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The information in this document contains general descriptions of technical options available, which do not always have to be present in individual cases. The required features should therefore be specified in each individual case at the time of closing the contract.

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# OEM Heat Control Systems

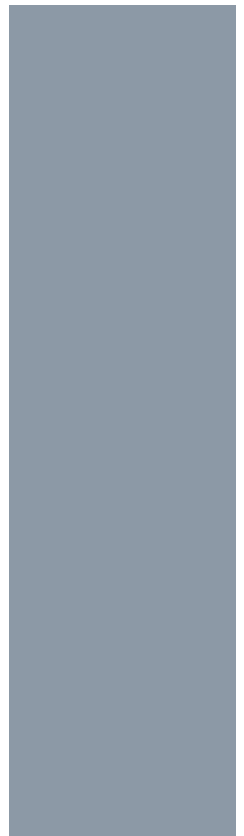
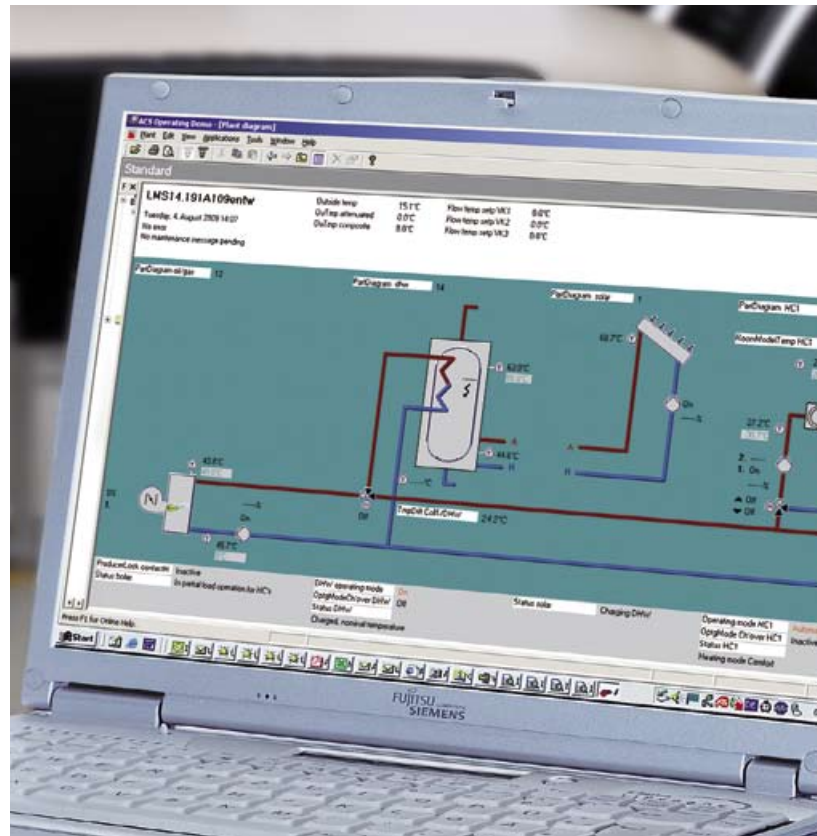
## LMS

Innovative management system for condensing boilers



Answers for infrastructure.

**SIEMENS**



## LMS – advanced electronics and proven software

At times of dwindling resources, rising operating costs and growing environmental awareness, the market and users place ever more demanding requirements on the quality and performance of modern heating boilers.

The LMS Boiler Management Unit with its efficient and proven safety concept ensures trouble-free and automatic operation of the entire heating plant – from startup and ignition through to targeted heat distribution from the boiler to the individual heating circuits. Thanks to an array of integrated functions, the LMS guarantees perfect operation combined with ease of maintenance and efficient production.

Tests made by independent consumer organizations confirm the superiority of the solutions offered by Siemens: For many years, heating boilers equipped with Siemens control systems have been among the winners.



