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Shandon Pathology Workstations and Workbenches



- Downdraft or Back Draft Fume Removal
- Stainless Steel Construction
- Elevating or Fixed-height Work Surfaces
- Hands-free Controls
- Three Efficient Ventilation System Options

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Shandon Gross-Star™ Pathology Workstations

An organized workstation for the gross examination and sectioning of specimens.



Optional dictation system.



Shandon Gross-Star Workstation camera bracket and magnetic instrument bar.



Standard formalin disposal cup sink and optional formalin dispensing system faucet.



Sink, faucet, hand spray, and manual manifold rinse control valve.



- Optional camera, monitor, and keyboard brackets are available.
- Monitor bracket is designed to hold a thin flat-screen display monitor.
- Telescoping arm for the camera slides along the width of the unit.



To minimize contamination and maximize convenience, the Shandon Gross-Star is available with hands-free foot pedal controls for cold/hot water faucet, optional formalin dispensing system, and optional dictation system.



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Superior Functionality

- **Downdraft ventilation** is a standard feature.
- Models with **elevating or fixed-height** work surface are available.
- Elevating units have **user-adjustable work surface height** of 33" to 41" (83.8 to 104.1 cm).
- Fixed-height units have a work surface that is **factory set to your specification** from 33" to 41" (83.8 to 104.1 cm).
- **Deep sink** with cold and hot water faucet.
- **1/2 or 3/4 horsepower disposals** are available (please check with local authorities before ordering a unit with a disposal, because some areas prohibit the use of disposals).
- **Hands-free foot pedal controls** for cold/hot water faucet, optional dictation system, and optional formalin dispensing system.
- **Abundant light** is directed to the work surface.
- **Vacuum breaker-protected** water supply.
- Appliances **plug directly into the unit** for convenient use.
- One **hospital-grade duplex ground fault circuit interrupter (GFCI)** receptacle included on 110-120V units.
- One **point-of-use receptacle** included on 220-240V units.
- **Facility-supplied residual current device (RCD)** is required for 220-240V units.
- **Two optional tape recording units** available.
- **Ventilated base cabinet.**
- Fume removal is **efficient and quiet.**
- **Optional camera, monitor, and key board brackets** are available.
- Monitor bracket is designed to hold a **thin flat-screen display monitor.**
- **Telescoping arm for the camera** slides along the width of the unit.
- **Each unit comes complete** with magnetic instrument bar, integral centimeter ruler, paper towel dispenser, and photographic blue polyethylene dissecting board.
- **Built-in manifold rinse** washes down wetted internal surfaces quickly.

Superior Quality

- **Standard Type 304 or optional Type 316 stainless steel** construction.
- **Rugged design** provides stability and is built tough to withstand years of extensive work without corrosion.

Three Ventilation System Options

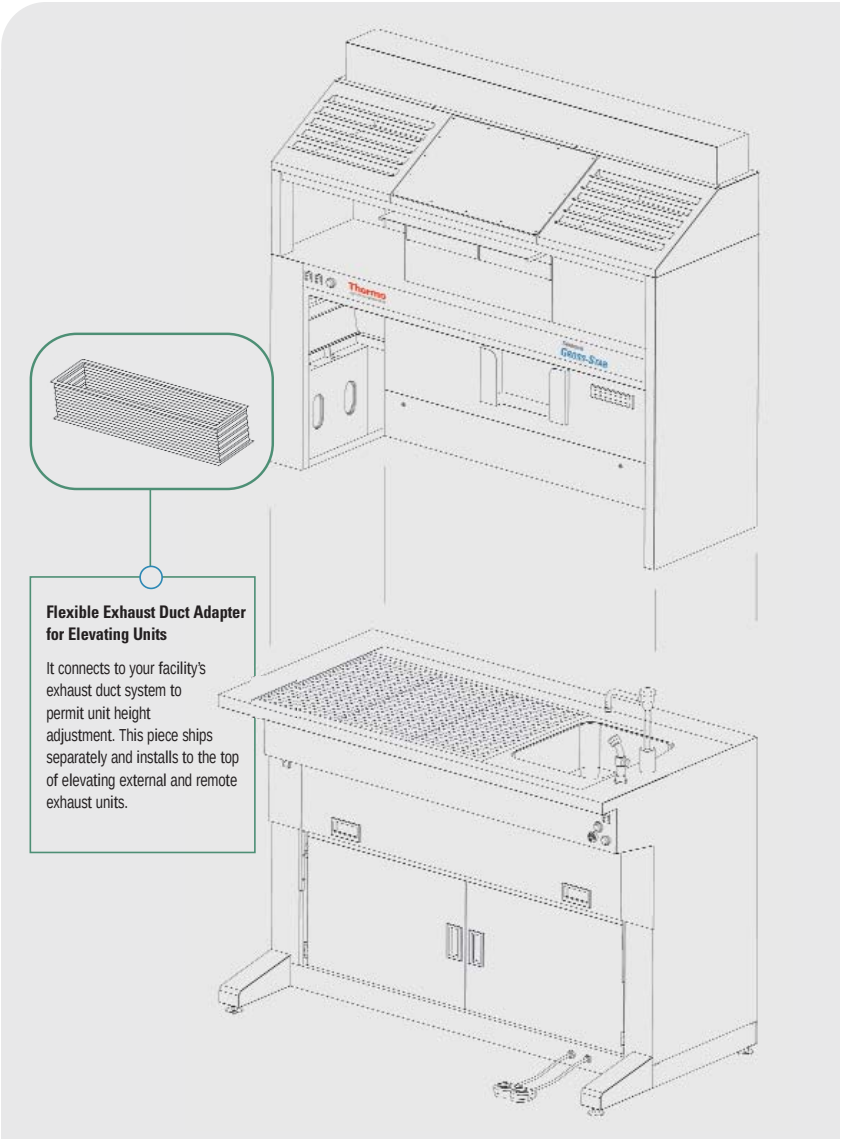
- Some models feature **formaldehyde neutralizing filters** and recirculated air.
- For short distance, external exhaust models are available with **filters and an integral blower.**
- Other models **connect to the facility remote exhaust system.**

Designed for Easy Shipping and Installation

- All Shandon Gross-Star™ workstations ship in **two convenient assemblies.**
- Both parts fit through a **standard 32" (81.3 cm) doorway.**
- **The two halves link firmly** with easy-to-assemble plates and fasteners.
- **Connects directly** to facility cold and hot water supplies and drains.
- **Units are hard wired** to facility electrical system.

