acrow.
ENGINEERING & CONSTRUCTION

TECHNICAL GUIDE
BRIDGE BRACKETS

SPECIALISED SYSTEMS

Any safety provisions as directed by the appropriate governing agencies must be observed when using our products. The pictures in this document are snapshots of situations at different stages of assembly, and therefore are not complete images. For the purpose of safety, they should not be deemed as definitive.

The company reserves the right to introduce any modifications deemed necessary for the technical development of the product.

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Technical Manual Release Notes

This page is intended to record all changes to the **BRIDGE BRACKETS** technical manual pages.

Changes or additions to this manual will be itemised with a brief description and date when the amendments were made.

ISSUE	DATE	Amendment Description
A	09/2024	First Release
B	06/2026	Second Release
C	08/2026	Hinge Details Updated

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1. Technical Specifications

System Description

The **BRIDGE BRACKETS** system uses a range of cantilever brackets designed to be used as an access platform, walkways, and edge formwork for a wide range of structural applications. It is designed to be bolted into concrete and masonry structures including walls and precast concrete bridge components such as Girders and Super T Beams.

Purpose of the Document

The purpose of this document is to provide guidelines for design, safe handling, transport and installation of the **BRIDGE BRACKETS** system.

The document also outlines the various components of the system and it features illustrations, working load limits, typical assembly arrangements and safe transport and handling measures.

The information contained in this document is provided as a general guide only and does not replace the need for the design to be reviewed and checked by a qualified person in the field of temporary works design and installation, concrete, steel, building construction and services.

This material has been prepared in the context of relevant Australian Standards and the National Construction Code (NCC). Users should make themselves aware of any recent changes to these documents referred to therein and to local variations or requirements.

This document is NOT a substitute for site-specific Safe Operation Procedures. It is the Installation Contractors responsibility to prepare safe work method statements and observe and comply with site specific health and safety regulations, standards and policies.

Acrow has dedicated engineering services available for project assistance. We can provide design support for clients to determine the best way to specify and document. Our technical experts can identify the most efficient temporary work design meeting project requirements, specifications and installation process.

Should the users require any further information or guidance, they are encouraged to contact their local Acrow branch.

Safety Information

This safety information draws the user's attention to potential musculoskeletal risks associated with manual handling. It is recommended that appropriate procedures and control measures be implemented during assembly and dismantling of the **BRIDGE BRACKETS** system

Refer to the Code of Practice on manual handling published by local Workcover Authority or other approved and recognised guidelines for correct and appropriate manual handling procedures.

1. Technical Specifications

Important Information

The erection and application instructions contained in this manual are the recommended methods to be used for **BRIDGE BRACKETS** products.

The technical function related instructions must be accurately followed to obtain the correct performance of the product. Any deviation from the recommended use shall require separate design verification by Acrow Engineering.

The safe use and application of the system must be in accordance with Australian Standard AS 3610 Formwork for Concrete, Occupational Health & Safety regulations, approved industry codes of practice and relevant regulatory authority requirements.

The illustrations in these assembly configurations are minimum guidelines only.

The combined use of the **BRIDGE BRACKETS** system with equipment from other suppliers may entail performance issues and therefore requires a design check and/or verification by Acrow Engineering or a qualified experienced engineer.

Hazard Identification/Risk Assessments for the erection and dismantling of the system are available from Acrow branches. Site specific Hazard and Risk assessments may need to be generated for specific projects.

Disclaimer

1. The photographs and illustrations shown within this manual are intended to be used as a guideline only.
2. In line with Acrow's commitment to continuous product development and improvement, the information contained in this manual may be changed without notice. Please confirm with Acrow Engineering for the latest update.
3. While all reasonable effort has been taken to ensure the accuracy and adequacy of the information contained herein, Acrow accepts no responsibility or liability for any loss or damage suffered by any person acting or refraining from action as a result of this information.

   Should users require any expert assistance, they are encouraged to contact Acrow Engineering department.

Applicable Codes and Standards

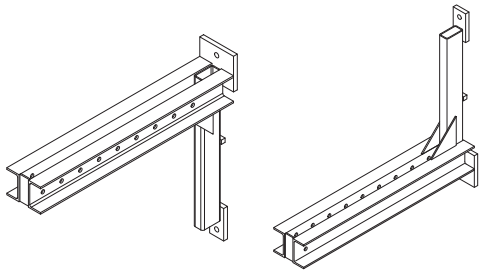
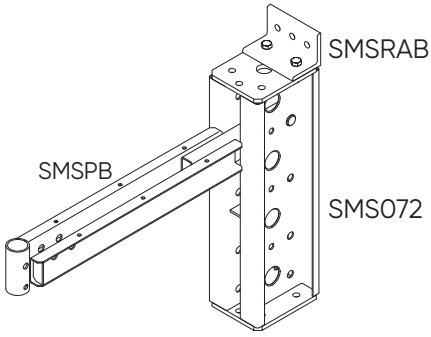
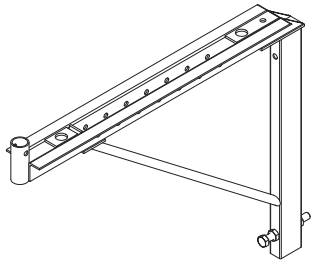
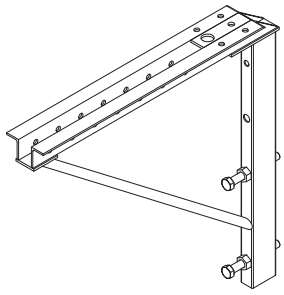
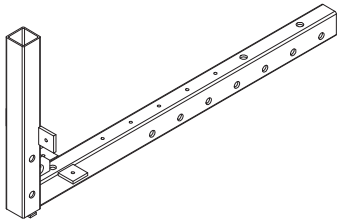
The structural design information and guide provided in this document are limited to the relevant codes listed below. It does not include certification of any structures or works associated with a project.

ELEMENT	DESCRIPTION	CODE
STEEL	Cold-Formed Steel Structures	AS 4600-2018
	Steel Structures	AS 4100-2020
FORMWORK	Formwork for Concrete	AS 3610-1995
	Formwork for Concrete Part 1- Specifications	AS 3610.1-2018
LOADING	Structural Design Actions – Permanent, Imposed And Other Actions	AS/NZS 1170.1-2002
	Structural Design Actions - General Principles	AS/NZS 1170.0-2002
EDGE PROTECTION	Temporary Edge Protection - General Requirements	AS/NZS 4994.1 : 2009
	Temporary Edge Protection - Installation And Dismantling For Edges Other Then Roof Edges	AS/NZS 4994.3 : 2010

2. GENERAL PRODUCT INFORMATION

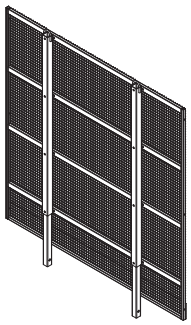
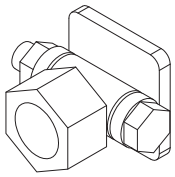
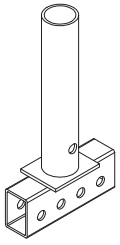
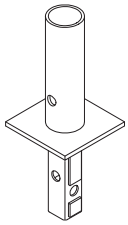
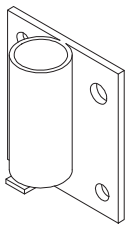
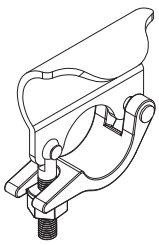
2. General Product Information

Bridge Brackets

PRODUCT	DESCRIPTION	PRODUCT CODE	MASS (kg)
	**Box Girder Cantilever Bracket** The Box Girder Cantilever Bracket provides a solution for edge and soffit forming providing a wide range of vertical concrete structures. It can be used to construct walkways by rotating the bracket 180° and installing it as a "L" shape bracket.		
	Box Girder Cantilever Bracket	BGCPB	44.5
	**Slim - Max Cantilever Bracket** The Slim-Max Cantilever Bracket is designed to be bolted into the Acrow Slim-Max formwork components (Soldier). The height of the bracket can be adjusted to provide a range of access for formwork jobs.		
	Slim - Max Soldier 720mm	SMS072	22.0
	Platform Bracket	SMSPB	9.5
	Slim Max Right Angle Bracket	SMSRAB	3.0
	**Universal Cantilever Bridge Bracket** The UCBB is a fixed length bridge bracket suitable for applications on walls and Super T Girders and features a Hand Rail spigot designed for scaffold tubing.		
	Universal Cantilever Bridge Bracket	UCBB	27.5
	**Adjustable Universal Cantilever Bridge Bracket** The adjustable bridge bracket is bolted to existing concrete structures such as walls and Super T Girders. It is used with the UCBBTA to provide an adjustable walkway platform.		
	Adjustable Cantilever Bridge Bracket	UCBBM	23.5
	**Telescopic Bridge Bracket Arm** Telescopic arm that can provide an adjustable walkway width when used with the UCBBM. LVL Beams can be secured through the main arm in addition to kickboards. Provides mounting for both scaffold Hand Rails and UCBBS.		
	Telescopic Bridge Bracket Arm	UCBBTA	17.5

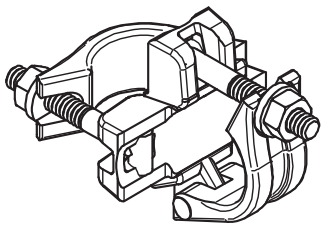
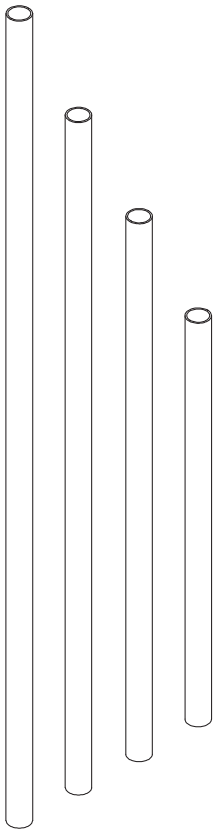
2. General Product Information

Bridge Brackets & Adapters

PRODUCT	DESCRIPTION	PRODUCT CODE	MASS (kg)
	**Bridge Bracket Screen** The Bridge Bracket Screen can be lowered onto the end of 2 UCBBTA to provide a 2m edge protection. The screen can be adjusted 80mm each side to cover any gaps that may form. The screen can alternatively be placed into 2 grounded feet to form semi-permanent protection on the ground.		
	Bridge Bracket Screen	UCBBS	98.0
	**Bridge Bracket Hinge** The modified bridge bracket is bolted to existing concrete structures such as walls and Super T Beams. It is used with the UCBBTA to provide an adjustable walkway platform.		
	Bridge Bracket Hinge	UCBBHG	0.5
	**Hand Rail Bracket Type 1** An adjustable spigot sleeve for Hand Rail posts, it can be bolted to the UCBB at a variety of lengths to change the width of walkways.		
	Hand Rail Bracket Type 1	UCBBHS	4.0
	**Slim-Lite / Slim-Max Soldier Post Adapter** Used with the Slim - Max Cantilever Bracket and can be bolted directly into the soldier to provide a spigot sleeve for a Hand Rail post.		
	Hand Rail Bracket Type 2	SMSSPA	3.5
	**Handrail Post End Bracket** Bolts to the end of a soldier being used as a horizontal beam to provide fixing for guardrail post.		
	Handrail Post End Bracket	SGPEB	2.5
	**Putlog Coupler** Typically used for securing guardrails and midrails to standards at right angles. Other uses can distort the Coupler so that tube retention is not effective and WLL does not apply.		
	Putlog Coupler	PCSW	0.5

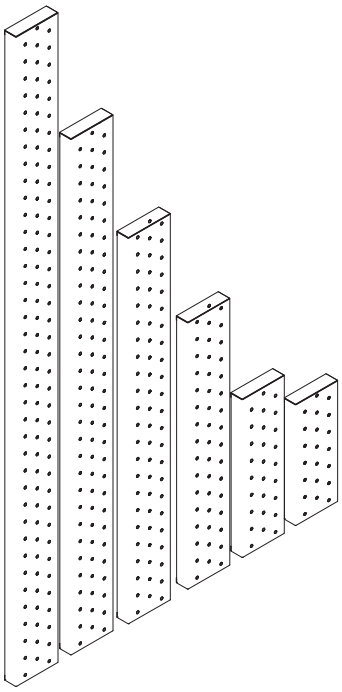
2. General Product Information

Couplers & Scaffold Tube

PRODUCT	DESCRIPTION	PRODUCT CODE	MASS (kg)
	**Coupler**		
	Double Coupler	DC	1.5
	Swivel Coupler	SC	1.5
	Reduction Double Coupler	DCR	2.0
	Reduction Swivel Coupler	SRC	2.0
	**Scaffold Tubes** Assorted lengths of Ø48.3mm x 3.2mm thick grade 350 steel tubes used in various parts of scaffold construction including hand rails, safety barriers, bracing and tying.		
	0.3m Tube - HDG - 3.2mm	ST03	1.5
	0.6m Tube - HDG - 3.2mm	ST06	2.5
	0.9m Tube - HDG - 3.2mm	ST09	3.5
	1.2m Tube - HDG - 3.2mm	ST12	5.0
	1.5m Tube - HDG - 3.2mm	ST15	6.0
	1.8m Tube - HDG - 3.2mm	ST18	7.0
	2.1m Tube - HDG - 3.2mm	ST21	8.5
	2.4m Tube - HDG - 3.2mm	ST24	9.5
	2.7m Tube - HDG - 3.2mm	ST27	10.5
	3.0m Tube - HDG - 3.2mm	ST30	11.5
	3.3m Tube - HDG - 3.2mm	ST33	13.0
	3.6m Tube - HDG - 3.2mm	ST36	14.0
	3.9m Tube - HDG - 3.2mm	ST39	15.0
	4.2m Tube - HDG - 3.2mm	ST42	16.0
	4.5m Tube - HDG - 3.2mm	ST45	17.5
	4.8m Tube - HDG - 3.2mm	ST48	18.5
	5.1m Tube - HDG - 3.2mm	ST51	19.5
	5.4m Tube - HDG - 3.2mm	ST54	21.0
	5.7m Tube - HDG - 3.2mm	ST57	22.0
	6.0m Tube - HDG - 3.2mm	ST60	23.0
	6.3m Tube - HDG - 3.2mm	ST63	24.0
	6.5m Tube - HDG - 3.2mm	ST65	25.5

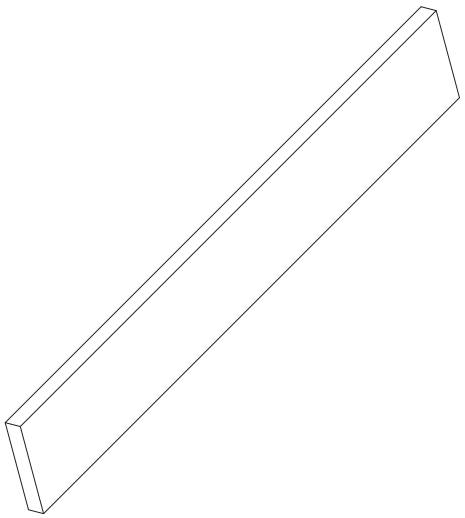
2. General Product Information

Guardrail Posts & Steel Planks

PRODUCT	DESCRIPTION	PRODUCT CODE	MASS (KG)
	Guardrail Post Used in conjunction with Working Platform Bracket, Guardrail Post Bracket, Post Adapter or Top Hand Rail Brackets to provide connection for a Pin or M16 x 80mm bolt and nut.		
	Guardrail Post 1200mm	SSHS12	5.5
	Guardrail Post 1500mm	SSHS15	7.0
	Guardrail Post 1800mm	SSHS18	8.0
	Guardrail Post 2100mm	SSHS21	9.5
	**Cuplok Steel Planks** Used as kickboards, clamped down using Putlog Hook Clamps or Toe Board Clips.		
	Steel Plank 0.61m	SPC061	3.0
	Steel Plank 0.83m	SPC083	5.0
	Steel Plank 1.05m	SPC105	7.0
	Steel Plank 1.27m	SPC13	8.5
	Steel Plank 1.50m	SPC15	9.5
	Steel Plank 1.83m	SPC18	11.5
	Steel Plank 2.44m	SPC24	15.5
	Steel Plank 3.05m	SPC30	19.5
	Quickstage Steel Planks Used as kickboards, clamped down using Putlog Hook Clamps or Toe Board Clips.		
	Steel Plank 0.5m	7405	3.5
	Steel Plank 0.7m	7407	4.0
	Steel Plank 1.2m	7412	6.5
	Steel Plank 1.8m	7418	9.0
	Steel Plank 2.4m	7424	12.0
	Steel Plank 3.0m	7430	15.0

2. General Product Information

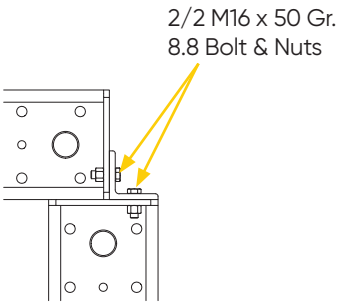
LVL Planks

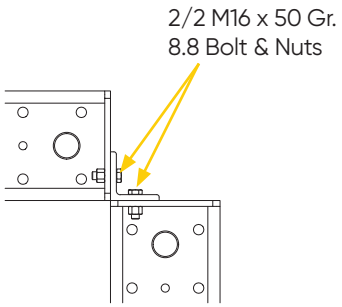
PRODUCT	DESCRIPTION	PRODUCT CODE	MASS (KG)
	**LVL Planks** Used as kickboards, clamped down using Putlog Hook Clamps or Toe Board Clips.		
	0.6m LVL Scaffold Plank	TP06	4.0
	0.9m LVL Scaffold Plank	TP09	6.5
	1.0m LVL Scaffold Plank	TP10	7.0
	1.2m LVL Scaffold Plank	TP12	8.5
	1.5m LVL Scaffold Plank	TP15	10.5
	1.8m LVL Scaffold Plank	TP18	13.0
	2.1m LVL Scaffold Plank	TP21	14.5
	2.4m LVL Scaffold Plank	TP24	17.0
	2.7m LVL Scaffold Plank	TP27	19.0
	3.0m LVL Scaffold Plank	TP30	21.0
	3.3m LVL Scaffold Plank	TP33	23.0
	3.6m LVL Scaffold Plank	TP36	25.0
	3.9m LVL Scaffold Plank	TP39	28.0
	4.2m LVL Scaffold Plank	TP42	29.5
	4.5m LVL Scaffold Plank	TP45	31.5
	4.8m LVL Scaffold Plank	TP48	33.5
	5.1m LVL Scaffold Plank	TP51	36.0
	5.4m LVL Scaffold Plank	TP54	38.0
	6.0m LVL Scaffold Plank	TP60	42.0

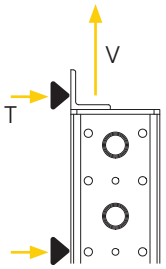
3. WORKING LOAD LIMITS

3. Working Load Limits (WLL)

Slim-Max Angle Bracket Anchor Loads

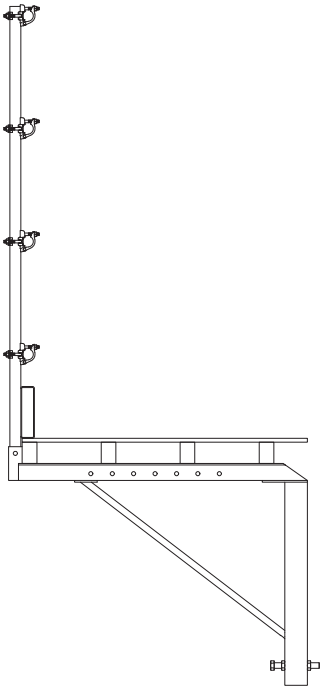




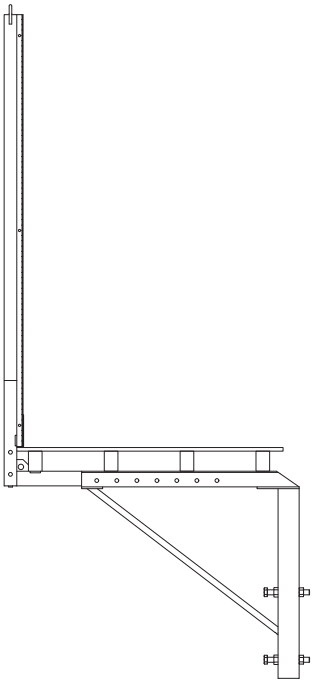


WLL =
T= 15kN Max, Tension
V= 15kN Max Shear

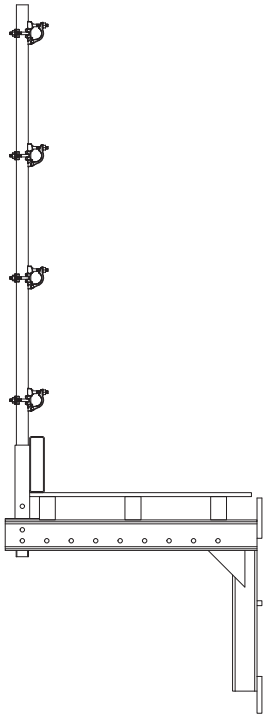
Cantilever Brackets



UCBB



UCBBM & Screen

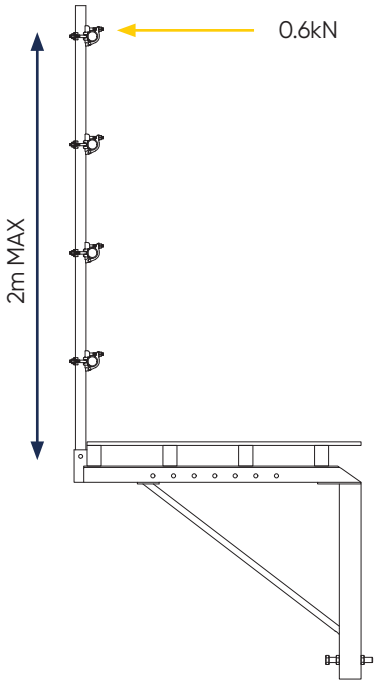


Box Girder Cantilever

Due to varying load cases and applications, the bracket does not have a specific working load limit, each application should be checked and verified by an engineer. Member sizes and bracket geometry in the systems detail section of this document.

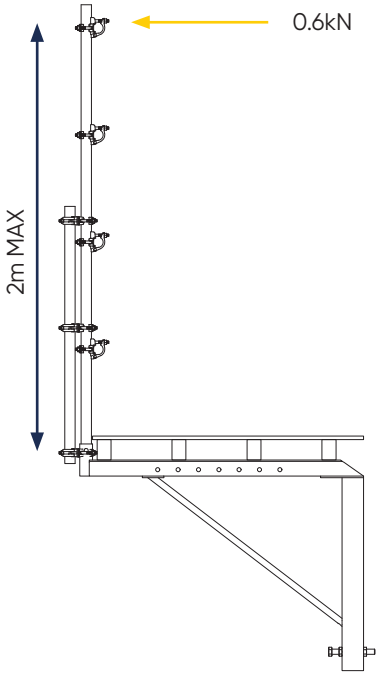
3. Working Load Limits (WLL)

Handrail Posts To AS4994



2100mm Single Post

- Max 2m high
- Max 1200mm centers
- Unstiffened post



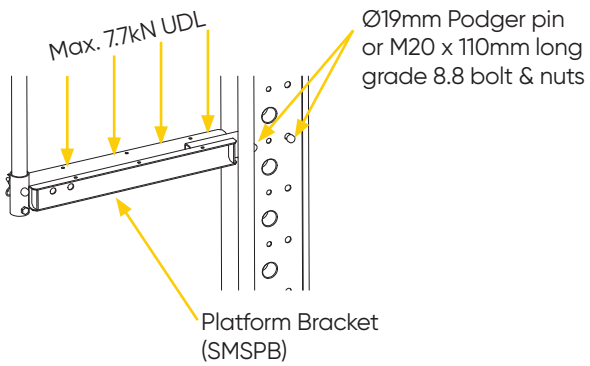
2100mm Post with Stiffeners

- Max 2m high
- Max 1200mm centers
- Stiffened post
- Stiffener adds 30% extra moment capacity to post

If containment is used, engineer to check post for wind loading specific to application.

Scaffold Tube Post used with Handrail Bracket meet with deflection requirements as is listed in AS4994 when handrail load applied Max 2m on post.