# More than a central Boiler Management Unit

■ **Always the matching solution to hand – products and systems from Siemens for the heating market**

We specialize in the development, production and global marketing of reliable and innovative products and systems for use on forced draft burners, heating boilers and alternative heating systems. Our comprehensive product portfolio includes complete system solutions, burner controls, actuators, sensors, control systems, valves and related test equipment.

Thanks to specialization and decades of experience in these fields, our products and systems offer optimum solutions for all market segments ranging from single- and multi-family houses (residential buildings) to commercial buildings and a host of industrial applications.

■ **LMS – the central module for innovative condensing boilers**

The LMS is the heart of a modular and holistic system solution for condensing boilers with capacities from less than 10 kW to 1.2 MW.

The different versions of the easy-to-understand operating units, room units and heating controls with backlit display and

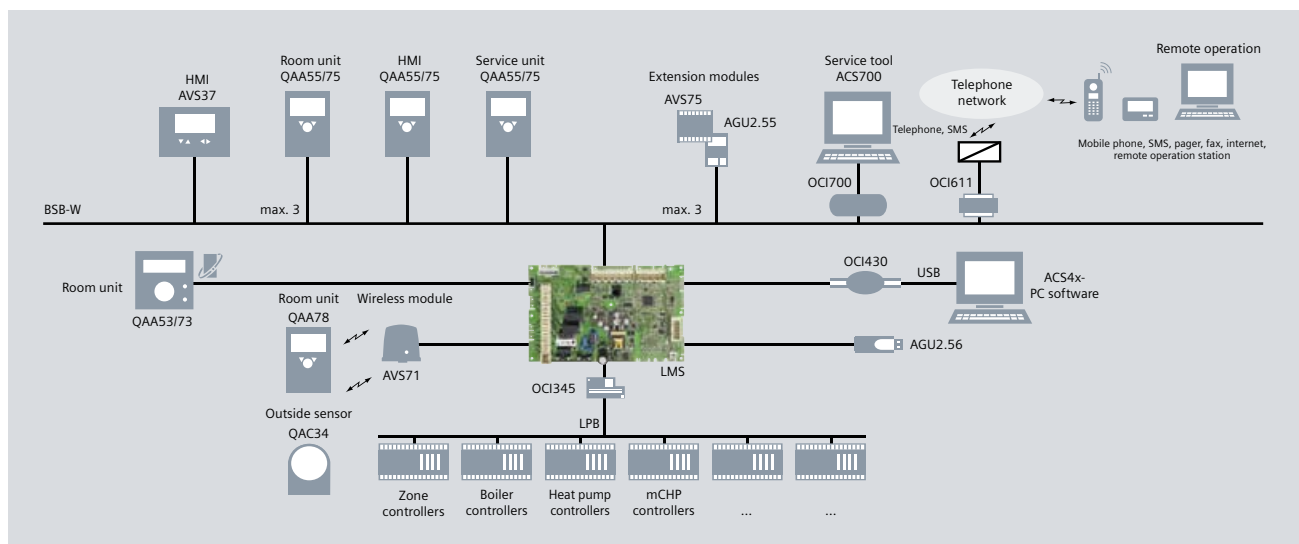
clock functions satisfy all requirements. Extension modules for specific applications offer great flexibility also in the case of retrofits in the field. Thanks to built-in interfaces and optional system integration plus remote management, a number of new service and preventative functions are provided. Extensive information on the plant can thus be retrieved, potential faults can be detected, or notification of scheduled maintenance work can be given well in advance.

