



OUR NEW GROSSING
STATION
DFB900



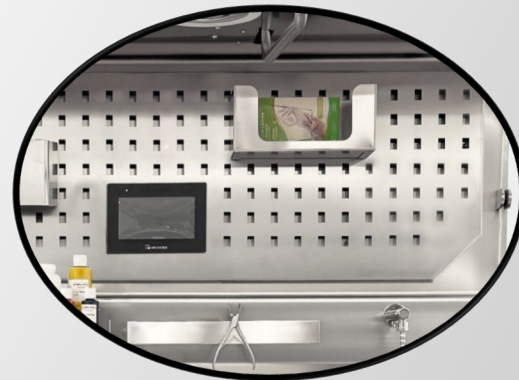


This station is the result of decades of experience in the field of histopathology, which led Hiplaas to the design of a no constraints, extremely flexible Grossing Station that could equally meet the needs of both a small laboratory and a larger facility.



DESIGN FEATURES

- Use of high-quality materials and components (synonymous with durability and reliability). Completely made of AISI 304 stainless steel
- The top, rear riser and hood are made of a single piece of 2 mm sheet metal without any visible joints to make decontamination easy and fast.
- Work surface with no visible joints, screws and silicone for effective decontamination.



ERGONOMICS

Ergonomics implemented thanks to:

Total depth of 90cm to ensure a large useful work surface of 70cm with the possibility of placing sample containers of various sizes on it; 38cm leg space;

Perforated rear panel (which can be removed to allow thorough decontamination) on which various accessories such as shelves, storage containers, towel racks, etc. can be attached and moved as desired;

Rounded front corners with a minimum radius of 10 mm for greater operator comfort



ERGONOMICS AND ELEVATION

The height of the Grossing Station is designed for both standing and seated use.

The combination of the above features makes it always possible to centre the optimal area in relation to the operator.

The optimal area is defined as the area of the station that must always be within easy reach of the operator to avoid repetitive strain injuries due to unnatural movements during the working day.



ELEVATION

- Two electro-mechanical actuators with millimetre adjustment (degree of protection against liquids and dust IPX6) enable elevation.
- Elevation range cm 190/220h;
- Work top elevation range cm 80/110h;
- 6 sliding columns in stainless steel AISI 304 on 12 linear bearings to avoid vibrations and to balance the station during the elevation.



HANDLING

- Handling for cleaning and maintenance is very straightforward, thanks to 4 adjustable and lockable heavy duty wheels



PLUMBING

- Sink of cm 30x23x18h which can be positioned on right or left side in order to meet the customer needs;
- Non-return valves to prevent contaminated water returning to the network;
- Exhausted formalin collection tank on the worktop.
- Tanks equipped with caps to prevent any leakage of paraformaldehyde accumulated in the pipes



PLUMBING

- Large collection tank positioned below the grids (micro-perforated to avoid accidental loss of samples) equipped with overflow with fluid disposal system and down-draft suction. Dimensions: 516x950mm.
- All plumbing systems have been designed to be easily dismantled and decontaminated in order to remove any residue of paraformaldehyde.



