

# PELCO BioWave® Pro

## SUPERIOR MICROWAVE TECHNOLOGY

- Best temperature and power control on the market
- Superior processing – consistent results

## EASILY CUSTOMIZED FOR A VARIETY OF APPLICATIONS

- Electron Microscope Tissue Processing
- Immunolabeling
- Formaldehyde Fixation and EDTA Decalcification
- Paraffin Tissue Processing



**TED PELLA, INC.**  
Microscopy Products for Science and Industry

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# VERSATILITY & RELIABILITY WITHOUT HIGH COST

## BENEFITS OF THE PELCO BioWave® Pro

- Versatile Processing System - Unrivaled application flexibility
- Enhanced Ease of Operation - Pre-programmed protocols and settings
- Consistent High Quality Results - Best microwave environment control
- Precision Sample Temperature Control - The PELCO SteadyTemp® Pro provides advanced temperature control with a smaller footprint



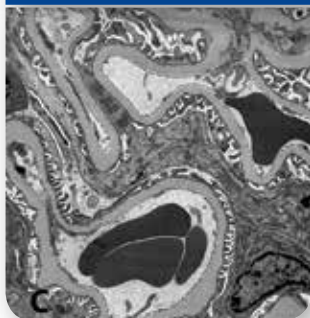
## PELCO BioWave® Pro SYSTEM SPECIFICATIONS

|                                    |   |
|------------------------------------|---|
| <b>Microwave power range</b>       | Continuous power settings from 100-750W               |
| <b>Microwave frequency</b>         | 2.45 Ghz  |
| <b>Microwave power control</b>     | Programmable controller with 10 modifiable presets    |
| <b>Function control</b>            | 6" Touch screen user interface                        |
| <b>Temperature control</b>         | ± 1°C for most aqueous solutions                      |
| <b>Cooling internal</b>            | Integrated ambient water cooling system               |
| <b>Cooling external (optional)</b> | PELCO SteadyTemp™ : 450W chilled cooling system       |
| <b>Magnetic stirrer</b>            | Integrated, 0-300rpm speed                            |
| <b>Exhaust</b>                     | 110cfm capacity                                       |
| <b>Venting</b>                     | Automatic when door is opened                         |
| <b>Vacuum system</b>               | 20" Hg, 3 selectable modes                            |
| <b>Air bubbler</b>                 | Up to 0.8ltr/min with 2.5" column of water pressure   |
| <b>Protocol management</b>         | Protocols can be stored, using a total of 200 steps   |
| <b>Certification</b>               | ETL/CE  |
| <b>Dimensions</b>                  | 55.3 W x 51.4 D x 54.6 H cm (21.75" x 20.25" x 21.5") |
| <b>Weight</b>                      | 37.7 kg (83 lbs)                                      |
| <b>Power required</b>              | 36500: 15A/115VAC; 36500-230: 10A/230VAC              |

# AVAILABLE APPLICATION KITS

## ELECTRON MICROSCOPY TISSUE PROCESSING

(Prod No. 36500-10)

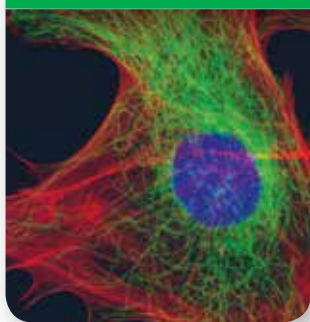


Kit includes: PELCO ColdSpot® Pro, PELCO® EM Pro Vacuum Chamber, Capsule Prep Station, Microwave Polymerization System, PELCO Prep-Eze™ and PELCO® Microwave Microcentrifuge Tubes PTFE Holder

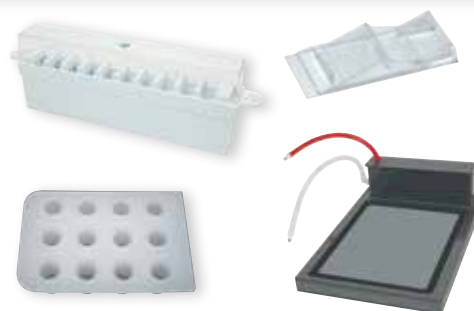


## IMMUNOLABELING

(Prod No. 36500-20)

