



speedwave MWS-2



- Light, compact stainless-steel oven with a capacity of 27 liters
- Contact-free IR temperature measurement in all pressure vessels
- Easy, tool-less handling of vessels
- Closeable rotors, ensuring a high degree of safety and long service life
- Latest inverter microwave technology integrated control system



• Rapid preparation of samples for AA/ICP/ICP-MS.

The application of effective technology is necessary to meet growing laboratory demands for the digestion of small to medium sample volumes. Conventional "overnight" digestion is often no longer adequate to meet these requirements. With average digestion durations of 15 - 20 minutes, the **speedwave MWS-2 Microwave Pressure Digestion System** considerably reduces sample preparation periods for sophisticated analysis and routine laboratory use. Even complex organic and inorganic matrixes can be easily and safely digested with this system. The **speedwave MWS-2** is perfectly suited for samples derived from areas such as the environment, agriculture, nutrition, animal feed, geochemistry, petrochemistry, metallurgy, human biology and pharmacy.

• Extremely easy operation due to innovative technology.

Due to its small size and weight (only 14 kg), the **speedwave MWS-2** pressure digestion system uses little space in the laboratory and can be easily moved. A closeable rotor with collecting vessel ensures top level safety and long service life. The integrated suction feature allows simple retrofitting of an evaporation/concentration unit. The **speedwave MWS-2** incorporates the latest mass-production inverter microwave technology for a continuous performance of 40 - 100 % at 1,000 Watt and long magnetron service life. The integrated control enables the system to be operated after charging with samples without the need for monitoring personnel. An optional external PC can be connected to the system.

• Contamination free temperature recording optimizes digestion quality.

Temperature recording, free of contamination, optimizes digestion quality. The internal temperature of the sample vessel (i.e. the temperature of the sample itself) is determined with a patented infrared thermometer. The **speedwave MWS-2** is equipped with an IR sensor fitted inside, enabling remote, contact-free and absolutely contamination-free temperature determination of all samples. The IR sensor allows complete control, even in cases involving exothermal reactions, as the temperature of the sample itself is measured. This design reduces preparation time for digestions considerably, as there is no need for time-consuming and troublesome connecting of hoses or temperature and pressure sensors.

• Routine solution for routine tasks.

The pressure digestion vessels are manufactured completely of isostatically-pressed PTFE/TFM, have very few individual components and can easily and quickly be handled without the need for tools. Large diameter shielded metal rupture discs safely limit the interior pressure if the maximum permissible value is exceeded (a solution with an optimum cost-benefit ratio). Due to the rupture discs, the pressure vessels have an extremely long service life. The rotor is constantly rotating, enabling uniform connection with up to 24 vessel, ensuring optimum digestion results.

• Extremely simple 2-step control.

Pre-programmed applications enable the desired digestions to be started easily and effortlessly by pressing 2 keys. Digestion programs for specific applications can be easily installed via a PC. The installation software also enables complete documentation of digestions for QS, ISO and GLP.



speedwave MWS-2

Digestion vessels for the MWS-2 speedwave



Vessel type	Volume	Material	T-max. (continuous)	Working pressure	Multiple arrangement
DAP-60K	60 ml	TFM with lid and rupture discs	220°C	40 bar / 580 psi	10 vessels
DAK-70	70 ml	TFM with TFM inserts & ceramic pressure jacket	220°C	100 bar / 1450 psi	5 vessels
DAC-10	10 ml	TFM with TFM inserts & ceramic pressure jacket	220°C	75 bar / 1090 psi	24 vessels
DAQ-10	10 ml	Quartz glass vessel	220°C	75 bar / 1090 psi	24 vessels

Continuous operating temperature for all vessels is 220°C, with up to 260°C being possible for short periods.