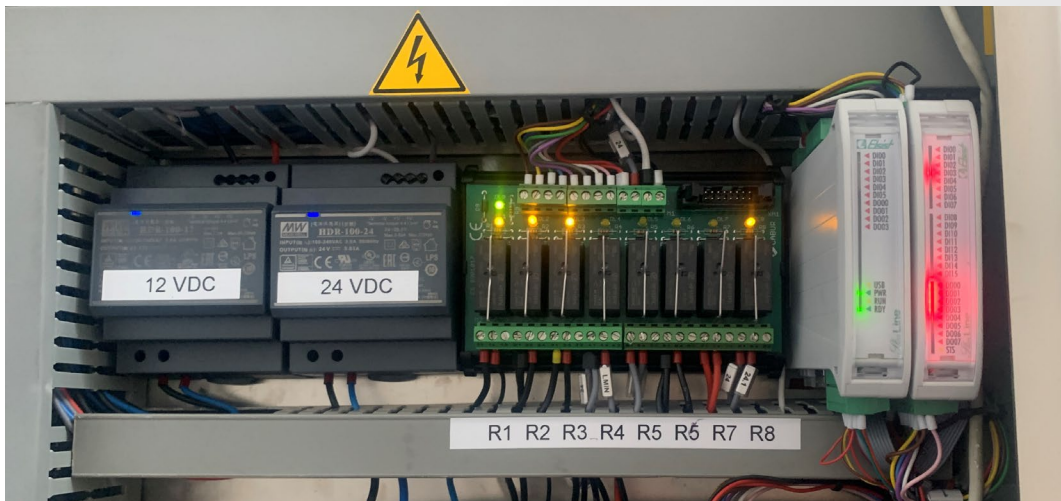


DIGITAL CONTROL PANEL AND PLC

- Digital control panel separated from the image system in order to guarantee the privacy of sensitive data
- Fully decontaminable 7" touch-screen, enabled for remote control to view anomalies, system updates and carry out remote maintenance. Connectable via ethernet.

Main Functions:

- LED Light Control
- Control of: ventilation, elevation and possibility of choosing the preferred position
- Alarm display
- Control of all the accessories
- Remote assistance
- Option to make updates





LIGHTING

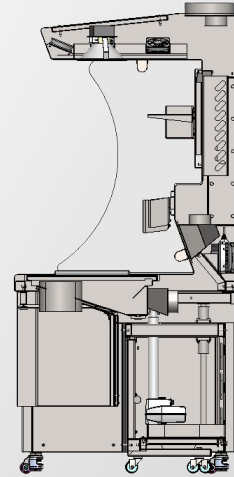
High efficiency recessed LED lights for high colour quality on illuminated surfaces, compliant with Reg. EN60598-1-CEI 34.21 on photo-biological risk.

- Colour temperature: 4000 K (degrees kelvin)
- Luminous flux: 3898 lm (lumen)
- IP44 degree of protection
- Luminous flux maintenance 50,000 h
- Anti-glare and anti-reflection optics to not tire the eyes



VENTILATION SYSTEM

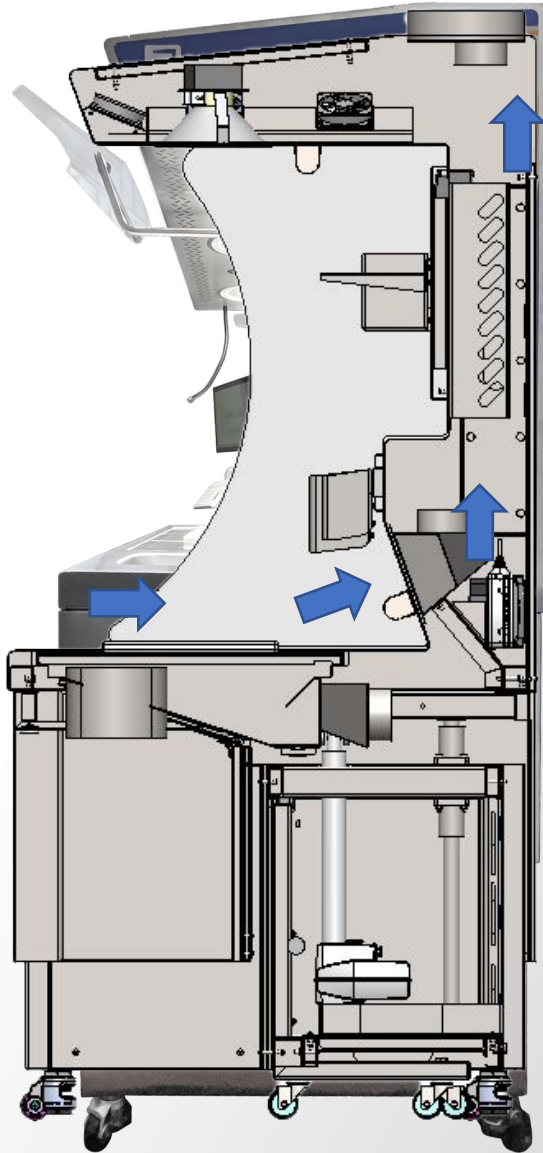
3 ventilation ducts, and each of them is dedicated to a specific area of the work surface, in order to guarantee balanced, uniform and turbulence-free ventilation along the entire work area.