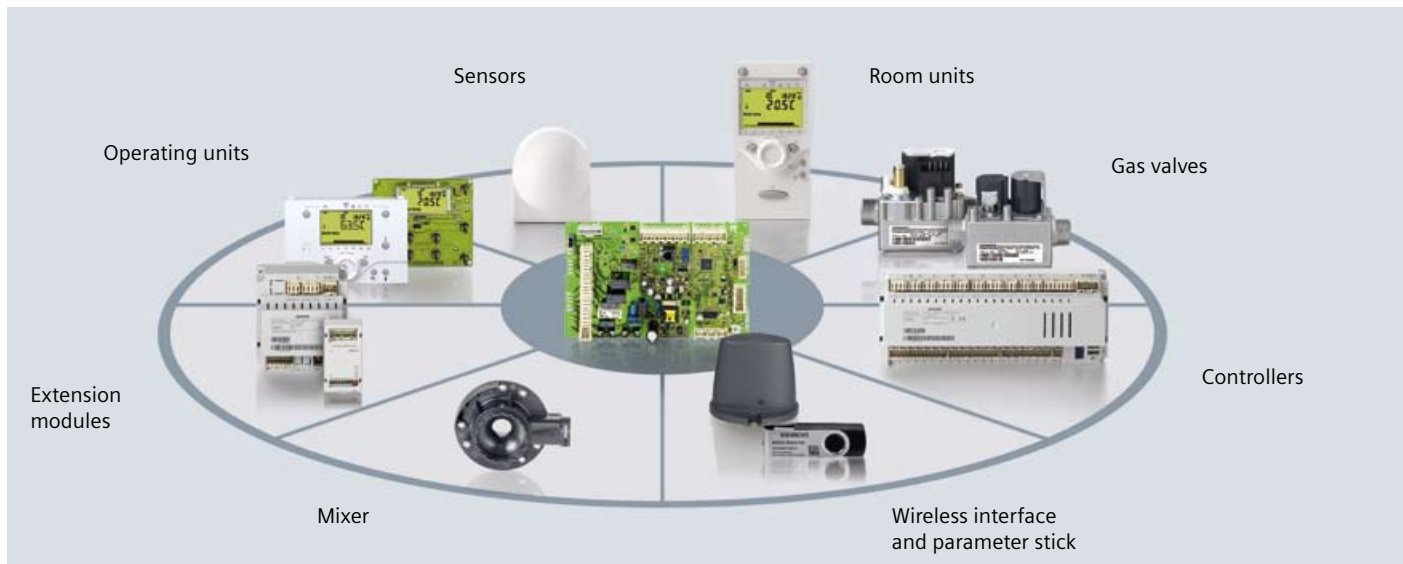
Gas valve and mixer ensure optimum air-gas mixtures. Integrated combustion optimization, pump modulation and stepper motor control make certain that energy is optimally used while noise is kept at a low level.

**This means that we already give consideration to future market requirements.**

## Highlights

- Part of the harmonized and consistent Albatros<sup>2</sup> product platform
- Extendable via system bus to facilitate system application / integration
- Optimum energy usage and low standby losses
- New service and commissioning functions including detailed diagnostics messages in clear-text
- For capacities from <10 kW to 1.2 MW





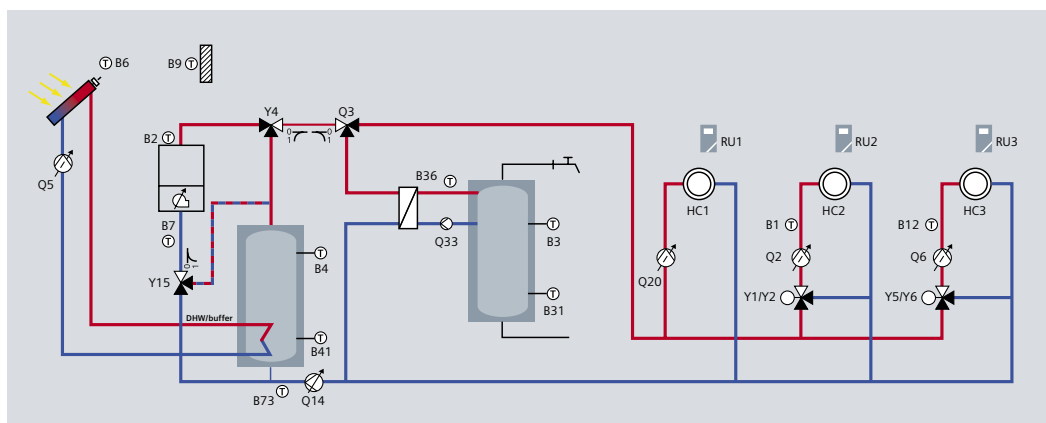
# New system perspectives

Our developments in the fields of customized user interfaces and combustion optimization plus optional communication via the telephone network and the internet set new high-tech standards worldwide.

