NUCOR CLASSIC ROOF™

Nucor Classic Roof is 36" wide, 12" rib spacing and 26 gauge, with 24 gauge as an option. It is available in Galvalume and Nucor standard colors. Nucor Classic Roof panels have been an industry standard product for many years, whose ease of installation is field-proven and efficient. It is typically applied over fiberglass batt or rigid board insulation. Purlin spacing up to 5'-6".



PANEL FINISH

Galvalume® is one of the most trusted products on the market today, requires very little maintenance, and comes with a 25 year material warranty. Painted roof and wall panels provided by NBS for exterior use are precision roll-formed from pre-painted galvanized or Galvalume coils. Finished material is subjected to stringent quality control tests including: physical bend and impact resistance, film thickness, hardness, gloss and color. This process is time-tested and uses the industry proven Silicone Polyester paint system. NBS also offers standard colors which use the PDVF paint system. Warranties are available upon request.



The wall systems offered by Nucor allow the owner many options for function as well as appearance. The panels shown are 26 gauge with 36" of coverage, and are available in a range of standard colors. Special colors and gauges are available upon request. Nucor buildings also interface well with masonry, precast concrete, and tilt-up concrete.

NUCOR ACCENT WALL™

The architectural features of the Nucor Accent Wall make it ideal for fascias and decorative wall designs. The recessed fasteners provide a clean exterior appearance, and the deep rib configuration creates an attractive shadow pattern. Fasteners for the Nucor Accent Wall panel are semi-concealed.



NUCOR CLASSIC WALL™

The Nucor Classic Wall provides a strong, attractive wall panel ideal for commercial, community, agricultural, and industrial applications. The Nucor Classic Wall offers what most builders, contractors, and owners have come to expect in a versatile and attractive building system.



NUCOR REVERSE CLASSIC™

The Nucor Reverse Classic panel offers a rigid surface designed to compress up to 4" of insulation without causing unsightly bulges at the girt. Fasteners are semi-concealed, allowing attention to focus on the beauty of the wall.



NUCOR LINER PANEL

Many times liner panels are specified to protect and to finish the building interior. The 28 gauge Nucor Liner Panel is coated with a white polyester paint system and is ideal for most liner conditions not exposed to weather. Where exposure to the effects of weather is a requirement or other colors are requested, specify 26 gauge Nucor Classic Wall.



INSULATED METAL PANELS

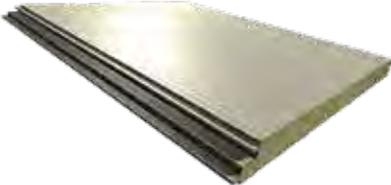


Insulated Wall Panels

Double Mesa Profile (DM40)



Striated Profile (ST40)

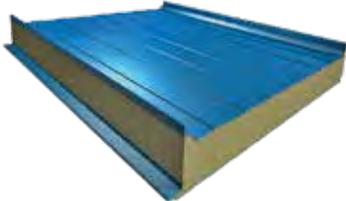


Heavy Embossed Profile (HE40)



Insulated Roof Panels

Standing Seam Roof Profile (SR2)



High Rib Roof Profile (HR3)



Leading the industry in technology, design flexibility, quality, and value, Nucor Building Systems is one of the largest and most experienced manufacturers of custom engineered steel building systems. In addition to offering a full line of custom products, our insulated panels rank as one of the most energy-efficient, well-made, cost-effective building solutions on the market today.

INNOVATIVE • ADAPTABLE • ENERGY EFFICIENT

NBS insulated metal panels embody attractive styling and cutting edge energy efficiency. Designed with the latest scientific breakthroughs, our panels are lightweight, durable and still maintain their ease of installation and visual appeal. Now is the best time to build with NBS insulated metal panels because the benefits have never been greater.

ATTRACTIVE & LIGHTWEIGHT

One of the most sophisticated building products on the market today, insulated panels offer a clean, consistent and high-quality appearance that immediately adds value to any building. Insulated panels enhance the visual appearance of your buildings, and their remarkable light weight reduces structural requirements and installation costs.

STURDY & DURABLE

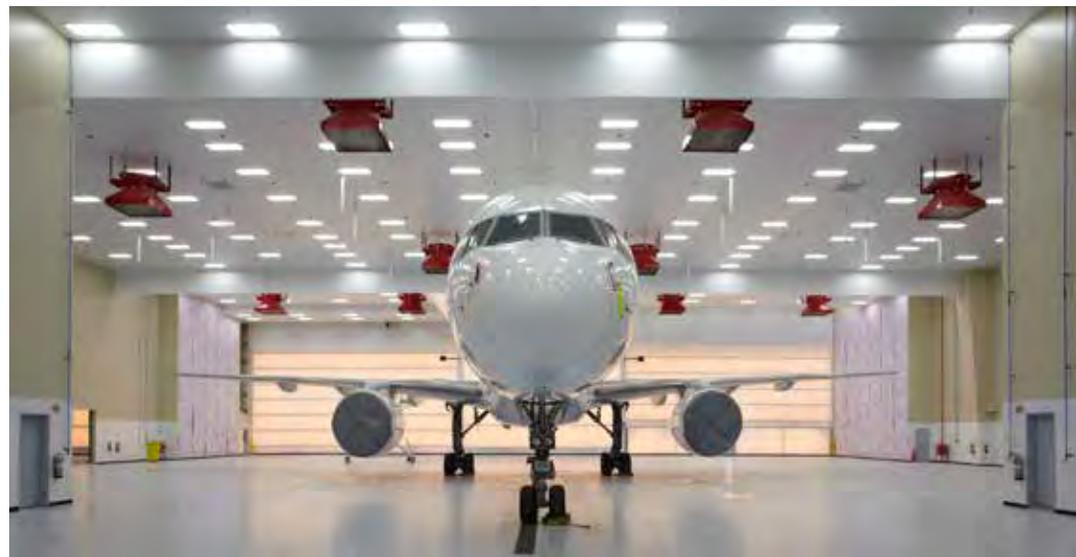
The panels incorporate a finished interior liner, factory applied air and vapor shield, and insulated foam core finished exterior weathering surface into a single cladding unit. The composite action resulting from a chemical bond between the injected-in-place foam core and steel skins creates a lightweight, rigid unit with exceptional spanning capacity.

EASY TO INSTALL & AFFORDABLE

Lightweight and simplified fastening systems deliver quick installation and reduce labor costs. The panels themselves are very affordable, in part because of their lowered shipping costs attributed to their light weight. Panels can even be installed in adverse weather conditions.

SUPERIOR THERMAL PERFORMANCE

You get 100% reliable thermal performance and insulation continuity – no cavities, no gaps, no crushed insulation and no thermal bridges. No change of R-value occurs when purlin and girt center dimensions are varied. The insulated core is the most thermally effective insulant commonly available today. Insulation values can be easily increased by simply increasing the thickness of the panels.





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Nucor Building Systems has been a leader in the design and manufacture of custom-engineered metal building systems for more than three decades. With four locations and a network of over 1,200 Authorized Builders serving all of North America, our focus is on customer service, price, and quality. We are also dedicated to providing sophisticated building solutions for our customers that are energy efficient and environmentally friendly.

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