



The Perfect Choice for **Mezzanines** in Custom **Metal Buildings**

# Ecospan<sup>®</sup> composite floor system.



The Ecospan<sup>®</sup> Composite Floor System is an innovative, simple, effective and economical method of providing all steel, open web structural components for mezzanines in metal building systems. Ecospan incorporates the benefit of open web configuration along with 48" to 72" joist spacing. This allows for maximum design and installation flexibility of HVAC and electrical systems.

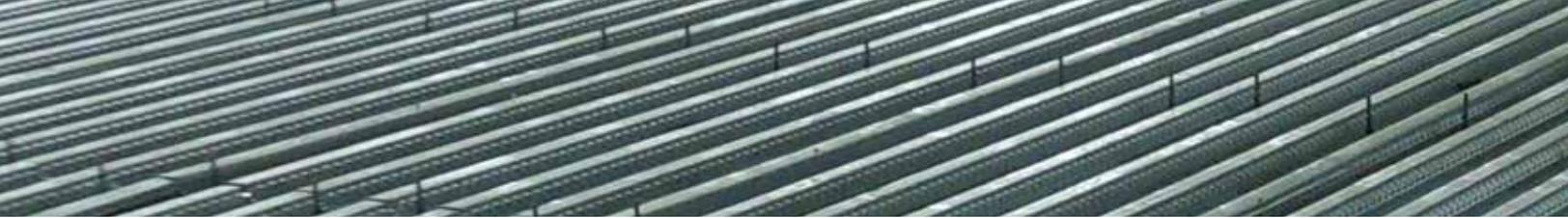
Ecospan is easy to install and the ideal solution for both industrial and commercial mezzanines in new metal building and renovation projects where erection crews benefit from our self-drilling Shearflex<sup>®</sup>HD connectors and/or bolted attachments of all components. Ecospan can be designed to require no welding.



The Ecospan Composite Floor System is not only competitively priced and of the highest quality, it also offers even more advantages. Made with 97% recycled steel joists and over 70% recycled steel decking, Ecospan offers the benefits of sustainable building materials that qualify for LEED<sup>®</sup> points through the U.S. Green Building Council.

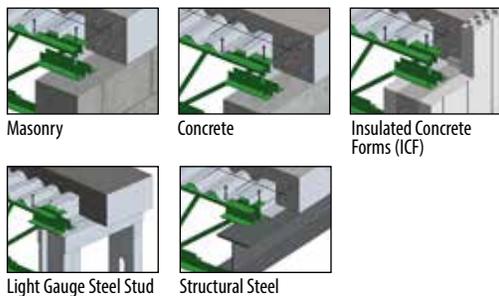


It's not only **competitively priced** and of the **highest quality**, it's also faster to install than a traditional mezzanine.



## Ecospan® over-delivers on value while maintaining economy through ecology.

**Versatility:** Compatible with any load bearing wall framing system including: structural steel, steel studs, light gauge CFS, masonry, concrete and insulated concrete forms.



**Flexibility:** 48" to 72" on center joists mean simpler design and layout, increasing efficiency and making the design and installation of mechanical, electrical, and plumbing systems easier.

**Innovation:** The Ecospan System uses an exclusive, patented, screw-down Shearflex® HD Connector, which is installed with a uniquely designed manual tool included with each system.

**Economy:** Simple, fast installation means a minimal learning curve for contractors, saving time and money. No wood, shoring or stripping is required.

**Speed:** The time required to install each Shearflex HD Connector is 8 to 10 seconds, significantly less time than other techniques.

**Simplicity:** Once the floor system decking is installed, concrete is ready to be placed.

**Stability:** Lightweight, shallow composite joists mean greater rigidity. Ecospan has been extensively tested for structural capacity by leading universities.

**Noise Reduction:** Ecospan received a Sound Transmission Classification (STC) Rating of 57 in acoustical tests conducted by the renowned Riverbank Acoustic Laboratory. Impact Insulation Classification tests were also impressive with minimal sound attenuation materials required.

