HYGECO

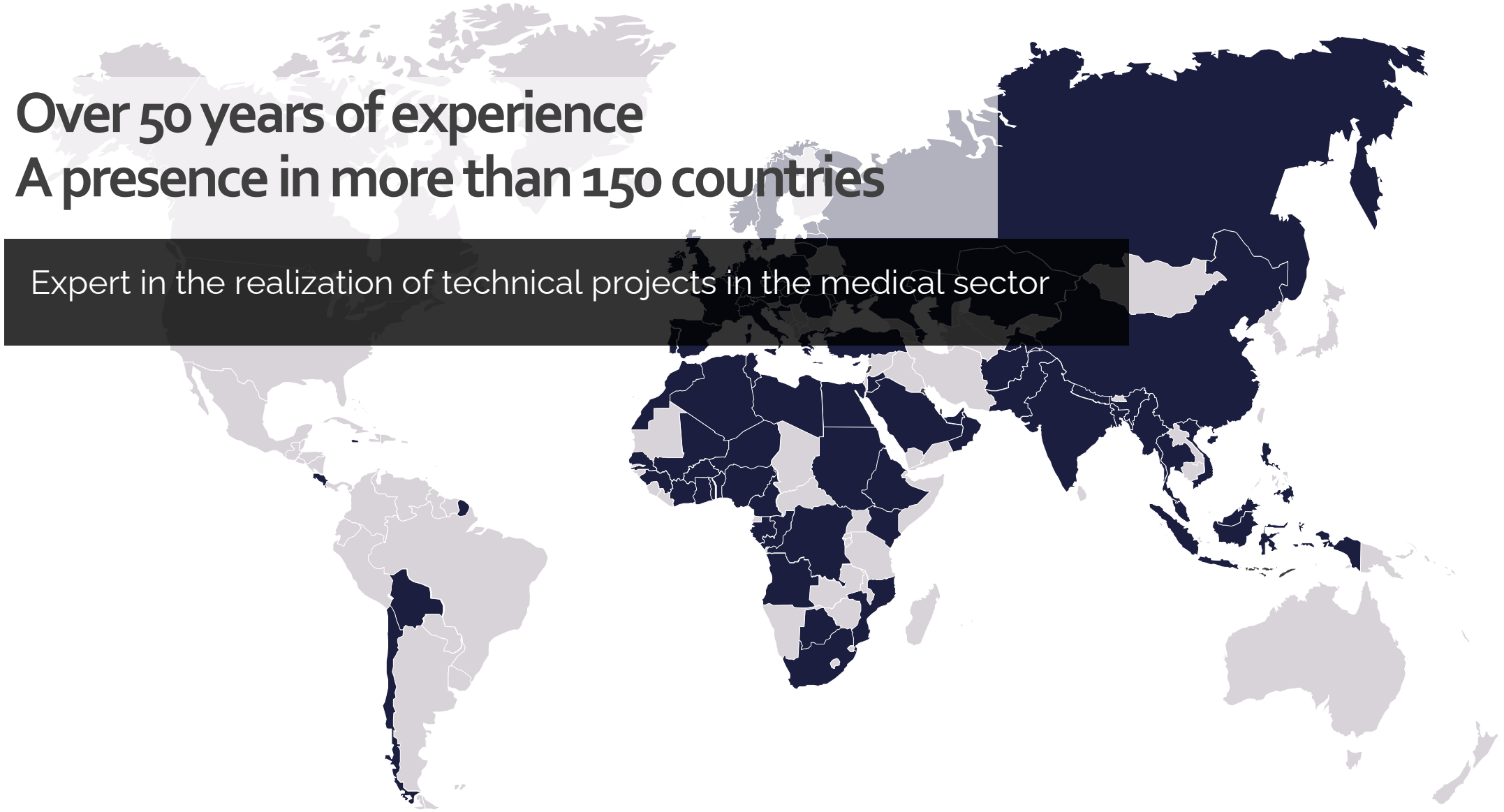
funeralia®
HYGECO GROUP

Anatomic Pathology

YOUR TURNKEY SOLUTION PROVIDER

Over 50 years of experience
A presence in more than 150 countries

Expert in the realization of technical projects in the medical sector



Innovating solutions with a functional & ergonomic design

We design and manufacture unique products that combine

innovation with technical know-how

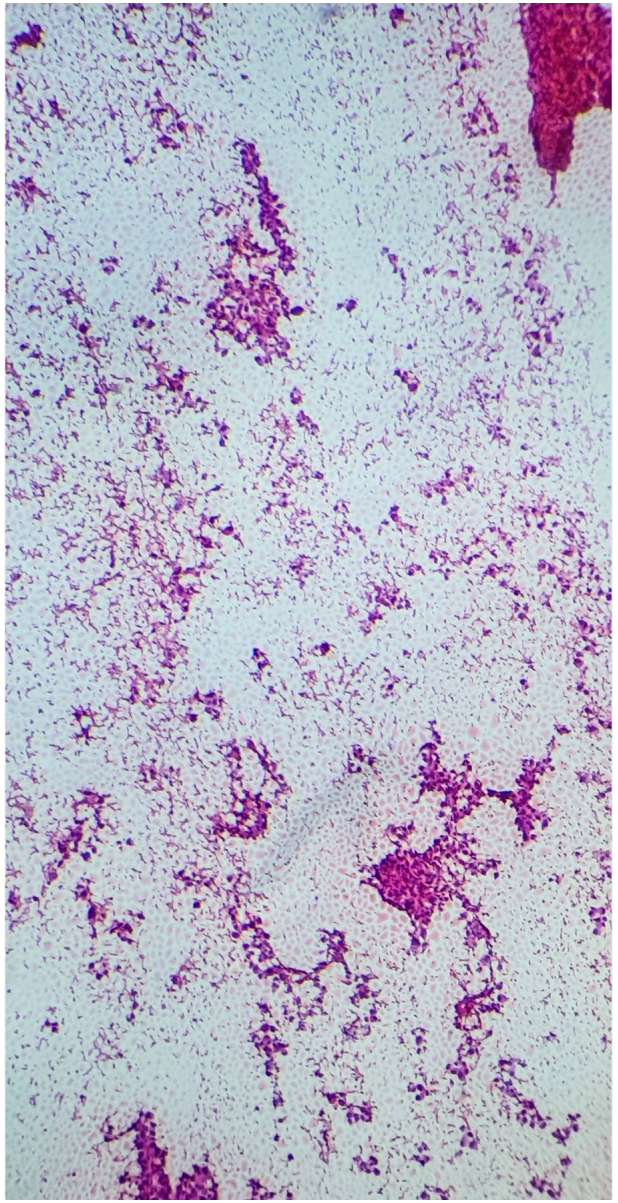
Bespoke manufacturing of the highest quality

ISO 9001
Certified
Quality Management System
www.tuvsud.com/ms-cert

We are able to accompany our clients thanks to our in-house design office and own production facility in Germany.

From laboratory design to equipment commissioning.

Characteristics common to our equipment for anatomic pathology laboratories



Main requirements

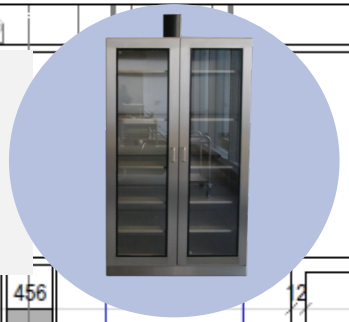
- Compliance with current occupational health & safety standards.
- Easy realization of operations based on ergonomics and precision.
- Equipment that meet different user profiles.
- Durability and ease of maintenance.

Our solutions

- The high-performance ventilation systems developed by our engineers are 20 times below the Occupational Exposure Limit (OEL).
