

# Fixed Vertical Access Ladder

BL-A	Fixed vertical ladder without cage
BL-A-WH	Fixed vertical ladder with safety cage
BL-A-WG	Fixed vertical ladder with safety cage and guard rail

## Installation, Operation & Maintenance Manual

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## » General Information

### Introduction

The information contained within this document only applies to the roof access solutions that are listed below:

- **BL-A** Fixed vertical ladder without cage.
- **BL-A-WH** Fixed vertical ladder with safety cage. (Typically used to access roof areas where access is through a roof hatch)
- **BL-A-WG** Fixed vertical ladder with safety cage and guard rail. (Typically used to access roof areas or mezzanine floors where exterior access is required.)

It is the responsibility of the installer to ensure that all local, regional, and national regulations are observed.

It is the responsibility of the installer to make sure that the installation and user instructions are available to the personnel who install and use the ladder systems and that the information given, such as instructions, warnings and safety requirements are followed in every detail.

All assemblies and installations should be conducted by a competent installer. And should be risk assessed prior to any work being conducted.

We accept no responsibility for any issues arising from unsafe or incorrect assembly or installation.

### Improvements and Changes

Bilco UK Ltd are continually improving their products to meet and exceed the customer's needs and therefore reserve the right to make improvements and changes when practical to do so, without incurring any obligation to make changes and additions to equipment which has been sold previously.

### Manufacturer

The access solutions covered in this document are manufactured by Bilco UK Limited.



## » Safety Guidelines

### Basic Safety when Installing

- The ladder must only be installed by a trained, competent person.
- All installations should be conducted following detailed, site-specific method statements and risk assessments.
- Ladders should be installed using suitable, safe access equipment specific to the environment where the ladder is being installed and users conducting the installation.
- Consideration should always be given to the manual handling required in the installation of the ladder.
- The ladder should be installed in accordance with the recommendations of BS4211:2005 + A1 2008.

### Basic Safety when Using

- The ladder must only be used by trained, competent people.
- The ladder should not be used to transport equipment or goods.
- Fixed vertical ladders should only be used for occasional access.

### Duties, Liabilities, and Warranties

No liability shall be assumed for damages to persons and property which has occurred due to one or more of the following reasons:

- Unintended use of the access ladder system.
- Incorrect installation of the access ladder system.
- Use of the access system with defective safety equipment or incorrectly installed.
- Non-functional safety and protective equipment.
- Ignorance or non-observance of these installation and use instructions.
- Insufficiently qualified or insufficiently instructed installation and operating personnel.
- Improperly performed repairs.
- Use of non-genuine spare parts.
- Unauthorised structural modifications to the access system.
- Insufficient monitoring of components that are subject to wear and tear.
- Catastrophes caused by foreign objects and acts of providence.

## » Product Data

### Description

Bilco access ladders are a prefabricated modular system that bolt together to form a fully compliant vertical access ladder.

### Ladder Specification

- Alloy Class 1 Stiles - 70 x 25mm box section
- Class 1 heavy duty rung.
- Standoff brackets from 50 x 10mm alloy bar
- Fixings in stainless steel & dome head bolts
- Guard rail height: 1100mm
- Ladder width: 490mm
- Finish: All alloy mill finish
- Safety cage: cages above 2200-3000mm
- Strap: 50 x 10mm alloy bar - 5 x straps as BS4211: 2005 + A1 2008

In order to meet the recommendations of BS4211:2005 + A1 2008 where a ladder breaks existing handrail a self-closing gate should be fitted.

### Testing

The access solutions covered in this document are designed and tested in accordance with the following legislation:

- BS EN 4211-2005 + A1-2008  
Permanently fixed ladders.
- BS EN 131-2-2010 + A2-2017  
Ladders - requirements, testing and marking.
- HSG 33  
Health and safety in roof work.

### Fixing Structure

We would recommend using fixings with a minimum diameter of 12mm, however the choice of fixing should be made by a competent person and may alter to suit the fixing structure.