The LMS is an integral component of the Albatros<sup>2</sup> range of products. This means that identical peripheral devices such as room units, sensors, extension modules, etc., can be used, and uniform and consistent parameter settings are made possible throughout the product range.

This comprehensive product harmonization offers decisive benefits in the fields of production, service, training and spare part handling.

The LMS14 is available for pneumatic air-gas ratio control in connection with gas valves of the VGU7/8 line. The LMS15 sets new standards based on Sitherm Pro combustion optimization in combination with gas valves of the VGE line.







# Applications that meet all requirements

## ■ Broad area of application

Thanks to an array of integrated schemes for a host of space heating and DHW systems, the LMS is the number one choice for a range of applications that leave nothing to be desired.

## ■ Modular operating concept

Users place demanding requirements on their plants. It is therefore good to know that the LMS with its modular operating concept meets all challenges.

## ■ Configuration and service

When it comes to volume production, software tools make it easy to manage and program different types of boilers. In the case of small series production, the parameter stick from Siemens affords easy and quick configuration.

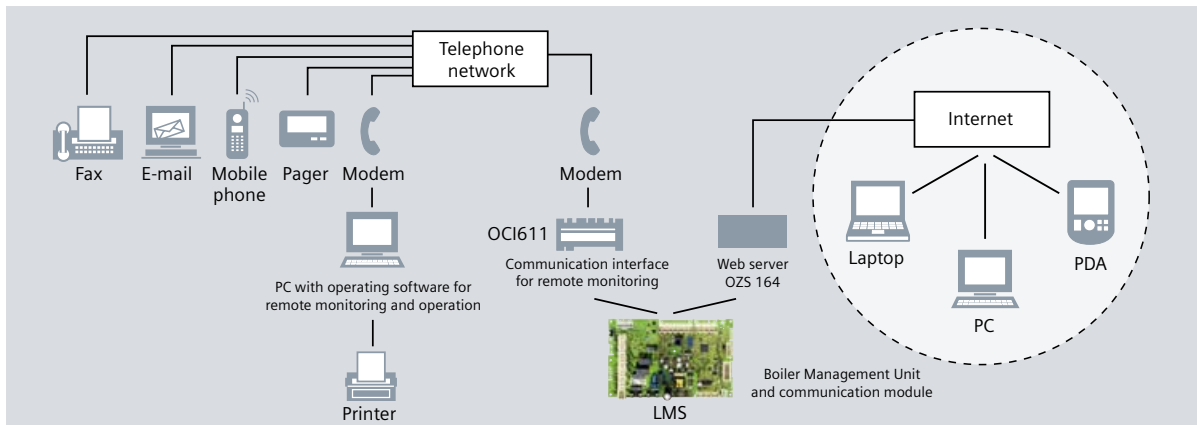
Using the parameter stick in the field, system variants can be created easily and reliably, thus reducing the number of spare parts to be kept on stock and to be carried by service personnel.

Even complex plants can be configured and stored in advance to be copied on site via the parameter stick to the memory of the LMS – without requiring any other tools. And in the case of offline diagnostics, plant configurations can be read very easily.

