## **Tissue-Tek Genie**<sup>®</sup> Advanced Staining System

### Full automation, true random access for IHC and ISH



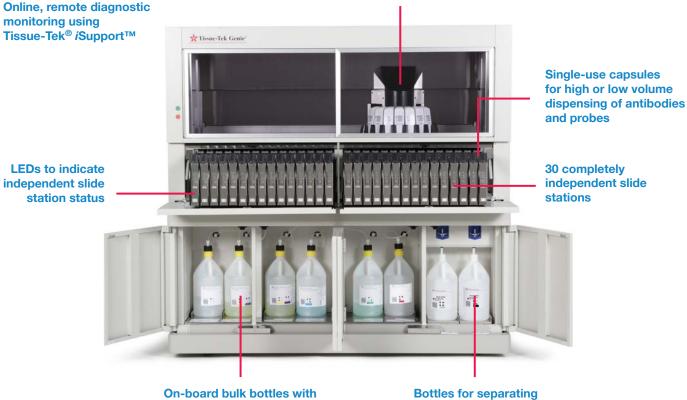
# Predictable speed with maximum flexibility

Introducing the Tissue-Tek Genie<sup>®</sup> Advanced Staining System: the first and only fully automated, true random access stainer for IHC and ISH featuring 30 completely independent slide stations for uncompromised fast and predictable TAT with 5 antibody and probe dispensing options for unprecedented staining quality.

#### Easy-to-learn and simple-tooperate user interface

weight scales

Carousel with peristaltic pump for high volume reagent, antibody, and probe cartridge dispensing



non-hazardous from hazardous

waste with weight scales

### **Key features**

### 30 completely independent slide stations, true random access, and predictable TAT

- Ability to run 30 different protocols simultaneously without compromising TAT for any slide
- Single slide loading or unloading for LEAN, batch-free staining
- Walkaway automation (from dewaxing through counterstaining)
- Unique advanced gap technology for optimized whole slide coverage
- Open protocol setup for user-defined antibodies
- Fast and predictable TAT for IHC, delivering same-day case management

#### 5 antibody and probe dispensing options

- Wide range of Ready-to-Use (RTU) antibodies and probes with predefined optimized protocols
- Single-use RTU capsules for high or low volume antibodies or probes
- 250-use RTU cartridges for high volume antibodies or probes
- User-fillable capsules or cartridges available for antibodies or probes
- Manual pipetting for quick antibody or probe titrations
- Total on-board capacity for up to 42 different antibodies or probes

#### **Proven Sakura Finetek reliability**

- On-board mixing of chromogen and substrate just-in-time
- Online, remote diagnostic monitoring using Tissue-Tek iSupport
- No aspirating or dispensing probes to clean
- Weight scales for monitoring bulk reagents
- Full-service support network of professional and experienced application specialists and service engineers
- · Minimum daily setup time

#### Convenient, safe, and economical

- One gallon bottles for convenient strain-free handling
- On-board, easily accessible bulk reagent storage
- Separation of non-hazardous from hazardous waste
- Low total volume waste generation
- Weight scales for monitoring waste generation
- Substantial savings in waste disposal



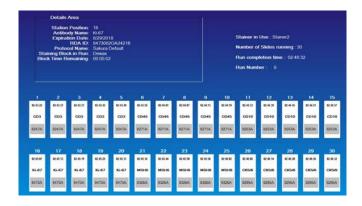
#### **True walkaway automation**

- 30 completely independent slide stations to handle 30 slides with up to 30 different protocols simultaneously
- Easy, single slide loading and unloading for batch-free operation
- Ability to run IHC and ISH simultaneously without prolonging TAT



#### LEAN, efficient, optimized workflow

- Single piece (slide) workflow, eliminates the wait time to group slides
- No unused slide positions; no need for slide trays; no need to match slide protocols
- Ability to stain individual slides or entire cases simultaneously
- Run STAT or add-on slides without affecting other running slides
- Flexibility to load and unload slides without impacting workflow and TAT
- Run IHC and ISH simultaneously for case-centric, same-day delivery
- Responsive to changes in workflow



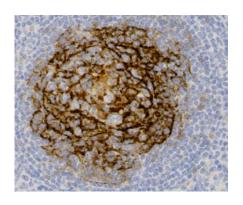
### **Predictable TAT with true random access**

- Scheduler-free, single slide staining operations
- Accommodates STAT specimens for expedited processing without impacting other slides
- Efficient, LEAN slide management to ensure predictable delivery time to pathologists



#### Uniform, reproducible staining, full slide coverage

- Sakura Finetek's advanced gap technology allows uniform full slide coverage, eliminates "rail" artifacts, and allows tissue sections to be placed anywhere on the slide
- Innovative, rapid, optimized reagent exchange in the gap reduces TAT and eliminates drying artifacts
- Fine-tuned, asymmetric gap design optimized for fast and complete liquid exchange, reducing time and waste production
- Eliminates purchasing or washing tiles or coverlids, or using oily-reagents to limit evaporation