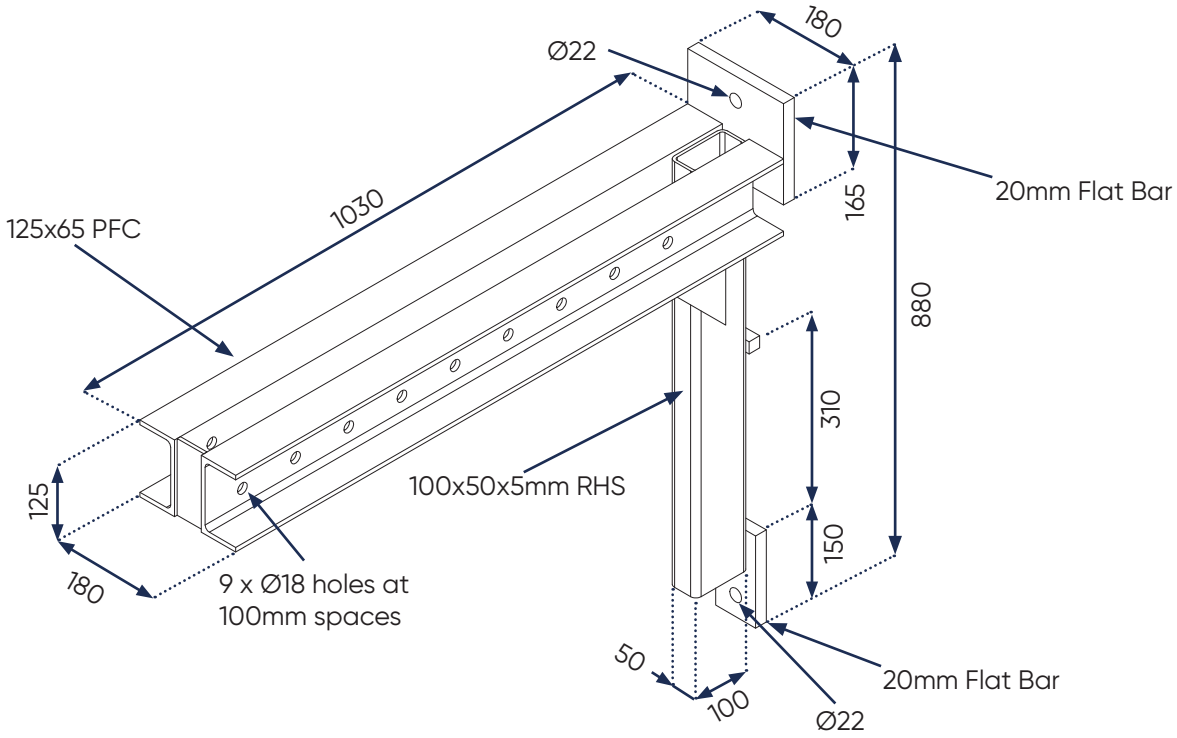
Slim-Max Platform Bracket



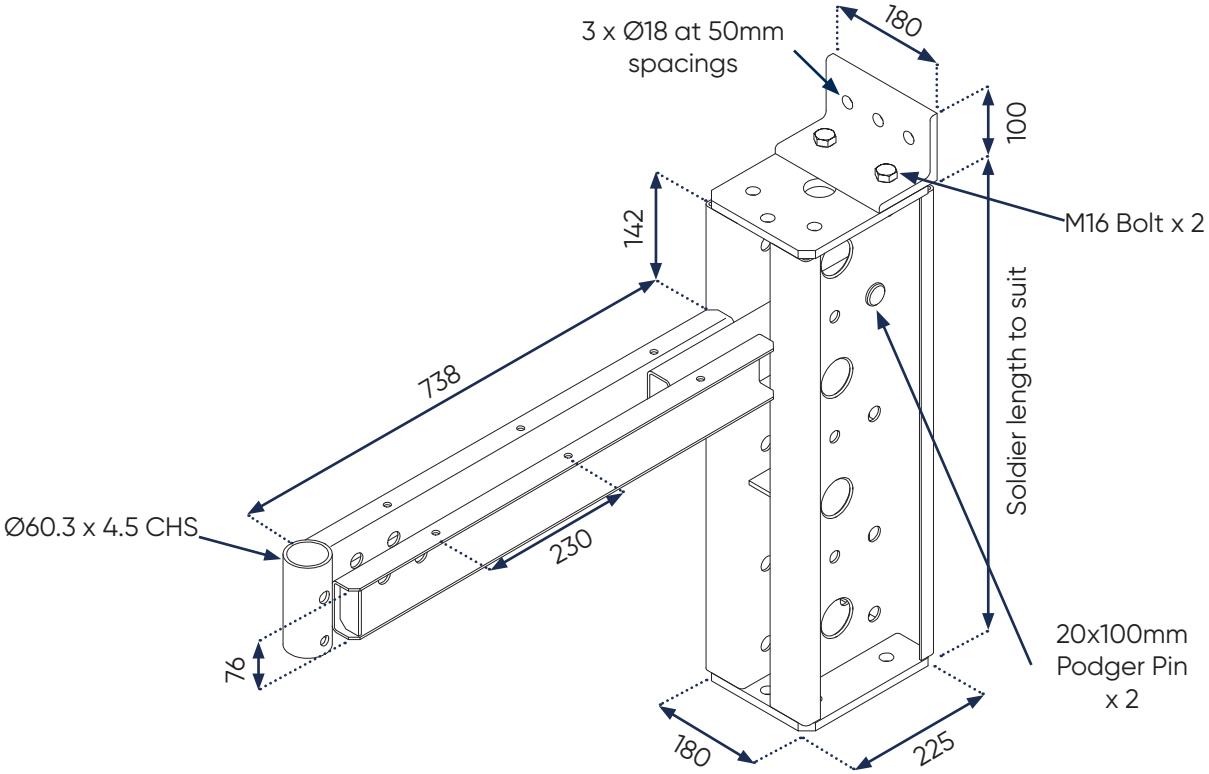
4. SYSTEM DETAILS

4. System Details

Box Girder Cantilever Bracket

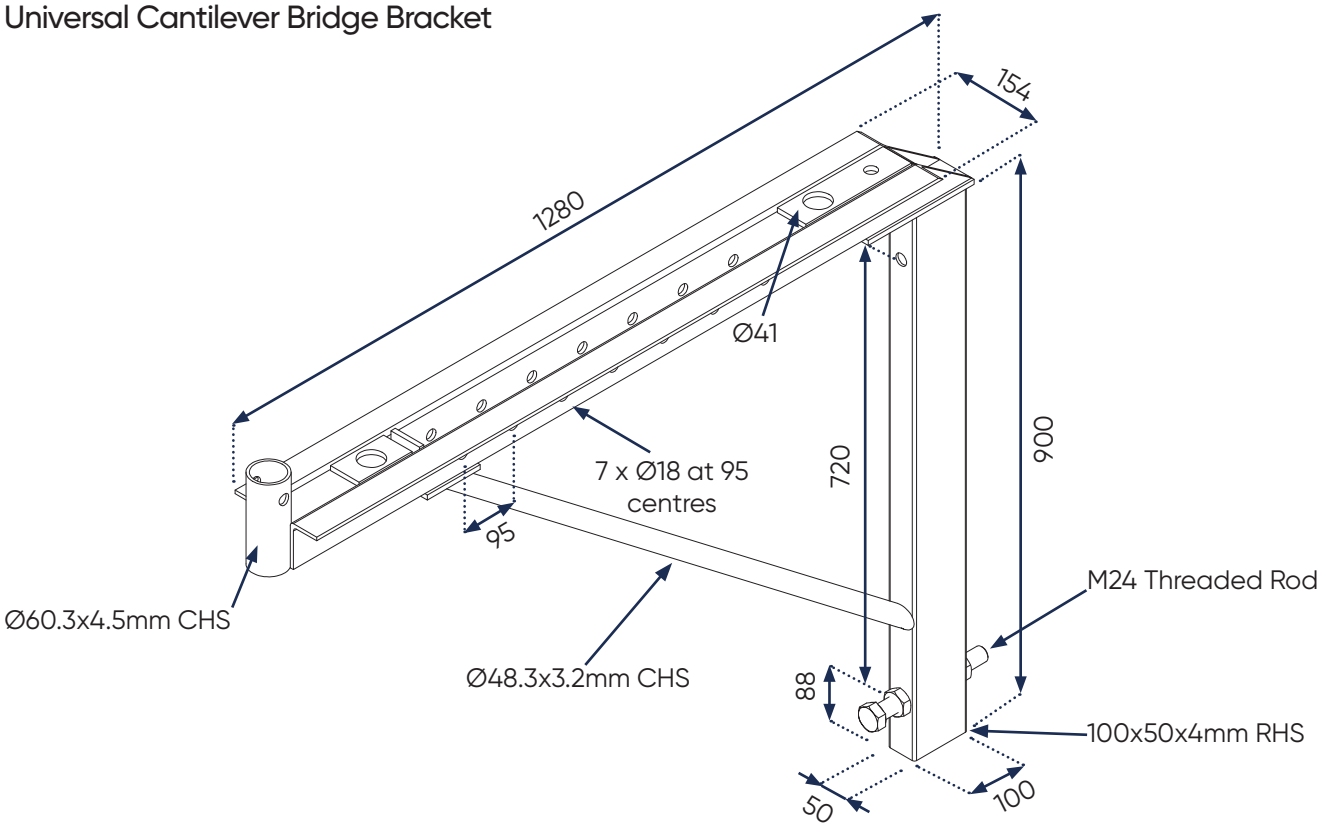


Slim-Max Cantilever Bracket

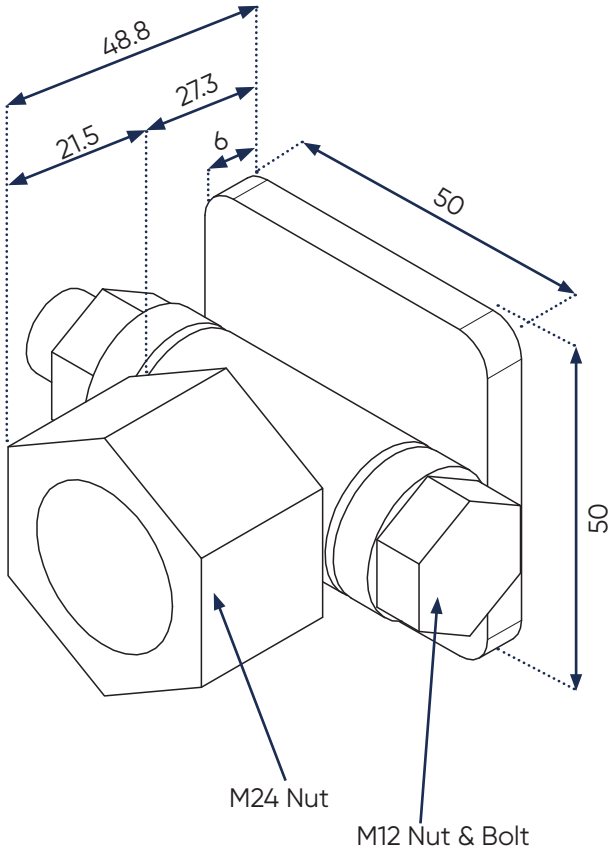


4. System Details

Universal Cantilever Bridge Bracket

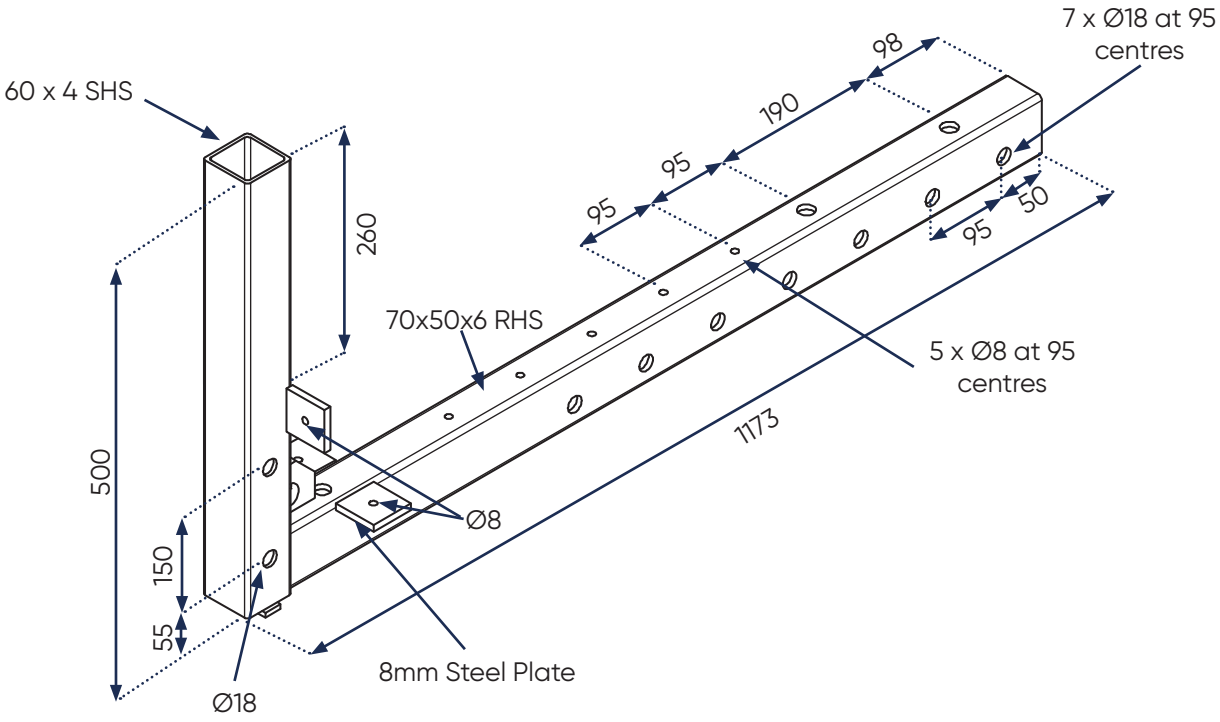


Bridge Bracket Hinge

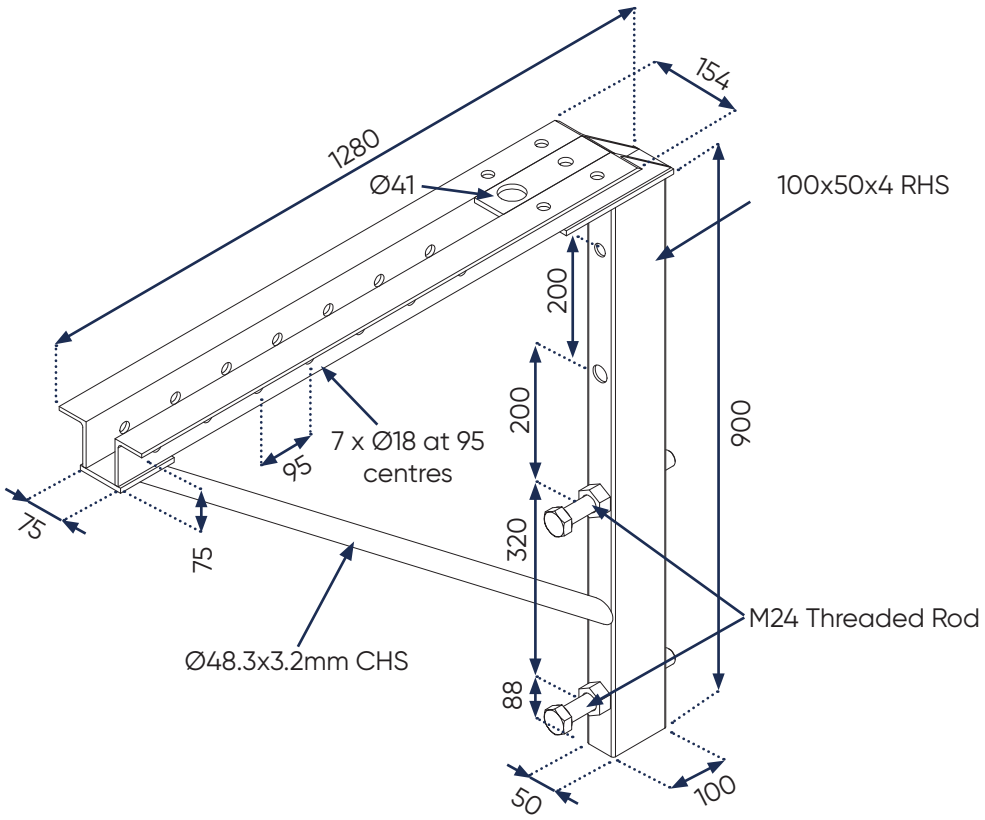


4. System Details

Telescopic Bridge Bracket Arm

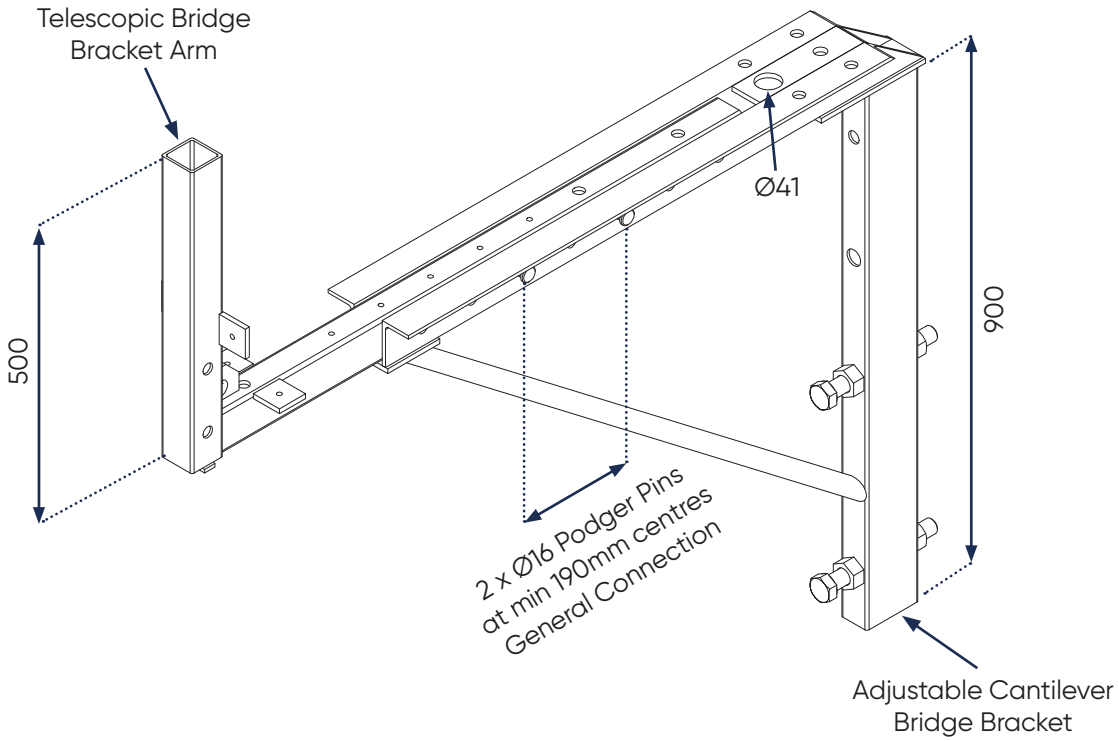


Adjustable Universal Cantilever Bridge Bracket

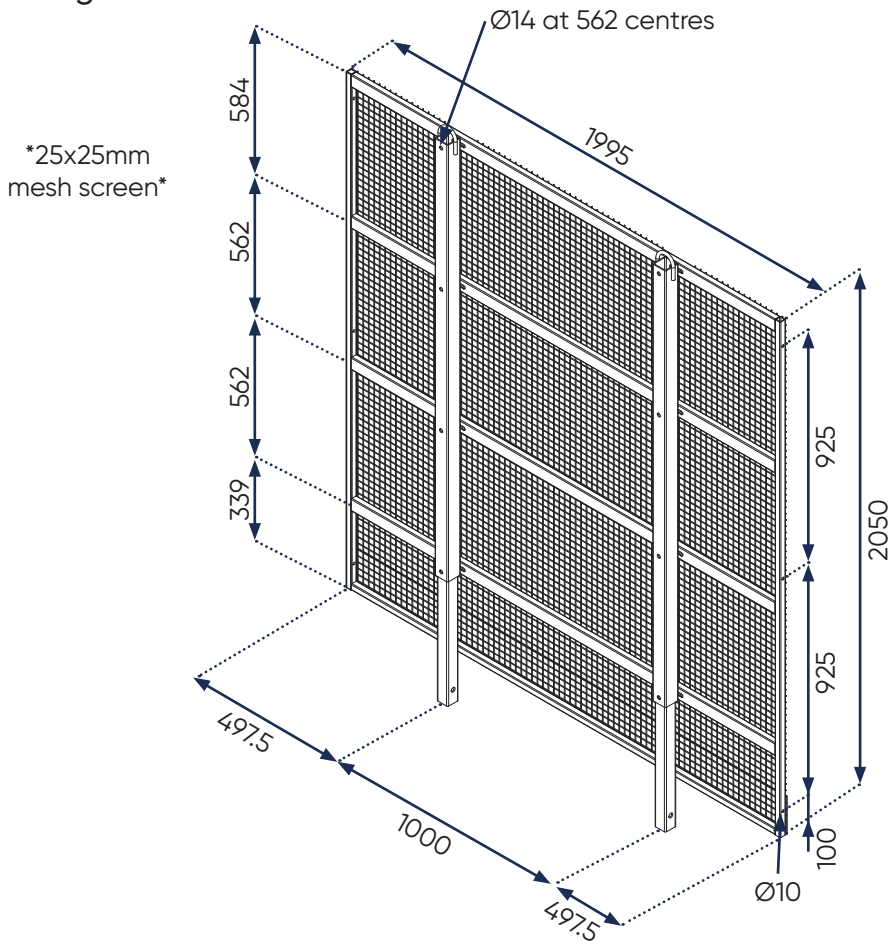


4. System Details

Adjustable Universal Cantilever Bridge Bracket

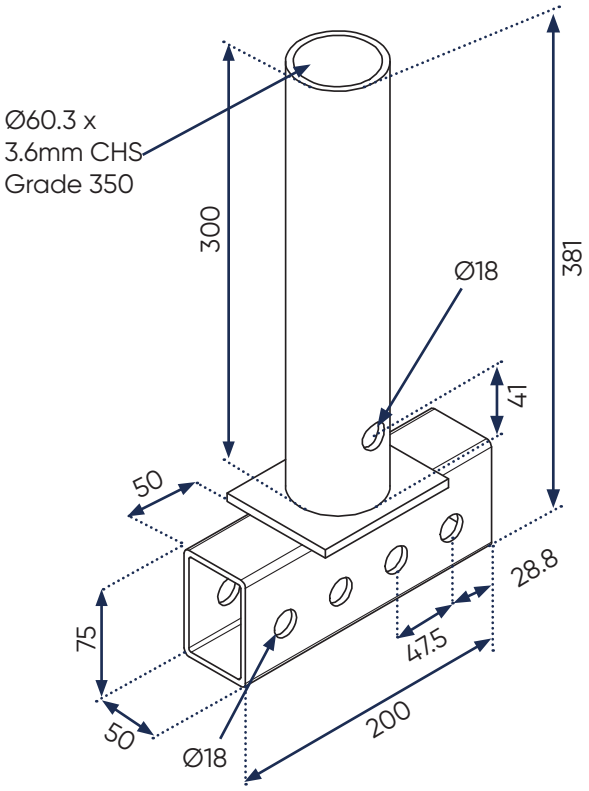


Telescopic Bridge Bracket Screen

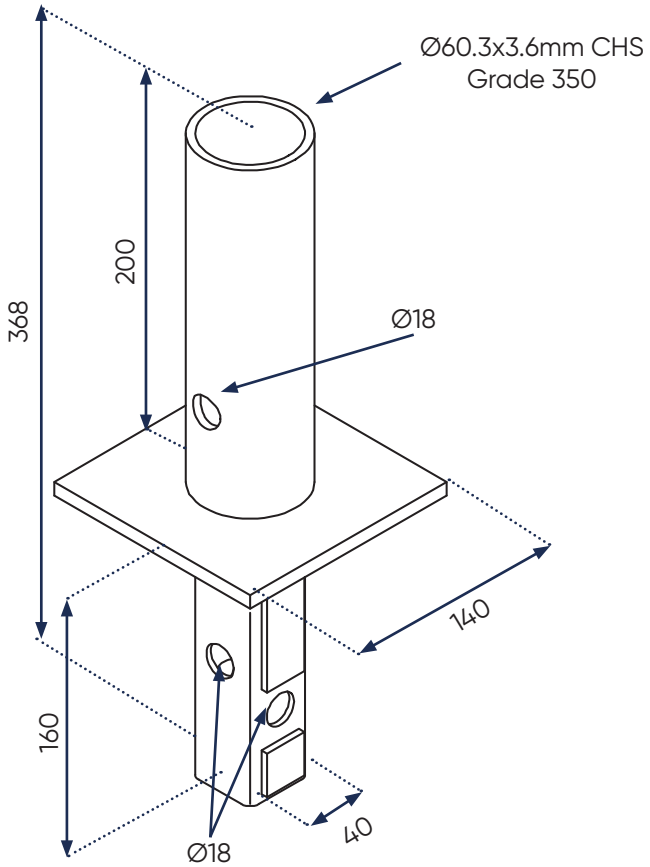


4. System Details

Hand Rail Bracket Type 1

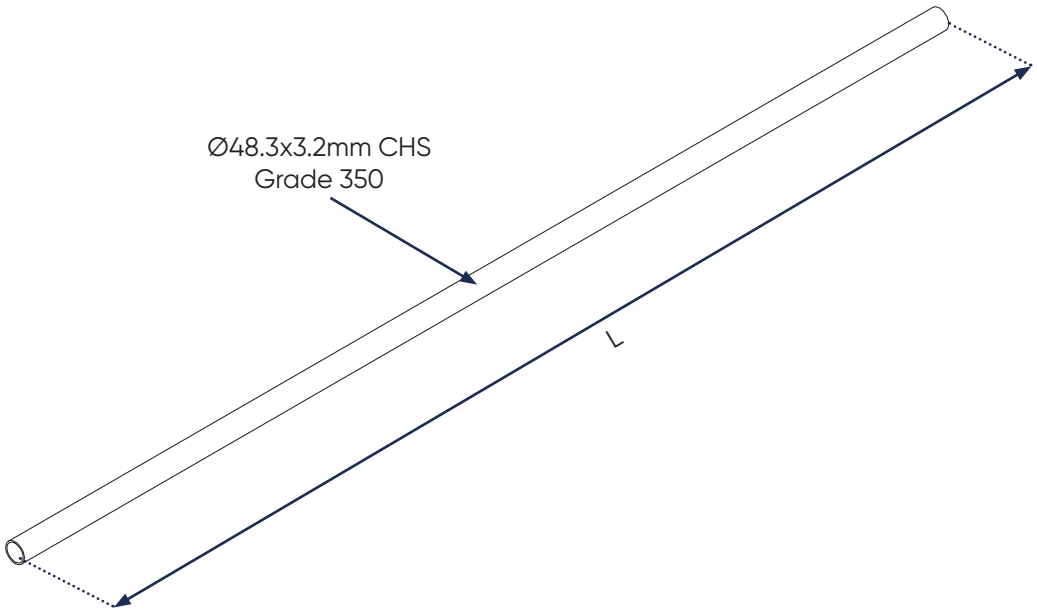


Slim-Lite / Slim-Max Soldier Post Adapter



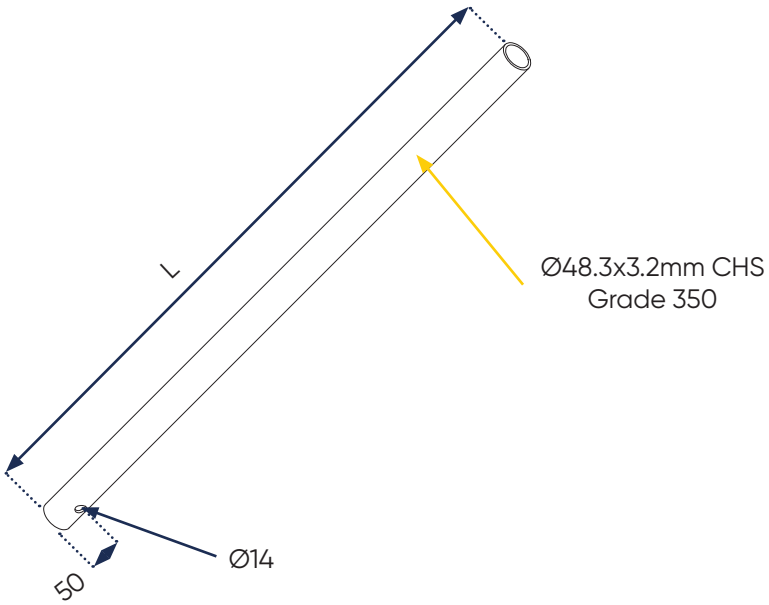
4. System Details

Scaffold Tube



Tube	L (m)
ST03	0.3
ST06	0.6
ST09	0.9
ST12	1.2
ST15	1.5
ST18	1.8
ST21	2.1
ST24	2.4
ST27	2.7
ST30	3.0
ST33	3.3
ST36	3.6
ST39	3.9
ST42	4.2
ST45	4.5
ST48	4.8
ST51	5.1
ST54	5.4
ST57	5.7
ST60	6.0
ST63	6.3
ST65	6.5

