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Cogan

A Tradition of Quality Since 1901

MEZZANINE

“What’s your challenge?”

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Increase your manufacturing and storage capacity fast – without incurring costly renovations or moving to a new facility – with a structural steel mezzanine. Whether you need a little or a lot more floor space, we have the perfect mezzanine solution to fit your application, your timing and your budget. All our mezzanines are engineered with your business in mind. Intelligently built, the modular components easily adapt to your evolving needs, providing the added value, flexibility and functionality you need in fast-changing times.

Design load

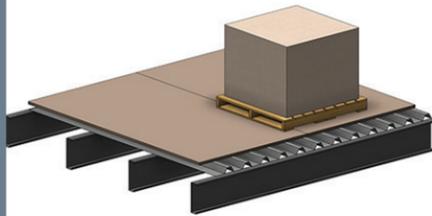
Many factors contribute to the loads that affect the capacity requirements of your mezzanine. It is important to take these loads into consideration when approaching the mezzanine design.

Dead loads (anything permanent on the mezzanine, walls built on top, B-Deck and overlay, etc.) as well as live loads (racking on top of the mezzanine, pallet jacks, people standing and walking, etc.) needs to be taken into consideration when designing the mezzanine structure.

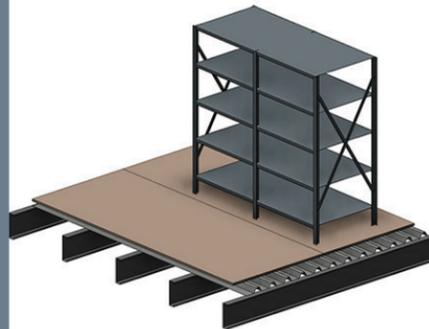
The decking or flooring of a mezzanine will vary by application but is generally composed of B-Deck underlayment and wood product finished floor, concrete or a heavy-duty steel grating. When designing a structural steel mezzanine, it is important to consider the application, as well as the equipment that will be used on top of the mezzanine. If pallet jacks are being used for example, a resin board overlay is ideal for a smooth rolling load.

Live loads are separated in two different categories: Uniformly Distributed Loads (UDL) and Point Loads. Refer to the drawings below for more information.

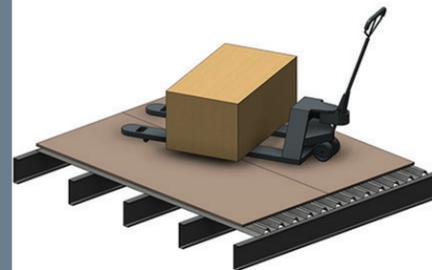
Uniformly Distributed Load



Point Load



Pallet Jack Load



Bracing

Live loads, dead loads, seismic loads, and climatic loads (for outdoor installations) must be taken into careful consideration when designing a structural mezzanine. These loads make up the vertical and horizontal forces that determine the bracing requirements necessary to develop the structural integrity of a mezzanine.



Vertical loads (i.e. live loads and dead loads) affect every aspect of the mezzanine structure. These are transferred from the decking to the joists, from the joists to the beams, from the beams to the columns, from the columns to the base plates, and from the base plates to the concrete. On their own, vertical loads can exert a tremendous amount of pressure on the mezzanine structure. Horizontal loads (i.e. seismic loads and climatic loads) are the external pressures applied at deck height that can force a mezzanine to move or sway back and forth. Braces are designed to transfer the horizontal loads to the base. The effectiveness of the braces is increased as the unbraced height is decreased.



Cogan structural steel mezzanines always include one of the following types of brace designs: [knee-bracing](#), [x-bracing](#), or [structural knee-bracing](#). It is essential to consider the overall budget of your project in order to choose the proper brace design for your mezzanine.

