



TECHNICAL GUIDE
ACROW PROP

FALSEWORK SUPPORT, TEMPORARY
SUPPORT & RAKING SHORES



We help build Australia **smarter.**

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 loads featured in this document, related to the parts of the product, are approximate.

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

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SECTION 1

SYSTEM DETAILS



1. SYSTEM DESCRIPTION

A range of adjustable prop “telescopic prop” designed for multitude of uses in the construction industry including:

- Falsework support: formwork for reinforced concrete slabs and framework beams.
- Raking shores: to brace formwork for columns, walls and stairs.
- Temporary support: for repair work, canopies, lintels and the like.

The Acrow Prop consists of inner and outer tube with welded top-plate, Nut and handle and Chainless prop pin.

The high yield steel Acrow props are available in six (6) sizes covering a range from 720mm to 4900mm heights with axial compression working load limits ranging from 7kN to 50kN. (1kN >> 102kg).

The revolutionised construction Acrow Props, has many advantages

- It is simple and innovative to use, fast to erect in 3 simple steps by one person
- Strong and durable. The prop outer-tube features a rolled thread which retains the tube wall thickness and thereby maintains maximum strength
- Versatile with infinitely variable height adjustment. The telescopic props are capable of course and fine adjustment of its overall length
- A range of connection bracket are designed for multi applications
- Reliable and economic. Galvanized finish offers long life protection against corrosion
- Fully tested and certified in accordance with AS3610

2. PURPOSE OF THE DOCUMENT

The purpose of this document is to provide guidelines for design, safe handling, transport and installation of the Acrow Prop prop system. It is intended to be used by Structural Engineers and specialists in the field of formwork and falsework installation.

The document also outlines the various components of the Acrow Prop. 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 Formwork and Scaffolding has dedicated engineering services available for project assistance. We can provide design support for clients to determine the best way to specify and document Acrow Prop. 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 Formwork & Scaffolding Pty Ltd branch.

3. SAFETY INFORMATION

This safety information is to draw the user's attention to possible musculoskeletal disorders as a result of manual handling during assembly and dismantling of the Acrow Prop.

It is recommended that users of the Acrow Prop system employ and implement appropriate procedures and control measures to eliminate or control any risk of Musculoskeletal disorder/injury while handling the Acrow Prop.

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.

4. IMPORTANT INFORMATION

The erection and application instructions contained in this manual are the recommended methods to be used for Acrow Prop products.

The technical function related instructions must be accurately followed to obtain the correct performance of the product. Any deviation from the recommended usage will require a separate design and/or verification by Acrow Engineering.

The safe use and application of the Acrow Prop 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 Acrow Prop 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 Acrow Prop system are available from Acrow branches.

Site specific Hazard and Risk assessments may need to be generated for specific projects.

DISCLAIMER

1. The photographs/illustrations shown within this manual are intended as expressing the diversity and possible applications of the product and as such must not be used as assembly instructions.
2. In line with Acrow Formwork & Scaffolding'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 latest update.
3. While all reasonable effort has been taken to ensure the accuracy and adequacy of the information contained herein, Acrow Formwork & Scaffolding Pty Ltd, 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.

5. APPLICABLE CODES AND STANDARDS

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

ELEMENT	DESCRIPTION	CODE
Loading	Structural Design Actions – General Principles	AS/NZS 1170.0-2002 (R2016)
	Structural Design Actions – Permanent, Imposed And Other Actions	AS/NZS 1170.1-2002 (R2016)
Steel	Cold-Formed Steel Structures	AS 4600-2018
	Steel Structures	AS 4100-1998
Formwork	Formwork for Concrete	AS 3610-1995
	Formwork for Concrete Part 1- Specifications	AS 3610.1-2018


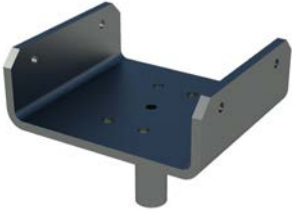


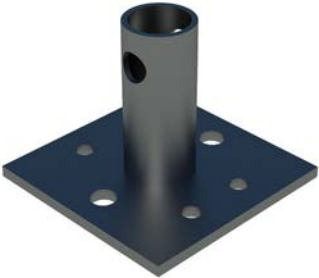

SECTION 6

GENERAL PRODUCT INFORMATION



6. GENERAL PRODUCT INFORMATION

PRODUCT	DESCRIPTION	PRODUCT CODE	MASS KG (NOM.)
	<p>Acrow Props</p> <p>A range of high tensile props designed to be used for falsework support, temporary support and raking shores.</p> <p>Available in 6 sizes covering a range from 720mm to 4900mm with axial compression working load limits ranging from 7kN to 50kN.</p> <p>Acrow Prop No. 00 (720mm- 1000mm)</p> <p>Acrow Prop No. 0 (1050mm- 1800mm)</p> <p>Acrow Prop No. 1 (1650mm- 2820mm)</p> <p>Acrow Prop No. 2 (1970mm- 3350mm)</p> <p>Acrow Prop No. 3 (2580mm- 3960mm)</p> <p>Acrow Prop No 4 (3200mm- 4900mm)</p>	<p>AP00</p> <p>AP0</p> <p>PF1</p> <p>PF2</p> <p>PF3</p> <p>PF4</p>	<p>10</p> <p>13</p> <p>17</p> <p>20</p> <p>23</p> <p>30</p>
	<p>U-Head - Detachable</p> <p>Designed to be inserted into Acrow Prop Inner Tube Top-Plate to support joist or bearer.</p>	<p>SCDUHS</p>	<p>5.69</p>

PRODUCT	DESCRIPTION	PRODUCT CODE	MASS KG (NOM.)
	<p>Prop Pivot End Adapter</p> <p>An adapter to connect Acrow props to the Raking Shore Foot Bracket.</p> <p>A vertical support member. When Acrow Props are used as shoring. This Prop Adapter attached to the Prop's Base and top plates using M12 x 30 Grade 8.8 Bolts and Nuts.</p>	PPEAA	1.8
	<p>Raking Shore Foot Bracket</p> <p>Secured to the base slab to provide attachment for Acrow Props via the Prop Adapter using M20 x 100 Grade 4.6 Hex Bolt and M20 Hex Nyloc Nut</p>	PTUFB	2.3



SECTION 2

SYSTEM COMPONENTS



7. SYSTEM COMPONENTS

The Acrow Prop system consists of four major components designed to be joined or bolted to suit the application:

1. A range of six Telescopic Props
2. U-Head
3. Prop Pivot End Adapter
4. Raking Shore Foot Bracket



TYPICAL ACROW PROP

A range of high tensile props designed to be used for falsework support, temporary support and raking shores.



U-HEAD

Designed to be inserted into Acrow Prop Inner Tube Top-Plate to support joist or bearer.



PROP PIVOT END ADAPTER

An adapter to connect Acrow props to the Raking Shore Foot Bracket.



RAKING SHORE FOOT BRACKET

Secured to the base slab to provide attachment for Acrow Props via the Prop Pivot End Adapter.

7.1 PROPS

7.1.1 PROP SPECIFICATIONS

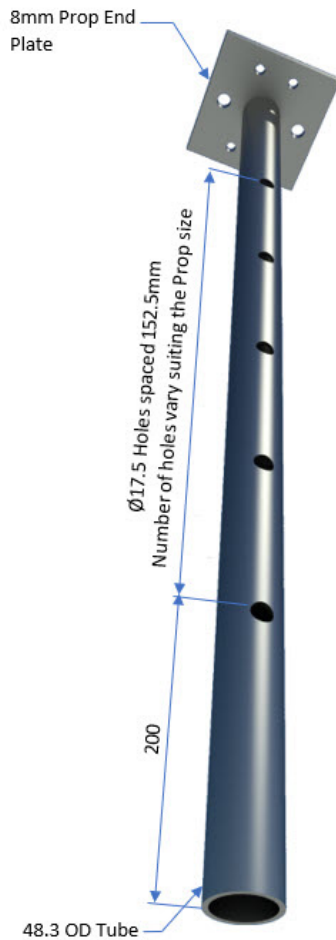
Acrow Prop offer a range of props capable for supporting formwork ranging from 720mm to 4900mm high. Manufactured from high tensile steel, the prop consists of four parts:

1. The outer tube with welded base-plate
2. The inner tube with welded top-plate
3. The nut and handle
4. The chainless prop pin

The prop outer tube is 60.3 OD tube x 3.6mm thick having 300mm rolled thread and slot provides the ability for each prop to have fine adjustment within the given range. The rolled thread retains the wall thickness of the tube thus maintaining maximum strength.

