



# Safety Grating for Trucking: Factors and Solutions to Consider

Metal safety gratings serve numerous functions in industrial applications, including:

- ▶ Increased protection for employees
- ▶ Greater traction and security against falls and trips
- ▶ A lightweight alternative to bar grating

The characteristics of an ideal safety grating include maximum slip resistance proportional to its size, high load-bearing capacity, and the ability to maintain structural integrity under extreme conditions. Generally, safety gratings also allow for light penetration and are easily accessible for cleaning and maintenance.

## Safety Grating for Trucking

Over-the-road (OTR) trucks and tractor-trailers are exposed to a wide range of environmental conditions and stresses, such as:

- ▶ Daily vibrations from normal operation
- ▶ Climate extremes (hot and cold)
- ▶ Precipitation and humidity
- ▶ Dirt, Oil, Salt, and other debris

The constant exposure to these elements can cause adverse effects on those exposed, which compels carrier companies to implement measures to protect their trucks, their cargo, and, most importantly, their drivers. One method of protecting these assets is by integrating guards and metal fixtures to help secure cargo during transport and increase employee safety in handling areas. Slip-resistant steps platforms and running boards can also prevent damage to cargo during handling operations.



As safety gratings and other metal fixtures can protect your company's vital assets, it is important to invest in high-quality components made from tough, durable metal.

## Fall Risk Factors for Commercial Truck Drivers

Extensive research has been performed on the fall risk factors among commercial truck drivers. Some of the most significant findings include:

- ▶ 83% of reported falls occur in one of three areas—the back of the truck/trailer, the cargo handling area, and the truck cab.
- ▶ Falls during mount or dismount alone account for almost 25% of all reported injuries in commercial trucking.
- ▶ Carrier companies lose over \$20 million annually from driver slips and falls.
- ▶ Almost 25% of drivers identified slippery conditions as a risk factor.
- ▶ Slips, trips, and falls account for 30% of lost workdays among drivers, with 19 days being the median amount of days lost.

## Considerations for Safety Grating

There are several factors to take into account when selecting and installing safety gratings. For instance, safety gratings should be suitable for the application, be a proper fit for the truck, and consist of sufficiently durable material. Some of the main design factors to consider include:

**Environment.** Ideally, the safety grating should be made of corrosion-resistant material or undergo additional surface treatment processes to enhance its corrosion resistance.

**Anti-slip.** For environments with slippery conditions, such as ice, moisture, or oil accumulation, the safety grating should be equipped with anti-slip features designed to enhance the walking surface, such as serrated edges, raised buttons, or debossed holes.

**Weight.** Manufacturers frequently use lightweight materials to produce safety gratings. However, to ensure that the gratings maintain sufficient load-bearing capacity, the construction material should also be strong, rigid, and durable. For example, aluminum alloys are highly suitable for safety gratings due to their high strength and corrosion-resistant properties.

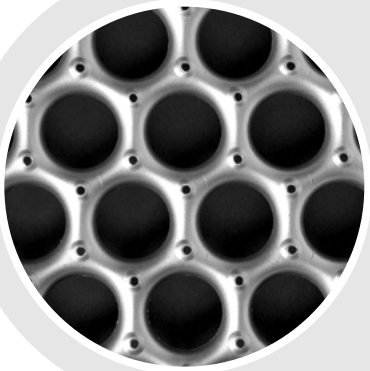


## Morton™ Safety Grating for Heavy Trucking

As indicated previously, when designing and installing safety grating, there is a number of characteristics to look for, including:

- ▶ Non-slip features, such as raised perforated buttons
- ▶ High slip resistance to size ratio
- ▶ Sufficient load capacity under a variety of extreme conditions
- ▶ Optimally sized holes that allow air to flow through the grating and debris to filter out
- ▶ Inclusion of perforations that allow for easy access for cleaning and adequate light penetration

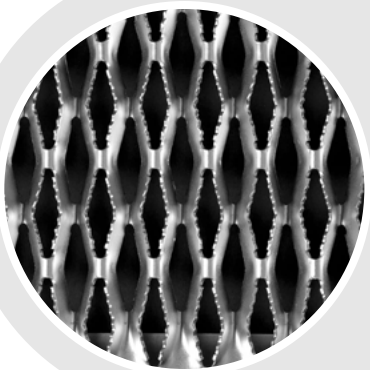
Morton™ is the proud manufacturer of four types of heavy-duty safety grating well-suited for the trucking industry.



### Open Grip®

One of the most prominent features of our Open Grip® safety grating is its 1-3/8 inch debossed holes and circular gripping buttons. These raised buttons provide increased slip and slide-resistance for drivers even after countless hours of aggressive use, while its circular design allows for enhanced slip resistance in all directions.

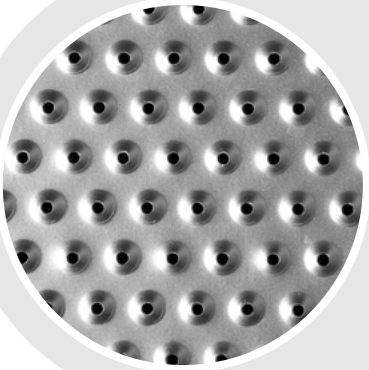
Manufactured using a cold working process, our Open Grip® pattern allows air, light, and heat to flow freely through the grating.



