

Acrow Props

Hazard and Risk Assessments

Before using this equipment, the job you are doing must be assessed for foreseeable hazards and risks and appropriate measures to eliminate, control or reduce those risks must be taken before you commence work.

Suggested PPE (Personal Protective Equipment):



Protective Gloves Protective Footwear Hard Hat Eye wear

Note: PPE must be suited to the risks and person(s) using the equipment.

Installation Requirements:

Acrow props are HIGH RISK equipment. Installers must have sufficient training/instruction to properly install and use this equipment.

ENSURE YOU HAVE BEEN PROPERLY INSTRUCTED BEFORE USING THIS EQUIPMENT.

Purpose for which this equipment is designed:

For supporting formwork, concrete, 'dead' and 'live' loads. Can be used as a back prop provided the propping system is installed correctly and its rated load is not exceeded.

Safety Instructions:

1. **Operating Instructions** – Before using this equipment ensure you have read the 'Operating Instructions' and taken note of the 'Hazards and Risks' detailed on this instruction sheet and taken all necessary steps to prevent injury.
2. **Personal Protective Equipment** – Use appropriate personal protective equipment for the job.
3. **Installation Advice** – The safe use and application of this equipment must be in accordance with AS3610, the Occupational Health and Safety Act, approved Codes of Practice and any other regulatory requirements. Consultation with a competent person or qualified engineer is advised.

HAZARD: Risk of Structural Collapse and Crushing

- ... Incorrectly installed or rated propping systems may cause structural collapse.
- ... Consultation with a qualified engineer is advised.

4. Work Area

- i. During installation of propping system, ensure all bystanders are kept clear of work area.

- ii. Installations that take place in close proximity to pedestrian or vehicle traffic should be barricaded to minimise risk of personal injury or property damage.

5. Avoid Body Strain

- i. If equipment is too heavy, ask for assistance when loading/unloading, positioning etc. or use mechanical device.
- ii. Adopt recommended manual handling techniques e.g. keep a straight back when lifting and use your leg muscles to take the weight.

6. **Look Up and Live** – Stay clear of overhead wires and other obstructions when positioning and installing propping systems. Refer to local regulatory authorities for minimum power line clearances.

7. Rated Load

- i. Do not exceed the props working load limits.
- ii. The working load limits of these props are for compression loads only. Do not subject them to tension (pulling) loads or forces.
- iii. When props are setup in non-vertical positions, the working load limits are reduced. Additional or higher rated props may be required.

8. Install the Props Correctly

- i. Ensure props are installed on a firm level surface capable of supporting the load. Where the surface is not firm and level, steel or hardwood 'sole plates' should be used to spread the load and/or provide a level surface.
- ii. When used in vertical applications, ensure prop sections are installed as close to vertically upright as possible. Props installed on an angle may slip, not be able to take the load, cause structural collapse and will reduce load capacities.

9. Avoid Lateral Movement

- i. Be aware of lateral (sideways) movement of the propping system when supporting uneven or 'live' loads, or being subject to a sideways force e.g. being hit by machinery on site etc. Where possible bolt/ secure propping system in place.
- ii. Where multiple propping structures are to be installed, 'cross-brace' the assembly to avoid lateral movement.

10. **Do Not Use to Jack Up a Load or Structure** – The screw thread of the prop must not be used to raise or lower the load. Structural failure and/or component damage may occur.

11. **Adjust the Prop into the Load** – Use the screw jacks to raise or lower the prop under load. Do not hammer the prop into position.

12. **Equipment Inspections** – Prior to use and at regular intervals whilst in use, the propping system components should be inspected by a suitably competent person to ensure they have not been damaged when transported, craned, installed or while in position under load on site. Any damaged equipment must be returned immediately to Shore Hire for inspection. Do not attempt to repair or modify any propping system equipment.

Description

Used principally for supporting vertically applied stable loads not exceeding their rated load e.g. form work, lintel, joist etc. These props must not be used as a jack.

User's Instructions

1. Lift the inner tube to the approximate height required. The outer tube is kept steady by placing a foot on the base plate.
2. Line up the hole in the inner tube and the slots in the outer tube and insert the prop pin through both tubes. Only use the specially designed high tensile prop pin provided. Do not use a piece of 'reol', metal bar or a bolt etc.
3. Turn the handle of the adjusting nut until the prop extends firmly under the load. Do not hammer the adjusting nut or place a length of pipe on the handle as excessive force can damage the threads of the prop.
4. When not in use, close props down because most damage occurs by bending of inners while extended.



IMPORTANT NOTICE

Shore Hire will accept no liability, either expressed or implied, for any loss, damage, or injury to any person or property where the hire plant/equipment is misused or, used for purposes not expressly specified by Shore Hire or the manufacturer. It is the customer's responsibility to ensure that properly qualified and experienced operators use the hire plant/equipment in the manner specified in this plant safety assessment.

SCAN ME FOR TECH DATA



ACROW PROPS					
Size	WLL (kN)	At Min Height (mm)	WLL (kN)	At Max Height (mm)	Weight of Prop (kg)
No. 0	42.5	1050	23.3	1830	13.0
No. 1	34.0	1600	13.0	2800	17.3
No. 2	39.5	1900	10.9	3400	20.0
No. 3	35.8	2170	7.7	3975	22.6
No. 4	21.0	3100	7.0	4900	30.6

RISK ASSESSMENT (1= HIGH RISK, 5 = LOW)

Risk	Descripti	Contr
1	Erecting props on unstable/shifting foundation could cause a collapse seriously injuring personnel.	Always ensure base area is firm, clean and capable of supporting the load without shift or movement.
1	Overloading props creates a very high risk of collapse possibly causing, serious injury or death	Strictly follow the engineers advice. Do not overload props and always observe props 'load capacity'.
2	Erecting props without the correct "rated sheer pin" may cause system to buckle or collapse under load.	Adhere to engineering instructions, ensure props are only installed with the correct "sheer pin(s)".
3	Cuts and grazes from important handling procedures.	Observe safety procedures, always wear correct PPE.
2	Dropping units, trapping hands and feet, mishandling.	Follow safety procedures, use PPE and assisted lifts.