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## Bolt-On GR-H2R-BO Guard Rail Systems GR-H2R Posts



GR-H2R-BO Yellow Powder Coat



GR-H2R-BO Galvanized Finish



TP60 and TP72  
not shown

TP18

TP42

### Receiving Instructions

After delivery, remove the packaging from the product. Inspect the product closely to determine whether it sustained damage during transport. If damage is discovered, record a complete description of it on the bill of lading. If the product is undamaged, discard the packaging.

**NOTE:** The end-user is solely responsible for confirming that product design, use, and maintenance comply with laws, regulations, codes, and mandatory standards applied where the product is used.

### Technical Service & Replacement Parts

For answers to questions not addressed in these instructions and to order replacement parts, labels, and accessories, call our Technical Service and Parts Department at (260) 665-7586. The department can also be contacted online at <https://www.vestil.com/page-parts-request.php>.

### Electronic Copies of Instruction Manuals

Additional copies of this instruction manual may be downloaded from <https://www.vestil.com/page-manuals.php>.

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## SPECIFICATIONS

GR-H2R-BO series bolt-on guardrail systems are designed to provide protection against impacts in industrial and commercial settings. Constructed from durable steel, these guardrails are available in various lengths and finishes. They are intended for installation on private property using posts anchored to the ground. These guardrail systems are not designed for installation on public roadways. DOT-compliant versions are available upon request. System performance depends on proper installation as well as the strength of the supporting surface. The following is detailed information about GR-H2R-BO guardrails, derived from similar product data and adjusted for the bolt-on configuration:

- **Available Lengths:** 3ft, 4ft, 5ft, 6ft, 7ft, 8ft, 9ft, 10ft, 11ft, 12ft
- **Finishes:** Yellow Powder Coat (-YL), Hot-Dipped Galvanized (-HDG)
- **Color:** Yellow (Rail), Black (Bracket) for -YL; Gray (Rail), Black (Bracket) for -HDG
- **Material:** Steel
- **Guardrail Dimensions:** 5.5" W x [Length varies by model] L x 12.8125" H
- **Impact Resistance:** 4,000 lb. at 4 mph
- **Mounting Posts Required:** 2 posts for 3ft to 8ft lengths, 3 posts for 9ft to 12ft lengths (posts sold separately)
- **Rail-Mounting Hardware:** Included with rails (for bolt-on attachment)
- **Anchor Kits:** Sold separately for mounting posts to the ground

Specifications for GR-H2R-BO guardrail system components are available online to anyone who visits Vestil's website. These include dimensions, net weight, and finish information. To access model-specific information, navigate to the GR-H2R-BO webpage at <https://www.vestil.com/product.php?FID=654>. Scroll the page to the "Product Specifications Table". Scroll the table until you find your model. Click on the model name (white text inside a blue box), and a pop-up window will open with detailed information about your model. Print a copy of the document and keep it with your copy of this manual. The graphic below is an exemplar specifications pop-up window for model GR-H2R-BO-4-YL.

### Details For Model: GR-H2R-BO-3-YL

#### Steel Straight Guard Rail 36 In Length Yellow



Protect personnel and equipment both visually and physically with this guard rail system. This economical system can be utilized indoors or outdoors. Ideal for protecting corners of buildings and machinery from fork truck and vehicle damage. Choose between one, two, or three high rail systems. Additional posts are available and sold separately. If adding a rail to an existing rail and post section, only a single post is needed.

- Guard rail design protects equipment visually and physically
- Economical system can be utilized indoors or outdoors
- Heavy-duty design protects corners of buildings and machinery from fork truck and vehicle damage
- Steel offers strong reliable protection

