

INSTALLATION MANUAL

VERTICAL FIXED LADDER

RL30 SERIES



⚠ WARNING

Read this manual before installing, maintaining or allowing personnel to use the product. If it is necessary to deviate from the instructions in this manual, contact Kattsafe to ensure that it does not compromise the safety and integrity of the installation.

This manual contains important use and maintenance information. Leave this manual with the facility manager/owner.

Improper selection, installation, maintenance, or use of this product presents a risk of serious injury or death.

IMPORTANT SAFETY INFORMATION

Improper selection, installation, maintenance, or use of this product presents a risk of serious injury or death. To reduce these risks, follow the instructions in this document, as well as the following precautions:

Qualifications

1. A competent person or structural engineer must evaluate the integrity and suitability of the fixing and support structure to which this system will be attached and ensure that the structure will sustain the necessary design loads. Remove decorative coatings and coverings to ensure correct evaluation of structure.
2. Installers must be competent persons trained (including OSHA 10 or 30 hour courses) in the selection, installation, use and maintenance of access and fall protection systems. This includes possessing valid industry licenses and having comprehensive knowledge of the relevant standards, codes, and guidelines (including relevant OSHA standards).
3. Ensure that the product is used and maintained by authorized, competent, trained personnel only.
4. Any re-routing of electrical or other services must be carried out by qualified and authorized personnel.

Preparing for a Safe Installation

1. The Installer is responsible for following all applicable requirements for occupational safety and health during installation, including:
 - a. Conducting an initial work/risk assessment
 - b. Completing all necessary safety documentation, such as a job safety analysis or work method statement
 - c. Taking appropriate precautions during the installation of this product, and
 - d. Obtaining consent from a responsible person at the workplace prior to work
 - e. Any re-routing of electrical and/or other services must be carried out by qualified or authorized personnel
2. Use appropriate temporary access and safety equipment during installation, such as platform ladders or scaffolding and fall protection anchorage points.
3. At least two installers must be present during installation, in case of emergency.

Installation Requirements

Ensure support structure to which system is attached or installed on, will sustain necessary design loads. (Prior approval may be required from a qualified engineer unless it is clear to a competent person that the structure is adequate).

Modification

Do not modify or remove any element of the support structure without prior authorization by the manufacturer or a qualified engineer. There should be no item or system mounted, connected, or supported by these guardrail systems.

Do not tamper with, modify, alter or remove any part of this product unless authorized by Kattsafe.

Product Use

Do not use when working alone, in case of an emergency that requires help. If the ladder is subjected to abnormal loading, do not use until replaced or re-certified by a competent person.

Must Read Prior to Use

In order to maintain the product warranty, Kattsafe labels must be placed at points of access or in highly visible areas. There are (2) labels provided with every installation kit.

Tools Required

Power drill
5/16in drill bit
5/16in nut setter
2ft level
Circular saw with aluminum cutting blade (not a diamond blade)
1/2in wrench/socket
9/16in wrench
15mm wrench/socket
Crescent wrench
Tape measure
Chalk line
Speed square

Kattsafe Fixing Kit

Please note that a 'Kattsafe Fixing Kit' is supplied with every Kattsafe ladder. This kit includes a 1/2in wrench, file, 5/16in nut setter, and a 5/16in drill bit.

⚠ WARNING

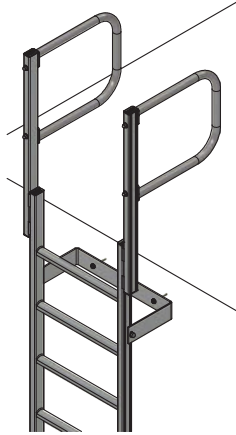
Top rung must be level with the landing (walking/working surface). For RL31, 32, 33, 34, and 35 ladders, please ensure sufficient height is added so top rung is level with parapet platform/walkway.

Warranty

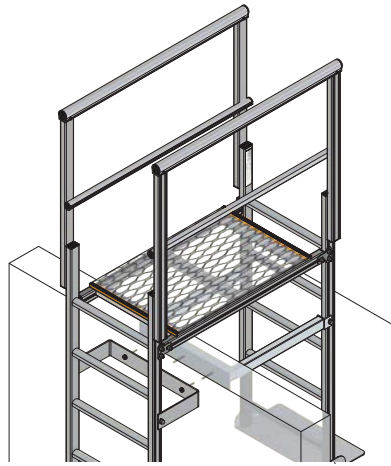


Scan to view the warranty on
our website

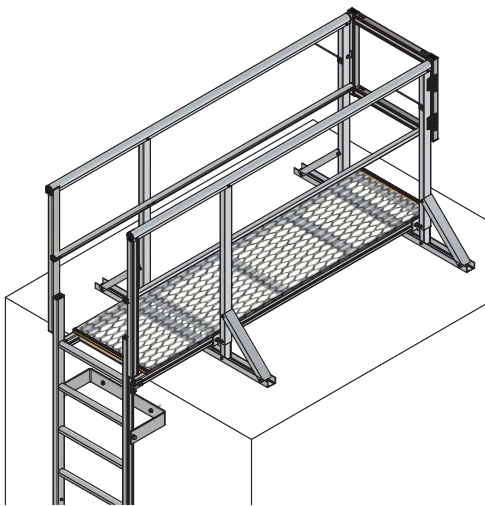
RL30 SERIES LADDER CONFIGURATIONS



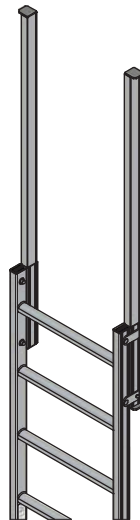
RL31
Vertical Ladder with
Grab Rails



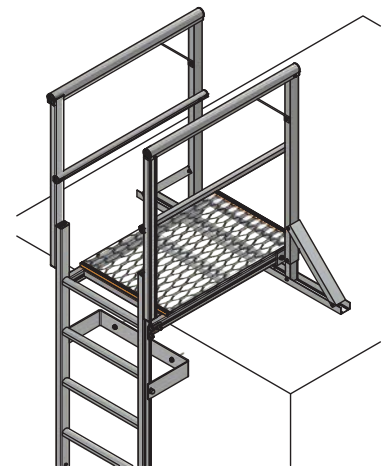
RL32
Vertical Ladder with Parapet
Platform



RL33
Vertical Ladder with 8ft
Walkway Platform



RL34
Vertical Ladder with
Retractable Stiles



RL35
Vertical Ladder with 3ft
Walkway Platform

Install the ladder heads as per the system ladder installation instructions that can be found on the specific pages below. Complete the steps on pages 4-21 before completing the ladder head installation steps

RL31 - Vertical Ladder with Guardrail - page (22)

RL32 - Vertical Ladder with Parapet Platform - page (25)

RL33 - Vertical Ladder with 8ft Walkway Platform - page (43)

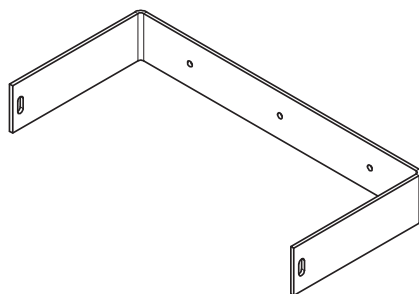
RL34 - Vertical Ladder with Retractable Stiles - page (60)

RL35 - Vertical Ladder with 3ft Walkway Platform - page (65)

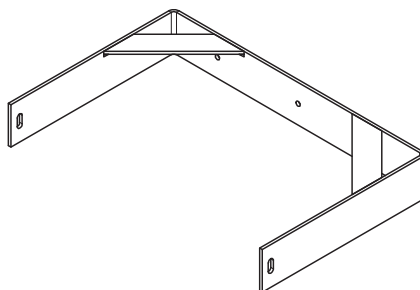
INSTALLATION MANUAL

WALL BRACKETS

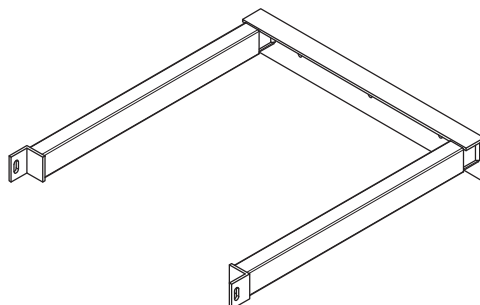
LD421 SERIES



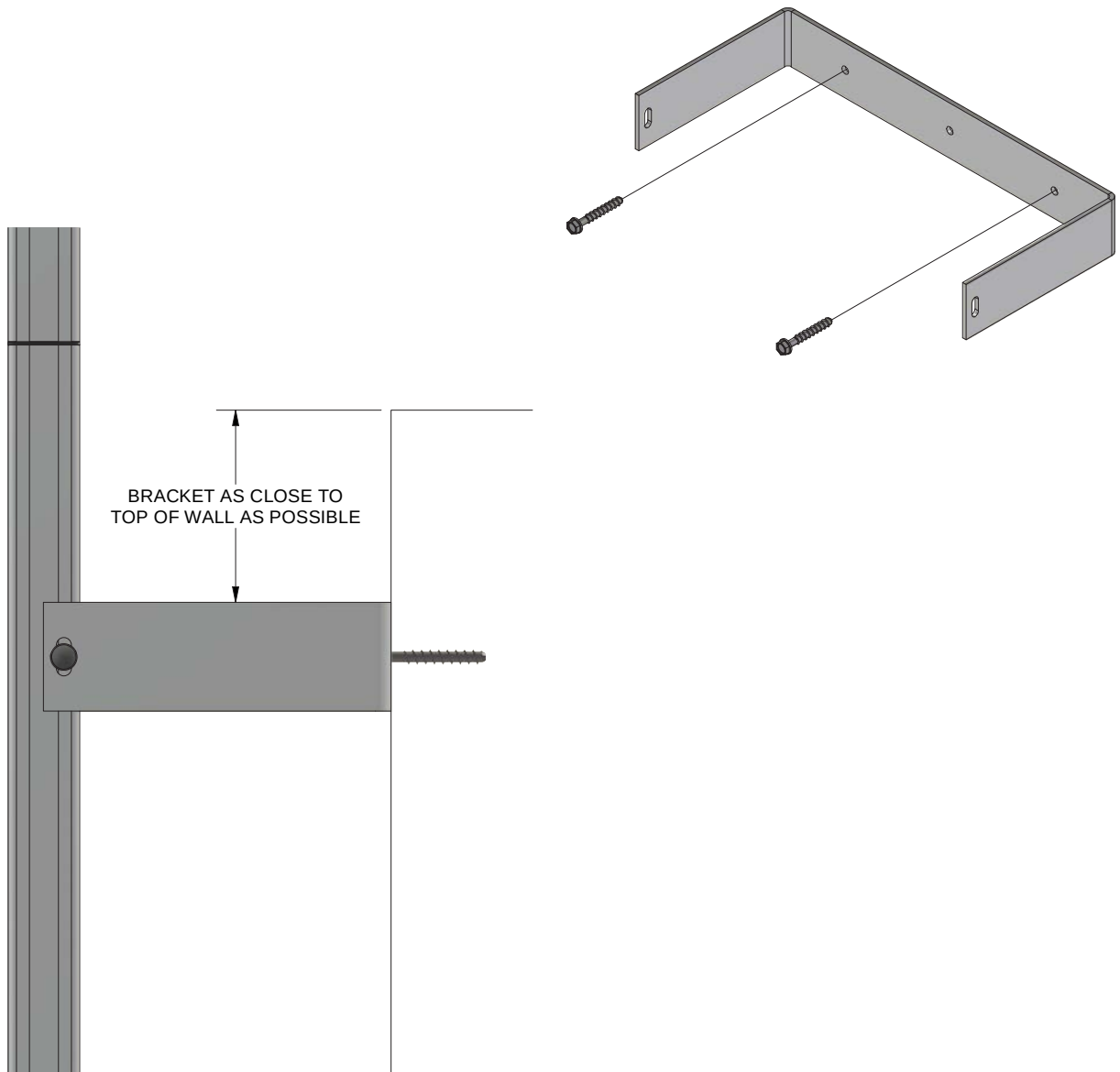
LD421.280
Standard Fixing Bracket



LD421.400
400mm 15-3/4 in Gusseted
Fixing Bracket



LD421.600
Adjustable Fixing Bracket



- 1 Measure the height of the wall. Attach the ladder wall brackets to the wall with the recommended hardware. See separate installation sheets specific to mounting on various wall substrates.

**IMPORTANT NOTES:**

- The top bracket must be as close to the roof/walking-working surface as possible.
- Wall brackets should be spaced a maximum of 9ft apart (8ft recommended).
- There must be at least (1) wall bracket per ladder body.
- If your order includes the LD421.280S Off Floor Mount Bracket, then it must be installed at the base of the ladder. Ensure it is installed a maximum of 3ft off of the lower level.
- See specific installation sheet for wall hardware mounting kits.



STEP 1 NOTICE:

Please evaluate the wall surface prior to the wall bracket installation.

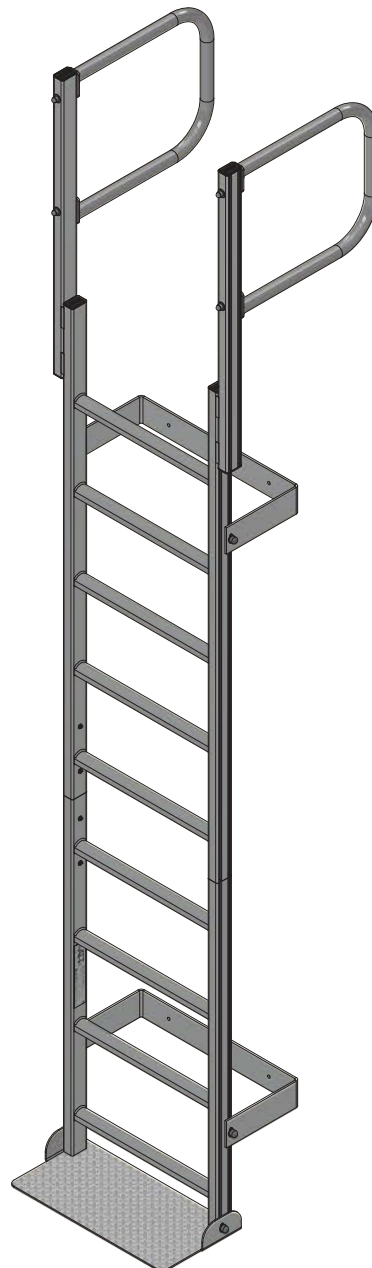
If there is a gutter or obstruction on the wall that results in the clearance between the ladder rung and wall surface being greater than 7in, then a longer wall bracket must be used.

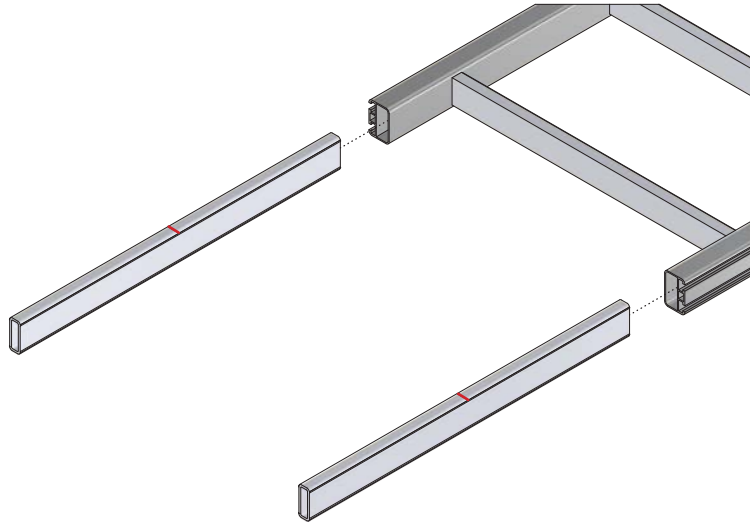
See separate installation sheets specific to longer wall brackets or contact Kattsafe.

INSTALLATION MANUAL

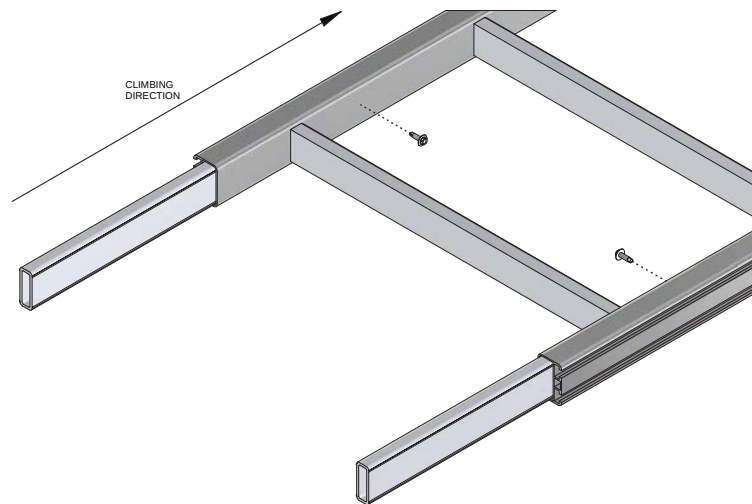
LADDER BODY

RL30 SERIES





- 1 When joining (2) ladder bodies, it will require (2) splice joints. Prepare the splice joints by making a mark at 12in (halfway). Insert the splice joints into the ladder body stiles up to the halfway mark.



