



**Product Alert - Kidde Products Limited  
High Pressure CO<sub>2</sub>, Klem Discharge Valve Issue**

**February 26, 2024**

**Type of Notification: Performance/Safety Related Concern**

FM Approvals has been made aware by Kidde Products Limited of a potential safety related issue involving the Kidde Fire Protection High Pressure Carbon Dioxide Extinguishing System.

**Company Identity:** Kidde Products Limited (Kidde Fire Protection)  
**Address:** 1st Floor Stokenchurch House, Oxford Road, Stokenchurch  
Buckinghamshire HP14 3SX  
United Kingdom

**Contact Information:** Technical Support at [techsupport\\_suppression@carrier.com](mailto:techsupport_suppression@carrier.com)

**FM Approval Status:** FM Approved

**Hazard Involved:** The product in question is any Kidde Fire Protection High Pressure Carbon Dioxide (HPCO<sub>2</sub>) Extinguishing System shipped from May 16, 2022 – May 9, 2023. It has been determined that the end cap of the Klem discharge valve assembly has the potential to detach from the valve body while under pressure, potentially causing property damage, injury, or death.

If you suspect you are in possession of a HPCO<sub>2</sub> system with affected valve(s), please follow the process indicated in the attached Kidde Fire Protection Product Safety Notice bulletin, procedure, and notification. The solution detailed will mitigate the component being ejected from the valve but does not prevent the discharge of the CO<sub>2</sub> in the event of a failure.

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**Date:** 11 Jan 2024  
**To:** Distributors and End Users  
**From:** Mike Sandiford – Operations and Engineering Manager  
**Subject:** MK2 Klem Valve Guard Update  
**Reference:** #2023-01S Product Safety Notice – Kidde CO2 Klem Valve End Cap  
#2023-03S MK2 Klem Valve Guard + Lower Plate Field Installation Procedure

In June 2023, we communicated in Product Safety Notice #2023-01S a potential safety issue where the Klem Valve end cap may accidentally detach which could cause property damage, injury or death. As a result, our manufacturing and shipping was suspended, and affected customer orders temporarily placed on hold. Our safety review and risk assessment at the time considered it necessary to advise the fitting of a purpose made guard provided by ourselves which would fit over the valve to minimise this risk in the unlikely event this may occur in the field. This is detailed in our notice 2023-03S dated Oct 2023.

Our investigation into the reasons contributing to this have been rigorous and we would like to offer an update to the current status.

We have verified and validated steps to improve valve controls and are applying a date code stamp on each valve end cap to identify valves manufactured after implementing the improvements. Please be advised that future supplies will include the valve with additional date code applied per the below image and can be used as a visual indicator.



With consideration of the improvements implemented, a decision has been made to resume our manufacturing of the valves which will enable the products listed within safety bulletin 2023-01S-EU to be supplied.

For CO2 Klem Valves already installed in the field which were the subject of Product Safety Notice #2023-01S, Kidde reiterates the importance of implementing the MK2 Klem Valve Guard + Lower Plate in accordance with the instructions detailed in Notice #2023-03S so we ask you to confirm completion back to Kidde Fire

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Protection. If the Guard and Lower Plate have not yet been fitted, please refer and follow the required actions detailed in Notice #2023-01S.

We offer our sincere apologies for the inconvenience this may have caused during this period but please be reminded that our commitment to the quality and safety of our products is paramount to our business and this action was required in the interest of all parties.

*Reference documents:*

**#2023-01S** for more details on the product safety notice **Kidde CO2 Klem Valve End Cap**.

**#2023-01S-EU** Within the above document also includes affected part numbers.

**#2023-03S** for more details on the guard procedure - **MK2 Klem Valve Guard + Lower Plate Field Installation Procedure**.

If you have any questions or concerns, please contact Technical Support at +44 (0)1494 480423 or [techsupport\\_suppression@carrier.com](mailto:techsupport_suppression@carrier.com).



**#2023-01S**

**Date:** 2023-06-23  
**To:** CO2 Gas Systems Distributors  
**From:** Mike Sandiford  
**Subject:** Important Product Safety Notice - Action Required – Kidde CO2 Klem Valve End Cap

As a responsible manufacturer for fire safety products, product safety is always our first priority. Given their life safety and property protection function, the performance and reliability of our products in your end-use applications are of paramount importance to us.