Guardrail Post

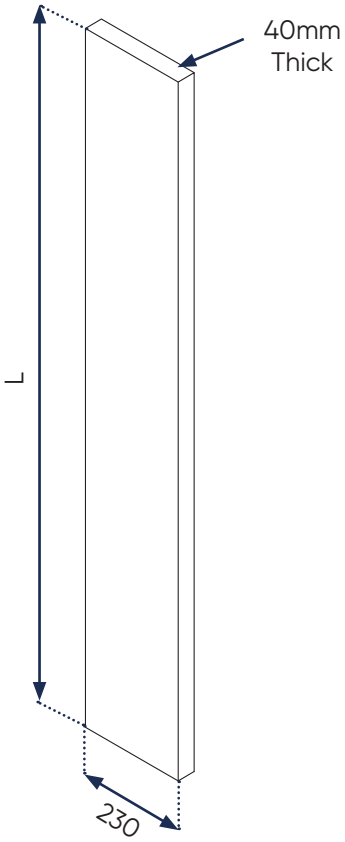


Tube	L (m)
SSHS12	1200
SSHS15	1500
SSHS18	1800
SSHS21	2100

4. System Details

LVL Planks

LVL	L (m)
TP06	0.6
TP09	0.9
TP10	1.0
TP12	1.2
TP15	1.5
TP21	2.1
TP24	2.4
TP27	2.7
TP30	3.3
TP33	3.3
TP36	3.6
TP39	3.9
TP42	4.2
TP45	4.5
TP48	4.8
TP51	5.1
TP54	5.4
TP60	6.0

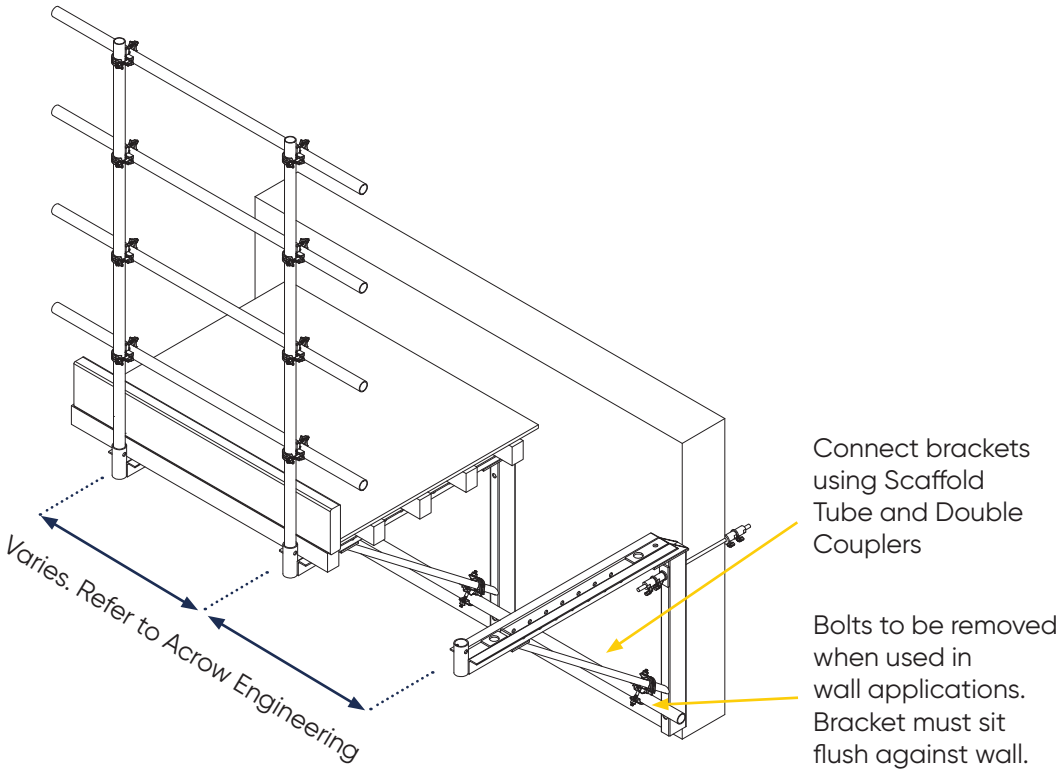


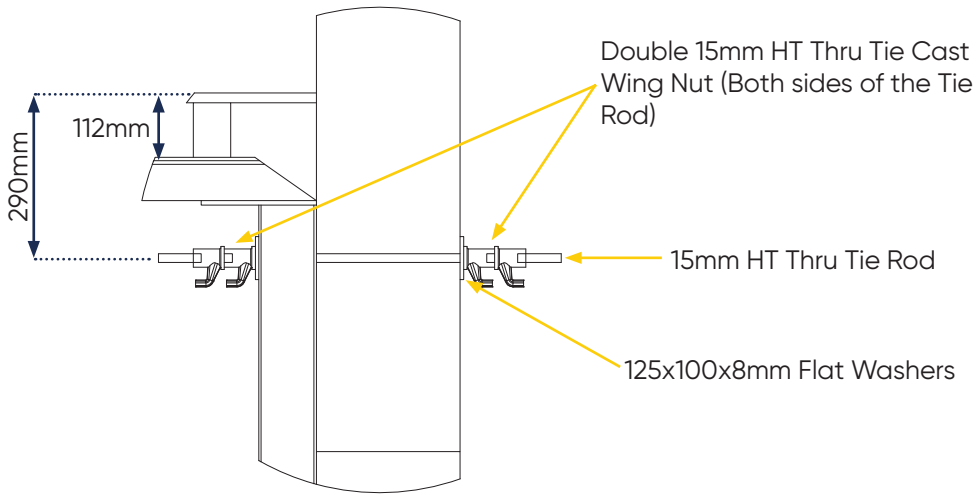
5. ASSEMBLY DETAILS

5. Assembly Details

Universal Cantilever Bridge Bracket - Method 1 - Installing onto Concrete Wall

1. Drill a Ø20mm hole through the concrete wall. This hole should be approximately 290mm below the intended level of the walkway deck. It is recommended to pre-form these holes where possible.
2. Install 15mm Thru Tie directly through the top hole of the vertical member of bracket and continue through to the other side of the concrete wall.
3. Secure Bracket to wall by fixing one end of the Thru Tie with 2 x 15mm HT Cast Wing Nuts and a 125x100x8mm Flat Washers and repeat on the other side of the concrete wall.
4. Connect at minimum 2 Brackets using Scaffold Tube & Double Couplers as seen in image below.
5. Once Brackets are firmly secured, LVL joists and Ply can be placed and secured.

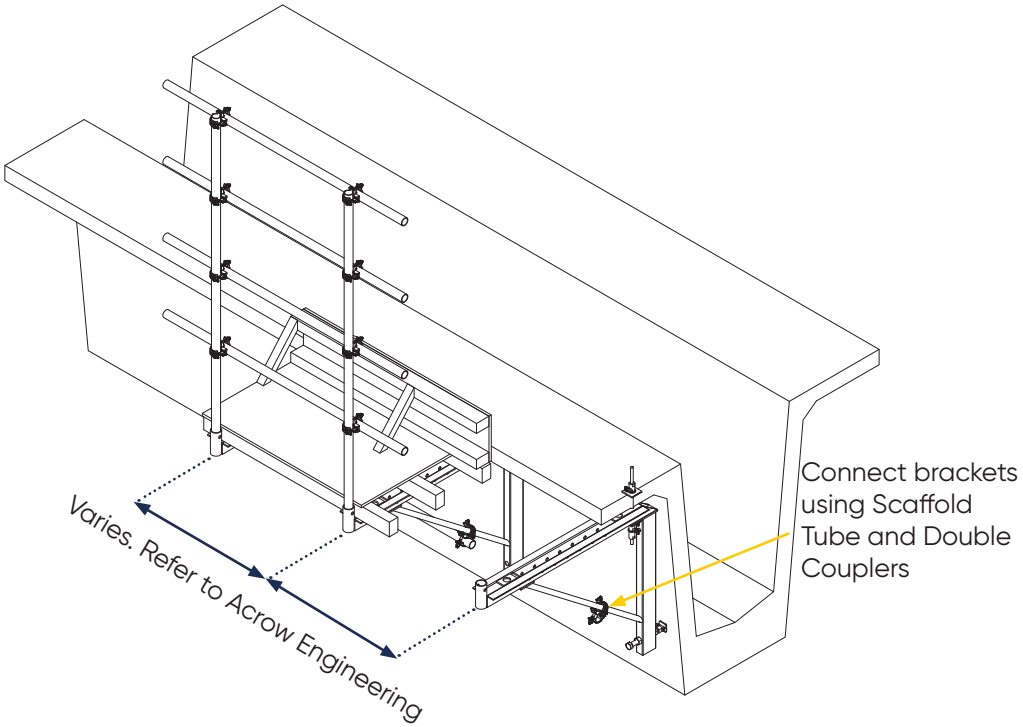


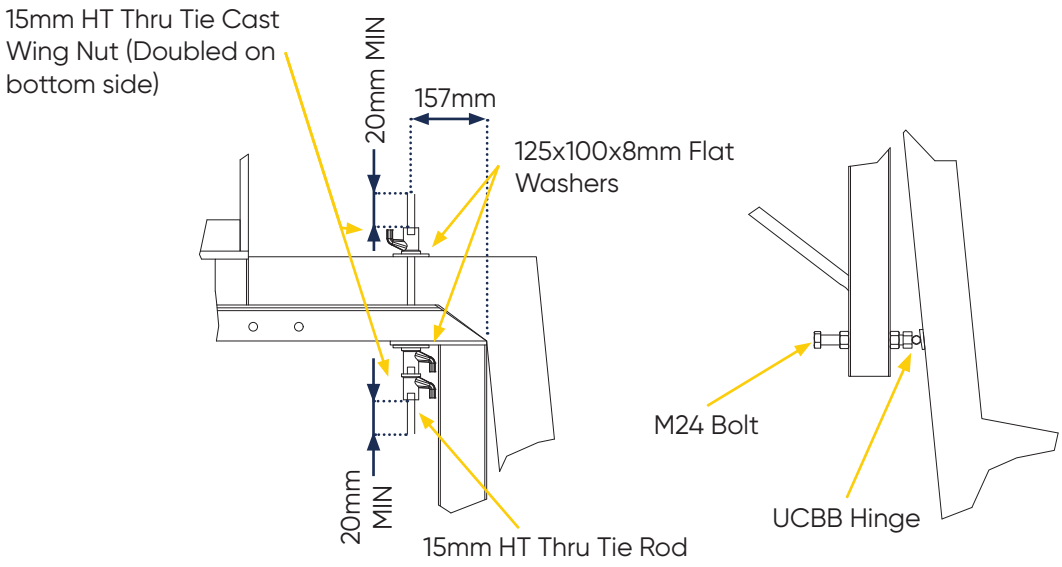


5. Assembly Details

Universal Cantilever Bridge Bracket - Method 2 - Installing onto Precast Concrete Super T Girder

1. Drill or cast a Ø20mm hole through the top of the Super T Girder. Refer to engineering drawings for hole placement before drilling.
2. Install 15mm Thru Tie directly through back-most hole of the horizontal member of bracket and continue through to the other side of the Super T Girder.
3. Secure Bracket to Girder by fixing one end of the Thru Tie with 2 x 15mm HT Cast Wing Nuts and a 125x100x8mm Flat Washer and repeat on the other side of the Girder.
4. Use the bolt at the bottom of the Bracket to help level out the Bracket and provide suitable packing.
5. Connect at minimum 2 Brackets using Scaffold Tube & Double Couplers as seen in image below.
6. Once Brackets are firmly secured, LVL joists and Ply can be placed and secured.

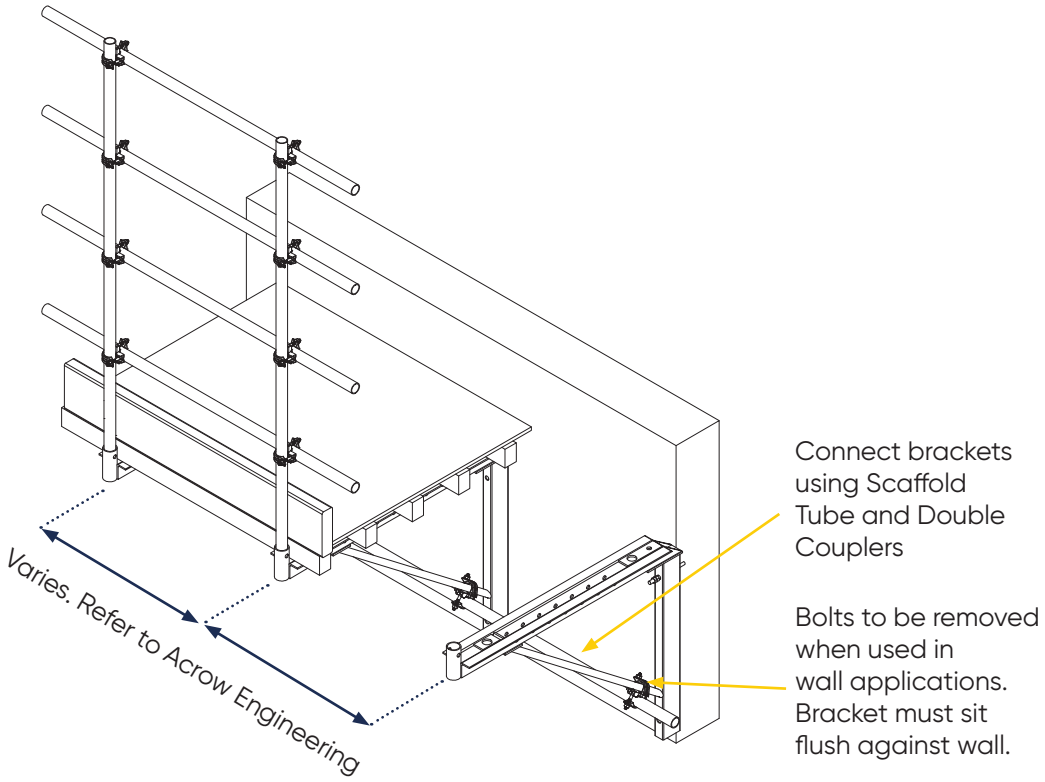


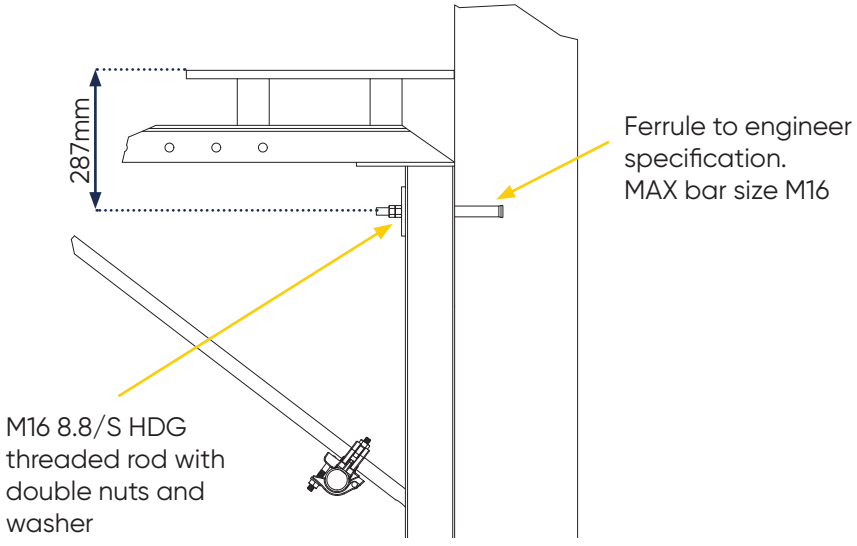


5. Assembly Details

Universal Cantilever Bridge Bracket - Method 1 - Installing onto Concrete Wall Side Web Mounting

1. Align the top-most hole of the vertical RHS member of the bracket with the pre-cast ferrule in the concrete wall.
2. Secure the bracket using an M16 G8.8 threaded rod inserted through the bracket and into the cast ferrule, finish fixing by using a flat Thru Tie Washer and 2 x M16 nuts to clamp the Bracket against wall.
3. Connect at minimum 2 brackets together using scaffold tubing and double couplers as seen in the image below.
4. Once bracket is secured, LVL joists and Ply can be placed and secured using screws and clips.

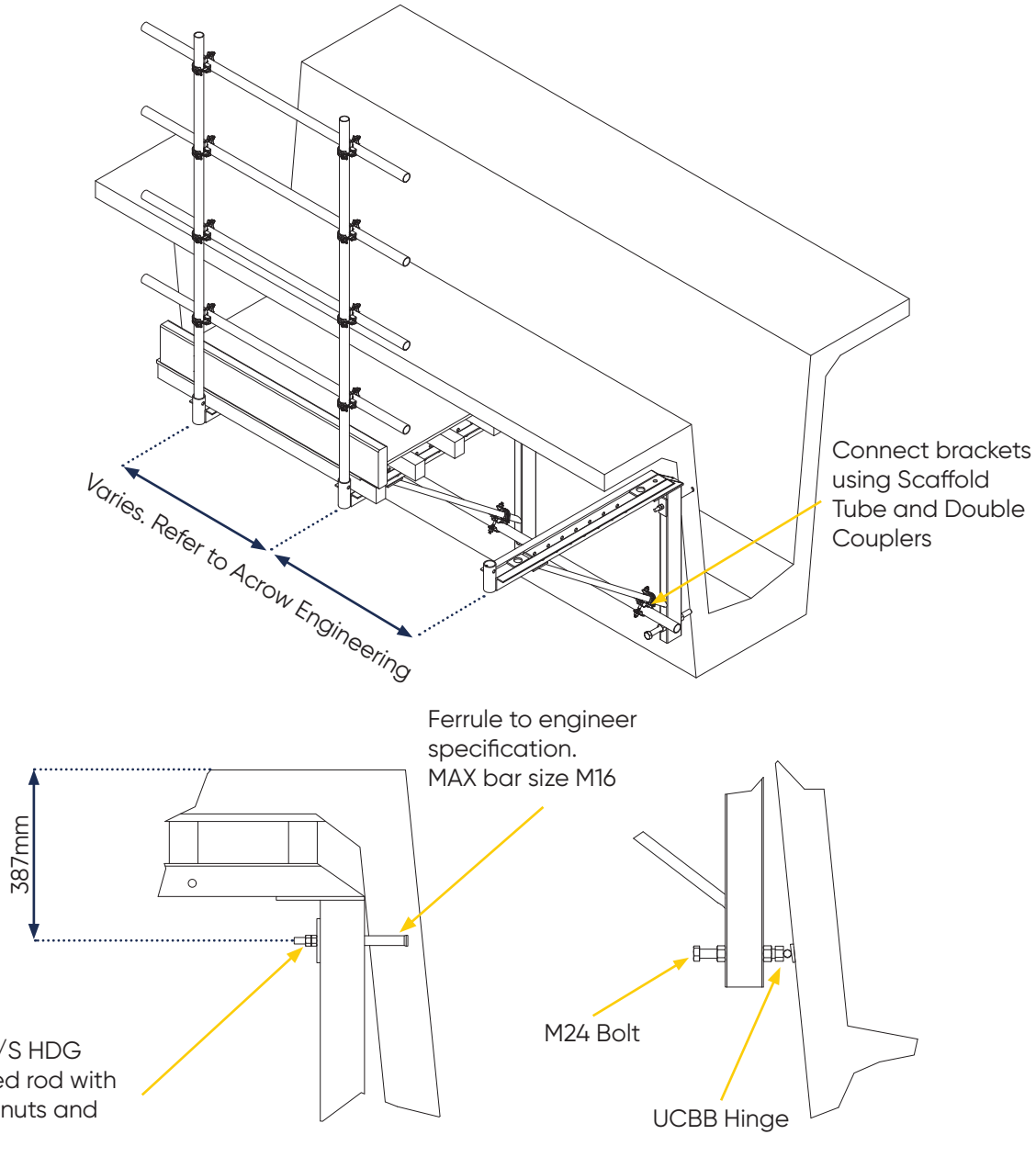




5. Assembly Details

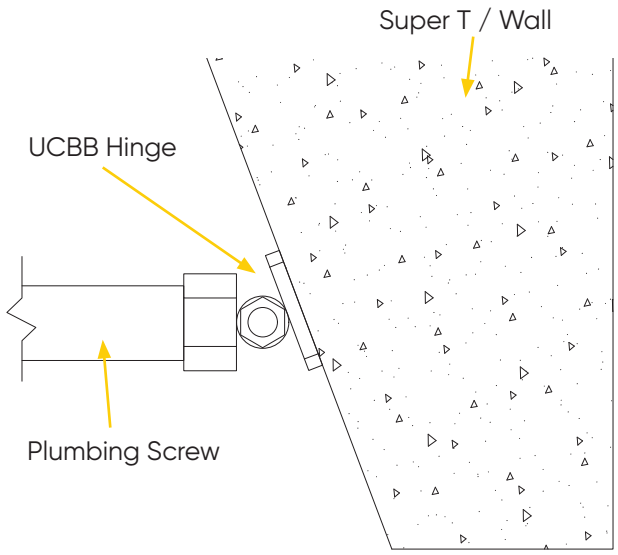
Universal Cantilever Bridge Bracket - Method 2 - Installing onto Precast Concrete Super T Girder Side Web Mounting

1. Align the top-most hole of the vertical RHS member of the bracket with the pre-cast ferrule in the concrete wall.
2. Secure the bracket using an M16 G8.8 threaded rod inserted through the bracket and into the cast ferrule, finish fixing by using a flat Thru Tie Washer and 2 x M16 nuts to clamp the Bracket against wall.
3. Screw on UCBB Hinge to the end of the bolt at the bottom of the bracket before adjusting it to the wall of the Super T Girder.
4. Adjust bolts at the bottom of the bracket so the end sits against the wall of the Super T Girder and ensures the bracket is stable.
5. Connect at minimum 2 brackets together using scaffold tubing and double couplers as seen in the image below.
6. Once bracket is secured, LVL joists and Ply can be placed and secured using screws and clips.