<b>Dimensions:</b> 4.625"W x 36"L x 12"H	<b>Sell UOM:</b> EA-Each	<b>Color:</b> Yellow
<b>Material:</b> Steel	<b>UPC:</b> 691215221610	<b>GTIN:</b> 00691215221610
<b>Warranty:</b> --	<b>Shipping Weight:</b> 20	<b>Quickship Item?</b> --
<b>Can It Ship UPS?</b> --	<b>Option?</b> N	<b>Origin:</b> China
<b>Assembly:</b> Assembled	<b>Packaging:</b> BASE_UNIT_OR_EACH	<b>Drawing Required?</b> N
<b>Mounting Posts Required (qty.):</b> 2	<b>Rail Style:</b> Straight	<b>Impact Resistance:</b> 4,000 lb. @ 4 mph
<b>Overlap on Shared Post Deduct (in.):</b> 5	<b>Rail Mounting Hole Slotted (in.):</b> 3/4 x 2-1/2	

**Our Customer Service Associates Are Here To Assist You!**  
**Call Vestil At 260-665-7586 or [info@vestil.com](mailto:info@vestil.com)**

## SIGNAL WORDS

SIGNAL WORDS appear in this manual to draw the reader's attention to important safety-related messages. The following are signal words used in this manual and their definitions.

<b>⚠ DANGER</b>	<b>Identifies a hazardous situation which, if not avoided, <u>WILL</u> result in DEATH or SERIOUS INJURY. Use of this signal word is limited to the most extreme situations.</b>
<b>⚠ WARNING</b>	<b>Identifies a hazardous situation which, if not avoided, <u>COULD</u> result in DEATH or SERIOUS INJURY.</b>
<b>⚠ CAUTION</b>	<b>Indicates a hazardous situation which, if not avoided, <u>COULD</u> result in MINOR or MODERATE injury.</b>
<b>NOTICE</b>	<b>Identifies practices likely to result in product/property damage, such as operation that might damage the product.</b>

## SAFETY INSTRUCTIONS

Vestil strives to identify foreseeable hazards associated with the use of its products, but no manual can address every conceivable risk.

### ⚠ WARNING

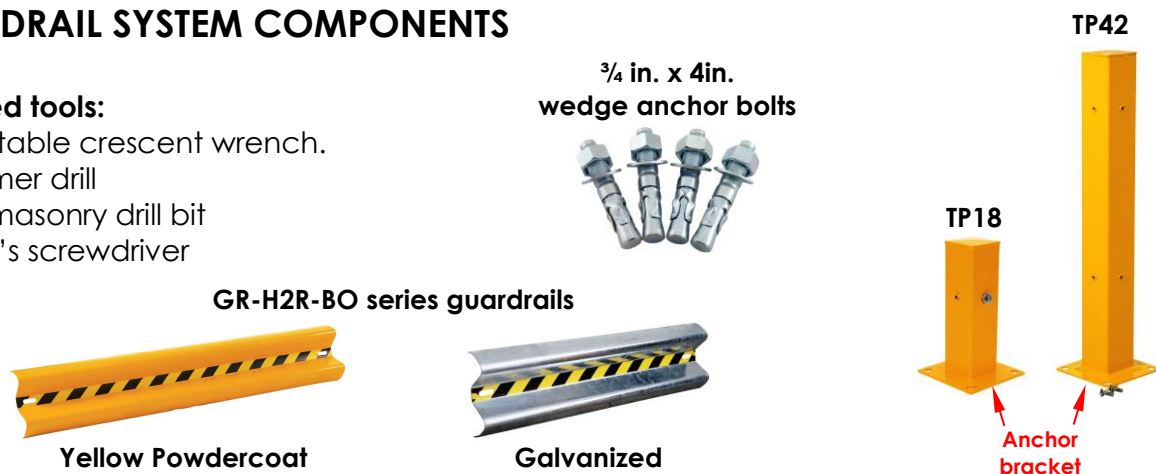
Risks of serious personal injuries or death.

