

EXCLUSIVE

Validated for chemical/
biological hazards*

eGROSS pro-x
Simply the most
innovative, safe
grossing workstation



MILESTONE
HELPING
PATIENTS



▶ ERGONOMIC

The eGROSS pro-x

This all-in-one grossing workstation has been specifically designed to integrate state of the art tools and standardization into a 21st century system for the dissection of gross tissues. Some of its features are: an enhanced process documentation, safety, flexibility and cost-effectiveness. The eGROSS pro-x is the first to incorporate the digital power of specimen identification and the dissection documentation, creating a standardized, image documenting protocol. It can create a custody chain that assures quality at the source of tissue selection and cassette generation from the gross room throughout histology to the pathologist's desk. The eGROSS captures digital documentation enabling innovative laboratories to seek not only high quality but also work simplification and standardization in pursuit of the "virtual" and dictation-less lean laboratory operations.

Documentation? Quality assurance? No problem!

The MacroPATH pro-x, integrated with the eGROSS pro-x, is a user-oriented capture and storage system for macro digital images of patient specimens. It dramatically reduces specimen turnaround time at the grossing station compared to the conventional shoot and capture of handheld systems. Autofocus, auto-light adjustment, and hands-free operations, through a foot pedal, enable users to concentrate on the patient's case without manual intervention.



- ① Easily adjust the eGROSS pro-x working height to accommodate standing or sitting. The unit can be positioned from its lowest setting of 90 cm (38.6") to the highest at 120 cm (47.2"), and anywhere in between.

▶ LONG LIFE OPERATIONS



- ② Corrosion resistant stainless steel (AISI 304) structure and work surfaces.



- ③ **EXCLUSIVE** A unique proximity switch detects the presence of the operator. In case of an absence of over 5 minutes, the unit automatically switches off to extend filter life.

▶ HIGH SAFETY STANDARDS



- ④ High power exhaust system with backdraft and downdraft. It also includes a specimen safety steel mesh filter.



- ⑤ **EXCLUSIVE** Anti-splash transparent slide out covers. Lateral transparent containment boards.



- ⑥ A large working area of 50x40 cm (19.7"x15.7") dimensions with a cutting board on special supports allows unrestricted downdraft flow.



- ⑦ Formalin dispensing nozzle with foot pedal control.



- ⑧ Twin tanks (up to 10 liters-2 gallon each) with safety valves, store fresh and exhausted formalin.

An ergonomic, mobile grossing workstation with digital documentation of surgical specimens

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▶ EASY OPERATIONS



- 9 Large sink of 40x34x18 cm (15.7"x13.4"x7.1") dimensions with a filter and a shower type water faucet.



- 10 An all-in-one control panel places major functions within easy reach.



- 11 Display panels: exhaust flow alarm and control, level of formalin in tanks. Continuous exhaust airflow monitoring, with a feedback light indicator.



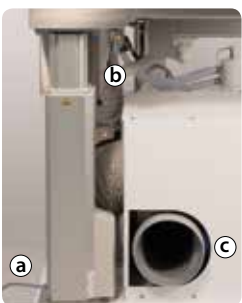
- 12 Slide-out waterproof keyboard with a built-in mouse (IP68).



- 13 Store frequently used tools close-at-hand on the integrated magnetic bar.



- 14 Connectivity:
- Network ready
 - LIS compatible
 - Remote viewing enabled



- 15 Easy installation. No structural modifications required. Power (a), water (b) and exhaust (c) connections readily available.



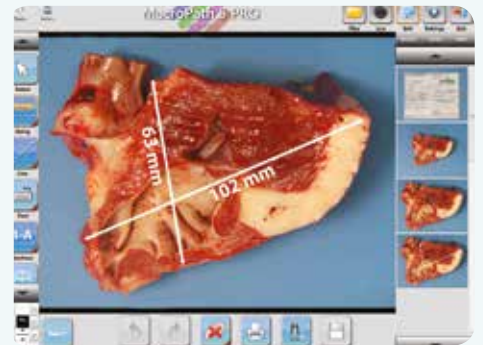
- 16 Mobility through heavy duty casters.