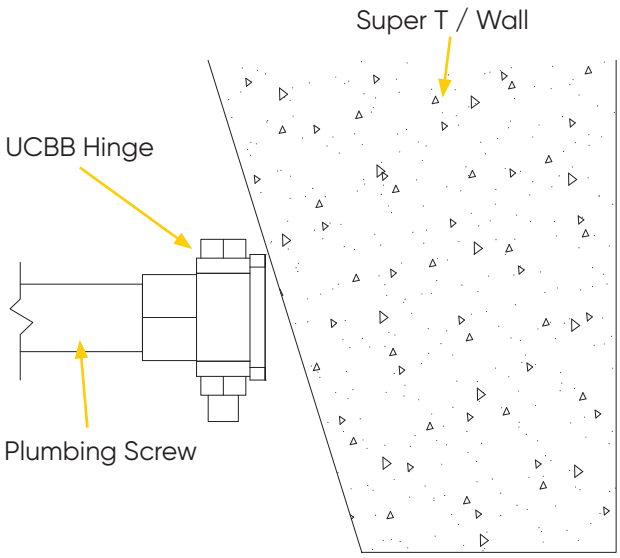


5. Assembly Details

UCBB Hinge Usage



Hinge to be angled parallel to Super T or wall.



Hinge used incorrectly, cannot be angled to sit flat against wall.

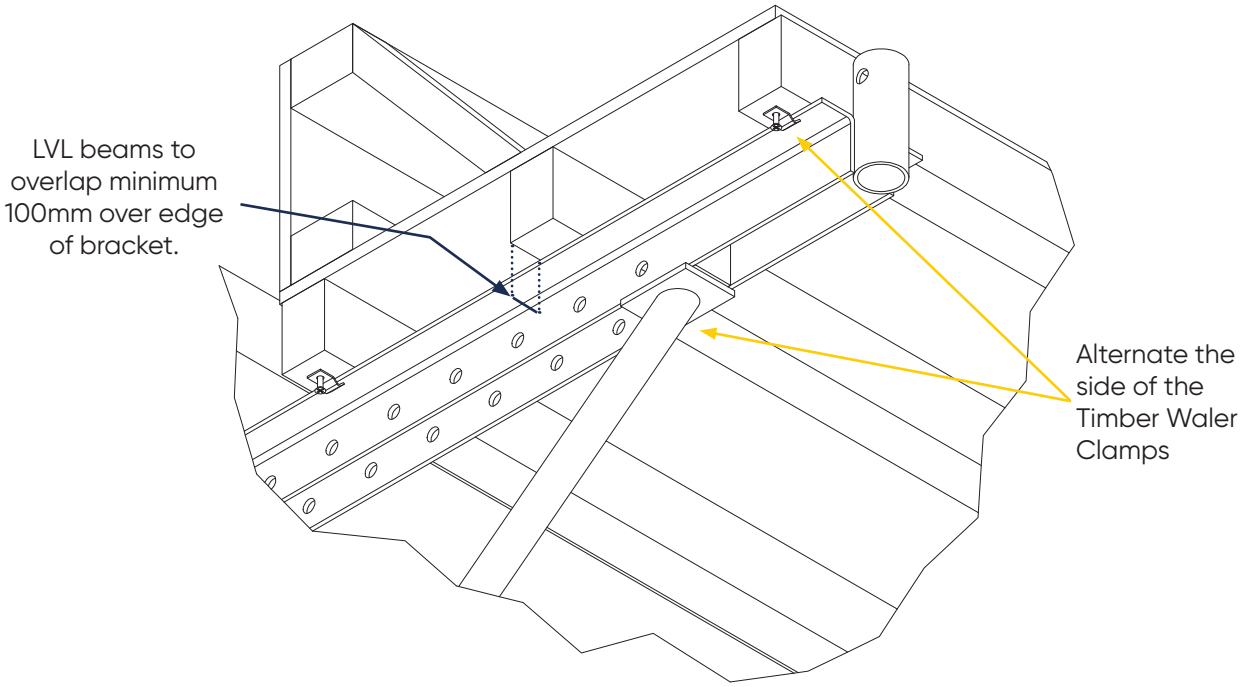
UCBB Hinge can be backed off of plumbing screw up to 0.5 turns, continue to wind in plumbing screw until as close as possible to Super T or wall and then adjust UCBB Hinge back onto the plumbing screw until the plate angle is parallel to wall, this may need to be repeated to achieve desired angle. One half turn of the nut will change the bolt length by 2mm.

Plumbing screw to be fully wound into hinge in final assembly.

5. Assembly Details

Universal Cantilever Bridge Bracket - Fixing the LVL into Universal Cantilever Bridge Bracket

The LVL must be fixed to the Bracket using a Timber Waler Clamp (STWC) screwed into the underside of the LVL using 50mm Timber Batten Screws. Ensure the LVL is extended at least 100mm past the edge of the end-most Cantilever Bracket. Secure each individual timber LVL by alternating the locations of the Timber Waler Clamps. At the mid span, secure each individual LVL and alternate the location of the Timber Waler Clamp.

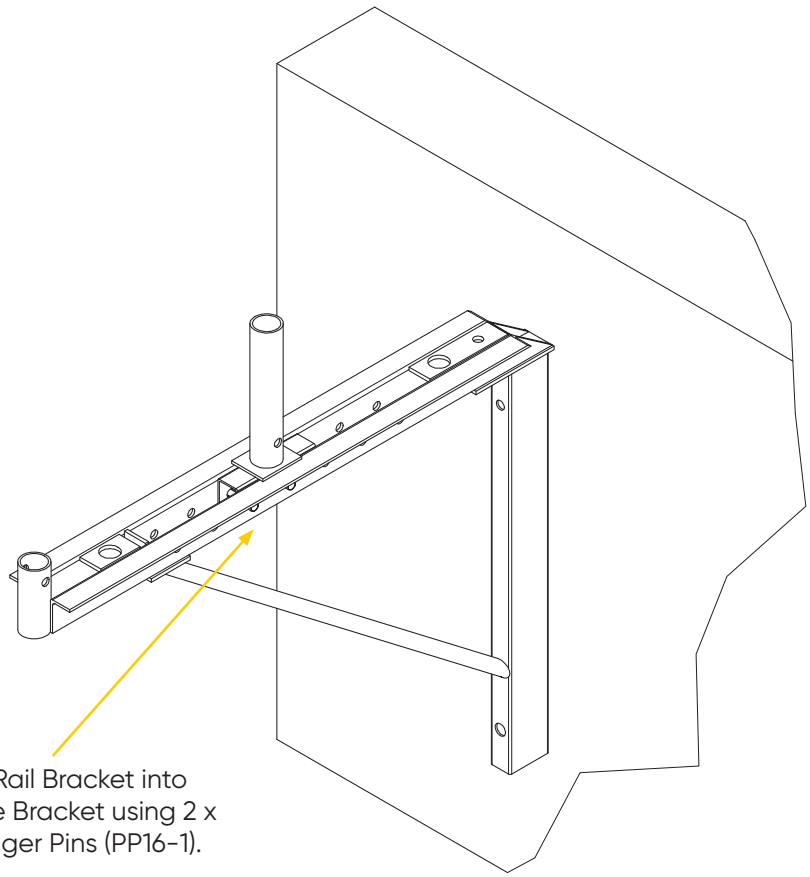


5. Assembly Details

Universal Cantilever Bridge Bracket - Fixing Hand Rail Bracket Type 1 to Bridge Bracket

The Universal Cantilever Bracket Type 1 has the flexibility to accommodate walkway widths at 95mm increments. The Hand Rail can be fitted in multiple locations along the Bridge Bracket in 90mm increments.

Fit the Hand Rail Bracket into the Universal Cantilever Bridge Bracket using 2 x 16mm Podger Pins. Insert the Hand Rail posts into the tubes and lock in place using an additional 16mm Podger Pin.

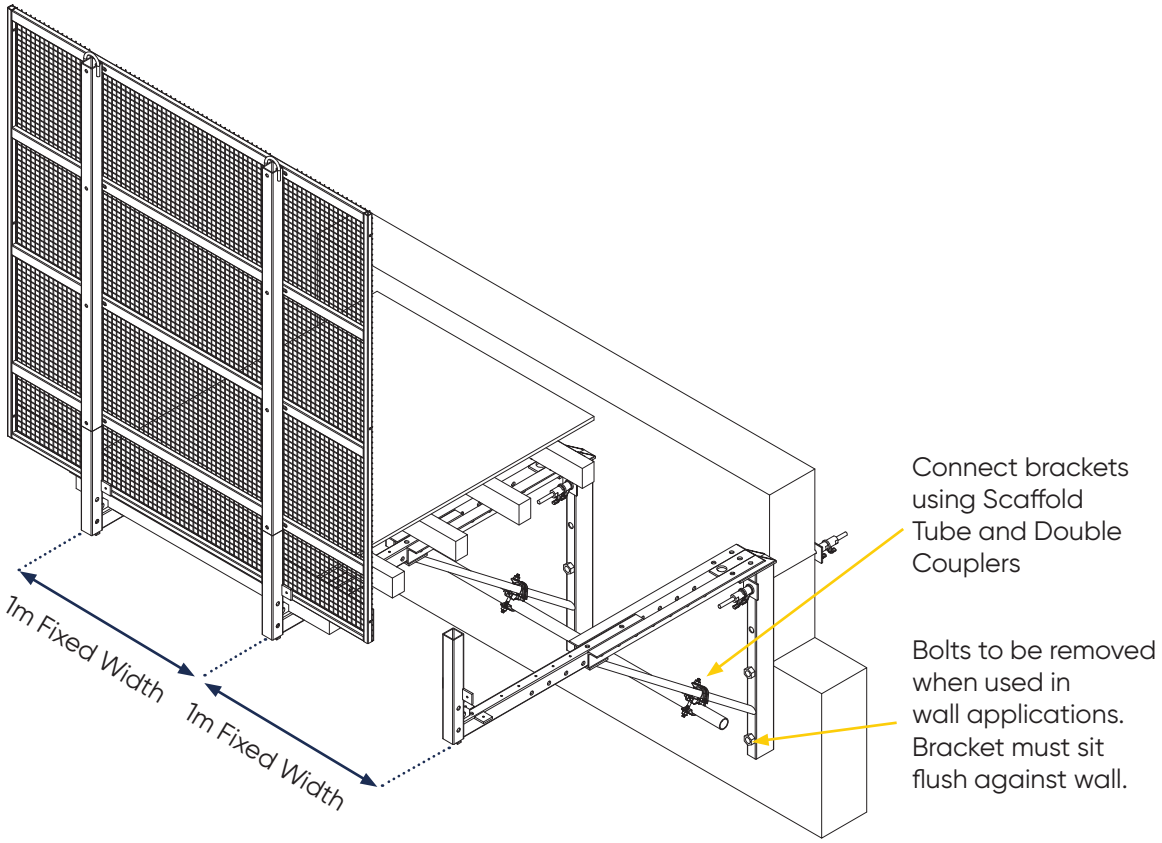


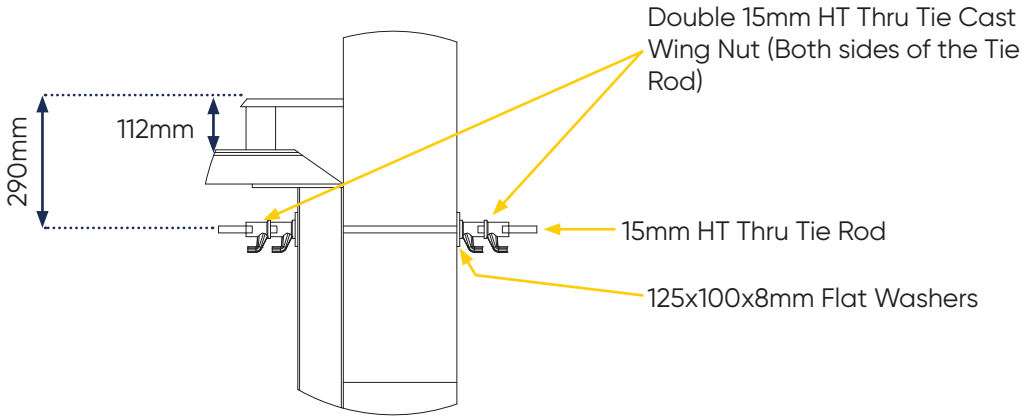
Fix Hand Rail Bracket into the Bridge Bracket using 2 x 16mm Podger Pins (PP16-1).

5. Assembly Details

Adjustable Universal Cantilever Bridge Bracket - Method 1 - Installing onto Concrete Wall

1. Drill a Ø20mm hole through the concrete wall. This hole should be approximately 290mm below the intended level of the walkway deck. It is recommended to pre-form these holes where possible.
2. Install 15mm Thru Tie directly through the top hole of the vertical member of bracket and continue through to the other side of the concrete wall.
3. Secure Bracket to wall by fixing one end of the Thru Tie with 2 x 15mm HT Cast Wing Nuts and a 125x100x8mm Flat Washer and repeat on the other side of the concrete wall.
4. Connect at minimum 2 Brackets using Scaffold Tube & Double Couplers as seen in image below.
5. Once Brackets are firmly secured, LVL joists and Ply can be placed and secured.

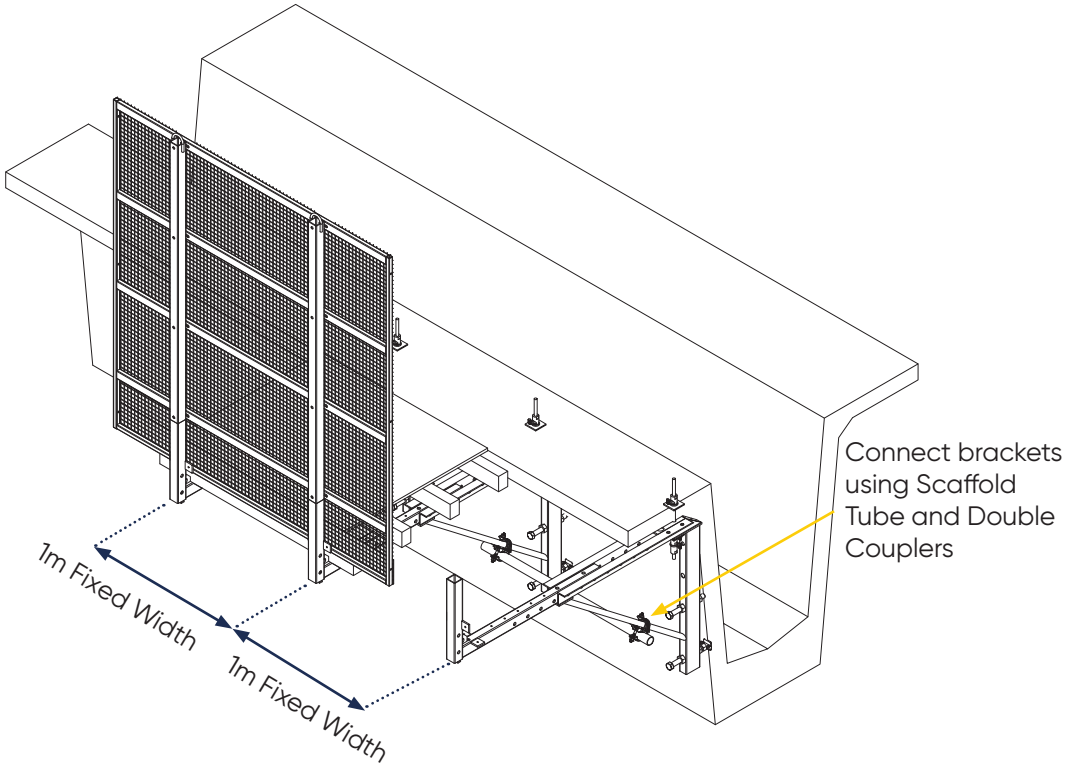


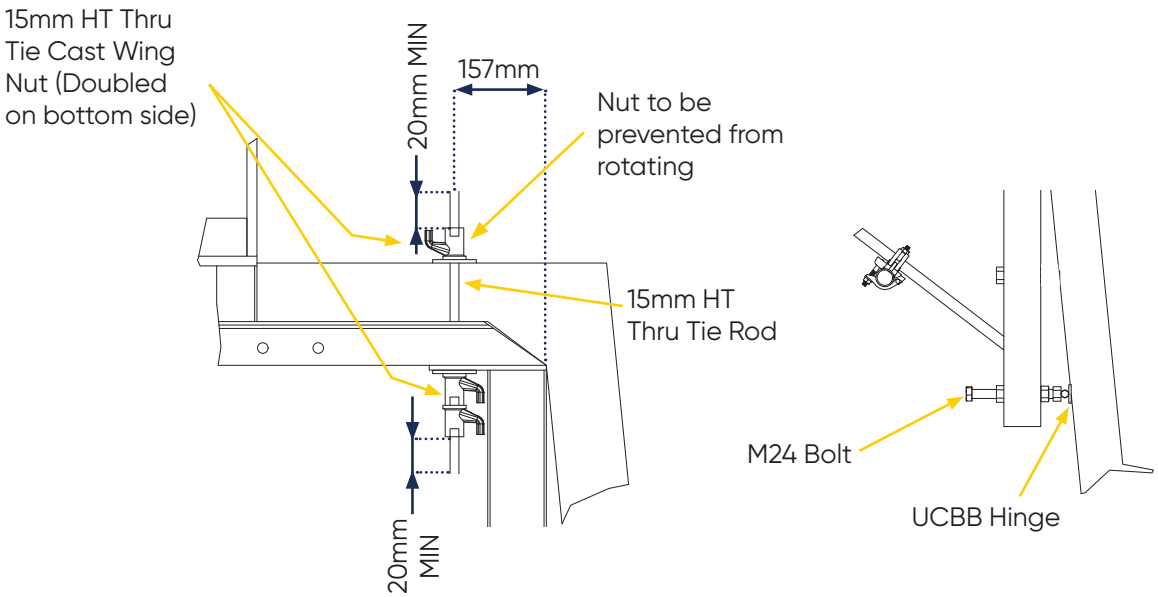


5. Assembly Details

Adjustable Universal Cantilever Bridge Bracket - Method 2 - Installing onto Precast Concrete Super T Girder

1. Drill or cast a Ø20mm hole through the top of the Super T Girder. Refer to engineering drawings for hole placement before drilling.
2. Install 15mm Thru Tie directly through back-most hole of the horizontal member of bracket and continue through to the other side of the Super T Girder.
3. Secure Bracket to Girder by fixing one end of the Thru Tie with 2 x 15mm HT Cast Wing Nuts and a 125x100x8mm Flat Washer and repeat on the other side of the Girder.
4. Use the bolt at the bottom of the Bracket to help level out the Bracket and provide suitable packing.
5. Connect at minimum 2 Brackets using Scaffold Tube & Double Couplers as seen in image below.
6. Once Brackets are firmly secured, LVL joists and Ply can be placed and secured.



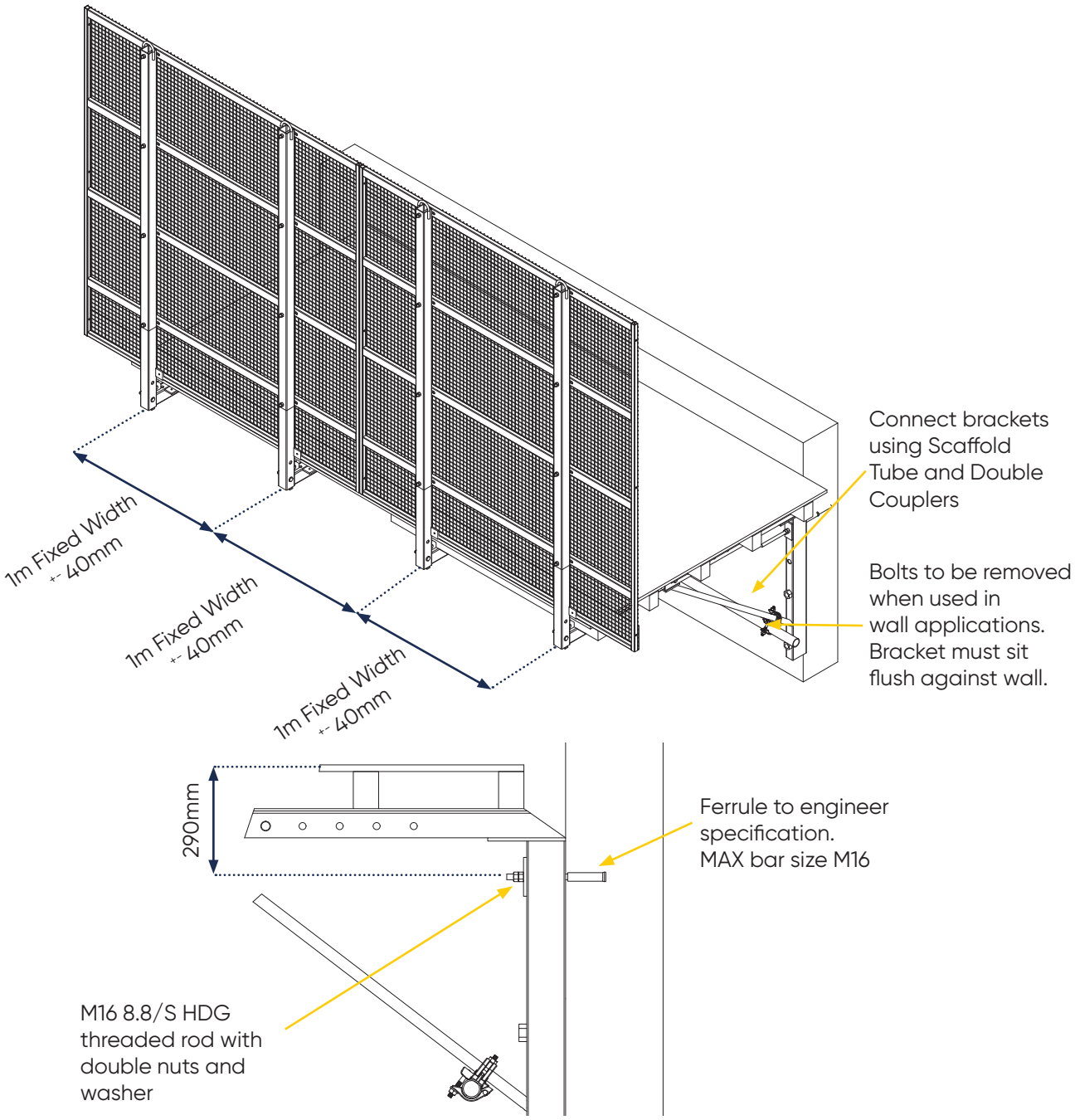


5. Assembly Details

Adjustable Universal Cantilever Bridge Bracket

Method 1 - Installing onto Concrete Wall Side Web Mounting

1. Align the top-most hole of the vertical RHS member of the bracket with the pre-cast ferrule in the concrete wall.
2. Secure the bracket using an M16 G8.8 threaded rod inserted through the bracket and into the cast ferrule, finish fixing by using a flat Thru Tie Washer and 2 x M16 nuts to clamp the Bracket against wall.
3. Connect at minimum 2 brackets together using scaffold tubing and double couplers as seen in the image below.
4. Once bracket is secured, LVL joists and Ply can be placed and secured using screws and clips.

