

# Competent heat management.



## MES – Modular Energy-System

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supplies heat to measure

Control and system technology for perfect  
heat generation and distribution.



# Perfect heat management from your living room.

## The intelligent systematic control.

A heating system is only as good as its control enables it to be. This is why WINDHAGER ZENTRAL-HEIZUNG developed its Modular Energy System MES, an intelligent control system that meets the most demanding requirements while at the same time offering many other advantages such as.

- versatile performance – easy operation
- the right amount of heat at the right time
- reduced heating costs
- a „well-controlled interaction“ even in complex systems composed of several heat generators or heating circuits
- absolute operational safety from the very beginning

### Modular:

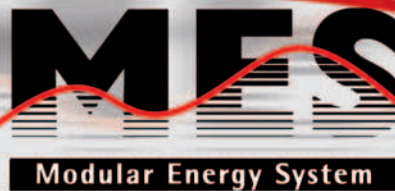
The modular structure of the user module, control module and distribution module provides customized heating solutions for every need. In addition, it allows your heating system to be easily upgraded in any manner.

### Energy:

MES addresses both economic and ecologic aspects, i.e. a minimum of energy usage producing a minimum of emissions. MES always precisely adjusts to the amount of heat actually required and only draws the energy currently needed from the heat generator.

### System:

The approved system of hydraulic and control components ensures absolute operational safety from the very beginning. And it helps save money when purchasing and installing a heating system.





## Versatile performance – easy operation.

Through MES you have the entire heating system under control. All inquiries and setting modifications (heating hours, etc. ) can be conveniently carried out from your living area. Whether to opt for the analog or the digital version is nothing but a question of individual preference with this new technology. Both options offer all the comfort one would expect from a control system designed for the future.



### Digital MES user module

- digital display for temperature, operating mode and time
- remote inquiry of all important temperatures
- convenient pre-setting of the program for the time you are on holidays
- choice of 8 pre-set programs for room and water heating



### Analog MES user module

- convenient operating by two control knobs for temperature and operating mode
- easy setting of a weekly program for room and water heating
- easy-to-read display through an analog clock with hands
- silent and maintenance-free analog clock



# The right amount of heat at the right time.

MES governs heat generation and distribution in the heating system to your individual requirements. Once the setting is adjusted, it will always supply the exact amount of heat you need: for comfortable warmth in the morning and evening, and a slightly lower temperature through the economy mode while you are out during the day. If you are gone for a longer period, for example during your winter vacation, the MES minimum heating mode ensures frost protection. MES takes over your personal heat management all on its own.



In its timeless design, the MES user module fits in any living area. In our example, heat control is carried out from the living room.

# MES cuts heating costs.

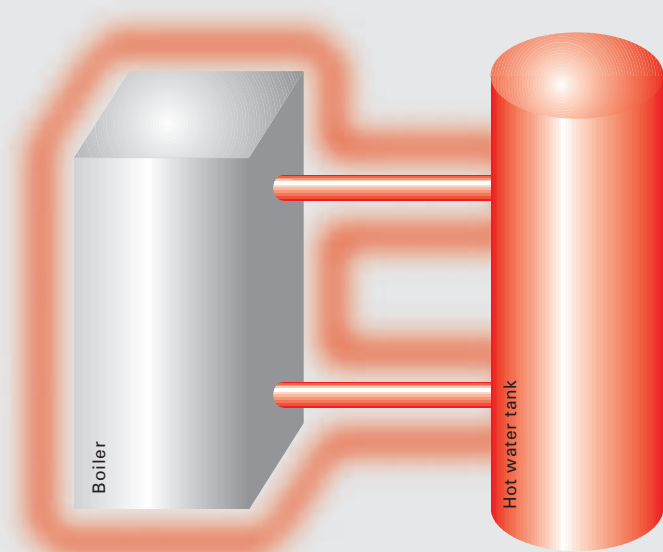
It gets the optimum out of every heating system.