The structure to which the ladder is fixed should be suitable to take the loads imposed by the ladder and future users.

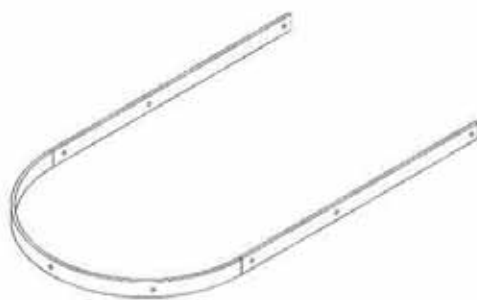
### BS4211:

*"They shall be capable of supporting a vertical load of 3 kN per stile together with a pull-out load of 0.5 kN."*

## » Component Identification



FVL-LA-002  
Ladder Section



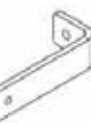
FVL-SC-218  
Guard Rail Top Hoop



FVL-SC-211  
Rolled Hoop



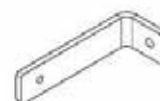
FVL-GR-008  
Guard Rail Upright  
Assembly



FVL-SO-006  
Ladder Standoff Bracket



FVL-TS-005  
Top Step Assembly



FVL-SC-212  
Vertical Strap



FVL-MF-213  
M10 x 35mm  
Coach Bolt



FVL-MF-207  
M10 x 50mm  
Hex Head Bolt



FVL-MF-218  
M10 x 30mm  
Button Head Bolt

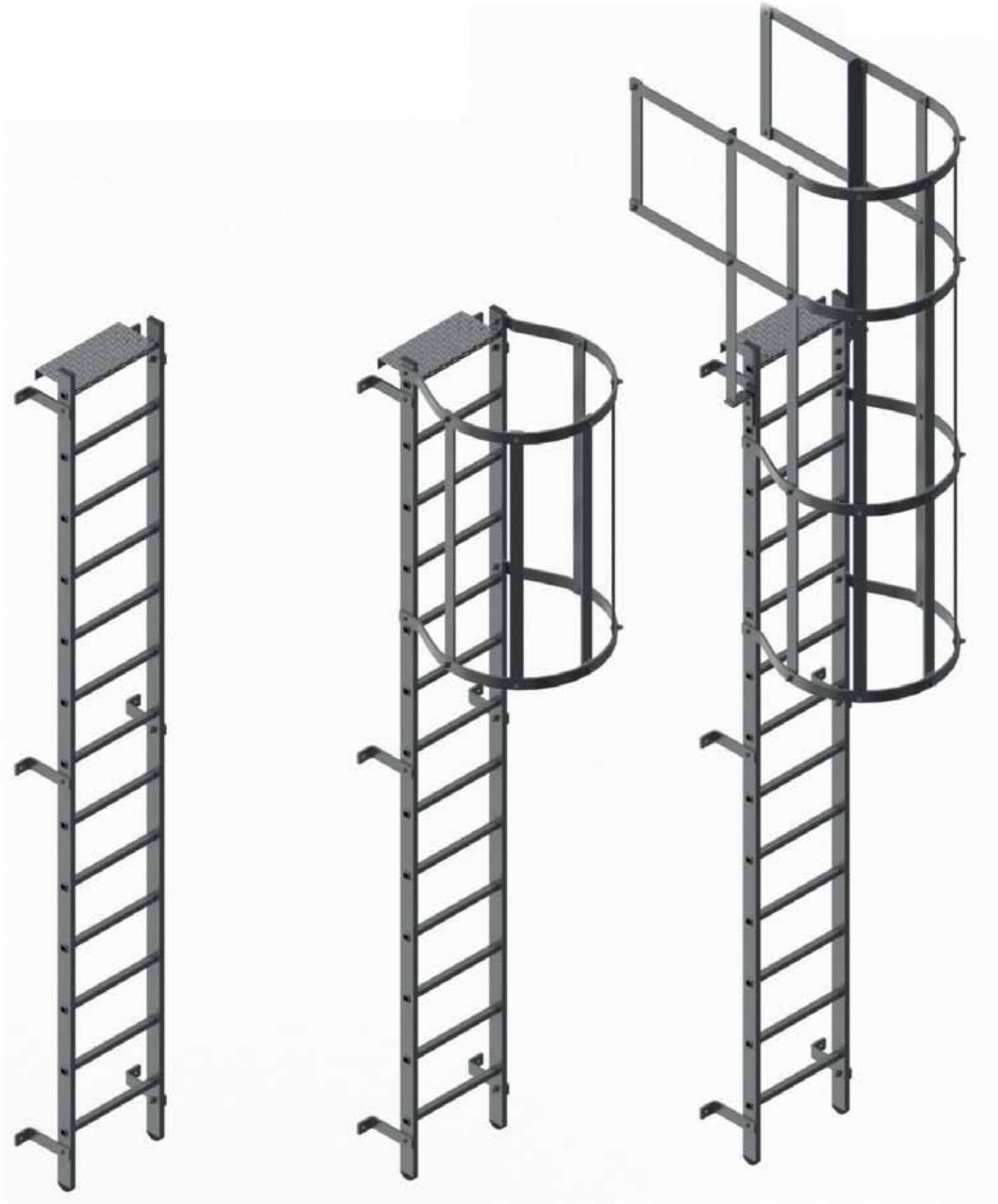


FVL-MF-210  
M10 Washer



FVL-MF-208  
M10 Dome Nut

» Typical Ladder Configurations



Fixed Vertical Ladder  
(BL-A)

Fixed Vertical Ladder  
with Safety Cage  
(BL-A -WH)

Fixed Vertical Ladder  
with Safety Cage and Guard Rail  