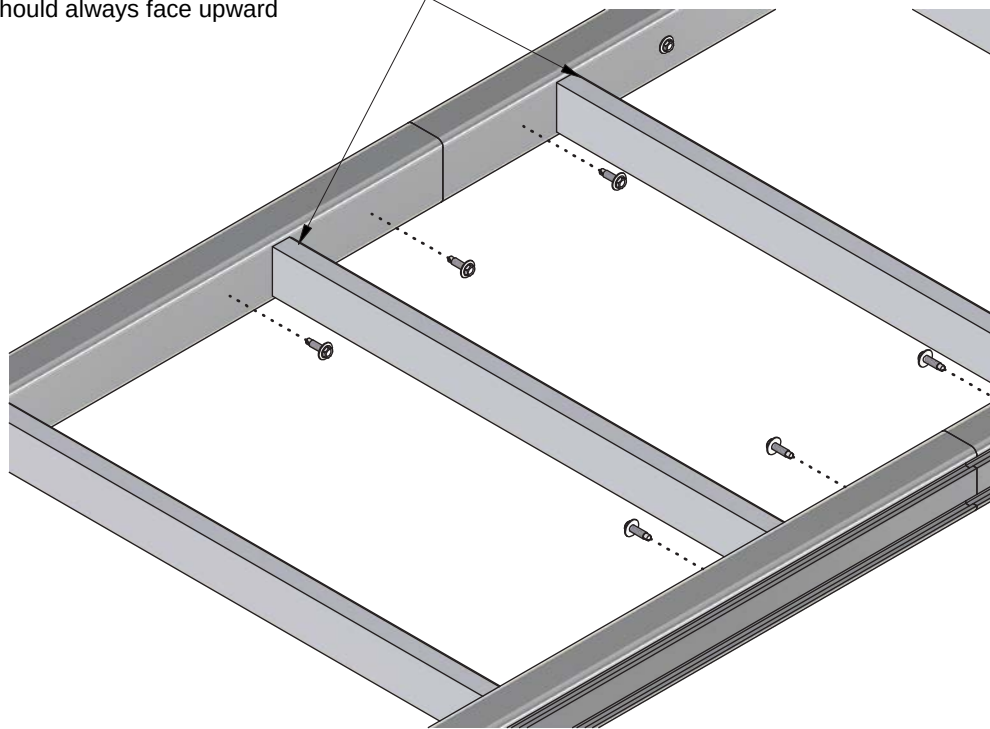
- 2 Fasten with (2) #12 x 3/4 inch S/S Tek Screw on the inside of the ladder body. Locate approximately 2in above the first rung closest to the splice joint.



IMPORTANT NOTE:

We suggest installing (1) Tek Screw per side initially to make it easier to slide the ladder body modules together.

Round, Serrated Side of Rung
should always face upward



3 Slide the next ladder body over the splice join.

Once the ladder bodies are together, ensure the seam is tight prior to fastening. Fasten remaining Tek Screws on both sides of the ladder. There must be a total of (4) #12 x 3/4 inch S/S Tek Screws for each splice join (per side).

Install (3) each side, (1) below ladder rung of the first ladder section, and (1) above and (1) below the ladder rung of the next section.

Each ladder splice join should have a total of (8) Tek Screws, (4) per side, on the inside of the ladder body.

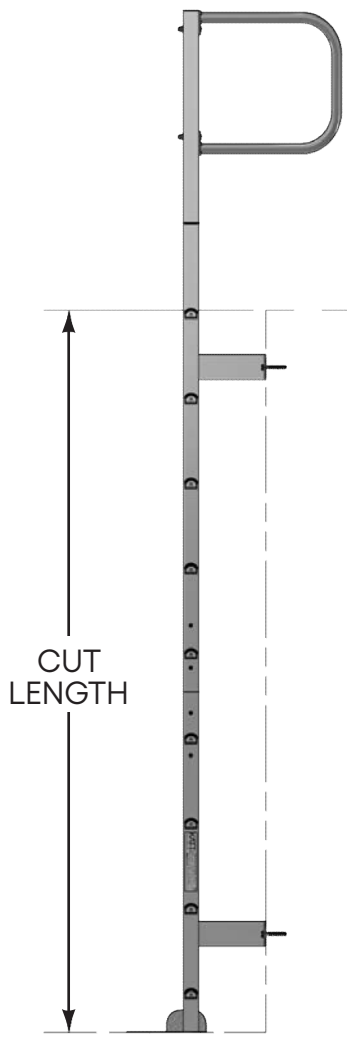


IMPORTANT NOTE:

Ensure the Tek Screws are flush, but **DO NOT** over-tighten since aluminum can deform when too much pressure is applied and the Tek Screw thread can fail.

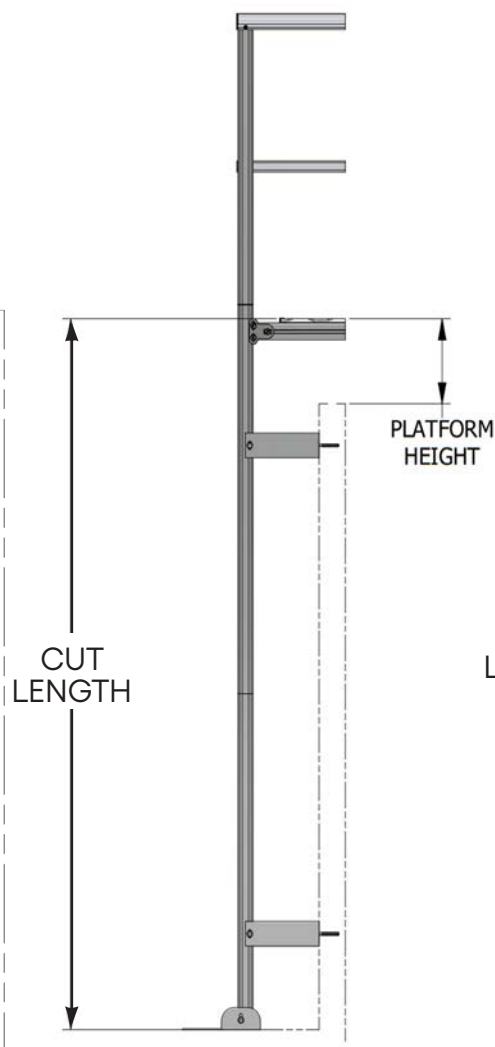
DETERMINING CUT LENGTH

**Standard Ladders
(RL31)**



Measure from Lower Level to Upper Level

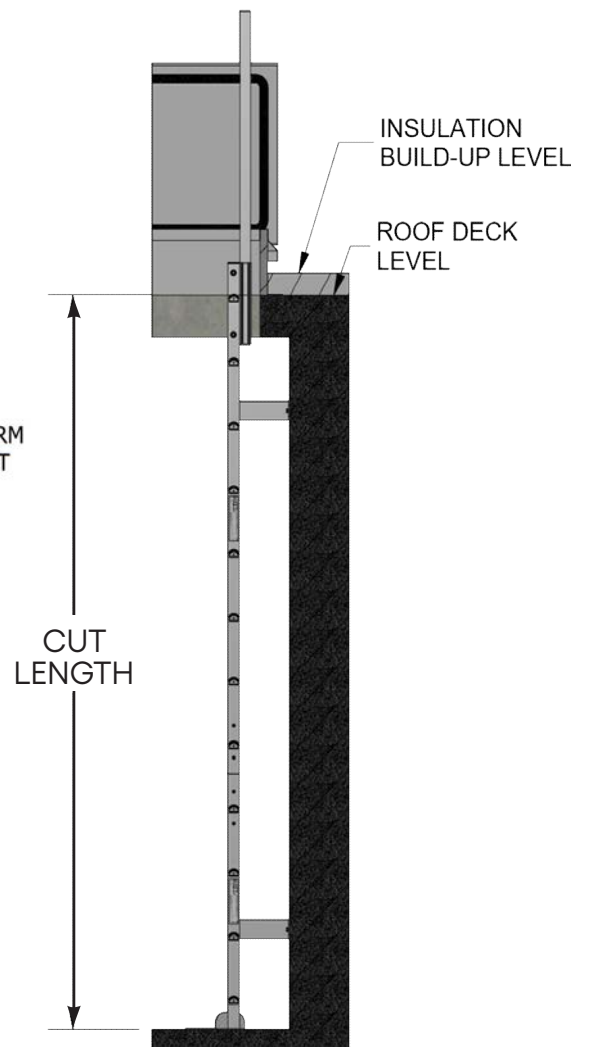
**Ladders with Integrated Walkway
(RL32, RL33, RL35)**



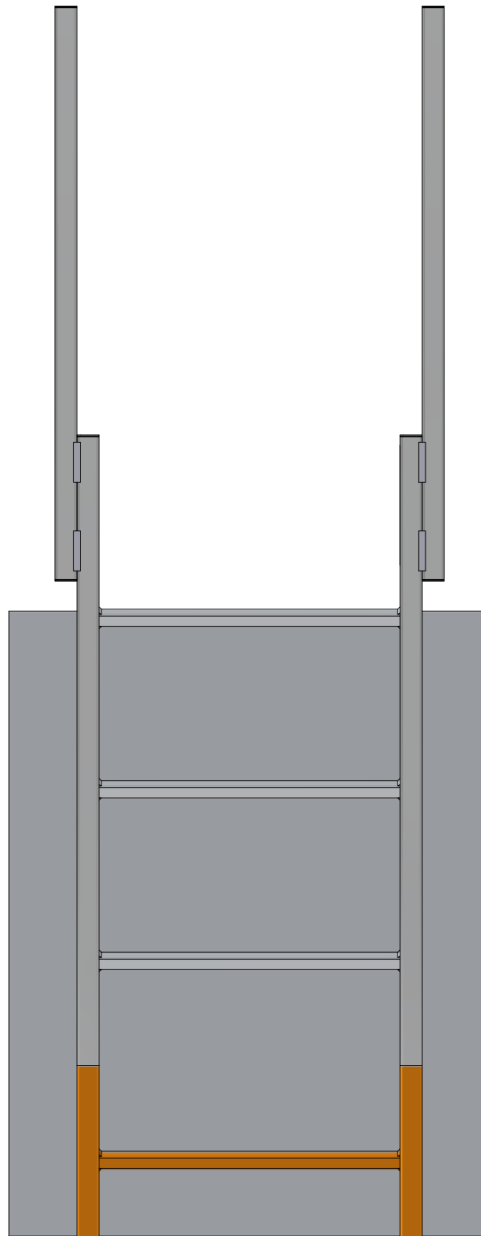
Measure from Lower Level to Upper Level, be sure to account for platform height off upper level.

Recommend allowing 2-3 inch clearance between parapet and underside of platform

**Roof Hatch Ladders
(RL34)**



Measure from Lower Level to Roof Deck below Insulation/Roof Build Up

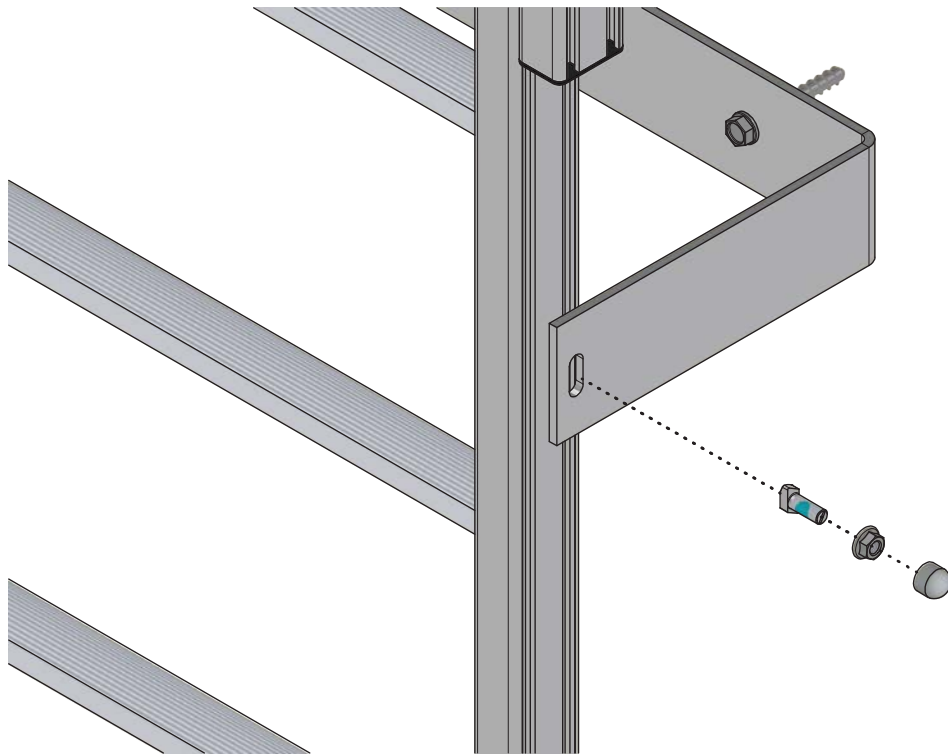


- 4** Always cut from the bottom of the ladder to ensure the top rung of the ladder is level with the walking/working surface.

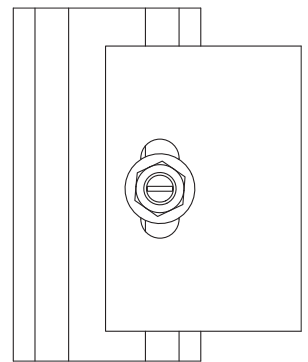


IMPORTANT NOTE:

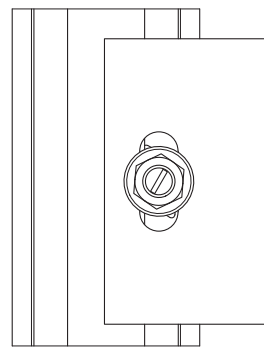
Top rung must be level with upper surface. For RL32/33/35 ladders, the top rung must be level with the platform.



Graphic A



T-BOLT CORRECTLY FASTENED



INCORRECT

- 5** Once cutting is complete, stand the ladder in place. If the ladder is of increased length, a crane or lift may be needed to lift the ladder safely.

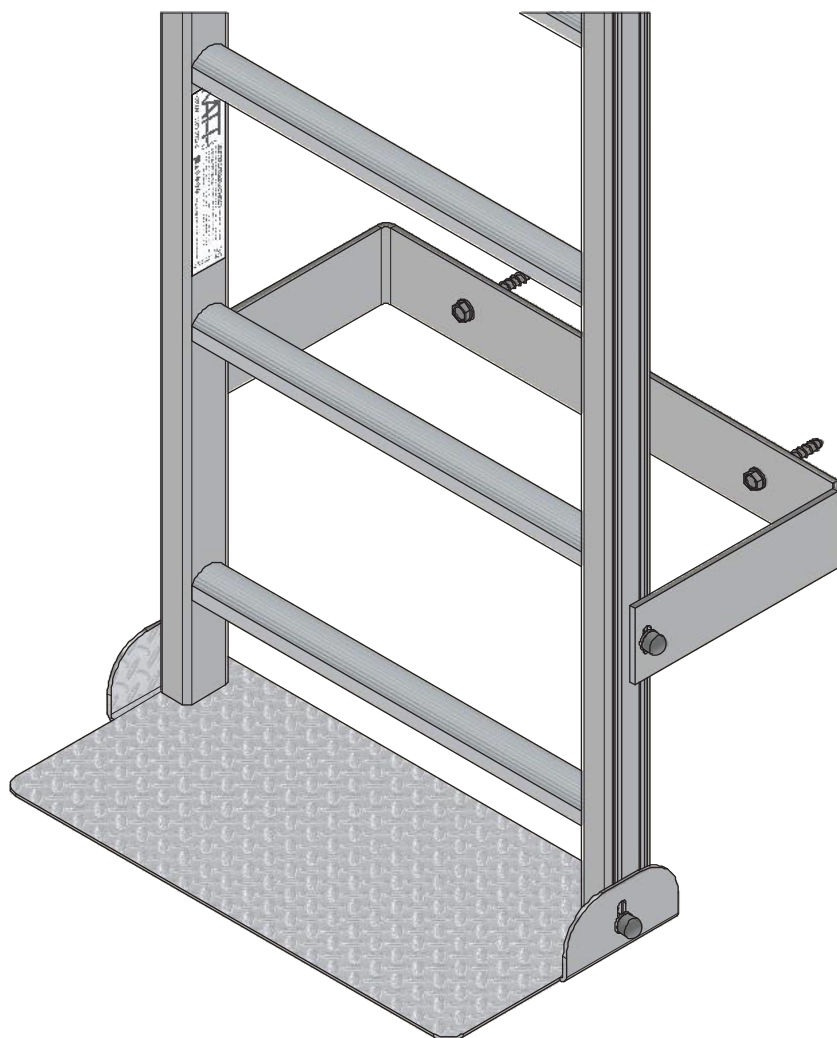
Fasten the ladder body to each wall bracket with (2) Kattsafe S/S T-bolts. See graphic (A) for proper T-bolt locking method.

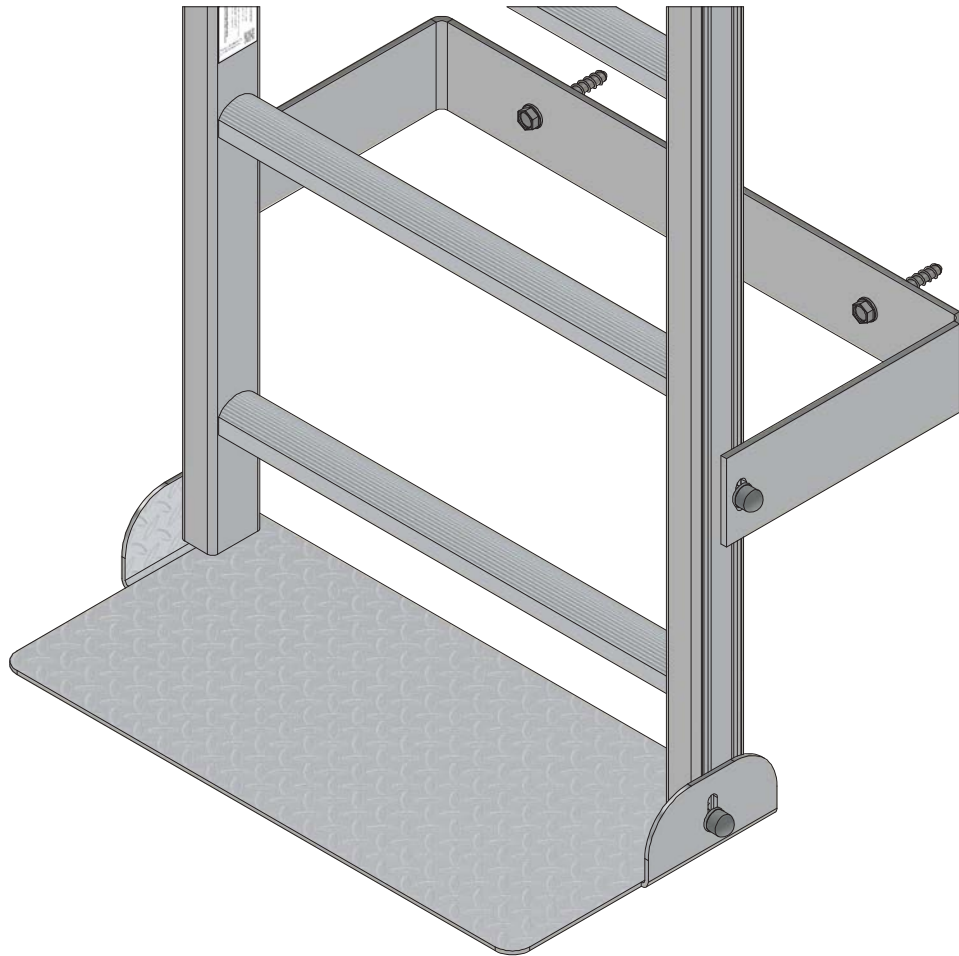
Repeat this step for all wall brackets.