MES always governs heat generation strictly to demand and is the interface between heat generation and heat distribution. MES makes sure that the energy required is always drawn from the heat generator which is able to generate heat in the most inexpensive way (e.g. solar). Thus it guarantees minimum energy usage and low emission, i.e. it helps save money and avoids strain on the environment. With more complex heating systems, energy efficiency can even save you up to 30% on your fuel-burning bills.

## Savings thanks to MES, based on an example for water heating.

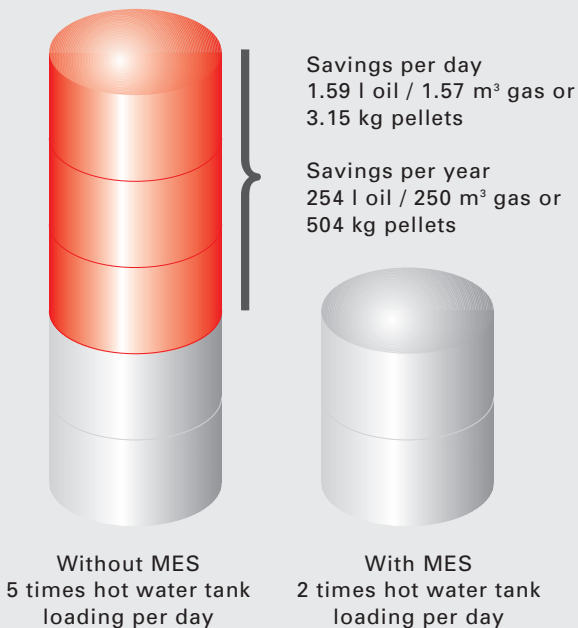
A boiler with a hot water system connected to it represents a relatively simple heating system. But even in this case MES can cut heating costs by up to 13%. How? It provides hot water only when you actually need it. The boiler heats up less frequently, which saves energy.

### Heat losses

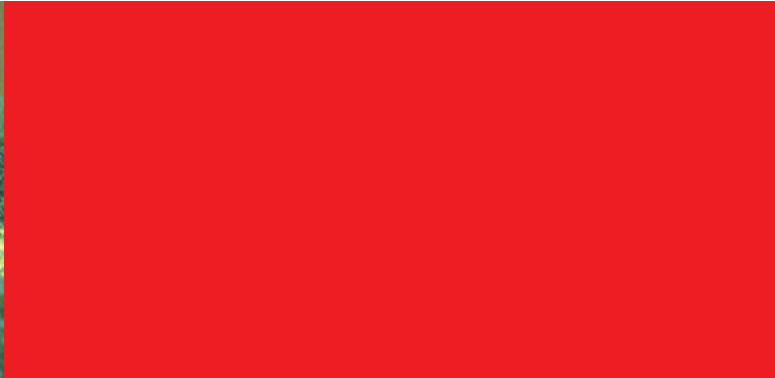


Each time recharging the hot water tank, heat gets lost in the heating circuit. MES reduces these losses to a minimum.

For example, a 150 m<sup>2</sup> large home, with an average annual usage of 2,000 l of oil, 2,000m<sup>3</sup> of gas or 4,000 kg of pellets results in the following:







## MES maximizes overall system efficiency.

Each heat generator in a heating system (boiler, solar panels, accumulator tank, etc.) has its own efficiency (e.g. boiler efficiency). It tells us which percentage of energy stored in the fuel is fed into the system. But what's even more important is the efficiency of the entire heating system (overall system efficiency). It is precisely at this point where MES shows its effectiveness. Because only proper heat distribution, optimized to the actual need, and the selection of the most economical heat generator – as carried out by MES – can maximize overall system efficiency and cut heating costs considerably.



There are plenty of things more pleasant to spend your money on than heating: e.g. a vacation, your hobby, home furniture. And MES helps you afford this by saving real money.

# The flexible solution for the future.

## Controlled interaction of several heat generators.

Like the captain of a football team, MES ensures controlled interaction. All heat sources (boiler, solar panels, accumulator tank etc.) are continuously coordinated and optimized in terms of performance and operating times.

## Absolute operational safety.

Our systems are tested according to the most stringent guidelines, and our components are carefully tuned to each other (heat generation, heat management and heat distribution) to guarantee absolute operational safety from the very beginning.