### Deck Span®

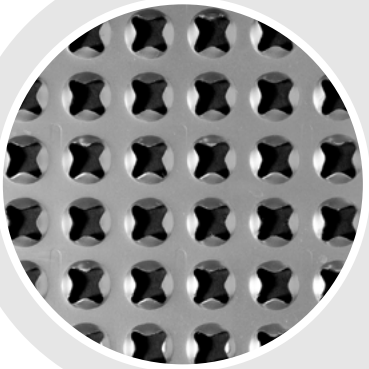
Deck Span® features a diamond-shaped surface pattern that consists of cross-hatching reticulated and formed metal struts. Similar to Open Grip® grating, these gratings are self-cleaning and enable the passage of light and debris.

Our Deck Span® grating is produced in a single, lightweight piece. Characteristics include high load-bearing capacity, excellent slip-resistance in all directions, and a relief hole located at the diamond's point to help prevent stress cracking.



**Tread Grip®**

Tread Grip® grating features cold-formed perforated buttons. This style of grating offers superior slip resistance and has a reputation for longevity and durability, which make it a cost-effective option for long-term applications.



**Star Deck®**

Our low profile Star Deck® safety grating is highly resistant to slips and slides. Our unique manufacturing process allows us to produce almost limitless pattern possibilities in materials up to 11-gauge in thickness. Although our default parameters for this grating are 11-gauge, hot-rolled 48-inch x 100-inch pieces, it is available in a wide variety of sizes, gauges, and finishes.

Star Deck® grating's star-shaped holes are a perfect match for heavy-duty platforms and steps on tractor-trailers.



## Morton™ & Metalex®: Dedicated to Trucking Solutions

As a result of a merger with the Morton™ Manufacturing Company, the Metalex® team can provide the highest quality metal solutions that are custom-tailored to the specific needs of your fleet, no matter the truck type. For instance, we provide products for use with Class 5 and Class 6 medium trucks, including but not limited to:



### Passenger Vehicles

- ▶ Quarter-ton trucks like the Toyota Tacoma or GMC S-15
- ▶ Half-ton trucks like the Nissan Titan or the Dodge 1500
- ▶ Three-quarter-ton trucks like the GMC 2500 and the Ford F-250
- ▶ One-ton trucks like the Ford F-350



### Commercial Vehicles

- ▶ Ford Transit
- ▶ Mercedes-Benz Sprinter Van
- ▶ Ram ProMaster
- ▶ Chevrolet Express

While many of our products are a perfect match for medium-duty trucks, we also specialize in manufacturing accessories for heavy-duty trucks and tractor-trailers that weigh more than 33,000 lbs. Our customers in this demographic include OTR trucks ranging from 8–57 feet. Since we cater to such a huge variety of vehicular needs, our products come with an abundance of customization options so that each installation is perfectly suited for each truck. We offer various material options for our safety grating products—including HRPO steel, pre-galvanized steel, and aluminum—and an extensive list of secondary services—including stamping, shearing, plasma cutting, forming, welding, anodizing, electropolishing, coating, and painting—to ensure each product solution we develop and deliver fully meets the requested specifications.



## Partnering With Metalex<sup>®</sup>

At Metalex<sup>®</sup>, we are committed to providing products that enhance workplace safety, whether in a factory or on the road. Our exceptional safety gratings and other metal products help drivers to avoid dangerous slips, trips, and falls on the job and provide a superior alternative to more traditional bar gratings.

Since 1903, we have delivered unmatched quality, value, performance, and service by offering optimized safety solutions. Since 1962, we have provided all of our customers and partners with comprehensive information regarding expanded metal options to meet every need in the best way possible.

If you would like to learn more about products, see our [heavy trucking solutions](#) or [safety gratings](#) pages, or [contact us](#) today.

## About Metalex

Metalex, powered by UPG, was founded in 1962 in Libertyville, IL by two local entrepreneurs. With diverse and complementary expertise in salesmanship and engineering, they grew their company with one machine in a small factory on the east edge of town. In 1979, Metalex moved into a facility on the site of a former horse farm in south Libertyville.

Metalex continued to grow and added to the original building in 1983, increasing total square footage to 150,000 and equipment totaling 23 expanding lines, a full machine shop and a secondary processing department that includes shearing, stamping and plasma cutting. In 2005, Metalex acquired Arcor, a manufacturer of perforated metal and a variety of metal tubes primarily for the fluid filtration industry.

In 2011, Metalex acquired Morton Manufacturing, the leading manufacturer of anti-slip walking surfaces for railcars, specifically for original equipment manufacturers (OEMs). The company also supplies distributors, OEMs and aftermarket customers in the agricultural, heavy equipment and general industrial space.

Morton has been providing customers with consistently superior products and excellent customer service since 1903 from the 200,000-square-foot facility, also located in Libertyville. Morton's Open Grip®, Deck Span® and Tread Grip® proprietary product designs provide non-slip surfaces that meet or exceed federal specifications for slip resistance.

In 2014, Metalex and Morton merged under the Metalex name. Two years later, in 2016, Metalex opened a facility in San Luis Potosi, Mexico. In 2019, Metalex was acquired by UPG Enterprises LLC, a strategic operator of metals and logistics companies across North America.



Learn more about all of Metalex's products and the processes we use to manufacture them.

[Visit our Resources Page](#)



Have any questions about our products and services?

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