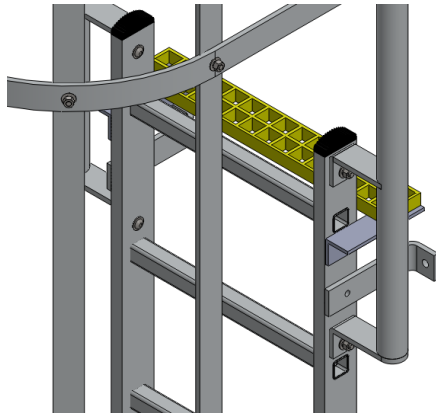
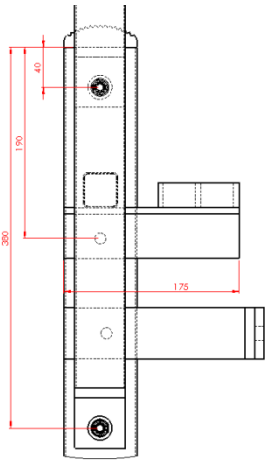


VERTICAL LADDERS:

FITTING INSTRUCTIONS

**BRITISH STANDARD:
BS4211:2005 + A1 2008**

FIXING BRACKETS: FITTING NOTES

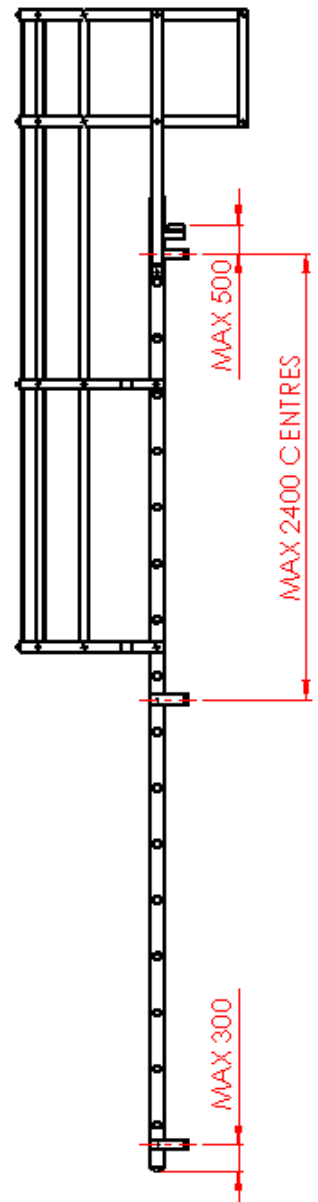


Upper Stand-off Bracket

We would recommend fitting the upper stand off bracket in the space reserved between the infill platform and the lower fixing of the flared post, if this is not possible the top bracket should be fixed with 500mm of the top of the ladder.

THE INFILL STEP (AND TOP RUNG) MUST BE LEVEL WITH THE STEP OFF POINT

1. **Upper Stand-off Bracket:** Must be within 500mm of the top of the ladder
2. **Fixing Centres:** Brackets must be fixed at centres not exceeding 2.4m
3. **Lower Stand-off Brackets:** Where possible we would recommend fixing the lower brackets into the floor, if this is not possible the brackets should be fixed within 300mm of the bottom of the ladder
4. **Fixing Structure:** The structure to which the ladder is fixed should be suitable to take the loads imposed by the ladder and future users
5. **Fixings:** We would recommend using fixings with a minimum diameter of 10mm, however the choice of fixed should be made by a competent person and may alter to suit the fixing structure



Please Note:

The above is a suggested assembly method; all assemblies and installations should be carried out by a competent installer and should be risk assessed prior to any works being carried out.

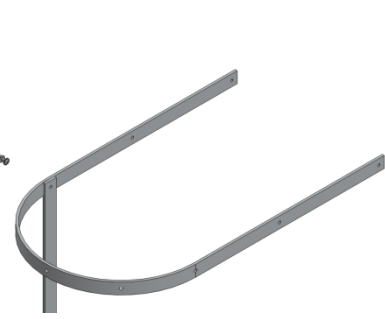
T&I Solutions accepts no responsibility for any issues arising from unsafe or incorrect assembly or installation

TYPICAL COMPLETED LADDER, WALKTHROUGH & CAGE ASSEMBLY

Typically used to access roof areas or mezzanine floors where exterior access is required

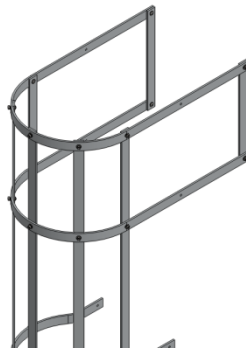


WALKTHROUGH CAGE ASSEMBLY



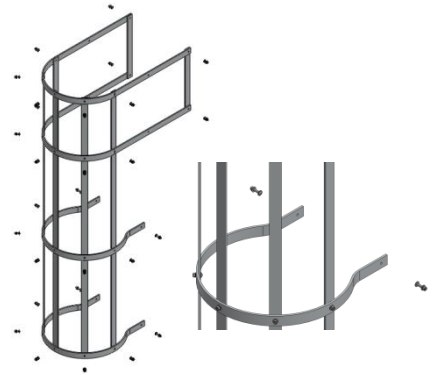
1: Bolt Strap to Hoop

Use M10 x 35 bolt with dome head facing inwards. The longer hoops should always be fitted to the top of the strap



