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FORMWORK PRODUCT
TECHNICAL GUIDE

Acrow Prop

Acrow Prop

Acrow Number: 50 1.05 to 1.83 m

1006	<u>S1</u>	1.6	to	2.8	m
1007	<u>S2</u>	1.9	to	3.4	m
1008	<u>S3</u>	2.17	to	3.975	m
1009	<u>S4</u>	3.1	to	4.9	m

Acrow Prop

The first in the World.



Genuine **Safety.**
Outstanding Service.



Formwork & Scaffolding

ACROW PROP... The original & genuine Acrow prop

First in the world

- The original ACROW PROP revolutionised construction:
 - Simple and innovative
 - Strong and durable
 - Fast to erect in 3 simple steps by one person
 - Versatile with infinitely variable height adjustment
 - Reliable and economic.
- Today, ACROW PROP would be used on almost every construction site across Australia.

Multitude of uses

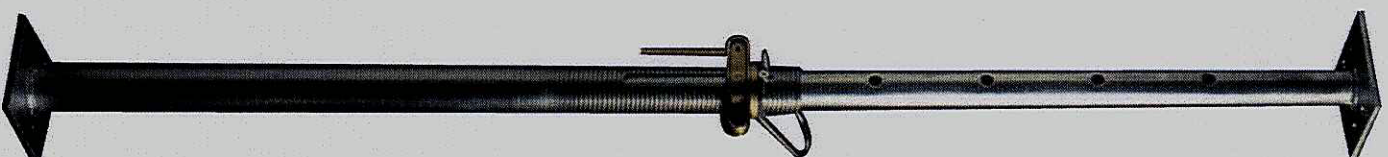
- Falsework support:
formwork for reinforced concrete floors and beams.
- Raking shores:
to brace formwork for columns, walls and stairs.
- Temporary support:
for repair work, canopies, lintels and the like.

Simple and innovative construction

- The Acrow-built ACROW PROP consists of:
 - Inner-tube with welded top-plate
 - Outer-tube with welded base-plate
 - Nut and handle
 - Chainless prop pin.
- Available in 5 sizes covering a range from 1050mm to 4900mm with axial compression working load limits ranging from 7kN to 42.5kN. (1kN >> 102kg).
- Spare parts are available for all Prop sizes.

Strong and durable

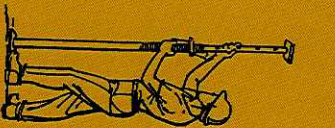
- Manufactured from high yield steel to Acrow's specifications.
- The prop outer-tube features a rolled thread which retains the tube wall thickness and thereby maintains maximum strength.
- Galvanized finish offers long life protection against corrosion.



- 1 Photographs/illustrations shown within this brochure 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 Pty Ltd's commitment to continuous product development and improvement, the information contained in this brochure may be changed without notice.
 - 3 Every effort has been made to give appropriate guidelines for the use of this product, however, Acrow Formwork & Scaffolding Pty Ltd accepts no responsibility for any loss or damage suffered by any person acting or refraining from action as a result of this information.
- Should the users require any further information or guidance, they are encouraged to contact their local Acrow Formwork & Scaffolding Pty Ltd outlet.

ACROW PROP

Fast to erect in 3 simple movements by one person



1 Lift inner-tube to approximate height required. The outer-tube is kept steady by placing foot on base-plate.

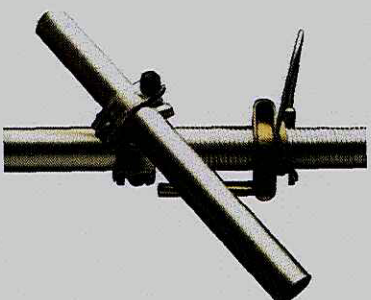


2 Insert pin through slot in outer-tube passing through the adjacent hole in the inner-tube.



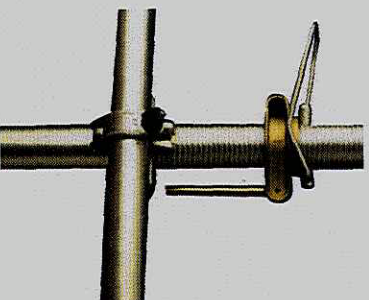
3 Turn handle of nut for final adjustment.