▶ FULL DOCUMENTATION

MacroPATH pro-x

State-of-the-art macro digital imaging

The eGROSS pro-x built-in MacroPATH pro-x digital imaging technology is the most advanced system for full documentation of surgical specimen grossing. It is a new tool for optimized quality assurance, improved productivity and workflow. It operates with an icon-driven, user friendly software.



- 17 MacroPATH pro-x macro digital imaging system for automatic, rapid documentation of all the grossing steps of surgical pathology specimens.

State-of-the-art digital camera:

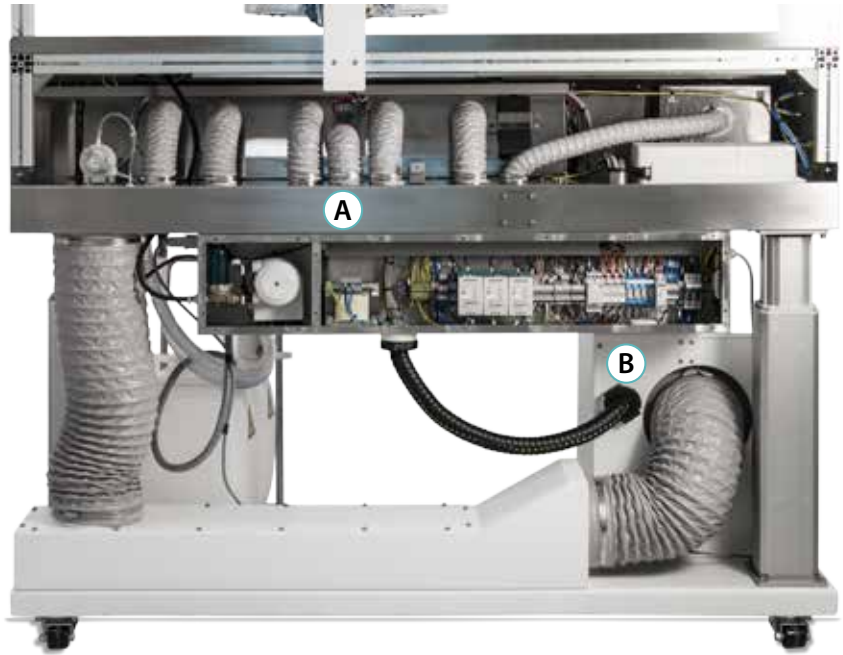
- Resolution: 16 Mpx (image size: 4608x3456 px)
- Magnification: 10x optical
- Automation: autofocus, auto-light adjusting, auto WB.
- Supplemental lighting: built-in LED

- 18 Point-of-care control terminal, 17" touch screen.

- 19 A foot pedal control enables hands-free manipulation of major camera functions (zoom-in/out, save, record).

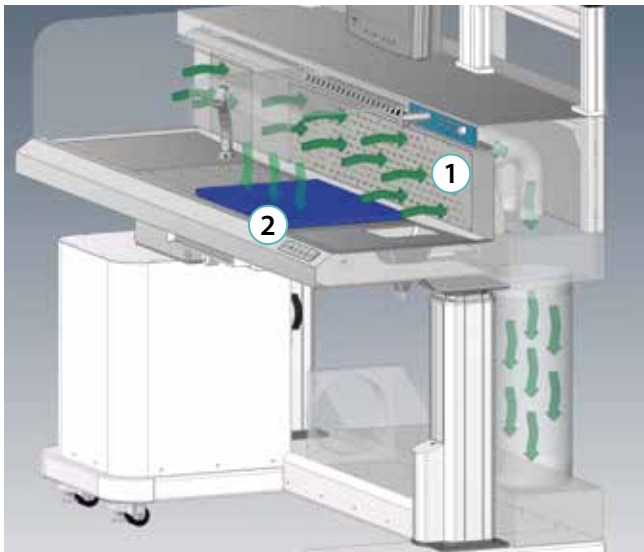
Leading the way in specimen and user safety

In the eGROSS pro-x, every single technical detail has been studied and designed to obtain the best performance. The main focus has been put on the exhaust system which is essential to create the necessary airflow in the vented secure area to guarantee the operators' full protection. To obtain the best air flow speed with the minimum turbulence and noise, a stainless-steel collector chamber (A) has been specifically designed and positioned at the back of the intake grid. Milestone's engineers have also studied and tested the shapes and orientation of the grid holes to cover the whole vented area, taking in consideration the working aspects during the macro-dissection sampling procedures. The core of the exhaust system is the high speed 2000 mc/h (1177 cf/m) centrifugal fan motor (B). This essential component is installed at the base of the station to reduce the vibrations and to ensure the complete removal of the air mass coming from the dual down and back draft systems.