- **Read & understand this manual before installing, inspecting, or servicing the guardrail system.**
- This guard rail system is designed for installation on private property, e.g. in commercial warehouses. Standard units do not provide the level of performance recommended by the U.S. Dept. of Transportation (DOT) and are NOT designed for installation on public roadways. DOT compliant posts are available as special orders.
- An improperly or incompletely installed guardrail system is a safety hazard. Securely anchor each post to the supporting surface, e.g. concrete or asphalt.
- Securely fasten each section of guardrail to 2 posts (1 at either end) using all of the hardware provided.
- Inspect the guardrail regularly for signs of damage, wear, or loose components.
- Do not modify the guardrail without manufacturer approval. Unapproved modifications automatically void the LIMITED WARRANTY on p. 8 and could make the product unsafe to use.
- Keep the area around the guardrail clear of obstructions.
- Do not use the guardrail as a support for heavy equipment or materials.
- Do not climb on or hang from the guardrail.
- Establish procedures for severe impacts or guardrail failure, including area evacuation.
- Train employees on the purpose of the guardrail and how to report damage.
- Use appropriate signage to indicate areas protected by guardrails or to warn of potential hazards.
- In locations accessible to children, install additional barriers or signage to discourage climbing or tampering.
- Inspect the guardrail for damage after any vehicle impact and ensure it remains functional.
- Replace any component immediately after it sustains impact damage.
- Repair or replace components that are not in SATISFACTORY CONDITION as soon as the change in condition is detected. See RECORD OF SATISFACTORY CONDITION on p. 5.
- Do not install the guardrail in areas with extreme weather conditions (e.g., high winds, flooding, seismic activity) or corrosive environments (e.g., chemical exposure, high humidity) unless the system is specifically rated for such conditions.
- Ensure the guardrail is installed at a safe distance from electrical equipment to prevent shock risks. Consult local regulations for clearance requirements.
- Position the guardrail to avoid obstructing emergency exits or evacuation routes.
- Confirm that the guardrail base does not protrude in a way that creates a tripping risk for pedestrians.

## GUARDRAIL SYSTEM COMPONENTS

### Required tools:

- Adjustable crescent wrench.
- Hammer drill
- 3/4" masonry drill bit
- Phillip's screwdriver



**Note 1:** Personal protective equipment (PPE) such as safety glasses, gloves, and steel-toed boots should also be used during installation, as outlined in the Safety Instructions.

**Note 2:** Check the guardrail and posts for any product identification or safety warning labels. Ensure these labels remain legible and intact while in service.

**Note 3:** Ensure the wall is free of electrical wiring or plumbing before drilling.

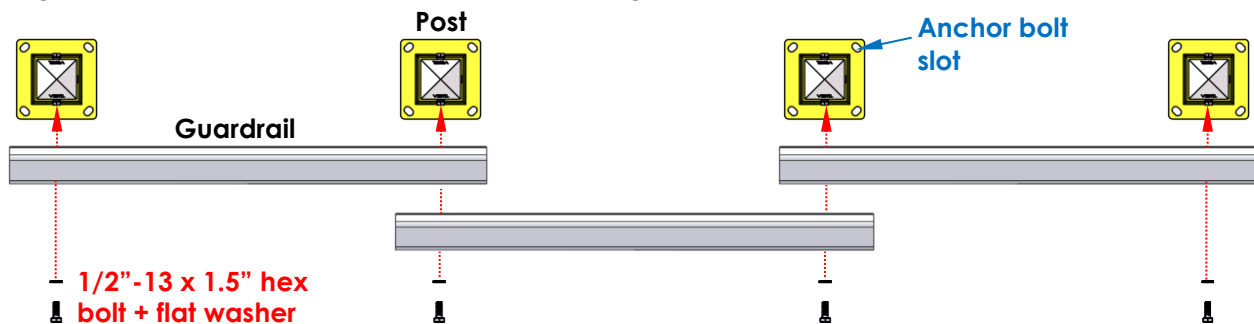
**Note 4:** Ensure the work area is clear of obstructions and tripping hazards.

**Note 5:** Use caution when handling heavy guardrail sections to avoid injury.

## ATTACHING GUARDRAIL SECTIONS TO POSTS

1. Guardrail mounting hardware is included with posts. Each post has two (2) 1/2"-13 x 1.5" ASTM A307B galvanized bolts and 1/2" galvanized flat washers. Remove the bolts and washers from the posts. Align the bolt holes in the piece of guardrail with the selected holes in two posts. Fasten the guardrail section to the posts with the bolts and washers. NOTE: In addition to having a bolt slot at each end of the guardrail section, each 9ft. – 12ft. model (GR-H2R-BO-(9-12)) also has a slot in the center for fastening the guardrail to a third post.