You are receiving this Safety Notice #2023-01S because, according to our records, you have purchased Kidde CO<sub>2</sub> Klem Valve Assemblies where a potential safety issue failure of the Klem Valve End Cap may potentially cause property damage, injury or death (see Issue below). Due to this action is required on your part. Please instruct your sales, design, purchasing, installation, and service personnel to read the below carefully and take the Required Field Actions (see below).

If you are a distributor and/or have sold the Potentially Affected Product (see below) to an end-customer, then we ask that you communicate this information to the potentially affected end-user as described in the instructions provided below.

**Issue**



- There is a potential danger that the Kidde CO<sub>2</sub> Klem Valve end cap accidentally detaches from the valve body.
- The result is a potential danger to personnel and property from:
  - Ejected components from the valve.
  - Frost bite and/or asphyxiation risk from an unintended discharge of CO<sub>2</sub> gas.



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**Potentially Affected Products**

The below table lists the products that are potentially affected with corresponding date code of 22/01-23/05 marked on top of the Klem Valve body.

Table 1. List of Potentially Affected Part Numbers

Part Number	Description	Production Date Range
1-D8562-005	KLEM VALVE DIN 477 - OVERBOARD	22/01 – 23/05
1-D8562-006	KLEM VALVE MK2 DIN 477 (25E) 191-250 BAR	22/01 – 23/05
1-D8562-006R	KLEM VALVE MK2 DIN 179-196 BAR B. DISC	22/01 – 23/05
1-E7194-006	22.8KG CO2 CYL VAL. ASSY - DIN	22/01 – 23/05
1-E7194-008	FM 45KG CO2 CYL ASSY DIN TPED BTIC	22/01 – 23/05
1-E7194-015	45KG CO2 CYL ASSY OVERBOARD NON-FM DNV	22/01 – 23/05
1-E7772-011	45KG CO2 KLEM & CYL KIT PI - DIN - DAS	22/01 – 23/05
1-D8562-007	KLEM VALVE MK2 DIN 477 (DAS) - SPARES	22/01 – 23/05
1-D8562-009	KLEM VALVE ASSY 1" NPT - MK2 SPARES ONLY	22/01 – 23/05

Potentially affected cylinders and Klem Valves that were shipped between May 16, 2022 – May 9, 2023 and are identified with date code YY/MM “22/01” or MM-YYYY “05-2022 to 05-2023” dependent on model (see illustrations below).



**Implemented Actions**

All production and manufacturing and customer orders of the Klem Valve and cylinder assemblies are on hold. Kidde Fire Protection is taking all steps necessary to find the root cause and will provide an update as soon as more information is available.

**Required Actions**

Given their life safety and / or property protection function, the performance and reliability of our products in end-use applications and / or life safety systems are of paramount importance to us. We expect that this is also of the highest importance to your company. Therefore, we ask you to complete the steps below with immediate effect and until further guidance is provided by Kidde Fire Protection.



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- Make all personnel aware that there is a potential safety issue with the Kidde CO<sub>2</sub> Klem Valve, as it has the potential to accidentally discharge and eject components from the end cap.
- For installed cylinders:
  - Do not service.
  - Wear appropriate \*PPE for projectiles and CO<sub>2</sub> discharge when approaching equipment.
  - Restrict unnecessary access to and cordon off all installed suspected cylinders and keep at a minimum safe distance of 5 – 10M from personnel and in a well-ventilated area.
- For cylinders awaiting installation:
  - Do not install.
  - Do not remove transport caps as these caps will prevent ejected parts from leaving the transport cap. There is still a danger of asphyxiation or frost bite from the discharged CO<sub>2</sub>, so these cylinders should be cordoned off and kept at a minimum safe distance of 5 – 10M from personnel and in a well-ventilated area.

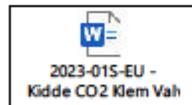
\* Minimum Recommended PPE – Hard hat, face shield, ear defenders, gloves. Please add any PPE you consider necessary based on your assessment of the situation.



