

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.

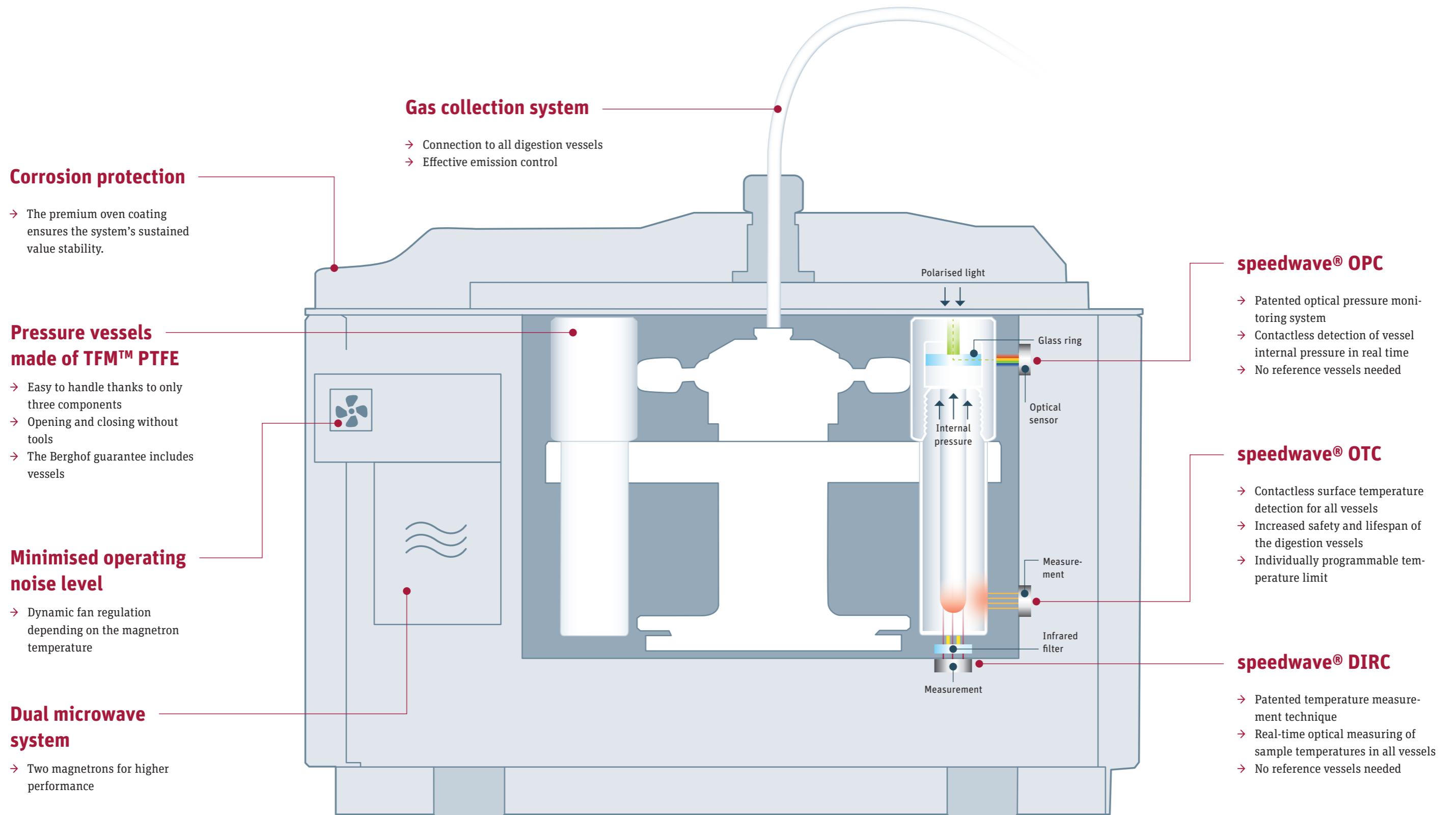
## External controller

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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<b>Power supply</b>	230 V / 50 Hz
<b>Magnetron performance</b>	2,000 W
<b>Frequency</b>	2,450 MHz
<b>Power control</b>	Continuously 0–100%
<b>Weight   Dimensions</b>	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)
<b>Microwave oven</b>	Approx. 26 l   Circular microwave oven for homogeneous distribution of microwaves and uniform heating of all samples
<b>Coating</b>	90 µm PFA (fired at least 350°C)
<b>Control unit</b>	7" coloured touch screen, multi language
<b>Interfaces</b>	RS-232, Ethernet, USB, remote operation via mobile devices
<b>Pressure measurement</b>	Patented OPC sensor for individual pressure measurement in each single digestion vessel, measurement range 0–150 bar, accuracy < 5 bar (depending on vessel type)
<b>Temperature measurement</b>	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
<b>Vessel material</b>	Isostatically molded TFM™ PTFE, Quartz, PFA
<b>Vessel types</b>	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
<b>Safety testing</b>	CE conformity complies with DIN EN 61010-1, DIN EN 61326-1, DIN EN 61326-2
<b>Warranty</b>	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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