(BL-A -WG)

## » Recommended Installation Tools

The Ladder system will arrive on site in kit form. Before beginning the installation ensure that you have all the required tools and ancillary components such as fixing brackets or support feet to complete the installation.



Protective Gloves



Safety Goggles or  
Other Eye Protection



6mm Hex Tool  
(Allen Key)



17mm Socket  
and Wrench



17mm Spanner



Tape Measure



Spirit Level

(Note: Assembly tools are not provided as part of the Ladder kits)

## » Standoff Brackets

### Upper Standoff

Holes will be predrilled for the Standoff brackets to be positioned but if they require moving to avoid collision then they should be no more than 500mm from the top of the ladder stile.

### Standoff Centers

Standoff brackets must be fixed at centers that do not exceed 2.4m.

### Lower Standoff

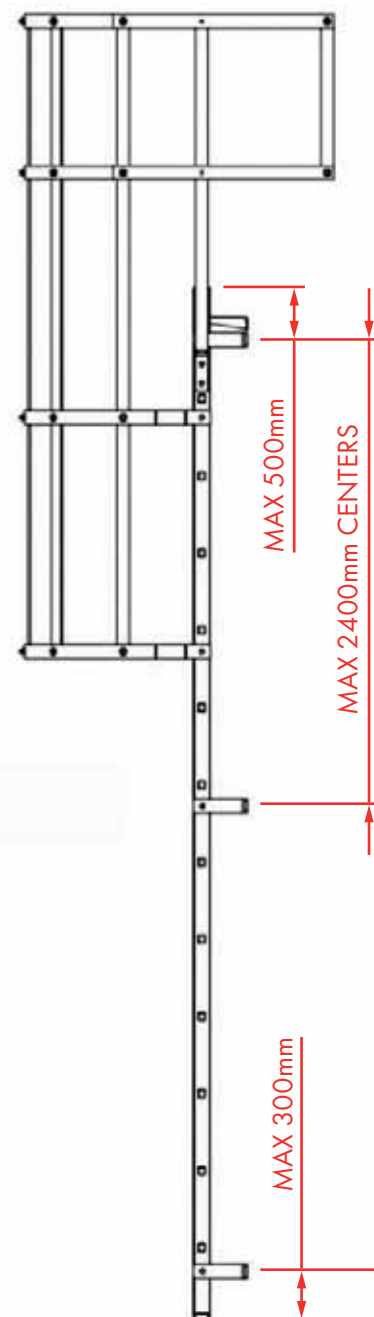
The lower standoff brackets should be fixed within 300mm of the bottom of the ladder and when required can be fixed into the floor.

