

LABORATORY EQUIPMENT | MICROWAVE DIGESTION

Speedwave Xpert

The Professional

SPEEDWAVE XPERT

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.

Featuring an output of 2,000 W, the **Speedwave Xpert** is perfectly suited for complex digestion processes involving digestions of difficult sample material under increased temperatures and pressure. Its combination of sophisticated microwave design, high quality materials and innovative sensor technology guarantees a high level of safety.



Speedwave Xpert

The all-rounder for demanding digestions



Powerful digestion

Optimised for digestion of the most demanding sample materials, the Speedwave Xpert is suitable for the following applications:

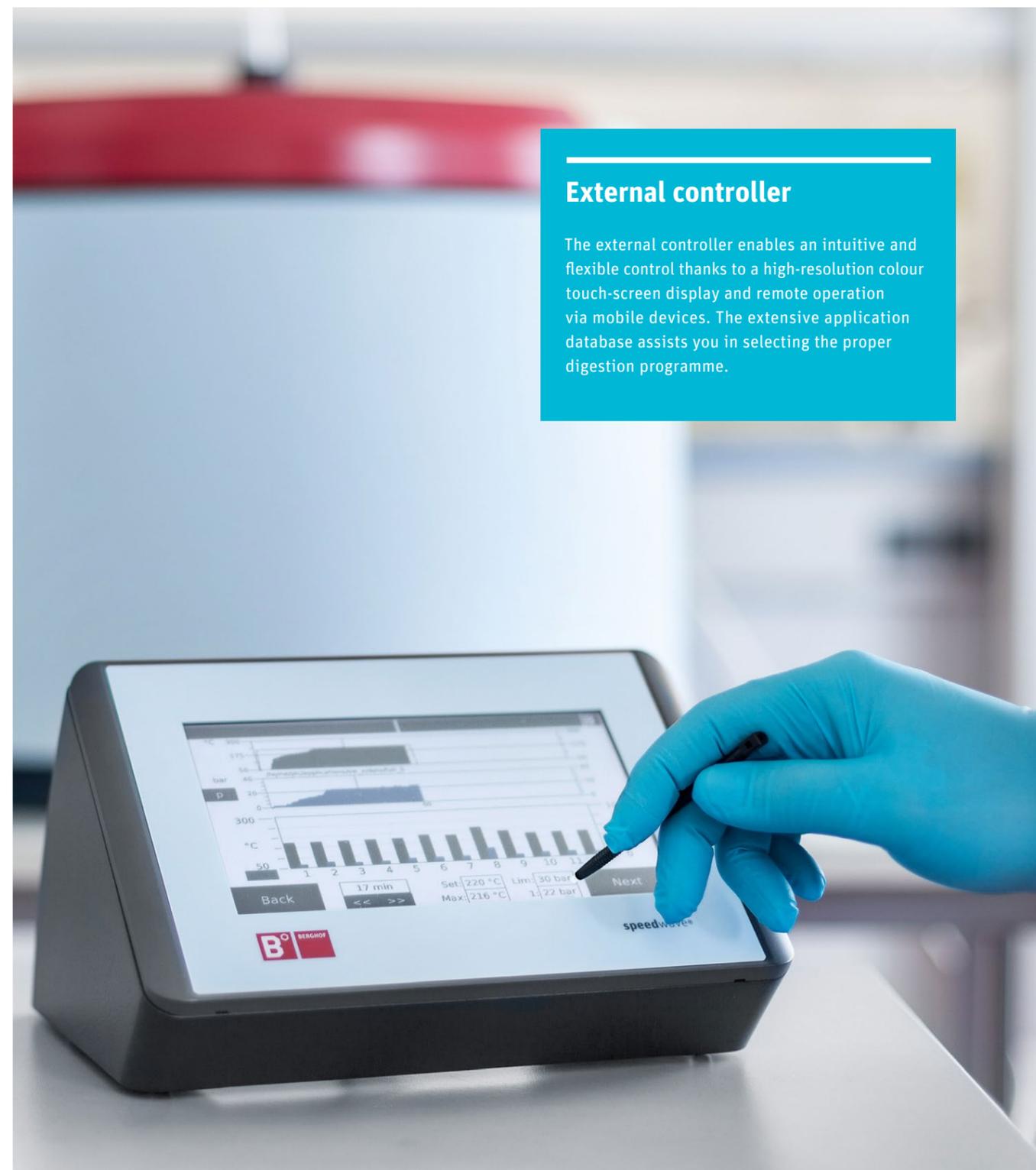
- **Pharmaceuticals and cosmetics**
Samples with an increased fat content
- **Material science**
Construction materials, ceramics, polymers, metals, alloys
- **Geology**
Minerals and rocks
- **The environment**
Ash, contaminated soil, slag
- **Energy**
Coal, oil

