



Fact sheet: What is hydraulic balancing

Hydraulic balancing is a simple and inexpensive method that will save a lot of energy and costs when heating your home.

What happens when a hydraulic balancing is carried out?

Hydraulic balancing is based on a simple principle: A specialist firm adjusts the heating system to ensure that the heat is distributed evenly throughout the home. This is done by first determining the actual amount of heat needed for each room, taking into account the energetic quality of the building, such as the windows, for example, and how the outside walls are insulated. The next step is to calculate the quantity of heating water required and the correct pump capacity. Based on these results, the thermostatic valves are then set accordingly. This ensures that each radiator receives the amount of heat needed to reach the desired room temperature.

How long does it take to perform a hydraulic balancing?

A specialist firm will need about an hour and a half to collect all the heating data for a single-family house; the subsequent calculation will take about four hours. And to obtain the optimum setting, you should allow another five minutes for each heating element.

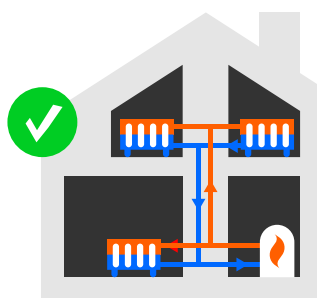
And what are the costs?

The precise costs for performing a hydraulic balancing depend on the design of the heating system. For a single-family house, some 650 euros (2020 prices) can be expected. The investment is worthwhile and will pay for itself over time in view of the considerable savings potential and rising energy prices.

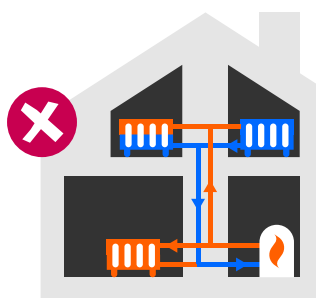
Funding is provided for hydraulic balancing via the “Federal funding for efficient buildings - individual measures (BEG EM)” programme as it is deemed to be an optimisation of an existing heating system. N.B.: The application for funding must be submitted before the contract for performing the optimisation measures has been signed. All details about the funding programme can be found [here](#).

Who can perform a hydraulic balancing?

The work should always be carried out by a firm of specialists, such as installation mechanics for sanitary, heating and air-conditioning technology, gas engineers and plumbers, in addition to HVAC engineers. Tenants are best advised to speak to their property management agency or the owner.



In a well-adjusted heating system, the pump delivers hot water evenly to all rooms, while cooled water flows back to the boiler.



In a poorly adjusted heating system, the flow of hot water does not correspond to the output of the radiators. As a result, some radiators receive a lot of hot water, while others receive too little and do not warm up properly.

When is hydraulic balancing worthwhile for your heating system?

It makes sense to carry out a hydraulic balancing if you can't adjust your heating as you'd like and rooms don't heat up properly. Noises are also a good sign that the heating system needs to be balanced: hissing, gurgling or whistling sounds indicate that air is trapped in the system. Another typical sign: some radiators will actually glow, even though they are only set to level 1. Others don't heat up properly, even though they are turned all the way up.