#### Next Steps

1. Review your records to identify the location, quantity, and required action for the Potentially Affected Products you have received from Kidde Fire Protection.
2. Notify the affected end-customers of the Issue using the notification attached below within **2 weeks** of receiving this safety notice. Please keep records of these transmittals so you can report in the Acknowledgement form of completing this step.

Attachment →



Double click to open.

3. If Potentially Affected Units are owned by a customer or end-user on a sanctions list or operated in a restricted country (at the date of this notification: Cuba, Iran, North Korea, Syria, restricted regions of Ukraine: Crimea, Donetsk, Kherson, Luhansk, Zaporizhzhia), please contact Kidde Fire Protection +44 (0)1494 480 423 or [techsupport\\_suppression@carrier.com](mailto:techsupport_suppression@carrier.com) before sending any customer or end-user communication. Kidde products and services such as this remediation are subject to international trade rules, including restrictions to certain countries.
4. Complete the 'Reply to Us' questions below and provide status of performing the Required Actions for our mutual record keeping purposes.
5. The responsibility of contracting with an authorized Kidde Fire Protection distributor or service partner and ensuring that systems are serviced and inspected rests with the system owner.
6. Systems should be serviced, tested and remediated only by authorized Kidde Fire Protection distributors and partners.
7. If you need assistance to inspect, service or remediate your system, please contact Kidde Fire Protection for technical assistance and a quotation for service attendance. See contact details.



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**Questions or Concerns**

Thank you for your understanding. These measures cannot be conducted successfully without you. The customer service team in Kidde Fire Protection and of course your responsible Technical Services at +44 (0)1494 480 423 or [techsupport\\_suppression@carrier.com](mailto:techsupport_suppression@carrier.com) who will be glad to help you with any questions that may arise.

**REPLY TO US**

In order to ensure that mandatory field actions are understood and performed we require you to:

1. Fill in the information below and submit this document using the button below within **2 weeks** of this letter.
2. Revert back to Kidde Fire Protection upon completion of mandatory field actions.

**I hereby confirm that as a customer of Kidde Fire Protection**

<input type="checkbox"/>	I have received, read and understand the contents of this Safety Notice #2023-01S and have flowed down the Safety Notice to sales, design, purchasing, installation and service personnel to read the below carefully and take the required field actions.
<input type="checkbox"/>	I do not wish to participate in this Remediation Program and I do not require Kidde Fire Protection to provide me with the necessary configuration or replacement to keep my system line with safety standards. Please explain why:
<input type="checkbox"/>	I have communicated this Safety Notice to my potential affected end-customers, and to ensure that the required field actions are performed.

Full Name	Date	Signature

If you have any questions or concerns, please contact Technical Services at +44 (0)1494 480 423 or [techsupport\\_suppression@carrier.com](mailto:techsupport_suppression@carrier.com).



**Date:** 03/10/2023  
**To:** Distributors and End Users  
**From:** Mike Sandiford – Operations and Engineering Manager  
**Subject:** MK2 Klem Valve Guard + Lower Plate Field Installation Procedure  
**Reference:** #2023-01S Product Safety Notice – Kidde CO2 Klem Valve End Cap

In June, we communicated in Product Safety Notice #2023-01S a potential safety issue where the Klem Valve End Cap may fail causing property damage, injury or death. This procedure details how to fit the MK2 Klem Valve Guard to the CO2 Klem valve to mitigate the potential for the end cap to fail and release internal components by containing the failure. This is a temporary solution to allow customers to continue to use the CO2 Klem Valve suppression system while a permanent solution is being worked on. It is available from Kidde Fire Protection free of charge P/N 1-D9229-001, customers should place their orders through the normal channels. Once the guards are installed, please confirm completion back to Kidde Fire Protection. For DAS Klem valves please contact Kidde Fire Protection for alternative guarding.

See #2023-01S for more details on the Product Safety Notice - Kidde CO2 Klem Valve End Cap

If you have any questions or concerns, please contact Technical Support at +44 (0)1494 480423 or [techsupport\\_suppression@carrier.com](mailto:techsupport_suppression@carrier.com).

1. \* Minimum Recommended PPE – Hard hat, face shield, ear defenders, gloves. Please add any PPE you consider necessary based on your assessment of the situation.

