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Prop with Cantilever Blade Attachment

The rules and procedures in force where people are at work require the person responsible for this equipment to carry out a specific risk assessment. This leaflet is not a substitute for a competent risk assessment. This leaflet is only a guidance document. The information in this leaflet is not intended to be used as a legal basis. The leaflet is the property of P S M Plant & Tool Hire Centres Ltd. and should not be used without the written permission of P S M Plant & Tool Hire Centres Ltd. The leaflet is the current standard for french props, not support props. If in doubt seek advice from a temporary works structural engineer.



A masonry support prop with cantilever blade attachment is designed to give support to a temporary structure while the permanent structure is being built. It consists of a vertical timber splayed plate attached to a horizontal support prop. The splayed plate is fixed to the prop by means of a bolt and nut assembly. The splayed plate is attached to the permanent structure by means of a bolt and nut assembly. The splayed plate is attached to the permanent structure by means of a bolt and nut assembly. The splayed plate is attached to the permanent structure by means of a bolt and nut assembly.

It is important to read this entire leaflet BEFORE using the prop with cantilever blade attachment

1. Only essential people should work in the area when the props with cantilever blade attachment are in use.
2. Make sure that your work area is clear and safe and that no-one is near to you or could distract you.
3. Protect other people from the danger. Warn others to keep away. Put barriers around your work area. Ensure warnings are positioned on both sides of the structure to be supported.
4. Make sure the floor area where you put the basplate of your prop is sturdy enough to support the weight that will be placed upon it.
5. Check the work area for services (gas, water and heating pipes, electric and telephone wiring etc.), or present any damage, or present any danger whilst any of the work is being carried out.

OPERATORS

1. The following items of personal protective equipment (ppe) are the minimum that should be worn whenever you use props with cantilever blade attachment. Particular jobs or environments may require a higher level of protection.
2. You must wear safety boots (EN345 or BS1870/4872) with good grip and ankle support.
3. Safety helmet to EN397 or BS5240.
4. Wear impact resistant goggles (EN166 - B or BS5092 grade 1).
5. Strong gloves will help protect your hands.
6. You will need a dust mask -

7. (EN149:-2001) tip3 if grinding or chipping a slot in the mortar for the prop with cantilever blade attachment.
 7. Anybody who is working near to you will also need to wear appropriate personal protective equipment.
- ### PROPS WITH CANTILEVER BLADE ATTACHMENT
1. Check your prop with cantilever blade attachment; check that the inner and outer tubes are straight and that they telescope easily. Check that the locking pin is still secure on its chain. Check that the prop with cantilever blade attachment is tight and all bolts are tightened. Do not use anything found damaged - contact the hire company.
 2. Take professional advice to determine the safe working load (SWL) of 300kg for each prop with cantilever blade attachment. Loads in excess of this will require two or more props with cantilever blade attachment.
 3. The maximum working height of the prop with cantilever blade attachment must not exceed 900mm.
 4. Your prop must be vertical in order to bear its load safely.
 5. Props must never be used more than 1.5 degrees of vertical. This is about 25mm in 1 metre (1 inch in 1 yard).
 6. Ensure that the floor where the basplate will locate, is strong enough to support the load that will be transferred to it by each prop.
 7. Each prop should stand on a timber splayed structural concrete.
 8. The timber splayed should be at least 225mm (9 inches) wide by 38mm (1.5 inches) thick. It should be long enough to project at least 300mm (12 inches) either side of the support prop's basplate.
 9. Ensure the brickwork above the prop with cantilever blade attachment is capable of carrying the load and is stable.
 10. Props are available in six different lengths (size 0 to 5). Do not use props that are too short by making up the gap with timber. Use the correct length prop.
 11. The propping design may require lacing and bracing using horizontal and diagonal scaffold tubes. This will require sufficient swivel scaffold clips - standard size clips onto the prop inner tube but larger ones are needed for the outer tube. Order these in good time from your hire company.
 12. Before you start work, make sure you understand how to use the prop with cantilever blade attachment safely and how much support your overhead structure needs.
 13. If in doubt seek advice from a temporary works structural engineer.

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Using the prop with cantilever blade attachment

1. Wear your protective equipment including safety boots and helmet.
2. Check the props with cantilever blade attachment each time before you start work.
3. Do not remove or adjust any prop with cantilever blade attachment until you are certain that it is safe to do so.
4. Do not stir or fit any electrical or lighting equipment to the prop with cantilever blade attachment.
5. If prop with cantilever blade attachment are left in position unattended, make the area safe against children and other unauthorised persons.
6. Props with cantilever blade attachment to do the following:
 - continuously during structural work
 - continuously during structural work

Please store this leaflet safely. It may be required for further information

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Before Starting Work...

