

FS-8500



Save Time With Automated Control Of The Freeze Substitution Process

- Computer controller allows for reliable and repeatable results with unlimited protocols and reports storage.
- Temperature sensor to monitor reagent vial during Freeze Substitution run.
- Low-loss LN₂ Dewar can be refilled during a substitution run.
- Chamber features specimen agitation and automatic illumination when the chamber cover is removed
- Includes cryo transfer tool to safely and conveniently remove cold sample holders
- Built-in high capacity exhaust fan with hose automatically vents substitution chamber when cover removed
- Reliable & repeatable results with multiple temperature soak and ramp settings

The FS-8500 Freeze Substitution System is designed with safety & operator convenience in mind. With a large volume, easy access, top loading, temperature controlled substitution chamber, samples are slowly and gently dehydrated in a solvent solution, following which they are embedded in resin blocks for room temperature sectioning.

Cryofixed samples, typically stored in LN₂, are transferred into the FS-8500 where the substitution solvent is pre-programmed to a temperature below that where secondary ice crystal growth can occur. The FS-8500 uses liquid nitrogen as a coolant to achieve a base operating temperature of -140°C (133K) which is well below the ice recrystallization temperature in any biological structure. The temperature of the substitution chamber is set & regulated by the included laptop computer to an accuracy of better than +/- 0.5°C over the range from -140°C to +50°C.

The FS-8500 is a free standing, caster wheel mounted, system with a large, stainless steel worktop mounted to its 50 liter low-loss LN₂ Dewar. The temperature controlled substitution chamber is conveniently located in the center of the worktop for easy access. The chamber is provided with a viewing port/cover, which is removed to gain access into the substitution workspace. As it is removed, the ventilation system is automatically turned on to extract fumes and the chamber internal illumination is turned on. These features combine to make the FS-8500 an extremely convenient to use and versatile Freeze Substitution System.

FEATURES

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|---|--|
| - Low-loss 50 liter LN ₂ Dewar | Stainless Steel, on roller base;
Built-in fill & vent valve manifold with phase separator and DP LN ₂ level gauge (analog) |
| - Stainless steel work surface | Ample working space |
| - Freeze Substitution Chamber | Large top-access loading port & with built-in illumination |
| - Laptop computer | With FS-8500 software & GUI factory installed |
| - Stereomicroscope | On adjustable support stand |
| - Exhaust fan | With removable cover |
| - Digital Microprocessor Controller | |

SPECIFICATIONS

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|--------------------------|--------------------------------------|
| - Work table dimensions: | 660mm x 660mm / 26" x 26" |
| - Height above floor: | 790mm / 31" |
| - Weight (empty): | 55kg / 121lbs |
| - Power Requirements: | 90-120 VAC 60 Hz / 220-240 VAC 50 Hz |
| - Temp Range: | -140°C to +50°C ±0.5°C |

SHIPPING LIST

<u>PART #</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
460000	FS-8500 FREEZE SUBSTITUTION SYSTEM	
- JSZ6	Stereomicroscope, WF 10 x 22	1
- 131-15-05	0.5 x 211mm WD AUX Lens	2
- BBB-FR	Microscope Stand	1
- 460411-3	Liquid Cup	1
- 460431-3	Liquid Cup Lid	2
- 400920	Liquid Cup Holder Tool	1
- LAPTOP	Laptop	1
- 460903	LED UV Polymerization Lamp	1
- Varies	Power Cable	1
- 50543	RS-232 / USB Cable	1
- 460901	Transfer Line and Funnel	1
- 4289-0016	Exhaust Hose	3m
400888	STARTUP CONSUMABLES KIT	
- 50535	Vial, 20mL Glass	5
- 50536	Tube, Cryo, Polypropylene	5
- 50537	Tube, 1.5mL, Microcentrifuge	20
- 50539	Beem Capsule, 00	20
- 50540	Gelatin Capsule, 00	20