

Owner's Manual pewag peCLAMP pro safety plate lifting clamp VCP, VUP

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1. General

Please carefully read the instructions in this user manual before using the lifting clamp. If you have any doubts, please consult with your dealer. Thank you for choosing one of our high-quality products. The quality systems of management and services of pewag austria GmbH fully comply with ISO 9001 standards. The many years of vast experience are a guarantee of optimum quality and safety. pewag lifting clamps are manufactured from high quality alloy steels and comply fully with all relevant standards and product requirements including: European standard: EN 13155, Australian standard AS 4991, US standard ASME B30.20-2010 and machinery directive 2006/42/EG.

2. Description of Functions

pewag's safety lifting clamps derive their name and reputation from the special built-in safety mechanism, which consists of a locking device, a tension spring and a lever. Once the lever has been operated, the safety mechanism provides constant pre-tensioning of the cam on the steel plate, thereby ensuring that the clamp does not slip when lifting force is applied. When a load is being lifted, the clamping force on the cam is increased by the weight of the load. The safety system also ensures that the clamp will not work itself loose from the plate as the load is being lowered.

3. Authorised Applications

pewag lifting safety clamps have been exclusively designed for the lifting and transporting of steel plates and structures, where it is possible to place the clamp on a flat point of contact.

VCP

The VCP clamps are suitable for lifting vertically and tilting. Authorised application of the clamp includes the lifting and transport of sheet steel from:

- vertical position.
- horizontal position.

When lifting from a non-vertical position please note that the WLL is reduced (see load diagram on page 32).

VUP

The VUP clamps are equipped with a universal joint at the lifting shackle and are suitable for lifting in any desired direction. Authorised applications of the clamp include lifting and handling of sheet steel from:

- vertical position
- horizontal position
- lateral position

When lifting from a non-vertical position, please note that the WLL is reduced (see load diagram on page 32).

4. Safety Instructions

Safety first! Guarantee your personal safety and that of others by carefully reading the following safety instructions first.

Ensure your own safety and continue to benefit from our product safety by having the clamp inspected, tested and, if necessary, overhauled at least once a year by pewag austria GmbH or another recognised mechanical repair and service centre. See also Chapter 8 – Overhaul. Contact pewag austria GmbH for further information.

Temperature:

The operating temperature for pewag peCLAMP pro clamps is between -40 °C (-40 °F) und 100 °C (212 °F).

Please consult your retailer if other ambient temperatures apply.

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Avoid life-threatening situations (also see examples on page 33)

- Never work with an untested clamp or clamps with an expired test certificate
- Keep a distance when lifting and never stand under the load
- Do not use the clamp if damaged; have the clamp repaired by pewag austria GmbH or another authorised mechanical repair centre. If in doubt, please contact your supplier
- The clamps are only to be used for the transporting of single plates and not sheeting packets
- Never lift plates heavier than the WLL, as indicated on the clamp, on the test certificate, in the table and in the load diagram on page 32
- Do not lift plates which are thicker or thinner than the jaw opening, as indicated on the clamp, on the test certificate and in the table
- Take care when lifting from a non-vertical position. The working load limit (WLL) may be considerably reduced in these lifting situations (see page 32)
- When using a number of lifting clamps at the same time, provide lifting slings or chains of a sufficient length to ensure that the angle between the slings or chains never exceeds 60°
- When simultaneously operating a number of lifting clamps, use a lifting beam (equaliser) and lifting slings or chains of sufficient length to ensure that the lifting shackles on the clamps are never subjected to lateral load
- Do not place the clamp on conical sections of the plate or structure to be lifted
- Remove all grease, oil, dirt, corrosion and mill scale from the plate at the point where the clamp is to be attached
- All clamps are only suitable for use in normal atmospheric conditions.

Warning

- When using clamps VCP avoid lifting a lateral load with the lifting shackle.
- Free fall or uncontrolled oscillation of the crane hook resulting in objects being struck may cause damage to the clamp. If this occurs check the clamp for possible damages before further use.
- Lifting clamps are not suitable for creating permanent joints.
- The clamp should be maintained once a month (see chapter 6 – Maintenance/Inspection). Modifying the clamp, e.g. by welding, grinding etc can adversely affect the function and safety of the product. If this occurs the warranty expires, and no product liability is taken.
- Use only original pewag components and accessory parts.
- Any improper use of the clamp and/or failure to observe the instruction manual and safety information can endanger the user and/or a third party.

