

Wood-fired Burner

For many years, wood burners were more decorative than anything else and, as such, never saw a flue gas analyzer. This was perhaps just as well, since they tended to be very inefficient and not especially clean. Today, the wood burner is another proposition entirely. The use of various waste products such as wood has increased. Wood chippings are now being compressed into pellets which are burned in computer-controlled heating units. District heating schemes are using the wood from land-clearance projects and from plantations of fast-growing trees. This means that wood burners will be increasingly measured with a flue gas analyzer and so is becoming more important.

Old-style wood burners taking large pieces of wood will always be relatively inefficient. Where they are used as boilers for household heating they will have to be tested and the flue gas analyzer must cope with the smoke and tar they produce. A modern wood burner using pellets as fuel will not be any different in gas composition to an oil burner, except for a slightly higher excess air number. Again, there are different types and qualities of wood, which will vary in their burning characteristics. Some will smoke more heavily than others and the levels of other pollutants will also differ. The flue gas analyzer will certainly have to carry out a soot test and some protection against the tarry deposits may be necessary. Extra external filters are available for most types of flue gas analyser, which should solve the problem.