Recommended Depth from Front of Unit to Wall

- For the purpose of room planning, **backs of fixed-height units can be flush to walls.**
- **Elevating units require approximately 1" (2.54 cm) clearance** between the backs of the units and walls to accommodate height adjustment.



Grossing Accessories



Shandon Hyperclean™ Fume Handlers

- Clear acrylic side panels are impervious to most chemicals.
- Filters are replaced easily without tools.
- 110-120V Blower Units are UL / cUL approved.
- 220-240V Blower Units are CE marked.

Description	Order Number
Filters & Accessories	
Charcoal Filter *(except Hyperclean 2)*	9990610
Fine Particle Filter *(except Hyperclean 2)*	9990611
Formaldehyde Vapor Filter *(except Hyperclean 2)*	9990612
Hyperclean 2 Charcoal Filter	9990615
Vent Adapter Kit	9990640

Description		Order Number	
		110-120V	220-240V
Shandon Hyperclean 1 Workstation	Delivered with 1 Blower Unit and 1 Charcoal Filter	9990601	6485601
	Safety Door Panel with Hand Holes (Optional)		9990650
Shandon Hyperclean 2 Workstation	Delivered with 1 Blower Unit and 1 Charcoal Filter	9990602	6485602
Shandon Hyperclean 20 Workstation	Delivered with 2 Blower Units and 2 Charcoal Filters	9990620	6485620
Shandon Hyperclean 22 Workstation	Delivered with 4 Blower Units and 4 Charcoal Filters	9990622	6485622
Shandon Hyperclean 36 Workstation	Delivered with 1 Blower Unit and 1 Charcoal Filter	9990636	6485636
Shandon Hyperclean 60 Workstation	Delivered with 2 Blower Units and 2 Charcoal Filters	9990660	648566



Shandon Dissecting Instruments with Case

- Kit is available with complete set of instruments.
- Case is also available without instruments.
- Photograph may not represent actual set of instruments included with order number 9996969 (kit is subject to change without notice).

Description	Size	Order Number
Shandon Instrument Case Does Not Include Instruments	12.75" x 9.5" x 2.5" (32.4 x 24.1 x 6.4 cm)	1001382
Shandon Instrument Case With Instruments	12.75" x 9.5" x 2.5" (32.4 x 24.1 x 6.4 cm)	9996969

SEE PRODUCT CATALOG FOR COMPLETE LIST OF DISSECTING INSTRUMENTS.



Shandon Polyethylene Dissecting Boards

- Durable, easy-to-clean 0.75" (1.9 cm) thick polyethylene will not dull fine surgical cutting edges.
- White opaque surface provides an excellent background for cutting surgical or research specimens.
- Photographic blue surface allows specimens to be photographed directly on the board; no need for removal to another location.
- Each is available in two sizes.

Description	Order Number
Shandon Polyethylene Dissecting Board, white 0.75" x 23" x 16" (1.9 x 58.4 x 40.6 cm)	36114
Shandon Polyethylene Dissecting Board, white 0.75" x 16" x 12" (1.9 x 40.6 x 30.5 cm)	361191
Shandon Polyethylene Dissecting Board, photographic blue 0.75" x 23" x 16" (1.9 x 58.4 x 40.6 cm)	B36115
Shandon Polyethylene Dissecting Board, photographic blue 0.75" x 16" x 12" (1.9 x 40.6 x 30.5 cm)	B361192

Thermo ELECTRON CORPORATION

Anatomical Pathology USA
Tel: 1-800-547-7429 1-412-788-1133
Fax: 1-412-788-1138

Anatomical Pathology International
Tel: 0800 0189396 +44 (0) 1928 562600
Fax: +44 (0) 1928 562627

Anatomical Pathology Latin America/Canada
Tel: 1-412-788-2460
Fax: 1-412-788-2480

Email: clinical.diagnostics@thermo.com **Internet:** www.thermo.com/shandon

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Shandon Gross-Star™ Pathology Workstations

	Description	Order Number
Elevating Models 110-120V, 60Hz, 1Ph		
R	**Recirculating** via Filters and Integral Blower	B21100
E	**External Exhaust** via Integral Blower and 20' Max. of Facility Duct	B21101
r	**Remote Exhaust** via Facility Duct and Blower (not included)	B21102
Elevating Models 220-240V, 50/60Hz, 1Ph		
R	**Recirculating** via Filters and Integral Blower	B22200
E	**External Exhaust** via Integral Blower and 20' Max. of Facility Duct	B22201
r	**Remote Exhaust** via Facility Duct and Blower (not included)	B22202
Fixed Height Models 110-120V, 60Hz, 1Ph		
R	**Recirculating** via Filters and Integral Blower	B21103
E	**External Exhaust** via Integral Blower and 20' Max. of Facility Duct	B21104
r	**Remote Exhaust** via Facility Duct and Blower (not included)	B21105
Fixed Height Models 220-240V, 50/60Hz, 1Ph		
R	**Recirculating** via Filters and Integral Blower	B22203
E	**External Exhaust** via Integral Blower and 20' Max. of Facility Duct	B22204
r	**Remote Exhaust** via Facility Duct and Blower (not included)	B22205

Agency Approvals

UL / cUL (110-120V only); CE (220-240V only); CSA NRTL/C (pending)

Validated Exhaust Efficiencies

R Recirculating	E External*	r Remote
N/A	N/A	Recommended Exhaust Airflow Volume 550 - 600 cfm (0.260 - 0.283 cu. m/s)
N/A	N/A	Pressure Loss through Unit with standard Downdraft 0.07 - 0.08 in. w.g. (0.17 - 0.20 cu. mb)
N/A	N/A	Pressure Loss through Unit with optional Back Draft 0.19 - 0.23 in. w.g. (0.47 - 0.57 cu. mb)
Average Capture Velocity with Standard Downdraft at 3" above work surface:		
30 - 33 fpm (0.152 - 0.168 m/s)	55 - 59 fpm (0.279 - 0.300 m/s)	73 - 80 fpm (0.371 - 0.406 m/s)
Average Capture Velocity with Optional Back Draft at back of work surface:		
80 - 84 fpm (0.406 - 0.427 m/s)	125 - 133 fpm (0.635 - 0.676 m/s)	157 - 172 fpm (0.798 - 0.874 m/s)
Average Capture Velocity with Optional Back Draft at front of work surface:		
40 - 44 fpm (0.203 - 0.224 m/s)	45 - 51 fpm (0.229 - 0.259 m/s)	60 - 66 fpm (0.305 - 0.335 m/s)
Average Face Velocity with Optional Hood Assembly:		
50 - 60 fpm (0.254 - 0.305 m/s)	85 - 95 fpm (0.432 - 0.483 m/s)	115 - 125 fpm (0.584 - 0.635 m/s)

*** Data represents units without filters. With filters, external exhaust capture and face velocities are similar to recirculating data.**

Choosing the Exhaust System To Fit Your Lab

R Recirculating
For existing labs or labs without facility exhaust, it may be necessary to filter and recirculate the air. Specify a unit with integral blowers or filters.

