



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

# SealSAFE

Automated fixative addition  
plus vacuum sealing of biospecimens



# SealSAFE

Automation, standardization and safety for full biospecimen management

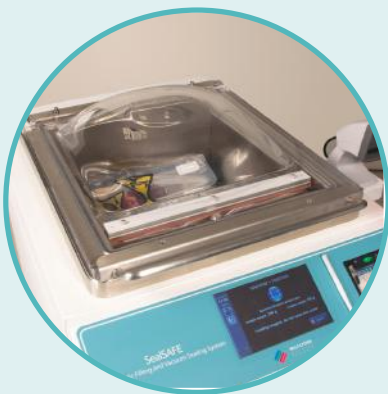
The SealSafe is the world's first automatic system that fills dedicated bags containing the biospecimens, with the required fixative (i.e. formalin), in a standardized and documented way.

The innovative (patent applied for)\* SealSAFE technology, allows operators at surgery rooms and at pathology laboratories, to handle histology specimens in full safety. Today's manual operation to prepare, transport and stock histology specimens, can be drastically improved with this disruptive technology.



Place specimen in the vacuum bag and introduce it into the SealSAFE cavity. Close the lid.

A load cell in the cavity automatically weighs the specimen. According to a preset ratio (1:1, 1:2, 1:2.5, 1:3) fixative is then injected into the bag.



As a final step the SealSAFE vacuum seals the specimen bag. Fixative injection and sealing process are completed in the closed and ventilated cavity.

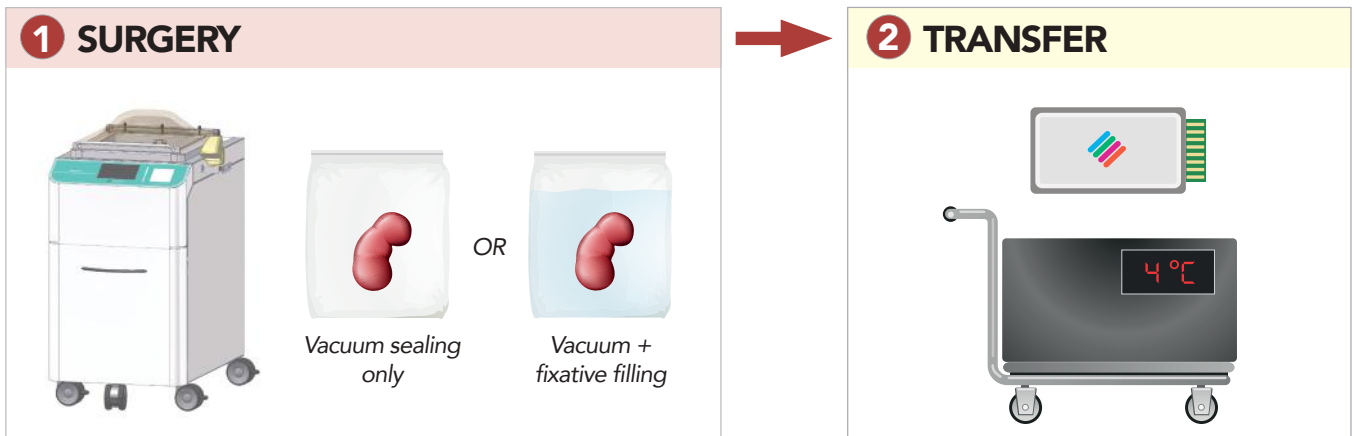
The sealed bag containing the specimen with full documentation is transported to the pathology lab in full safety. The same bag can be resealed up to three times from the operating theatre to final storage.



