

Stainless steel in condensing boiler technology

Condensing boilers are regarded as one of the cleanest and most economical methods of generating heat by burning gas or oil. In conventional boilers it is important to avoid moisture forming on the heated surfaces. In condensing technology, however, the hot gases are deliberately condensed in order to recover the heat energy stored in the water vapour. Using the correct materials prevents the condensed water causing any damage to the heating unit. For many years stainless steel has proved its worth in such applications. A range of alloys of stainless steel are available to suit the different fuels. In the case of heating oil, for example, stainless steel with very high corrosion-resistance (grade: 1.4539) is used, because of the sulphur content in the oil.

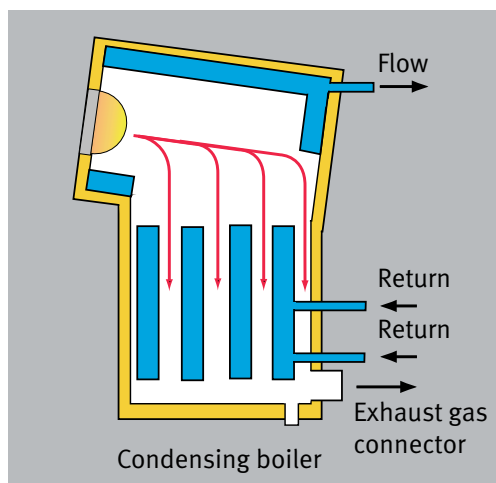
At Humbolt School in Bad Pyrmont a new heating system was installed, consisting of a condensing and a low-temperature boiler with a control unit that can be monitored via the Internet.



Following the renovation of Kühr Abbey all the buildings are now supplied by a single, centralised heating system.



Photos and diagram: Viessmann Werke, Allendorf, Germany



Condensing technology also exploits the heat energy stored in the water vapour.

The condensation surface of a condensing boiler is made of high-grade stainless steel so as to avoid corrosion resulting from pH values of between 5 and 2.

