



Lochinvar Knight Boilers with SCALEBREAK-MP Instruction Manual

[Home](#) » [Lochinvar](#) » Lochinvar Knight Boilers with SCALEBREAK-MP Instruction Manual 

Contents

- [1 Lochinvar Knight Boilers with SCALEBREAK-MP](#)
- [2 Product Information](#)
- [3 Product Usage Instructions](#)
- [4 CLEANING INSTRUCTIONS](#)
- [5 PLEASE NOTE](#)
- [6 CONTACT](#)
- [7 Documents / Resources](#)
 - [7.1 References](#)

Lochinvar Knight Boilers with SCALEBREAK-MP



Product Information

The Lochinvar boiler requires regular cleaning with ScaleBreak-MP to remove water-formed deposits and maintain efficient operation. Limescale accumulations can decrease energy efficiency, but regular preventive maintenance cleanings will result in reduced gas consumption and improved performance.

Product Usage Instructions

1. Shut down the boiler and allow it to cool to ambient temperatures.
2. Close all valves and isolate the boiler.
3. Locate the two water valves on the back of your Knight boiler.
4. Connect a hose to the lower valve and run it to a drain.
5. Connect a hose to the upper valve and run it to a recirculation bucket on your pump system.
6. Add ScaleBreak-MP solution to the recirculation bucket, following the recommended volume for cleaning.
7. Check for any leaks in the system.
8. If there are no leaks, bleed off enough water equal to the volume of ScaleBreak-MP required for cleaning.
Backflush the boiler if necessary to remove any particulate.
9. If too much water is relieved, add back some water to complete the circulation loop.
10. Water-formed deposits may occupy volume, so additional water may need to be added during the cleaning

process as deposits dissolve.

11. Circulate the ScaleBreak-MP solution for the recommended timeframe indicated by the calculation tool provided.
12. During the cleaning, periodically test the effectiveness of ScaleBreak-MP by following the Testing ScaleBreak's Effectiveness procedure. Additional ScaleBreak-MP and circulation time may be needed for severe scaling.
13. Once the recommended circulation time is reached and the ScaleBreak-MP solution has completed its job, begin the flushing process.
14. If required, use ScaleBreak Neutralizer to elevate the pH of the solution to meet discharge limits. Follow the instructions provided in the ScaleBreak Neutralizer information sheet.
15. To flush the boiler, turn off the circulation pump and remove the return hose from the recirculation system, placing it in a drain.
16. Add a freshwater hose to the recirculation bucket on the pump system and turn the pump back on.
17. Continue running clean water through the boiler until the return water runs clear. This will also flush out the pump system.
18. As an additional flushing safeguard, use the lever on the GDS C-40 or C-92 pump system to reverse the flow and flush away any settled debris in the bottom of the boiler.
19. Open the bottom drain to ensure complete evacuation of all chemicals and water from the boiler.
20. Disconnect hoses, remove reducers and valves, and reconnect the water inlet and outlet.
21. The boiler can now be returned to service.

As a reminder, the Smart System within your Lochinvar boiler has a countdown clock. Depending on the water quality, you can set a descaling reminder to maintain high efficiencies.

If you have any questions, please contact Goodway Technologies:

- **Phone:** 1-800-333-7467
- **Address:** 420 West Avenue, Stamford, CT 06902-6384 U.S.A.
- **Phone:** 203-359-4708
- **Fax:** 203-359-9601
- **Email:** goodway@goodway.com.

CLEANING INSTRUCTIONS

1. Shut down the boiler and allow it to cool to ambient temperatures.
2. Close all valves and isolate the boiler.
3. Located on the back of your Knight boiler are two water ports, the water inlet and the water outlet. These two ports are where you will hook up the circulation pump system. See the diagram below.
4. Depending on which model you have, the ports range from 1"- 2-1/2" in diameter. To perform your chemical cleaning using our GDS C-40 or C-92 clean-in-place pump system, two reducers, two 3/4" nipples, and two 3/4" ball valves will be required to hook up your circulation hoses.
5. Equip each port with a reducer, nipple, and ball valve.
6. These valves can be closed to isolate the boiler should you need to shut your pump system down during the cleaning.
7. Attach your pump discharge to the inlet water port.