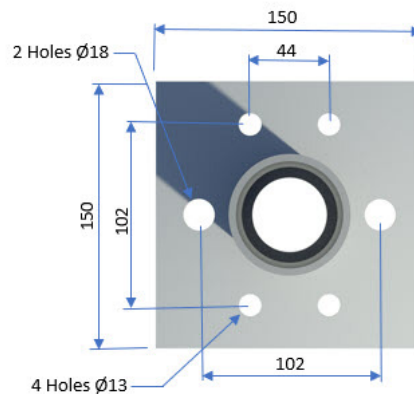
A reduction couplers enable standard scaffold tube to be connected to the ACROW PROP outer-tube for bracing purposes.

The prop inner tube is 48.3 OD x 3.6mm thick for prop No. 00 to No. 03 and 3.9mm thick for prop No. 4. The props inner tube has a series of $\text{Ø}17.5$ holes spacing at 152.5mm increments provide the major adjustment for the prop height. Inner tube diameter enables standard scaffold tube and couplers to be used for bracing purposes.

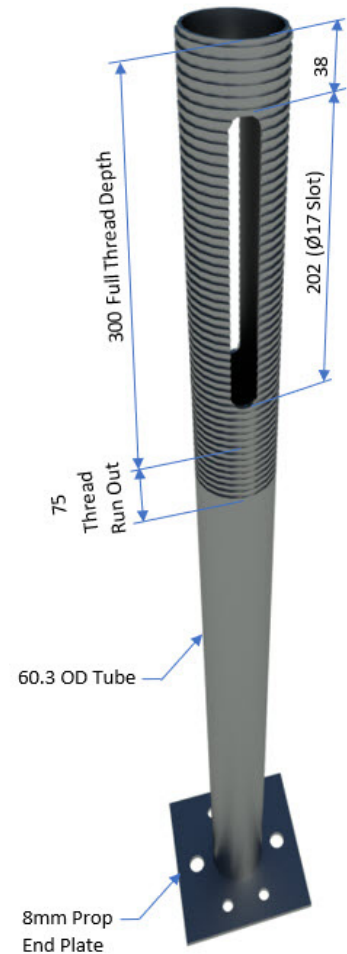


PROP INNER TUBE

48.3 OD x 3.6mm-3.9mm thick..
The props inner has a series of $\text{Ø}17.5$ holes spacing at 152.5mm increments provide the major adjustment for the prop height.



PROP END PLATE CONFIGURATION



PROP OUTER TUBE

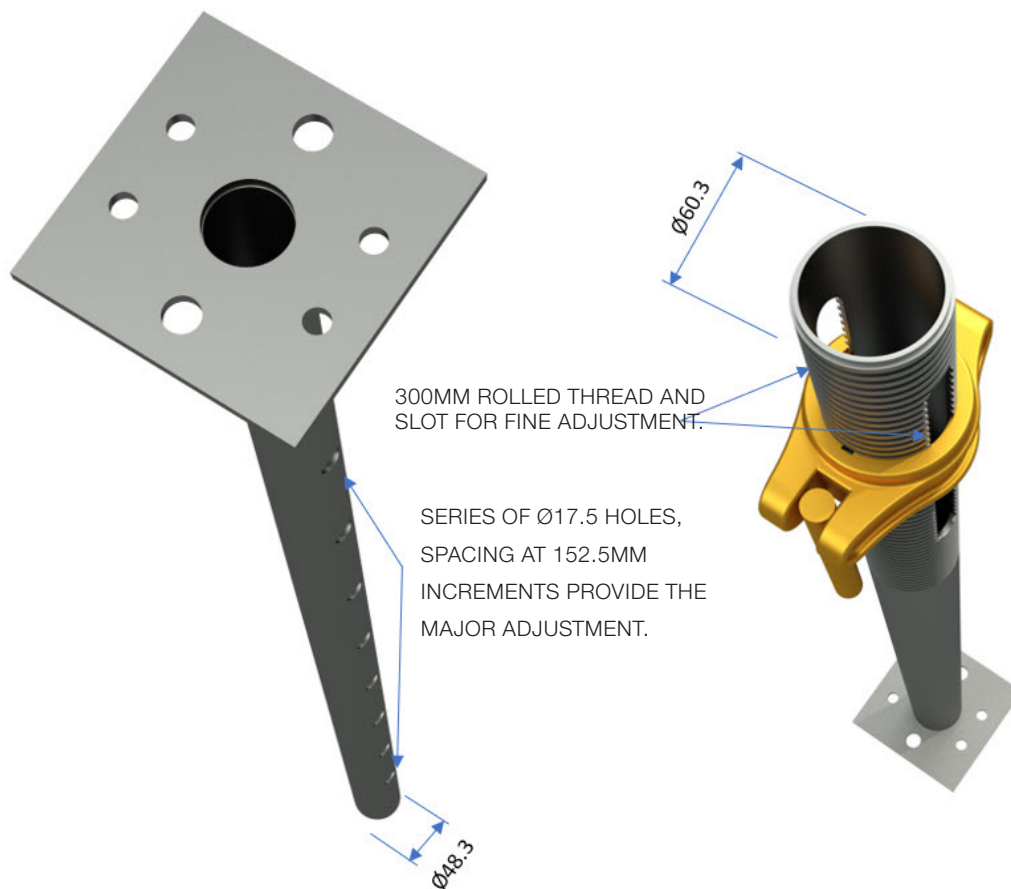
60.3 OD tube x 3.6mm thick having 300mm rolled thread provides the ability for each prop to have fine adjustment within the given range.

7.1.2 PROPS RANGE DETAILS, MASS & WORKING LOAD LIMITS

The Acrow Props range, their specifications and Working Load Limits are summarised in table below:

ACROW PROP	MASS (kg)	EXT. MIN. (mm)	EXT. MAX. (mm)	OUTER LENGTH (mm)	INNER LENGTH (mm)	HOLES ON INNER	MAX. WLL (kN) AT MIN. EXT.	MAX. WLL (kN) AT MAX EXT.
NO. 00	10	720	1000	689	580	4	50.0	40.0
NO. 0	13	1050	1830	1039	1039	5	42.5	23.3
NO. 1	17	1600	2800	1459	1589	9	34.0	13.0
NO. 2	20	1900	3400	1759	1889	11	39.5	10.9
NO. 3	23	2170	3975	2059	2163	13	35.8	7.7
NO. 4	30	3100	4900	2059	3089	12	18.0	7.0

Each prop is labelled, example below, with information including its number (size), weight, range and axial compressive Working Load Limits.



PROP INNER TUBE

48.3 OD x 3.6mm-3.9mm thick, provide the major adjustment for the prop height.

PROP OUTER TUBE

60.3 OD tube x 3.6mm, thick the given range.

7.1.2.1 EXTENSION MEASUREMENTS

					
PROP NO. 00		PROP NO. 0		PROP NO. 1	
MASS (kg)	10	MASS (kg)	13	MASS (kg)	17
EXT. MIN. (mm)	720	EXT. MIN. (mm)	1050	EXT. MIN. (mm)	1600
EXT. MAX. (mm)	1000	EXT. MAX. (mm)	1830	EXT. MAX. (mm)	2800

