

# PATHOS DELTA

World's first hybrid tissue processor  
(microwave + conventional)



A fully automatic system to fit your workflow

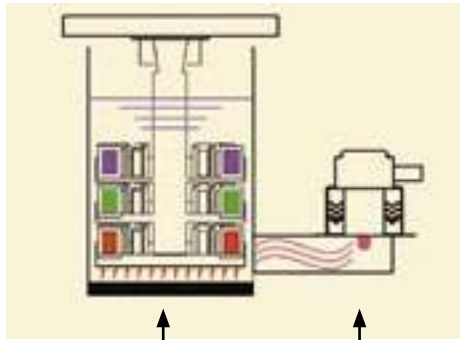


MILESTONE

# Pathos Delta

## Innovative hybrid processing technology

The Pathos Delta is the result of Milestone's 13 years of know-how in applying microwaves to tissue processing. The Pathos Delta provides the ideal combination of automatic processing performance, reagents efficiency and environmental sensitivity, with the morphology and quality histologists and pathologists expect.

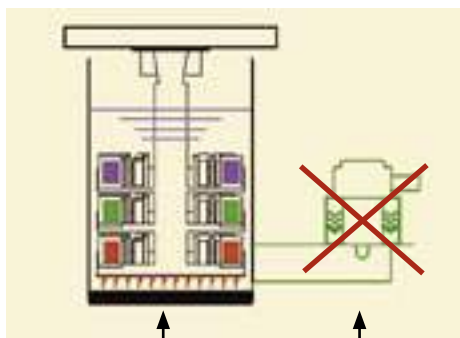


Conventional  
resistance heating

Microwave  
heating

### Simultaneous microwave PLUS resistance heating

The retort's resistance heated base plate speeds up the ramping time to the pre-set processing temperature, followed by ultrarapid dehydration/clearing steps carried out by microwave technology for faster turn-around.



Conventional  
resistance heating

Microwave  
power off

### Resistance heating only

The Pathos Delta operates as a conventional overnight tissue processor. Its parameters can be set to fit your specific workflow requirements or to fulfill all CAP/ASCO guidelines for assessing Her-2 and all Consensus Recommendations for ER testing in breast tissues.

## The freedom to process according to your needs:

- Any type of specimen from 1 mm to 10 mm in thickness
- Up to 300 standard cassettes or up to 24 supermega cassettes
- Whole mount tissue slices (prostate/breast)
- Formalin or formalin-free fixation
- Xylene or xylene-free clearing
- Conventional sequence of reagents or just ethanol/isopropanol
- Open system. No proprietary reagents required

# Pathos Delta

## Benefits for all



### Grossing Room Operator

- Standard grossing rules.
- No need to standardize on 1.5/2.5 mm.
- Use formalin or Milestone's FineFIX formalin-free fixative.



### Histologist

- Process as required: 20-70-140-210 cassettes.
- Process with only three/four conventional reagents.



### Pathologist

- Same-day diagnosis of permanent slides.
- Less stress through more even workload.



### Lab Manager

- Improved service performance.
- Improved work environment.
- Reduced cost.



### Oncologist and Clinician






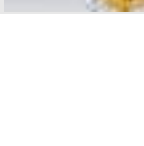
- Within hours oncologists and clinicians can advise patients on the base of definitive diagnosis.



### Patient

- Elimination of needless anguish.
- More timely start of needed treatment.

## Flexible processing load capabilities

Rack type	Cassette type/number	Notes
	192 Standard (192)	Split rack. Fits most embedding centers
	210 Standard (210)	
	300 Standard (up to 300 random)	For microwave overnight processing
	24 Supermega / 24	Suitable for whole mount (e.g. prostate)
	AEC Rack Up to 8 cassette magazines	Rack suitable for automatic embedding centers
	WMS rack 6/8 slices	Special rack for processing of large whole mount slices (e.g. breast)

