

**ZERO**  
FORMALIN  
EXPOSURE



# UltraSAFE

Automated Formalin Dosing System for Biospecimens

# UltraSAFE



**The Innovative Solution for Zero  
Exposure to Formalin**

## Envision an innovative, automatic system that:

- Eliminates formalin exposure for operating theatre staff
- Guarantees full biospecimen safety and traceability
- Allows perioperative nurses and pathologists to optimise their workflow
- Standardises the formalin volume to specimen weight ratio
- Controls and certifies the time to fixation for a reliable diagnosis

## Your vision is now a reality: UltraSAFE

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### The Game Changer for Formalin Control

- Automatic formalin dispensing according to biospecimen weight
  - Easy and fast operation (e.g. 1L of fixative dispensed in 20 seconds)
  - Built in printer for full documentation and traceability
  - Built in filter eliminates the need to connect to an external exhaust system
  - Engineered to work as a stand alone system
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### State-of-the-Art Bucket Technology\*



- Custom buckets designed to accommodate current pathology workflow
- Laser engraved, unique bucket ID for full traceability
- Buckets available in 1, 3 or 5 litre capacities
- Unique sealing valve built in to bucket lids

*\*patents pending*

## OUR COMMON GOAL: ZERO FORMALIN EXPOSURE

### The Problem

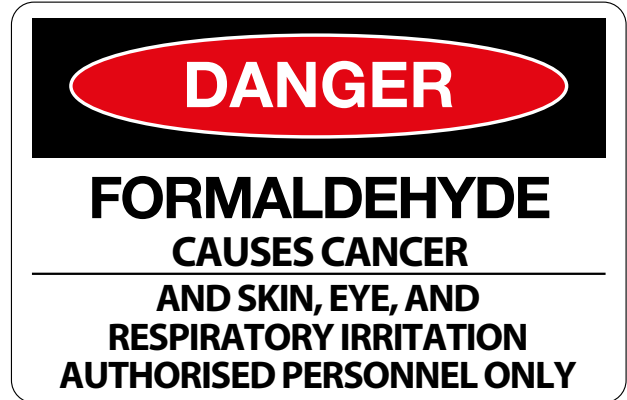
In 2006, formaldehyde was declared Carcinogenic and Mutagenic to humans by I.A.R.C. (International Agency for Research on Cancer). In today's labs, formaldehyde is the standard fixative for collecting and storing biospecimens for pathological examinations and diagnoses. Operators, from operating rooms to pathology departments, risk high levels of exposure to formaldehyde fumes. Therefore, hospital and clinic safety departments are required to adopt precautions to ensure the safety of their personnel.

### The Solution

UltraSAFE is the unique solution to formaldehyde exposure. Using a unique (patent pending) technology, different sized buckets are automatically filled with formalin in the "Dirty Room", which preserves the biospecimen in fixative right after the surgical excision. This allows for total operator safety, ensuring a formalin free operating theatre.

### UltraSAFE: Unique Valve Design

UltraSAFE buckets are available in three standard sizes; 1, 3 and 5 litres. All buckets have an exclusive quadricuspid valve built into the lid. The valve allows for automatic filling from the UltraSAFE dispenser whilst preventing the escape of formalin fumes during operation. The attached cap seals the bucket for extra safety during transportation. A unique 2D barcode on the bucket lid ensures biospecimen traceability. The UltraSAFE software associates this 2D barcode with the biospecimen ID number for full patient safety.



*Quadricuspid valve during*



*Closed quadricuspid valve during transportation and storage*

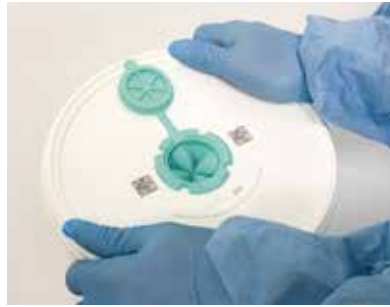


## UltraSAFE: SAFE AND EASY OPERATION

### Full Documentation for Enhanced Traceability



Surgical biospecimens are placed in an empty bucket



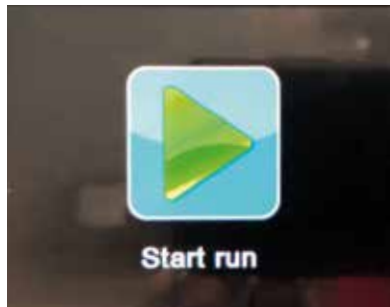
The lid, with the unique sealing valve and 2D barcode, is placed on the bucket



The bucket is scanned for identification and tracking purposes



The operator places the bucket in the work chamber and...



...presses the "Start" icon on the touchscreen



The system centres the bucket and the biospecimen is weighed automatically



The automatic dispensing system penetrates the seal valve



Formalin is added until the desired ratio is achieved (Formalin : Specimen weight)



The cap is closed to seal the valve for transport

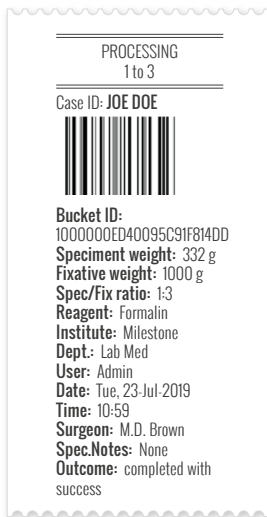
# UltraSAFE: STATE-OF-THE-ART TECHNOLOGY FOR EASY, SAFE OPERATION

Fully enclosed charcoal filters plus HEPA H14 filter for stand alone operability

User friendly touch screen with icon driven software

Built in UV lamp for sterilisation step

Built in barcode for bucket recognition and specimen traceability



Label printer adds: Specimen ID, user, date and time of operation, fixative volume, formalin ratio and weight of specimen



Fully enclosed and vented operating area

Automatic, dispensing nozzle with dedicated exhaust system

Auto-locking door for safe operation

Scale for specimen/fixative weighing



Slide out drawer storing up to four 2 litre containers. The drawer is fully vented to ensure fume extraction

*\*\*Paper Cryoembedding Stephen R. Peters - The Journal of Histology / Vol. 26, No.3 / September 2003*



Wharfedale Road, Winnersh, Wokingham, Berkshire, RG41 5RA  
Tel: 0118 944 4100 Fax: 0118 944 4111  
Email: [enquiries@menarinidiag.co.uk](mailto:enquiries@menarinidiag.co.uk)  
[www.totaltissuediagnostics.com](http://www.totaltissuediagnostics.com)