5. Lifting

- When using the clamp make sure the working load limit (WLL) is not exceeded.
- Attaching the lifting clamp to the attachment point:
 - Directly to the crane hook with safety shackle.
 - In conjunction with a coupling link or D-shackle.
 - In conjunction with a sling or chain, potentially combined with a coupling link or D-shackle.
- Ensure that the suspension attachments have been tested and are suitable for the load.
- Make sure the coupling links are of a sufficient size to allow the clamp to move freely in the hook.
- Check the clamp for signs of visible damage.
- Operate the lever to check for ease of opening and closing of the clamp.

- Check whether the jaws are dirty, if necessary use a wire brush for cleaning.
- Remove any contamination, like grease, mill scale and similar from the attachment point.
- Use the lever to open the clamp.
- Open the jaws to their full extent over the plate and make sure that the clamp is positioned so as to balance the load when it is being moved.
- Close the clamp by turning the lever fully back.
- Start lifting slowly so that the clamping jaws can grip firmly, check whether the clamp is firmly attached.
- If the load is slipping read chapter 5 – Lifting, again.
- If the load continues to slip see chapter 6 – Maintenance.
- Before taking the clamp off the plate make sure that the load is in a secure and stable position.

6. Maintenance

Once a month the clamp needs to be checked for damages and/or contamination.

Stop using the clamp if:

- the clamp is difficult to open or closed.
- the body is split or deformed, in particular in way of the corners of the jaws.
- the lifting shackle and/or support joint is arevisibly deformed.
- the cam and/or pivot teeth are no longer sharp.
- the spring has become stretched or broken.
- the lever locking mechanism has become inefficient or has ceased to work.
- the shackle pins are visibly deformed.
- any retaining pins are missing.
- the keyway groove is dirty.
- the marking on the clamp is no longer legible.

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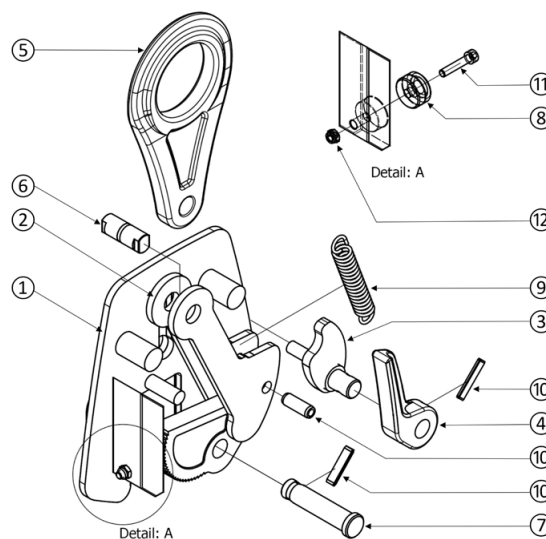
Depending on the faults noted:

- disassemble and clean the clamp (see Chapter 7 – Disassembling/Assembling) or have the clamp overhauled by pewag austria GmbH or by another authorised mechanical repair centre (see Chapter 8 – Overhaul)

7. Disassembling/Assembling

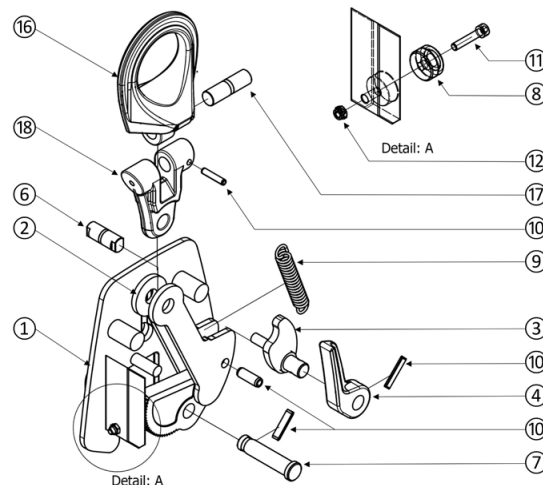
Guidelines for Disassembling/Assembling the VCP LIFTING CLAMP

- Open the clamp to its full extent.
- Remove the tension spring (9). In the case of VCP 1.5 T remove the retaining pin (10) from the cam shaft first.
- Remove the retaining pin (10) and the cam pin (7).
- Push the lifting shackle (5) in until the spindle (6) can be removed via the assembly hole.
- Remove the lifting shackle (5) and cam assembly (2).
- Dismantle the tension lever (4): by removing the retaining pin (10) and taking the lock assembly (3) out of the clamp.
- Remove the pivot (8) using a hexagon key and ring spanner.
- Clean all parts with a standard degreaser.
- Grease all spindles with a bearing grease.
- Oil the screws if necessary.
- Assemble all the parts in reverse order.
- Always replace retaining pins (10).
- Always replace the pivot bolt (11) and nut (12).
- Only use original pewag components.
- Remove any metal burrs with a file.