VENTILATION SYSTEM

Laboratory technicians are constantly exposed to strong chemicals, which are very harmful. Vapours of formaldehyde and other dangerous substances can very easily irritate the respiratory system, and can cause irreparable damage over time. To address the problem of toxic fumes, we have designed an innovative and patented ventilation system:

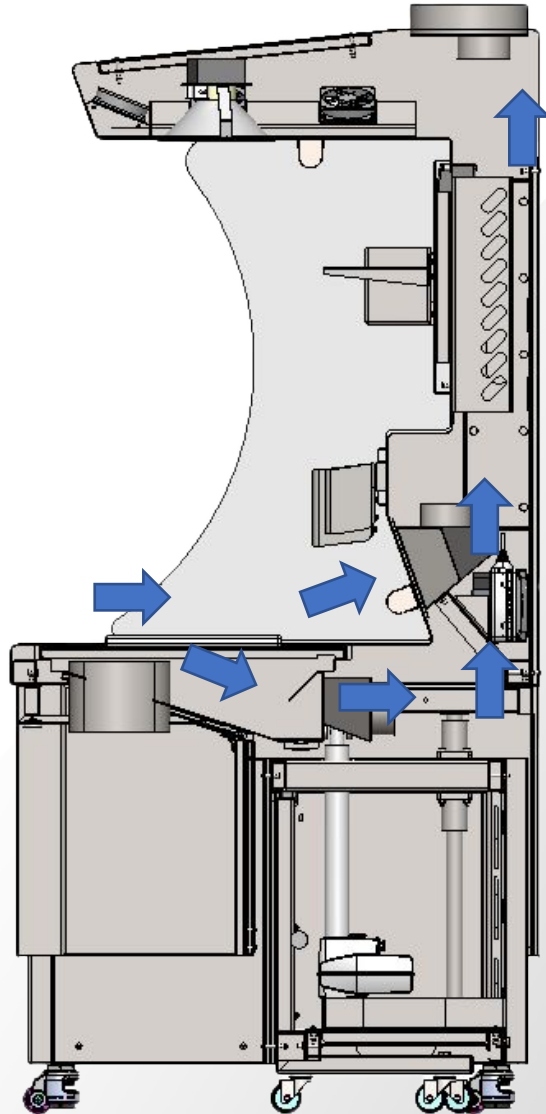
- | BACK-DRAFT
- | DOWN-DRAFT
- | AIR CURTAIN



VENTILATION SYSTEM

BACK-DRAFT

With this configuration, ventilation is equally distributed over the worktop thanks to a grid placed on the rear of the station. The sloped design has been developed to ensure the elimination of formalin fumes, by channelling them into the ventilation duct.



VENTILATION SYSTEM

DOWN-DRAFT

In the DUAL-DRAFT configuration, the DOWN-DRAFT ventilation system is added to the BACK-DRAFT ventilation system. A second duct, connected to the ventilation of the grossing station, is installed under the grids of the worktop, allowing the fumes released during processing to be channelled both from the rear and the bottom. In this configuration, ventilation is adequately distributed on both areas, seamlessly enabling work, even on samples that are larger in dimension.



VENTILATION SYSTEM

AIR CURTAIN

Air curtain driven by independent integrated fans, silent and enabled by the operator, placed in the upper part of the workstation, to prevent formalin fumes from escaping from the Grossing Station and dispersing into the environment (patented system).



VENTILATION SYSTEM

AIR CURTAIN

The air curtain obviates the inconvenience of the dispersion and exposure of dangerous substances for an effective management of safety in the work environment. The workstation, with the integration of the "protective air curtain", performs two functions: on the one hand it creates a screen/barrier of clean air which does not allow dangerous substances to escape from the workstation and/or disperse into surrounding environments through the separation of the adjacent environments; on the other hand, it pushes the carcinogenic substances downwards, directing them to the suction points. This system has been tested successfully. The "protective air curtain" ensures the protection of the operator and the work environment outside the station, against biological agents, as well as the protection of the processed material from external contamination.