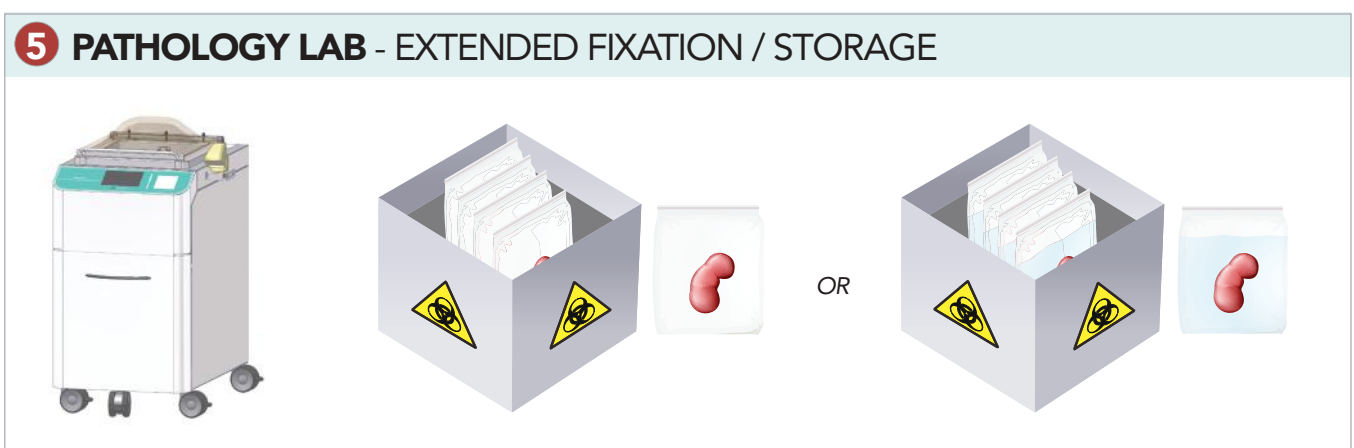
# INNOVATIVE WORKFLOW

The traditional procedures of collection, transportation and archiving of pathology specimens are specific at each institution.

The introduction of SealSAFE technology at the starting point of sample generation (the surgery room), pathology accessioning, and in the grossing area provides a dynamic and flexible solution with benefits to all involved departments.



In the dirty room of a surgery department, the SealSAFE is used to vacuum seal biospecimens for transportation to the pathology laboratory. The operator can select the desired procedure for specimen management: fixative-free vacuum sealing or automated filling of fixative plus vacuum sealing. Time and temperature conditions during transportation are monitored with a dedicated electronic data-logger, activated by operator at the SealSAFE starting point. In case of vacuum sealing without fixative, transportation and storage at +4°C are required. In this modality, optimal preservation of the molecular material of the specimen is guaranteed up to 72 hours.



Installing a SealSAFE unit in the pathology laboratory enables maximum flexibility for specimen management. In addition, SealSAFE reusable vacuum storage bags allow for multiple opening and sealing events, which can accommodate: A. status pre-examination of large case specimen fixation/hardening; B. receipt, grossing, and final storage of medium-sized specimens; C. well fixed tissues can be sealed with minimal amounts of formalin or simply with vacuum to achieve drastic cost and space savings.



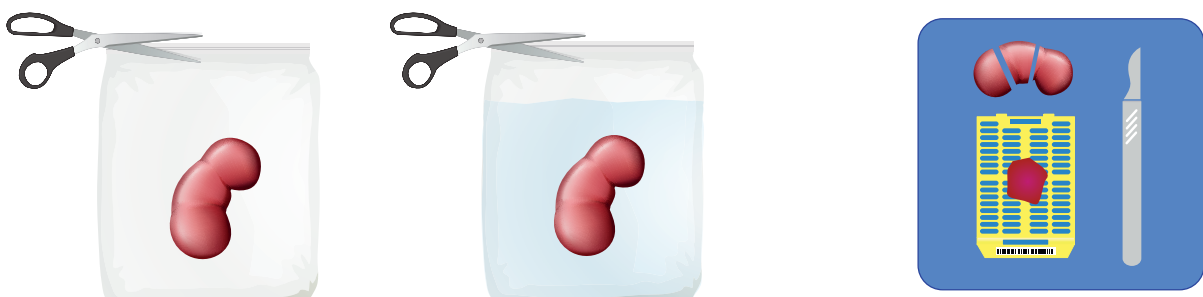
### 3 PATHOLOGY LAB - ACCESSIONING



As specimens arrive into pathology and are processed through accessioning, relevant data can be downloaded and saved for future use. A detailed profile of transportation temperature conditions, duration of storage, and additional identification information is viewable and easily associated with patient cases.



