CRUK Barts Centre Pathology Service

Model details

Tissue-Tek® VIP® 6 AI Vacuum Infiltration Processor

For routine and research tissue processing; it provides reliability and meets exceptional safety and quality. This tissue processor manufactured by Sakura offers reliability and innovation as it is the first and only tissue processor with automated onboard preparation of mixed solutions, automatic in-process reagent exchange. Using advanced infiltration methods, the Tissue-Tek VIP 6 AI was designed to provide high-quality tissue processing results for all tissue types, including fatty tissues automatically mixing specified reagents onboard to create mixed solutions, providing advanced infiltration of fatty tissues by enhancing dehydration and defatting without extending protocol times. Including 3 new mixing mode options, bringing the total number of options to 10, the Tissue-Tek VIP 6 AI is able to provide highly effective yet gentle agitation of the reagent in the retort for excellent reagent penetration of tissues.

The Solution Manager of the Tissue-Tek VIP 6 AI monitors reagent levels during operation for safe and worry-free processing. Providing fresh reagent from the 2 bulk reagent reservoirs during processing if needed, the Solution Manager ensures that the Tissue-Tek VIP 6 AI offers the highest level of processing confidence both during the day when staff is available or overnight during autonomous operation.

The advanced reagent manifold system includes new fluid sensors offering an improved solution detecting function that helps safeguard against unexpected user errors to maintain the highest level of tissue quality and integrity.

The Tissue-Tek VIP 6 AI also delivers strongly on user convenience. Providing in-process Automatic Solution Transfer of two reagents and the paraffin, manual maintenance is significantly reduced, saving both time and money. The onboard paraffin waste container makes the exchange and proper disposal of used paraffin safe, clean, and easy. Color-coded drain and fill ports simplify the safe exchange of reagents onto the instrument. An LED-lit reagent cabinet allows for quick visual observation of reagent levels. Simple, convenient operation combined with the familiarity of the Tissue-Tek VIP processor series reduces opportunities for errors.

Leica TS5015 auto Stainer XL and coverslipper CV5030

The Leica Auto Stainer XL is a robotic staining system for performing all our H&E staining; this system can be adapted for other standard routine staining methods. The Auto Stainer is attached to a Leica CV5030 fully automated glass coverslipper. This produces slides with superior optical quality for reliable long-term storage. It is designed to coverslip microscope glass slides bearing tissue sections. As a fully automated glass coverslipper, the Leica CV5030 delivers trusted quality and total integration into staining/cover slipping workstations for a fully walk-away solution within range of audibility. Exceptional results are achieved with this time- and labor-saving workstation, providing consistent, high-quality staining and automatic transfer to the Leica Biosystems coverslipper. In addition to greater reliability, the Leica ST5015 provides high throughput for HE staining protocols. For added simplicity, the workstation offers one-touch operation to initiate staining programs.

Leica RM2135 Rotary Microtome

A classic manual rotary microtome. The ergonomical concept of the Leica RM 2135 microtome integrates safety standards and user-friendly operation. It features cross roller bearings for the horizontal and vertical specimen feed ensure accurate reproducibility of section thickness and optimal section quality. It also features a new patented gravitational force compensation system which offsets the centrifugal forces that arise during the sectioning process. The new system ensures a very smooth and easy turn of the handwheel to obtain a uniform stroke for excellent, chatter-free sections. As a result, the smooth running handwheel creates stress-free working conditions and repetitive motion disorders are reduced to a minimum.

Leica RM2255 rotary microtome

This fully automated Leica RM2255 rotary microtome reduces repetitive motions that can contribute to musculoskeletal disorders. Its two-in-one design concept allows both motorized and manual sectioning of paraffin blocks which provides reproducible high-quality histological sections.

Leica Histocore AUTOCUT microtome

This automated rotary microtome is the new generation of microtomes from Leica Biosystems which provides maximize safety in the lab: the AUTOCUT improves on past automated models with an automatic electronic brake to minimize the risk of injury during operation. There is also a shorten cleaning time from minutes to seconds with the Antistatic Waste Tray. It allows users to select among automated, semi -automated, or manual sectioning modes based their personal preferences as it can be used in any preferred sectioning mode:

1. Automated: motorized push-button sectioning
2. Semi-automated: push-button specimen advance & retract
3. Manual: full control for those who love the art of microtomy

Leica CM3050 S Research cryostat

This cryostat was primarily designed for the demanding needs of cryosectioning in biomedical, neuro-anatomical and pharmaceutical research. It is the instrument of choice for all research applications. It has a precise specimen orientation and specimen feed system via a step motor mechanism that ensures reproducible thin serial frozen sections of maximum quality, particularly when working with delicate specimens – for example brain samples in neuroscience – the precise specimen orientation and the specimen feed system guarantees reproducible, thin, serial sections of maximum quality.