E External Exhaust
For distances that do not exceed 20 feet (6.1 m), you may choose a unit with integral blower and filters that may be connected to your facility's exhaust duct.

r Remote Exhaust
If your facility can supply an exhaust duct and remote blower system that provides an airflow of 550 to 600 cfm (0.260 to 0.283 cu. m/s), a ducted unit will best suit your needs.

Shandon Gross-Star™ Pathology Workstation Specifications

Physical Specifications

Dimensions (H x W x D)

Overall:* 84"-92" x 60" x 30" (213.4 - 233.7 x 152.4 x 76.2 cm)
*Height is fixed on Fixed-Height units.

Work Surface Height:** 33" - 41" (83.8 - 104.1 cm)
**Customer-specified on Fixed-Height units.

Right-Hand Sink: 14" x 16" x 7.5" (35.6 x 40.6 x 19.1 cm)

Weight

Top Piece: Uncrated: 275 lbs. (124.7 kg) Crated: 375 lbs. (170.1 kg)

Bottom Piece: Uncrated: 400 lbs. (181.4 kg) Crated: 500 lbs. (226.8 kg)

Electrical Specifications

- Unit is hard wired to facility power.
- **110-120V models** draw 20 amps and require a separate 15 amp circuit for one hospital-grade duplex ground fault circuit interrupter (GFCI) receptacle.
- **220-240V models** draw 20 amps including up to 7 amps by the point-of-use receptacle with facility-supplied residual current device (RCD) protection required.

Plumbing Specifications

- 3/4" hot and cold water supply lines with shut off valves and 1 1/2" drain line must be supplied.
- 1/2" industrial grade flexible hoses with 3/4" female hose fittings are supplied for connection to water supply lines.
- 1 1/2" I.D. reinforced flexible hose is provided for connection to facility drain line.

Replacement Filters	Order Number
Includes 2 Formaldehyde Neutralizing (Potassium Permanganate) Filters and 2 Fine Particle Filters	9990850

R	**Recirculating**	Use of filters is required.
E	**External Exhaust**	Use filters if required for application.
r	**Remote Exhaust**	No filters are required.

Included with Product*	Order Number
Type 304 Stainless Steel Tabletop and Panels	—
Downdraft Ventilation	—
Formalin Disposal	—
Cold/Hot Water Faucet (Foot Pedal Controlled)	—
Manually-Controlled Manifold Rinse	—
Hand Spray	—
Electrical Receptacle	—
Glove Dispenser	—
Adjustable Lower/Fixed Upper Shelves	—
Fluorescent Light	—
Magnetic Instrument Bar	104393
Towel Bar and Dispenser	104268 / 1070214
Centimeter Ruler	104379
Polyethylene Dissecting Board (Photographic Blue)	B36115
Ventilated Base Cabinet	—

* Contents, Packaging, and Quantities of items listed under "Included with Product" are subject to change without prior notice.

Available Accessories	Order Number
1/2 hp Disposal with Rocker Switch	B21111
3/4 hp Disposal with Rocker Switch	B21112
Hood Assembly	B21113
Back Draft (no downdraft)	B21114
Ventilated Trash Bin (specify left or right side of unit)	B21115
Foot Pedal Controlled Formalin Dispensing System	B21116
Camera Bracket without Optional Hood Assembly	B21125
Camera Bracket with Optional Hood Assembly	B21125/B21126
Monitor/Keyboard Brackets	B21110
Task Lamp (specify one or two)	B1001405
Task Lamp with Magnifier (specify one or two)	B21118
Movable Requisition Rack	105417
Foot Pedal Controlled Dictation Interface and Microphone Assembly	B21117
Lanier Voicewriter 160 Series Standard Cassette Recorder	109473
Lanier Voicewriter 260 Series Microcassette Recorder	107147
Type 316 Stainless Steel Construction	—

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Shandon Gross-Star™ Pathology Workbenches



Workbenches for the gross examination and sectioning of specimens.

- **Downdraft ventilation** is a standard feature.
- Water supply **protected by vacuum breakers.**
- **Hands-free foot pedal controls** to activate cold/hot water faucet and optional formalin dispensing system.
- **Remote exhaust** connects to your facility's duct and blower system.
- Fume removal is **efficient and quiet.**
- **Appliances plug directly into unit** for convenient use.
- One **hospital-grade duplex ground fault circuit interrupter (GFCI)** receptacle included on 110-120V units.
- One **point-of-use receptacle** included on 220-240V units.
- **Facility-supplied residual current device (RCD)** is required for 220-240V units.
- **Standard downdraft or optional back draft design** for efficient capture of fumes at the work surface.
- **Flat stainless steel work surfaces** include three removable perforated grid plates.
- **Each unit comes complete** with an integral centimeter ruler, blue polyethylene dissecting board, and vented base cabinet.
- Workbenches ship in **one convenient assembly.**
- **Installation is quick and easy.**
- Fixed-height units have a work surface that is **factory set to your specification** from 33" to 41" (83.8 to 104.1 cm).
- **Deep sink** with cold and hot water faucet.
- **1/2 or 3/4 horsepower disposals** are available (please check with local authorities before ordering a unit with a disposal, because some areas prohibit the use of disposals).
- **Standard Type 304 or optional Type 316 stainless steel** construction.
- **Rugged design** provides stability and is built tough to withstand years of extensive work without corrosion.
- **Connects directly** to facility cold and hot water supplies and drains.
- **Units are hard wired** to facility electrical system.
- For the purpose of room planning, **backs of fixed-height units can be flush to walls.**

Description	Order Number
110-120V, 60Hz, 1Ph	
r **Remote Exhaust** via Facility Duct and Blower (not included)	B21106
220-240V, 50/60Hz, 1Ph	
r **Remote Exhaust** via Facility Duct and Blower (not included)	B22206

Elevating Units are available upon request.

Agency Approvals

UL / cUL (110-120V only); CE (220-240V only); CSA NRTL/C (pending)

Physical Specifications

Dimensions (H x W x D)

Overall: 45-53" x 60" x 30" (114.3-134.6 x 152.4 x 76.2 cm)

Work Surface Height: Height is fixed and customer specified.

