



**MILESTONE**  
H E L P I N G  
P A T I E N T S

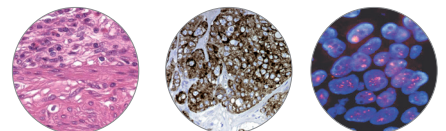


# LOGOS

The first all-in-one hybrid tissue processor

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

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.

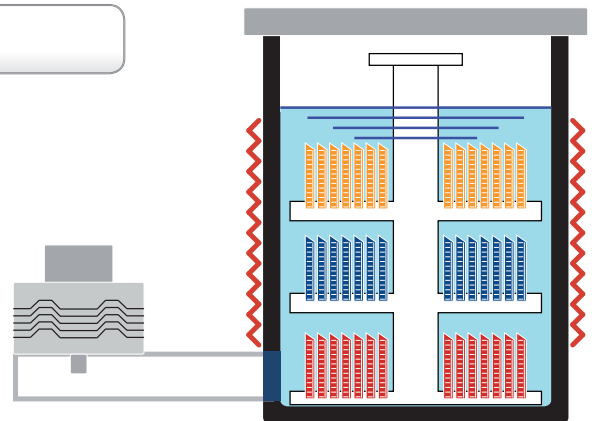
- ✓ Fully automated processing in overnight and rapid mode
- ✓ Parallel processing in continuous flexible-size batch mode
- ✓ Up to 140 cassettes with 1 gallon standard reagent containers
- ✓ Up to 210/300 cassettes with 5 liter reagent containers
- ✓ Any type of tissue, up to 5mm thickness in Split rack (140/210) or Random Basket rack (300)
- ✓ Any type of tissue, up to 8mm thickness in Supermega Cassettes rack (24)

## LOGOS

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

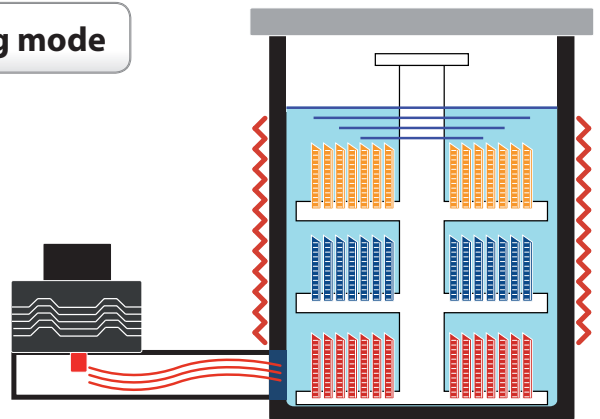
### Resistance heating mode

The LOGOS can 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.



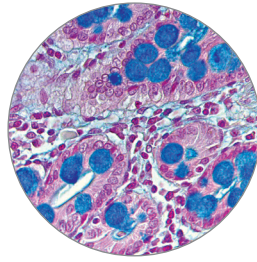
### Simultaneous microwave and resistance heating mode

Ultra-rapid dehydration/clearing steps are carried out by microwave heating technology for faster turnaround. The retort's resistance heating speeds up the ramp up time to the pre-set processing temperature.

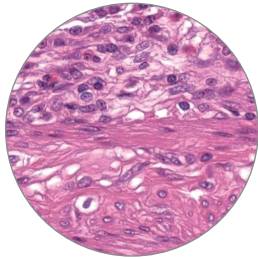


\*European Patent EP 2 278 296 - U.S. Patent 7,075,045

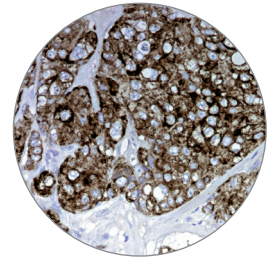
# Consistent high quality slides with Milestone processing



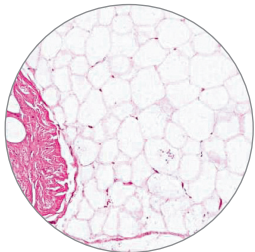
*Bowel biopsy.  
Alcian blue microwave staining  
of mucin producing cells (x 400)*