#### Improved staining with reduced background

- Each individual slide station has a built-in temperature controlling system for fast and efficient temperature changes
- The Peltier elements unprecedented fast heating and "ACTIVE fast cooling" for shorter incubation times and reduced background
- Direct heating and cooling of reagents (not slides) for shortest response time to temperature changes with no risk of overheating tissue or sensitive reagents



#### System and slide status at a glance

- Fast-to-learn and easy-to-operate user interface
- Graphics and icons for visual management of system and slide status at a glance
- Visual and audio alerts to notify user that system interaction is required
- User interface provides customizable process control and traceability



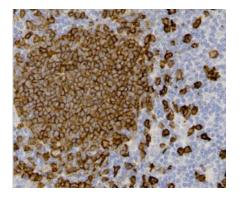
### **Cost saving RTU capsule packaging optimizes** workflow

- Exclusive, single-use capsule allows flexible continuous automation for both high- and low-volume antibodies or probes
- Efficient capsule packaging for cost saving by preventing waste from expired antibodies and probes
- RTU antibodies and probes reduce human errors and save preparation time by eliminating dilution, mixing, and titration
- Capsules eliminate the disruption of manually adding antibodies or probes



#### Flexibility of user-fillable empty capsules

- Empty, user-fillable capsules are available for user-defined antibodies and probes
- User-fillable capsules can be loaded onto Tissue-Tek Genie for walkaway automation
- Capsule filling block available for preparing user-fillable capsules



### Comprehensive test menu, open antibodies, and probes

- Wide range of Tissue-Tek Genie antibodies and probes provided in two RTU formats
- Tissue-Tek Genie RTU antibodies, probes and ancillary reagents with predefined and optimized protocols ensure reproducible and standardized results
- The Tissue-Tek Genie platform is open to allow user-defined antibodies and probes with flexible protocol setup



#### No reagent carryover using capsule dispenser

- Innovative capsule piercing system eliminates any reagent carryover seen with syringe dispensing
- Double plunging capsule dispensing technology ensures accurate, precise volume delivery through dispense funnels
- Capsule dispense design eliminates the need and time to clean syringes and lines



#### No reagent carryover using cartridge dispenser

- Novel peristaltic cartridge dispense mechanism ensures no carryover and consistent reagent common with syringe dispensing
- Peristaltic cartridge dispense action ensures accurate, precise volume delivery through dispense funnels
- Cartridge dispense design eliminates the need and time to clean syringes and lines

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### **Economical RTU cartridge packaging optimizes** workflow

- 250-use cartridges for high volume antibodies or probes for maximal cost effectiveness
- RTU reagents reduce human errors and save preparation time by eliminating dilution, mixing and titration
- RTU ensures reproducible and high quality staining for advancing standardization



#### **High quality detection chemistry**

- Fast and clean polymer system for use in both IHC and ISH
- Optimized for Tissue-Tek Genie Advanced Staining System to obtain definitive staining results
- High specificity for maximal signal-to-noise ratio facilitating fast slide review
- High sensitivity for amplification of low expression targets using mouse and rabbit antibodies
- Biotin-free detection system reduces endogenous background
- Small, multi-functional linkers enhance tissue penetration
- Dual cartridge dispensing format ensures on-board, fresh chromogen mixing



#### Flexibility of using empty refillable cartridges

- Empty, user-fillable cartridges are available for user-defined antibodies and probes
- User-fillable cartridges can be loaded onto Tissue-Tek Genie for walkaway automation



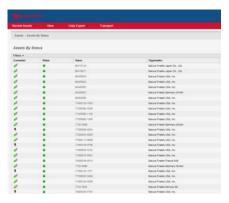
#### Sakura Finetek's predictable product reliability

- World-renowned Japanese design, engineering and manufacturing
- Professional and highly-trained applications support
- Factory trained, experienced service engineers
- Industry-leading in overall customer satisfaction



#### **Cost-efficient waste management**

- User-defined separation of hazardous from non-hazardous waste
- Very low volume waste generation minimizes user interaction to only once per day
- Low waste generation reduces costs for hazardous waste disposal
- One gallon bottles for convenient, strain-free handling
- Minimal hands-on daily maintenance



#### Maximize uptime with Tissue-Tek iSupport

- Sakura Finetek Tissue-Tek iSupport ensures continuous online, remote monitoring of the Tissue-Tek Genie Advanced Staining System components and functions, thus providing less downtime and increased productivity
- The latest in advanced remote diagnostics and monitoring technology for efficient and secure communication
- Faster remote interventions and on-site repairs, providing the right tools for the correct solution
- Minimize downtime, maximize system uptime

