



GARGOYLE

rooftop guardrail

MANUFACTURED BY **FS** **FACTORY**
SUPPLY.COM



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WHO WE ARE

FACTORY SUPPLY

Proudly part of the Liftsafe Group of Companies, Factory Supply, provides top of the line standard and custom industrial material handling, access products, and fall protection systems. With a 20 year track record, we are the most reliable industry experts and work with your team to address your specific needs.



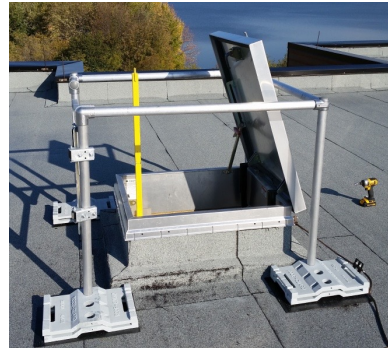


GUARDRAIL SYSTEMS



GARGOYLE ROOFTOP GUARDRAIL

- Versatile, economic and modular fall protection system designed to protect employees/ contractors performing job functions at, or near, the leading edge of a rooftop
- Requires NO penetration of the roof membrane, therefore no leaks down the road
- Counterweighted system utilizing cast steel base plates to provide enough weight on the “returns” to meet all requirements of lateral force loading
- “Passive” fall protection system
- Provides site-specific coverage (i.e. single HVAC unit) or provides full or partial perimeter coverage on a rooftop
- Consists of aluminum pipe, magnesium alloy fittings and cast steel base plates



GARGOYLE IN ACTION



LEGEND

- 01 GARGOYLE ROOFTOP GUARDRAIL
- 02 GARGOYLE HATCH GUARDRAIL
- 03 GARGOYLE SKYLIGHT GUARDRAIL
- 04 GARGOYLE CROSSOVER PLATFORM
- 05 FIXED ACCESS LADDER

**CUSTOM ROOFTOP SOLUTIONS
DESIGNED BY OUR
IN-HOUSE TEAM OF ENGINEERS**



STAY SAFE



GARGOYLE
rooftop guardrail

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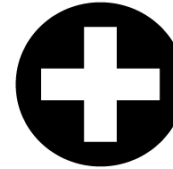
SAFETY IN NUMBERS

“Falls are the **second leading cause** of accidental or unintentional injuries and deaths worldwide. Each year an estimated **646,000 individuals die from falls globally.**”
- *World Health Organization (2018)*

Is cutting corners on safety requirements worth the risk?
Gargoyle Guardrail is an investment in protecting your workforce that ends up saving you time, money, and liability.

Short of eliminating rooftop hazards altogether, Gargoyle Guardrail is an engineering control that meets or exceeds regulatory requirements.

100% PREVENTABLE INJURIES



An average of 233,176 workers were injured each year from fall related accidents from 2011 to 2019. - BLS

LOST COSTS



Fall injuries are the primary cause of lost time at work. Fall victims miss an average of 11 days of work and 22% of falls result in more than 31 days of missed work. - BLS

DIRECT COSTS



Direct costs from fall related workplace injuries average \$46,592 per injury. This does not include lost time and profit. - NCCI

FATALITIES



The second leading cause of workplace fatalities was due to falls. This amounts to an average of 15.83% of workplace fatalities per year from 2009 to 2018. - NSC

UNDERSTAND THE SAFETY REGULATIONS

OSHA

Top edge height of top rails, or equivalent guardrail system members, shall be 42 inches (1.1 m) plus or minus 3 inches (8 cm) above the walking/working level. When conditions warrant, the height of the top edge may exceed the 45-inch height, provided the guardrail system meets all other criteria of this paragraph.

OSHA

Employers shall provide and install all fall protection systems required by this subpart for an employee, and shall comply with all other pertinent requirements of this subpart before that employee begins the work that necessitates the fall protection.

OSHA

Guardrail systems shall be capable of withstanding, without failure, a force of at least 200 pounds (890 N) applied within 2 inches (5.1 cm) of the top edge, in any outward or downward direction, at any point along the top edge.



CREATE A SAFE WORK ENVIRONMENT

Falls are one of the leading causes of job-related injuries and fatalities. On any given day, every worker – even one used to working at heights – is at risk of having a fall and needs the best protection possible.