130 CM



VENTILATION SYSTEM

INHALATION OF FUMES

For greater operator safety, the BACK-DRAFT system grid is fixed to reach a maximum height of 130 cm



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The fumes emitted by formalin or other harmful substances cannot reach the operator's respiratory tract.



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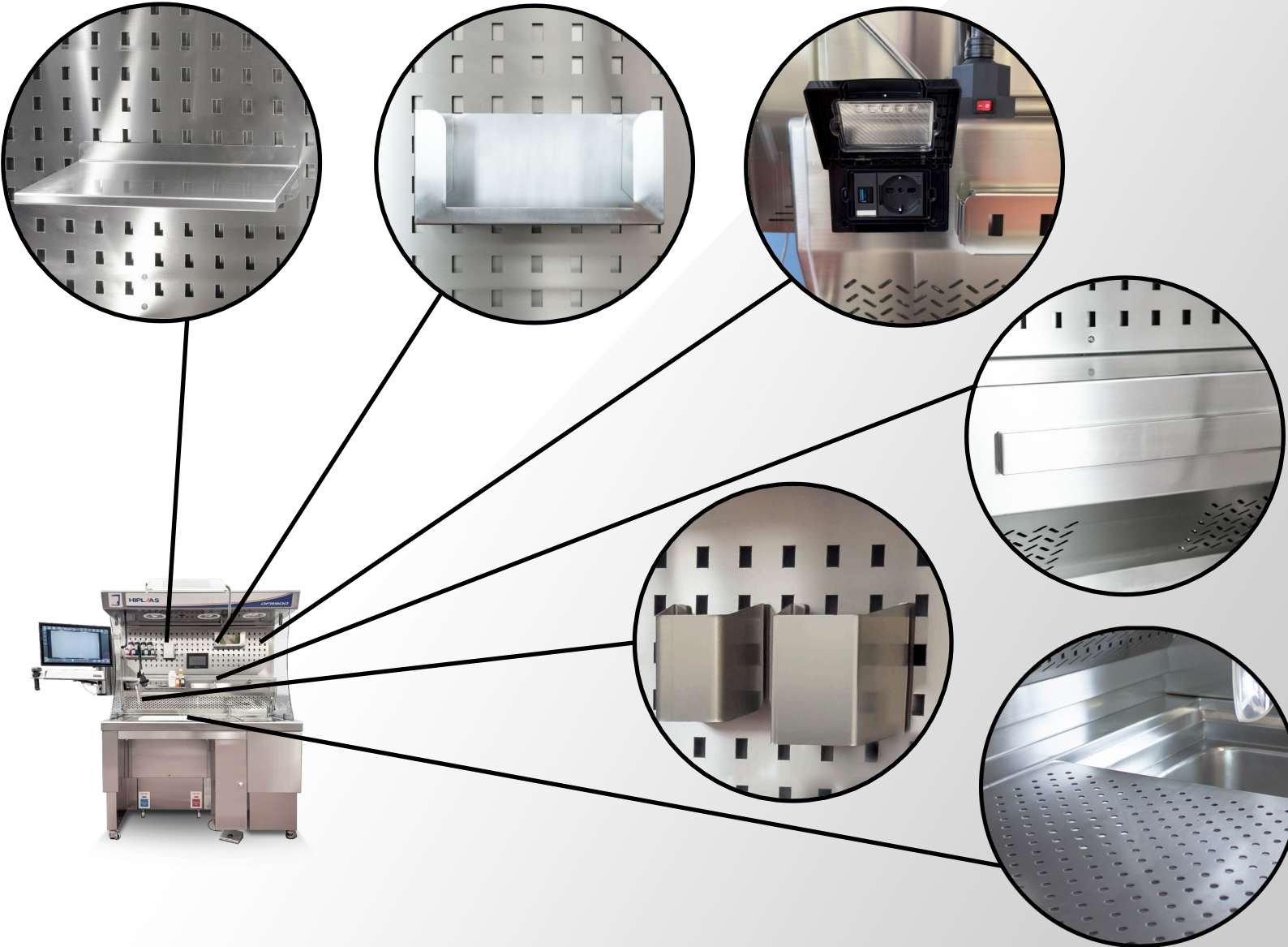
Thanks to the BACK-DRAFT system, they are intercepted and channelled into the ventilation system of the grossing station before being able to disperse into the environment.