- Products with ergonomic features in constant evolution thanks to the feedback received from users.
- Custom-made products to fit individual workspace preferences.
- Equipment made of high-quality stainless steel (grade 304 or 316) with excellent corrosion resistance.

Equipment suitable for each step of your laboratory workflow

Ventilated cabinets

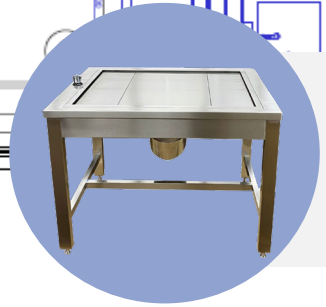


Modular laboratory benches

Formalin management station

Transmural cabinets

Grossing stations



Tissue staining tables

1 Grossing stations

2 Formalin management station and fume hoods

3 Sample deposit table

4 Tissue staining table

5 Transmural, storage & security cabinets

1. Grossing stations

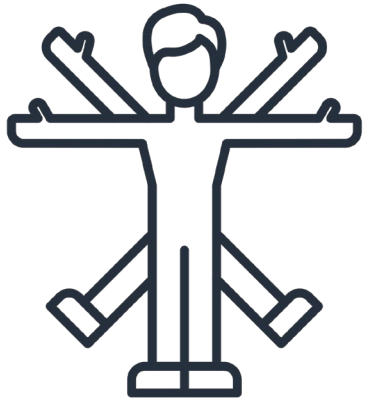
Our know-how: designing and manufacturing grossing stations stations adapted to the specific needs of our customers.

- Our stations are either **wall-mounted** or **island-type**.
- **Individual configurations** include basic stations with a ventilated work surface, for 1 up to 4 users. From here, **various options and accessories can be added** : height adjustment, air inlet, formalin dispensing and collection system, digital sample documentation system…