### STC Ratings & Noise Reduction

STC Rating	Speech Heard Through Wall or Floor	Noise Control Level
25	Normal speech understood	Poor
30	Loud speech understood	Marginal
40	Loud speech audible but unintelligible	Very Good
55+	Loud speech not heard	Excellent

*NOTE: Assumes background noise of 30 dB on the listening side.*

**Safety:** Provides a safe, stable working platform in a single step, which reduces construction liability. Non-combustible with several  fire resistance ratings for 1, 2, and 3 hours.

UL Code	Application
Design No. G561	Direct Applied & Suspended Gypsum Board Ceiling
Design No. G229	Suspended Acoustical Ceiling
Design No. D916	Composite Deck (used in corridors)
Design No. G213	Suspended Acoustical Ceiling
Design No. G222	Suspended Gypsum Board Ceiling
Design No. G227	Suspended Acoustical Ceiling
Design No. G236	Suspended Acoustical Ceiling
Design No. G243	Suspended Acoustical Ceiling
Design No. G547	Suspended Gypsum Board Ceiling
Design No. G710	Spray-On Fire Proofing
Design No. N789	Spray-On Fire Proofing

**Availability:** Joist and decking materials are standard and produced at Vulcraft/Verco, a sister company owned by Nucor Corporation.



**Ecospan**® offers many clear advantages over conventional construction techniques, including:

**Steel Joists**

High strength-to-weight ratio allows for greater spans and spacing with lighter members than traditional joists. Ranging from 10" to 48" deep and a maximum length of 60', Ecospan® joists are typically spaced at 4' to 6' on center, allowing HVAC and electrical design and installation flexibility.

**Steel Decking**

Multi-span sheets of steel decking reduce weight and improve jobsite safety.

**Shearflex® HD Screw**

With an average installation time of 8 to 10 seconds per screw, these patented self-drilling, self-tapping connectors are easy and inexpensive to use. Workers install the 2 1/2" or 3" long, Shearflex HD fasteners in a uniform pattern using the provided Shearset® Tool.

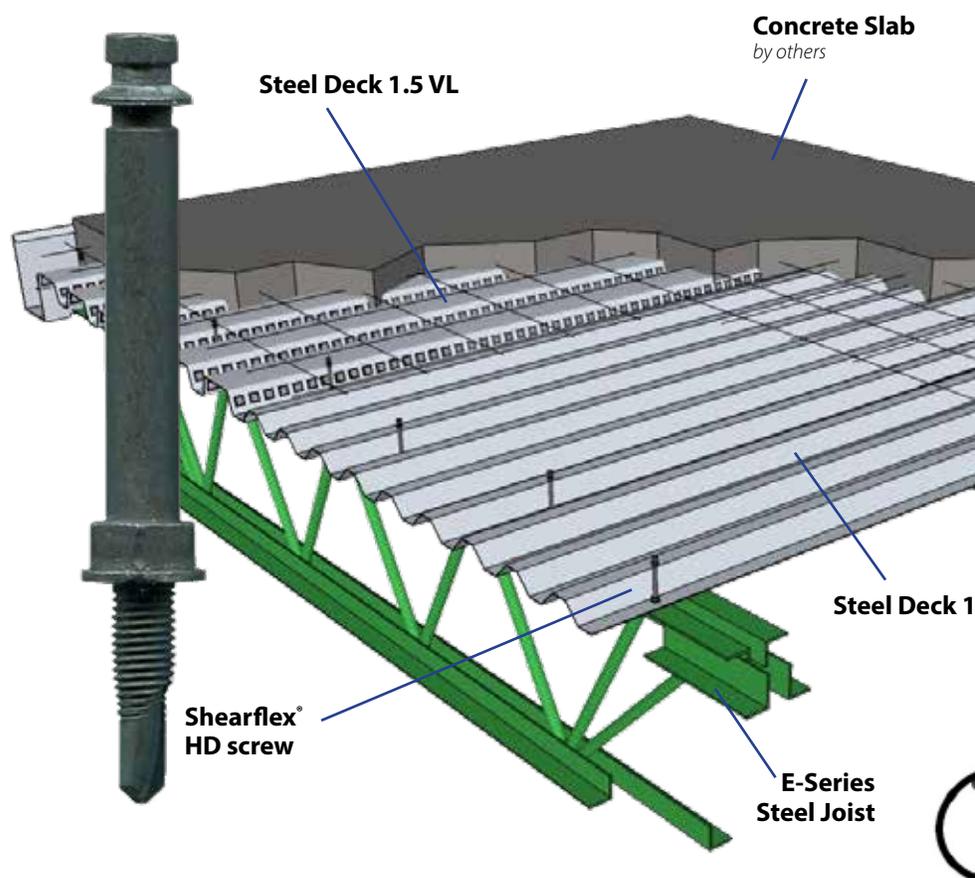
**Slab Reinforcement** (by others)

