



COMPATIBILITY OF B30 FUELS 00-0101-0B-E
(Heating oils with 30% bio content)
With Fluidics nozzles and burner lances

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In some regions of Europe, fuel oils with up to 30% Bio-Oil content can now be found on the market. Therefore, the question raises to the compatibility of these fuels with the standard design of the Fluidics Instruments nozzles and burner lances.

In order to answer this question, a leading Dutch material testing laboratory was engaged to investigate the effect of the B30 fuel on important parts of the nozzles and burner lances. For this purpose, selected parts were brought into contact with the test fuel.

The samples were first ultrasonically cleaned to remove loose particles and contamination. After drying, the samples were weighed and put in the test vessels. Separate vessels were used for the MS 58 and carbon steel samples.

The samples were suspended in the test solution with PTFE wires. The test solution consisted of 1 liter of B30 fuel oil as received, heated to 38 °C and stirred at a speed of 200 rpm. The exposure time was 168 hours.

After the test, the samples were cleaned twice ultrasonically in acetone to remove residues of the fuel oil, dried and weighed. Afterwards, the samples were visually inspected for changes in appearance.

Result:

Comparison of the initial and final weights of the test pieces showed no significant change from the condition before and after the test. From this and from the visual inspection of the parts regarding the absence of any changes on the surfaces, it can be concluded that a 168-hour exposure to fuel oil B30 (38°C, heated) had no significant effect on the samples obtained.

As a result, all Fluidics Instruments nozzles and burner lances are already suitable for use with B30 fuels in standard design.