

Take a proactive approach to loss prevention!

Preparing and starting a boiler before the heating season



If you want to keep your building warm and safe during the winter months, a little preparation goes a long way. Don't wait for the cold weather before you check that your boiler is in good working order. This will not only ensure that the boiler starts up properly when the time comes, it will also reduce the risk of a heating system failure later on, in the middle of winter.

You can use this tip sheet as a guide for starting up a heating boiler after an extended downtime. You'll still need to refer to the operating manual to review any particular start-up procedures recommended by the manufacturer. These manuals are normally available on the manufacturer's website if you don't have a paper copy.

Prior to the heating season

Any heat source can be a fire hazard, especially around a boiler where there are high temperatures. That's why it is important to take certain precautions to reduce hazards to a minimum. As a general good maintenance practice, always maintain the boiler room in clean condition, free of debris and unrelated objects, to ensure proper fuel combustion and adequate air circulation.

Another good practice is to make sure the boiler itself is properly maintained. This is not just a safety precaution; it makes the boiler more efficient and economical. We recommend having an internal inspection done during the summer shut-down period, along with a thorough cleaning. The service professional doing the inspection will clean the burners and remove all soot from the flue pipe, and may also be able to measure pollutant emissions. Besides assessing the boiler's overall condition, they will check for any defects and provide advice on possible improvements that would make your heating system more efficient while ensuring safe operation. The

inspector will also issue a current authorized inspection certificate for the boiler, if required.

The low-water cut-off and feed water controls should be disassembled and verified for worn components and properly reassembled and tested prior to immediate service requirements.

Prior to start-up

As the weather cools down, it's time to get the boiler working again. Before starting it, there are some things to check, following the manufacturer's recommendations. Depending on the type of boiler, different settings may need to be adjusted (water level, pressure, ventilation, pipes, etc.) to maximize safety. Things to do include:

- Check the entire system over and review operational procedures.
- Ensure an adequate boiler water treatment program is in place with a reputable firm, in order to reduce scale and corrosion and ensure the quality of the water circulating in the heating system. Make sure all treatment products are available and that this equipment is operational.
- Have all safety controls and fuel burning equipment verified by a qualified service technician, who should also perform leak tests on the fuel line.
- Make sure the boiler is started with a correct water level.

- All operating and limit controls, electronic interlocks, and water gauges should be verified for proper operational concerns.
- Verify fan belts; lubricate related mechanical equipment such as pumps.
- Ensure that ventilation and air openings and duct louvers are clear of foreign objects.
- Verify all related piping for leaks, and drain radiators of air.
- On start-up, ensure manual fuel valves are open.
- Allow thermal expansion to occur, so as not to thermally shock the boiler and related piping. Fire up at a reduced rate where possible. Visually check all parameters of the system.

One final point about industrial boilers: the heating surfaces on the fireside of the boiler may be subject to different regulatory requirements from various levels of government. It is important to obtain full information on the legislation that applies to your location.

For normal start-up, if you make sure all the proper firing-up sequences are working properly, including closed interlocks, purge and ignition cycles, you'll be giving yourself the best chance for a warm and trouble-free winter .

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