Easy-Use Accessories To Speed Up The Job



- Swivel Reduction Coupler**
- Used for coupling ACROW PROP outer-tube (60.3mm OD) to standard scaffolding tube (48.3mm OD) – for inclined bracing.

- Standard Swivel Coupler**
- Used for coupling ACROW PROP inner-tube (48.3mm OD) to standard scaffold tube – for inclined bracing.



- Double Reduction (90°) Coupler**
- Used for coupling ACROW PROP outer-tube (60.3mm OD) to standard scaffolding tube (48.3mm O.D.) – for horizontal bracing.

- Standard Double (90°) Coupler**
- Used for coupling ACROW prop inner-tube (48.3mm OD) to standard scaffold tube – for horizontal bracing.



- Chainless Acrow Prop Pin**
- High tensile pin with solid steel loop.
 - No tangled or lost chains.
 - Reduces loss of pins on the job.

ACROW PROP

Components in Detail

Acrow Prop Head and Base Plate:

- 150mm x 150mm steel plates with drilled holes for securing to timber beams or facilitating the use of accessories.

Acrow Prop Inner-Tube:

- 48.3mm OD tube with holes at 152.5mm centres. Tube diameter enables standard scaffold tube and couplers to be used for bracing purposes.

Acrow Prop Outer-Tube:

- 60.3mm OD tube which accommodates the thread section and slot for fine height adjustment. Reduction couplers enable standard scaffold tube to be connected to the ACROW PROP outer-tube for bracing purposes.

Thread:

- The thread on the outer-tube provides fine adjustment within the props given range. The rolled thread retains the wall thickness of the tube and thereby maintains maximum strength.

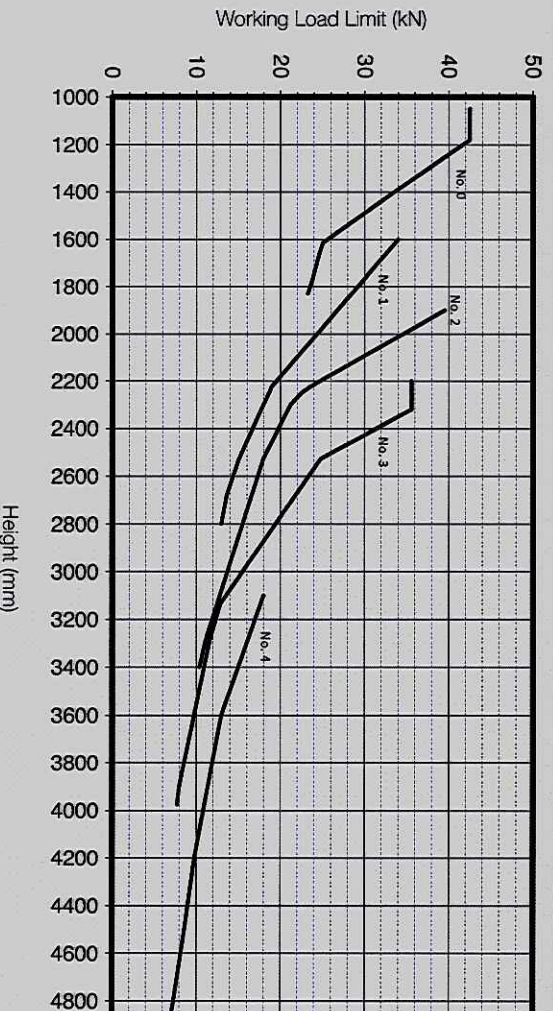
Acrow Prop Nut:

- The self-cleaning ACROW PROP nut has a hole at one end for easy turning when the prop handle is close to walls. An extra nut can be added to convert the prop to a push-pull strut.