7.1.2.1

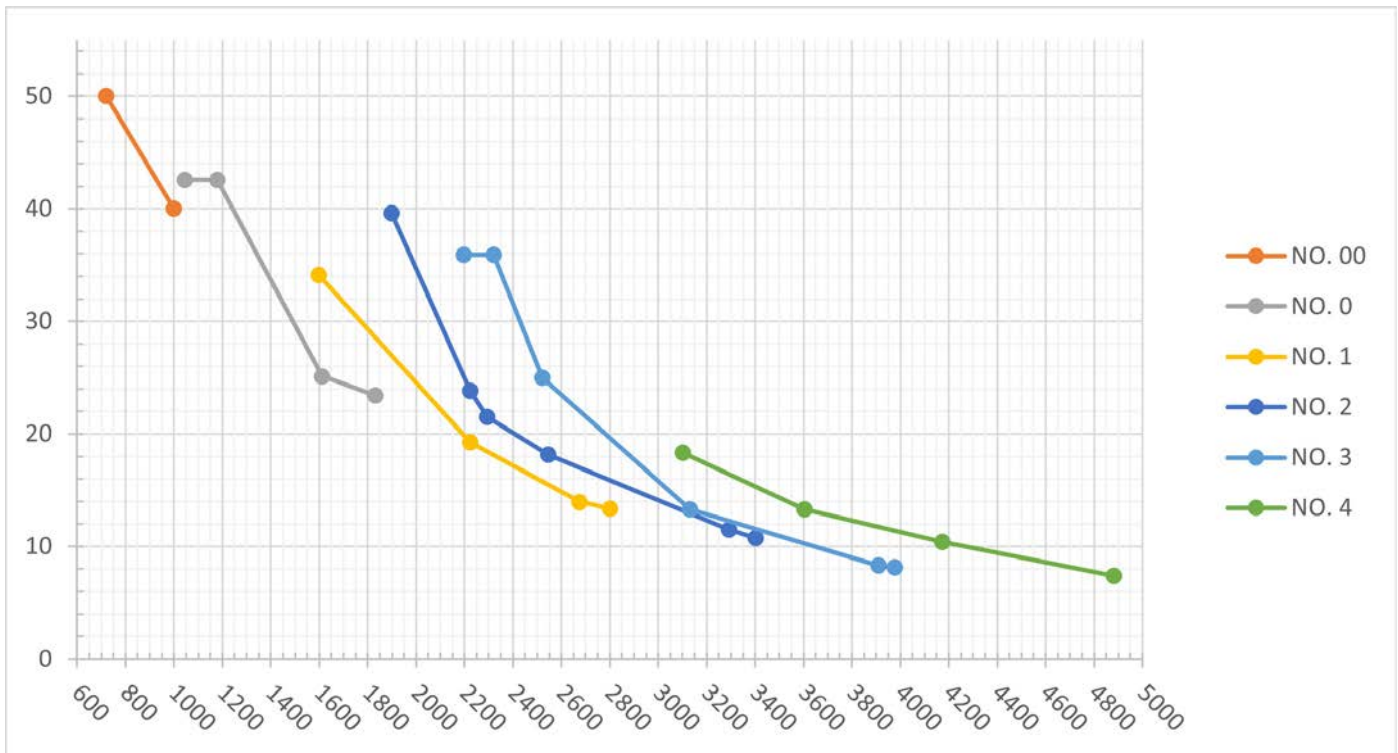
EXTENSION MEASUREMENTS CONTINUES

					
PROP NO. 2		PROP NO. 3		PROP NO. 4	
MASS (kg)	20	MASS (kg)	23	MASS (kg)	30
EXT. MIN. (mm)	1900	EXT. MIN. (mm)	2170	EXT. MIN. (mm)	3100
EXT. MAX. (mm)	3400	EXT. MAX. (mm)	3975	EXT. MAX. (mm)	4900

7.1.3 WORKING LOAD LIMITS

7.1.3.1 VERTICAL

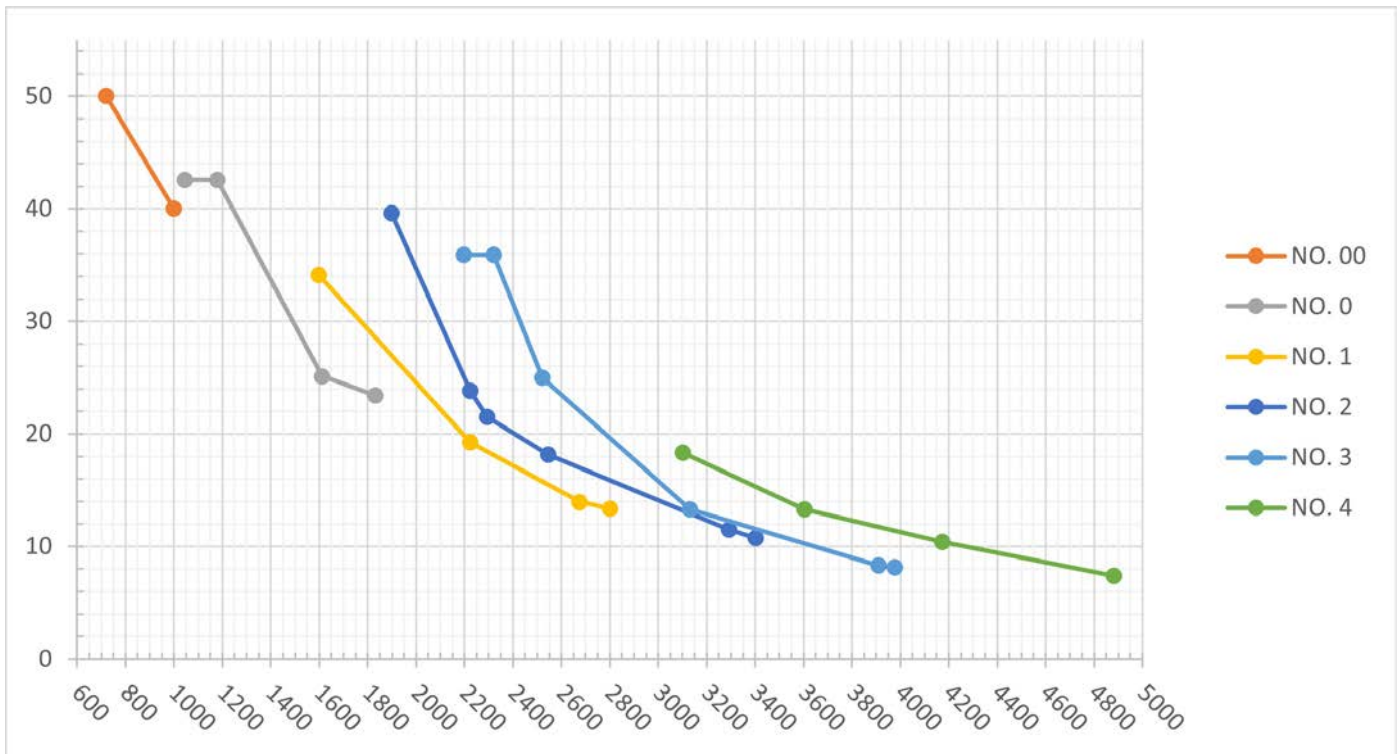
Working load limits are summarised in table below:



1. Working load limits are applicable to Acrow Props made from Gal tube Plus or hot dipped galvanised tubes only.
2. Limit state conversion factor = 1.5
3. Refer to AS3610 for acceptable criteria for installation of props and eccentricity of loading. Load eccentricity must not exceed 25mm.
4. For concentric loading and Acrow painted Props please refer to Acrow Engineering.
5. Maximum capacity is with component configured as shown. Other components may limit capacity. All system components must be checked to ensure sufficient capacities.
6. Fixing at the base and top plates to be suitably capable to transfer loads. Loads are based on a prop pinned at each end.
7. Maximum capacity is with components in working condition.
8. Initial eccentricity due to the possibility of the strut being set L/400 out of plumb (about the XX axis) has been considered for all eccentricities of load.

7.1.3.2 RAKING SHORE

Acrow Props Raking Shore Working Load Limits are summarised in the table below:



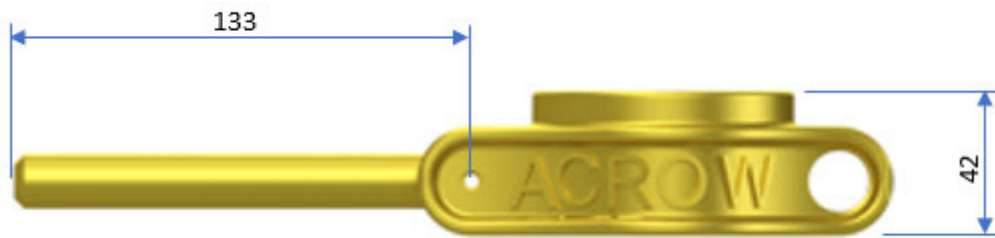
7.1.4 PROP NUT

A zinc plated, cast steel Grade 480, Ø61mm ACME threaded nut with a handle. The Prop Nut main function is to final adjust the prop height into its position and participating in engaging the outer and inner tubes.