### Standoff Fixings

- FVL-MF-207 M10 x 50mm hex head bolt
- FVL-MF-210 M10 washer
- FVL-MF-208 M10 dome nut



Use M10 x 50 hex head bolts and M10 dome head nut to attach the Standoff brackets to the ladder stiles.

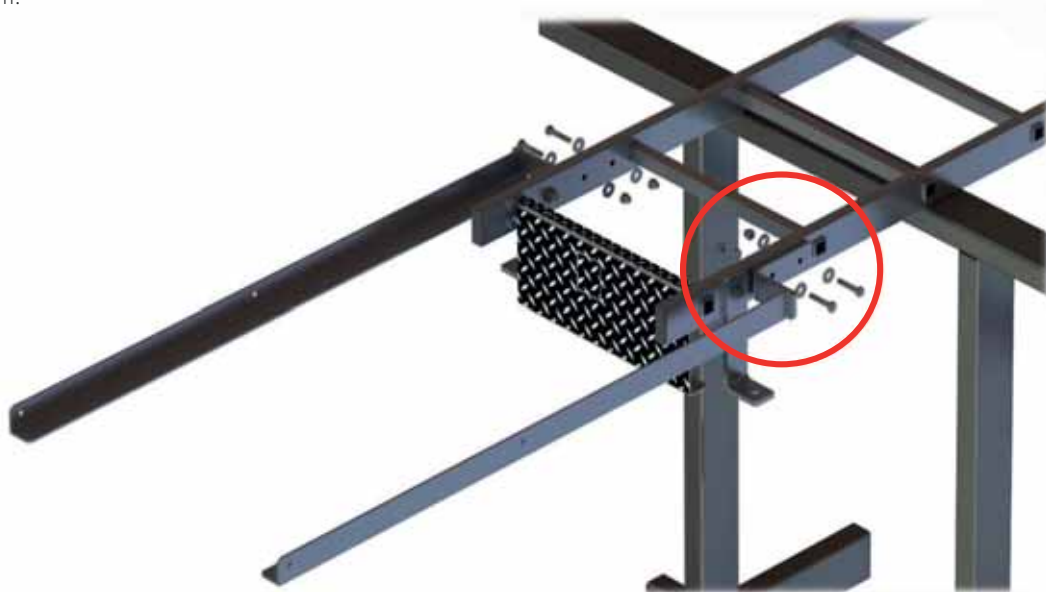




## » Cage Assembly BL-A-WG

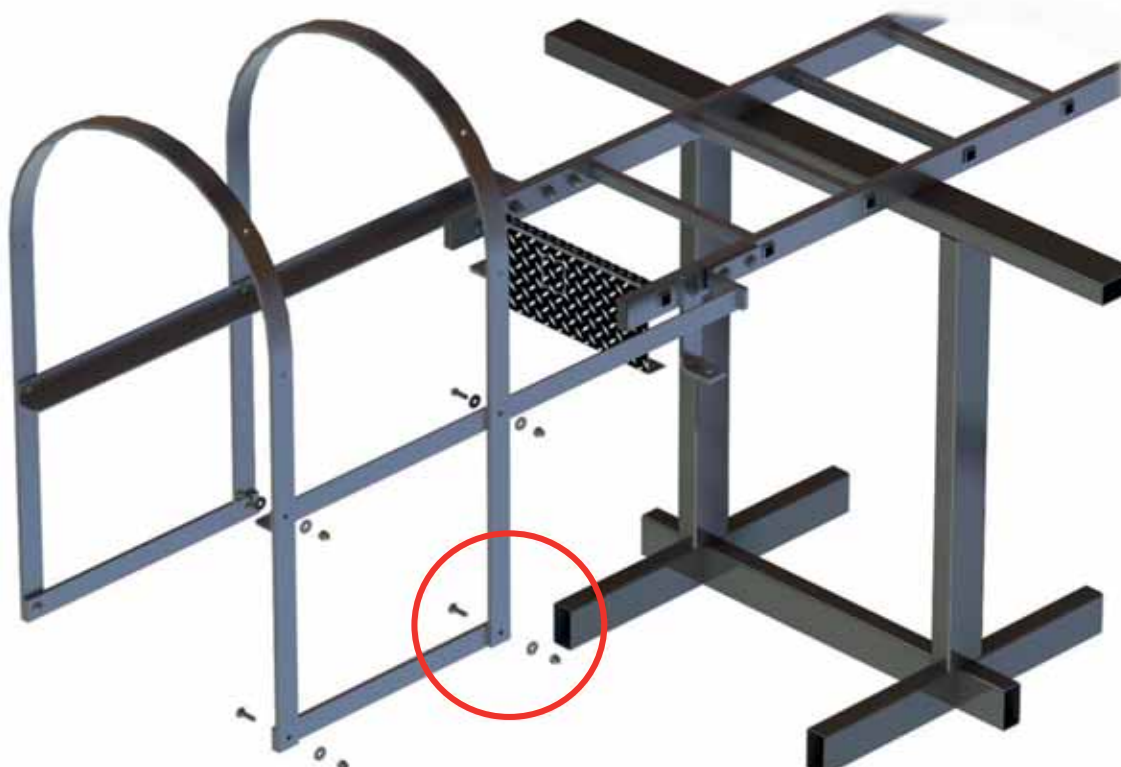
### 1. Attach Guard Rail Uprights to the Ladder Stiles

To attach the guard rail upright posts to the ladder stiles use M10 x 50 hex head bolts