Fireplace

A fireplace at home can create a cozy ambiance, especially during the cold months, in addition it can also provide some heat. What are aspects to be considered when choosing a fireplace? First of all, the fireplace must be properly installed and must comply with fire safety and technical standards. Therefopre the installation definitely must be done by a good technician. Then the fireplace will not have problems with smoke and will serve you well. It needs to be kept in mind that the fireplace produces heat but also causes a heat loss from the room. Heat is lost from the room together with the warm air escaping through the chimney at the time, while wood logs are burning.

What type of fireplace to choose?

Depending on the desired application, you need to choose if a fireplace is only a decorative element of the interior, or it has to provide also the heating function. Accordingly, the technical construction of a fireplace and installation costs will be different. It has to be kept in mind that most often a fire place is not a used as the main heating source for a building.

If the fireplace is ment to be only a nice acessory of the interior, then it will radiate the heat only during the combustion process and will quickly cool down after burning of wood logs is completed. Such type of fireplace is not suitable for house heating. If it is desired that the fireplace heats the room for a longer time, a fireplace with a heat storage capability has to be chosen. This is achieved by appropriate heat accumulating materials that are capable to provide heat to the room from two till 24 hours after the flame goes out.

To provide heating for several room, it is possible to install a heat exchanger (hot air collector) above the firebox and to connect it with thermally insulated pipes through which warm air is drained to other rooms of the building. A greater efficiency can be achieved by installing a heat-resistant fan for forced air circulation. Installation of such system must be carried out before finishing works in the dwelling.

Any fuel burning process requires oxygen taht is present in the air. If the air is taken from inside of the premises, the heated air is lost by "disappearing" through the chimney. Cold outdoor air enters the room instead. Thus it is better to choose a fireplace with outside air intake – the oxygen needed for combustion will be supplied, but the heat will not be lost from the room. Fireplaces with outside air intake and heating systems are significantly more expensive, but allows you to heat your home and save the fuel of the main heating system in your house.



What is the appropriate fuel for a

The firewood we put in the fireplace must be of a good quality and well dried (moisture less than 20%). If wood is "whistling" when burning, does not burn well, the front glass of the firebox quickly gets foggy and soots, it means that the wood is too wet. This significantly lowers the heat output of the furnace.

It should be noted that burning of low quality (wet or rotted), very resinous wood creates a lot of smoke and flammable soot in the chimney. The fire safety lowers and the chimney shall be cleaned more frequently. High quality woodfrom deciduous trees e.g., aspen, is better than coniferous wood.

There are fireplaces specially designed for pellet burning. They allow enjoying longer the warmth without replenishment of fuel. There are also fireplaces that do not require a chimney, because gas or alcohol-based fuel liquid is used for running the fireplace.

Pollution prevention!

Neither painted or varnished wood nor municipal waste, including plastic bags, drinks cartons, PET bottles and other plastic products should not be burned in a fire place or a stove. When burning a plastic at a temperature around 300°C (exactly such temperature is reached in the furnace of the firepalce) one of the most dangerous substances known to mankind – dioxins are created. This highly toxic chemical does not not only pollute the house and the environment, but also penetrates into the human and animal bodies, leading to tumor formation.



This material has been prepared within the frame of project "Strengthening co-operation and experience exchange oj NGOs to promote energy smart living" financially supported by the Nordic Council of Ministers.