



# LOGOS

The first all-in-one hybrid tissue processor

- Conventional
- Rapid, fully automated single retort
- Rapid, simultaneous dual retort

The ideal tool for the "lean" lab



### Lean lab? Think LOGOS.

Addressing the needs of "lean" labs for a flexible tissue processor. Highly adaptable to customized workflow streams.

Fully automated processing in overnight and rapid mode

Parallel processing in continuous flexible-size batch mode

Up to 140 cassettes with 1 gallon reagent jars

Up to 210 cassettes with 5 liter reagent jars

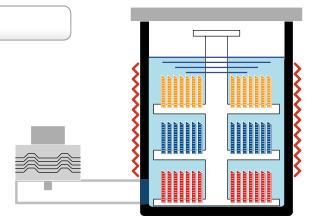
Any kind of tissue, up to 6 mm thickness

# LOGOS

The all-in-one tissue processor with the exclusive Milestone patented<sup>\*</sup> microwave hybrid processing technology.

#### **Resistance heating mode**

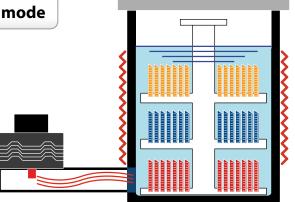
The LOGOS will operate as a conventional resistance heated overnight tissue processor. Its processing parameters can be set to fit your specific workflow requirements. The LOGOS fulfills all CAP/ASCO guidelines for assessing Her-2, ER, PgR testing in breast tissues.



#### Simultaneous microwave and resistance heating mode

Ultrarapid dehydration/clearing steps are carried out by microwave heating technology for faster turn-around.

The retort's resistance heating speeds up the ramping time to the pre-set processing temperature.

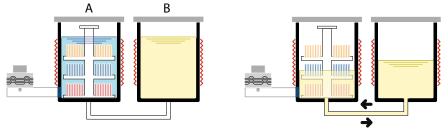


\*European Patent EP 1605243 - U.S. Patent 7,075,045

## LOGOS. Innovative workflow options for the "lean" lab

**Night Operation** 

As a fully automated, single retort, overnight conventional tissue processor

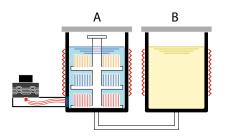


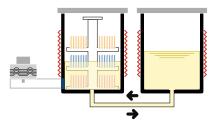
During the night, LOGOS can run protocols as an advanced resistance heated conventional unit. Molten wax is transferred automatically to and from retort A for impregnation step. Xylene-free protocols with four reagents only: formalin, ethanol, isopropanol and wax. If required, xylene protocols are available. As an alternative, run LOGOS as a hybrid tissue processor (delayed start) with desired completion time set by user.



### Day Operation (1)

As a fully automated, single retort, rapid hybrid tissue processor



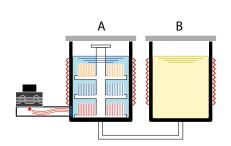


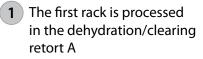
During the day, LOGOS can run urgent biopsies with hybrid microwave technology as a fully automated unit. Molten wax is transferred automatically to and from retort A for impregnation. Dedicated single batch runs with short cleaning cycles.

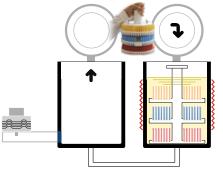


### Day Operation (2)

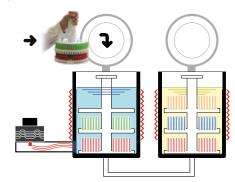
As a sequential, dual retort, simultaneous batch hybrid tissue processor





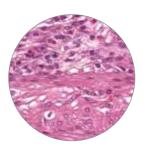


2 At the end of the cycle, the rack is manually transferred to the wax retort B

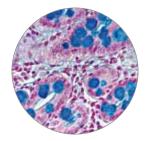


3 A new rack is placed in the retort A. The two racks are simultaneously processed. One in the dehydration step and one in the wax step for higher throughput.

