



VESTIL MANUFACTURING CORP.

2999 North Wayne Street, P.O. Box 507, Angola, IN 46703

Telephone: (260) 665-7586 -or- Toll Free (800) 348-0868

Fax: (260) 665-1339

www.vestilmfg.com e-mail: sales@vestil.com

BOL SERIES BOLLARDS

INSTRUCTION MANUAL



Receiving instructions:

After delivery, IMMEDIATELY remove the packaging from the product in a manner that preserves the packaging and maintains the orientation of the product in the packaging; then inspect the product closely to determine whether it sustained damage during transport. **If damage is discovered during the inspection, immediately record a complete description of the damage on the bill of lading.** If the product is undamaged, discard the packaging.

NOTES:

1) Compliance with laws, regulations, codes, and non-voluntary standards enforced in the location where the product is *used* is exclusively the responsibility of the owner/end-user.

2) VESTIL is **not liable** for any injury or property damage that occurs as a consequence of failing to apply either:
a) Instructions in this manual; or b) Information provided on labels affixed to the product. Neither is Vestil responsible for *any* consequential damages sustained as a result of failing to exercise sound judgment while assembling, installing, using or maintaining this product.





Table of Contents

Hazard identification: explanation of signal words.....	2
Safety Guidelines.....	2
Product specifications.....	2
Installation instructions.....	3
Inspections & maintenance.....	3
Limited warranty.....	4

Hazard Identification: Explanation of SIGNAL WORDS

This manual uses SIGNAL WORDS to indicate the likelihood of personal injuries, as well as the probable seriousness of those injuries, if the product is misused in the ways described. Other signal words call attention to uses of the product likely cause property damage.


The signal words used appear below along with the meaning of each word:

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

Each person who assembles, installs, uses, or maintains this product should read the entire manual in advance and fully understand the directions. If after reading the manual you do not understand an instruction, ask your supervisor or employer for clarification, because **failure to adhere to the directions in this manual might result in serious personal injury**.

Safety Guidelines

Vestil diligently strives to identify foreseeable hazards associated with the use of its products. However, no manual can address every conceivable risk. The end-user ultimately is responsible for exercising sound judgment at all times.

 WARNING	If this product is used improperly or carelessly, the operator and/or bystanders might sustain serious personal injuries. ALWAYS use the product properly:
	<ul style="list-style-type: none"> • <i>Failure to read and understand the entire manual before assembling, installing, using or servicing the product constitutes misuse.</i> Read the manual to refresh your understanding of proper use and maintenance procedures. • DO NOT modify the bollard. Modifications automatically void the Limited Warranty and might make the bollard unsafe to use.

Product Specifications

Specifications for each of the three BOL-R series bollards appear in the table below:

Model	Height	Outside Diameter	Base Plate Dimensions	Net Weight
BOL-24-2	24in. (61cm)	1 ³ / ₄ in. (4.4cm)	4in. x 4in. (10.2cm x 10.2cm)	12 lb. (5.5kg)
BOL-36-2	36in. (91cm)	1 ³ / ₄ in. (4.4cm)	4in. x 4in. (10.2cm x 10.2cm)	15 lb. (6.8kg)
BOL-42-2	42in. (107cm)	1 ³ / ₄ in. (4.4cm)	4in. x 4in. (10.2cm x 10.2cm)	16 lb. (7.3kg)
BOL-48-2	48in. (122cm)	1 ³ / ₄ in. (4.4cm)	4in. x 4in. (10.2cm x 10.2cm)	22 lb. (10kg)
BOL-24-4.5	24in. (61cm)	4 ¹ / ₂ in. (11.4cm)	8in. x 8in. (20.3cm x 20.3cm)	34 lb. (15.5kg)
BOL-36-4.5	36in. (91cm)	4 ¹ / ₂ in. (11.4cm)	8in. x 8in. (20.3cm x 20.3cm)	45 lb. (20.5kg)
BOL-42-4.5	42in. (107cm)	4 ¹ / ₂ in. (11.4cm)	8in. x 8in. (20.3cm x 20.3cm)	50 lb. (22.7kg)
BOL-48-4.5	48in. (122cm)	4 ¹ / ₂ in. (11.4cm)	8in. x 8in. (20.3cm x 20.3cm)	56 lb. (25.5kg)
BOL-24-5.5	24in. (61cm)	5 ¹ / ₂ in. (14cm)	8in. x 8in. (20.3cm x 20.3cm)	42 lb. (19.1kg)
BOL-36-5.5	36in. (91cm)	5 ¹ / ₂ in. (14cm)	8in. x 8in. (20.3cm x 20.3cm)	57 lb. (26kg)
BOL-42-5.5	42in. (107cm)	5 ¹ / ₂ in. (14cm)	8in. x 8in. (20.3cm x 20.3cm)	69 lb. (31.4kg)
BOL-48-5.5	48in. (122cm)	5 ¹ / ₂ in. (14cm)	8in. x 8in. (20.3cm x 20.3cm)	78 lb. (35.5kg)
BOL-36-6.5	36in. (91cm)	6 ¹ / ₂ in. (16 ¹ / ₂ cm)	8in. x 8in. (20.3cm x 20.3cm)	69 lb. (31.4kg)
BOL-42-6.5	42in. (107cm)	6 ¹ / ₂ in. (16 ¹ / ₂ cm)	8in. x 8in. (20.3cm x 20.3cm)	83 lb. (37.7kg)
BOL-48-6.5	48in. (122cm)	6 ¹ / ₂ in. (16 ¹ / ₂ cm)	8in. x 8in. (20.3cm x 20.3cm)	94 lb. (42.7kg)
BOL-36-8.5	36in. (91cm)	8 ¹ / ₂ in. (21.6cm)	10in. x 10in. (25.4cm x 20.3cm)	84 lb. (38.2kg)
BOL-42-8.5	42in. (107cm)	8 ¹ / ₂ in. (21.6cm)	10in. x 10in. (25.4cm x 20.3cm)	101 lb. (45.9kg)
BOL-48-8.5	48in. (122cm)	8 ¹ / ₂ in. (21.6cm)	10in. x 10in. (25.4cm x 20.3cm)	115 lb. (52.3kg)

