## PELCO BioWave Laboratory Tissue Processing System



[Why use a PELCO microwave?](http://www.tedpella.com/microwave_html/micrjust.htm)

* The ability to process tissue at low temperatures, allowing for optimum tissue feature and structure preservation. This feature is only available from us.
* System level integration with the load cooler, power controller and vacuum/bubbler in one cabinet. No installation or hookup required.
* Main Digital Display, which shows sample Probe Temperature or Water Load Temperature or Wattage setting.
* True variable wattage power control with 6 preprogrammed settings from 250 to 750 Watts
	+ Smart power that automatically compensates for line voltage fluctuation to maintain constant microwave power
	+ Digital display of set power for ease of calibration
	+ LED indication of microwave magnetron "on" or "off"
* Temperature restriction set point is used to precisely control sample temperature
	+ Digital display of sample temperature
	+ PelGraph™ software for temperature charting, alarms, and data filing
	+ Digital display of temperature restriction set point and continuously variable setting knob
	+ PTFE-coated temperature probe
	+ One-touch control pad and timer display:
		- 10 programmable one-touch keypads. Each can be programmed to run four stages up to 60 minutes, or all four included together for a total of up to four hours.
		- Manual time entry in minutes and seconds up to 60 minutes
		- Digital timer display counts down processing time
* Built-in load cooler recirculator to maintain an ambient uniform processing environment
	+ Digital display of load temperature
	+ Inclusion of the patented PELCO ColdSpot®, a temperature controlled processing surface which eliminates hotspots. This accessory allows you to use microwave exposure to process your sample without relying on specimen heating alone.
* Built-in air bubbler for adjustable sample solution agitation
* Integrated vacuum with continuous or automatic operation for variable time and pump/vent cycling
	+ Vacuum Gauge displays vacuum achieved
* Vacuum and bubbler ports conveniently located near the front of the Microwave cavity
* Dual fans that provide continuous exhaust, supplying negative air movement when the chamber door is opened, keeping reagent vapors moving up the exhaust.
* Full line of accessories: PELCO TissueVac™ Vacuum Chamber; Sequenza™ Slide Processor, PELCO PrepEze™ Tissue Holder
* Laboratory engineered: The only UL-Certified microwave tissue processing system intended for laboratory use

## PELCO BioWave DFR-10 Tissue Processing System



[Why use a PELCO microwave?](http://www.tedpella.com/microwave_html/micrjust.htm)

* System maintains constant specimen temperature between 4°C and 40°C while applying continuous microwave energy up to 450 Watts.
* Main Digital Display, which can display either sample Probe Temperature or Wattage setting.
* True variable Wattage power control with 6 preprogrammed settings from 100 to 650 Watts
	+ Smart power that automatically compensates for line voltage fluctuation to maintain constant microwave power
	+ Digital display of set power for ease of calibration
	+ Processing insert accessory that facilitates continuous circulation of reagent around specimens
	+ LED indication of when the microwave magnetron is on and off
* SteadyTemp™ recirculator with 500 Watts chilling capacity
	+ Maintains precise control of processing fluid and thus sample temperature
	+ Reagent reservoir with 7 liter capacity
	+ Recirculator provides continuous circulation to the Insert to remove boundary layer effects and extract the microwave heat
	+ Digital display of processing fluid temperature
* Temperature restriction set point for over-temperature control
	+ Digital Display of sample temperature
	+ PelGraph™ software for temperature charting, alarms, and data recording
	+ Digital Display of temperature restriction set point and continuously variable setting knob
	+ PTFE-coated temperature probe
* One touch control pad and timer display
	+ 10 programmable one-touch keypads. Each can be programmed to run four stages up to 24 hours each for a total of 96 hours
	+ Manual time entry in hours and minutes up to 24 hours
	+ Digital timer display counts down processing time
* DFR-10 Insert
	+ Processing container holds 2 liters solution continuously exchanged with the SteadyTemp™ reservoir
	+ Includes PTFE Cassette rack that holds 58 tissue cassettes
* Vapor Recovery system removes vapors from the SteadyTemp™ reservoir
* Full line of accessories: PELCO ColdSpot®, PELCO PrepEze™ and microwave sample accessories - all included
	+ Integrated air pump draws vapors through a vapor trap into the main microwave exhaust
* Dual fans that provide improved continuous exhaust
* Can be used in conjunction with the 36115 PELCO ColdSpot® (optional) in place of the DFR-10 Insert for conventional tissue processing protocols

## PELCO accessories

Accessories by [Ted Pella](http://www.tedpella.com).



* PELCO® EM Microwave Vacuum Chamber
* PELCO® Coldspot
* PELCO® Microwave Capsule Holder
* PELCO® Prep-Eze™ Line of Tissue Holders

## EMS 9000 Precision Pulsed Oven



* 825 Watt nominal output with variable Wattage
* User-programmable presets and smart interface displays (Integrated on-board digital controller)
* Bubble Manifold for 5 tubes
* Forced exhaust system with fail safe interlock
* Adjustable duty cycle one second and greater for very precise process control
* Magnetron pre-warming
* Right side closet
* Vacuum system for rapid infiltration (optional)
* Load cooler/circulation system (optional)
* 3 different timer modes
* Multiple safety Interlocks
* Visual and Aural Warnings on errors and malfunctions
* All controls are automated
* Flexible temperature probe

Advantages of the EMS 9000 Precision Pulsed Laboratory Microwave Oven:

* Ease of use: User-friendly touch keypad to set and store all parameters - programmable
* Multiple running modes
* Multiple bubble mixing (5 ports)
* Adjustable temperature probe
* Ventilation
* Optional vacuum cycling for rapid infiltration
* Optional Load cooler
* Safety exhaust fans with fail safe interlock
* Integrated on board digital controller

## EMS 820 Microwave Oven



* Easy operation and maintenance
* Easily adjusted effect % knob
* Accurate temperature control
* Well ventilated chamber
* 3 different timer modes
* Built in air pump for mixing
* Manifold for up to 5 mixing tubes
* Adjustable temperature probe holder
* Stainless steel chamber
* Glass fiber reinforced silicone floor
* Built in reflector for even distribution of microwaves
* On/Off rotator switch