

ETHOS X 2.0

Main technical specifications

- The system must be equipped with n°2 magnetron of 950W (each) for a total power of 1.900W.
- The microwave cavity must have the following dimensions 43cm (W) 40cm (D) 41cm (H) and a volume of 70,5L to ensure maximum safety of operation and be suitable for high throughput rotors.
- The system must have an automatic lift to open and close the reactor by lifting the complete distillation module. The lift allows to maintain the distillation module always installed on the unit and to remove only the reactor.
- The system must have a 15 L rotating reactor with a dedicated holder for easy transportation.
- The distillation flow is continuously controlled via a thermocouple that detects the vapour temperature during the entire process.
- The microwave cavity must have a hole in the centre of the cavity designed for the connection between the internal part and the outside part of the cavity designed to work in microwave hydrodiffusion and gravity set-up. The hole must be designed to avoid microwave leakage.
- The software must be available in 11 languages, icon-driven, with a built-in library. The software must display simultaneously time, power, temperature.

HARDWARE

- 316 stainless-steel housing with multi-layer of corrosion resistant coating with a large flange with 36 mm ID. Additional multiple ports on the side walls of the microwave cavity
- Protected against acids and solvents with polymer coating on both inner and outer surfaces
- Self-resealing pressure responsive door mounted on springs, to ensure maximum safety even in case of overpressure release.
- Door completely made of 316 stainless steel.
- An automatic door locking system ensures to keep the door closed until the set temperature is reached. User can modify the set temperature according to the lab needs.
- Four independent door safety interlocks to prevent microwave emission in case of improper door closure or misalignment.
- Built-in turntable motor to rotate the glass reactor during the run and ensure even heating.
- Built-in exhaust system located above the microwave cavity and separated from the electronics to prevent corrosion.
- Dual magnetron system with rotating diffuser for homogeneous microwave distribution in the cavity.
- Exclusive magnetron protection from reflected microwave power
- Continuous and PID-controlled microwave emission at all power levels

- Emission and Safety Norms: EN61010-1:2001; EN61010-2-010:2003;UL61010-1:2004;CAN/CSA-C22.2 No 61010-1:2004;CAN/CSA-C22.2 No 61010-2-010:2004;EN61326-1:2006;CEI EN 61326-2-6:2006

| USER INTERFACE

- Touch-screen 4,3" TFT display 480x272 VGA resolution with 16M colors. Icon-driven multi-language (Chinese, English, French, German, Italian, Japanese, Polish, Portuguese, Russian, Spanish, and Turkish) software allowing the user the edit, saving, and run a virtually unlimited number of methods.
- Multiple levels access by password, such as User, Administrator and Service.
- The software must control all parameter online and display: temperature, time and power directly on the terminal.

| ADDITIONAL FEATURES

- Additional thermocouple to control the condensate temperature.
- The reactor must be made up of glass with cylindrical shape. The design of the reactor must allow the easy load of the sample and easy removal of the sample at the end of the extraction.
- The glass reactor must be supplied with a holder, specifically designed with a transparent material to microwaves to guarantee a safe handling at the end of the extraction.
- The reactor cover must be made of polymer and have to remain connected to the unit to simplify the change of the botanical in the reactor between runs.
- The distillation module must be directly installed on the top of the system and have to include two condensers and a burette for oil/ water condensation.
- The distillation module should reflux the condensed water into the reactor with the botanical.