ACROW PROP RANGE

SIZE	CLOSED HEIGHT (mm)	OPEN HEIGHT (mm)	EST. WEIGHT (kg)
No.0	1050	1830	13.0
No.1	1600	2800	17.3
No.2	1900	3400	20.0
No.3	2170	3975	22.6
No.4	3100	4900	30.0

COMPRESSION WORKING LOAD LIMITS TO AS3610-95



Notes

- Working load limits are applicable to Acrow Props made from Galutube Plus or hot dipped galvanised tubes only.
- Limit state conversion factor = 1.5
- Refer to AS3610 for acceptable criteria for installation of props and eccentricity of loading. Load eccentricity must not exceed 25mm.
- For concentric loading and Acrow painted Props please refer to Acrow Engineering.

Know how to use Acrow Prop

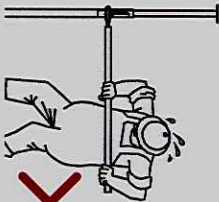
ALWAYS USE ACROW PROP PINS.



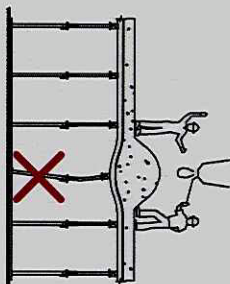
Don't replace an ACROW PROP pin with a piece of reo or a bolt.



ACROW PROP MUST NOT BE USED AS A JACK.

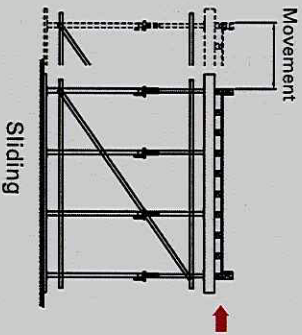


DO NOT OVERLOAD.

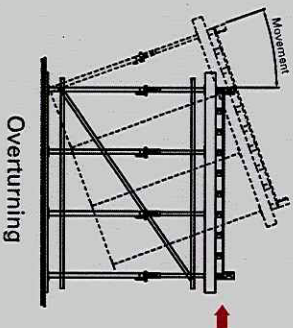


Overloading can cause the props to buckle and lead to the collapse of the shoring system.

HORIZONTAL FORCES (EG: WIND LOADS) CAN CAUSE OVERTURNING OR SLIDING

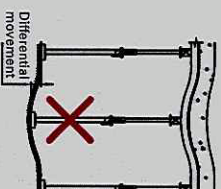
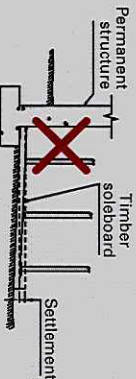
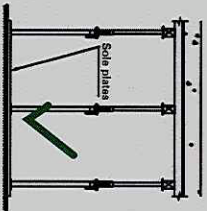


Attention must be given to prevent these situations

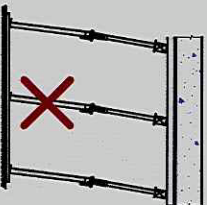
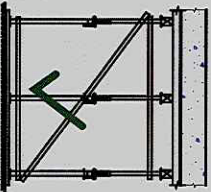


USE SOLE PLATES WITH ADEQUATE STIFFNESS UNDER THE PROPS WHERE THE PROP IS NOT BEARING ON A CONCRETE FOUNDATION.

The foundation material must be sufficiently firm to prevent differential settlement and have adequate bearing capacity. Prevent differential settlement due to non-uniform foundation material.

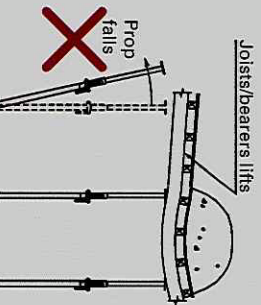


PROVIDE ADEQUATE BRACING TO PREVENT MOVEMENT OF FORMWORK AND PROVIDE STABILITY TO THE FALSEWORK.