INSTALLATION MANUAL

NON-PENETRATING BASE PLATE

LD419F





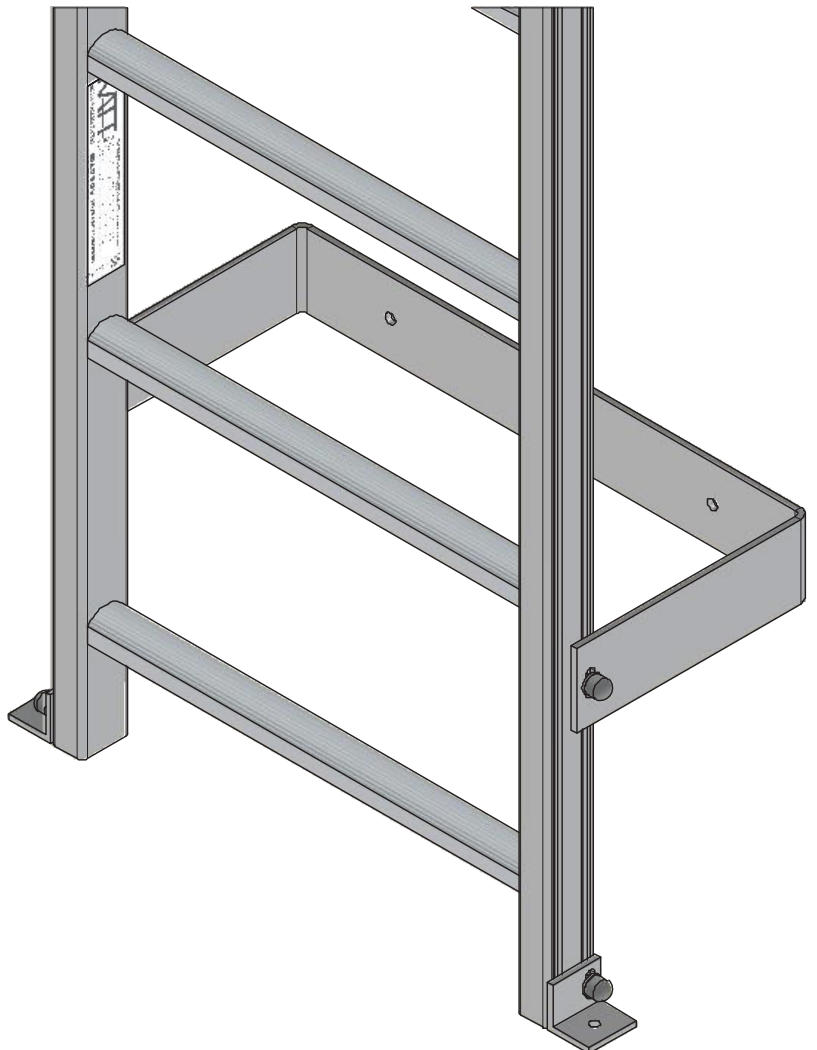
- 1 Place (1) LD419F at the base of the non-penetrating base plate mount ladder. Ensure the wall bracket is no more than 3ft from the ground.

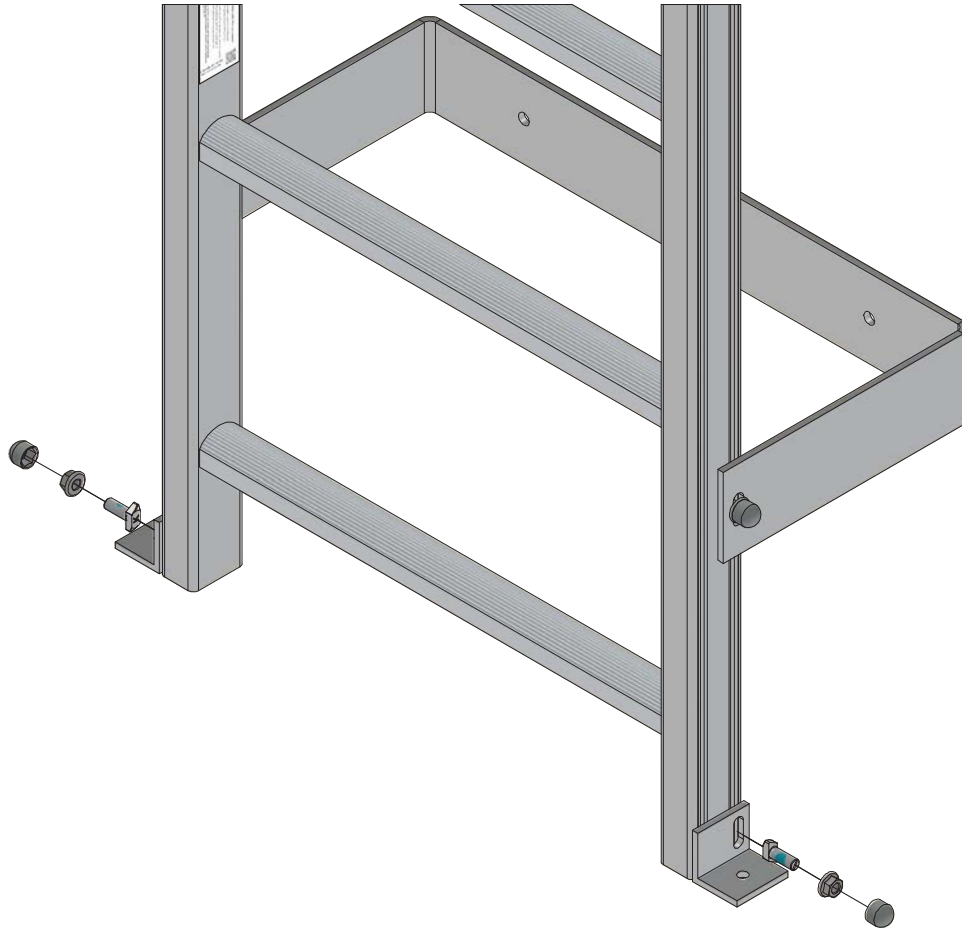
Line-up the non-penetrating base slot with the channels on the ladder body. Fasten using (2) Kattsafe S/S T-bolts.

INSTALLATION MANUAL

FLOOR MOUNT ANGLE BRACKET

LD419S





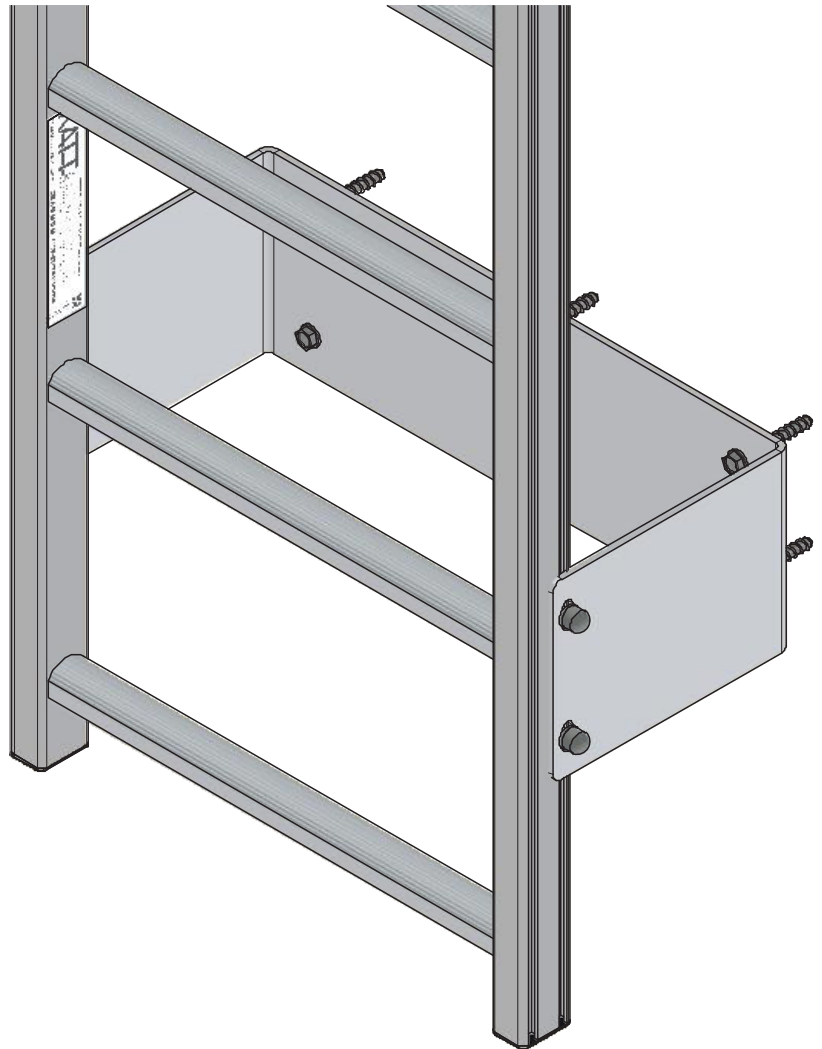
- 1 Place (1) LD419S at the base of the floor mount ladder. Ensure the wall bracket is no more than 3ft from the ground.

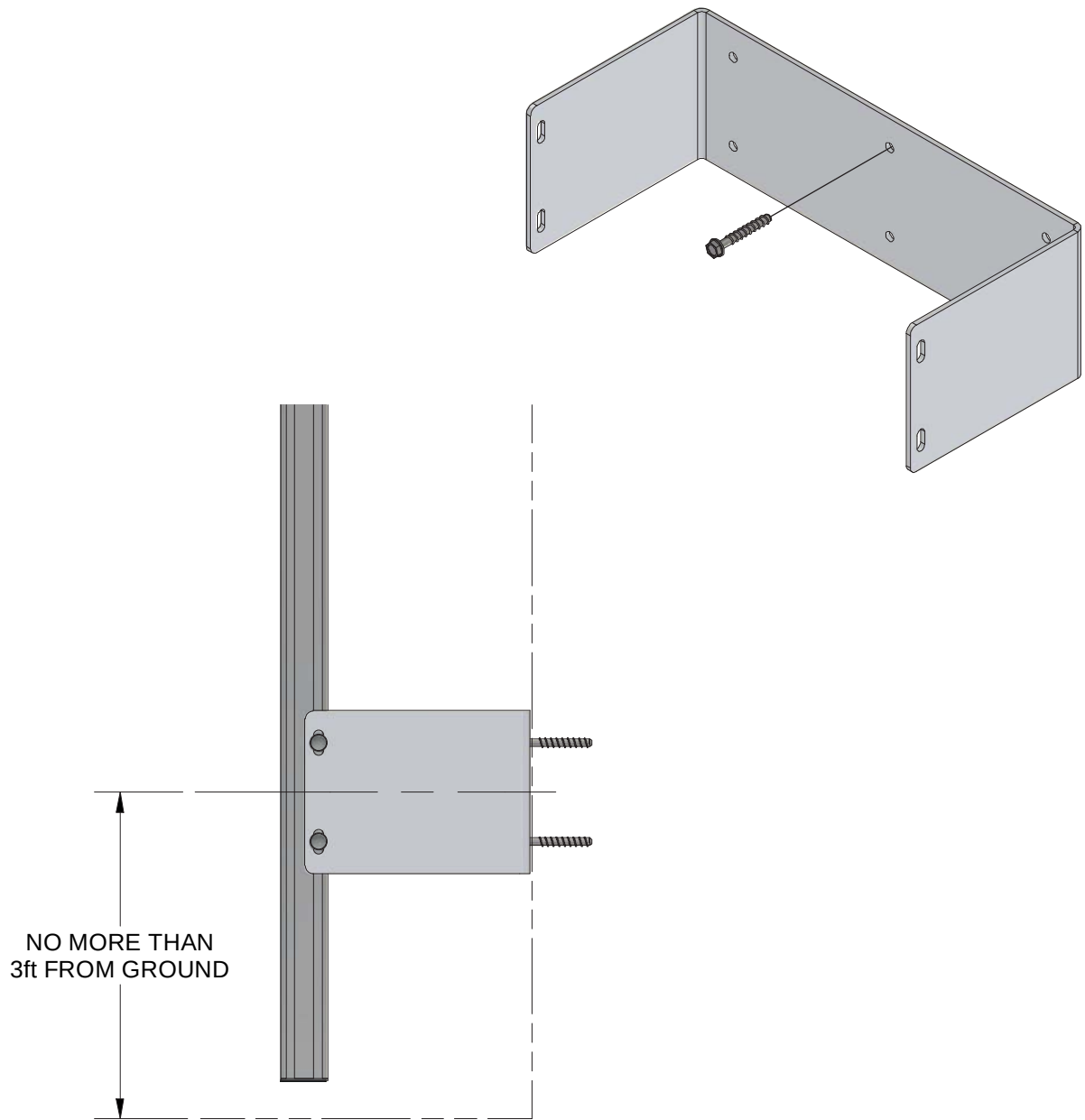
Place the mounting angles so that the slots align with the channels on the ladder body. Fasten with (2) Kattsafe S/S T-bolts.

