### **LEAN TISSUE PROCESSING**



Unique solutions to improve laboratory workflow, simplify operations and consistently deliver high quality results





## Think lean. Process lean.

## Hybrid tissue processing solutions that help you build up your lean lab

Proper processing of tissue specimens is critical to ensure an accurate diagnosis. Both patients and health care personnel expect higher performance and timely responses.

**A.Menarini Diagnostics** responds with **a unique tissue processing line**, based on hybrid technology, that can

- drastically streamline workflow
- eliminate waste (of materials and time)
- foster a system of **continuous improvement**

to deliver a better product, i.e., high-quality tissue preparations that improve patients outcomes with prompt diagnoses and, simultaneously, improve laboratory workflow, while reducing overall expenses and operating costs.

**Lean tissue processing** provides the ideal combination of automatic processing performance, reagent efficiency and environmental sensitivity (xylene-free), with the morphology and quality histologists and pathologists expect.



### A.Menarini Diagnostics: your lean lab partner

Our goal is to continually improve your lab processes.

Our commitment to managing projects in an efficient, innovative, and responsible way guides us in doing so.



### Streamlined operations and workflow

## Unmatched processing time and efficient workload distribution

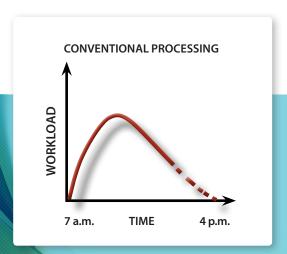
Hybrid tissue processing technology drastically reduces specimen processing time, allowing even distribution of cases throughout the day and **making workloads more manageable**.

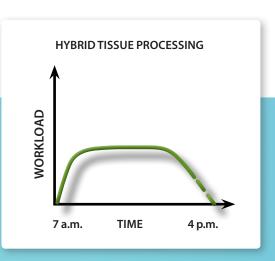


**Throughout the DAY** the histotech can quickly process small biopsies and urgent specimens, on demand. The short processing schedules allow embedding, cutting and staining of specimens so that slides are pathologist-ready on the same day, eliminating bottlenecks and maximizing staff efficiency.



The routine samples can be automatically processed **during the NIGHT**, using either conventional or rapid hybrid heating technology.





Streamline process. Reduce stress. Optimize efficiency.



### **High-quality and consistency**

## Enhanced results to improve patients outcomes

A.Menarini Diagnostics hybrid tissue processing technology is designed to reliably deliver **high-quality specimens**, thanks to superior process control

and optimized protocols that consistently assure the highest standards of accuracy, while addressing workflow challenges.



Colonic biopsy, microwave processed H&E (x400)



Bowel biopsy. Alcian blue microwave staining of mucin producing cells (x400)



Adenocarcinoma immunostaining of cytokeratin CAM5.2, microwave processed (x400)

#### Superior processing of fatty tissues (e.g., breast)



Breast biopsy microwave processed H&E (x50)



Breast cells HER2 amplification detection by IHC, processed by microwaves. Hematoxylin counterstain (x400)



Breast cells HER2 amplification detection by FISH processed by microwaves. Red-labeled HER2 probe (x800)



Metastatic breast cancer in lymph node, microwave processed H&E (x400)



Enhanced quality. Consistent results. Improved outcomes.



### **Flexibility**

## The freedom to process according to your needs

Choose the tissue processor that works best for

**your lab** and expand your capabilities – easily and more affordably than you ever thought possible. A.Menarini Diagnostics will be with you every step of the way and help you transition to improved laboratory management.

#### A full range of instruments

We turn a portfolio of choices into lab-specific solutions to meet your tissue processing needs.

- Automatic: Pathos Delta, Logos, Logos One
- Semi-automatic: KOS, Logos J
- All-in-one autoembedding: Synergy + Pathos Delta and Logos

#### Any type of tissue, any size

Unmatched processing flexibility to fit any tissue and workload requirement.

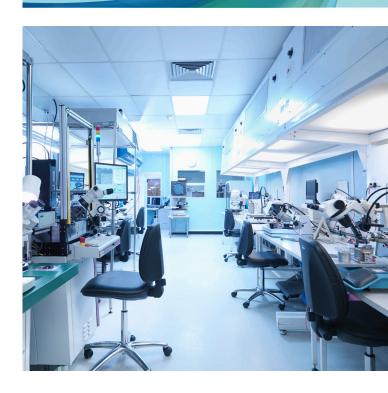
- Small, fatty & oversize samples
- No limits on samples thickness with a full range of racks

#### Adaptability to customized workflow streams

Every solution is planned, designed, installed and supported to satisfy the unique needs of an individual customer's laboratory.

You will be able to process according to your priorities with a workflow that best fits your lab need/load.

## Driving efficiency through flexibility.





### **Cost savings**

## Reduce costs while improving efficiency and protecting health and the environment

**Dramatic reagent savings** by design is also a key differentiating factor of hybrid tissue processing technology by A.Menarini Diagnostics.

Xylene-free protocols eliminate solvent degradation of the paraffin.

Extensive reutilization of paraffin wax, along with

reduced reagent consumption and waste deliver dramatic cost saving, while providing a greener work environment by eliminating harsh chemicals. Moreover, less time is required for reagent changes and less space is needed for reagent stocking.

## SAVINGS Example of 5,000 cases/month

	Hybrid processing (Pathos Delta and Logos)	Conventional
Ethanol	317.5 l	426.7 l
Isopropanol	211.6	-
Wax	50 kg	401.6 kg
Xylene	-	426.7 kg
Cleaning reagents	-	80 I

### **Process monitoring**

# PROCESS PROCESS PROCESS

## Manage data, resources and workflow to further streamline your processes

Modern connectivity and remote technology are transforming the way lab data, resources and workflow are managed.