Common Causes of Falls Include:

- Losing balance
- Losing grip on a support
- Support moving or giving way (i.e. ladder)
- Tripping
- Carrying product and not seeing an obstruction

WORKPLACE FALL HAZARDS



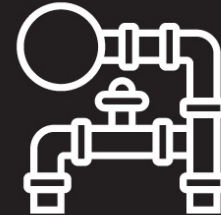
ELEVATED SURFACES



FLOOR OPENINGS



UNEVEN SURFACES



GROUND OBSTRUCTIONS



DANGEROUS MACHINERY



OSHA FINES

1.8% INCREASE IN 2020

FAILURE TO CORRECT
OTHER-THAN-SERIOUS
POSTING REQUIREMENT
SERIOUS VIOLATION

NOW CARRIES A
\$13,494
MAXIMUM FINE

\$134,937 FOR WILLFUL AND
REPEATED VIOLATIONS

ACCIDENT COSTS

$$\left[\begin{array}{l} \text{INCIDENT COSTS} + \text{INVESTIGATION COSTS} + \\ \text{PROPERTY DAMAGE} + \text{REPLACEMENT COSTS} + \\ \text{PRODUCTIVITY COSTS} \end{array} \right] \div \text{NET PROFIT \% BEFORE TAXES}$$



GROSS SALES REQUIRED TO
RECOVER ACCIDENT COST



THIS CALCULATION DOES NOT INCLUDE THE COST OF ELEVATED
INSURANCE PREMIUMS. MORE IMPORTANTLY, IT CANNOT QUANTIFY THE
EMOTIONAL COST OF THE INJURED WORKER, THEIR FAMILIES, THEIR
FRIENDS, AND COWORKERS



WHAT ARE THE BENEFITS?

WHY ROOFTOP GUARDRAIL?

AN INVESTMENT IN FALL PROTECTION



Cost-effective
working at heights
safety solutions



Meets or exceeds all
OSHA and ANSI
safety standards
and regulations



Reduces PPE and
training requirements
of staff and contractors



Safe and reliable
engineered fall
protection solution



Simple and quick
installations that
require only one tool



Protects employees from
injury or death from
potential accidents
working at heights



Reduces the potential
for costly fines and
high insurance premiums



All individual
components are
under 40 lbs



ADVANTAGES OF GUARDRAIL

- More versatile than fixed-length steel rail systems
- Stackable base plates
- User friendly and ergonomic
- Lower labor costs
- Everything on one skid (materials, tools, layout design) – low shipping costs
- Price! More attractive pricing for distributor partners – higher selling margins
- Aluminum rail systems “blend in” with the building and mechanical equipment



WHAT SETS OUR SYSTEM APART?



VERSATILITY OF ROOFTOP GUARDRAIL

Our systems have been engineered with a modular, non-penetrating design that allows you to customize it to;

- fit any space and
- fit any configuration

A wide range of components allow the system to be configured to best suit your customer's rooftop requirements. Variable angle fittings will enable you to adjust the angle of coverage if the roof design has some "twists" incorporated into the layout.

Special clamps and bolt-on components are available to connect the system directly to walls, existing railing systems, fixed access ladders and more.



ACTIVE vs PASSIVE FALL PROTECTION

- **Passive** fall protection is the type of protection that does NOT require any action by people. Examples include: Guardrails, Safety Nets, etc.
- **Active** fall protection is the type of protection that requires training and direct connection to an engineered fall protection system or anchor point. Examples include: Body Harnesses and Lanyards, Anchor Points, etc.
- **General rule:** Try and develop protection that does not require active fall protection. *“Engineer out the hazard”*
- Guardrails are a **preferred** method of protection on a rooftop
 - No special training required
 - Protect several people at the same time



GUARDRAIL SYSTEM OPTIONS

WHAT'S INCLUDED



Base Plates

Stackable Base Plates: Galvanized cast steel weights (40lb) with three optional holes for vertical post-placement. Includes handles to avoid pinch points. Masticated rubber pad included.



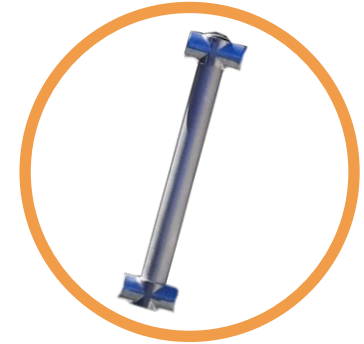
Aluminum Pipe

Pipe: Aluminum T6-6061, 1.5" SCH 1.9" O D.



