

Strong Boy Wall Support

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.

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. **Approved Components Only**– Only components and accessories that have been designed for use with Strong Boy supplied by Shore Hire may be used.
5. **When Designing Applications** – Engineering drawings detailing the design of the structure requirements etc. must be reviewed. Failure to do so will lead to an increased risk of structural collapse and crushing.
6. **Work Area**
During installation of propping system, ensure all bystanders are kept clear of work area. Installations that take place in close proximity to pedestrian or vehicle traffic should be barricaded to minimise risk of personal injury or property damage.
7. **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.



8. **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.

9. **Rated Load** – Do not exceed the props or Strong Boy Working Load Limits. Refer to product 'Technical Data Sheets' (available from Shore Hire) for Strong Boys.

10. **Install the Props Strong Boy Correctly** – See installation guide below.

11. **Avoid Lateral Movement** – 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.

12. **Adjust the Prop into the Load** – Use the screw thread & pin to raise/extend or lower the prop to the load. Do not hammer the prop into position.

13. **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.

Safety Procedures

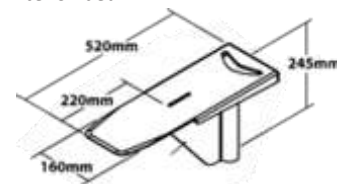
- DO NOT...** attempt to elevate loads using the “Prop”—it is **NOT** a JACK.
- DO NOT...** erect props on an unlevel foundation or unstable base/surface.
- DO NOT...** hammer Strong Boy into the mortar. Rake or grind out the mortar to fit in strong boy, as hammering can cause cracking in the wall.
- DO NOT...** exceed a maximum distance of 900mm between props/strong boys. If the prop visibly deflects, brace it & have an engineer assess its use.
- STORE...** all props and components neatly in the appropriate containers supplied.
- EMPLOY...** safe lifting techniques, use mechanical or two man lifts when handling.

PLEASE NOTE: Ensure all props are placed in the stillage or prop container that has been provided for safe storage and transport.

Description

Used principally in pairs the Strong Boy and Prop is the industry standard equipment for supporting brick walls while installing lintels for new windows, doors or openings. The Strong Boy has been designed to be used in conjunction with standard acrow props by securely fitting onto the endplate of all standard acrow props.

Strong Boys and Props are essentially a brace against bricks falling from a masonry wall while cutting in a new window, door or opening, normally used for supporting eccentric loads, so as to allow the installation of a lintel or beam.

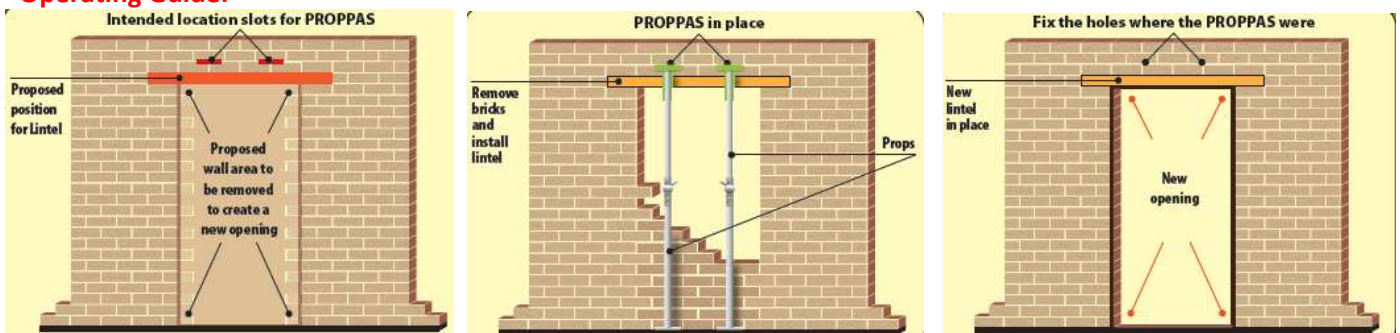


Important technical data:

Acrow Prop Type	Min. Prop Height (mm)	WLL (kg)		Max. Prop Height (mm)	WLL (kg)	
		Single Skin	Cavity		Single Skin	Cavity
No. 0	1100	570	460	1830	360	290
No. 1	1625	550	440	2800	330	270
No. 2	1945	540	440	3400	310	250
No. 3	2545	530	440	3975	290	240
No. 4	3230	500	410	4900	280	230

- Notes**
- Table is based on 110mm brickwork with load eccentricities to centerline of prop given below.
 - Assumed eccentricity for single skin - 270mm (web against inside face of brickwork)
 - Assumed eccentricity for cavity - 350mm (web against inside face of brickwork)
 - Adequate restraint must be maintained at the top of the masonry wall – eg. slab, floor, roof pitching beam and ceiling frame, and must be at a height not greater than 500 mm above the prop. Ensure any floor loads are accounted for in W.L.L calculations.
 - The maximum spacing between Strong Boys is 900mm.

Operating Guide:



Step 1

Mark out your proposed new opening and determine the opening height and proposed position for the lintel. Rake or grind out the mortar joint one or two bricks above the joint in which you are working to ensure that the Strong Boy has clearance and will slide into the clean joint until the web of the Strong Boy is against the face of the wall. Under no circumstances should you hammer in the Strong Boy, as this can cause cracking. Ensure that the floor or foundation is capable of providing adequate bearing capacity for the base of the props without settlement or sliding. Ensure an engineer has checked the adequacy of the masonry wall containing the proposed opening before any work commences including lateral resistance at the prop level during its use.