## MES allows for growth at all times.

MES guarantees efficient operation even if the system is upgraded and retrofitted with other heat sources (a second boiler, solar panels, etc.) and further heating circuits (radiators, hot water tank, etc.) at a later time.



The modular structure of MES is comparable to a construction kit system where new components can be added at all times.

Overview of MES components:

**MES – user module**

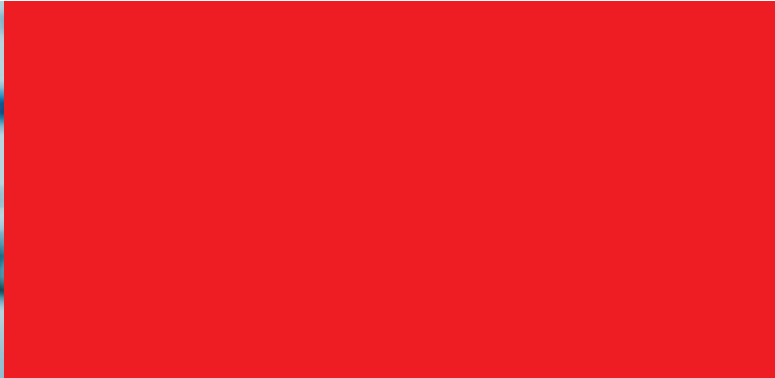
**MES – heating circuit module**

**MES – heat distribution module**

**MES – solar module**

**MES – distribution unit**

Upgrading your heating system (e.g. when renovating the attic) is no problem for MES. Thanks to our modular system technology retrofitting is possible at any time.



# An example of a system solution.

Only a system control device such as MES can optimize all areas of a heating system – **the heat generator, the heat distributor, and the heat consumer** – and at the same generate a maximum of comfort, economic benefit and environmental protection through intelligent heat management. Additional heat generators can easily be adapted to existing heating systems thanks to modular upgrading possibilities.

CaloWIN accumulator tank  
With heating systems featuring a solid fuel boiler and a accumulator tank (with or without a solar energy link) MES makes sure that surplus heat is stored for optimal use at a later time.



Digital user module



Analog user module



HMX wood module boiler  
Solid fuel boilers are practical supplements to a heating system. MES provides a maximum of flexibility and thus allows the boiler to be used entirely according to the needs of the owner.





**SOLAR**

AquaWIN  
hot water tank.  
MES supplies thermo  
energy to the hot water  
system from the heat  
generator which is able to  
generate the heat in the  
most energy-saving way  
(e.g. solar panels).



#### Control modules

Coordinated with the heating system, the control modules are incorporated in the switchboard section of the boiler through a simple plug-type connection. This can either be done at the factory or, in case you wish to upgrade your heating system, by the fitter at any later date – thanks to the modular structure.

- ① The MES heating circuit module: governs the heat consumer, organizes the interaction of all system components and supplies heat to measure.
- ② The MES heat distribution module: ensures perfect interaction of all system components where a combination of boilers is used.
- ③ The MES solar module: governs the solar powered hot water and heating support systems and thus increases the solar installation's efficiency.



GENIO condensing gas boiler  
With MES the boiler will supply  
heat to measure, i.e.  
according to the actual need.

#### Distribution unit

The distribution unit is the actual „heart“ of MES as it provides for optimal heat distribution. Distribution units are individually assembled at the factory, which not only saves time and money when fitting the system and carrying out the electric assembly, but also guarantees its efficient operation from the very beginning.



[www.windhager.com](http://www.windhager.com)

## Windhager offers more than first class products:

### Top advice from a Windhager partner.

Products from WINDHAGER ZENTRALHEIZUNG can be obtained at specialist stores such as companies who are partners of WINDHAGER. These are proficient heating specialists who work closely together with WINDHAGER ZENTRALHEIZUNG in a professional manner in the interests of our customers.

### A professional customer services network.

Perfect customer services is one of the pillars of the success of WINDHAGER. Our reliable and professional customer services network guarantees optimum attendance to customers' needs day by day. Our service technicians are experienced professionals who work reliably, quickly and without a lot of red tape to get you results.



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