Right-Hand Sink: 14" x 16" x 7.5" (35.6 x 40.6 x 19.1 cm)

Weight

Unit: Uncrated: 425 lbs. (192.8 kg) Crated: 550 lbs. (249.5 kg)

Electrical Specifications

- Unit is hard wired to facility power.
- **110-120V models** draw 20 amps and require a separate 15 amp circuit for one hospital-grade duplex ground fault circuit interrupter (GFCI) receptacle.
- **220-240V models** draw 20 amps including up to 7 amps by the point-of-use receptacle with facility-supplied residual current device (RCD) protection required.

Plumbing Specifications

- 3/4" hot and cold water supply lines with shut off valves and 1 1/2" drain line must be supplied.
- 1/2" industrial grade flexible hoses with 3/4" female hose fittings are supplied for connection to water supply lines.
- 1 1/2" I.D. reinforced flexible hose is provided for connection to facility drain line.

Included with Product*	Order Number
Type 304 Stainless Steel Construction	—
Downdraft Ventilation	—
Formalin Disposal	—
Cold/Hot Water Faucet (Foot Pedal Controlled)	—
Manually-Controlled Manifold Rinse	—
Hand Spray	—
Electrical Receptacle	—
Centimeter Ruler	104379
Polyethylene Dissecting Board	B36115
Ventilated Base Cabinet	—

* Contents, Packaging, and Quantities of items listed under "Included with Product" are subject to change without prior notice.

Available Accessories	Order Number
1/2 hp Disposal with Rocker Switch	B21111
3/4 hp Disposal with Rocker Switch	B21112
Back Draft (No Downdraft)	B21114
Ventilated Trash Bin (specify left or right side of unit)	B21115
Foot Pedal Controlled Formalin Dispensing System	B21116
Task Lamp (specify one or two)	B1001405
Task Lamp with Magnifier (specify one or two)	B21118
Type 316 Stainless Steel Construction	—

Validated Exhaust Efficiencies

r **Remote Exhaust**

Recommended Exhaust Airflow Volume: 550 – 600 cfm (0.260 – 0.283 cu.m/s)

Pressure loss through unit with Standard Downdraft: 0.15 – 0.18 in.w.g. (0.37 – 0.45 mb)

Pressure loss through unit with Optional Back Draft: 0.27 – 0.33 in.w.g. (0.67 – 0.82 mb)

Average Capture Velocity with Standard Downdraft at 3" above work surface:

72 – 78 fpm (0.366 – 0.396 m/s)

Average Capture Velocity with Optional Back Draft at back of work surface:

156 – 170 fpm (0.792 – 0.864 m/s)

Average Capture Velocity with Optional Back Draft at front of work surface:

59 – 64 fpm (0.300 – 0.325 m/s)

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Shandon Grosslab™ Senior Pathology Workstation



Three Ventilation System Options

- Some models feature **formaldehyde neutralizing filters and recirculated air.**
- Models that use **filters and an integral blower** are available for short-distance applications.
- Other models **connect to the facility exhaust system.**
- **See the following page** for technical information on exhaust ventilation options.

Superior Quality

- **Stainless steel** work surfaces and panels.
- **Extruded aluminum frame** is designed to distribute weight evenly, stand up to heavy use, resist corrosion, add durability and minimize unit weight.
- Ships in **two easily manageable pieces** that fit through standard doorways.
- **Built tough** to stand up to years of extensive work without corrosion.

Programmability

- **Programmable microprocessor** allows clock time to be changed or the filter replacement alarm to be reset.

Designed for Easy Shipping and Installation

- All units ship in **two convenient pieces.**
- Both parts fit through a **standard 32" (81.3 cm) doorway.**
- **The two halves link firmly** with easy-to-lock latches.
- The unit **connects directly** to the facility's cold and hot water supplies and drain.
- Units are **hard wired** to the facility's electrical system.

Superior Functionality

- Models with **elevating work surface or with fixed-height work surface** are available.
- Elevating units have a **user-adjustable work surface height** from 33.5" to 45.5" (85.1 to 115.6 cm).
- Fixed-height units have a work surface that is **factory set to your specification** from 33.5" to 45.5" (85.1 to 115.6 cm).
- **Deep sink** with cold and hot water faucet.
- **1/2 horsepower disposal** is standard; **optional 3/4 horse-power disposal** is available (please check with local authorities before ordering a unit with disposal; some areas prohibit the use of disposals).
- **Hands-free or manual controls** for water, disposal, and optional dictation system.
- **Abundant light** directed to the work surface.
- **Vacuum breaker-protected** water supply.
- **Appliances plug directly into the unit** for convenient use.
- **One hospital-grade duplex ground fault circuit interrupter (GFCI)** receptacle on 110-120V units.
- **Two IEC 320 receptacles** on 220-240V units.
- **Facility supplied residual current device (RCD) is required** for 220-240V units.
- **Two optional tape recording** units available.
- **Each unit comes complete** with a magnetic tool bar, integral centimeter rulers, formalin dispenser, and paper towel dispenser.
- **Built-in table rinse** washes down work surfaces quickly.

Validated Exhaust Efficiencies

R Recirculating	E External		r Remote
N/A	N/A		Average Air Velocity at 500 cfm (0.236 cu.m/s)
N/A	N/A		Pressure loss through unit 0.41 in. w.g. (1.02 mb)
	Vented Area with Side Panels:		
89 fpm (0.452 m/s)	106 fpm (0.538 m/s)	**Without Filters**	128 fpm (0.650 m/s)
	80 fpm (0.406 m/s)	**With Filters**	
	Front of Unit with Side Panels:		
38 fpm (0.193 m/s)	55 fpm (0.279 m/s)	**Without Filters**	69 fpm (0.351 m/s)
	22 fpm (0.112 m/s)	**With Filters**	

Replacement Filters	Order Number
Set of 2 Formaldehyde Neutralizing (Potassium Permanganate) Filters and 2 Fine Particle Filters	9990850

R Recirculating	Use of filters is required.
E External Exhaust	Use filters if required for application.
r Remote Exhaust	No filters are required.