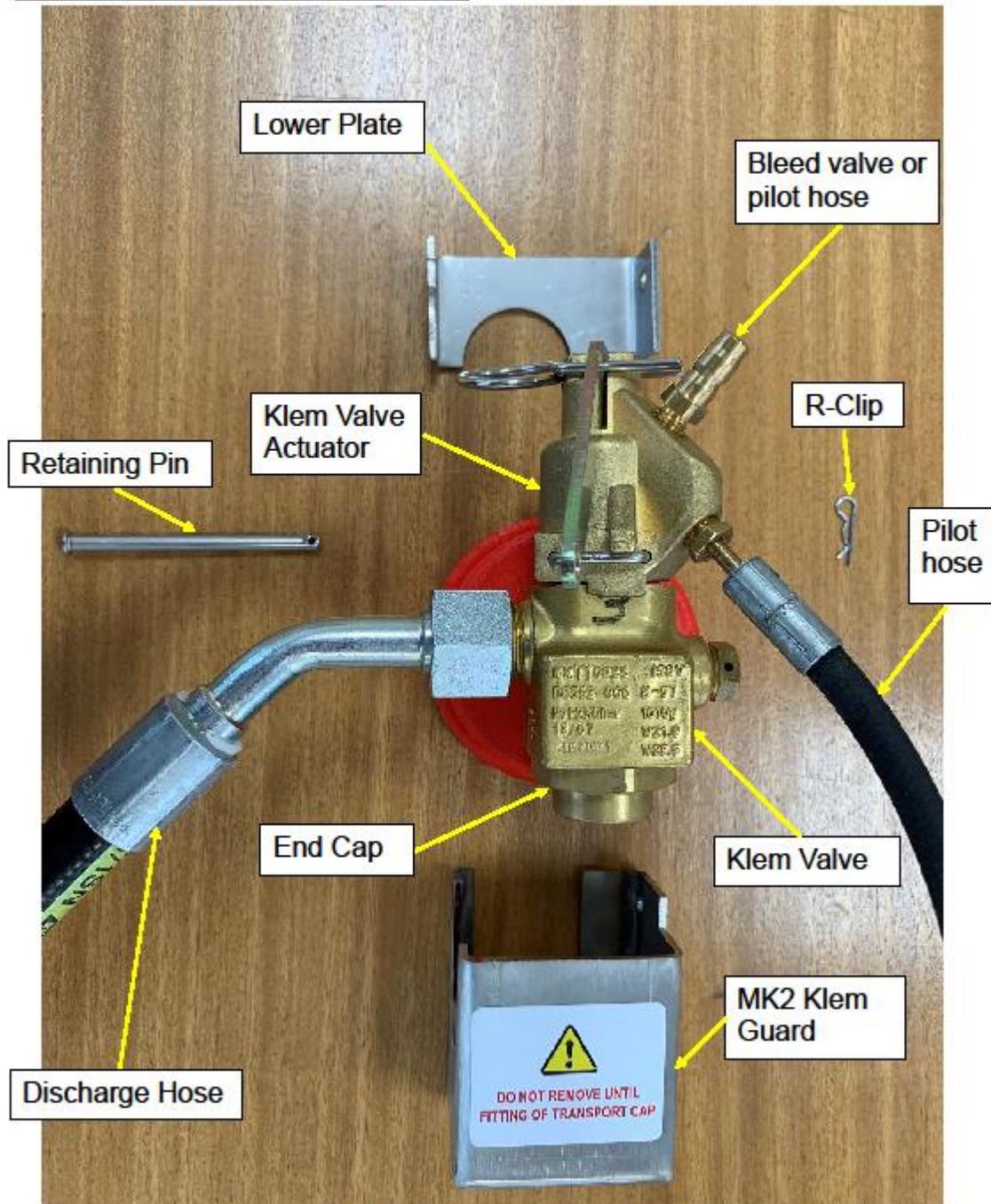


2. Ensure cylinder is secured before working on valve.
3. Electrically isolate system – place panel on manual mode, remove DIN plug on pilot cylinder(s)
4. Mechanically isolate system – remove pilot hose connection from pilot cylinder(s).