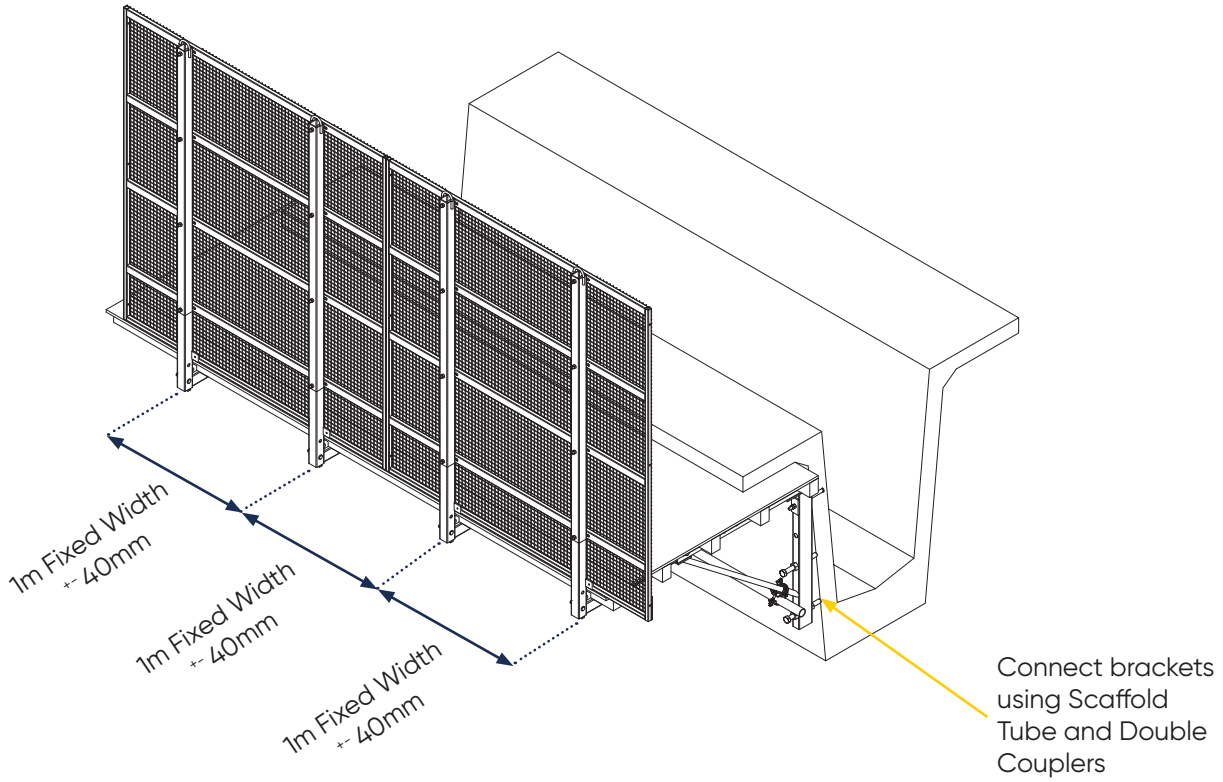


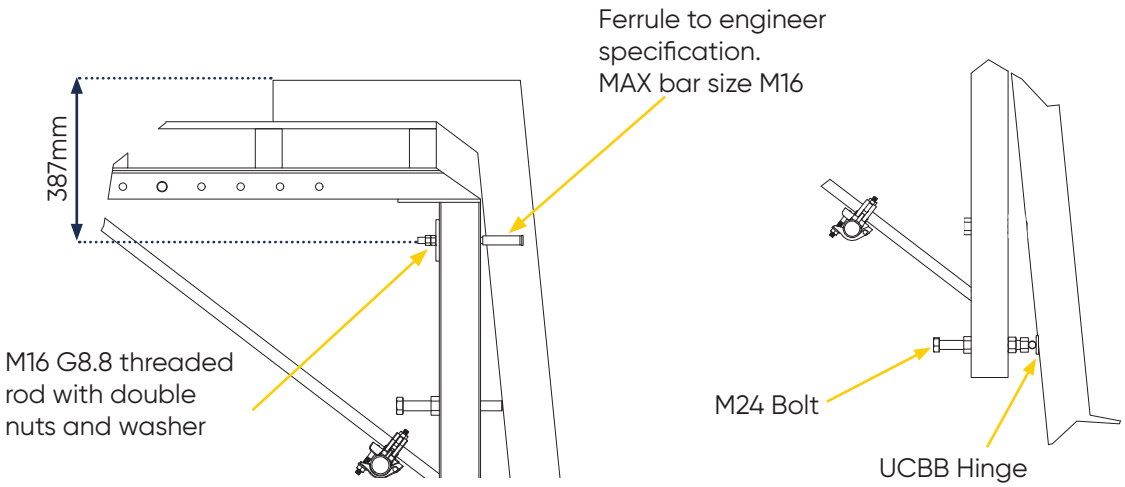
5. Assembly Details

Adjustable Universal Cantilever Bridge Bracket

Method 2 - Installing onto Precast Concrete Super T Girder Side Web Mounting

1. Align the top-most hole of the vertical RHS member of the bracket with the pre-cast ferrule in the concrete wall.
2. Secure the bracket using an M16 G8.8 threaded rod inserted through the bracket and into the cast ferrule, finish fixing by using a flat Thru Tie Washer and 2 x M16 nuts to clamp the Bracket against wall.
3. Screw on UCBB Hinge to the end of the bolt at the bottom of the bracket before adjusting it to the wall of the Super T Girder.
4. Adjust bolts at the bottom of the bracket so the end sits against the wall of the Super T Girder and ensures the bracket is stable.
5. Connect at minimum 2 brackets together using scaffold tubing and double couplers as seen in the image below.
6. Once bracket is secured, LVL joists and Ply can be placed and secured using screws and clips.

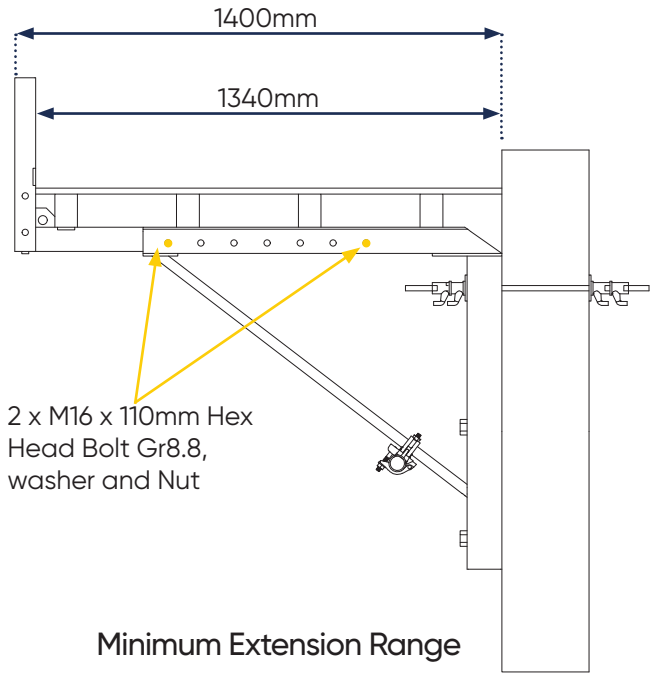




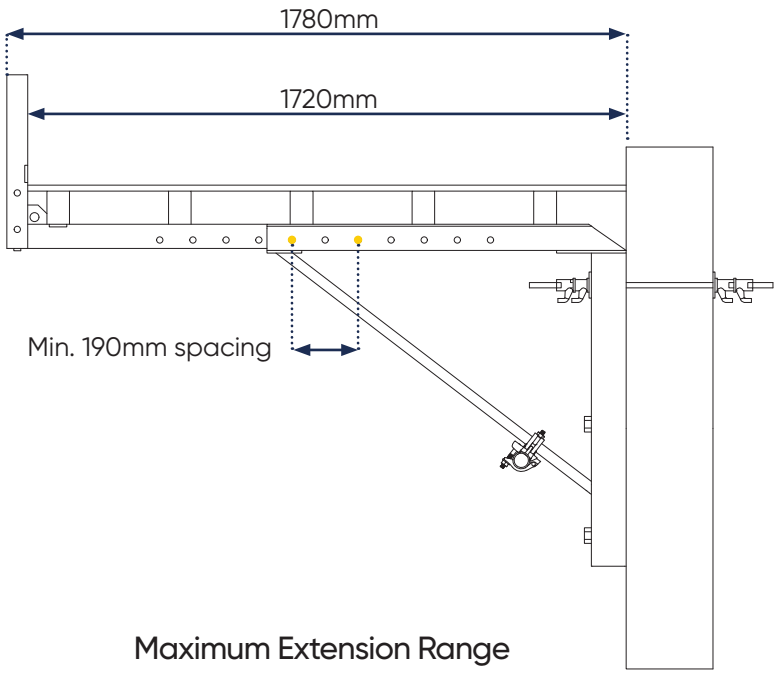
5. Assembly Details

Adjustable Universal Cantilever Bridge Bracket - Pre-Cast Wall Extension Ranges

The Modified Universal Cantilever Bridge Bracket uses a telescopic arm to provide a range of extension allowing for a variety of walkway sizes. The Telescopic Arm can be bolted in increments of 95mm at a time and is secured using 2 x 14mm Bolts.



Minimum Extension Range

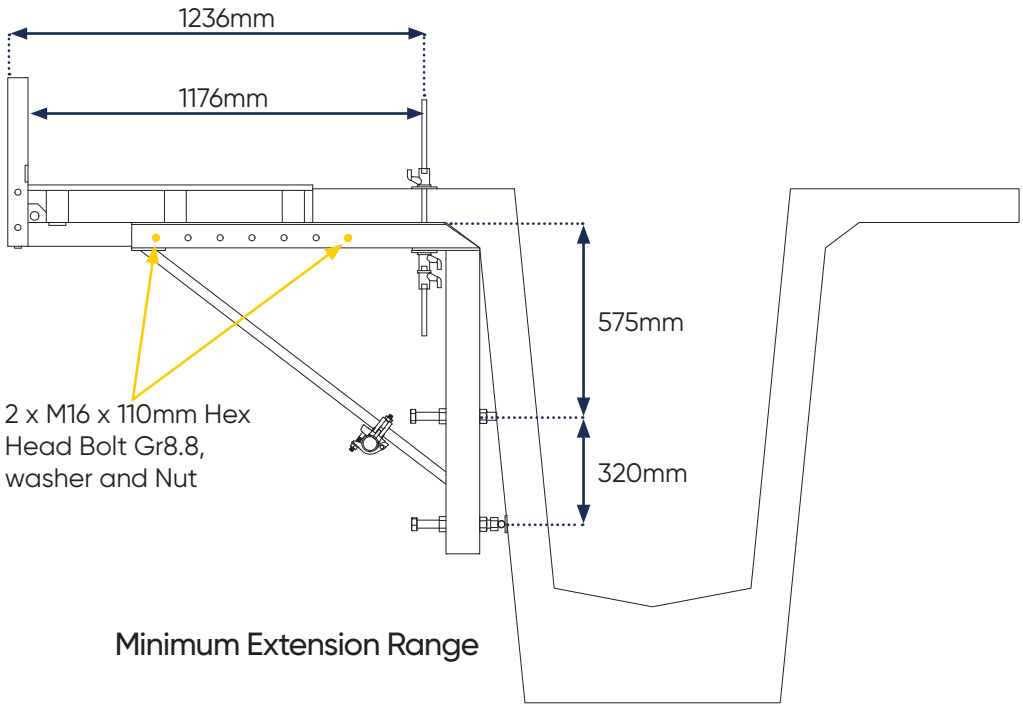


Maximum Extension Range

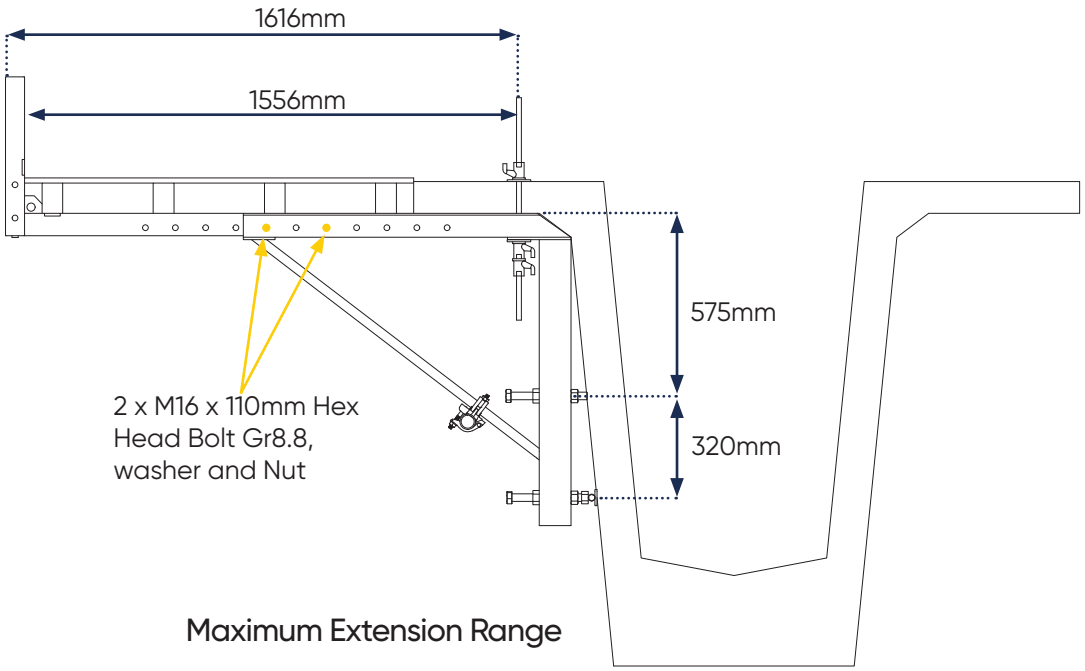
5. Assembly Details

Adjustable Universal Cantilever Bridge Bracket - Super T Beam Extension Ranges

The Modified Universal Cantilever Bridge Bracket uses a telescopic arm to provide a range of extension allowing for a variety of walkway sizes. The Telescopic Arm can be bolted in increments of 95mm at a time and is secured using 2 x 14mm Bolts. The extension range will vary depending on the flange size of the Super T Beam. Refer to system details pages or Acrow engineers for specific measurements.



Minimum Extension Range

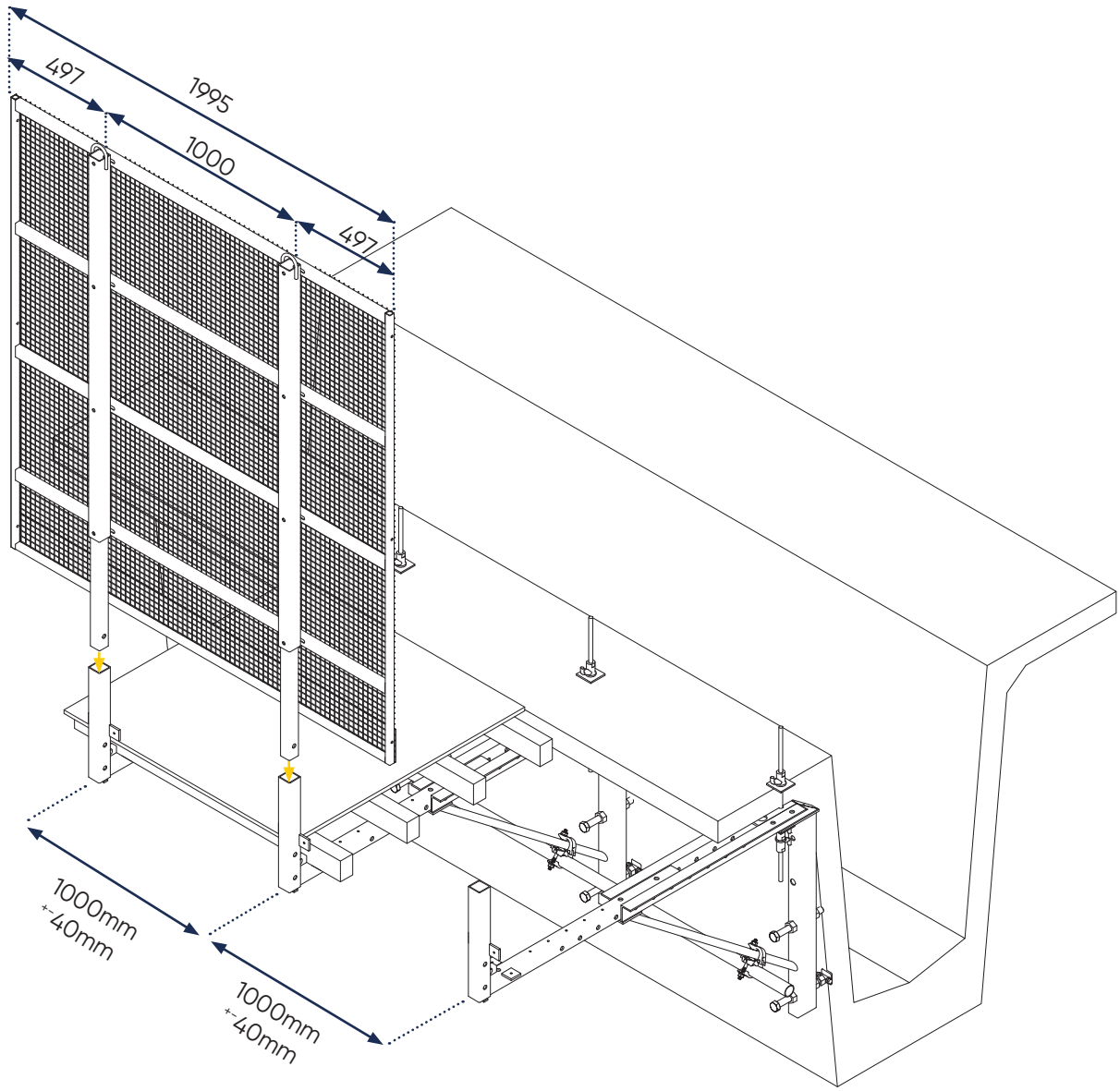


Maximum Extension Range

5. Assembly Details

Modified Universal Cantilever Bridge Bracket - Screen Installation

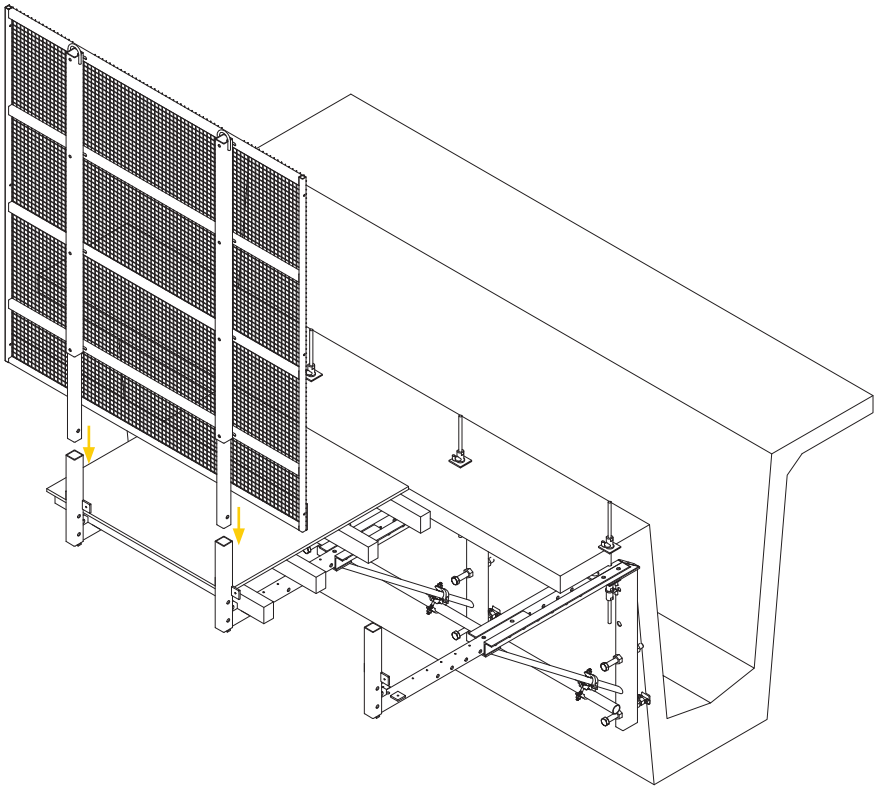
The Modified Universal Cantilever Bridge Bracket can additionally be used with a 2m screen slotted into the end sleeves of the Telescopic Arm. This screen can be lifted in by crane once the Telescopic Arms have been bolted into the correct location. The Modified Universal Cantilever Bridge Brackets must be spaced 1000mm apart from the centers to ensure correct fitting of the screen. The screen features a built in kickboard. The Screen is then secured with Ø16mm Podger pins.

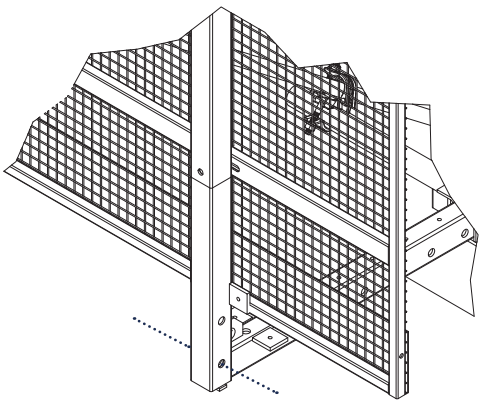


5. Assembly Details

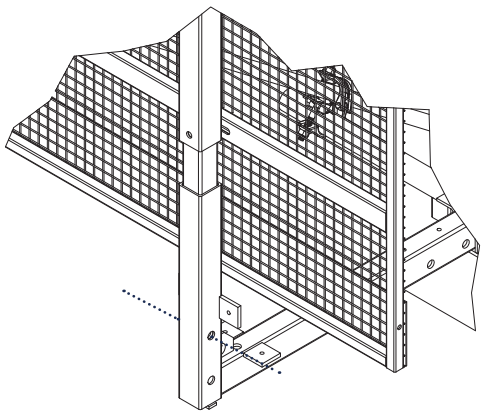
Modified Universal Cantilever Bridge Bracket - LVL Height Adaption

The Telescopic Screen can be adjusted at 2 different heights to suit standard LVL Beams. Bolting to the lowest hole allows for the screen to suit 95 x 65mm LVL beams. Alternatively, bolting the screen to the upper-most holes allows it to suit 150 x 75mm LVL Beams.





95 x 65 LVL Screen bolting option

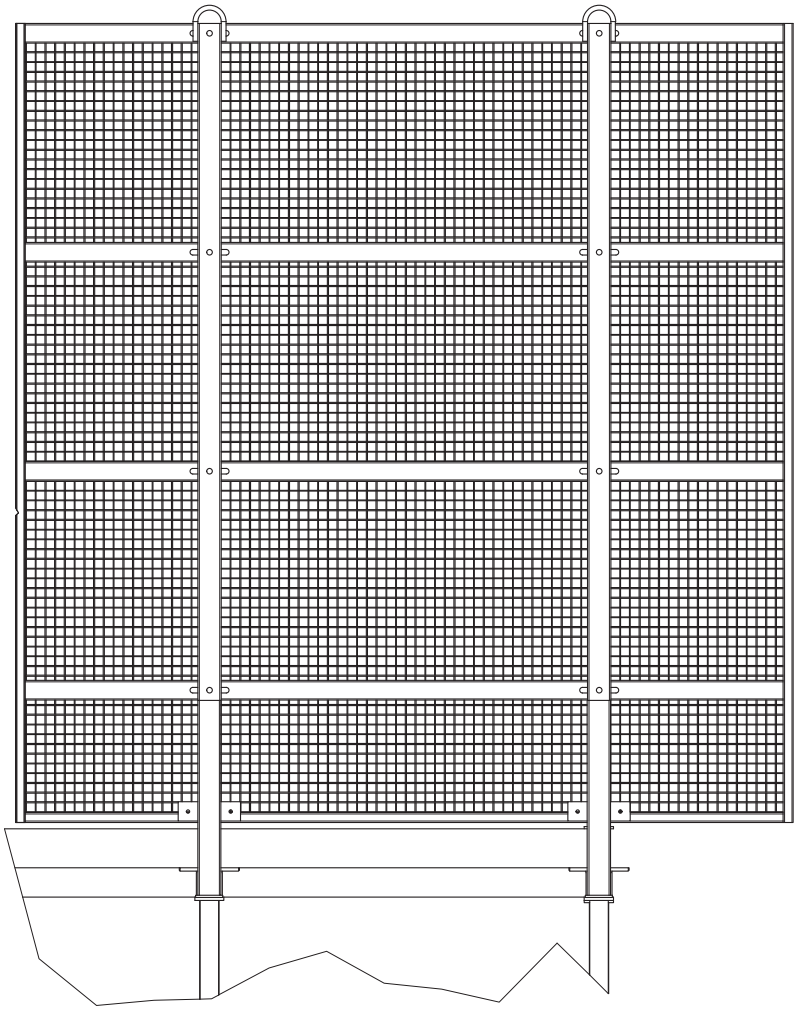


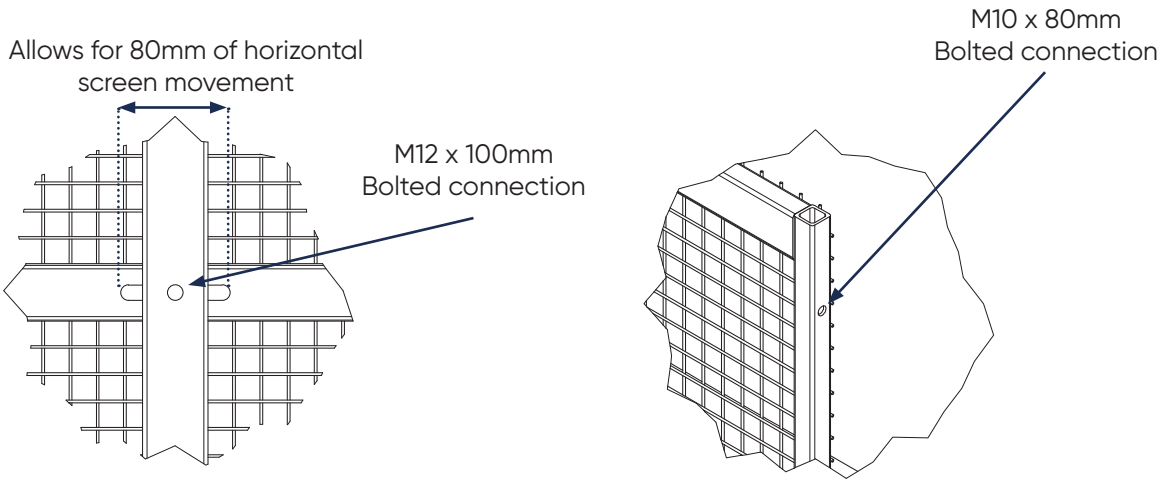
150 x 75 LVL Screen bolting option

5. Assembly Details

Modified Universal Cantilever Bridge Bracket - Screen Fine Tuning

The Screen features 86mm slotted holes, allowing for 100mm of movement horizontally to account for gaps that may occur during the installation, these are located with M12 bolts. Each screen can be optionally secured to the one next to it using 3 x M8 bolts to maintain rigidity.