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Shandon Grosslab Senior™ Pathology Workstation

Description	Order Number
Proximity Controlled Elevating Models 110-120V, 60Hz, 1Ph	
R **Recirculating** via Filters and Integral Blower	9700
E **External Exhaust** via Integral Blower and 20' Max. of Facility Duct	97001
r **Remote Exhaust** via Facility Duct and Blower (not included)	97002
Proximity Controlled Elevating Models 220-240V, 50/60Hz, 1Ph	
R **Recirculating** via Filters and Integral Blower	970022
E **External Exhaust** via Integral Blower and 20' Max. of Facility Duct	9700122
r **Remote Exhaust** via Facility Duct and Blower (not included)	9700222
Proximity Controlled Fixed Height Models 110-120V, 60Hz, 1Ph	
R **Recirculating** via Filters and Integral Blower	97003
E **External Exhaust** via Integral Blower and 20' Max. of Facility Duct	97004
r **Remote Exhaust** via Facility Duct and Blower (not included)	97005
Proximity Controlled Fixed Height Models 220-240V, 50/60Hz, 1Ph	
R **Recirculating** via Filters and Integral Blower	9700322
E **External Exhaust** via Integral Blower and 20' Max. of Facility Duct	9700422
r **Remote Exhaust** via Facility Duct and Blower (not included)	9700522
Manually Controlled Elevating Models 110-120V, 60Hz, 1Ph	
R **Recirculating** via Filters and Integral Blower	97006
E **External Exhaust** via Integral Blower and 20' Max. of Facility Duct	97007
r **Remote Exhaust** via Facility Duct and Blower (not included)	97008
Manually Controlled Elevating Models 220-240V, 50/60Hz, 1Ph	
R **Recirculating** via Filters and Integral Blower	9700622
E **External Exhaust** via Integral Blower and 20' Max. of Facility Duct	9700722
r **Remote Exhaust** via Facility Duct and Blower (not included)	9700822
Manually Controlled Fixed Height Models 110-120V, 60Hz, 1Ph	
R **Recirculating** via Filters and Integral Blower	97009
E **External Exhaust** via Integral Blower and 20' Max. of Facility Duct	970010
r **Remote Exhaust** via Facility Duct and Blower (not included)	970011
Manually Controlled Fixed Height Models 220-240V, 50/60Hz, 1Ph	
R **Recirculating** via Filters and Integral Blower	9700922
E **External Exhaust** via Integral Blower and 20' Max. of Facility Duct	97001022
r **Remote Exhaust** via Facility Duct and Blower (not included)	97001122

Specifications are subject to change without notice.

Depth of Shandon Grosslab Senior Units	
110-120V, Elevating, Recirculating Models	32.5" (82.6 cm)
110-120V, Elevating, External Exhaust Models	38" (96.5 cm)
110-120V, Elevating, Remote Exhaust Models	38" (96.5 cm)
110-120V, Fixed-Height, Recirculating Models	32.5" (82.6 cm)
110-120V, Fixed-Height, External Exhaust Models	32.5" (82.6 cm)
110-120V, Fixed-Height, Remote Exhaust Models	32.5" (82.6 cm)
220-240V, Elevating, Recirculating Models	32.5" (82.6 cm)
220-240V, Elevating, External Exhaust Models	38" (96.5 cm)
220-240V, Elevating, Remote Exhaust Models	38" (96.5 cm)
220-240V, Fixed-Height, Recirculating Models	32.5" (82.6 cm)
220-240V, Fixed-Height, External Exhaust Models	32.5" (82.6 cm)
220-240V, Fixed-Height, Remote Exhaust Models	32.5" (82.6 cm)

Agency Approvals

UL / cUL (110-120V only); CE (220-240V only); CSA NRTL/C (pending)

Included with Product*	Order Number
Proximity Controlled Cold/Hot Water Faucet, Table Rinse, and Disposal (proximity controlled units only)	—
Manually Controlled Cold/Hot Water Faucet, Table Rinse, and Disposal (manually controlled units only)	—
Stationary Dictation Machine Rack (proximity controlled units only)	—
Blower (not included with remote exhaust models)	—
1/2 hp Disposal	—
Type 304 Stainless Steel Tabletop and Panels	—
Upper and Lower Shelves	—
Hand Spray	—
Fluorescent Light	—
Manually Controlled Tea Strainer Faucet	—
Tea Strainer	104402
Vinyl Cutting Pad	1000156
Side Splashes	10518
Formalin Dispenser	104395
Sharps Container	1000794
Movable Requisition Rack	105417
Magnifier on Flexible Arm	104404
Magnetic Instrument Bar	104393
Towel Bar and Dispenser	104268 / 1070214
C-fold Towels	104401
Uni-Capsettes™	9996111
Formaldehyde Neutralizer Pads	564112
Two Centimeter Rulers	1000460

* Contents, Packaging, and Quantities of items listed under "Included with Product" are subject to change without prior notice.

Available Accessories	Order Number
Foot Pedal Controlled Hot/Cold Water Faucet (manually controlled units only)	—
3/4 hp Disposal	—
Camera Bracket	10661
Monitor Bracket	10660
Movable Splash Shield	10486
Dictation Interface and Microphone Assembly with Proximity/Foot Pedal Control - *compatible with Lanier Voicewriter 160 or 260 Series recorders* (proximity controlled units only)	
Lanier Voicewriter Standard Cassette Recorder, 160 Series (proximity controlled units only)	109473
Lanier Voicewriter Microcassette Recorder, 260 Series (proximity controlled units only)	107147

Physical Specifications

Dimensions (H x W x D)

Overall:* 81"-93" x 60" x Varies (205.7 - 236.2 x 152.4 x Varies cm)
Depth shown in chart at left.

*Height is fixed on Fixed-Height units.

Work Surface Height:** 33.5" - 44.5" (85.1 - 115.6 cm)

**Customer-specified on Fixed-Height units.

Right-Hand Sink: 14" x 12" x 6" (35.6 x 30.5 x 15.2 cm)

Weight

Top Piece: Uncrated: 285 lbs. (129.3 kg) Crated: 375 lbs. (170.1 kg)

Bottom Piece: Uncrated: 475 lbs. (215.5 kg) Crated: 545 lbs. (247.2 kg)

Electrical Specifications

- Unit is hard wired to facility power.
- **110-120V models** draw 20 amps and require a separate 15 amp circuit for one hospital-grade duplex ground fault circuit interrupter (GFCI) receptacle.
- **220-240V models** draw 20 amps including up to 7 amps by the two IEC 320 receptacles with facility-supplied residual current device (RCD) protection required.

Plumbing Specifications

- 3/4" cold and hot water supply lines with shut off valves and 1 1/2" drain line must be supplied.
- 1/2" industrial grade flexible hoses with 3/4" female hose fittings are supplied for connection to water supply lines.
- 1 1/2" I.D. reinforced flexible hose is provided for connection to facility drain line.