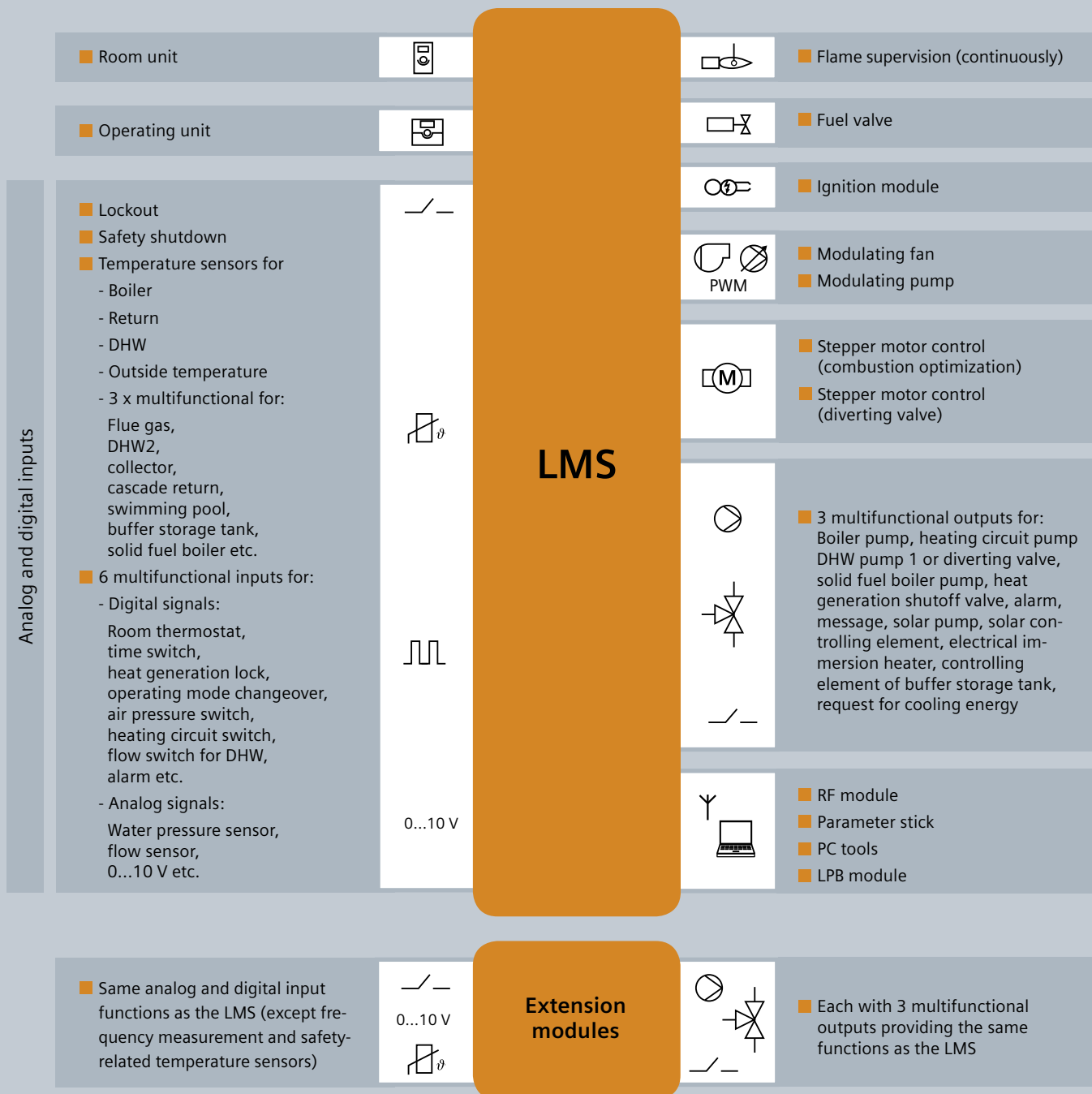
In the event of a fault, the operating units' clear-text display delivers information for targeted and straightforward troubleshooting, thus simplifying service visits and avoiding false alarms.

