



Fricke and Mallah Microwave Technology GmbH developed a completely new and highly innovative drying process for different products in the field of filtration by means of microwaves in a joint cooperation with an automation specialist. A patent application has been filed for this drying process.

The process was specially developed for drying dialysis filters and filter cartridges under vacuum atmosphere. In our new developed process, the microwaves are generated by Solid State microwave generators and not by magnetron.

The effective and gentle drying of the filters is achieved through the time-optimized use of power without damaging the semi-permeable membrane made of polyurethane.

The whole application is designed high modular. This means that the simple and trouble-free upscaling to any throughput is absolutely linear. The drying application can be used either manually or fully automatically via robot.

Key features:

Drying cells

- Individual design for the different products and highly reproducible
- Number of the drying cell as necessary for the capacity
- Long life time
- Product-related control of generated microwave in time and power
- Space-saving arrangement of the drying cells
- Variable in the field of automation
- Drying chamber in modular design, module size 1 - 4 chambers / module

Microwave generator

- Designed for industry drying and heating process applications
- Universally applicable and easy to integrate into PLC
- Microwave power: $\geq 500W$
- Frequency range: 2.4 - 2.5 GHz
- Lifetime of the microwave $>40,000$ h



Power Control Unit and Solid State RF Generator 500 W