

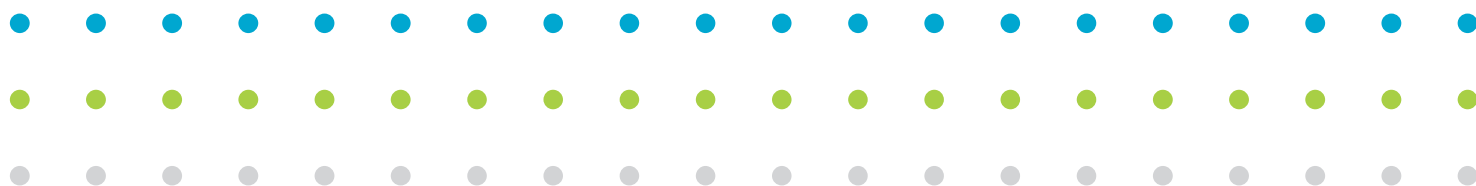


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DISINTEGRATION RESPIROMETER



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PLASTIC DISINTEGRATION RESPIROMETER – DT

DISINTEGRATION PILOT SCALE TESTS

DETERMINATION OF THE DEGREE OF DISINTEGRATION OF PLASTIC MATERIALS UNDER DEFINED COMPOSTING CONDITIONS IN A PILOT-SCALE TEST

Principles

The biological treatment of biodegradable plastic materials includes aerobic composting in well-operated, municipal or industrial biological waste treatment facilities. Determining the degree of disintegration of plastic materials in a pilot-scale plant is an important step within a test scheme to evaluate the industrial compostability of such materials.

The disintegration test is performed under defined and standardized composting conditions on a pilot-scale level.

The test material is mixed with fresh bio waste in a precise concentration and introduced into a defined composting environment. A natural ubiquitous microbial population starts the composting process spontaneously and the temperature increases. The composting mass is regularly turned over and mixed. Temperature and O₂ concentration are regularly monitored.

Applications

- **ISO 16929;** Plastics — Determination of the degree of disintegration of plastic materials under defined composting conditions in a pilot-scale test



DT Respiriometer

Advantages

- Single or multi-channel system: 1 / 3 / 6 / 12;
- Plug & Play design (easy to install, use and maintain);
- Integrated PC in the control unit;
- Cooling system for each reactor;
- Temperature, flow, measurements;
- Sensor O₂: Range 0–25 %, Accuracy: 2 %;
- Various sizes of vessels;
- Remote desktop control;
- Air pump – compressor;
- User-friendly software with excel export files.

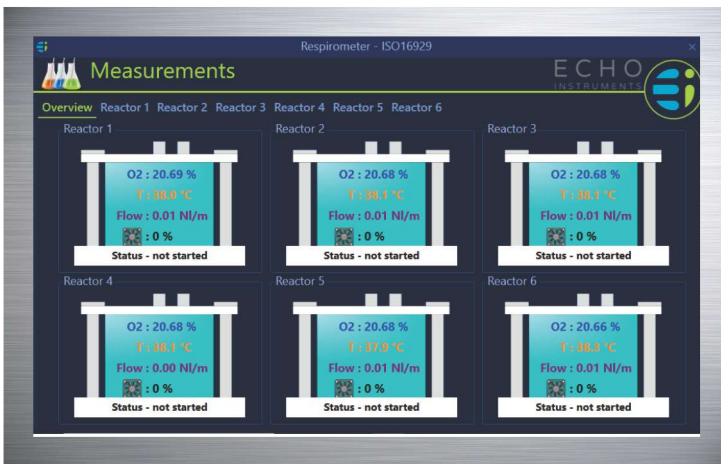


Bioreactor 64 L

Technical specifications

- Dimensions – Control unit: 39 × 49 × 20 cm;
- Volume of vessels: 35 L, 64 L, 140 L, etc;

ECHO Instruments DT respirometer software





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