*Colonic biopsy,  
microwave processed.  
H&E (x 400)*

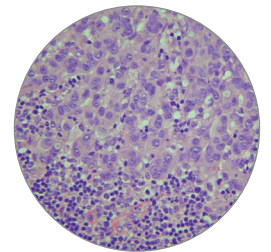


*Adenocarcinoma.  
Immunostaining  
of Cytokeratin CAM5.2.  
Microwave processed  
(x 400)*

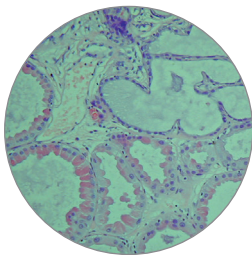


*Breast biopsy microwave  
processed H&E (x 50)*

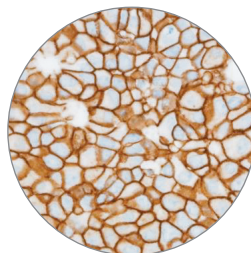
## Superior processing of fatty tissues (i.e. breast)



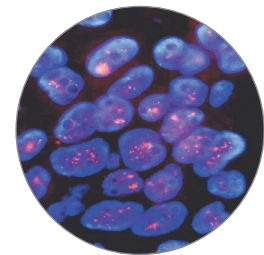
*Metastatic breast cancer  
in lymph node, microwave  
processed H&E (x 400)*



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



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



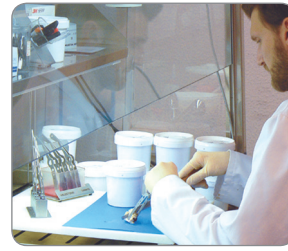
*Breast cells HER2 amplification  
detection by FISH processed  
by microwaves. Red-labeled  
HER2 probe (x 800)*

# With the LOGOS everyone benefits



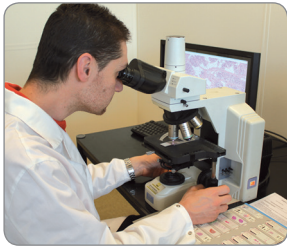
## Patient

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



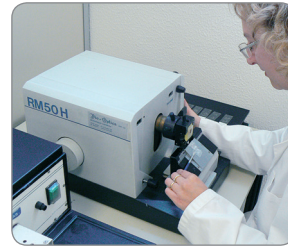
## Grossing Room Operator

- No need to modify your grossing procedures
- No need to standardize 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 containers. 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 basis of the definitive diagnosis

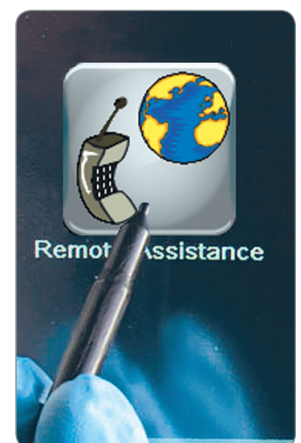
## MilesNET. Remote diagnostic system

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



# Unmatched processing times

Six times faster than conventional processing enabling same-day diagnosis

Specimen thickness	Rapid protocols. Fully automated	Improved workflow with sequential processing in continuous batch mode
<b>Transplant</b> (less than 1mm $\varnothing$ )	Full batch* processed in 34 minutes (including fixation)	Batch* loading every 21 minutes
<b>1 mm</b> (i.e. GI/Endoscopic biopsies)	Full batch processed in 1 h 40 minutes (including fixation) - 210 cassettes	Batch loading every 1 h 16 minutes
<b>1 mm</b> (i.e. GI/Endoscopic biopsies)	Full batch processed in 1 h 30 minutes (including fixation) - 140 cassettes	Batch loading every 1 h 6 minutes
<b>3 mm</b>	Full batch** processed in 3 h 5 minutes (including fixation)	Batch** loading every 2 hours
<b>5 mm</b>	Full batch** processed in 5 h 56 minutes (including fixation)	Batch** loading every 3 hours 36 minutes

Note: The above timing are referred to ethanol/isopropanol protocols, excluding reagent movement.