INSTALLATION MANUAL

OFF-FLOOR MOUNT FIXING BRACKET

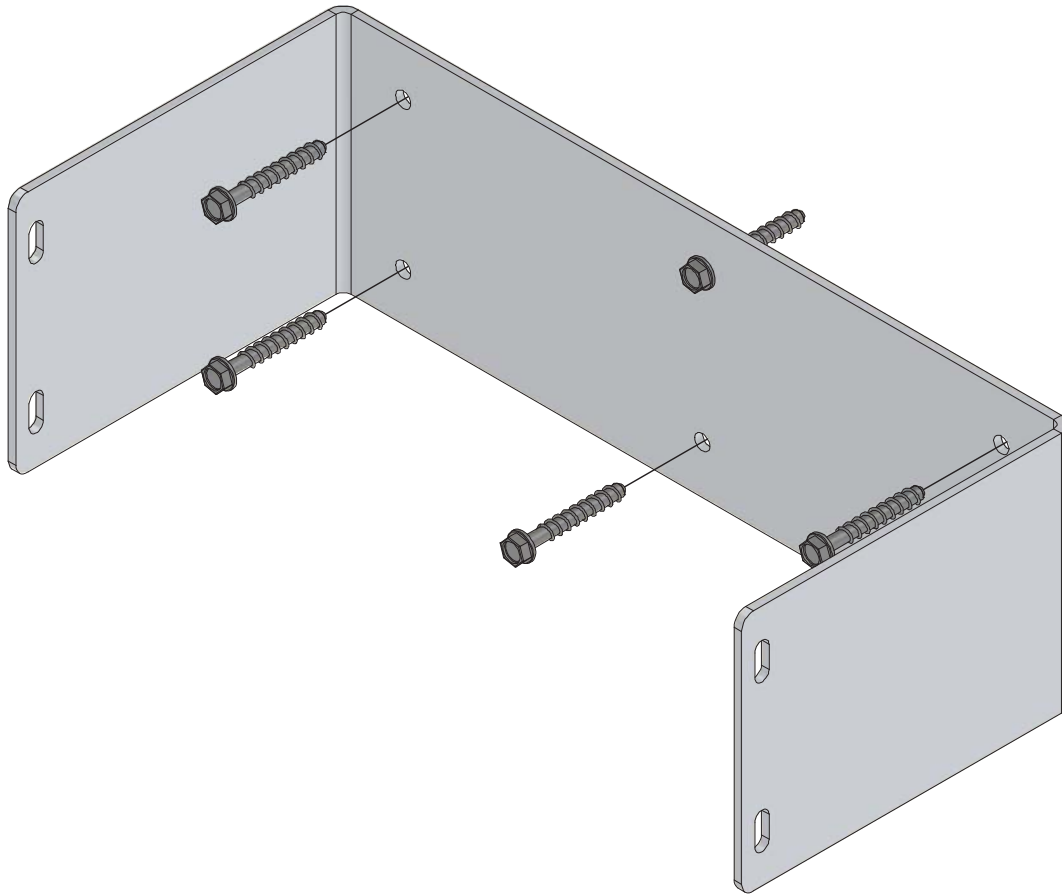
LD421.280S



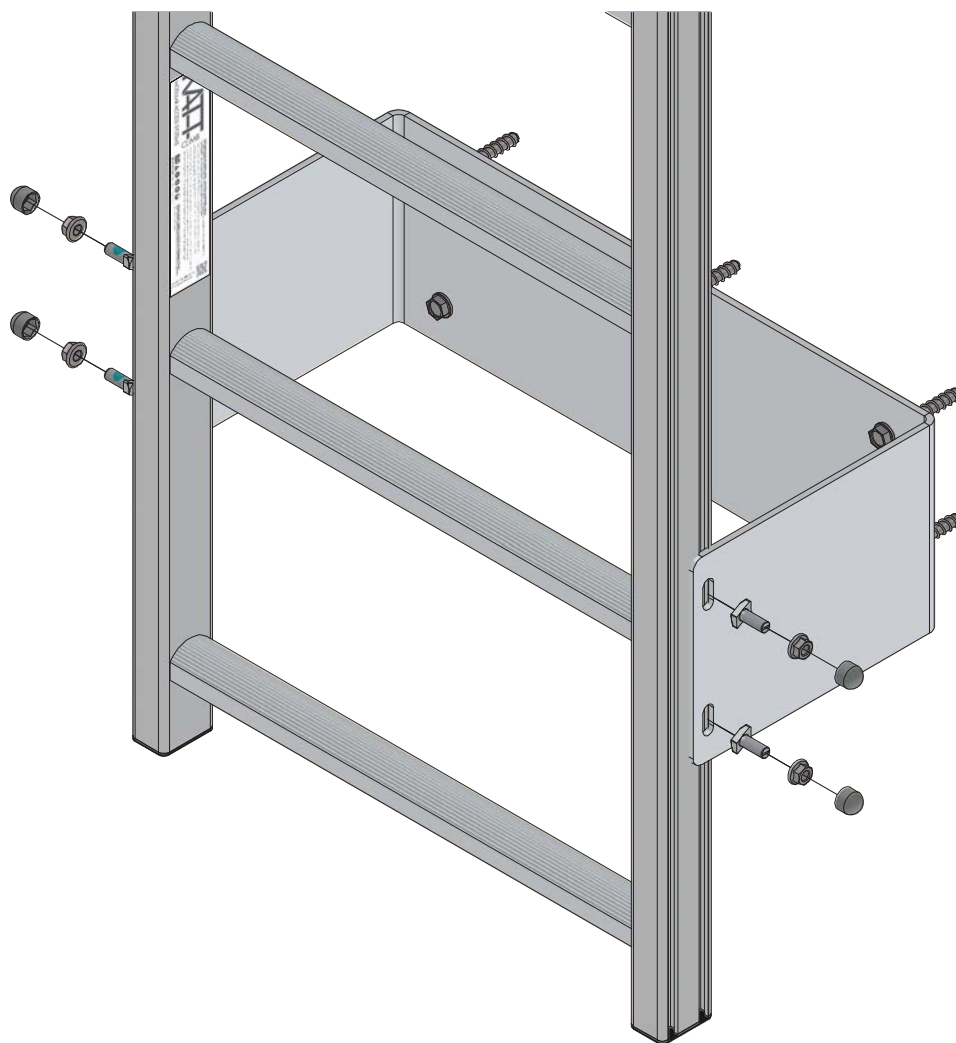


- 1 Place (1) LD421.280S at the base of the off-floor mount ladder. Ensure the wall bracket is no more than 3ft from the ground.

Place the first anchor (screw anchors shown) without fastening completely - Ensure the bracket is level before fastening remaining anchors.



2 Fasten remaining anchors.



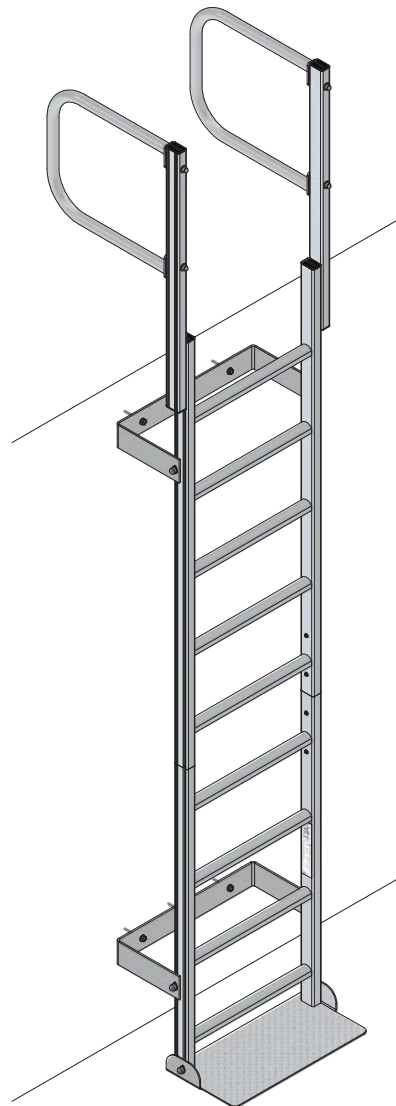
3 Place ladder body, lining up the vertical slot on the bracket with the rear channel of the ladder stile.

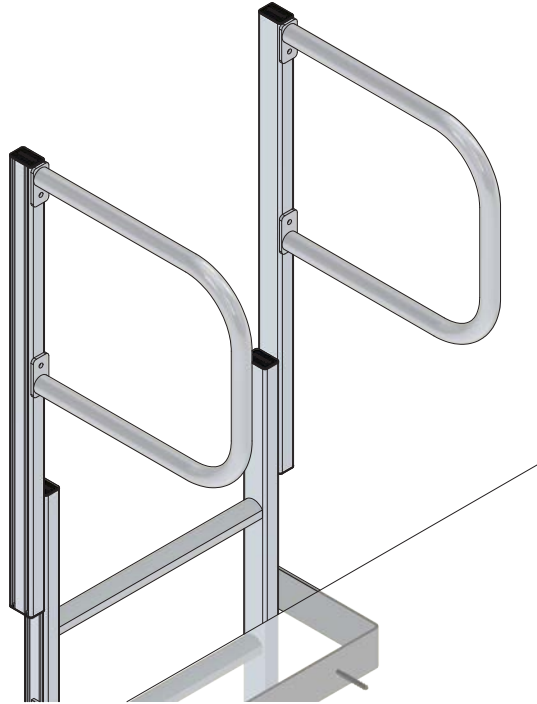
Fasten using (4) Kattsafe locking T-bolts.

INSTALLATION MANUAL

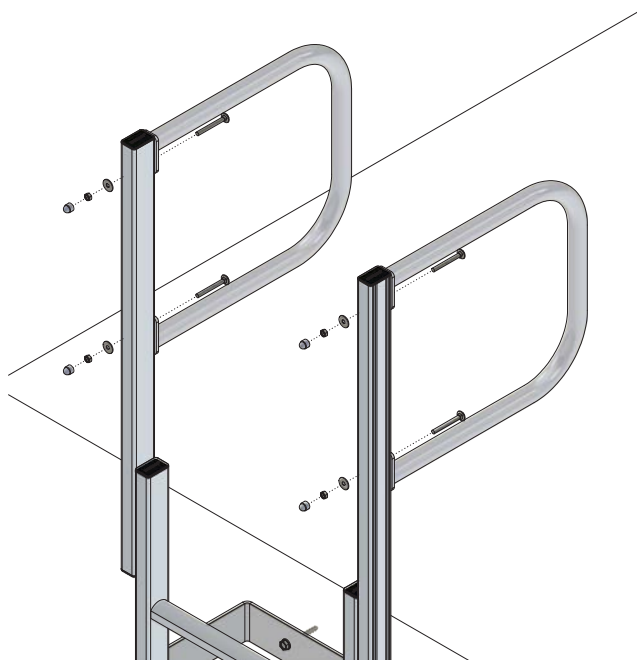
VERTICAL LADDER WITH GRAB RAILS

RL31



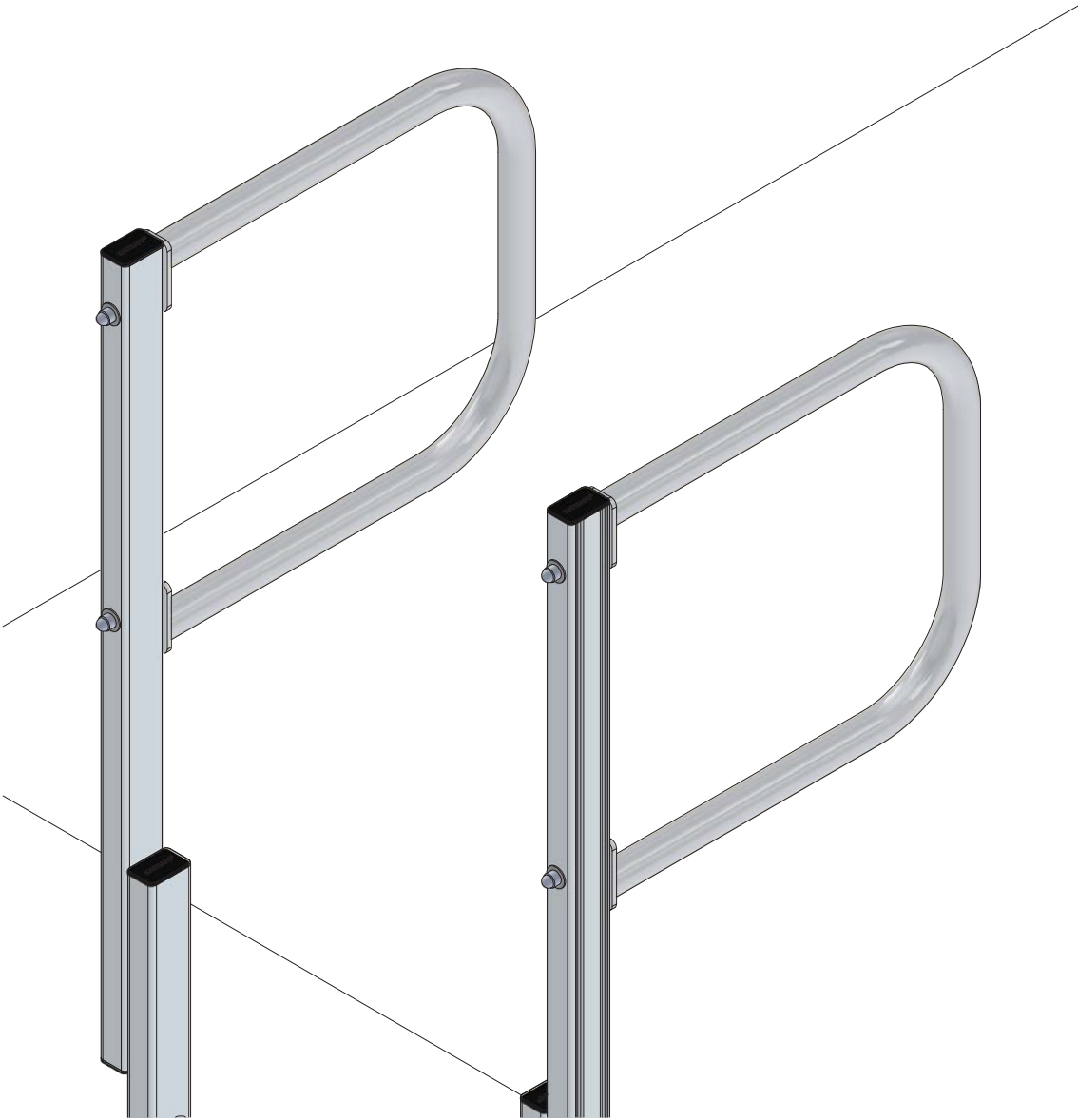


- 1 Line up the grab rails so they are flush with the ladder head. Mark the drilling point for the through bolts. Drill using a 5/16" bit.



- 2 Insert the (4) carriage bolts through the mounting plates on the grab rail, ensuring the shoulder of the carriage bolt engages with the flange on the ladder grab rails. Fasten the carriage bolts using the provided nut, washer, and end cap.