# Don't change your workflow. Just improve it with cross-over processing options

## ULTRARAPID MICROWAVE PROCESSING



**DAY  
MODE**

Early in the day, process on-demand, by microwave technology

- **urgent specimens**
- **small biopsies**

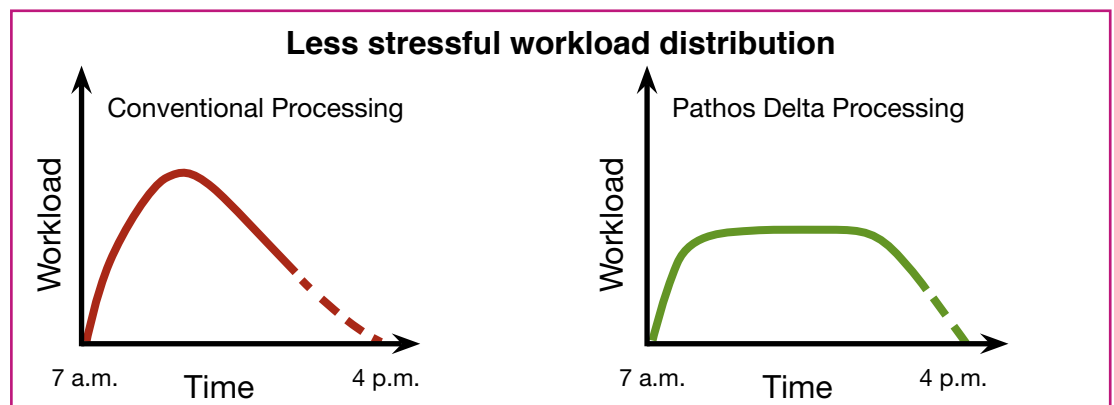
in as little as 60-120 minutes

This operation will cover about 30-40% of the average lab workload. Specimens can be ready for embedding, cutting, staining, allowing same-day diagnostic reporting.



**NIGHT  
MODE**

Late afternoon load any remaining specimens in your fixative of choice and set Delay Start. In the early pre-dawn hours Pathos will automatically start processing. All specimens will be ready to be embedded, cut, stained at the start of the workday.



## CONVENTIONAL PROCESSING



**NIGHT  
MODE**

The Pathos Delta can be set up to operate as a standard, conventional, resistance heated processor.

Process breast tissue for assessing Her-2 in full compliance with CAP/ASCO guidelines and FDA Her-2 approved testing, in accordance with heating mode, temperatures, and reagent types.

Follows standard validation procedures for new lab instrumentation.

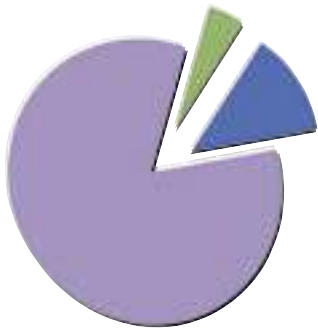


## Milestone market leadership

- **Largest installed base of microwave tissue processors.**
- **Over 1300 units in operation worldwide.**
- **The de facto standard in rapid processing.**
- **Lowest cost of ownership.**
- **Highest quality of application support.**

# Pathos Delta

Designed with the user in mind



- Pathos Delta small biopsies
- Pathos Delta regular biopsies
- Conventional regular biopsies

## Unmatched processing times. Six times faster than conventional processing

Transplant		60 minutes including fixation
1 mm		65 minutes Add 10 minutes to include fixation
3 mm		155 minutes Add 30 minutes to include fixation
5-6 mm		290 minutes Add 60 minutes to include fixation

## Easy to use



① Load rack with up to 210 cassettes.



② Select favourites



③ Select a protocol from favourites list



④ Enter number of cassettes.

**Press start  
- That's all.**

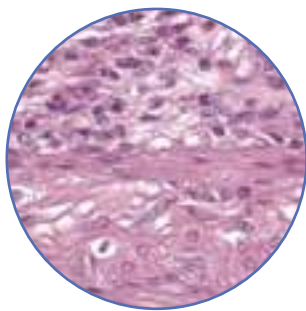
## Highest standards of safety

- Built-in vapor exhaust system for the entire work area.
- Built-in charcoal/dust filter for stand-alone operation, plus exhaust tube to external fume hood.
- Transfer of cassette rack to and from processor with enclosed carrier.
- Audible alarms.
- Easy, safe removal of discarded wax.