Available hands-free controls for cold/hot water faucet, table rinse, and disposal.



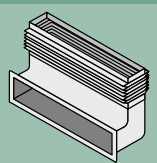
Table rinse is standard and may be easily activated with hands-free sensors or manual controls.



Standard units have 6" (15.2 cm) deep sinks with secondary faucet and strainer for rinsing currettings and other small specimens. Fixed-height units are available with deeper sinks. Call for details.



Optional digital camera and monitor/keyboard brackets are available. Monopod arm for camera slides the width of the unit and telescopes. Monitor bracket is designed to securely hold a 14" display monitor and keyboard.



Flexible Exhaust Duct Adapter for Elevating Units ships separately and installs to the back of elevating external and remote exhaust units. It connects to your facility's exhaust duct system, permitting the unit to elevate.

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Shandon Grosslab™ Junior Pathology Workstations



- Benchtop models are **ergonomically designed** to be low to the counter.
- **Abundant fluorescent light** is directed to the work surface.
- **Rapid positive drainage.**
- **Vacuum breaker-protected** water supply.
- **Hands-free faucet control** on selected benchtop models uses an infrared signal to activate cold water; also has **manual override capability.**
- **Three exhaust ventilation options:** Recirculating, External Exhaust, or Remote Exhaust.
- Fume removal is **efficient and quiet.**
- Noise levels measure **less than 65 decibels.**
- **Appliances plug into the unit** for convenient use.
- **Two hospital-grade duplex ground fault circuit interrupter (GFCI)** receptacles on 110-120V units.
- **Four IEC 320 receptacles** on 220-240V units.
- **Facility-supplied residual current device (RCD)** is required for 220-240V units.
- **Back draft design** for efficient capture of fumes across the work surface.
- **Programmable microprocessor** allows clock time to be changed or the filter replacement alarm to be reset.
- **Flat stainless steel work surfaces** include three removable perforated grid plates on benchtop models.
- **Each unit comes complete** with a magnetic instrument bar, two integral centimeter rulers, tea strainer, and paper towel dispenser.
- Installation is **quick and easy.**
- **Movable acrylic splash shield** protects the user from sprays and splashes while dissecting specimens.
- Benchtop models can be configured as **stand-alone units with the use of the optional stand (No. 10456).**

Choosing the Exhaust System To Fit Your Lab

R **Recirculating**
For existing labs or labs without facility exhaust, it may be necessary to filter and recirculate the air. Specify a unit with integral blowers or filters.

E **External Exhaust**
For distances that do not exceed 20 feet (6.1 m), you may choose a unit with integral blower and filters that may be connected to your facility's exhaust duct.

r **Remote Exhaust**
If your facility can supply an exhaust duct and remote blower system that provides an airflow of 400 cfm (0.189 cu. m/s), a ducted unit will best suit your needs.



An optional stand (No. 10456) allows you to use the Grosslab Junior Benchtop model as a stand-alone unit. The stand is height-adjustable from 28" to 42" (71.1 cm to 106.7 cm). It has a sturdy, extruded aluminum frame and stainless steel shelf with back panel.

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Shandon Grosslab Junior™ Pathology Workstations

Description	Order Number
Benchtop Models 110-120V, 60Hz, 1Ph	
R **Recirculating** via Filters and Integral Blower	9600
E **External Exhaust** via Integral Blower and 20' Max. of Facility Duct	96001
r **Remote Exhaust** via Facility Duct and Blower (not included)	96002
Benchtop Models 220-240V, 50/60Hz, 1Ph	
R **Recirculating** via Filters and Integral Blower	960022
E **External Exhaust** via Integral Blower and 20' Max. of Facility Duct	9600122
r **Remote Exhaust** via Facility Duct and Blower (not included)	9600222
Stand-Alone Models 110-120V, 60Hz, 1Ph	
R **Recirculating** via Filters and Integral Blower	96003
E **External Exhaust** via Integral Blower and 20' Max. of Facility Duct	96004
r **Remote Exhaust** via Facility Duct and Blower (not included)	96005
Stand-Alone Models 220-240V, 50/60Hz, 1Ph	
R **Recirculating** via Filters and Integral Blower	9600322
E **External Exhaust** via Integral Blower and 20' Max. of Facility Duct	9600422
r **Remote Exhaust** via Facility Duct and Blower (not included)	9600522

Specifications are subject to change without notice.

Agency Approvals

UL / cUL (110-120V only); CE (220-240V only)

Included with Product*	Order Number
Blower (not included with remote exhaust models)	—
Tea Strainer Faucet (same as water faucet)	—
Type 304 Stainless Steel Tabletop and Panels	—
Upper and Lower Shelves	—
Fluorescent Light	—
Tea Strainer	104402
Movable Dictation Machine Rack	10629
Sharps Container	1000794
Tower Bar and Dispenser	104268 / 1070214
Magnetic Instrument Bar	104393
Movable Splash Shield	10707
Uni-Capsettes™	9996111
C-fold Towels	104401
Centimeter Rulers (2 supplied)	104379
Proximity-Controlled Cold Water Faucet (benchtop models only)	—
Stainless Steel Hand Spray (benchtop models only)	—
Adjustable Leveling Feet (benchtop models only)	105976
Perforated Grid Plates (benchtop models only)	10652
Stainless Steel Base with Tubular Frame and Cabinet (stand-alone models only)	—
1/2 hp Disposal (stand-alone models only)	—
Manually-Controlled Cold / Hot Water Faucet and Disposal (stand-alone models only)	—
Hand Spray Combined with Faucet (stand-alone models only)	—

* Contents, Packaging, and Quantities of items listed under "Included with Product" are subject to change without prior notice.

Available Accessories	Order Number
Magnifier Lamp (110-120V)	1001755
Magnifier Lamp (220-240V)	1002303
Adjustable Height Stand with Shelf - 28" - 42" (71.1 - 106.7 cm) (benchtop models only)	10456
Foot Pedal-Controlled Faucet (stand-alone models only)	—

Benchtop Model Physical Specifications

Dimensions (H x W x D)

Overall: Recirculating: 45.75" x 48" x 28" (116.2 x 121.9 x 71.1 cm)
External: 52.75" x 48" x 28" (134 x 121.9 x 71.1 cm)
Remote: 52.75" x 48" x 28" (134 x 121.9 x 71.1 cm)

Work Surface Height: 1.75" (4.4 cm) above benchtop

Recommended Depth: 29" (73.7 cm) from front of unit to wall

Right-Hand Sink: 18" x 6" x 4" (45.7 x 15.2 x 10.2 cm)

Weight

Uncrated: 300 lbs. (136.1 kg) Crated: 350 lbs. (158.8 kg)

Electrical Specifications

- One IEC 320 Power Entry Module and one point-of-use power cord.
- 110-120V and 220-240V models require facility receptacles with 15 amp circuits for each power cord.
- **110-120V models** draw 15 amps including the two hospital-grade duplex ground fault circuit interrupter (GFCI) receptacles.
- **220-240V models** draw 15 amps including the four IEC 320 receptacles with facility-supplied residual current device (RCD) protection required.