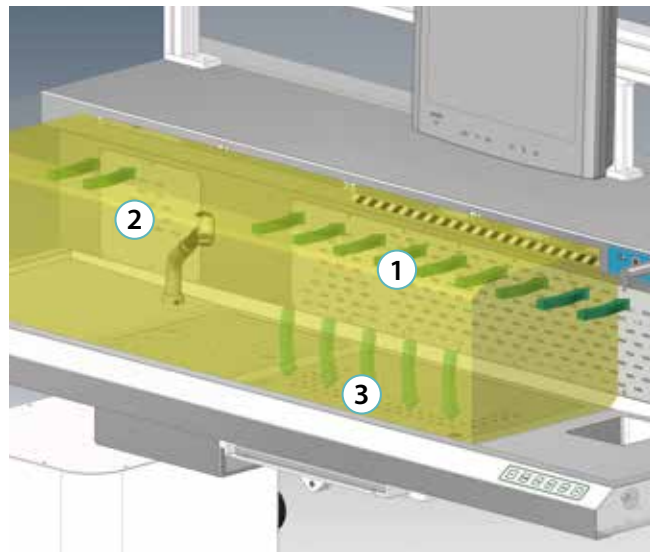


The unique validated exhaust technology

An innovative engineering design leads to the highest specifications in protecting both the user and the specimens.

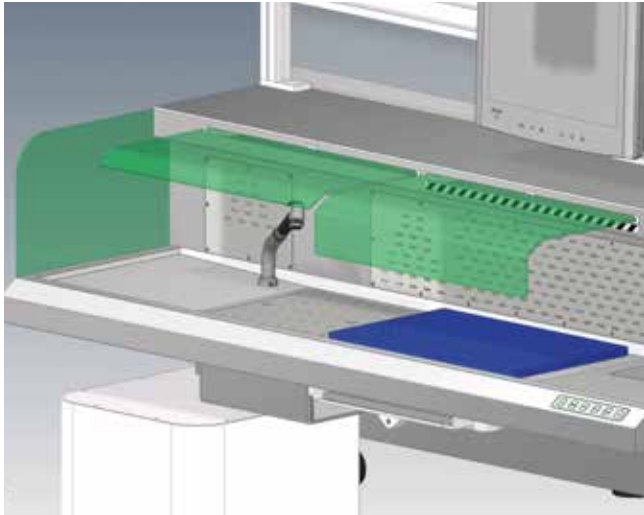


Back (1) and downdraft (2) extraction across the working area.



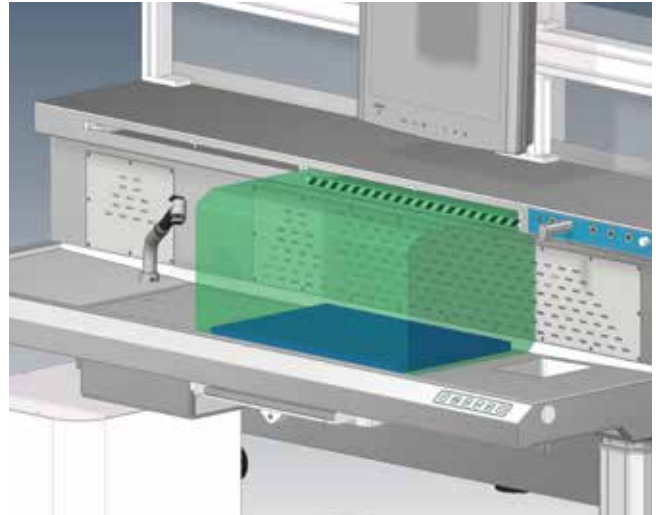
- (1) Air flow speed at frontal aperture: 0.7-1.0m/s.
- (2) Backdraft extraction with horizontal flow.
- (3) Downdraft extraction through holes into the periphery of the cutting board to create vertical flow all around the specimen.