Fittings

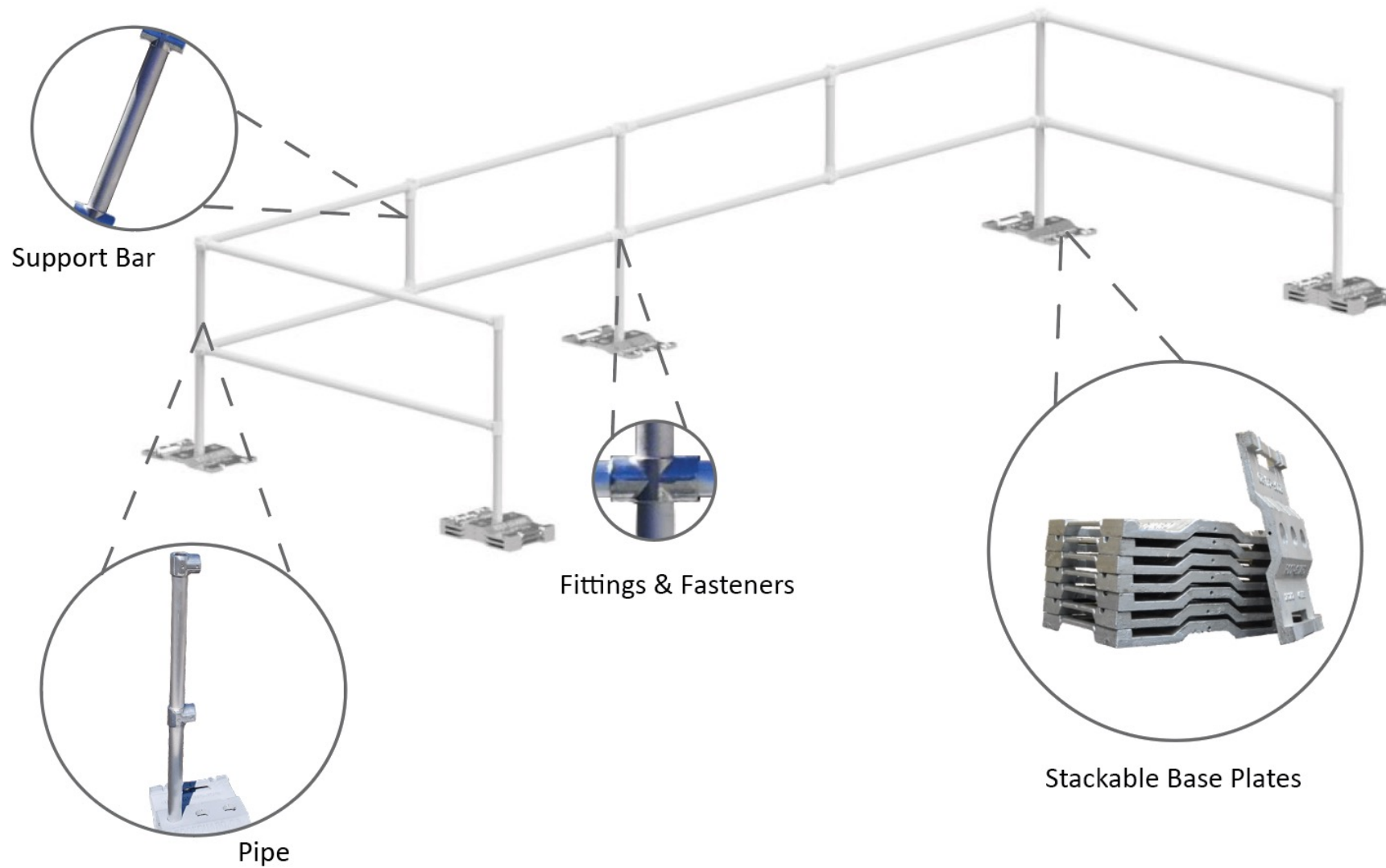
Fittings: Aluminum
Magnesium Alloy, 535.
Fasteners: stainless steel.



Support Bar

Aluminum 18" bar placed in the middle of rails greater than 6ft.