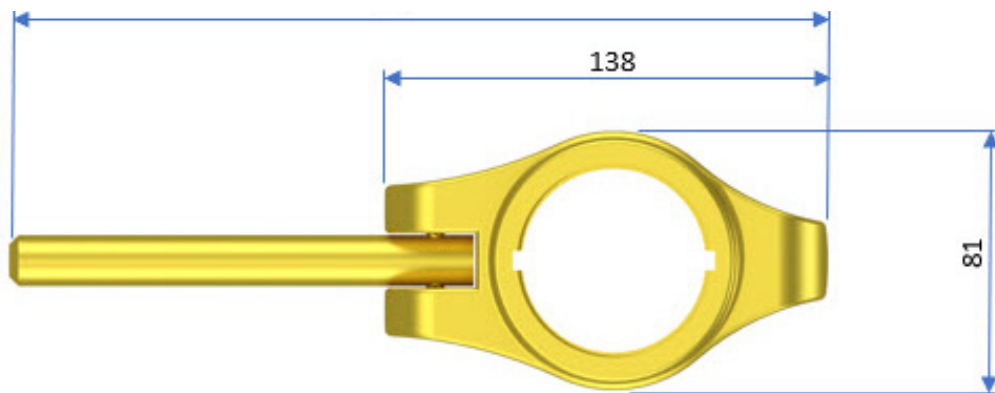
The prop nut ACME thread offer many advantages including increased clamping speed, lower number of threads per axial distance, durable increased strength in preventing stripping and wear of the thread and increased thread shear capacity.



PROP NUT - 3D VIEW



PROP NUT - ELEVATION VIEW



PROP NUT - TOP VIEW

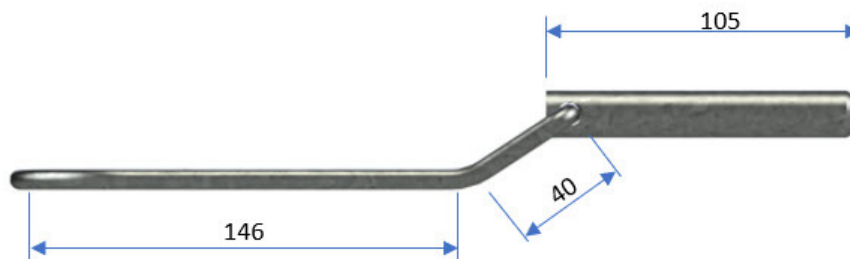
7.1.5 PROP PIN

High tensile pin with solid steel loop. A main feature in the chainless Acrow Prop, structurally engaging both the outer and inner props tubes.

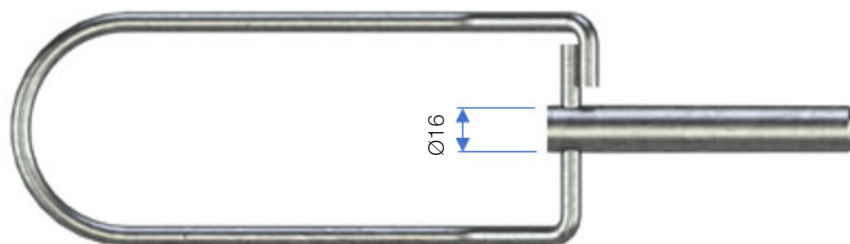
The Prop Pin eliminates the need for any tangled or lost chains and reduces loss of pins on the construction site



PROP PIN - 3D VIEW



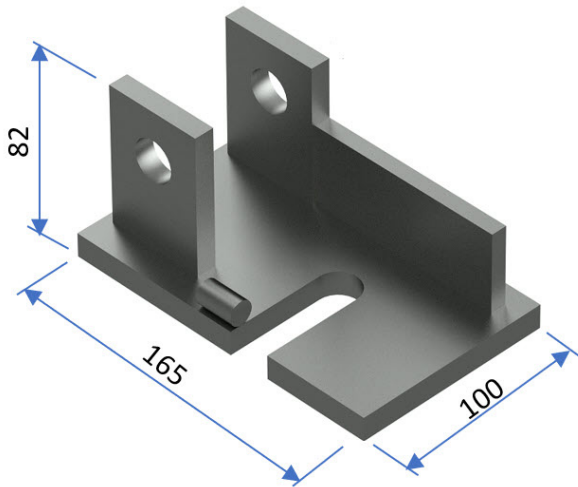
PROP PIN - ELEVATION VIEW



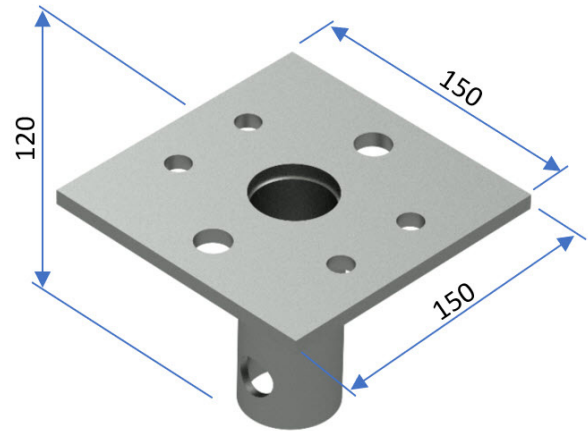
PROP PIN - TOP VIEW

7.1.6 RAKING SHORE FOOT BRACKET & PROP PIVOT END ADAPTER

A bracket and adapter enable the Acrow prop to provide support and shoring to formwork and other vertical structure members.

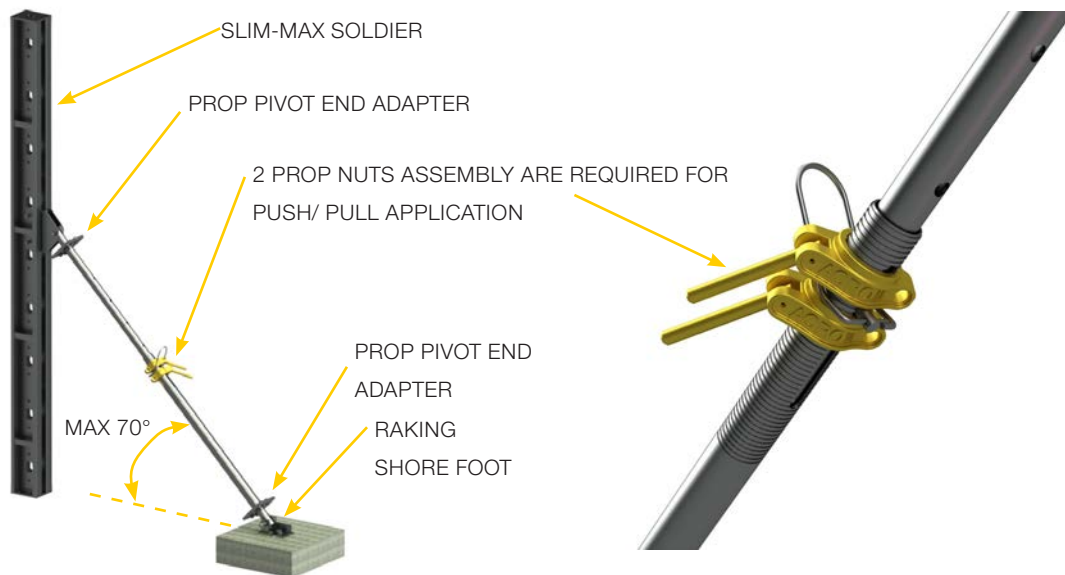


RAKING SHOE FOOT BRACKET - 3D VIEW



PROP PIVOT END ADAPTER - 3D VIEW

The Prop Pivot End Adapter has been designed to allow the Acrow Prop to connect to Acrow's range of formwork solutions and shoring members. For shoring arrangements involving push/pull applications, 2 prop nut assemblies are required.



