

GOOD PRACTICES IN SME

Chemical flushing of the central heating installation



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How to ensure the correct operation of central heating installations?

During operation, impurities collect in the pipes of the central heating installation. After several years of use the collected precipitate causes increased flow resistance and therefore lowers the energy efficiency of the entire installation. In this situation the entire installation should be chemically flushed to remove all impurities and precipitates.



Pic. 1 Zagórski systemy grzewcze: Central heating installation

How to properly flush a central heating installation?

Correctly flushing an installation should be done in 4 steps:

1. Flushing with tap water

First, turn off the boiler and drain all the water from the entire installation. Then, close all shut-off valves at the boiler, radiators and distributors. Flushing is done in sections, that is we open the valves in one radiator or section (preferably starting from the top floor) and flush the section with tap water for a couple of minutes. (until the water leaving the installation is clear). After finishing close the valves in the section and repeat for the next section. At the very end do the same for the boiler. If the installation cannot be separated into sections, flush the entire installation. On the other hand, if the installation is very dirty, it is recommended to disassemble the circulation pump and connecting the supply directly for a short time. If this is impossible or difficult, ensure proper pump operation when the installation is turned back on.

2. Cleaning with a cleaning agent

First identify a space which can be shut off using two valves (e.g. radiator or boiler). Close the valves and drain the water from the shut-off element. Add in the cleaning agent. This can also be done by opening the airing valve and pouring the cleaning agent through a funnel

Fill the installation back up with water and turn it on for about 2 hours (maintain a temperature of 60 – 70 °C). The cleaning agent should remain in the installation for 2 to 14 days under normal load. If the flushing takes place in the summer months (when the installation is not used) the cleaning agent should be left in for about 4 weeks and the installation turned on every 2-3 days for about half an hour.

Because after cleaning the installation the water has a low cleaning agent concentration and does not show any harmful properties, after the cleaning process drain the water directly into the sewage system.

When flushing particularly old installations care should be given to all places in which the installation could lose air-tightness due to precipitate deposits being washed out (valves and screws are particularly vulnerable).

3. Flushing with tap water

Repeat step 1. After finishing leave the installation half-full.

4. Preservation using a protective agent

The beginning follows the same steps as flushing the installation with tap water. Close all valves, drain the water, add in the protective agent, fill-up with water and turn the installation on. In contrast to the cleaning agent the protective agent remains in the installation. The effect lasts about 3 years. If the installation experiences leakage, the protective agent should be topped-up with the required concentration.

Source: KAPE