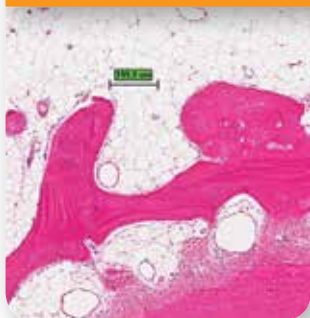


Kit includes: PELCO ColdSpot® Pro, PELCO® EM Pro Vacuum Chamber, PELCO Prep-Eze™ Rectangular Wellplate Inserts and Sequenza™ Slide Rack & Coverplate™ Assemblies



## FORMALDEHYDE FIXATION AND EDTA DECALCIFICATION

(Prod No. 36500-30)

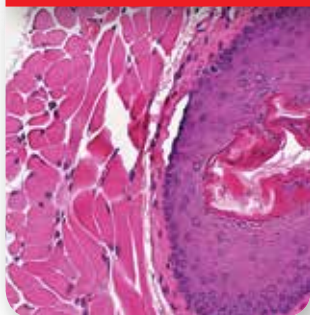


Kit includes: DFR Insert & Cassette Holder, Microwave Tissue Jars and PELCO SteadyTemp™ Pro Digital Thermolectric Recirculating Chiller

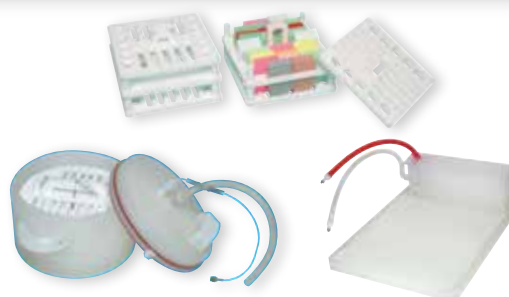


## PARAFFIN TISSUE PROCESSING

(Prod No. 36500-40)



Kit includes: PELCO ColdSpot® Plus, PELCO TissueVac® Histology Vacuum Accessory, PELCO HistoWave® Cassette System and Paraffin Heating Tile



## PELCO SteadyTemp™ Pro Digital

Freon-free thermoelectric technology  
Recirculating 400 watt chiller - 600 watt heater

### PROVIDES PRECISE FULLY AUTOMATIC TEMPERATURE CONTROL FOR:

- Formaldehyde Fixation
- Decalcification with EDTA
- *In Situ* Hybridization
- Immunostaining

Exterior Dimensions: 324 x 280 x 324mm  
(12.75" x 11" x 12.75")  
Weight: 12.7 kg (28 lbs.)  
Electrical: Universal Voltage: 85-265 VAC  
50/60Hz, 7.5A  
Noise level: 60 dba

Product No. 50062



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## MICROWAVE METHODS REFERENCES AND SITES

EM processing (fixation through resin infiltration) reduced to <40 min.

EM resin polymerization (epoxy resins and LR White) reduced to 75 min.

1. Giberson RT, Austin RL, Charlesworth J, Adamson G, Herrera G.A. (2003) Microwave and Digital Imaging Technology: Reduce Turnaround Times for Diagnostic Electron Microscopy. *Ultrastruct. Pathol* 27:187-196.
2. [www.meshulspecial.wordpress.com](http://www.meshulspecial.wordpress.com)
3. [www.tedpella.com/microwave\\_html/EM-proto.htm](http://www.tedpella.com/microwave_html/EM-proto.htm)

Antibody labeling (fluorescence, DAB or colloidal gold) reduced to <60 min.

1. Ferris, A.M., Giberson, R.T., Sanders, M.A., Day, J.R. (2009) Advanced laboratory techniques for sample processing and immunolabeling using microwave radiation. *J. Neurosci. Methods* 182(2):157-164.
2. [www.meshulspecial.wordpress.com](http://www.meshulspecial.wordpress.com)
3. [www.tedpella.com/microwave\\_html/assisred-immunolabeling.htm](http://www.tedpella.com/microwave_html/assisred-immunolabeling.htm)
4. [www.cbs.umn.edu/ic/protocols](http://www.cbs.umn.edu/ic/protocols)

Microwave-assisted formaldehyde fixation improves morphology and antigenicity

1. Galves, J.J., Giberson, R.T., Cardiff, R.D. (2006) The role of microwave radiation in reducing formaldehyde fixation times. *The J. Histotechnol.* 29:113-121.
2. Ferris, A.M., Giberson, R.T., Sanders, M.A., Day, J.R. (2009) Advanced laboratory techniques for sample processing and immunolabeling using microwave radiation. *J. Neurosci. Methods* 182(2):157-164.
3. [www.cbs.umn.edu/ic/protocols](http://www.cbs.umn.edu/ic/protocols)