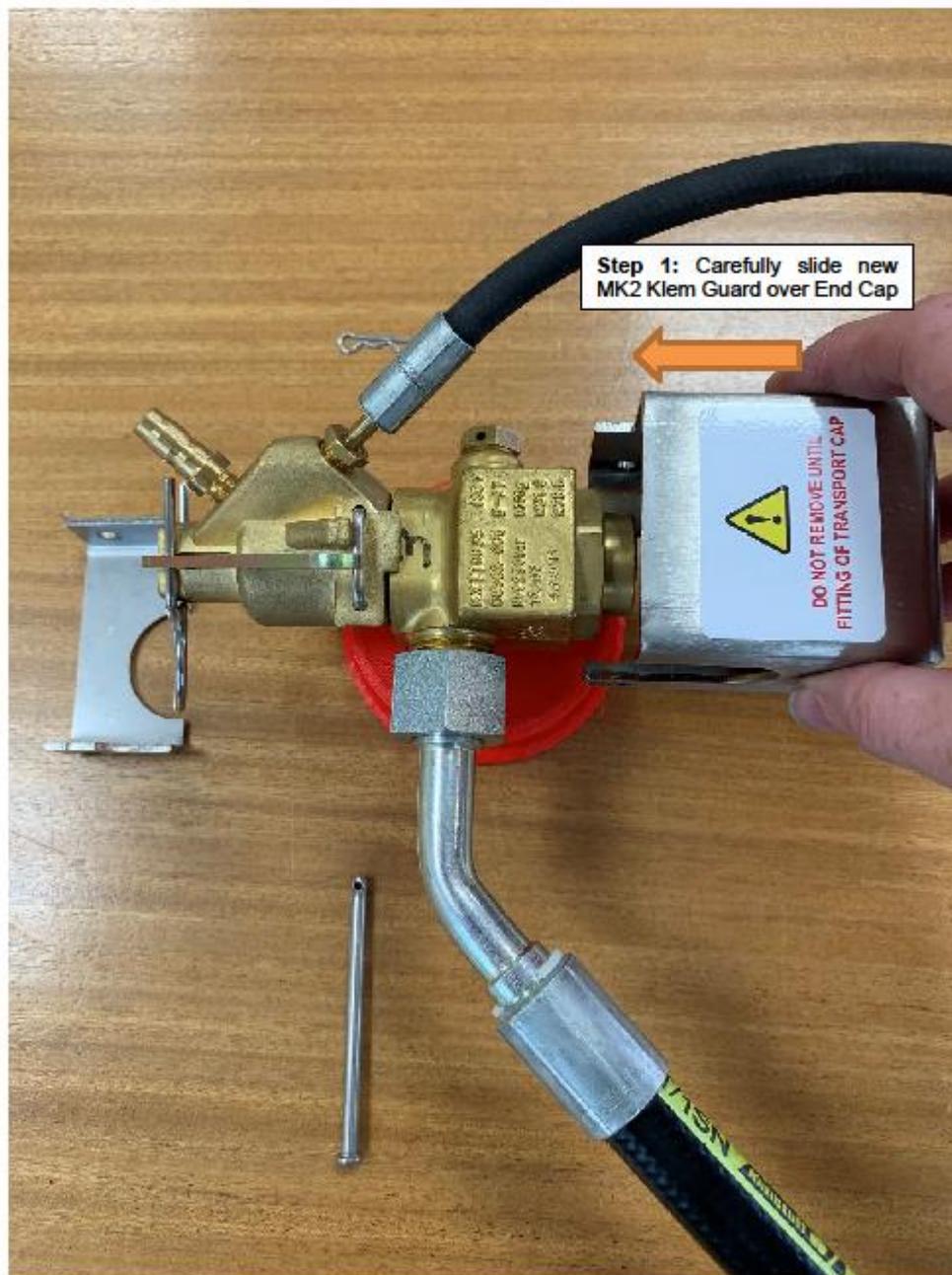
In conjunction with Photo 1, 2 & 3

5. **IMPORTANT:-** Work left to right on banks of cylinders so that the cylinder to your left has the Klem guard fitted so that you are protected from the end cap while you work on the next valve to your right. If working on a double banked system, fit the guard to the front cylinder first and then move to the back cylinder, again, always working left to right.
6. Assemble MK2 Klem Guard onto Klem valve as shown, guard is designed to slide over valve without removing discharge hose, pilot hose or actuator. Be careful to keep head and body away from end cap side of valve.
7. Slide lower plate underneath onto the guard aligning the pin holes.
8. Fit retaining pin to guard so that it retains the guard against the Klem valve body. Fit R-clip to retaining pin to secure it into position and prevent it falling out.
9. Reverse mechanical and electrical isolation to bring system back into service as per manual.