\* Up to 70 cassettes

\*\* Up to 140 cassettes with 1 gallon containers and up to 210 cassettes with 5 liter reagent jars



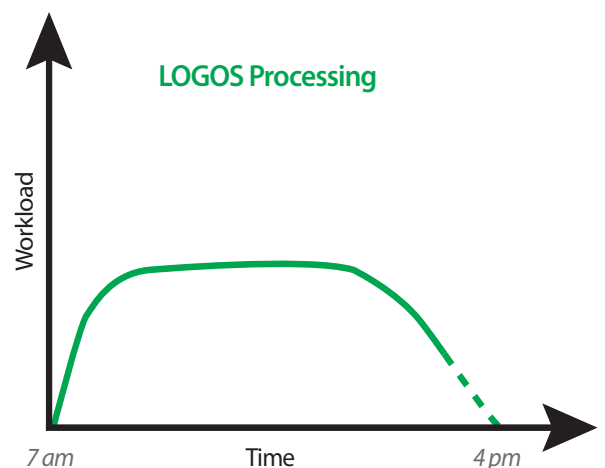
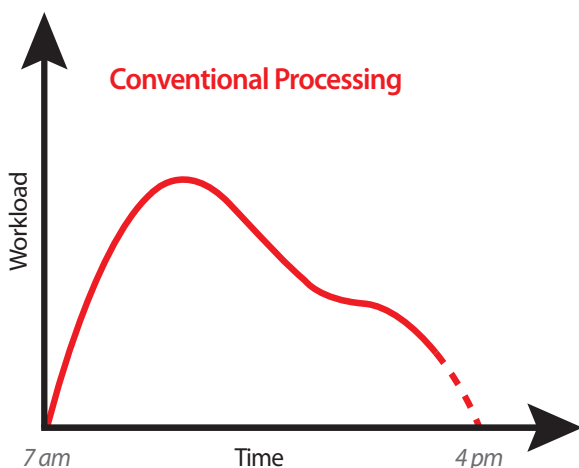
## LOGOS. Less stressful workload distribution

Throughout the day the histotech can process urgent and small biopsies, on demand.

These samples/biopsies, which can constitute 40-60% of the workload of a histopathology lab, are rapidly processed.

The short processing time allows embedding, cutting and staining of specimens so that slides are available to the pathologist on the same day.

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

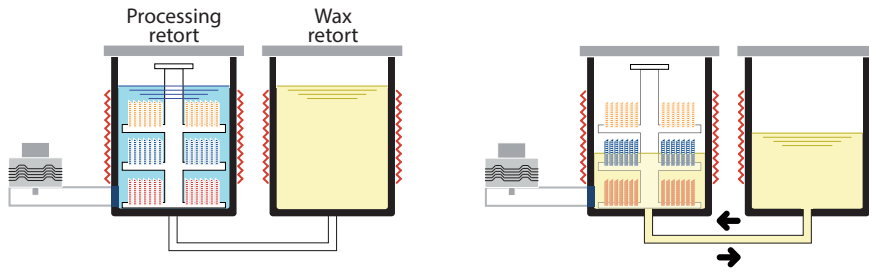


# LOGOS. Innovative workflow options for the “lean” lab



## Night Operation

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

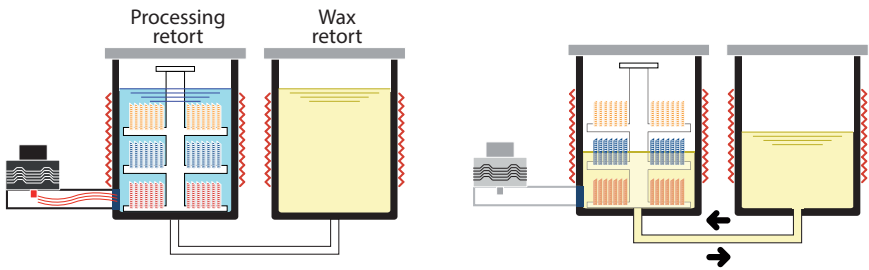


During the night, LOGOS can run protocols as an advanced resistance heated conventional processor. Molten wax is transferred automatically to and from the processing retort for the impregnation step. Xylene-free protocols with four reagents only: formalin, ethanol, isopropanol and wax. If required, xylene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



