Acrow props

- Patented chainless prop pin
- No tangles with chain
- Reduces expensive loss of pins
- Uniquely designed to provide a coarse and infinite fine adjustment
- Able to be erected and dismantled by unskilled labour
- Available in 5 sizes

ACROW PROP RANGE			
SIZE	CLOSED HEIGHT (mm)	OPEN HEIGHT (mm)	WEIGHT (kg)
No. 0	1032	1772	16.8
No. 1	1642	2820	22.9
No. 2	1997	3410	24.0
No. 3	2556	3969	26.8
No. 4	3166	4909	34.2

PROP ACCESSORIES

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.

Swivel Reduction Coupler

- Used for coupling ACROW PROI outer tube (60.3mm OD) to standard scaffolding tube (48.3r OD) – for inclined bracing.

Standard Swivel Coupler

- Used for coupling ACROW PROI inner-tube (48.3mm OD) to standard scaffold tube – for inclined bracing.

Chainless Acrow Prop Pin

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

www.acrow.co.nz

PROP HEIGHT (m)	No. 0	No. 1	No. 2	No. 3	No. 4
1.05	31*				
1.22	31*				
1.52	31*				
1.65	29.3	31*			
1.83	28.4	31*			
1.98		31*	31*		
2.13		31*	31*		
2.44		29	31*		
2.59		23	28.9	31*	
2.74		21	26	31*	
3.05			20	24	
3.20			18	21	28.9
3.35			16	19	28.4
3.66				16	26
3.96				15	21
4.27					17
4.57					14
4.88					11

ACROW PROP SAFE LOAD CAPACITY (kN)

Notes to Table
- We advise a Prop loading limit of 31kN solely for ease of striking.
- Safe working loads are based on props being vertical and load concentrically.
- Safe working loads have been derived from test and a minimum Factor of Safety of 3 to 1 applies
- Safe working loads are for braced props

ADVICE TO USERS OF ACROW PROPS

1. Ensure that all Acrow props are fitted with the correct prop pins which are manufactured from high tensile steel. The use of substitute material can result in failure
2. Ensure that the prop inner and outer prop tubes are straight and telescope freely. Bent props should not be used.
3. Ensure that the prop head and base plates are flat and perpendicular to the tube to offer correct seating.
4. Ensure that props are erected plumb. A deviation of more than 1.5 Deg (25mm per metre height) will result in a considerable reduction in the load carrying capacity.
5. Ensure that the load is applied concentrically to the prop. This is achieved by rotating the stirrup head. An eccentricity of more than 25mm will result in a reduction in load capacity.
6. Ensure that props are held in position at all times. Props are to be braced together using tube and couplers and fittings.
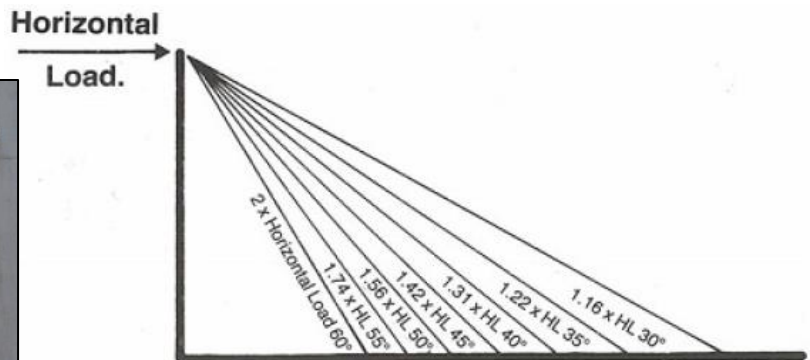
BRACING REQUIREMENTS

Props are required to be braced for two reasons:

1. To maintain position in the event of a prop becoming unloaded.
2. To resist lateral forces

For situation 1): A Scaffold tube at mid height joining a line of props is sufficient.

For situation 2): The recommended bracing for a line of props are joined by two lines of scaffold tube 300mm from both the top and bottom with a diagonal at least every 12 props with at least two in any line. Diagonals should be at between 30 – 60 deg.

TILT PROP

Horizontal Load.

2 x Horizontal Load 60°
1.74 x HL 55°
1.56 x HL 50°
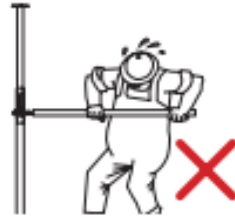1.42 x HL 45°
1.31 x HL 40°
1.22 x HL 35°
1.16 x HL 30°

NOTE: To resist a known load in a horizontal direction the load imposed on the inclined tilt up shore is related to the angle as indicated in the diagram.
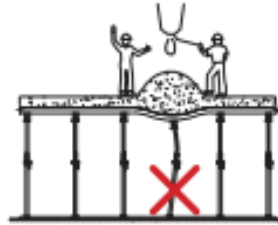
KNOW HOW TO USE ACROW PROPS

ALWAYS USE ACROW PROP PINS.

Don't replace an ACROW PROP pin with a piece of reo or a bolt.
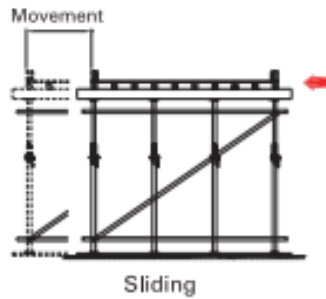
ACROW PROP MUST NOT BE USED AS A JACK.
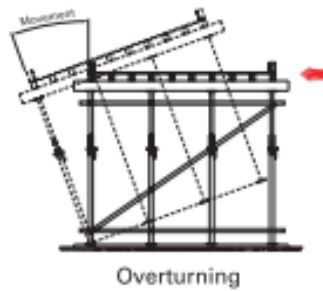
DO NOT OVERLOAD.

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

Movement

Attention must be given to prevent these situations

Sliding

Movement

Overturning

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.

Sole plates

Permanent structure

Timber soleboard

Settlement

Differential movement
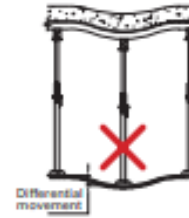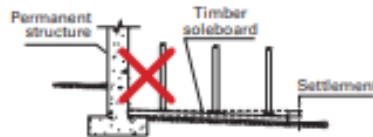
PROVIDE ADEQUATE BRACING TO PREVENT MOVEMENT OF FORMWORK AND PROVIDE STABILITY TO THE FALSEWORK.
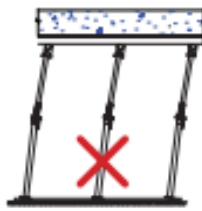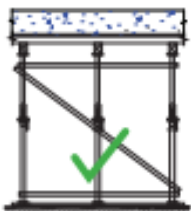
AVOID ECCENTRIC LOADS

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

Joists/bearers lifts

Prop falls

Nail through prop head plate

Joists/bearers lifts

Props nailed to bearers

Tube bracing

Prop remains vertical

www.acrow.co.nz