1. What our grossing stations stand for : safety, ergonomics and quality

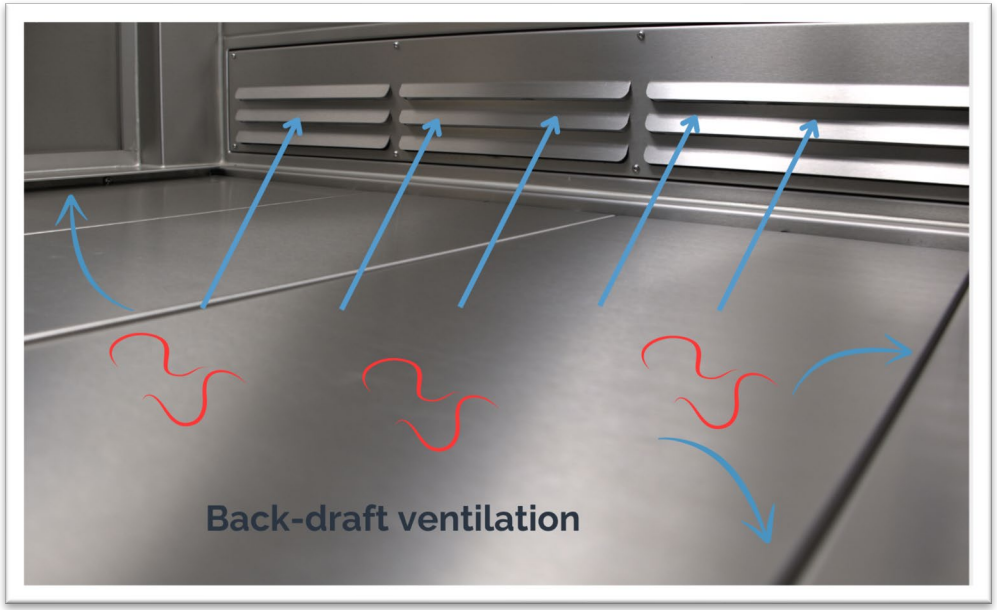
When designing our grossing stations, we place special emphasis on the technical and functional details which focus on 4 areas:

User Safety	Ergonomics	Integration	Quality & durability



Discover our range of grossing stations with innovative worktop for advanced user protection from formalin exposure.

- The Hygeco Group has developed an innovative worktop with circumferential ventilation, **which guarantees effective suction of pollutants even if the major part of the worktop is occupied by work utensils**.
- Unlike previous generations of grossing stations, we offer a worktop made of removable stainless steel plates that are not perforated. **The circumferential ventilation system, combined with a back-draft ventilation allows a more efficient ventilation and better user protection.**



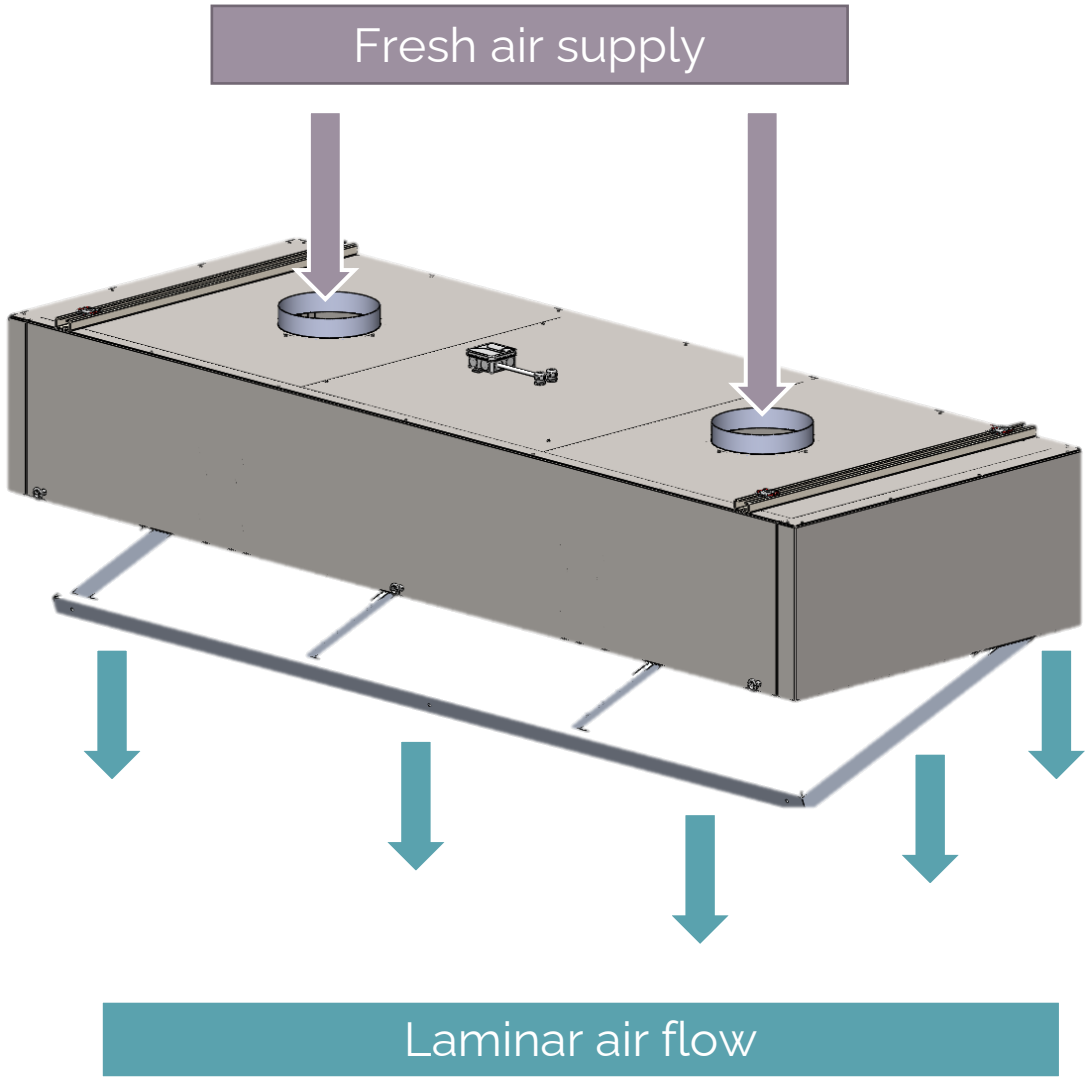
Air inlet elements: to guarantee the highest occupational health and safety standards.

