



Care and Safe Use Vertical Plate Clamps

Always store and handle vertical plate clamps correctly.

Always inspect vertical plate clamps and accessories before use and before placing in storage.

Always put the clamps onto the plate as far as they will go.

Always check that the clamp is directly over the centre of gravity of the load.

Always ensure that the clamp is fully locked or tightened onto the plate before lifting.

Always take great care to ensure that the plate is fully supported before attempting to release the clamps.

Never use vertical plate clamps on hard or polished plate unless they have been specifically designed for that purpose.

Never put packing between the plate and the jaws of the clamp.

Never attempt to lift more than one plate in the clamp.

Never lower from the vertical to the horizontal or vice-versa unless clamps have been designed for that purpose.

Never obliquely load vertical plate clamps. See Universal Plate Clamps below.

Never force or wedge a hook or other fitting into the eye of the clamp.

Selecting the Correct Vertical Plate Clamp

Vertical plate lifting clamps are available in a range of capacities and designs. They may utilise a lever, cam mechanism, roller or screw to provide friction grip to the plate. Select the vertical plate clamp to be used and plan the lift taking the following into account:

- Type of vertical plate clamp - lever, cam, roller or screw action.
- Capacity and plate thickness.
- If a pendant chain sling is required.

NOTE 1: *Some designs of clamp, particularly some of those with a moving cam action jaw where initial grip is provided by a spring, have a minimum plate thickness they can safely lift. (This is particularly true where a clamp is designed with a wide jaw but relatively low W.L.L.) Wherever possible refer to the manufacturer's instructions but in the absence of specific guidance the load should not be less than 20% of the W.L.L. and the plate thickness not less than 20% of the maximum.*

NOTE 2: *Some designs of plate clamp are suitable for lifting plates from the horizontal to the vertical and the inclusion of a pendant chain to provide articulation between the clamp and the lifting hook is essential. However the use of pendant chains should always be considered to prevent the hook weight being imposed on the clamp as this might cause the clamp to release.*

Universal Head Vertical Plate Clamps are designed to be used at any angle. They are particularly useful when using two clamps at once in a 2 leg configuration. They eliminate the need for a

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spreader beam. When using this configuration however, allowance needs to be made for the angle of lift.

At the following angle from vertical	$0^\circ < \alpha \leq 30^\circ$	$30^\circ < \alpha \leq 45^\circ$	$45^\circ < \alpha \leq 90^\circ$
The recommended factor for side loading is	1.00	0.75	0.50

Storing and Handling Vertical Plate Clamps

Never return damaged or contaminated vertical plate clamp to storage. They should be dry, clean and protected from corrosion.

Vertical plate clamps should **never** be dropped or thrown down.

Using Vertical Plate Clamps Safely

Do not use defective plate clamps and accessories.

Do not use the clamp to lift a load less than 20% of the W.L.L. or with a thickness less than 20% of the maximum unless the manufacturer's instructions permit otherwise.

Position the clamp correctly. Place the clamp over the load centre of the plate. If the plate is long and has a tendency to bend use two clamps equally disposed about the centre of gravity, in conjunction with a spreader beam. Care should be taken to ensure that no one clamp takes more than its W.L.L.

If using 2 Universal Head Plate Clamps, **use the mode factor recommended**. Care must be taken to ensure no one clamp takes more than its W.L.L.

Put the clamp onto the plate as far as it will go.

Under no circumstances should packing be placed between the plate and the jaws nor any attempt made to lift more than one plate in a clamp.

Do not use clamps at an angle to the edge of the plate or for lowering from vertical to horizontal, or vice-versa, unless they are designed for the purpose.

Keep oil, grease and similar contaminants away from jaws which use a friction grip material to hold the plate.

In Service Inspection and Maintenance

Vertical plate clamps should be cleaned and any moving parts lubricated at appropriate intervals, unless the suppliers specific instructions indicate otherwise.

In the case of clamps with smooth jaws lined with a friction material, care must be taken to ensure that no lubricant comes into contact with the friction material.

Regularly inspect vertical plate clamps and, in the event of the following defects, refer the vertical plate clamp to a Competent Person for thorough examination: wear; damage or distortion to fixed and moving jaws; frame opening out or cracked; insecure, worn or bent pins, bolts etc.; worn friction grip material; damaged bent or unsatisfactory acting lever; tight, bent or damaged clamping threads etc.; corrosion; illegible markings.

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WARNING: Teeth of jaws must not be re-sharpened or re-cut unless this has been specifically approved by the maker.