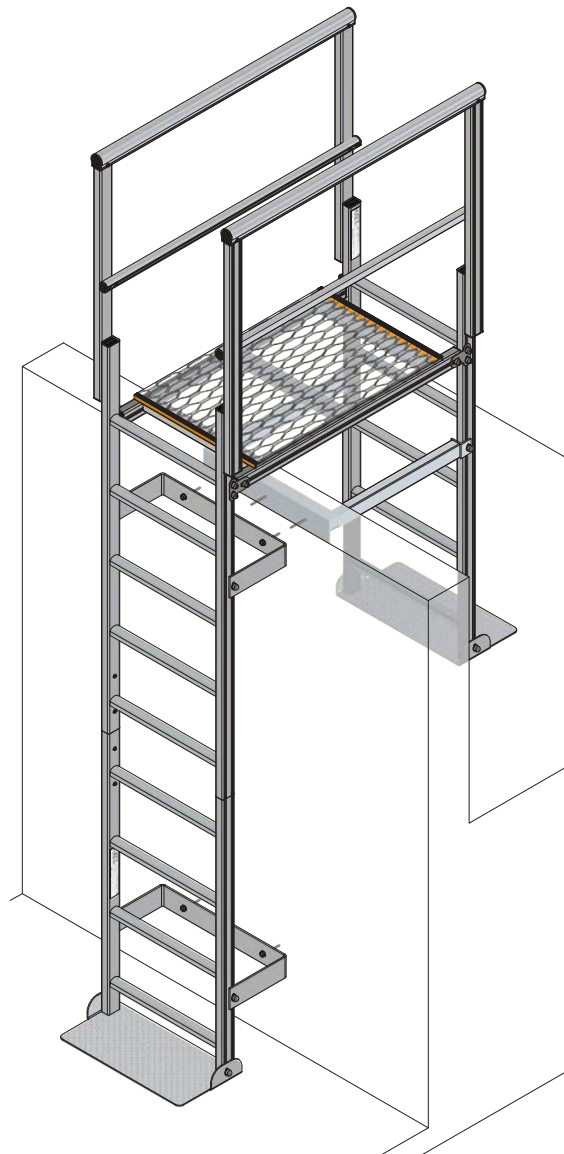
FULLY INSTALLED GRAB RAILS

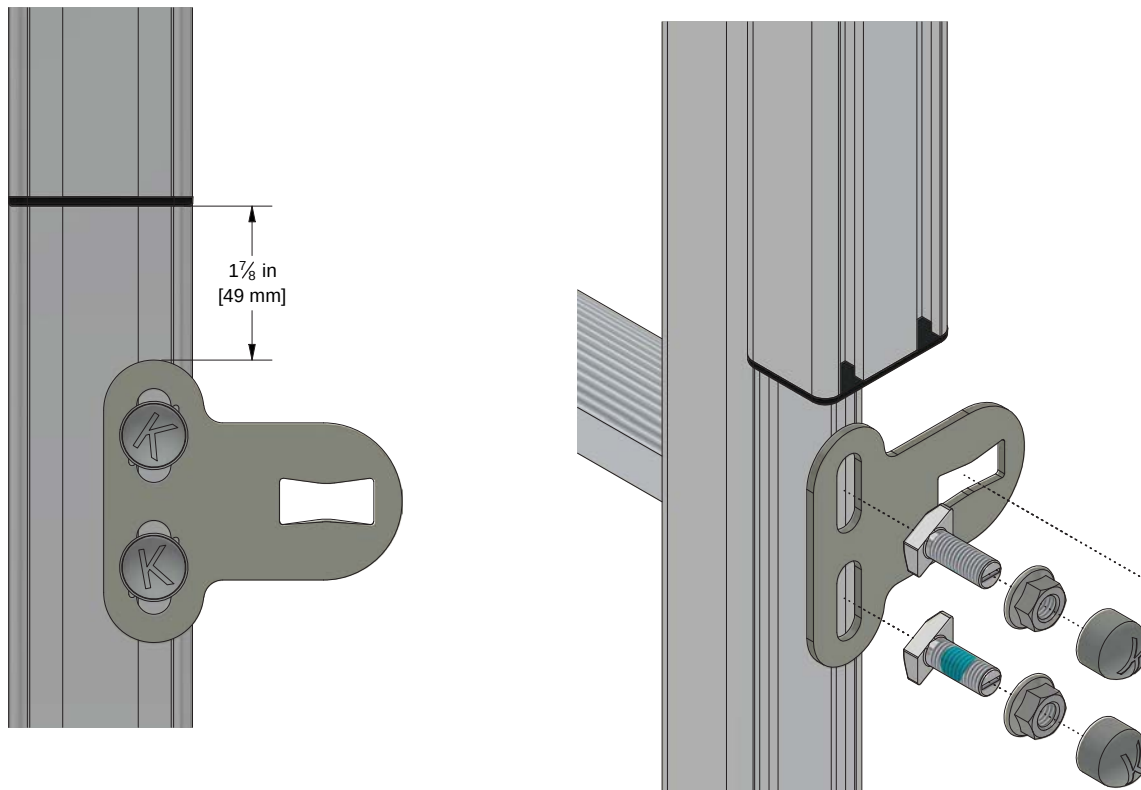


INSTALLATION MANUAL

VERTICAL LADDER WITH PARAPET PLATFORM

RL32



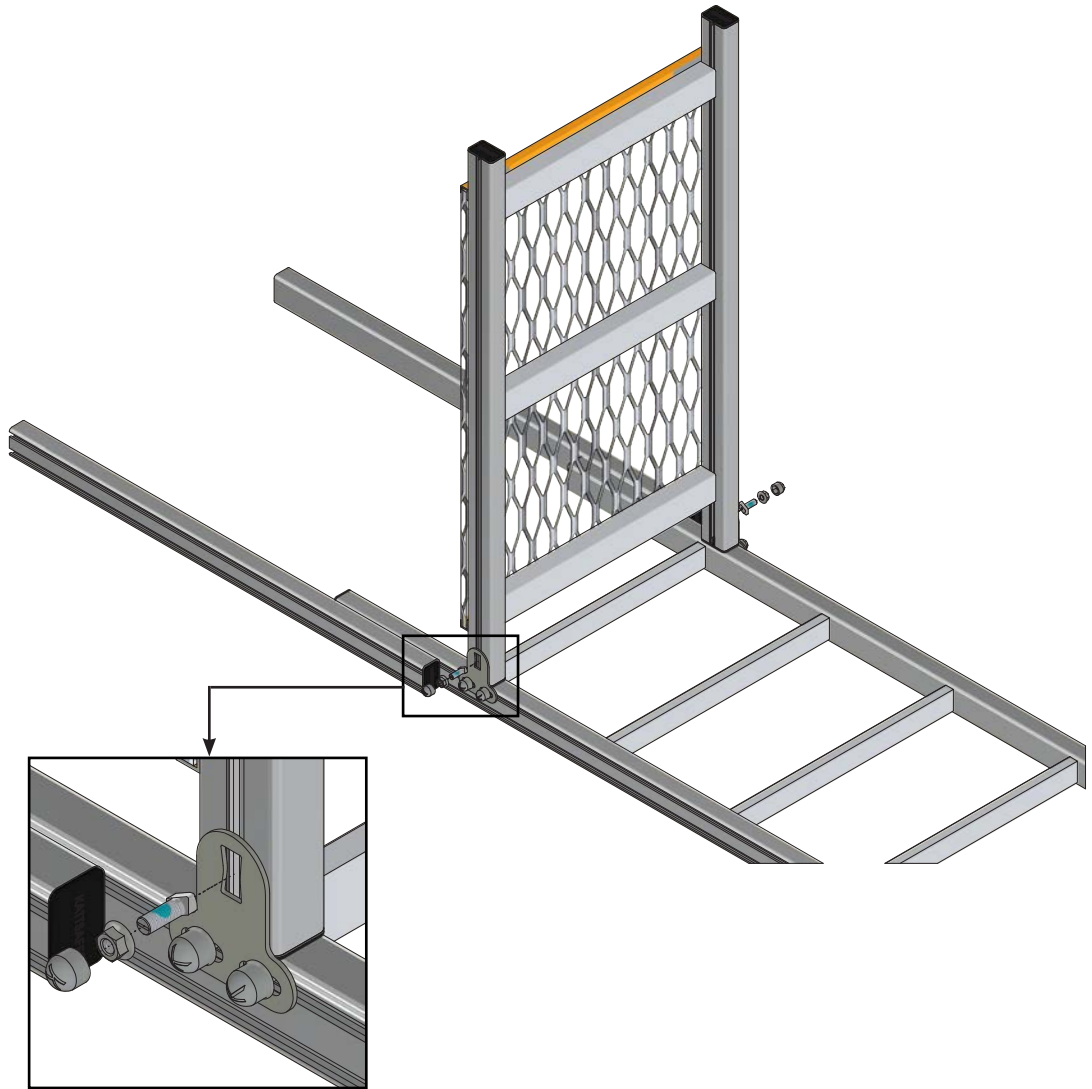


- 1 Measure 1-7/8 inches (49mm) from the bottom end cap on the ladder head. Place the top of the T-bracket on the ladder head at this measurement. Fasten the T-bracket using (2) Kattsafe T-bolts on the inside T-slot of the ladder body. Repeat this step for the other side of the ladder body.



IMPORTANT NOTE:

This measurement should mean that the platform is level with the top rung of the ladder body once installed. Once the platform is installed, double check that it is level.

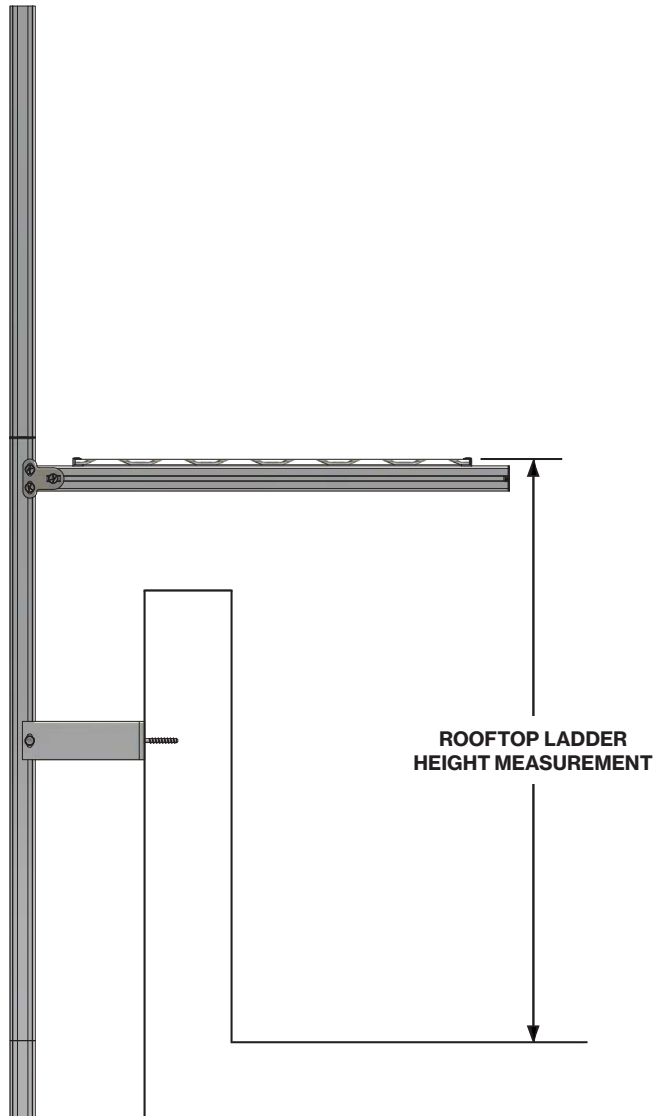


- 2** Place the parapet platform so that it is tight to the ladder body. Position the platform so the T-slot matches the horizontal slot of the T-bracket. Fasten using (1) Kattsafe T-bolt. Repeat this step for the other side of the ladder body.



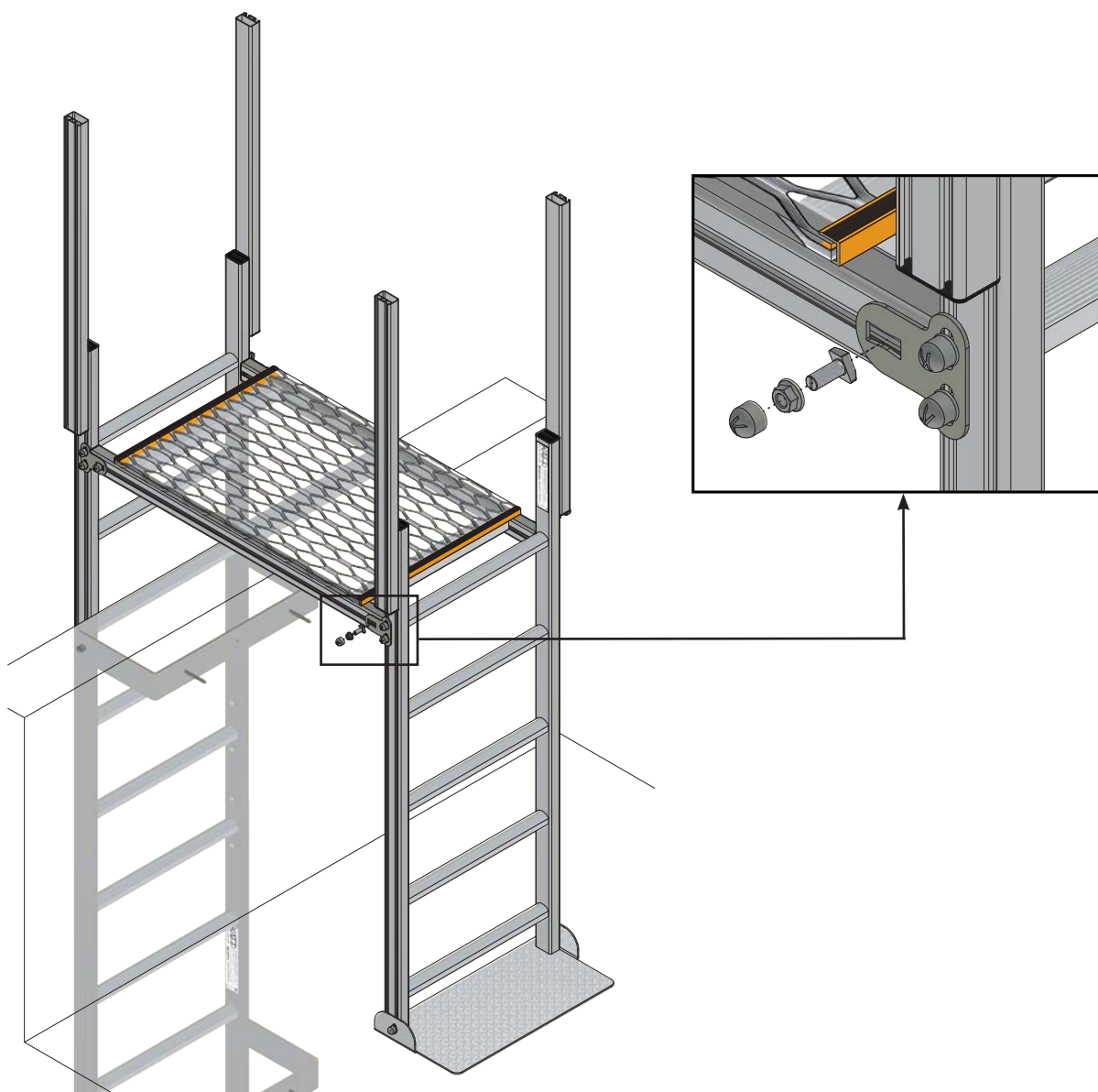
IMPORTANT NOTE:

Following step 1, the platform should be level with the top rung of the ladder body. Double check that the parapet platform is level with the walking-working surface once fastened to the T-brackets.

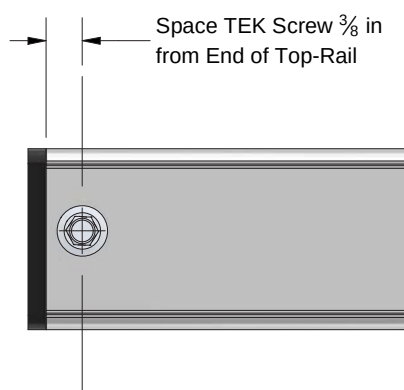
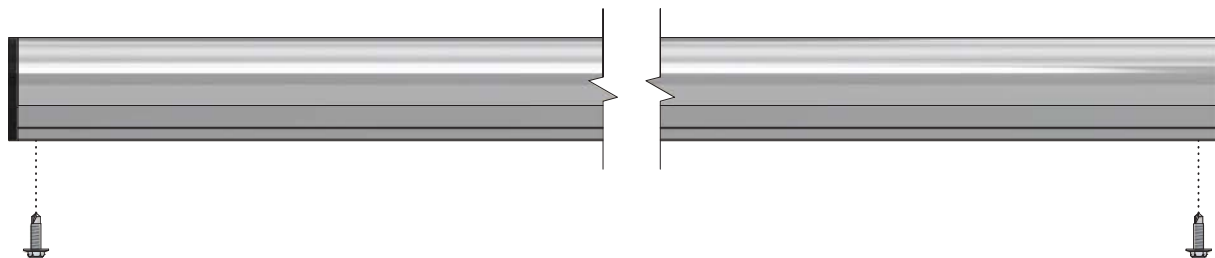


- 3** To install the inner ladder head section, place a level on the parapet platform and ensure that it is level. Take a measurement from the yellow edge bar of the platform down to the rooftop surface. Do this on both the right and left side of the platform to accommodate for possible roof slope.

Using these measurements, cut the ladder head from the bottom to result in the needed height. See pages 11-12 for cutting instructions.

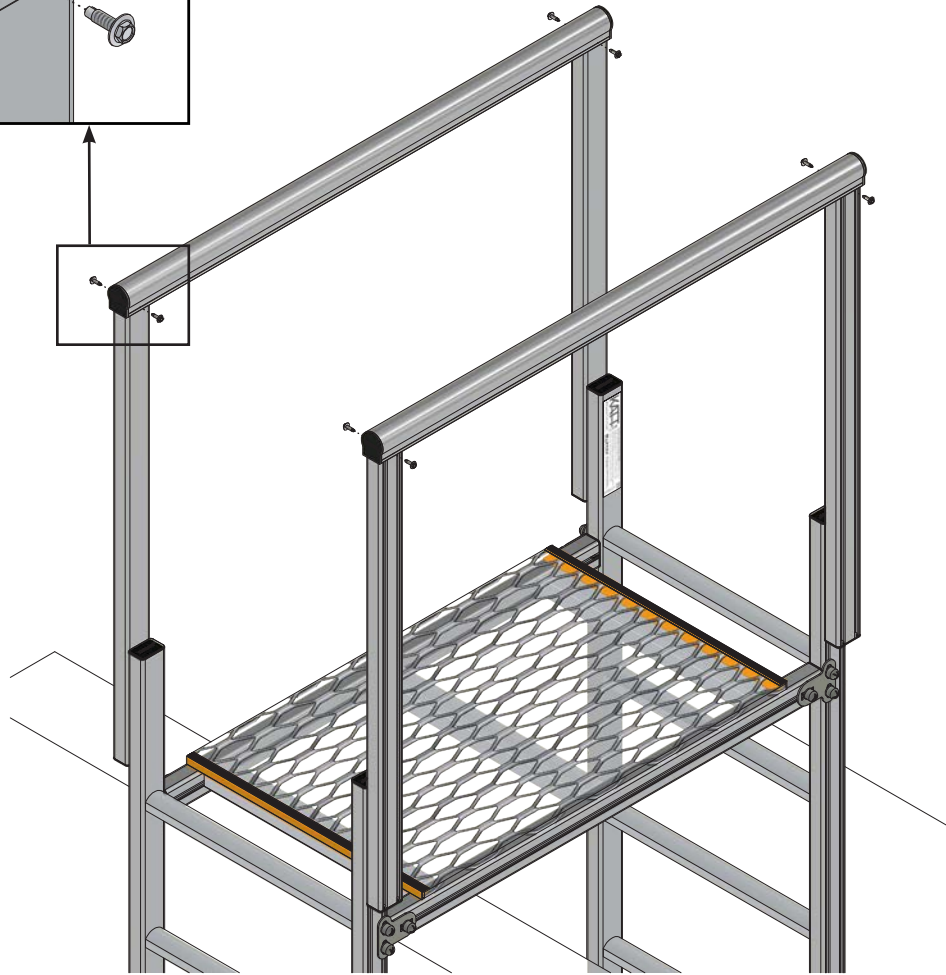
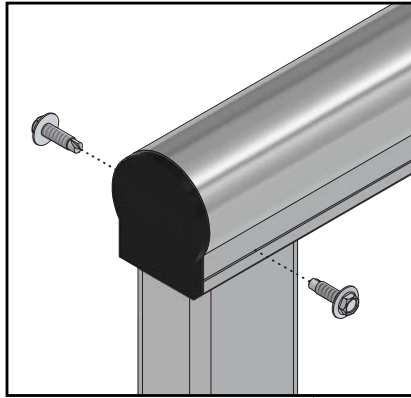


- 4** Place the ladder head section flush to the other end of the platform. Repeat Steps 1 (page 26) and 2 (page 27) to install the T-brackets to the parapet platform and ladder head section.



- 5** Insert the Kattsafe top-rail end caps into the top-rail extrusions. Fasten each end cap using (1) 3/4 inch S/S Tek Screw on the underside of the top-rail extrusion.

When fastening, ensure that there is enough gap between the flange of the Tek Screw and the wall of the ladder head extrusion so that they do not interfere. See graphic above.



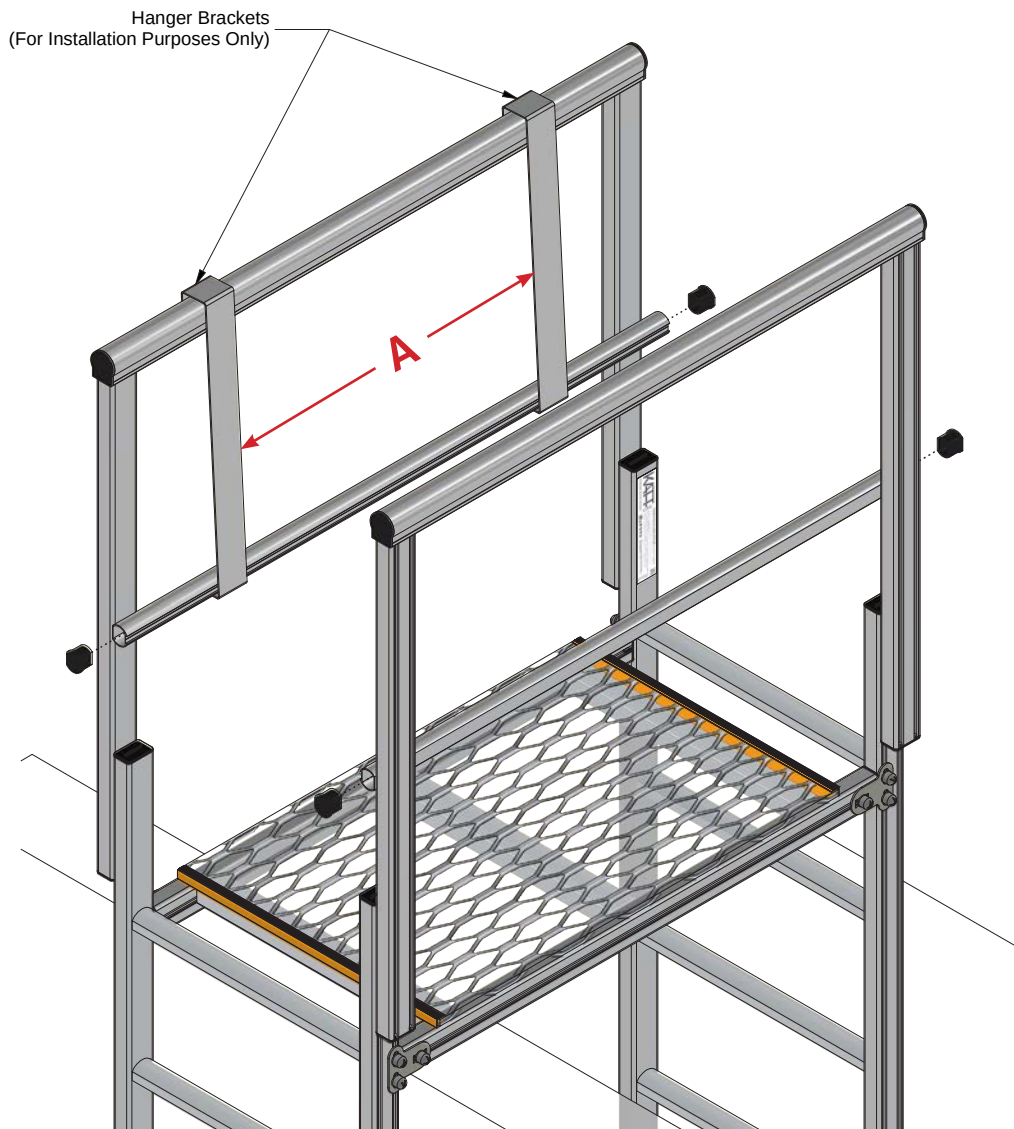
6 If applicable, remove the top end caps of the ladder heads using a flathead screw driver.