- Installed above the work surface, air inlets **generate a constant downward, uniform air flow** (laminar flow). **Pollutants are prevented from rising and are directly aspirated at the worktop,** and thus guarantee **optimal user protection against toxic emissions, and odors.**

- One version is “ducted” (connected to the on-site ventilation system), another version is stand-alone & water-cooled.

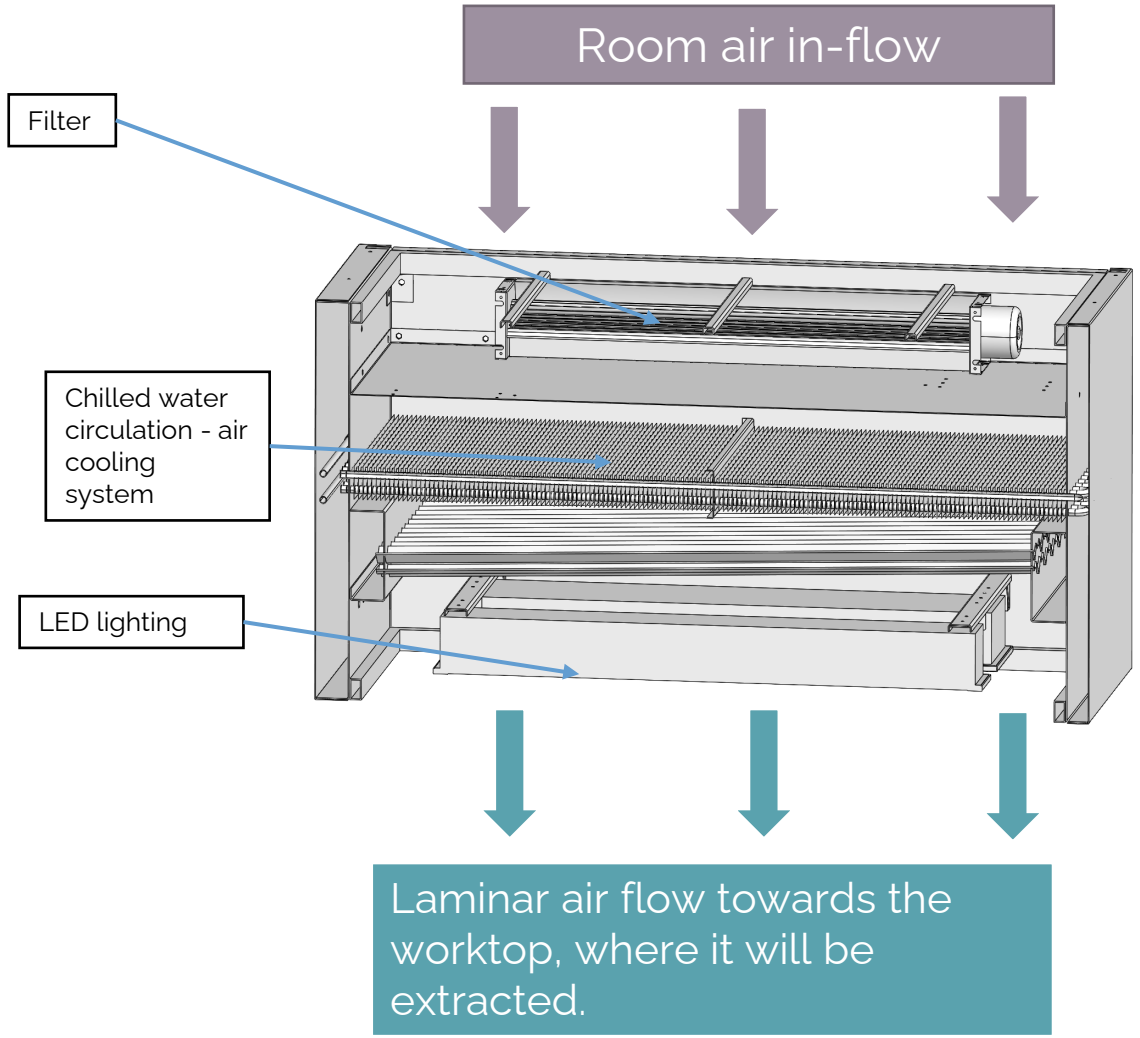
Ducted air inlet element

- Ceiling mounted air inlet with 2 nozzles (diameter 200mm). Deflector on the perimeter of the frame calibrated to blow the air downwards (laminar flow).
- Suspended LED light with dimmer or switch control.
- The unit is easily disassembled, making maintenance easy.
- The frame is made of aluminum and the inner lining is made of micro-perforated polyester to ensure an airflow of 0.2-0.4 m/s.
- Light element made of stainless steel 304.



Water-cooled air inlet (not connected to an external air supply).

- The system is not “ducted”. No outside air supply is required.
- The air coming from the room is filtered.
- Motorized fans (2 to 4 depending on the model) blow the air downward.
- Cooling of the air entering the unit is provided by a chilled water refrigeration system.
- Outlet frame with micro-perforated coating: perforation holes on the perimeter have a smaller diameter than the perforation holes at the center of the frame. This compresses the outgoing air at a speed of 0.2-0.4m/s.
- Control panel (LED, ventilation, temperature).
- Pre-set for automatic operation. Self-monitoring of filter status and cooling temperature (alarms).
- Available in various sizes.