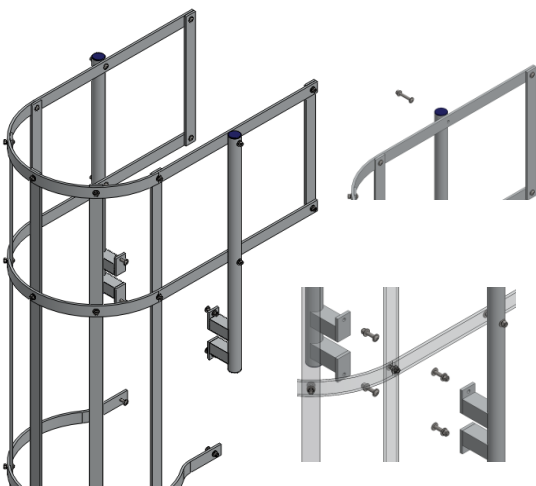
2: Fit remaining strap to upper hoop

Use M10 x 35 bolt with dome head facing inwards to fix all strap in place. Care should be taken to ensure the 2nd long hoop is positioned in the pre-drilled holes 550mm down from the upper hoop



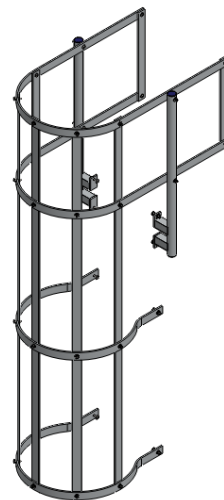
3: Fit remaining Hoops

Use M10 x 35 bolt with dome head facing inwards in pre drilled holes on strap. Use M10 x 55 bolt with dome head facing inwards in end holes where ladder connection is required



4: Fit Walkthrough Posts

Use M10 x 80 dome bolts to attached the posts to the long hoops and M10 x 55 bolts to fit the posts to the ladder; all bolts should be fitted with dome head facing inwards.



5: Complete Cage

Ensure all bolts are fully tightened and all washers are in place the cage is now complete

Please Note:

The above is a suggested assembly method; all assemblies and installations should be carried out by a competent installer and should be risk assessed prior to any works being carried out.

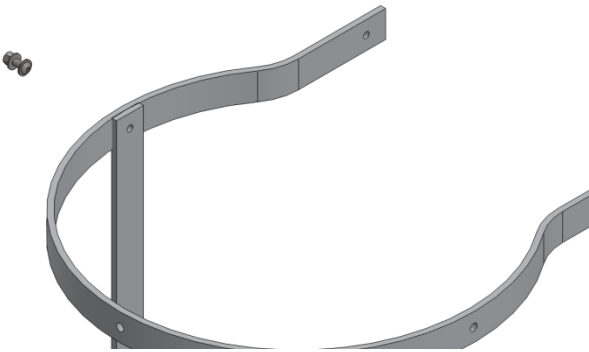
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TYPICAL COMPLETED LADDER & CAGE ASSEMBLY