Place the Kattsafe top-rail extrusions on top of the ladder head stiles, connecting the two ladder heads. Fasten the top-rail using (2) 3/4 inch S/S Tek Screws, (1) on each the inside and outside of the top-rail, at each ladder head connection point.



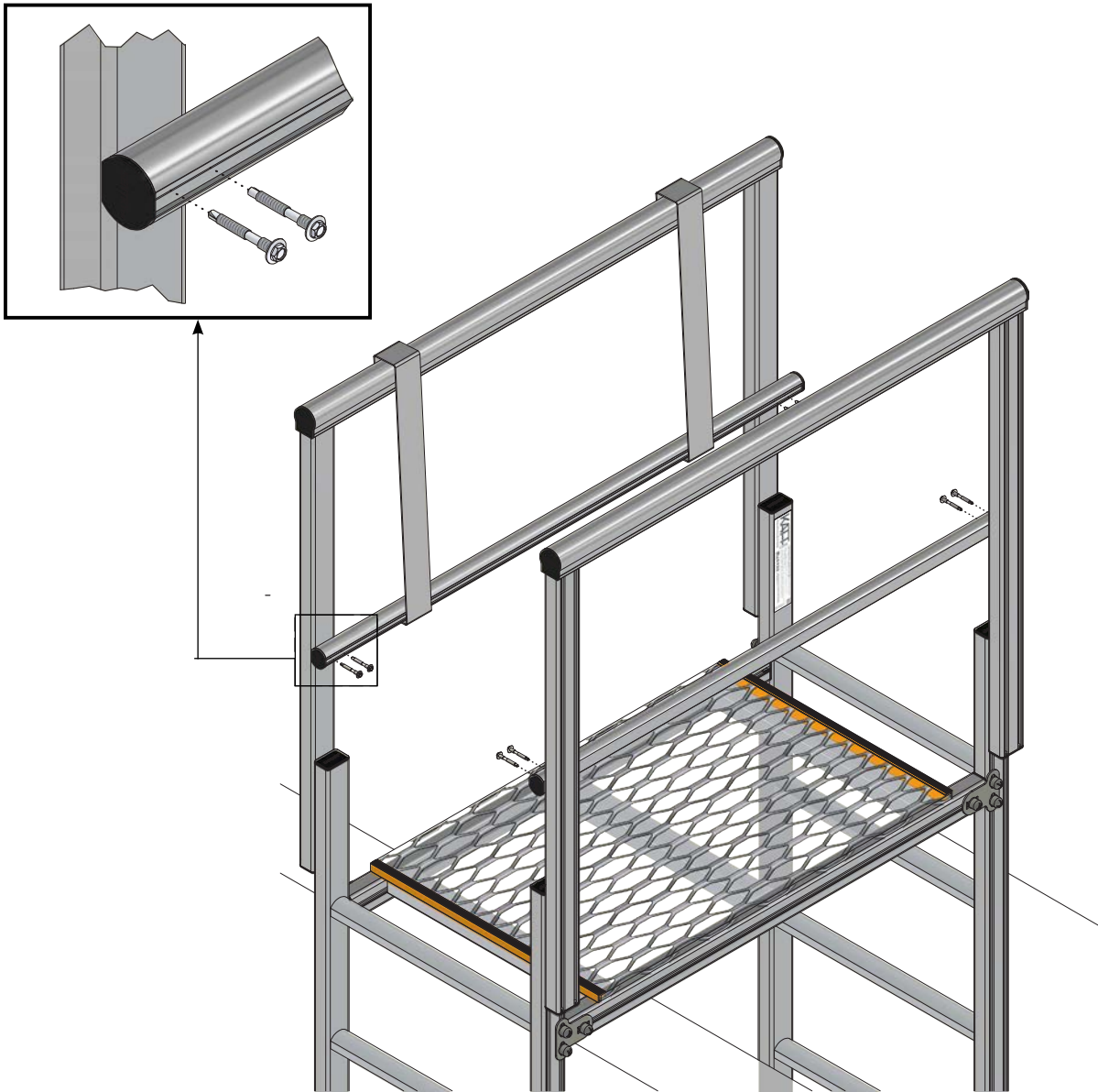
IMPORTANT NOTE:

Please double check and ensure the Tek Screws are fastened on each side of the top rail as this is often a common mistake that is made.



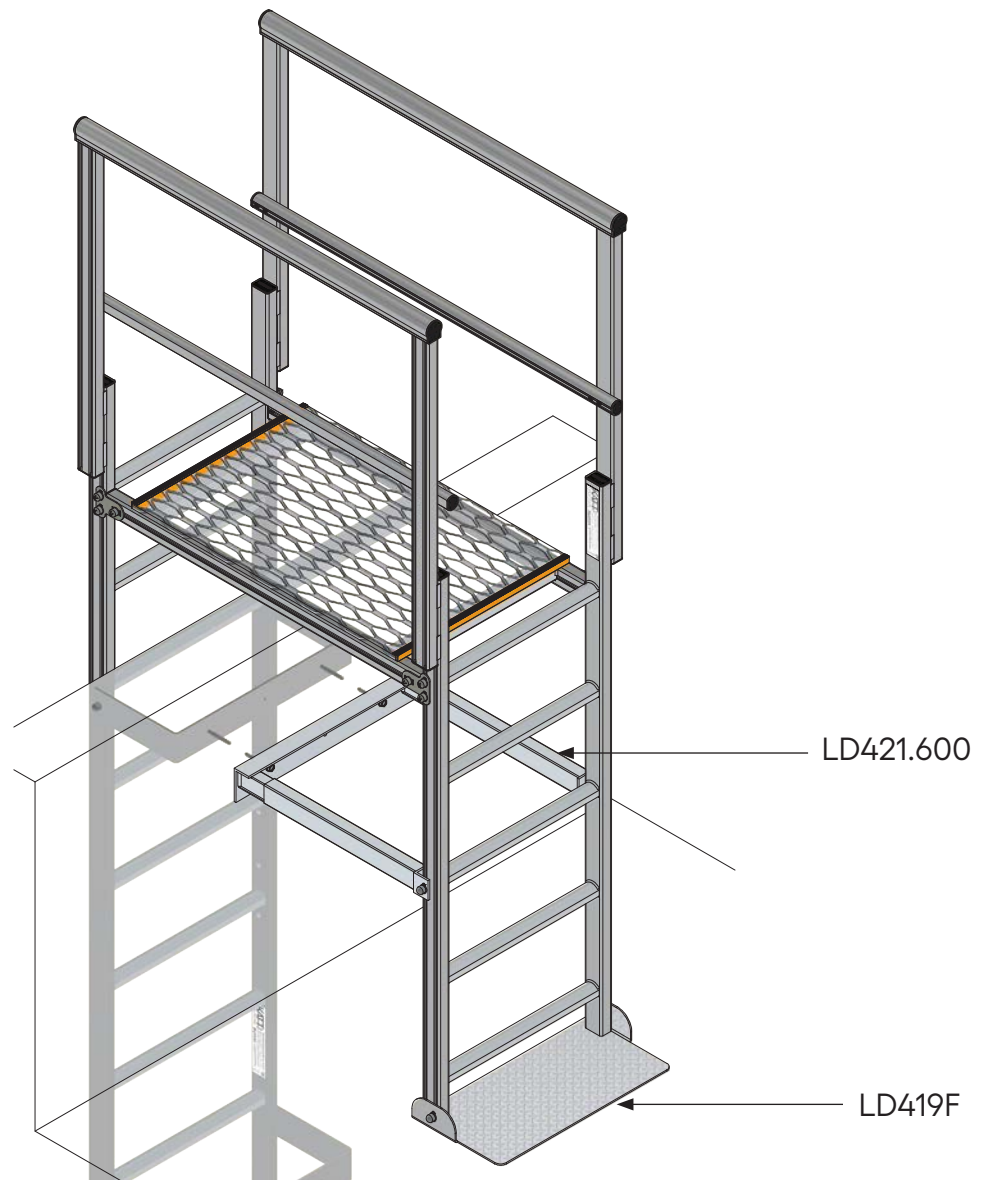
7 To identify the installation location of the mid-rail, use the provided set of hanger brackets (A), hanging them from the top-rail.

Place the mid-rail on the bottom bend of the hanger brackets. Insert the Kattsafe end caps into both ends of the mid-rail.



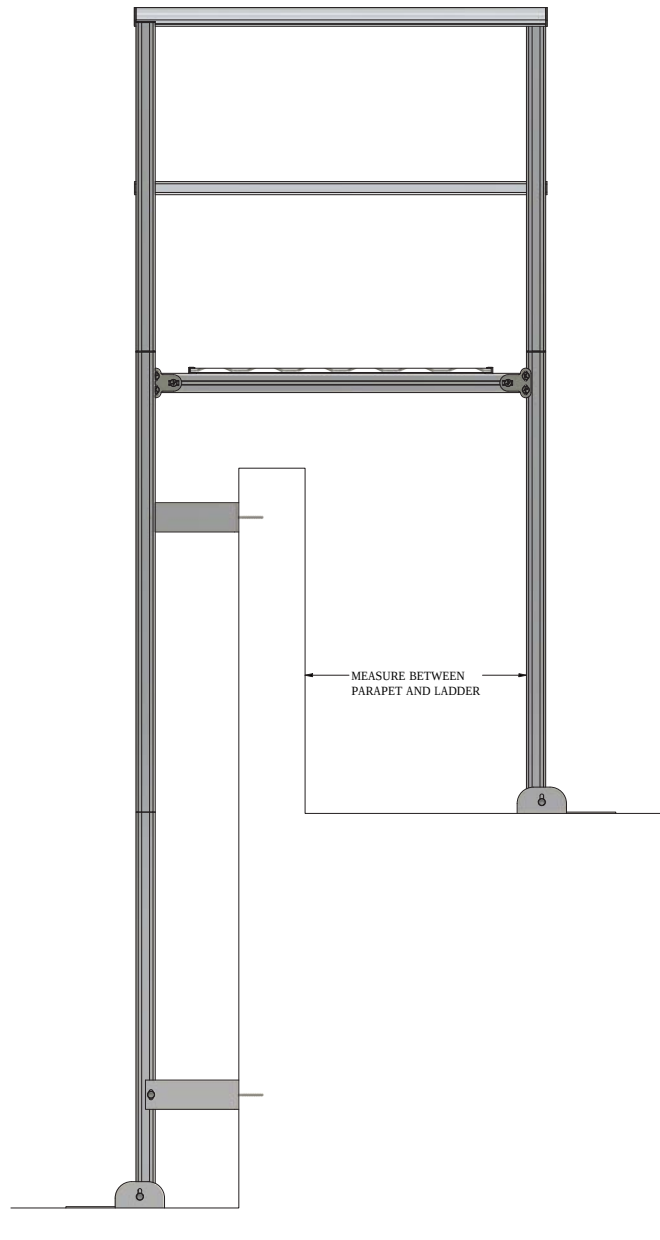
- 8** Fasten the mid-rail to the ladder head stiles using (2) 1-7/8 inch S/S Tek Screws. Fasten along the center groove of the mid-rail and through to the ladder head stile. Ensure that (1) 1-7/8 inch S/S Tek Screw fastens through the mid-rail end cap as well.

Remove the hanger brackets. These are to assist with installation only.

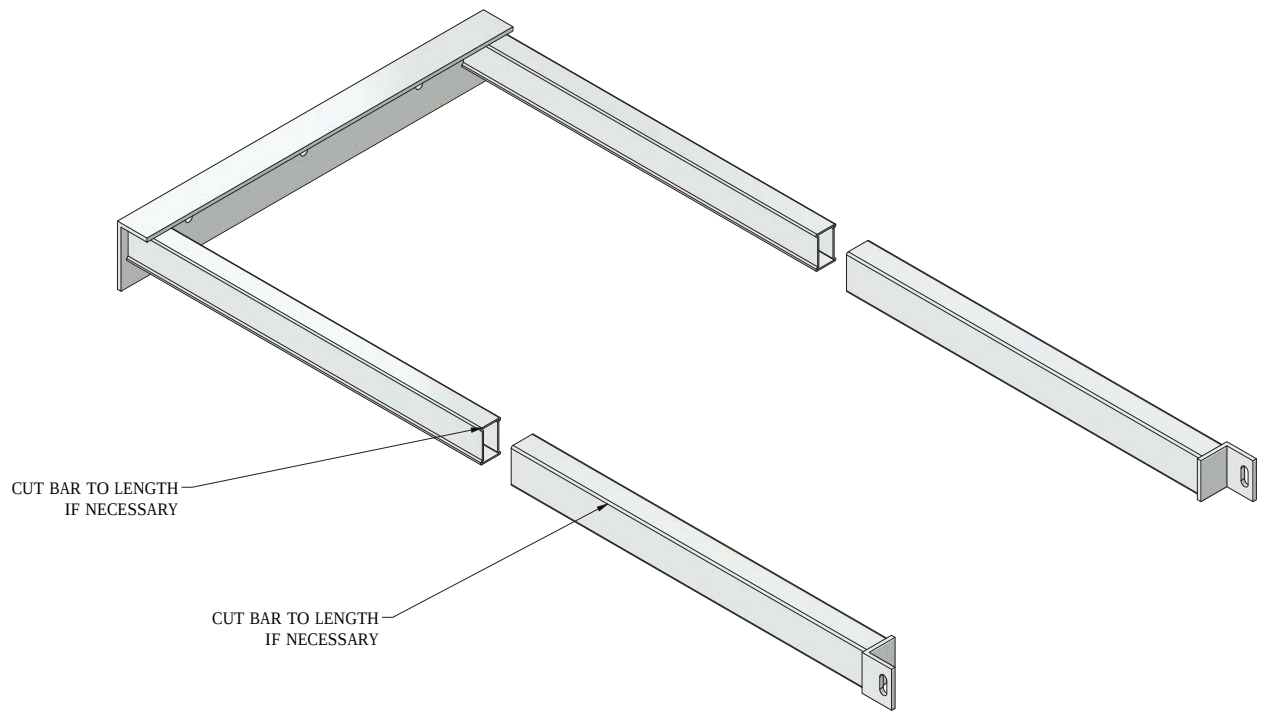


9 To install the LD421.600 bracket, please reference pages 35-41.

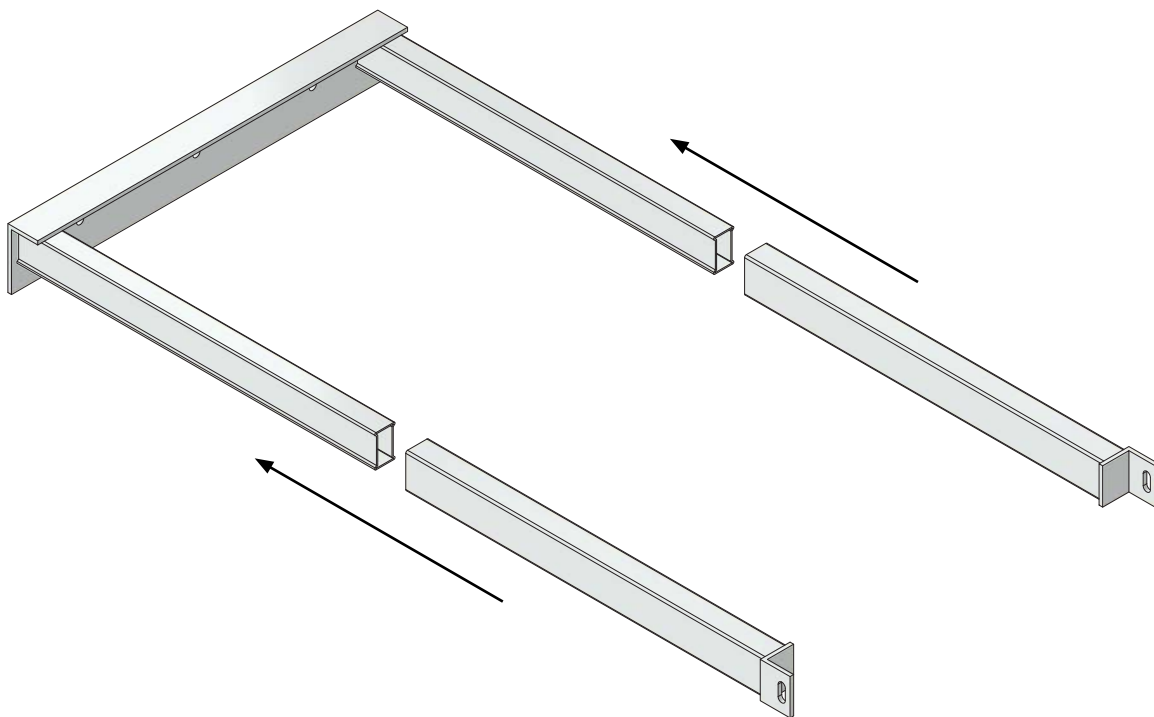
To install the LD419F baseplate, please reference the separate LD419F installation page.