User Safety: Breath easy, work securely.

Our grossing stations feature transformative ventilation systems that considerably reduce exposure to the pollutants from the reagents used.

- The circumferential ventilation system of the worktop combined with an air inlet element **drastically reduce operator exposure to chemical inhalation to 0,017 mg/m³*** whereas the Occupational Exposure Limit (OEL) is set at 0,37 mg/m³*
- That **is 21 times below the standard.**

*Data from SGS Institut Fresenius

Ergonomics: Height adjustment & ample legroom

By incorporating a height-adjustable work surface and sufficient clearance under the station, our grossing stations are designed to improve user comfort and to prevent musculoskeletal disorders.

- **Continuous height adjustment system** with user settings memory **for up to 3 users**.
- **Sufficient clearance under the station to accommodate the legs and feet comfortably** – helping to prevent discomfort over prolonged periods of use.
- The operator sits in a comfortable position, **reducing the risk of musculoskeletal disorders and fatigue**.

Ergonomics: Simple access to formalin tanks and waste bin

Convenient location and ergonomic access to the waste bin and formalin collection & supply tanks.

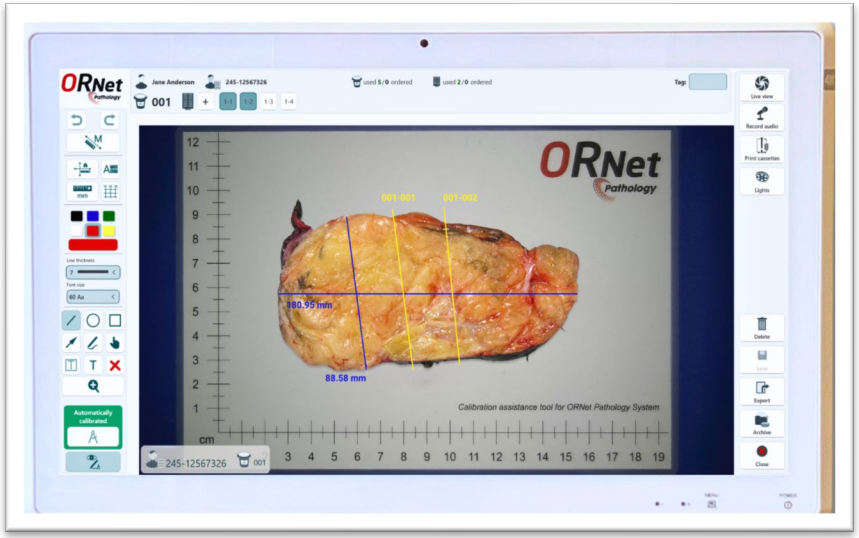
- The formalin tanks or waste bin **can be placed on a movable support that allows to easily move them for refill or disposal without carrying heavy weight.** This ergonomic feature can **significantly prevent strain on the back and shoulders**.

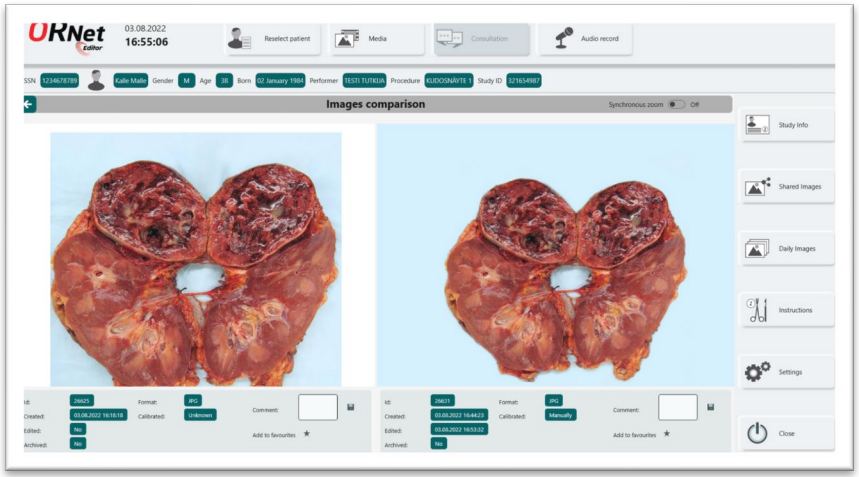
- **Integrated visual or audible alerts in the formalin tanks for overfilling or low levels** can help users quickly and securely respond to changes without interrupting their workflow.

Integration: Digital sample documentation system

The **ORNet digital sample documentation system** is an optional feature available for our grossing stations that enhances the efficiency and accuracy of sample processing in laboratories.

- **Seamless integration with the laboratory's information management system** (LIS) to automatically retrieve patient and study data, including container and cassette counts, preliminary diagnoses, and needle specifications.
- **Immediate specimen imaging**, **removing the need for verbal documentation** or drawing of color and shape. In addition to optical zoom, the images have a 10x digital zoom for detailed magnification.
- **Enhanced patient security through barcode verification** of containers and cassettes, along with an option to add and print new cassettes as required.