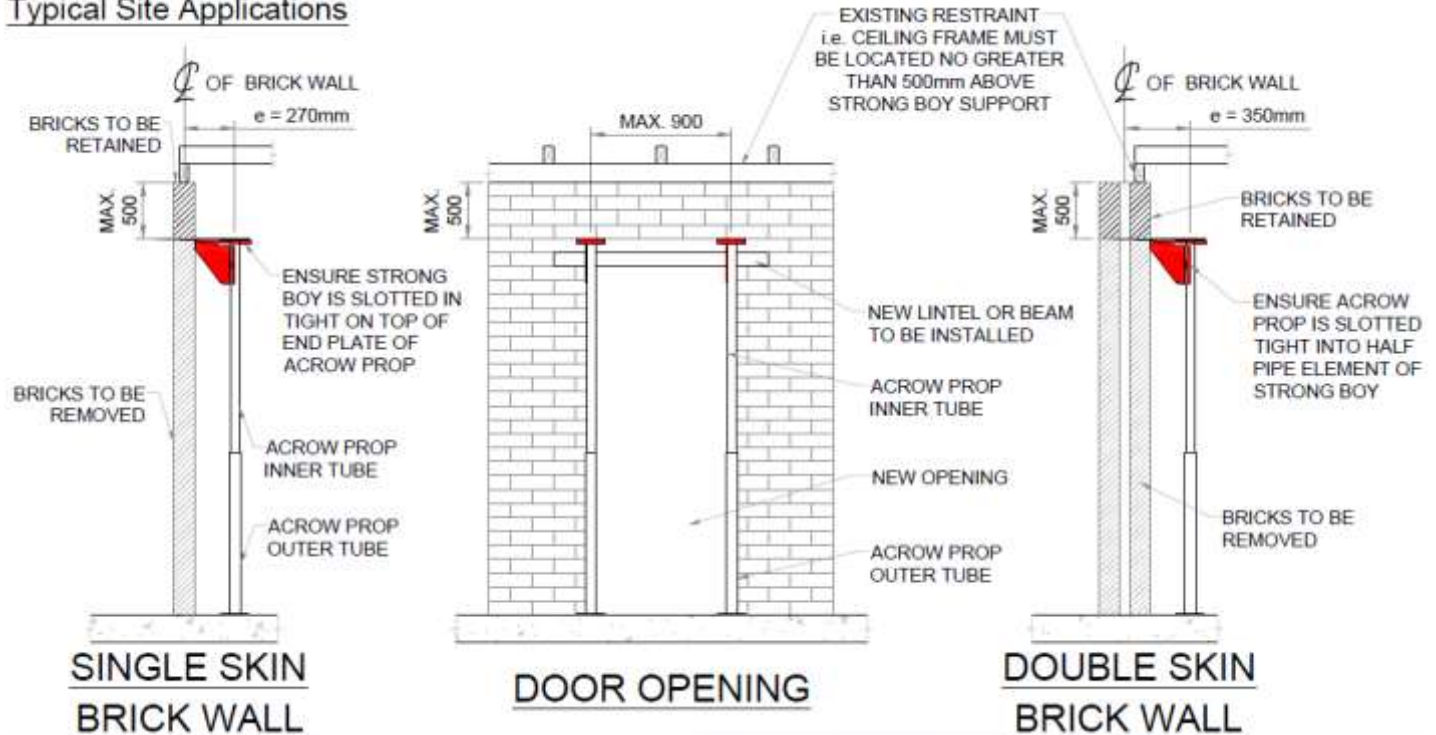
Step 2

Once the Strong Boy Wall Support is in position, locate the prop, ensuring that the prop is plumb when it is tightened. Note: if you are supporting a double skin, carefully insert a steel wedge to pick up the outside skin if required. Take up the load on the prop, do not over-tighten. This is not a jacking device. The more detailed Instructions for Use contain a safe working load table to assist in determining the maximum safe working load at a given height. This table is a general guide only and is NOT intended as a substitute for the engaging of a structural engineer to determine safe working loads and general propping details/layout. Once props are correctly positioned, carefully remove the appropriate bricks and install the lintel. The brickwork below the installed lintel should be removed carefully and ONLY after the lintel has been permanently secured in place and its supporting new mortar has been fully hardened.

Step 3

After safe removal of the props and the Strong Boy's, go about fixing the holes in the mortar where they were situated. If there's any settlement or movement of the masonry wall during the process of installing the Strong Boy wall supports, removing masonry units, installing the lintel or removing the props, check for any cracking in the masonry and conduct repairs as necessary. Always use Strong Boy wall supports in a safe manner and comply with O, H & S/ Work Health and Safety regulations and any local or site specific requirements.

Typical Site Applications



SCAN ME FOR TECH DATA



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

Risk(Ranking)	Description	Control
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 engineering 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 handling props and strong boys.	Observe safety procedures, always wear correct PPE.
2	Dropping units, trapping hands and feet, mishandling.	Follow safety procedures, use PPE and assisted lifts.
1	Crushing from loose masonry falling from wall	Follow installation instructions, and never hammer Strong Boys into the mortar as this will create cracks
1	Exceeding WLL &/or maximum centerline/eccentricity would cause Strong Boy to fail	Ensure Strong Boy is installed according to Tech Data table.