Plumbing Specifications

- One 1/2" industrial-grade flexible hose with 3/4" female hose fittings is supplied for connection to cold water supply lines.
- One 3/4" NPT connection and 1" I.D. reinforced flexible hose is supplied for connection to facility drain line.

Stand-Alone Model Physical Specifications

Dimensions (H x W x D)

Overall: Recirculating: 78.5" x 48" x 28" (199.4 x 121.9 x 71.1 cm)
External: 85.5" x 48" x 28" (217.2 x 121.9 x 71.1 cm)
Remote: 85.5" x 48" x 28" (217.2 x 121.9 x 71.1 cm)

Work Surface Height: 36" (91.4 cm)

Recommended Depth: 29" (73.7 cm) from front of unit to wall

Right-Hand Sink: 14" x 12" x 9.75" (35.6 x 30.5 x 24.8 cm)

Weight

Uncrated: 500 lbs. (226.8 kg) Crated: 600 lbs. (272.2 kg)

Electrical Specifications

- Two IEC 320 Power Entry Modules and two point-of-use power cords.
- 110-120V and 220-240V models require facility receptacles with 15 amp circuits for each power cord.
- **110-120V models** draw 15 amps including the two hospital-grade duplex ground fault circuit interrupter (GFCI) receptacles.
- **220-240V models** draw 15 amps including the four IEC 320 receptacles with facility-supplied residual current device (RCD) protection required.

Plumbing Specifications

- Two 1/2" industrial-grade flexible hoses with 3/4" female hose fittings are supplied for connection to cold and hot water supply lines.
- 1 1/2" I.D. reinforced flexible hose is supplied for connection to facility drain line.

Replacement Filters	Order Number
Replacement Filters	1001618
Includes 2 potassium permanganate filters and 2 fine particle filters	

R Recirculating	Use of filters is required.
E External Exhaust	Use filters if required for application.
r Remote Exhaust	No filters are required.

Validated Exhaust Efficiencies

R Recirculating

Vented Area:	119 - 121 fpm	(0.604 - 0.615 m/s)
Front of Unit:	10 fpm	(0.051 m/s)

E External

Vented Area:	122 - 123 fpm	(0.620 - 0.625 m/s)
Front of Unit:	10 - 13 fpm	(0.051 - 0.066 m/s)

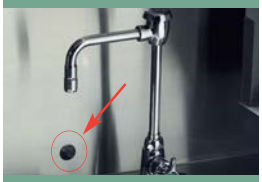
r Remote

Average air velocity at 400 cfm (0.189 cu. m/s) exhaust airflow:

Vented Area:	148 fpm	(0.752 m/s)
Front of Unit:	15 fpm	(0.076 m/s)
Pressure Loss Through Unit:	1.15" w.g.	(2.87 mb)



The Grosslab Junior Stand-alone models feature a hand spray combined with the faucet.



To minimize contamination and maximize convenience, the Grosslab Junior Benchtop models feature a hands-free control for cold water.



An optional magnifier lamp mounts on the side of the unit for added convenience in dissecting delicate specimens.



Filter drawers are located in the front of the unit for easy access.

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Grossing Consumables

Shandon Biopsy Bags



- Allow unrestricted fluid movement around tissue.
- Reduce risk of small specimen loss.
- Reduce reagent carry-over and pressure artifact often found with sponges.
- Peel-open bag conveniently exposes specimen for rapid removal.
- Acid Resistant Biopsy Bags feature all the benefits of nylon biopsy bags, plus offer acid-resistance for decalcification.
- **Small Biopsy Bags** measure 1.2" x 1.7" (31 x 43 mm).
- **Medium Biopsy Bags** measure 1.8" x 2.6" (45 x 65 mm).
- **Large Biopsy Bags** measure 3" x 3.5" (75 x 85 mm).

Description	Pkg/Qty	Order Number
Shandon Nylon Biopsy Bags, Small	200 / Pk.	6774014
Shandon Nylon Biopsy Bags, Small	500 / Pk.	6774015
Shandon Nylon Biopsy Bags, Small	1,000 / Pk.	6774010
Shandon Nylon Biopsy Bags, Medium	200 / Pk.	6774012
Shandon Nylon Biopsy Bags, Medium	500 / Pk.	6774013
Shandon Nylon Biopsy Bags, Medium	1,000 / Pk.	6774009
Shandon Nylon Biopsy Bags, Large	500 / Pk.	6774011
Shandon Acid-Resistant Biopsy Bags, Small	250 / Pk.	6774051
Shandon Acid-Resistant Biopsy Bags, Medium	250 / Pk.	6774050
Shandon Acid-Resistant Biopsy Bags, Large	250 / Pk.	6774052



Suresorb® Formaldehyde Neutralizer Pads

- Formaldehyde Neutralizer Pads reduce exposure by chemically bonding with formaldehyde.
- The chemical reaction of Formaldehyde Neutralizer Pads results in encapsulation of vapors within the pad.
- Formaldehyde Neutralizer Pads are ideal for grossing areas and autopsy work.

Description	Pkg / Qty	Order Number
Suresorb Formaldehyde Neutralizer Pad Small, 8" x 10" (20.3 x 25.4 cm)	400 / Cs.	5641
Suresorb Formaldehyde Neutralizer Pad Small, 8" x 10" (20.3 x 25.4 cm)	50 / Cs.	56411
Suresorb Formaldehyde Neutralizer Pad Large, 16" x 20" (40.6 x 50.8 cm)	100 / Cs.	5643
Suresorb Formaldehyde Neutralizer Pad Large, 16" x 20" (40.6 x 50.8 cm)	25 / Cs.	56431

Suresorb® is a registered trademark of National Nonwovens.



Shandon TBD-1™ Decalcifier

- Rapid hydrochloric acid decalcifier for processing bone marrow biopsies in as little as 15-30 minutes.
- Thin pieces of dense bone process in 3-12 hours.
- Permits utilization of routine end point tests, such as calcium oxalate.
- Added ingredients protect cells from actions of acids.