TYPICAL LAYOUT

Arguably the easiest rooftop system on the market to install, all kits come with everything required to assemble this elegantly simple system.

- Typically consists of 9 ft rail sections and 6 ft returns (tie-backs)
- Returns have a minimum of 3 base plates on the end post to provide the necessary counterweight to allow the system to meet lateral force ratings
- Returns are positioned at a MAXIMUM of 27 ft intervals (3 sections of 9 ft rails)
- If the return encounters a location whereby a 6 ft return will interfere with something on the roof: Rule of thumb – Add one additional base plate for each foot that is shortened on the return

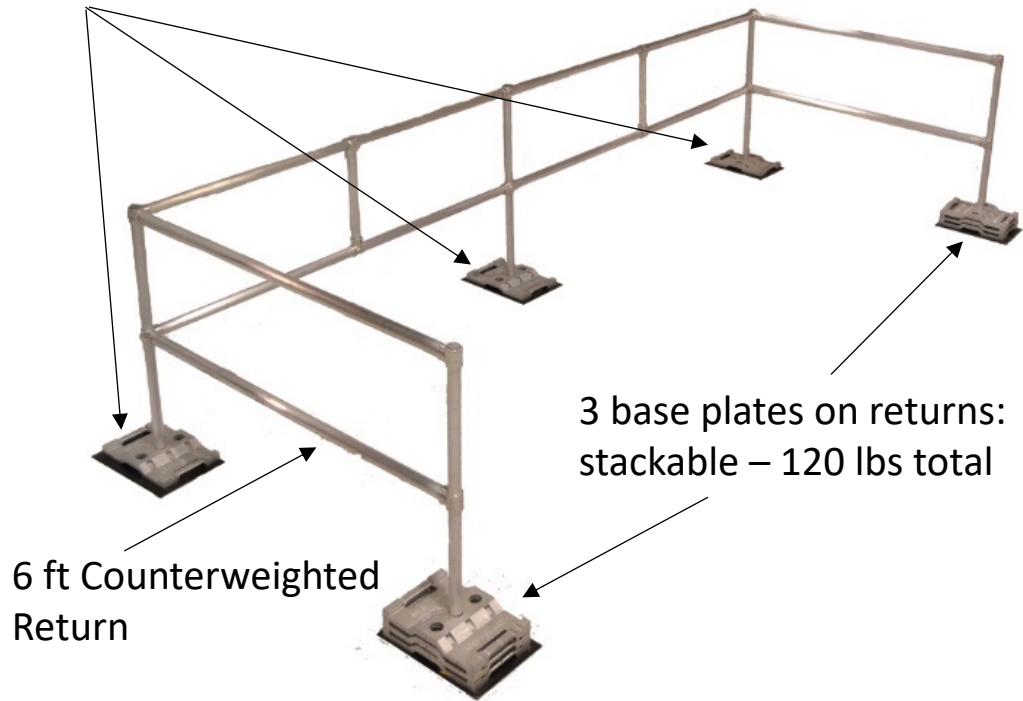




LEADING EDGE FALL PROTECTION

GARGOYLE ROOFTOP GUARDRAIL

Single base plate on leading edge



Gargoyle Guardrail is available in pre-packaged kits (9', 18' and 27') to simplify the ordering process and provide a product that can easily protect workers in most situations where work needs to be performed in or around one or two rooftop units.





9' GARGOYLE ROOFTOP GUARDRAIL

9 ft. of leading-edge fall protection. It requires no rooftop penetration and can be categorized as a passive fall protection solution.

This particular system is ideal for providing reliable fall protection around HVAC units, vents, near access ladders, antennas, valves, solar panels, or near frequently travelled areas that require routine maintenance.



18' GARGOYLE ROOFTOP GUARDRAIL

Our most popular design offers 18 ft. of leading-edge fall protection, with two 6 ft. sections for weighted ballast.

