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# Newsletter
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# Gerhardt Fibre Systems

Gerhardt supply different system types for the analysis of crude fibre / ADF / NDF / MADF and dietary fibre; the Fibretherm fully automated Fibrebag system for crude fibre and of course traditional systems.

### Fibrebag

This system of analysis was developed to closely emulate official methods, but allow multiple extractions to be performed in each boiling vessel, thus saving time and chemicals. A bonus of the Fibrebag system was the discovery that filtration became quick and very easy compared to the traditional method. Fibrebag has now been introduced for dietary fibre and can improve accuracy and precision with quick filtration giving real time benefits.

### Fibretherm

A further development of the Fibrebag system above was the automation of the crude fibre process. As well as automating the chemical additions, rinsing and filtration, increased sample throughput was achieved. Sample precision and reproducibility of analysis is a major benefit of the Fibretherm.



# Content



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# Gerhardt Kjeldahl Digestion Systems

Gerhardt supply the widest range of options for Kjeldahl digestion on the market. Traditional hotplates, Aluminium hot blocks, Kjeldatherm, and infra-red heaters, Turbotherm.

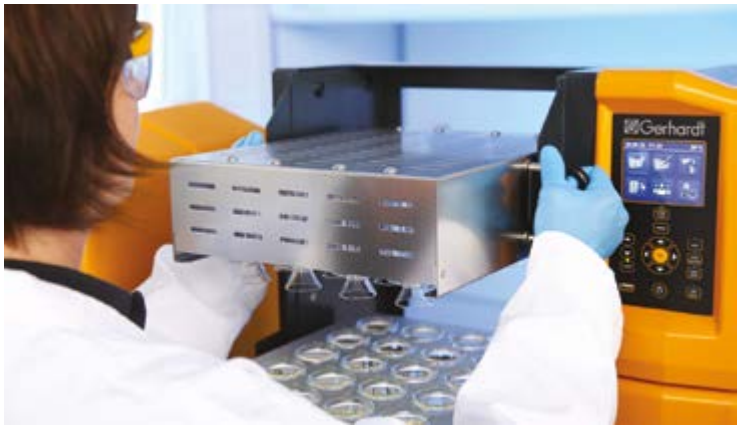
This system of analysis was developed to closely emulate traditional heater, Kjeldatherm and Turbotherm all have different qualities which can be matched to your particular requirements. We are happy to advise on the best digestion equipment to suit your sample type and numbers.

The new Kjeldatherm KT aluminium digestion blocks feature a new programmable controller with bigger display size, easy viewing and additional windows. There is also a pre-heat function, optional end of run alarm, pre-defined methods, data logging, optional lift control with backlighting.  Both 8 and 20 place blocks are available.

Turbotherm infra-red heating systems feature fast heating and cooling for speed and safety.

Programmable and very useful for frothy samples the Turbotherm can be set up for 4 x 800ml, 4x400ml, 6x 200/300ml, 12 x 200/300ml and 12 x 100ml digestion tubes. Acid fumes are either removed by the water jet pump supplied with Kjeldatherm and Turbotherm systems, or the Turbosog fume scrubber system.

In combination with the Vapodest series of distillation units Gerhardt offer the most up to date Kjeldahl systems on the market.




If you would like more information or a demonstration please contact us on: **info@gerhardtuk.com** or by telephone on **01280 706772**.

# Multiscan MS20 for Characterisation of Colloidal Foods and beverages

The Mutliscan MS20 device provides a means of study of the time and temperature dependant properties of multiphase systems (up to six samples, concurrently). Applicable to the varying demands of pure product research, formulation development and production quality control, the Multiscan MS20 reliably generates and precisely analyses a large amount of data and presents it in a number of easy to interpret graphical formats.

- initial particle size distribution for a whole host of disperse systems
- local particle or droplet size distribution during sedimentation in multiphase systems
- creaming characteristics
- effective concentration of the dispersed phase
- coalescence and coagulating phenomena
- turbidity, from light transmission and scattering measurements

It is believed that the most appropriate application areas, for this exciting new measurement device, will include colloidal foods and beverages.

# A22 NanoTec Laser Particle Size Analyser

Since 1984, Fritsch have been manufacturing laser particle size analysers. Fritsch was the first company to introduce the concept of laser diffraction in a convergent laser beam. By positioning the Fourier lens in front of the measurement cell, a convergent laser beam passes thought the measurement cell and the scattered light is focused directly on the detector without the need for additional optical elements. For the large scattering angles of small particles, a side detector system has been fully integrated.

The key to accurate and reproducible laser particle size analysis measurements is the dispersion of the sample material, prior to measurement. For most applications, wet dispersion (in water) is used. However, dispersion in solvents and air is also possible and Fritsch offer a range of modular dispersion units, which can be easily connected to the NanoTec laser particle size analyser:

1. Wet dispersion unit - with a liquid (typically water) volume of 300-500ml.
2. Small volume dispersion unit – with a liquid (usually a solvent) volume of 50ml.
3. Dry dispersion unit, which disperses agglomerates using compressed air.
4. Falling chute dispersion unit, which feeds the sample material directly into the measurement cell.

# A28 ImageSizer

The Fritsch A28 ImageSizer has been specifically designed for the analysis of particle size and shape of: free flowing powders, bulk solids, emulsions and suspensions. The A28 ImageSizer has a measurement range from 20µm to 20mm for dry measurements and 20µm to 2.8mm for wet measurements.

Using the dynamic image analysis, particle size and shape can be determined, whilst at the same time damaged particles, contaminants, under or oversized particles can be viewed as single images. The duration of the measurement can be specified, depending upon the desired number of images (up to a maximum of 75 images per second) or the number of measured particles.