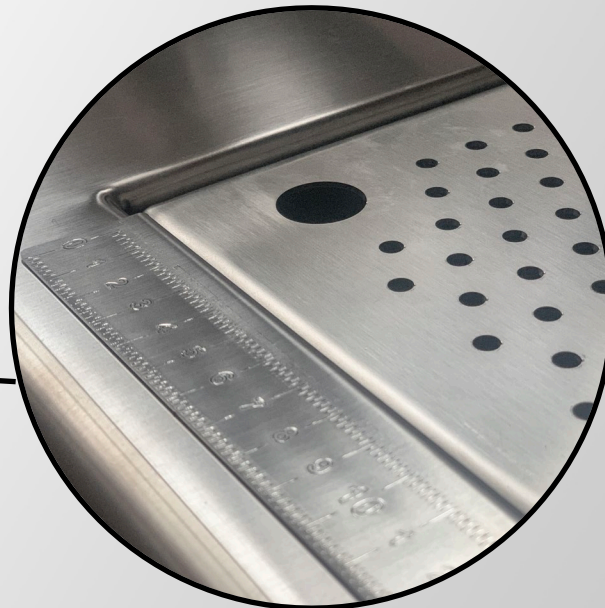
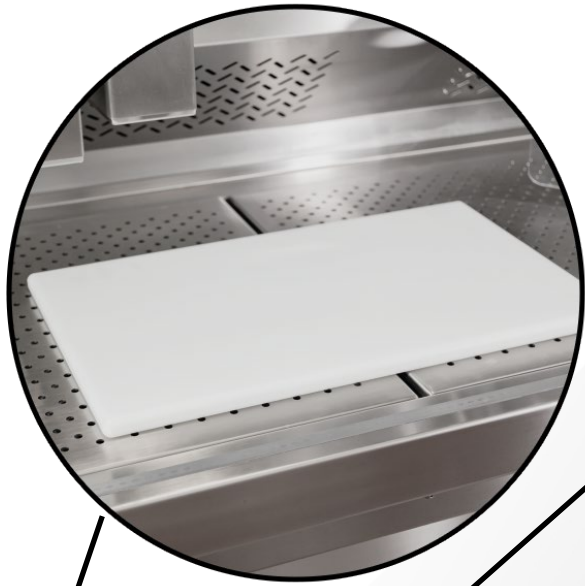


WORK SURFACE

The DFB900 grossing stations are equipped with standard accessories such as:

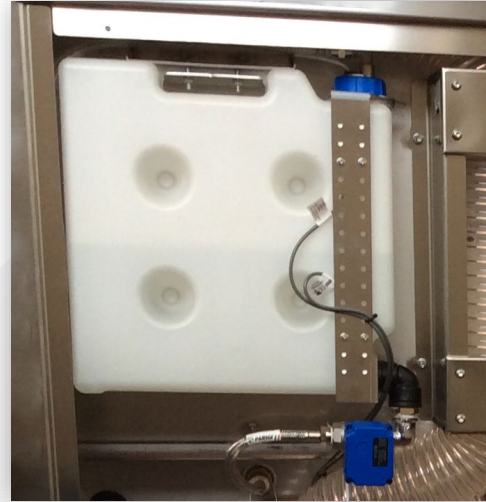
- Power socket and USB port with IP55 protection
- Towel holder
- Stainless steel shelf
- Magnetic bar
- Containers for the sorting of tools
- Removable grid plates with 7 mm holes, wheelbase of 28mm





WORK SURFACE

- Dissection polyboard, white, rectangular shape (size 30 x 50 cm, thickness 2 cm)
- Single lever mixer with lever, spout diameter 2 cm. Flow rate at a pressure of 3 BAR: 22 l/min. Dimensions of the sink bowl 34 x 40 x 25 h cm with 9.5 cm drain hole (specify right or left configuration when ordering)
- In the frontal part of the worktop there is a stainless steel ruler with metric system to allow the measurement of histopathological samples



OPTIONAL ACCESSORIES

The DFB900 is compatible with a wide range of optional accessories.