2. Mount multiple sections of guardrail by overlapping the ends of adjacent sections as shown in the diagram. NOTE: Each overlap reduces overall length by 5".



## ANCHORING POSTS TO THE GROUND

1. Place the guardrail system in its installation location.
2. The anchor plate of each post includes 4 anchor bolt slots. Bolt slot diameter is 7/8 in. x 1 1/4". Once you are satisfied with the locations of the posts, mark the concrete with the locations of the bolt holes.
3. Move the guardrail system out of the way and use a hammer drill and a 3/4 in. carbide-tipped masonry bit to drill holes no more than 3 1/4 in. deep into the concrete.
4. Set the system in place. Align bolt holes in the anchor plates with the holes drilled into the concrete.
5. Put a 3/4 in. flat washer followed by a hex nut onto the threaded end of each wedge anchor bolt. Tap the bolts through the base plates and into the drilled holes with a hammer. The nut should stick up above the end of the bolt so that the hammer strikes the nut rather than the end of the bolt.
6. Tighten the nuts to expand the anchoring mechanism against the walls of the bolt holes.

## RECORD OF SATISFACTORY CONDITION (THE “RECORD”)

Record the condition of the guardrail system before putting it into service. Thoroughly photograph the unit from multiple angles. Include close range photographs of post anchor brackets, guardrail fasteners, and labels. Collect all photographs and writings in a single file. This file is a record of the unit in satisfactory condition. Compare the results of all inspections to this *RECORD* to determine whether the unit is in satisfactory condition. Do not use the guardrail system unless it is in satisfactory condition. Purely cosmetic changes, like damaged paint/powdercoat, do not constitute changes from satisfactory condition. However, touchup paint should be applied to all affected areas as soon as damage occurs to prevent rusting and/or corrosion from occurring. Left untreated, rust/corrosion can compromise the structural integrity of the gate.

## INSPECTING & MAINTAINING THE GUARDRAIL SYSTEM

Inspections and repairs should only be performed by qualified persons. Compare the results of each inspection to the [RECORD OF SATISFACTORY CONDITION](#). Do not continue to use the guardrail system unless all parts are in satisfactory condition. Replace parts that are not in satisfactory condition before returning the unit to regular service. *Never make temporary repairs of damaged or missing parts*. Only use manufacturer-approved replacement parts to restore the unit to satisfactory condition. **DON'T GUESS! If you have any questions about the condition of your guardrail, contact the [TECHNICAL SERVICE](#) department.** The phone number is provided on the cover page of this manual.

### A. Recommended Inspections

Regular inspections are essential to ensure guardrails remain effective for as long as possible. Conduct inspections monthly or quarterly, depending on the facility's vehicle traffic and environmental conditions. Perform immediate inspections after any known vehicle impact. The following procedures are recommended based on industry practices:

- **Visual Inspection:** Check for visible damage such as dents, cracks, or corrosion that could compromise structural integrity. Inspect the guardrail for broken welds, cracks, and other damage. Make sure that the guardrail is securely fastened to both posts. Examine post anchor brackets for significant rust or corrosion. Make sure that each post is solidly anchored to the ground.
- **Fastener Check:** Verify that all bolts, anchors, and connections are secure and not loose.
- **Alignment Verification:** Ensure the guardrail is properly aligned and has not shifted from its original position.
- **Obstruction Check:** Confirm that no debris or stored items obstruct the guardrail, which could reduce its effectiveness.

### B. Recommended Maintenance Procedures

Maintenance ensures guardrails remain functional and durable for as long as possible. The following procedures are recommended:

- **Tighten Fasteners:** Regularly tighten any loose bolts or anchors to maintain structural stability.
- **Repair or Replace:** Promptly repair or replace damaged sections to restore full protective capacity.
- **Clean Guardrail:** Remove debris, dirt, or corrosive substances to prevent deterioration.
- **Recoat or Repaint:** Apply protective coatings or paint (match original finish) as needed to prevent corrosion, especially in harsh environments.
- **Address all other issues revealed during an inspection.** Address any issues with wall integrity immediately.