TYPICAL ACROW PROP SHORING ARRANGEMENT

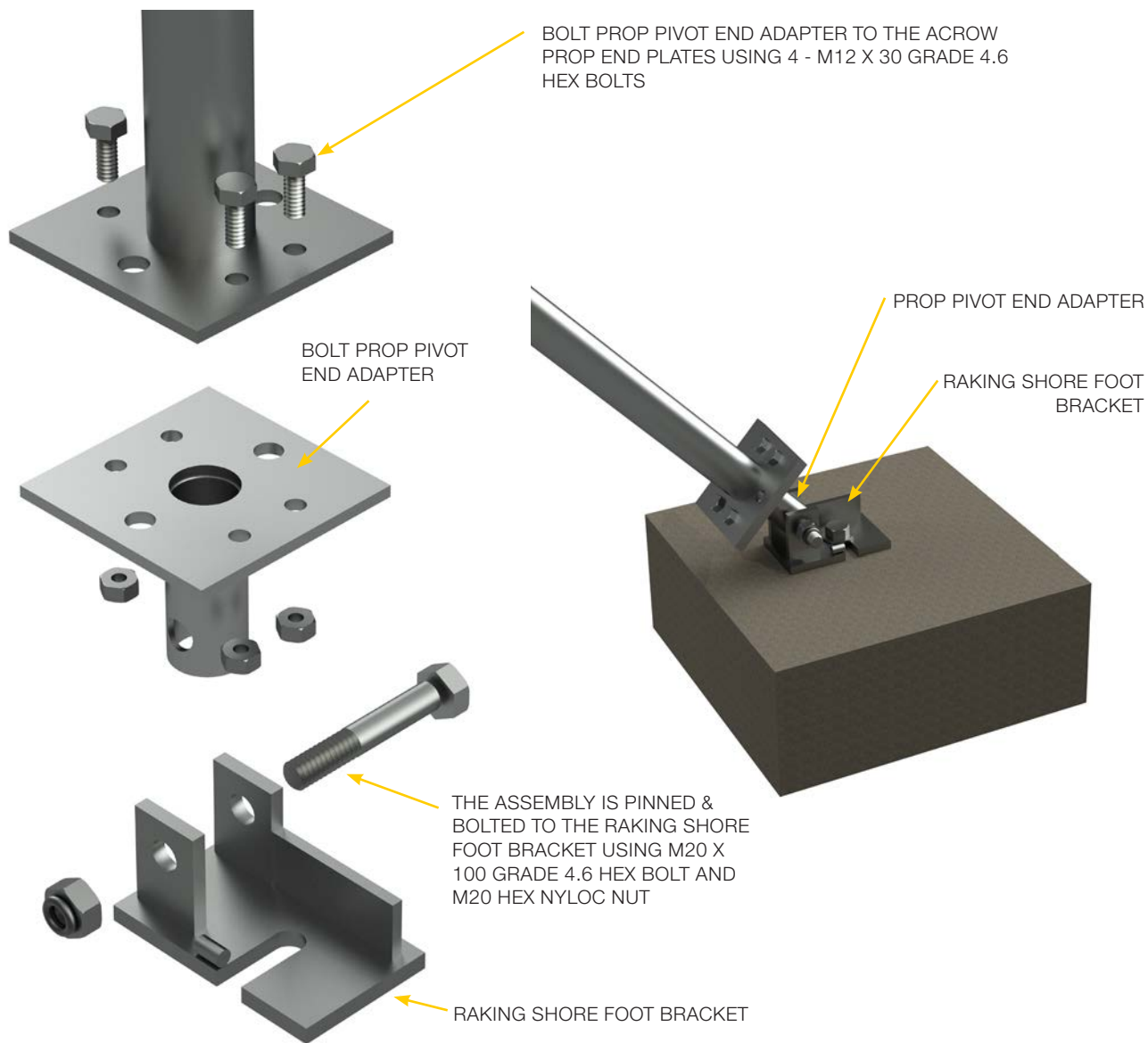
3D VIEW

2 PROP NUTS ASSEMBLY ARE REQUIRED FOR PUSH/PULL APPLICATION

3D VIEW

The Prop Pivot End Adapter is bolted to the Acrow Prop end plates using 4 - M12 x 30 Grade 4.6 Hex Bolt and Nut. The assembly is pinned and bolted to the Raking Shore Foot Bracket using M20 x 100 Grade 4.6 Hex bolt and M20 Hex Nyloc nut.

Typical connection details are shown below:



RAKING ASSEMBLY CONNECTION DETAILS

CONNECTION AT THE PROP BASE

3D VIEW

3D VIEW

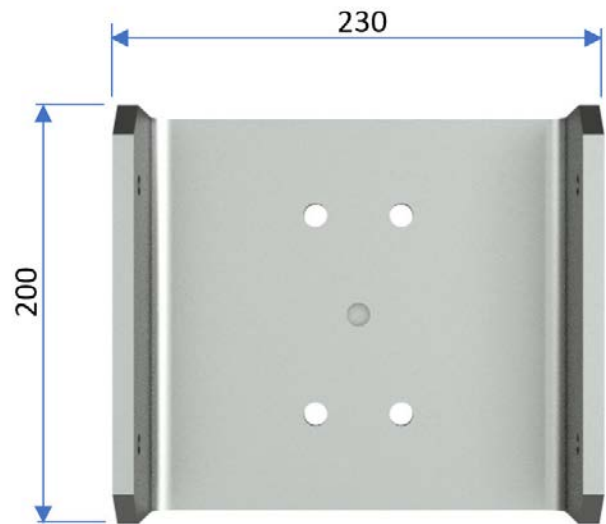
7.1.7 U-HEAD - DETACHABLE

The detachable U-Head is designed to be inserted into the Acrow Prop Inner Tube Top-Plate to support the joist or bearer.

U-Heads don't only support the horizontal bearer, but also ensure the bearers are centrally located to reduce any eccentricity present. The U-Head can be rotated to centralise the bearer or the packer can be used for the same purpose.



U-HEAD - TYPICAL INSTALLATION

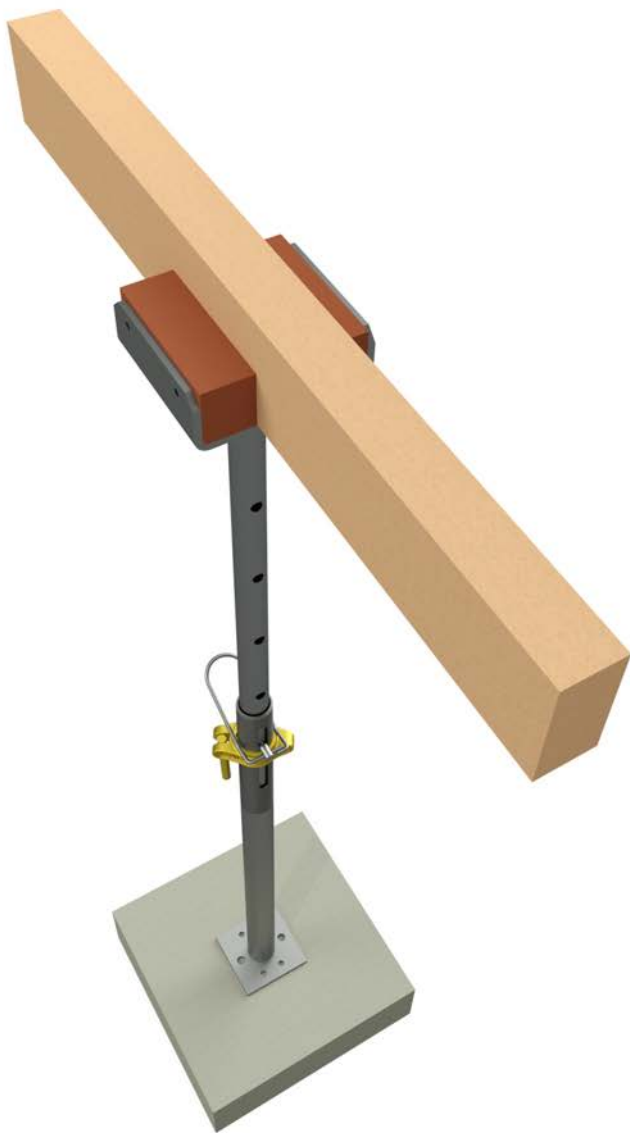


U-HEAD - TOP VIEW



U-HEAD - ELEVATION VIEW

7.1.8 CENTRALISE BEARER & REDUCE ECCENTRICITY



**USING PACKER TO CENTRALISE BEARER TO
REDUCE ANY ECCENTRICITY PRESENT**



**ROTATE U-HEAD TO CENTRALISE BEARER AND
REDUCE ANY ECCENTRICITY PRESENT**



SECTION 3

INSTALLATION GUIDELINES



8. INSTALLATION GUIDELINES

8.1 PREPARATION PRIOR TO INSTALLATION

Prior to commencing the installation, ensure:

- The prop inner and outer prop tubes are straight, no visible deformation and dent exceeding 2mm.
- The inner tube of the Acrow Prop can slide freely into the Outer tube. Bent props should not be used.
- The Prop pin and the Loop is attached and assembled, the crank in the loop is facing upwards. This is an essential safety feature of the Acrow's Prop.
- The fitted with prop pins are the original which are manufactured from high tensile steel. The use of substitute material can result in failure
- The prop nut is fully movable, intact with no cracks. The nut can be screwed into the full length of the threaded outer tube,
- The prop head and base plates (End Plates) are flat and perpendicular to the tube to offer correct seating.