and M10 dome head nuts with washers on both sides. Ensure they run parallel to the strings and Torque to 57.3Nm.



### 2. Attach Guard Rail Hoops

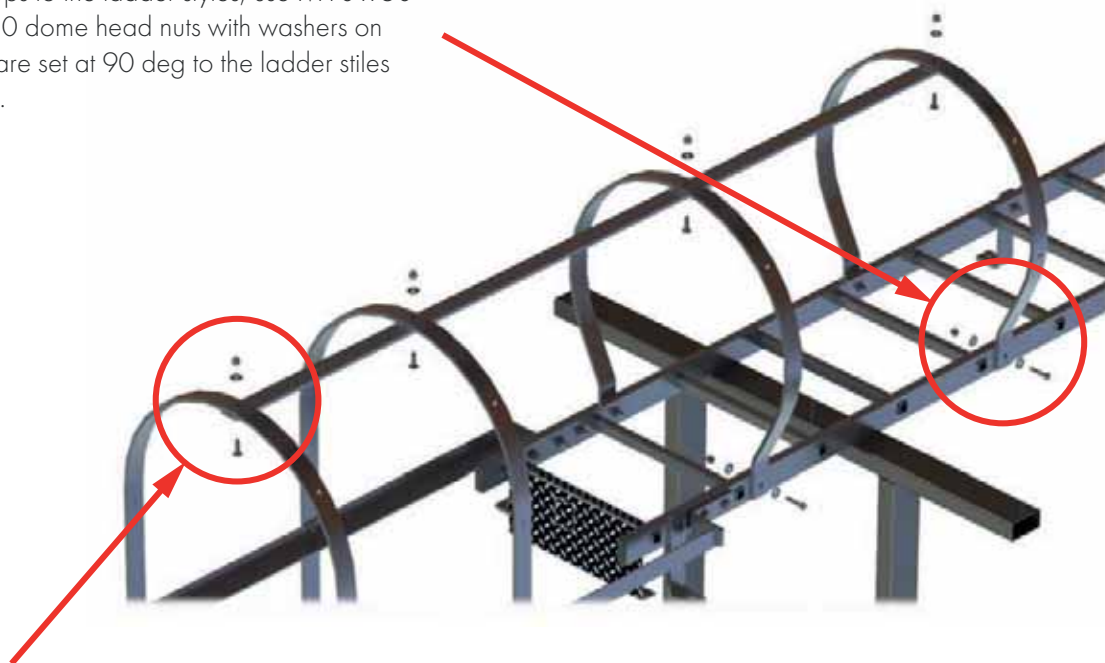
To attach the guard rail top hoops to the uprights, use M10 x 30 dome head bolts and M10 dome head nuts with washers on both sides. Torque to 57.3Nm. Care should be taken to ensure the second guard rail hoop is positioned in the pre-punched holes 550mm down from the upper hoop.