Typically used to access roof areas where access is through a roof hatch

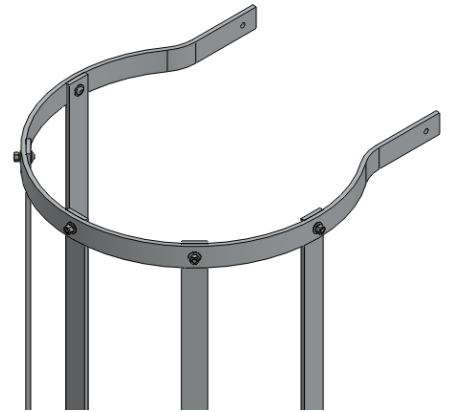


HATCH ACCESS CAGE ASSEMBLY



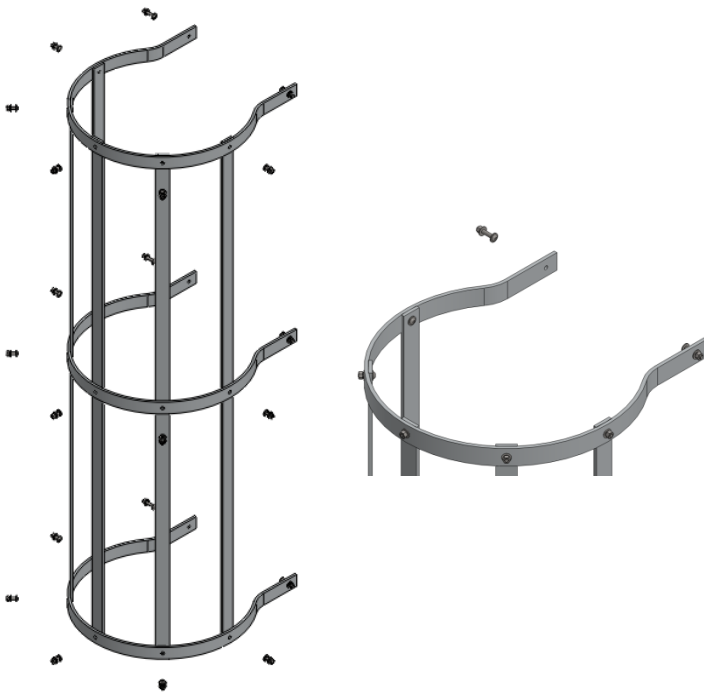
1: Bolt Strap to Hoop

Use M10 x 35 bolt with dome head facing inwards



2: Fit remaining strap to upper hoop

Use M10 x 35 bolt with dome head facing inwards

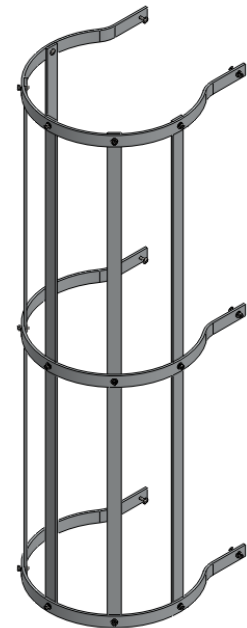


3: Fit remaining Hoops

Use M10 x 35 bolt with dome head facing inwards in pre drilled holes on strap

3a: Note

Use M10 x 50 bolt with dome head facing inwards in end holes where ladder connection is required



4: Complete Cage

Ensure all bolts are fully tightened and all washers are in place the cage is now complete

Please Note:

The above is a suggested assembly method; all assemblies and installations should be carried out by a competent installer and should be risk assessed prior to any works being carried out.

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FIXING NOTES

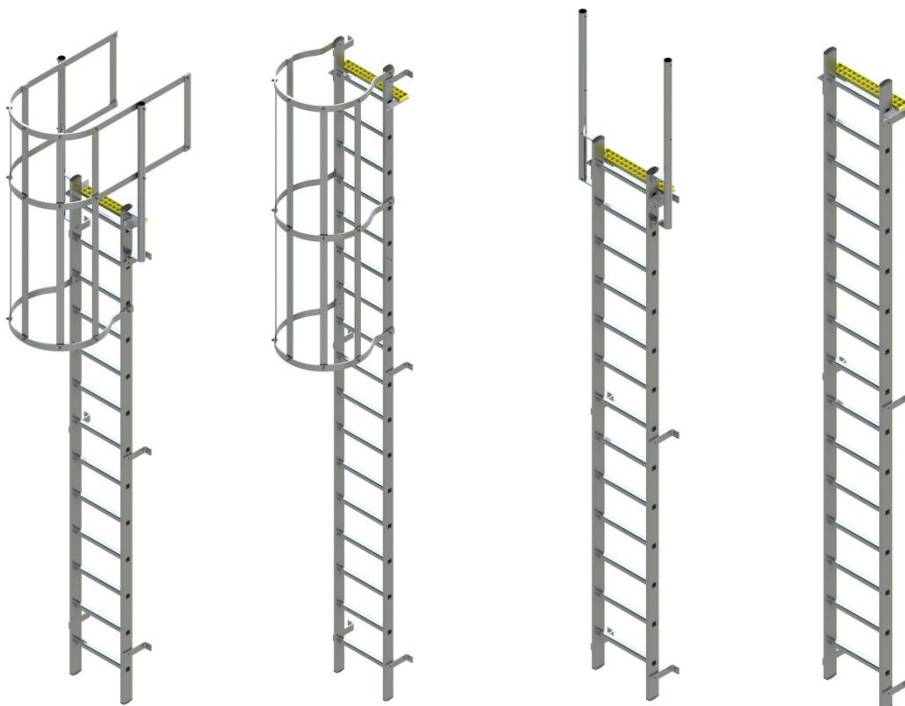
In addition to all the points made in this document it is imperative that the following rules are followed at all times:

SAFE INSTALLATION

- Ladder must only be installed by trained, competent people
- All installations should be carried out 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 carrying out the installation
- Consideration should always be given to the manual handling required in the installation of the ladder
 - Where possible ladder should be installed in accordance with the recommendations of BS4211:2005 + A1 2008

SAFE USE

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



Please Note:

The above is a suggested assembly method; all assemblies and installations should be carried out by a competent installer and should be risk assessed prior to any works being carried out.

T&I Solutions accepts no responsibility for any issues arising from unsafe or incorrect assembly or installation