8.1.1. USING THE CORRECT PROP PIN

Only use the Acrow Prop pin which is made from high tensile steel. Using any other material will reduce the load bearing capacity of the Acrow prop and can be a safety hazard.



ONLY USE THE ACROW PROP PIN WHICH IS MANUFACTURED FROM HIGH TENSILE STEEL

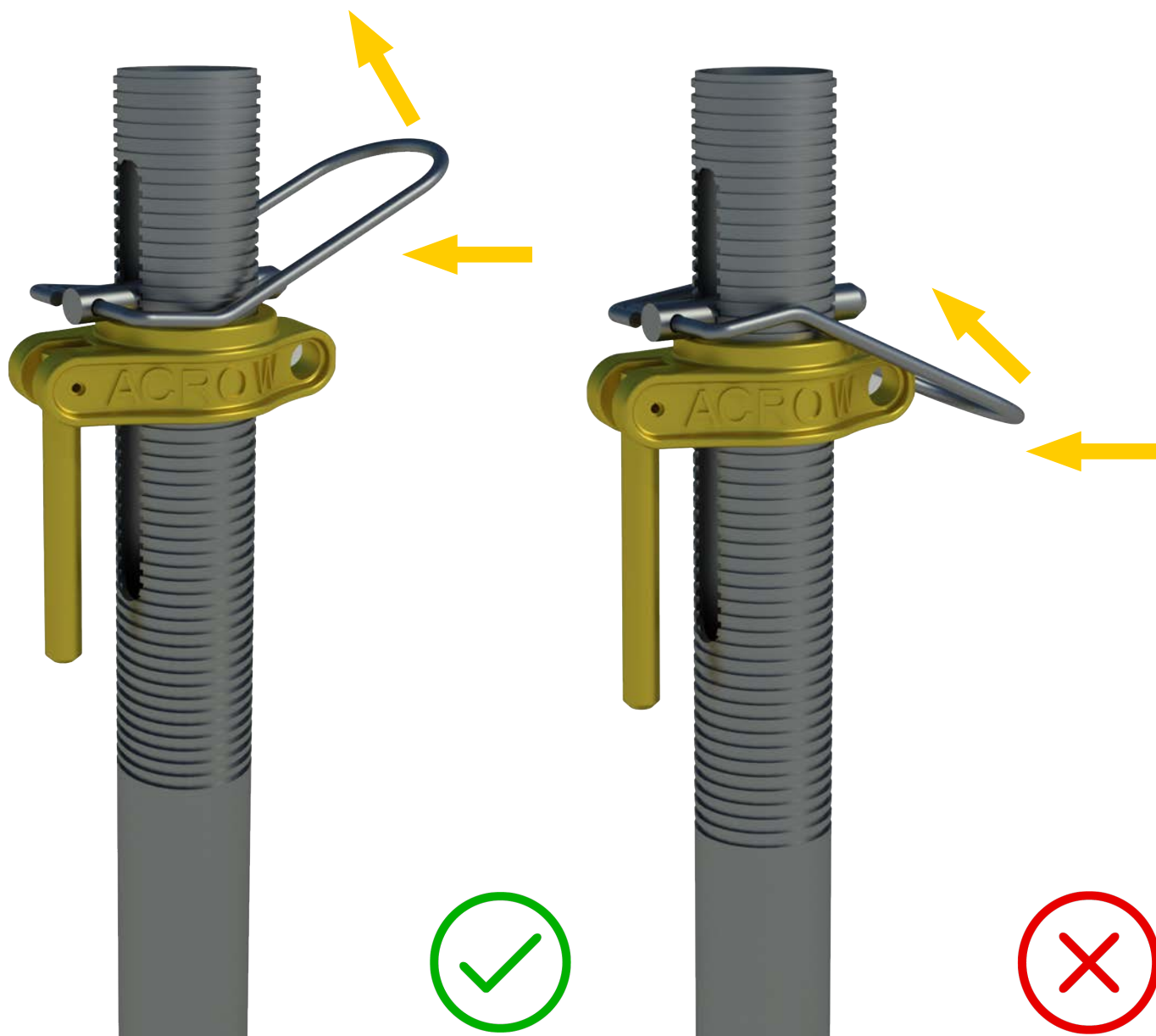


NO OTHER MATERIAL OR COMPONENTS SHOULD BE USED

8.1.2 POSITIONING THE PROP PIN

It is important correctly positioning the pin and its loop. The loop should be facing upward where the blow on end of loop will push the loop against prop outer and not dislodge the pin.

Incorrectly placing the pin, its loop is facing downward, when the loop is struck by a blow on its end it would result in load being transmitted to end of pin causing it to push out of the prop.



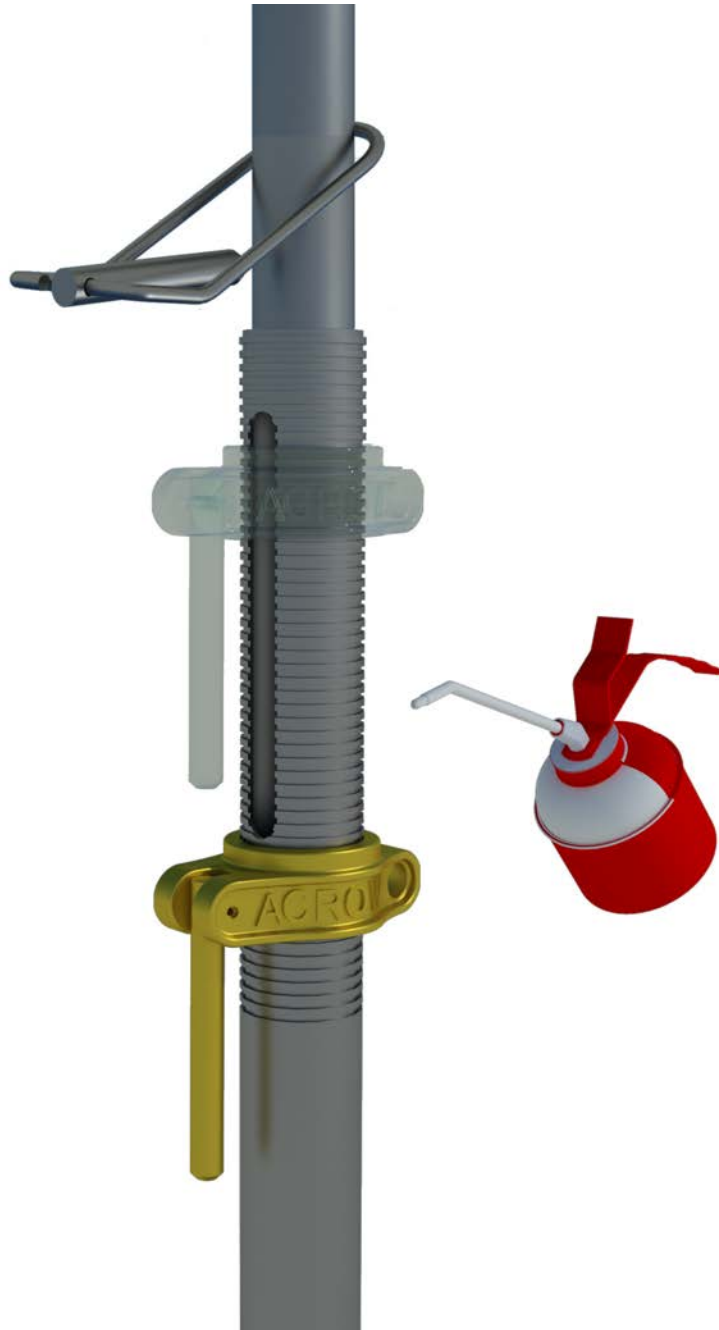
CORRECT PIN POSITION
PIN LOOP FACING UPWARD

INCORRECT PIN POSITION
PIN LOOP FACING DOWNWARD

8.1.3 PROP NUT IS FULLY SCREWABLE

It is essential checking the prop nut is fully screwable, intact with no cracks. The nut needed to be screwed along the full length of the full threaded outer tube and the slot within the tube.