AVOID ECCENTRIC LOADS

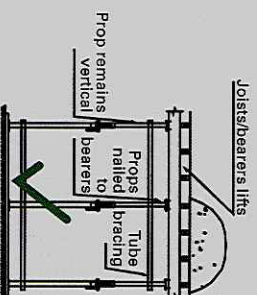
AVOID DISLODGE MENT BY NAILING THE BEARERS TO THE PROP HEAD PLATE AND TIE THE PROPS TOGETHER.



Joists/bearers lifts



Nail through prop head plate



Joists/bearers lifts

Prop remains vertical

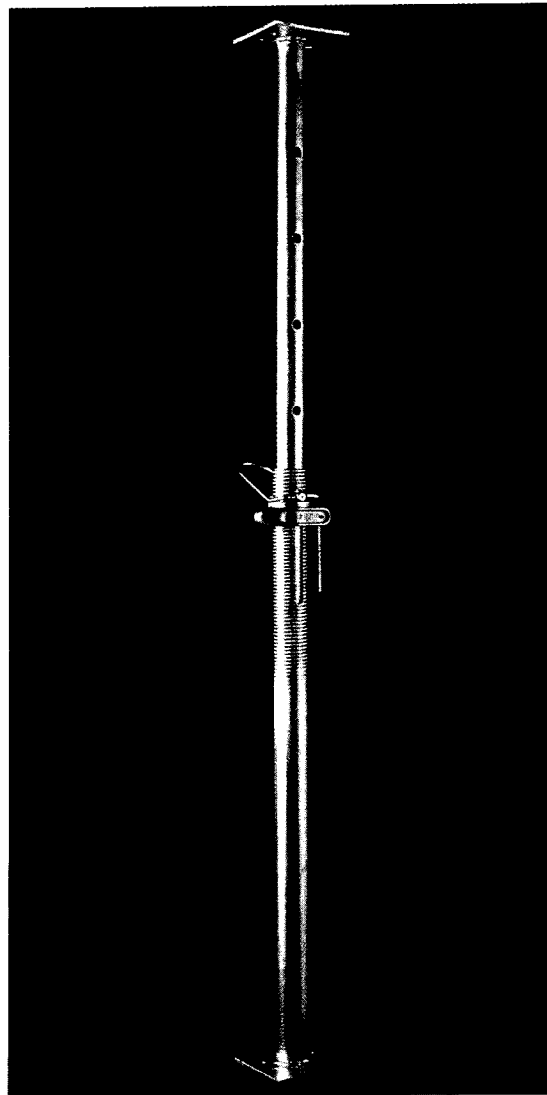
Props nailed to bearers

Tube nailed to bearers

**BORAL
BUILDING SERVICES**



Standard Prop



The world's leading prop in the world's leading finish

BORAL BUILDING SERVICES



Acrow Prop: rugged, versatile

This remarkably versatile Boral-built prop was the first ever product to be marketed by Acrow. Today its popularity is such that it would be hard to find a building site in Australia where it is not used in one way or another, and it continues to be the fastest selling prop in the world.

FAST AND RELIABLE SUPPORT

The universal popularity of the Acrow prop is due to the fact that it provides the simplest, quickest most reliable and economic method of temporary support at any exact height between its closed and extended positions. The adjustment is infinitely variable.

HISTORY-MAKING BREAKTHROUGH

Once, construction support was a lengthy and costly business of cutting, wedging and nailing timbers. The original Acrow Prop changed all that. Suddenly, in seconds, a person was able to erect a stronger all-metal support in three simple movements.

NOW IMPROVED: LESS WEIGHT SAME STRENGTH, INCREASED CORROSION RESISTANCE

- Now fabricated in high tensile steel – permits material reduction with no loss of strength, and gives 5% saving in weight compared with painted props, which means easier handling.
- Manufactured from Galtube Plus, a process of hot dipped in-line galvanising of the outer tube surface, offering long-life protection against corrosion.