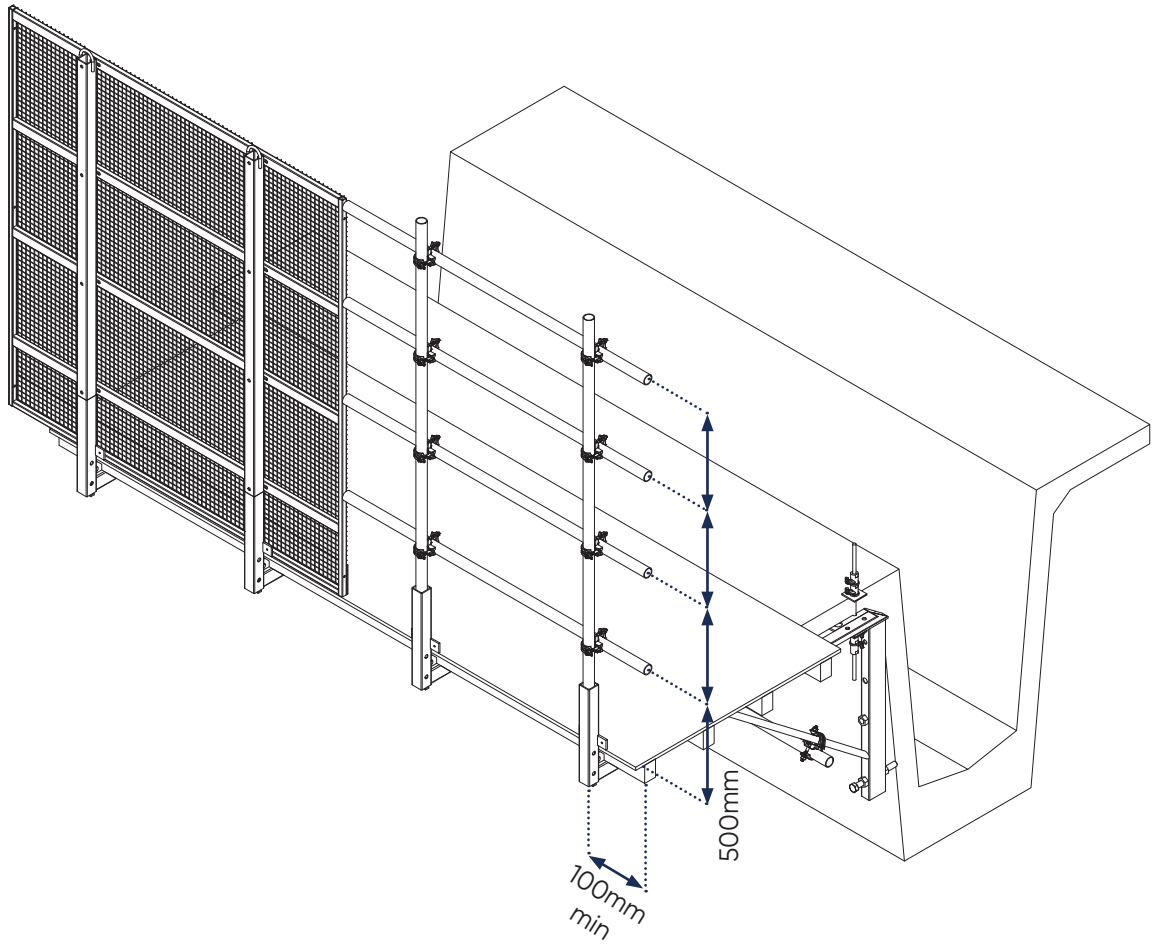




5. Assembly Details

Modified Universal Cantilever Bridge Bracket - End Brackets

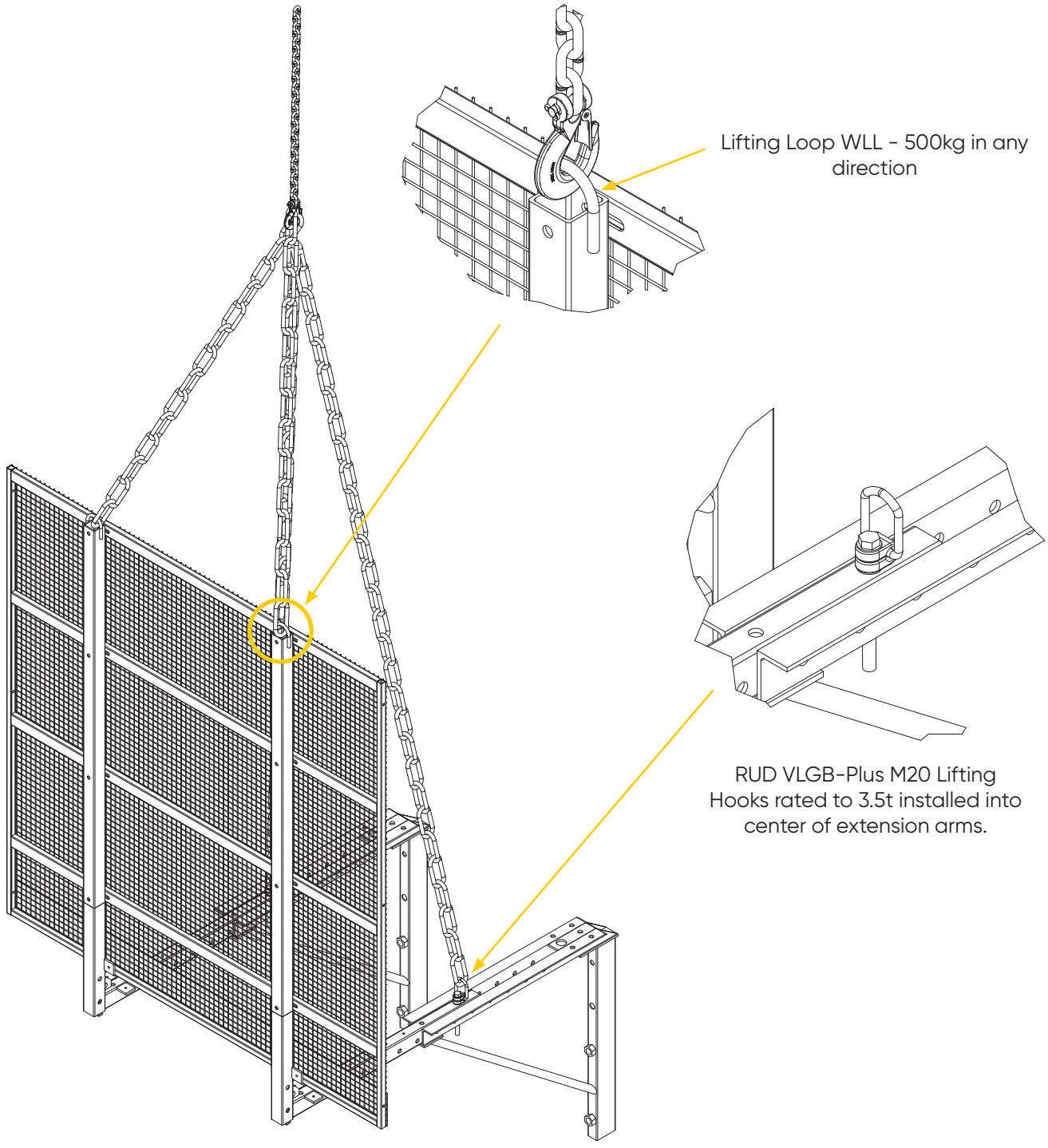
Reserve two end brackets to create standard Hand Rails using Scaffold Tubes and Double couplers to form the corners or entry/ exits of the walkway.



4. System Details

Modified Universal Cantilever Bridge Bracket - Crane Lifting

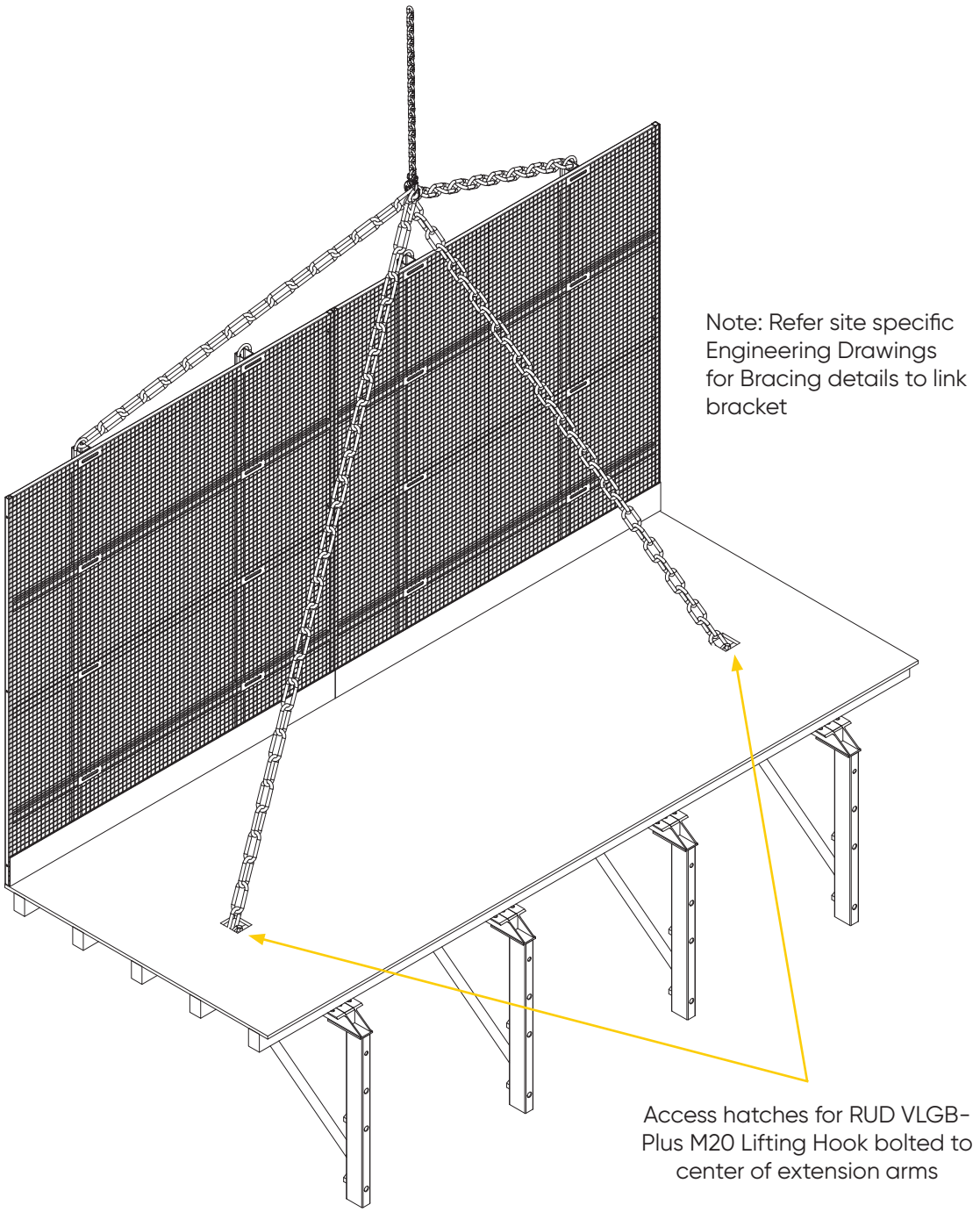
Entire sections of the walkway and screen can be lifted and installed at once by assembling both brackets to the correct extensions and fitting the screen to them. Following this, installing Rud Lifting Hooks into the center of the extension arms will provide four lifting points to be attached to a crane hook and safely installed into the final position on the wall or Super T Beam using previous instructions.



4. System Details

Modified Universal Cantilever Bridge Bracket - Crane Lifting - Full Modules

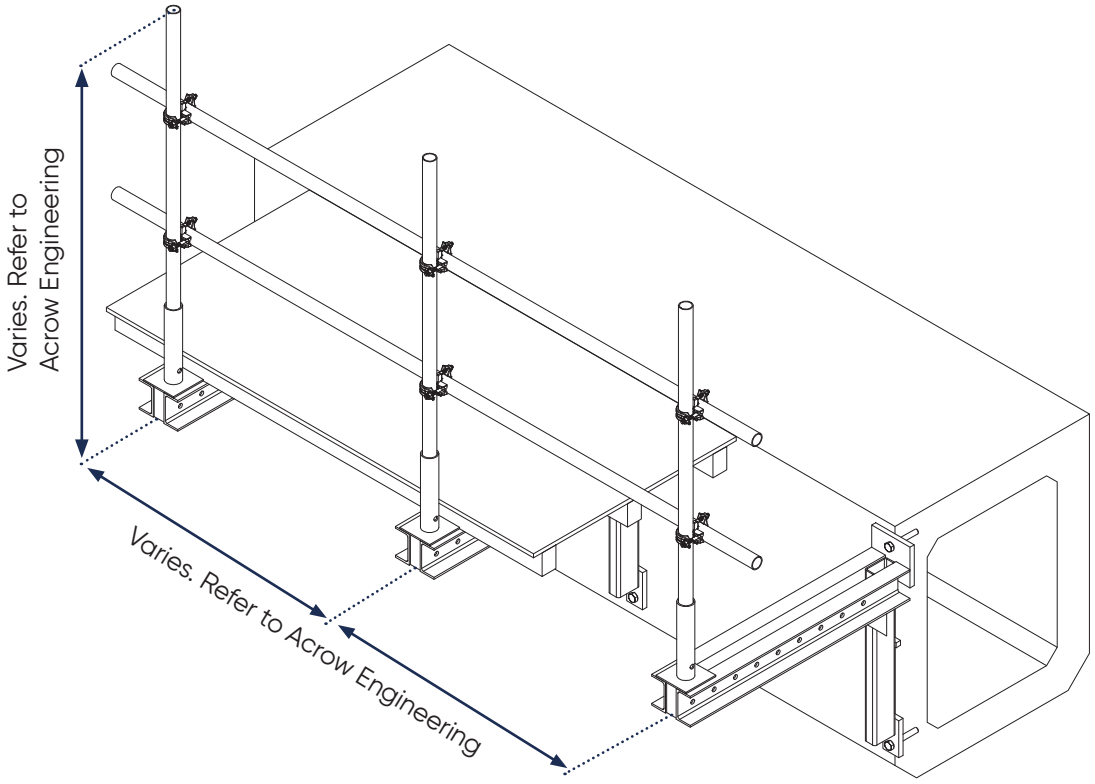
Fully built modules can be pre-built before being craned into position onto the sides of girders and walls. When assembling these modules, ensure that there are sufficient access hatches cut into the ply to allow for lifting hook access as seen in the example below.

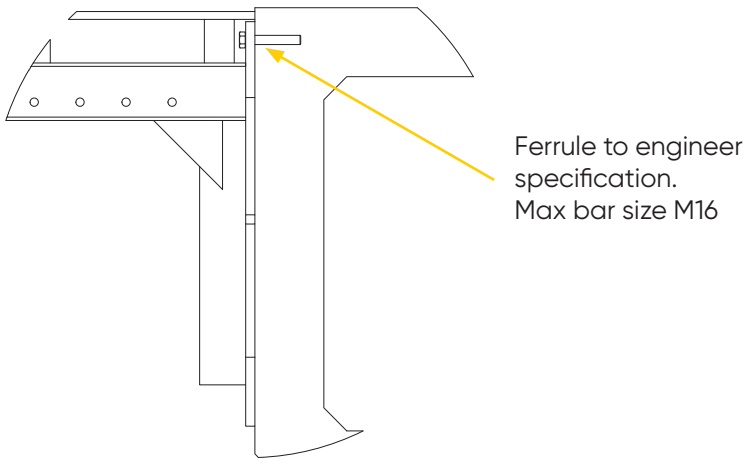


5. Assembly Details

Box Girder Cantilever Bracket - Installation - Girder

1. Ensure that the elephant foot ferrule or double-ended ferrule has been cast into the box girder at spacings provided by Acrow engineers.
2. Secure bracket to Box Girder by threading in an M16 G8.8 bolt and washer to clamp the bracket to the side of the washer firmly.
3. Ensure the brackets are firmly secured & aligned to the Box Girder before placing down and securing LVL joists and structural Ply.

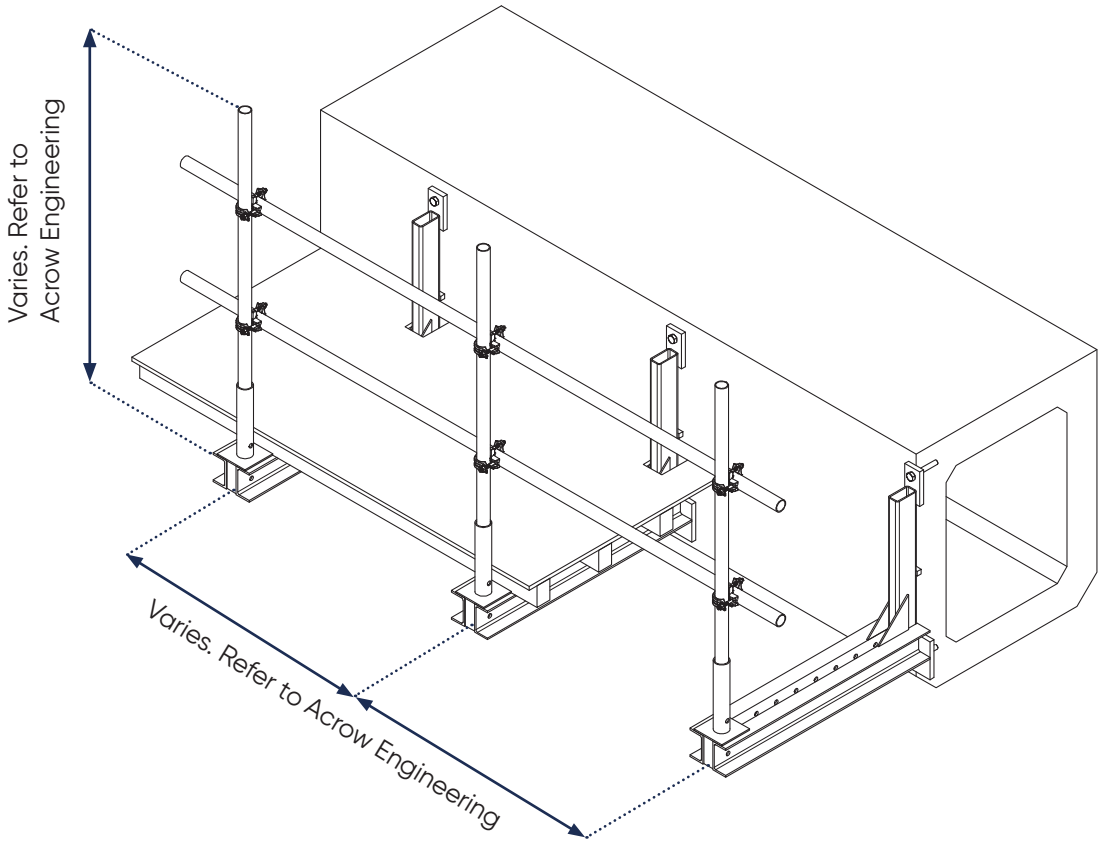


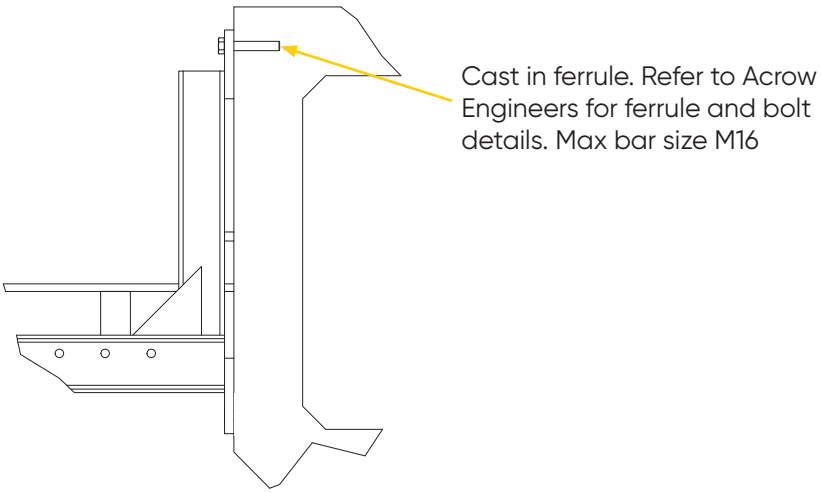


5. Assembly Details

Box Girder Cantilever Bracket - Installation - Reverse Orientation

1. Ensure that the elephant foot ferrule or double-ended ferrule has been cast into the box girder at spacings provided by Acrow engineers.
2. Secure bracket to Box Girder by threading in an M16 G8.8 bolt and washer to clamp the bracket to the side of the washer firmly.
3. Ensure the brackets are firmly secured & aligned to the Box Girder before placing down and securing LVL joists and structural Ply.

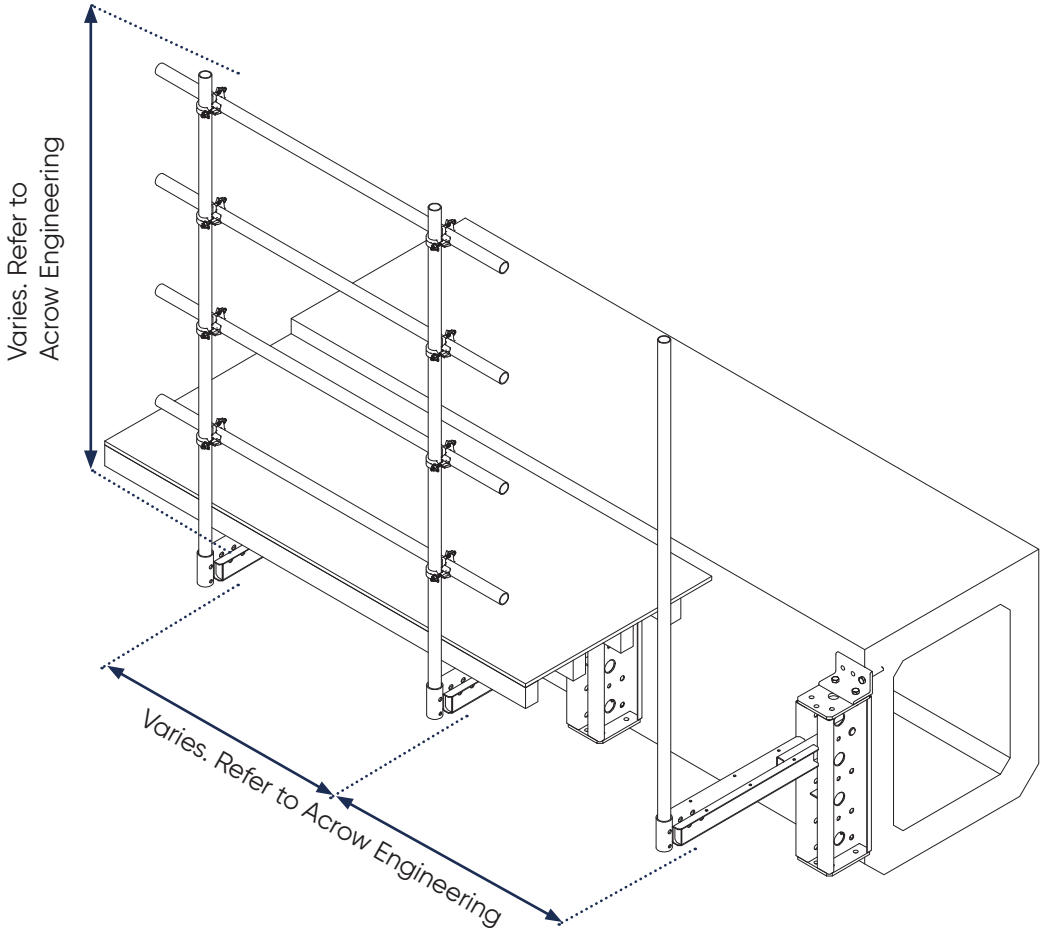


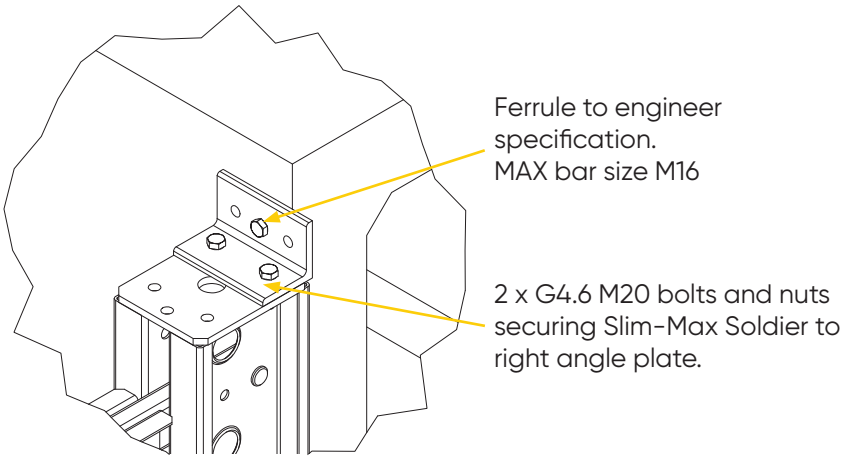


5. Assembly Details

Slim Max Cantilever Bracket - Installation

- Install the bracket into the Slim Max soldier using 2 x Ø16mm Podger Pin.
- The Slim Max Cantilever Bracket assembly can be bolted into the cast-in ferrules in the pre-cast elements using 2 x M16 G8.8 x 60mm bolts and washers.