These include the formalin dispensing and collection system, composed of a wheeled AISI 304 stainless steel container capable of holding up to 2 tanks of 20lt each, which facilitates their replacement without any effort. Furthermore, the system is equipped with an extra 7lt tank to allow a constant flow without the necessity to have a pump. There is also the possibility of connection to the hospital network if present.



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OPTIONAL ACCESSORIES

-Hot water hand spray rinse with flexible hose: thanks to the flexible hose the shower can reach and therefore clean the entire work area. Hot water is essential in order to remove any residue of paraformaldehyde, avoiding accumulation and eliminating the risks for the operator and the possibility of dispersion into the environment.

-Constantly ventilated AISI 304 stainless steel trash bin, integrated in the work surface into which it is possible to throw contaminated waste without any risk to the operator.



OPTIONAL ACCESSORIES

- Splash shield in transparent lexan, electrically controllable with the option of millimetric adjustment and manual rotation of the latter;
- Consumables: absorbent mats capable of neutralizing formalin; neutralizing powder; tissue markers



HIGH QUALITY IMAGING SYSTEM



ENDOVISION IMAGING SYSTEM

This is the ideal imaging system to capture and manage the video, voice and an image coming from high resolution camera, and to archive them for future review. This system can be mounted to fit any existing grossing workstation, or used as a stand-alone resource. The user interface of the software is ideal to be managed from a touch screen monitor.

- Plug in
- Dictation EV
- Voice Command EV

The system is instantaneous and user friendly.



Pedaliera con 4 pulsanti e 4 pedali che permettono le seguenti funzioni: FOTOGRAFIA, VIDEO REC START/STOP, AUDIO REC START/STOP, ZOOM IN, ZOOM OUT, FOCUS, LMD VOCAL



20x zoom ottico
Risoluzione video 4K



Comandi vocali & sistema di dettato vocale



Report con immagini
Conforme a HL7 & DICOM



Lettore barcode



Workflow diagram showing five stages: Case Identification, Image Video and Audio Acquisition, Review Multimedia & Measure Tool, Dictation Annotation & Report, and HL7 & DICOM Integration. Below the diagram are screenshots of the software interface for each stage.

- Case Identification:** Screenshot showing fields for CODE OF CASE, DATE OF CASE, PATIENT NAME, PATIENT SURNAME, and DATE OF BIRTH.
- Image Video and Audio Acquisition:** Screenshot showing a 3D anatomical model of a heart with a red arrow pointing to a specific area.
- Review Multimedia & Measure Tool:** Screenshot showing the same 3D model with a red line indicating a measurement.
- Dictation Annotation & Report:** Screenshot showing a text input field for dictation and a report preview.
- HL7 & DICOM Integration:** Screenshot showing a document icon, representing the integration with a Multimedia Repository.

ENDOVISION IMAGING SYSTEM

Our imaging system allows the operator to create a detailed report of the work done, by offering different approaches, adaptable to each situation. Thanks to the functions of the pedals, the touch screen and the voice functions, the operator can perform the following activities:

- take pictures
- record video or voice notes
- zoom in and zoom out
- use the dictation system to be able to compile the report without using the keyboard
- insert notes, symbols or measurements on the photos



Pedaliera con 4 pulsanti e 4 pedali che permettono le seguenti funzioni:
FOTOGRAFIA, VIDEO REC START/STOP, AUDIO REC START/STOP,
ZOOM IN, ZOOM OUT, FOCUS, LMD VOCAL



20x zoom ottico
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Lettore barcode



Case Identification	Image Video and Audio Acquisition	Review Multimedia & Measure Tool	Dictation Annotation & Report	HL7 & DICOM Integration
<p>CASE DATA</p> <p>CODE OF CASE <input type="text"/></p> <p>DATE OF CASE <input type="text"/></p> <p>PATIENT NAME <input type="text"/></p> <p>PATIENT SURNAME <input type="text"/></p> <p>DATE OF BIRTH <input type="text"/></p>				<p>Multimedia Repository</p> <p>HL7 & DICOM Integration</p>

