

Quick Guide - Emergency Tool

Replacing a membrane in a Keofitt W9 valve using the Emergency Tool

This quick guide provides information on how to use the Keofitt Emergency Tool for emergency repair situations (e.g. replacing a silicone or EPDM membrane) while the valve is in operation. This Emergency Tool is only suitable for Keofitt W9 valves with hose piece, equipped with either silicone or EPDM membrane and unique serial no.

The principle behind the Emergency Tool, is that the lower stem of the Emergency Tool acts as a temporary barrier between process line and sampling valve chamber while the valve head is being briefly removed for emergency repair or maintenance. Before use, it is advised to clean the Emergency Tool with alcohol or another appropriate detergent or disinfectant. The Emergency Tool is autoclavable.

It must be underlined that the need to use the Emergency Tool is exceptional and always a consequence of inappropriate maintenance of the Keofitt valve. It is therefore only to be applied in scenarios where the user has already deemed it necessary, acceptable and safe to briefly remove the valve head for repair or replacement during processing – and with significant product spillage and process exposure to the ambient as a consequence. Keofitt strictly recommend maintaining the valve between productions. Thus, the Emergency Tool is **ONLY** for emergency operations.

It is the responsibility of the user to get familiar with the Emergency Tool before maintaining a valve head “in production”. It is recommended to get familiar with the Emergency Tool and the procedures by e.g. dismantling a valve head from a valve out of production.

Keofitt disclaims any responsibility for any adverse consequences, damages or injuries resulting directly or indirectly from the user's decision to use the Emergency Tool. Improper operation of the Emergency Tool resulting in loss of product it be either wrong handling or product failure.

It is strongly recommended to familiarize yourself with this guide and the animated video (to be found on www.keofitt.com) before performing the operation. Advantageously two persons can help each other performing the operation.

1. Pull the handle back from the groove in the holder.
2. Turn it 90 degrees.



3. Let it rest on top of the groove of the holder.



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4. Mount the clean/sterile Emergency Tool into the inlet port.

Note: Be sure the quick coupling is correctly mounted on the hose piece, so the Emergency Tool will stay in its correct position during the operation.



5. Open the valve.
 - a. The valve chamber will be filled with product



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6. Partly detach the valve head, by using a Tommy bar (for further details, please refer to the w9 manual – www.keofitt.xxxxxx).

- a. Turn the hex nut anti clockwise until beginning of the thread becomes visible.

WARNING. IMPORTANT NOTE: From the point where the beginning of the thread becomes visible, only approximately a couple of 360 degrees turns are possible before totally unscrewing the valve head leading to full process opening into the ambient, which should be avoided at this point. At this point the valve chamber is filled with product, and some product will most likely penetrate between body and hex nut. Therefore, please take necessary precautions if handling hot or in other ways critical/dangerous products.



7. Release the handle on the Emergency Tool by turning it 90 degrees and slide into the groove of the holder.



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8. Gently push the handle of the Emergency Tool until bottom is reached
 - a. **NOTE:** If not possible to push the handle to the bottom, it is because the hex nut is not dismounted to the right extent. Turn the hex nut a bit more and try to push the Emergency Tool handle again. Continue this until succeeding in pushing the handle to the bottom of the groove. Remember to pay attention to 6.a.



9. Finally, give the Emergency Tool handle an extra firm push until a “click” is felt. This secures the Emergency Tool membrane is now in place in the valve seat.
 - a. **NOTE:** It may occur that the process will leak slightly, as the Emergency Tool membrane might not be totally leak proof, wherefore extra precautions should be taken if e.g. hot product or other “dangerous” product is in production.



10. To verify correct mounting of the Emergency Tool, dismount the quick coupling steel cap mounted on the outlet to visually inspect for leakage. If the amount of leakage is acceptable.
 - a. **NOTE:** If the amount of leakage is not acceptable, the Emergency Tool membrane most likely is not mounted correctly in the valve seat. Firmly push the Emergency Tool handle once more in order to place it in the valve seat.
 - b. A manual pressure on the Emergency Tool handle will help achieving the sealing effect.

11. Dismount the head completely and do the necessary maintenance



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12. Install the valve head in its “open” position. Make sure to only fasten the head as little as possible, still securing though, the head is firmly fixed to the valve body. This is done by turning the hex nut approximately 360 degrees or only until the valve body’s thread becomes invisible. By doing this, it will leave enough free space inside the valve body to allow for the Emergency Tool to pass the membrane when dismantling the Emergency Tool.



13. Remove the Emergency Tool membrane from the valve seat by pulling back the handle, turn it 90 degrees and place on top of the groove in the start position (add 3).
a. **NOTE:** The valve chamber is again under process pressure.



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14. Valve head is now assembled to the valve body by turning the Tommy bar until the thread ends.



15. Close the valve by turning the handle clockwise.
16. The valve head is now sealed into the process.



17. The Emergency Tool can now be dismantled.