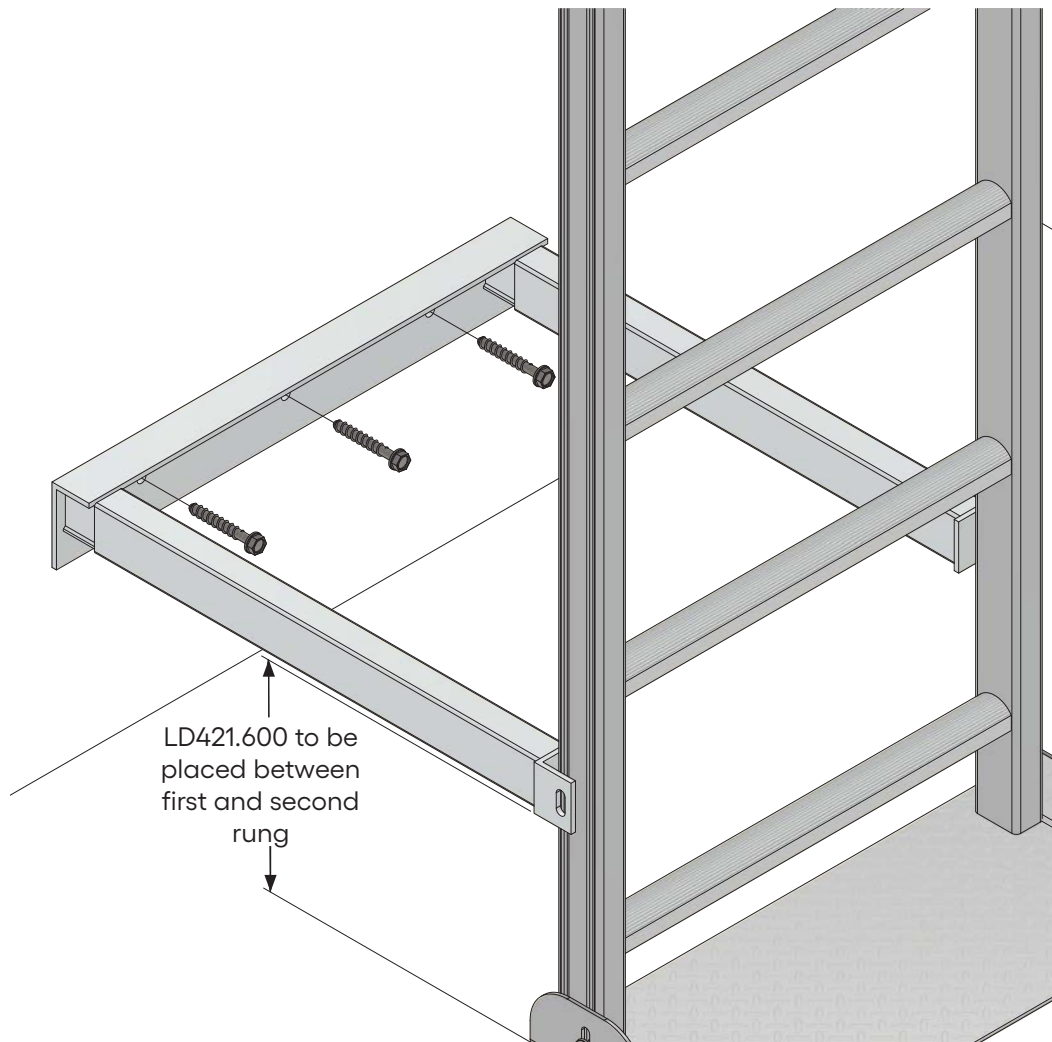
10 Measure the inside parapet wall to the ladder to get the LD421.600 bracket length dimension.



- 11** Using the measurement from step 16, cut the bars from the mounting bracket and the extension bars of the LD421.600 unit so that the length between the mounting bracket and the end of the extension bracket is 4in shorter to the dimension measured between the Parapet and Ladder. This will allow for adjusting the extension brackets to length.

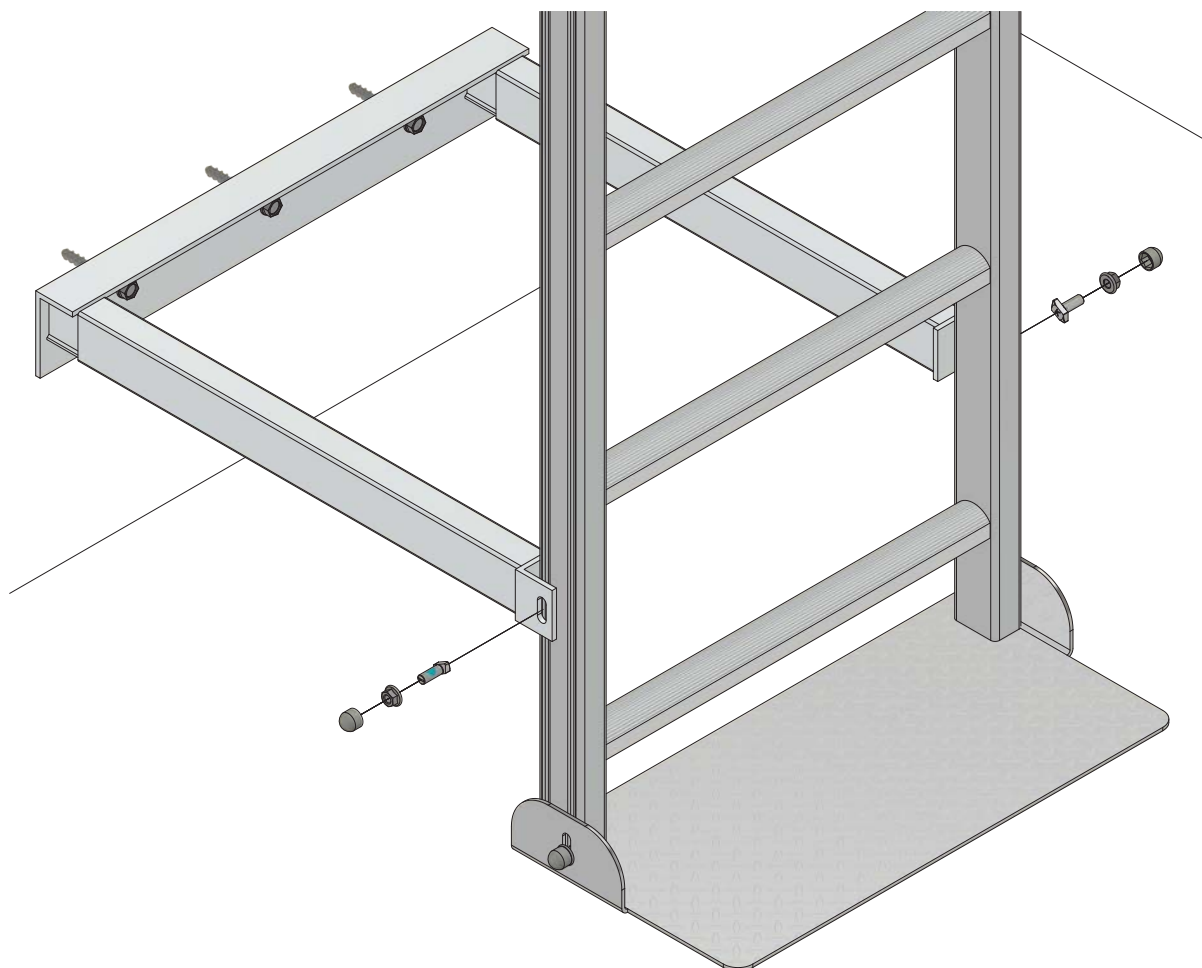


12 After cutting the bars to length, insert the LD421.600 extensions into the mounting bracket.

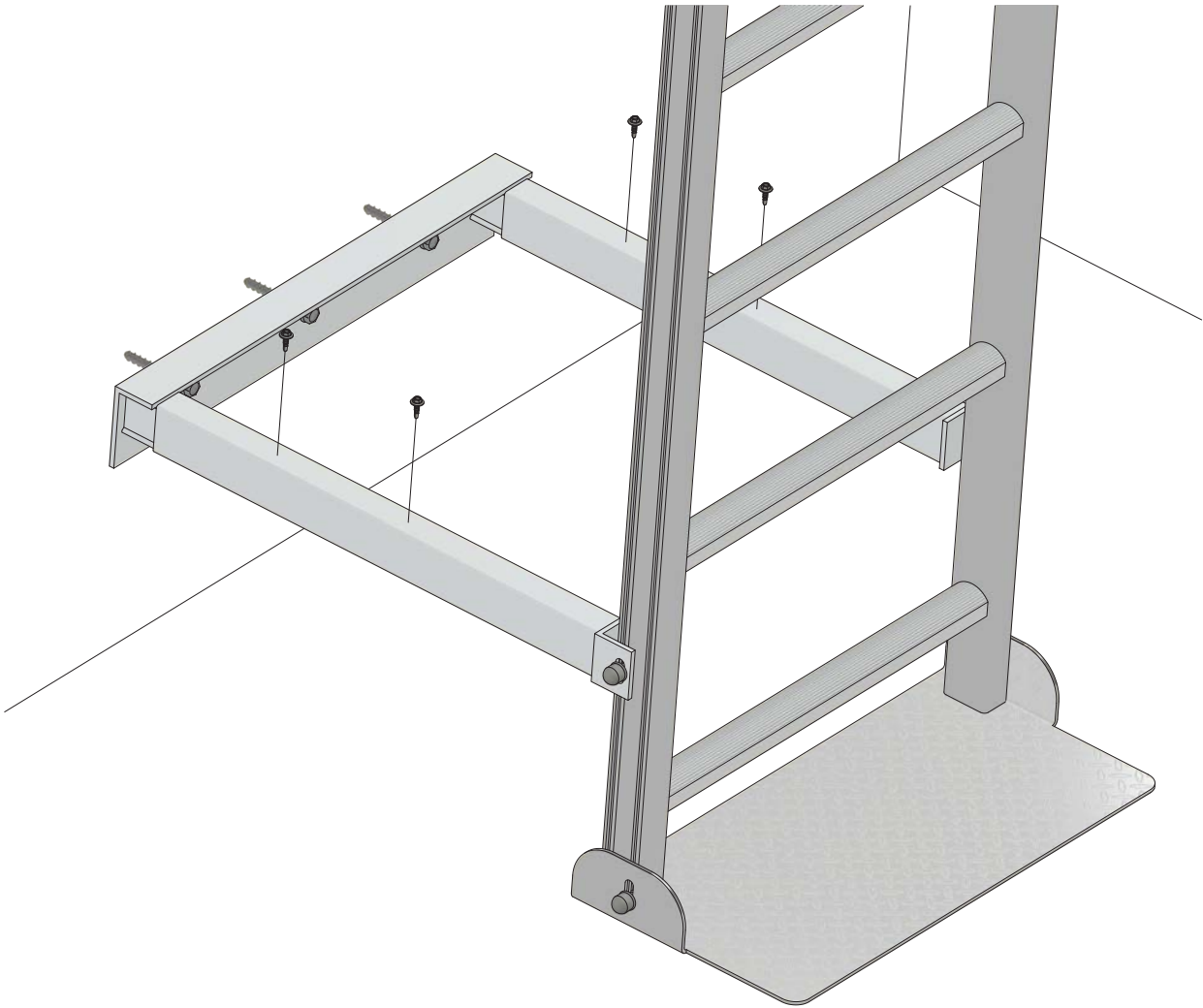


- 13** Place the LD421.600 bracket against the wall. Place the bracket at a height that is level and in between the first and second rung of the ladder counting from the floor up. Verify that the extension brackets are outside of the ladder. Use appropriate hardware depending on the parapet wall substrate to bolt mounting bracket to the wall.

In some applications, the wall substrate may not be suitable to mount to. We would still recommend a wall bracket to be installed even if it is only adhered to the wall. This will assist with the structural performance of the system.

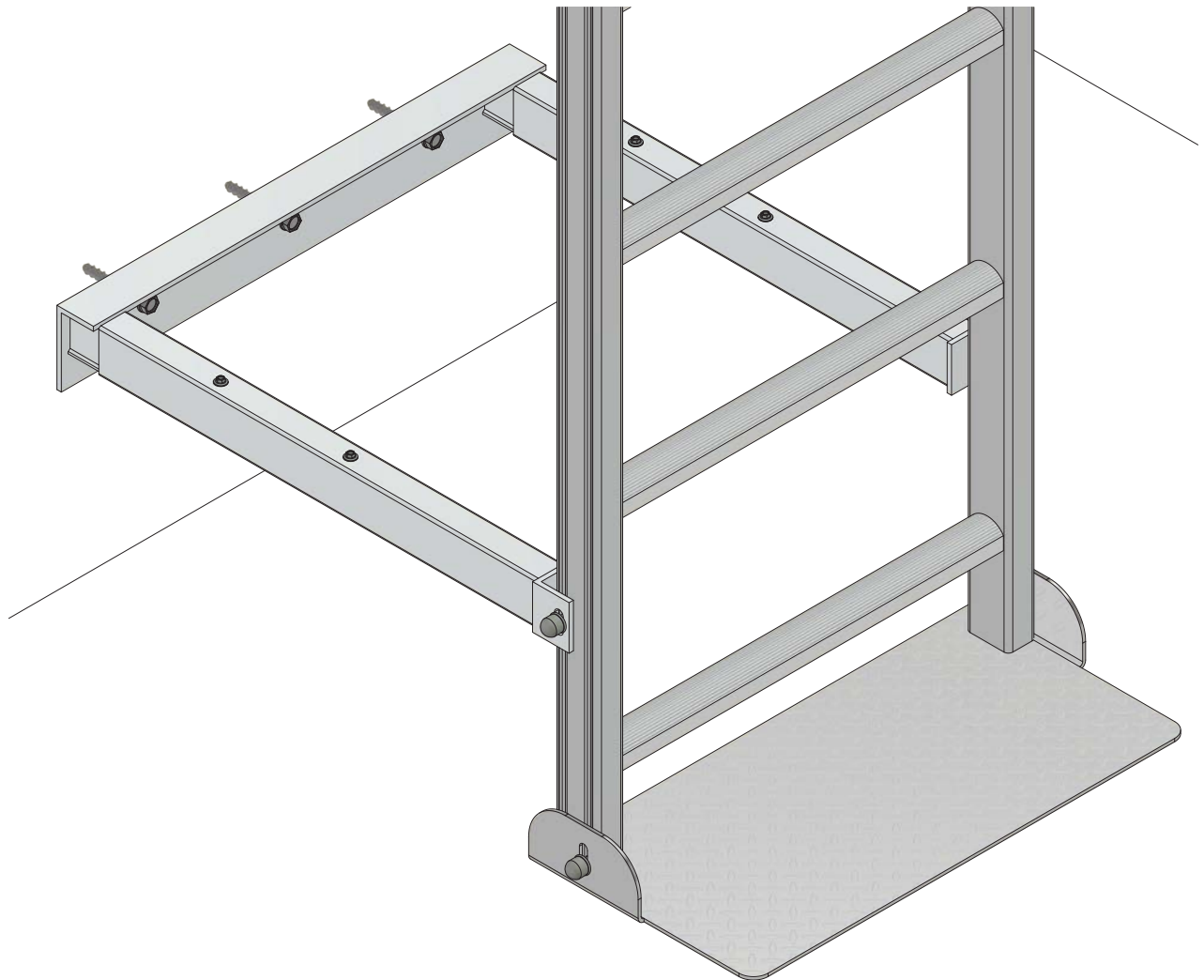


- 14** Install T-bolts into the ladder slot and tighten with hex nut, attaching the LD421.600 extension brackets with the ladder. Put cap on top of the hex nut to cover. Do the same on the opposite side of the ladder.

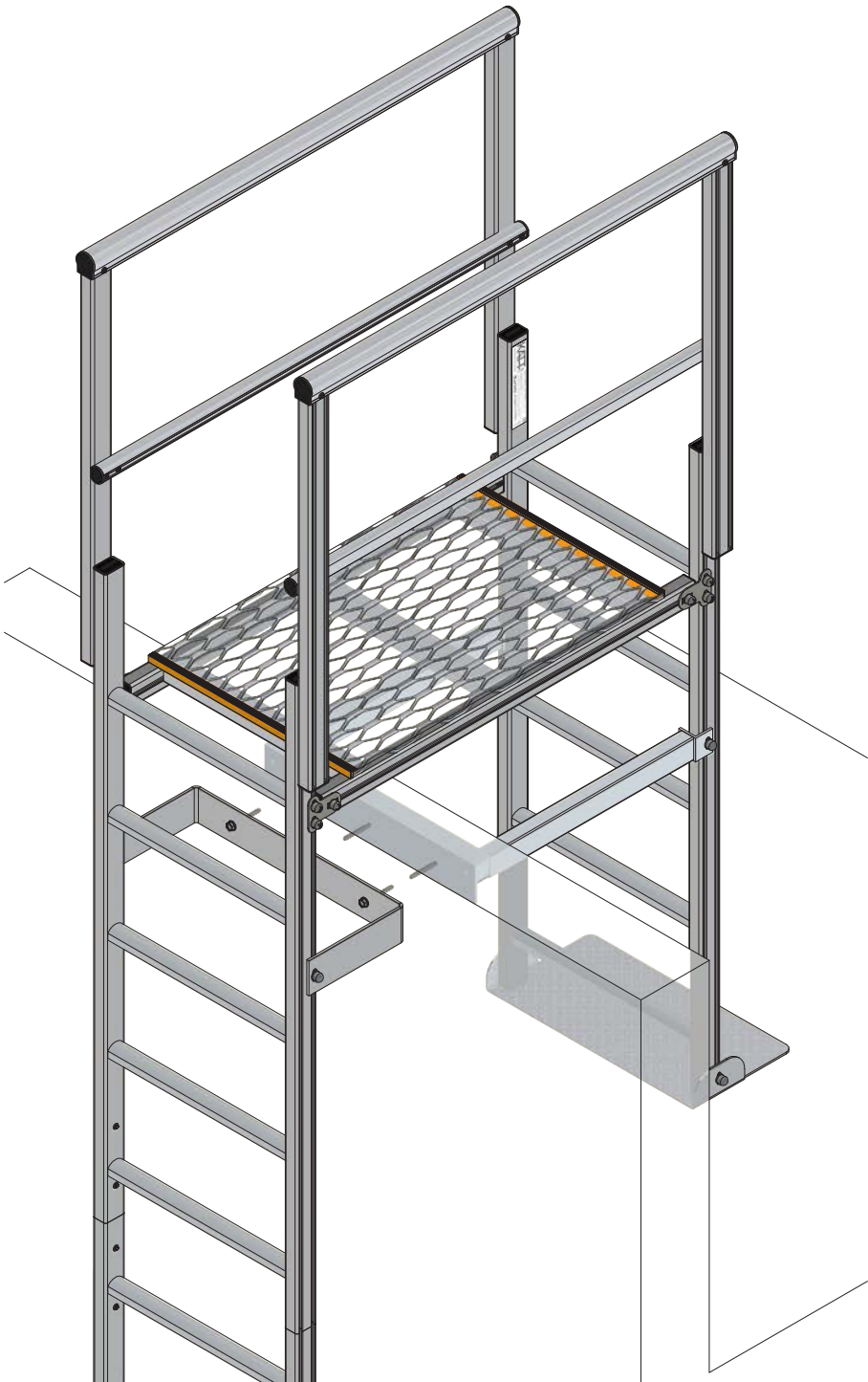


- 15** Screw in (2) 3/4in tek screws (SD907.20) on both sides of the extension bars to secure them in the set position. This in turn will lock the ladder in place.