Integration: Digital sample documentation system

- **Unique tools for fast measurement** of samples and calculating their size and area, including integrated medical scales for automatic weighing.
- **Easy annotation with grossing station based standardized terms.** Drag and Drop frequently used terms to the image for accuracy.
- **Audio files with patient and study metadata can be created** as a supportive means of documentation that are ready for immediate transcription.
- **Working in tandem with the Assistant** is made easy due to the options of switching between live camera feed and taken still imagery.
- **Hands-free control of solution** with the foot pedal where all main features can be personalized according to user's preferences for ease of operation.

Our grossing stations **are crafted with a high-quality finish that emphasizes durability, functionality, and aesthetics**, ensuring they meet the rigorous demands of modern laboratories.

- **Robust and durable build:** The heavy-duty frame provides stability and ensures that the stations can endure daily wear and tear in high-traffic laboratory settings.
- **Use of premium materials**: Our grossing stations are constructed from high-grade stainless steel AISI 304, the tabletop is made of stainless steel AISI 316. This material choice ensures a long-lasting, durable finish that withstands harsh chemicals, stains, and frequent sanitation.
- **Polished Surfaces:** The stainless steel surfaces are polished to a smooth, satin finish, which not only enhances the visual appeal of the station but also minimizes reflections and glare, reducing visual fatigue for users.
- **Stainless steel skirting boards** prevent water from flowing underneath the station, guaranteeing a better hygiene and facilitate daily cleaning.

Durability: Eco-efficient grossing stations for more sustainable labs

Our grossing stations incorporate industry-leading ventilation technologies that deliver unparalleled eco-efficiency.

- A grossing station equipped with our innovative worktop **requires 25%* less air flow** than one equipped with perforated plates. **The addition of an air inlet allows total air flow to be reduced by up to 40%*.**

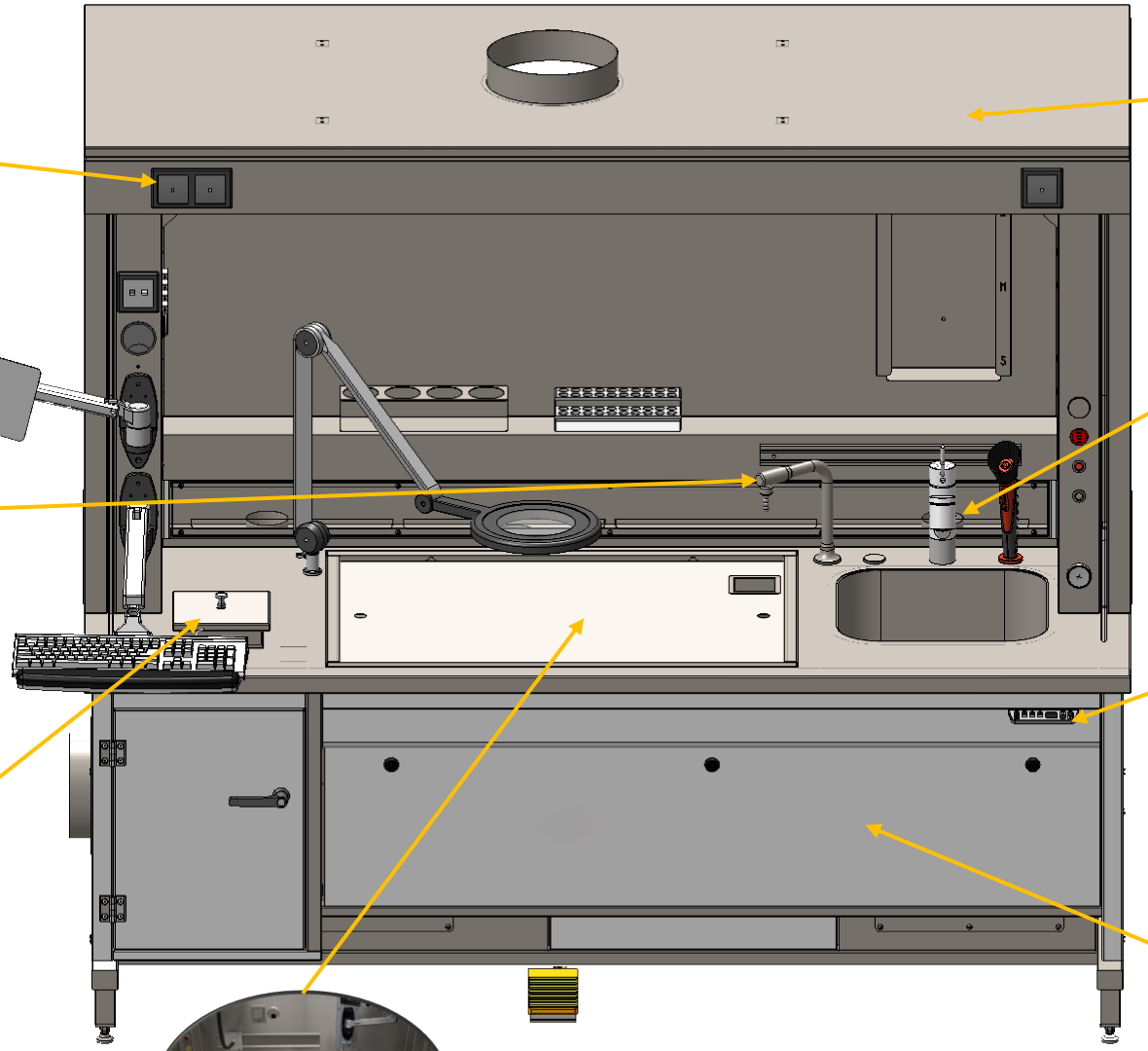
- A lower ventilation volume **leads to both a lower energy consumption and to a significant reduction in the noise level.**

Multiple configurations options

LED lamps and sockets

Possibility to connect to an on-site formalin supply / collection system

Ventilated waste bin with lid on the worktop



Worktop with solid plates and circumferential & backdraft ventilation

Air inlet element

Hot & cold water mixing tap

Height adjustment.