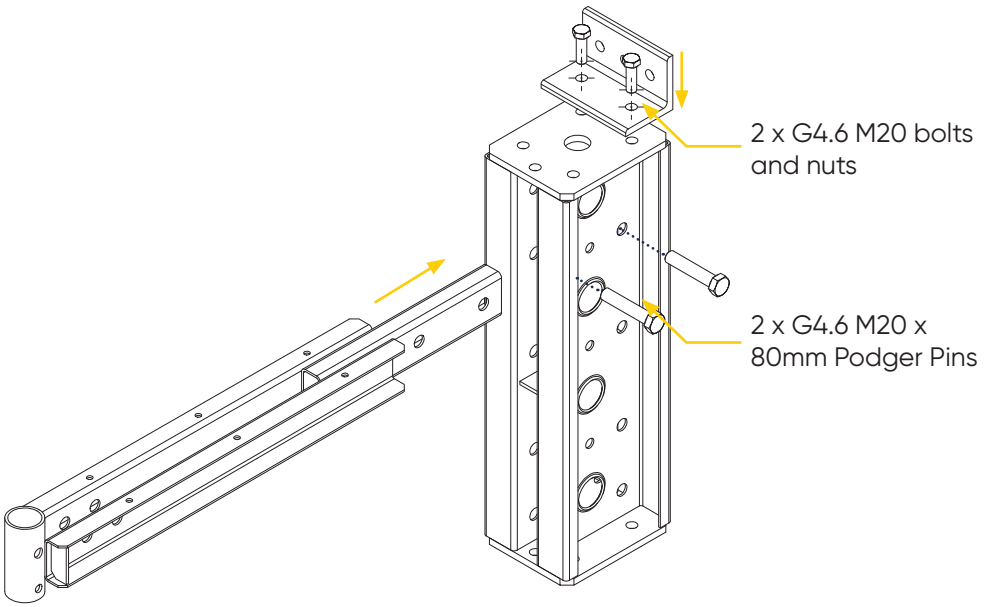




5. Assembly Details

Slim Max Cantilever Bracket - Slim - Max Cantilever Bracket Assembly

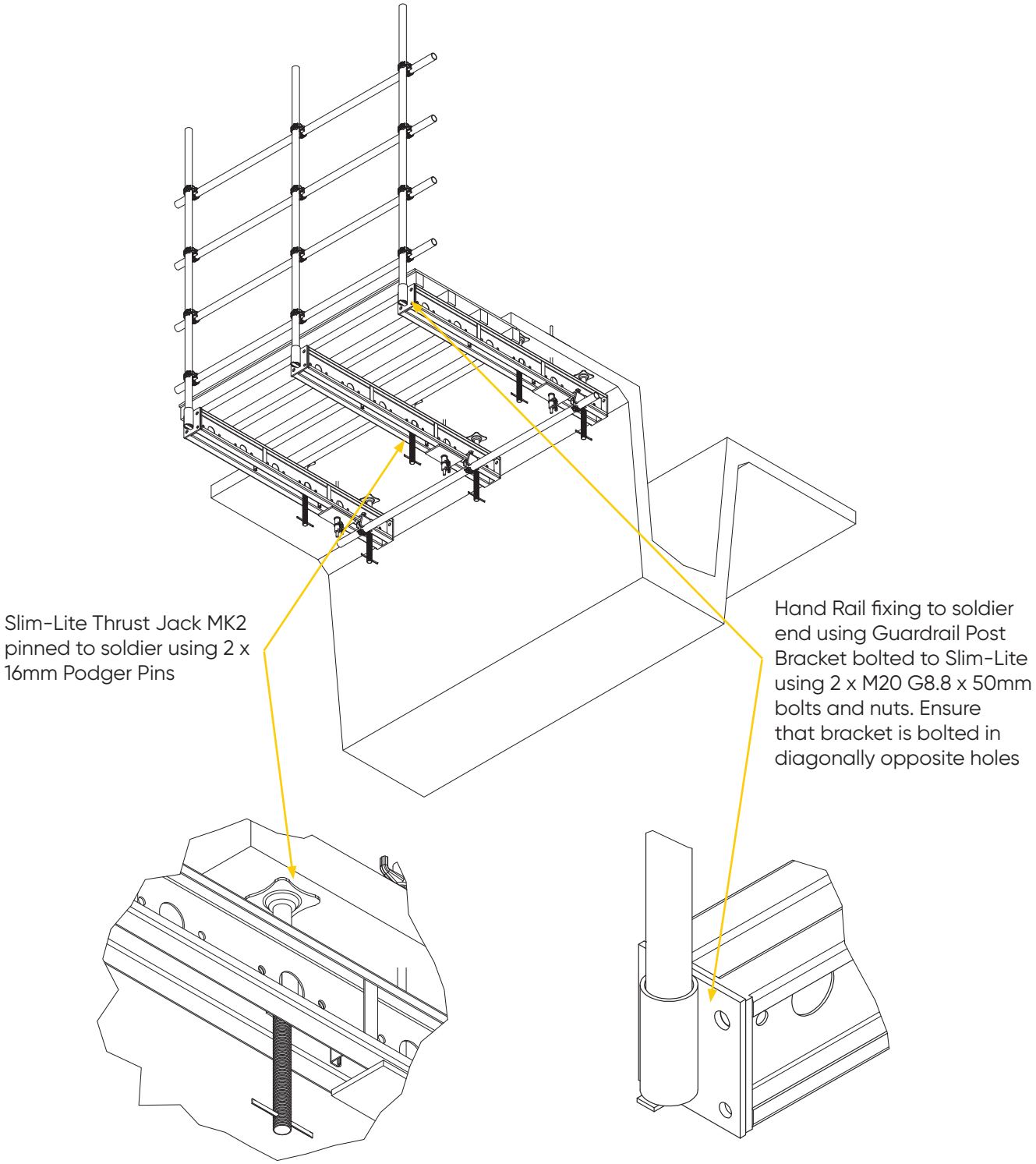
- The Slim Max Cantilever Bracket is the perfect solution for providing formwork access. It is designed to be bolted into the Acrow Slim Max formwork components (Soldier). The height can be adjusted to provide safe access for formwork activities.
- The Slim Max Cantilever Bracket can also be bolted into existing concrete structures by attaching the Slim Max Right Angle Bracket into a Slim Max Soldier then bolted into the concrete structure.
- Consult Acrow Engineering to provide custom designs to suit specific site applications.



5. Assembly Details

Cantilever Soldier Options - Installation

- The Cantilever Soldier is a solution for edge forming for Super T Beams designed to be bolted below the beam's flange. It has the advantage of accommodating greater flange widths using Slim-Lite Soldier.
- Consult Acrow Engineering to provide custom designs to suit specific site applications.



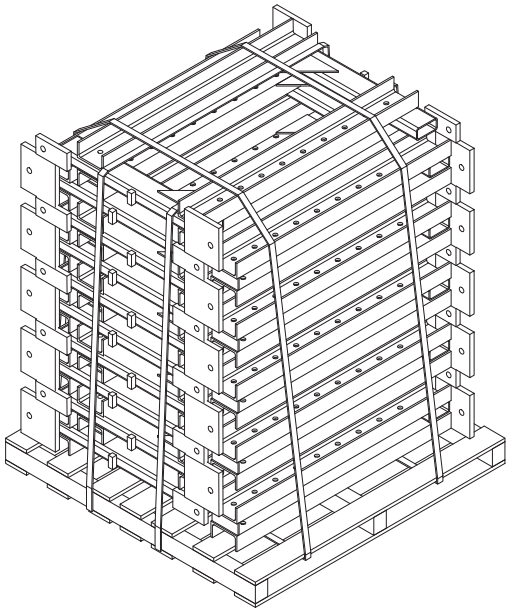
6. TRANSPORT & HANDLING

6. Transport & Handling

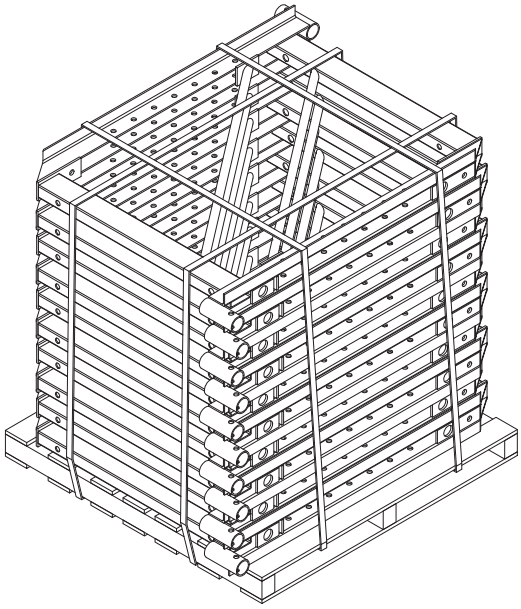
Box Girder Cantilever Bracket & Universal Cantilever Bridge Bracket

The Acrow stillage is used to store a set number of items per a stillage. Items should be stored in a particular way to prevent them from falling off the stillage.
The recommended method and process is:

- Stack items next to and on top to each other.
- Only pack and stack similar matching lengths per stillage. Do not mix different sizes or types in one stillage.
- Ensure every stillage load does not exceed the advised table below.
- Secure assembled items onto stillage by using at least two straps or plastic wrapped for enclosed stillages (two straps for enclosed stillage not applicable).
- Refer to Acrow Scaffold Stillage Transport and Manual Handling Document for further stacking and transport recommendations.
- All stillages and pallets are to be plastic wrapped.



Box Girder Cantilever Bracket



Universal Cantilever Bridge Bracket

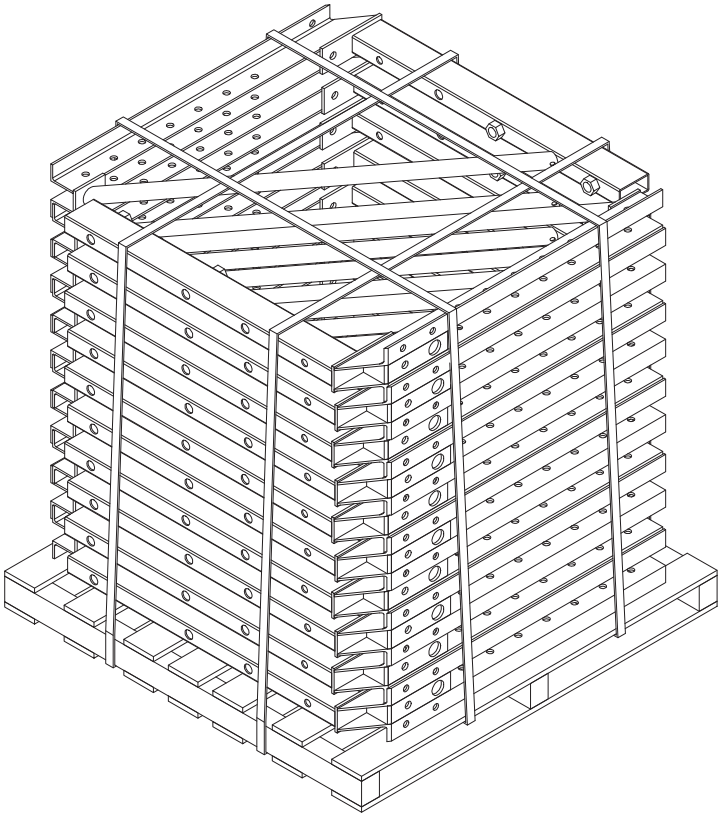
COMPONENT DESCRIPTION	UNIT MASS (KG)	QUANTITY PER STILLAGE	TOTAL MASS PER STILLAGE (KG)	STILLAGE TYPE
Box Girder Cantilever Bracket	44	20	880	Timber Pallet
Universal Cantilever Bridge Bracket	27	20	540	Timber Pallet

6. Transport & Handling

Adjustable Universal Cantilever Bridge Bracket

The Acrow stillage is used to store a set number of items per a stillage. Items should be stored in a particular way to prevent them from falling off the stillage.
The recommended method and process is:

- Stack items next to and on top to each other.
- Only pack and stack similar matching lengths per stillage. Do not mix different sizes or types in one stillage.
- Ensure every stillage load does not exceed the advised table below.
- Secure assembled items onto stillage by using at least two straps or plastic wrapped for enclosed stillages (two straps for enclosed stillage not applicable).
- Refer to Acrow Scaffold Stillage Transport and Manual Handling Document for further stacking and transport recommendations.
- All stillages and pallets are to be plastic wrapped.



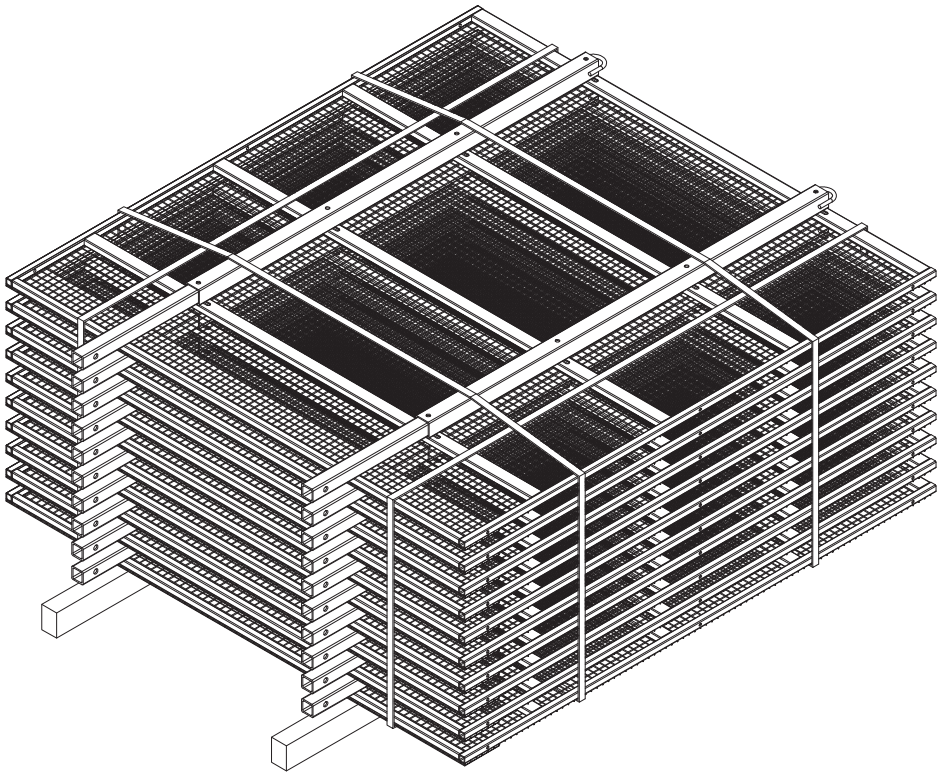
COMPONENT DESCRIPTION	UNIT MASS (KG)	QUANTITY PER STILLAGE	TOTAL MASS PER STILLAGE (KG)	STILLAGE TYPE
Adjustable Universal Cantilever Bridge Bracket	23	20	460	Timber Pallet

6. Transport & Handling

Universal Cantilever Bridge Bracket Screen

The Acrow stillage is used to store a set number of items per a stillage. Items should be stored in a particular way to prevent them from falling off the stillage.
The recommended method and process is:

- Stack items next to and on top to each other.
- Only pack and stack similar matching lengths per stillage. Do not mix different sizes or types in one stillage.
- Ensure every stillage load does not exceed the advised table below.
- Secure assembled items onto stillage by using at least two straps or plastic wrapped for enclosed stillages (two straps for enclosed stillage not applicable).
- Refer to Acrow Scaffold Stillage Transport and Manual Handling Document for further stacking and transport recommendations.
- Dunnage must be placed under main posts to avoid bending of the panel.



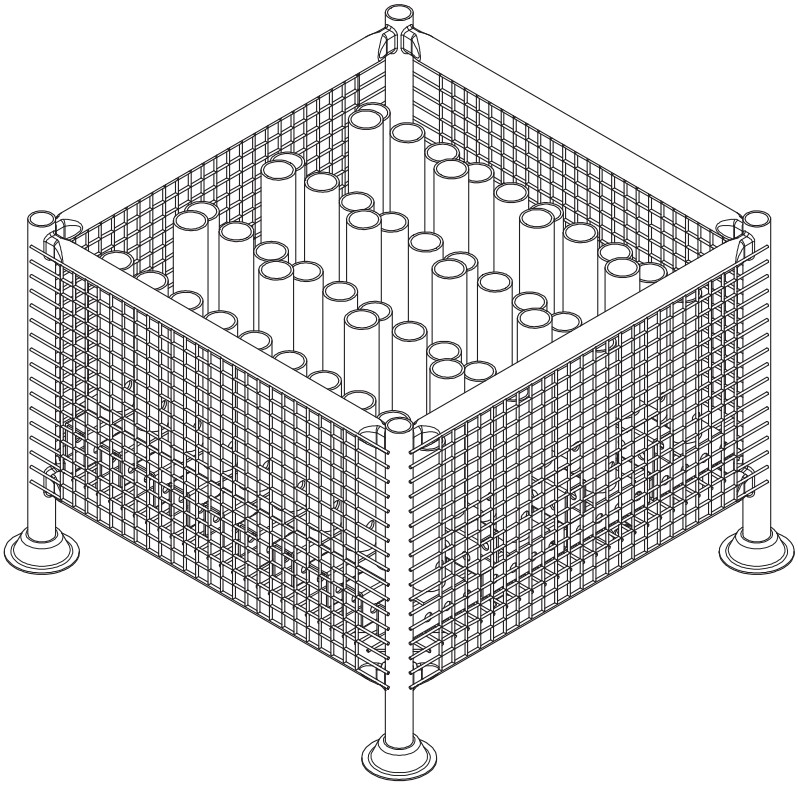
COMPONENT DESCRIPTION	UNIT MASS (KG)	QUANTITY PER STILLAGE	TOTAL MASS PER STILLAGE (KG)	STILLAGE TYPE
Universal Cantilever Bridge Bracket Screen	98	10	980	Dunnage

6. Transport & Handling

Slim-Lite / Slim- Max Soldier Post Adapter & Hand Rail Bracket Type 2

The Acrow stillage is used to store a set number of items per a stillage. Items should be stored in a particular way to prevent them from falling off the stillage.
The recommended method and process is:

- Stack items next to and on top to each other.
- Only pack and stack similar matching lengths per stillage. Do not mix different sizes or types in one stillage.
- Ensure every stillage load does not exceed the advised table below.
- Secure assembled items onto stillage by using at least two straps or plastic wrapped for enclosed stillages (two straps for enclosed stillage not applicable).
- Refer to Acrow Scaffold Stillage Transport and Manual Handling Document for further stacking and transport recommendations.



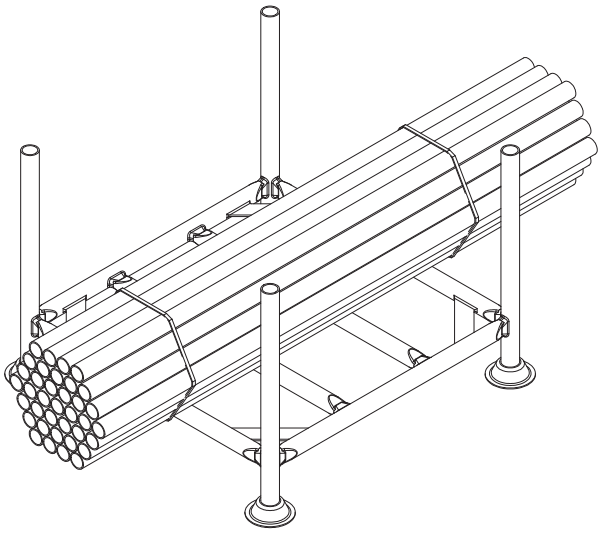
COMPONENT DESCRIPTION	UNIT MASS (KG)	QUANTITY PER STILLAGE	TOTAL MASS PER STILLAGE (KG)	STILLAGE TYPE
Slim-Lite / Slim- Max Soldier Post Adapter	4	75	300	MP
Hand Rail Bracket Type 2	4	75	300	MP

6. Transport & Handling

Scaffold Tubing

The Acrow stillage is used to store a set number of items per a stillage. Items should be stored in a particular way to prevent them from falling off the stillage. The recommended method and process is:

- Stack items next to and on top to each other.
- Only pack and stack similar matching lengths per stillage. Do not mix different sizes or types in one stillage.
- Ensure every stillage load does not exceed the advised table below.
- Secure assembled items onto stillage by using at least two straps or plastic wrapped for enclosed stillages (two straps for enclosed stillage not applicable).
- Refer to Acrow Scaffold Stillage Transport and Manual Handling Document for further stacking and transport recommendations.



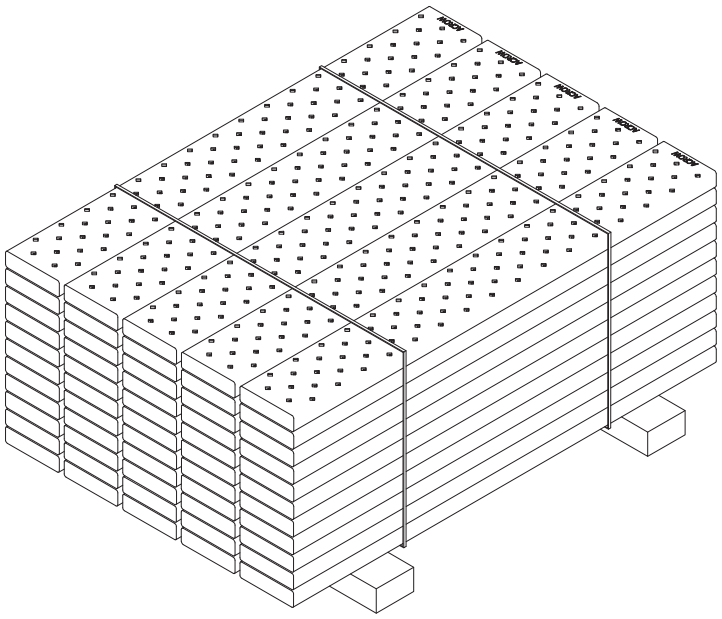
COMPONENT DESCRIPTION	UNIT MASS (KG)	QUANTITY PER STILLAGE	TOTAL MASS PER STILLAGE (KG)	STILLAGE TYPE
0.3m Tube - HDG - 3.2mm	1.50	136	204	MP
0.6m Tube - HDG - 3.2mm	2.50	136	340	MP
0.9m Tube - HDG - 3.2mm	3.50	136	476	MP
1.2m Tube - HDG - 3.2mm	5.00	136	680	MP
1.5m Tube - HDG - 3.2mm	6.00	136	816	MP
1.8m Tube - HDG - 3.2mm	7.00	136	925	MP
2.1m Tube - HDG - 3.2mm	8.50	136	1156	MP
2.4m Tube - HDG - 3.2mm	9.50	136	1292	MP
2.7m Tube - HDG - 3.2mm	10.50	136	1428	SP
3.0m Tube - HDG - 3.2mm	11.50	121	1391	SP
3.3m Tube - HDG - 3.2mm	13.00	107	1391	SP
3.6m Tube - HDG - 3.2mm	14.00	100	1400	SP
3.9m Tube - HDG - 3.2mm	15.00	93	1395	SP
4.2m Tube - HDG - 3.2mm	16.00	87	1392	SP
4.5m Tube - HDG - 3.2mm	17.50	82	1394	SP
4.8m Tube - HDG - 3.2mm	18.50	77	1386	SP
5.1m Tube - HDG - 3.2mm	19.50	73	1387	SP
5.4m Tube - HDG - 3.2mm	21.00	66	1386	SP
5.7m Tube - HDG - 3.2mm	22.00	63	1386	SP
6.0m Tube - HDG - 3.2mm	23.00	60	1380	SP
6.3m Tube - HDG - 3.2mm	24.00	58	1392	SP
6.5m Tube - HDG - 3.2mm	25.50	56	1400	SP

6. Transport & Handling

Cuplok Steel Planks

The Acrow stillage is used to store a set number of items per a stillage. Items should be stored in a particular way to prevent them from falling off the stillage.
The recommended method and process is:

- Stack items next to and on top to each other.
- Only pack and stack similar matching lengths per stillage. Do not mix different sizes or types in one stillage.
- Ensure every stillage load does not exceed the advised table below.
- Secure assembled items onto stillage by using at least two straps or plastic wrapped for enclosed stillages (two straps for enclosed stillage not applicable).
- Refer to Acrow Scaffold Stillage Transport and Manual Handling Document for further stacking and transport recommendations.