### **Consistent high quality slides with Milestone processing**

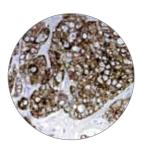


Colonic biopsy, microwave processed in 30 minutes H&E (x 400)



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

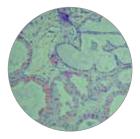




Adenocarcinoma. Immunostaining of Cytokeratin CAM5.2. Microwave processed (x 400)

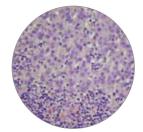


Breast biopsy microwave processed H&E (x 50)

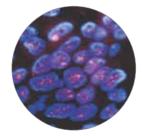


Benign breast tissues, microwave processed. Note the excellent morphological preservation H&E (x 200)

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



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 (x 800)



Breast cells HER2 amplification detection by IHC, processed by microwaves. Hematoxylin counterstain (x 400)

### **Unmatched processing times**

Six times faster than conventional processing enabling same-day diagnosis

Specimen thickness	Workflow with rapid protocols. Fully automated	Improved workflow with parallel processing in continuous batch mode	2	
1 mm	Full batch <sup>*</sup> every 1 h 15 minutes (including fixation)	Full batch <sup>*</sup> every 40 minutes		
3 mm	Full batch <sup>*</sup> every 3 h 17 minutes (including fixation)			
5 mm	Full batch <sup>*</sup> every 5 h 50 minutes (including fixation)	Full batch <sup>*</sup> every 3 hours 40 minutes	<ul> <li>cassettes with</li> <li>1 gallon and up to</li> <li>210 cassettes with</li> <li>5 liters reagent jars</li> </ul>	

### With LOGOS benefits for all



#### Patient

Minimize stress of waiting for diagnosis
Elimination of needless anguish
More timely start of needed treatment



Grossing Room Operator • No need to modify your grossing procedures • <u>No need to standardize</u> on 1.5/2.5 mm



#### Pathologist

 Reduce stress through better control of workload

• Same-day diagnosis of permanent slides available on demand



#### Histologist

Process as required: 70-140-210 cassettes
Process with no transfer of reagents from commercial jars.
Four conventional reagents only



#### Lab Manager

Improved workflow with night and day protocols
Improved work environment

Reduced cost



Oncologist and Clinician • Within hours oncologists and clinicians can advise patients on the base of definitive diagnosis

### Milestone world market leadership

- Largest installed base of microwave tissue processors
- 🗸 Over 1,600 units in operation worldwide
- The de facto standard in rapid processing
- Lowest cost of ownership
- Highest quality of application and service

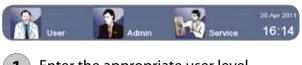


### LOGOS. Green, safe and economical

Packed with the latest technology for improved work environment



### LOGOS. Software like never before. We could not make it more intuitive



Enter the appropriate user level. The operator can recall and run existing processing protocols. Only the administrator can modify programs or store new ones.



2 The administrator can easily setup a new protocol by selecting through on the touchscreen keyboard the multiple choices available to him for each step.



3 The complete summary of the new protocol is displayed for approval or modification before starting the process.



Intuitive touch display. Icon-driven, user friendly

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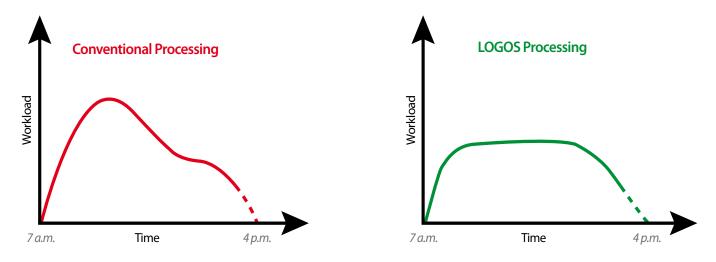
4 An events log lists all activities carried out with the unit for documentation, service and quality assurance purposes.

### LOGOS. Less stressful workload distribution

During the morning the histotech can process on-demand the urgent and all the small biopsies. These biopsies, which constitute 30-40% of the workload of an histopathology lab, are rapidly processed in 1 hour 15 minutes to 3 hours.

These short processing times allow embedding, cutting and staining of specimens so that slides are available to the pathologist in the afternoon of the same day.

The remaining cassettes will be processed automatically during the night by either conventional or hybrid heating technology.



### 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:

- LOGOS downtime
- Time to repair
- Diagnostic time on phone
- Recovery time



**MILESTONE Srl** - Via Fatebenefratelli, 1/5 - 24010 Sorisole (BG) - Italy Tel: +39 035 4128264 - Fax: +39 035 575498 www.milestonemedsrl.com - email: medical@milestonesrl.com

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#### MILESTONE MEDICAL TECHNOLOGIES, INC.

6475 Technology Avenue, Suite F, Kalamazoo, MI 49009 - USA Tel: 269-488-4950 - Toll-free: 866-995-5300 - Fax: 269-488-4949 www.milestonemed.com - email: info@milestonemed.com



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