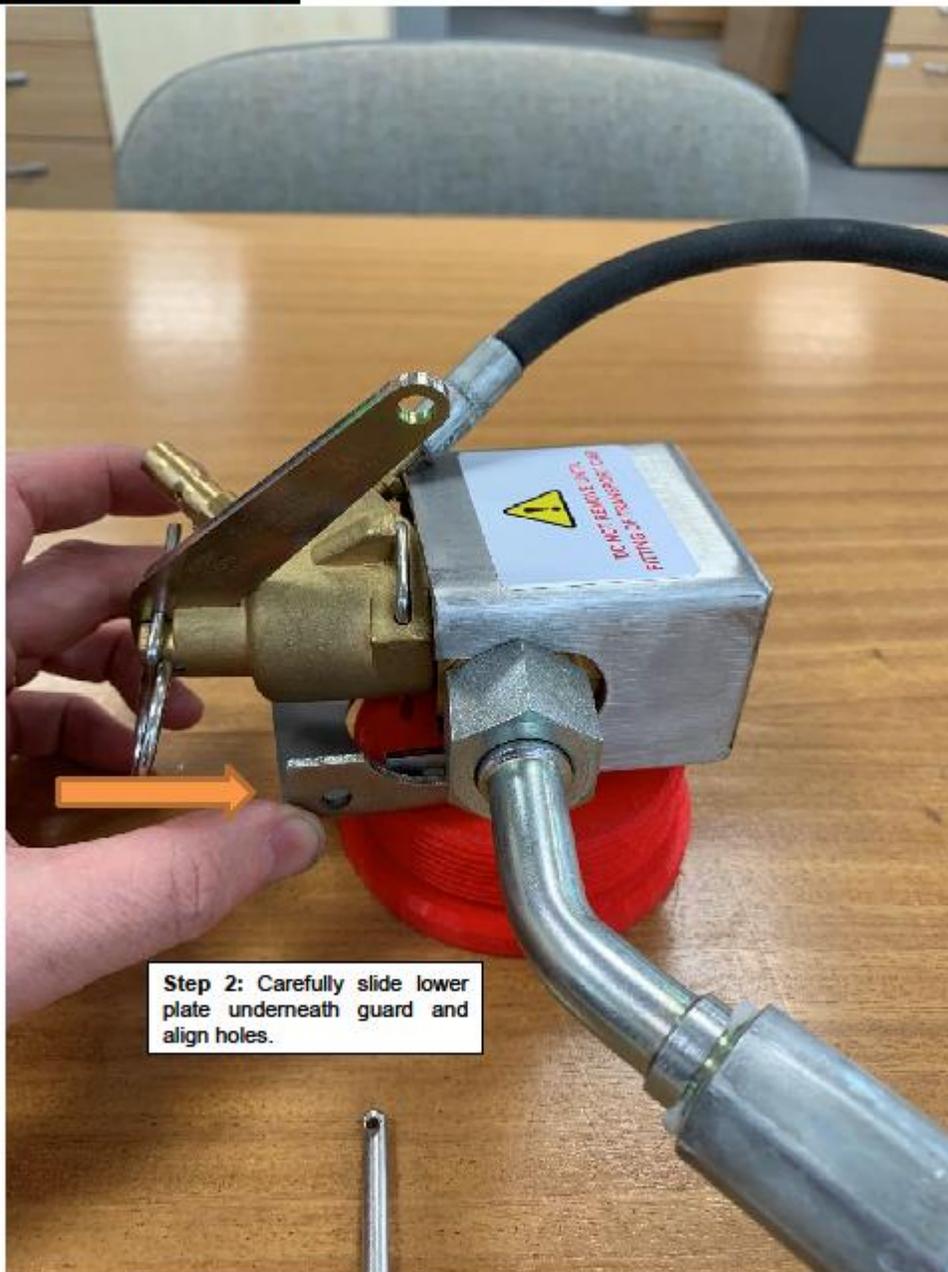
**Photo 1: MK2 Klem Valve Guard P/N 1-D9229-001**



