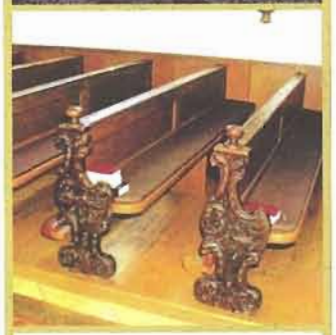
Over 10,000 church seats are already equipped with church seat cushion heating

In 1997, Martin Sandler installed his first EFG church seat cushion heating prototype in the Church of St. Stephen in Kleinkemnat." The exceptionally positive reaction of churchgoers and experts on the protection of historical monuments, as well as extremely low operating costs, piqued the interest of other church parishes.

At the end of 2005, the company EFG-Energy for Buildings began mass production of its **patented church seat cushion heating,** whose advantages are being appreciated from Gdansk to Lisbon, from Transylvania to Oslo, and also in the Koln Cathedral. We will be glad to send you a list of references upon request.



Church seat cushion heating in the parish church of St. Stephan in Kaufbeuren-Kleinkemnat since 1997 with 87 heated seats:

- **Pleasant heat, optimum comfort when seated**
- **No stresses to the building**
- **Annual heating costs, including meter fee, are about 30 EUR (0.60 EUR per mass)**

Heating takes place only where someone is sitting. In this church, the power cables to the pews run in the wooden trim on the right. The insulation transformer under the pew is invisible to the churchgoer.

The minister and ministrants are also taken care of, because the cushions on the gallery pews can also be heated.

"Those involved in the protection of historical monuments love this method of church heating, as the church shell is untouched by heat."
Dr. Horst Schuh, structural engineer and expert on old churches, Munich

Information service

Inform yourself on the relationship between heat and humidity. Ask for our 20 page Church Heating guide-lines risk-free.

Estimate service

If you would like to know how much seat cushion heating for our church would cost, simply enter the dimensions of your pew cushions to be heated in the form below, and mail or fax it to us. We will provide you with an estimate free of charge or obligations, including

expected electricity costs.

Number of Pews	Pew width in cm	Pew depth in cm

Church: _____

Contact: _____

Address: _____

City: _____ Province: _____ Post Code _____

Tel: (___ ___ ___) ___ ___ ___ - ___ ___ ___ ___

Fax: (___ ___ ___) ___ ___ ___ - ___ ___ ___ ___

☐ ***Please send me a no-risk free copy of Church Heating guidelines***

Energy for Buildings
Church heating technology
from Martin Sandler

HOUSTON ©
LTÉE.

Houston Holdings Ltd.
5764, av. Monkland, Suite 35,
Montréal (Québec) H4A 1E9
OR: 400, Ovila Gagné,
Lachine (Québec) H8R 0B2

T: 514.484.2614
C: 514.823.2440
F: 514.484.6798
houstonholdingsltd@yahoo.ca

www.inovativethermalsolutions.com

Church Seat Cushion Heating

Heating churchgoers not churches

EFG Church Heating

Pleasant warmth
For churchgoers, ministers and clerical assistants

Exceptionally **low energy consumption**

No damage to church structure and contents

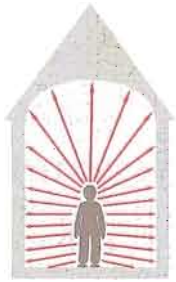
No preheat times

Energy for Buildings
Church heating technology from Martin Sandler

Churches weren't built to be heated

Heating a church is many respects a doubtful proposition : for on there is no thermal insulation, for another I is often used only for a few hours a week.

In winter, most churches cool down completely. But it is their ice-cold walls that have the greatest effect on churchgoers. They raise cold by literally absorbing heat radiated by the churchgoers body, more than he/she can momentarily create due to insufficient movement

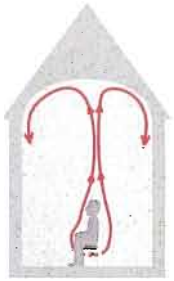


A lack of thermal balance:
One begins to feel cold, uncomfortable, and even fall ill.

Many church heating systems heat the church around the churchgoer

Most church heating systems produce warm air, which however quickly rises, and so despite high energy costs churchgoers constantly complain that they are cold. In addition, the rising air carries along with it fine dust, ashes and moisture, and distributes it uniformly throughout the church and onto its contents.

In the meantime, moisture condenses on the coldest parts of the structure and begins to exert its negative effects.



- Structural damage
- Negative effects on art objects, plaster and frescoes
- Contamination of walls, ceilings and altars
- Stresses on church organs

Enormously high heating costs

Heat only what is really needed

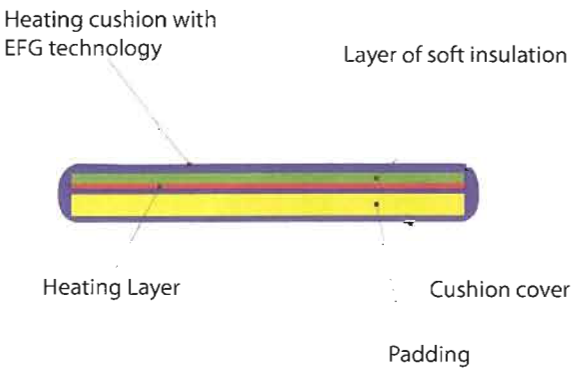
Church pew seat cushion heating

Patented EFG church pew cushion heating solves this problem in a simple and energy-efficient manner. The churchgoer is supplied with the necessary heat through direct contact with gently heated seat cushions, pleasantly and without losses to the environment, similarly to a heated car seat. Thanks to special technology, heating takes place only where someone is actually sitting.

No more freezing, and even those that in the past had to avoid cold churches due to health reasons can now once again attend services.

How church pew cushion heating works

- At first, the heat remains trapped in the cushion



- When a weight is applied to the cushion, the soft insulation layer is compressed, and heating energy begins to warm the person sitting on it.

Properties of EFG church seat cushion heating

- **Warm cushions** in a cold church
- Very **short warm-up times** of between 2-3 minutes
- Heat only where someone is sitting
- **Low power consumption,** low operating costs
- **No warm air circulation**
- **No danger of structural damage**
- No stresses on church organs
- **No damage to valuable art objects**
- **No churning up of dust** and contamination
- Uses safe low voltage - **24V**
- Heat output can be regulated at several levels
- Simple and **inexpensive** installation
- Can be installed in several stages
- Individually adjustable heating

Pleasant warmth - low energy consumption

Heating which can be adjusted in several steps, has a maximum per-seat (50cm wide) output of 32W. During normal operation (a service where sitting and standing alternate) approximately 15W is used per seat. For events where attendees are constantly seating. Heat output can even decrease to 10W per seat.

Added savings
Added savings are achieved via special cushion design. A thin layer of insulated fabric above the heating layer limits the dissipation of heat when not being sat on . Once someone sits on the cushion, the layer is compressed and heat can be transferred from the heating layer.

Safety first
For reasons of safety, church seat cushion heating has several thermal fuses for each cushion, and uses safe low voltage (24 V AC)

Even if the cushion is damaged with a sharp metal object, the person that caused it (e.g. a child playing with a pin etc.) is not at risk.

Available dimensions
Heated seat cushions are available in widths from 0.4 to 4m. Cushion depths is from 25 to 55 cm, with a thickness of about 30 mm.

High-quality seat covers in ten colours each cushion has a zipper on its bottom side, so the cushion cover can be removed and washed if needed. Customization upon request.