ENDOVISION IMAGING SYSTEM

HIGHLIGHTS

- Image & Video resolution up to 4K
- Optical zoom (lens) 20 x
- Touch-screen control monitor
- Processor Intel Core I9 RAM 16GB
- HDD SSD 256 GB
- Measure and report
- Foot pedal control device
- Dictation System
- EndoVision plugin Voice command
- EndoVision plugin Integrated on existing grossing WS
- Barcode reader
- HL7 & DICOM compliant
- Automatic calibration



GROSSING STATION DFB900

WE CUSTOMISE
YOUR REQUESTS

FULLY
MADE IN ITALY



TESTS AND CERTIFICATIONS



Factory Acceptance Testing (FAT)

Test carried out to test the effectiveness and acceptability criteria of the suction system of our Grossing Station DFB900.

ISO 9001:2015

This sets international standards for quality management systems. To obtain certification, the system used must demonstrably meet the requirements of customers and authorities.

	Protocollo di Factory Acceptance Testing (FAT)		N°	24K007
			Data	24/01/2024
			Pag.	1 di 14
			MD_PQ	Rev.00
Committente:	Mopec Europe Srl T./A. HIPLASS Via Tauzi, 8 83038 Montemiletto (AV) - Italia	Utente:	Mopec Europe Srl T./A. HIPLASS Via Serra Bagnara snc 83030 Montefusco (AV) - Italia	
Oggetto:	Stazione di Riduzione Istologica "DFB900"			

Protocollo di
Factory Acceptance Testing (FAT)
Stazione di Riduzione Istologica "DFB900"

Data Esecuzione
23 Gennaio 2024

Rev.	Data	Oggetto	Redazione Verifica ed Approvazione
00	24/01/2024	Prima emissione	L. Zucchelli

Clean Tech System s.r.l.
Via Zucchi, 39/B - 20095 Cusano Milanino (MI) - Tel. 0266409991 - Fax 026194115 - info@ctscsm.it

Dip. CTS Laboratori
Info@ctslab.eu - www.ctslab.eu
Laboratorio di Bio-Analisi
Via Zucchi, 19 - 20095 Cusano Milanino (MI)
Laboratorio di Prova Filtri
Via Zucchi, 39/C - 20095 Cusano Milanino (MI)

Il Dip. CTS Laboratori opera in accordo alla norma UNI CEI EN ISO/IEC 17025:2018. Le prove e le immagini riportate nel presente protocollo si riferiscono esclusivamente ai campioni sottoposti a prova. Il presente protocollo non può essere riprodotto, in tutto o in parte, senza autorizzazione scritta rilasciata dalla direzione del Dipartimento.

CERTIFICATE

Your Certification Partner

Certificato nr. / Certificate n° OMS-09065197-18

Questo documento attesta che/This documents certifies that
Il Sistema di Gestione per la Qualità di/ the Quality Management System of

MOPEC EUROPE SRL
VIA TAUZI, 8 - 83038 MONTEMILETTO (AV) - ITALY

conforme ai requisiti della normativa per i Sistemi di Gestione per la Qualità
is in compliance to the Quality Management System standards

ISO 9001:2015

Questo certificato è valido per i seguenti prodotti o servizi:
This Certificate is valid for the following product or services:
(ulteriori chiarimenti sullo scopo e l'applicabilità dei requisiti di norma si possono ottenere contattando
l'Azienda certificata / Further clarification regarding scope and application of the requirements of
standard/s may be obtained consulting the certified Organisation)

**COMMERCIALIZZAZIONE DI ATTREZZATURE DEL SETTORE OSPEDALIERO E
VETERINARIO. (EA 29)
MARKETING OF EQUIPMENT IN THE HOSPITAL SECTOR E
VETERINARIAN.**

Prima Emissione	Emissione corrente	Data Scadenza
First Issue on	Current Issue on	Expiry date
11-11-2018	11-11-2021	11-11-2024

Per l'organismo di certificazione
For the Certification Body

Ing. Angelo Raffaele Licchelli

This Certificate is issued by ESR Cert Ltd.
ESR Cert is accredited by ISO, Registrar of UK, USA and SA. ESR Cert is the lead of accreditation of bodies certifying management systems.
ESR Cert is accredited by ISO, Registrar of UK, USA and SA. ESR Cert is the lead of accreditation of bodies certifying management systems.
The validity of this certificate is depending from the periodic surveillance audit and the complete review every three years of the Management System.