8. Attach your return hose to the outlet water port.
9. Fill your pump system with water, open your valves, turn your pump on, and perform a hydrostatic test. This action ensures the water heater is isolated and none of the ScaleBreak-MP will be needlessly lost.
10. Once you have determined you have no leaks you will need to bleed off enough water equal to the volume of ScaleBreak-MP required for the cleaning. You can backflush the boiler during this process and flush out any particulate. If you relieve too much water, you can add some back to complete your circulation loop.
11. Water-formed deposits will occupy volume, as a result, additional water may need to be added during the cleaning duration as deposits are dissolved.
12. Circulate the ScaleBreak-MP solution for the recommended time frame as indicated by our calculation tool.
13. During your ScaleBreak-MP cleaning you will want to make sure your solution remains active. For this step, please follow our "Testing ScaleBreak's Effectiveness" procedure. If the boiler you are cleaning has severe scaling, additional ScaleBreak-MP and circulation time may be needed.
14. Once you have reached the recommended circulation time and your ScaleBreak-MP solution has completed the job, you can begin your flushing process.
15. Though ScaleBreak-MP is a biodegradable solution, most facilities need to conform to pH discharge limits. ScaleBreak Neutralizer can be utilized to safely elevate your pH to meet your discharge limit so it can be flushed to the drain. Please follow the instructions for this process on the ScaleBreak Neutralizer information sheet.
16. To flush your boiler, turn off your circulation pump, remove the return hose from your recirculation system, and put it in a drain.
17. Add a freshwater hose to your recirculation bucket on your pump system and turn the pump back on.
18. Continue running clean water through the boiler until the return water is running clear. This action will also flush out your pump system.
19. As an added flushing safeguard, you can reverse the flow with the lever on the GDS C-40 or C-92 pump system. This action will flush away any debris that may have settled out in the bottom of the boiler.
20. Open the bottom drain to ensure all chemical and water has been evacuated from the boiler.
21. Disconnect your hoses, remove the reducers, valves reconnect your water inlet and outlet.
22. Your boiler can now be returned to service. As a helpful reminder, the Smart System within your Lochinvar boiler has a countdown clock. Depending on the water quality feeding the boiler, you can set a descaling reminder so efficiencies remain high.

PLEASE NOTE

- Follow all local regulations for discharge.
- Follow all plant personal protective equipment guidelines as determined by your health & safety team.
- ScaleBreak formulas have very minimal corrosion rates, however, the application of ScaleBreak may reveal pre-existing under-deposit corrosion (UD). This type of corrosion can present itself in the form of pitting, pinholes or similar types of damage. Please contact Goodway Technologies with any questions.



Keeping your Lochinvar boiler clean with ScaleBreak-MP from water-formed deposits is essential to efficient operation. Limescale accumulations are an energy thief and regular preventive maintenance cleanings of your boiler will produce an ROI in reduced gas consumption through clean efficient operation. **CLEANING INSTRUCTIONS FOR LOCHINVAR® KNIGHT® BOILERS WITH SCALEBREAK®-MP** When descaling a Lochinvar® Knight® boiler you will first need to visit our Lochinvar online calculation tool at www.goodway.com/lochinvar. Here you will be able to obtain the proper amount of ScaleBreak-MP and circulation time.

CONTACT

- 420 West Avenue, Stamford,
- CT 06902-6384 U.S.A.
- 203-359-4708
- **Fax:** 203-359-9601
- 1-800-333-7467
- goodway@goodway.com.
- Goodway is not responsible for typographical errors in product descriptions or pricing. Product availability and features may change. Actual products may differ slightly in appearance to the images shown. Please contact Goodway with any questions prior to purchase.

© Crossford International (2023) All Rights Reserved.

Documents / Resources

	<p>Lochinvar Knight Boilers with SCALEBREAK-MP [pdf] Instruction Manual</p> <p>Knight Boilers with SCALEBREAK-MP, Knight Boilers, SCALEBREAK-MP, Boilers, Knight</p>
---	---

References

- [Goodway® Descaling Solutions for Lochinvar® Boilers and Hot Water Heaters | Goodway](#)