

# MEAM HEAT VP 1.2

## TEST DEVICE WITH VARIOUS POSSIBILITIES

The MEAM HEAT VP 1.2 (Figure 1) is a multipurpose test device for various microwave applications, such as drying, leaching, combustion, roasting, sintering and pyrolysis. One of the special features of this test unit is its adaptability that is based on an unique design with optional entries at various sides of the cavity. Therefore, the use of the equipment with different set-ups is easy and safe.

The formed fumes and gaseous compounds during heating are readily evacuated with or without gas treatment by suction or with a flow of air. In pyrolytic processes the flow of the exhaust fumes can be led directly to a gas detector or an analyzer.

The possibility to measure the temperature from various locations ensures an accurate temperature control during the heating. Furthermore, by using data acquisition and PID control, MEAM HEAT VP 1.2 extends to a fully automated, high-precision testing unit for electromagnetic heating with pre-programmed heating profiles.

The MEAM HEAT VP 1.2 is applicable for microwave heating:

- With adjustable power up to 1200 W.
- Under vacuum or over-pressure up to 2 bar.
- In different gas atmospheres, such as air, nitrogen, oxygen or argon.
- At high temperatures up to 1600°C with an appropriate insulation material.

As an example, the principle of a microwave assisted leaching system is shown in Figure 2. The leaching equipment that consists of a glass vessel with a mechanical stirrer is placed inside the MEAM HEAT VP 1.2 and connected to a reflux condenser through the opening on the top.

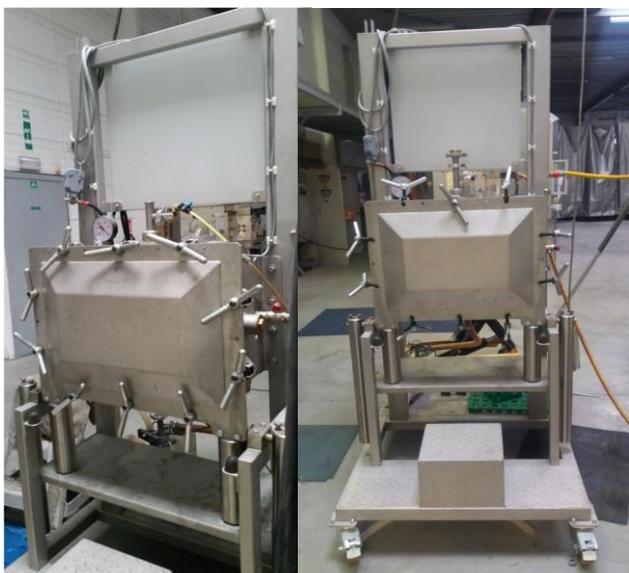


Figure 1. MEAM HEAT VP 1.2.

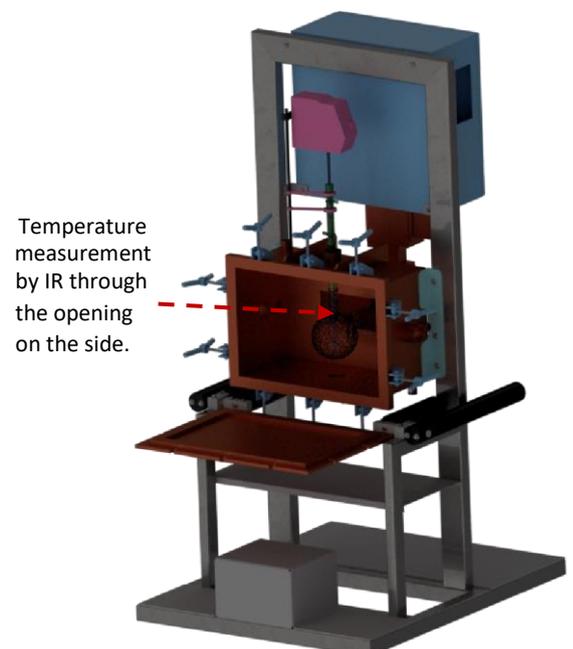


Figure 2. Leaching system for MEAM HEAT VP 1.2

### FUNCTIONALITIES AND FEATURES

- The standard version of the MEAM HEAT VP 1.2 has an adjustable power output for microwave heating and is operated manually via PLC with built-in safety controls.
- Maximum output power of 1.2 kW.
- Multimode oven.
- Water-cooled magnetron.
- Designed for testing or small-scale batch production.
- Inner dimensions of the microwave cavity are 600x300x400 mm.
- Suitable for high temperatures when using insulation.
- Optional entries on each side of the unit – easily modifiable for different configurations.
- Connections for vacuum, pressure, evacuation of exhaust fumes or gas feeding.
- Operation can be fully automated. However, required instrumentation, such as, temperature measurement and control systems or data acquisition are not included in the standard delivery.
- Safe and user friendly operation.
- Supplied in compliance with CE standards and safety regulations.

### TECHNICAL SPECIFICATIONS

#### Material

Standard: AISI304  
Special materials upon request

#### Electrical

Microwave output power	1.2 kW
Frequency	2.45 GHz
AC power input	3P+N+PE, 230 V, 50 Hz

#### Operating mode

Manual

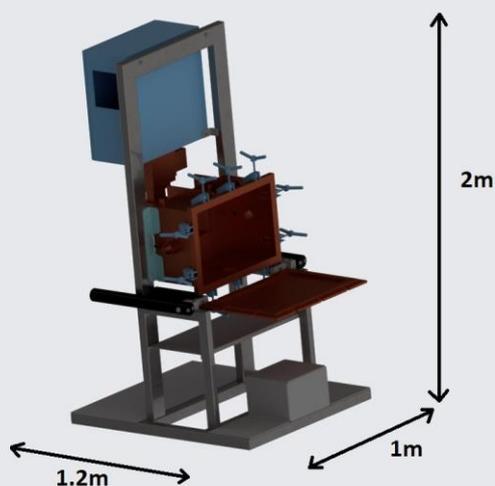
Control panel equipped with main power switch, system indicators, regulator of the output power, reset button and emergency stop button.

#### Indicators

- General power on
- PLC alarm
- Microwave source on
- Reset on

#### Protection

- Protection class EN60529/10.91
- EC Label, IP54
- Isolator protected
- Key lock operator



MEAM HEAT VP 1.2 dimensions.