**CYCLONE·ACROW·SGB
ENGINEERED SOLUTIONS**

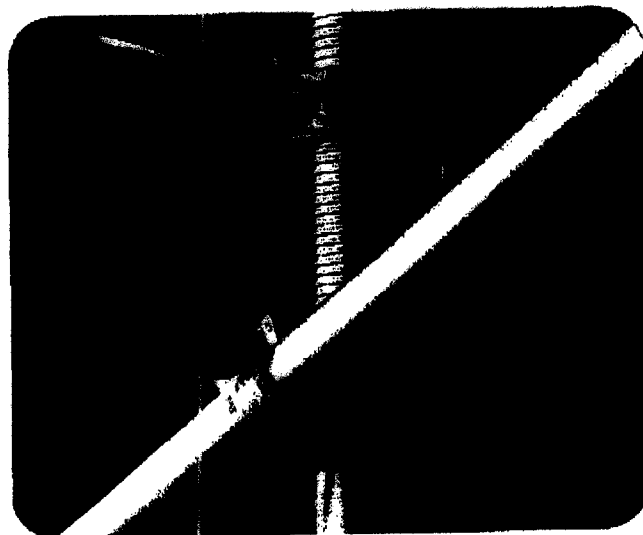
A MULTITUDE OF USES

The main use of the Acrow Prop is in the temporary support of formwork for reinforced concrete floors and beams. They are equally useful as raking shores to support formwork for columns, walls and staircases. They are invaluable in repair work, for replacing a permanent support, for supporting canopies, lintels and the like while brickwork or concrete is setting.

SIMPLE, INNOVATIVE CONSTRUCTION

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, and (4) the chainless prop pin (no lost or dropped pins!) Just three simple movements are required to set the Acrow Prop in support mode, easily accomplished by one person only. The props come in five sizes covering a range from 1050mm to 4900mm and can take working loads from 8kN to 42.5kN. In the case of loss or damage, spare parts are available for all components and sizes.

Easy-use accessories



SWIVEL REDUCTION COUPLER: Used for coupling prop outer tube to standard scaffolding tube (48.3mm O.D.) inclined bracing. Standard swivel coupler is used for coupling prop inner tube to standard scaffold tube inclined bracing.

Support wherever you

COMPONENTS IN DETAIL

PROP HEAD: 150 x 150mm plates with holes for securing to timber beams or facilitating the use of accessories.

PROP INNER TUBE: 48.3mm O.D. tube (standard scaffolding tube size), with holes at 152.5mm centres. Tube diameter enables standard scaffold tube and couplers to be used for bracing purposes.

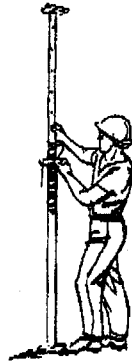
PROP OUTER TUBE: 60.3mm O.D. Bottom plate identical to prop head. Reduction couplers (see below) enable standard scaffold tube to be connected to outer tube for bracing purposes.

THREAD: On the outer tube the thread provides the ability for each prop to have infinite adjustment within its given range. The rolled thread retains the wall thickness of the tube thus maintaining maximum strength.

NUT: Self-cleaning nut has a hole located at one end for easy turning when prop handle is near walls. Additional nut can be added to convert prop to push-pull strut.