IAF
No. of Certificate 155-3

EVS
No. of Certificate 155-3

ESR
No. of Certificate 155-3

Per info sulla validità del certificato consultare il sito www.esrcert.com
for info about the validity of this certificate, consult the website www.esrcert.com



EU Certificate of Conformity

The SUPPLIER/EXPORTER: Mopec Europe srl
Via Tauzi,8
83038 Montemiletto AV
ITALY
VAT 02835760642
Tel. +39 0825 963263

Hereby declares that the below product:

-DFB000 GROSSING STATION

Are in conformity with the CE Directive:

We Mopec Europe srl declare that such products meet the requirements set in the relevant EU-Directives based on applicable laws.

Harmonized European Standard has been applied

Signed By: Maurizio De Santis **MOPEC EUROPE Srl**
Title: Director **The Director**
Date: 21/12/2023 **Maurizio De Santis**



Montemiletto,10/01/2023

To whom it may concern

We, **MopecEuropes.r.l.**, who are official manufacturers of Histology ,Pathology, Autopsy and Mortuary equipment, having legal siege in Montemiletto (AV), via Tauzi,8 83038 ITALY

Hereby declare

that our products are NOT CLASSIFIED as MEDICAL DEVICES as part of histopathology and autopsy category.
If a product has a medical purpose, i.e. it is specifically intended to provide or assist with the diagnosis, monitoring, prevention or treatment of a medical condition of a human being, it is likely to be a Medical Device under the Medical Devices Directive (MDD) 93/42/EEC or the IVD Directive. A Medical Device is defined in Article 1 clause 2(a) of the MDD. This will not only depend on the device itself, but also on the claims made for its intended use in the accompanying documentation.
This definition does relate to live humans, so if any products are placed on the market specifically for mortuary or autopsy use only, then they would not be Medical Devices

Signed By: Maurizio De Santis **MOPEC EUROPE Srl**
Title: Director **The Director**
Date: 21/12/2023 **Maurizio De Santis**





LIROMAN
LABORATORY FOR INNOVATION AND FOR
THE APPLICATION OF ROBOTS IN THE
MONITORING OF NATURAL, LIFE AND
WORK ENVIRONMENTS



PIN
UNIVERSITY
CENTRE IN THE
CITY OF PRATO
THE UNIVERSITY OF FLORENCE IN PRATO

M.A.K.E.F.A.R. Project



"Implementation and evaluation of grossing stations for the control of formaldehyde in hospitals"

Address
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Avellino Italy

Phone
+39 0825 963263

Online
info@hiplaa.com
www.hiplaa.com



ProCeas⁴ FORMALDEHYDE analyzer



Trend of airborne formaldehyde concentration values measured in front of the workstation, in "at rest" and "in operation" conditions.



Fehling's Test and trend of airborne formaldehyde concentration: the graph shows the peak of emission from the tank with 30% formalin, detected with a probe placed inside the worktop; note how, once the probe is removed from the area above the work surface, the formaldehyde values fall to background levels (below 0.25ppm) in a few seconds, and this is indicative of the workstation's containment capacity.

FLIR Cold Optical Gas Imaging (OGI) camera for optical gas detection.



The GF320 thermal imaging camera allows real-time viewing (through the use of special filters) of the smallest gas leaks, with high sensitivity ($\pm 15\text{ mK}$) and precision in measuring temperatures between



Safety At Work
Examining the results of the technical tests we routinely execute, in order to ensure an optimal environment.



Fabio Di Maria
IMPROTEC ART

Stefano Dughetti
UNIVERSITY OF FLORENCE

Massimo De Santis
HIPLAAS

Giovanni Caporali
UNIVERSITY OF FLORENCE

Are you a Pathologist?
We would like to hear from you.
Please write to us at:
makefar@pin.unifi.it
with your suggestions on how we can create a safer work environment for you.