Installation Instructions:

Select anchor bolts appropriate for your bollard from the table below:

Model	*Anchor bolt kit	Anchor bolt specifications	Diameter of bolt hole required	Depth of bolt hole
BOL-##-2	BOL-ABK-3	$\frac{3}{8}$ in. x $4\frac{1}{4}$ in.	$\frac{3}{8}$ in.	$2\frac{1}{4}$ in.
BOL-##-4.5	BOL-ABK-4	$\frac{3}{4}$ in. x $4\frac{1}{4}$ in.	$\frac{3}{4}$ in.	$3\frac{1}{4}$ in.
BOL-##-5.5	BOL-ABK-4	$\frac{3}{4}$ in. x $4\frac{1}{4}$ in.	$\frac{3}{4}$ in.	$3\frac{1}{4}$ in.
BOL-##-6.5	BOL-ABK-4	$\frac{3}{4}$ in. x $4\frac{1}{4}$ in.	$\frac{3}{4}$ in.	$3\frac{1}{4}$ in.
BOL-##-8.5	BOL-ABK-4	$\frac{3}{4}$ in. x $4\frac{1}{4}$ in.	$\frac{3}{4}$ in.	$3\frac{1}{4}$ in.

*Anchor bolt kits are not included, but must be purchased separately.

1. Place the bollard in the desired installation location.
2. The base plate of each bollard includes 4 bolt holes/slots. Mark the concrete with the location of each bolt hole.
3. Using a hammer drill and either a $\frac{3}{8}$ in. or $\frac{3}{4}$ in. masonry bit based on the necessary bolt hole diameter indicated in the table above, drill a hole to the appropriate depth in the concrete (also indicated in table).
4. Set the bollard in place and align the bolt holes in the base plate with the holes drilled into the concrete.
5. Put a flat washer followed by a hex nut onto the threaded end of each wedge anchor bolt; then tap the bolts through the hole in the base plate 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. The bollard should now be solidly anchored to the surface.

Inspections & Maintenance:

At least once per month:

- Try to wiggle the bollard to determine the soundness of the connections between the anchor bolts and the surface. If the bollard can wobble determine if any of the bolts are loose and tighten them. If the concrete around the anchors is damaged and the anchor itself is loose, the bollard will have to be installed in another location.
- Wipe dirt and grime from the surface of the bollard.

LIMITED WARRANTY

Vestil Manufacturing Corporation ("Vestil") warrants this product 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 if the part is 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.*

What is an "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 any of the following methods:

<u>Mail</u>	<u>Fax</u>	<u>Email</u>
Vestil Manufacturing Corporation 2999 North Wayne Street, PO Box 507 Angola, IN 46703	(260) 665-1339 <u>Phone</u> (260) 665-7586	sales@vestil.com

In the written request, list the parts believed to be defective and include the address where replacements should be delivered.

What is covered under the warranty?

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 may require you to send the entire product, or just the defective part or parts, to its facility in Angola, IN. The warranty covers defects in the following original dynamic components: motors, hydraulic pumps, electronic controllers, switches 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 components is 15 days. The warranty period begins on the date when Vestil ships the product to the warrantee. If the product was purchased from an authorized distributor, the period begins when the distributor ships the product. Vestil may extend the warranty period for products shipped from authorized distributors by up to 30 days to the duration necessary 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?

1. Labor;
2. Freight;
3. Occurrence of any of the following, which automatically voids the warranty:
 - Product misuse;
 - Negligent operation or repair;
 - Corrosion or use in corrosive conditions;
 - Inadequate or improper maintenance;
 - Damage sustained during shipping;
 - Accidents involving the product;
 - Unauthorized modifications: DO NOT modify the product IN ANY WAY without first receiving written authorization from Vestil. Modification(s) might make the product unsafe to use or might cause excessive and/or abnormal wear.

Do any other warranties apply to the product?

Vestil Manufacturing Corp. 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.

