

## COOLPEX Smart Microwave Reaction System

The Coolpex Smart Microwave Reaction System is an innovative microwave instrument which integrates an easy to use user-interface with an on board video camera allowing remote viewing of sensors and vessels on an external display.

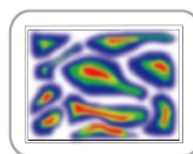
The Coolpex System, designed in Germany, is ideal for synthesis applications in the high pressure range. In just a few simple steps, the user can choose a preset or customized method via the on board control pad. System data is easily monitored via the 7 inch LCD screen.



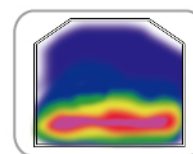
## Innovation

### Enhanced Microwave Focusing

- Focused Microwave Energy on the sample
- Homogenous microwave field
- High Microwave efficiency



Microwave in plain cavity



Microwave in COOLPEX cavity

### Control and Monitoring

- Remote observation of vessels and sensors is available through the built in video camera via an optional external monitor
- All operations are easily performed via the control pad

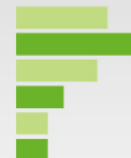
### Safety by Design

- Dual Temperature and Pressure control
- Electronic door lock
- Cavity 316L Stainless Steel construction

### Carousel Design (KJ-180)

Number of vessels	10
Inner Vessel	TFM
Inner Vessel Volume	100mL
Vessel Sleeve	PEEK
Maximum Operation Pressure	40 bar
Maximum Pressure	100 bar
Maximum Operation Temperature	250°C
Maximum Temperature	310°C

**Simpler process » Easier work**



## Specifications

Microwave Resonant Cavity	Custom Designed Microwave Resonant Cavity
Cavity Material	316L Stainless Steel
Volume of Resonant Cavity	34L
Maximum Microwave Power Output	1200W
Microwave Frequency	2450MHz
Microwave Emission Mode	Non-pulse Continuous Microwave Output
Microwave Control Mode	High Frequency Closed-loop Feedback (PID) Control
AC Power Input	220-240V/50Hz, 8A
Carousel	10 Vessels Simultaneous Operation (KJ-180)
Pressure Measurement Control System	Pressure Measurement Range: 0-50bar Pressure Measure Precision: $\pm 0.1$ bar Pressure Control Stability: $\pm 0.5$ bar
Temperature Measurement Control System	Temperature Measurement Range: 0-300°C Temperature Measure Precision: $\pm 1$ °C Temperature Control Stability: $\pm 1$ °C
Exhaust System	Anti-corrosion Converting-frequency Centrifugal Blower; Maximum Air-flow Capacity: 3.5m <sup>3</sup> /min
Working Environment Temperature	0-40°C
Relative Humidity	15%-80%RH
Exterior Dimension	502mm×600mm×562mm (W×H×D)
Weight	46Kg

Statement: Specification may change without notice. PreeKem reserves rights of final explanation. Version: 20190926

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