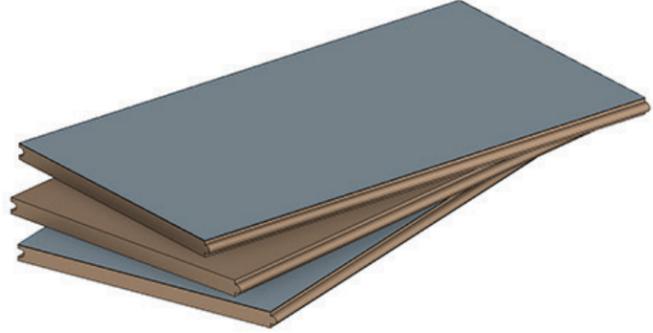
To ensure the safety and longevity of your structure, it is always the sole responsibility of the client/owner to verify the area where the mezzanine is being installed and to provide proper anchor conditions. In situations where concrete depth is inadequate, it may be necessary to pour footings or to otherwise modify the slab. The responsibility of slab verification applies to both knee-brace and x-brace mezzanine designs. If you are looking for more favourable anchoring requirements, Cogan recommends an x-brace design.

Floor options

Rugged and resilient, our mezzanine flooring systems are designed to withstand the wear and tear of industrial use. Choose from six different options to best suit your application.

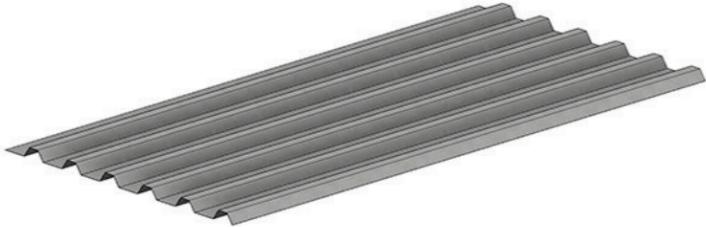
RESIN BOARD

| SPECIFICATIONS | |
|----------------|-------------------------------|
| Sheet Size | 4' x 8' / 32 sqft |
| Finish | Unfinished, Grey Diamond Seal |
| Application | Flooring |



CORRUGATED DECKING

| SPECIFICATIONS | |
|----------------|--|
| Gauges | 18GA, 20GA, 22GA |
| Decking Width | 3'-0" |
| Decking Length | 4'-0", 8'-0", 9'-0", 10'-0", 11'-0", 12'-0", 13'-0", 14'-0", 15'-0", 16'-0" |
| Finish | Galvanized, white underside |
| Application | Flooring |



COLORS   White  Electro-Galvanized

OPEN STEEL PLANKING

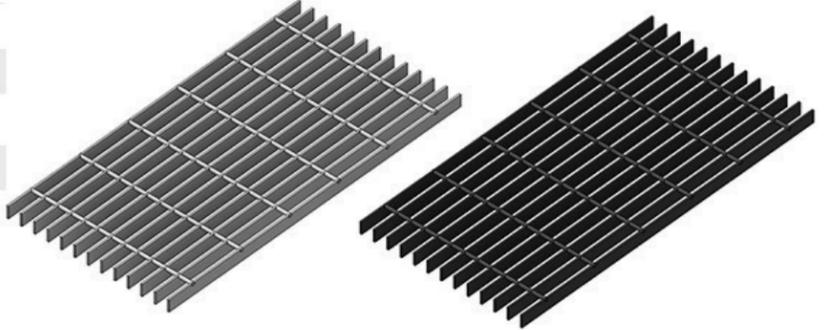
| SPECIFICATIONS | |
|----------------|------------|
| Plank Width | 9" |
| Plank Length | 12' |
| Finish | Galvanized |
| Gauge | 18GA |
| Application | Flooring |



COLORS   Electro-Galvanized

OPEN BAR GRATING

| SPECIFICATIONS | |
|----------------|--|
| Width | 3'-0" |
| Length | 4'-0", 8'-0", 12'-0", 16'-0", 20'-0", 24'-0" |
| Model Type | 19-W-4 |
| Finish | Painted black or Hot-Dipped Galvanized |
| Application | Flooring |