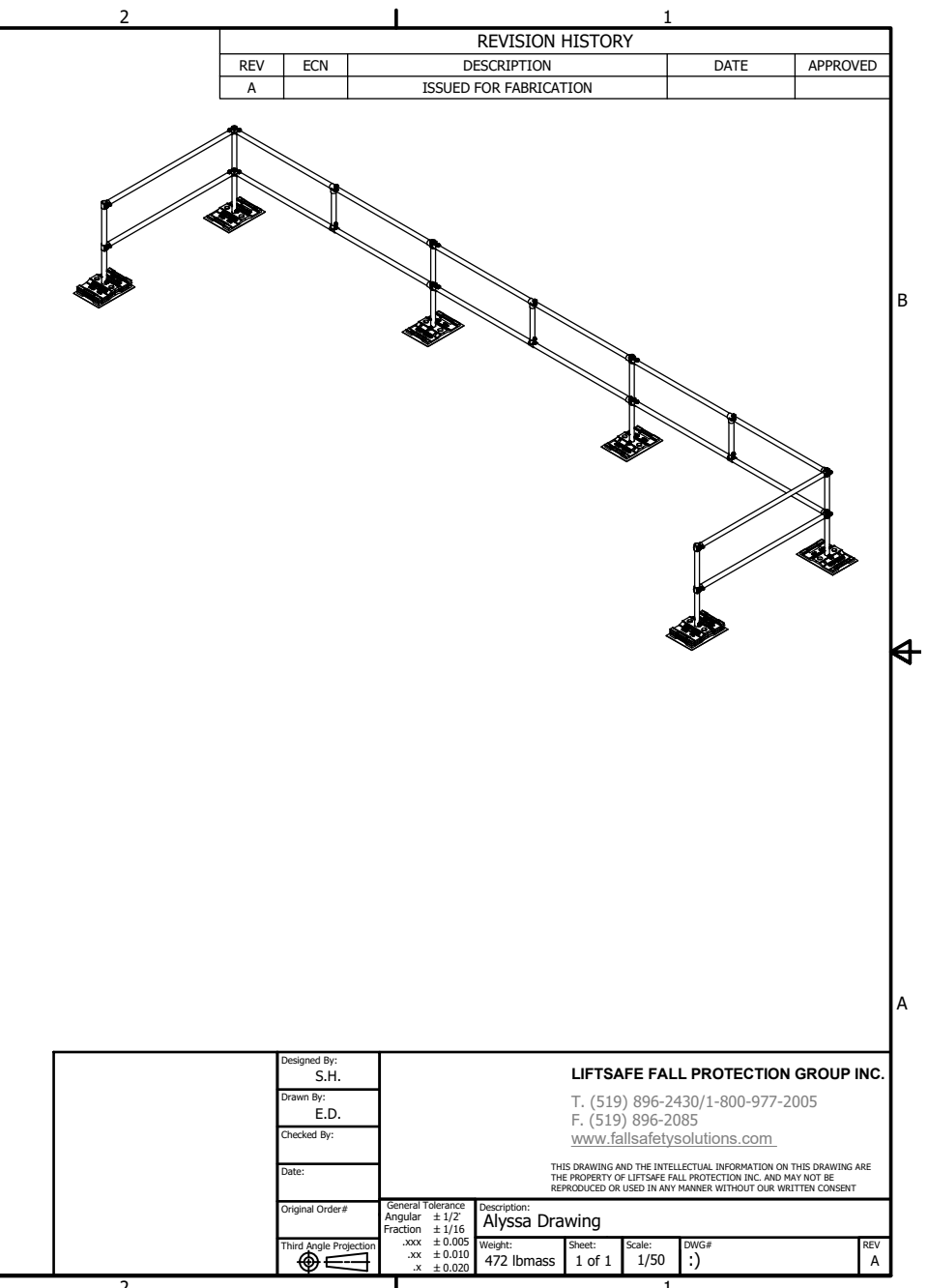
The hinged, variable fitting in the centre of the 18 ft. section allows for complete versatility when installing the system. It can be straight, at 90 degrees, or anything in between, depending on your requirements.



27' GARGOYLE ROOFTOP GUARDRAIL

27 ft. of leading-edge fall protection with two 6 ft. sections for weighted ballast.

Two hinged fittings allow for complete versatility when installing the system. It can be straight, at 90 degrees, or anything in between, depending on your requirements.



LAYOUT DRAWINGS

Each system comes with a layout drawing.

The image shown here is a standard 27 ft Guardrail Kit.

Layout drawings show each component's position, the number of base plates for each post position, etc.

Will help to assemble the system correctly.