### **Specifications**

Product name	Tissue-Tek Genie® Advanced Staining System
Product codes	8201 (115VAC, 20A for USA) 8202 (230VAC, 15A for Europe and Latin America)
Applications	Automated IHC and ISH, dewaxing, antigen retrieval, rehydration, digestion, denaturation, hybridization, stringent wash, staining, counterstaining
Turn-around time	1 hour 44 minutes to 2 hours 44 minutes IHC including dewaxing, antigen retrieval to counterstaining
Throughput	Up to 90 IHC slides in 8 hours
Temperature control of reagent on slides	50 to 208°F (10 to 98°C)
Slide capacity	30 independent slide stations
Slide requirements	1 x 3 inches, 25 x 75 mm or 26 x 76 mm
Modularity	Up to 5 Genie instruments may be controlled from 1 PC
Configuration	Free standing, floor model
User access levels	3, user-defined
Water supply	Not required
Dimensions	65 (W) x 30 (D) x 63 (H) inches 165 (W) x 75 (D) x 160 (H) cm
Weight (dry)	1,280 lbs (580 kg)
Instrument operating conditions	Temperature range: 59 to 86°F (15 to 30°C)
Relative humidity range	30 ~ 80% R.H., non-condensing
Noise level	<65 dB (operating) at 3 feet (1 m)
Power required	115VAC ± 10%, 50/60Hz, single phase, 20A; 230VAC ± 10%, 50/60Hz, single

Power rating	115VAC, 50/60Hz, single phase, 18A; 230VAC, 50/60Hz, single phase, 9A
Power connection	Power cord suited to country. For USA, standard 3 prong, grounded
Interface	USB: 1 port, type B
Connectivity	LIMS, LIS, middleware
Barcode	1D (code 93) and 2D (datamatrix, QR code)
Remote diagnostics	Basic internet connection
IHC and ISH menus	Refer to Tissue-Tek Genie Advanced Staining Catalog IHC Antibodies and Ancillary Reagents
Capsule capacity on-board	30
Cartridge capacity on-board	19
Bulk reagent container capacity	6 x 1 gallon
Bulk waste container capacity	2 x 1 gallon
Antibody and probe dispensing options	Prefilled RTU capsules Prefilled RTU cartridges User-fillable capsules User-fillable cartridges Manual pipetting
Diagnostic functions	Internal self-diagnostics with log of error messages and codes Remote monitoring with Tissue-Tek <sup>®</sup> iSupport™
Certifications	ETL
Regulatory status	IVD, FDA class I

### **Accessories**

Product code	Product name and quantity
8214-K001	Tissue-Tek Genie® Starter Kit; 1 bottle dewax solution, 1 bottle citrate antigen retrieval solution, 1 bottle high pH antigen retrieval solution, 4 bottles wash buffer, 2 waste bottles, 1 cleaning bottle, 1 cleaning head adapter, 1 water rinse bottle, 90 RDA, 90 RDA-Tags, slide label kit, RDA-Tag label kit, 2 storage and transport trays, 2 workflow organizers; 1 kit
7148	Uninterrupted power supply (UPS); 1 unit

### Consumables

Product code	Product name and quantity
8217-G004	Tissue-Tek Genie® Waste Bottles, 3.8L; 4/case
8616-G090	Tissue-Tek Genie® Reagent Dispense Area (RDA); 90/box
8618-G090	Tissue-Tek Genie® Reagent Dispense Area Tag (RDA-Tag); 90/box
8637-K001	Tissue-Tek Genie® RDA-Tag Label Kit; 1 ribbon and 2 rolls for 2,400 RDA-Tag labels; 1 kit
8636-K001	Tissue-Tek Genie® Slide Label Kit; 1 ribbon and 3 rolls for 3,000 slide labels; 1 kit
8622-G006	Tissue-Tek Genie® Antibody Cartridge, User-Fillable; 6/box
8624-G006	Tissue-Tek Genie <sup>®</sup> Enzyme Cartridge, User-Fillable; 6/box

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### A long tradition of excellence

Known for best-in-class automation and reliability Sakura Finetek remains a privately-held company in business since 1871. Sakura Finetek has achieved its success and solidified its reputation by providing timely, ingenious solutions to the real challenges laboratories face on a day-to-day basis.

Our rich history has given us a thorough understanding of technology, quality, reliability, value for money and our customers' requirements. We use this knowledge to passionately develop products that anticipate developments in both technology and market needs.

Sakura Finetek USA, Inc. (SFA) is based in Torrance, California. Functions covered at this facility include sales and marketing, service and technical support, R&D, and manufacturing. SFA is an ISO 13485 certified manufacturer and supplier. As one of the two global manufacturing and R&D sites, SFA develops instruments and reagents into system solutions and secures our innovation with a steady stream of patents.

In addition to supporting the U.S. marketplace, SFA is also responsible for Canada, Mexico, Central and South America and serves these markets with a network of local distributors.

With the worldwide headquarters in Japan and regional offices in Japan, The Netherlands and the U.S.A., the global strategy of worldwide representation has been fulfilled to guarantee our customers the best service and support.

Our organization is developing, professionalizing and growing continuously, and thus maintaining its position as a trustworthy and valuable partner in histopathology.