A.Menarini Diagnostics can provide your lab with the tools and software to **continuously monitor and control your tissue processing units** day and night,

and improve organization of the daily workload.

- Real time process monitoring
- E-mail notifications
- Event log file
- Patient-case ID sorting
- LIS integration

## A full range of instruments to choose from

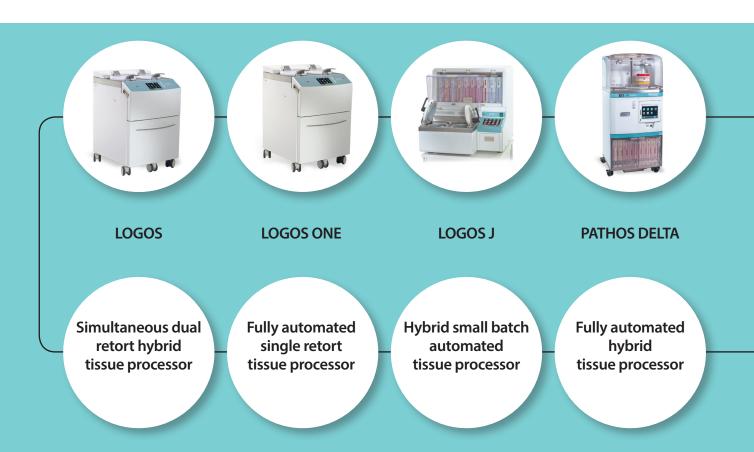
## Put the full potential of lean tissue processing to work for you

At A.Menarini Diagnostics, we understand that there are a lot of differences from one lab to the next.

Differences in volumes, systems, staffing levels, processing needs, and budgets combine to make every laboratory unique.

Fortunately, we offer a **broad portfolio of products** and the depth of service needed to help ensure that a tissue processing workflow is designed and maintained to meet each laboratory's requirements. We turn our portfolio of choices into lab-specific solutions.

We offer a broad portfolio of products.













LOGOS SYNERGY RACK PATHOS SYNERGY RACK

KOS

**MILEWATCH** 

All-in-one auto-embedding system All-in-one auto-embedding system Bench-top multifunctional microwave tissue processor 24/7 unit surveillance system



## All-in-one auto-embedding system



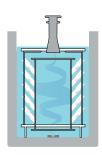


**SYNERGY** is a patented system that incorporates automatic tissue embedding into the processing protocols. SYNERGY is applied to A.Menarini Diagnostics' rapid tissue processors PATHOS Delta and LO-

GOS Series. Thanks to a dedicated rack and consumables, the same processor unit can perform automatic embedding. All tissue types and dimensions can be processed and embedded with this method.

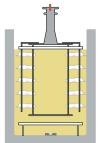
#### SYNERGY PROCESSING METHOD

The specially designed rack has a leverage system that allows the molds and cassettes to sit in two positions according to the phase of processing.





During the fixation and reagent steps, the molds are angled, so that fluids can flow in and out without retention.





At the end of wax impregnation the molds go flat to collect the paraffin necessary to embed the tissue.

#### **ADVANTAGES AND EXCLUSIVE FEATURES**

- Processing and embedding in a single unit with no transfer of cassette from the tissue processor to the embedding station
- Optimal flat positioning also for small biopsies
- Manual embedding step skipped

- Up to 45 cassettes of needle biopsies processed and embedded every hour
- Both standard & auto-embedding protocols are preloaded in PATHOS Delta or LOGOS
- Standard tissue processor maintenance, no extra service costs

## Simple and intuitive operations



The specimen is placed at the base of the plastic mold



A special pad to maintain the position goes on top



The cassette is applied as a mold cover



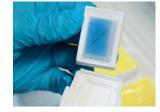
The mold and cassette assembly is inserted in the rack



After the operator removes the rack from the processor, the cassettes are placed one by one on a standard cold plate



After 10 minutes, the cassettes are ready to be opened for cutting at the microtome



The mold is opened and the specimen is quickly released for cutting



With Synergy, trimming is reduced. No need to modify the cutting procedure

#### **SYNERGY PERFORMANCE**

Number of blocks per run: 45.

#### **Processing cycles**

EMI	BEDDING TIME
3 mm 2 h	35 minutes 55 minutes 35 minutes





#### MileWATCH

### 24/7 unit surveillance system

**MileWATCH** is a 24/7 unit surveillance system that continuously monitors and controls A.Menarini Diagnostics units, day and night.

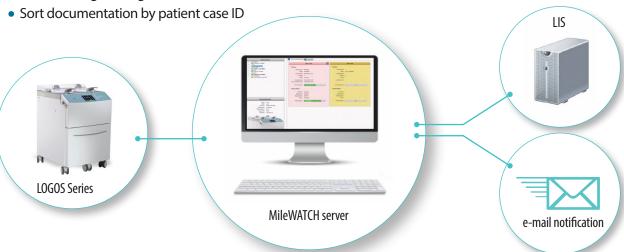
Status information is collected from units installed both in operating theaters and in the pathology laboratory.

Compatible with existing laboratory PCs and servers, MileWATCH works without an internet connection: all information is securely stored within the LAN.

**MileWATCH** offers the possibility to create a unique samples chain of custody, from the operating theater, preserving evidence of the case ID, formalin ratio used, temperature and time of the transportation, until tissues have arrived in the Pathology Lab.

Tissue processing protocol details and final storage information (for the LOGOS Series) will also be collected by MileWATCH and sent to local LIS (Laboratory Information System).

- Monitor the process in real time
- Be notified by e-mail
- Get event log and log file







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