**Note:** Only use Vestil-approved replacement parts to ensure compatibility and safety. Contact Vestil's [TECHNICAL SERVICE AND PARTS DEPARTMENT](#) at (260) 665-7586 for assistance.

## OPTIONAL EQUIPMENT FOR GR-H2R GUARDRAIL SYSTEMS

The GR-H2R guardrail systems, including the GR-H2R-DI drop-in series, are engineered to deliver robust protection for personnel and equipment across a variety of industrial and commercial environments. To enhance the functionality, safety, and adaptability of these systems, Vestil offers a selection of optional equipment. These accessories allow you to customize your guardrail installation to meet specific site requirements, such as improved visibility, added structural support, or unique configurations. This section provides an overview of the optional equipment available for the GR-H2R guardrail systems, detailing each item's purpose, benefits, and how it integrates with the standard guardrail components. Note that some options may be specific to certain styles (e.g., bolt-on or drop-in), so it is important to verify compatibility with your specific system.

### OVERVIEW

The following optional equipment is available for the GR-H2R guardrail systems:

- **End Caps**
- **Brackets**
- **Floor Mounting Hardware** (e.g., (1) 3/4" x 4" Anchor Bolts for Concrete)
- **Spring Posts** (Model: GR-H2R-SP)
- **Flared End Guards** (Model: GR-H2R-TG)
- **Buffer End Guards** (Model: GR-H2R-BG)
- **Curved Guardrail Sections** (e.g., GR-H2R-CRV-BO-4-HDG)
- **Reflectors**

Each item is designed to work seamlessly with the GR-H2R-BO system, providing tailored enhancements for diverse applications.

### 1. End Caps

End caps are protective covers that fit over the open ends of guardrail sections. They give the system a polished look while shielding the interior from debris, dirt, or moisture, reducing the risk of corrosion. Installation is straightforward, typically using screws or clips, depending on the design.

### 2. Brackets

Brackets reinforce connections between guardrail sections and posts or adapt the system for custom layouts. They enhance structural integrity in high-impact zones and provide flexibility for site-specific designs. Brackets are secured using the included hardware, following the same installation process as standard brackets.

### 3. Floor Mounting Hardware

Floor mounting hardware anchors guardrail posts to surfaces like concrete or asphalt. Vestil provides anchor kits, including:

- Single anchor kit: **(1) 3/4" x 4" Anchor Bolt for Concrete**
- Four-pack anchor kit: **(4) 3/4" x 4" Anchor Bolts for Concrete**

These ensure posts remain stable under impact, preventing movement or detachment. Installation requires drilling holes, inserting bolts through the post base plates, and tightening the nuts.

### 4. Spring Posts (Model: GR-H2R-SP)

Spring posts (**Model: GR-H2R-SP**) flex upon impact to absorb energy, reducing damage to the guardrail and impacting objects. This improves safety by minimizing injury risk and wear. They replace standard posts and use the same anchoring methods, ensuring compatibility with existing components.

### 5. Flared End Guards (Model: GR-H2R-TG)

Flared end guards (**Model: GR-H2R-TG**) cover guardrail ends, eliminating sharp edges and protecting against impact damage. They enhance safety by reducing injury hazards from exposed ends. Installation involves bolting or securing them to the guardrail ends with provided hardware.

## 6. Buffer End Guards (Model: GR-H2R-BG)

Buffer end guards (**Model: GR-H2R-BG**) add cushioning to guardrail ends, absorbing impact energy to lessen damage. Ideal for high-traffic areas, they are attached using included hardware, offering an extra layer of protection.

## 7. Curved Guardrail Sections (e.g., GR-H2R-CRV-BO-4-HDG)

Curved guardrail sections (e.g., **GR-H2R-CRV-BO-4-HDG**) are pre-formed for rounded or non-linear layouts, perfect for corners or curved structures. Available in lengths like 48 inches (**GR-H2R-CRV-BO-4-HDG**) or 72 inches (**GR-H2R-CRV-BO-6-HDG**), they maintain a smooth appearance and install with standard brackets and posts, adjusted for curvature.

