

Organs in unheated rooms

We all know famous historical instruments that have survived for centuries. Not infrequently, they stand in unheatable Gothic or Baroque churches, where in extreme cases even the zero degree limit is reached in winter - and the organs still function flawlessly today. It is much more likely that people find the cold problematic...

If at the moment, due to political events, the temperature in the church is lowered to about 5° in winter by regional church or diocesan decree, this is not at all harmful for the organ. It is important for the organ that the temperature and humidity remain constant; and if changes have to be made to these parameters, then they should be made slowly and evenly.

In detail, the following must be observed:

- **Out of tune stops**

At a room temperature of around 5°, clear detunings will be heard, since the clean tuning of the organ is usually set to 18°, an average value which is usually exceeded in summer and not reached in winter. Re-tuning, especially of the reed stops in the cold season (the labial stops should rather be left untouched) should then be adjusted to the room temperature during services or events, not to the cold room. Tongue tuning is rather unproblematic and can be carried out by an experienced organist; we will be happy to provide assistance and instruction at the next maintenance appointment.

- **Humidity**

A change in room temperature is also associated with a change in humidity. Cold air can absorb less water vapour. It is therefore important to keep an eye on the hygrometer as well as the thermometer: The humidity should not drop below 40%, but also not rise above 70%.

- **Allow time for heating and cooling**

When changing the room temperature (heating up / cooling down), the time factor plays a major role: rapid heating up and cooling down puts the wood under stress - the wood swells or contracts again. To avoid cracks, this heating and cooling process should be done carefully: The organ must "go along" evenly.

Rule of thumb: the temperature change should be no more than 1° per hour - during heating and also during cooling. Example: If a church with a temperature of 6° is to have a temperature of approx. 13° at a service at 11 o'clock, heating must begin at 4 o'clock in the morning. In the case of large organs, it takes even longer for the careful change in temperature to reach the back of the organ or the swell boxes, so it is better to start heating slowly on the evening before a service.

- **Ventilation**

When heated air (for example after a service) with about 50% humidity cools down on cold surfaces (e.g. on the back wall of the church behind the organ, in the rear part of the organ), condensation forms there. If there is no circulating air in these areas (which could dry the moisture), then this can be a prerequisite for mould growth.

Advice: Circulate air or ventilate even in places that are not easily accessible.

We would also like to take this opportunity to point out that, with regard to mould growth, spring and summer tend to be the problematic seasons, such as when you quickly warm up the still cold churches and open the doors wide for the warm spring air to flow in. There should be even an automated ventilation throughout the year.

On the subject of mould growth in organs, we have our own leaflet.

- **Heating for the organist**

Occasionally offered heating mats, which are placed under the manual keys, can be used in winter (here it is a matter of easily adjusting the manual keys to the finger temperature). However, heating mats under the pedal or heating walls that can be placed next to or at the back of the organist are more recommended.