COLORS   Black  Hot-Dipped Galvanized

DIAMOND GRIP FLOORING

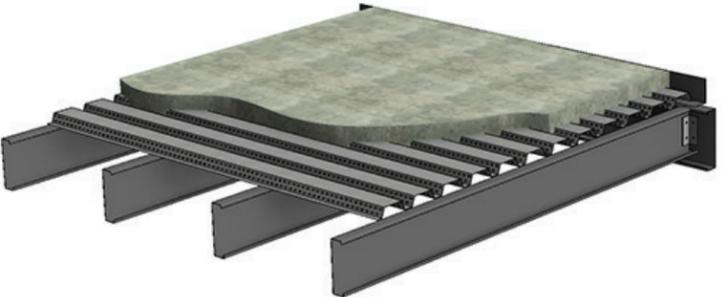
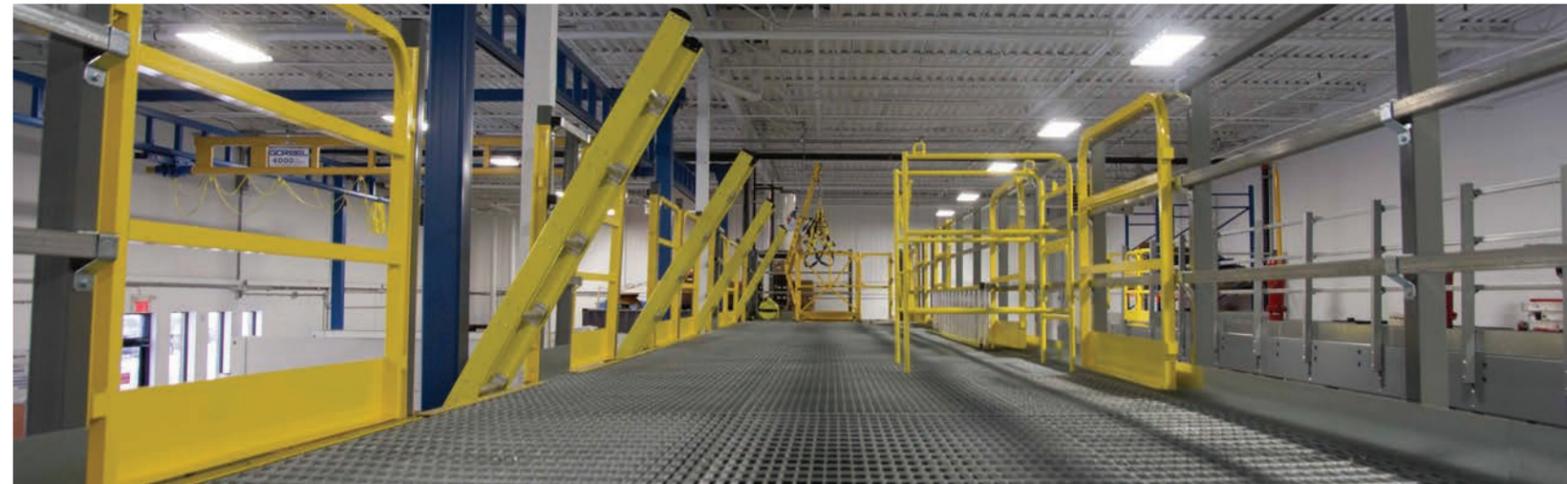
| SPECIFICATIONS | |
|----------------|---------------|
| Plank Width | 6", 9", 12" |
| Plank Length | 12' |
| Gauge | 12GA, 14GA |
| Finish | Powder-Coated |
| Application | Flooring |



COLORS   Cogan Grey

CONCRETE

| SPECIFICATIONS | |
|--------------------|-----------------------------------|
| Concrete thickness | 4" |
| Placement | Poured Over Corrugated Steel Deck |
| Application | Flooring |

Staircase Details



Cogan mezzanine staircases are maintenance-free, built to last, and easy to assemble. Simple nut-and-bolt connections and factory-welded components allow for fast installation with minimal disruption to your workflow. Security treads are made with galvanized anti-slip surfaces to provide additional grip for safe and efficient access. The superior construction also means our staircases comply with even the most stringent building code requirements. Whether your mezzanine is for storage, manufacturing, or public use, we always have the right staircase for your application.

Rails are factory welded to the channel stringers.

MODEL 1
 2 RAILS
 38° ANGLE
 8" MAX RISE
 10" MIN RUN

38°

Calculate the full run of your staircase using this simple formula:
 Height of your mezzanine floor X 1.25

Rails are factory welded to the channel stringers.