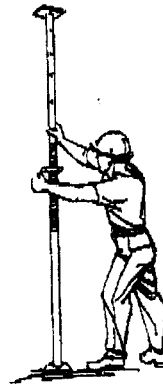
SET UP IN THREE SIMPLE MOVEMENTS

1. Lift inner-tube as nearly as possible to height required. (Outer-tube is kept steady by placing foot on base-plate).

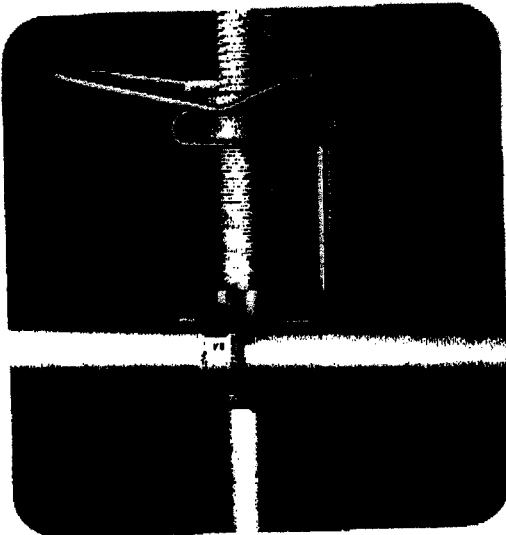


2. Insert pin through slot in outer-tube passing through the nearest hole in the inner tube.

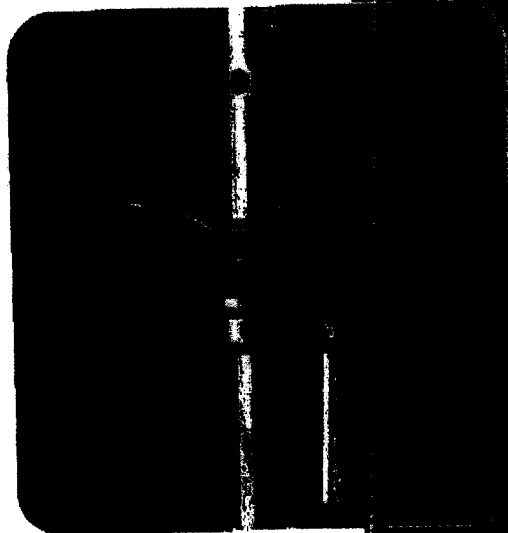
3. Turn handle of nut for final adjustment.



es to speed the job

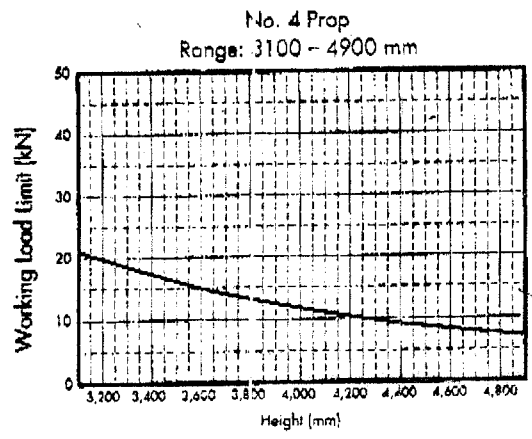
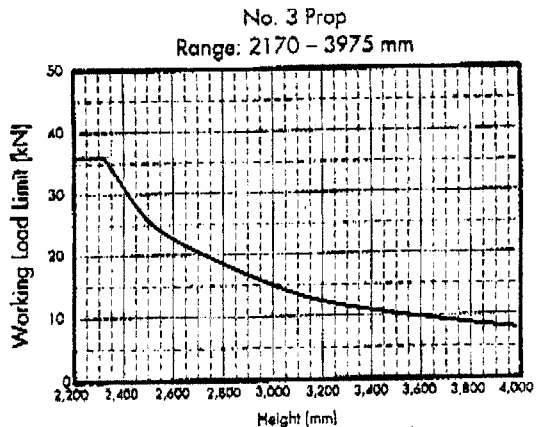
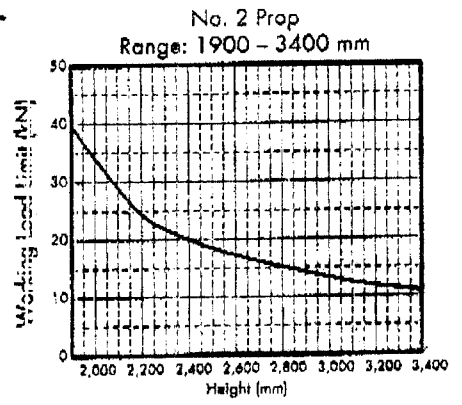
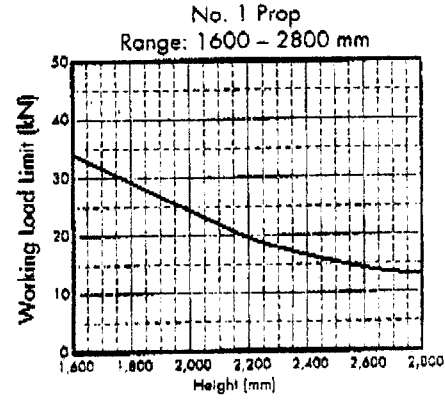
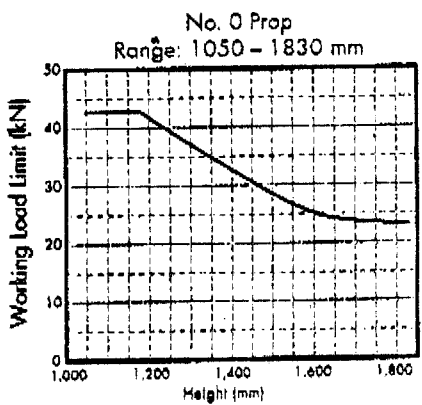
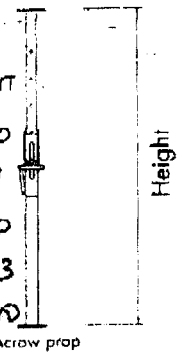