Leica CM1860 cryostat

A Cryostat for Standard Applications in the Clinical Histopathology Laboratory. It is also the perfect assistant for high-quality, fast and safe sectioning. This high-throughput cryostat delivers confidence by reliably producing quality sections. Staff near the cryostat is protected by the antimicrobial nano-silver coating, AgProtect, which

provides outstanding safety by reducing exposure to surface pathogens. AgProtect covers the cryostat's external upper surfaces and constantly protects individuals in the work area by penetrating the membranes of microbes to prevent replication.

Bright OTF 5000 cryostat

This cryostat, which is highly suitable for research, has improved user ergonomics and is capable of cutting a wide diversity of specimens. It allows full anti-roll plate adjustment for perfect results coupled with long lasting temperature stability. It uses disposable blades with a lever release FeatherTM blade holder. The Quick Release FeatherTM Blade Holder enables the Cryotomist to use the full length of the blade without waste. Other important features are the fact that the blade angle can be changed without changing the position of the blade edge since it is at the center of the radius of angular movement. The Quick Release FeatherTM Blade Holder can quickly be changed for the standard knife block holder and vice versa. It is also extremely safe to change a blade because it is inserted from the side into a blade carriage. Other components/features are as follows: quick Freezer, Internal shelves, Evaporator defrost, Manual cutting system, 5040 microtome with fixed head, Heated window surround, Window demist system, Analogue defrost clock, Side mounted non urgent controls and a full set of accessories as well as 2 speed motorized advance/rewind, Fine object orientation and Cryomatic specimen temperature control.

HistoCore Arcadia H+C embedding system

Leica HistoCore H+C: Complex embedding is made efficient with Leica's combined HistoCore Arcadia H+C as each step of the workflow has two baskets for 10% more paraffin block spaces on the cold plate, which accommodate most baskets in the market. The increased size and space also offers more cassette capacity as well as increased stability and reliability.

Ventana Discovery XT: It is an automated, High-Flexibility IHC/ISH

Slide Staining with a capacity of 30 slides; this system enables you to run either manual or fully automated experiments in as much the same protocol is used for as many as 30 different biomarkers with no synchronization errors because each slide is fitted with a unique barcode to identify the test being run.

It has the same characteristics as the Ventana Discovery Ultra.

Physical Characteristics	Stainer Assembly
Size (W x D x H)	35 in x 26 in x 60.25 in (88.9 cm x 66.0 cm x 153.0 cm)
Weight	385 lbs (175 kg)
Clearances	Top 15 in (38.1 cm) Sides 4 in (10.2 cm) Rear 6 in (15.2 cm)

Ventana Discovery Ultra: It is an automated, High-Flexibility IHC/ISH

Slide Staining for Assay Development with 30 individual slide drawers; this system enables you to run both manual and fully automated experiments simultaneously with no synchronization errors. The system provides the ability to fully automate a broad range of IHC assays.

The Ultra instrument dimensions are:

Physical characteristics	
Size (W x D x H)	• 44.00 in x 33.10 in x 62.40 in (111.76 cm x 84.07 cm x 158.50 cm) • 13.5 in x 14.5 in x 13.5 in (34 cm x 37 cm x 34 cm)
Weight	• 650 lbs (294.8 kg)
Clearances	• Top 15 in (38.1 cm) • Sides 4 in (10.2 cm) • Rear 6 in (15.2 cm)

General characteristics	
Capability	Automated baking, deparaffinization, cell conditioning and staining, including IHC, ISH, SISH, FITC, multiparameter staining (dual, triple); titration
Slide drawers	30 independent slide reaction chambers with dedicated bulk reagent supply lines and individual slide heaters
Reagent carousel	35 reagent positions
Slides	25 mm x 75 mm, 1 in x 3 in or 26 mm x 76 mm
Modularity	1–8 staining systems may be controlled from one Ventana System Software computer system
Water quality	(S/B NCCLS) Type II water or equivalent
Bulk reagents	Up to 7 different bulk reagents in 3- to 6-liter onboard containers
Configuration	Free standing
Certifications	CSA and EMC compliant (research use only)
Configuration	Free standing