ROOFTOP HATCH

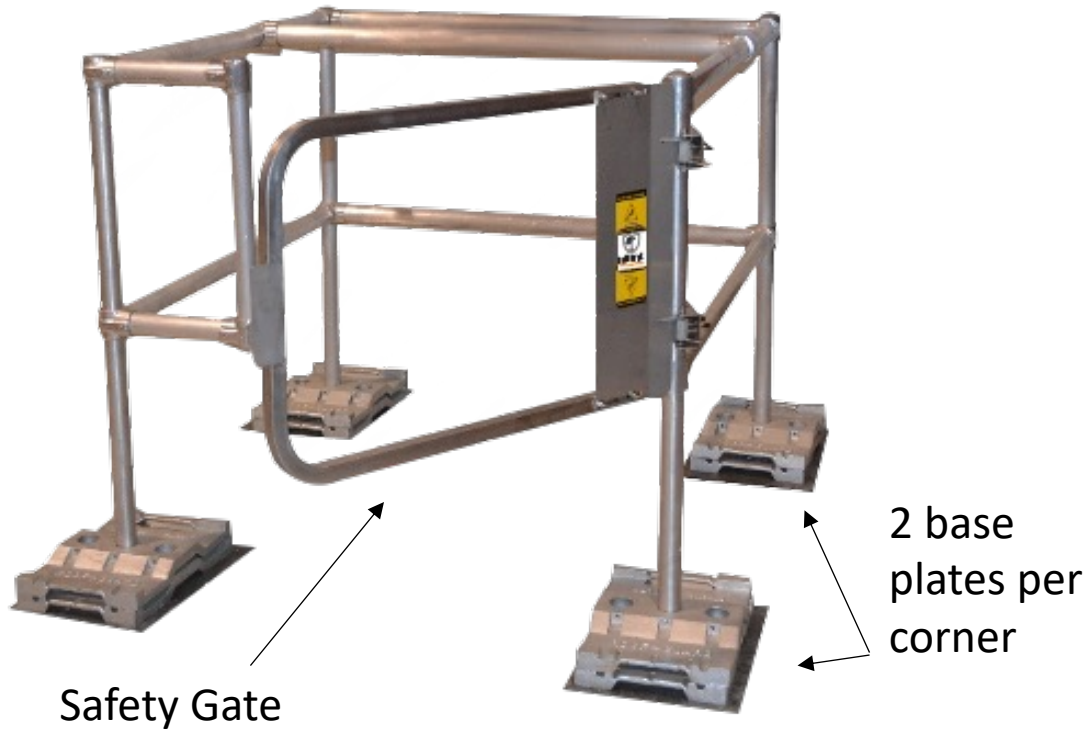
GARGOYLE HATCH GUARDRAIL

A permanent freestanding guardrail system, which is non-penetrating, and safely protects workers from falls through open roof hatches.

The systems simplicity allows for it to be integrated with virtually any rooftop opening.

Our roof hatch system comes standard with a spring-loaded gate, ensuring the gate always returns to the safe, closed position.

An optional fixed grab bar when exiting or entering the rooftop can be included as requested. Custom sizes are available for non-standard hatches or rooftop openings.





ROOFTOP SKYLIGHT



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rooftop guardrail

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GARGOYLE SKYLIGHT GUARDRAIL

Designed specifically to address fall protection concerns without minimizing light from your skylights, this rooftop guardrail system allows for the optimum use of your skylight while ensuring that it does not become a fall protection liability.

Our skylight guardrail systems are freestanding and utilize our counterweighted base plates, eliminating the need for hardware connections to your rooftop.

- Custom sizes are available for non-standard skylights
- Meets or exceeds all OSHA safety regulations
- Requires no rooftop penetration
- Available in both kit and custom configurations
- Galvanized finish is corrosion resistant





AVOID ROOFTOP OBSTRUCTIONS

GARGOYLE CROSSOVER & LADDER SERIES

A counterweighted, freestanding fall protection system which provides safe and reliable access up and over elevation changes (including parapet walls).

These systems utilize our base plate design to ensure optimum weight is allotted at engineered approved points.

Twelve distinct kits have been designed, which include:

- Engineered ladders on the face and back of the parapet wall
- Platform over the parapet area to protect sensitive roof membrane from damage
- Fall protection guardrails with kits where falls from one elevation to another may occur



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CROSSOVER SERIES

Gargoyle Crossover Series (XS) help workers move up and over obstructions to similar roof levels and have 45-degree bracing on both sides for stability.