Formalin collection & supply system. Tanks equipped with level sensors.

1. Grossing stations : Options & accessories

Waste disposal unit

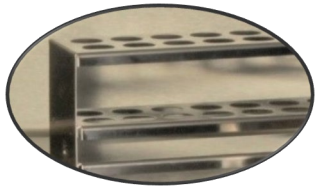
Adjustable monitor / keyboard holder

Camera rail with gooseneck or with tube + mounting system

Barcode reader holder and connexion point

Magnetic strip for instruments

Magnifying glass with integrated LED lighting



Test-tube holder

Tissue / glove dispenser

Mobile splashguard

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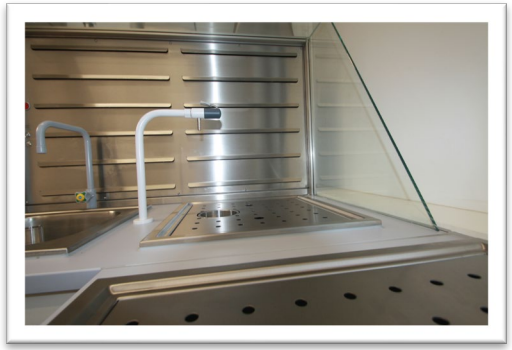
2. Formalin management stations

Our **solutions range from standalone systems**, which can be mounted individually at various workplaces, **to complex supply and collection units**, which are connected to a central pipe network.

Our systems ensure the **reliable supply and disposal** of formalin and chemical solvents **with low susceptibility**, are easy to operate and guarantee maximum safety for users.

Stand-alone solution with tanks



Solution connected to an on-site supply and collection system

Chemical effluent management station (Xylene, Ethanol, Alcohol)

- **Backdraft ventilation** for optimal user safety.
- Front and side safety glass panels
- Possibility to add a **level sensor with alarm.**

2. Formalin mixing and dispensing station

Ventilated formalin station with integrated fume hood for contact-free mixing and dispensing of ready-to-use formalin solutions.

- The unit mixes a ready-to-use solution from 37% formalin (tank) and water (tap) and dispenses it via an outlet tap.
- A flow sensor detects the amount of water supplied and the dosing pump adds the formalin accordingly, in a selectable concentration of 0-10 %.
- The user-friendly touch-screen allows to operate the station and to control the mixing process.

2. Formalin mixing and dispensing station

- The ready-to-use solution **can be dispensed manually** (dead man principle) **or automatically** with individually preselectable dispensing quantities.
- **Level control and alarm** (optical and visual) for fresh formalin and disposed formalin solutions in the tanks.
- **3 air extraction systems** (circumferential and rear extraction of the worktop as well as ventilated enclosure of the pump in the substructure) guarantee pollutant-free working.
- **Air flow monitoring** of the ventilation via touch-screen with alarm and blocking of the mixing process if the value falls below the limit to ensure maximum safety for the user.
- **Fume hood with dimmable LED lighting**, 2 glazed side walls and electric sliding window with safety stop.

Discover the station in action

1 Grossing stations

2 Formalin management station and fume hoods

3 Sample deposit table

4 Tissue staining table

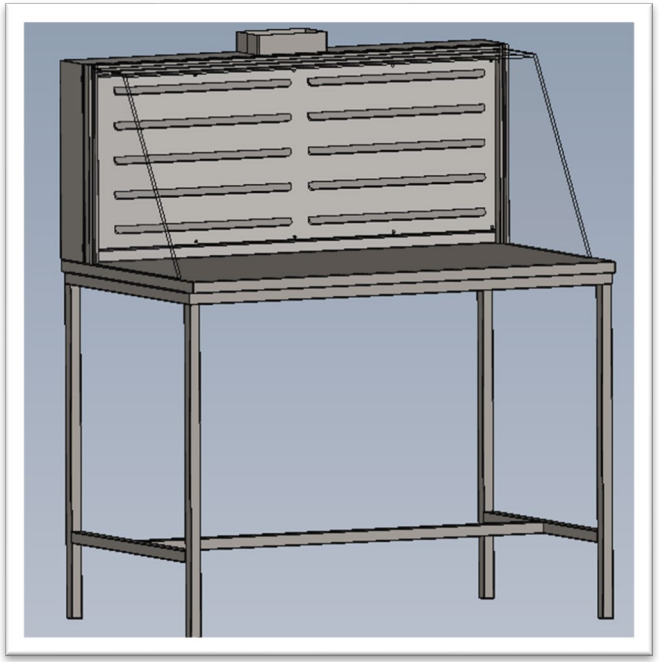
5 Transmural, storage & security cabinets

3. Sample deposit table

Designed to **facilitate the organisation and efficient handling of specimens** as they arrive in the laboratory.