### 3. Attach Lower Safety Hoops

To attach the safety hoops to the ladder styles, use M10 x 50 hex head bolts and M10 dome head nuts with washers on both sides. Ensure they are set at 90 deg to the ladder stiles and Torque to 57.3Nm.



### 4. Bolt Strap to Hoop

Fix the pre punched center strap to the safety hoops using M10 x 35 Coach bolts with the dome head nut and M10 washer on the outside of the hoop. Torque to 57.3Nm.



### 5. Finished Assembly

Fit the remaining vertical straps to finish assembling the ladder (x5 total). Use M10 x 35 Coach bolts with the dome head and M10 washer on the outside of the hoop. Torque to 57.3Nm.

## » Cage Assembly BL-A-WH

### Fixed Vertical Ladders

For fixed vertical ladders with cage only, follow the same assembly procedure as shown on the previous pages but starting from step 3.



## » Post Installation & Annual Maintenance

A competent person should periodically inspect the roof access unit. The frequency of these inspections will depend upon the environment, location and utilisation, but should be at least every twelve months.

### Maintenance Checklist

- Check that the bolts and nuts that connect the ladder components are intact, secure, fully tightened, and free from any corrosion or damage.
- Check that the bolts and nuts that connect the support feet/brackets are intact, secure, fully tightened, and free from any corrosion or damage.
- Check that the fixings that secure the ladder back to the substrate are secure, fully tightened, and free from any corrosion or damage.
- Check that the support feet are secure and are not damaged in any way.
- Check that the ladder rungs are not damaged or missing.
- Check that there are no spillages of liquids on the ladder rungs or platform that may cause corrosion or make them slippery.
- Check that nothing has been placed on or fixed to the ladder unit that may make it unsafe or difficult to use.

## » Additional Notes

It may be necessary to consult the original drawings to verify that the access unit has not been modified since installation.

If you require any further information or have any problems installing your guard rail system that cannot be resolved using the information covered in this manual, you can obtain further information directly from Bilco UK Limited.

From time-to-time technical amendments may take place affecting this guard rail system, although every effort will be made to ensure this document remains up to date, it is your responsibility to contact the manufacturer if you have any queries.

## » Options

### LadderUp® Safety Post

This telescopic post permanently mounts to the top two rungs of ladder, providing a positive hand-hold and enabling the user to exit an opening in an upright and balanced position.

Available in four different finishes.



### Security Gates

Hinged gate for TYPE BL-A, BL-A-WH & BL-A-WG Fixed Vertical Ladders.

- 3mm Aluminum plate.
- Galvanized Steel hinge.
- Padlock fixing (padlock not included).



Hook on Safety Gate



Type 1 Safety Gate



Type 2 Safety Gate

**» CONTACT US**

**SAFE ACCESS ALL AREAS**

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