1. Mark out the exact position of the inner and the brickwork, that will be removed.
2. Calculate and plan the positioning of each prop with cantilever blade attachment - mark the position for each one.
3. Each 900mm or part of 900mm span will require a prop with cantilever blade attachment.
4. Two persons are usually required to put a prop with cantilever blade attachment in position safely.
5. All operators must wear their safety equipment.
6. At each blade position chain, drill or use a cylindrical mortar rake to remove mortar at the course the prop with cantilever blade attachment blades will be inserted. Then hammer the prop with cantilever blade attachment into the mortar courses with the handle on the top, at the upper level of the proposed opening in the wall. Ensure the safety of anyone on the opposite side of the wall is protected from any brickwork or debris that may be dislodged. Ensure barriers and warning signs are in place.
7. The prop with cantilever blade attachment works structural engineer.
8. If in doubt seek advice from a temporary works structural engineer.
9. Before you start work, make sure you understand how to use the prop with cantilever blade attachment safely and how much support your overhead structure needs.
10. The prop with cantilever blade attachment works structural engineer.

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SAFE WORKING LOAD

1. Support props are usually available in six different lengths (size 0 to 5).
2. A prop with cantilever blade attachment is an attachment fitted to the top of screw adjustable telescopic prop (crow). Props with cantilever blade attachments are suitable for provide propping from one side only. Most props with cantilever blade attachments can be used on a 225mm thick solid wall, a 112mm half brick thickness wall, or a 250mm twin leaf cavity wall. Some longer products are available that will prop up to 300mm solid wall or 300mm twin leaf large cavity wall. In all cases the SWL is 340kg. The following is the safe working load of props when used with prop with cantilever blade attachments.

The maximum span supported by each prop with cantilever blade attachment must not exceed 900mm. Consult an architect and a structural engineer as needed on planning and permanent work design issues, and on the design of temporary works.

Prop Size	Prop Length (metres)	Extended Length (metres)	SWL in kilograms
0	1.01	1.01	340
1	1.71	1.71	340
2	2.42	2.42	340
3	3.12	3.12	340
4	3.83	3.83	340
5	4.53	4.53	340

removed to allow the new lintel to be fitted. Particular care is needed to maintain the condition of the bearing at either side of the prop. Once the prop has been removed, full 'rebuild' will be needed - sometimes from the foundation upwards. Chain drill (holes side by side) to full depth and pry. Try to avoid using a sledgehammer - rapid progress will soon turn into hours of making good. In some cases the new lintel will need to rest on padstones. These may need to be built in and allowed to cure prior to the main lintel opening being created. If the full height opening is to be made prior to fitting the new lintel this should be done using chain drilling along the marked out lines, followed by prising the masonry loose at the top and working down to clear level. Careful work should allow the reveals to be kept in usable condition. In many cases this can be achieved without significant overbreak and with only minor need for rebuilding. Always ensure you have sufficient bearing surface between the lintel and its support on each side. 150mm minimum at each end is normal. The lintel may sit on a mortar bed or, if the bearing surface has sufficient strength, state or similar dry material can be driven/packed in to allow almost immediate load carrying. Brickwork can be finished, working around the prop with cantilever blade attachment plates if rapid curing (high aluminium) cement is used to make the mortar. The manufacturer's instructions should be

followed regarding mixing and curing times. If the full height opening was required by the old lintel, this should be removed to allow the new lintel to be fitted. Particular care is needed to maintain the condition of the bearing at either side of the prop. Once the prop has been removed, full 'rebuild' will be needed - sometimes from the foundation upwards. Chain drill (holes side by side) to full depth and pry. Try to avoid using a sledgehammer - rapid progress will soon turn into hours of making good. In some cases the new lintel will need to rest on padstones. These may need to be built in and allowed to cure prior to the main lintel opening being created. If the full height opening is to be made prior to fitting the new lintel this should be done using chain drilling along the marked out lines, followed by prising the masonry loose at the top and working down to clear level. Careful work should allow the reveals to be kept in usable condition. In many cases this can be achieved without significant overbreak and with only minor need for rebuilding. Always ensure you have sufficient bearing surface between the lintel and its support on each side. 150mm minimum at each end is normal. The lintel may sit on a mortar bed or, if the bearing surface has sufficient strength, state or similar dry material can be driven/packed in to allow almost immediate load carrying. Brickwork can be finished, working around the prop with cantilever blade attachment plates if rapid curing (high aluminium) cement is used to make the mortar. The manufacturer's instructions should be

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