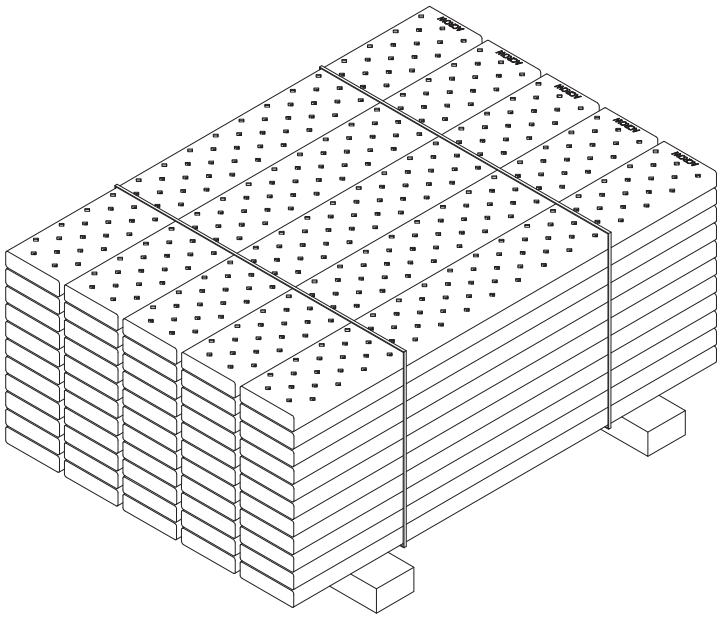
COMPONENT DESCRIPTION	UNIT MASS (KG)	QUANTITY PER STILLAGE	TOTAL MASS PER STILLAGE (KG)	STILLAGE TYPE
0.61m Steel Plank	3	50	150	Dunnage
0.83m Steel Plank	5	50	250	Dunnage
1.05m Steel Plank	7	50	350	Dunnage
1.27m Steel Plank	9	50	450	Dunnage
1.83m Steel Plank	12	50	600	Dunnage
2.44m Steel Plank	16	50	800	Dunnage
3.05m Steel Plank	20	50	1000	Dunnage

6. Transport & Handling

Quickstage Steel Planks

The Acrow stillage is used to store a set number of items per a stillage. Items should be stored in a particular way to prevent them from falling off the stillage.
The recommended method and process is:

- Stack items next to and on top to each other.
- Only pack and stack similar matching lengths per stillage. Do not mix different sizes or types in one stillage.
- Ensure every stillage load does not exceed the advised table below.
- Secure assembled items onto stillage by using at least two straps or plastic wrapped for enclosed stillages (two straps for enclosed stillage not applicable).
- Refer to Acrow Scaffold Stillage Transport and Manual Handling Document for further stacking and transport recommendations.



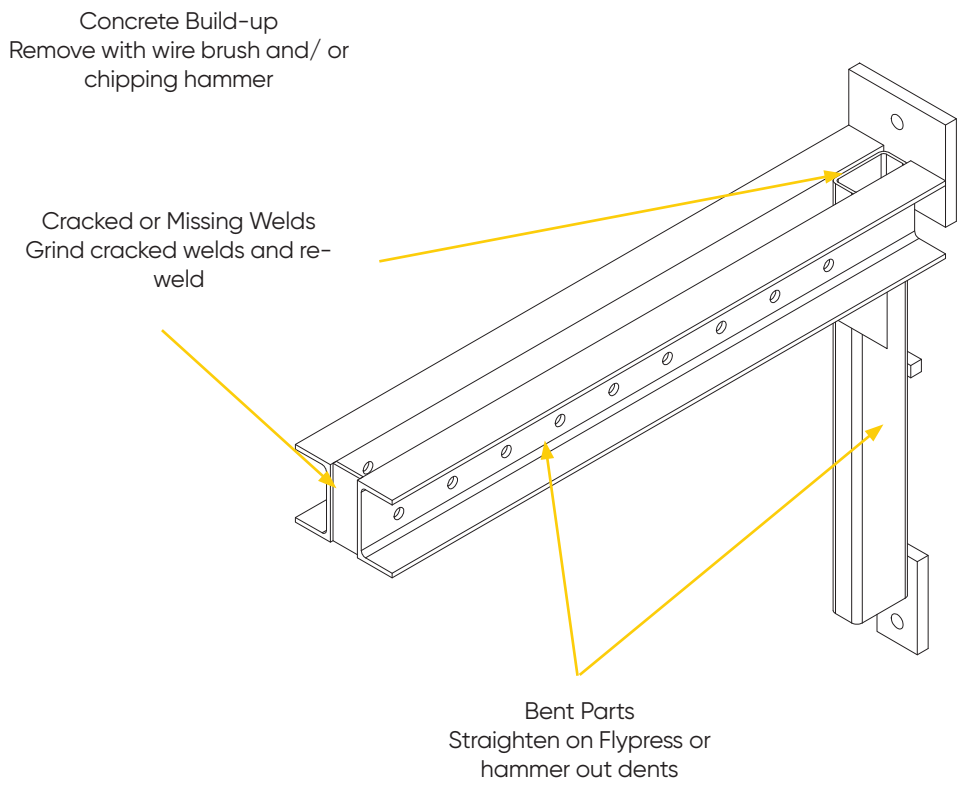
COMPONENT DESCRIPTION	UNIT MASS (KG)	QUANTITY PER STILLAGE	TOTAL MASS PER STILLAGE (KG)	STILLAGE TYPE
0.5m Steel Plank	4	50	200	Dunnage
0.7m Steel Plank	5	50	250	Dunnage
1.2m Steel Plank	6	50	300	Dunnage
1.8m Steel Plank	9	50	450	Dunnage
2.4m Steel Plank	12	50	600	Dunnage
3.0m Steel Plank	15	50	750	Dunnage

7. MAINTENANCE & INSPECTION

7. Maintenance & Inspection

Box Girder Cantilever Bracket

The Box Girder Cantilever Bracket provides solution for edge and soffit forming for a wide range of vertical concrete structures. It can be used to construct walkways by flipping the bracket 180° and installing it as a "L" shape bracket.



NAME: ..... CHECKED DATE: .....

Generally, visual inspection checking for the possible faults listed below. Please tick or cross the checked box.

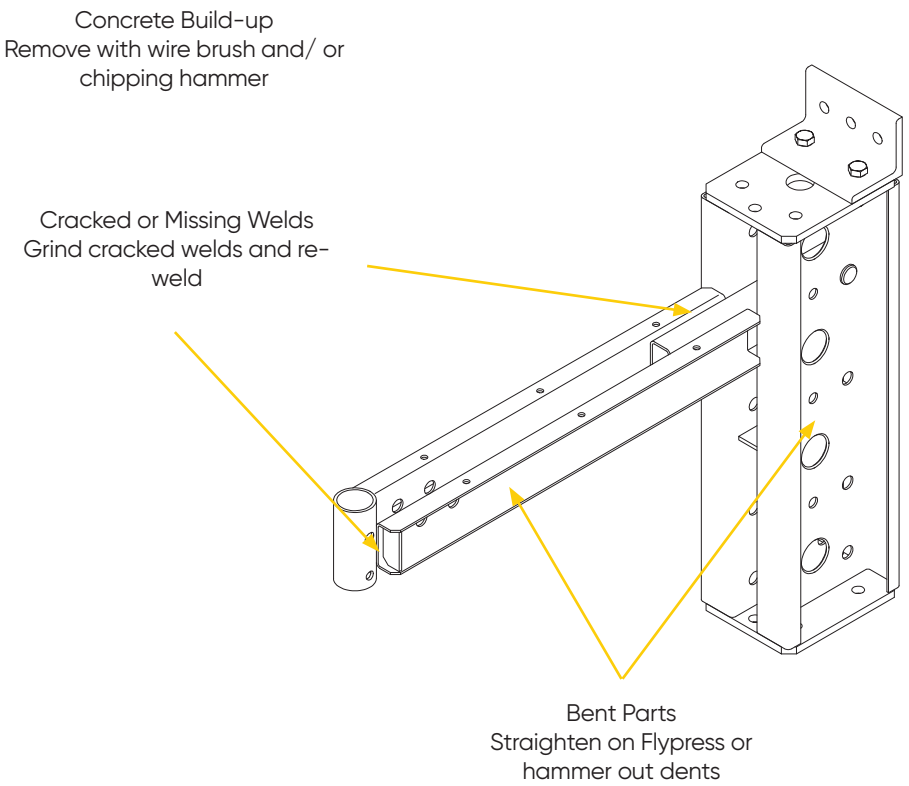
POSSIBLE FAULTS	DAMAGE LIMITS FOR REPAIR	RECOMMENDED ACTION
Item coated with concrete	No concrete build up permitted at connections	Remove concrete with wire brush and/or chipping hammer
Bent parts	See Reference Sheet	Straighten on Flypress
Cracked or missing welds	Cracked welds not permitted	Grind cracked weld and reweld
Note: When re-welding cracked welds Work Instruction WI-GE-100 details must be followed		

Issues / Notes:

7. Maintenance & Inspection

Slim-Max Cantilever Bracket

The Slim Max Cantilever Bracket is designed to be bolted into the Acrow Slim Max formwork components (Soldier). The height of the bracket can be adjusted to provided a range of access for formwork jobs.



NAME: ..... CHECKED DATE: .....

Generally, visual inspection checking for the possible faults listed below. Please tick or cross the checked box.

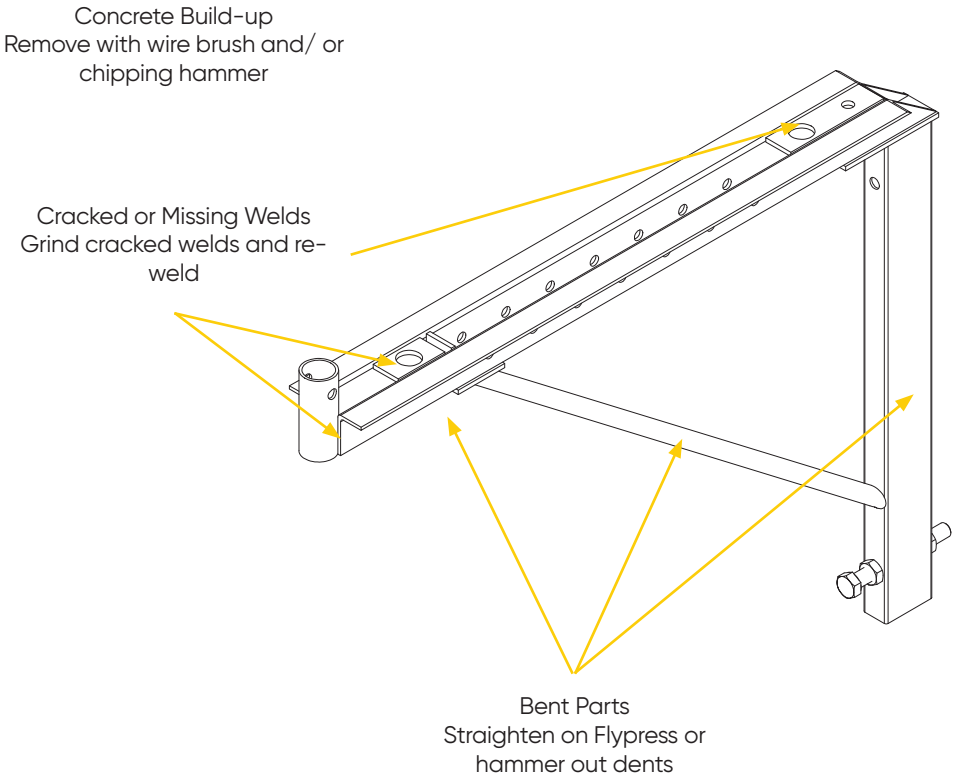
POSSIBLE FAULTS	DAMAGE LIMITS FOR REPAIR	RECOMMENDED ACTION
Item coated with concrete	No concrete build up permitted at connections	Remove concrete with wire brush and/or chipping hammer
Bent parts	See Reference Sheet	Straighten on Flypress
Cracked or missing welds	Cracked welds not permitted	Grind cracked weld and reweld
Note: When re-welding cracked welds Work Instruction WI-GE-100 details must be followed		

Issues / Notes:

7. Maintenance & Inspection

Universal Cantilever Bridge Bracket

The UCBB is a fixed length bridge bracket suitable for applications on walls and Super T Beams and features a Hand Rail spigot designed for scaffold tubing.



NAME: ..... CHECKED DATE: .....

Generally, visual inspection checking for the possible faults listed below. Please tick or cross the checked box.

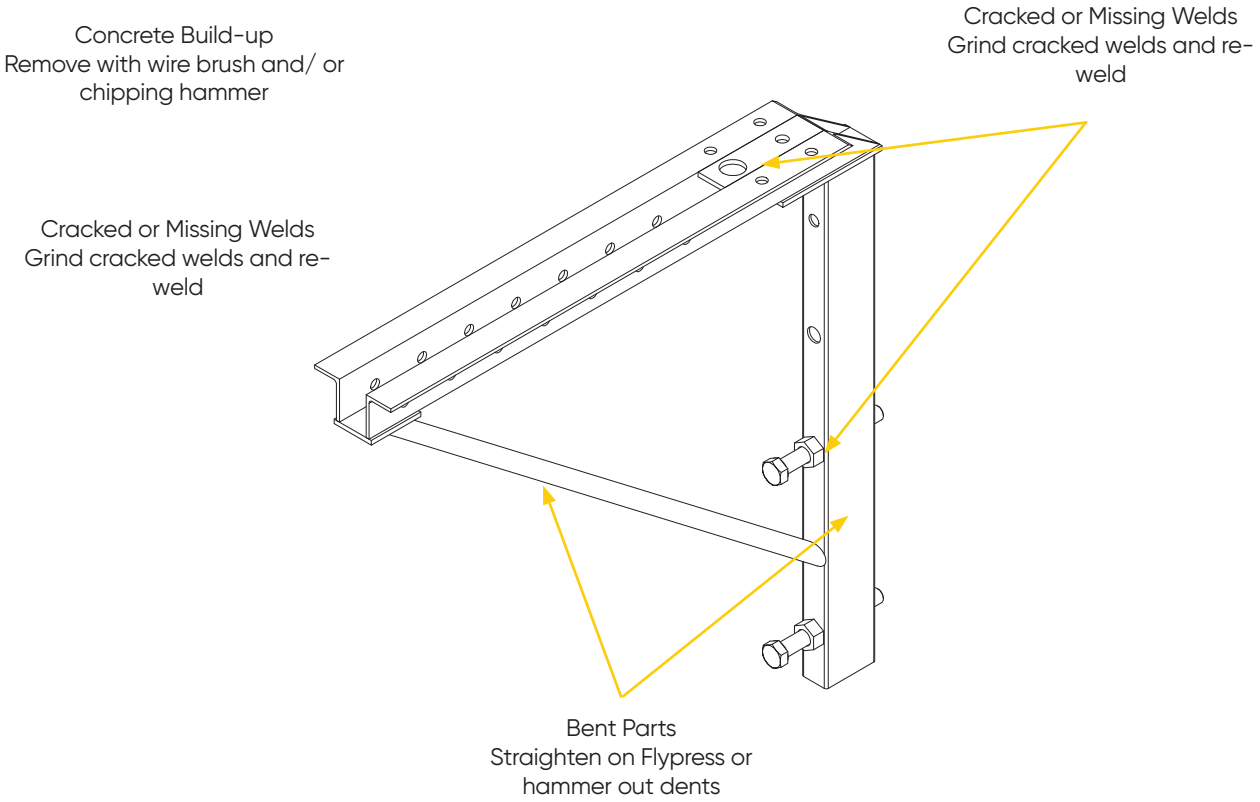
POSSIBLE FAULTS	DAMAGE LIMITS FOR REPAIR	RECOMMENDED ACTION
Item coated with concrete	No concrete build up permitted at connections	Remove concrete with wire brush and/or chipping hammer
Bent parts	See Reference Sheet	Straighten on Flypress
Cracked or missing welds	Cracked welds not permitted	Grind cracked weld and reweld
Note: When re-welding cracked welds Work Instruction WI-GE-100 details must be followed		

Issues / Notes:

7. Maintenance & Inspection

Universal Cantilever Bridge Bracket Modified

The modified bridge bracket is bolted to existing concrete structures such as walls and Super T Beams. It is used with the UCBBTA to provide an adjustable walkway platform.



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Issues / Notes:

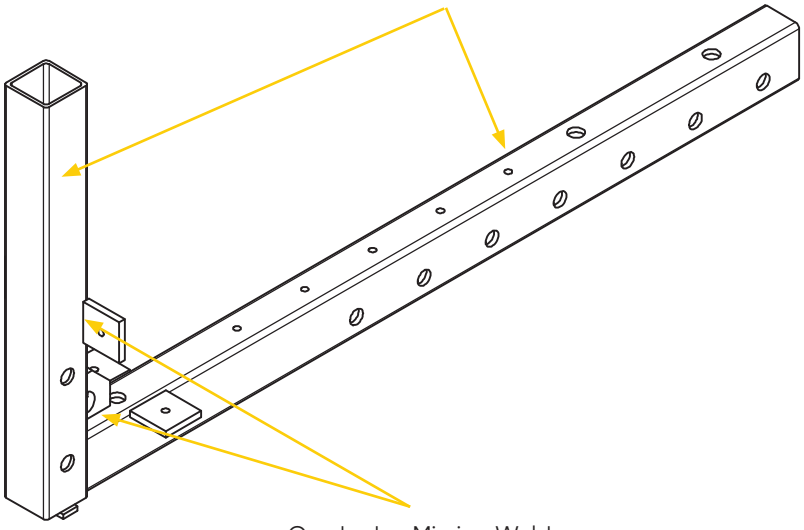
7. Maintenance & Inspection

Telescopic Bridge Bracket Arm

Telescopic arm that can provide an adjustable walkway width when used with the UCBBM. LVL Beams can be secured through the main arm in addition to kickboards. Provides mounting for both scaffold Hand Rails and UCBBS.

Concrete Build-up, Remove with wire brush and/ or chipping hammer

Bent Parts, Straighten on Flypress or hammer out dents



Cracked or Missing Welds
Grind cracked welds and re-weld

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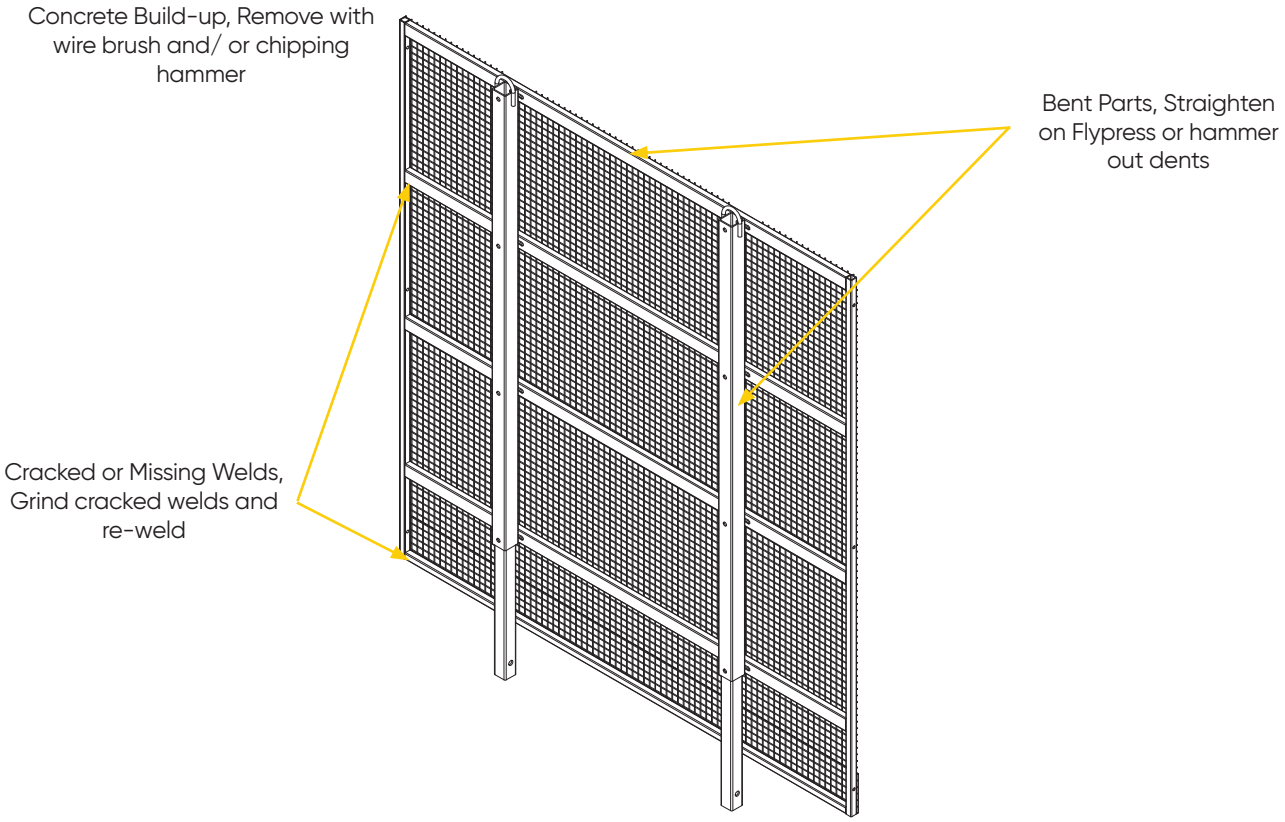
Issues / Notes:

7. Maintenance & Inspection

Telescopic Bridge Bracket Screen

The Bridge Bracket Screen can be lowered on to the end of 2 UCBBTA to provide a 2m edge protection. The screen can be adjusted 100mm each side to cover any gaps that may form. The screen can alternatively be placed into 2 grounded feet to form semi-permanent protection on the ground.



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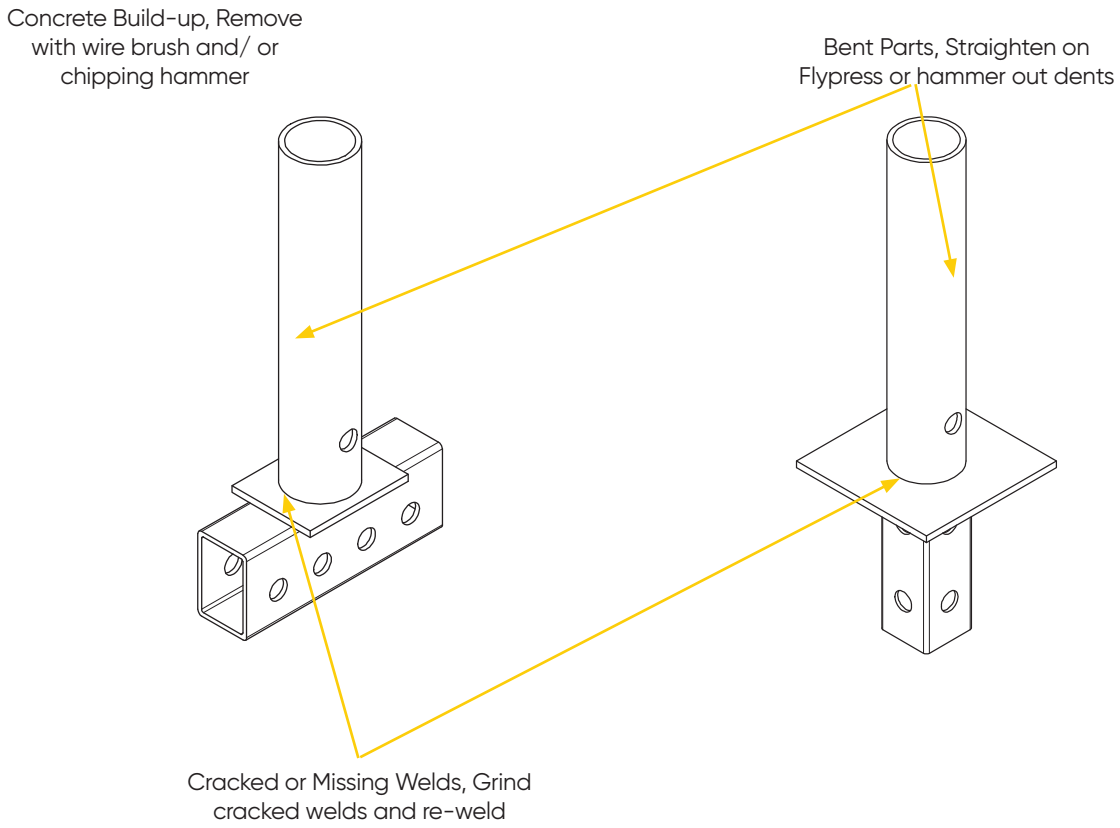
Issues / Notes:

7. Maintenance & Inspection

Hand Rail Brackets Type 1 & 2

Type 1 - An adjustable spigot sleeve for Hand Rail posts, it can be bolted to the UCBB at a variety of lengths to change the width of walkways.

Type 2 - Used with the Slim - Max Cantilever Bracket and can be bolted directly into the soldier to provide a spiogt sleeve for a Hand Rail post.



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Issues / Notes:

LOCATIONS

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13-15 Vallance Street
St Marys NSW 2760
P: 02 9219 1566

Sydney
Above Scaffolding NSW
Unit 8, 303 Pacific Highway
Lindfield NSW 2070
P: 1300 30 15 20

Regional NSW
Industrial Access
34-35 Enterprise Crescent
Muswellbrook NSW 2333
P: 02 6540 9300

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1651-1657 Centre Road
Springvale VIC 3171
P: 03 9582 2777
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280 Bilsen Road
Geebung QLD 4034
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F: 07 3865 0277

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2 Morrison Lane
Beenleigh QLD 4207
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22a Spanns Road
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P: 07 3442 4000

Beenleigh
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Beenleigh QLD 4207
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Gladstone QLD 4680
P: 07 4899 2900

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ATEC Training Centre
25-29 Production Drive
Paget QLD 4740
P: 07 4952 1966

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Mount St John QLD 4818
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F: 03 6277 1290

Launceston
Formwork & Scaffold
65 Boland Street
Launceston TAS 7250
P: 03 6324 8282
F: 03 6324 8250

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ENGINEERING & CONSTRUCTION

Contact

Phone: 1300 138 362

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