The full threaded portion is approx 300mm long with an additional 75mm rolled thread run out. Oil the nut while the prop is installed (in a plumb position), this will ease the screwing of the nut into the outer tube.



CHECKING THE PROP UNIT

**PROP NUT SHOULD BE FULLY SCREWABLE,
INTACT WITH NO CRACKS**

OILING THE PROP NUT

**OIL THE NUT WHILE THE PROP IS INSTALLED
(IN A PLUMB POSITION)**

8.1.4 CARE IN TENSIONING THE PROP

To ensure the safe operation of the Acrow Prop and to extend its service life, do not use excessive forces, such as hammer or lever, to turn the handle for final prop adjustment.

The Acrow prop cannot be used as a jack for lifting structures.



PROPS CANNOT BE USED AS A JACK

DO NOT USE EXCESSIVE FORCE (I.E. LEVER)



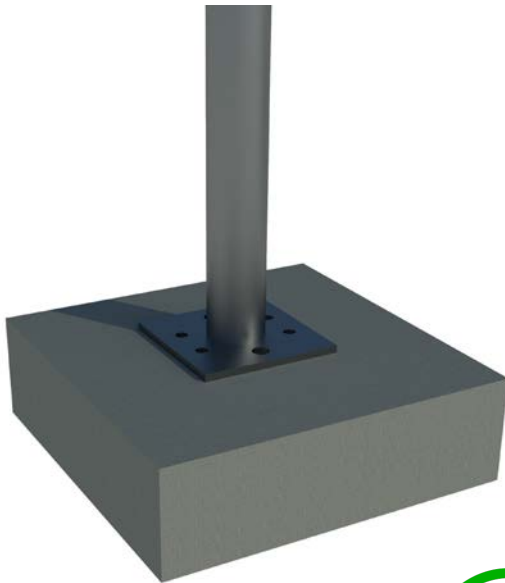
NEVER HAMMER THE NUT

HAMMER MUST NOT BE USED IN FINAL PROP ADJUSTMENT

8.1.5 ONLY PROP WITH A FLAT BASE (END PLATE) CAN BE USED

Twisted, uneven and non- flat end plates will contribute to load eccentricity, reduces the prop load bearing capacity and affect the falsework stability.

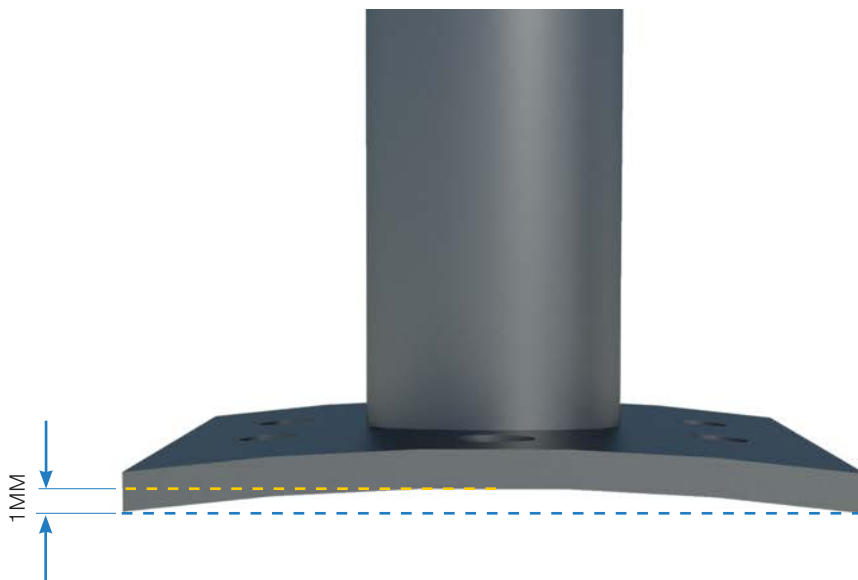
The maximum allowable camber in the end plate is 1mm in out of plumb.



PROPS END PLATE MUST BE FLAT AND NOT TWISTED



PROPS WITH TWISTED END PLATES SHOULD NOT BE USED



MAX. ALLOWABLE CAMBER IN THE END PLATE IS 1MM

8.2 EXTENDING (INSTALLING) THE PROP

Three simple steps are required to extend the Prop and install it into its nominated position.

1. Lift inner tube as near as possible to required height. Keep the Outer tube steady. You may place your foot on the Outer tube base to kept it steady.
2. Insert the Prop pin through the slot in the outer tube (above the prop nut) passing through the nearest hole in the inner tube.
3. Turn handle of the nut anti-clock wise for final adjustment.



STEP 1

LIFT INNER TUBE AS NEAR AS POSSIBLE TO REQUIRED HEIGHT



STEP 2

INSERT THE PROP PIN THROUGH THE SLOT IN THE OUTER TUBE



STEP 3

TURN THE NUT HANDLE ANTI-CLOCKWISE FOR FINAL HEIGHT ADJUSTMENT

8.2.1 PLUMBNESS OF ACROW PROP

Props must be installed plumb so the prop can maintain its nominated Working Load Limits.

The maximum allowable off-plumb is height / 200.



PLUMBNESS OF ACROW PROP

DIMENSIONS

8.3 PROP INSTALLATION EFFICIENCY & SAFETY REQUIREMENTS

There are essential installation requirements to ensure the Acrow Props maintain their nominated Working Load Limits and maintain safety during installation and when loads are applied.

It is important to adhere to project's specific requirements and related instructions to obtain the correct performance of the product. Any deviation from the recommended usage will require a separate design and/or verification by Acrow Engineering.

The following highlights essential installation requirement:

- Prop support and bearing
- Falsework stability
- Managing overturning and sliding
- Controlling dislodgement
- Must load props concentrically
- Formwork stabilisation
- Maintain safe loads

8.3.1 PROP SUPPORT & BEARING

Stability of the Acrow props starts with its foundation. Always refer to the project specific structural design to obtain the ground bearing capacity of the soil and foundation design requirement.

The client must ensure that the supporting foundation has adequate bearing capacity to support the load imposed by the props. The principal contractor must ensure client is provided with a level and stable bearing surface for all prop locations. The principal contractor must ensure that the permanent structure has adequate strength to withstand the imposed loads from the scaffold assembly.

The principal contractor must ensure that the supporting foundation is adequately prepared to avoid differential settlement or has the capacity and characteristics properties to limit any differential settlement.

The following are the fundamentals for achieving stable foundation:

- A reinforced concrete slab
- Using a Sole Plate

A common stable ground is a reinforced concrete slab. A sole plate of adequate stiffness is an alternative that can be used under props where not bearing on concrete foundations.

Sole plates may also still be needed even when the foundation is stable, to prevent damage to surface materials such as tiles.



USE SOLE PLATE AS MEASUREMENTS TO PREVENT DIFFERENTIAL SETTLEMENT



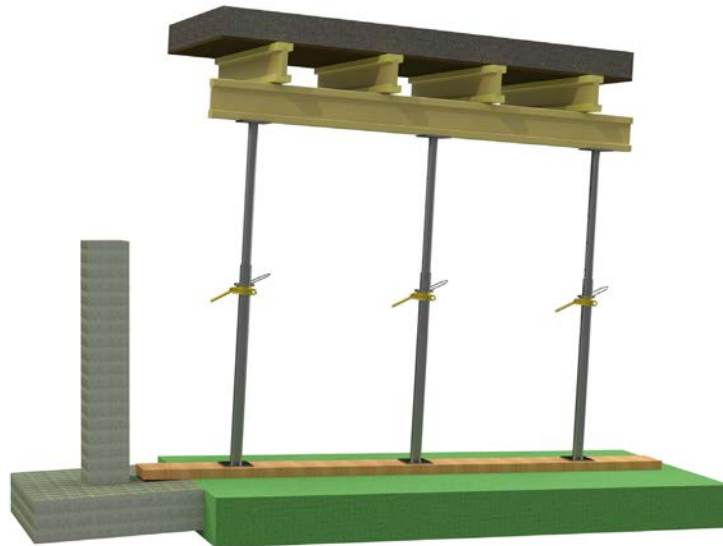
DO NOT RELY ON SOFT GROUND - CONSIDER MEASUREMENTS TO CONTROL DIFFERENTIAL SETTLEMENT