## Day Operation (1)

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

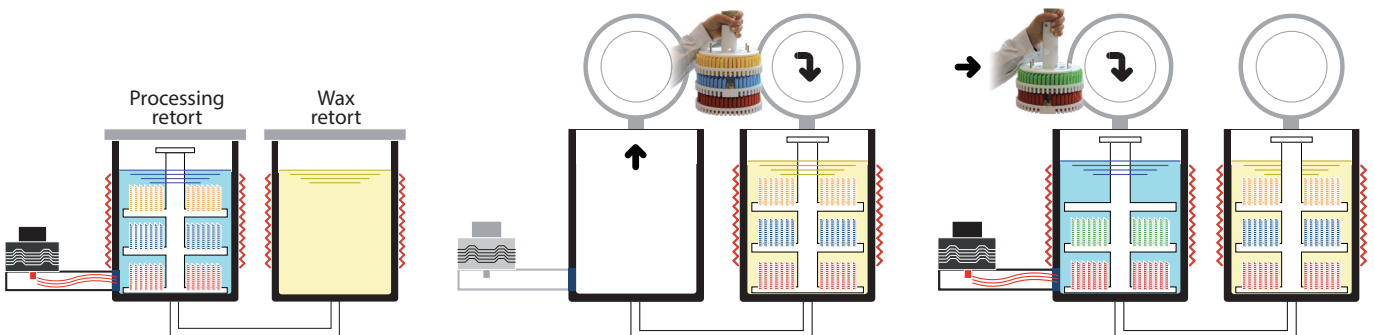


During the day, LOGOS can run urgent biopsies with hybrid microwave technology as a fully automated unit. Molten wax is transferred automatically to and from the processing retort for the impregnation step. This mode enables single batch runs with short cleaning cycles.



## Day Operation (2)

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



- 1 The first rack undergoes fixation/dehydration/clearing in the processing retort.
- 2 At the end of the processing cycle, the rack is manually transferred to the wax retort.
- 3 A new rack is placed in the processing retort. The two racks are simultaneously processed. One in the reagent step and one in the wax step for higher throughput.

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



- 1 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 the desired settings from the touchscreen interface.

- 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.*

Number	Type	Description	Date	Time	User	L1	L2	L3	L4
196	Act	Wax status red	20 Apr.11	16:22:27	Service	1	0	1	0
195	Act	Protection cover open	20 Apr.11	16:21:27	---	1	0	1	0
194	Act	Reagents status green	20 Apr.11	16:21:27	---	1	0	1	0
193	Act	Application started	20 Apr.11	16:21:25	---	1	0	1	0
192	Act	Wax status red	20 Apr.11	16:17:02	Service	1	0	1	0
191	Act	Protection cover open	20 Apr.11	16:16:02	---	1	0	1	0
190	Act	Reagents status green	20 Apr.11	16:16:02	---	1	0	1	0
189	Act	Application started	20 Apr.11	16:16:00	---	1	0	1	0
188	Act	Wax status red	20 Apr.11	16:06:00	Service	1	0	1	0
187	Act	Protection cover open	20 Apr.11	16:04:59	---	1	0	1	0
186	Act	Reagents status green	20 Apr.11	16:04:59	---	1	0	1	0
185	Act	Application started	20 Apr.11	16:04:58	---	1	0	1	0
184	Act	Wax status red	20 Apr.11	15:41:59	Service	1	0	1	0
183	Act	Protection cover open	20 Apr.11	15:40:59	---	1	0	1	0
182	Act	Reagents status green	20 Apr.11	15:40:59	---	1	0	1	0
181	Act	Application started	20 Apr.11	15:40:58	---	1	0	1	0
180	Act	Wax status red	20 Apr.11	15:39:35	Service	1	0	1	0
179	Act	Protection cover open	20 Apr.11	15:38:35	---	1	0	1	0
178	Act	Reagents status green	20 Apr.11	15:38:35	---	1	0	1	0

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

# LOGOS. Green, safe and economical

Packed with the latest technology for an improved work environment

*"Soft-close" cover for enhanced safety*

*Heated PTFE coated internal surface to avoid condensation of reagents for consistent processing and enhanced operator safety*

Open system. No proprietary reagent commitments. Use of histology grade wax.



*Swing-up control panel cover for easy access to condensation traps*



*Easy, safe transfer of exhausted wax through heated PTFE connector*

## No transfer of reagents to tanks



5 l containers

*Direct transfer of solutions from commercial containers (5 l or 1 US gal) into processing retort. Slide-out ventilated reagent drawer.*



1 US gal containers

## 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
- ✓ The highest quality of application and service support



**MILESTONE**



HELPING PATIENTS

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**UNI EN ISO 9001: 2008 / UNI EN ISO 13485:2012 CERTIFIED**

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