Description	Pkg/Qty	Order Number
Shandon TBD-1	1 L x 2	6764001
Shandon TBD-1	1 L x 4	6764002

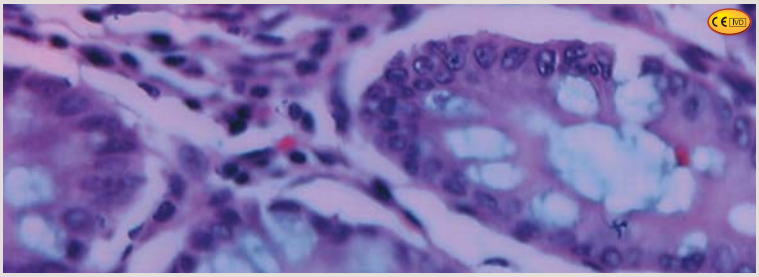


Shandon TBD-2™ Decalcifier

- Formic acid decalcifier for gentle, longer term processing.
- Go up to 48 hours past end point without damaging specimens.
- Permits utilization of routine end point tests, such as calcium oxalate.
- Added ingredients protect cells from actions of acids.

Description	Pkg/Qty	Order Number
Shandon TBD-2	1 L x 2	6764003
Shandon TBD-2	1 L x 4	6764004

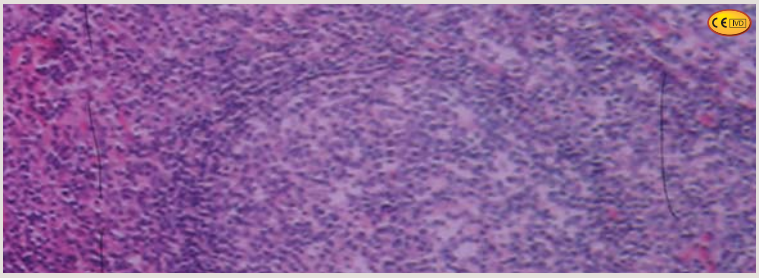
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Shandon Formal-Fixx™ and Formal-Fixx Concentrate

- Phosphate-free, 10% neutral buffered formalin produces consistent results, and extends life of rotary valve.
- Store all specimens without excessive shrinking or hardening.
- Use for storage of all tissue – eliminates presorting of EM specimens.
- Available premixed ready-to-use or in economical concentrate – just add water or alcohol.
- Concentrate is not affected by freezing, reduces shelf space and is less expensive to ship.
- Pre-filled, leak resistant cups are available.
- Cups are packed in sturdy trays for courier transport.

Description	Pkg/Qty	Order Number
Shandon Formal-Fixx	19 L x 1	6764240
Ready-To-use	10 L x 2	9990234
Shandon Formal-Fixx	20 ml Cups, filled To 10 ml, 180 / Cs.	9990910
Pre-filled Cups	60 ml Cups, filled To 30 ml, 125 / Cs.	9990914
	90 ml Cups, filled To 45 ml, 125 / Cs.	9990916
	120 ml Cups, filled To 60 ml, 125 / Cs.	9990918
Shandon Formal-Fixx	3.8 L x 1 (makes 19L)	6764254
Concentrate (5x)	1L x 2* (makes 5L)	9990244

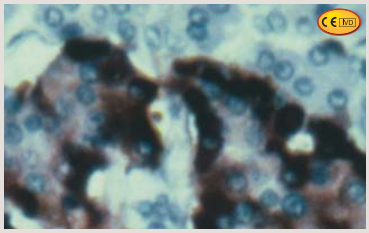


Shandon Zinc Formal-Fixx™

- Excellent for immunohistochemistry.
- The fixative of choice to enhance H&E's and special stains.
- Minimizes the need to enzyme digest; reduces protein cross-linking, producing well-defined nuclear detail.

Description	Pkg/Qty	Order Number
Shandon Zinc Formal-Fixx	19 L x 1	6764250
Ready-to-use	10 L x 2	9990235
Shandon Zinc Formal-Fixx	3.8 L x 1 (makes 19 L)	6764255
Concentrate (5x)	1 L x 2	9990245
Wrench for 19 L Carboy		B1000722

Shandon Glyo-Fixx™



- Shandon Glyo-Fixx is a non-carcinogenic, non-sensitizing and environmentally friendly substitute for formalin.
- The active ingredient, glyoxal, is a di-aldehyde which has almost no vapor pressure.
- Convenient - uses the same protocols as with formalin.
- Shandon Glyo-Fixx does not have the unpleasant odor of formaldehyde.
- Results are superior to neutral buffered formalin, producing distinct and crisp cellular morphology.
- Does not cross-link as formaldehyde does. It fixes most antigens without impairing their immunoreactivity.
- With Shandon Glyo-Fixx, higher antibody dilutions can be used.
- Works well with conventional special stains including silver procedures, Schmorl's for reducing substances, PAS, Alcian blue, mucicarmine, Verheoff-Van Gieson for elastin, and trichrome.
- Allows special stain colors to be sharp without background staining. It also presents fine detail in specimen structure.

Description	Pkg/Qty	Order Number
Shandon Glyo-Fixx	3.8 L x 1	6764262
Ready-to-use	19 L x 1	6764260
Shandon Glyo-Fixx	20 ml Cups, filled To 10 ml, 180 / Cs.	9990920
Pre-filled Cups	60 ml Cups, filled To 30 ml, 125 / Cs.	9990924
	90 ml Cups, filled To 45 ml, 125 / Cs.	9990926
	120 ml Cups, filled To 60 ml, 125 / Cs.	9990928
Shandon Glyo-Fixx	3.8 L x 1 (makes 19L); Concentrate (5x)	6764265



Shandon Tissue Marking Dyes

- Permanently mark the margins of excised surgical specimens for exact orientation.
- Available individually or as a kit which includes one each of black, blue, yellow, red, and green, 50 applicator sticks and storage base.
- Special binding pigment evenly coats the tissue without penetrating the tissue surface.
- Does not interfere with diagnostic interpretation because the colors are not similar to standard histopathology dyes.
- Quick-drying and easy-to-use; decreases time factor in urgent frozen sectioning.

Description	Order Number
Shandon Tissue Marking Dye Kit	3120123
Shandon Blue Tissue Marking Dye	3120124
Shandon Black Tissue Marking Dye	3120125
Shandon Yellow Tissue Marking Dye	3120126
Shandon Red Tissue Marking Dye	3120127
Shandon Green Tissue Marking Dye	3120128

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