8.3.2 MEASUREMENTS TO PREVENT DIFFERENTIAL SETTLEMENTS & MOVEMENT

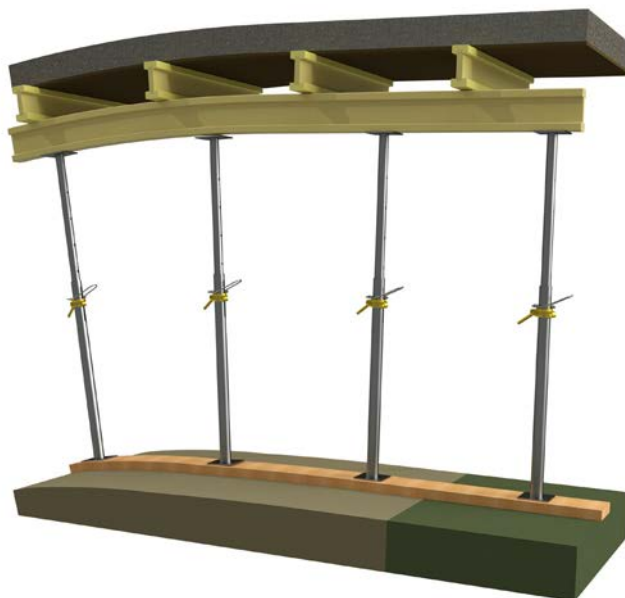
The Acrow Props, part of the falsework, must be supported on sound foundation material which prevent differential settlement and provide adequate bearing capacity to support the applied loads.

Differential settlement can occur when the foundation is:

- Partly supported on permanent structure
- Partly on filled uncompact ground



THE EFFECT OF PARTLY SUPPORTED ON PERMANENT STRUCTURE



THE EFFECT OF WHEN PROPS ARE SUPPORTED ON UNCOMPACTED GROUND

8.3.3 FALSEWORK STABILITY

Falseworks may turnover and or slide if it is subject to uneven loads or horizontal forces such as wind or impact loads from moving equipment.

Bracing the props is essential to maintain falsework stability and prevent movement of formwork especially if uneven loads were applied on the falsework.

Typical brace configuration is shown below:



USING BRACING FOR FALSEWORK STABILITY



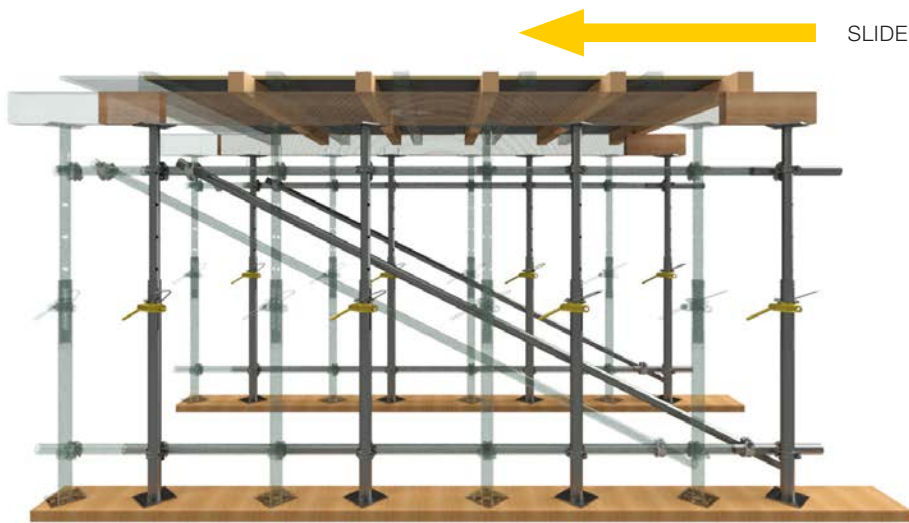
FALSEWORKS MAY INTEND TO TURNOVER AND OR SLIDE IF IT IS SUBJECT TO UNEVEN LOADS

8.3.4 MANAGING OVERTURNING & SLIDING

Horizontal forces can cause the falsework to overturn or slide.



FALSEWORKS MAY INTEND TO TURNOVER IT IS SUBJECT TO HORIZONTAL FORCES



FALSEWORKS MAY INTEND TO SLIDE IT IS SUBJECT TO HORIZONTAL FORCES

8.3.5 CONTROLLING DISLODGE MENT

In addition to bracing the props, bearers must be nailed or screwed into the prop's head plate (Inner tube end plate) to prevent dislodgement of props.



BEARERS MUST BE NAILED OR SCREWED INTO THE PROP'S INNER TUBE END PLATE TO PREVENT DISLODGE MENT OF PROPS



BRACE THE PROPS TO PREVENT THEM FROM FALLING IN CASE DISLODGE MENT OCCURS

8.3.6 ACHIEVING CONCENTRIC LOADING

Bearer should be placed and nailed into the centre of the inner tube end plate to reduce any eccentricity present.

The maximum allowable offset of bearer is 25mm from centre of the end plate.



BEARER SHOULD BE PLACED AND NAILED INTO THE CENTRE OF THE INNER TUBE END PLATE

BEARER IS OFFSET CAUSES ECCENTRICITY LOADS

MAXIMUM ALLOWABLE OFFSET OF BEARER

8.3.7 MAINTAINING SAFE LOADS

Always insure a uniform load distribution. Overloading a single prop can cause the prop to buckle and place additional load on adjacent props causing the entire formwork system to collapse.

Do not mound concrete more than the specified limit in the project's specifications.



**APPLY UNIFORM LOADS
TO PREVENT PROP BUCKLING**



**THE EFFECT OF APPLYING
A CONCENTRATED LOAD**

8.4 RECOMMENDED METHOD FOR STACKING ACROW PROPS

Acrow Props are designed to be stacked and transported via the Acrow 1200x900 or 900x900 stillage. The recommended method and process for stacking Acrow Props are:

- Stack in parallel layers separated by timber blocks.
- Collapse each prop to minimum extension before stacking.
- Only pack and stack similar size props per stillage. Do not mix different sizes in one stillage.
- To ensure every stillage load does not exceed the designated WLL and to optimise the use of stillages, refer to chart below that defines components' quantities per stillage for the majority of Acrow's individual component.
- Secure assembled Acrow Prop into stillage using at least two straps.
- Refer to ACROW SCAFFOLD STILLAGE Transport and Manual Handling for further stacking and transport recommendations.



ACROW PROP



CODE	DESCRIPTION	UNIT MASS (KG)	QTY/ STILLAGE	TOTAL MASS/ STILLAGE (KG)	ACROW STILLAGE TYPE
AP00	ACROW PROP Assembly No.00	10	40	400	1200x900 or 900x900
AP0	ACROW PROP Assembly No.0	13	40	520	1200x900 or 900x900
PF1	ACROW PROP Assembly No.1	17	40	680	1200x900 or 900x900
PF2	ACROW PROP Assembly No.2	20	35	700	1200x900 or 900x900
PF3	ACROW PROP Assembly No.3	23	35	805	1200x900 or 900x900
PF4	ACROW PROP Assembly No.4	30	35	1050	1200x900 or 900x900

LOCATIONS

NEW SOUTH WALES

National Head Office Formwork & Scaffold

2a Mavis Street
Revesby NSW 2212
P: 02 9780 6500
F: 02 9780 6499
E: info@acrow.com.au

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

QUEENSLAND

Formwork & Scaffold

280 Bilsen Road
Geebung QLD 4034
P: 07 3265 2266
F: 07 3865 0277

Screens & Formwork

2 Morrison Lane
Beenleigh QLD 4207
P: 07 3807 9800

Industrial Scaffold

22a Spanss Road
Beenleigh QLD 4207
P: 07 3442 4000

SOUTH AUSTRALIA

Formwork & Scaffold

26 Circuit Drive
Hendon SA 5014
P: 08 8359 9700
F: 08 8359 1366

TASMANIA

Formwork & Scaffold

93 Lampton Avenue
Moonah TAS 7009
P: 03 6277 1212
F: 03 6277 1290

Formwork & Scaffold

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

VICTORIA

Formwork, Scaffold & Screens

159 Wellington Road
Clayton VIC 3168
P: 03 9582 2777
F: 03 9582 2790

WESTERN AUSTRALIA

Formwork & Scaffold

11 Jackson Street
Bassendean WA 6054
P: 08 9373 7200
F: 08 9379 3488

We help build Australia **smarter.**



Contact

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