MODEL 2
 3 RAILS
 31° ANGLE
 7" MAX RISE
 11" MIN RUN

31°

Calculate the full run of your staircase using this simple formula:
 Height of your mezzanine floor X 1.61

Inner handrails with extension railing on both ends.

Rails and inner handrails are factory welded to the channel stringers.

MODEL 3
 31° ANGLE
 7" MAX RISE
 11" MIN RUN
 3 RAIL + INNER HANDRAIL

31°

Calculate the full run of your staircase using this simple formula:
 Height of your mezzanine floor X 1.61
 (Add 22" at the bottom for the extension railing)

Inner handrails with extension railing on both ends.

Rails, inner handrails and wire mesh integrated panels are factory welded to the channel stringers.

MODEL 4
 INTEGRATED PANELS
 31° ANGLE
 7" MAX RISE
 11" MIN RUN
 2 RAIL + INNER HANDRAIL + WIRE MESH

31°

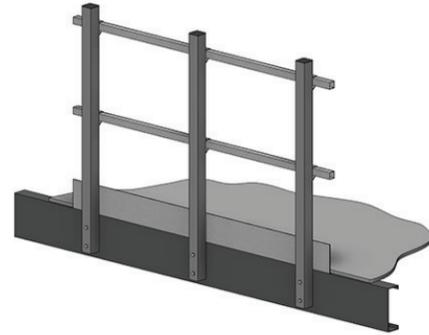
Calculate the full run of your staircase using this simple formula:
 Height of your mezzanine floor X 1.61
 (Add 22" at the bottom for the extension railing)

Handrail & Gates

An innovative continuous design, nothing installs faster than Cogan safety handrails. Choose from 3 different models to best suit your needs.

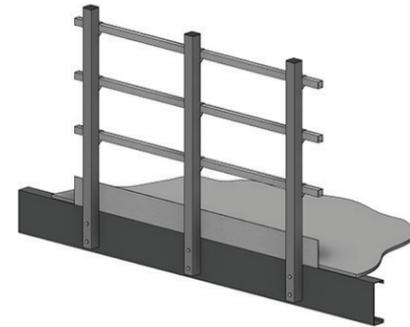
2-Rail Handrail

Cogan 2-rail handrails are 42" high and ideal for situations where light-duty protection is required. Handrail posts are made of 2 1/2"x2 1/2"x14GA steel tube. Rails are made of 1 1/2"x1 1/2"x16GA steel tube securely fastened to the handrail posts with zinc-plated clips. This special design allows for the rails to be cut to size and attached without welding, reducing installation time and cost. Optional kick plate is also available.



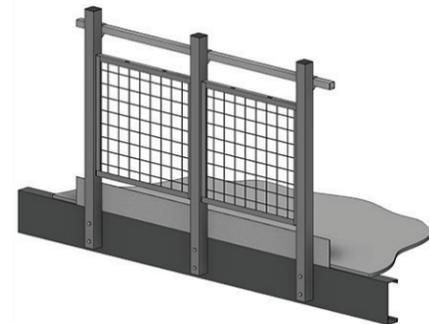
3-Rail Handrail

Cogan 3-rail handrails are 42" high and designed to meet all BOCA, UBC and IBC safety requirements. Handrail posts are made of 2 1/2"x2 1/2"x14GA steel tube. Rails are made of 1 1/2"x1 1/2"x16GA steel tube securely fastened to the handrail posts with zinc-plated clips. This special design allows for the rails to be cut to size and attached without welding, reducing installation time and cost. Optional kick plate is also available.



Wire Mesh Handrail

Cogan wire mesh handrails are our upgraded system designed to meet the stringent safety requirements of mezzanines intended for public use. Panels are made of 2"x2" welded wire mesh and are shop welded to 1 1/4"x1 1/4" structural steel frames. Handrail posts are made of 2 1/2"x2 1/2" steel tube. Rails are made of 1 1/2"x1 1/2" steel tube and simply fasten to the posts using specially designed zinc-plated clips. This allows for the rails to be cut to size and attached without welding, reducing installation time and cost. Kick plate is also available.