DOUBLE REDUCTION (90°) COUPLER: Used for coupling prop outer tube to standard scaffold tube (48.3mm O.D.) horizontal bracing. Standard double (90°) coupler is used for coupling prop inner tube to standard scaffold tube horizontal bracing.



CHAINLESS PROP PIN: High tensile pin with solid steel loop. No tangles with chains. Reduces expensive loss of pins on job.

PROP RANGE				PRICE PER UNIT
SIZE	CLOSED HEIGHT (mm)	OPEN HEIGHT (mm)	EST. WEIGHT (kg)	
No. 0	1050	1830	12.0	\$63.50
No. 1	1600	2800	16.2	\$74.17
No. 2	1900	3400	18.9	\$83.50
No. 3	2170	3975	21.4	\$89.43
No. 4	3100	4900	29.0	\$112.00



Notes: (1) Limit State Conversion Factor = 1.5 (2) Working Load Limits are applicable to props made from Galutube Plus.
 (3) Refer AS3610 for acceptable criteria in installation of props and eccentricity of loading.
 (4) The information contained in this brochure conforms with AS3610.

Consistent with the continued development and improvement of all Boral Building Services products, the details contained in this brochure may be changed without notice.

BORAL BUILDING SERVICES

Queensland

Cairns	(070)	54	7855
Geebung	(07)	3265	2455
Gladstone	(079)	72	3685
Gold Coast	(07)	5593	5850
Mackay	(079)	52	2204
Maroochydore	(07)	5445	3233
Rockhampton	(079)	28	3666
Taewoomba	(076)	32	1536
Townsville	(077)	79	3255

NSW

Albury	(060)	21	5924
Brookvale	(02)	9905	1142
Coffs Harbour	(066)	53	1390
Gasford	(043)	24	4800
Newcastle	(049)	61	4315

Orange	(063)	62	4195
Port Macquarie	(065)	81	0366
Revesby	(02)	9780	6500
Tamworth	(067)	65	7474
Wagga Wagga	(069)	25	1270
Wollongong	(042)	27	3211
ACT			
Canberra	(06)	239	2066

Victoria

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Traralgon	(03)	5174	5616

Tasmania

Launceston	(03)	6344	3930
Moana	(03)	6272	6775

South Australia

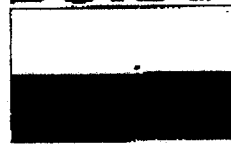
Wingfield	(08)	8359	1033
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Western Australia

Bunbury	(097)	25	4744
Kalgoorlie	(090)	21	8642
Karratha	(091)	44	1010
Osborne Park	(09)	444	5422

Northern Territory

Stuart Park	(08)	8981	9121
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BUILDING SERVICES

a. 964