Leading edge exhaust technology



SLIDING IN-AND-OUT PROTECTIVE TRANSPARENT SHIELDS

Lateral shields protect from any external transversal turbulence like a physical passage of personnel or the proximity to room ventilations. The horizontal shields protect the operator from any aerosol generating from the manipulation of the specimen or from liquid splatters.



PROTECTION AGAINST BIOLOGICAL RISKS

The eGROSS pro-x is tested according to the European Norms UNI EN 12469, and satisfies the essential requirements for bio-safety aspects in the working area.

The working area is defined by the green box.

Highest safety standards for both the user and the specimens

THE EGROSS PRO-X FULFILLS ALL OF THE FOLLOWING DIRECTIVES AND NORMS

Directives IVD 98/79/EC (IVDD) - In vitro diagnostic medical device

Directives LVD 2014/35/EC - Low Voltage directive

Directives EMC 2014/30/EC - Electromagnetic compatibility

Norms:

ISO 14971 - Medical devices -- Application of risk management to medical devices

EN 61010-2-101 - Safety requirements for electrical equipment for measurement, control and laboratory use - Part 2-101: Particular requirements for in vitro diagnostic (IVD) medical equipment

EN 61010-1 - Safety requirements for electrical equipment for measurement, control and laboratory use - Part 1: General requirements

EN 61326-2-6 - Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 2-6: Particular requirements - In vitro diagnostic (IVD) medical equipment

EN 61326-1 - Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 1: General requirements

EN 62304 - Medical device software - Software life cycle processes

ISO 15223-1 - Medical devices -- Symbols to be used with medical device labels, labelling and information to be supplied - Part 1: General requirements

ISO 18113-1 - In vitro diagnostic medical devices -- Information supplied by the manufacturer (labelling) - Part 1: Terms, definitions and general requirements

ISO 18113-3 - In vitro diagnostic medical devices -- Information supplied by the manufacturer (labelling) -- Part 3: In vitro diagnostic instruments for professional use

UNI EN 12469 - Biotechnology - Performance criteria for microbiological safety station

**EN 12469:2000 - ANNEX C (Retention at front aperture) report no. 0316-2016 Rev. 01 dated 2016/09/08 issue by Tuv Italia Srl.*

eGROSS pro-x Accessories



Stainless-steel shelf
34x38 cm (13,4x15").
Set of 3 pieces.



A comfortable,
powerful and flexible
examination lamp
with 65 cm (25,5")
arm. Cold operations.



Enter specimen/
patient data by
keyboard or scanned
barcode.



Microphone for
dictation.

Interfacing the eGROSS pro-x

In addition to stand-alone operations, eGROSS pro-x can interface with a PACS or LIS through a coded solution or through TWAIN mode.

Stand-alone system



Saved locally



Saved in a network location

Interfacing with LIS (Laboratory Information System)



1. eGROSS pro-x acts as a secondary application to the LIS. A patient case identifier is held by LIS.
2. LIS launches eGROSS pro-x.
3. User completes image acquisition and annotation.
4. Assets are transferred to the LIS.

eGROSS pro-x Technical Specifications

- Dimensions: (WxHxD) 185 cm (72.8") x 181cm up to 211cm (71.3" up to 83") x 81cm (31.9").
- Weight: 265 Kg (584 Lbs).
- Minimum table height: 90 cm (35.4"). Maximum table height: 120 cm (47.2").
- Water connection: inlet G 3/8" - outlet 40 mm.
- Power supply: 230V 50/60Hz or 115V 60Hz - 1400 Watt.
- Exhaust air flow: 1300 m³/h max (765 cfm).

eGROSS mobile grossing workstation

Whenever the macro digital imaging features are not required, the workstation is available without the MacroPATH pro-x system.

The keyboard and the foot control module are not included in the workstation while all other hardware and technical specifications remain the same of the eGROSS pro-x.



- Dimensions: (WxHxD) 185 cm (72.8") x 152 cm up to 182 cm (57.5" up to 69.3") x 80 cm (31.5").
- Weight 255 Kg (562 Lbs).
- Minimum table height: 90 cm (35.4"). Maximum table height: 120 cm (47.2").
- Water connection: inlet G 3/8" - outlet 40mm.
- Power supply: 230V 50/60Hz or 115V 60Hz - 1200 Watt.
- Exhaust air flow: 1300 m³/h max (765 cfm).

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