Guidelines for disassembling/assembling the VUP lifting clamp

- Open the clamp to its full extent.
- Remove the tension spring (9). In the case of VUP 1.5 T remove the retaining pin first (10).
- Remove the retaining pin (10) and the cam pin (7).
- Take the retaining pin (10) out of the connecting piece (18) and remove the link pin (17).
- Remove the lifting shackle (16).
- Push the connecting piece (18) in until the spindle (6) of the lifting shackle can be removed via the assembly hole.
- Remove the connecting piece (18) and the cam assembly (2).
- Dismantle the tension lever (4): by removing the retaining pin (10) and taking the lock assembly (3) out of the clamp.
- Remove the pivot (8) using a hexagon key and ring spanner.
- Clean all parts with a standard degreaser.
- Grease all spindles with a bearing grease.
- Oil all springs if necessary.
- Assemble all parts in reverse order.
- Always replace original retaining pins (10).
- Always replace the pivot bolt (11) and nut (12).
- Only use original pewag components.
- Remove any metal burrs with a file.



8. Overhaul

At least once (1x) a year (required by law), or if the clamp becomes damaged, the lifting clamp should be inspected, tested and if necessary overhauled by pewag austria GmbH or another recognised mechanical repair centre. If in doubt refer to your supplier.

9. Disposal

Provided that the clamp is rendered unfit for further use, it may be disposed of, in line with the local guidelines.

10. Troubleshooter's Checklist

Failure/malfunction	Possible Cause	Action
Load slipping	Load dirty	Clean
	Pivot and/or cam dirty	Clean
	Pivot and/or cam blunt	Replace
	Jaws bent open	Replace
Lifting shackle pivoting poorly	Lifting shackle overloaded	Reject
Fork pivoting poorly	Fork overloaded	Reject
Casing bent	Clamp overloaded	Reject
Oval shape lifting shackle	Clamp overloaded	Reject
Spring defective	Spring worn out	Reject
Retaining pins missing	Assembled incorrectly	Fit new retaining pins
Clamp difficult to open and close	Key slot dirty	Clean slot
	Clamp overloaded	Reject
	Clamp dirty	Clean
	Clamp worn out	Reject

11. Warranty

pewag austria GmbH provides provides end users with a 5 year warranty on its lifting clamps. This warranty is applicable to the original end user of the lifting clamps. This warranty applies only if the clamp has been inspected, checked and in line with the manufacturer's and distributor's instructions during the entire warranty period. This warranty period of 5 years is valid from the day of purchase, and is subject to all conditions and specifications stated in this document.

12. Conditions and Specifications

This warranty only covers faults which are due to production errors and occur during normal use. The warranty covers no wear to components such as pivots, cam assemblies, lock springs etc. Should there be any kind of failure within this warranty period, the lifting clamp will be replaced or repaired following assessment by the producer.

No warranty is given to clamps with faults due to the following:

- Normal wear
- Overload
- Wrong and/or careless use
- Damages
- Not following procedures and measures
- Hoisting differing material other than indicated on clamp or stated in the user's manual
- Adapting and/or modifying of the pewag clamp
- The incompetent use of the clamp, and not following all indications which are stated in the user's manual
- When maintenance and/or revision has not been carried out by an authorised pewag distributor

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The producer is not responsible for incidental damage or damage due to incorrect use of the lifting clamps as well as from violation of this manual.

13. Safety Inspection

All inspection and repairs must be recorded in the maintenance diagram. This does not only apply to your own inspections but also to inspections which are carried out by your authorised pewag dealer. When the clamp is handed in for maintenance and inspection, you must always provide the maintenance diagram.

Defective Lifting Clamps

When a form of wear or damage is indicated, you must take the following measures:

- Take the lifting clamp out of service. (Note down the date of failure of the lifting clamp)
- Try to identify the cause of the failure, for example (complete list is available in Chapter 10):
Such damages are not covered by the warranty! To guarantee your own safety and that of your colleagues you are obliged to follow this procedure
- Return your lifting clamp (with the maintenance history) to your authorised pewag distributor
- If the lifting clamp has been revised/repared by your distributor, you can safely use your clamp again

14. Inspection Schedule

Months	4	8	12	16	20	24	28	32	36	40	44	48	52	56	60
Years	1			2			3			4			5		
Safety inspections by your own inspector															
Maintenance by an official pewag distributor															
Revision by an official pewag distributor															