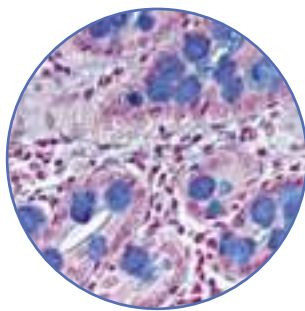


# Pathos Delta

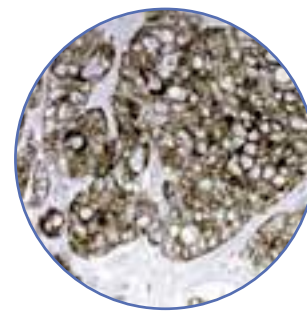
Unrivalled quality



*Colonic biopsy, microwave processed in 30 minutes H&E x 400.*

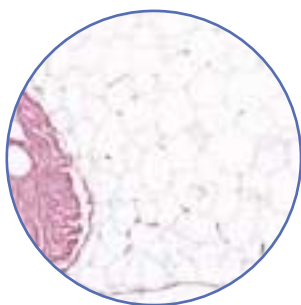


*Bowel biopsy, microwave processed in 90 minutes. Alcian blue microwave staining of mucin producing cells x 400.*



*Adenocarcinoma. Immunostaining of Cytokeratin CAM5.2. Microwave processed x 400.*

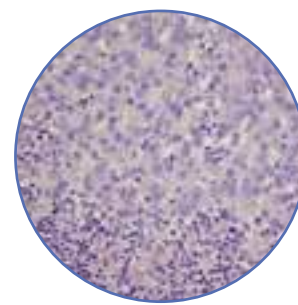
## Superior processing of fatty tissues (i.e. breast).



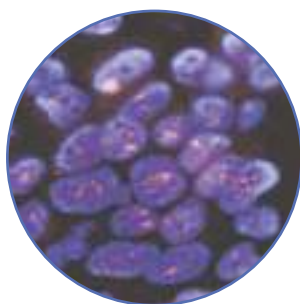
*Breast biopsy microwave processed H&E x 50.*



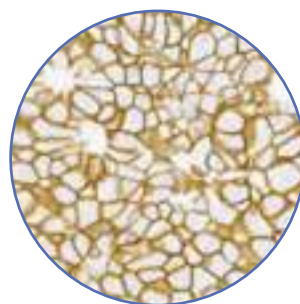
*Benign breast tissues, microwave processed. Note the excellent morphological preservation H&E x 200.*



*Metastatic breast tumor in lymphnode, microwave processed H&E x 400.*



*Breast cells HER2 amplification detection by FISH processed by microwaves. Red-labeled HER2 probe, original magnification x 800.*



*Breast cells HER2 amplification detection by IHC, processed by microwaves. Hematoxylin counterstain, original magnification x 400.*

### Milestone. Helping patients

*We are committed to reducing patients' anxiety and stress by providing pathologists and histologists with innovative technologies to enable same-day diagnostic results.*

# Pathos Delta software

The essence of simplicity



## Icons driven. Simple. Smart.

- Easy customization of preset programs.
- Fully automatic control of process parameters (temperature, time, vacuum, power).



## Main startup screen

Displays the user's favorite, most utilized programs ready for immediate selection and start (up to 16 programs).



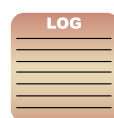
## Reagents management system

Software controlled transfer and replacement of processing reagents.



## Full compliance to CAP – C.L.S.I. guidelines

The Pathos Delta will enable the laboratory manager to fulfill the requirements set by the C.L.S.I.\* and CAP\*\* inspection guidelines.



## Events log for full documentation

Recording logs of events, reagents, processing.

\*REFERENCE: Clinical and Laboratory Standards Institute. Microwave Device use in the Histology Laboratory; Approved Guideline. C.L.S.I. document GP28-A (ISBN 1-56238-563-1).

\*\*REFERENCE: Commission on laboratory accreditation. Anatomic pathology checklist - Rev. September 2007

# Pathos Delta

Change the way you look at tissue processing

US Patent 7,075,045  
European Patent 1 605 243

## Open System

- No captive reagent commitments.
- Use of histology grade wax.

*Work area totally enclosed during operation.*

*Built-in charcoal/dust filter for stand-alone operation.*

*Resistance heated paraffin cavity Eliminates cleaning cycles.*

*Microwave processing cavity.*

*Customized reagents type and sequence.*



## MilesNET. Remote diagnostic system

An advanced system of remote assistance through a standard internet connection. It dramatically reduces downtime increasing the efficiency of your laboratory.

MilesNET allows Milestone's service department to:

- Verify the function of the entire unit and each sensor or device
- Install software upgrades
- Run a fast diagnosis of problems
- Schedule the appropriate preventive maintenance
- Collect all data. "No Guessing".

MilesNET minimizes:

- Pathos downtime
- time to repair
- diagnostic time on phone
- recovery time



**Pathos Delta** *two processor types for the price of one*



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