

BERGHOF PRODUCTS + INSTRUMENTS

Speedwave Xpert

The Professional



The future of microwave digestion

Tailor-made designs

Tasks in analytical chemistry are manifold and complex. From simple routine analysis to challenging samples, microwave digestion systems need to deliver excellent results while ensuring a high degree of safety.

Berghof provides the ideal microwave digestion system for different user groups: **Speedwave Entry** is focused on user-friendliness, safety and cost-efficiency, making it a perfect beginner’s model and ideal for routine analysis, training and study.

The powerful **Speedwave Xpert** is designed for complex digestion of difficult sample materials; its combination of sophisticated microwave design, high-quality materials and innovative sensor technology guarantees a high level of safety.



Speedwave Xpert

All the benefits at a glance

With an output power of 2000 watts, Speedwave Xpert is the true all-rounder. Even the most difficult sample materials can be digested perfectly at high temperatures and pressures while innovative sensor technology ensures thorough reaction monitoring.

→ Powerful digestion

- Optimised for digestion of the most demanding sample materials, the Speedwave Xpert is suitable for the following applications:
- pharmaceuticals and cosmetics (samples with elevated fat content)
 - materials science (construction materials, ceramics, polymers, metals, alloys)
 - geology (minerals and rocks)
 - the environment (ash, contaminated soil, slag)
 - energy (coal, oils)

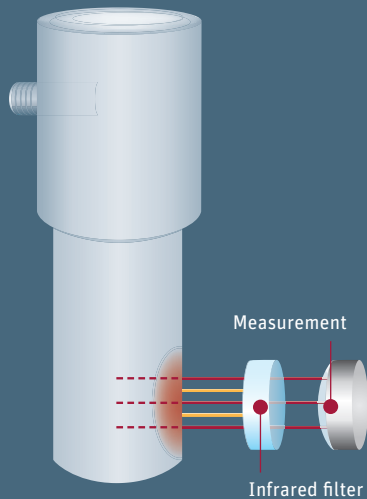
→ Sophisticated sensor technology

In addition to the patented speedwave® DIRC temperature sensor, the microwave also contains the speedwave® OPC pressure sensor. Contactless detection of vessel surface temperature — speedwave® OTC — includes an additional safety feature which monitors and increases the service life of the vessels: when a predefined temperature is exceeded, the device switches off automatically.

→ Intuitive operation

The unique top-loading design facilitates insertion and removal of the TFM™ PTFE digestion vessels; all reaction parameters are displayed and recorded in real time, and the extensive application database assists the user in selecting the right digestion program and is operable via mobile devices.

Patented safety features



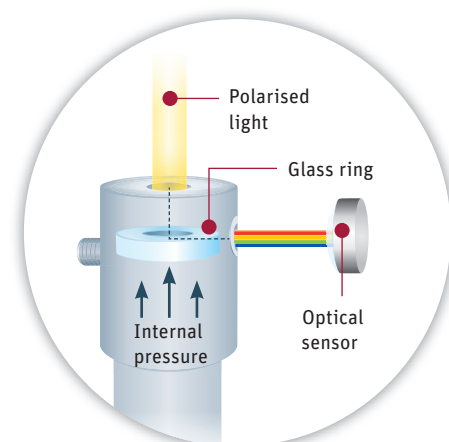
Berghof’s patented sensor technology continues to impress: in combination with the speed-wave® OPC pressure sensor, the contactless speedwave® DIRC temperature sensor permits thorough reaction monitoring without the use of reference vessels. The speedwave® OTC optical temperature control provides additional safety and increases the service life of the vessels by switching the microwave off automatically when a predefined temperature is exceeded.

Speedwave Xpert

The all-rounder for demanding digestions

Optical pressure measurement

- speedwave® OPC patented pressure control
- Contactless detection of vessel internal pressure in real time



Pressure vessels made of TFM™ PTFE

- Easy to handle thanks to only three components
- Opening and closing without tools
- The Berghof guarantee also covers vessels

Dual microwave system

- Two magnetrons for higher performance
- Routine digestion of difficult sample materials



speedwave® DIRC

- Patented temperature measurement
- Optical detection of sample temperature in real time
- No reference vessels

speedwave® OTC

- Contactless detection of vessel surface temperature
- Increased safety and lifespan of the digestion vessels
- Individually programmable temperature limit

SwingTop

- Easy loading and unloading of the rotor
- Optimal safety through robust construction



External controller

- Large colour screen
- Multilingual software
- Controllable via mobile devices



Berghof laboratory equipment

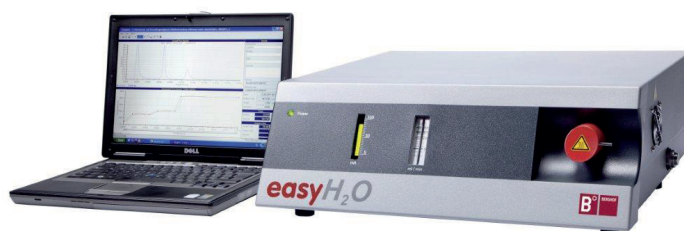
Intelligent design

With nearly 50 years of experience in the fields of microwave digestion, high pressure reactors and water determination, we work with our customers to develop innovative products and services.



High pressure reactors

High pressure reactors are an indispensable tool for safe and economical applications in modern chemical synthesis. Berghof highpreactors are characterised by modular design and flexible configuration options. Extraordinary chemical resistance is assured due to high quality materials in combination with long-life PTFE coating. A wide range of volumes and various agitator and heating technologies help to make laboratory work more comfortable.



Water determination

The determination of water content is an important criterion in a variety of industries to ensure the high quality of raw materials and finished products. Berghof's easyH₂O one provides an alternative method to traditional Karl Fischer titration in which toxic and special reagents can be dispensed with, allowing users to benefit from reduced operating and disposal costs.