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LADDER SERIES

Gargoyle Ladder Series (LD) helps workers move from one level to another, and have guardrails on the upper side to help prevent a fall to the lower level.





GARGOYLE WALKWAY SERIES

The Gargoyle Walkway Series is designed to create a sure-footed walkway on your rooftop. This fully customizable platform utilizes non-slip materials and is installed above the roof membrane ensuring no damage is being done while in use.

Utilizing our counterweighted base plates and rails, this system can be tailored to any flat roof application, providing safer access to any workspace by eliminating slipping and fall hazards.



EQUIPEMENT MAINTENANCE & ACCESS

GARGOYLE PLATFORM SERIES

Equipment maintenance may require elevated access that can put employees at risk. The use of railed platforms surrounding the equipment will eliminate this risk while improving work performance.

- Custom systems for all applications
- Easy and safe access and maintenance
- Blend in with existing roof aesthetics

Designed to meet or exceed the applicable required safety regulations. Personnel safety, accessibility, modular construction, maintenance, and ease of set-up for re-configuration are often key factors included within the design of these platforms.





HOW TO QUOTE GARGOYLE GUARDRAIL

THE QUOTING PROCESS

Review custom options

Consider all custom options and configurations available and consult your sales rep for recommendations.

Send drawings

Send in a sketch, line drawing, CAD drawing or Google Maps photo with areas of coverage.

Start the calculations

Evaluate the types of hazards, elevations and obstructions on the roof.

Take measurements

Take all necessary measurements of the site and send them to our estimator to generate a quote.

Review pricing

Pricing will be provided by our estimator. Drawings will be provided with the order to allow installers to have a clear idea of where all of the components are to be positioned.



QUESTIONS TO CONSIDER

Are my rooftop openings properly guarded to comply with current working at heights laws?	
Am I, or any of my staff working within 6’ of the roof edge and require fall protection?	
Do I need access to multiple rooftop elevations?	
Are there trip hazards on my rooftop?	
Is there frequently accessed equipment on my roof that may pose a risk?	



RELATED PRODUCTS



FIXED ACCESS LADDERS AND LADDER GUARDRAIL

When you require access to your rooftop, but don't have a rooftop hatch, a fixed access ladder is one of the safest ways to access your rooftop.

We design, engineer, fabricate, inspect and install fixed access ladders. Our fixed access ladders can be customized for your specific application and custom-designed to meet even the most stringent requirements.

When you have created a regular access point to your roof or an elevated platform, you have created an unprotected leading edge. **Gargoyle Ladder Guardrail** solves this potential problem with a system of guardrails designed to create an egress away from the leading edge of your rooftop.





GARGOYLE WARNING LINES

Warning Lines / Bump Lines prevent falls by alerting workers to fall hazards. Warning lines should be set up around the work area at least 2 meters (6 feet 6 inches) from unprotected edges.

When a work area is enclosed by properly installed and maintained warning lines, work inside the area can be done without additional fall protection measures.

Includes:

- Base plates – X shaped base
- Post – 42' vertical pipe inserted in base plates to support cable and flags
- Cable – 500 lbs. breaking strength
- Flags – secured at no more than 6 ft intervals





WHAT'S INCLUDED WITH YOUR PARTNERSHIP?

DEDICATED TEAM

We have a dedicated team of sales reps and a large, highly trained dealer network across North America who are here to assist you with your netting solutions.

Simply email or call – we're ready to answer your questions!

- **Phone:** +1(727) 347-4820 or +1(888) 242-3045
- **Email:** sales@factorysupply.com

ACCESS TO MARKETING MATERIALS & SERVICES

Branded materials are available at your request and include:

- Brochures
- Catalogues
- Power Points
- Price lists
- Specification sheets

Our online Dealer Portal provides easy access to all product information, literature and training needed.

PRODUCT TRAINING & SUPPORT

Your account representative will provide detailed training on our product lines and services. Learn about:

- Our quoting process
- Product details
- Manufacturing process

For Customer Support please do not hesitate to reach out to our team at the contact information below.

- **Phone:** +1(727) 347-4820 or +1(888) 242-3045
- **Email:** sales@factorysupply.com



8001 Tower Point Dr, Charlotte
NC 28227, United States
