

Thermal Desorption Pilot-scale Tests

Thermal desorption is an effective method used for treating waste materials. The main principle of this method is desorption of volatile and semi-volatile contaminants out of solid matrices (soils, sediments, sludge etc.) by heating to high temperatures (80 to 400 °C) at a low absolute pressure (50 mbar). Although DEKONTA can carry out also laboratory tests of the technology, a pilot-scale experiment can provide additional information about the full-scale applicability of the process. The other information that can be revealed, include a cost estimate, material behaviour in a larger scale apparatus, etc. In addition, tests at a lower pressure can be carried out.

DEKONTA operates a pilot-scale experimental technology with the following main features:

- Duplicator chamber indirectly heated using a silicone oil;
- Condensation unit for desorbed contaminants;
- Unit for heating of the heating medium;
- Volume: 100 L;
- Maximum temperature: 400 °C;
- Atmospheric /decreased pressure down to 20 mbar (abs.).



Our services include:

- Assessment of the treatability of the sample (preliminary);
- Proposal of the test conditions;
- Sample pre-treatment, test implementation;
- Chemical analyses, overall evaluation.



Test duration: 3 – 4 weeks

Price of pilot-test: Available on request

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