Berghof Swing Top

The robust top-loader microwave offers maximum comfort in operation. The digestion vessels are individually inserted into the rotor and removed again – the transport of a fully loaded rotor is therefore not necessary.

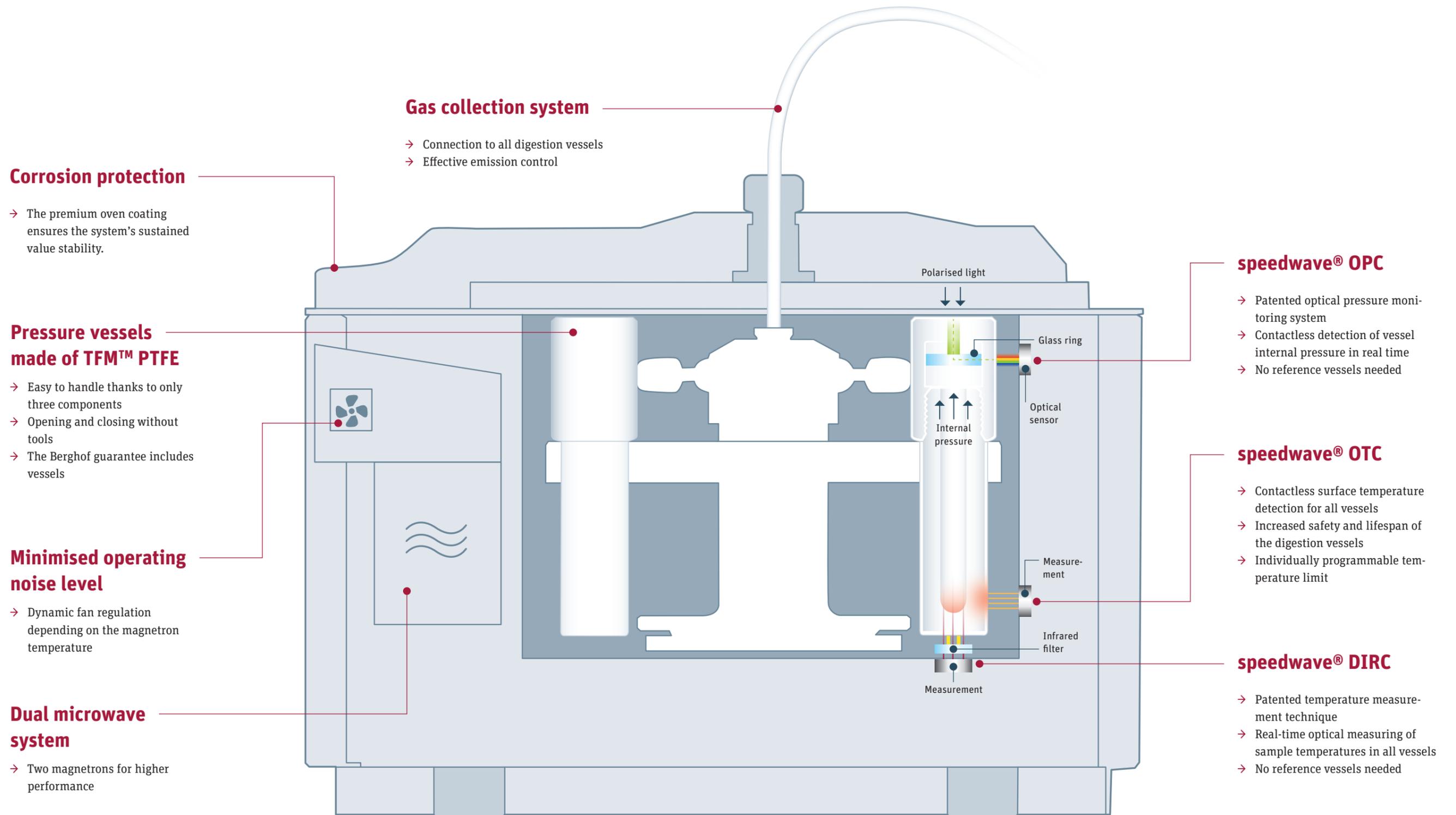
External controller

The external controller enables an intuitive and flexible control thanks to a high-resolution colour touch-screen display and remote operation via mobile devices. The extensive application database assists you in selecting the proper digestion programme.



Speedwave Xpert Inside

Patented optical measuring systems ensure a seamless reaction monitoring for digestion processes under increased temperature and pressure for all individual digestion vessels. Real-time temperature and pressure measurements enable the control of spontaneous reactions and thus a safe reaction process.



Speedwave Xpert

Technical specifications

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Power supply	230 V / 50 Hz
Magnetron performance	2,000 W
Frequency	2,450 MHz
Power control	Continuously 0–100%
Weight Dimensions	Basic unit: approx. 71 kg 880 x 645 x 470 mm (w x d x h) (34.6 x 25.4 x 18.5 inches) Control unit: 1 kg 224 x 183 x 135 mm (w x d x h) (8.8 x 7.2 x 5.3 inches)
Microwave oven	Approx. 26 l Circular microwave oven for homogeneous distribution of microwaves and uniform heating of all samples
Coating	90 µm PFA (fired at least 350°C)
Control unit	7" coloured touch screen, multi language
Interfaces	RS-232, Ethernet, USB, remote operation via mobile devices
Pressure measurement	Patented OPC sensor for individual pressure measurement in each single digestion vessel, measurement range 0–150 bar, accuracy < 5 bar (depending on vessel type)