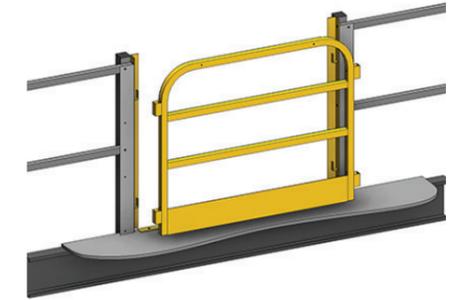


Safety, efficiency and flexibility. Our mezzanine safety gates are easily adaptable to keep your process running smoothly. Choose from four different models to best suit your needs.

Sliding Gate



Lift-out Gate



Swing Gate



Safety Pivot Gate

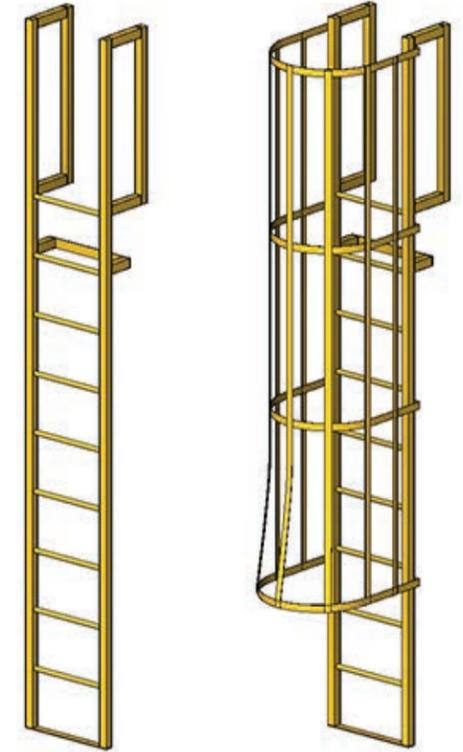


Ladders

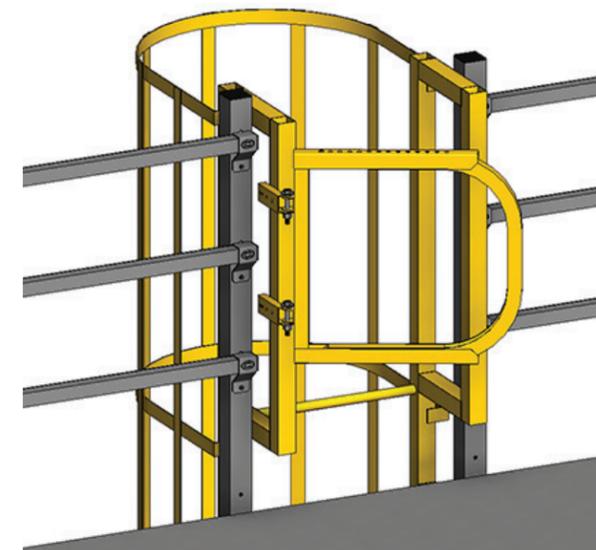


Ladders

The majority of building codes and fire regulations require multiple access points for any second-level mezzanine structure. Factors such as the size of the mezzanine and the number of employees working on and around the platform can create the need for a second or even third access point. While the placement of an additional staircase is ideal, it is not always possible given the potential space constraints and obstructions in your facility. Cogan platform ladders are an ideal, space-saving alternative to staircases. Built to meet strict building code and safety requirements, our platform ladders are sturdy and secure for easy and efficient access to your mezzanine.



Our standard platform ladders are 24" wide. Optional welded safety cages are available for added fall protection or if required by code. All ladders are sealed in a durable, powder-coated yellow paint finish for maximum visibility.



Self-Closing Safety Gate

Cogan's self-closing safety gate serves as an additional security option to guard the opening on a mezzanine ladder entryway.

Spring-loaded hinges ensure our safety gates close automatically. Gates cannot be left open by accident, therefore providing constant visual indication of the access point. Workers will be deterred from walking directly into the opening, reducing the likelihood of trip or fall accidents and other hazards.



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