## 8. Reflectors

Reflectors boost visibility in low-light conditions, attaching to guardrail sections to alert vehicle operators and pedestrians. They reduce collision risks and are typically adhesive or clip-on, placed at regular intervals.

## OPTIONAL EQUIPMENT INSTALLATION CONSIDERATIONS

When adding optional equipment to your GR-H2R-BO system:

- Evaluate site requirements to choose the most suitable options.
- Confirm compatibility with the bolt-on style by reviewing product specs or contacting Vestil's [TECHNICAL SERVICE](#).
- Install foundational items like floor mounting hardware before adding accessories like reflectors.
- Adhere to local safety codes and standards.

Vestil's optional equipment offerings for GR-H2R guardrail systems allow customers to customize their guardrail solutions to enhance safety, functionality, and appearance. Selecting the right accessories ensures optimal protection tailored to your facility. Contact Vestil's [TECHNICAL SERVICE](#) for assistance with selection or installation, or to discuss options for enhancing, expanding, or upgrading your guardrail systems.



## LIMITED WARRANTY

Vestil Manufacturing Company ("Vestil") warrants GR-H2R series guardrail system components to be free of defects in material and workmanship during the warranty period. Our warranty obligation is to provide a replacement for a defective, original part covered by the warranty after we receive a proper request from the Warrantee (you) for warranty service.

### Who may request service?

Only a warrantee may request service. You are a warrantee if you purchased the product from Vestil or from an authorized distributor AND Vestil has been fully paid.

### Definition of "original part"?

An original part is a part used to make the product as shipped to the Warrantee.

### What is a "proper request"?

A request for warranty service is proper if Vestil receives: 1) a photocopy of the Customer Invoice that displays the shipping date; AND 2) a written request for warranty service including your name and phone number. Send requests by one of the following methods:

US Mail  
Vestil Manufacturing Company  
2999 North Wayne Street, PO Box 507  
Angola, IN 46703

Fax  
(260) 665-1339  
Phone  
(260) 665-7586

Email  
[info@vestil.com](mailto:info@vestil.com)  
Enter "Warranty service request" in subject field.

In the written request, list the parts believed to be defective and include the address where replacements should be delivered. After Vestil receives your request for warranty service, an authorized representative will contact you to determine whether your claim is covered by the warranty. Before providing warranty service, Vestil will require you to send the entire product, or just the defective part (or parts), to its facility in Angola, IN.

### What is covered under the warranty?

The warranty covers defects in the following original, dynamic parts: motors, hydraulic pumps, motor controllers, and cylinders. It also covers defects in original parts that wear under normal usage conditions ("wearing parts"), such as bearings, hoses, wheels, seals, brushes, and batteries.

### How long is the warranty period?

The warranty period for original dynamic components is 90 days. For wearing parts, the warranty period is 90 days. Both warranty periods begin on the date Vestil ships the product to the Warrantee. If the product was purchased from an authorized distributor, the periods begin when the distributor ships the product. Vestil may, at its sole discretion, extend a warranty period for products shipped from authorized distributors by up to 30 days to account for shipping time.

### If a defective part is covered by the warranty, what will Vestil do to correct the problem?

Vestil will provide an appropriate replacement for any covered part. An authorized representative of Vestil will contact you to discuss your claim.

### What is not covered by the warranty?

The Warrantee (you) are responsible for paying labor costs and freight costs to return the product to Vestil for warranty service.

### Events that automatically void this Limited Warranty.

- Misuse;
- Negligent assembly, installation, operation or repair;
- Installation/use in corrosive environments;
- Inadequate or improper maintenance;
- Damage sustained during shipping;
- Collisions or other accidents that damage the product;
- Unauthorized modifications: Do not modify the product IN ANY WAY without first receiving written authorization from Vestil.

### Do any other warranties apply to the product?

Vestil Manufacturing Co. makes no other express warranties. All implied warranties are disclaimed to the extent allowed by law. Any implied warranty not disclaimed is limited in scope to the terms of this Limited Warranty. Vestil makes no warranty or representation that this product complies with any state or local design, performance, or safety code or standard. Noncompliance with any such code or standard is not a defect in material or workmanship.