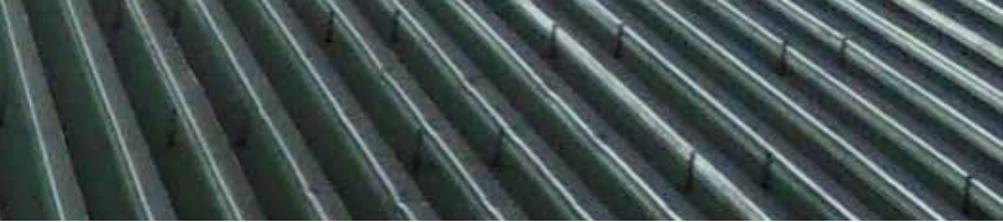
Provided by the general contractor, the slab reinforcement typically consists of 6 x 6 welded steel wire or fiber mesh.

**Concrete Slab** (by others)

Slab thickness is typically 2 1/2" (3 1/2" total depth) normal weight concrete having a minimum 28 day ultimate compressive strength of 3,000 psi.

The **Ecospan**® Composite Floor System uses a unique configuration with high strength-to-weight ratios, allowing for longer spans, s greater rigidity and enhanced performance.

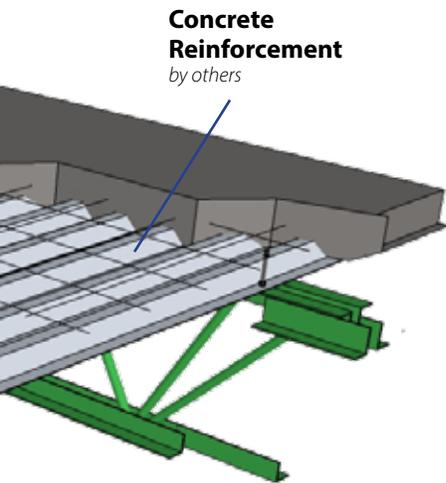




COMPOSITE FLOOR SYSTEM



ation of components  
shallow floor depths,



### Shearset® Tool & Shaft

Each system includes 1 Shearset tool with shaft for every 5,000 screws required for your project. The tool is yours to keep, so you may choose to exclude additional tools from future orders. Contact your sales representative for details.



### Ecospan® by the numbers

- 1 Place the joists
- 2 Install the decking
- 3 Install the Shearflex connectors using the Shearset tool
- 4 Deck ready for reinforcing
- 5 View from below (Shoring not required.)
- 6 HVAC and electrical system friendly



economy through  
ecology

- Non-combustible steel product
- 48" to 72" joist spacing, longer spans
- HVAC & electrical friendly
- Simple & economical to install
- Installation tool provided
- UL listed fire ratings – 1, 2 & 3 hours
- Excellent sound ratings – STC & IIC
- Manufactured from recycled steel

# SAFE STRONG VERSATILE GREEN



## About American Buildings

For over 70 years American Buildings has pioneered the design, manufacture and delivery of metal buildings and roofing systems that set the industry standard.

From industrial and commercial structures to tailored projects for agriculture, automotive, retail, athletic and transportation industries, our nationwide network of Authorized Builders has the expertise to exceed expectations for custom engineered metal building projects in a variety of industry segments.

American delivers a proven combination of products, technology and customer service to accurately execute projects on time and on budget.

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