FULLY INSTALLED LD421.600



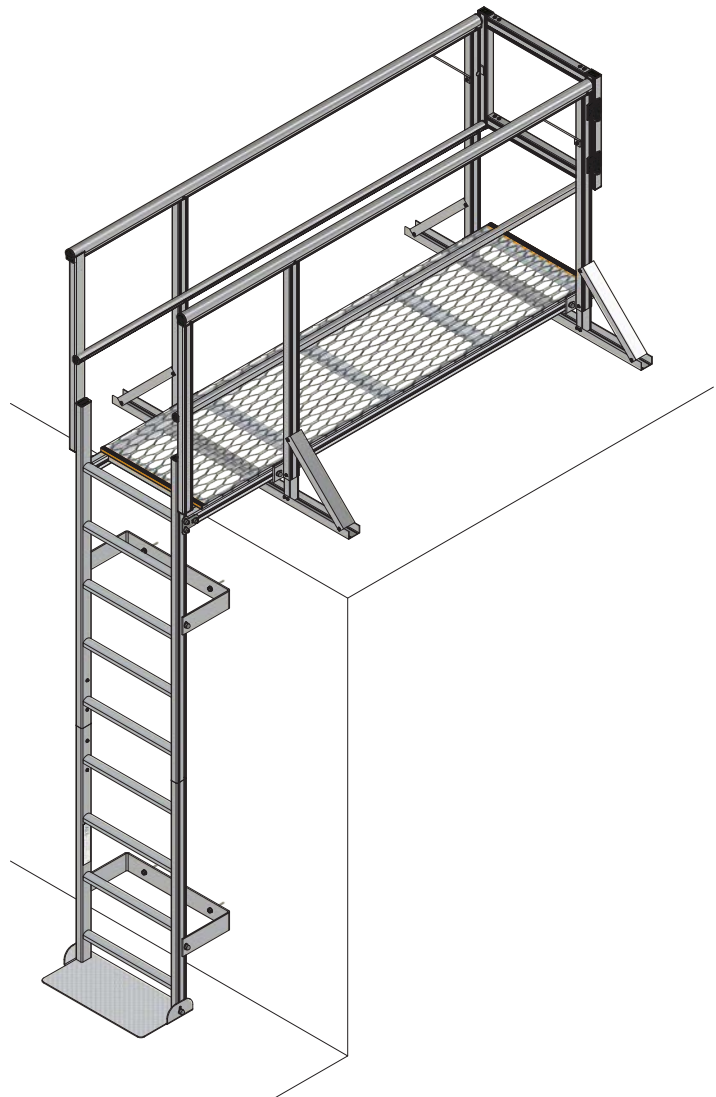
FULLY INSTALLED RL32

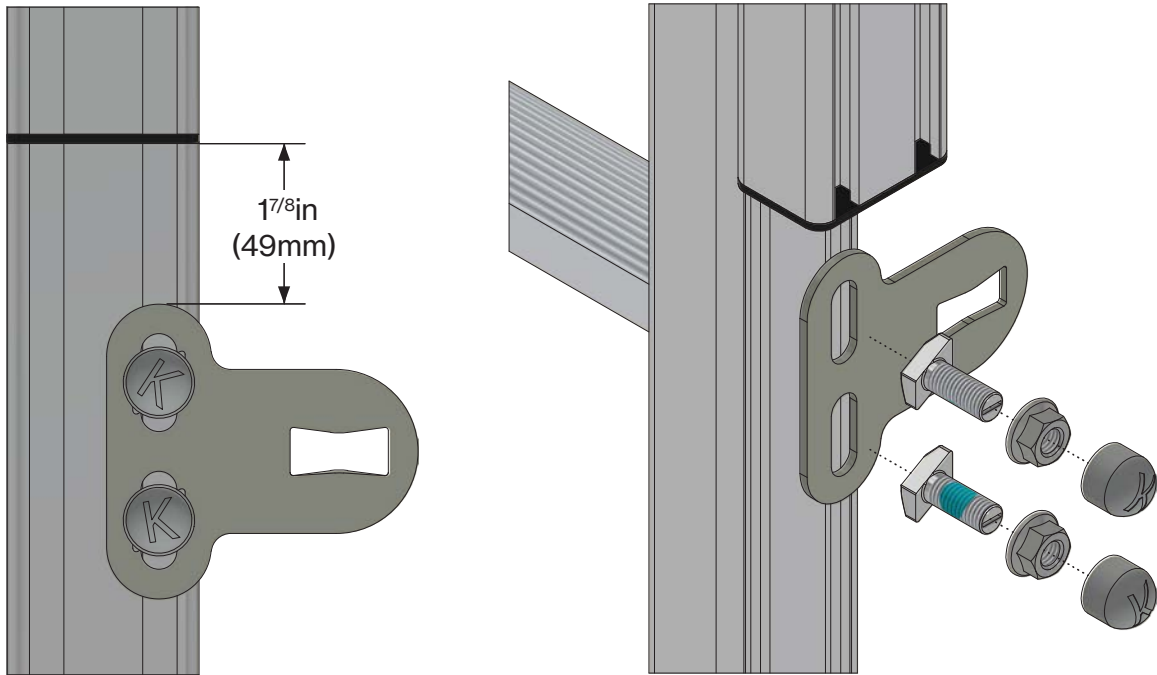


INSTALLATION MANUAL

VERTICAL LADDER WITH 8FT WALKWAY PLATFORM

RL33



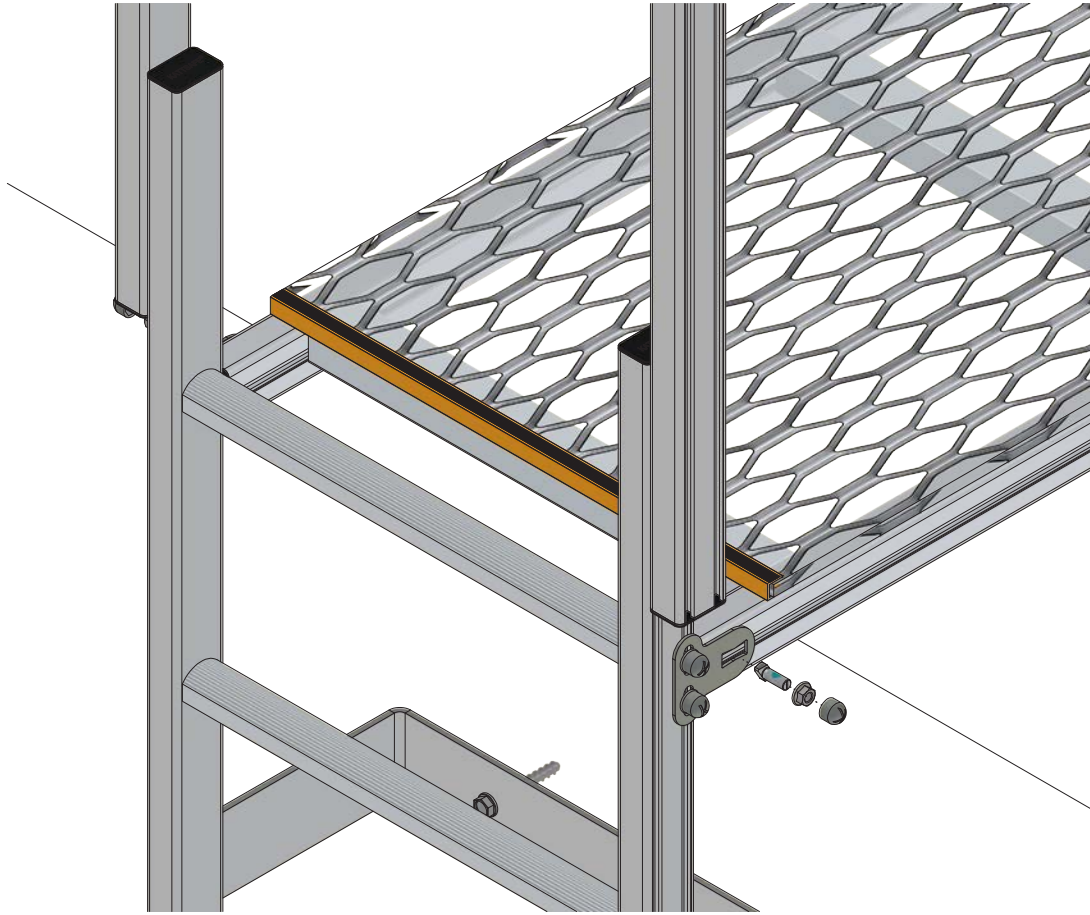


- 1 Measure 1-7/8 inch (49mm) from the bottom end cap on the ladder head. Place the top of the T-bracket on the ladder head at this measurement. Fasten the T-bracket using (2) Kattsafe T-bolts on the inside T-slot of the ladder body. Repeat this step for the other side of the ladder body.



IMPORTANT NOTE:

This measurement should mean that the platform is level with the top rung of the ladder body once installed. Once the platform is installed, double check that it is level.

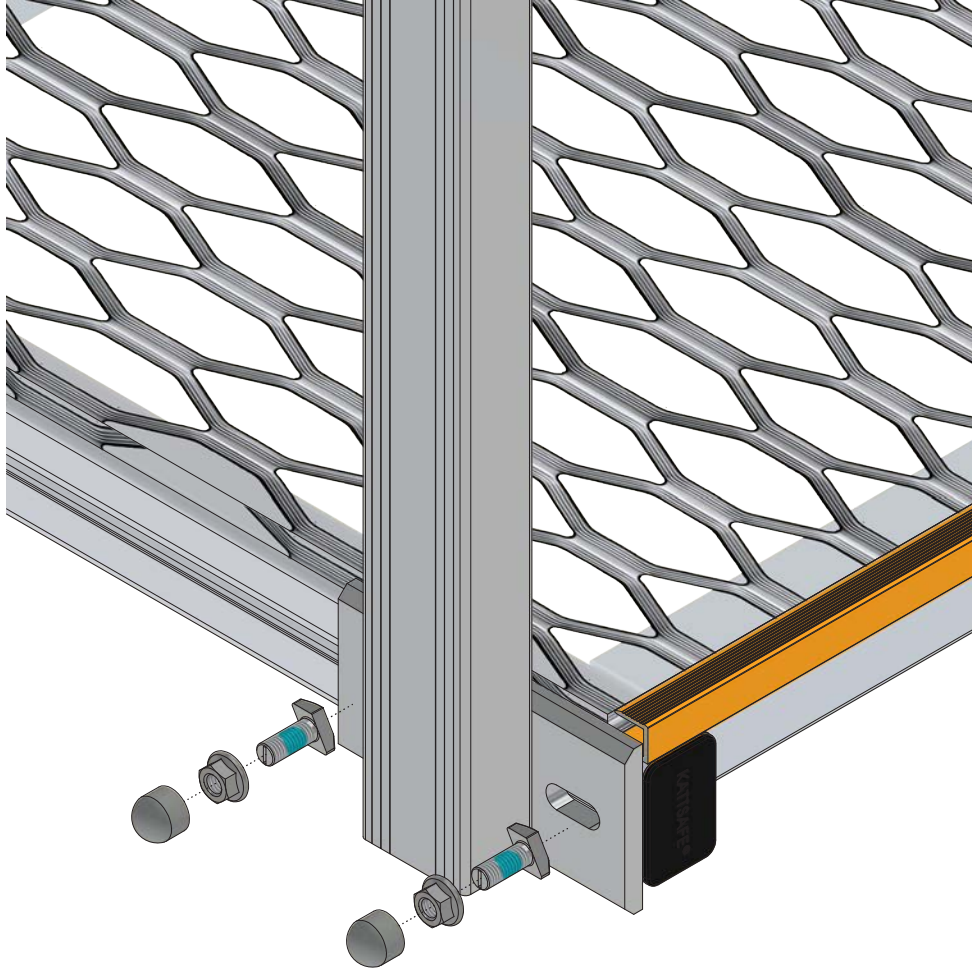


- 2** Place the parapet platform so that it is tight to the ladder body. Position the platform so the T-slot matches the horizontal slot of the T-bracket. Fasten using (1) Kattsafe T-bolt. Repeat this step for the other side of the ladder body.

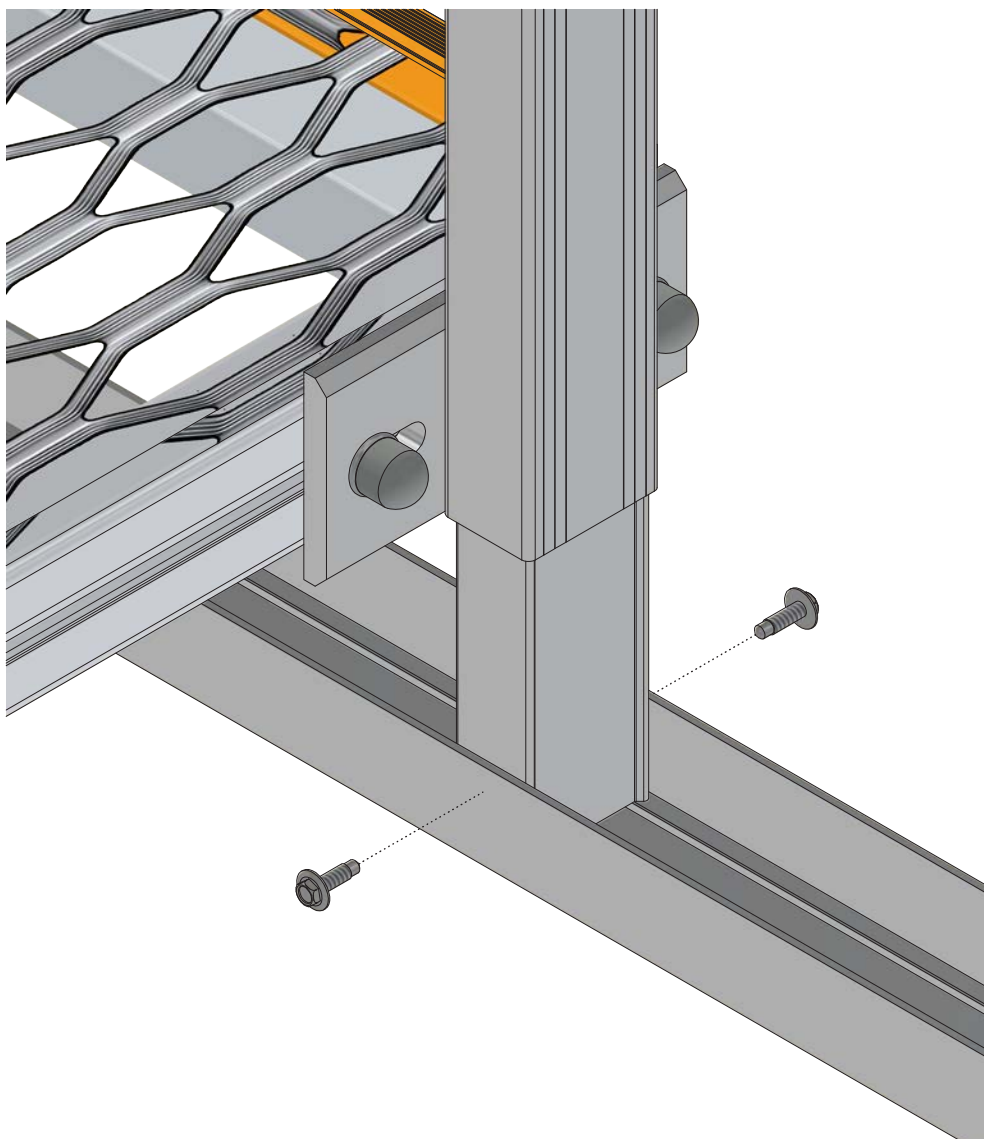


IMPORTANT NOTE:

Following step 1, the platform should be level with the top rung of the ladder body. Double check that the parapet platform is level with the walking-working surface once fastened to the T-brackets.



- 3** Place (1) side mount post so that end of the flange is flush to the end of the platform. Fasten the side mount post with (2) Kattsafe T-bolts. Repeat this step for the other side of the platform. Use a speed square to ensure that top mount post is perpendicular to the platform.



- 4** Place the section of c-channel at the end of the platform directly under the side mount posts. Ensure that the c-channel is centered left to right.

Drop a splice join through the top of the side mount post so that it falls through the bottom and sits inside the c-channel.

Fasten the splice join to the c-channel using (2) 3/4 inch S/S Tek Screws on the inside of the c-channel.