Temperature measurement	Patented DIRC thermometer for individual temperature measurement in each single digestion vessel (measurement range 50–300°C, 1°C precision at 200°C), OTC for measurement of vessel surface temperature in each individual digestion vessel
Vessel material	Isostatically molded TFM™ PTFE, Quartz, PFA
Vessel types	DAP-40X: 40 ml capacity, 40 bar (580 psi), 24 vessels per turntable DAP-60X: 60 ml capacity, 40 bar (580 psi), 12 vessels per turntable DAP-100X: 100 ml capacity, 40 bar (580 psi), 12 vessels per turntable DAK-100X: 100 ml capacity, 100 bar (1.450 psi), 8 vessels per turntable
Safety testing	CE conformity complies with DIN EN 61010-1, DIN EN 61326-1, DIN EN 61326-2
Warranty	12 months, including digestion vessels

Digestion vessels

The durable Berghof digestion vessels are made of isostatically molded TFM™ PTFE and offer an improved surface structure and minimised porosity. Vessels can be switched after a short cooling time already, without having to vent the system in advance.

The extensive range of vessel volumes enables a high samples throughput rate and extraordinary productivity. The Berghof warranty includes an enhanced cost transparency throughout the product lifecycle.



Berghof

Your partner for tailor-made solutions

Berghof offers extensive expertise based on 50 years of experience in the production of digestion systems for sample preparation in analytical chemistry applications

Our experts will be pleased to advise you in selecting the right digestion system or a solution tailored to your needs and support you in using these systems.

We look forward to receiving your request.

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