## Highlights

- Reading in plant data via the parameter stick
- Control of complex hydraulic schemes
- Integration of wireless outside sensors and wireless room units
- Designed for different types of supply networks
- Control of PWM pumps with specific algorithms
- Integrated stepper motor control for diverting valves



# Great flexibility thanks to parameterized functions and extension modules

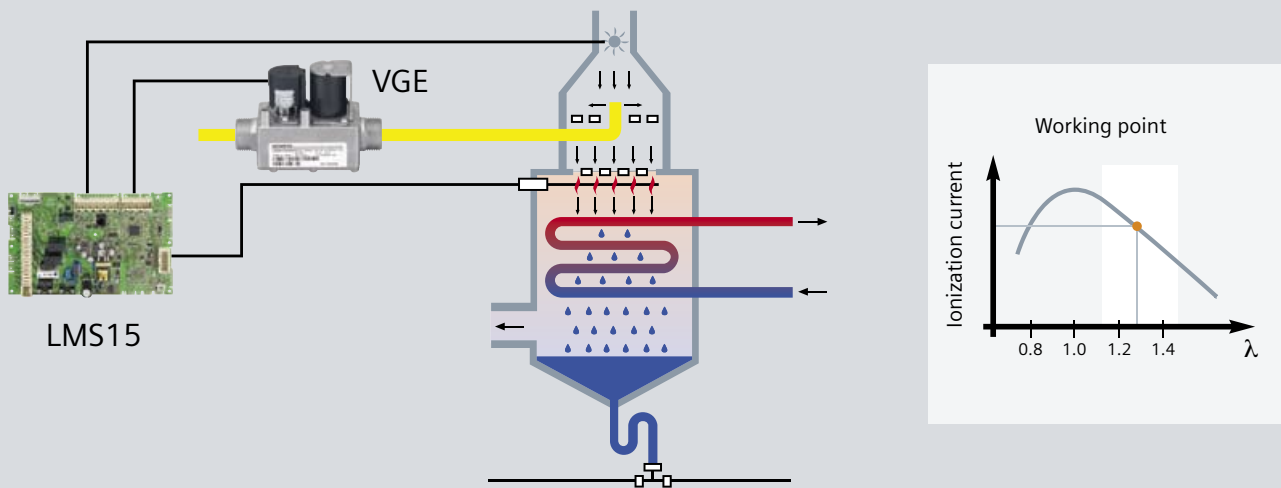


## Flexibility in a class of its own

Extension modules make the LMS even more versatile and powerful. The inputs and outputs can be used in different ways and offer an unlimited number of applications, whereby the type of

hydraulic system is identified automatically. Up to three extension modules create a different ways and offer an unlimited number of applications, whereby the type of hydraulic system is identified automatically.

Up to three extension modules create additional choices for customized plants, enabling the implementation of complex systems, if required.



# Sitherm Pro – ensuring a new quality of combustion

## ■ Sitherm Pro

Sitherm Pro stands for a new form of efficient combustion optimization. Production, commissioning and operating costs are cut while environmentally benign combustion and low emission levels are ensured.

## ■ Combustion optimization of a superlative degree

Sitherm Pro improves the entire combustion process by ensuring a constant output, even if gas quality varies. Efficiency is increased and optimum flue gas levels are guaranteed over long periods of time, enabling them to remain within the required statutory boundaries over the entire operating time. The ionization current is used as an indicator of the quality of combustion.

## ■ Installation and operation

Sitherm Pro adapts automatically to external influences such as gas quality variations or changes in atmospheric pressure. This simplifies boiler production, saves commissioning time, and the gas valve need not be adjusted during installation.

## ■ Wide modulation range

Accurate supervision and control of the flame make it possible to lower the limits of low-fire operation, thus allowing the modulation range to be widened.

## Highlights

- Patented algorithms
- Low emissions, efficient and therefore environmentally benign combustion
- Straightforward installation and operation
- Broad modulation range
- Automatic adaptation to gas quality
- Smaller number of boiler variants for the different gas families