### 4 PATHOLOGY LAB - GROSSING / SAMPLING



At the pathology laboratory, the specimen is received in a standardized fixative quantity or in "as fresh" conditions. The sampling and grossing procedure are therefore carried out without necessary modification of the current procedures.

## BENEFITS

### ▶ Standardization and Quality

Always the right amount of formalin according to the specimen weight.  
Optimized fixation and histological results.

### ▶ Less formalin

Reduce the volume of this toxic reagent through more efficient and standardized formalin/specimen ratios.

### ▶ Safety

Full automation and closed operation prevents exposure to formalin fumes.

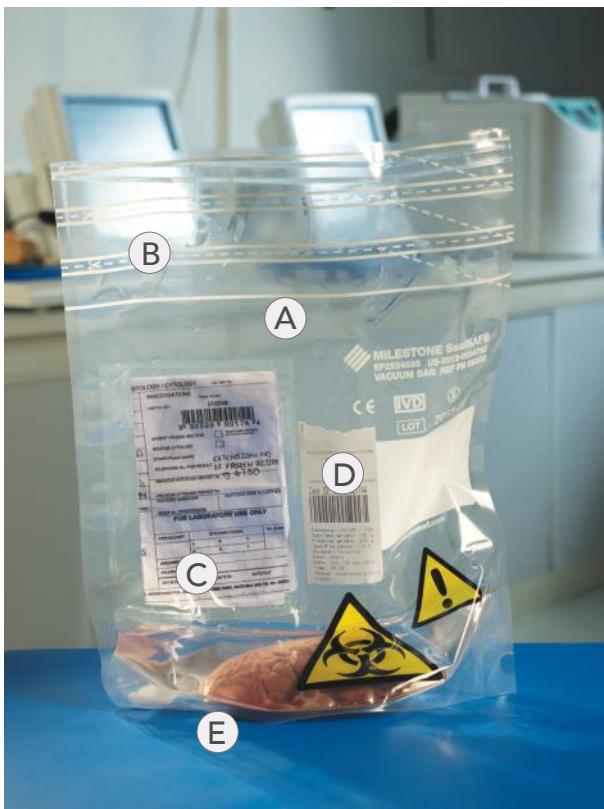
### ▶ Improved archiving

Storage in vacuum bags dramatically reduces volume.  
Archiving even without formalin is possible.

### ▶ Extreme cost saving for disposal

Lower disposal cost thanks to a decreased volume of bio-hazard material with vacuum bags.

## SPECIAL BAGS



- (A) Double layered PA/PE, 135 microns in thickness guarantees greater mechanical flexibility and resistance to perforation. Available in five different dimensions, suitable for all kind of specimens.
- (B) Three sealing areas and cutting lines marked for multiple reuse.
- (C) Sealable document pouch provides security for patient information.
- (D) Automatically printed adhesive label contains: ID, date, time, specimen and fixative weight.
- (E) Enlarged base for self-standing.

# INNOVATIVE FEATURES

**ID Data tracking**  
*Specimen and/or Patient case ID entering through barcode reader*

**Load cell**  
*Build-in electronic load cell for specimens weight detection*

**The core**  
*Vacuum chamber with automatic fixative dispensing system*

**Data Logger card**  
*Specimen ID and temperature monitoring for documented and standardized transportation*

**Complete documentation**  
*Built-in printer for summary of protocols produces an adhesive label*

**Operator safety**  
*Vented vacuum chamber and reagent drawer (Optional external fume filter available)*

**Smart fixative management**  
*High capacity drawer, up to 40l (10Gallons), for 2 individual commercial containers (2 additional ports enable external fixative sources to be used)*



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**MILESTONE**



HELPING PATIENTS

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