- Equipped with **lateral and horizontal glass protections** ensuring optimal containment of formalin vapors or other chemical products.

- **The backdraft ventilation** allows a MAC (maximum allowable concentration) lower than the established standards. The safety of the user is thus reinforced and guaranteed by a frontal extraction of the vapors.



Dimensions (L x W x H) :	Custom made
Worktop :	Custom made
Diameter of the duct :	ø 100 mm
Air flow:	150 cubic meters / hour
Ventilation:	Backdraft ventilation
Material:	Worktop made of Stainless steel 316 Other components made of stainless steel 304
Sheet thickness :	1.5 mm
Safety glass :	8 mm

1 Grossing stations

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3 Sample deposit table

4 Tissue staining table

5 Transmural, storage & security cabinets

4. Tissue staining table

Designed for the **efficient and pollution-free preparation of histological slides** through the staining process.

- **Large stainless steel worktop** with closed plates.
- The **circumferential ventilation system** (to be connected to an exhaust system on- site) aspirates toxic emissions directly at the worktop, and thus **guarantees pollutant-free environment during the slicing and preparation** of histological slides
- Also **suitable for small dissections**.
- **Customised dimensions**.

1 Grossing stations

2 Formalin management station and fume hoods

3 Sample deposit table

4 Tissue staining table

5 Transmural, specimen & security cabinets

5. Transmural cabinets

Specialized storage unit designed to securely store and transfer tissue samples, specimens, and histological slides, contributing to a streamlined and effective laboratory workflow.

- Equipped with a **built-in cooling unit,** the cabinet **allows the safe transfer of temperature sensitive samples** between two areas of the laboratory.
- A **digital control panel to adjust the temperature.**

Length :	750 mm (**or custom made**)
Width :	790 mm (**or custom made**)
Height :	2100 mm (**or custom made**)
Volume :	600 l
Temperature range :	+2°C to +20°C
Electrical requirement:	230V/50Hz 16 A
Lighting :	Included
Finish :	Main frame made of galvanized steel, antibacterial coating. Inside made of high-grade plastic. Easy to clean with round corners and smooth surface.
Shelves :	Up to 5 shelves made of stainless steel
Control panel :	Digital panel with audio alarm
Doors :	Door on each side that cannot be opened at the same time
Panels :	Insulation thickness 75 mm
Net weight :	155 kg

- Equipped with **two hinged safety glass doors and a mechanical locking system** to prevent simultaneous opening of both doors.

5. Ventilated transmural cabinets

Designed to **contain and safely vent volatile organic compounds (VOCs)** emitted by stored specimens, reagents, and chemicals.

- For the **secure transfer of samples** between two areas of the laboratory.
- **Made of stainless steel, with integrated ventilation system** that continuously draw air away from stored materials, preventing the accumulation of hazardous fumes.

Length :	800 mm (**or custom made**)
Width :	685 mm (**or custom made**)
Height :	2100 mm (**or custom made**)
Skirting	Waterproof
Material :	Stainless steel
Drawers :	8 drawers
Shelves:	3 shelves, height-adjustable
Doors :	Two doors made of safety glass, 180° opening
Ventilation :	Connected to the on-site ventilation system
Net weight :	120 kg

5. Ventilated specimen cabinets

The cabinets provide a stable and controlled environment for storing tissue samples.

They ensure that **volatile organic compounds (VOCs) are contained and safely vented**, preventing the buildup of dangerous vapors in the lab.

- The **integrated ventilation system maintains a continuous airflow** within the cabinet, **effectively removing harmful vapors and preventing their accumulation**.
- With **stainless steel or glass doors**.
- **Locking system** optional.
- **Several possible configurations.**

  Our engineers are at your disposal to answer your requests and design models adapted to your needs.

Storage cabinet for glass slides and paraffin blocks

Security cabinet for acid and alkaline reagents with explosion protection

Reference projects: Anatomic pathology labs

TECHNISCHE UNIVERSITÄT DRESDEN

Anatomic Pathology Institute, Technical University Dresden - Germany

St.Vincentius-Kliniken Karlsruhe

Saint-Vincentius Hospital, Karlsruhe - Germany

UNIVERSITÄTSKLINIKUM AUGSBURG

Institut of Laboratory Medicine and Microbiology, Augsburg - Germany

Reference projects: Anatomic pathology labs

KLINIKUM CHEMNITZ gGmbH

Hospital Centre Chemnitz, Germany

alfa معامل الفا

Alfa laboratory Cairo, Egypt

North Estonia Medical Centre

North Estonia Medical Centre

Reference projects: Anatomic pathology labs

Science Parc, Hong Kong

175 Military Hospital, Vietnam

Zibo Central Hospital, China

Reference projects: Anatomic pathology labs

Klinikum Frankfurt Höchst

Hospital Frankfurt Höchst, Allemagne

LNS LUXEMBOURG

Anatomic Pathology Lab, Luxembourg

OPĆA BOLNICA PULA
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Pula Hospital , Croatia

Our turnkey solutions for the medical sector

Anatomic Pathology Lab

Research Centre

Forensic Institut

Anatomy Lab

Autopsy

Body donation centre

Morgues