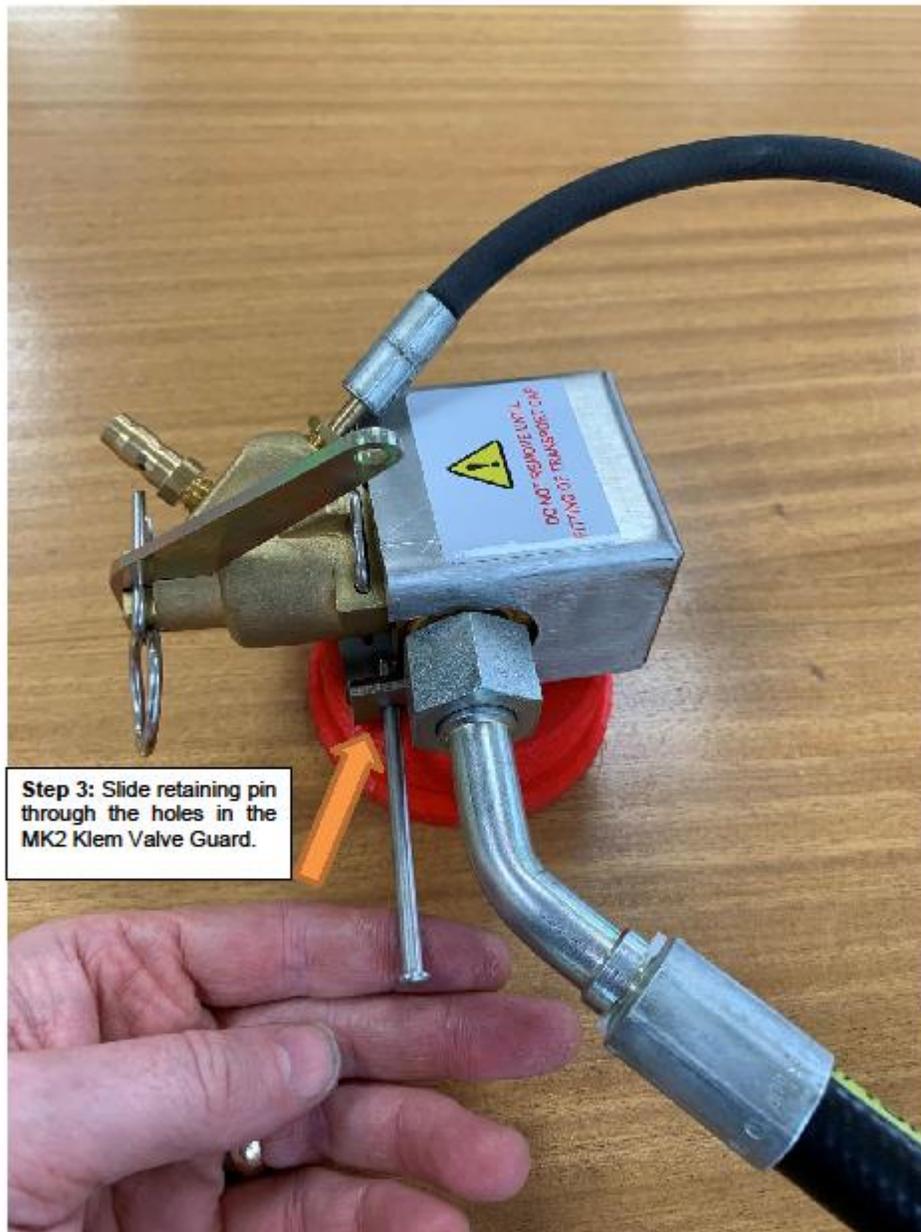
**Photo 2: Assemble the MK2 Klem Guard**



**Photo 3: Assemble the lower plate**



**Photo 4: Pin Installation**



**Step 3:** Slide retaining pin through the holes in the MK2 Klem Valve Guard.

**Photo 5: R-clip Installation**



**Photo 6: Final Installation**

